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206-208 Drake Street, Rochdale

Phase 1 Geo-Environmental Investigation Report

For: Great Places Housing Group Limited

great
places
HOUSING GROUP

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1.0 INTRODUCTION

This *Phase 1 Geo-Environmental Investigation* report has been prepared at the request of Great Places Housing Group. Instructions to proceed were received and Phase 1 desk study work was undertaken in August 2024.

1.1 Site Location and Description

This report pertains to a c. 0.33 Ha site located to the north of Drake Street, Rochdale, c. 0.5km south of Rochdale Town centre, at the approximate postcode OL16 1PJ. The National Ordnance Survey Grid Reference for the centre of the site is 389439E, 412859N.

The site currently comprises an overgrown plot of vacant land, with evidence of fly tipping across the entire site. The site is currently disused, however there is evidence of historical development across the site including mounds of bricks, demolition rubble underfoot and hardstanding in the western site section. The site is bound by Broadfield Stile to the east and Drake Street to the south, with residential properties beyond and Broadfield Park to the north. 2 No. garages are bound to the western site boundary with residential properties and the A58 beyond. Access to the site is off Broadfield Stile along the eastern boundary. An aerial photo of the site is included below:



Figure 1: Aerial image of the site dated May 2019.

A site location plan is contained in Appendix 2.

Proposed Development

This Phase 1 Geo-Environmental Investigation is to be used for submission to the Local Authority as part of a planning application. It is the Client's intention to develop the site into a low-rise residential development comprising 14 No. semi-detached dwellings with associated private gardens, soft landscaping and car parking.

A proposed development plan is contained in Appendix 2 with an extract below as Figure 2.



Figure 2: An extract of the proposed development plan.

1.2 Brief

The brief was to carry out a *Phase 1 Geo-Environmental Investigation* for the site based upon the proposed development outlined in Section 1.0. The site area is shown on the site location plan contained in Appendix 2.

The investigation was to include the following:

- a) Assess the probable ground conditions and contaminated land conditions on and below the site based on existing and historical site uses and relevant off-site activities, including a site walkover.
- b) Identify sources of contamination that may be present at the site using current contaminated land guidance and develop a conceptual site model for potential human health, ground gas and controlled waters receptors.
- c) Undertake a Preliminary Risk Assessment which will determine the requirement for further environmental (contaminated land) investigation and assessment.
- d) Design, on the basis of the anticipated ground conditions, appropriate ground investigation works and discuss potential development issues (i.e. sub-surface features – obstructions, infilling, compressible ground, faulting, mineral extraction, mining and land instability).

A report was to be provided to summarise findings and to provide recommendations.

The limitations of this investigation work and report are included in Appendix 1.

2.0 SCOPE OF INVESTIGATION WORKS

2.1 Walkover Survey

The site was visited on 5th August 2024 in overcast weather conditions. Photographs were taken of the site during the walkover survey and these photographs, together with a plan indicating their location and direction, are contained in Appendix 3.

2.2 Documentation

A combined Enviro + Geo Insight report (Ref GS-7JE-GIN-BHT-NN7) was obtained from Groundsure, an environmental database company, which provides a list of recorded past and present activities at or adjacent to the site which could have an impact on the levels of contamination in the soils and groundwater at the site. As part of the desk study works, the below documents were obtained and examined. Unless otherwise stated, the documents are contained within the Groundsure Enviro + Geo Insight Report in Appendix 5:

a) Groundsure maps, all dated 2024 as follows:

- Historical Land Use map;
- Environmental Permits, Incidents and Registers map;
- Landfill and other Waste Sites map;
- Current Land Use map;
- Hydrogeology and Hydrology maps;
- Environment Agency / Natural Resources Wales flood maps;
- Designated Environmentally Sensitive Sites map;
- Geological maps and Ground Working map;
- Mining, Extraction & Natural Cavities map;
- Natural Ground Subsidence maps;
- Borehole Records map; and
- Railways and Tunnels map.

-
- b) Aerial photographs of the site dated May 2019, July 2018, March 2012, and June 2000.
- c) Historical Ordnance Survey maps dated between 1851 and 2024, at scales of 1:500, 1:1,250, 1:2,500, 1:10,000 and 1:10,560.
- d) The following sources were obtained and examined from the British Geological Survey. All items were copied under licence: [C18/01] British Geological Survey ©UKRI. All rights reserved:
- The BGS 1:50,000 bedrock and superficial geological map (Sheet ref 85 dated 2010).
- e) A Zetica UXO Risk Map was obtained and is included in Appendix 7.

3.0 FINDINGS

3.1 Walkover Survey

The walkover survey was carried out on 5th August 2024 during overcast weather conditions.

The site currently comprises an overgrown, disused plot. The ground underfoot was noted to be hardstanding in the western site section with demolition rubble and dense vegetation in the eastern site section. Vegetation clearance was being undertaken on site during the time of the walkover and the following features were noted.



Figure 3: Photographs of the dense vegetation in the northern section of the site.

The topography of the site gently slopes from 144.70m AOD the eastern site section to 143.50m AOD in the northwestern site corner. The remainder of the site is relatively flat. A non-retaining brick wall was noted along the northwestern site boundary. An extract of the LiDAR contour plan is included as figure 4 below.

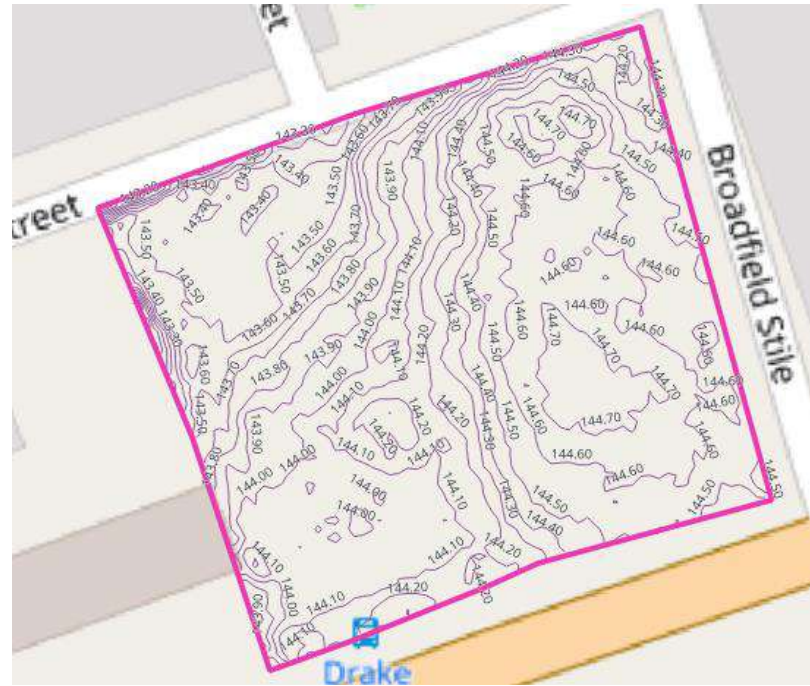


Figure 1: Extract of a contour plan created using LiDAR data.

A c. 3.00m wide, c. 3.00m tall mound of bricks with an approximate volume of 27.00m³ and demolition rubble was noted in the northeastern corner of the site.



Figure 5: Photographs showing the mound of bricks in the northeastern site section.

A single overhead cable is recorded crossing the northeastern site corner. There were no manholes or evidence of services on site although given that the site was previously developed, the presence of other services on site cannot be discounted.

Contamination

No evidence of contamination (i.e. spillages or leakages) or contaminative sources were identified. Demolition rubble from historical land use was recorded across the majority of the site and may include asbestos containing materials. Evidence of fly tipping was noted across the site, particularly in the eastern site section and included, mattresses, a sofa and household waste. However, this is not considered a significant contaminative source as the materials were predominantly inert.



Figure 6: Photograph showing evidence of fly tipping along the southeastern site boundary

3.2 Site History

The site development history has been researched by reference to historical maps, street plans and aerial photographs. The historical maps are included in Appendix 4 to this report and the principal observations, which are divided into on-site history and off-site history, are summarised below:

On-Site History

Date	Site Feature
1851 – 1891	On the earliest historical map, the site is recorded comprising Castlefield House in the western site section and Broadfield in the eastern site section with associated gardens to the north. A number of associated outbuildings are recorded in the centre of the site and along the eastern boundary including a conservatory.
1891 - 1910	By the next map in 1891, a glass feature, anticipated to be a greenhouse is recorded along the western and eastern site boundary. The following year, a slope is recorded in the southwestern site section, descending north from the road towards Castlefield House.
1910 - 1930	The greenhouse on the western site boundary has extended into the northern site section and the conservatory associated with Broadfield House in the northeastern section has reduced in size.

1930 - 1973	Castlefield House is recorded as Inland Revenue Offices (government offices) and the greenhouses are no longer recorded. An outbuilding is recorded in the northwestern site corner.
1973 - 2003	The outbuilding is no longer recorded. By the 1988 map, the outbuildings associated with Broadfield House in the east are no longer recorded.
2003 - 2010	Between the 2003 and 2010 map, the buildings on site have been demolished.
2010 - 2024	The site remains relatively unchanged until present.



Figure 7: Extracts of the OS historical maps dated 1851 (left) and 2003 (right).

A historical aerial image of the site dated 1926 has been obtained from Britain From Above. This shows historical buildings on site and is included below:



Figure 8: Image from Britain From Above

Off-Site History

Date	Site Feature	Distance (m)	Direction
1851	In the earliest historical maps, north of the site is recorded as fields. The site is bound to the south by Grove Place.	100	-
1958 - 2024	In the 1958 map, a garage is recorded on the western site boundary and remains relatively unchanged until present.	0	W
1890 – 1982	A park and playground are recorded 10m north of the site and extend up to 250m north of the site. the park, named Broadfield Park by 1910, remains relatively unchanged until present.	10	N
1892 - 2024	Residential properties are recorded up to 100m surrounding the site by the 1892 map. By 1973, a number of houses 30m southwest of the site are no longer recorded and are replaced with a car park which remains unchanged until present.	100	E + S
1973 – 2020	Recorded as a Sunday school from the earliest maps until the 1958 maps, 'Castlemere Church' is recorded 105m south of the site until the 1985 map when it is recorded as a works of unknown use. At an unknown date between 2003 and 2020, the site is used as an events hall.	105	S
1975 - 2024	In 1975, Manchester Road is straightened west of the site, resulting in the demolition of residential properties to the southwest of the site.	115	W
1891 - 2024	A disused graveyard is recorded 190m east of the site in the 1891 map and remains unchanged until present.	190	E

1891 – 2024	Tanks and buildings associated with a corporation gas works are recorded 190m west of the site and the gas works extends up to 500m west from the site. By the 1958 maps, the buildings are recorded as works. In 1985, the tanks are no longer recorded, and a depot has replaced the works. The depot remains unchanged until present.	190	NW
1871 – 1992	In the 1890 map, a mound is recorded 450m south of the site. By the next map in 1908, it is recorded as a gravel heap, extending west in 1928. The gravel heap is no longer recorded as a heap and extends south of the site in 1975, extending again in 1987. In the next historical map in 1992, 'Mandale Park' is noted and a disused Tip is recoded to the south of the historical gravel pit.	435	S
1992 - 2024	A works is recorded west of the site by 1992 and remains unchanged until present.	470	W

3.3 Geology

3.3.1 BGS Geological Map

The BGS 1:50,000 Superficial and Bedrock Geological Map of the area (Sheet No: 85, dated 2010) indicates that the site is underlain by superficial deposits comprising **Glaciofluvial Deposits** of sand and gravel. The Glaciofluvial Deposits are likely to be underlain by **Glacial Till Deposits** comprising a heterogenous mixture of sand, gravel and clay. The superficial deposits are underlain by bedrock of **Pennine Lower Coal Measures** comprising mudstone, siltstone and sandstone.



Figure 9: Extracts of the BGS 1:10,000 Superficial (left) and Bedrock (right) Geological Maps. Light pink = Glaciofluvial Deposits, Grey = Pennine Lower Coal Measures Formation.

The BGS geological maps do not record **Made Ground** on site or within 250m of the site. However, given the recorded presence of historical buildings on site since the 1890s, and remaining hardstanding in the western site section, the possibility of unrecorded Made Ground cannot be discounted. The nearest recorded Made Ground deposits are located 342m northwest of the site within the vicinity of a historical cricket ground.

The bedrock geological map indicates that an inferred coal seam is recorded to outcrop 249m northeast of the site, dipping to the southwest. An inferred fault is located 342m southeast of the site

3.3.2 BGS Borehole Logs

There were no available BGS boreholes on site. There were 10 No. BGS boreholes available within close proximity to the site within a comparable geological setting. The pertinent information from the borehole logs is outlined below:

BGS Borehole Reference: SD81NE561 – SD71NE570

These boreholes are located approximately c. 60m – 85m west of the site and were excavated to depths of between 2.00m and 9.00m bgl in November 1991. The logs recorded the following pertinent information:

- **Made Ground** comprising sand, gravel and cobble fill, brick rubble and reinforced concrete or brown, sandy clay to a depth of between 0.40m and 2.00m bgl underlain by;
- **Glaciofluvial Deposits** comprising brown, fine to medium, sand to a depth of between 3.00m and 4.70m bgl occasionally becoming silty and clayey from between 1.40m and 3.00m bgl underlain by;
- **Glaciofluvial Deposits** comprising clayey silt with fine grained lenses of sand to a depth of at least 6.40m bgl or;
- **Glaciofluvial Deposits** comprising firm, sandy, very silty clay from between 1.85m and 4.70m bgl to a depth of at least 9.00m bgl.

3.3.3 BGS Geohazards

Data Type	Details
Ground Stability Data	- The Potential for Shrinking or Swelling Clay Ground Stability Hazards is regarded as very low. - The Potential for Running Sand Ground Stability Hazards is regarded as very low. - The Potential for Compressible Ground Stability Hazards is regarded as negligible. - The Potential for Collapsible Ground Stability Hazards is regarded as very low. - The Potential for Landslide Ground Stability Hazards is regarded as very low. - The Potential for Dissolution Ground Stability Hazards is regarded as negligible.

3.3.4 BGS Estimated Soil Chemistry

The BGS have estimated that the superficial deposits across the site to naturally comprise the following determinands:

- Arsenic: 15mg/kg – 25mg/kg
- Cadmium: 1.8mg/kg – 2.2mg/kg
- Chromium: 60mg/kg – 90mg/kg
- Nickel: 15mg/kg – 30mg/kg
- Lead: 300mg/kg – 600mg/kg
- Bioaccessible Lead: 240mg/kg – 360mg/kg

3.4 Mining

3.4.1 Coal Mining

Although the site lies within a Coal Authority Coal Mining Reporting Area, it is not located within a Development High Risk area. There are no coal outcrops recorded on site. The nearest coal outcrop is the Arley coal seam, located 249m northeast of the site and dips southwest beneath the site at an unknown dipping rate. Bedrock is anticipated to be at 27.00m bgl and given that the seam is located 249m northeast of the site, shallow coal is unlikely to be present on site. Furthermore, there are no recorded mine entries on site or within 500m of the site and therefore the risk of coal workings on site is considered low.

3.4.2 Non-Coal Mining

The Groundsure Enviro + Geo Insight report indicates that non-coal mining activities have not occurred on site or within 1km of the site.

3.4.3 Salt Mining / Brine Extraction

The site does not lie within the Cheshire Brine Subsidence Compensation District.

3.4.4 Historical Surface Excavations

A slope feature is recorded on the 1891 map along the southwestern site boundary and remains until an unknown date. Given that the historical maps recorded numerous outbuildings, greenhouses and changes to access roads, the presence of unrecorded historical excavations on site cannot be discounted.

3.4.5 Mineral Safeguarding

Where mineral resources are present the mineral planning authority may designate areas as Mineral Safeguarding Areas (MSA) and Mineral Consultation Areas (MCA). These are aimed to safeguard mineral resource areas from unnecessary sterilization by non-mineral development. The BGS Mineral Resources maps designate the areas of potential mineral resources and where active / lapsed planning permission was granted for mineral extraction.

The BGS Mineral Resources Map for Greater Manchester indicates that the site does not lie within an area designated as containing mineral resources. A review of the Greater Manchester Joint Mineral Development Plan confirms that the site is not located within a mineral safeguarding area.

3.5 **Hydrology and Hydrogeology**

Environmental data relevant to the site and its immediately surrounding area has been obtained from sources available in the public domain. In addition, an environmental report was obtained from Groundsure. The Enviro + Geo Insight report and associated maps that have been inspected are presented in Appendices 4 and 5 and the principal observations in relation to waters and flooding can be summarised as follows:

Data Type	Details
Flooding	- With respect to rivers and seas, the site lies within Flood Zone 1. - The risk of surface water flooding on site is negligible. The highest risk within 50m of the site is a 1 in 30 year event with a floodwater depth of 0.10m to 0.30m. - A moderate BGS groundwater flooding risk has been identified across the site.
Surface Water Features	There are no surface water features on site. The nearest surface water feature is the River Roch, located 324m north of the site.
Surface Water Abstractions	- There are no licensed surface water abstractions located on site. - There are 14 No. licensed surface water abstractions located within 2km of the site, all of which are historical. The nearest historical license was located 632m north east of the site and involved a transfer between sources between the river Roch.
Superficial Aquifer	The site is underlain by superficial deposits classified as a Secondary A Aquifer - <i>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.</i>
Bedrock Aquifer	The underlying bedrock is classified as a Secondary A Aquifer - <i>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.</i>
Groundwater Abstractions	- There are no recorded groundwater abstraction licenses located on site. - There are 3 No. groundwater abstraction licenses located within 2km of the site, all of which are historical. The nearest historical groundwater abstraction is located 933m northwest of the site and related to the abstraction of groundwater from a borehole for process water.
Source Protection Zones	There are no recorded Source Protection Zones recorded on site or within 500m of the site.
Nitrate Vulnerable Zones	There are no Nitrate Vulnerable Zones recorded on site or within 500m of the site.
Licensed Discharge Consents	- There are no recorded licensed discharge consents to controlled waters located on site. - The nearest discharge consent is located 325m north of the site and involves the discharge of sewage to the river Roch via surface water sewer.
Pollution Incidents to Controlled Waters	- There are no recorded pollution incidents to controlled waters located on site. - There are 5 No. pollution incidents recorded within 500m of the site. The nearest 3 No. are located 255m east of the site and pertain to an incident in August 2001 involving the release of commercial and household waste. All incidents were recorded as a Category 4 (No Impact) incident to controlled waters and a Category 3 (Minor) impact to land and air.

3.6 Hazardous Installations, Landfill and Waste

The following information relating to hazardous installations, landfill and waste obtained from the Groundsure Enviro + Geo Insight report, published information and the walkover survey can be summarised as follows:

Data Type	Details
Environment Agency Recorded Active Landfill Sites	There are no Environment Agency recorded active landfill sites located on site or within 500m of the site.
Environment Agency Recorded Historical Landfill Sites	- There are no Environment Agency recorded historical landfill sites located on site. - There is a single Environment Agency recorded historical landfill site located 435m southwest of the site at Mandale Park. No information pertaining to the landfill operation dates or type of waste is available for the landfill.

BGS Recorded Historical Landfill Sites	There are no BGS recorded landfill sites located on site or within 500m of the site.
Local Authority Recorded Landfill Sites	- There are no Local Authority recorded landfill sites located on site. - There are 2 No. Local Authority recorded landfills within 500m of the site, located 364m and 417m southwest of the site, identified in the 1973 historical mapping as a gravel feature.
Local Authority Pollution Prevention and Control (Part A(2) and Part B Activities and Enforcements)	- There are no Local Authority Part A2 or Part B Activities or Enforcements located on site. - There are 2 No. Local Authority Part A2 or Part B Activities located 385m and 457m northwest of the site. The closest Part B permit is located 385m southwest of the site and pertains to a current permit for the unloading of petrol into storage at a service station.
Registered Radioactive Substances	There are no Registered Radioactive Substances recorded on site or within 500m of the site.
Registered Waste Treatment, Transfer or Disposal Sites	- There are no historical or licensed waste sites, on site or within 500m of the site. - There are no waste exemptions on site. - There are 46 No. waste exemptions recorded within 500m of the site, the nearest is located 186m south east and relates to the use of depolluted end-of-life vehicles for vehicle parts at a garage.
Industrial Land Use	- There are no current or historical industrial land uses recorded on site. - There are 14 No. recent industrial uses recorded within 500m of the site, the nearest is located 22m southwest and pertains to vehicle repair and servicing. - There are an additional 100 No. historical industrial land uses recorded within 500m of the site, including cuttings, unspecified pits, unspecified ground workings, unspecified heaps, graveyards, depots, railways sidings, gas works, unspecified tanks, mortuaries and mills - There is a single petrol / fuel station recorded within 500m of the site, located 361m north west.
Dangerous Substances	- There are no current recorded discharges of dangerous substances on site or within 500m of the site. - There are 2 No. historical COMAH/NIHHS sites located 204m west and 292m northwest of the site. The nearest was operated by National Grid Gas Plc.
Hazardous Building Materials	The historical buildings were demolished on site between 2003 and 2010. The buildings on site were recorded since the earliest historical map and therefore the presence of asbestos containing materials cannot be discounted.

3.7 Radon

A site-specific radon map is included in the Groundsure Enviro + Geo Insight report which finds that the site lies within an area where less than 1% of homes are above the Action Level and consequently, no radon protection measures are required.

3.8 Services

One overhead cable is recorded crossing the northeastern corner of the site. Given that historical buildings have been recorded on site until between 2003 and 2010, the presence of services across the site cannot be discounted. Full service plans should be obtained prior to any intrusive works.

3.9 Unexploded Ordnance (UXO)

The Zetica UXO risk map, contained in Appendix 7, indicates that the site lies within an area of low risk.

3.10 Animal Burial Sites

The Animal Health and Veterinary Laboratories Agency (AHVLA) no longer routinely respond to consultations relating to records of animal burial sites. Based upon a review of the site history it is considered unlikely that the site has been subject to recorded animal burials.

3.11 Archaeology

We do not anticipate that the site will be affected by archaeological issues, however consultation with the county archaeologist is recommended.

4.0 CONCLUSIONS

4.1 General

In the earliest historical maps, 2 No. suspected residential buildings are recorded with associated outbuildings and greenhouses. These remain relatively unchanged until between 2003 and 2010 when they are no longer recorded. The site has remained unused until present, with dense vegetation and evidence of fly tipping across the majority of the site.

4.2 Ground Conditions and Geotechnical Hazard Identification

The anticipated typical ground conditions across the site are as follows:

- **Made Ground** of unknown composition to an unknown depth, underlain by:
- **Glaciofluvial Deposits** comprising brown, potentially silty, fine to medium, sand to a depth of between 3.00m and 4.70m bgl, underlain by:
- **Glaciofluvial Deposits** comprising clayey silt with lenses of sand to a depth of at least 6.40m bgl, or:
- **Glaciofluvial Deposits** comprising firm, sandy, very silty clay from between 1.85m and 4.70m bgl to an unknown depth, underlain by:
- **Glacial Till Deposits** comprising a firm to stiff, slightly gravelly, slightly sandy clay at an unknown depth underlain by:
- **Pennine Lower Coal Measures** comprising mudstone, siltstone and sandstone at an unknown depth, anticipated to be c. 27m bgl.

4.2.1 Geotechnical Hazard Identification

Potential geotechnical hazards based on the expected ground conditions that may require further consideration at the site are outlined below:

Factors	Remarks	Considerations	Hazard
Made Ground	Made Ground is anticipated to present up to 1.00m bgl across the majority of the site associated with the historical buildings. If the buildings on site included basements, Made Ground may be present up to 2.00m bgl.	Made Ground may settle variably, have highly inconsistent bearing capacity and may suffer significant movements that may be problematic for foundations, externals and infrastructure elements without treatment. The presence of Made Ground may be problematic for foundations as there may be loose / soft spots within the Made Ground and it may not be suitable to utilise traditional foundations.	Moderate
Aggressive Ground and Groundwater	While the risk posed from the natural strata is anticipated to be very low, given the anticipated presence of Made Ground there is potential for aggressive ground conditions to be present on-site, however, the risk remains low.	Acidic ground / groundwater and sulfate may attack the concrete and steel used in foundations and react with aggregates. The oxidation of pyrite and other sulfides can also occur due to geotechnical activities. This can lead to the generation of high concentrations of sulfate and low pH that attacks construction materials and may lead to the precipitation of gypsum resulting in the heave of foundations and floor slabs. Pyrite oxidation can also be triggered by mixing susceptible materials with lime or cement resulting in high pH that can lead to the expansion of some sulfates that cause heave of stabilised soils.	Low
Shrink and Swell Clays	There are no established trees on site although there is evidence of felling along the eastern site boundary. Variable Glaciofluvial superficial deposits underly the site and therefore the risk of shrink and swell clays is deemed low.	Some types of ground (e.g., clay soils) can change volume due to changes in moisture content that may be induced by weather variations (e.g., drought), vegetation (e.g., growth or removal of trees) or man-made activities (e.g., changes to local drainage). This shrink / swell behaviour typically causes ground movement to a depth of approx. 3m potentially damaging building foundations, externals, pipes or services by differential movements.	Low
Compressible Deposits	Glaciofluvial superficial deposits underlay the site and may be compressible given the varying compositions of clays, silt, sand and gravel anticipated.	May cause significant or differential settlement of foundations if placed on compressible ground	Low
Soft Spots	Soft spots may be present across the site associated with Made Ground deposits as a result of historical excavations or possible infilled basements.	Soft spots may cause differential settlement of foundations therefore there will be a requirement for localised deepening of foundations where soft spots are present.	Low to Moderate

4.3 Sources of Contamination and Probable Contaminants

Based on the desk study information the following potentially contaminative on-site sources have been identified:

Potentially Contaminative Source	Associated Determinands	Remarks
On-site Made Ground	Unknown, anticipated to be metals, semi-metals, PAHs, TPH, asbestos. Ground Gas – carbon dioxide, methane, hydrogen sulfide, VOCs	Made Ground is anticipated to be present across the entire site and any associated outbuildings, greenhouses and access roads. The historical buildings on site were recorded since the earliest historical map and modifications to the buildings during their use cannot be discounted. Therefore, the presence of asbestos containing materials also cannot be discounted.

On-site historical Greenhouses (1891 – 1910)	Herbicides and Pesticides	Conservatories and greenhouses have been recorded from the earliest historical maps until 1930. It is unknown whether herbicides and pesticides have been used on site resultingly.
Off-site historical and current Garage (Western site boundary, 1958 – 2024)	Unknown, anticipated to be metals, semi-metals, PAHs, TPH.	In the 1958 historical map, a garage is recorded on the western boundary of the site and remains until present. Contaminants including metals, fuels and hydrocarbons and PAHs may be present as a result.
Off-site historical Gas Works (190m northwest, 1891 – 1992)	Unknown, anticipated to be metals, semi-metals, PAHs, TPH.	A corporation gas works is recorded 190m northwest of the site from 1891 until the 1958 maps when it is replaced with an unknown works. Unknown contaminants including metals, TPH and VOCs may be present within Made Ground deposits associated with the works.
Off-site 'Mandale Park' Landfill (435m south, 1908 – 1992)	Ground Gas – carbon dioxide, methane, hydrogen sulfide, VOCs	BGS mapping in 1908 records a gravel feature c. 450m south of the site which extends in 1928, 1975 and 1987. By 1992, Mandale Park is recorded in its place. Mandale Park is noted as an Environment Agency landfill although there is no information regarding the waste type or dates it was used.

It should be noted that potentially contaminative unrecorded historical activities may have occurred (e.g. the use or deposition of Made Ground from off-site during historical on site developments) and in this event, further contaminative sources may be present.

4.3.1 Unknowns

Following the desk study, the areas of uncertainty are summarised as follows:

- Depth to bedrock;
- Depth to groundwater, and;
- Presence and extent of Made Ground.

4.4 Identified Pathways of Contamination

Human Health		Ground Gas		Controlled Waters	
A	Ingestion of dust and soil	A	Migration through fractures and fissures in bedrock	A	Vertical migration through coarse Made Ground and coarse soils
B	Dermal contact with dust and soil	B	Preferential migration along foundations & service ducts	B	Lateral migration along low permeability natural soils & pooling at relative low points
C	Inhalation (dust)	C	Migration within groundwater	C	Vertical migration along existing and future foundations and pooling at base
D	Inhalation (vapours)	D	Ingress through cavity walls & floors	D	Migration through porous bedrock
E	Consumption of homegrown produce	E	Inhalation	E	Migration within groundwater
F	Inhalation and oral backgrounds			F	Overland flow

4.5 Identified Receptors of Contamination

Human Health receptors include the following:

- End Users (residential land use scenario);
- Construction workers; and
- The general public and adjacent site users.

Controlled waters receptors include the following:

- Groundwater contained within the underlying Secondary A Aquifers; and
- Surface Water – Off-site River Roch (324m north).

Other receptors include the following:

- Subsurface plastic (e.g. potable plastic water pipe); and
- Building fabric (e.g. concrete foundations, etc).

4.5.1 Conceptual Model for Human Health Risk Assessment

A site conceptual model in the form of a linkage table for the purposes of a preliminary risk assessment for the human health of site occupants has been produced as a result of the probable contaminants, pathways and receptors identified above. A diagram of the site conceptual model is included as Appendix 2.

Conceptual Model for Human Health Assessment					
Sources of Contamination	Pathway	Receptor	Hazard (severity)	Likelihood	Risk
On-site Made Ground On-site historical greenhouses Off-site historical and current garage Off-site historical Gas Works	A B C D E F	End users General public	Effect on human health (Medium)	Unlikely: Made Ground including possible demolition material is likely to be present across the site and was identified covering the majority of the site during the site walkover. It is unknown whether the historical buildings on site included basements. Contaminants are unlikely to be present at elevated concentrations as the buildings have only been occupied for residential and office use, however, given that the Made Ground occupies the majority of the site, the risk is deemed low to moderate.	Low to Moderate
				Herbicides and pesticides may have been used historically on site although, given that the buildings are no longer recorded of residential use by 1930, it is unlikely that any residual contamination remains at elevated concentrations. Any herbicides and pesticides used on site are not likely to include the persistent organochloride pesticides such as Dieldrin, Aldrin, DDT etc. as these have been phased out and are unlikely to be used in significant quantities given the residential land use. A garage is recorded on the western site boundary from 1958 and remains until present. Contaminants associated with the garage include metals, fuels, solvents and other organic compounds. The presence of variable Glaciofluvial deposits beneath the site and its surroundings may facilitate vertical and lateral migration of contaminants onto the site.	
				Tanks associated with a gas works are recorded 190m northeast of the site from the earliest historical maps until 1958 when they are replaced with a works of unknown use. Although residual contamination may be present, it is unlikely to migrate onto site given the distance to the works. Although ingestion, dermal and inhalation pathways of on site contaminants will be reduced in areas of hardstanding i.e. roads and buildings, private buildings and areas of soft landscaping will be at increased risk.	
		Construction workers		Unlikely: Construction workers will be at increased risk due to their acute interaction with soils, however, the appropriate use of PPE, Good Practice and Health and Safety Measures will significantly reduce the risk.	Low to Moderate
	D	End users and general public		Unlikely: No potential on site sources of VOCs have been identified. If localised contaminative hotspots of VOCs are present, given their relative mobility and volatility VOCs are unlikely to remain at significant concentrations.	Low
Construction workers		Unlikely: Construction workers at increased risk if any disturbance of soil occurs as this may generate a temporary increase in the release of soil vapours, however risk remains low given the lack of a source of VOCs.	Low		

4.5.2 Conceptual Model for Ground Gas Risk Assessment

A conceptual model in the form of a linkage table for the purposes of a preliminary risk assessment for ground gas has been produced as a result of the probable contaminants, pathways and targets identified above as follows:

Conceptual Model for Ground Gas Risk Assessment					
Source	Pathway	Receptor	Hazard (severity)	Likelihood	Risk
On-site Made Ground	A	Human occupants	Effect on human health (Mild to Severe*)	Unlikely: Made Ground deposits are likely to be present across the site. Although any Made Ground deposits are unlikely to contain significant organic rich or putrescible material, it is unknown if the historical buildings on site included basements and the depth of Made Ground deposits is unknown, therefore the risk is deemed low to moderate.	Low to Moderate
	B	Site Workers			
Off-site 'Mandale Park' Landfill	C	Building and Structures	Damage to building (Mild)	There is no information regarding the type of waste relating to the Environment Agency recorded landfill, recorded in the historical maps between 1908 and 1987. Given the distance to the site, the risk of ground gas migration is deemed low.	
	D				
	E				

*Due to the risk of explosion.

4.5.3 Conceptual Model for Controlled Waters Risk Assessment

A site conceptual model in the form of a linkage table for the purposes of a preliminary risk assessment for pollution of waters has been produced as a result of the probable contaminants, pathways and targets identified above as follows:

Conceptual Model for Controlled Waters Risk Assessment					
Source	Pathway	Receptor	Hazard (severity)	Likelihood of Occurrence	Risk
On-site Made Ground On-site historical Greenhouses	A C D E	Groundwater within the Secondary A Aquifers	Effects to controlled waters (Mild)	Unlikely: Made Ground of unknown depth and composition is likely to be present across the majority of the site. Glaciofluvial superficial deposits may facilitate vertical migration of contaminants to superficial and bedrock aquifers. However, any Made Ground deposits encountered on site are unlikely to contain determinants at elevated concentrations. The historical use of herbicides and pesticides on site cannot be discounted, however, the site has not been used as residential land use since the 1930s and therefore any contaminants are unlikely to be present at elevated concentrations and are not likely to include the persistent organochloride pesticides such as Dieldrin, Aldrin, DDT. Furthermore, if any contamination is encountered, then remedial measures may be undertaken for human health purposes (i.e. possible removal of source) further reducing the risk to controlled waters.	Low
	B F	Surface water courses (Off-site River Roch 324m north)	Effects to controlled waters: (Mild)	Unlikely: The Made Ground on site is not anticipated to contain contaminants at elevated concentrations. Although, Glaciofluvial superficial deposits on site are anticipated to vary and therefore lateral migration may be facilitated, there are no surface water features on site and the river Roch is located 324m north of the site and therefore any on site contaminants are unlikely to migrate to surface water features. The potential for lateral migration of contaminants will be further reduced following development given the increased presence of hardstanding significantly reducing infiltration of water into the underlying ground.	Very Low

4.6 Preliminary Risk Assessment Summary

Human Health

Based on the human health conceptual model the risk to human health is deemed low to moderate to end users and construction workers. Made Ground is likely to be present across the majority of the site, however, contaminants are unlikely to be present at elevated concentrations as the buildings have only been occupied for residential and office use. Although the risk to construction workers is increased due to their acute interaction with site soils, it is envisaged that with appropriate PPE and site management, risks to construction workers can be mitigated.

Ground Gas

Although it is considered unlikely to contain highly organic or putrescible materials, Made Ground is anticipated to be present across the majority of the site to an unknown depth and therefore the risk is deemed low to moderate. Gas monitoring is recommended to quantify the risk and should consist of 6 No. bi-weekly visits.

If any organic rich Made Ground deposits are identified or if previously unrecorded potential ground gas sources are recorded during the ground investigation works, then ground gas monitoring may be required. The length and frequency of the ground gas monitoring regime and the sampling method, initial results and alterations to the conceptual model are subject to the findings of the ground investigation works and development constraints (i.e. development timescales and liaison with the local authority).

Controlled Waters

Although contaminative linked exist on site, there are no significant sources of contamination given the historical use of the site therefore the risk to controlled waters is deemed low.

If unrecorded contaminative sources are noted, the above conceptual models may require re-assessment.

4.7 Scope of Phase 2 Intrusive Geo-Environmental Ground Investigation

As a result of the preliminary risk assessment, a Phase 2 intrusive geo-environmental ground investigation should be carried out to quantify the identified risks. This intrusive ground investigation works should include the collection of appropriate samples – solid and / or liquid, if deemed necessary, across the site for appropriate chemical testing as detailed above.

Furthermore, to determine the geotechnical and geological properties of the underlying ground conditions, appropriate intrusive works and associated testing should be undertaken. The rationale and aims for these Phase 2 environmental, geotechnical and geological investigative works are detailed below.

In order to provide adequate assessment in terms of both environmental and geotechnical site parameters, ground investigation works will be required on a spatial basis and targeting the historical buildings on site.

The proposed initial ground investigation works should comprise a programme of dynamic sampling boreholes, installed with ground gas and groundwater monitoring wells. The rationale for the exploratory holes is discussed below:

- To allow the collection of samples from the Made Ground and natural deposits for chemical laboratory testing (solid samples) for an appropriate suite of determinands and to determine the suitable concrete classification in associated with relevant guidance e.g. BRE Special Digest 1.
- To determine the extent, composition and depth of any Made Ground deposits.
- To determine the nature, thickness and extent of superficial deposits.
- Enable geotechnical testing, including density testing (SPTs), hand shear vane (HSV) testing and undrained shear strengths of the underlying Made Ground and natural deposits for the purposes of sub-structure design;
- To allow installation of ground gas and groundwater monitoring wells.

Based on the findings of the initial ground investigation works, further works may be required for detailed design including California Bearing Ratio determinations, testing for earthworks information and deep round investigation to inform pile design.

5.0 RECOMMENDATIONS

- As a result of the information gathered and the risks identified in this report, there is a low to moderate risk to human health on the basis that potential sources and pathways have been identified for end users and construction workers. The risk to controlled waters is deemed low given that insignificant contaminative sources have been identified.
- A low to moderate ground gas risk has been identified on the basis Made Ground of unknown composition and depth is likely to be present across the majority of the site. On the basis that the site lies within an area where between less than 1% of homes are above the action level no radon protection measures are necessary.
- Due to geotechnical requirements, ground investigation works should be undertaken in order to determine the ground conditions with a greater degree of certainty and allow design of the proposed development, drainage, services and immediate external areas to be undertaken. It is therefore recommended that exploratory holes are constructed where access is permitted across the site. The use of soakaways may be suitable given the presence of variable permeability Glaciofluvial deposits across the site.
- From the results of the Phase 2 ground investigation work – if this report identifies a potential risk and / or a requirement for further detailed site-specific assessment, a Phase 3 environmental investigation report and / or a Remedial Strategy (informing on potential remediation solutions) may be required.
- The nature and extent of the proposed targeted chemical and environmental testing should be confirmed, if time / commercial constraints allow, with the relevant Local Authority Environmental Health Officer and the Environment Agency prior to undertaking works on-site. Proceeding without agreement between regulatory authorities may result in further assessment being required.

- It should be noted that, if any visual or olfactory evidence of contamination is encountered during remediation or construction work, then the Local Authority Environmental Health Officer and Environment Agency should be contacted immediately in order to agree any necessary remediation measures.
- Given the possibility of services on-site, full service plans should be obtained prior to any intrusive ground investigation works.



APPENDIX 1

LIMITATIONS OF INVESTIGATION WORK AND REPORT AND CONTAMINATED LAND LEGISLATIVE FRAMEWORK



LIMITATIONS OF REPORT

This consultancy report was compiled and carried out by IGE Consulting Limited ('IGE') for the client, as defined in the main report (the 'client'), on the basis of a defined programme and scope of works and the terms of a contract between IGE and the client. IGE undertook this with all reasonable skill and care, taking into account the limits of the scope of works required by the client, the prevailing site conditions, the time scale involved and the resources, including financial and manpower resources, agreed between IGE and the client. IGE cannot accept responsibility to any parties whatsoever, following the issue of this report, for any matters arising which may be considered outwith the agreed scope of works.

Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted consulting practices. This report may not be relied upon, or transferred to, by any other party without the written agreement of its author. If a third party relies on this report, it does so wholly at its own and sole risk and IGE disclaims any liability to such parties.

It is IGE's understanding that this report is to be used for the purpose described in the 'Brief' section of this report. That purpose was a significant factor in determining the scope and the services to be provided. Should the purpose for which the report is used, or the proposed use of the site change, this report may no longer be valid and any further use of, or reliance upon the report in those circumstances by the client without IGE's review and advice shall be at the client's sole and own risk.

The information contained in this report is protected by disclosure under Part 3 of the Environmental Information Regulations 2004 pursuant to the provisions of Regulation 12(5) without the consent in writing of a Director of IGE.

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

The observations and conclusions described in this report are based solely upon the scope of works agreed between the client and IGE. IGE has not performed any observations, investigations, studies or testing not specifically set out or mentioned within this report. IGE is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the agreed scope of works. For the avoidance of doubt, this report is strictly limited to the nature of contamination contained within the ground and groundwater at the site. The report does not cover environmental aspects such as air or noise pollution and ground vibrations and the like. In addition, ecological matters relating to wildlife, flora and fauna have not been investigated as part of this report. In particular, the site has not been inspected for the presence or otherwise of invasive species (e.g. Japanese Knotweed). It is recommended that the client appoints a specialist in this subject to carry out a detailed inspection / survey of the site if its presence is suspected. Where mention has been made to the suspected presence asbestos or asbestos-containing materials this is for indicative purposes only and does not constitute or replace full and proper surveys.

Throughout the report the term 'geotechnical' is used to describe aspects relating to the physical nature of the site (such as foundation requirements) and the term 'geo-environmental' is used to describe aspects relating to ground-related environmental issues (such as potential contamination). However, it should be appreciated that this is an integrated investigation and these two main aspects are inter-related. The geo-environmental sections are written in broad agreement with BS 10175:2011+A2 2017.

