

Wilson Bowden Developments Ltd
Plot Q, Kingsway Business Park
Rochdale
Phase 1 Geo-Environmental Assessment

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Phase 1 Geo-Environmental Assessment

Birmingham
Livery Place, 35 Livery Street, Colmore Business District, Birmingham, B3 2PB
T: 0121 233 3322

Leeds
Whitehall Waterfront, 2 Riverside Way, Leeds, LS1 4EH
T: 0113 233 8000

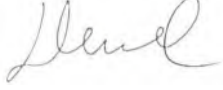
London
11 Borough High Street, London, SE1 9SE
T: 0207 407 3879

Manchester
11, Portland Street, Manchester M1 3HU
T: 0161 233 4260

Nottingham
Waterfront House, Station Street, Nottingham NG2 3DQ
T: 0115 924 1100

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Author:	James Harland MEng (Hons)	Graduate Engineer	
Reviewer:	Catherine Riley CEng, CEnv, MCIWEM	Principal Geo-Environmental Consultant	
Approver:	Darren Harvey BEng (Hons)	Associate Director	

REVISION CONTROL

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This report details the findings of work carried out between the date of our appointment and the date of this report. The report has been prepared by BWB on the basis of available information obtained during the study period.

Although every reasonable effort has been made to gather all relevant information, not all potential environmental constraints or liabilities associated with the site may have been revealed. BWB has used reasonable skill, care and diligence in undertaking this work.

Information provided by third parties has been used in good faith and is taken at face value; however, BWB cannot guarantee its accuracy or completeness.

Should additional information or records be provided following the issue of this report, or are not identified in the References section of this report, which are considered to be relevant to the study area and for which reliance can be provided, BWB should be informed in order that the content of the document can be reviewed and revised accordingly.

The work has been carried out in general accordance with recognised best practices.

Unless otherwise stated, no assessment has been made concerning soil or groundwater known or suspected to be contaminated or impacted with radioactive substances or unexploded ordnance.

Any site boundary line depicted on plans does not imply legal ownership of land.

Recommendations provided in this report are preliminary and are subject to further investigation, assessment and geotechnical/geo-environmental design.

EXECUTIVE SUMMARY

Executive Summary	
Site Address	Plot Q, Michael Faraday Avenue, Kingsway Business Park, OL16 4JN.
Proposed Development	The proposed development comprises a warehouse distribution/production unit with first floor office and core facilities.
Current Site Use	At the time of the site walkover, the site was disused and comprised of overgrown grassland with an old stone wall running centrally through the site.
Site History	The site and its close vicinity have remained largely unchanged since 1851, consistently used for agricultural purposes with no developments recorded. Early maps showed a pond on the eastern boundary which appeared to have been infilled. Surrounding areas, however, experienced progressive industrialisation and urban development. Industrial activity, including cotton mills, gas works, and iron works developed in the wider area from the late 19th century, but were over 500m from the site. Major infrastructure works such as the M62 paved the way for the development of Kingsway Business Park to the south of the site and further residential expansion. This has, in turn, led to recent development of more residential buildings in close vicinity to the site, the construction of commercial buildings such as JD Distribution Centre 160m to the south and the commencement of construction on Plot R to the north of the site.
Ground Conditions	The BGS maps indicate that the site is underlain by Glaciofluvial Sheet Deposits beneath the west and Glacial Till beneath the east, overlying bedrock of the Pennine Lower Coal Measures Formation. Hummocky Glacial Deposits and Alluvium linked to Stanney Brook are also shown to be in the vicinity. The Groundsure report indicates two localised areas of worked ground near the eastern boundary and southwest perimeter of the site. Ground investigations conducted by BWB on the neighbouring Plot R encountered Topsoil and Made Ground at 0.2m - 2.3m bgl over Hummocky Glacial Deposits. These deposits comprised of clay to between 0.8m - 3.0 m bgl, above dense sands to a depth of 15.45 m bgl; bedrock was not encountered during the investigation. The Environment Agency (EA) classifies the Glaciofluvial Sheet and Pennine Lower Coal Measures as Secondary A Aquifers. The Till is a Secondary Undifferentiated Aquifer. The site does lie within an EA Source Protection Zone 2.
Geotechnical Review	If ground conditions are similar to those at Plot R, ground improvement may be necessary to achieve suitable bearing capacity to support shallow spread foundations. Excavation and re-compaction of the upper soils could also be an option to create a suitable engineered platform to construct upon. Given the potentially poor ground conditions and the large loadings associated with the proposed structure, shallow spread foundations and ground-bearing slabs may be insufficient. An alternative foundation solution may therefore be required. Confirmation of subsurface conditions through a detailed Phase 2 investigation is required. The site is within a Coal Mining Reporting Area but outside a high-risk area. Past underground mining (1907 - 1915) occurred at 95 -105m depth; however, no mine entries, outcrops, or gas emissions are recorded. Therefore, coal mining risk is considered negligible.

Executive Summary	
Environmental Review	When considered in the context of the conceptual site model and the historical activities that have taken place (i.e. former agricultural use, deep mining and nearby industrial activity), the proposed development is considered to pose a MODERATE / LOW risk to human health. It is considered that the main driver for the risk rating for human health is the potential migration and accumulation of ground gasses. The risk posed to controlled waters is predominantly considered to be LOW due to the cohesive nature of the upper superficial deposits, which limits contaminant migration. It is recommended that a ground investigation be undertaken to quantify the identified contaminant linkages and assess likely mitigation measures, including ground gas monitoring and groundwater sampling.
Recommendations	A ground investigation should be undertaken at the site to confirm ground conditions at the site, determine the ground gas regime, allow for in-situ and laboratory testing to quantify contaminant linkages and inform foundation design.
This summary should be read in conjunction with BWB's full report (ref. 244498-BWB-ZZ-XX-T-G-0001_Phase 1 Geo-Environmental Assessment) and reflects an assessment of the site based on information received by BWB at the time of production.	

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1. INTRODUCTION

Instruction

- 1.1 BWB Consulting (BWB) was instructed by Wilson Bowden Developments Ltd (the Client) to carry out a Phase 1 Geo-Environmental Assessment for the site at Plot Q, Kingsway Business Park, Rochdale. Details of the project brief are included in BWB proposal reference 250707/01/03/244498/CRI/RTR, dated 07/07/25.
- 1.2 The subject site is being considered for development, to comprise a warehouse distribution/production unit with first floor office and core facilities.

Objectives

- 1.3 This report has been completed to present pertinent information into the environmental risks and liabilities associated with the site. It has been completed to fulfil the requirements of a preliminary risk assessment in accordance with BS 10175:2011+A2:2017 '*Investigation of potentially contaminated sites, code of practice*' and EA Guidance on Risk Management of Land Contamination <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>.
- 1.4 The report has also been prepared with reference to land contamination technical guidance available through <https://www.gov.uk/government/collections/land-contamination-technical-guidance>.
- 1.5 The objectives of this report are to:
- Assess historical activities at the site with respect to their potential impact on the site environment;
 - Characterise the environmental setting of the site, identify migration pathways and vulnerable receptors for contamination originating at the site, focusing on potential soil and groundwater liabilities;
 - Assess historical and current surrounding land use in relation to known or potential off-site contamination issues that may impact the site;
 - Review existing site investigation and remediation information for the site, where available;
 - Have due regard of geotechnical considerations, changes or requirements that may be needed to accommodate the proposed development;
 - Develop a preliminary Conceptual Site Model (CSM); and
 - Assess potential environmental liabilities associated with the site and the proposed development.

Scope of Work

1.6 The scope of work included:

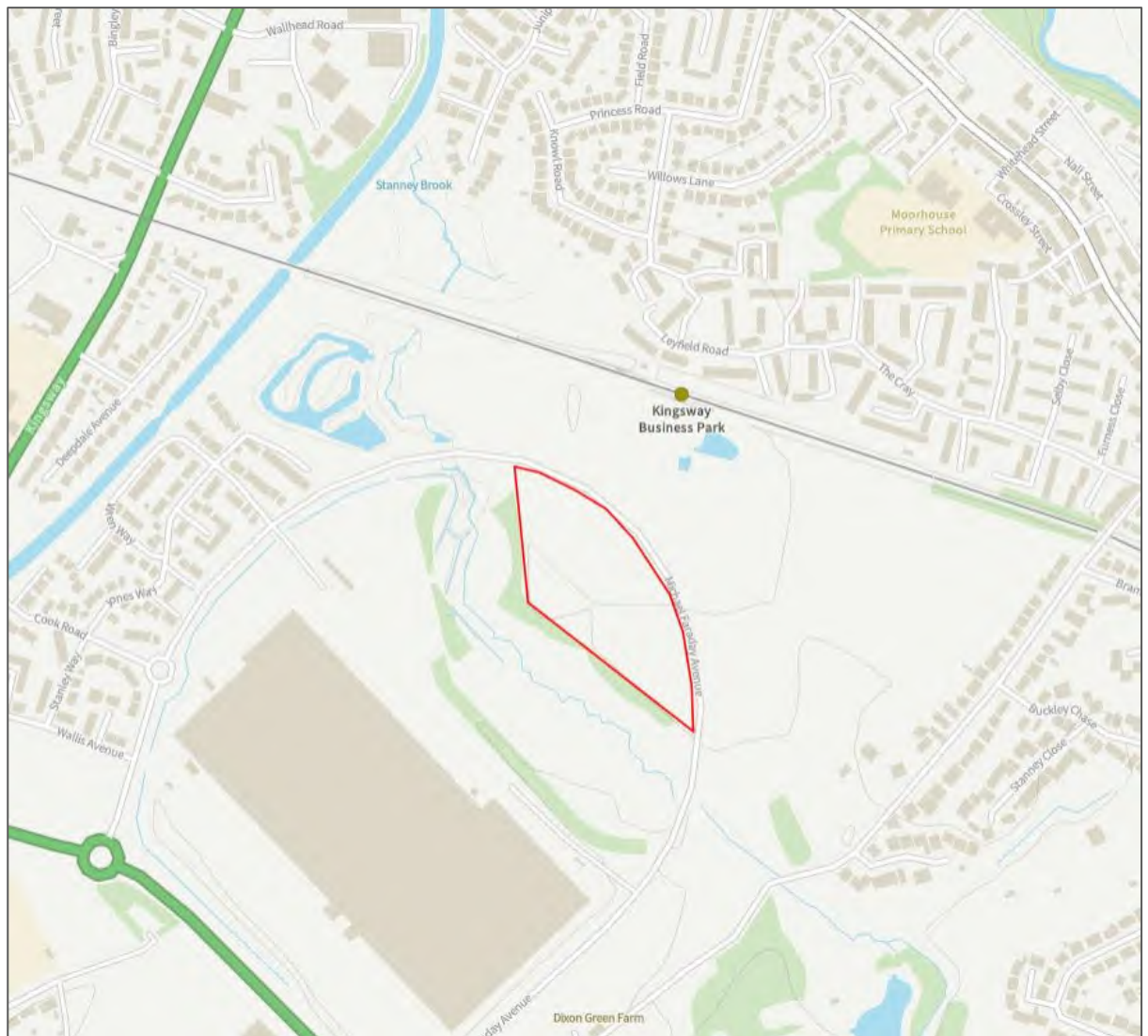
- A site visit to inspect the current site and immediate surroundings, identify potential hazards associated with ground conditions or contamination and to determine potential constraints with regards to ground investigation (photographs presented as **Appendix 1**);
- A review of the following information:
 - Groundsure report, reference GS-QCF-LRH-2GB-4S7 (**Appendix 2**);
 - Historical Ordnance Survey Mapping (**Appendix 3**);
 - Historical aerial photographs (Google Earth) and other imagery (Groundsure);
 - British Geological Survey (BGS) 1:50 000 Scale, 'Manchester', Sheet 85, Bedrock and Superficial Deposits, (2011);
 - British Geological Survey (BGS) 1:10 000 Scale, 'Milnrow', Sheet SD91SW, Solid and Drift, (2007);
 - BGS online geological maps and exploratory hole records (www.bgs.ac.uk);
 - MAGIC website (<https://magic.defra.gov.uk/MagicMap.html>);
 - Mining Remediation Authority Interactive Map Viewer (<https://datamine-cauk.hub.arcgis.com/>);
 - Mining Remediation Authority Consultants Coal Mining Report, reference GS-F1A-RKP-IM2-XJ7 (**Appendix 4**); and
 - Regional unexploded bomb risk maps.
- A summary of the key hazards or uncertainties that require additional investigation in order to further characterise the associated risks; and
- Production of a Geo-Environmental Assessment (this report), concluding in a qualitative assessment of the risks from contamination and ground-related constraints which may impact on the site.

2. THE SITE

Site Location

- 2.1 The site is located at Plot Q, Kingsway Business Park, in Rochdale, centred at National Grid reference 391861, 412506. The approximate location of the site is shown below in **Figure 2:1**.

Figure 2:1: Site Location Plan



Site Description

- 2.2 The site comprises an irregularly shaped parcel of land, featuring severe local undulations and an area of low topography in the northeast corner.

Site Walkover

- 2.3 A site walkover of the area was completed on 11/11/2025 by a representative of BWB. Photographs from the walkover are presented in **Appendix 1**, with specific photographs referenced within the following text, where relevant.
- 2.4 At the time of the walkover, the site comprised of a single open grass-covered field with no permanent structures present (Photo 9), perhaps used for agricultural purposes historically. However, it appeared to have been left vacant and unused for a significant length of time when the inspection was conducted.
- 2.5 Access to the site was limited by a bund along the northern perimeter adjacent to Michael Faraday Avenue. In front of the bund, a ditch was present (Photo 2), restricting vehicular entry. A tarmac pathway with a combined pedestrian and cycle route ran parallel to the site boundary alongside Michael Faraday Avenue (Photo 5). A similar bund was observed along the opposite perimeter, featuring a steep slope that extended down to the edge of the plot and tree line.
- 2.6 The site was covered by grassland and there was no hardstanding present. It was bisected by a dry-stone wall (Photo 3) that transitioned into a barbed wire fence (which spanned across the site from northwest to southeast) (Photo 4). Several gaps were noted in both the wall and fencing. Ground conditions were waterlogged, particularly in low-lying areas.
- 2.7 The site exhibited severe local undulation, with uneven ground and occasional depressions concealed by long grass, making traversal difficult, with an area of low topography on the northwest corner of the site (Photo 1). Vegetation was developed in certain areas, restricting access, while other sections were more open.
- 2.8 No surface water or perched water was observed during the walkover. However, dense vegetation in some areas limited the visibility of potential wet spots. A ditch running downslope, parallel to Michael Faraday Avenue suggested potential water flow, with drainage pipes identified in this location (Photo 7). However, this was not marked as a watercourse on the OS Maps.
- 2.9 Drainage appeared to be via natural infiltration. No drainage infrastructure was confirmed, apart from gullies present in Michael Faraday Avenue and pipes noted near the ditch. Service markers were noted during the site walkover, labelled 'Foul' and 'GW'. The service plans from United Utilities indicate manholes and services spurs for foul and surface water drainage are located on the edge of the site in two locations; in the north close to the footpath running to the east of Plot R and on the east of the site. No

manholes were observed on site however a mound is present along the boundary of the site and the manholes may therefore lie beneath this.

Potential Site Constraints to Ground Investigation

- 2.10 Severe local changes in topography and well-developed vegetation are likely to make traversing the site difficult during the ground investigation. These conditions will restrict access to certain areas, and plant without tracked capability may not be suitable.
- 2.11 In addition to the uneven ground, the bund and ditch along the boundary adjacent to Michael Faraday Avenue limits vehicular access. To enable entry to the site, it will be necessary to cut into the bund and flatten an area to create a suitable access point.
- 2.12 No overhead services were found, and underground services are unlikely with the exception of the manholes and services spurs identified.

Site Surroundings

- 2.13 The surrounding land uses at the time of the walkover survey are summarised in **Table 2:1**.

Table 2:1: Surrounding Land Use

Surrounding Land Use	
North	Loop road and construction (on Plot R) with the Metro Station and residential housing beyond.
East	Arable land with residential housing beyond.
South	Stanney Brook with commercial / industrial / warehouses beyond.
West	Grass-covered field, Stanney Brook, Residential Housing

- 2.14 An aerial photograph representative of the site and surroundings from Google Earth Pro, dated 08/11/2024, is presented as **Figure 2:2**.

Figure 2:2: Aerial Photograph



3. ANTICIPATED GROUND CONDITIONS

- 3.1 The anticipated ground conditions for the site and controlled waters vulnerability is discussed within **Table 3:1**.

Table 3:1: Summary of Anticipated Ground Conditions

Anticipated Ground Conditions	
Geology	Information published by the BGS indicates that the site is underlain by Glaciofluvial Sheet Deposits beneath the west and Till beneath the east, overlying bedrock of the Pennine Lower Coal Measures Formation. Alluvium is also present around 50m west and 40m south of the site associated with Stanney Brook. Hummocky Glacial Deposits are also shown 100m southwest; these deposits were recorded during the site investigation for Plot R to the north. The maps also show a fault trending northwest to southeast running centrally through the site; the fault is downthrown to the northeast. The BGS Lexicon database describes the Glaciofluvial Sheet Deposits as “<i>sand and gravel, locally with lenses of silt, clay or organic material</i>”. The Glacial Till is defined as a “<i>heterogenous mixture of clay, sand, gravel, and boulders varying widely in size and shape</i>”. Hummocky Glacial Deposits are defined as a diverse and complex glacial deposit, composed of rock debris, clayey till, and poorly to well-stratified sand and gravel. Made Ground is indicated by the Groundsure report to be present on site in two areas. One location is marked near the eastern boundary, adjacent to Michael Faraday Avenue, in the location of a historic pond. Another is shown on the southwest perimeter of the site, close to where the tree line begins. Made Ground is defined as ‘Worked Ground’ in the Groundsure report. No local borehole data on the BGS borehole logs, however BWB undertook a ground investigation on Plot R which lies to the north. The investigation found that the ground conditions comprised of Topsoil and Made Ground (from 0.2m to 2.3m thickness) directly underlain by Hummocky Glacial Deposits which typically comprised a layer of soft to firm clay (base depths of 0.8m to 3.0m) over medium dense to dense sands and sandy clays to a maximum proven depth of 15.45m. Bedrock was not encountered during investigation.
Hydrogeology	The Environment Agency (EA) classifies the Glaciofluvial Sheet and Pennine Lower Coal Measures as Secondary A Aquifers. The Till is a Secondary Undifferentiated Aquifer. There are no active groundwater abstractions within 1km of the site. There is one historical groundwater abstraction located circa 940m south west for general farming and domestic purposes. There are no pollution impacts within 500m. The northeastern corner of the site is indicated to be within an EA Groundwater Source Protection Zone 2, outer catchment.

Anticipated Ground Conditions	
Surface Waters	The closest surface water feature to the site is Stanney Brook, located approximately 50 m to the southwest of the site. The closest surface water abstraction is located approximately 770m east of the site and is utilised for general cooling purposes. A revoked trade effluent discharge permit was recorded approximately 240m northwest of the site. The permit allowed contaminated surface water from site drainage to discharge into Stanney Brook. It was revoked on 28th April 2007 and is downstream from the proposed development. A historic sewage discharge permit was recorded around 285m north of the site also allowed discharges into Stanney Brook. No revocation date is recorded. However, it is marked as historic only and was also downstream of the proposed development. Another sewage discharge permit at Whitfield Drive Pumping Station around 300m SE of the site allowed discharges into Stanney Brook. The licence was surrendered under the Environmental Permitting Regulations (2010) on 7th June 2016 and was upstream of the proposed development. There are three Category 3 (Minor Impact) incidents within 500m of the site: • Spillage of crude sewage on 12 April 2003 and 20 February 2003, approximately 225m northwest of the site (downstream); • One incident, involving crude sewage approximately 300m southeast on 19 April 2002 (upstream); • A spill of mixed/waste oil on 4 July 2002 around 410m northwest (downstream). The site itself is not within a designated flood risk zone; however, Flood Zones 1 and 2 are present adjacent to the site and are associated with Stanney Brook.
Ground Gas & Radon	The site lies within an area where less than 1% of properties are estimated to have radon levels at or above the Action Level, therefore no specific radon protection measures are likely to be required for the development. BGS maps indicate that Alluvium Superficial Deposits are present to the south of the site. The Groundsure Report indicates a former LA landfill encroaching onto the north east of the site and extending across the land to the north east of Michael Faraday Avenue, which may be a potential source of ground gasses. However, BWB correspondence with Rochdale Borough Council in May 2022, during the Plot R desk study, indicates that a landfill was not present at this location (Appendix 5). The ground investigation undertaken for Plot R recorded Made Ground comprising a dark brown gravelly sand; the gravel consisted of various natural and artificial inclusions (glass, siltstone, concrete and metal fragments).

Anticipated Ground Conditions	
Mining and Mineral Extraction	The site is located within a Coal Mining Reporting Area but does not lie within a designated Development High Risk Area. The Mining Remediation Authority's Consultants Coal Mining Report (Appendix 4) indicates that: • There are records of past underground mining, between 1907-1915 at a depth of between 95m and 105m bgl. This was in the Lower Mountain coal seam with an extraction thickness of 600mm (with the following references 3XBO, 3XB1, AOD). • No shallow or opencast coal workings are recorded within 500m of the site • There is a geological fault that runs across the site (illustrated in Appendix 4) • There are no mine entries on or within 100m of the site boundary; • There are no coal outcrops recorded; • There are no records of historical open cast mines within 500m; and • There are no records mine gas emission within 500m. The risk to the development for coal mining is therefore negligible. There have been no other mining or extractions within 1000m of the site.
Environmental Sensitivity	The Rochdale Canal, located approximately 350 m northwest of the site, is designated as both a Site of Special Scientific Interest (SSSI) and a Special Area of Conservation (SAC). The site does not fall within a Nitrate Vulnerable Zone. The Merseyside and Greater Manchester area of Green Belt is around 880m NE of the site. Within 10m of the site, priority habitat for lowland fens is present, with the site being designated as both Primary Habitat and Network Enhancement Zone 1.

4. SITE HISTORY

- 4.1 Historical Ordnance Survey (OS) mapping for the site area has been reviewed. These maps and plans date from 1851 to 2025. The historical plans reviewed are provided in **Appendix 3**. The key points of the historical development of the site and surrounding area are summarised in **Table 4.1**. All distances quoted are approximate.

Table 4.1: Key Points of Development History

Dates	On Site	Off-Site
1851	The land on site appeared to be used for agricultural purposes, spanning across five different fields. There was a pond present on the eastern border of the site.	The surrounding area was primarily AGRICULTURAL with sporadic residences . Stanney Brook lies around 50m away; it wrapped around the south and west of the site. Rochdale Canal flowed from south to north around 300m northeast. A RAILWAY line is present around 100m north of the site. Milnrow villages was located 500m northeast. A SANDSTONE QUARRY was present around 640m northeast. PROVIDENCE WOOLLEN MILL was located 620m northeast.
1891	No significant changes noted.	Activity in the sandstone quarry appeared to have ceased. An INDUSTRIAL AREA had been constructed 650m+ west of the site, which mainly consisted of COTTON MILLS . FIRGROVE MILL was marked 600m north. A GAS WORKS was marked around 900m east.
1908-1910	No significant changes noted.	LOWER LANE IRON WORKS was constructed around 750m south of the site.
1928-193	No significant changes noted.	Construction of more residential homes around 750m southwest. TEXTILE MACHINERY WORKS constructed 900m northwest.
1938	No significant changes noted.	The GAS WORKS was no longer marked. Further housing developed around 400m northwest and 250m north.
1954-1956	Overhead electric lines were shown running southwest to northeast across the eastern end of the site on the 1:1,2500 scale mapping only.	No significant changes noted.
1967	No significant changes noted.	Large expansion of residential housing around 250m north and 400m northwest. The IRON WORKS were now marked as a MILL . PROVIDENCE WOOLLEN MILL was now marked as a works. A REFUSE / SLAG HEAP was marked around 500m west.
1976	The overhead electric lines are no longer marked.	The former iron works / mill site was now marked as a FACTORY and had been extended, M62 constructed around 800m southeast.
2001	No significant changes noted.	The housing development to the north has expanded.
2010	No significant changes noted.	The road network (labelled A6193 - SIR ISAAC NEWTON WAY) around 500m south had been altered. Kingsway Business Park was marked on the map around 600m south.

Dates	On Site	Off-Site
2025	The Pond was no longer marked.	MICHAEL FARADAY AVENUE has been constructed along the northeastern perimeter of the site. JD DISTRIBUTION CENTRE constructed around 160m south.

Historical Aerial Photography and Imagery

- 4.2 Aerial photographs included within the Groundsure report are summarised in **Appendix 2**.

Planning History

- 4.3 The Rochdale Metropolitan Borough Council Planning Portal was accessed on 28/11/2025 and indicated that no planning applications have been submitted for the site.

Summary of Site History

- 4.4 The site and its close vicinity have remained largely unchanged since 1851, consistently used for agricultural purposes with no developments recorded. Early maps show a pond on the eastern boundary which appears to have been infilled. Surrounding areas, however, experienced progressive industrialisation and urban development.
- 4.5 Industrial activity, including cotton mills, gas works, and iron works developed in the wider area from the late 19th century, but were over 500m from the site. Major infrastructure works such as the M62 paved the way for the development of Kingsway Business Park to the south of the site and further residential expansion. This has, in turn, led to recent development of more residential buildings in close vicinity to the site; the construction of commercial buildings such as JD Distribution Centre 160m to the south; and the commencement of construction on Plot R to the north of the site.

5. PREVIOUS INVESTIGATIONS

- 5.1 The following information provides a summary of information reviewed in relation to previous investigations carried out in close proximity to the site (on the adjacent Plot R):

Available Information

- 5.2 BWB have previously completed the following report for the site:

- Technical Note – Verification Report by BWB for Wilson Bowden Developments Ltd, Loop Road Storage Area – Kingsway, Rochdale, reference KLR-BWB-ZZ-XX-RP-YE-0001_TN-P0.1, dated 10th August 2022.

- 5.3 BWB have also completed the following relevant reports for the adjacent site (Plot R):

- 'Phase 1 Geo-Environmental Assessment' by BWB for Wilson Bowden Development Ltd, reference 'KYP-BWB-ZZ-XX-RP-YE-0001_Ph1', dated July 2022; and
- 'Phase 2 Geo-Environmental Assessment' by BWB for Wilson Bowden Developments Ltd & Rochdale Borough Council, reference KYR-BWB-ZZ-XX-RP-YE-0002_Ph2, dated August 2025.

Technical Note – Verification Report

- 5.4 BWB produced a Validation Report for a small area in the south area of the Plot Q site with respect to its former use as a storage area for soil materials excavated during Kingsway Loop Road construction works.
- 5.5 To ascertain if any substantial volume of material has been left on site following the site's use as an excavated soil storage compound, spot levels for the area were surveyed. Site levels were generally flat, 150.45m AOD in the north and 150.34m AOD in the south. Materials were placed on site without prior surveying of the site; however, levels appeared to be consistent with the undeveloped land adjacent to the north.
- 5.6 Soil sampling comprised the excavation of six shallow hand pits within the former soil storage area and subsequent chemical analysis of soils. Topsoil was encountered across the site in all six shallow hand pits and comprised a brown sandy clay with rootlets. Soil testing of six shallow topsoil samples included standard metals/metalloids Free, Total and Complex cyanide, PAH (16 USEPA speciation), TPH CWG (two selected samples), asbestos, pH and fraction of organic carbon (FOC).
- 5.7 Contamination data have been compared to the LQM/CIEH Suitable 4 Use Levels criteria (S4ULs), Category 4 Screening Levels (C4SLs) and BWB derived Generic Screening Criteria (GACs) for a Public Open Space (Park) end use. No exceedances for guideline concentrations for the protection of human health were recorded when

compared to Public Open Space (Park) screening criteria. Asbestos was not encountered in any of the soils analysed.

- 5.8 It was therefore concluded that the shallow soils were not indicated to represent a risk to human health receptors in the context of the sites current use.

Phase 1 Assessment

- 5.9 The Phase 1 report is labelled for Plot P, but covers the area now known as Plot R2 - SMMC as well as the adjacent Plot P.
- 5.10 The report indicated the published geology to comprise of Glaciofluvial (Sand and Gravel) in the western part of the site and Till deposits in the eastern part underlain by Pennine Lower Coal Measures bedrock. Areas of Made Ground were identified associated with the recent construction of Michael Faraday Avenue.
- 5.11 No significant features have been identified which are considered likely to have had a detrimental impact on the site.
- 5.12 A historical landfill was identified by the Groundsure report located on site. However, clarification on the presence of this landfill was requested from Rochdale Council. Their records indicate no landfill is present on site (**Appendix 5**).

Phase 2 Assessment

Site Investigation

- 5.13 There was an initial ground investigation within the Plot R2 - SMMC site boundary included six trial pits and two cable percussive boreholes undertaken as part of the adjacent Plot P investigation (1st to 5th August 2022).
- 5.14 Further intrusive ground investigation works were undertaken between 3rd and 5th July 2023 and comprised the advancement of two cable percussive boreholes (BH01 and BH02) to a maximum depth of 10.45m bgl with completion of SPTs and installations of gas and groundwater monitoring wells; and four machine excavated trial pits (TP01 to TP04 inclusive) to a maximum depth of 3.90m bgl.
- 5.15 To delineate the extent of asbestos fibres recorded within the 2023 investigation, another sampling visit was undertaken on 30th August 2023. Ten shallow Made Ground samples

were recovered from the Made Ground across the site and in the vicinity of both positive identifications.

Ground Conditions Encountered

- 5.16 Ground conditions comprised Topsoil and Made Ground (from 0.2m to 2.3m thickness) directly underlain by Hummocky Glacial Deposits. A layer of relict topsoil between 2.3m and 2.5m was encountered below Made Ground in BH02 (2023).
- 5.17 Hummocky Glacial Deposits typically comprised a layer of soft to firm clay (base depths of 0.8m to 3.0m) over medium dense to dense sands and sandy clays to a maximum proven depth of 15.45m. Bedrock was not encountered during either investigation. Significant thicknesses of organic soils or peat were not encountered during the investigation, save for the relict topsoil in BH02 (2023).

Geotechnical Appraisal

- 5.18 Given the variable thickness of Made Ground and underlying soft clays up to 3.0m below ground level, ground improvement was considered to be required for the support of shallow foundations and the floor slab of the proposed building.
- 5.19 Ground improvement methods utilising vibro-stone columns (VSC) or rigid inclusions (RIs), with a load transfer platform were considered feasible.
- 5.20 Excavation and re-compaction of the upper 2m of soils was also a potential option, although feasibility was considered to be strongly weather-dependent and limited by spatial constraints.

Environmental Appraisal

- 5.21 The 2022 Investigation recorded the following.
- Moderate Total Organic Carbon (TOC) was recorded in the Made Ground.
 - Minor exceedances of leachable copper, lead, nickel, zinc.
 - Minor exceedances of cadmium, copper, nickel, zinc, and ammonium in groundwater.
- 5.22 These were not considered significant due to distance from sensitive receptors and the proposed hardstanding, which will limit infiltration and leaching. Controlled waters risk was therefore considered low.
- 5.23 The 2023 Investigation recorded the following.
- No soil samples tested during 2023 had contaminant concentrations that exceeded the screening criteria for risks to human health for a commercial end use.
 - Asbestos fibres were in two of the trial pits during the 2023 investigation. Therefore, further investigation was undertaken to delineate the source. Ten further samples of

Made Ground were recovered from shallow depths and sent for analysis and no further positive asbestos identifications were recorded.

- 5.24 Slightly elevated carbon dioxide concentrations (max 5.3%) were recorded on two occasions in one of the four monitoring wells. The ground gas assessment recommended that the site to be assessed as having a Characteristic Situation 2 gassing regime, whereby ground gas protection measures would be required.

Waste Assessment

- 5.25 Soil samples from both investigations were characterised against hazardous waste criteria using Hazwaste online. The results indicated that most of the soil samples analysed are likely to be classified as non-hazardous. Asbestos was recorded in two locations (TP01 and TP03). Concentrations of asbestos within the soils in TP03 would be classified as hazardous.

6. REGULATORY SETTING

Permits Consents and Authorisations

- 6.1 A full listing of permits, consents and authorisations including discharge consents, pollution incidences and other environmental information, is included in the Groundsure report, presented in **Appendix 2**.
- 6.2 No significant features have been identified which are considered likely to have had a detrimental impact on the site.

Landfilling and Waste Management

- 6.3 A full listing of EA, BGS and Local Authority recorded landfills are provided in the Groundsure report presented in **Appendix 2**.
- 6.4 The following facilities have been identified which have the potential to have a detrimental impact on site.
- 6.5 Two historical landfill sites were identified within 500m of the site, as detailed in **Table 6:1**.

Table 6:1: Historical Landfill Sites

Name	Distance from Site	Details
Buckley Hill Lane, Rochdale	Onsite	Correspondence with Rochdale Borough Council confirmed that they had no record of a landfill in the location indicated by Groundsure (see Appendix 5).
Little Lane, Off Harbour Lane, Milnrow	200m SE	No details available.

7. GEOTECHNICAL OVERVIEW

- 7.1 The Groundsure report, site history, current site setting and geological information have all been considered in order to gain an understanding of the likely ground conditions and ground model at the site. These have been further considered, with reference to the proposed development, in order to provide an indication of the potential ground related risks/constraints and opportunities, as summarised out in **Table 7:1**, which can be considered a Provisional Ground-related Risk Register.

Table 7:1: Ground Related Constraints & Opportunities

Potential Constraint / Opportunity	Explanation	Commentary
Topsoil and Made Ground	Topsoil is expected to be present across the majority of the site. However, Made Ground is anticipated to be present in small, localised areas.	Topsoil may be suitable for reuse as such, in landscaping areas, site, subject to confirmation of chemical status and compliance with BS3882. Made Ground may be suitable for reuse as bulk general (engineered) fill, subject to; chemical status, earthworks' suitability and classification. This would need to be determined via ground investigation, testing, assessment and confirmation of potential restrictions on reuse associated with waste management licencing and/or materials management.
Earthworks and Site Levels	In order to accommodate the proposed development, minor earthworks are likely to be required.	See comments above regarding the (re-)use of Made Ground as Engineered Fill. Excavated (cut) natural soils should be suitable for reuse as engineered fill, again subject to; earthworks' suitability and classification, to be determined from investigation. Consideration is to be given to the earthworks required at the site to accommodate the proposed development, and the potential impact on the site's anticipated contamination status, i.e. to avoid the mobilisation of contaminants and/or to prevent bringing of contamination sources at depth in contact with sensitive receptor. Experience on other plots on the wider business park has indicated that the shallow soils can be particularly difficult to work with during wet periods which require significant modification with additives to achieve the required end-product.

Potential Constraint / Opportunity	Explanation	Commentary
Indicative Foundation Options	In consideration of the indicative ground conditions and foregoing commentary, several foundation options may be appropriate.	If ground conditions are similar to those at Plot R, ground improvement may be necessary to achieve suitable bearing capacity to support shallow spread foundation. Similar solutions, such as vibro-stone columns or rigid inclusions with a load transfer platform, may be employed if comparable conditions are encountered on Plot Q. Excavation and re-compaction of the upper soils could also be an option to create a suitable engineered platform to construct upon. Given the potentially poor ground conditions and the large loadings associated with the proposed structure, shallow spread foundations and ground-bearing slabs may be insufficient. A piled foundation solution may therefore be required to transfer loads to a sufficient founding stratum. Confirmation of subsurface conditions through a detailed Phase 2 investigation is required.
Buried Obstructions	Given the historical uses of the site, there is limited potential for buried obstructions such as underground utilities. However, some services associated with the adjacent road, Michael Faraday Avenue, may extend into the site.	Service plans to be obtained and a service clearance carried out by the surveyor before ground investigation undertaken.
Trees	Juvenile trees were observed along the western site boundary.	Foundations in close proximity to new or existing trees may need to be locally deepened beyond the zone of influence of tree roots and/or heave precautions adopted.
Concrete Classification	Ground conditions are unlikely to be pyritic based on the geology, and testing carried out on Plot R confirmed the absence of aggressive soils.	As part of ground investigation works, appropriate sampling, testing and assessment should be undertaken in accordance with BRE Special Digest 1, Concrete in Aggressive Ground.
Ground Subsidence Risks	The Groundsure Report generally indicates a low to negligible risk on site. A moderate compressibility risk is reported to the south where Alluvium is mapped.	Ground investigation should include determination of the plasticity (and therefore volume change potential) of cohesive soils. Although the running sands risk is indicated to be very low, BWB have encountered running sands often across the wider Kingsway Business Park within the same geology so running sands are considered to be a potential issue that needs further consideration.
Coal Mining	Coal isn't indicated to be at the surface or at shallow depth beneath the site.	No further assessment required.
Shallow Groundwater	Shallow groundwater and seasonal high groundwater table are common across the local area based on BWBs history of working on nearby sites.	The groundwater levels should be assessed through intrusive investigation and monitoring. The effects of the foundation solution, earthworks strategy, and construction methodologies will need to be considered.
New Roads and Hardstanding Pavement	Appropriate data (California Bearing Ratio CBR values) should be determined for the design of new road and hardstanding pavement.	In-situ and laboratory geotechnical testing should be undertaken to determine suitable design parameters.

Potential Constraint / Opportunity	Explanation	Commentary
UXO	A review of the unexploded ordnance risk maps available online indicates the site to be in an area at low risk from UXO.	No further assessment required.

8. PRELIMINARY ENVIRONMENTAL RISK ASSESSMENT

Introduction

- 8.1 The risk posed by any contaminants in soil or groundwater will depend on the nature of the hazard, the probability of exposure, the pathway by which exposure occurs, and the likely effects on the receptors. A contaminant is defined as a substance that has the potential to cause harm, while a risk is considered to exist if such a substance is present in sufficient concentration to cause harm and a pathway exists for a receptor to be exposed to the substance.
- 8.2 Three impact potentials exist for any given site, all of which need to be considered in a risk assessment, which are:
- The site impacting upon itself;
 - The site impacting on its surroundings; and
 - The surroundings impacting on the site.
- 8.3 The following sections discuss all the identified potential on and off-site sources, pathways and receptors in the context of the proposed development and plausible contaminant linkages which may represent a risk to identified receptors such as human health and/or controlled waters from the data gained from the desk study.
- 8.4 The assessment is qualitative and aimed to determine all likely contaminant linkages, with consideration of significance and allowing for uncertainties.
- 8.5 **Sources (S):** These are potential or known sources of contamination that may relate to a former land use or present site feature or process (e.g. fuel storage tanks).
- 8.6 **Pathways (P):** A pathway is defined as a mechanism or route by which a contaminant comes into contact with, or otherwise affects a receptor. Pathways by which the identified receptors may be impacted upon in the context of the proposed development.
- 8.7 **Receptors (R):** Receptors are defined as people, living organisms, ecological systems, controlled waters, atmosphere, structures and utilities that could be adversely affected by contaminant(s).

Conceptual Site Model

- 8.8 Consideration has been given to the likely sources, pathways and receptors which may be present, based on the information in the previous sections. These are presented in **Table 8:1** and **Table 8:2** and further information about the risk classification scheme is

included within **Appendix 6**, with reference to CIRIA C552 'Contaminated land risk assessment - a guide to good practice'.

- 8.9 A tabulated version of the Preliminary CSM based on the desk study and site observations is presented in **Table 8:3**.

Table 8:1: Potential Sources of Contamination

Location	Potential Source	Contaminants of Potential Concern (CoPC)
On-site	MADE GROUND associated with the 'Worked Ground' areas denoted on the Groundsure report and the infilled pond.	- Heavy metals - Inorganics, such as cyanides, sulphates and nitrates - pH - Asbestos Containing Materials (ACMs) - Polycyclic aromatic hydrocarbons (PAHs) - Petroleum hydrocarbons - Methane, carbon dioxide
	Contamination associated with AGRICULTURAL activities	- Polycyclic aromatic hydrocarbons (PAHs) - Inorganics, such as cyanides, sulphates and nitrates - Pesticides and or herbicides - Methane, carbon dioxide
	Gas accumulation from coal in DEEP MINING WORKS	Methane, carbon dioxide
Off-site	MADE GROUND associated with ongoing development of Kingsway Business Park	- Heavy metals - Inorganics, such as cyanides, sulphates and nitrates - pH - Asbestos Containing Materials (ACMs) - Polycyclic aromatic hydrocarbons (PAHs) - Petroleum hydrocarbons - Methane, carbon dioxide

Table 8:2: Relevant Potential Pathways and Receptors

Receptors	Pathways
Human Health: - Future site users (commercial) - Neighbouring public (residential/commercial) - Intrusive maintenance workers	- Dermal contact with soil or dust - Incidental ingestion of soil and/or dust - Inhalation of dust and/or fibres - Inhalation of vapours - Migration and accumulation of ground gas in enclosed spaces leading to inhalation or explosion
Controlled Waters: - Groundwater (Secondary A Aquifer) - Surface water (Stanney Brook and Rochdale Canal)	- Leaching of soil contaminants - Vertical and lateral migration - Surface run-off
Ecology: - SSSI/LNR (Rochdale Canal) - Flora and fauna	- Lateral migration - Uptake and accumulation
Property: Underground utilities	- Direct Contact - Accumulation and explosion of gas

Receptors	Pathways
• Building structures	

8.10 A number of potential sources of contamination, identified during the review, are not considered likely to impact on the site. These are detailed below, along with the appropriate justification for not being included within the preliminary CSM:

- Historic Gas and Iron Works: Located ~750m south and ~950m east respectively. The distance means that contaminants are unlikely to impact the site.
- A number of historical mills / works located >500m west, north and northeast. The distance from the site and underlying geology (Till) mean that that contaminants are unlikely to impact the site.
- The historic refuse / slag heap around 500m west has been discounted as a potential source of contamination. This is due to their distance from the site (>400m) and the presence of Stanney Brook between the site and the slag heap.
- Little Lane, a historical landfill site, has been discounted as a potential source of contamination. This is due to the distance from the site (>300m) and the superficial geology (Till), leaving it unlikely that a pathway would be viable to any receptors on site.
- Due to the depth of recorded mining beneath the site, >90m, ground gas associated with coal mining is unlikely to have an influence on the site.
- Potentially infilled sandstone quarries, with a distance from the site exceeding 500m, are unlikely to impact receptors on site.

Table 8:3: Preliminary Conceptual Site Model

Source	Pathway	Receptor	Con	Prob	Risk	Potential Mitigation/Investigation Requirements
On-site sources as detailed in Table 8:1 .	Dermal contact with, and incidental ingestion of soil and/or dust. Inhalation of dust and/or fibres.	Future site users (commercial/recreational)	Md	UI	L	Limited potential sources of contamination have been identified through this assessment. As part of the proposed development, it is anticipated that hardstanding will be present across the majority of the site. This will limit the potential for direct contact with and minimise dust generation from potentially contaminated soils at the site post construction. In landscaped areas the provision of a clean capping layer would restrict direct access to potentially contaminated soils. It is recommended that an intrusive ground investigation be completed in order to assess the extent of any potential contamination at the site.
		Intrusive maintenance workers	Md	Lw	M/L	The exposure of intrusive maintenance workers can be mitigated by the adoption of suitable working methods, utilising appropriate personal protective equipment (PPE) and maintaining good hygiene. If significant asbestos is recorded, the requirements of the Control of Asbestos Regulations (CAR) 2012 should be complied with.
	Migration and accumulation of ground gases in enclosed spaces leading to asphyxiation (carbon dioxide) or explosion (methane).	Future site users (commercial)	Md	Lw	M/L	BGS mapping identifies Alluvium superficial soils, adjacent to the site, which may contain organic material. Limited Made Ground is expected across the site, but two areas identified as 'Worked Ground' could potential be sources. Made Ground was also present across the majority of Plot R, so may also be present on Plot Q. Past deep mining could also be a potential source of ground gasses. The presence of the above indicates a potential risk from ground gases. Ground investigation should include the installation of ground gas monitoring wells in order to determine the risk posed from ground gases.
	Leaching and permeation through soil profile.	Groundwater: Underlying (Secondary A) Superficial and Bedrock Aquifers	Md	UI	L	No groundwater or surface water data is currently available for the site. Ground investigation should seek to assess the risks to controlled waters and include the installation of groundwater monitoring wells to allow for sampling of groundwater for chemical analysis, in order to assess whether potentially unacceptable levels of contaminants of potential concern are present.
	Vertical and lateral migration of contaminants.		Md	UI	L	
	Surface run-off.	Stanney Brook	Md	UI	L	The recommendations of DEFRA and EA guidance document 'Pollution prevention for businesses' should be considered during construction

Source	Pathway	Receptor	Con	Prob	Risk	Potential Mitigation/Investigation Requirements
	Direct contact.	Water utility pipes	Md	Lw	M/L	Organic compounds in the shallow soils could taint the water supply. A ground investigation and subsequent laboratory analysis should be undertaken to inform the design of new services.
Off-site sources as detailed in Table 8.1.	Dermal contact with, and incidental ingestion of soil and/or dust	Future site users (commercial)	Md	UI	L	As part of the proposed development, it is anticipated that hardstanding will be present across the majority of the site. This will limit the potential for direct contact with and minimise dust generation from potentially contaminated soils at the site post construction. In public open space, the provision of a clean capping layer would restrict direct access to potentially contaminated soils. It is recommended that an intrusive ground investigation be completed in order to assess the extent of any potential contamination at the site.
	Leaching and permeation through the soil profile.	Groundwater: Underlying (Secondary A)	Md	UI	L	It is expected that the cohesive ground conditions will minimise groundwater migration from off-site, however, this should be confirmed through ground investigation.
	Lateral migration of contaminated groundwater.	Superficial and Bedrock Aquifers	Md	UI	L	

Contaminant linkage Assessment Summary

When considered in the context of the conceptual site model and the historical activities that have taken place (i.e. former agricultural use, deep mining and nearby industrial activity), the proposed development is considered to pose a **MODERATE / LOW** risk to human health. It is considered that the main driver for the risk rating for human health is the potential accumulation of ground gases in enclosed spaces leading to asphyxiation (carbon dioxide) or explosion (methane). The risk posed to controlled waters is predominantly considered to be **LOW** due to the lack of significant contamination sources on site and the cohesive nature of the superficial deposits, which limits any contaminant migration.

It is recommended that a ground investigation be undertaken to quantify the identified contaminant linkages and assess likely mitigation measures, including ground gas monitoring and groundwater sampling.

9. ENVIRONMENTAL LIABILITY ASSESSMENT AND DEVELOPMENT IMPLICATIONS

Statutory Liability

- 9.1 The contaminated land regime has implications for those who cause or knowingly permit land to be contaminated, or who own or occupy land that is contaminated. Contaminated land is defined in Section 78A(2) of Part IIA of the Environmental Protection Act 1990 as:

"Any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that:

- i. Significant harm is being caused or there is a significant possibility of such harm being caused; or*
- ii. Significant pollution of controlled waters is being caused or there is a significant possibility of such pollution being caused."*

- 9.2 Harm is defined in Section 78A(4) of the Environmental Protection Act 1990 as:

"Harm to the health of living organisms or other interference with ecological systems of which they form part and, in the case of man, includes harm to his property."

- 9.3 Once an area of land has been identified as contaminated land, appropriate persons will be identified as being responsible for the cost of cleaning up the land by the enforcing authority. The appropriate person will be liable for all or part of the remediation of the land. Two classes of appropriate person have been identified:

- Class A appropriate persons are those who cause or knowingly permit the pollutants to be in, on or under the land.
- Class B appropriate persons are the owners(s) or occupier(s) of the land.

- 9.4 Where no Class A appropriate persons can be identified, then Class B appropriate persons may become liable.

- 9.5 Based on the information available regarding the site, the potential for Statutory Authority action based on "pollution of controlled water" or "significant harm" as defined by Part IIA of the Environmental Protection Act 1990 is considered to be LOW.

Third Party Liability

- 9.6 Based on the information contained in this report, it is the opinion of BWB that the potential for legal action by surrounding landowners, based on the potential for

contamination to migrate off-site, is considered to be LOW when considering agricultural land use of the site.

Public Relations

- 9.7 The likelihood of public relations being tarnished due to contamination issues at the site are considered to be LOW.

Development Implications

- 9.8 Intrusive ground investigation should be undertaken to confirm the ground conditions at the site, primarily in regard to suitability of superficial deposits and the potential for differential settlement if the proposed development spans differing geology.
- 9.9 The site is raised and undulating. It is recommended that the requirement for earthworks and potential for re-use of or disposal of waste is established at an early stage in the project.

10. CONCLUSION AND RECOMMENDATIONS

Conclusions

- 10.1 The proposed development comprises a warehouse distribution/production unit with first floor office and core facilities. The site currently comprises of a green field, which appears to have been previously used for farming but was disused at the time of the site walkover.
- 10.2 The site has remained largely unchanged since 1851, consistently used for agricultural purposes with no developments recorded. Early maps show a pond on the eastern boundary which appears to have been infilled recently during the construction of the adjacent estate loop road. The southern part of the site was used as a temporary materials storage compound during the completion of the Stanney Brook crossing of the adjacent Michale Faraday Avenue loop road. BWB completed a survey and sampling exercise to confirm no residual impact or materials from the work.
- 10.3 Industrial activity, including cotton mills, gas works, and iron works developed in the wider area from the late 19th century, but were over 500m from the site. Major infrastructure works such as the M62 paved the way for the development of Kingsway Business Park to the south of the site and further residential expansion. This has, in turn, led to recent development of more residential buildings in close vicinity to the site; the construction of commercial buildings such JD Distribution Centre 160m to the south; and the commencement of construction on Plot R to the north of the site.
- 10.4 The site is underlain by Glaciofluvial Sheet Deposits and Glacial Till superficial deposits, overlying bedrock of the Pennine Lower Coal Measures Formation. Hummocky Glacial Deposits and Alluvium linked to Stanney Brook are also shown to be in the vicinity. The Groundsure report marks Made Ground in two localised areas near the eastern boundary and southwest perimeter of the site.
- 10.5 The Groundsure report indicated a landfill (Buckley Hill Lane) on the site, which didn't appear to be recorded on public council records and historical mapping. Previous investigation on Plot R led to correspondence with the Rochdale Borough Council which confirmed that there was no landfill present at this location.
- 10.6 In addition, while the ground investigation undertaken for Plot R reported Made Ground (from 0.2m to 2.3m thickness), the material comprised of a dark brown gravelly sand. The gravel consisted of various natural and artificial inclusions (glass, siltstone, concrete and metal fragments).
- 10.7 Gas monitoring on Plot R (2023) reported elevated carbon dioxide concentrations (max 5.3%) on two occasions in one of the four monitoring wells. The ground gas assessment

recommended that the site to assessed as having a Characteristic Situation 2 gassing regime, whereby ground gas protection measures would be required.

- 10.8 If ground conditions are similar to those at Plot R, ground improvement may be necessary to achieve suitable bearing capacity to support shallow spread foundation.
- 10.9 Similar solutions, such as vibro-stone columns or rigid inclusions with a load transfer platform, may be employed if comparable conditions are encountered on Plot Q. Excavation and re-compaction of the upper soils could also be an option to create a suitable engineered platform to construct upon.
- 10.10 Given the potentially poor ground conditions and the large loadings associated with the proposed structure, shallow spread foundations and ground-bearing slabs may be insufficient. A piled foundation solution may therefore be required to transfer loads to a sufficient founding stratum. Confirmation of subsurface conditions through a detailed Phase 2 investigation is required.
- 10.11 The site is within a Coal Mining Reporting Area. Past underground mining (1907 - 1915) occurred at 95 - 105 m depth; however, no shallow mining, mine entries or coal outcrops are recorded in the vicinity of the site. Therefore, coal mining risk is considered negligible.
- 10.12 The proposed development is considered to pose a MODERATE/LOW risk to human health with the main driver for the risk rating for human health is the migration and accumulation of ground gases. The risk posed to controlled waters is predominantly considered to be LOW due to the lack of a significant contaminant source.

Recommendations

- 10.13 A ground investigation should be undertaken at the site to confirm ground conditions at the site, determine the ground gas regime, allow for in-situ and laboratory testing to quantify contaminant linkages and inform foundation design.

11. REFERENCES

1. BS 10175:2011+A2:2017 Investigation of potentially contaminated sites. Code of practice. British Standards Institution, 2017.
2. CIRIA C552 *Contaminated land risk assessment. A guide to good practice*. Rudland, D J, Lancefield, R M, Mayell, P N, 2001.
3. Environmental Protection Act 1990: Part 2A, Contaminated Land Statutory Guidance. Department for Environment Food and Rural Affairs (DEFRA), 2012.
4. Land Contamination Risk Management. Environment Agency, 2020.
5. <https://www.gov.uk/government/collections/land-contamination-technical-guidance>.
6. The Control of Asbestos Regulations. Health and Safety Executive, 2012.

APPENDICES

Appendix 1: Site Photographs



Photo 1 — Area of Low Topography.



Photo 2 — Bund and ditch adjacent to Michael Faraday Avenue.



Photo 3 — Dry Stone Wall.



Photo 4 — Barbed Wire Fencing.



Photo 5— Pedestrian Path and Bicycle Lane.



Photo 6 — Vegetated Areas.



Photo 7 — Drainage running through the ditch.



Photo 8 — Gap in the barbed wire fencing.



Photo 9 — Overview of the field.