LIMITATIONS OF INVESTIGATION WORK

Desk Study References

This report is based upon IGE's observations of existing physical conditions at the site gained from a walkover survey of the site together with IGE's interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. Reliance has been placed on this publicly available data obtained from the sources identified in the main report. When using the information, it has been assumed that it is correct. The findings and recommendations contained in this report are based in part upon information provided by third parties, and whilst IGE have no reason to doubt the accuracy and that it has been provided in full from those it was requested from, the items relied on have not been verified. No responsibility can be accepted for errors within third party items presented in this report. IGE did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services. IGE is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to IGE and including the doing of any independent investigation of the information provided to IGE except when otherwise provided in the terms of the contract between the client and IGE.

Historical Mapping

Historical Ordnance Survey maps do not provide a comprehensive description of a site history. They provide details of the site from a date prior to the publication of the map (i.e. a snapshot in time). The period between map editions can be substantial (i.e. several decades). Not all map series are available for every date range in many areas of the UK and therefore there will be gaps in this mapped record for some sites. Potentially contaminative land uses could have been present and removed during such periods and may therefore not form a part of this particular record. In addition, there will be potentially contaminative land uses which are not identified on the map records such as small scale storage / use of hazardous materials, illegal / unlicensed waste disposal activities etc. Different map series identify different features utilising different symbols which can result in features that remain on-site being removed from maps. Some features are also not mapped for security reasons (e.g. airfields and other military installations). These areas are mostly shown as blank areas on historical maps.

Site Walkover

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.

Flooding

Flooding in this report is defined as flooding caused by the sea, ditches, rivers, streams, ponds, lakes, reservoirs and the like. It does not extend to flooding caused by surcharged piped drainage systems and investigations into flooding of this nature are excluded from this report.

Extent of Contamination Studies

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. The 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 reporting in full. The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the site.

Intrusive Investigation

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

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

Exploratory Holes

Where exploratory holes have been carried out as part of this investigation, the spacing has been determined to provide a reasonable indication of the general ground conditions across the site, but the number has ultimately been limited by commercial constraints. The findings of the exploratory holes relate specifically to the exploratory hole locations and are no absolute guarantee of the ground conditions between such locations. Due allowance should be made for the possibility of variation in conditions between exploratory hole locations.

Extent of Contamination Testing

The extent of contaminated land testing carried out on samples obtained from the site has been determined in accordance with the latest legal guidance issued by the government to provide, with reasonable certainty, the probable general levels of contamination present on site that could pose a significant hazard to human health or waters. The extent of site investigation works including chemical testing has also been limited by reasonable commercial constraints. Although extensive testing of samples has been carried out, the volume of samples taken for testing are a minute fraction of the total volume of soils and groundwater present on site. Therefore, there is a residual risk that undetected pockets of contamination may be present on site, situated between testing locations.

When investigating or developing potentially contaminated land it is important to recognise that sub-surface conditions may vary spatially and temporally. The absence of certain ground, ground gas, contamination or groundwater conditions at the positions tested is not a guarantee that such conditions do not exist anywhere across the site. 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. The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the site.

Extent of Geo-Environmental Studies

This report is strictly limited to the nature of contamination contained within the ground and groundwater at the site. The report does not cover environmental aspects such as air or noise pollution and ground vibrations and the like. In addition, ecological matters relating to wildlife, flora and fauna have not been investigated as part of this report. In particular, the site has not been inspected for the presence or otherwise of invasive species e.g. Japanese Knotweed. It is recommended that the Client appoints a specialist in this subject to carry out a detailed inspection / survey of the site if its presence is suspected. Where mention has been made to the identification asbestos or asbestos-containing materials this is for indicative purposes only and does not constitute or replace a full and proper survey. If an Unexploded Ordnance (UXO) report has been obtained within the report, it has been so on the basis of Health and Safety concerns and no assessment has been made other than transcribing the recommendations of the sub-contractor contained within the report. In terms of a potential contaminative source, unless ordnance has been manufactured / stored on site, UXOs will only be determined as a contaminative source following a positive identification on site.

PLANNING CONTEXT

The National Planning Policy Framework (NPPF, 2023) states that the purpose of the planning system is to contribute to the achievement of sustainable development. In order to do this the planning system has three overarching objectives, one of which directly relates to the potential for pollution and contaminated land:

- *'environmental objective - to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy'.*

In accordance with this environmental objective, Paragraph 124 clarifies that 'making effective use of land' includes to:

- *'give substantial weight to the value of using suitable brownfield land within settlements for homes and other identified needs, and support appropriate opportunities to remediate despoiled, degraded, derelict, contaminated or unstable land'.*

In accordance with this environmental objective, Paragraph 180 clarifies that 'conserving and enhancing the natural environment includes:

- *'preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability'; and*
- *'remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate'.*

Paragraph 189 of the NPPF states that planning policies and decisions for developments should also ensure that:

- *'a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation)'; and,*
- *'after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990'; and*
- *'adequate site investigation information, prepared by a competent person, is available to inform these assessments'.*

This report has been prepared and authorised by staff that are competent as defined in the NPPF.

APPENDIX 2

FIGURES AND DRAWINGS

notes:

This drawing is the copyright of Paddock Johnson Partnership Limited and may not be used without their prior written consent. Written dimensions to be taken in preference to scaled dimensions. Due to the inaccuracies of scanning, scanned images should not be scaled.

rev	date	description	by
A	25.11.19.	St. Alban's Street house types changed	MK

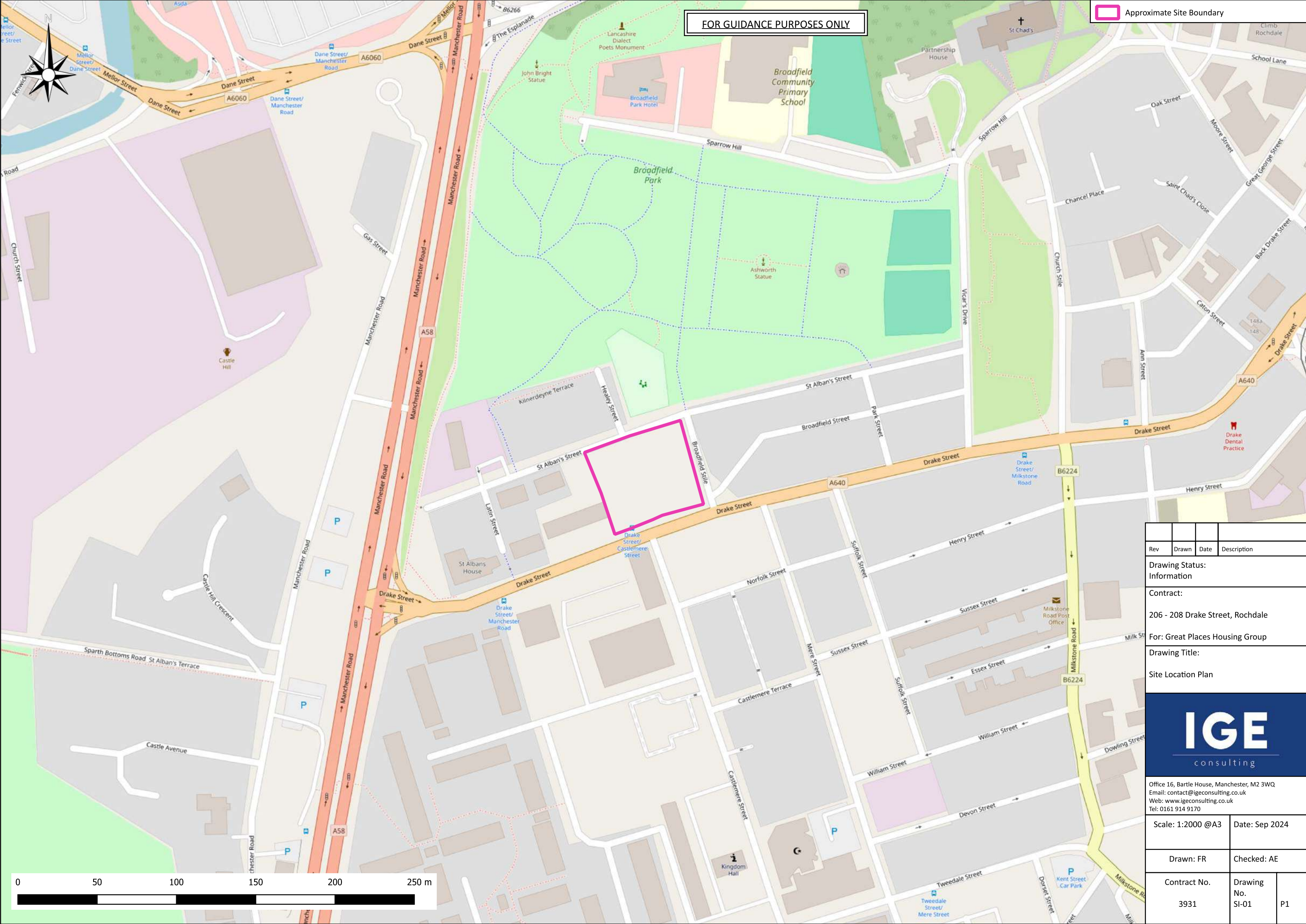


4 bed 7P house - 6 no.
(3 storey - approx. 126.25 m2)

4 bed 8P house - 8 no.
(3 storey - approx. 130.66 m2)

TOTAL - 14 no.





FOR GUIDANCE PURPOSES ONLY

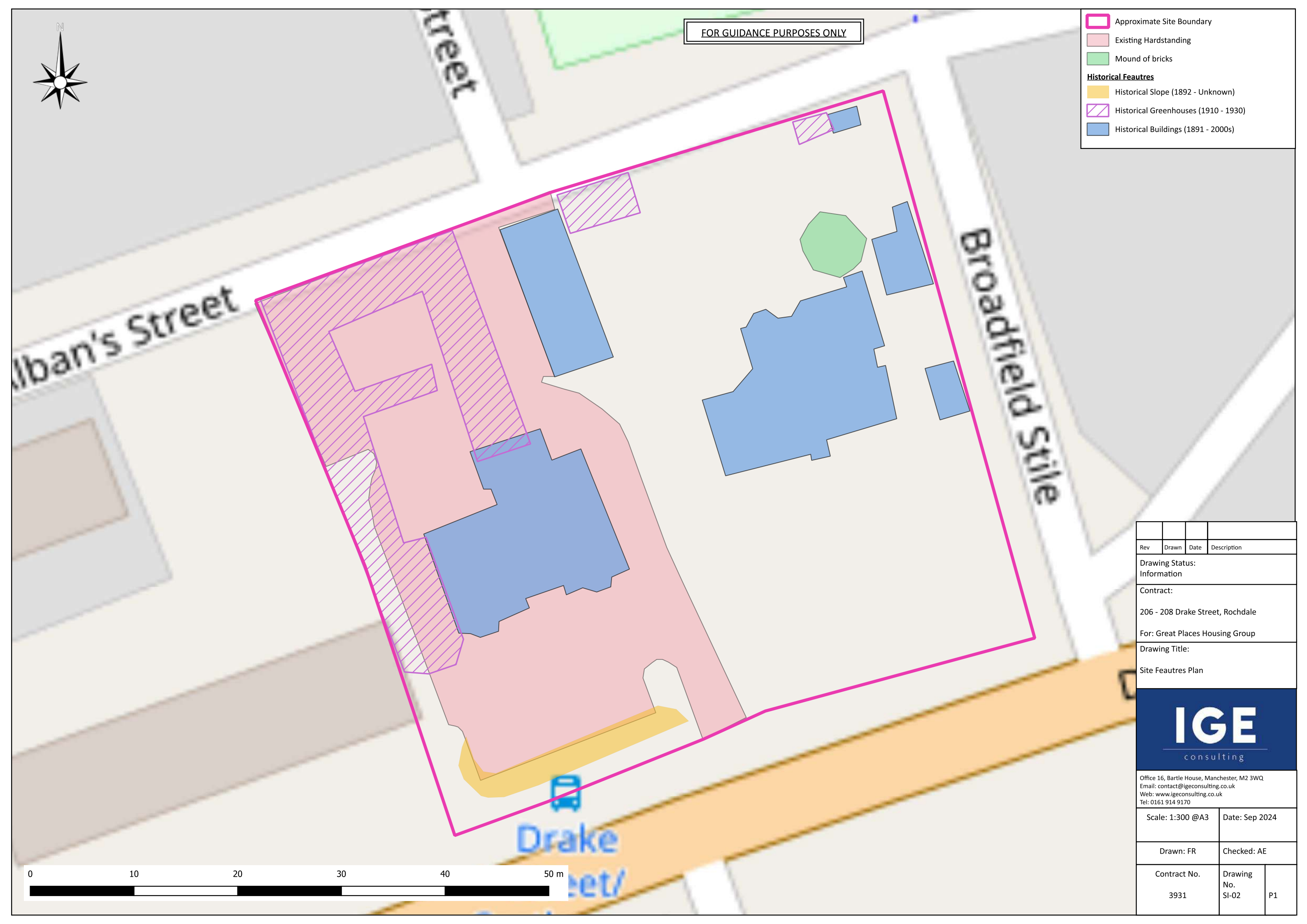
Approximate Site Boundary

Rev	Drawn	Date	Description
Drawing Status: Information			
Contract: 206 - 208 Drake Street, Rochdale			
For: Great Places Housing Group			
Drawing Title: Site Location Plan			
			
Office 16, Bartle House, Manchester, M2 3WQ Email: contact@igeconsulting.co.uk Web: www.igeconsulting.co.uk Tel: 0161 914 9170			
Scale: 1:2000 @ A3		Date: Sep 2024	
Drawn: FR		Checked: AE	
Contract No. 3931		Drawing No. SI-01	P1



FOR GUIDANCE PURPOSES ONLY

- Approximate Site Boundary
- Existing Hardstanding
- Mound of bricks
- Historical Feautres**
- Historical Slope (1892 - Unknown)
- Historical Greenhouses (1910 - 1930)
- Historical Buildings (1891 - 2000s)



Rev	Drawn	Date	Description
Drawing Status: Information			
Contract: 206 - 208 Drake Street, Rochdale For: Great Places Housing Group			
Drawing Title: Site Feautres Plan			
IGE consulting Office 16, Bartle House, Manchester, M2 3WQ Email: contact@igeconsulting.co.uk Web: www.igeconsulting.co.uk Tel: 0161 914 9170			
Scale: 1:300 @A3		Date: Sep 2024	
Drawn: FR		Checked: AE	
Contract No. 3931		Drawing No. SI-02	P1

Notes

- 1This drawings is indicative and not to scale.
- 2This drawing is to be read in conjunction with all relevant Architects and Service Engineers drawings.

SOURCES

Sources

1. On-site Made Ground (including demolition waste)
2. On-site historical greenhouses (1891 - 1910)
3. Off-site garage (western site boundary, 1958 - 2024)
4. Off-site historical gas works (190m northwest, 1891 - 1992)
5. Off-site Mandale Park landfill (435m south, 1908 - 1922)

Secondary Sources

6. Pooling beneath historical and / or future foundations
7. Pooling in relative low points above low permeability deposits
8. Pooling within granular lenses within low permeability deposits

Ground Gas Sources

1. Widespread Made Ground
2. Off-site Mandale Park Landfill (435m south, 1908 - 1922)

PATHWAYS

Pathways To Human Health

- A. Ingestion of dust and soil
- B. Dermal contact with dust and soil
- C. Inhalation (dust).
- D. Inhalation (vapours)
- E. Consumption of homegrown produce
- F. Inhalation and oral backgrounds

Pathways To Controlled Waters

- A. Vertical migration athrough coarse Made Ground and coarse soils.
- B. Lateral migration along low permeability natural soils & pooling at relative low points.
- C. Vertical migration along existiing and future foundations and pooling at base.
- D. Migration through porous bedrock.
- E. Migration through groudwater within Glaciofluvial superficial deposits
- F. Overland flow.

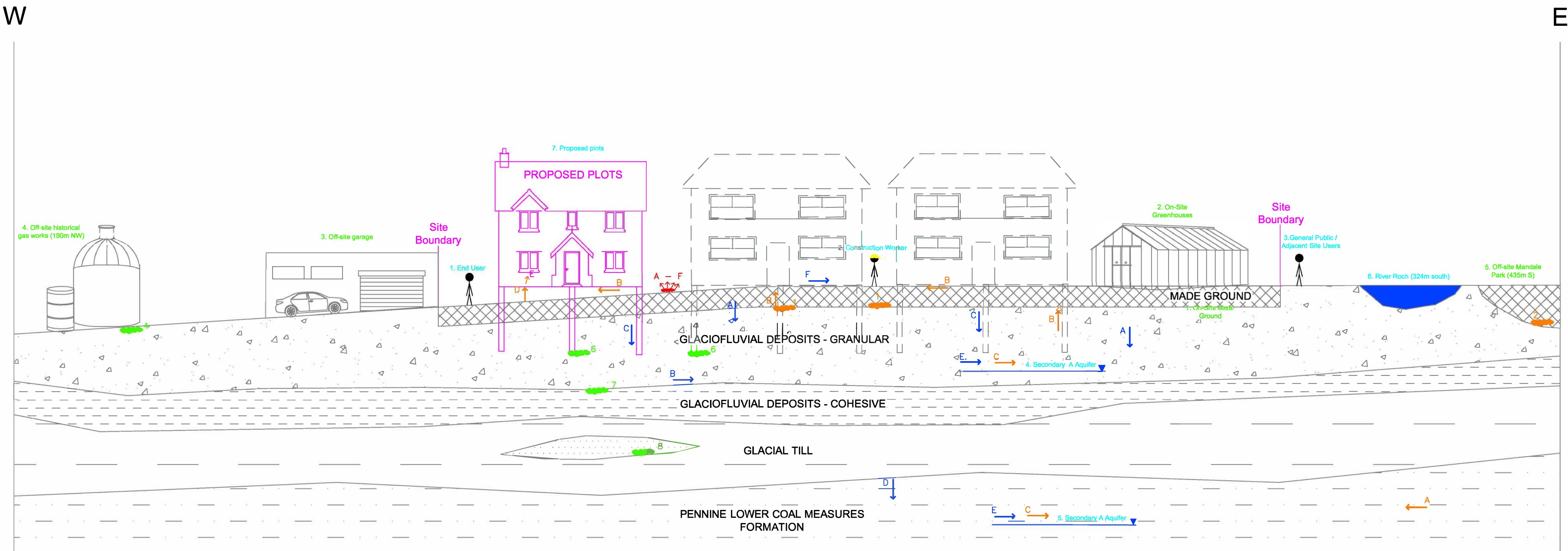
Ground Gas Pathways

- A. Migration through fractures and fissures in bedrock
- B. Preferential migration along foundations & service ducts.
- C. Migration within groundwater.
- D. Ingress through cavity walls and floors.
- E. Inhalation of ground gas and vapours

RECEPTORS

Receptors

1. End user
2. Construction workers
3. General public / adjacent site users
4. Secondary A aquifer in superficial deposits
5. Secondary A aquifer in bedrock
6. Surface water (River Roch 324m north)
7. Buildings and services



Rev	Drawn	Date	Description
Drawing Status			
INFORMATION			
Contract			
206 - 208 Drake Street, Rochdale			
For: Great Place Housing Group			
Drawing Title			
Conceptual Site Model			
IGE consulting			
Office 16, Bartle House, Manchester, M2 3WQ email: contact@igeconsulting.co.uk web: www.igeconsulting.co.uk tel: 0161 914 9170			
Scale	NTS	Date	Sep 2024
Drawn	FR	Checked	AE
Contract No.	Drawing No.		
3931	SI - 03	P1	

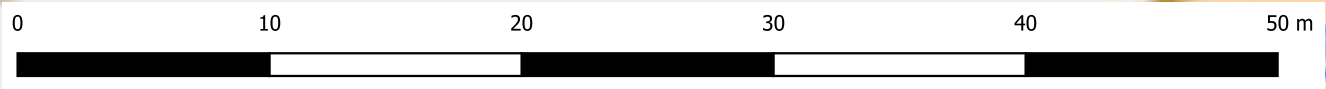
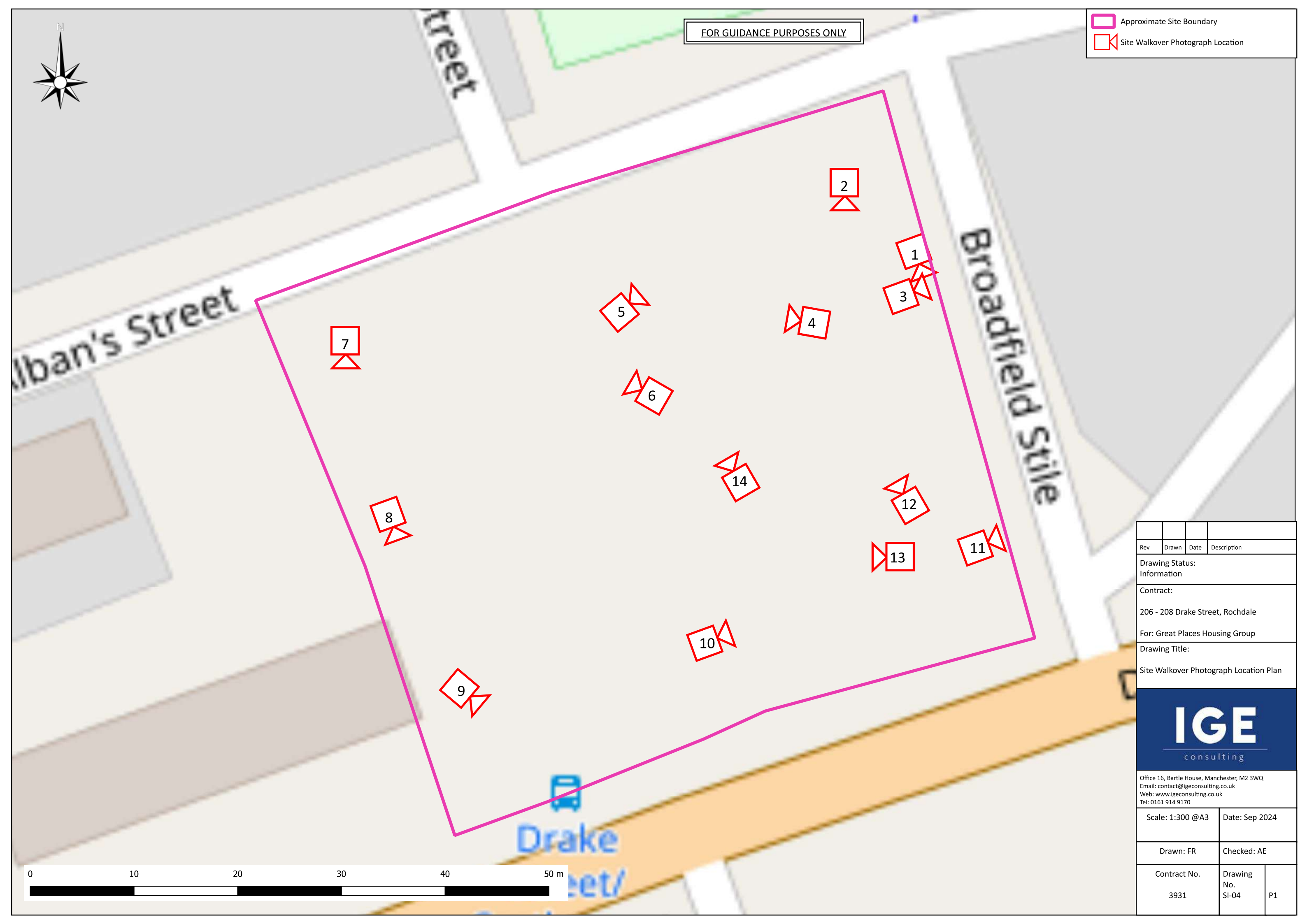
APPENDIX 3

WALKOVER SURVEY PHOTOGRAPHS AND PHOTOGRAPH LOCATION PLAN



FOR GUIDANCE PURPOSES ONLY

-  Approximate Site Boundary
-  Site Walkover Photograph Location



Rev	Drawn	Date	Description
Drawing Status: Information			
Contract: 206 - 208 Drake Street, Rochdale			
For: Great Places Housing Group			
Drawing Title: Site Walkover Photograph Location Plan			
			
Office 16, Bartle House, Manchester, M2 3WQ Email: contact@igeconsulting.co.uk Web: www.igeconsulting.co.uk Tel: 0161 914 9170			
Scale: 1:300 @A3		Date: Sep 2024	
Drawn: FR		Checked: AE	
Contract No. 3931		Drawing No. SI-04	P1

SITE WALKOVER PHOTOGRAPHS – 5th August 2024



Figure 1 – Image from the site entrance on Broadfield Stile of the southern site section.



Figure 2 – Mound of bricks and demolition material in the north eastern site section.



Figure 3 – Evidence of established trees along the eastern site boundary.



Figure 4 – Dense vegetation in the northern site section.



Figure 5 – The northeastern corner of the site .



Figure 6 – Shows the brick wall along the northwestern site boundary.

SITE WALKOVER PHOTOGRAPHS – 5th August 2024



Figure 7 – Hardstanding underfoot in the northeastern corner of the site.



Figure 8 – Historical access to the northwestern corner of the site.



Figure 9 – Hardstanding in the southern site section as a result of historical access roads.



Figure 10 – The southeastern site section with established trees along the site boundaries.



Figure 11 – Evidence of fly tipping and debris along the eastern site boundary.



Figure 12 – The eastern site section, looking north.

SITE WALKOVER PHOTOGRAPHS – 5th August 2024



Figure 13 – Shows the topography of the site gently sloping into the western site section.



Figure 14 – The northwestern site section.

APPENDIX 4

HISTORICAL ORDNANCE SURVEY MAPS

Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: 1056 Scale Town Plan

Map date: 1851

Scale: 1:1,056

Printed at: 1:1,056



Surveyed 1849
Revised N/A
Edition 1851
Copyright N/A
Levelled N/A

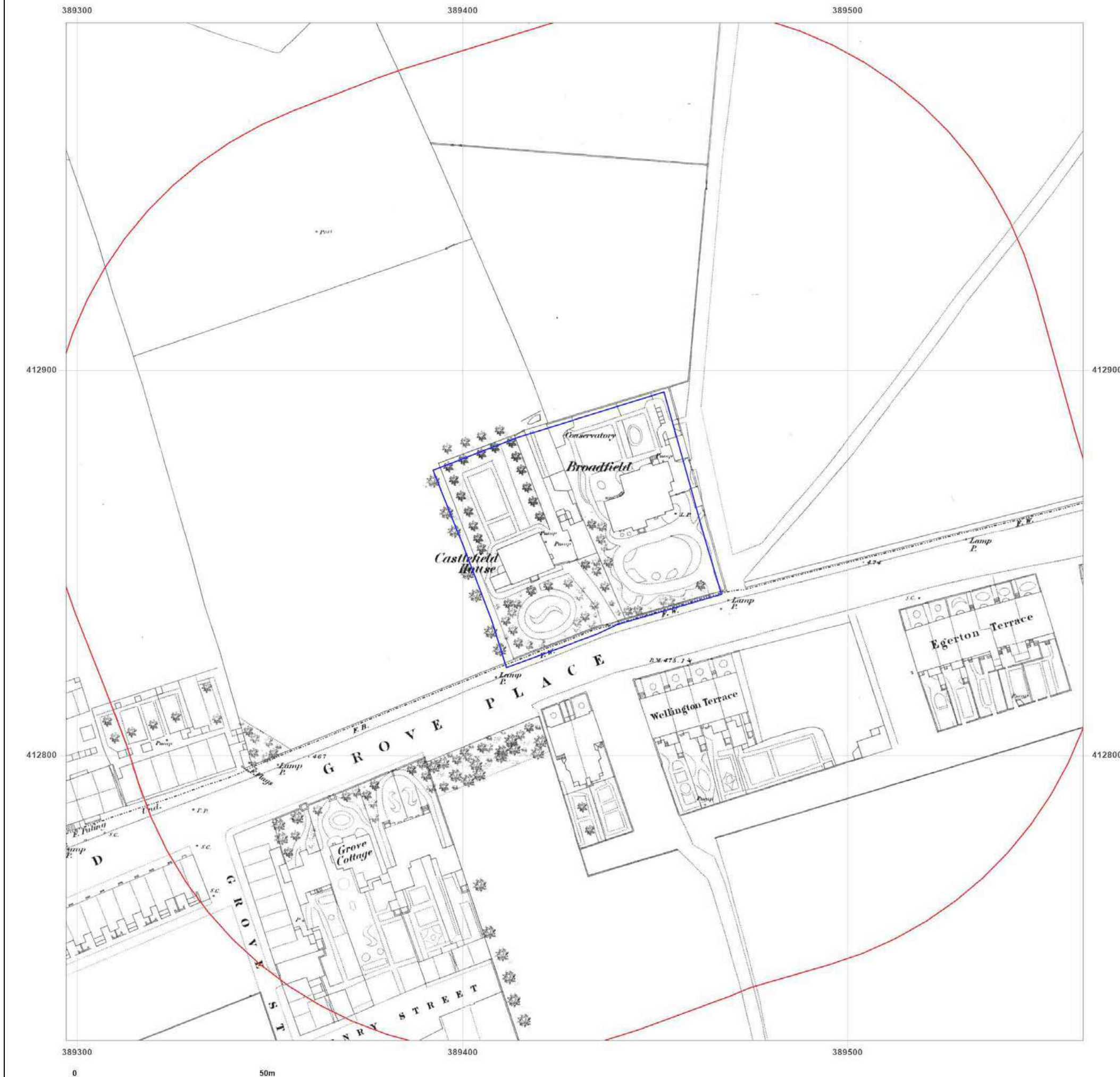


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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: County Series

Map date: 1890-1891

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1890
Revised 1890
Edition N/A
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Surveyed 1891
Revised 1891
Edition N/A
Copyright N/A
Levelled N/A

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

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

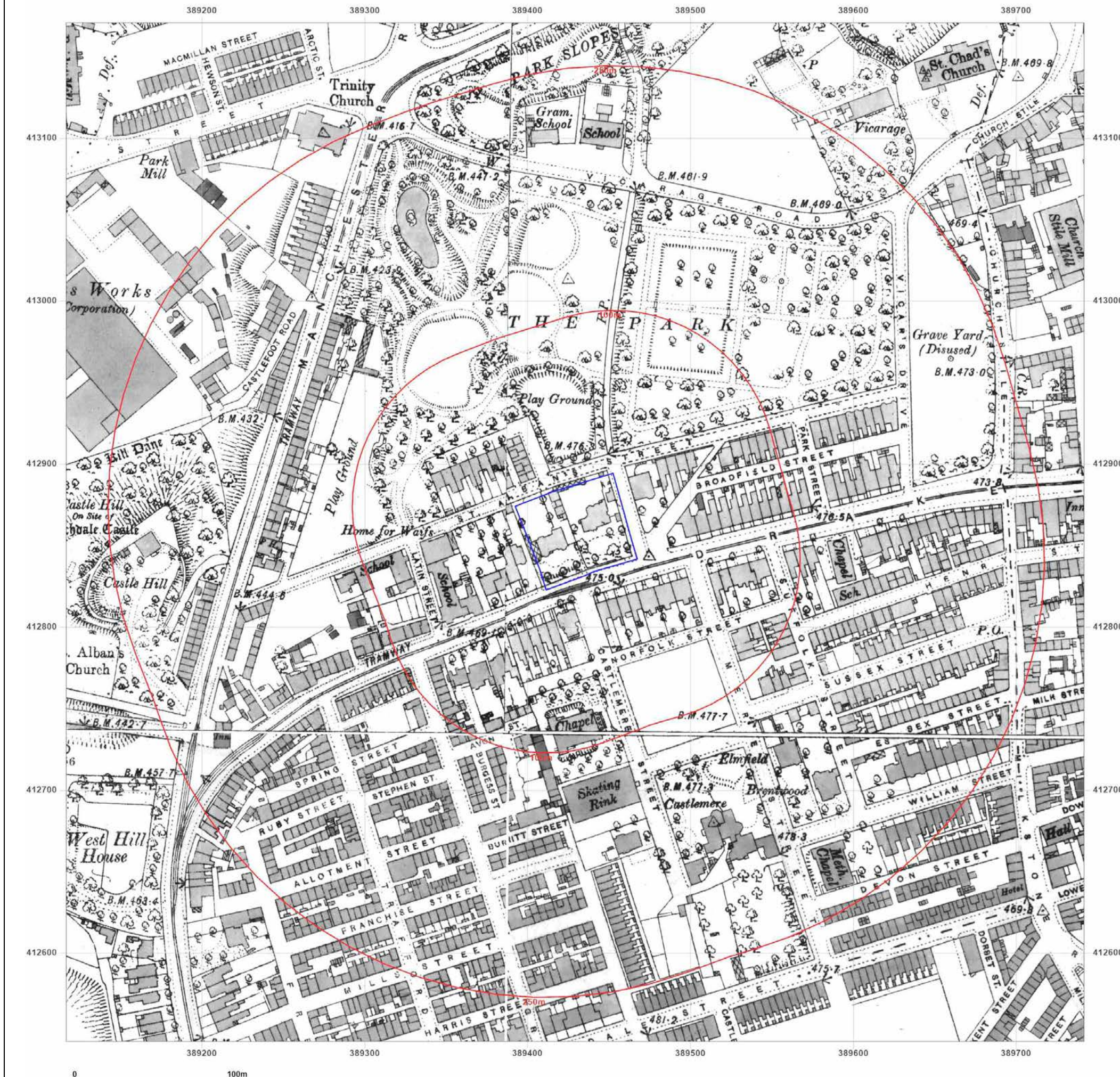


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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: County Series Town Plan

Map date: 1892

Scale: 1:500

Printed at: 1:1,000



Surveyed 1892
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Surveyed 1892
Revised N/A
Edition N/A
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Levelled N/A

Surveyed 1892
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Edition N/A
Copyright N/A
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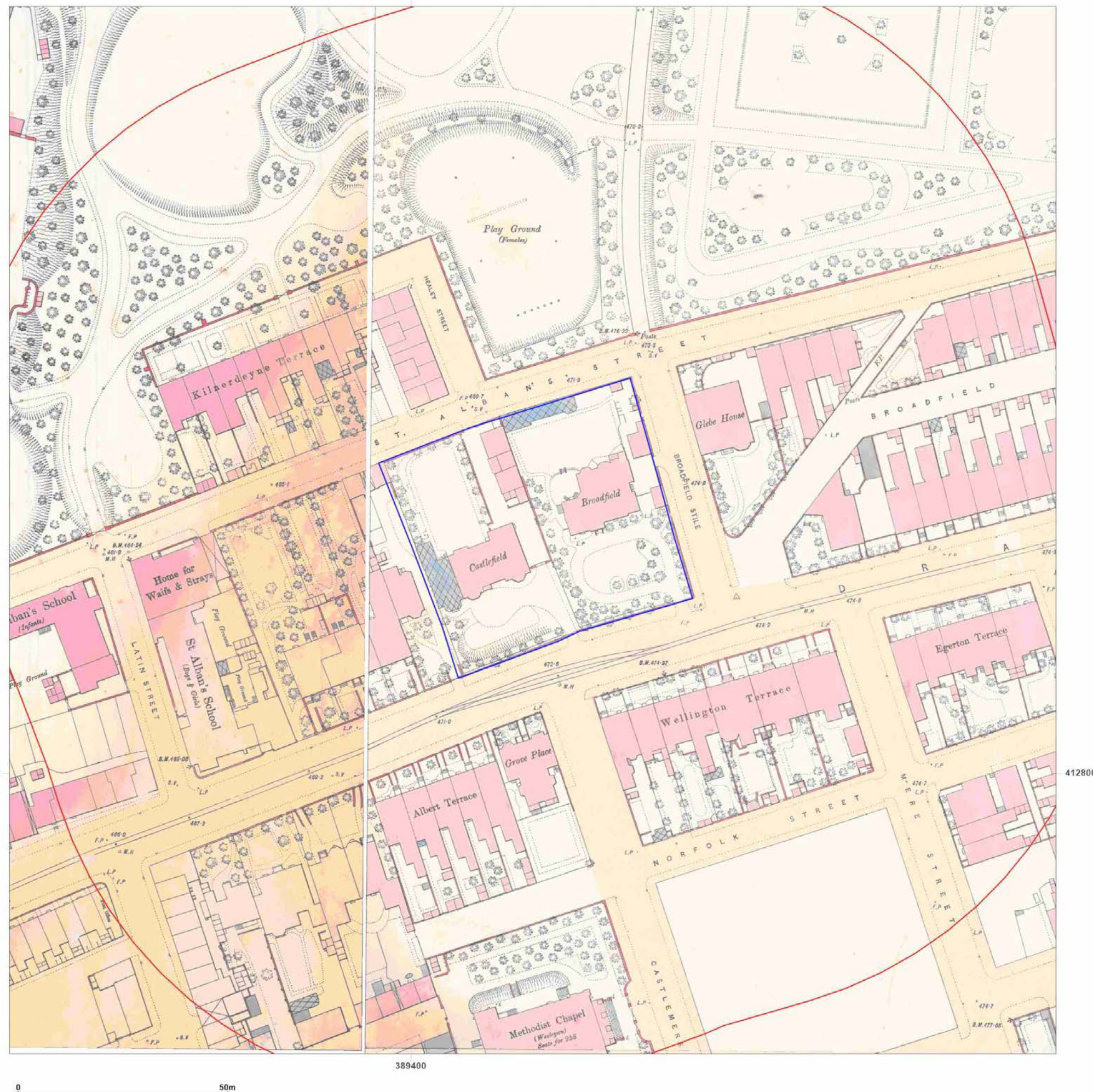


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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: County Series

Map date: 1910

Scale: 1:2,500

Printed at: 1:2,500



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Edition N/A
Copyright N/A
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Surveyed 1910
Revised 1910
Edition N/A
Copyright N/A
Levelled N/A

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Edition N/A
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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: County Series

Map date: 1930

Scale: 1:2,500

Printed at: 1:2,500



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Surveyed 1930
Revised 1930
Edition N/A
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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

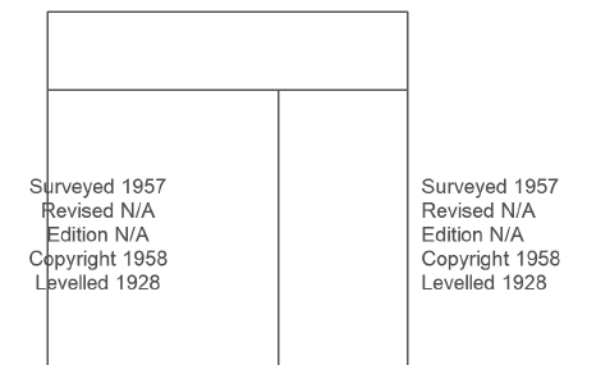
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Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

Map date: 1958

Scale: 1:1,250

Printed at: 1:2,000

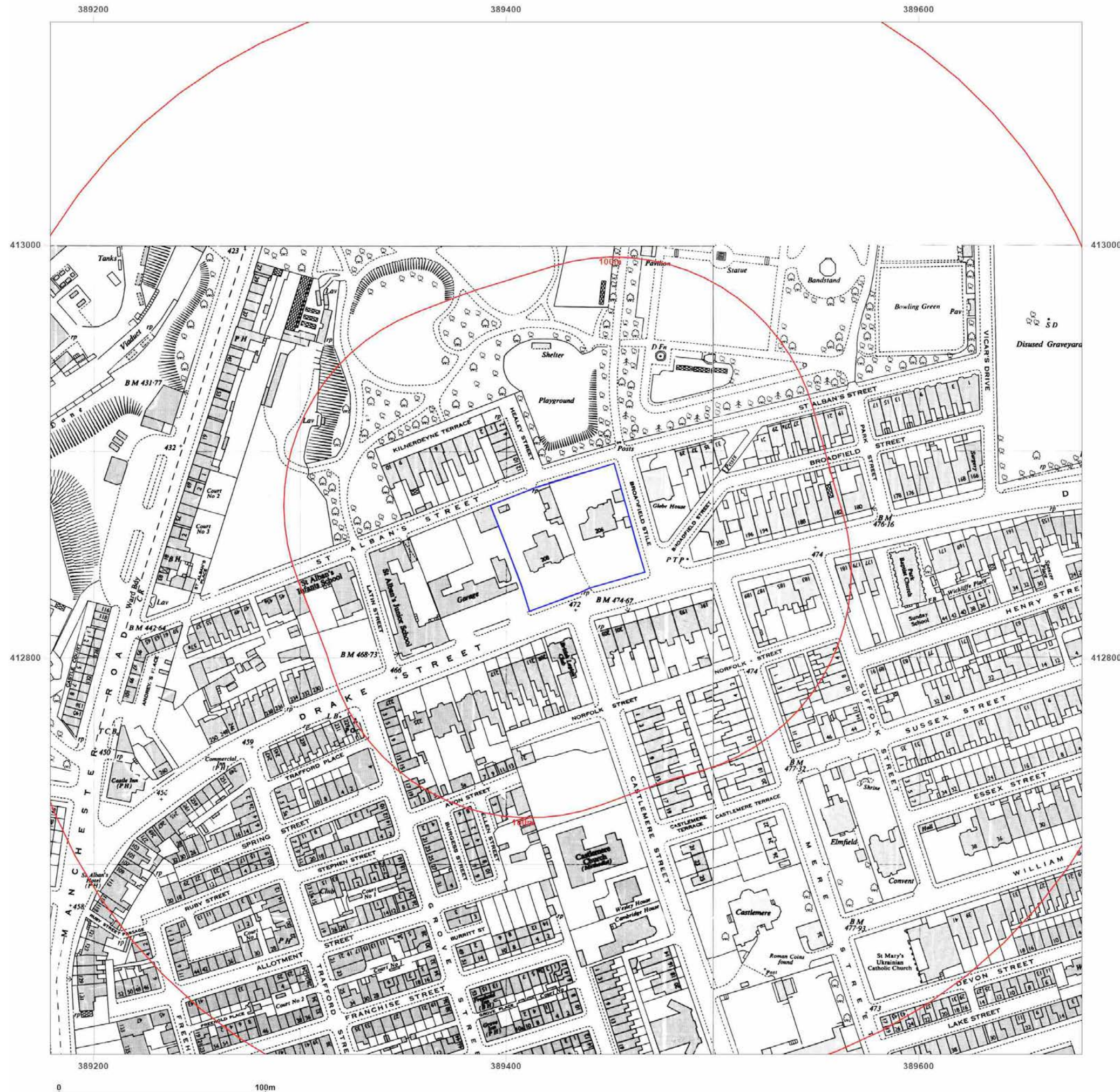


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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