Appendix 2: Groundsure Report

Plot Q Kingsway

Order Details

Date: 06/11/2025
Your ref: PO 12906
Our Ref: GS-QCF-LRH-2GB-4S7

Site Details

Location: 391861 412506
Area: 2.81 ha
Authority: [Rochdale Metropolitan Borough Council](#) ↗



Summary of findings

[p. 2 >](#)

Aerial image

[p. 9 >](#)

OS MasterMap site plan

[p.14 >](#)

[Insight User Guide](#) ↗

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	0	0	8	21	-
17 >	1.2 >	Historical tanks >	0	0	0	6	-
17 >	1.3 >	Historical energy features >	0	0	1	8	-
18	1.4	Historical petrol stations	0	0	0	0	-
18 >	1.5 >	Historical garages >	0	0	0	3	-
19	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
20 >	2.1 >	Historical industrial land uses >	0	0	14	27	-
22 >	2.2 >	Historical tanks >	0	0	0	8	-
23 >	2.3 >	Historical energy features >	0	0	2	18	-
24	2.4	Historical petrol stations	0	0	0	0	-
24 >	2.5 >	Historical garages >	0	0	0	5	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
25	3.1	Active or recent landfill	0	0	0	0	-
25	3.2	Historical landfill (BGS records)	0	0	0	0	-
26 >	3.3 >	Historical landfill (LA/mapping records) >	1	0	1	1	-
26 >	3.4 >	Historical landfill (EA/NRW records) >	0	0	0	1	-
26	3.5	Historical waste sites	0	0	0	0	-
27 >	3.6 >	Licensed waste sites >	0	0	0	1	-
27 >	3.7 >	Waste exemptions >	0	0	0	7	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
29 >	4.1 >	Recent industrial land uses >	0	0	6	-	-
30 >	4.2 >	National Geographic Database (NGD) - Current or recent tanks >	0	0	4	-	-
30 >	4.3 >	Current or recent petrol stations >	0	0	0	1	-
31	4.4	Electricity cables	0	0	0	0	-
31	4.5	Gas pipelines	0	0	0	0	-



31	4.6	Sites determined as Contaminated Land	0	0	0	0	-
31	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
32	4.8	Regulated explosive sites	0	0	0	0	-
32	4.9	Hazardous substance storage/usage	0	0	0	0	-
32	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
32	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
32	4.12	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
33	4.13	Radioactive Substance Authorisations	0	0	0	0	-
33 >	4.14 >	Licensed Discharges to controlled waters >	0	0	2	1	-
33	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
34	4.16	Pollutant release to public sewer	0	0	0	0	-
34	4.17	List 1 Dangerous Substances	0	0	0	0	-
34 >	4.18 >	List 2 Dangerous Substances >	0	0	1	0	-
34 >	4.19 >	Pollution Incidents (EA/NRW) >	0	0	2	3	-
35	4.20	Pollution inventory substances	0	0	0	0	-
35	4.21	Pollution inventory waste transfers	0	0	0	0	-
36	4.22	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
37 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
39 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
40 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
41	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
41	5.5	Groundwater vulnerability- local information	None (within 0m)				
42 >	5.6 >	Groundwater abstractions >	0	0	0	0	13
46 >	5.7 >	Surface water abstractions >	0	0	0	0	24
52 >	5.8 >	Potable abstractions >	0	0	0	0	3
53 >	5.9 >	Source Protection Zones >	1	0	0	0	-
53	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m



54 >	6.1 >	Water Network (OS MasterMap) >	0	2	31	-	-
57 >	6.2 >	Surface water features >	0	2	18	-	-
57 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
58 >	6.4 >	WFD Surface water bodies >	0	0	1	-	-
58 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
59 >	7.1 >	Risk of flooding from rivers and the sea >	High (within 50m)				
60	7.2	Historical Flood Events	0	0	0	-	-
60	7.3	Flood Defences	0	0	0	-	-
60	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
60	7.5	Flood Storage Areas	0	0	0	-	-
61 >	7.6 >	Flood Zone 2 >	Identified (within 50m)				
62 >	7.7 >	Flood Zone 3 >	Identified (within 50m)				
Page	Section	Surface water flooding >					
63 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
65 >	9.1 >	Groundwater flooding >	Moderate (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
66 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	1	1
67	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
67 >	10.3 >	Special Areas of Conservation (SAC) >	0	0	0	1	1
68	10.4	Special Protection Areas (SPA)	0	0	0	0	0
68	10.5	National Nature Reserves (NNR)	0	0	0	0	0
68	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
68	10.7	Designated Ancient Woodland	0	0	0	0	0
68	10.8	Biosphere Reserves	0	0	0	0	0
69	10.9	Forest Parks	0	0	0	0	0
69	10.10	Marine Conservation Zones	0	0	0	0	0
69 >	10.11 >	Green Belt >	0	0	0	0	4



69	10.12	Proposed Ramsar sites	0	0	0	0	0
70	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
70	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
70	10.15	Nitrate Sensitive Areas	0	0	0	0	0
70	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
71	10.17	SSSI Impact Risk Zones	0	-	-	-	-
72 >	<u>10.18 ></u>	<u>SSSI Units ></u>	0	0	0	1	1
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
73	11.1	World Heritage Sites	0	0	0	-	-
73	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
73	11.3	National Parks	0	0	0	-	-
73	11.4	Listed Buildings	0	0	0	-	-
74	11.5	Conservation Areas	0	0	0	-	-
74	11.6	Scheduled Ancient Monuments	0	0	0	-	-
74	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	<u>Agricultural designations ></u>	On site	0-50m	50-250m	250-500m	500-2000m
75 >	<u>12.1 ></u>	<u>Agricultural Land Classification ></u>	Urban (within 250m)				
76	12.2	Open Access Land	0	0	0	-	-
76	12.3	Tree Felling Licences	0	0	0	-	-
76	12.4	Environmental Stewardship Schemes	0	0	0	-	-
76	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	<u>Habitat designations ></u>	On site	0-50m	50-250m	250-500m	500-2000m
77 >	<u>13.1 ></u>	<u>Priority Habitat Inventory ></u>	0	3	4	-	-
78 >	<u>13.2 ></u>	<u>Habitat Networks ></u>	2	0	3	-	-
78	13.3	Open Mosaic Habitat	0	0	0	-	-
79	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	<u>Geology 1:10,000 scale ></u>	On site	0-50m	50-250m	250-500m	500-2000m
80 >	<u>14.1 ></u>	<u>10k Availability ></u>	Identified (within 500m)				
81 >	<u>14.2 ></u>	<u>Artificial and made ground (10k) ></u>	2	0	5	4	-



83 >	14.3 >	Superficial geology (10k) >	2	3	4	2	-
84	14.4	Landslip (10k)	0	0	0	0	-
85 >	14.5 >	Bedrock geology (10k) >	1	0	1	1	-
86 >	14.6 >	Bedrock faults and other linear features (10k) >	1	0	1	1	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
87 >	15.1 >	50k Availability >	Identified (within 500m)				
88	15.2	Artificial and made ground (50k)	0	0	0	0	-
88	15.3	Artificial ground permeability (50k)	0	0	-	-	-
89 >	15.4 >	Superficial geology (50k) >	2	3	4	3	-
90 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
91	15.6	Landslip (50k)	0	0	0	0	-
91	15.7	Landslip permeability (50k)	None (within 50m)				
92 >	15.8 >	Bedrock geology (50k) >	2	0	1	3	-
93 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
93 >	15.10 >	Bedrock faults and other linear features (50k) >	1	0	1	2	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
94	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence >					
95 >	17.1 >	Shrink swell clays >	Low (within 50m)				
97 >	17.2 >	Running sands >	Low (within 50m)				
99 >	17.3 >	Compressible deposits >	Moderate (within 50m)				
101 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
102 >	17.5 >	Landslides >	Low (within 50m)				
104 >	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
106	18.1	BritPits	0	0	0	0	-
107 >	18.2 >	Surface ground workings >	2	0	7	-	-
107 >	18.3 >	Underground workings >	0	0	0	0	14
108	18.4	Underground mining extents	0	0	0	0	-



108	18.5	Historical Mineral Planning Areas	0	0	0	0	-
108	18.6	Non-coal mining	0	0	0	0	0
109	18.7	JPB mining areas	None (within 0m)				
109	18.8	The Coal Authority non-coal mining	0	0	0	0	-
109	18.9	Researched mining	0	0	0	0	-
109	18.10	Mining record office plans	0	0	0	0	-
110	18.11	BGS mine plans	0	0	0	0	-
110 >	18.12 >	Coal mining >	Identified (within 0m)				
110	18.13	Brine areas	None (within 0m)				
110	18.14	Gypsum areas	None (within 0m)				
110	18.15	Tin mining	None (within 0m)				
111	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
112	19.1	Natural cavities	0	0	0	0	-
112	19.2	Mining cavities	0	0	0	0	0
112	19.3	Reported recent incidents	0	0	0	0	-
112	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
114 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
116 >	21.1 >	BGS Estimated Background Soil Chemistry >	6	6	-	-	-
117	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
117	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
118	22.1	Underground railways (London)	0	0	0	-	-
118	22.2	Underground railways (Non-London)	0	0	0	-	-
119	22.3	Railway tunnels	0	0	0	-	-
119 >	22.4 >	Historical railway and tunnel features >	0	0	8	-	-
119	22.5	Royal Mail tunnels	0	0	0	-	-

120	22.6	Historical railways	0	0	0	-	-
120 >	22.7 >	Railways >	0	0	9	-	-
120	22.8	Crossrail 2	0	0	0	0	-
121	22.9	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 27/05/2023

Site Area: 2.81ha



Contact us with any questions at:

info@groundsure.com

01273 257 755

Date: 6 November 2025

Recent site history - 2019 aerial photograph



Capture Date: 23/05/2019

Site Area: 2.81ha



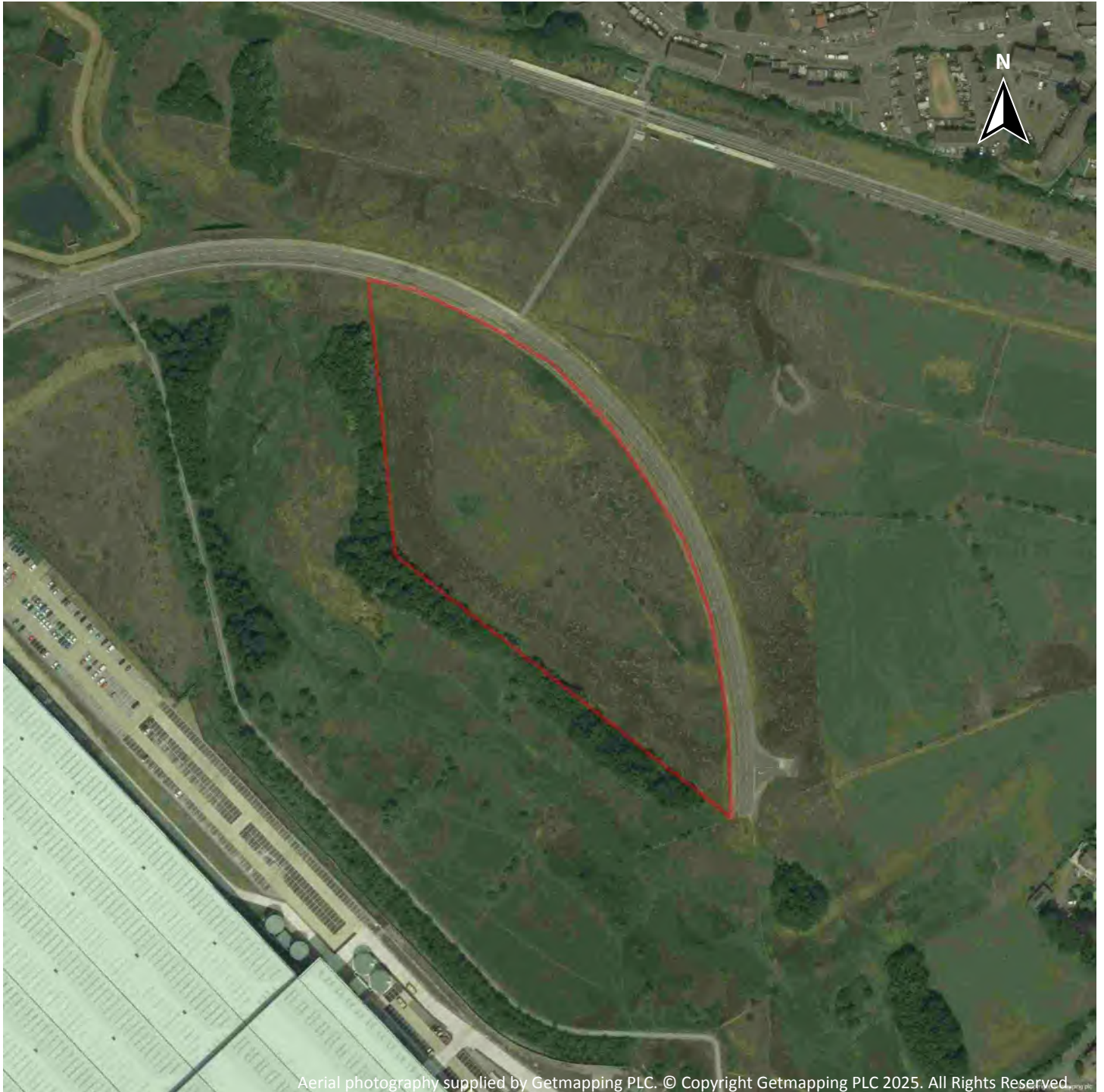
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Date: 6 November 2025

Recent site history - 2018 aerial photograph



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Capture Date: 01/07/2018

Site Area: 2.81ha



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Recent site history - 2012 aerial photograph



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Capture Date: 26/03/2012

Site Area: 2.81ha



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Recent site history - 2000 aerial photograph



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Capture Date: 19/06/2000

Site Area: 2.81ha



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OS MasterMap site plan



Site Area: 2.81ha



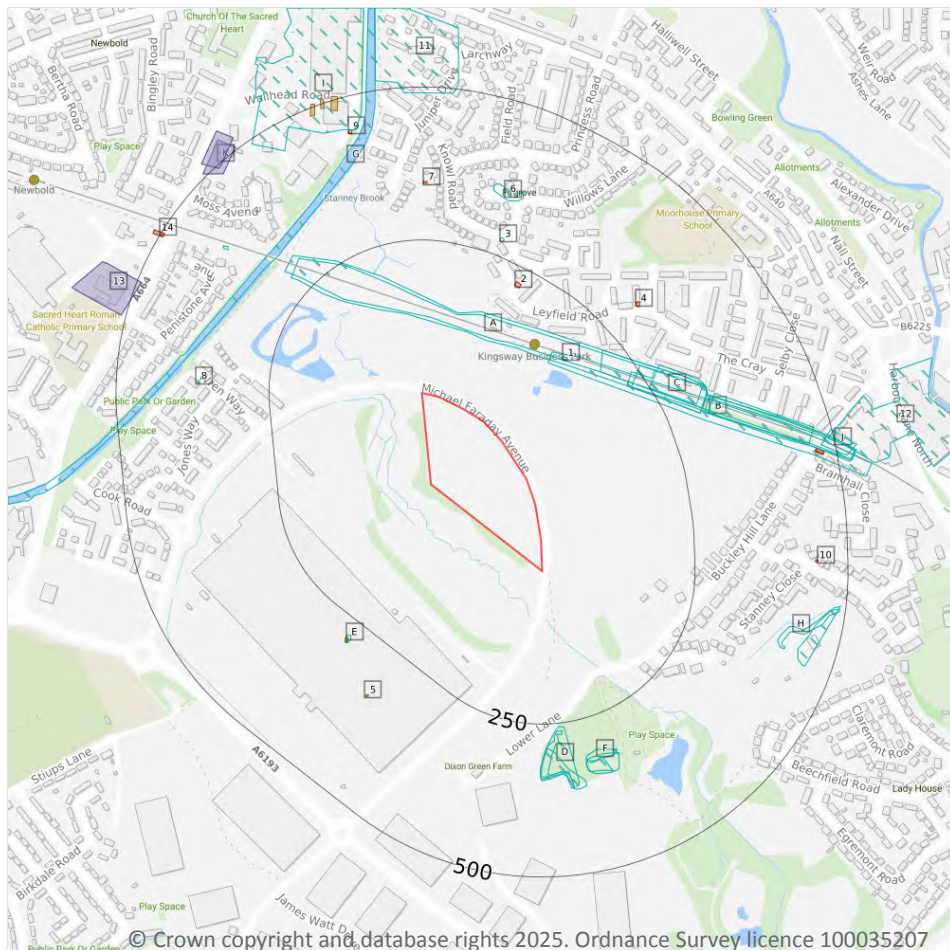
Contact us with any questions at:

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01273 257 755

Date: 6 November 2025

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

29

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

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

ID	Location	Land use	Dates present	Group ID
A	115m N	Railway Sidings	1954	788594



ID	Location	Land use	Dates present	Group ID
A	118m N	Railway Sidings	1908 - 1938	725673
B	143m NE	Cuttings	1851	742926
1	164m NE	Railway Building	1908 - 1938	717158
B	197m NE	Cuttings	1928 - 1938	782178
B	222m NE	Cuttings	1891 - 1908	797458
C	225m NE	Cuttings	1954	739238
C	250m NE	Cuttings	1976	772063
D	256m S	Unspecified Heap	1928 - 1938	721571
D	263m S	Unspecified Ground Workings	1954	750638
3	274m N	Pump	1851	682649
E	275m SW	Unspecified Tank	1976	756453
E	281m SW	Unspecified Tank	1908	720196
D	290m S	Unspecified Ground Workings	1908	799729
F	305m S	Unspecified Heap	1908 - 1938	794589
B	312m E	Cuttings	1954	720724
F	314m S	Unspecified Pit	1967	676656
B	316m E	Cuttings	1967 - 1976	775687
F	316m S	Unspecified Heap	1954	729323
G	324m NW	Disused Canal	1976	763039
6	340m N	Gravel Pit	1928	699656
8	364m W	Pump	1851	682650
G	394m NW	Railway Building	1938	703087
H	401m E	Unspecified Ground Workings	1954	662001
H	437m E	Unspecified Pit	1928 - 1938	786463
I	444m N	Unspecified Works	1976	683353
J	477m E	Cuttings	1976	726382
11	490m N	Unspecified Mill	1967 - 1976	776470
12	491m E	Unspecified Commercial/Industrial	1954	733470

This data is sourced from Ordnance Survey / Groundsure.



1.2 Historical tanks

Records within 500m

6

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
E	281m SW	Unspecified Tank	1955 - 1956	100186
E	283m SW	Unspecified Tank	1910	93366
5	334m SW	Tanks	1955 - 1956	95723
I	482m N	Tanks	1988	81377
I	487m N	Tanks	1988	81379
I	492m N	Tanks	1988	81378

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

9

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
2	218m NE	Electricity Substation	1984	51821
4	312m NE	Electricity Substation	1983 - 1996	60708
7	343m N	Electricity Substation	1984	55736
9	439m N	Electricity Substation	1988 - 1997	53399
10	447m E	Electricity Substation	1995	49131



ID	Location	Land use	Dates present	Group ID
J	466m E	Electricity Substation	1983	62771
J	466m E	Electricity Substation	1989 - 1996	51330
J	467m E	Electricity Substation	1975	54023
14	494m NW	Electricity Substation	1988 - 1996	58043

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

3

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
K	483m NW	Garage	1979 - 1985	21549
13	493m W	Garage	1988 - 1996	21115
K	495m NW	Garage	1979	21852

This data is sourced from Ordnance Survey / Groundsure.



1.6 Historical military land

Records within 500m

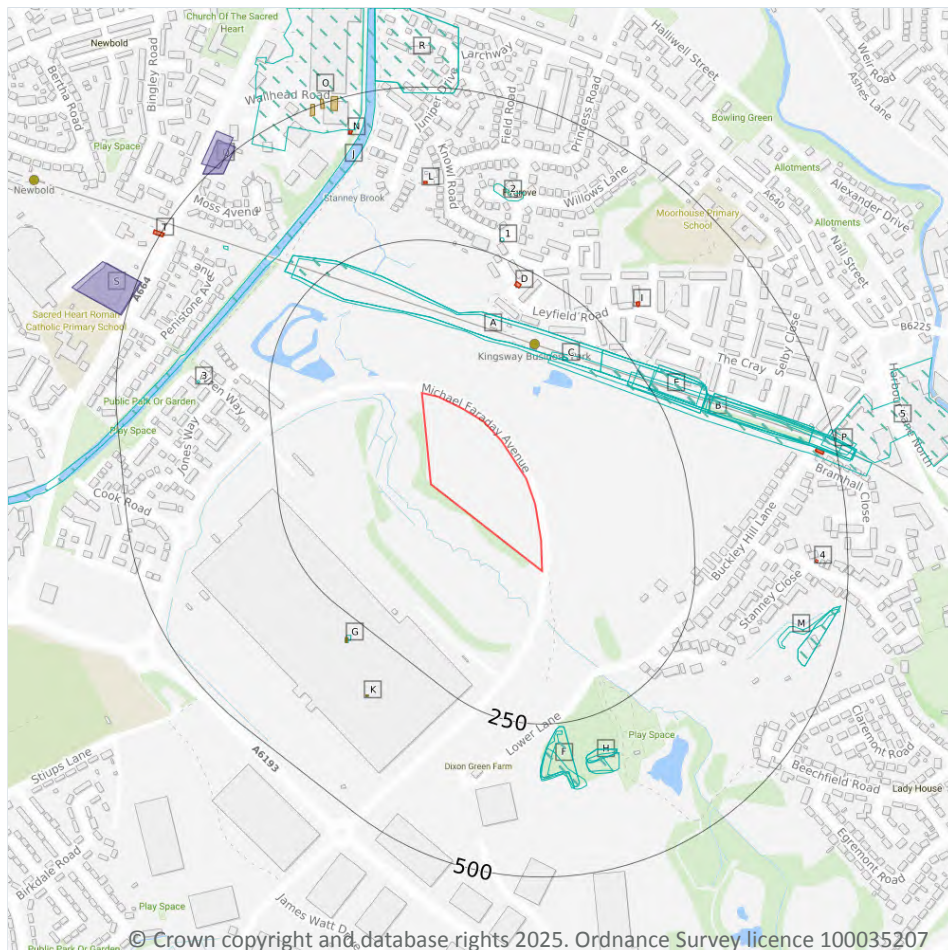
0

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

41

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

Features are displayed on the Past land use - un-grouped map on [page 20](#) >

ID	Location	Land Use	Date	Group ID
A	115m N	Railway Sidings	1954	788594
A	118m N	Railway Sidings	1938	725673
A	118m N	Railway Sidings	1928	725673



ID	Location	Land Use	Date	Group ID
A	118m N	Railway Sidings	1908	725673
B	143m NE	Cuttings	1851	742926
C	164m NE	Railway Building	1938	717158
C	164m NE	Railway Building	1928	717158
C	164m NE	Railway Building	1908	717158
B	197m NE	Cuttings	1938	782178
B	197m NE	Cuttings	1928	782178
B	222m NE	Cuttings	1891	797458
E	225m NE	Cuttings	1954	739238
B	246m NE	Cuttings	1908	797458
E	250m NE	Cuttings	1976	772063
F	256m S	Unspecified Heap	1938	721571
F	256m S	Unspecified Heap	1928	721571
F	263m S	Unspecified Ground Workings	1954	750638
1	274m N	Pump	1851	682649
G	275m SW	Unspecified Tank	1976	756453
G	281m SW	Unspecified Tank	1908	720196
F	290m S	Unspecified Ground Workings	1908	799729
H	305m S	Unspecified Heap	1938	794589
H	305m S	Unspecified Heap	1928	794589
H	305m S	Unspecified Heap	1908	794589
B	312m E	Cuttings	1954	720724
H	314m S	Unspecified Pit	1967	676656
B	316m E	Cuttings	1976	775687
B	316m E	Cuttings	1967	775687
H	316m S	Unspecified Heap	1954	729323
J	324m NW	Disused Canal	1976	763039
2	340m N	Gravel Pit	1928	699656



ID	Location	Land Use	Date	Group ID
3	364m W	Pump	1851	682650
J	394m NW	Railway Building	1938	703087
M	401m E	Unspecified Ground Workings	1954	662001
M	437m E	Unspecified Pit	1938	786463
M	437m E	Unspecified Pit	1928	786463
O	444m N	Unspecified Works	1976	683353
P	477m E	Cuttings	1976	726382
R	490m N	Unspecified Mill	1976	776470
R	490m N	Unspecified Mill	1967	776470
5	491m E	Unspecified Commercial/Industrial	1954	733470

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	8
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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 20 >](#)

ID	Location	Land Use	Date	Group ID
G	281m SW	Unspecified Tank	1956	100186
G	282m SW	Unspecified Tank	1955	100186
G	283m SW	Unspecified Tank	1910	93366
K	334m SW	Tanks	1956	95723
K	334m SW	Tanks	1955	95723
O	482m N	Tanks	1988	81377
O	487m N	Tanks	1988	81379
O	492m N	Tanks	1988	81378

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

20

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

Features are displayed on the Past land use - un-grouped map on [page 20](#) >

ID	Location	Land Use	Date	Group ID
D	218m NE	Electricity Substation	1984	51821
D	218m NE	Electricity Substation	1984	51821
I	312m NE	Electricity Substation	1983	60708
I	312m NE	Electricity Substation	1996	60708
I	313m NE	Electricity Substation	1989	60708
L	343m N	Electricity Substation	1984	55736
L	343m N	Electricity Substation	1984	55736
N	439m N	Electricity Substation	1988	53399
N	439m N	Electricity Substation	1997	53399
N	439m N	Electricity Substation	1995	53399
N	439m N	Electricity Substation	1996	53399
N	439m N	Electricity Substation	1995	53399
N	439m N	Electricity Substation	1995	53399
4	447m E	Electricity Substation	1995	49131
P	466m E	Electricity Substation	1983	62771
P	466m E	Electricity Substation	1996	51330
P	467m E	Electricity Substation	1989	51330
P	467m E	Electricity Substation	1975	54023
T	494m NW	Electricity Substation	1988	58043
T	495m NW	Electricity Substation	1996	58043

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**5**

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

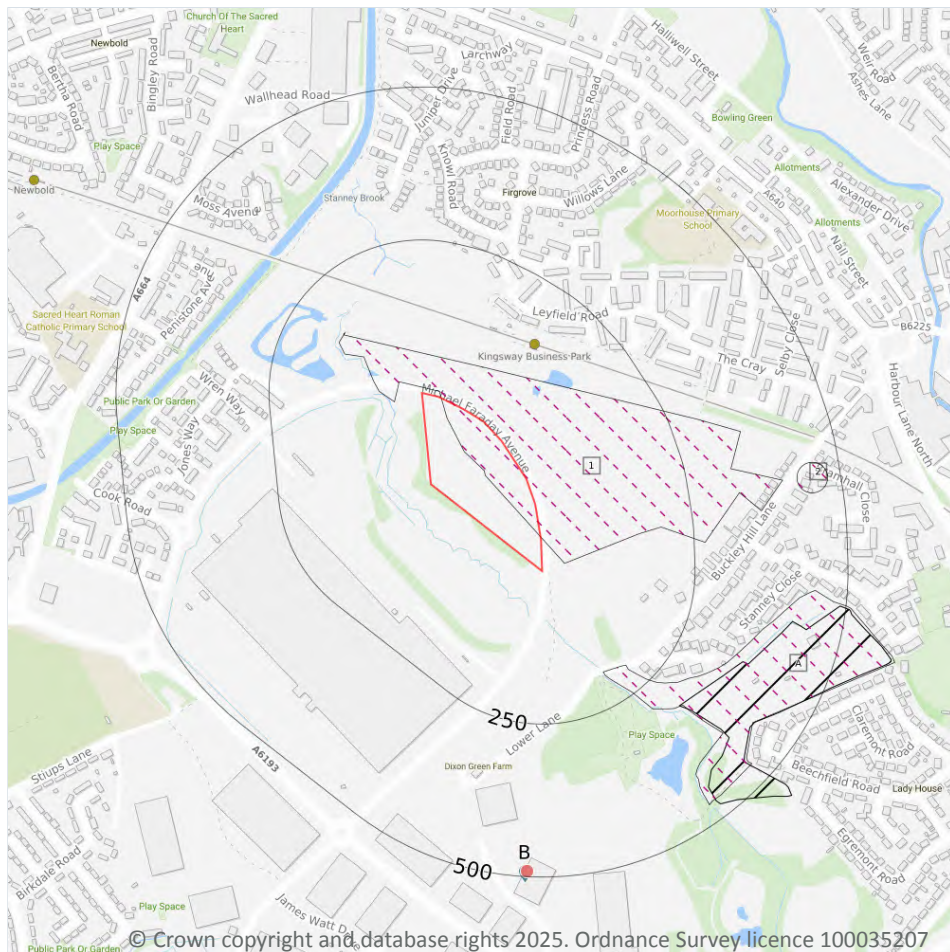
Features are displayed on the Past land use - un-grouped map on [page 20](#) >

ID	Location	Land Use	Date	Group ID
Q	483m NW	Garage	1979	21549
Q	483m NW	Garage	1985	21549
S	493m W	Garage	1988	21115
S	495m W	Garage	1996	21115
Q	495m NW	Garage	1979	21852

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



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

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m

3

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

Features are displayed on the Waste and landfill map on [page 25 >](#)

ID	Location	Site address	Source	Data type
1	On site	Buckley hill lane,Rochdale	Rochdale	Polygon
A	193m SE	Little Lane, Off Harbour Lane, Milnrow	Rochdale Council	Polygon
2	429m E	Ex Universal Laundry Lodge	Rochdale Council	Point

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 25 >](#)

ID	Location	Details		
A	314m SE	Site Address: Little Lane, Off Harbour Lane, Milnrow, Greater Manchester Licence Holder Address: -	Waste Licence: - Site Reference: D073 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded - Last Recorded: -

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

3.5 Historical waste sites

Records within 500m

0

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

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



3.6 Licensed waste sites

Records within 500m

1

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

Features are displayed on the Waste and landfill map on [page 25 >](#)

ID	Location	Details		
B	495m S	Site Name: Rochdale Hub Site Address: Kingsway Business Park, Unit G2, George Stephenson Avenue, Rochdale, OL164UP Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: 627552 EPR reference: EA/EPR/WE1584AC Operator: Clearabee Limited Waste Management licence No: 120857 Annual Tonnage: 0	Issue Date: 01/12/2023 Effective Date: 27/11/2023 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

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

3.7 Waste exemptions

Records within 500m

7

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

Features are displayed on the Waste and landfill map on [page 25 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
B	492m S	-	WEX381758	Treating waste exemption	Not on a farm	Recovery of textiles
B	492m S	-	WEX381758	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
B	492m S	-	WEX381758	Treating waste exemption	Not on a farm	Recovery of scrap metal
B	492m S	-	WEX381758	Treating waste exemption	Not on a farm	Sorting mixed waste
B	492m S	-	WEX381758	Treating waste exemption	Not on a farm	Manual treatment of waste
B	492m S	-	WEX381758	Storing waste exemption	Not on a farm	Storage of waste in secure containers

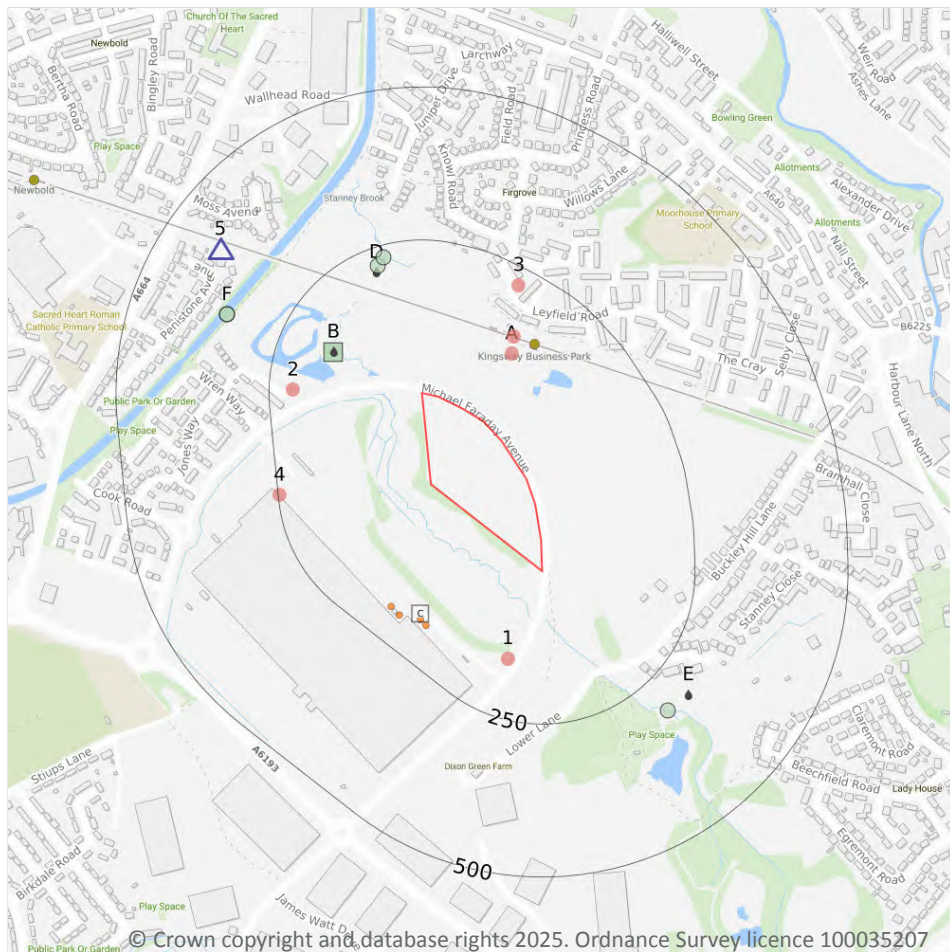


ID	Location	Site	Reference	Category	Sub-Category	Description
B	492m S	-	WEX381758	Storing waste exemption	Not on a farm	Storage of waste in a secure place

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
- NGD current or recent tanks
- ▲ Current or recent petrol stations
- Licensed Discharges to controlled waters
- List 2 Dangerous Substances
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

6

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 29 >](#)

ID	Location	Company	Address	Activity	Category
A	119m NE	Kingsway Business Park	Greater Manchester, OL16	Business Parks and Industrial Estates	Industrial Features



ID	Location	Company	Address	Activity	Category
A	144m NE	Kingsway Business Park (Manchester Metrolink)	Greater Manchester, OL16	Tram, Metro and Light Railway Stations and Stops	Public Transport, Stations and Infrastructure
1	153m S	Electricity Sub Station	Greater Manchester, OL16	Electrical Features	Infrastructure and Facilities
2	211m W	Electricity Sub Station	Greater Manchester, OL16	Electrical Features	Infrastructure and Facilities
3	222m NE	Electricity Sub Station	Greater Manchester, OL16	Electrical Features	Infrastructure and Facilities
4	248m W	Electricity Sub Station	Greater Manchester, OL16	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

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

Records within 250m

4

Current or recent tanks identified from the Ordnance Survey NGD.

Features are displayed on the Current industrial land use map on [page 29 >](#)

ID	Location	Tank description	Activity	Date first identified
C	180m SW	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	01/05/2018
C	181m SW	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	01/05/2018
C	192m SW	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	20/04/2016
C	195m SW	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	20/04/2016

This data is sourced from Ordnance Survey.

4.3 Current or recent petrol stations

Records within 500m

1

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on [page 29 >](#)



ID	Location	Company	Address	LPG	Status
5	405m NW	OBSOLETE	Kingsway, Rochdale, Greater Manchester, OL16 4AP	Not Applicable	Obsolete

This data is sourced from Experian.

4.4 Electricity cables

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

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m	0
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High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.6 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.

4.7 Control of Major Accident Hazards (COMAH)

Records within 500m	0
---------------------	---

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

This data is sourced from the Health and Safety Executive.

4.8 Regulated explosive sites

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.

4.9 Hazardous substance storage/usage

Records within 500m

0

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

This data is sourced from Local Authority records.

4.10 Historical licensed industrial activities (IPC)

Records within 500m

0

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

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

4.11 Licensed industrial activities (Part A(1))

Records within 500m

0

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

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

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

Records within 500m

0

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

This data is sourced from Local Authority records.



4.13 Radioactive Substance Authorisations

Records within 500m

0

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

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

4.14 Licensed Discharges to controlled waters

Records within 500m

3

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

Features are displayed on the Current industrial land use map on [page 29](#) >

ID	Location	Address	Details	
B	160m NW	KINGSWAY BUSINESS PARK, OPPOSITE KINGSWAY HOTEL, KINGSWAY, ROCHDALE, OL16 5HS	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE (CONTAM SURFACE WATER, NOT WASTE SIT Permit Number: 016993832 Permit Version: 1 Receiving Water: STANNEY BROOK TRIB RIVER ROCH	Status: REVOKED - UNSPECIFIED Issue date: 11/04/2006 Effective Date: 11/04/2006 Revocation Date: 28/04/2007
D	211m N	THE CRAY PS, MILNROW, ROCHDALE, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: 016982941 Permit Version: 1 Receiving Water: STANNEY BROOK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 17/11/1995 Revocation Date: -
E	313m SE	WHITFIELD DR SPS, WHITFIELD DRIVE, MILNROW, ROCHDALE, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: 016993214 Permit Version: 1 Receiving Water: STANNEY BROOK	Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 30/09/1997 Revocation Date: 07/06/2016

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

4.15 Pollutant release to surface waters (Red List)

Records within 500m

0

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

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



4.16 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

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

4.17 List 1 Dangerous Substances

Records within 500m

0

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

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

4.18 List 2 Dangerous Substances

Records within 500m

1

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.

Features are displayed on the Current industrial land use map on [page 29 >](#)

ID	Location	Name	Status	Receiving Water	Authorised Substances
B	160m NW	Kingsway Business Park	Active	River Roch	Iron, pH

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

4.19 Pollution Incidents (EA/NRW)

Records within 500m

5

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 29 >](#)

ID	Location	Details	
D	221m N	Incident Date: 12/04/2003 Incident Identification: 150636 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

ID	Location	Details	
D	230m N	Incident Date: 20/02/2003 Incident Identification: 138259 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
E	306m SE	Incident Date: 19/04/2002 Incident Identification: 73135 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
F	344m W	Incident Date: 04/07/2002 Incident Identification: 89401 Pollutant: Oils and Fuel Pollutant Description: Mixed/Waste Oils	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
F	344m W	Incident Date: 04/07/2002 Incident Identification: 89401 Pollutant: Oils and Fuel Pollutant Description: Mixed/Waste Oils	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.

4.20 Pollution inventory substances

Records within 500m

0

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

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

4.21 Pollution inventory waste transfers

Records within 500m

0

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

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



4.22 Pollution inventory radioactive waste

Records within 500m

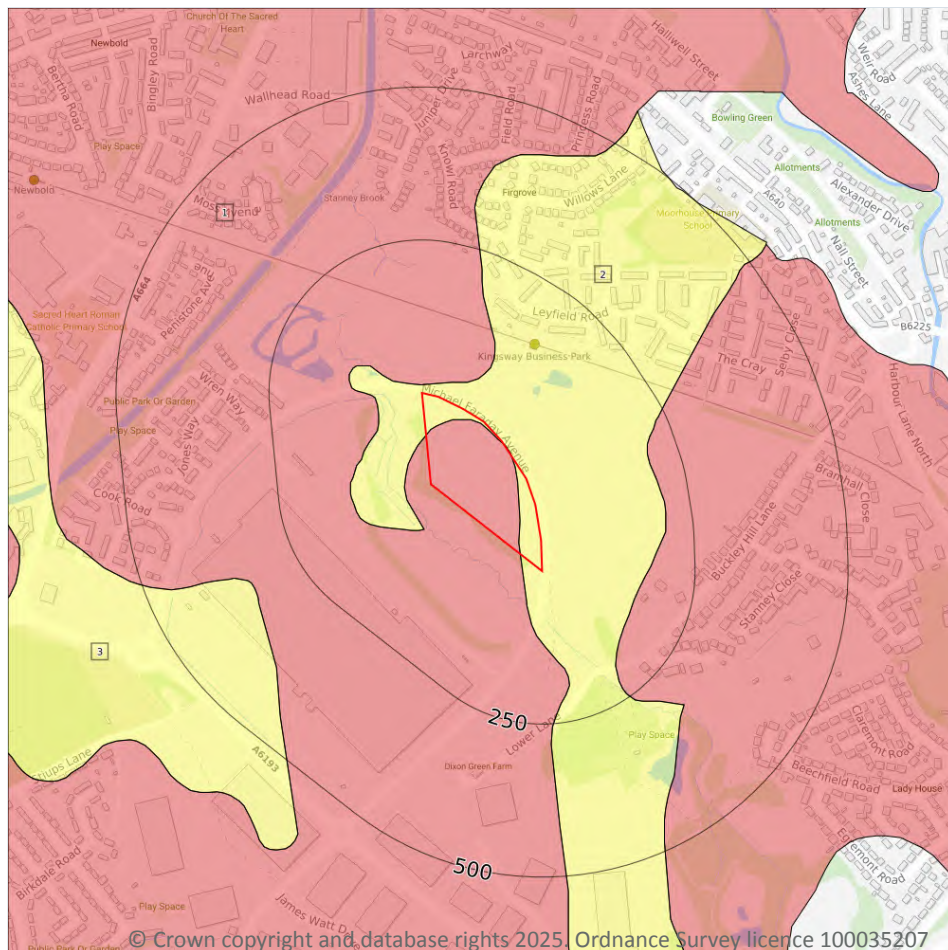
0

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

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



5 Hydrogeology - Superficial aquifer



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

5.1 Superficial aquifer

Records within 500m

3

Aquifer status of groundwater held within superficial geology.

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

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

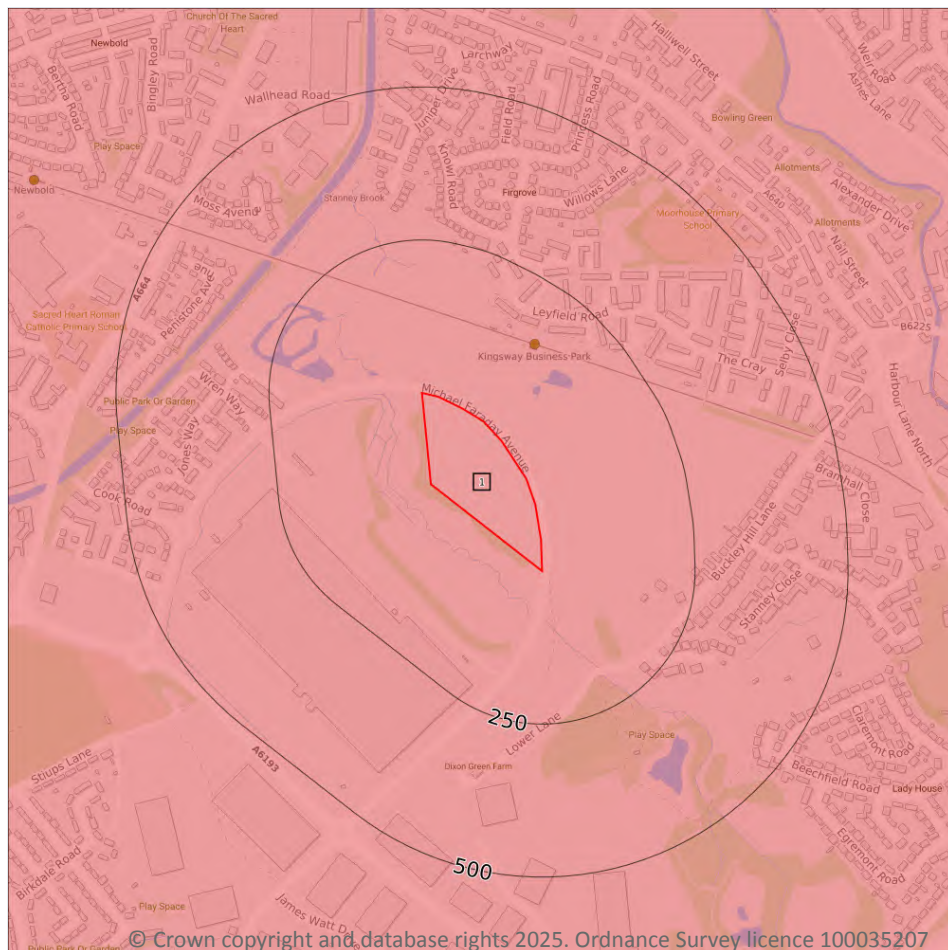


ID	Location	Designation	Description
3	334m SW	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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



Bedrock aquifer



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

5.2 Bedrock aquifer

Records within 500m

1

Aquifer status of groundwater held within bedrock geology.

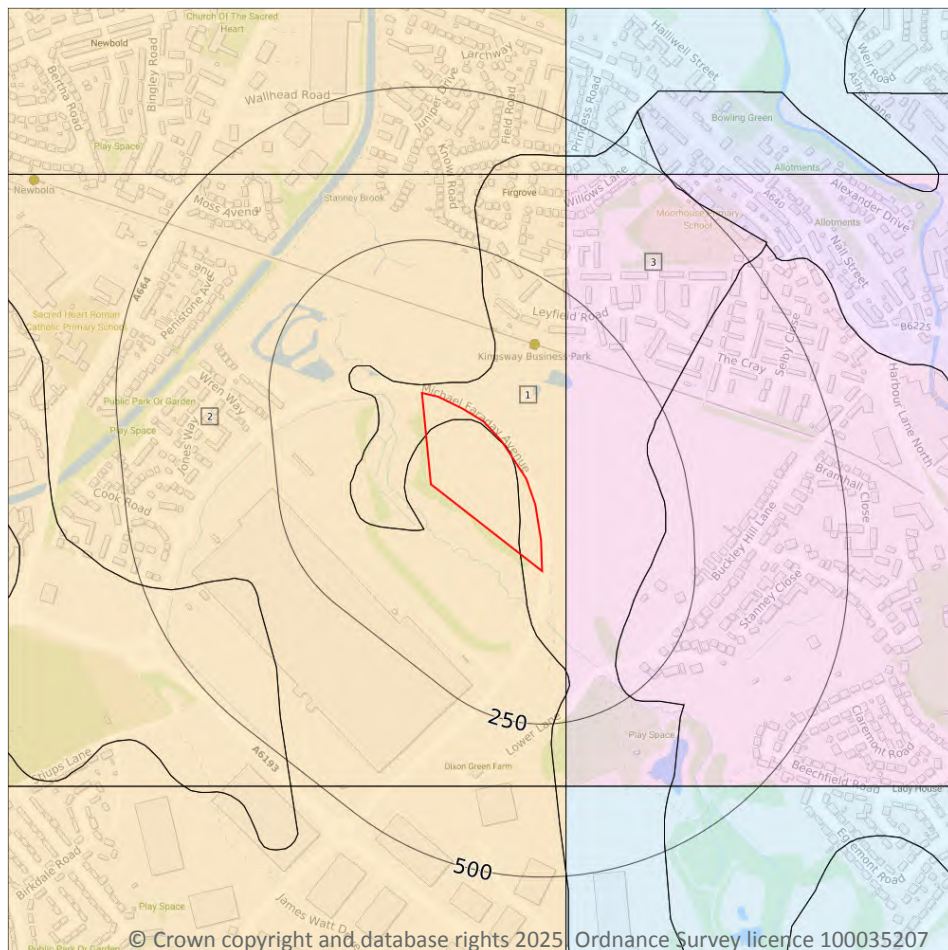
Features are displayed on the Bedrock aquifer map on [page 39](#) >

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

3

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 40](#) >



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
2	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
3	39m E	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: <90% Recharge potential: High	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

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

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

5.5 Groundwater vulnerability- local information

Records on site

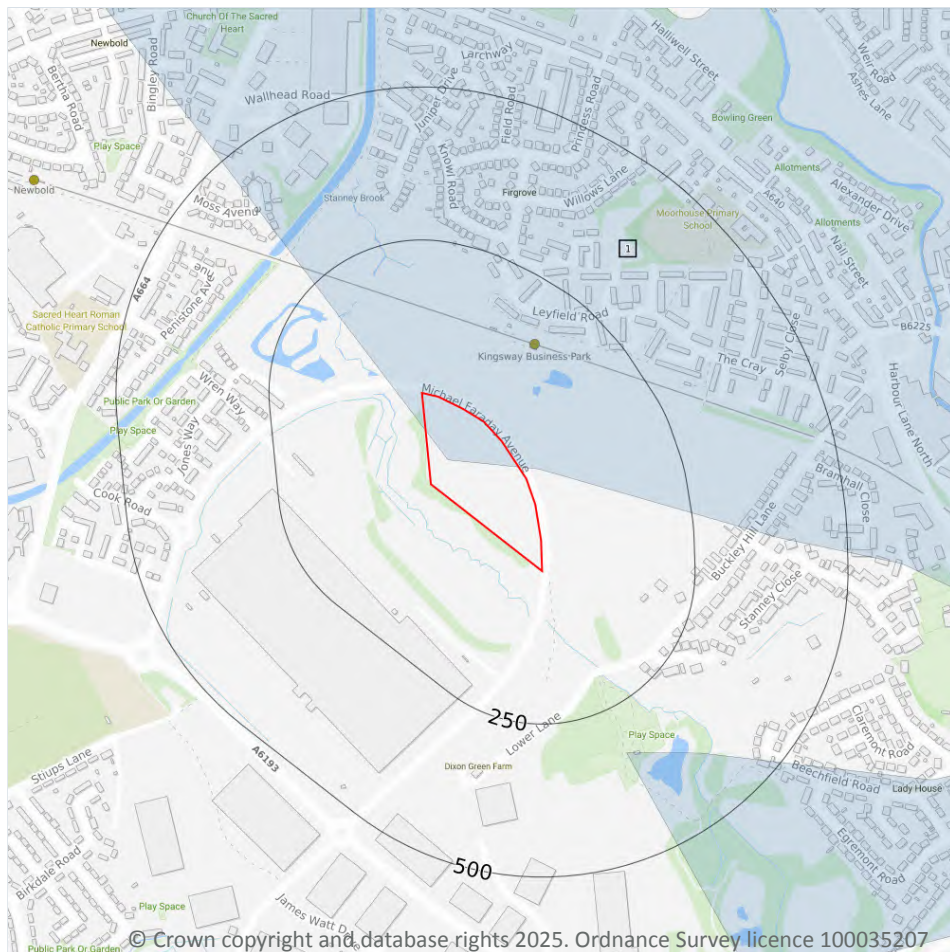
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This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment 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

13

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 42 >](#)



ID	Location	Details	
-	938m SW	Status: Historical Licence No: 2569002159 Details: General Farming & Domestic Direct Source: Ground Water - North West Region Point: "WELL AT FARM, LOWER LANE, MILNROW, ROCHDALE" Data Type: Point Name: HARTLE Easting: 391400 Northing: 411600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/02/1966 Version End Date: -
-	938m SW	Status: Historical Licence No: 2569002159 Details: General Farming & Domestic Direct Source: Ground Water - North West Region Point: WELL AT FARM, LOWER LANE, MILNROW, ROCHDALE Data Type: Point Name: HARTLE Easting: 391400 Northing: 411600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/02/1966 Version End Date: -
-	938m SW	Status: Historical Licence No: 2569002159 Details: General Farming & Domestic Direct Source: Ground Water - North West Region Point: WELL AT FARM LOWER LANE MILNROW ROCHDALE Data Type: Point Name: HARTLE Easting: 391400 Northing: 411600	Annual Volume (m ³): 5123.34 Max Daily Volume (m ³): 31.822 Original Application No: - Original Start Date: 01/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -
-	1020m SW	Status: Historical Licence No: 2569002060 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "WELL AT CASTLE FARM, LOWER LANE, MILNROW" Data Type: Point Name: SANDERSON Easting: 391400 Northing: 411500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 11/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/02/1966 Version End Date: -



ID	Location	Details	
-	1020m SW	Status: Historical Licence No: 2569002060 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: WELL AT CASTLE FARM, LOWER LANE, MILNROW Data Type: Point Name: SANDERSON Easting: 391400 Northing: 411500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 11/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/02/1966 Version End Date: -
-	1240m E	Status: Active Licence No: 2569002206 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: COLLIERY SHAFT @ PREMISES, BUTTERWORTH HALL, MILNROW Data Type: Point Name: United Utilities Water Ltd Easting: 393200 Northing: 412400	Annual Volume (m ³): 3982296 Max Daily Volume (m ³): 13638 Original Application No: 1567 Original Start Date: 01/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1994 Version End Date: -
-	1240m E	Status: Historical Licence No: 2569002206 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "COLLIERY SHAFT @ PREMISES, BUTTERWORTH HALL, MILNROW" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 393200 Northing: 412400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1994 Version End Date: -
-	1262m S	Status: Historical Licence No: 2569002086 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "WELL AT BROADSHAW FARM, MILNROW, ROCHDALE" Data Type: Point Name: CROSTON Easting: 391800 Northing: 411100	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: 02/02/1966 Version End Date: -



ID	Location	Details	
-	1262m S	Status: Historical Licence No: 2569002086 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: WELL AT BROADSHAW FARM, MILNROW, ROCHDALE Data Type: Point Name: CROSTON Easting: 391800 Northing: 411100	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: 02/02/1966 Version End Date: -
-	1362m N	Status: Historical Licence No: 2569002216 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "SPRING FED TANK AT PREMISES, MILNROW" Data Type: Point Name: HEGINBOTTOMS FARM LTD Easting: 392300 Northing: 413900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 25/11/1975 Expiry Date: - Issue No: 100 Version Start Date: 25/11/1975 Version End Date: -
-	1362m N	Status: Historical Licence No: 2569002216 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: SPRING FED TANK AT PREMISES, MILNROW Data Type: Point Name: HEGINBOTTOMS FARM LTD Easting: 392300 Northing: 413900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 25/11/1975 Expiry Date: - Issue No: 100 Version Start Date: 25/11/1975 Version End Date: -
-	1768m S	Status: Historical Licence No: 2569002204 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, OLD BARN FARM,BURNEDGE, ROCHDALE" Data Type: Point Name: CRYER Easting: 392200 Northing: 410600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 24/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 24/04/1969 Version End Date: -



ID	Location	Details	
-	1768m S	Status: Historical Licence No: 2569002204 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, OLD BARN FARM,BURNEDGE, ROCHDALE Data Type: Point Name: CRYER Easting: 392200 Northing: 410600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 24/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 24/04/1969 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m

24

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 42 >](#)

ID	Location	Details	
-	763m E	Status: Active Licence No: 2569002175 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Surface, Non-Tidal - North West Region Point: RESERVOIR FED BY SPRINGS AT PREMISESMILNROW Data Type: Point Name: Precision Components Limited Easting: 392700 Northing: 412600	Annual Volume (m ³): 16365 Max Daily Volume (m ³): 54.55 Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 30/11/2009 Version End Date: -
-	763m E	Status: Historical Licence No: 2569002175 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: RESERVOIR FED BY SPRINGS AT PREMISESMILNROW Data Type: Point Name: HOLROYD MACHINES TOOLS & ROTORS Easting: 392700 Northing: 412600	Annual Volume (m ³): 16365.6 Max Daily Volume (m ³): 54.552 Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -



ID	Location	Details	
-	1226m SE	Status: Active Licence No: 2569002064 Details: Non-Evaporative Cooling Direct Source: Surface, Non-Tidal - North West Region Point: R BEAL AT NEWHEY, MILNROW, ROCHDALE Data Type: Point Name: ELLENROAD TRUST LTD Easting: 393000 Northing: 411700	Annual Volume (m ³): 3520 Max Daily Volume (m ³): 350 Original Application No: NPS/WR/015275 Original Start Date: 18/01/1966 Expiry Date: - Issue No: 103 Version Start Date: 30/01/2014 Version End Date: -
-	1226m SE	Status: Active Licence No: 2569002233 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: R BEAL AT MILNROW Data Type: Point Name: SUN CHEMICAL LTD Easting: 393000 Northing: 411700	Annual Volume (m ³): 66370 Max Daily Volume (m ³): 181.8 Original Application No: 2725 Original Start Date: 13/08/1986 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2005 Version End Date: -
-	1226m SE	Status: Historical Licence No: 2569002064 Details: Boiler Feed Direct Source: "Surface, Non-Tidal - North West Region" Point: "R BEAL AT NEWHEY, MILNROW, ROCHDALE" Data Type: Point Name: THE SECRETARY Easting: 393000 Northing: 411700	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: 21/06/1993 Version End Date: -
-	1226m SE	Status: Historical Licence No: 2569002064 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "R BEAL AT NEWHEY, MILNROW, ROCHDALE" Data Type: Point Name: THE SECRETARY Easting: 393000 Northing: 411700	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: 21/06/1993 Version End Date: -



ID	Location	Details	
-	1226m SE	Status: Historical Licence No: 2569002064 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: R BEAL AT NEWHEY, MILNROW, ROCHDALE Data Type: Point Name: THE SECRETARY Easting: 393000 Northing: 411700	Annual Volume (m ³): 327312 Max Daily Volume (m ³): 2954.9 Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/06/1993 Version End Date: -
-	1226m SE	Status: Historical Licence No: 2569002064 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: R BEAL AT NEWHEY, MILNROW, ROCHDALE Data Type: Point Name: ELLENROAD TRUST LTD Easting: 393000 Northing: 411700	Annual Volume (m ³): 327312 Max Daily Volume (m ³): 2954.9 Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 11/09/2008 Version End Date: -
-	1447m E	Status: Historical Licence No: 2569002207 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: RESERVOIR FED BY UNNAMED TRIB OF BUTTERWORTH HALL BRK AT Data Type: Point Name: SONOCO INDUSTRIAL PACKAGING Easting: 393400 Northing: 412200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 26/06/1970 Expiry Date: - Issue No: 100 Version Start Date: 01/02/1990 Version End Date: -
-	1447m E	Status: Historical Licence No: 2569002207 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Surface, Non-Tidal - North West Region Point: RESERVOIR FED BY UNNAMED TRIB OF BUTTERWORTH HALL BRK AT Data Type: Point Name: SONOCO INDUSTRIAL PACKAGING Easting: 393400 Northing: 412200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 26/06/1970 Expiry Date: - Issue No: 100 Version Start Date: 01/02/1990 Version End Date: -



ID	Location	Details	
-	1447m E	Status: Historical Licence No: 2569002207 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: RESERVOIR FED BY UNNAMED TRIB OF BUTTERWORTH HALL BRK AT Data Type: Point Name: SONOCO INDUSTRIAL PACKAGING Easting: 393400 Northing: 412200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 26/06/1970 Expiry Date: - Issue No: 100 Version Start Date: 01/02/1990 Version End Date: -
-	1492m W	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: -
-	1507m NW	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: -
-	1507m NW	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: -

ID	Location	Details	
-	1507m NW	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: -
-	1725m SW	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: -
-	1725m SW	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: -
-	1725m SW	Status: Active 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): 34.1 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: -

ID	Location	Details	
-	1791m W	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: -
-	1791m W	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: -
-	1791m W	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: -
-	1791m W	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: -

ID	Location	Details	
-	1970m W	Status: Active 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: -
-	1971m W	Status: Active 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: -

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

5.8 Potable abstractions

Records within 2000m

3

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.