Map date: 1957-1959

Scale: 1:1,250

Printed at: 1:2,000



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

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled 1928

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled 1928

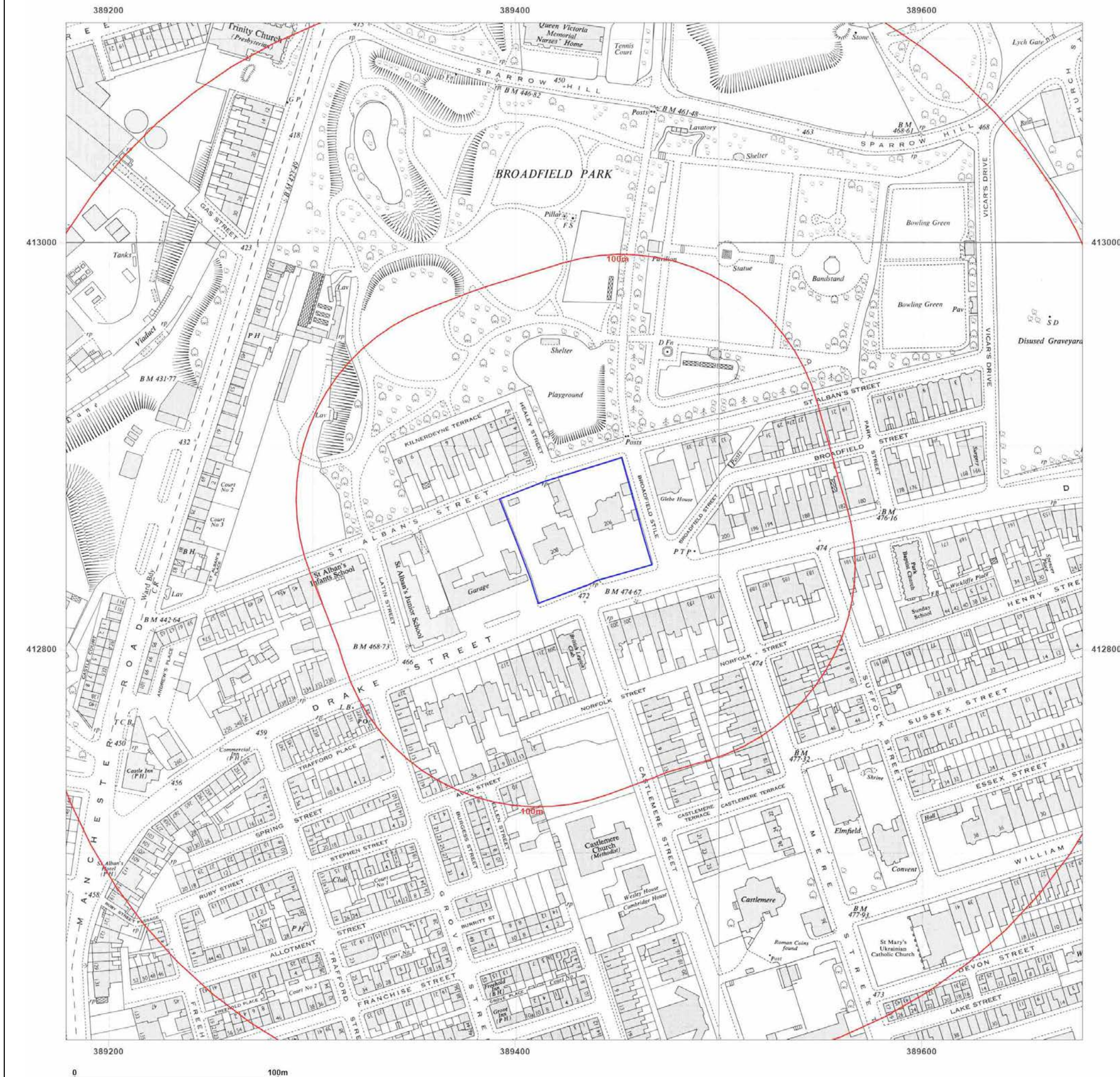


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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

Map date: 1958-1959

Scale: 1:2,500

Printed at: 1:2,500



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Levelled N/A

Surveyed 1957
Revised 1957
Edition 1958
Copyright N/A
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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

Map date: 1973-1978

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1959
Revised 1973
Edition N/A
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Surveyed 1978
Revised 1978
Edition N/A
Copyright 1978
Levelled N/A

Surveyed 1957
Revised 1973
Edition N/A
Copyright 1973
Levelled 1962

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

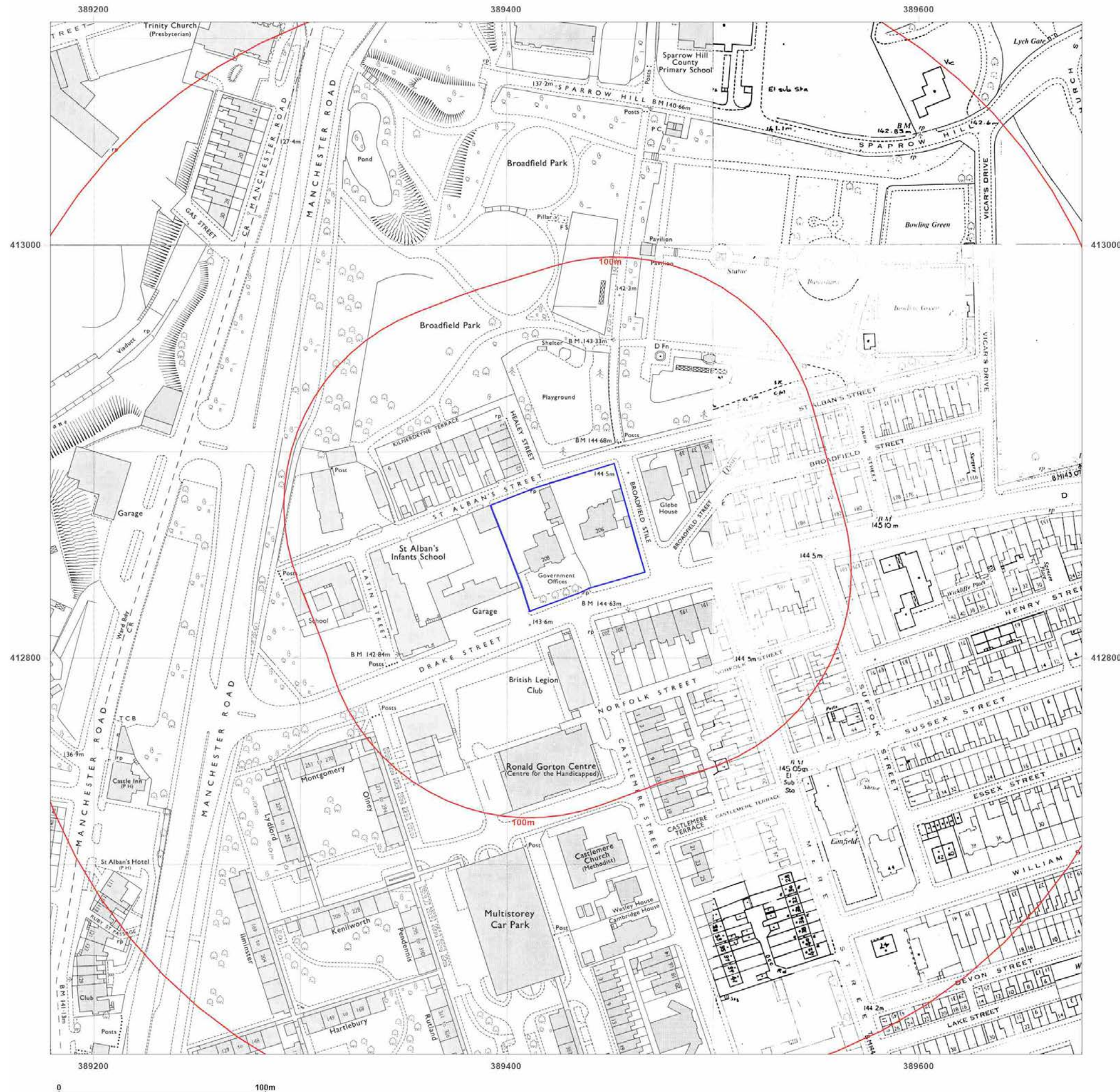


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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

Map date: 1988-1992

Scale: 1:1,250

Printed at: 1:2,000



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

Surveyed 1958
Revised 1987
Edition N/A
Copyright 1988
Levelled 1962

Surveyed N/A
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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

Map date: 1989-1992

Scale: 1:1,250

Printed at: 1:2,000



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

Surveyed 1990
Revised 1990
Edition N/A
Copyright 1990
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Surveyed 1957
Revised 1989
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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

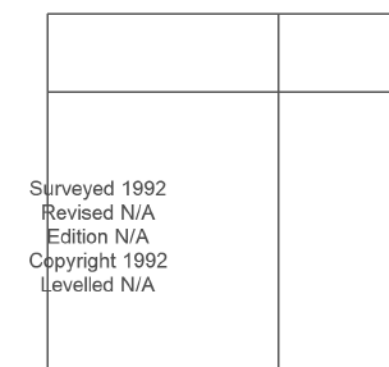
Map date: 1992-1994

Scale: 1:1,250

Printed at: 1:2,000



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



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

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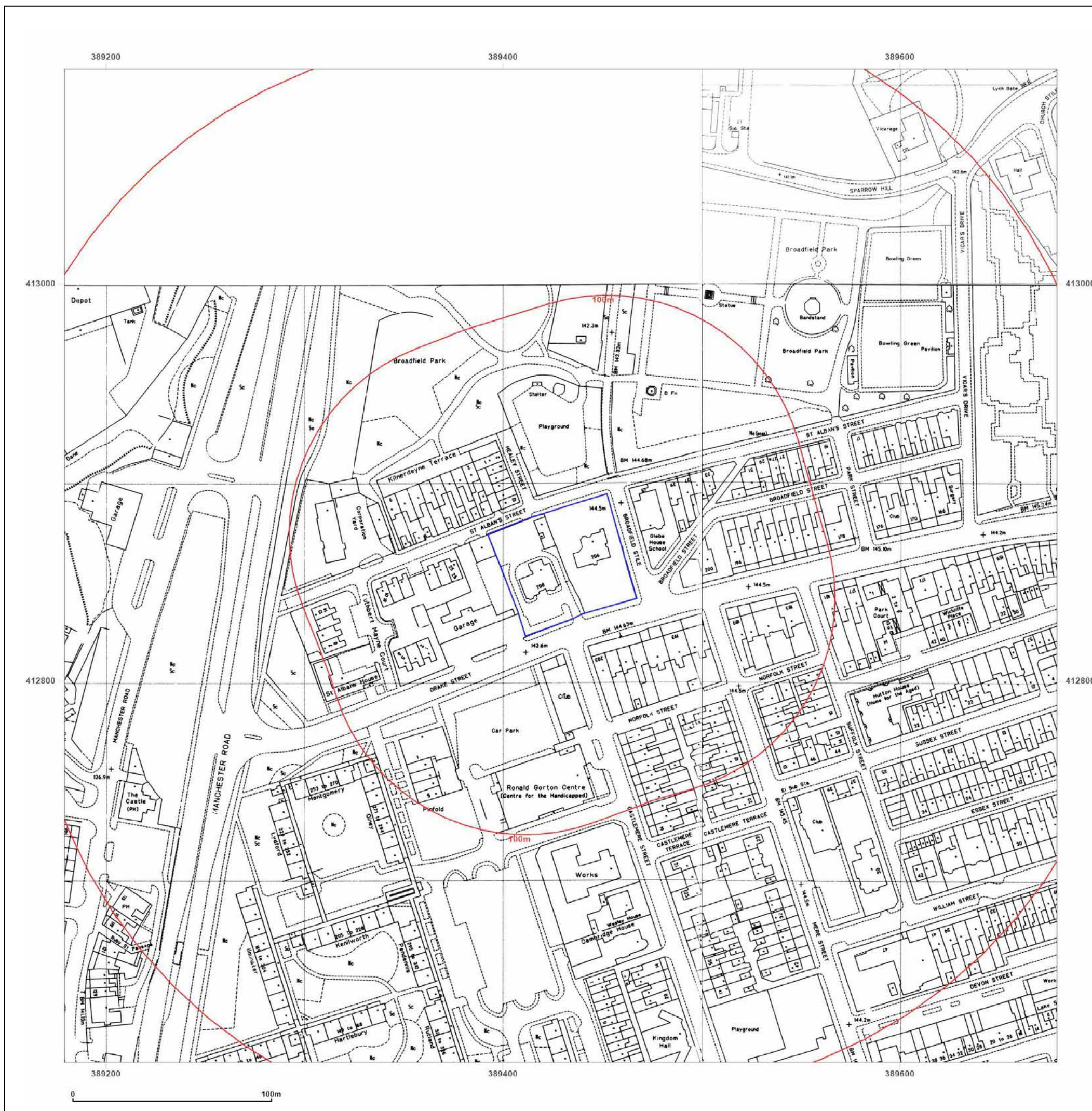


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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

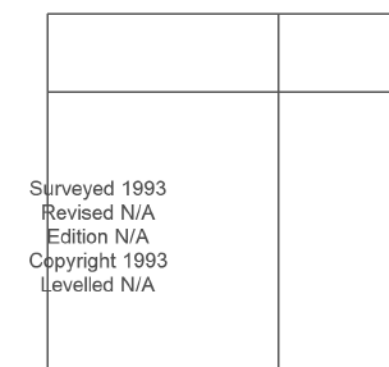
Map date: 1993-1995

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1994
Revised 1994
Edition N/A
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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

Map date: 1993-1995

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1993 Revised 1993 Edition N/A Copyright N/A Levelled N/A	Surveyed 1995 Revised 1995 Edition N/A Copyright N/A Levelled N/A
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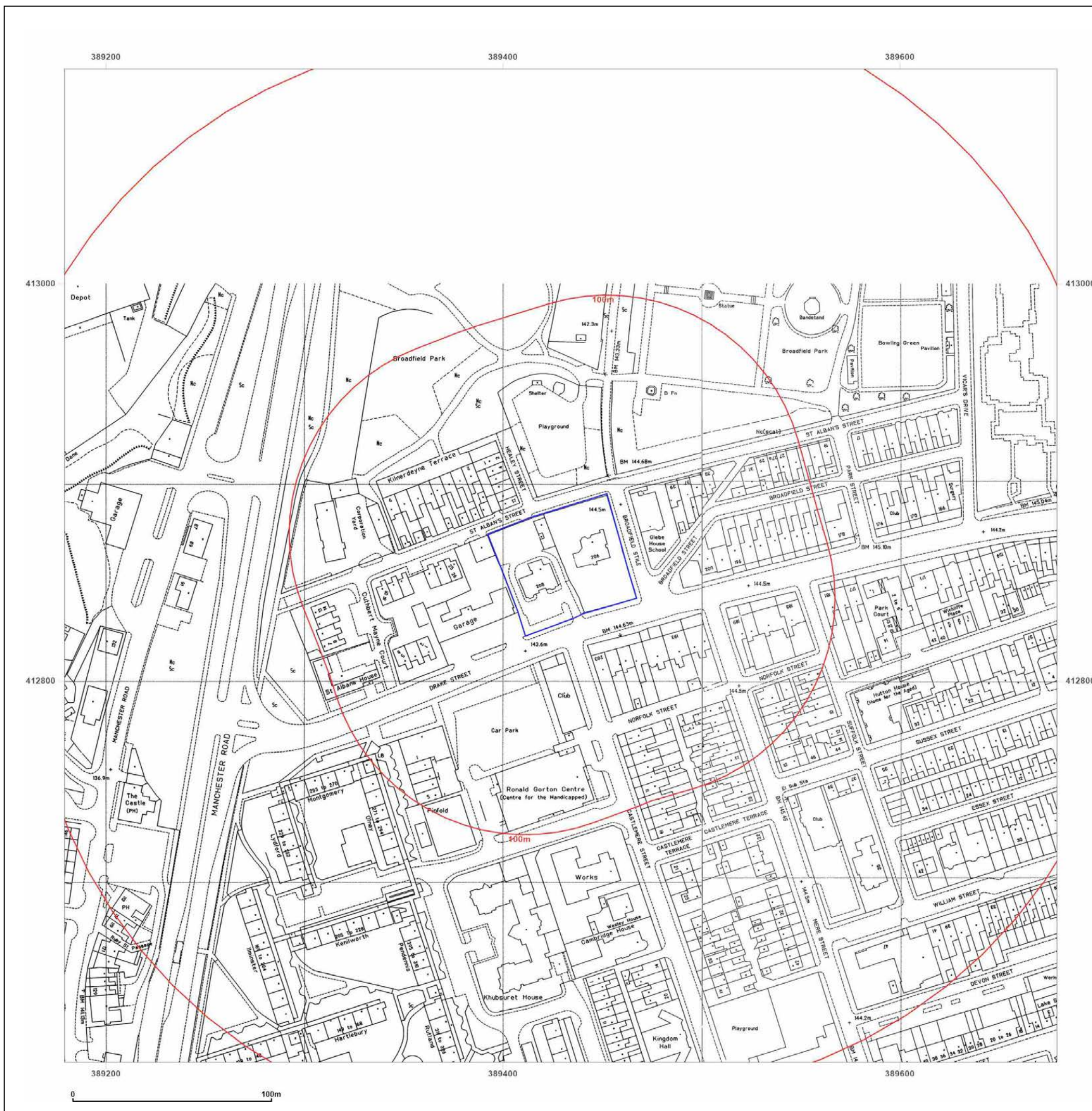


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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: County Series

Map date: 1851

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1847
Revised N/A
Edition 1851
Copyright N/A
Levelled N/A

Surveyed 1848
Revised N/A
Edition 1851
Copyright N/A
Levelled N/A

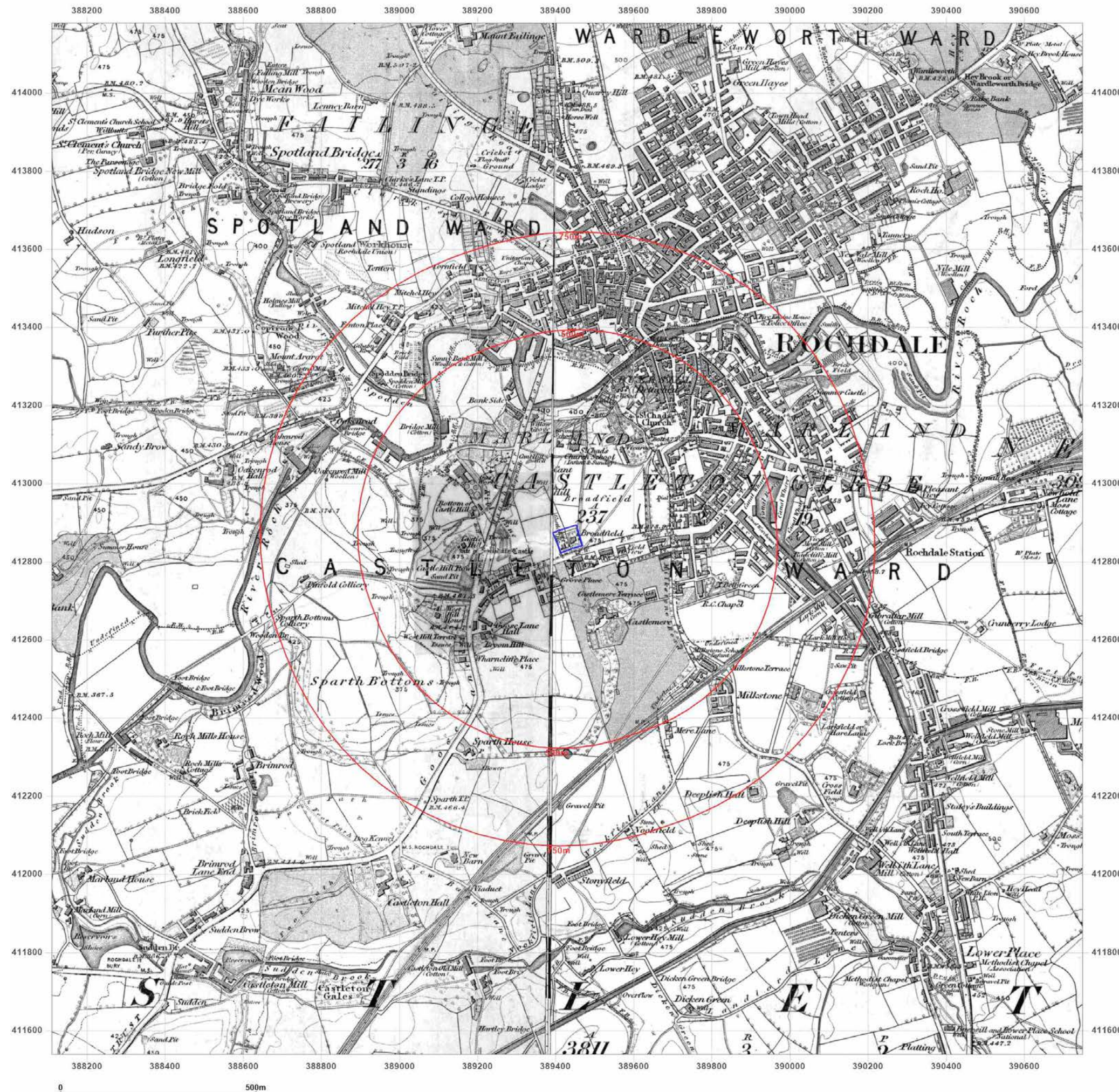


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Site Details:

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ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: County Series

Map date: 1908

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1848
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A



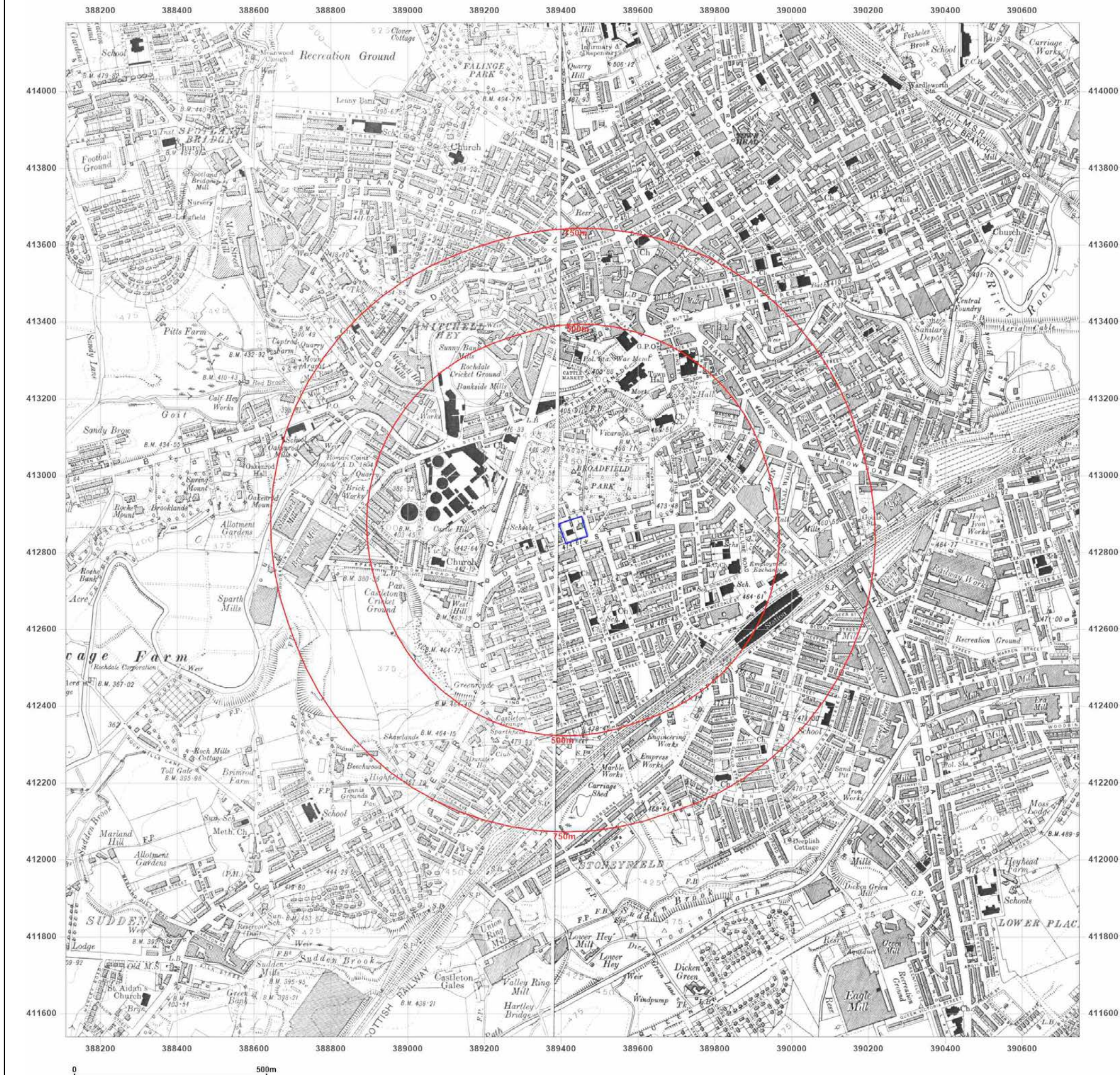
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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: County Series

Map date: 1928

Scale: 1:10,560

Printed at: 1:10,560



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Surveyed 1848
Revised 1928
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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: Provisional

Map date: 1954-1956

Scale: 1:10,560

Printed at: 1:10,560



Surveyed N/A
Revised 1955
Edition 1956
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Surveyed 1954
Revised 1954
Edition N/A
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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

Map date: 1975-1976

Scale: 1:10,000

Printed at: 1:10,000



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Site Details:

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ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

Map date: 1987

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1984
Revised 1987
Edition N/A
Copyright N/A
Levelled N/A

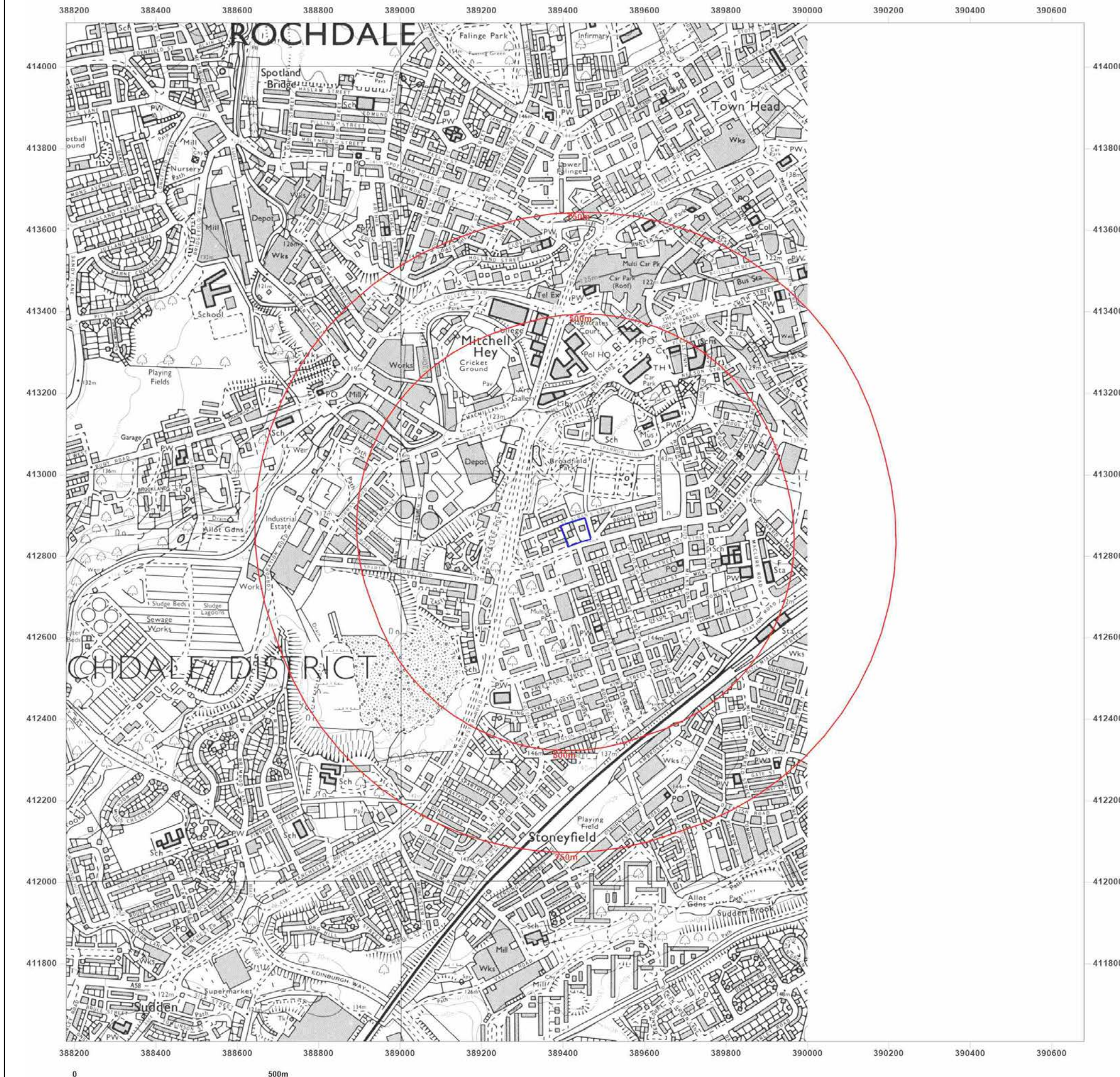


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Site Details:

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ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

Map date: 1992

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1984
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

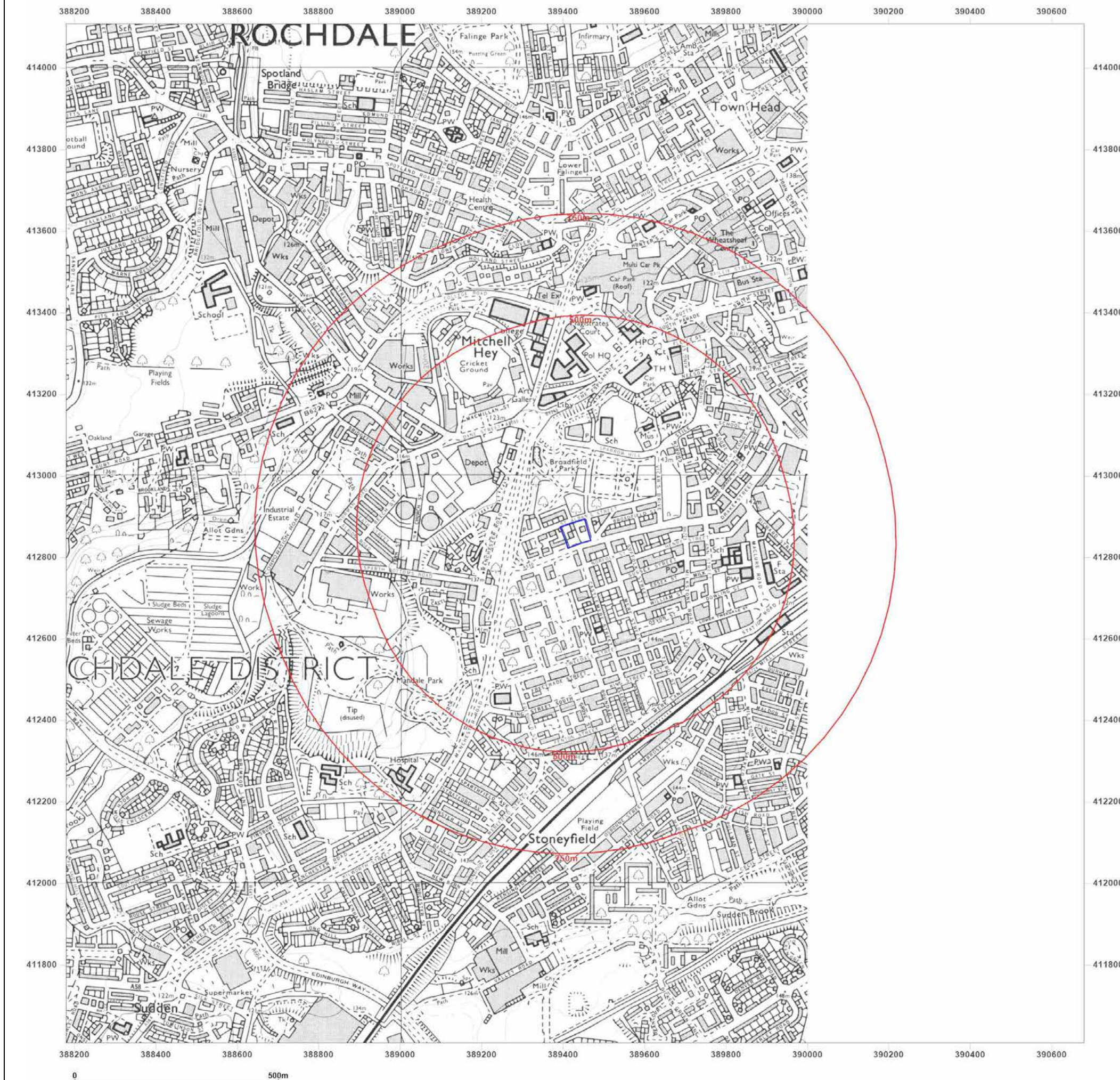


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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

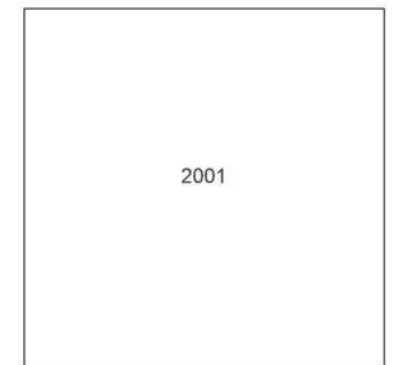
Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000

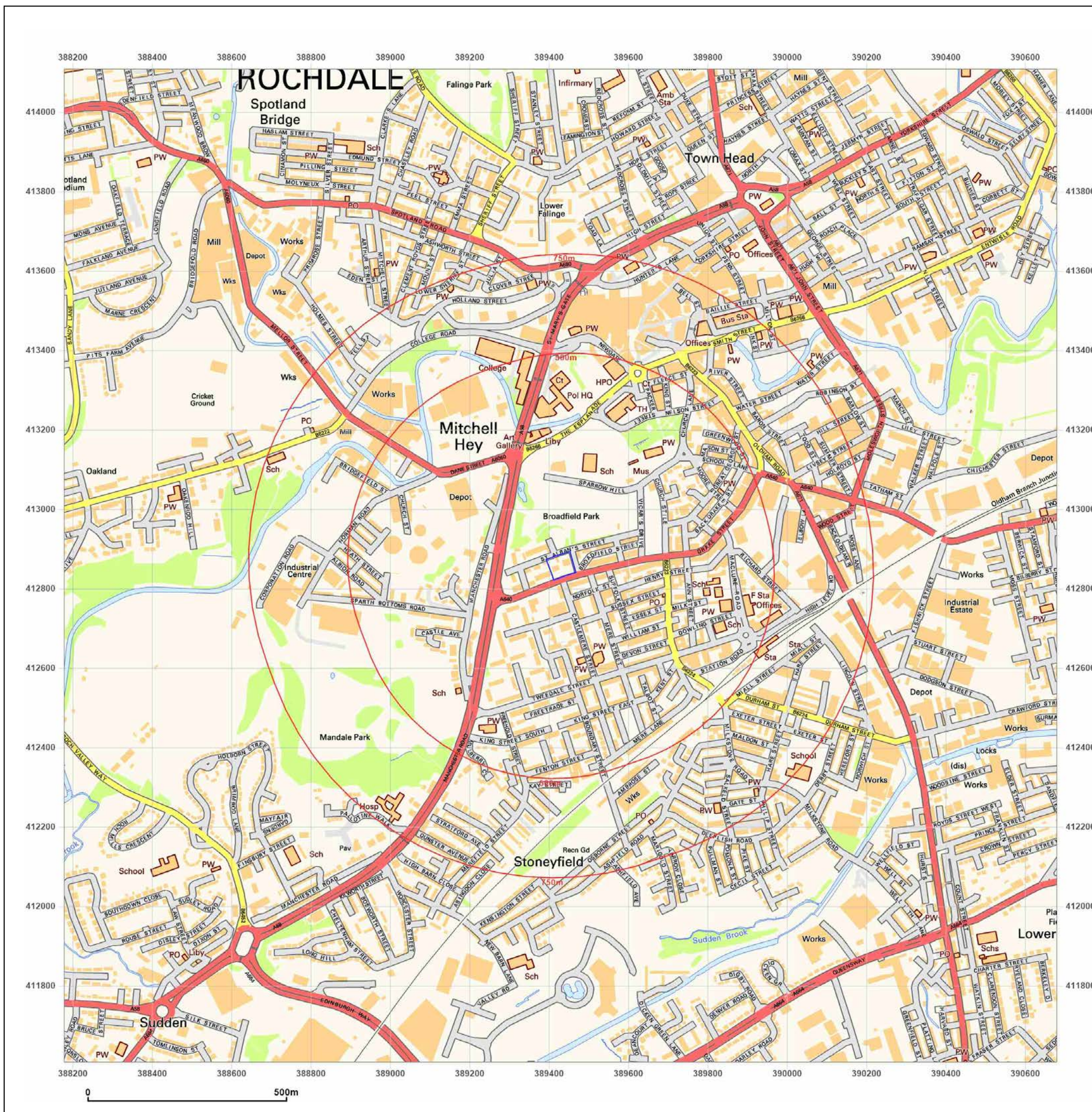


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Site Details:

206 - 208 DRAKE STREET,
ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



2010



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Site Details:

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ROCHDALE, OL16 1PJ

Client Ref: 3931
Report Ref: GS-B7U-ZZD-ZUD-WBB
Grid Ref: 389429, 412858

Map Name: National Grid

Map date: 2024

Scale: 1:10,000

Printed at: 1:10,000



2024

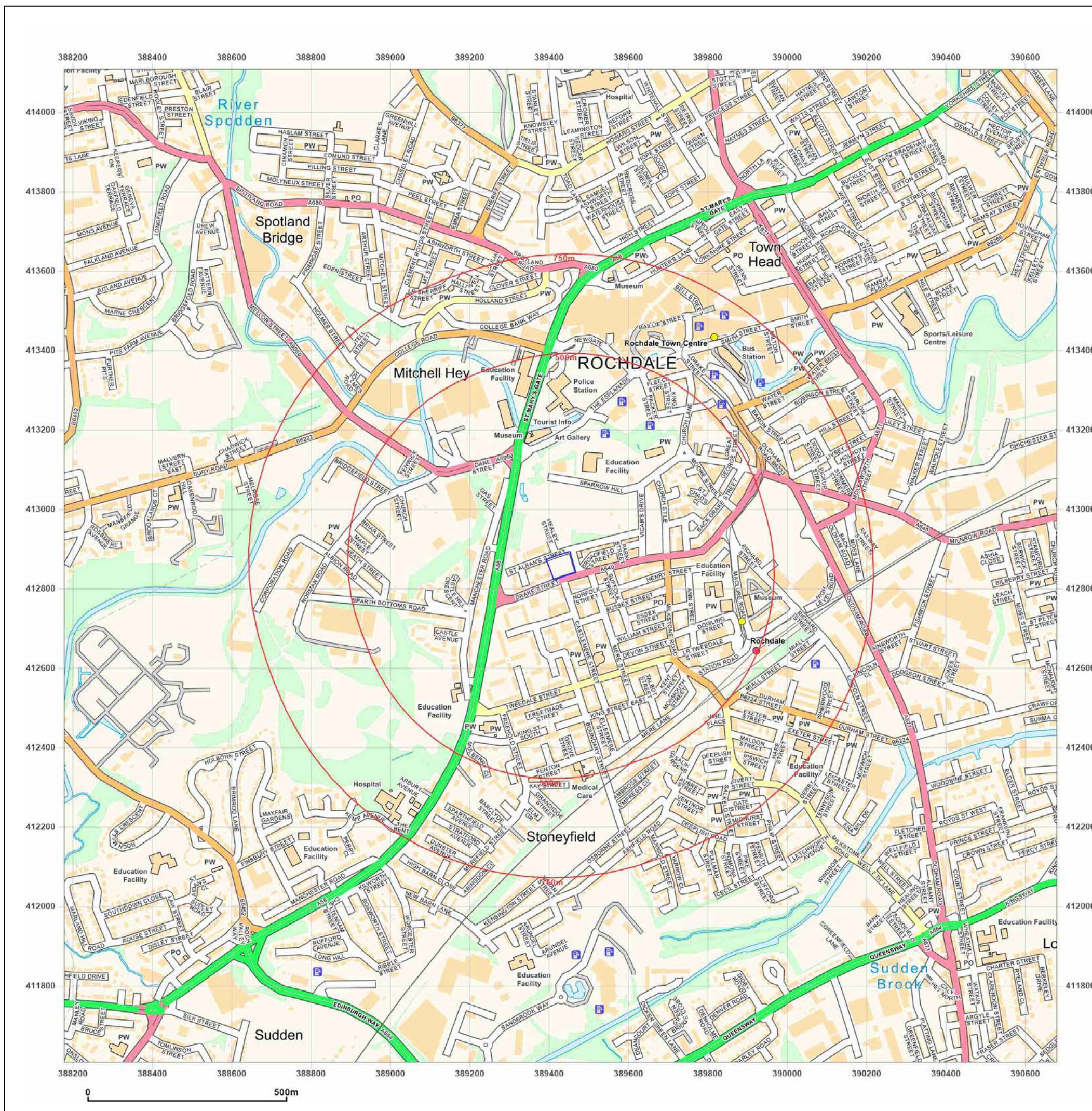


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APPENDIX 5

GROUNDSURE COMBINED ENVIRO + GEO INSIGHT REPORT

206 - 208 DRAKE STREET, ROCHDALE, OL16 1PJ

Order Details

Date: 01/08/2024
Your ref: 3931
Our Ref: GS-7JE-GIN-BHT-NN7

Site Details

Location: 389430 412859
Area: 0.33 ha
Authority: [Rochdale Metropolitan Borough Council](#)
↗



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Contact us with any questions at:

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01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	0	1	24	119	-
21 >	1.2 >	Historical tanks >	0	0	16	46	-
23 >	1.3 >	Historical energy features >	0	0	11	24	-
25	1.4	Historical petrol stations	0	0	0	0	-
25 >	1.5 >	Historical garages >	6	0	3	22	-
27	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
28 >	2.1 >	Historical industrial land uses >	0	1	36	170	-
36 >	2.2 >	Historical tanks >	0	0	24	72	-
40 >	2.3 >	Historical energy features >	0	0	19	47	-
42	2.4	Historical petrol stations	0	0	0	0	-
42 >	2.5 >	Historical garages >	7	0	5	35	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
45	3.1	Active or recent landfill	0	0	0	0	-
45	3.2	Historical landfill (BGS records)	0	0	0	0	-
46 >	3.3 >	Historical landfill (LA/mapping records) >	0	0	0	2	-
46 >	3.4 >	Historical landfill (EA/NRW records) >	0	0	0	1	-
46	3.5	Historical waste sites	0	0	0	0	-
47	3.6	Licensed waste sites	0	0	0	0	-
47 >	3.7 >	Waste exemptions >	0	0	4	42	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
51 >	4.1 >	Recent industrial land uses >	0	2	12	-	-
52 >	4.2 >	Current or recent petrol stations >	0	0	0	1	-
53	4.3	Electricity cables	0	0	0	0	-
53	4.4	Gas pipelines	0	0	0	0	-
53	4.5	Sites determined as Contaminated Land	0	0	0	0	-



53 >	4.6 >	<u>Control of Major Accident Hazards (COMAH) ></u>	0	0	1	1	-
54	4.7	Regulated explosive sites	0	0	0	0	-
54 >	4.8 >	<u>Hazardous substance storage/usage ></u>	0	0	0	2	-
54	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
55 >	4.10 >	<u>Licensed industrial activities (Part A(1)) ></u>	0	0	0	3	-
55 >	4.11 >	<u>Licensed pollutant release (Part A(2)/B) ></u>	0	0	0	2	-
56	4.12	Radioactive Substance Authorisations	0	0	0	0	-
56 >	4.13 >	<u>Licensed Discharges to controlled waters ></u>	0	0	0	13	-
58	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
58	4.15	Pollutant release to public sewer	0	0	0	0	-
58	4.16	List 1 Dangerous Substances	0	0	0	0	-
59	4.17	List 2 Dangerous Substances	0	0	0	0	-
59 >	4.18 >	<u>Pollution Incidents (EA/NRW) ></u>	0	0	0	5	-
60	4.19	Pollution inventory substances	0	0	0	0	-
60	4.20	Pollution inventory waste transfers	0	0	0	0	-
60	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
61 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
62 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
63 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
64	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
64	5.5	Groundwater vulnerability- local information	None (within 0m)				
65 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	0	3
66 >	5.7 >	<u>Surface water abstractions ></u>	0	0	0	0	14
70	5.8	Potable abstractions	0	0	0	0	0
70	5.9	Source Protection Zones	0	0	0	0	-
71	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<u>Hydrology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
72	6.1	Water Network (OS MasterMap)	0	0	0	-	-



72 >	6.2 >	Surface water features >	0	0	2	-	-
73 >	6.3 >	WFD Surface water body catchments >	2	-	-	-	-
73 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
74 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
75	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
75	7.2	Historical Flood Events	0	0	0	-	-
75	7.3	Flood Defences	0	0	0	-	-
76	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
76	7.5	Flood Storage Areas	0	0	0	-	-
77	7.6	Flood Zone 2	None (within 50m)				
77	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
78 >	8.1 >	Surface water flooding >	1 in 30 year, 0.1m - 0.3m (within 50m)				
Page	Section	Groundwater flooding >					
80 >	9.1 >	Groundwater flooding >	Moderate (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
81 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	4
82	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
82 >	10.3 >	Special Areas of Conservation (SAC) >	0	0	0	0	4
83	10.4	Special Protection Areas (SPA)	0	0	0	0	0
83	10.5	National Nature Reserves (NNR)	0	0	0	0	0
83	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
83 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	1
84	10.8	Biosphere Reserves	0	0	0	0	0
84	10.9	Forest Parks	0	0	0	0	0
84	10.10	Marine Conservation Zones	0	0	0	0	0
84	10.11	Green Belt	0	0	0	0	0
85	10.12	Proposed Ramsar sites	0	0	0	0	0



85	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
85	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
85	10.15	Nitrate Sensitive Areas	0	0	0	0	0
86	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
87 >	10.17 >	SSSI Impact Risk Zones >	2	-	-	-	-
88 >	10.18 >	SSSI Units >	0	0	0	0	4
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
91	11.1	World Heritage Sites	0	0	0	-	-
92	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
92	11.3	National Parks	0	0	0	-	-
92 >	11.4 >	Listed Buildings >	0	0	3	-	-
93 >	11.5 >	Conservation Areas >	0	0	1	-	-
93	11.6	Scheduled Ancient Monuments	0	0	0	-	-
93 >	11.7 >	Registered Parks and Gardens >	0	1	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
94 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
95	12.2	Open Access Land	0	0	0	-	-
95 >	12.3 >	Tree Felling Licences >	0	1	0	-	-
95	12.4	Environmental Stewardship Schemes	0	0	0	-	-
95	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
96 >	13.1 >	Priority Habitat Inventory >	0	0	6	-	-
97	13.2	Habitat Networks	0	0	0	-	-
97 >	13.3 >	Open Mosaic Habitat >	1	0	0	-	-
97	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
99 >	14.1 >	10k Availability >	Identified (within 500m)				
100 >	14.2 >	Artificial and made ground (10k) >	0	0	0	5	-
102 >	14.3 >	Superficial geology (10k) >	1	0	0	2	-

103 >	14.4 >	Landslip (10k) >	0	0	0	1	-
104 >	14.5 >	Bedrock geology (10k) >	1	0	0	3	-
105 >	14.6 >	Bedrock faults and other linear features (10k) >	0	0	1	3	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
106 >	15.1 >	50k Availability >	Identified (within 500m)				
107	15.2	Artificial and made ground (50k)	0	0	0	0	-
107	15.3	Artificial ground permeability (50k)	0	0	-	-	-
108 >	15.4 >	Superficial geology (50k) >	1	0	0	6	-
109 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
109 >	15.6 >	Landslip (50k) >	0	0	0	1	-
109	15.7	Landslip permeability (50k)	None (within 50m)				
110 >	15.8 >	Bedrock geology (50k) >	1	0	0	3	-
111 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
111 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	1	4	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
112 >	16.1 >	BGS Boreholes >	0	0	15	-	-
Page	Section	Natural ground subsidence >					
114 >	17.1 >	Shrink swell clays >	Negligible (within 50m)				
115 >	17.2 >	Running sands >	Very low (within 50m)				
116 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
117 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
118 >	17.5 >	Landslides >	Very low (within 50m)				
119 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
121 >	18.1 >	BritPits >	0	0	1	0	-
122 >	18.2 >	Surface ground workings >	0	1	30	-	-
123	18.3	Underground workings	0	0	0	0	0
123	18.4	Underground mining extents	0	0	0	0	-
124	18.5	Historical Mineral Planning Areas	0	0	0	0	-



124	18.6	Non-coal mining	0	0	0	0	0
124	18.7	JPB mining areas	None (within 0m)				
124	18.8	The Coal Authority non-coal mining	0	0	0	0	-
125 >	18.9 >	Researched mining >	0	0	0	1	-
125	18.10	Mining record office plans	0	0	0	0	-
125	18.11	BGS mine plans	0	0	0	0	-
125 >	18.12 >	Coal mining >	Identified (within 0m)				
126	18.13	Brine areas	None (within 0m)				
126	18.14	Gypsum areas	None (within 0m)				
126	18.15	Tin mining	None (within 0m)				
126	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
127	19.1	Natural cavities	0	0	0	0	-
127	19.2	Mining cavities	0	0	0	0	0
127	19.3	Reported recent incidents	0	0	0	0	-
127	19.4	Historical incidents	0	0	0	0	-
128	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
129 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
131 >	21.1 >	BGS Estimated Background Soil Chemistry >	1	1	-	-	-
131	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
131	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
132	22.1	Underground railways (London)	0	0	0	-	-
132	22.2	Underground railways (Non-London)	0	0	0	-	-
132	22.3	Railway tunnels	0	0	0	-	-
132	22.4	Historical railway and tunnel features	0	0	0	-	-
132	22.5	Royal Mail tunnels	0	0	0	-	-



133	22.6	Historical railways	0	0	0	-	-
133	22.7	Railways	0	0	0	-	-
133	22.8	Crossrail 1	0	0	0	0	-
133	22.9	Crossrail 2	0	0	0	0	-
133	22.10	HS2	0	0	0	0	-

Recent aerial photograph



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Capture Date: 23/05/2019

Site Area: 0.33ha



Recent site history - 2018 aerial photograph



Capture Date: 01/07/2018

Site Area: 0.33ha



Recent site history - 2012 aerial photograph



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Capture Date: 26/03/2012

Site Area: 0.33ha



Recent site history - 2000 aerial photograph



Capture Date: 19/06/2000

Site Area: 0.33ha



Recent site history - 1999 aerial photograph



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Capture Date: 10/09/1999

Site Area: 0.33ha



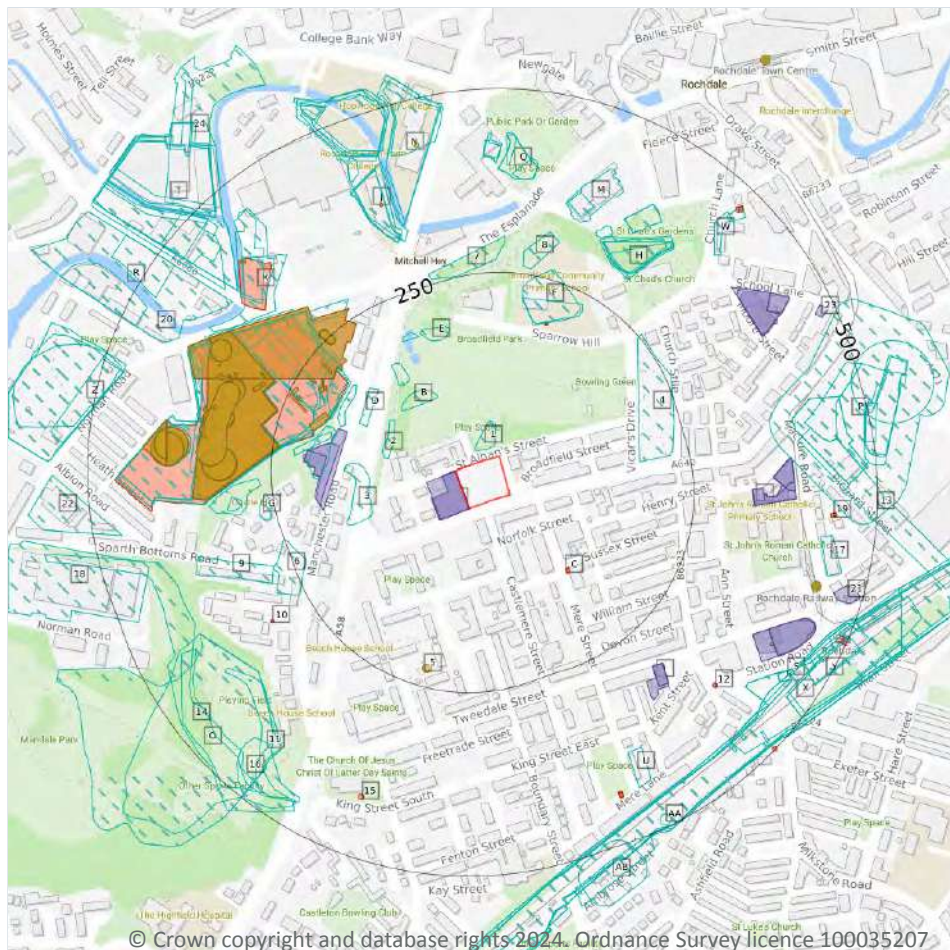
OS MasterMap site plan



Site Area: 0.33ha



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

144

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

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

ID	Location	Land use	Dates present	Group ID
1	14m N	Unspecified Pit	1968	676517



ID	Location	Land use	Dates present	Group ID
2	91m W	Unspecified Ground Workings	1890	661879
B	101m NW	Unspecified Heap	1928 - 1938	787950
3	116m W	Refuse Heap	1851	656683
D	134m NW	Rope Walk	1851	691249
B	136m NW	Unspecified Heap	1890	689049
D	162m NW	Unspecified Ground Workings	1968 - 1992	752016
D	168m W	Unspecified Ground Workings	1890	728440
E	174m N	Unspecified Heap	1928 - 1938	762680
D	175m W	Unspecified Ground Workings	1968 - 1992	722544
D	182m NW	Unspecified Commercial/Industrial	1928 - 1938	803557
4	182m E	Grave Yard	1908	663423
D	183m NW	Unspecified Depot	1987 - 1992	747528
D	183m NW	Gas Works	1908	724639
F	185m N	Unspecified Pit	1968	739352
D	185m NW	Gas Works	1890	763796
F	186m N	Unspecified Pit	1908	737134
E	188m NW	Refuse Heap	1851	656681
D	199m NW	Unspecified Works	1968	683371
D	199m NW	Unspecified Commercial/Industrial	1956	756797
D	205m NW	Gas Works	1851	773727
D	209m NW	Gasometers	1851	669789
6	233m SW	Sand Pit	1851	674271
D	240m W	Unspecified Commercial/Industrial	1975 - 1992	751602
D	241m NW	Unspecified Tank	1968	698184
7	251m N	Unspecified Ground Workings	1968	660710
G	254m W	Unspecified Pit	1890	675406
D	254m NW	Unspecified Tank	1968	698183
8	258m N	Unspecified Ground Workings	1968	661880



ID	Location	Land use	Dates present	Group ID
G	264m W	Unspecified Ground Workings	1956	661878
9	277m W	Cuttings	1851	653252
G	293m W	Unspecified Pit	1890	676516
H	298m NE	Unspecified Pit	1956	765547
D	299m W	Unspecified Tank	1975 - 1992	751301
H	302m NE	Unspecified Pit	1968 - 1992	784754
H	304m NE	Unspecified Pit	1938	735871
H	304m NE	Unspecified Pit	1891	775012
D	305m W	Unspecified Tank	1968	722376
D	305m W	Unspecified Tank	1956	764805
H	305m NE	Unspecified Pit	1928	782337
D	306m W	Unspecified Tank	1928 - 1938	782934
D	306m W	Gasometers	1890 - 1908	783902
D	307m W	Unspecified Tank	1956	716616
D	307m W	Unspecified Tank	1968	755417
D	309m W	Unspecified Tank	1956	759363
D	309m W	Unspecified Tank	1968 - 1992	795328
D	311m W	Unspecified Tank	1928 - 1938	733452
D	312m W	Unspecified Tank	1928 - 1938	757742
J	317m N	Unspecified Commercial/Industrial	1968	670643
J	318m N	Unspecified Mills	1928 - 1938	746099
J	318m N	Unspecified Mill	1908	673528
J	323m N	Unspecified Mills	1956	793735
D	323m W	Unspecified Tanks	1908	666786
K	327m NW	Cotton Mill	1851	654889
H	328m NE	Mortuary	1928 - 1938	728632
D	332m W	Unspecified Tanks	1908	666639
M	336m N	Mortuary	1956	671056



ID	Location	Land use	Dates present	Group ID
N	339m N	Unspecified Mill	1928 - 1938	711856
D	339m NW	Unspecified Tank	1928 - 1938	732821
D	339m W	Unspecified Tanks	1908	666638
D	340m W	Unspecified Tank	1956	698182
D	340m NW	Gasometer	1890 - 1908	783154
N	343m N	Unspecified Mill	1956	767463
M	345m N	Police Station	1968 - 1975	756539
K	347m NW	Unspecified Mills	1956	670051
K	347m NW	Unspecified Commercial/Industrial	1968	670642
H	355m NE	Corn Mill	1908	658548
H	355m NE	Unspecified Commercial/Industrial	1928	670614
D	361m W	Unspecified Tank	1956	723862
D	361m W	Unspecified Tank	1968 - 1992	729967
O	362m SW	Refuse Heap	1975	771686
O	362m SW	Refuse Heap	1987	776055
P	366m E	Canal Wharf	1891	791809
D	367m W	Unspecified Tank	1928 - 1938	758479
D	368m W	Gasometer	1908	659058
11	368m SW	Unspecified Ground Workings	1890	661772
Q	378m N	Unspecified Pit	1968	723393
Q	378m N	Unspecified Pit	1956	723742
Q	378m N	Unspecified Pit	1928 - 1938	775834
R	381m NW	Unspecified Works	1975	683067
T	384m NW	Unspecified Works	1987 - 1992	784628
T	384m NW	Unspecified Mills	1975	786924
U	385m SE	Unspecified Mill	1908	673511
Q	396m N	Unspecified Heap	1928 - 1938	726436
P	397m E	Unspecified Commercial/Industrial	1891	711167



ID	Location	Land use	Dates present	Group ID
P	397m E	Unspecified Commercial/Industrial	1938	743294
T	399m NW	Iron Works	1928 - 1938	708576
13	399m E	Warehouse	1851	699988
Q	400m N	Police Station	1956	732468
Q	400m N	Police Station	1968	757814
W	401m NE	Unspecified Ground Workings	1968	660711
14	404m SW	Unspecified Heap	1938	688283
Q	406m N	Police Station	1928 - 1938	726327
P	413m E	Canal Wharf	1851	712527
X	413m SE	Railway Sidings	1891	721500
X	413m SE	Railway Sidings	1938	749500
J	417m NW	Unspecified Heap	1956	689048
O	417m SW	Refuse Heap	1956	743570
16	419m SW	Refuse Heap	1908	768057
17	427m E	Fire Station	1968 - 1992	728084
N	430m N	Woollen and Cotton Mill	1851	701812
N	433m N	Unspecified Mills	1890 - 1908	778985
T	435m NW	Unspecified Works	1968	737637
18	437m W	Unspecified Works	1992	683062
X	439m SE	Railway Sidings	1928	788774
X	439m SE	Railway Sidings	1908	793524
N	439m N	Unspecified Mills	1956	793052
N	439m N	Unspecified Mills	1928 - 1938	776037
X	443m SE	Railway Sidings	1968 - 1976	752992
X	443m SE	Railway Sidings	1956	759022
N	443m N	Unspecified Commercial/Industrial	1968	670644
S	446m SE	Railway Building	1908 - 1928	797034
W	447m NE	Unspecified Heap	1928 - 1938	790575



ID	Location	Land use	Dates present	Group ID
Y	447m SE	Railway Sidings	1987 - 1992	739569
P	451m E	Canal Basin	1851	682817
X	454m SE	Railway Building	1938	703084
X	455m SE	Railway Building	1938	703085
22	462m W	Laundry	1928 - 1938	790524
Y	463m SE	Railway Station	1956	759337
Y	463m SE	Railway Station	1968	792011
Y	463m SE	Railway Station	1891 - 1938	742821
T	469m NW	Iron Works	1956	731467
Z	470m W	Unspecified Pit	1968 - 1975	781831
X	470m SE	Railway Building	1938	703103
Z	470m W	Brick Works	1928 - 1938	794450
R	471m NW	Unspecified Commercial/Industrial	1987 - 1992	717968
Z	471m W	Brick Works	1908	759350
Y	471m SE	Railway Station	1975	792391
Y	471m SE	Railway Station	1987 - 1992	802556
T	474m NW	Unspecified Mill	1908	769230
R	475m NW	Unspecified Commercial/Industrial	1987 - 1992	765158
Z	475m W	Unspecified Heap	1890 - 1908	750622
T	477m NW	Unspecified Mills	1928 - 1938	720483
T	480m NW	Unspecified Mills	1956	769421
24	482m NW	Brick Field	1851	654526
AA	483m SE	Unspecified Tank	1891	698120
P	486m E	Canal Wharf	1851	754209
P	486m E	Unspecified Wharf	1956	692738
P	486m E	Canal Wharf	1938	749765
T	488m NW	Unspecified Mill	1968	796084
P	488m E	Unspecified Depot	1968	669557



ID	Location	Land use	Dates present	Group ID
P	489m E	Canal Wharf	1908 - 1928	761946
AB	492m S	Unspecified Works	1908	799324
AB	500m SE	Unspecified Commercial/Industrial	1968 - 1992	798487

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

62

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

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

ID	Location	Land use	Dates present	Group ID
D	186m NW	Tar Tanks	1910	83941
D	205m NW	Unspecified Tank	1930	85039
D	206m NW	Gas Works	1967	83264
D	207m NW	Unspecified Tank	1985 - 1993	103418
D	209m NW	Tanks	1958	102002
D	212m NW	Tanks	1957	101896
D	214m NW	Tanks	1930	81094
D	217m W	Tanks	1930	81093
5	219m S	Unspecified Tank	1993	86910
D	224m NW	Tanks	1910 - 1930	95989
D	239m NW	Gasometers	1959 - 1967	92159
D	240m NW	Tanks	1959	81095
D	240m NW	Tanks	1890 - 1910	101483
D	241m W	Gasholder Station	1985 - 1990	93306
D	242m W	Gas Holder Station	1993	95802



ID	Location	Land use	Dates present	Group ID
D	242m W	Gasholder Station	1973 - 1974	97046
D	279m NW	Gasholder Station	1997	100103
D	279m NW	Gas Holder Station	1979 - 1988	99095
D	284m NW	Tanks	1957 - 1958	98172
D	287m NW	Tanks	1973	107250
D	289m NW	Unspecified Tank	1910 - 1930	102232
D	297m W	Gas Holder	1985 - 1990	91680
D	298m W	Unspecified Tank	1957 - 1958	92533
D	298m W	Gas Holder	1993	99992
D	298m W	Gasholder	1973	82973
D	305m W	Unspecified Tank	1957	96563
D	305m W	Unspecified Tank	1958	98119
D	308m W	Gas Holder	1985 - 1993	98735
D	310m W	Gasholder	1973	82972
D	310m W	Unspecified Tank	1957	85031
D	311m W	Tanks	1930	94154
D	311m W	Gasometers	1890 - 1910	101968
D	324m NW	Unspecified Tank	1959 - 1967	102730
D	326m W	Tanks	1910 - 1930	91661
D	329m W	Unspecified Tank	1890	101328
D	331m NW	Oil Tank	1910	83320
D	336m W	Unspecified Tank	1910 - 1930	93921
D	340m W	Unspecified Tank	1890	85033
D	342m W	Unspecified Tank	1890 - 1930	107043
D	343m NW	Unspecified Tank	1930	85040
D	343m NW	Gasometer	1890 - 1910	94883
D	344m W	Unspecified Tank	1910	85037
D	347m W	Oil Tank	1910	83319



ID	Location	Land use	Dates present	Group ID
D	347m W	Unspecified Tank	1930	85038
D	350m NW	Unspecified Tank	1910 - 1930	105444
D	364m W	Unspecified Tank	1957 - 1958	104567
D	364m W	Unspecified Tank	1973	108045
D	364m W	Unspecified Tank	1985 - 1993	105126
D	370m W	Gasometer	1910	83779
D	370m W	Unspecified Tank	1930	100357
J	372m N	Unspecified Tank	1930	91962
J	372m N	Unspecified Tank	1890	96165
D	392m W	Unspecified Tank	-	80675
D	393m W	Unspecified Tank	1957	104921
D	393m W	Gasholder Station	1990	82917
D	393m W	Gas Holder	1990	83478
D	393m W	Unspecified Tank	1984	96854
K	401m NW	Unspecified Tank	1910	85032
N	434m N	Unspecified Tank	1890	85034
20	449m NW	Unspecified Tank	1890 - 1930	100229
AA	497m SE	Unspecified Tank	1958	98979
AA	497m SE	Unspecified Tank	1957	98921

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

35

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

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



ID	Location	Land use	Dates present	Group ID
C	126m SE	Electricity Substation	1995	58624
C	126m SE	Electricity Substation	1978 - 1989	63515
D	184m NW	Corporation Gas Works	1890 - 1910	63306
F	189m N	Electricity Substation	1994 - 1998	51780
F	190m N	Electricity Substation	1978	55485
F	190m N	Electricity Substation	1988	50227
D	206m NW	Gas Works	1967	49579
D	239m NW	Gasometers	1959 - 1967	61345
D	241m W	Gasholder Station	1985 - 1990	64381
D	242m W	Gas Holder Station	1993	53510
D	242m W	Gasholder Station	1973 - 1974	63526
D	279m NW	Gasholder Station	1997	56390
D	279m NW	Gas Holder Station	1979 - 1988	50632
D	297m W	Gas Holder	1985 - 1990	64324
D	298m W	Gas Holder	1993	50433
D	298m W	Gasholder	1973	49424
10	305m SW	Electricity Substation	1985 - 1993	64251
D	308m W	Gas Holder	1985 - 1993	57451
D	310m W	Gasholder	1973	49425
D	311m W	Gasometers	1890 - 1910	55012
K	339m NW	Corporation Electricity Station	1910	49672
D	343m NW	Gasometer	1890 - 1910	55822
D	370m W	Gasometer	1910	49765
12	378m SE	Electricity Substation	1989 - 1995	58983
D	389m NW	Electricity Substation	1988 - 1997	54888
D	393m W	Gasholder Station	1990	49386
D	393m W	Gas Holder	1990	49688
15	414m S	Electricity Substation	1973 - 1996	62768



ID	Location	Land use	Dates present	Group ID
U	431m SE	Electricity Substation	1984	61785
U	431m SE	Electricity Substation	1994 - 1996	59157
U	432m SE	Electricity Substation	1971	53208
19	437m E	Electricity Substation	1995	47221
W	463m NE	Electricity Substation	1988	56224
W	466m NE	Electricity Substation	1994 - 1998	50130
X	495m SE	Electricity Substation	1971 - 1996	50060

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

31

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 15 >](#)

ID	Location	Land use	Dates present	Group ID
A	On site	Garage	1973	17720
A	On site	Garage	1958	18675
A	On site	Garage	1957	19155
A	On site	Garage	1993	19925



ID	Location	Land use	Dates present	Group ID
A	On site	Garage	1990	20496
A	On site	Garage	1985	21146
D	156m W	Garage	1985 - 1990	17130
D	160m W	Garage	1993	21169
D	176m W	Garage	1973	20074
I	303m SE	Garage	1978 - 1988	20279
I	303m SE	Garage	1957	21413
I	304m SE	Garage	1958	18621
L	330m E	Garage	1957	21626
L	330m E	Garage	1957 - 1958	18969
L	332m E	Garage	1978 - 1988	16737
L	359m E	Garage	1958	17907
L	360m E	Garage	1978 - 1988	20900
S	381m SE	Garage	1957	18790
S	381m SE	Garage	1989	20848
V	390m NE	Garage	1994 - 1998	18480
V	390m NE	Garage	1988	20552
V	390m NE	Garage	1959	18642
V	390m NE	Garage	1959	18641
V	390m NE	Garage	1978 - 1987	21586
S	397m SE	Garage	1989	20271
S	397m SE	Garage	1958	19051
S	398m SE	Garage	1978 - 1985	16981
V	415m NE	Garage	1994 - 1998	20320
V	415m NE	Garage	1988	20038
21	460m E	Garage	1989 - 1995	16425
23	472m NE	Garage	1959	20533

This data is sourced from Ordnance Survey / Groundsure.



1.6 Historical military land

Records within 500m

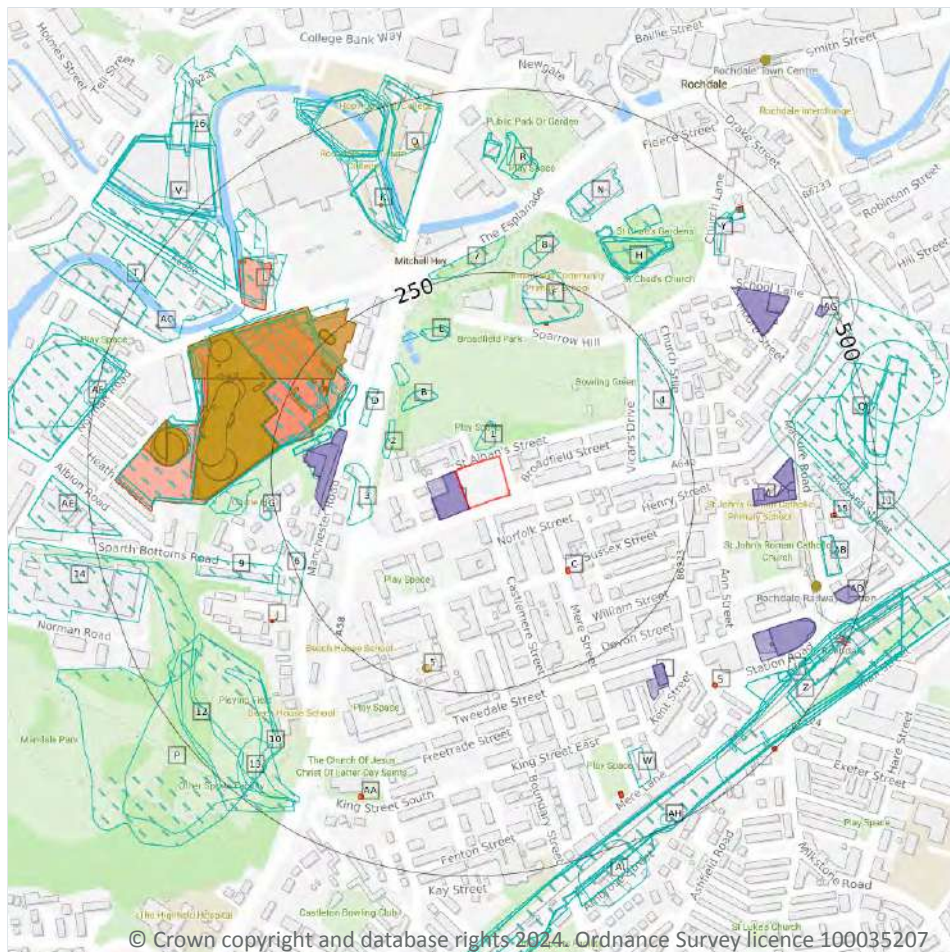
0

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

207

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 28](#) >

ID	Location	Land Use	Date	Group ID
1	14m N	Unspecified Pit	1968	676517
2	91m W	Unspecified Ground Workings	1890	661879
B	101m NW	Unspecified Heap	1938	787950



ID	Location	Land Use	Date	Group ID
B	101m NW	Unspecified Heap	1928	787950
3	116m W	Refuse Heap	1851	656683
D	134m NW	Rope Walk	1851	691249
B	136m NW	Unspecified Heap	1890	689049
D	162m NW	Unspecified Ground Workings	1992	752016
D	162m NW	Unspecified Ground Workings	1987	752016
D	162m NW	Unspecified Ground Workings	1975	752016
D	162m NW	Unspecified Ground Workings	1968	752016
D	168m W	Unspecified Ground Workings	1890	728440
E	174m N	Unspecified Heap	1938	762680
E	174m N	Unspecified Heap	1928	762680
D	175m W	Unspecified Ground Workings	1992	722544
D	175m W	Unspecified Ground Workings	1987	722544
D	175m W	Unspecified Ground Workings	1975	722544
D	175m W	Unspecified Ground Workings	1968	722544
D	182m NW	Unspecified Commercial/Industrial	1938	803557
D	182m NW	Unspecified Commercial/Industrial	1928	803557
4	182m E	Grave Yard	1908	663423
D	183m NW	Unspecified Depot	1992	747528
D	183m NW	Unspecified Depot	1987	747528
D	183m NW	Gas Works	1908	724639
F	185m N	Unspecified Pit	1968	739352
D	185m NW	Gas Works	1890	763796
F	186m N	Unspecified Pit	1908	737134
E	188m NW	Refuse Heap	1851	656681
D	199m NW	Unspecified Commercial/Industrial	1956	756797
D	199m NW	Unspecified Works	1968	683371
D	205m NW	Gas Works	1851	773727



ID	Location	Land Use	Date	Group ID
D	209m NW	Gasometers	1851	669789
6	233m SW	Sand Pit	1851	674271
D	240m W	Unspecified Commercial/Industrial	1992	751602
D	240m W	Unspecified Commercial/Industrial	1987	751602
D	240m W	Unspecified Commercial/Industrial	1975	751602
D	241m NW	Unspecified Tank	1968	698184
7	251m N	Unspecified Ground Workings	1968	660710
G	254m W	Unspecified Pit	1890	675406
D	254m NW	Unspecified Tank	1968	698183
8	258m N	Unspecified Ground Workings	1968	661880
G	264m W	Unspecified Ground Workings	1956	661878
9	277m W	Cuttings	1851	653252
G	293m W	Unspecified Pit	1890	676516
H	298m NE	Unspecified Pit	1956	765547
D	299m W	Unspecified Tank	1992	751301
D	299m W	Unspecified Tank	1987	751301
D	299m W	Unspecified Tank	1975	751301
H	302m NE	Unspecified Pit	1992	784754
H	302m NE	Unspecified Pit	1987	784754
H	302m NE	Unspecified Pit	1975	784754
H	302m NE	Unspecified Pit	1968	784754
H	304m NE	Unspecified Pit	1938	735871
H	304m NE	Unspecified Pit	1891	775012
D	305m W	Unspecified Tank	1956	764805
D	305m W	Unspecified Tank	1968	722376
H	305m NE	Unspecified Pit	1928	782337
D	306m W	Unspecified Tank	1938	782934
D	306m W	Unspecified Tank	1928	782934



ID	Location	Land Use	Date	Group ID
D	306m W	Gasometers	1908	783902
D	307m W	Unspecified Tank	1956	716616
D	307m W	Unspecified Tank	1968	755417
D	309m W	Unspecified Tank	1992	795328
D	309m W	Unspecified Tank	1987	795328
D	309m W	Unspecified Tank	1975	795328
D	309m W	Unspecified Tank	1956	759363
D	309m W	Unspecified Tank	1968	795328
D	309m W	Gasometers	1890	783902
D	311m W	Unspecified Tank	1938	733452
D	311m W	Unspecified Tank	1928	733452
D	312m W	Unspecified Tank	1938	757742
D	312m W	Unspecified Tank	1928	757742
K	317m N	Unspecified Commercial/Industrial	1968	670643
K	318m N	Unspecified Mills	1938	746099
K	318m N	Unspecified Mills	1928	746099
K	318m N	Unspecified Mill	1908	673528
K	323m N	Unspecified Mills	1956	793735
D	323m W	Unspecified Tanks	1908	666786
L	327m NW	Cotton Mill	1851	654889
H	328m NE	Mortuary	1938	728632
H	330m NE	Mortuary	1928	728632
D	332m W	Unspecified Tanks	1908	666639
N	336m N	Mortuary	1956	671056
O	339m N	Unspecified Mill	1938	711856
O	339m N	Unspecified Mill	1928	711856
D	339m NW	Unspecified Tank	1938	732821
D	339m NW	Unspecified Tank	1928	732821



ID	Location	Land Use	Date	Group ID
D	339m W	Unspecified Tanks	1908	666638
D	340m W	Unspecified Tank	1956	698182
D	340m NW	Gasometer	1908	783154
O	343m N	Unspecified Mill	1956	767463
D	344m NW	Gasometer	1890	783154
N	345m N	Police Station	1975	756539
N	345m N	Police Station	1968	756539
L	347m NW	Unspecified Mills	1956	670051
L	347m NW	Unspecified Commercial/Industrial	1968	670642
H	355m NE	Unspecified Commercial/Industrial	1928	670614
H	355m NE	Corn Mill	1908	658548
D	361m W	Unspecified Tank	1992	729967
D	361m W	Unspecified Tank	1987	729967
D	361m W	Unspecified Tank	1975	729967
D	361m W	Unspecified Tank	1956	723862
D	361m W	Unspecified Tank	1968	729967
P	362m SW	Refuse Heap	1987	776055
P	362m SW	Refuse Heap	1975	771686
Q	366m E	Canal Wharf	1891	791809
D	367m W	Unspecified Tank	1938	758479
D	367m W	Unspecified Tank	1928	758479
D	368m W	Gasometer	1908	659058
10	368m SW	Unspecified Ground Workings	1890	661772
R	378m N	Unspecified Pit	1956	723742
R	378m N	Unspecified Pit	1968	723393
R	378m N	Unspecified Pit	1938	775834
R	378m N	Unspecified Pit	1928	775834
T	381m NW	Unspecified Works	1975	683067



ID	Location	Land Use	Date	Group ID
V	384m NW	Unspecified Works	1992	784628
V	384m NW	Unspecified Works	1987	784628
V	384m NW	Unspecified Mills	1975	786924
W	385m SE	Unspecified Mill	1908	673511
R	396m N	Unspecified Heap	1938	726436
R	396m N	Unspecified Heap	1928	726436
Q	397m E	Unspecified Commercial/Industrial	1938	743294
Q	397m E	Unspecified Commercial/Industrial	1891	711167
V	399m NW	Iron Works	1938	708576
V	399m NW	Iron Works	1928	708576
11	399m E	Warehouse	1851	699988
R	400m N	Police Station	1956	732468
R	400m N	Police Station	1968	757814
Y	401m NE	Unspecified Ground Workings	1968	660711
12	404m SW	Unspecified Heap	1938	688283
R	406m N	Police Station	1938	726327
R	406m N	Police Station	1928	726327
Q	413m E	Canal Wharf	1851	712527
Z	413m SE	Railway Sidings	1938	749500
Z	413m SE	Railway Sidings	1891	721500
K	417m NW	Unspecified Heap	1956	689048
P	417m SW	Refuse Heap	1956	743570
13	419m SW	Refuse Heap	1908	768057
AB	427m E	Fire Station	1992	728084
AB	427m E	Fire Station	1987	728084
AB	427m E	Fire Station	1975	728084
AB	427m E	Fire Station	1968	728084
O	430m N	Woollen and Cotton Mill	1851	701812



ID	Location	Land Use	Date	Group ID
O	433m N	Unspecified Mills	1908	778985
V	435m NW	Unspecified Works	1968	737637
14	437m W	Unspecified Works	1992	683062
Z	439m SE	Railway Sidings	1928	788774
Z	439m SE	Railway Sidings	1908	793524
O	439m N	Unspecified Mills	1956	793052
O	439m N	Unspecified Mills	1938	776037
O	439m N	Unspecified Mills	1928	776037
O	440m N	Unspecified Mills	1890	778985
Z	443m SE	Railway Sidings	1956	759022
Z	443m SE	Railway Sidings	1968	752992
O	443m N	Unspecified Commercial/Industrial	1968	670644
U	446m SE	Railway Building	1928	797034
U	446m SE	Railway Building	1908	797034
Y	447m NE	Unspecified Heap	1938	790575
U	447m SE	Railway Sidings	1992	739569
U	447m SE	Railway Sidings	1987	739569
Y	448m NE	Unspecified Heap	1928	790575
U	450m SE	Railway Sidings	1975	752992
Q	451m E	Canal Basin	1851	682817
Z	454m SE	Railway Building	1938	703084
Z	455m SE	Railway Building	1938	703085
AE	462m W	Laundry	1938	790524
AE	462m W	Laundry	1928	790524
U	463m SE	Railway Station	1956	759337
U	463m SE	Railway Station	1968	792011
U	463m SE	Railway Station	1938	742821
U	463m SE	Railway Station	1928	742821