Features are displayed on the Abstractions and Source Protection Zones map on [page 42 >](#)

ID	Location	Details	
-	1240m E	Status: Active Licence No: 2569002206 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: COLLIERY SHAFT @ PREMISES, BUTTERWORTH HALL, MILNROW Data Type: Point Name: United Utilities Water Ltd Easting: 393200 Northing: 412400	Annual Volume (m ³): 3982296 Max Daily Volume (m ³): 13638 Original Application No: 1567 Original Start Date: 01/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1994 Version End Date: -



ID	Location	Details	
-	1240m E	Status: Historical Licence No: 2569002206 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "COLLIERY SHAFT @ PREMISES, BUTTERWORTH HALL, MILNROW" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 393200 Northing: 412400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1994 Version End Date: -
-	1447m E	Status: Historical Licence No: 2569002207 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Surface, Non-Tidal - North West Region Point: RESERVOIR FED BY UNNAMED TRIB OF BUTTERWORTH HALL BRK AT Data Type: Point Name: SONOCO INDUSTRIAL PACKAGING Easting: 393400 Northing: 412200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 26/06/1970 Expiry Date: - Issue No: 100 Version Start Date: 01/02/1990 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	1
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Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on [page 42 >](#)

ID	Location	Type	Description
1	On site	2	Outer catchment

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

5.10 Source Protection Zones (confined aquifer)

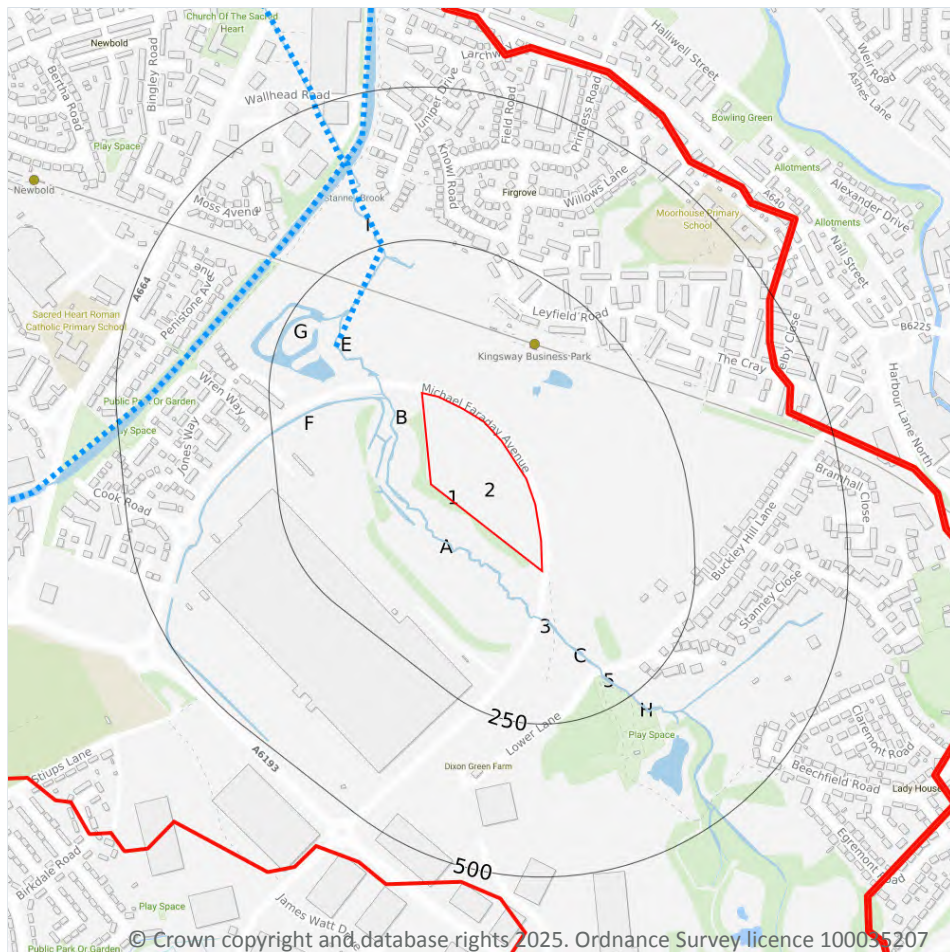
Records within 500m	0
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Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only 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

33

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

Features are displayed on the Hydrology map on [page 54 >](#)

ID	Location	Type of water feature	Ground level	Permanence	Name
A	45m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Stanney Brook



ID	Location	Type of water feature	Ground level	Permanence	Name
B	48m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Stanney Brook
B	56m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	57m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Stanney Brook
B	57m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
B	64m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	65m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Stanney Brook
B	66m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	66m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	68m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	74m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
3	75m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Stanney Brook
B	79m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	79m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-



ID	Location	Type of water feature	Ground level	Permanence	Name
B	81m W	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	Stanney Brook
C	81m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Stanney Brook
B	82m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	92m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Stanney Brook
B	131m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	133m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Stanney Brook
F	140m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	178m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Stanney Brook
E	178m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	184m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Stanney Brook
E	185m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
5	186m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Stanney Brook
H	195m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Stanney Brook



ID	Location	Type of water feature	Ground level	Permanence	Name
G	196m NW	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	206m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	207m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	208m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Stanney Brook
E	210m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Stanney Brook
I	230m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Stanney Brook

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

20

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 54 >](#)

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

1

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

Features are displayed on the Hydrology map on [page 54 >](#)



ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	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	1
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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 54 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
4	160m NW	River	Roch (Source to Spodden)	GB112069064720 ↗	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
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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.

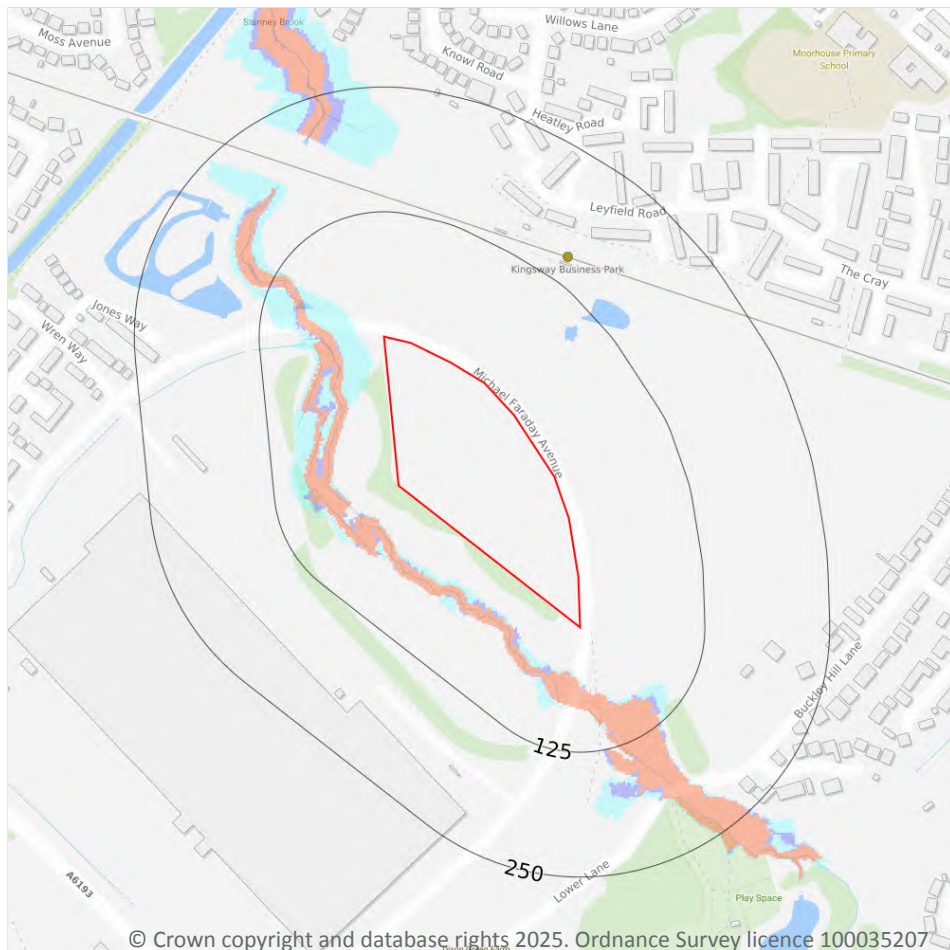
Features are displayed on the Hydrology map on [page 54 >](#)

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

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



7 River and coastal flooding



— Site Outline
Search buffers in metres (m)

River and coastal flooding:

- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m

7

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

Features are displayed on the River and coastal flooding map on [page 59 >](#)



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

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

7.2 Historical Flood Events

Records within 250m	0
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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
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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
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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

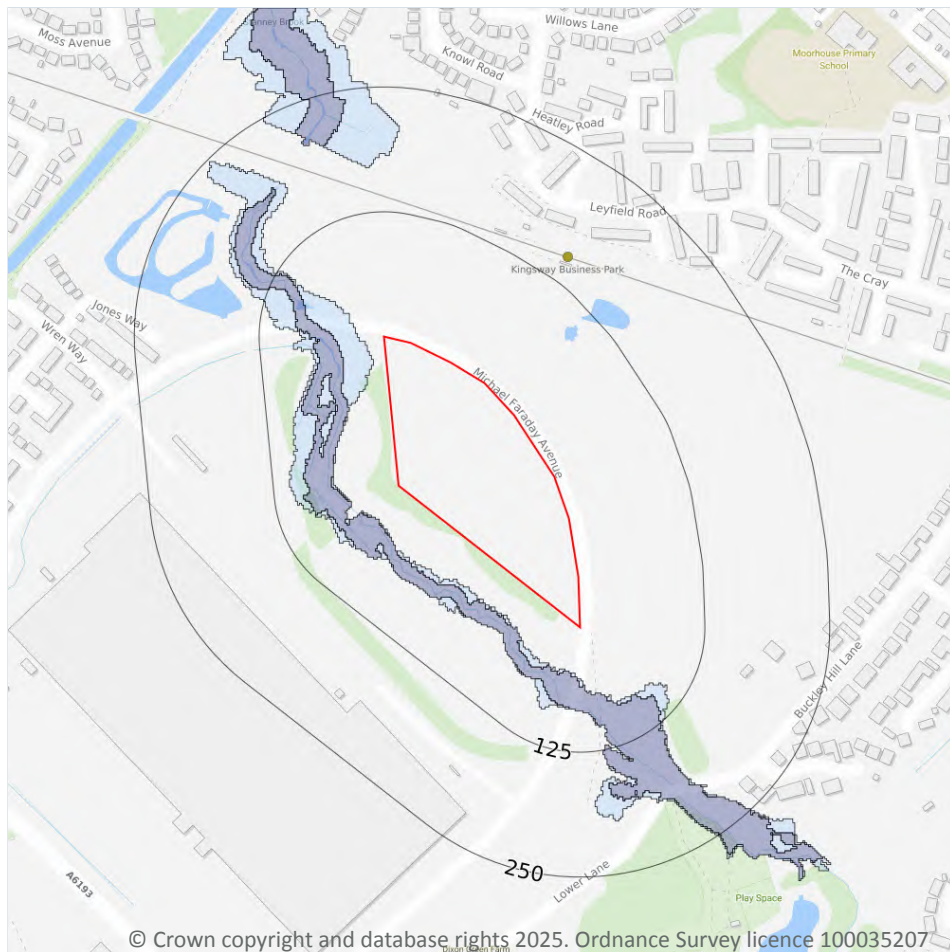
Records within 250m	0
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Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

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



River and coastal flooding - Flood Zones



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

7.6 Flood Zone 2

Records within 50m

1

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

Features are displayed on the River and coastal flooding map on [page 59](#) >

Location	Type
13m W	Zone 2 - (Fluvial /Tidal Models)

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



7.7 Flood Zone 3

Records within 50m

1

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

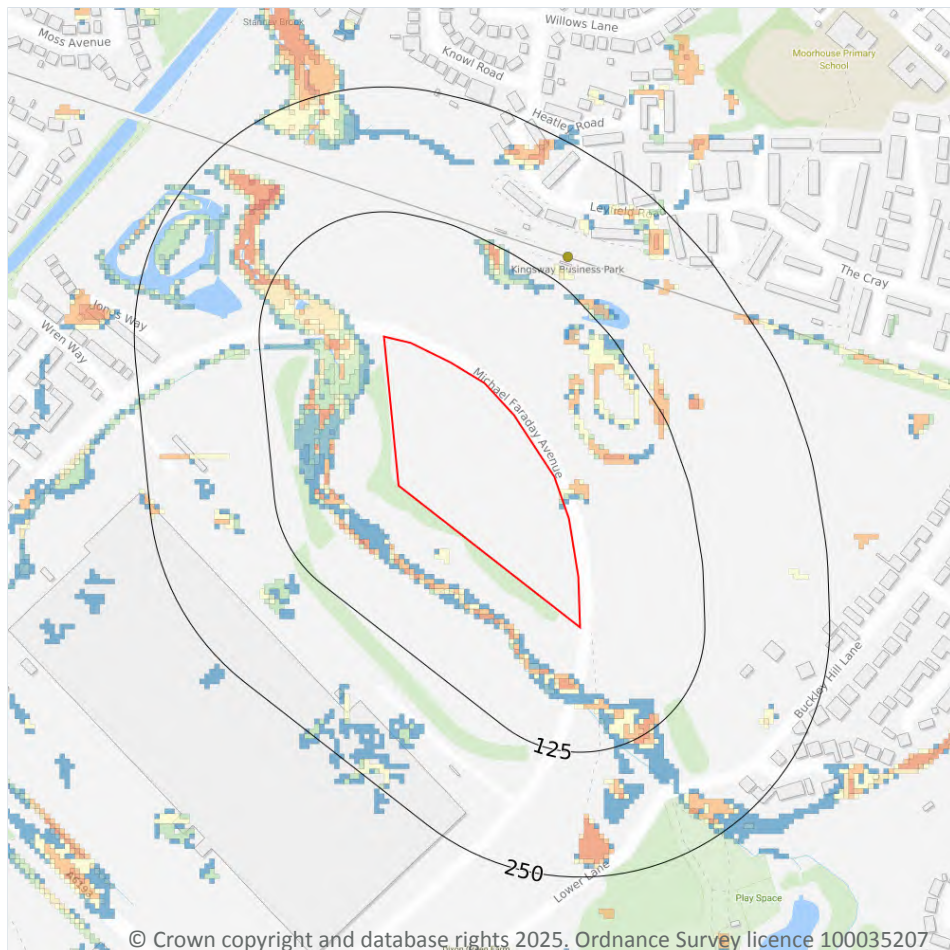
Features are displayed on the River and coastal flooding map on [page 59](#) >

Location	Type
38m SW	Zone 3 - (Fluvial /Tidal Models)

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



8 Surface water flooding



— Site Outline

Search buffers in metres (m)

1 in 1000 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site

1 in 100 year, 0.1m - 0.3m

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

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

Features are displayed on the Surface water flooding map on [page 63](#) >

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.

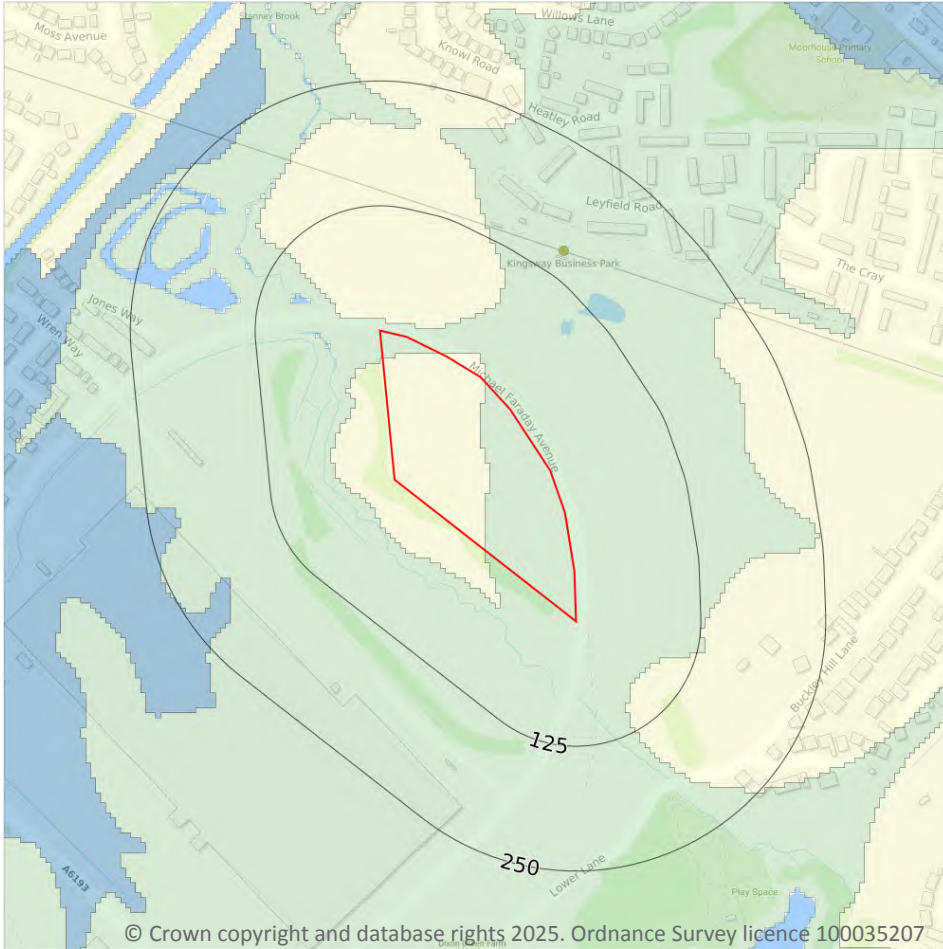
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.1m and 0.3m
1 in 250 year	Between 0.1m and 0.3m
1 in 100 year	Between 0.1m and 0.3m
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

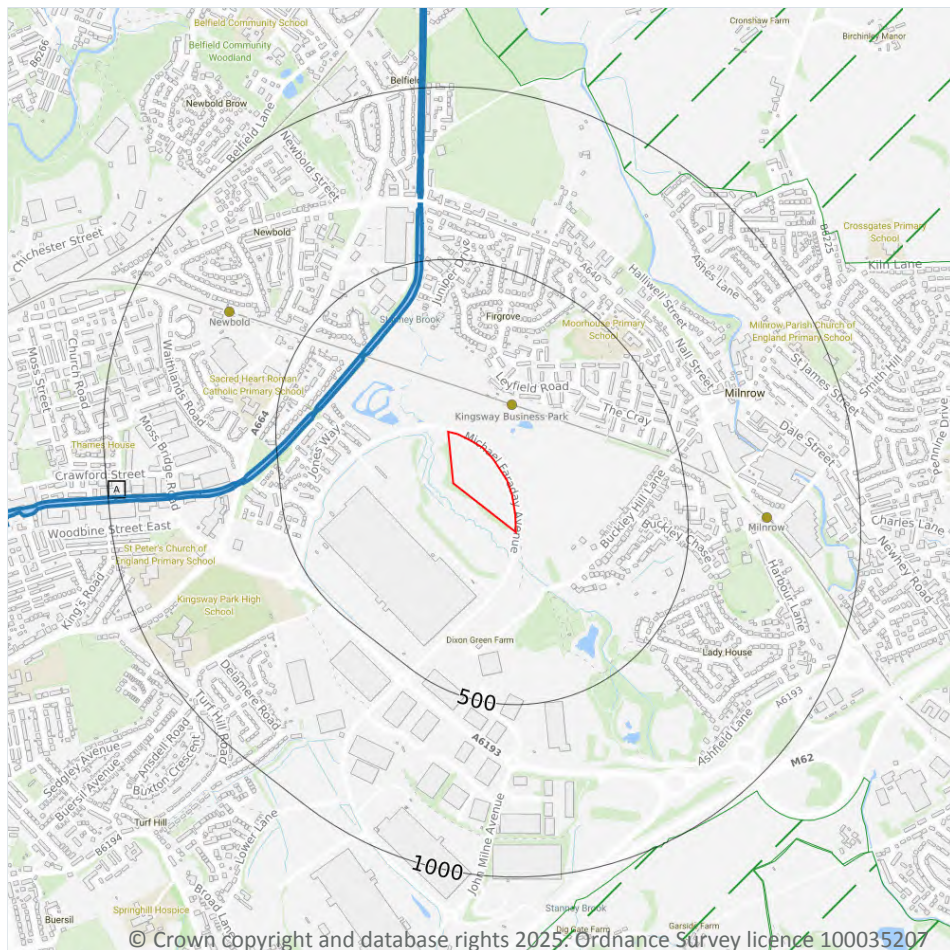
Moderate

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 65 >](#)

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)
- Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

2

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 66](#) >

ID	Location	Name	Data source
A	323m NW	Rochdale Canal SSSI	Natural England



ID	Location	Name	Data source
B	685m N	Rochdale Canal SSSI	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	2
-----------------------------	----------

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 66 >](#)

ID	Location	Name	Features of interest	Habitat description	Data source
A	323m NW	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	685m N	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

0

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.

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

10.8 Biosphere Reserves

Records within 2000m

0

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



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

10.9 Forest Parks

Records within 2000m

0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

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

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

10.11 Green Belt

Records within 2000m

4

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

Features are displayed on the Environmental designations map on [page 66 >](#)

ID	Location	Name	Local Authority name
1	883m NE	Merseyside and Greater Manchester Green Belt	Rochdale
2	993m SE	Merseyside and Greater Manchester Green Belt	Rochdale
3	1198m SE	Merseyside and Greater Manchester Green Belt	Oldham
-	1889m SE	Merseyside and Greater Manchester Green Belt	Rochdale

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

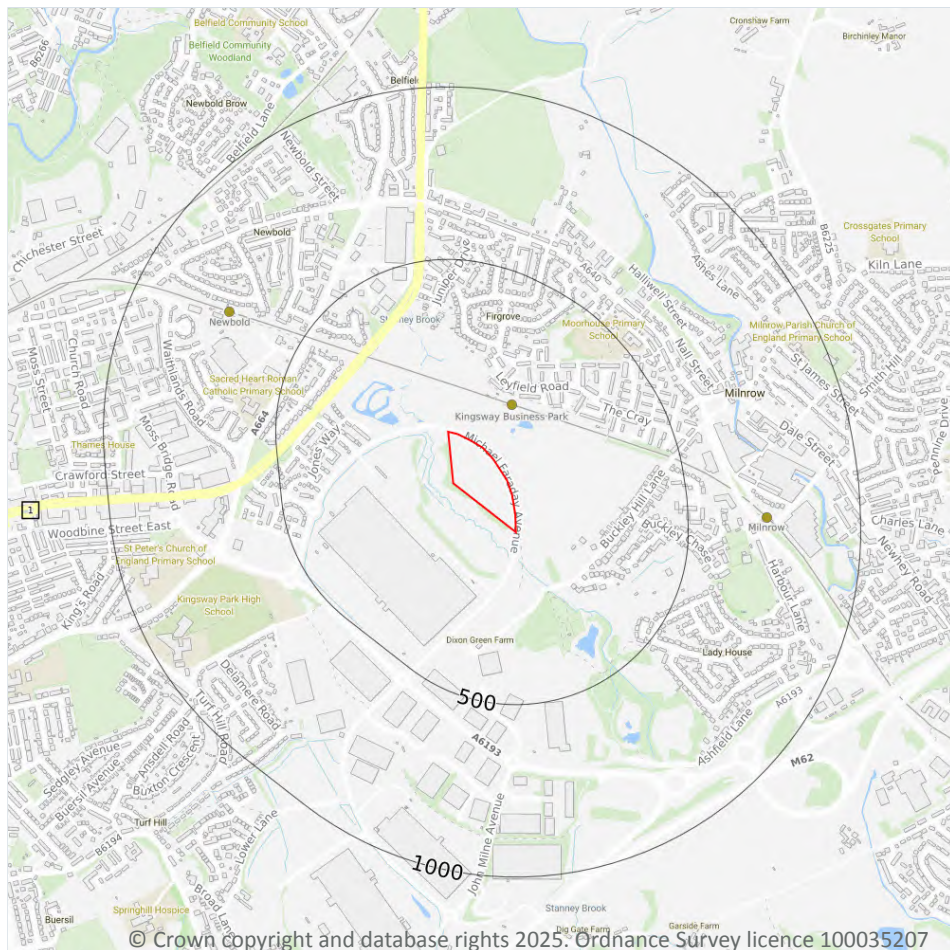
Records within 2000m**0**

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

0

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

This data is sourced from Natural England.