ID	Location	Land Use	Date	Group ID
U	463m SE	Railway Station	1908	742821
U	463m SE	Railway Station	1891	742821
V	469m NW	Iron Works	1956	731467
AF	470m W	Unspecified Pit	1975	781831
AF	470m W	Unspecified Pit	1968	781831
Z	470m SE	Railway Building	1938	703103
AF	470m W	Brick Works	1938	794450
AF	470m W	Brick Works	1928	794450
T	471m NW	Unspecified Commercial/Industrial	1992	717968
T	471m NW	Unspecified Commercial/Industrial	1987	717968
AF	471m W	Brick Works	1908	759350
U	471m SE	Railway Station	1992	802556
U	471m SE	Railway Station	1987	802556
U	471m SE	Railway Station	1975	792391
V	474m NW	Unspecified Mill	1908	769230
T	475m NW	Unspecified Commercial/Industrial	1992	765158
T	475m NW	Unspecified Commercial/Industrial	1987	765158
AF	475m W	Unspecified Heap	1890	750622
V	477m NW	Unspecified Mills	1938	720483
V	477m NW	Unspecified Mills	1928	720483
AF	479m W	Unspecified Heap	1908	750622
V	480m NW	Unspecified Mills	1956	769421
16	482m NW	Brick Field	1851	654526
AH	483m SE	Unspecified Tank	1891	698120
Q	486m E	Canal Wharf	1851	754209
Q	486m E	Unspecified Wharf	1956	692738
Q	486m E	Canal Wharf	1938	749765
V	488m NW	Unspecified Mill	1968	796084



ID	Location	Land Use	Date	Group ID
Q	488m E	Unspecified Depot	1968	669557
Q	489m E	Canal Wharf	1928	761946
Q	489m E	Canal Wharf	1908	761946
AI	492m S	Unspecified Works	1908	799324
AI	500m SE	Unspecified Commercial/Industrial	1992	798487
AI	500m SE	Unspecified Commercial/Industrial	1987	798487
AI	500m SE	Unspecified Commercial/Industrial	1975	798487
AI	500m SE	Unspecified Commercial/Industrial	1968	798487

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

96

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 28 >](#)

ID	Location	Land Use	Date	Group ID
D	186m NW	Tar Tanks	1910	83941
D	205m NW	Unspecified Tank	1930	85039
D	206m NW	Gas Works	1967	83264
D	207m NW	Unspecified Tank	1985	103418
D	207m NW	Unspecified Tank	1990	103418
D	207m NW	Unspecified Tank	1990	103418
D	208m NW	Unspecified Tank	1993	103418
D	209m NW	Tanks	1958	102002
D	212m NW	Tanks	1957	101896
D	214m NW	Tanks	1930	81094
D	217m W	Tanks	1930	81093
5	219m S	Unspecified Tank	1993	86910



ID	Location	Land Use	Date	Group ID
D	224m NW	Tanks	1910	95989
D	224m NW	Tanks	1930	95989
D	239m NW	Gasometers	1959	92159
D	239m NW	Gasometers	1967	92159
D	240m NW	Tanks	1959	81095
D	240m NW	Tanks	1890	101483
D	240m NW	Tanks	1910	101483
D	241m W	Gasholder Station	1985	93306
D	241m W	Gasholder Station	1990	93306
D	241m W	Gasholder Station	1990	93306
D	242m W	Gas Holder Station	1993	95802
D	242m W	Gasholder Station	1973	97046
D	279m NW	Gasholder Station	1974	97046
D	279m NW	Gasholder Station	1997	100103
D	279m NW	Gas Holder Station	1979	99095
D	279m NW	Gas Holder Station	1988	99095
D	284m NW	Tanks	1958	98172
D	284m NW	Tanks	1957	98172
D	287m NW	Tanks	1973	107250
D	289m NW	Unspecified Tank	1910	102232
D	289m NW	Unspecified Tank	1930	102232
D	297m W	Gas Holder	1985	91680
D	297m W	Gas Holder	1990	91680
D	297m W	Gas Holder	1990	91680
D	298m W	Unspecified Tank	1958	92533
D	298m W	Gas Holder	1993	99992
D	298m W	Gasholder	1973	82973
D	298m W	Unspecified Tank	1957	92533



ID	Location	Land Use	Date	Group ID
D	305m W	Unspecified Tank	1957	96563
D	305m W	Unspecified Tank	1958	98119
D	308m W	Gas Holder	1985	98735
D	308m W	Gas Holder	1990	98735
D	308m W	Gas Holder	1990	98735
D	309m W	Gas Holder	1993	98735
D	310m W	Gasholder	1973	82972
D	310m W	Unspecified Tank	1957	85031
D	311m W	Gasometers	1890	101968
D	311m W	Gasometers	1910	101968
D	311m W	Tanks	1930	94154
D	324m NW	Unspecified Tank	1959	102730
D	324m NW	Unspecified Tank	1959	102730
D	324m NW	Unspecified Tank	1967	102730
D	326m W	Tanks	1910	91661
D	326m W	Tanks	1930	91661
D	329m W	Unspecified Tank	1890	101328
D	331m NW	Oil Tank	1910	83320
D	336m W	Unspecified Tank	1910	93921
D	336m W	Unspecified Tank	1930	93921
D	340m W	Unspecified Tank	1890	85033
D	342m W	Unspecified Tank	1930	107043
D	343m NW	Gasometer	1890	94883
D	343m NW	Gasometer	1910	94883
D	343m NW	Unspecified Tank	1930	85040
D	344m W	Unspecified Tank	1890	107043
D	344m W	Unspecified Tank	1910	107043
D	344m W	Unspecified Tank	1910	85037



ID	Location	Land Use	Date	Group ID
D	347m W	Oil Tank	1910	83319
D	347m W	Unspecified Tank	1930	85038
D	350m NW	Unspecified Tank	1910	105444
D	350m NW	Unspecified Tank	1930	105444
D	364m W	Unspecified Tank	1973	108045
D	364m W	Unspecified Tank	1957	104567
D	364m W	Unspecified Tank	1985	105126
D	364m W	Unspecified Tank	1990	105126
D	364m W	Unspecified Tank	1990	105126
D	365m W	Unspecified Tank	1993	105126
D	365m W	Unspecified Tank	1958	104567
D	370m W	Gasometer	1910	83779
D	370m W	Unspecified Tank	1930	100357
K	372m N	Unspecified Tank	1890	96165
K	372m N	Unspecified Tank	1930	91962
D	392m W	Unspecified Tank	1958	104567
D	392m W	Unspecified Tank	-	80675
D	393m W	Unspecified Tank	1957	104921
D	393m W	Gasholder Station	1990	82917
D	393m W	Unspecified Tank	1984	96854
D	393m W	Gas Holder	1990	83478
L	401m NW	Unspecified Tank	1910	85032
O	434m N	Unspecified Tank	1890	85034
AC	449m NW	Unspecified Tank	1890	100229
AC	449m NW	Unspecified Tank	1910	100229
AC	449m NW	Unspecified Tank	1930	100229
AH	497m SE	Unspecified Tank	1958	98979
AH	497m SE	Unspecified Tank	1957	98921

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

66

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 28 >](#)

ID	Location	Land Use	Date	Group ID
C	126m SE	Electricity Substation	1995	58624
C	126m SE	Electricity Substation	1989	63515
C	126m SE	Electricity Substation	1978	63515
C	126m SE	Electricity Substation	1985	63515
C	126m SE	Electricity Substation	1988	63515
D	184m NW	Corporation Gas Works	1890	63306
D	185m NW	Corporation Gas Works	1910	63306
F	189m N	Electricity Substation	1994	51780
F	189m N	Electricity Substation	1998	51780
F	190m N	Electricity Substation	1978	55485
F	190m N	Electricity Substation	1988	50227
D	206m NW	Gas Works	1967	49579
D	239m NW	Gasometers	1959	61345
D	239m NW	Gasometers	1967	61345
D	241m W	Gasholder Station	1985	64381
D	241m W	Gasholder Station	1990	64381
D	241m W	Gasholder Station	1990	64381
D	242m W	Gas Holder Station	1993	53510
D	242m W	Gasholder Station	1973	63526
D	279m NW	Gasholder Station	1974	63526
D	279m NW	Gasholder Station	1997	56390
D	279m NW	Gas Holder Station	1979	50632
D	279m NW	Gas Holder Station	1988	50632



ID	Location	Land Use	Date	Group ID
D	297m W	Gas Holder	1985	64324
D	297m W	Gas Holder	1990	64324
D	297m W	Gas Holder	1990	64324
D	298m W	Gas Holder	1993	50433
D	298m W	Gasholder	1973	49424
J	305m SW	Electricity Substation	1985	64251
J	305m SW	Electricity Substation	1990	64251
J	305m SW	Electricity Substation	1990	64251
J	307m SW	Electricity Substation	1993	64251
D	308m W	Gas Holder	1985	57451
D	308m W	Gas Holder	1990	57451
D	308m W	Gas Holder	1990	57451
D	309m W	Gas Holder	1993	57451
D	310m W	Gasholder	1973	49425
D	311m W	Gasometers	1890	55012
D	311m W	Gasometers	1910	55012
L	339m NW	Corporation Electricity Station	1910	49672
D	343m NW	Gasometer	1890	55822
D	343m NW	Gasometer	1910	55822
D	370m W	Gasometer	1910	49765
S	378m SE	Electricity Substation	1989	58983
S	378m SE	Electricity Substation	1995	58983
D	389m NW	Electricity Substation	1997	54888
D	390m NW	Electricity Substation	1988	54888
D	393m W	Gasholder Station	1990	49386
D	393m W	Gas Holder	1990	49688
AA	414m S	Electricity Substation	1996	62768
AA	414m S	Electricity Substation	1978	62768



ID	Location	Land Use	Date	Group ID
AA	416m S	Electricity Substation	1973	62768
AA	416m S	Electricity Substation	1990	62768
W	431m SE	Electricity Substation	1984	61785
W	431m SE	Electricity Substation	1996	59157
W	431m SE	Electricity Substation	1994	59157
W	432m SE	Electricity Substation	1971	53208
15	437m E	Electricity Substation	1995	47221
Y	463m NE	Electricity Substation	1988	56224
Y	466m NE	Electricity Substation	1994	50130
Y	466m NE	Electricity Substation	1998	50130
Z	495m SE	Electricity Substation	1984	50060
Z	495m SE	Electricity Substation	1990	50060
Z	496m SE	Electricity Substation	1996	50060
Z	496m SE	Electricity Substation	1994	50060
Z	496m SE	Electricity Substation	1971	50060

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

47

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 28 >](#)



ID	Location	Land Use	Date	Group ID
A	On site	Garage	1990	20496
A	On site	Garage	1990	20496
A	On site	Garage	1958	18675
A	On site	Garage	1993	19925
A	On site	Garage	1973	17720
A	On site	Garage	1957	19155
A	On site	Garage	1985	21146
D	156m W	Garage	1990	17130
D	156m W	Garage	1990	17130
D	156m W	Garage	1985	17130
D	160m W	Garage	1993	21169
D	176m W	Garage	1973	20074
I	303m SE	Garage	1988	20279
I	303m SE	Garage	1978	20279
I	303m SE	Garage	1985	20279
I	303m SE	Garage	1957	21413
I	304m SE	Garage	1958	18621
M	330m E	Garage	1957	21626
M	330m E	Garage	1958	18969
M	332m E	Garage	1988	16737
M	332m E	Garage	1978	16737
M	332m E	Garage	1985	16737
M	359m E	Garage	1957	18969
M	359m E	Garage	1958	17907
M	360m E	Garage	1988	20900
M	360m E	Garage	1978	20900
M	360m E	Garage	1985	20900
U	381m SE	Garage	1989	20848

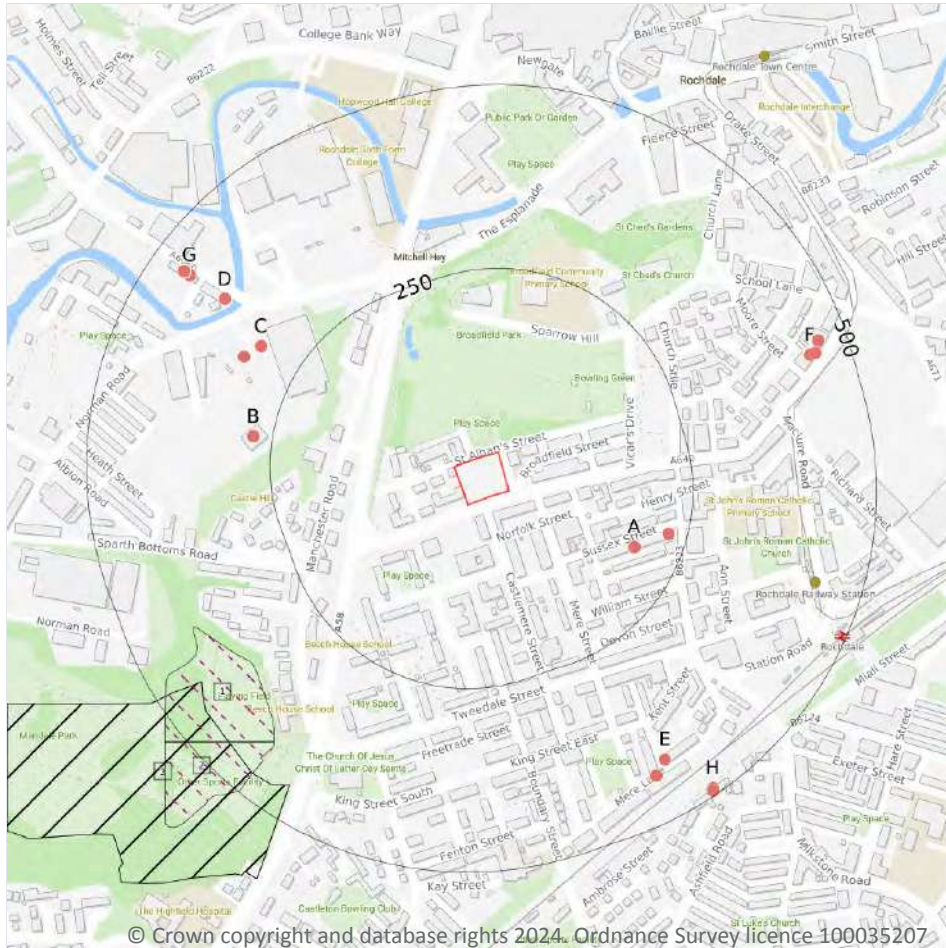


ID	Location	Land Use	Date	Group ID
U	381m SE	Garage	1957	18790
X	390m NE	Garage	1998	18480
X	390m NE	Garage	1994	18480
X	390m NE	Garage	1988	20552
X	390m NE	Garage	1959	18642
X	390m NE	Garage	1959	18641
X	390m NE	Garage	1987	21586
X	390m NE	Garage	1978	21586
U	397m SE	Garage	1989	20271
U	397m SE	Garage	1958	19051
U	398m SE	Garage	1978	16981
U	398m SE	Garage	1985	16981
X	415m NE	Garage	1998	20320
X	415m NE	Garage	1994	20320
X	415m NE	Garage	1988	20038
AD	460m E	Garage	1995	16425
AD	461m E	Garage	1989	16425
AG	472m NE	Garage	1959	20533
AG	472m NE	Garage	1959	20533

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)
- 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

2

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

Features are displayed on the Waste and landfill map on [page 45 >](#)

ID	Location	Site address	Source	Data type
1	364m SW	Refuse Tip	1973 mapping	Polygon
2	417m SW	Refuse Tip	1973 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 45 >](#)

ID	Location	Details		
3	435m SW	Site Address: Mandale Park, Rochdale, Greater Manchester Licence Holder Address: -	Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: Rochdale County Borough Council Licence Holder: - First Recorded 31/12/1969 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	0
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Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

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

3.7 Waste exemptions

Records within 500m	46
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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 45 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
A	186m SE	Liley Street Autos, Liley Street, Rochdale, OL111el	WEX130172	Using waste exemption	Not on a farm	Use of depolluted end-of-life vehicles for vehicle parts
A	186m SE	Liley Street Autos, Liley Street, Rochdale, OL111el	WEX130172	Treating waste exemption	Not on a farm	Recovery of scrap metal
A	225m E	Liley Street Autos, Liley Street, Rochdale, OL111el	WEX271696	Treating waste exemption	Not on a farm	Recovery of scrap metal
A	225m E	Liley Street Autos, Liley Street, Rochdale, OL111el	WEX271696	Using waste exemption	Not on a farm	Use of depolluted end-of-life vehicles for vehicle parts
B	276m W	Dane Street, Rochdale, OL11 4ez	WEX293314	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	276m W	Dane Street, Rochdale, OL11 4ez	WEX293314	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
B	276m W	Dane Street, Rochdale, OL11 4ez	WEX157469	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	276m W	Dane Street, Rochdale, OL11 4ez	WEX157469	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
C	310m NW	National Grid Dane Street OL11 4ez	EPR/ZE5848VR /A001	Treating waste exemption	Non-agricultural waste only	Preparatory treatments (baling, sorting, shredding etc)
C	323m NW	-	WEX244774	Using waste exemption	Not on a farm	Use of waste in construction



ID	Location	Site	Reference	Category	Sub-Category	Description
D	387m NW	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6xd	WEX244166	Storing waste exemption	Not on a farm	Storage of waste in secure containers
D	387m NW	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6xd	WEX244166	Using waste exemption	Not on a farm	Use of waste in construction
D	387m NW	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6xd	WEX244166	Treating waste exemption	Not on a farm	Sorting mixed waste
D	387m NW	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6xd	WEX244166	Treating waste exemption	Not on a farm	Recovery of scrap metal
E	423m SE	38, Mere Lane, Rochdale, OL11 3td	WEX345161	Treating waste exemption	Not on a farm	Recovery of scrap metal
E	436m SE	41 Mere Lane, Rochdale, Lancashire, OL11 3td	EA/EPR/VP388 4NQ/A001	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
F	444m E	130 Drake Street, Rochdale, OL16 1pn	EA/EPR/VP394 5UX/A001	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
G	445m NW	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6xd	WEX099953	Treating waste exemption	Not on a farm	Sorting mixed waste
G	445m NW	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6xd	WEX099953	Treating waste exemption	Not on a farm	Recovery of scrap metal
G	445m NW	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6xd	WEX099953	Using waste exemption	Not on a farm	Use of waste in construction
G	445m NW	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6xd	WEX099953	Storing waste exemption	Not on a farm	Storage of waste in secure containers
F	452m E	128 Drake Street, Rochdale, OL16 1pn	EXP/JP3446YN	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
G	454m NW	-	WEX377699	Using waste exemption	Not on a farm	Use of waste in construction
G	454m NW	-	WEX377699	Treating waste exemption	Not on a farm	Recovery of scrap metal
G	454m NW	-	WEX377699	Treating waste exemption	Not on a farm	Sorting mixed waste



ID	Location	Site	Reference	Category	Sub-Category	Description
G	454m NW	-	WEX377699	Storing waste exemption	Not on a farm	Storage of waste in secure containers
G	454m NW	-	WEX388097	Storing waste exemption	Not on a farm	Storage of waste in a secure place
G	454m NW	-	WEX388097	Storing waste exemption	Not on a farm	Storage of waste in secure containers
G	454m NW	-	WEX388097	Treating waste exemption	Not on a farm	Recovery of scrap metal
G	454m NW	-	WEX388097	Treating waste exemption	Not on a farm	Screening and blending of waste
G	454m NW	-	WEX388097	Using waste exemption	Not on a farm	Incorporation of ash into soil
G	454m NW	-	WEX388097	Using waste exemption	Not on a farm	Spreading waste on non-agricultural land to confer benefit
G	454m NW	-	WEX388097	Using waste exemption	Not on a farm	Spreading waste on agricultural land to confer benefit
G	454m NW	-	WEX388097	Using waste exemption	Not on a farm	Use of waste in construction
G	454m NW	-	WEX259767	Using waste exemption	Not on a farm	Spreading waste on agricultural land to confer benefit
G	454m NW	-	WEX259767	Storing waste exemption	Not on a farm	Storage of waste in a secure place
G	454m NW	-	WEX259767	Storing waste exemption	Not on a farm	Storage of waste in secure containers
G	454m NW	-	WEX259767	Using waste exemption	Not on a farm	Incorporation of ash into soil
G	454m NW	-	WEX259767	Using waste exemption	Not on a farm	Spreading waste on non-agricultural land to confer benefit
G	454m NW	-	WEX259767	Using waste exemption	Not on a farm	Use of waste in construction
G	454m NW	-	WEX259767	Treating waste exemption	Not on a farm	Recovery of scrap metal
G	454m NW	-	WEX259767	Treating waste exemption	Not on a farm	Screening and blending of waste

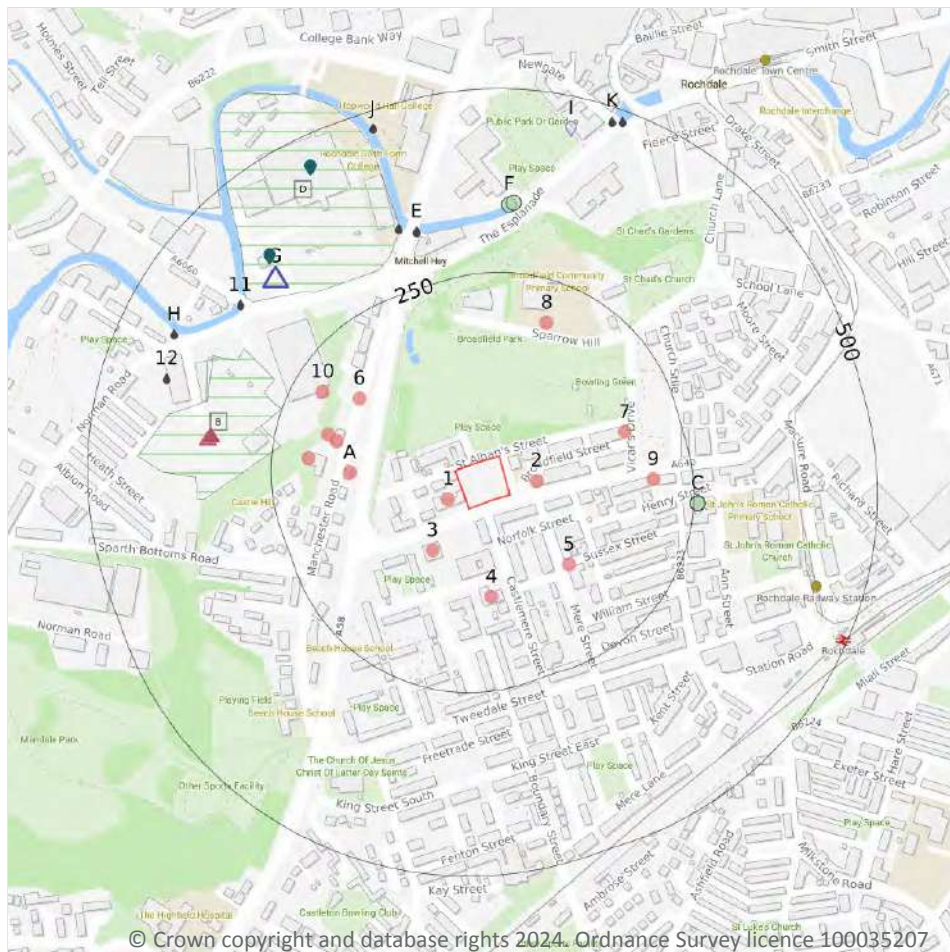


ID	Location	Site	Reference	Category	Sub-Category	Description
F	461m E	130 Drake Street, Rochdale, OL16 1pn	NC3/000012	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
F	461m E	130 Drake Street, Rochdale, OL16 1pn	EXP/WP3045L M	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
H	490m SE	Unit 1, Ashfield Road, Rochdale, OL11 1px	EA/EPR/VP378 9MX/A001	Treating waste exemption	Non- agricultural waste only	Repair or refurbishment of WEEE
H	494m SE	Unit 1, Ashfield Road, Rochdale, OL11 1px	EA/EPR/VP394 3FF/A001	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE

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
- Control of Major Accident Hazards
- ▲ Hazardous substance storage/usage
- Part A(1) industrial activities
- 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

14

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 51](#) >

ID	Location	Company	Address	Activity	Category
1	22m SW	Speedwell Garage	Unit 1 Tophams Motor Centre 210, Drake Street, Rochdale, Greater Manchester, OL16 1UP	Vehicle Repair, Testing and Servicing	Repair and Servicing
2	40m E	Tele Control Ltd	200, Drake Street, Rochdale, Greater Manchester, OL16 1PJ	Electronic Equipment	Industrial Products



ID	Location	Company	Address	Activity	Category
3	75m SW	Scrap My Appliance Ltd	207, Drake Street, Rochdale, Greater Manchester, OL11 1EF	Waste Storage, Processing and Disposal	Infrastructure and Facilities
4	124m S	Works	Greater Manchester, OL11	Unspecified Works Or Factories	Industrial Features
5	124m SE	Electricity Sub Station	Greater Manchester, OL11	Electrical Features	Infrastructure and Facilities
A	143m W	A C Ventilation Ltd	87-89, Manchester Road, Rochdale, Greater Manchester, OL11 4JG	Construction Completion Services	Construction Services
6	164m NW	Electricity Sub Station	Greater Manchester, OL11	Electrical Features	Infrastructure and Facilities
A	165m W	Concept Careshop	Castle Works, Manchester Road, Rochdale, Greater Manchester, OL11 4HY	Disability and Mobility Equipment	Consumer Products
7	173m E	Royale Motors	1, St Albans Street, Rochdale, Greater Manchester, OL16 1UT	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	180m W	Works	Greater Manchester, OL11	Unspecified Works Or Factories	Industrial Features
8	193m N	Electricity Sub Station	Greater Manchester, OL16	Electrical Features	Infrastructure and Facilities
9	196m E	E U Recycling Ltd	Prime House 155, Drake Street, Rochdale, Greater Manchester, OL11 1EF	Recycling, Reclamation and Disposal	Recycling Services
A	200m W	F & F Motor Services Ltd	Manchester Road, Rochdale, Greater Manchester, OL11 4HY	Vehicle Repair, Testing and Servicing	Repair and Servicing
10	210m NW	Tank	Greater Manchester, OL11	Tanks (Generic)	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 51 >](#)



ID	Location	Company	Address	LPG	Status
G	361m NW	ASDA	Dane Street, Mitchell Hey, Rochdale, Greater Manchester, OL12 6XT	No	Open

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
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High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0
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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	2
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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.

Features are displayed on the Current industrial land use map on [page 51](#) >

ID	Location	Company	Address	Operational status	Tier
B	240m W	National Grid Gas Plc	National Grid Gas Plc, Rochdale Holder Station, Dane Street, Rochdale, Greater Manchester, OL11 4ES	Historical COMAH Site	-
D	292m NW	British Gas	British Gas, Dane Street, Rochdale	Historical NIHHS Site	-

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

2

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.

Features are displayed on the Current industrial land use map on [page 51 >](#)

ID	Location	Details	
B	336m W	Application reference number: 00/D37592 Application status: Approved Application date: 28/04/2000 Address: National Grid Gas PLC, Rochdale Holder Station, Dane Street, Rochdale, Greater Manchester, England, OL11 4HD	Details: Application for consent to store hazardous substances at Dane Street depot. Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
B	340m W	Application reference number: 92/D28632 Application status: Historical Consent Application date: 15/09/1992 Address: British Gas North Western, Dane Street, Rochdale, OL12 6XB	Details: Application for Hazardous Substances Consent (Deemed Consent). Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

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

3

Records of Part A(1) 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 51 >](#)

ID	Location	Details	
I	456m N	Operator: P.W.GREENHALGH & CO.LIMITED Installation Name: Newhey Bleach Works - EPR/BP0628IW Process: PRE-TREATING OR DYEING FIBRES OR TEXTILES >10 TPD Permit Number: BP0628IW Original Permit Number: BP0628IW	EPR Reference: EPR/BP0628IW Issue Date: 28/01/2004 Effective Date: 28/01/2004 Last date noted as effective: 25/06/2024 Status: Superseded
I	456m N	Operator: P.W.GREENHALGH & CO.LIMITED Installation Name: Newhey Bleach Works - EPR/BP0628IW Process: COATING, PRINTING AND TEXTILES; PRE-TREATING BY WASHING ETC >10T/DAY Permit Number: BP0628IW Original Permit Number: BP0628IW	EPR Reference: EPR/BP0628IW Issue Date: 28/01/2004 Effective Date: 28/01/2004 Last date noted as effective: 25/06/2024 Status: Superseded
I	456m N	Operator: PW Greenhalgh & Co Limited Installation Name: P W GREENHALGH AND CO LTD Process: COATING, PRINTING AND TEXTILES; PRE-TREATING BY WASHING ETC >10T/DAY Permit Number: TP3637XM Original Permit Number: BP0628IW	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 21/03/2023 Status: Refused

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

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

Records within 500m

2

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

Features are displayed on the Current industrial land use map on [page 51 >](#)

ID	Location	Address	Details	
G	385m NW	Asda Petrol Site, Dane Street, Rochdale, Lancashire, OL11 4EZ	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified



ID	Location	Address	Details	
D	457m NW	Johnsons Dry Cleaners UK Ltd, Within ASDA, Dane Street, Rochdale, Lancashire, OL11 4EZ	Process: Dry Cleaning Status: Historical 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
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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	13
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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 51 >](#)

ID	Location	Address	Details	
E	325m N	MANCHESTER RD CSO (351TT), ROCHDALE, GREATER MANCHESTER, OL16 1AQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0082 Permit Version: 2 Receiving Water: RIVER ROCH	Status: REVOKED NEW CONSENT ISSUED (WATER ACT 1989 SECTION 113) Issue date: - Effective Date: 01/01/1995 Revocation Date: 10/11/2004
E	325m N	MANCHESTER RD CSO (351TT), ROCHDALE, GREATER MANCHESTER, OL16 1AQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0082 Permit Version: 1 Receiving Water: -	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/04/1991 Revocation Date: 31/12/1994
E	325m N	MANCHESTER RD CSO (351TT), ROCHDALE, GREATER MANCHESTER, OL16 1AQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0082 Permit Version: 3 Receiving Water: RIVER ROCH	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: 11/11/2004 Effective Date: 11/11/2004 Revocation Date: 25/10/2020



ID	Location	Address	Details	
E	335m N	MANCHESTER RD CSO (351TT), ROCHDALE, GREATER MANCHESTER, OL16 1AQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0082 Permit Version: 4 Receiving Water: RIVER ROCH VIA SWS	Status: VARIED UNDER EPR 2010 Issue date: 26/10/2020 Effective Date: 26/10/2020 Revocation Date: -
11	369m NW	CHARLIE BROWNS AUTOCENTRE SWO, ENTWISTLE ROAD, MOLESWORTH STREET, ROCHDALE, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991347 Permit Version: 1 Receiving Water: RIVER ROCH	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/11/1994 Revocation Date: 01/11/1994
12	411m W	OXFORD MILL, BENTLEY STREET, ROCHDALE, GREATER MANCHESTER	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: 0167/630 Permit Version: 1 Receiving Water: SHAWCLOUGH BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 23/09/1993 Revocation Date: 23/09/1993
H	425m NW	ROCH SYPHON, FENWICK STREET, ROCHDALE, GREATER MANCHESTER	Effluent Type: TRADE DISCHARGES - BOILER BLOWDOWN EFFLUENT Permit Number: 016981384 Permit Version: 1 Receiving Water: RIVER ROCH	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 13/07/1990 Revocation Date: 14/02/1993
H	425m NW	ROCH SYPHON, FENWICK STREET, ROCHDALE, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: 016981384 Permit Version: 2 Receiving Water: RIVER ROCH	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 15/02/1993 Revocation Date: -
J	476m N	TOAD LANE - HIGH STREET CSO, OFF TOAD LANE & HIGH STREET JUNC, ROCHDALE, GREATER MANCHESTER, OL12 0NU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016950161 Permit Version: 1 Receiving Water: RIVER ROCH	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: 09/06/1976 Effective Date: 09/06/1976 Revocation Date: 10/07/2005
J	476m N	TOAD LANE - HIGH STREET CSO, OFF TOAD LANE & HIGH STREET JUNC, ROCHDALE, GREATER MANCHESTER, OL12 0NU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016950161 Permit Version: 2 Receiving Water: RIVER ROCH	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 11/07/2005 Effective Date: 11/07/2005 Revocation Date: 27/10/2020



ID	Location	Address	Details	
K	480m N	TOAD LANE - HIGH STREET CSO, OFF TOAD LANE & HIGH STREET JUNC, ROCHDALE, GREATER MANCHESTER, OL12 0NU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016950161 Permit Version: 3 Receiving Water: RIVER ROCH	Status: VARIED UNDER EPR 2010 Issue date: 28/10/2020 Effective Date: 28/10/2020 Revocation Date: -
K	485m N	YORKSHIRE STREET CSO 35022, YORKSHIRE STREET, ROCHDALE, GREATER MANCHESTER, OL16 1BH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0058 Permit Version: 3 Receiving Water: RIVER ROCH	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 11/07/2005 Effective Date: 31/03/2006 Revocation Date: 01/07/2018
K	485m N	YORKSHIRE STREET CSO 35022, YORKSHIRE STREET, ROCHDALE, GREATER MANCHESTER, OL16 1BH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0058 Permit Version: 4 Receiving Water: RIVER ROCH	Status: VARIED UNDER EPR 2010 Issue date: 02/07/2018 Effective Date: 02/07/2018 Revocation Date: -

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

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

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

4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m

0

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

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



4.17 List 2 Dangerous Substances

Records within 500m	0
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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	5
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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 51 >](#)

ID	Location	Details	
C	255m E	Incident Date: 08/08/2001 Incident Identification: 22851 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
C	255m E	Incident Date: 08/08/2001 Incident Identification: 22851 Pollutant: Specific Waste Materials:Specific Waste Materials Pollutant Description: Commercial Waste:Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
C	255m E	Incident Date: 08/08/2001 Incident Identification: 22851 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
F	342m N	Incident Date: 18/01/2003 Incident Identification: 131849 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
F	345m N	Incident Date: 21/08/2003 Incident Identification: 184143 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

Records within 500m

0

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

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

4.20 Pollution inventory waste transfers

Records within 500m

0

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

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

4.21 Pollution inventory radioactive waste

Records within 500m

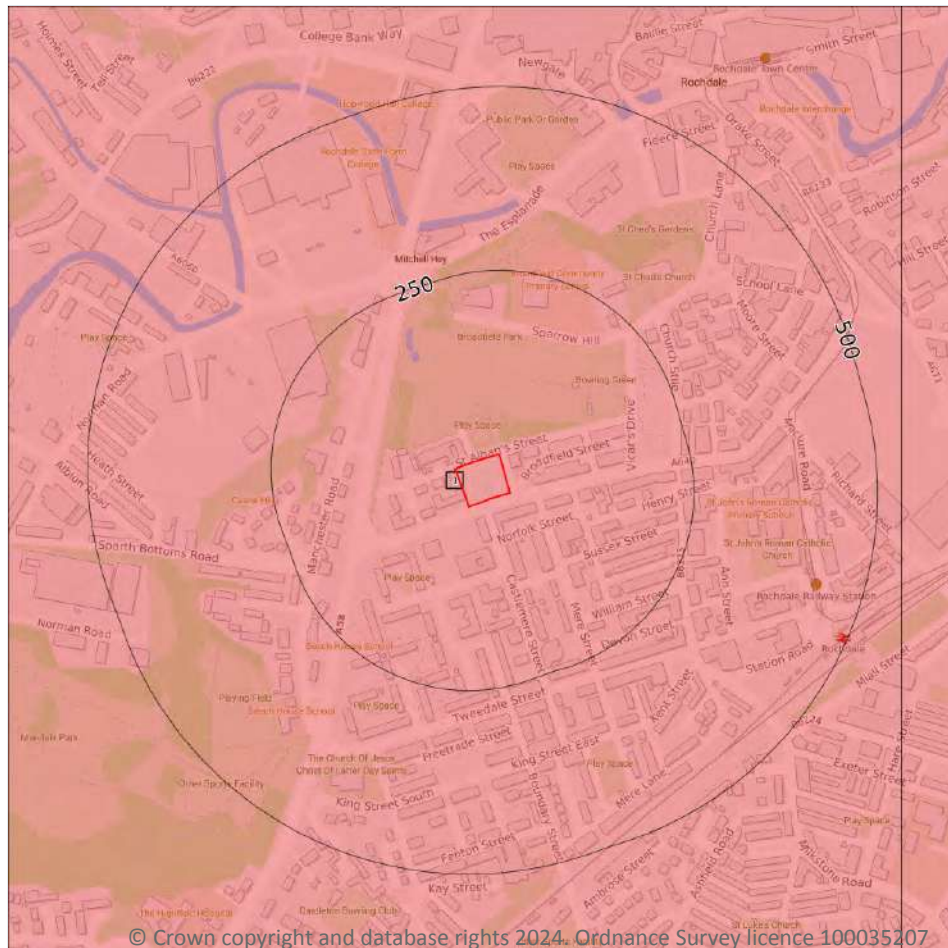
0

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

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



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.

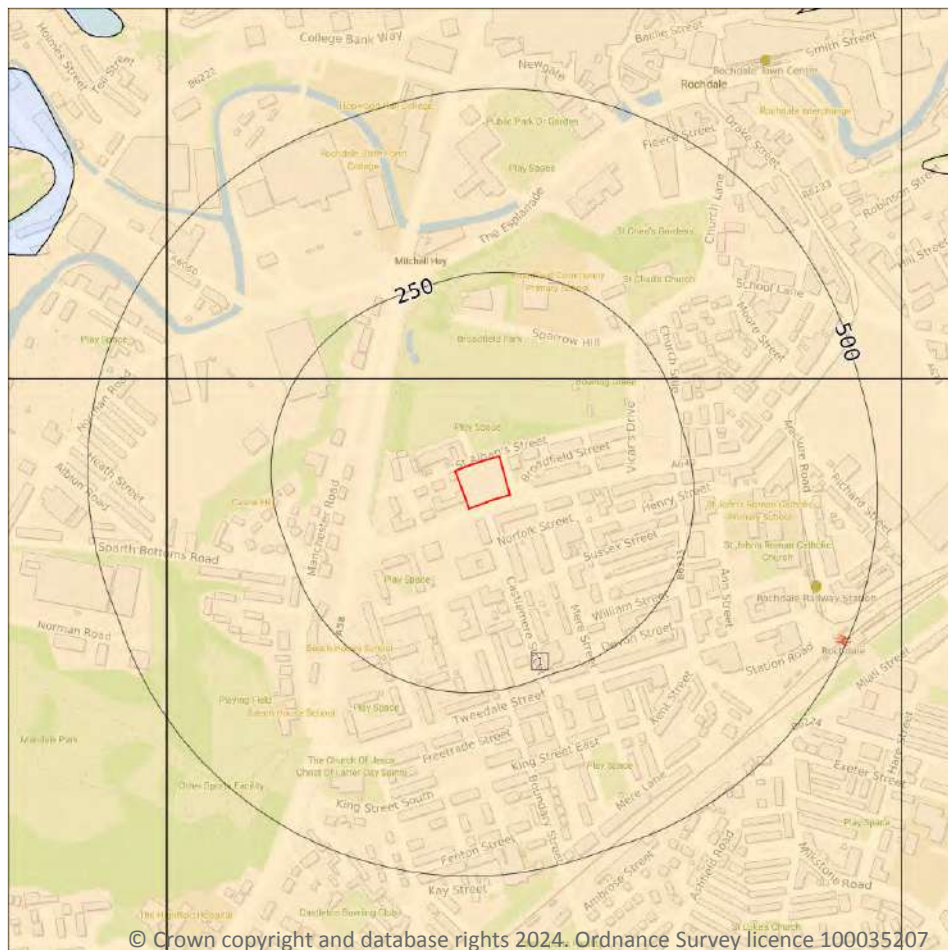
Features are displayed on the Bedrock aquifer map on [page 62](#) >

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 63](#) >



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: High 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
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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

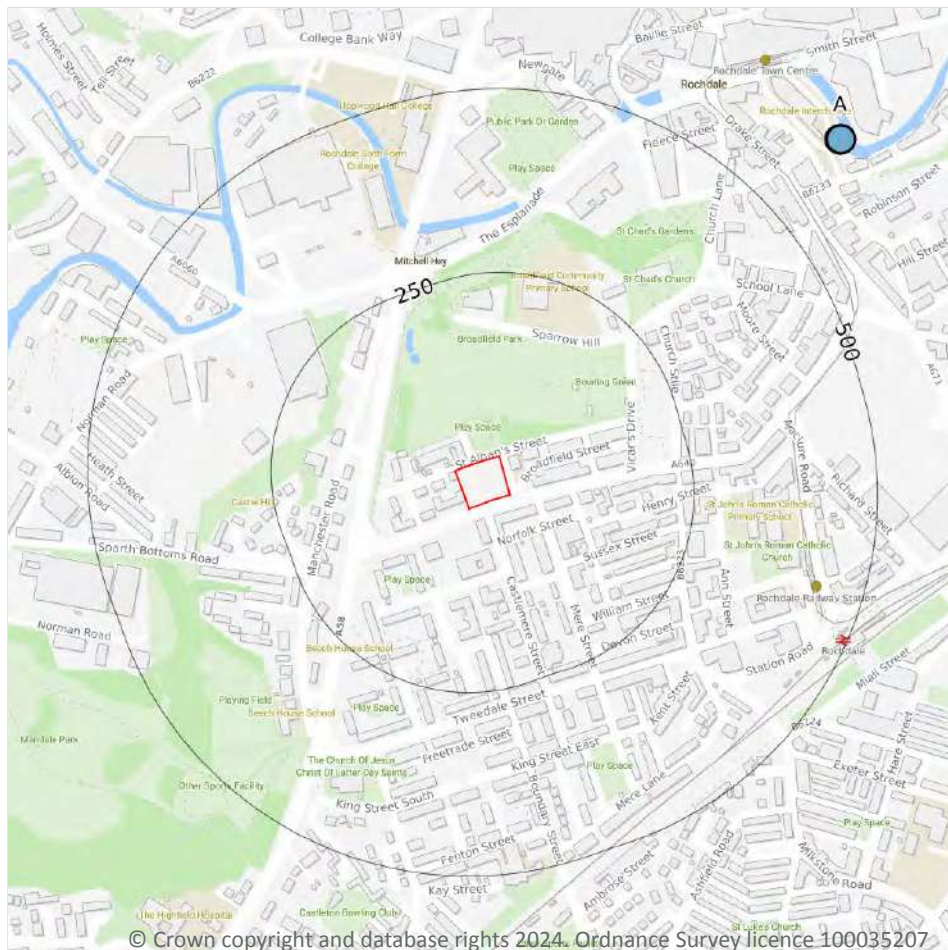
Records on site	0
------------------------	----------

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

3

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 65 >](#)

ID	Location	Details	
-	933m NW	Status: Historical Licence No: 2569002050 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, SPOTLAND, ROCHDALE" Data Type: Point Name: ALEXANDER DREW & SONS LTD Easting: 388700 Northing: 413500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 10/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 02/05/2000 Version End Date: -
-	933m NW	Status: Historical Licence No: 2569002050 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, SPOTLAND, ROCHDALE Data Type: Point Name: ALEXANDER DREW LTD. Easting: 388700 Northing: 413500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 10/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/04/2003 Version End Date: -
-	933m NW	Status: Historical Licence No: 2569002050 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES SPOTLAND ROCHDALE Data Type: Point Name: ALEXANDER DREW LTD Easting: 388700 Northing: 413500	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2100 Original Application No: - Original Start Date: 10/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/04/2003 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m

14

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 65 >](#)



ID	Location	Details	
A	632m NE	Status: Historical Licence No: NW/069/0002/003 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: Surface, Non-Tidal - North West Region Point: RIVER ROCH AT ROCHDALE WEIR Data Type: Point Name: Transport for Greater Manchester Easting: 389916 Northing: 413325	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: NPS/WR/007633 Original Start Date: 15/06/2010 Expiry Date: 31/03/2026 Issue No: 2 Version Start Date: 23/06/2011 Version End Date: -
A	633m NE	Status: Historical Licence No: NW/069/0002/001 Details: Hydroelectric Power Generation Direct Source: Surface, Non-Tidal - North West Region Point: RIVER ROCH AT ROCHDALE WEIR Data Type: Point Name: Transport for Greater Manchester Easting: 389917 Northing: 413325	Annual Volume (m ³): 36100000 Max Daily Volume (m ³): 164160 Original Application No: NPS/WR/007499 Original Start Date: 15/06/2010 Expiry Date: 31/03/2026 Issue No: 2 Version Start Date: 01/04/2015 Version End Date: -
-	993m SE	Status: Historical Licence No: 2569002076 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: ROCHDALE CANAL AT ROCHDALE, LANCS Data Type: Point Name: J & J MAKIN CONVERTORS LTD Easting: 390300 Northing: 412300	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: 01/04/1993 Version End Date: -
-	1068m SE	Status: Historical Licence No: 2569002107 Details: Boiler Feed Direct Source: "Surface, Non-Tidal - North West Region" Point: "ROCHDALE CANAL AT QUEENSWAY,ROCHDALE" Data Type: Point Name: SEALOCRETE PLA LTD Easting: 390070 Northing: 411960	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/12/1993 Version End Date: -



ID	Location	Details	
-	1068m SE	Status: Historical Licence No: 2569002107 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "ROCHDALE CANAL AT QUEENSWAY,ROCHDALE" Data Type: Point Name: SEALOCRETE PLA LTD Easting: 390070 Northing: 411960	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/12/1993 Version End Date: -
-	1068m SE	Status: Historical Licence No: 2569002107 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: ROCHDALE CANAL AT QUEENSWAY,ROCHDALE Data Type: Point Name: SEALOCRETE PLA LTD Easting: 390070 Northing: 411960	Annual Volume (m ³): 10455.8 Max Daily Volume (m ³): 45.46 Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1068m SE	Status: Historical Licence No: 2569002107 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: ROCHDALE CANAL AT QUEENSWAY,ROCHDALE Data Type: Point Name: SEALOCRETE PLA LTD Easting: 390070 Northing: 411960	Annual Volume (m ³): 10455.8 Max Daily Volume (m ³): 45.46 Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1273m SE	Status: Historical Licence No: 2569002178 Details: Boiler Feed Direct Source: "Surface, Non-Tidal - North West Region" Point: "CATCHPIT FED BY SURFACE DRAINAGE AT PREMISES, ROCHDALE" Data Type: Point Name: DUNPHY COMBUSTION LTD. Easting: 390200 Northing: 411800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 12/02/1991 Version End Date: -



ID	Location	Details	
-	1273m SE	Status: Historical Licence No: 2569002178 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: CATCHPIT FED BY SURFACE DRAINAGE AT PREMISES, ROCHDALE Data Type: Point Name: DUNPHY COMBUSTION LTD Easting: 390200 Northing: 411800	Annual Volume (m ³): 2318.46 Max Daily Volume (m ³): 34.09 Original Application No: CW 1093 Original Start Date: 18/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 12/02/1991 Version End Date: -
-	1623m NE	Status: Historical Licence No: 2569002249 Details: Process water Direct Source: "Surface, Non-Tidal - North West Region" Point: "RIVER ROCH AT MELLOROID WORKS, BELFIELD ROAD" Data Type: Point Name: BRITISH MILLERAIN 1922 CO LTD Easting: 390800 Northing: 413800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 04/11/1991 Expiry Date: - Issue No: 100 Version Start Date: 04/11/1991 Version End Date: -
-	1623m NE	Status: Historical Licence No: 2569002249 Details: Process water Direct Source: Surface, Non-Tidal - North West Region Point: RIVER ROCH AT MELLOROID WORKS, BELFIELD ROAD Data Type: Point Name: BRITISH MILLERAIN 1922 CO LTD Easting: 390800 Northing: 413800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 04/11/1991 Expiry Date: - Issue No: 100 Version Start Date: 04/11/1991 Version End Date: -
-	1623m NE	Status: Historical Licence No: 2569002249 Details: Process Water Direct Source: Surface, Non-Tidal - North West Region Point: RIVER ROCH AT MELLOROID WORKS BELFIELD ROAD Data Type: Point Name: BRITISH MILLERAIN 1922 CO LTD Easting: 390800 Northing: 413800	Annual Volume (m ³): 213662 Max Daily Volume (m ³): 1136.49 Original Application No: - Original Start Date: 04/11/1991 Expiry Date: - Issue No: 100 Version Start Date: 04/11/1991 Version End Date: -



ID	Location	Details	
-	1921m N	Status: Historical Licence No: 2569002268 Details: Non-Evaporative Cooling Direct Source: "Surface, Non-Tidal - North West Region" Point: "FOXHOLES BROOK AT FIELDHOUSE INDUSTRIAL ESTATE, ROCHDALE" Data Type: Point Name: RIVERSIDE TRADING LTD Easting: 389700 Northing: 414800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 10/11/1998 Version End Date: -
-	1921m N	Status: Historical Licence No: 2569002268 Details: Non-Evaporative Cooling Direct Source: Surface, Non-Tidal - North West Region Point: FOXHOLES BROOK AT FIELDHOUSE INDUSTRIAL ESTATE, ROCHDALE Data Type: Point Name: RIVERSIDE TRADING LTD Easting: 389700 Northing: 414800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 10/11/1998 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m	0
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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
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Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

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



5.10 Source Protection Zones (confined aquifer)

Records within 500m

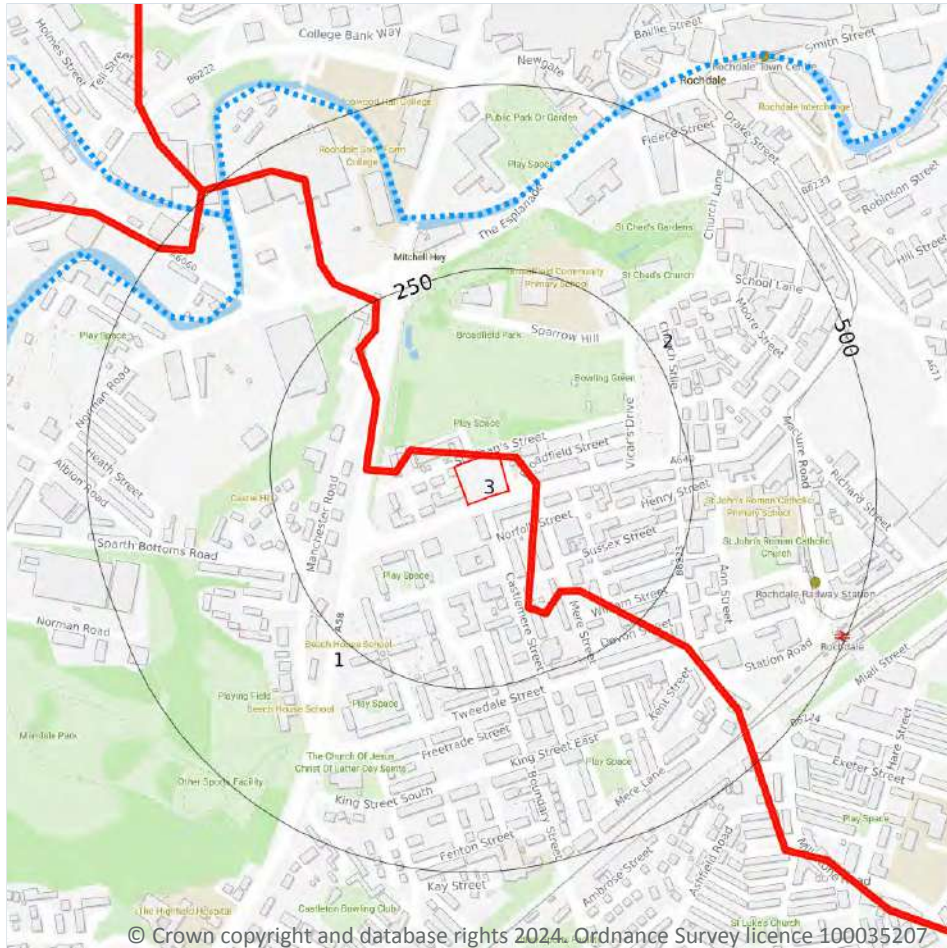
0

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

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



6 Hydrology



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

6.1 Water Network (OS MasterMap)

Records within 250m

0

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

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

2

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 72 >](#)

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	2
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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 72 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Roch (Spodden to Irwell)	GB112069064600	Roch Irk Medlock	Irwell
2	On site	River	Roch (Source to Spodden)	GB112069064720	Roch Irk Medlock	Irwell

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

6.4 WFD Surface water bodies

Records identified	2
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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 72 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
5	324m N	River	Roch (Source to Spodden)	GB112069064720 ↗	Moderate	Fail	Moderate	2019
8	379m NW	River	Roch (Spodden to Irwell)	GB112069064600 ↗	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 72](#) >

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
3	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

7.1 Risk of flooding from rivers and the sea

Records within 50m

0

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

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

7.2 Historical Flood Events

Records within 250m

0

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

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

7.3 Flood Defences

Records within 250m

0

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

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



7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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

7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

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

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

7.7 Flood Zone 3

Records within 50m

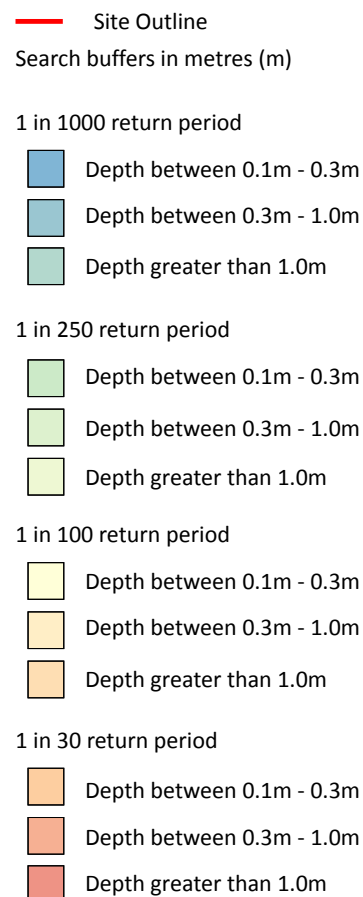
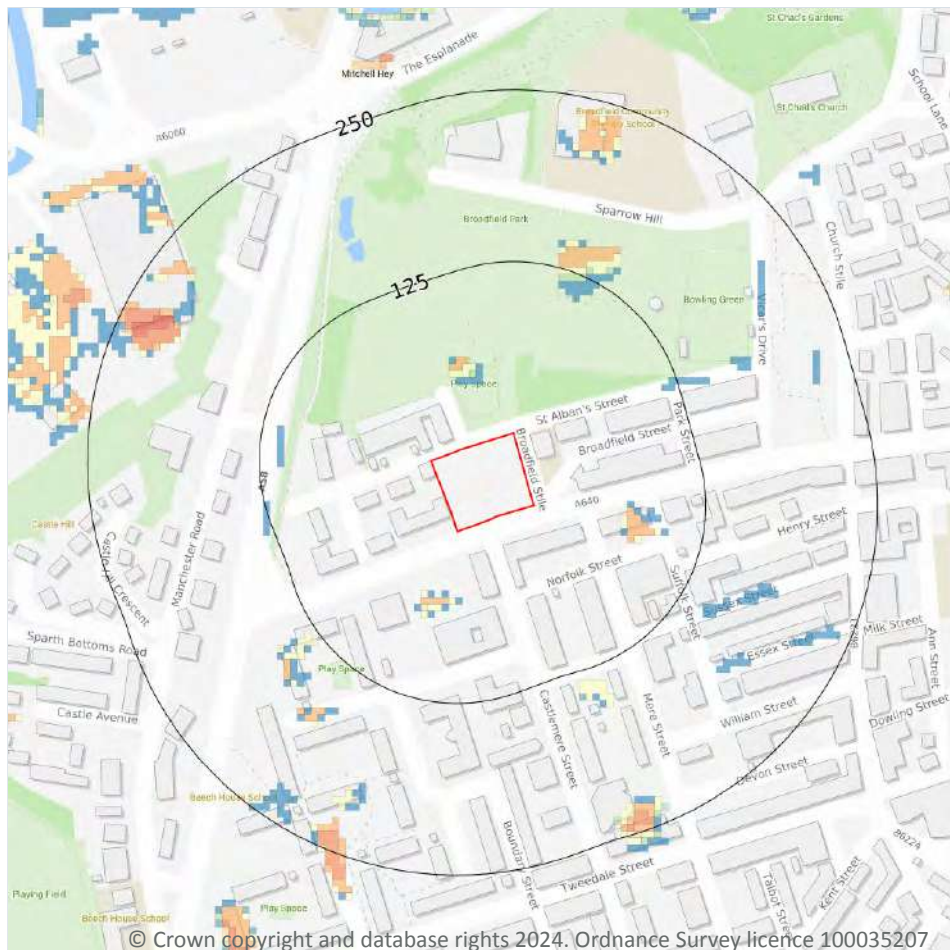
0

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

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



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

1 in 30 year, 0.1m - 0.3m

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

Features are displayed on the Surface water flooding map on [page 78 >](#)

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.

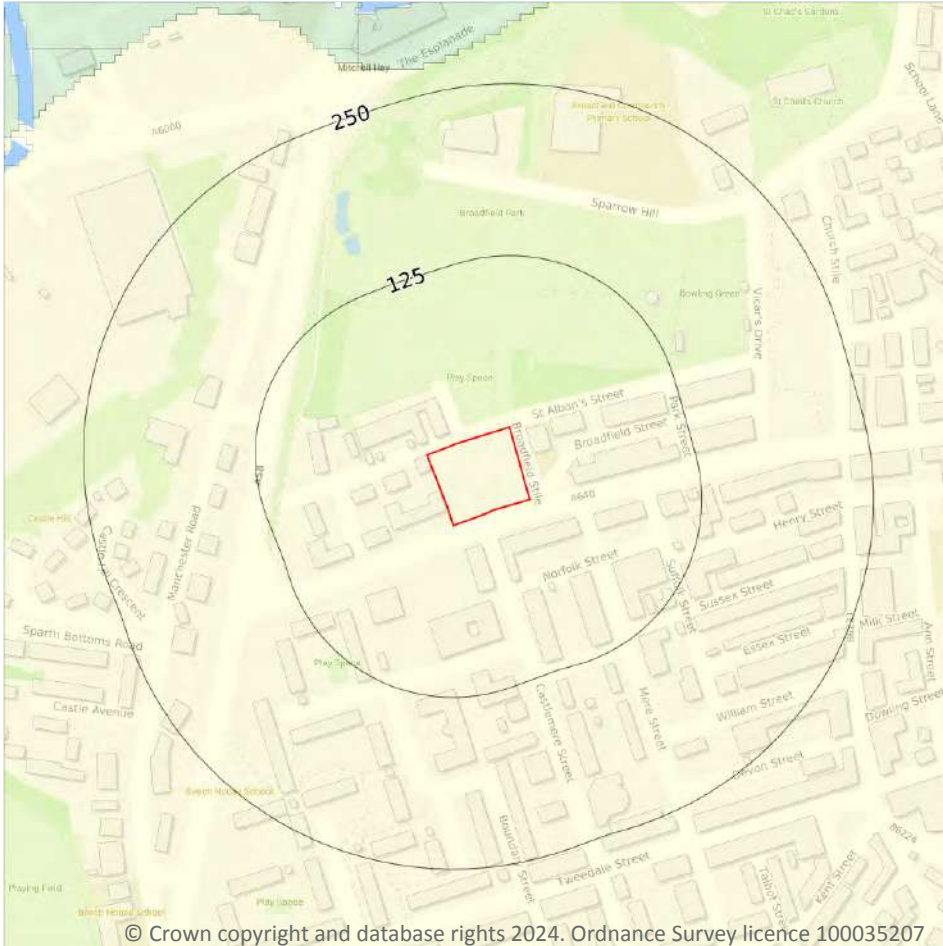
The table below shows the maximum flood depths for a range of return periods for the site.

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

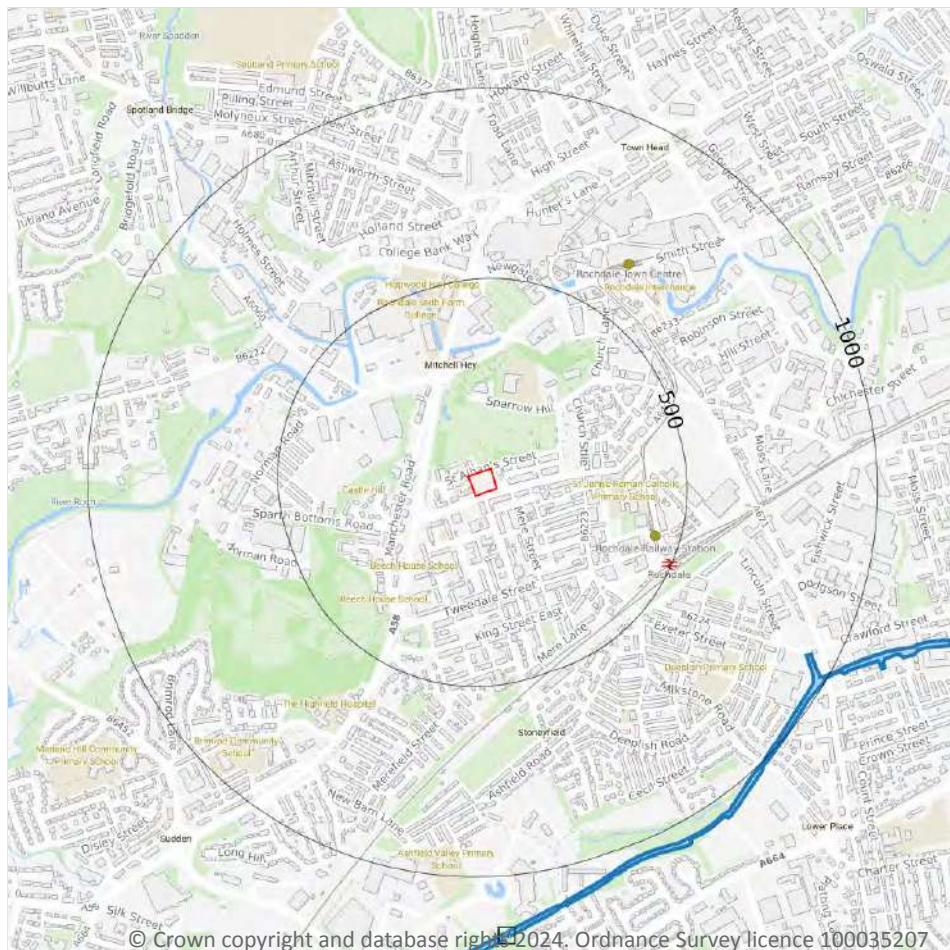
Moderate

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 80 >](#)

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)
- Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

4

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 81](#) >

ID	Location	Name	Data source
A	924m SE	Rochdale Canal	Natural England



ID	Location	Name	Data source
B	1097m S	Rochdale Canal	Natural England
-	1224m S	Rochdale Canal	Natural England
-	1554m S	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

4

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 81](#) >

ID	Location	Name	Features of interest	Habitat description	Data source
A	924m SE	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
B	1097m S	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
-	1224m S	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



ID	Location	Name	Features of interest	Habitat description	Data source
-	1554m S	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

0

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

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

10.7 Designated Ancient Woodland

Records within 2000m

1

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

Features are displayed on the Environmental designations map on [page 81](#) >



ID	Location	Name	Woodland Type
-	1964m W	Springfield Wood	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m	0
-----------------------------	----------

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

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

10.9 Forest Parks

Records within 2000m	0
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These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0
-----------------------------	----------

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

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

10.11 Green Belt

Records within 2000m	0
-----------------------------	----------

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

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

10.12 Proposed Ramsar sites

Records within 2000m**0**

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m**0**

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m**0**

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m**0**

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

This data is sourced from Natural England.



10.16 Nitrate Vulnerable Zones

Records within 2000m

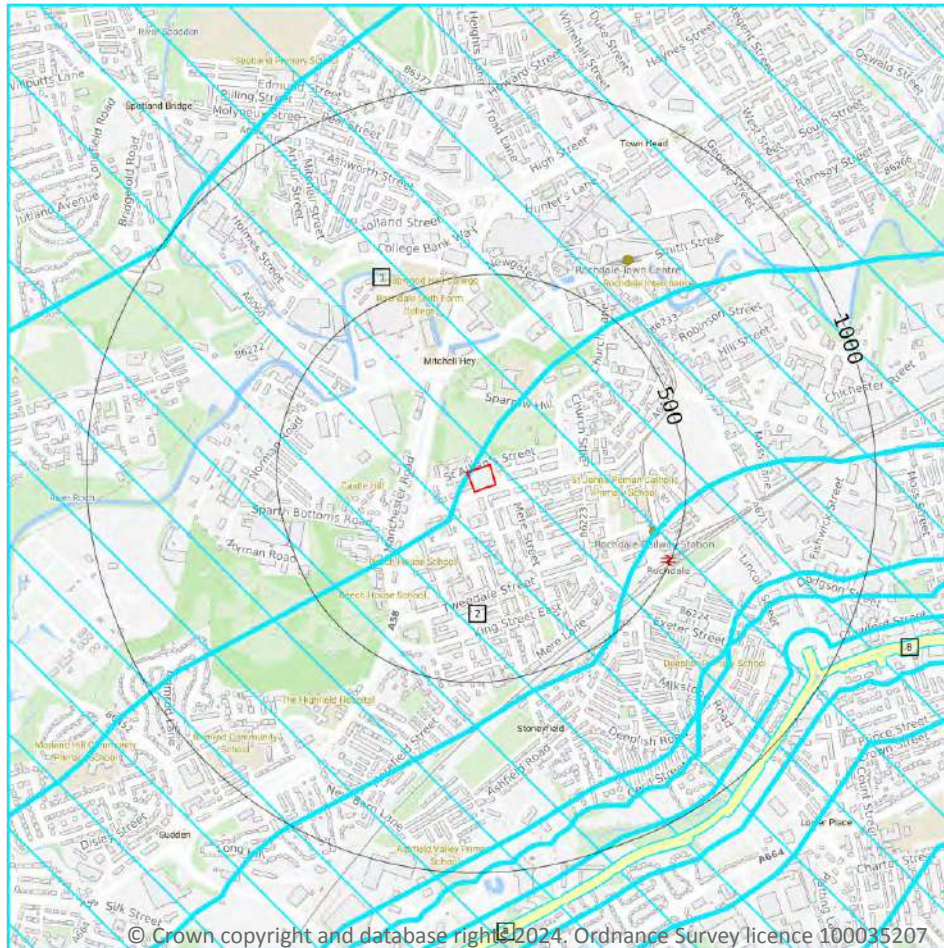
0

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

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



SSSI Impact Zones and Units



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

10.17 SSSI Impact Risk Zones

Records on site

2

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

Features are displayed on the SSSI Impact Zones and Units map on [page 87 >](#)



ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.
2	On site	Infrastructure - Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Residential - Residential development of 100 units or more. Rural residential - Any residential development of 50 or more houses outside existing settlements/urban areas. 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 500 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 net additional gross internal floorspace is > 1,000m² or any development needing its own water supply .

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m

4

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 87 >](#)



ID: 8
Location: 924m SE
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

ID: B
Location: 1097m S
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

ID: -
Location: 1224m S
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

ID: -
Location: 1554m S
SSSI name: Rochdale Canal
Unit name: Failsworth
Broad habitat: Standing Open Water And Canals
Condition: Unfavourable - Recovering
Reportable features:

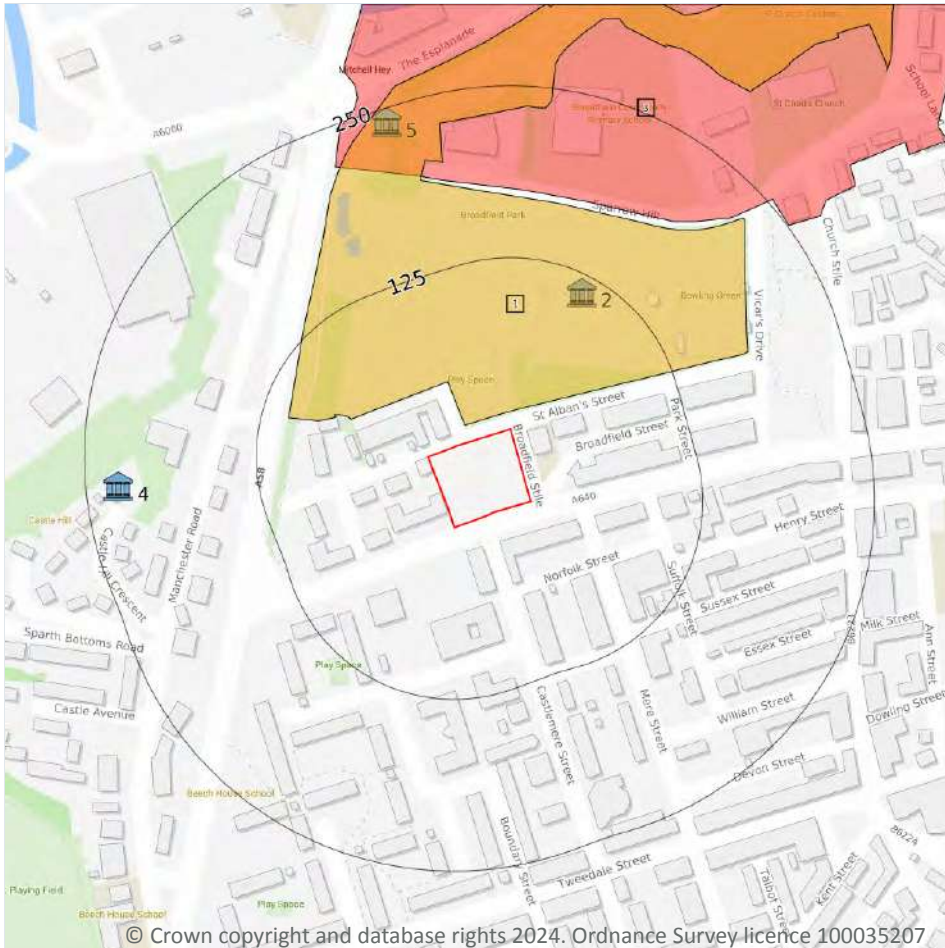


Feature name	Feature condition	Date of assessment
Population of Schedule 8 plant - Luronium natans, Floating Water-plantain	Unfavourable - Recovering	25/11/2010

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



11 Visual and cultural designations



- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

3

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

Features are displayed on the Visual and cultural designations map on [page 91 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
2	112m NE	Statue Of A Ashworth	II	1084267	12/02/1985
4	226m W	Castle Hill House	II	1045858	12/02/1985
5	240m N	Statue Of John Bright	II	1370017	12/02/1985

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 91](#) >

ID	Location	Name	District	Date of designation
3	173m N	Rochdale Town Centre	Rochdale	20/08/1973

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

1

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.

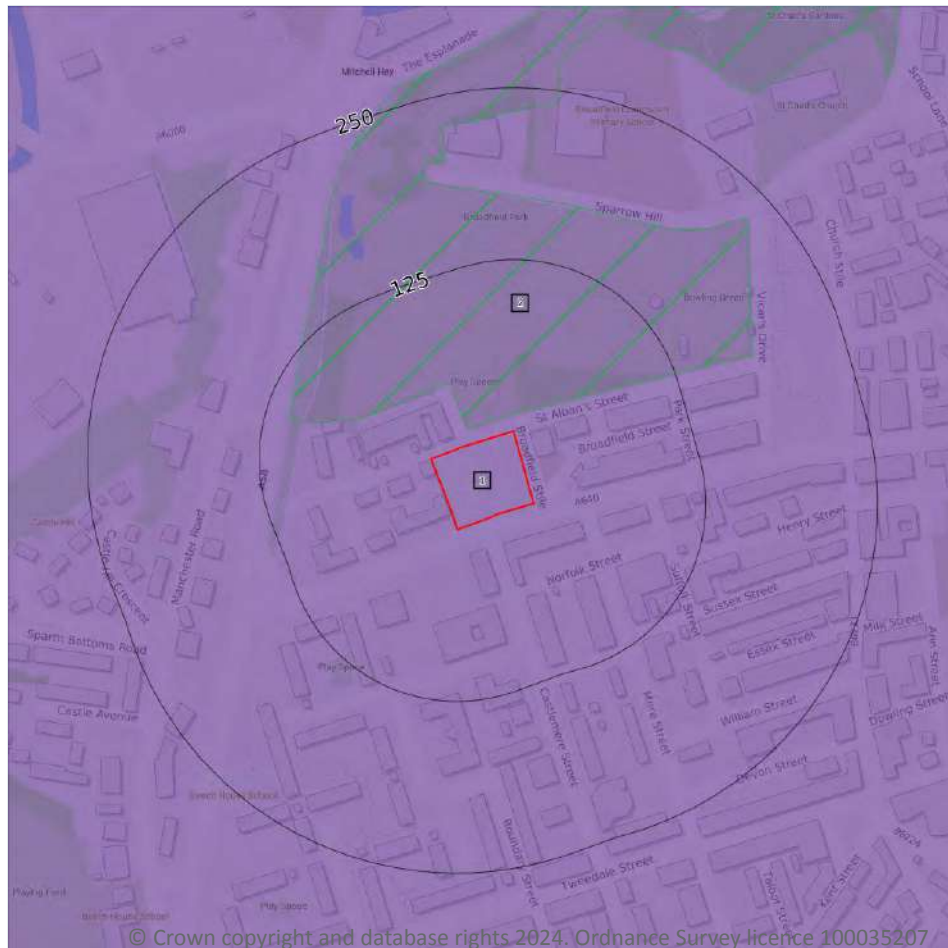
Features are displayed on the Visual and cultural designations map on [page 91](#) >

ID	Location	Name	Grade
1	13m N	Broadfield Park	II

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 94](#) >

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**1**

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.

Features are displayed on the Agricultural designations map on [page 94](#) >

ID	Location	Description	Reference	Application date
2	12m N	Selective Fell/Thin (Conditional)	010/56/06-07	23/11/2006

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

6

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

Features are displayed on the Habitat designations map on [page 96 >](#)

ID	Location	Main Habitat	Other habitats
A	74m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	98m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	130m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	159m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)



ID	Location	Main Habitat	Other habitats
4	178m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
5	221m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

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 96 >](#)

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
1	On site	NLUD Ref: 422500209	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

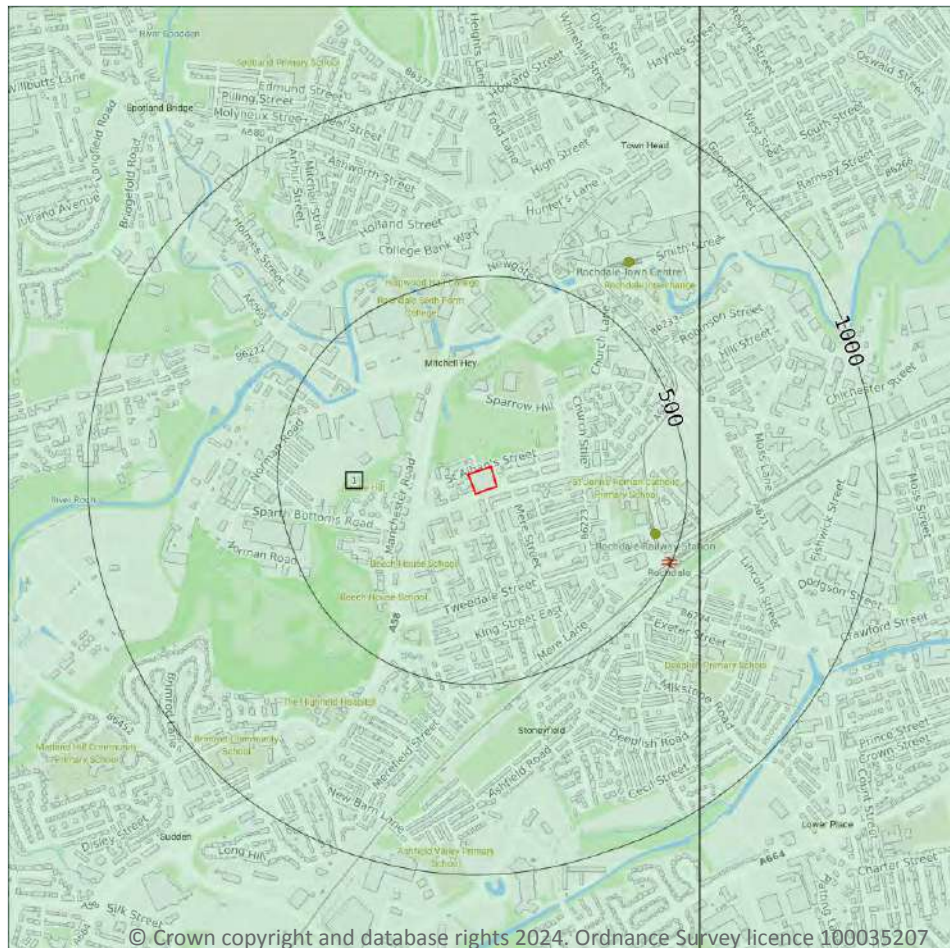
Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened 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.

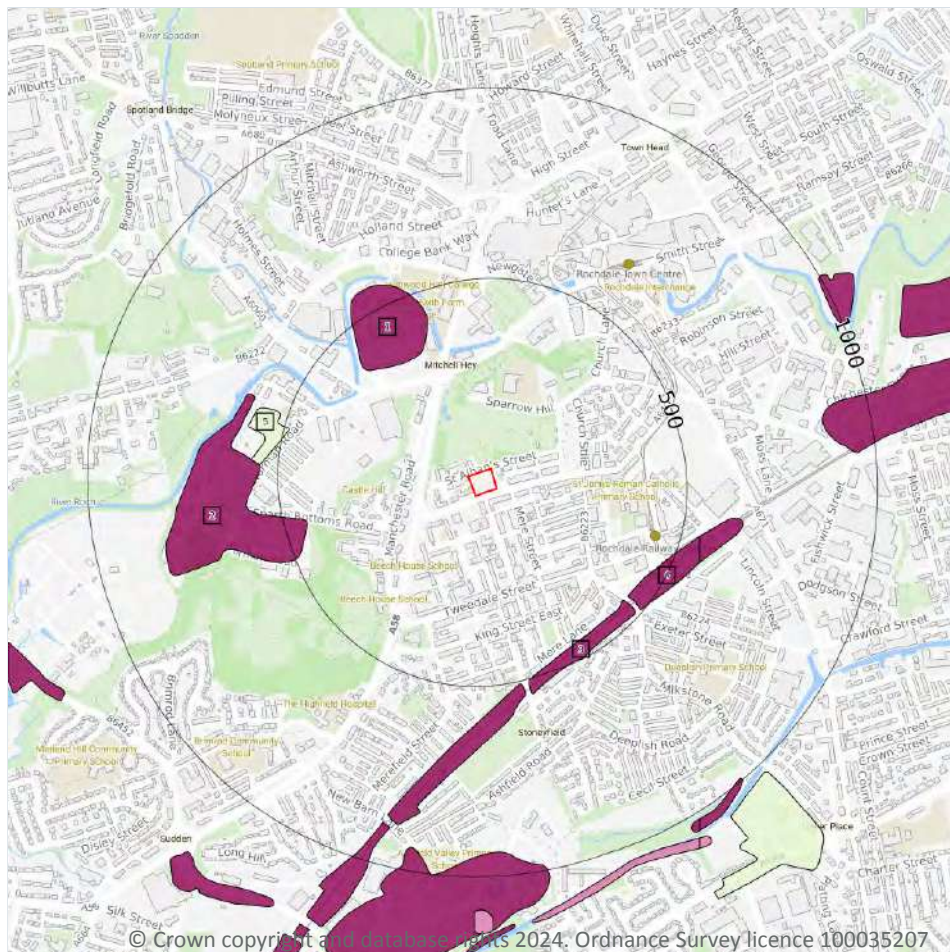
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 99](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SD81SE

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

5

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 100](#) >

ID	Location	LEX Code	Description	Rock description
1	342m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	440m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	442m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	445m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

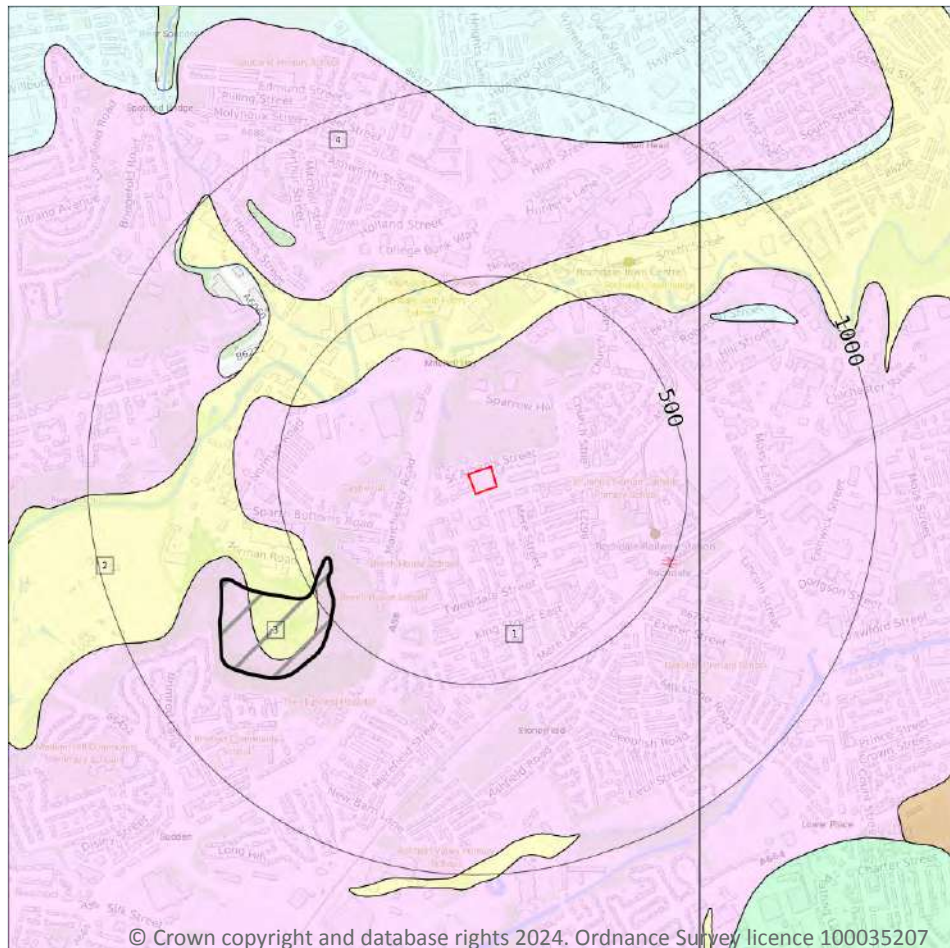


ID	Location	LEX Code	Description	Rock description
5	487m W	WMGR-ARTDP	Infilled Ground	Artificial Deposit

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

3

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

Features are displayed on the Geology 1:10,000 scale - Superficial map on [page 102](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel
2	270m N	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
4	454m N	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.



14.4 Landslip (10k)

Records within 500m

1

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.