10.18 SSSI Units

Records within 2000m

2

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

Features are displayed on the SSSI Impact Zones and Units map on [page 71 >](#)

ID: 1
Location: 323m NW
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: 2
Location: 685m N
SSSI name: Rochdale Canal
Unit name: Failsworth
Broad habitat: Standing Open Water And Canals
Condition: Unfavourable - Recovering
Reportable features:

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

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



11 Visual and cultural designations

11.1 World Heritage Sites

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

0

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.



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

11.5 Conservation Areas

Records within 250m

0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

Records within 250m

0

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

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



12 Agricultural designations



- 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

2

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 75 >](#)

ID	Location	Classification	Description
1	On site	Grade 4	Poor quality agricultural land. Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.



ID	Location	Classification	Description
2	91m N	Urban	Non-agricultural/no quality assigned

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m

0

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

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

12.3 Tree Felling Licences

Records within 250m

0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

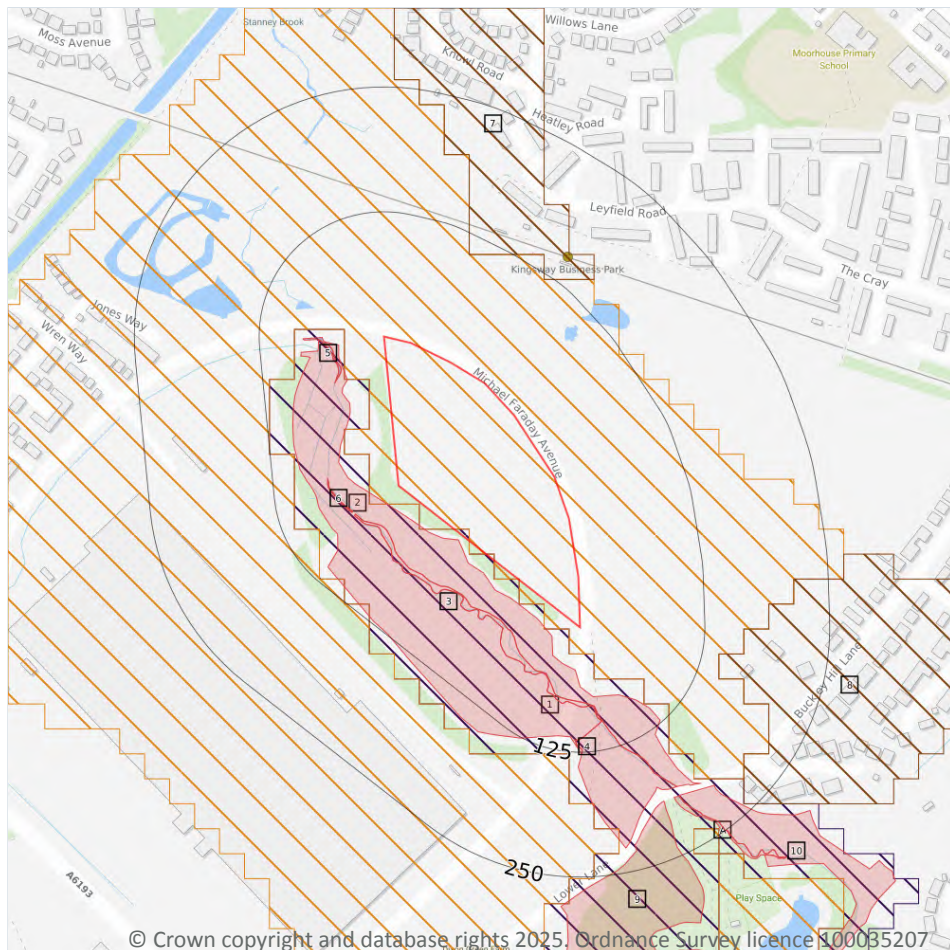
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Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce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

7

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 77 >](#)

ID	Location	Main Habitat	Other habitats
3	6m SW	Lowland fens	Main habitat: LFENS (INV > 50%)
4	42m SW	Lowland fens	Main habitat: LFENS (INV > 50%)
5	46m W	Lowland fens	Main habitat: LFENS (INV > 50%)
6	53m SW	Lowland fens	Main habitat: LFENS (INV > 50%)



ID	Location	Main Habitat	Other habitats
9	193m SE	Lowland fens	Main habitat: LFENS (INV > 50%)
A	194m SE	Lowland fens	Main habitat: LFENS (INV > 50%)
10	195m SE	Lowland fens	Main habitat: LFENS (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

5

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.

Features are displayed on the Habitat designations map on [page 77 >](#)

ID	Location	Type	Habitat
1	On site	Primary Habitat	Lowland fens
2	On site	Network Enhancement Zone 1	Not specified
7	105m NE	Network Enhancement Zone 2	Not specified
8	142m E	Network Enhancement Zone 2	Not specified
A	232m SE	Network Enhancement Zone 1	Not specified

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

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

This data is sourced from Natural England.



13.4 Limestone Pavement Orders

Records within 250m

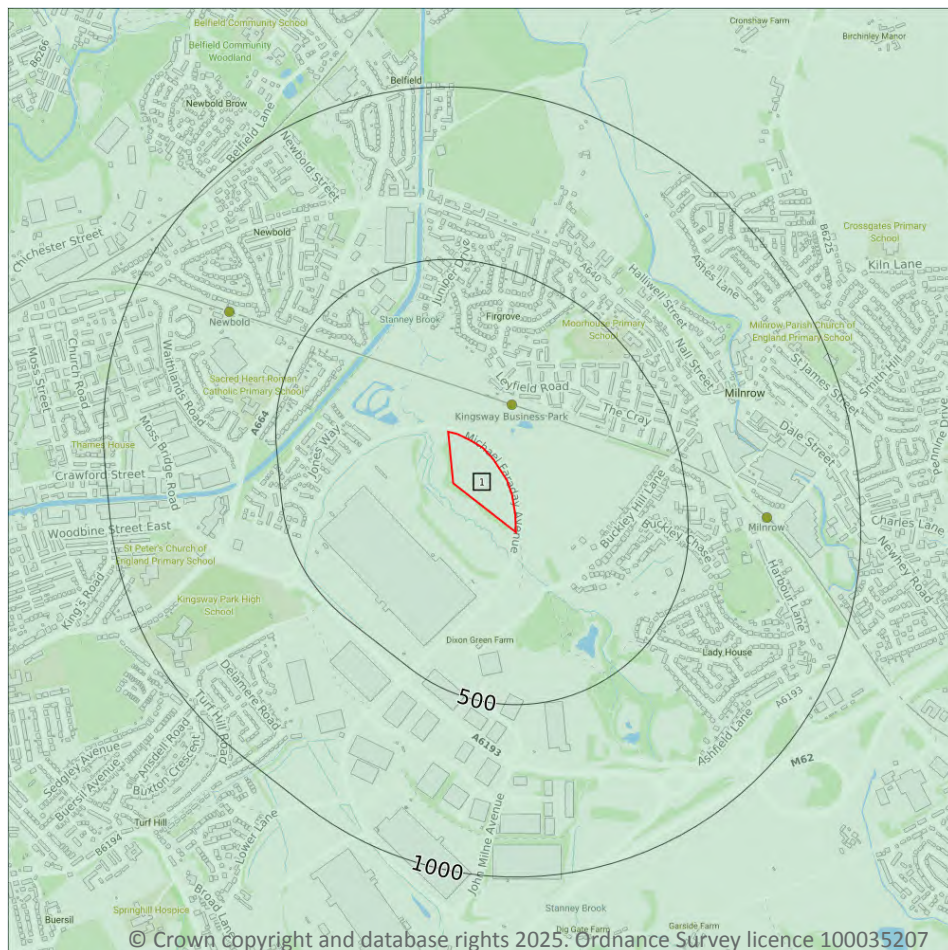
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Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

1

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

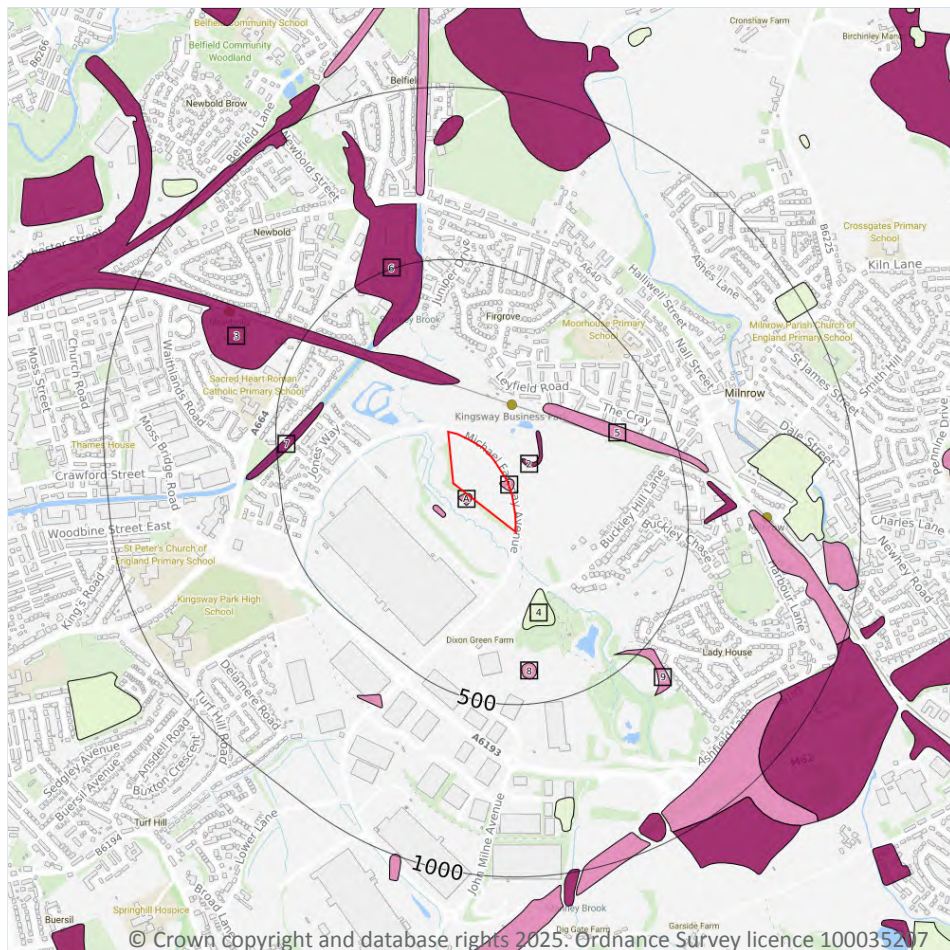
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 80](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SD91SW

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

11

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 81](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	WGR-VOID	Worked Ground (Undivided)	Void
A	On site	WGR-VOID	Worked Ground (Undivided)	Void
2	67m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	79m SW	WGR-VOID	Worked Ground (Undivided)	Void

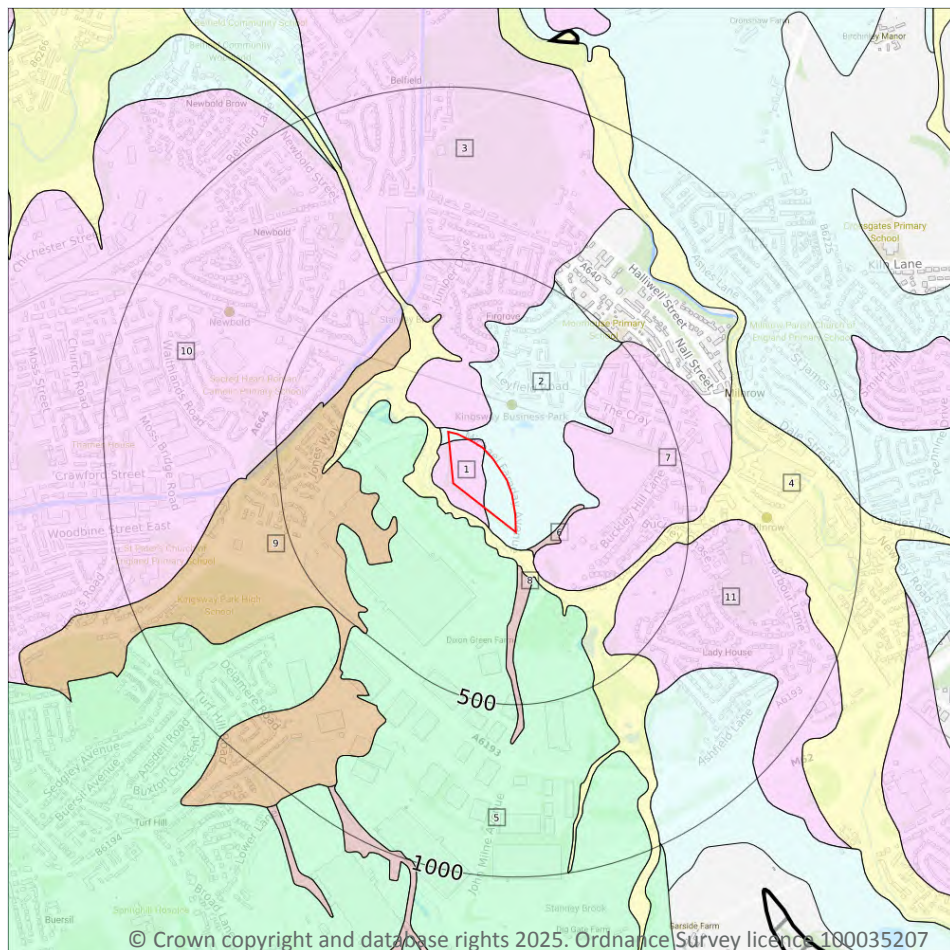


ID	Location	LEX Code	Description	Rock description
3	138m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	178m S	WMGR-ARTDP	Infilled Ground	Artificial Deposit
5	202m NE	WGR-VOID	Worked Ground (Undivided)	Void
6	325m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
7	370m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
8	380m S	WGR-VOID	Worked Ground (Undivided)	Void
9	457m SE	WGR-VOID	Worked Ground (Undivided)	Void

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

11

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 83](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	GFSDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel
2	On site	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
3	11m N	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel



ID	Location	LEX Code	Description	Rock description
4	21m W	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
5	50m SW	HMGDD-DMTN	Hummocky (moundy) Glacial Deposits, Devensian - Diamicton	Diamicton
6	60m SE	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
7	83m SE	GFSDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel
8	96m S	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
9	194m SW	PEAT-P	Peat - Peat	Peat
10	310m NW	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel
11	354m SE	GFSDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

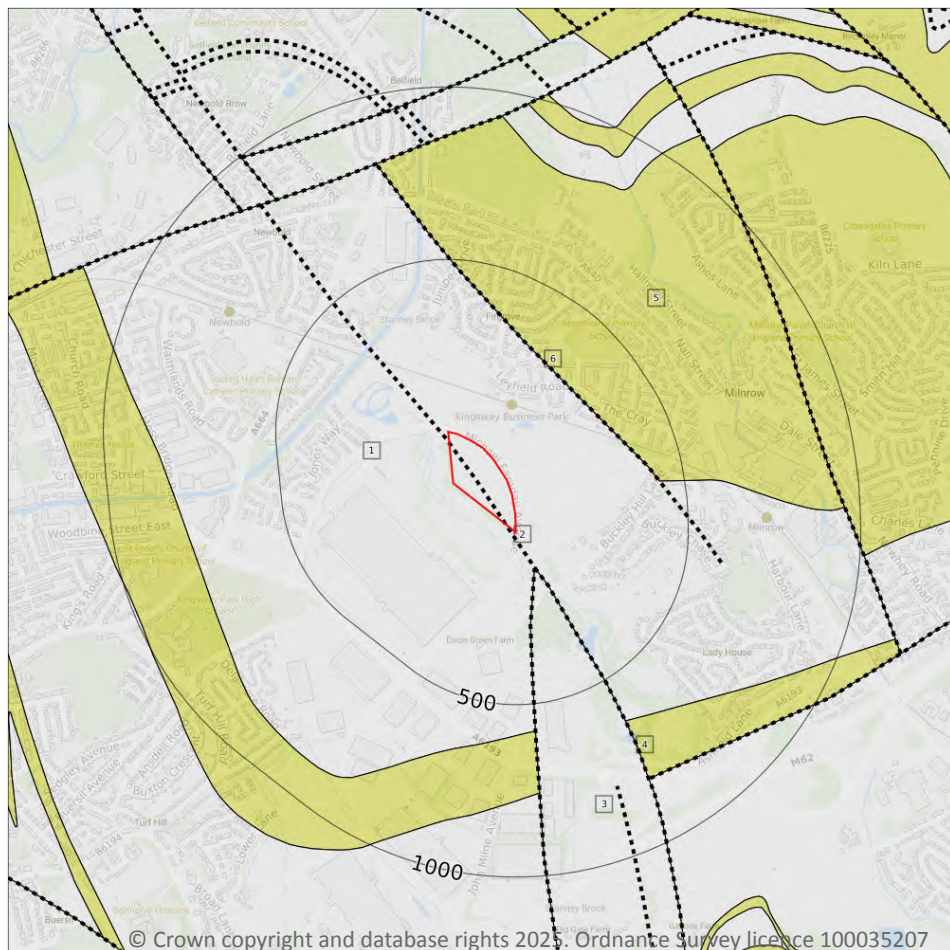
0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m

3

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

Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 85 >](#)

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	116m SE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
5	302m NE	MLRS-SDST	Milnrow Sandstone - 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

3

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.

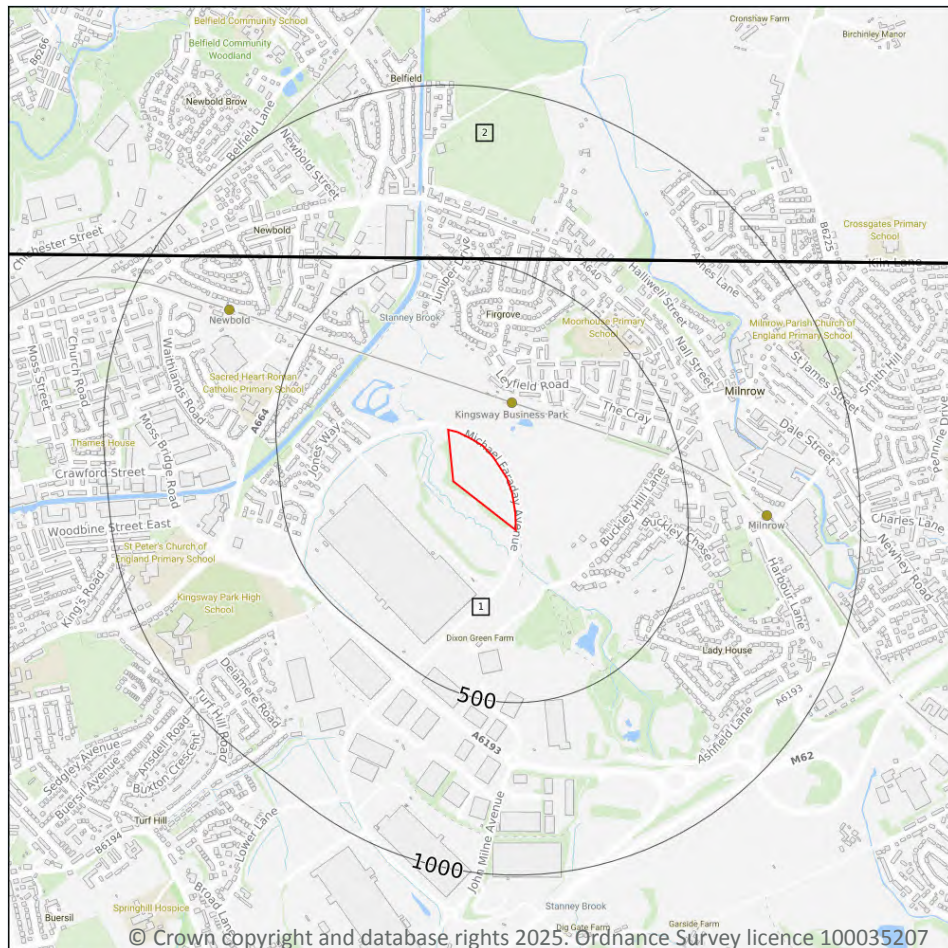
Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 85](#) >

ID	Location	Category	Description
2	On site	FAULT	Normal fault, inferred; crossmarks on downthrow side
4	116m SE	FAULT	Normal fault, inferred; crossmarks on downthrow side
6	302m NE	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 87](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	EW085_manchester_v4
2	497m 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

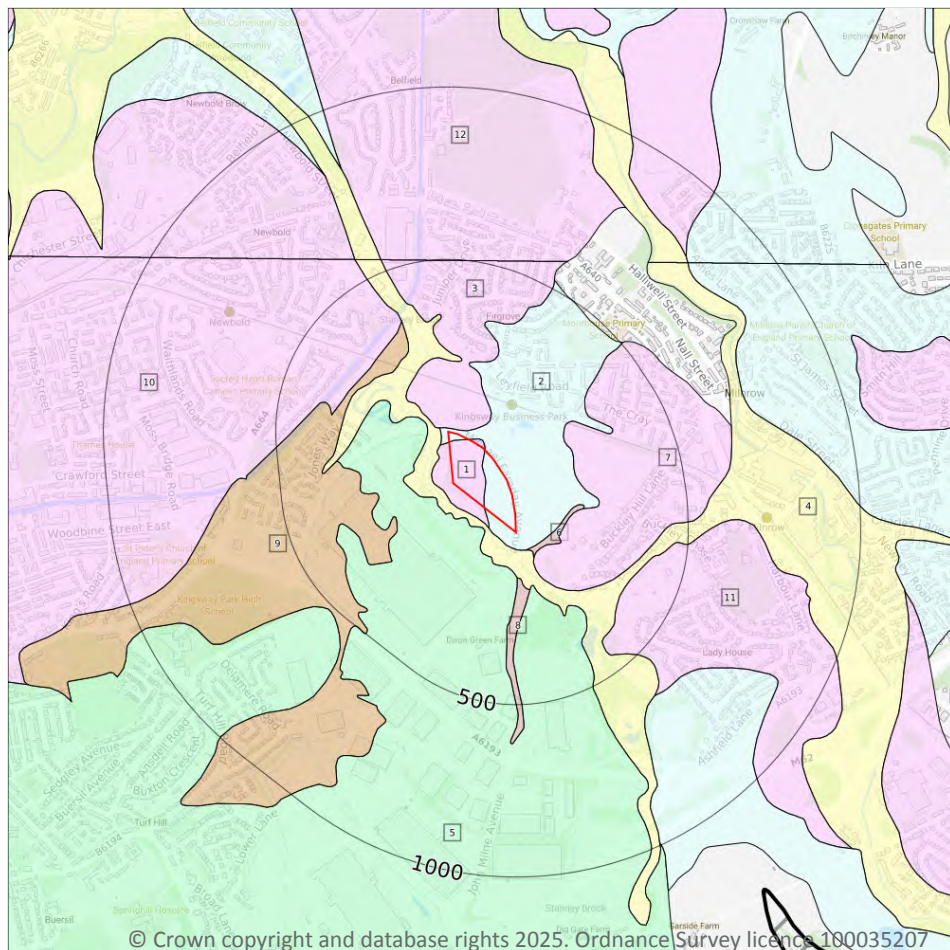
0

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

12

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 89](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL
2	On site	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
3	11m N	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL



ID	Location	LEX Code	Description	Rock description
4	21m W	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
5	49m SW	HMGDD-DMTN	HUMMOCKY (MOUNDY) GLACIAL DEPOSITS, DEVENSIAN	DIAMICTON
6	60m SE	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
7	83m SE	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL
8	133m S	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
9	194m SW	PEAT-P	PEAT	PEAT
10	292m NW	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
11	354m SE	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL
12	497m 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	5
---------------------------	----------

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Low
On site	Intergranular	Very High	High
11m N	Intergranular	Very High	High
21m W	Intergranular	High	Very Low
49m SW	Mixed	High	Low

This data is sourced from the British Geological Survey.



15.6 Landslip (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m

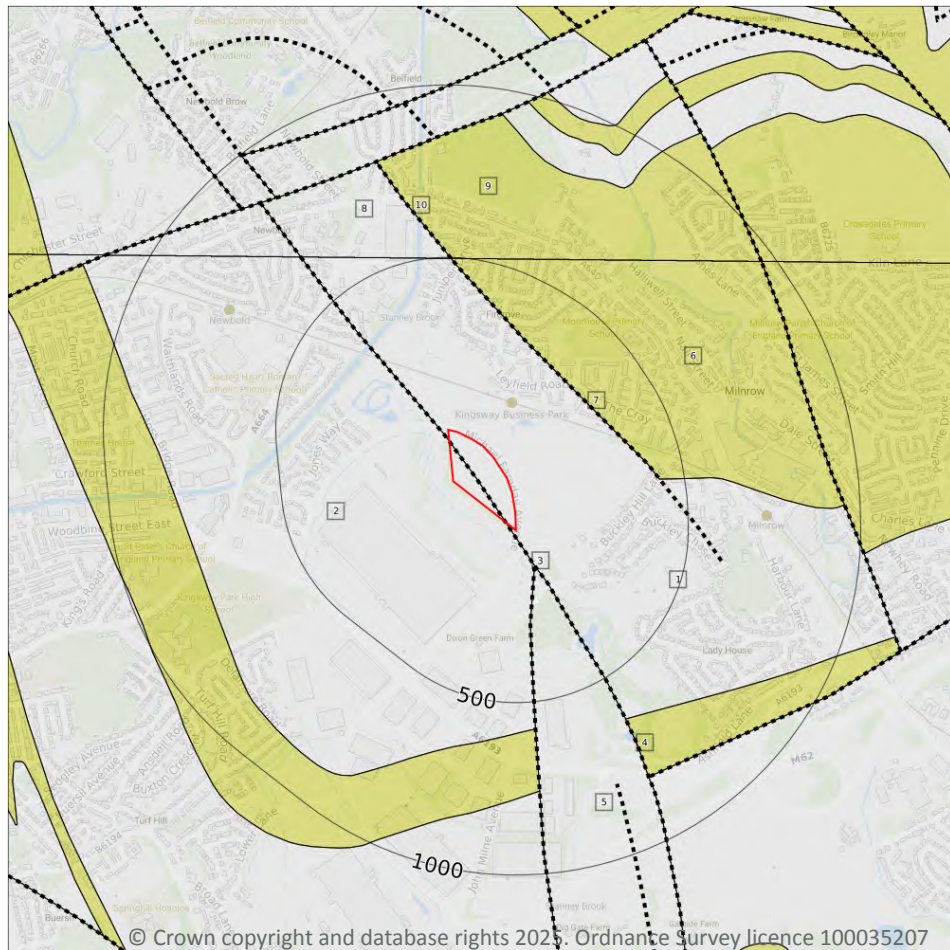
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

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

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

15.8 Bedrock geology (50k)

Records within 500m

6

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 92 >](#)

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



ID	Location	LEX Code	Description	Rock age
5	116m SE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
6	302m NE	MLRS-SDST	MILNROW SANDSTONE - SANDSTONE	WESTPHALIAN
8	497m N	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
9	497m N	MLRS-SDST	MILNROW SANDSTONE - 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	4
----------------------------	----------

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 92 >](#)

ID	Location	Category	Description
3	On site	FAULT	Fault, inferred
4	116m SE	FAULT	Fault, inferred
7	302m NE	FAULT	Fault, inferred
10	497m N	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.