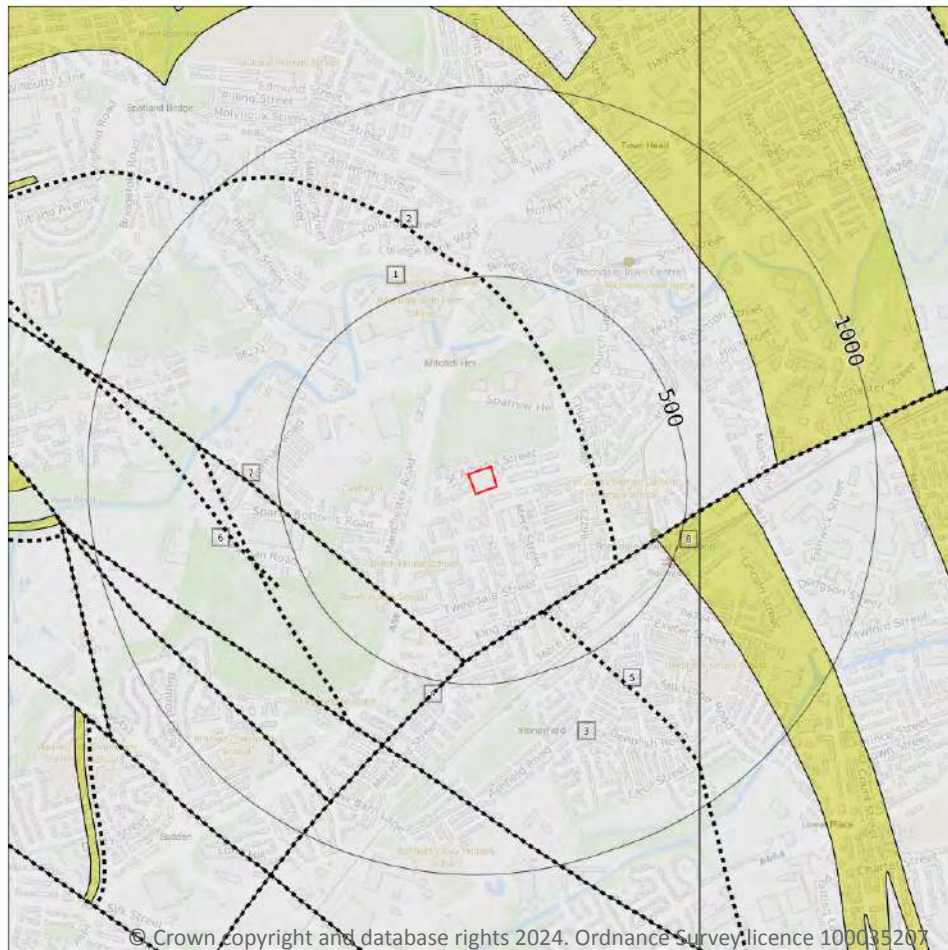
Features are displayed on the Geology 1:10,000 scale - Superficial map on [page 102](#) >

ID	Location	LEX Code	Description	Rock description
3	420m SW	SLIP-UNKNOWN	Landslide Deposits	Unknown/unclassified Entry

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

4

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 104](#) >

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	342m SE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age

ID	Location	LEX Code	Description	Rock age
6	355m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
8	441m E	OL-SDST	Old Lawrence Rock - 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

4

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.

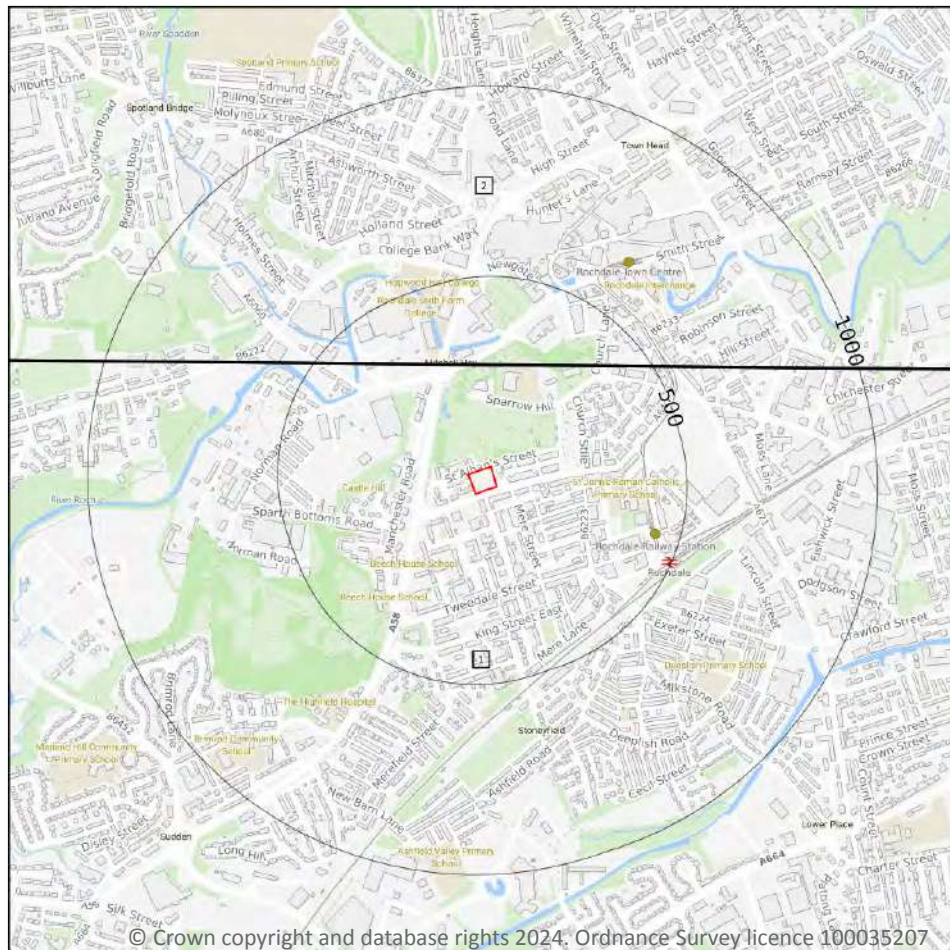
Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 104](#) >

ID	Location	Category	Description
2	249m NE	ROCK	Coal seam, inferred
4	342m SE	FAULT	Normal fault, inferred; crossmarks on downthrow side
5	349m SE	ROCK	Coal seam, inferred
7	355m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline

Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

2

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

Features are displayed on the Geology 1:50,000 scale - Availability map on [page 106](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	EW085_manchester_v4
2	268m N	No coverage	Full	Full	Full	EW076_rochdale_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

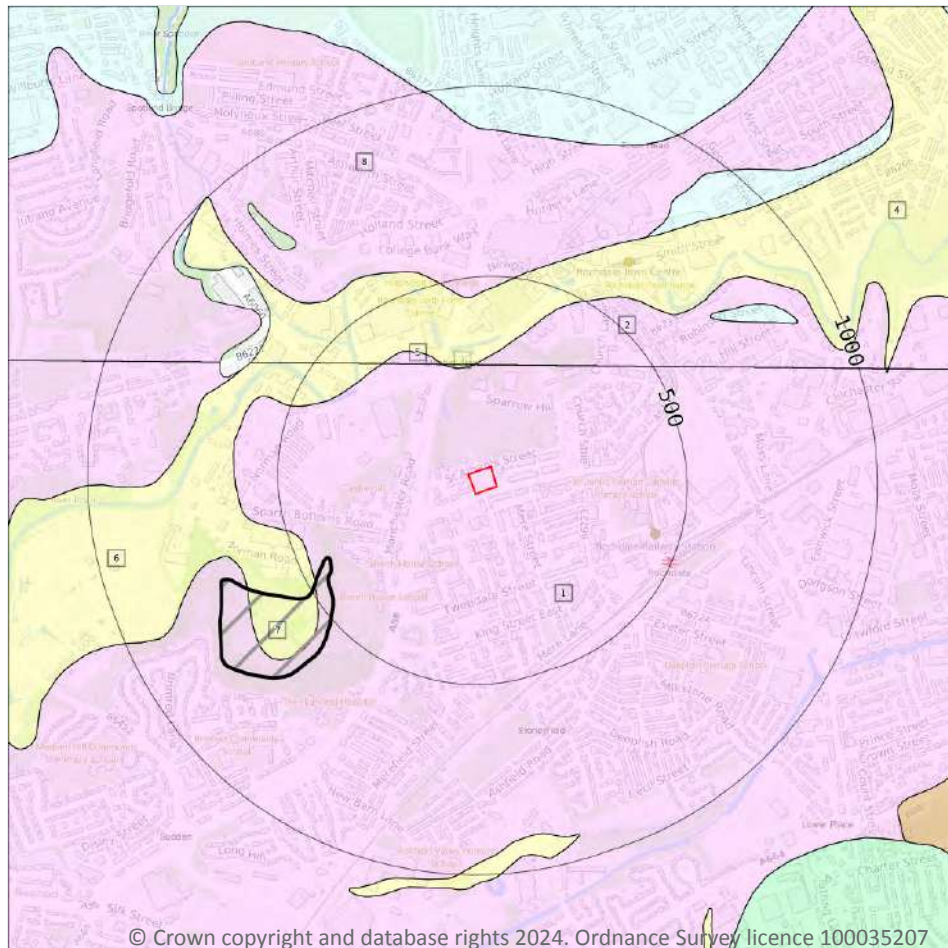
0

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

7

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 108](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
2	268m N	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
3	270m N	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
4	272m N	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL



ID	Location	LEX Code	Description	Rock description
5	294m N	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
6	368m NW	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
8	448m N	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

1

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

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

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

1

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.

Features are displayed on the Geology 1:50,000 scale - Superficial map on [page 108](#) >

ID	Location	LEX Code	Description	Rock description
7	420m SW	SLIP-UNKNOWN	LANDSLIDE DEPOSITS	UNKNOWN/UNCLASSIFIED ENTRY

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m

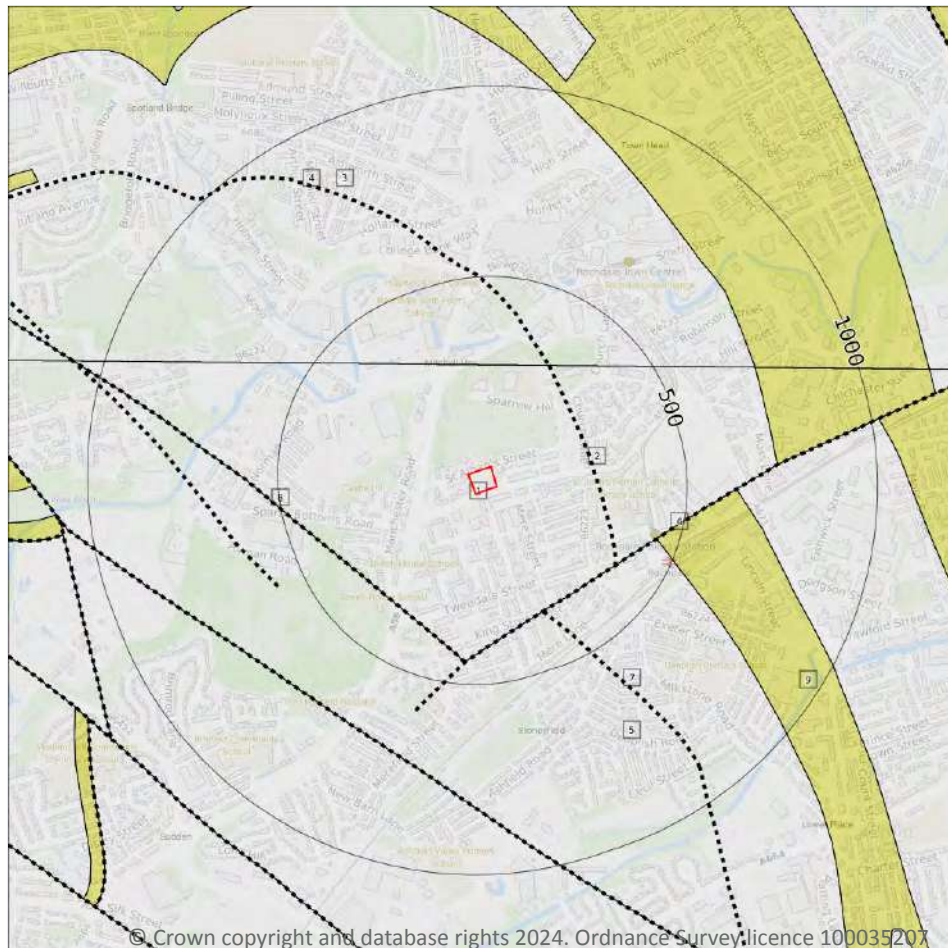
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

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

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

15.8 Bedrock geology (50k)

Records within 500m

4

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 110](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
3	268m N	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN



ID	Location	LEX Code	Description	Rock age
5	342m SE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
9	441m E	OL-SDST	OLD LAWRENCE ROCK - 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

5

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.

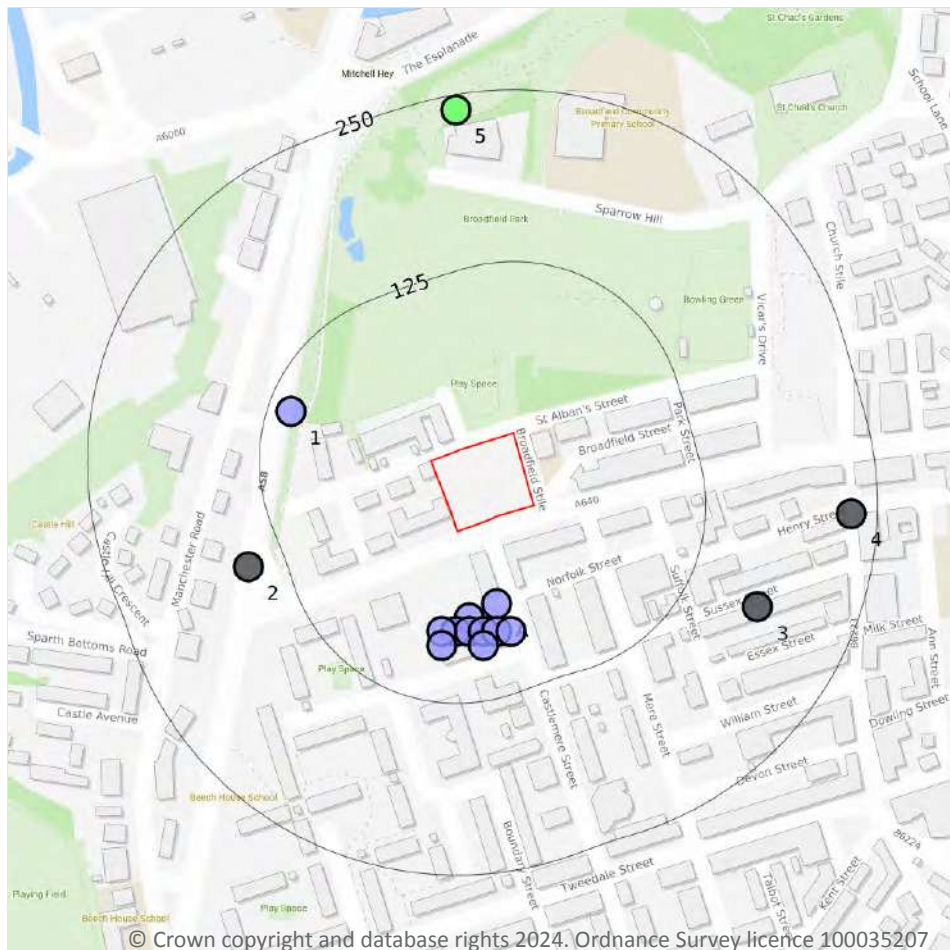
Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 110 >](#)

ID	Location	Category	Description
2	249m NE	ROCK	Coal seam, inferred
4	307m NE	ROCK	Coal seam, inferred
6	342m SE	FAULT	Fault, inferred
7	348m SE	ROCK	Coal seam, inferred
8	355m SW	FAULT	Fault, 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

15

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 112](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	60m S	389440 412770	CASTLEMERE STREET ROCHDALE TP3	2.55	N	30291 ↗
A	63m S	389420 412760	CASTLEMERE STREET ROCHDALE TP1	3.4	N	30289 ↗
A	73m S	389410 412750	CASTLEMERE STREET ROCHDALE BHA	9.0	N	30287 ↗

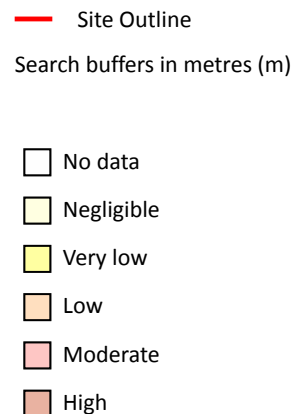
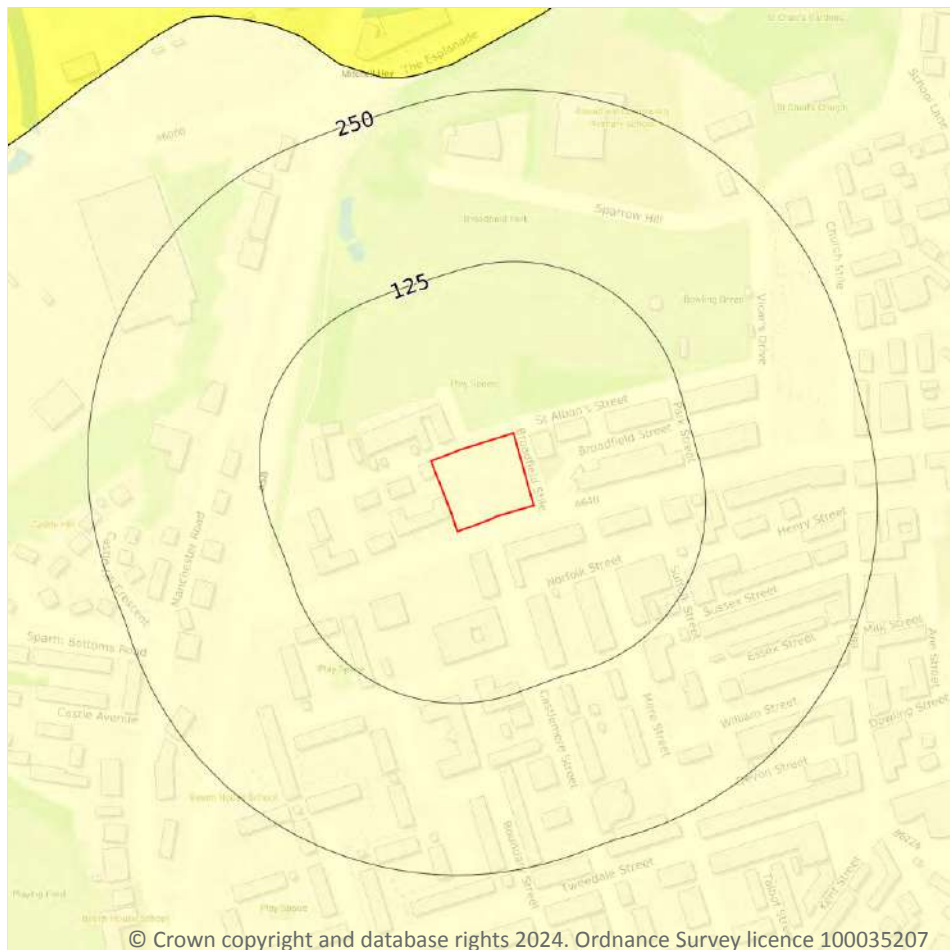


ID	Location	Grid reference	Name	Length	Confidential	Web link
A	73m S	389420 412750	CASTLEMERE STREET ROCHDALE TP4	3.6	N	30292 ↗
A	74m S	389400 412750	CASTLEMERE STREET ROCHDALE TP2	3.6	N	30290 ↗
A	75m S	389430 412750	CASTLEMERE STREET ROCHDALE TP5	3.0	N	30293 ↗
A	78m S	389440 412750	CASTLEMERE STREET ROCHDALE BHB	6.4	N	30288 ↗
A	82m S	389450 412750	CASTLEMERE STREET ROCHDALE TP7	3.3	N	30295 ↗
A	84m S	389400 412740	CASTLEMERE STREET ROCHDALE TP6	2.0	N	30294 ↗
A	85m S	389430 412740	CASTLEMERE STREET ROCHDALE TP8	3.3	N	30296 ↗
1	108m W	389290 412910	ROCHDALE 5	7.62	N	29911 ↗
2	152m W	389259 412797	W CENTRAL DIST ROCHDALE 16	-	Y	N/A
3	179m SE	389630 412768	W CENTRAL DIST ROCHDALE 14	-	Y	N/A
4	231m E	389698 412836	W CENTRAL DIST ROCHDALE 15	-	Y	N/A
5	239m N	389410 413130	ROCH VALLEY SEWER 6	24.0	N	29986 ↗

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m

1

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

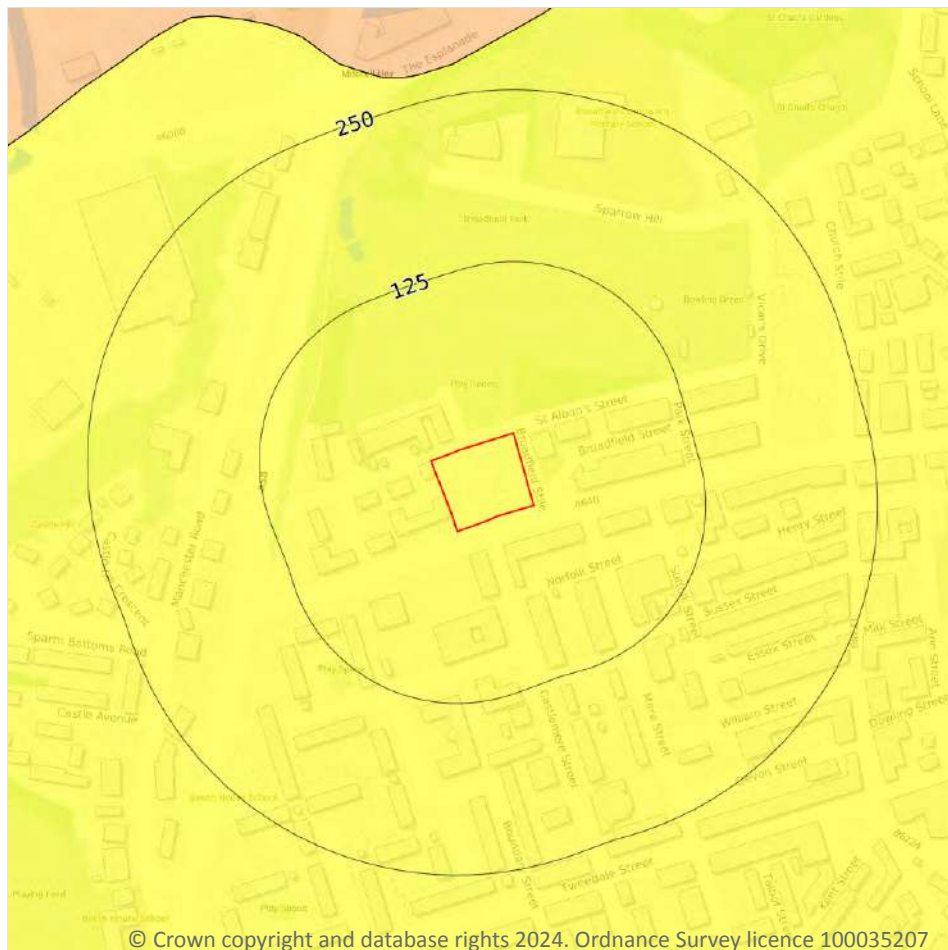
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 114 >](#)

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



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

17.2 Running sands

Records within 50m

1

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

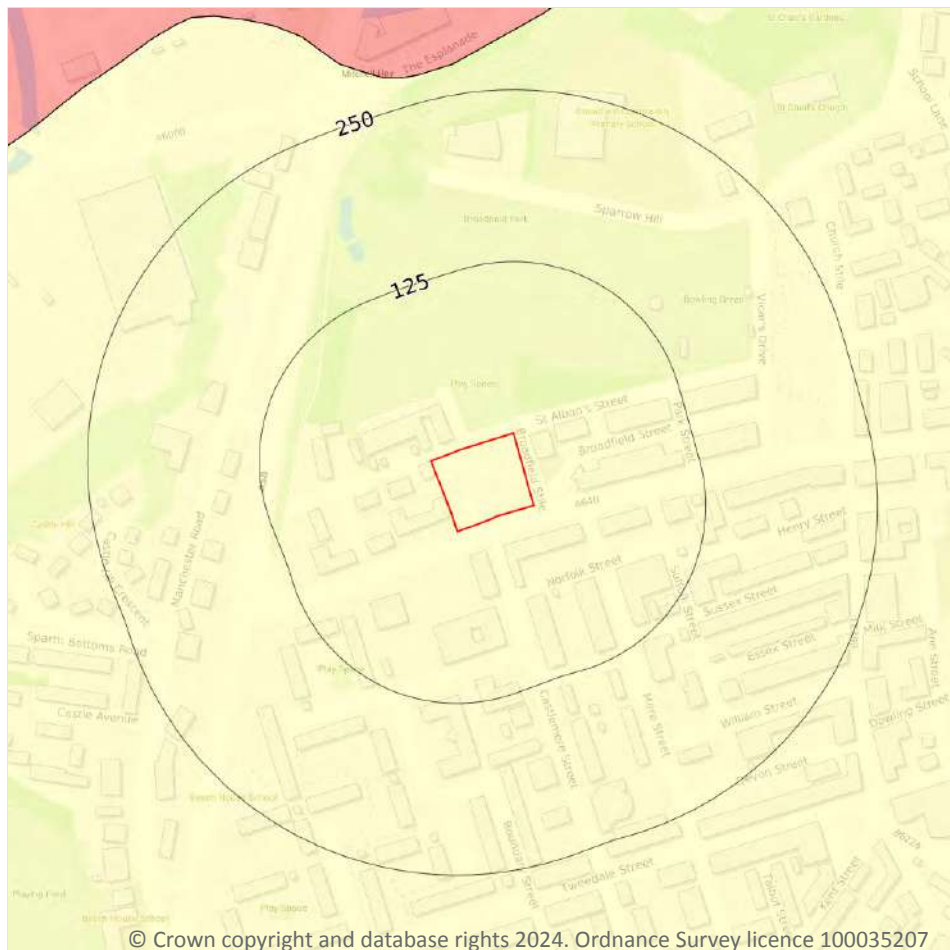
Features are displayed on the Natural ground subsidence - Running sands map on [page 115 >](#)

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



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

17.3 Compressible deposits

Records within 50m

1

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

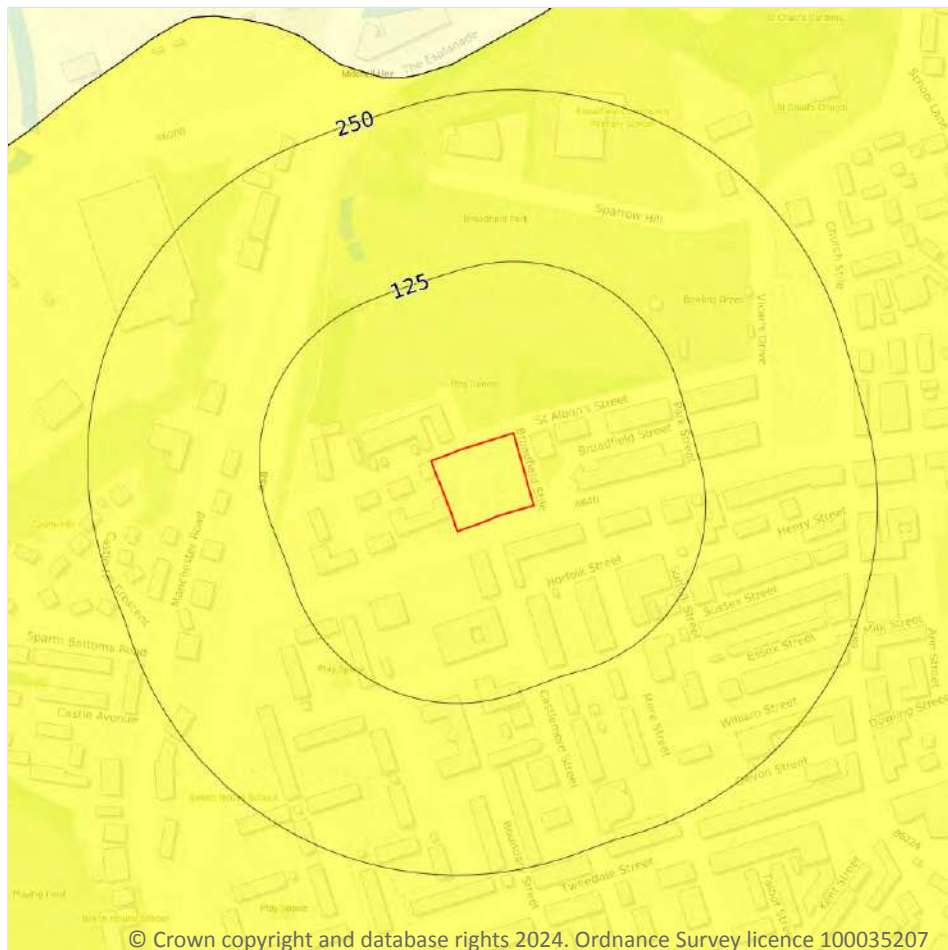
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 116 >](#)

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



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

17.4 Collapsible deposits

Records within 50m

1

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

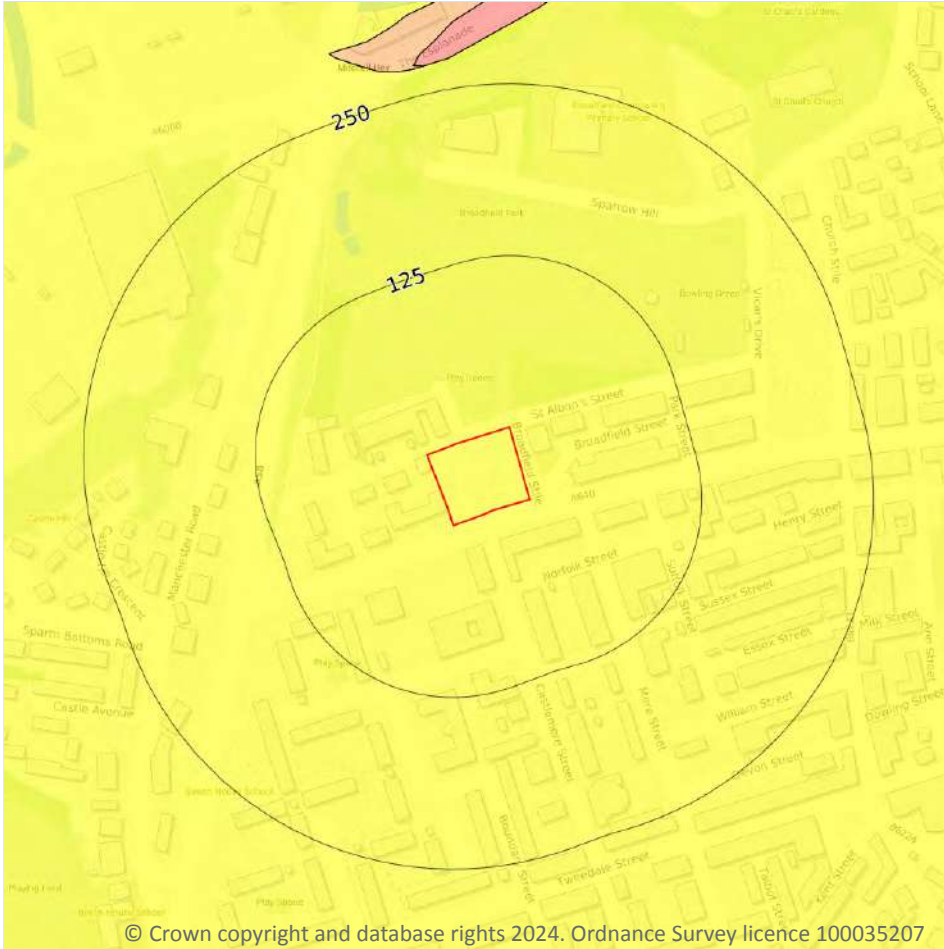
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 117](#) >

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



— Site Outline
Search buffers in metres (m)

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

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17.5 Landslides

Records within 50m

1

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

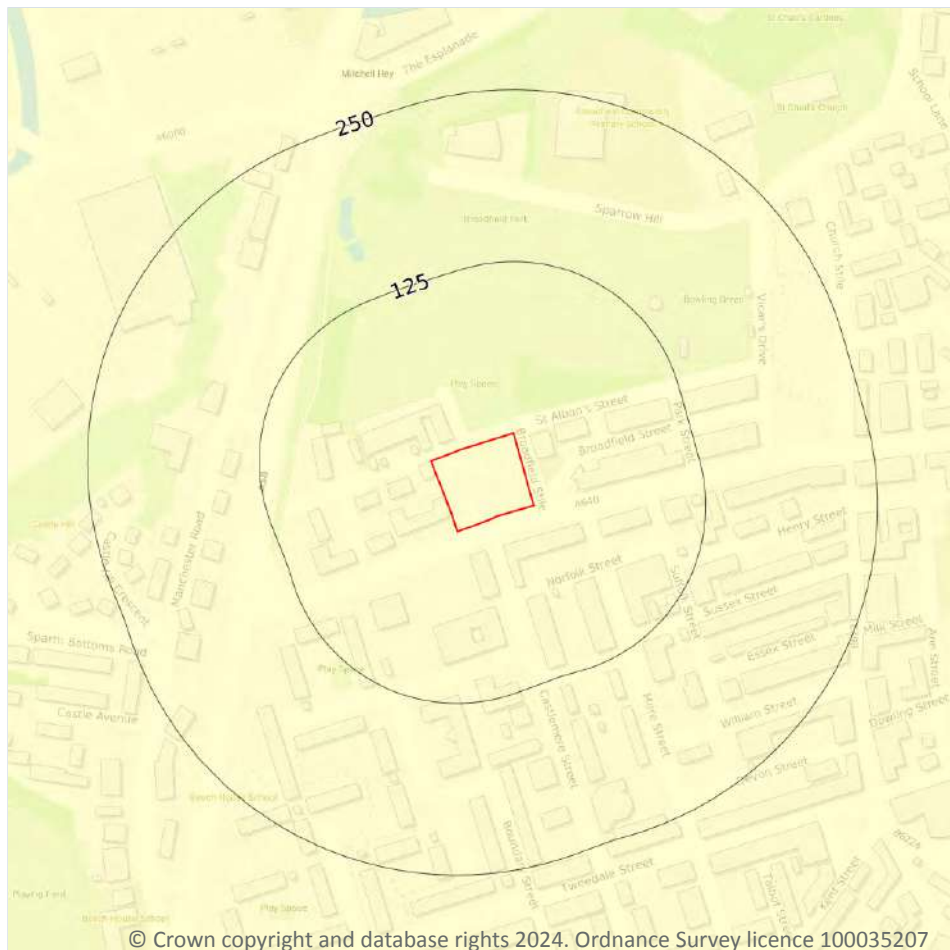
Features are displayed on the Natural ground subsidence - Landslides map on [page 118](#) >

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



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

17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 119](#) >

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



This data is sourced from the British Geological Survey.



18 Mining and ground workings



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

18.1 BritPits

Records within 500m

1

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

Features are displayed on the Mining and ground workings map on [page 121](#) >



ID	Location	Details	Description
E	239m W	Name: Castle Hill Sand Pit Address: Mitchell Hey, ROCHDALE, 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.

18.2 Surface ground workings

Records within 250m	31
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Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on [page 121](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
1	14m N	Unspecified Pit	1968	1:10560
2	91m W	Unspecified Ground Workings	1890	1:10560
A	101m NW	Unspecified Heap	1928	1:10560
A	101m NW	Unspecified Heap	1938	1:10560
3	116m W	Refuse Heap	1851	1:10560
A	132m NW	Pond	1890	1:10560
A	133m NW	Pond	1968	1:10560
A	136m NW	Unspecified Heap	1890	1:10560
A	149m NW	Pond	1956	1:10560
A	150m NW	Pond	1908	1:10560
A	151m NW	Pond	1938	1:10560
A	151m NW	Pond	1928	1:10560
A	153m NW	Pond	1992	1:10000
A	153m NW	Pond	1987	1:10000
A	153m NW	Pond	1975	1:10000
B	162m NW	Unspecified Ground Workings	1992	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
B	162m NW	Unspecified Ground Workings	1987	1:10000
B	162m NW	Unspecified Ground Workings	1975	1:10000
B	162m NW	Unspecified Ground Workings	1968	1:10560
C	168m W	Unspecified Ground Workings	1890	1:10560
A	174m N	Unspecified Heap	1928	1:10560
A	174m N	Unspecified Heap	1938	1:10560
C	175m W	Unspecified Ground Workings	1992	1:10000
C	175m W	Unspecified Ground Workings	1987	1:10000
C	175m W	Unspecified Ground Workings	1975	1:10000
C	175m W	Unspecified Ground Workings	1968	1:10560
4	182m E	Grave Yard	1908	1:10560
D	185m N	Unspecified Pit	1968	1:10560
D	186m N	Unspecified Pit	1908	1:10560
A	188m NW	Refuse Heap	1851	1:10560
E	233m SW	Sand Pit	1851	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m

0

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

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m

0

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

This data is sourced from Groundsure.



18.5 Historical Mineral Planning Areas

Records within 500m

0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

0

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

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

0

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

0

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

This data is sourced from The Coal Authority.



18.9 Researched mining

Records within 500m

1

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

Location	Mineral type
487m W	Stone

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m

0

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

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m

0

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

This data is sourced from Groundsure.

18.12 Coal mining

Records on site

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.



18.13 Brine areas

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

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

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

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

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

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

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

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).



19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.

19.5 National karst database

Records within 500m

0

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

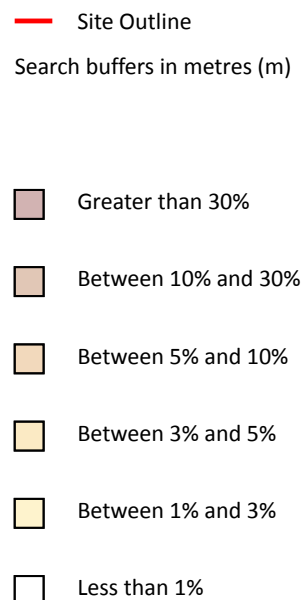
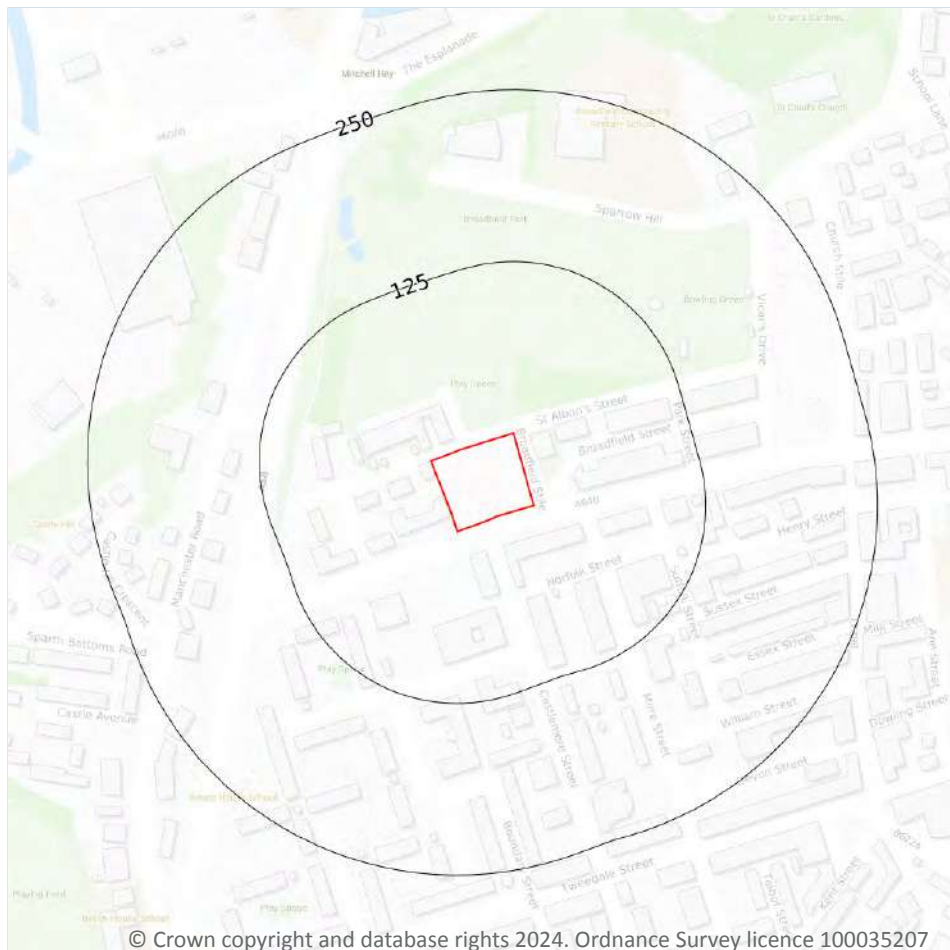
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.



20 Radon



20.1 Radon

Records on site

1

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

Features are displayed on the Radon map on [page 129](#) >

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



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



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	300 - 600 mg/kg	240 - 360 mg/kg	1.8 - 2.2 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
33m E	15 - 25 mg/kg	No data	300 - 600 mg/kg	240 - 360 mg/kg	1.8 - 2.2 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

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

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

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

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects

22.1 Underground railways (London)

Records within 250m**0**

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m**0**

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

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m**0**

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m**0**

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

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m**0**

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



This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m

0

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

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m

0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

Terms and conditions

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



APPENDIX 6
BGS BOREHOLE LOGS

34089.

561

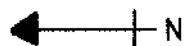
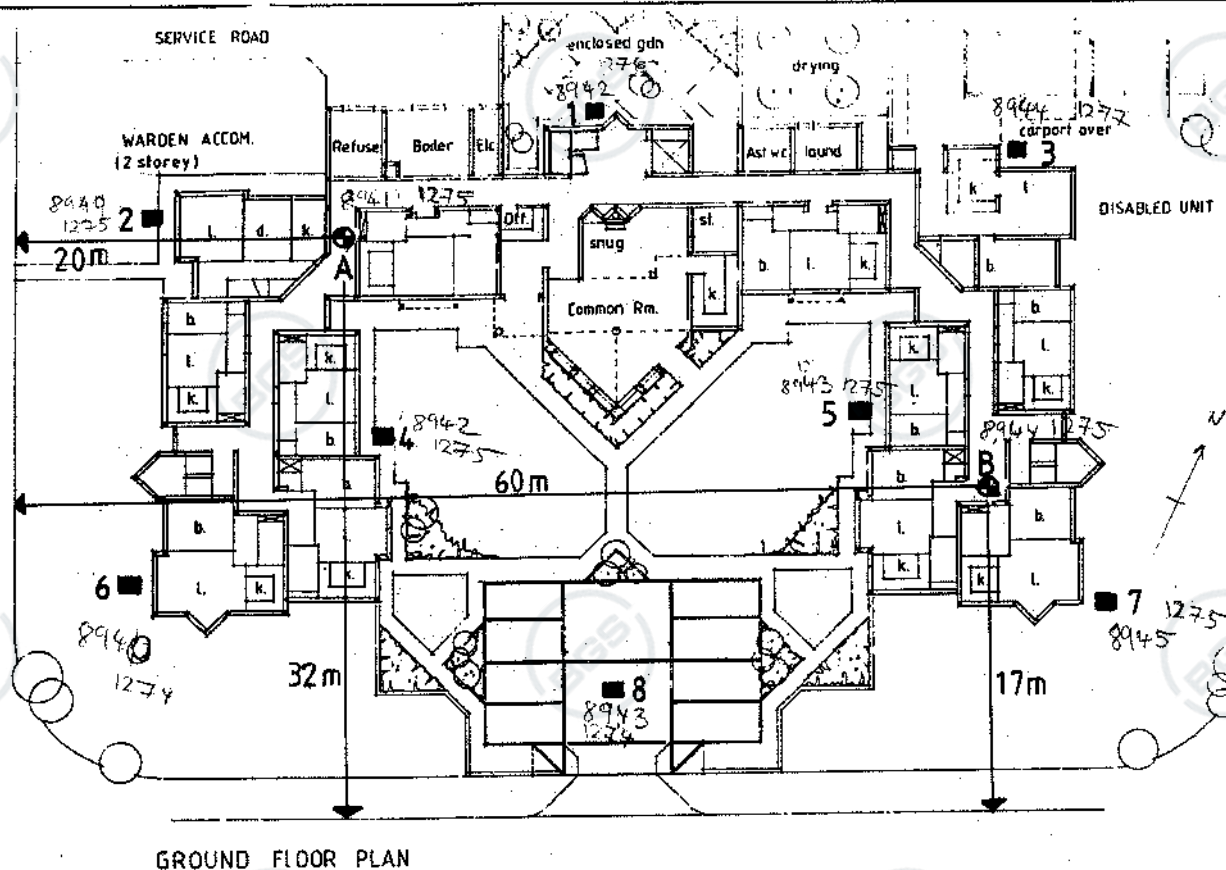
SD813E/
NGA: 89411275

STRATA SURVEYS LTD., Telephone: 0606 84 4637 Fax: 0606 84 6657					Borehole Number : A Sheet 1 of 1.							
Job Number : 6220 Location : Castlemere St., Rochdale. Client : St. Vincents Housing Association Ltd					Dia. & Drilling Methods light cable percussion 150mm diameter							
Description of Strata	Red. Level	Legend	Thick-ness	Depth	Sample Depths	Sample Types	N Value	Cu	#	Water Level	Pie-zo	Daily Prog.
MADE GROUND. (Sandy, silty and brick fill)	144.50		(1.50)	0.00	0.50 - 0.95	S 1	N 12					
Medium dense yellow slightly clayey gravelly SAND.	143.00		(3.20)	1.50	1.50 - 1.95	S 2	N 28					
					2.60 - 3.05	S 3	N 12					
					3.50 - 3.95	S 4	N 16					
					4.50 - 4.95	S 5	N 8					
Firm becoming soft to firm @ 7.0m fine sandy very silty CLAY.	139.80		(4.30)	4.70	5.40 - 5.85	S 6	N 14					
					7.00 - 7.45	S 7	N 6					
					8.60 - 9.05	S 8	N 8					
Borehole Completed	135.50			9.00								28/10
General Remarks : No water encountered during boring. 30 minutes spent digging out rubble. One hour spent chiselling sand and gravel.					Dates : 26/10/91 Driller : D.H. Engineer: A.M.							

2.3 SITE PLAN

Castlemere Street , Rochdale

SD81SE 561-570.



■ TRIAL PITS

⊕ BOREHOLES

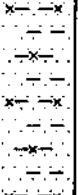
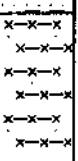




SD 81 SE/

NGR: 8944 1275

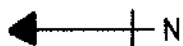
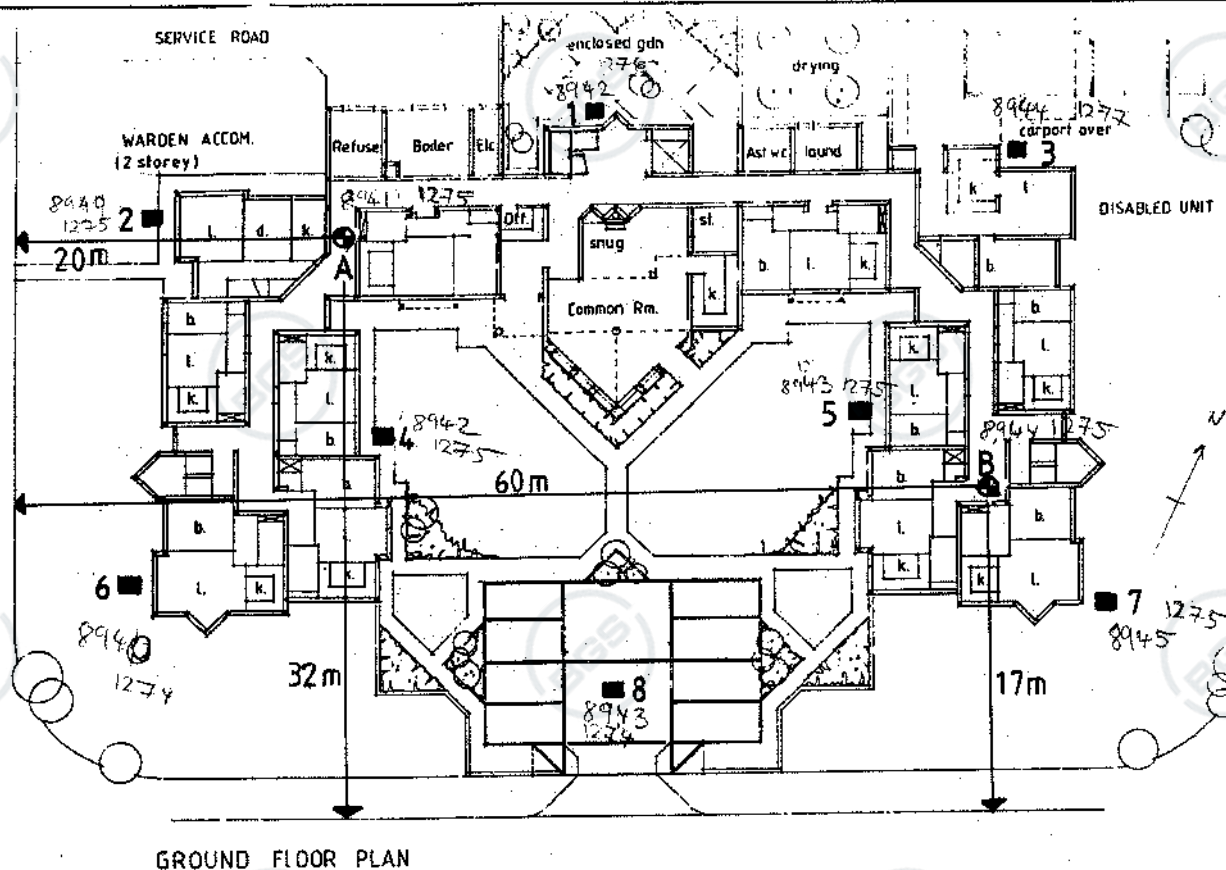
562

STRATA SURVEYS LTD., Telephone: 0606 84 4637 Fax: 0606 84 6657						Borehole Number : B Sheet 1 of 1.						
Job Number : 6220 Location : Castlemere St., Rochdale. Client : St. Vincents Housing Association Ltd						Dia. & Drilling Methods light cable percussion 150mm diameter						
Description of Strata	Red. Level	Legend	Thick-ness	Depth m	Sample Depths	Sample Types	N Value	Cu	#	Water Level	Pie-zo	Daily Prog.
MADE GROUND. (Medium dense brick, rubble, sand and coarse to fine gravel fill)	143.50		(1.50)	0.00	0.50 - 0.95	S 1 D 1	N 14					
					0.70							
MADE GROUND. (Medium dense brown sandy clay fill, with occasional brick fragments)	142.00 141.80 141.70		(0.20) (0.10)	1.50	1.50 - 1.95	S 2 D 2	N 20					
					1.70 1.80	1.80	2.00 - 2.45	U 1				
Stiff brown silty, gravelly, very sandy CLAY.			(1.70)									
Medium dense yellow fine to medium grained SAND, brown slightly clayey sand at 1.80m.					2.90 - 3.35	S 3	N 17					
	140.00		(1.70)	3.50								
Loose brown silty clayey SAND.					4.20 - 4.65	S 4	N 6					
	138.30		(1.20)	5.20	5.20 - 5.65	S 5	N 14					
Medium dense brown clayey SILT with many small fine grained sand lenses.												
Borehole Completed	137.10			6.40								29/10
General Remarks : No water encountered during boring. Chiselling dense sand for 30 minutes.						Dates : 29/10/91 Driller : O.M. Engineer: A.M.						

2.3 SITE PLAN

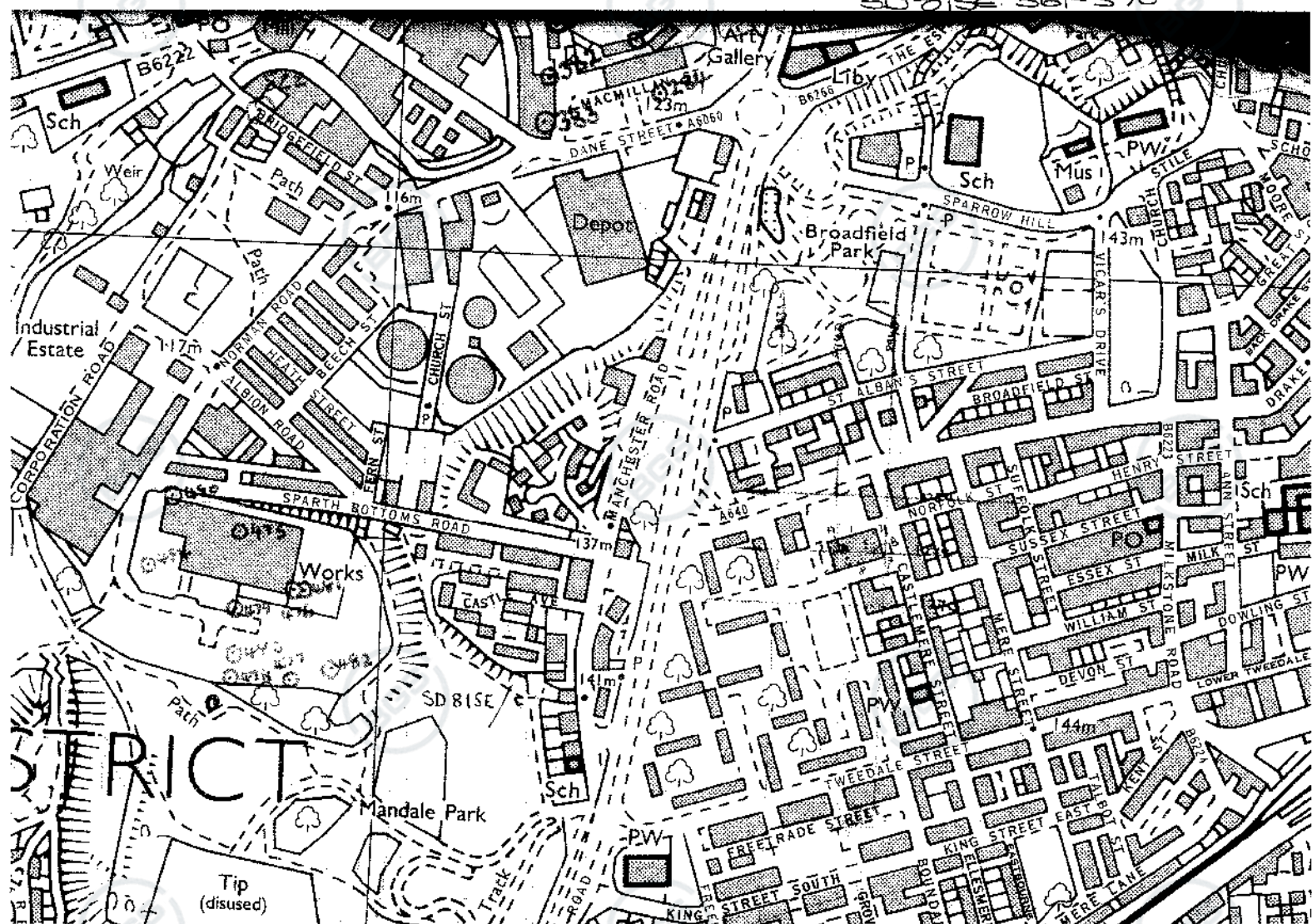
Castlemere Street , Rochdale

SD81SE 561-570.



■ TRIAL PITS

⊕ BOREHOLES





SD 81 SE /

NGR: 8942 1276

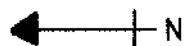
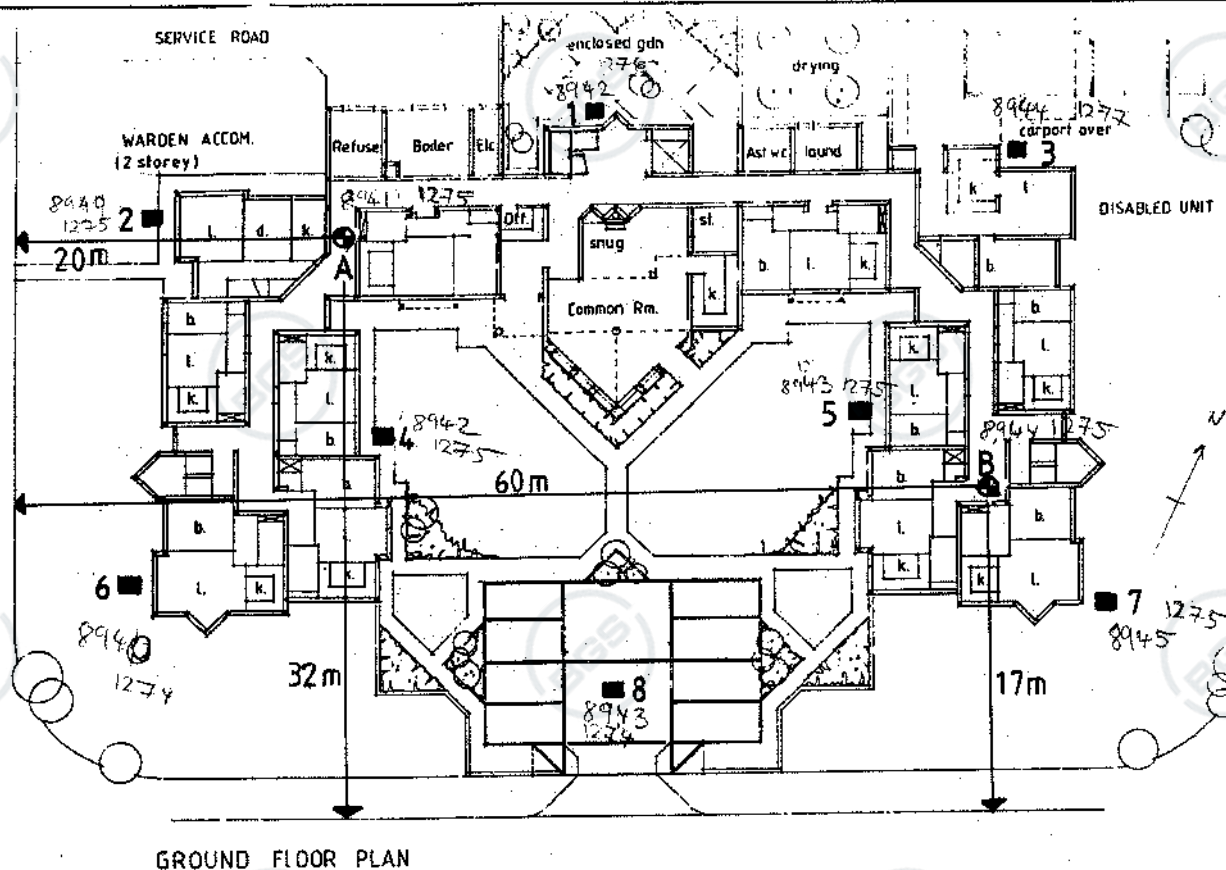
563

STRATA SURVEYS LTD., HOLMES CHAPEL ROAD, MIDDLEWICH, CHESHIRE. CW10 0JB Telephone: 0606 84 4537 Fax: 0606 84 6657					Trial Pit No. : TP1 Sheet No. 1 Of 1. Depth 0 to 4 metres. Dates : 8/11/91				
Job Number : 6220 Location : Castlemere St., Rochdale. Client : St. Vincents Housing Assoc. Ltd.					Equipment and Methods J.C.B. 3cx Excavator. Engineer : G.H.				
Description of Strata	Red. Level	Legend	Thick- ness	Depth m	Sample Depths	Sample Types	NMC	Cu	Remarks
MADE GROUND. (Brown sand and gravel fill, with tarmac slabs, concrete rubble and white bricks)	144.50		(0.90)	0.00 0.50		D 1			
Red/brown SAND and GRAVEL.	143.60		(0.50)	0.90 1.20		D 2			
Red/brown fine to medium grained SAND, sand appears compact and layered.	143.10		(2.00)	1.40 2.10		D 3			
End of Trial Pit	141.10			3.40					
Key Pp Pocket Penetrometer Sample Types U Undisturbed D Disturbed B Bulk Disturbed W Water In-Situ Tests V Vane Test Pb Plate Bearing Test CBR In-Situ CBR Test					General Remarks No water entries into pit. Sides of pit unstable through the made ground, collapsing in the sand.				
Sketch/Plan									

2.3 SITE PLAN

Castlemere Street , Rochdale

SD81SE 561-570.



■ TRIAL PITS

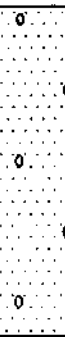
⊕ BOREHOLES



564

SD 81 SE/

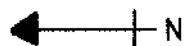
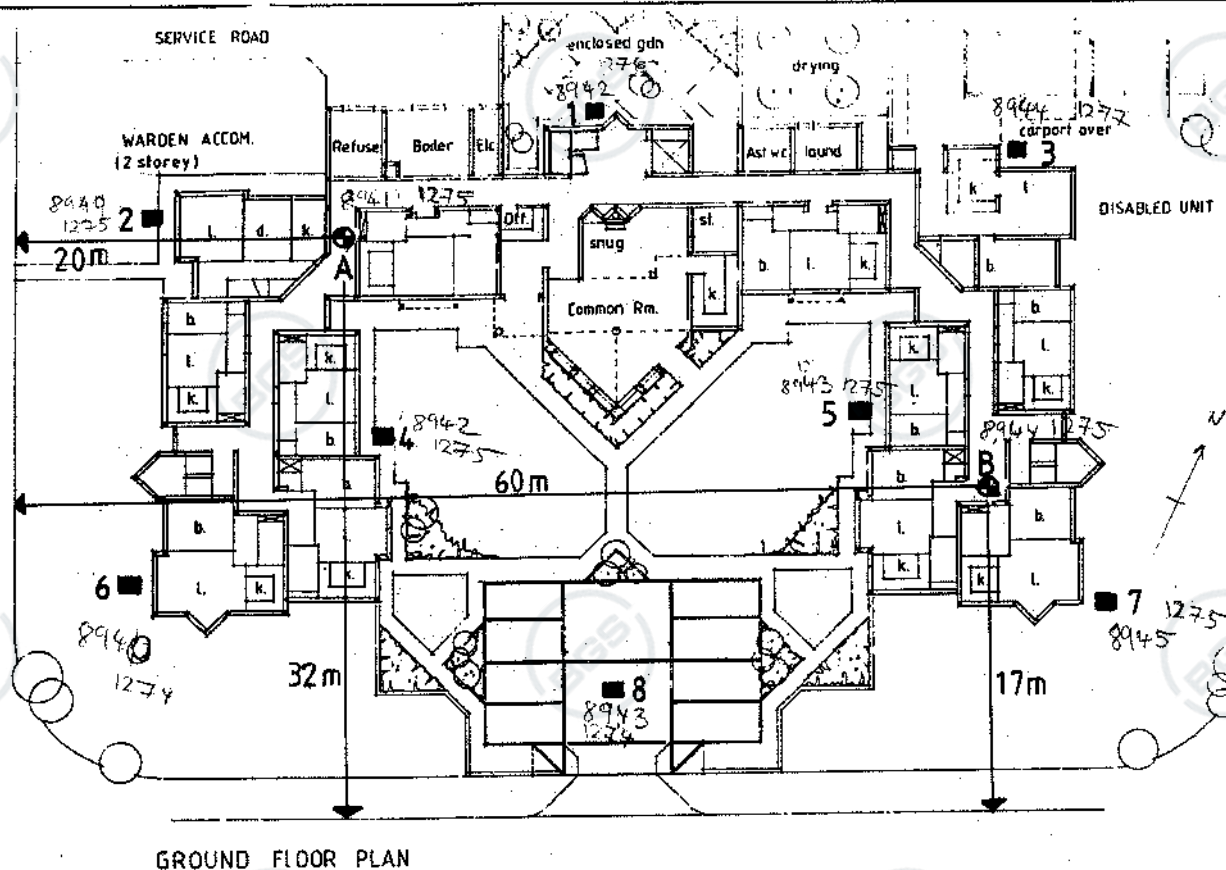
NGR: 8940 1275

STRATA SURVEYS LTD., HOLMES CHAPEL ROAD, MIDDLEWICH, CHESHIRE, CW10 0JB Telephone: 0606 84 4637 Fax: 0606 84 6657					Trial Pit No. : TP2 Sheet No. 1 of 1. Depth 0 to 4 metres. Dates : 8/11/91				
Job Number : 6220 Location : Castlemere St., Rochdale. Client : St. Vincents Housing Assoc. Ltd.					Equipment and Methods J.C.B. 3cx Excavator. Engineer : G.H.				
Description of Strata	Red. Level	Legend	Thick-ness	Depth	Sample Depths	Sample Types	NMC	Cu	Remarks
MADE GROUND. (Grey sand, gravel and cobble fill with concrete reinforcing wire, tarmac and brick, with occasional black tar residue)			(0.90)	0.00 0.50		O 1			
Red brown fine to medium SAND and fine to coarse GRAVEL.			(0.30)	0.90 1.20		O 2			
Red/brown medium dense fine to medium grained SAND, with small fine gravel bands at top of horizon. Sides of pit collapsing.			(2.40)	1.20 3.60					
----- End of Trial Pit -----									
Key Pp Pocket Penetrometer Sample Types U Undisturbed O Disturbed B Bulk Disturbed W Water In-Situ Tests V Vane Test Pb Plate Bearing Test CBR In-Situ CBR Test					Progress / Water Levels — Borehole Depth — Water Level — Water Strike General Remarks No water encountered in the pit. Sides of pit collapsing in the sand.				
Sketch/Plan									

2.3 SITE PLAN

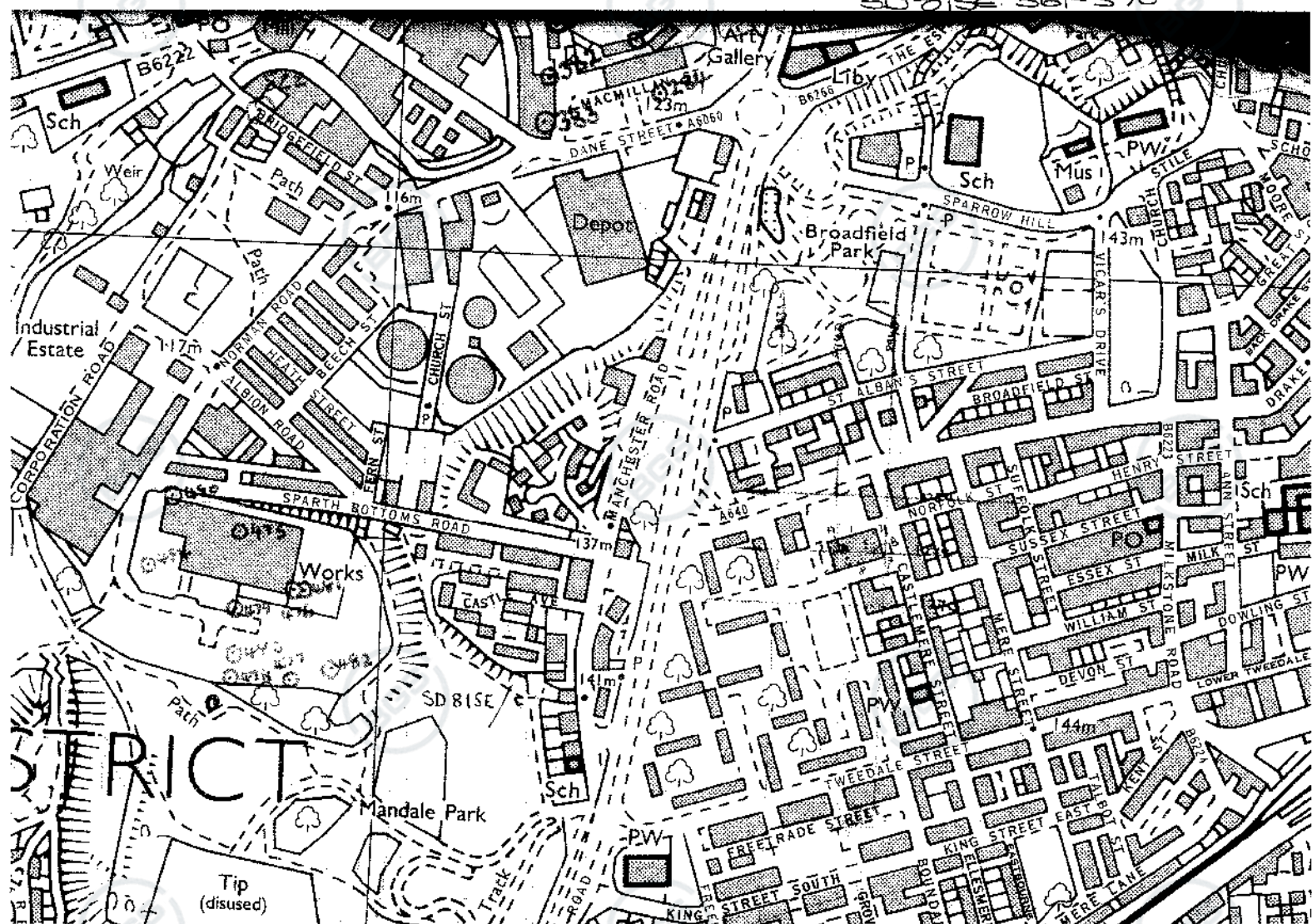
Castlemere Street , Rochdale

SD81SE 561-570.



■ TRIAL PITS

⊕ BOREHOLES



565

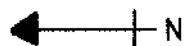
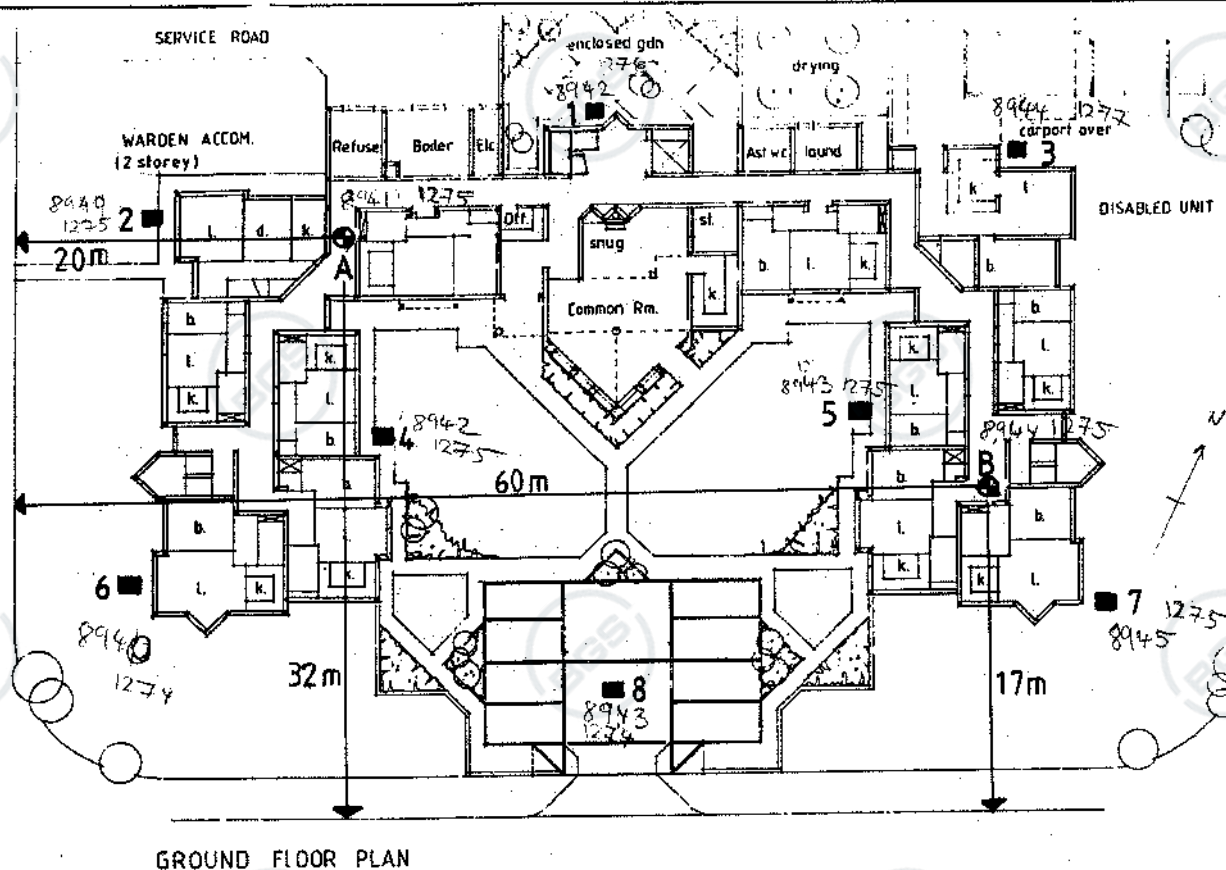
SD81SE/
NGR: 8944 1277

STRATA SURVEYS LTD.. HOLMES CHAPEL ROAD, MIDDLEWICH, CHESHIRE. CW10 0JB Telephone: 0606 84 4637 Fax: 0606 84 6657					Trial Pit No. : TP3 Sheet No. 1 Of 1. Depth 0 to 4 metres. Dates : 8/11/91				
Job Number : 6220 Location : Castlemere St., Rochdale. Client : St. Vincents Housing Association Ltd					Equipment and Methods J.C.B. 3cx Excavator. Engineer : G.H.				
Description of Strata	Red. Level	Legend	Thick-ness	Depth	Sample Depths	Sample Types	NMC	Cu	Remarks
MADE GROUND. (Concrete, brick and cobbles in a brown clayey gravel and sand fill, sides collapsing)	144.60		(0.60)	0.00					
MADE GROUND. (Old metal piping and old tarmac pieces)	144.00		(0.80)	0.60	0.60	0 1			
MADE GROUND. (Brown sand and gravel fill with occasional bricks)	143.20		(0.60)	1.40					
Red/brown SAND and GRAVEL, grading into a medium grained red sand with fine to medium gravel with occasional clay flecks	142.60		(0.55)	2.00					
End of Trial Pit	142.05			2.55	2.55	0 2			
Key Pp Pocket Penetrometer Sample Types U Undisturbed Progress / Water Levels D Disturbed — Borehole Depth B Bulk Disturbed <u>Y</u> Water Level W Water <u>V</u> Water Strike In-Situ Tests V Vane Test Pb Plate Bearing Test CBR In-Situ CBR Test					General Remarks No water encountered in pit. Sides of pit collapsing in the fill, stable in the sand.				
Sketch/Plan									

2.3 SITE PLAN

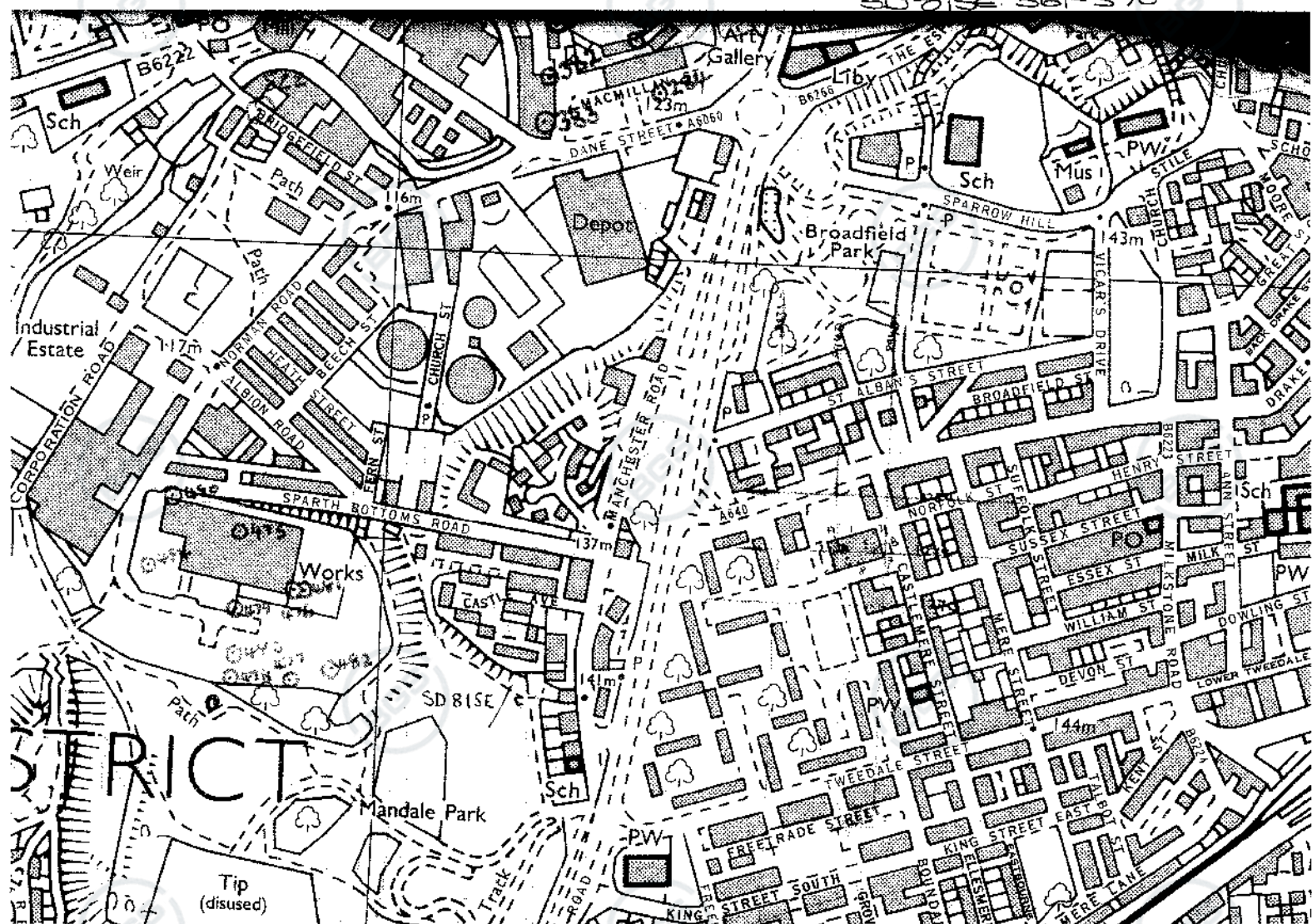
Castlemere Street , Rochdale

SD81SE 561-570.



■ TRIAL PITS

⊕ BOREHOLES



APPENDIX 7

ZETICA UXO RISK MAP

UNEXPLODED BOMB RISK MAP



SITE LOCATION

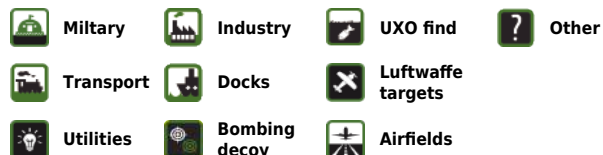
Location: OL16 1PS,
Map Centre: 389844,412984



This map principally indicates a hazard from Unexploded Bombs (UXB) due to WWII bombardment. Other sources of Unexploded Ordnance (UXO) may be present. It should be noted that this map does not represent UXO risk and should not be reported as such when reproduced.

LEGEND

- High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- Low:** Areas indicated as having 15 bombs per 1000acre or less.



How to use your Unexploded Bomb (UXB) risk map?

This map indicates the potential for UXBs to be present because of World War Two (WWII) bombing. It can be incorporated into a technical report, such as a Phase 1 Desk Study, or similar document as an indication of the potential for UXO encounter on a Site. Other sources of UXO may also be indicated, although note that these are not comprehensive and more detailed research is required to confirm their presence.

What if my Site is in a moderate or high density area?

We typically recommend that a detailed UXO desk study and risk assessment is undertaken for sites in an area with a moderate or high bombing density. Additionally, if your site is in close proximity to a strategic target, military establishment, airfield or bombing decoy, then [additional detailed research](#) is recommended.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirm that there is a low potential for UXO to be present on your site, then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

If you are unsure whether other sources of UXO may be present, you can request one of our [pre-desk study assessments \(PDSA\)](#) by emailing a site boundary and location to pdsa@zetica.com.

You should never plan site work or undertake a risk assessment using these maps alone. More detail is required, to include an assessment of the likelihood of a source of UXO hazard from other military activity not reflected on these maps.

If I have any questions, who do I contact?

tel: [+44 \(0\) 1993 886682](tel:+441993886682) email: uxo@zetica.com web: www.zeticauxo.com

The information in this UXB risk map is derived from a range of sources and should be used with the [accompanying notes on our website](#).

Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgement. The copyright remains with Zetica Ltd.

UNEXPLODED BOMB RISK MAP



SITE LOCATION

Location: OL16 1PS,
Map Centre: 389844,412984



This map principally indicates a hazard from Unexploded Bombs (UXB) due to WWII bombardment. Other sources of Unexploded Ordnance (UXO) may be present. It should be noted that this map does not represent UXO risk and should not be reported as such when reproduced.

LEGEND

- High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- Low:** Areas indicated as having 15 bombs per 1000acre or less.

- Military**
- Industry**
- UXO find**
- Other**
- Transport**
- Docks**
- Luftwaffe targets**
- Utilities**
- Bombing decoy**
- Airfields**

How to use your Unexploded Bomb (UXB) risk map?

This map indicates the potential for UXBs to be present because of World War Two (WWII) bombing. It can be incorporated into a technical report, such as a Phase 1 Desk Study, or similar document as an indication of the potential for UXO encounter on a Site. Other sources of UXO may also be indicated, although note that these are not comprehensive and more detailed research is required to confirm their presence.

What if my Site is in a moderate or high density area?

We typically recommend that a detailed UXO desk study and risk assessment is undertaken for sites in an area with a moderate or high bombing density. Additionally, if your site is in close proximity to a strategic target, military establishment, airfield or bombing decoy, then [additional detailed research](#) is recommended.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirm that there is a low potential for UXO to be present on your site, then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

If you are unsure whether other sources of UXO may be present, you can request one of our [pre-desk study assessments \(PDSA\)](#) by emailing a site boundary and location to pdsa@zetica.com.

You should never plan site work or undertake a risk assessment using these maps alone. More detail is required, to include an assessment of the likelihood of a source of UXO hazard from other military activity not reflected on these maps.

If I have any questions, who do I contact?

tel: [+44 \(0\) 1993 886682](tel:+441993886682) email: uxo@zetica.com web: www.zeticauxo.com

The information in this UXB risk map is derived from a range of sources and should be used with the [accompanying notes on our website](#).

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