16 Boreholes

16.1 BGS Boreholes

Records within 250m

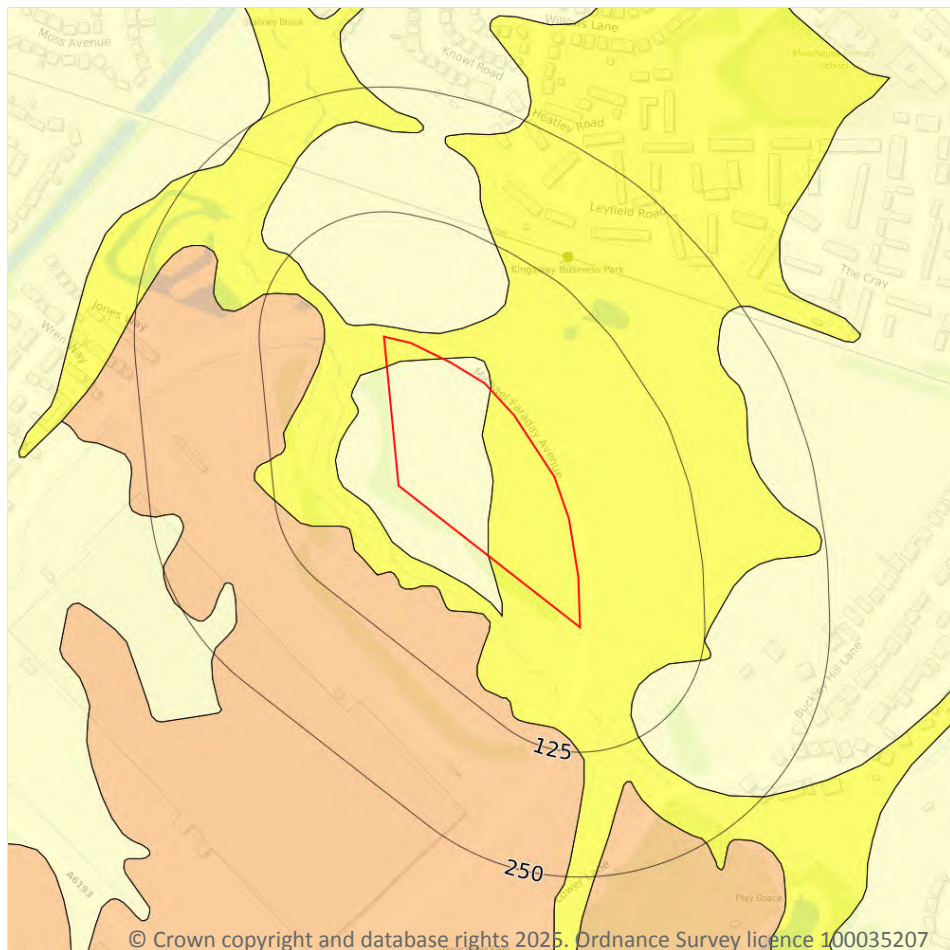
0

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

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



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

17.1 Shrink swell clays

Records within 50m

4

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 95 >](#)

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
On site	Very low	Ground conditions predominantly low plasticity.
11m N	Negligible	Ground conditions predominantly non-plastic.

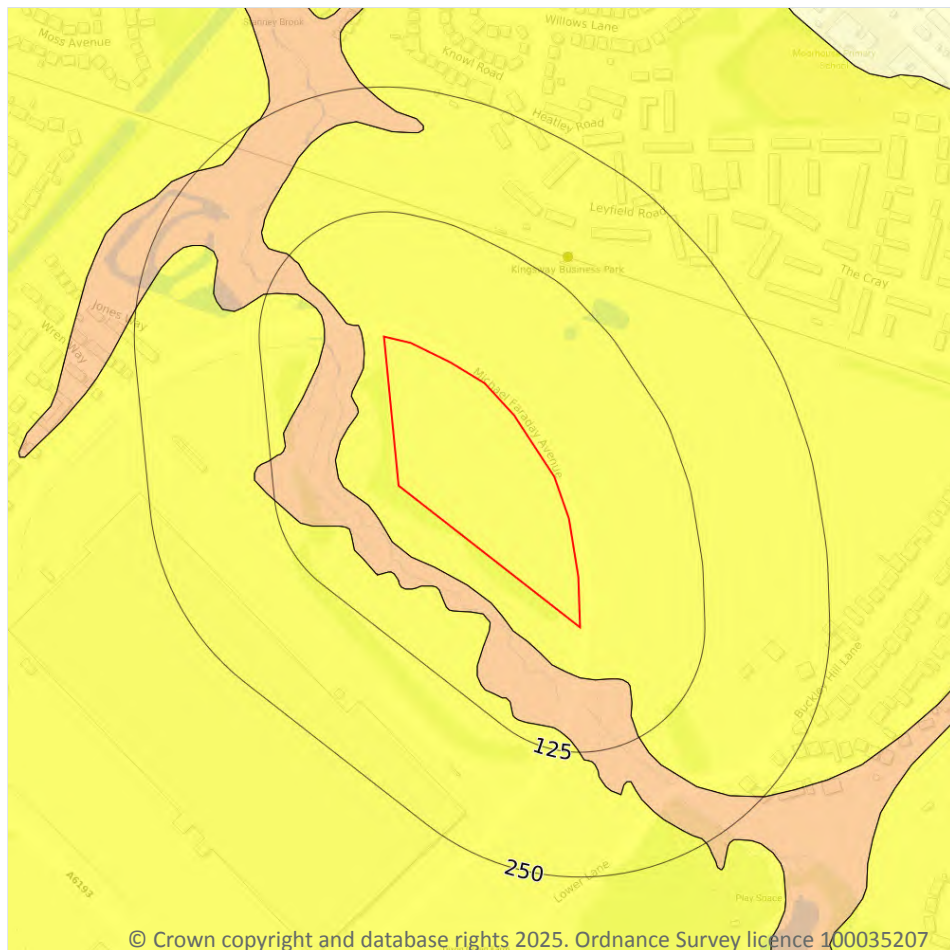


Location	Hazard rating	Details
49m SW	Low	Ground conditions predominantly medium plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



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

17.2 Running sands

Records within 50m

3

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 97](#) >

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

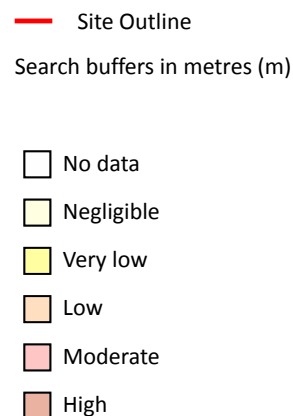
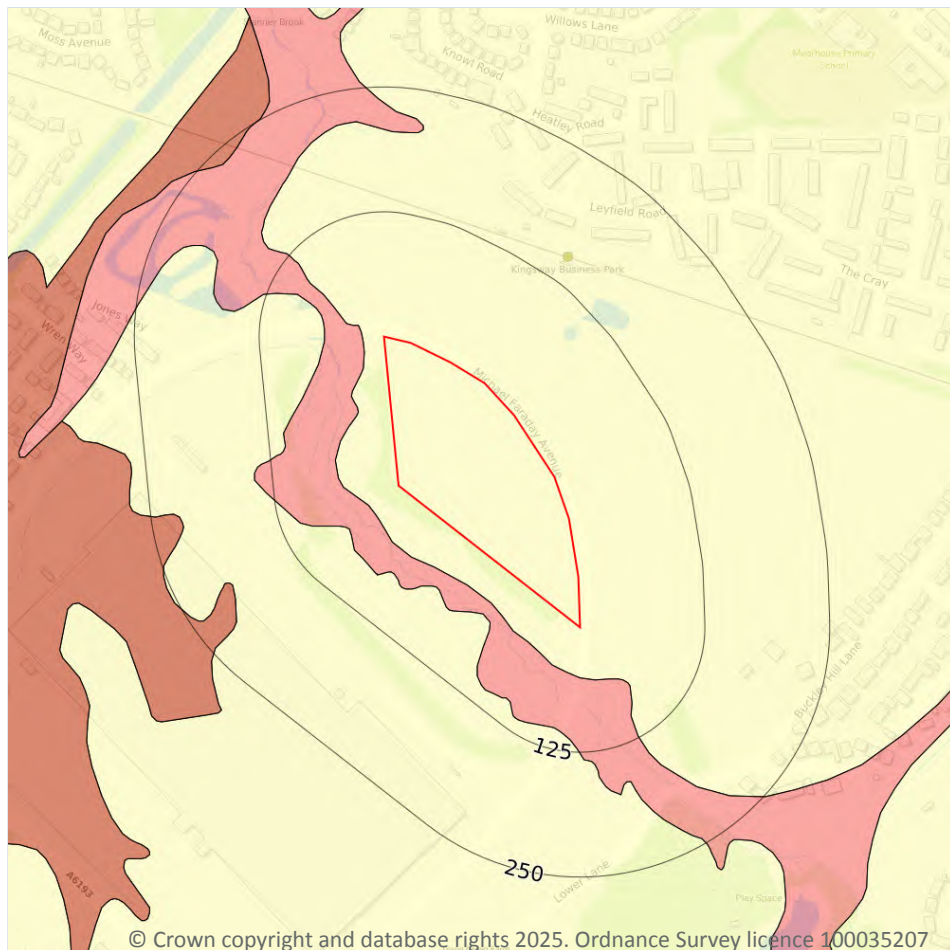


Location	Hazard rating	Details
21m W	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.
49m SW	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m

3

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 99](#) >

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
21m W	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.



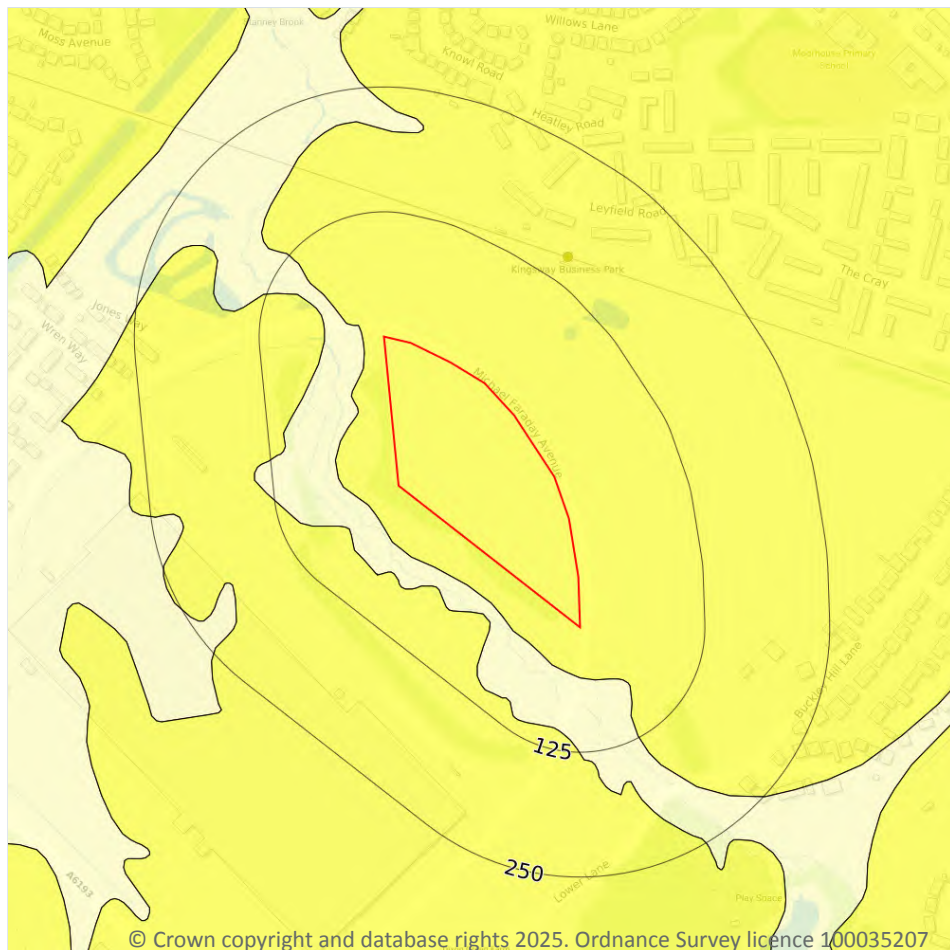
Location	Hazard rating	Details
----------	---------------	---------

49m SW	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

3

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 101](#) >

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
21m W	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.
49m SW	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



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

17.5 Landslides

Records within 50m

3

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 102 >](#)

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.

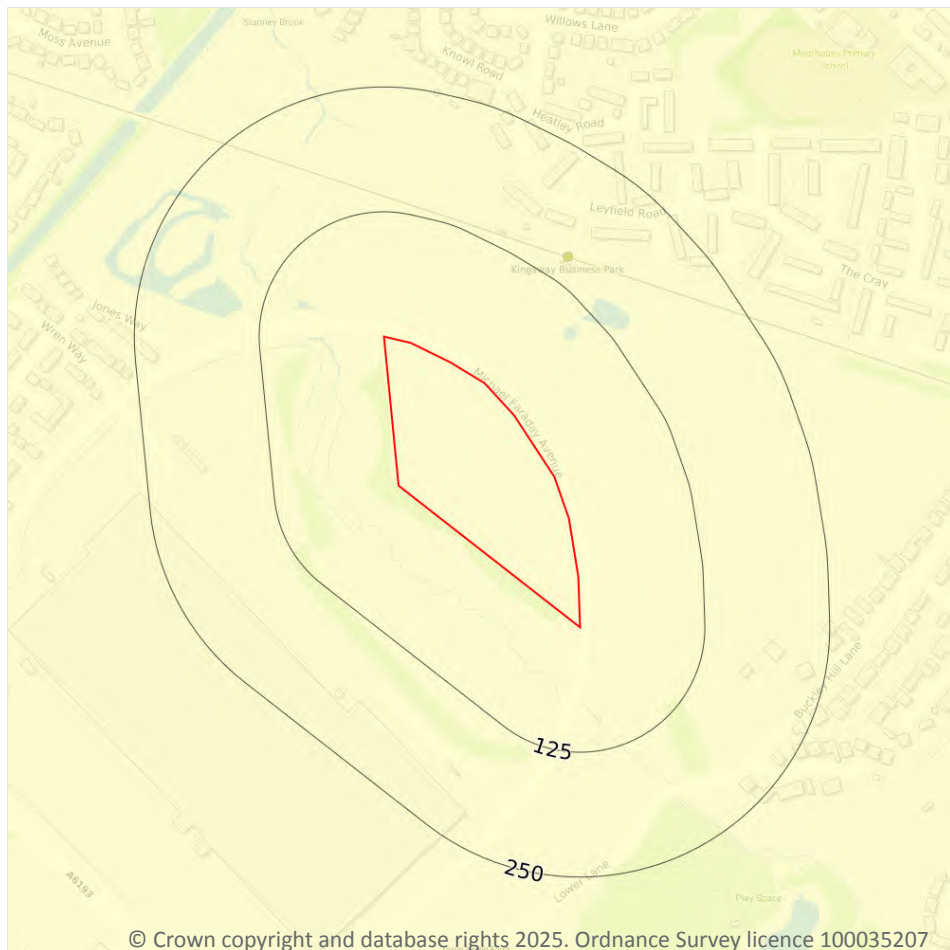


Location	Hazard rating	Details
On site	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.
36m SW	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.

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 104](#) >

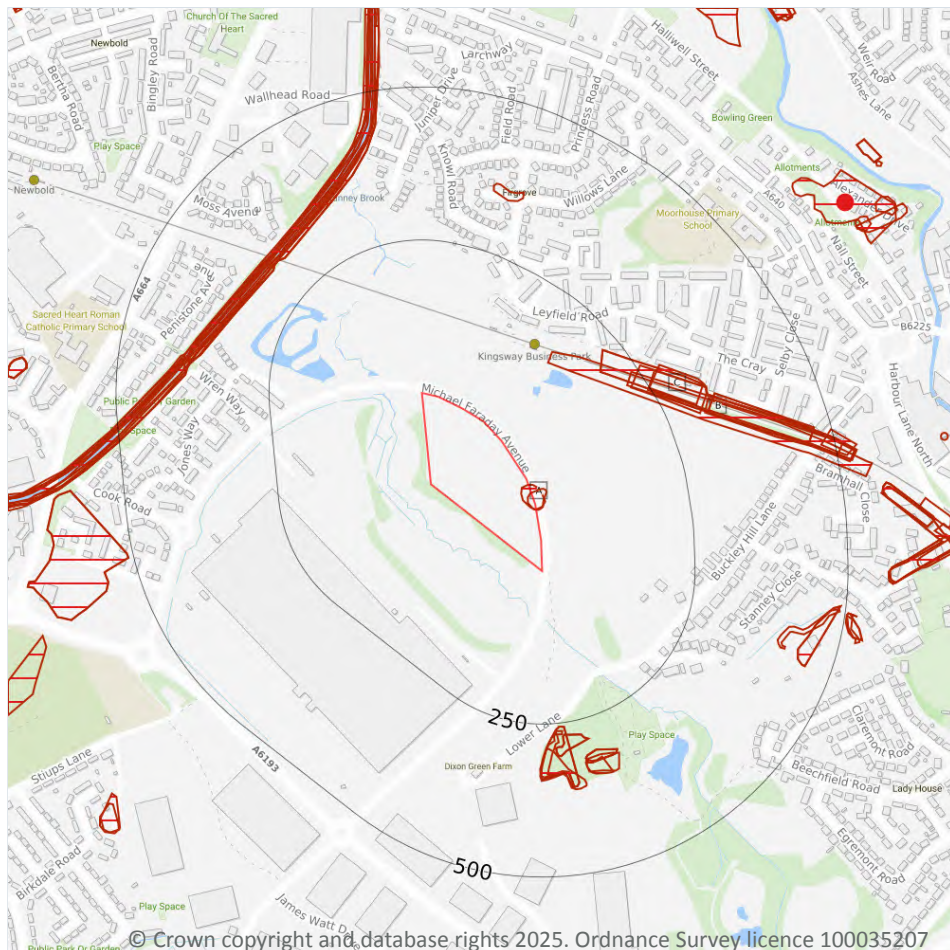
Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.



This data is sourced from the British Geological Survey.



18 Mining and ground workings



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

18.1 BritPits

Records within 500m

0

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

This data is sourced from the British Geological Survey.



18.2 Surface ground workings

Records within 250m

9

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 106 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Pond	1976	1:10000
A	On site	Pond	1851	1:10560
B	143m NE	Cuttings	1851	1:10560
B	197m NE	Cuttings	1938	1:10560
B	197m NE	Cuttings	1928	1:10560
B	222m NE	Cuttings	1891	1:10560
C	225m NE	Cuttings	1954	1:10560
B	246m NE	Cuttings	1908	1:10560
C	250m NE	Cuttings	1976	1:10000

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m

14

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

Features are displayed on the Mining and ground workings map on [page 106 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
-	789m NE	Unspecified Disused Shafts	1976	1:10000
-	789m NE	Unspecified Disused Shafts	1967	1:10560
-	790m NE	Unspecified Old Shaft	1954	1:10560
-	795m NE	Old Coal Shafts	1908	1:10560
-	795m NE	Unspecified Old Shaft	1938	1:10560
-	795m NE	Unspecified Old Shaft	1928	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
-	795m NE	Unspecified Old Shafts	1891	1:10560
-	816m NE	Unspecified Disused Shafts	1976	1:10000
-	816m NE	Unspecified Disused Shafts	1967	1:10560
-	819m NE	Unspecified Old Shaft	1954	1:10560
-	821m NE	Old Coal Shafts	1908	1:10560
-	823m NE	Unspecified Old Shaft	1938	1:10560
-	823m NE	Unspecified Old Shaft	1928	1:10560
-	823m NE	Unspecified Old Shafts	1891	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m

0

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

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

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

0

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

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m

0

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

This data is sourced from Groundsure.



18.11 BGS mine plans

Records within 500m

0

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

This data is sourced from Groundsure.

18.12 Coal mining

Records on site

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

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



19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m

0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

0

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

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

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

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

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

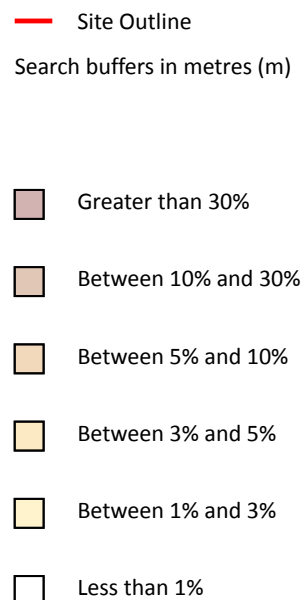
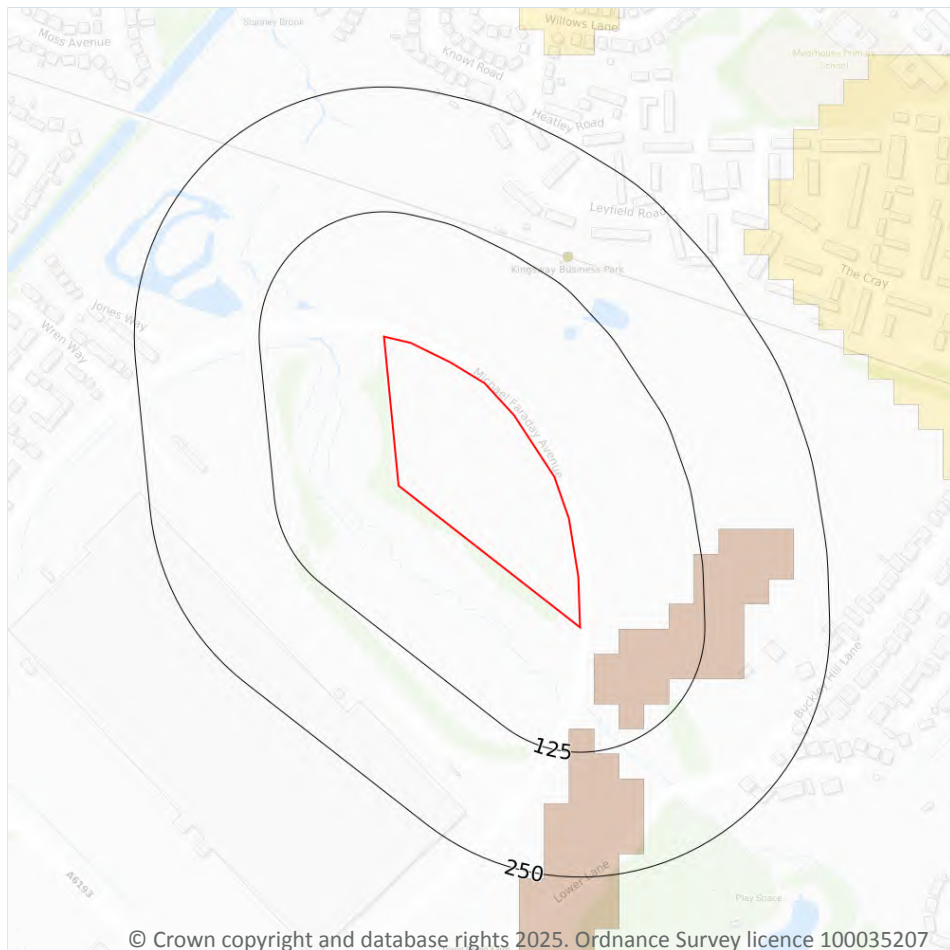
Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.



20 Radon



20.1 Radon

Records on site

1

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

Features are displayed on the Radon map on [page 114 >](#)

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

12

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	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
9m W	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
13m N	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
34m SW	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
39m E	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
39m E	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
41m W	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 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

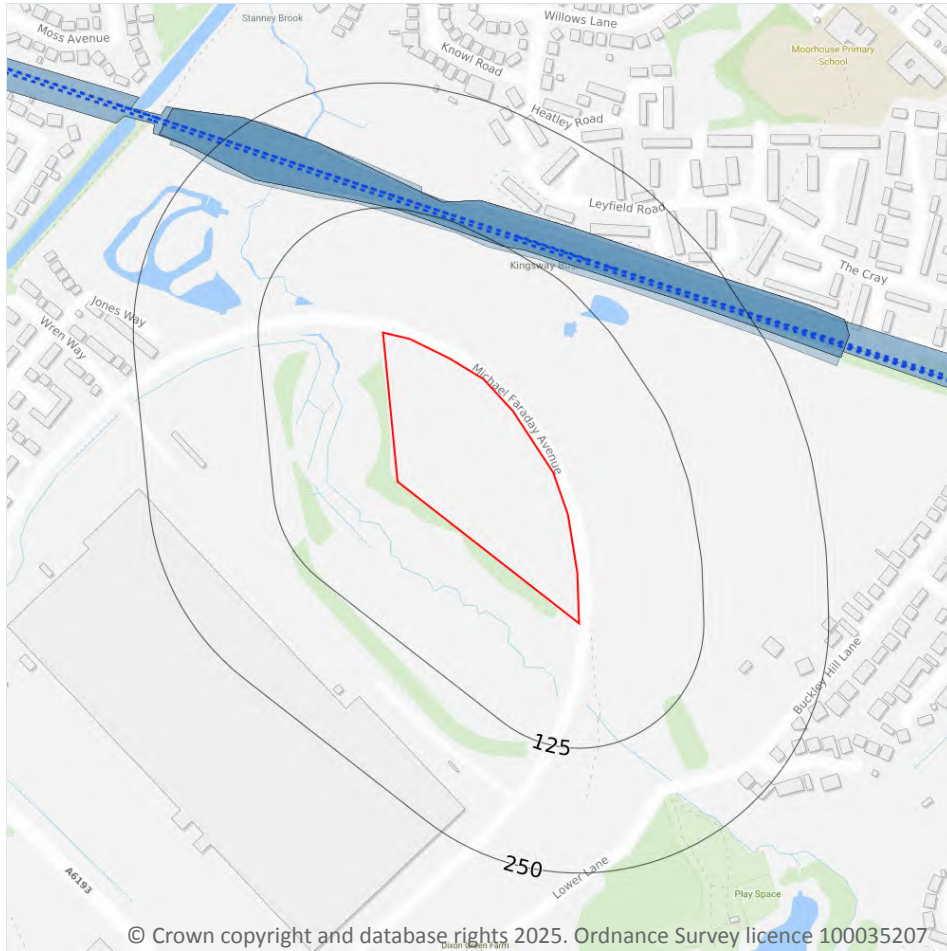
0

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



- Site Outline
- Search buffers in metres (m)
- C2 Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

22.1 Underground railways (London)

Records within 250m

0

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m

0

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



This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m

8

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

Features are displayed on the Railway infrastructure and projects map on [page 118 >](#)

Location	Land Use	Year of mapping	Mapping scale
115m N	Railway Sidings	1954	10560
118m N	Railway Sidings	1938	10560
118m N	Railway Sidings	1928	10560
118m N	Railway Sidings	1908	10560
123m N	Railway	1907	-
124m NE	Railway	1891	-
125m N	Railway	1890	-
125m N	Railway	1908	-

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**9**

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways. Features are displayed on the Railway infrastructure and projects map on [page 118 >](#)

Location	Name	Type
127m N	Metrolink	light_rail
131m N	Metrolink	light_rail
131m N	Not given	Multi Track
131m N	Not given	Multi Track
140m NE	Not given	Multi Track
151m NE	Not given	Multi Track
158m NE	Not given	Multi Track
168m NE	Not given	Multi Track
170m NE	Not given	Multi Track

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 2

Records within 500m**0**

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

This data is sourced from publicly available information by Groundsure.



22.9 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

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



Appendix 3: Historical Mapping

Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: County Series

Map date: 1851

Scale: 1:10,560

Printed at: 1:10,560



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

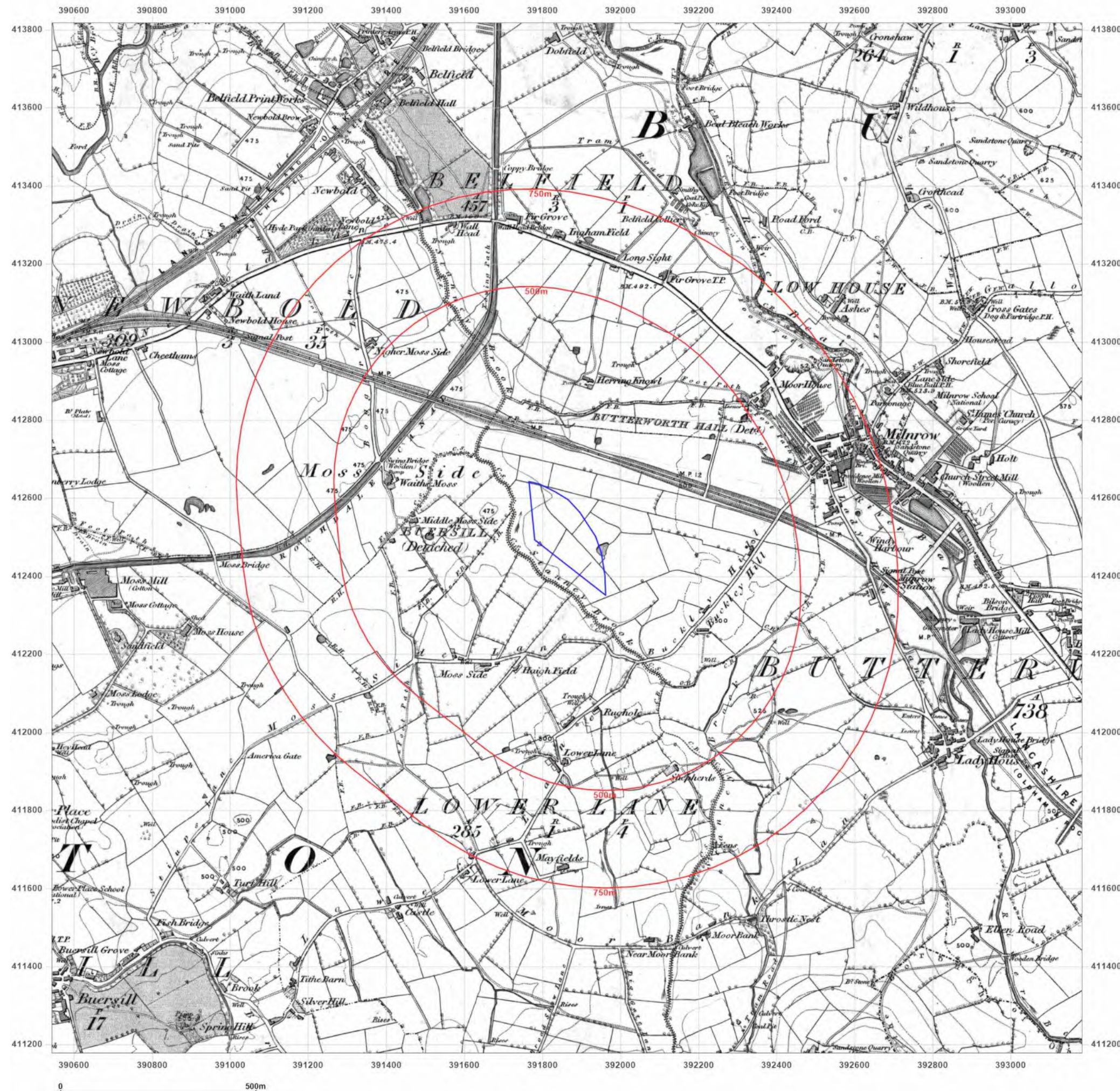


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Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: County Series

Map date: 1891

Scale: 1:10,560

Printed at: 1:10,560



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

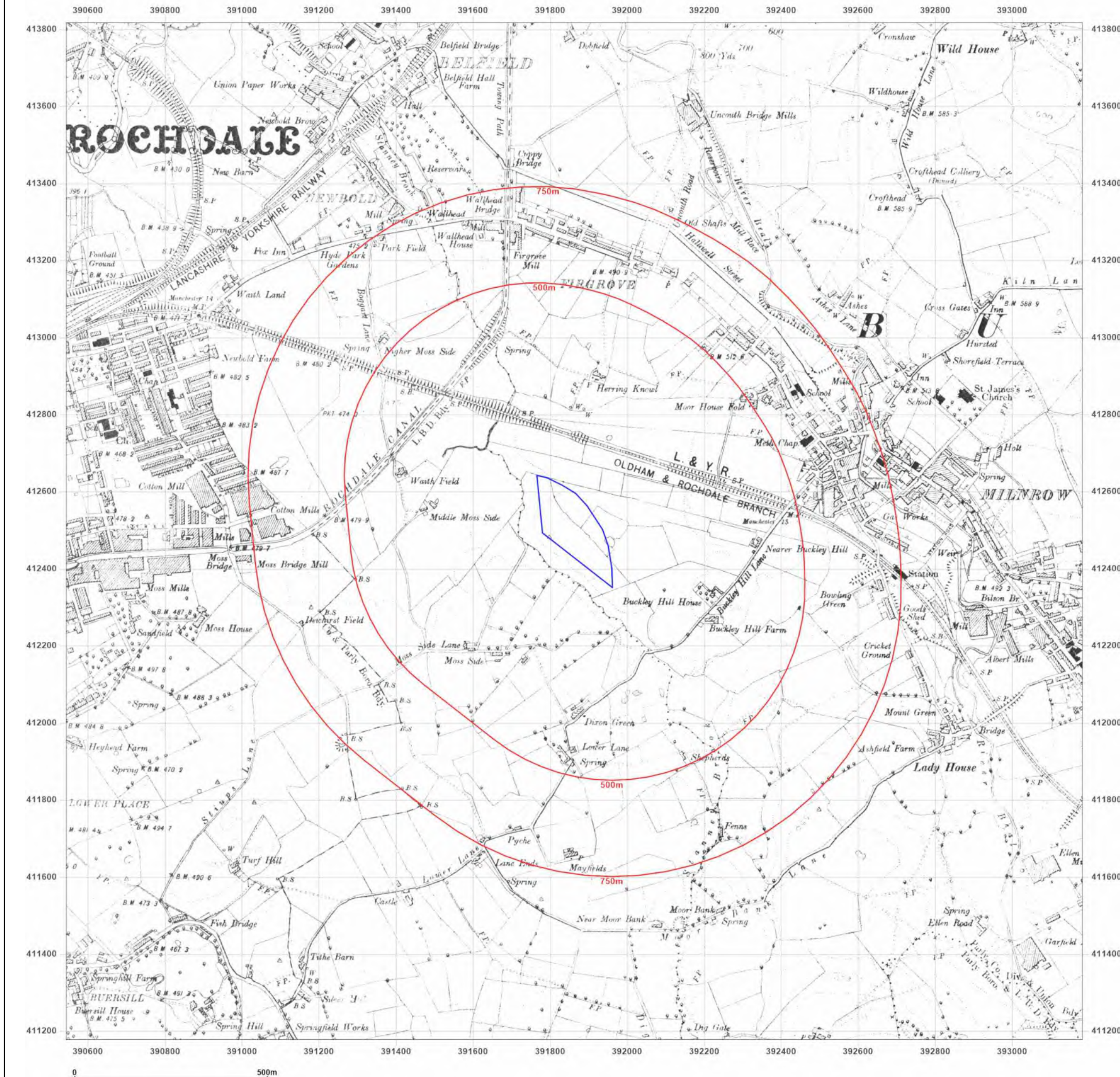


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Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

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

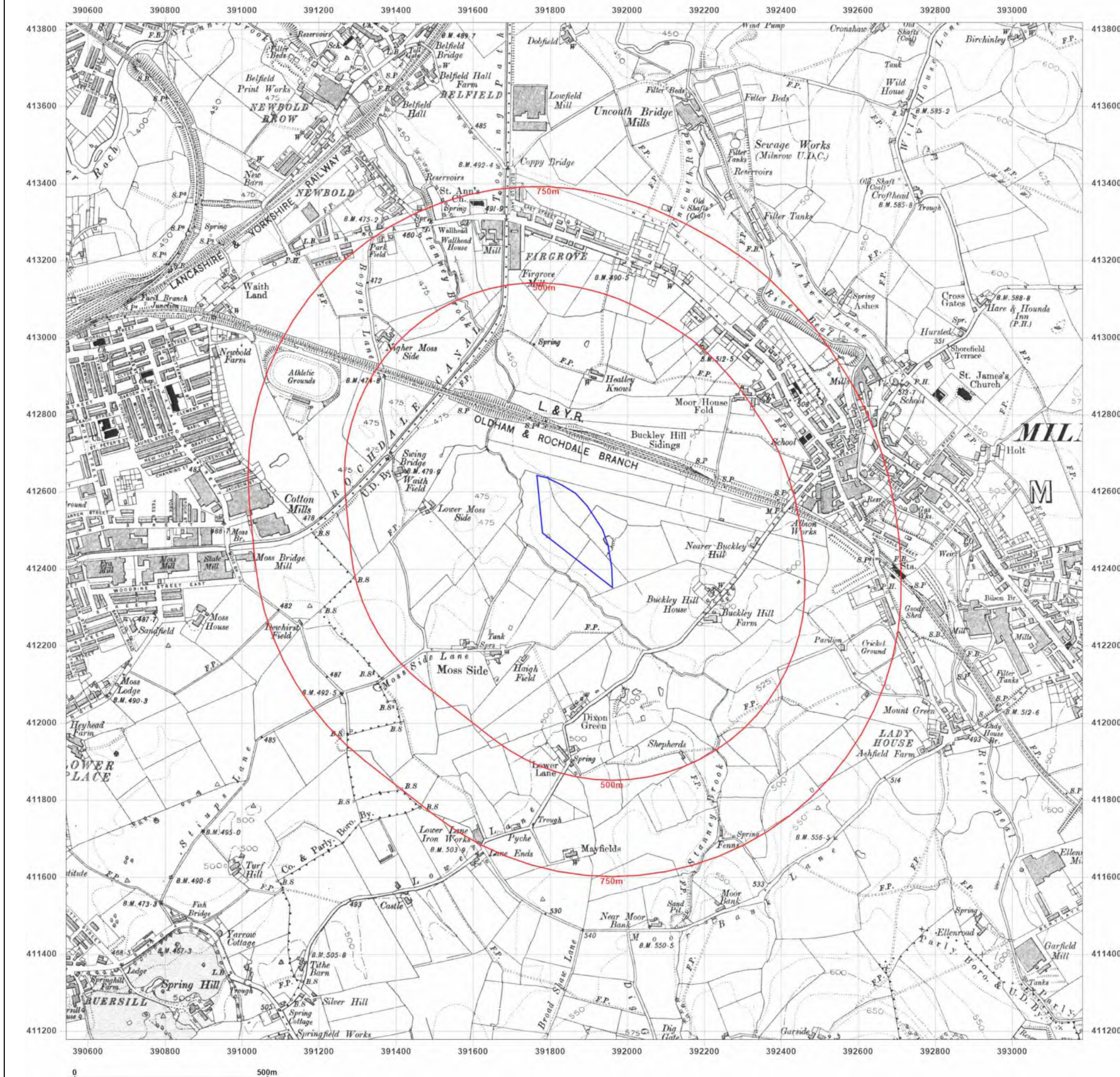


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Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: County Series

Map date: 1928

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1928
Edition N/A
Copyright N/A
Levelled N/A

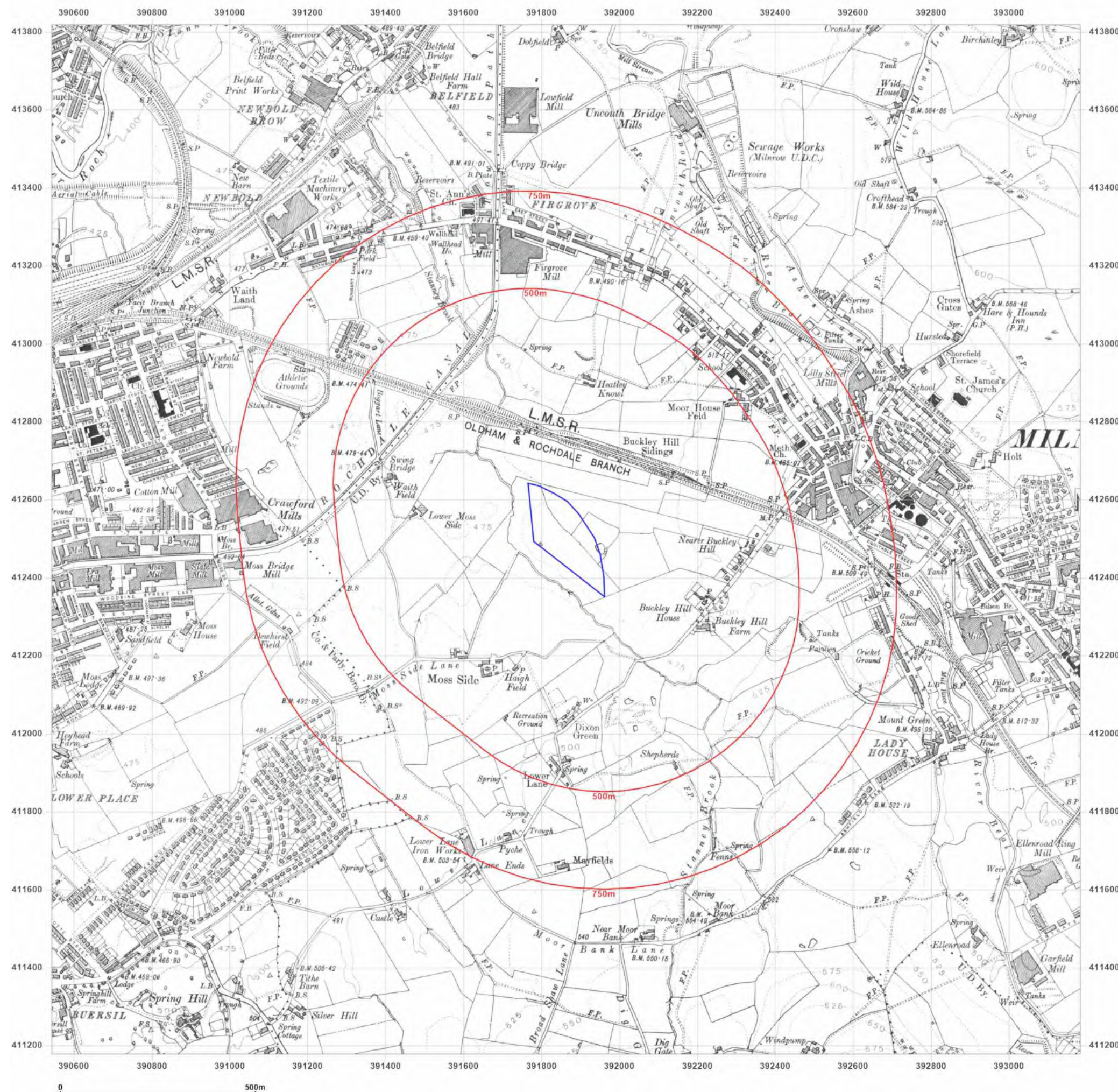


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Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

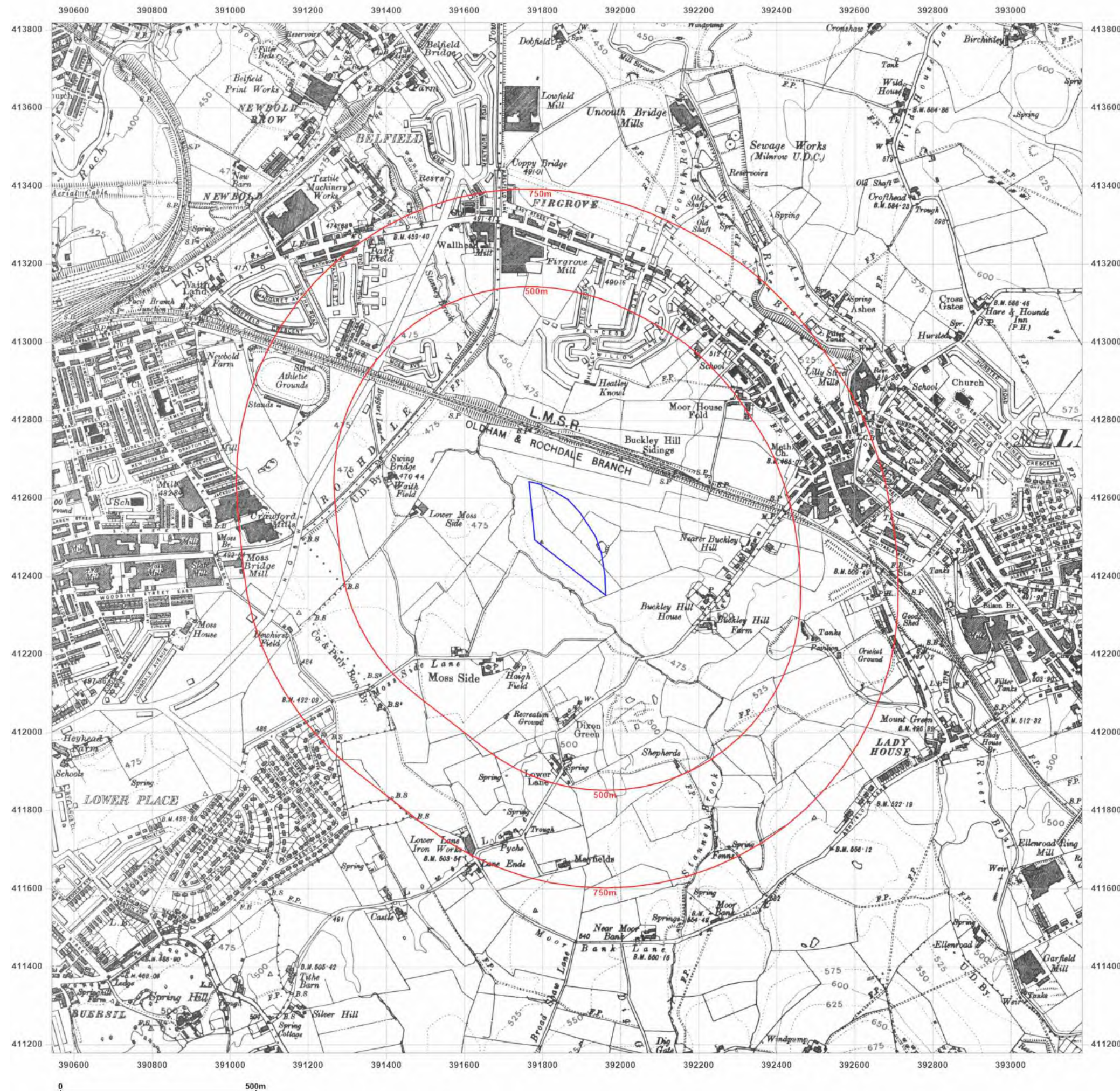


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Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: Provisional

Map date: 1954

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1954
Revised 1954
Edition N/A
Copyright N/A
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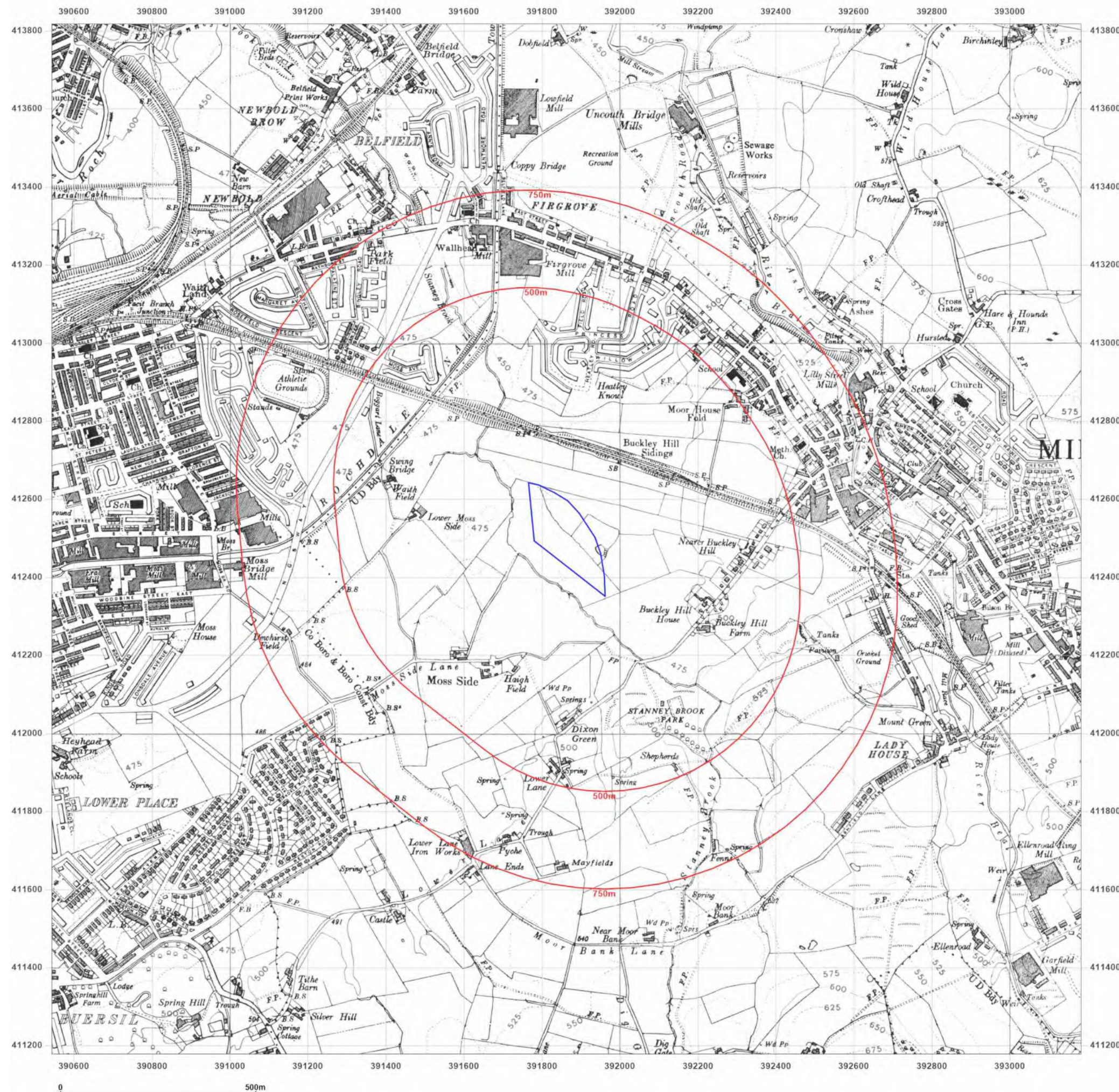


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Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: Provisional

Map date: 1967

Scale: 1:10,560

Printed at: 1:10,560



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

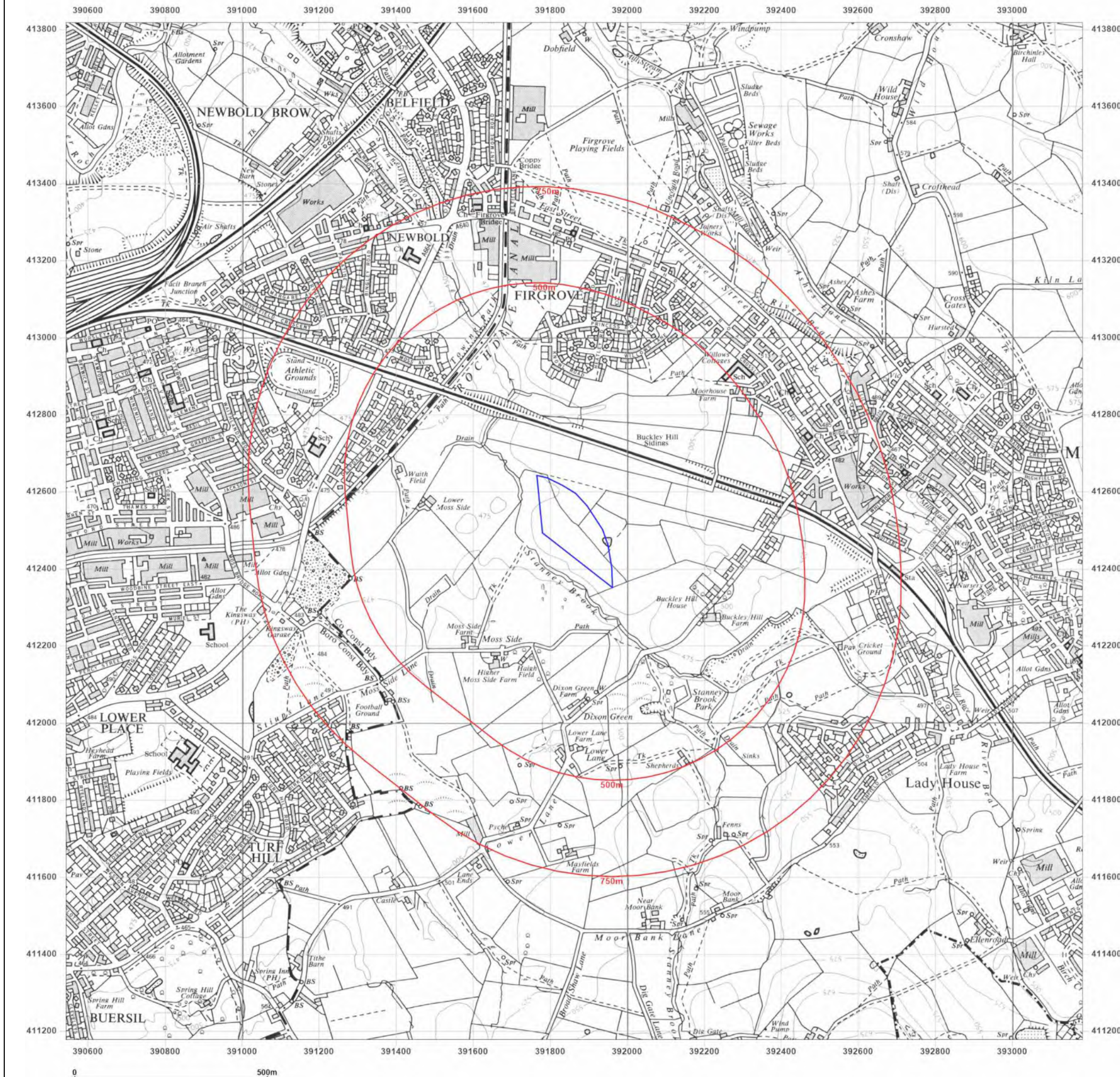


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Site Details:

Plot Q Kingsway

Client Ref:

PO 12906

Report Ref:

GS-BLX-FKH-8TE-6HE

Grid Ref:

391862, 412497

Map Name:

National Grid

Map date:

1976

Scale:

1:10,000

Printed at:

1:10,000



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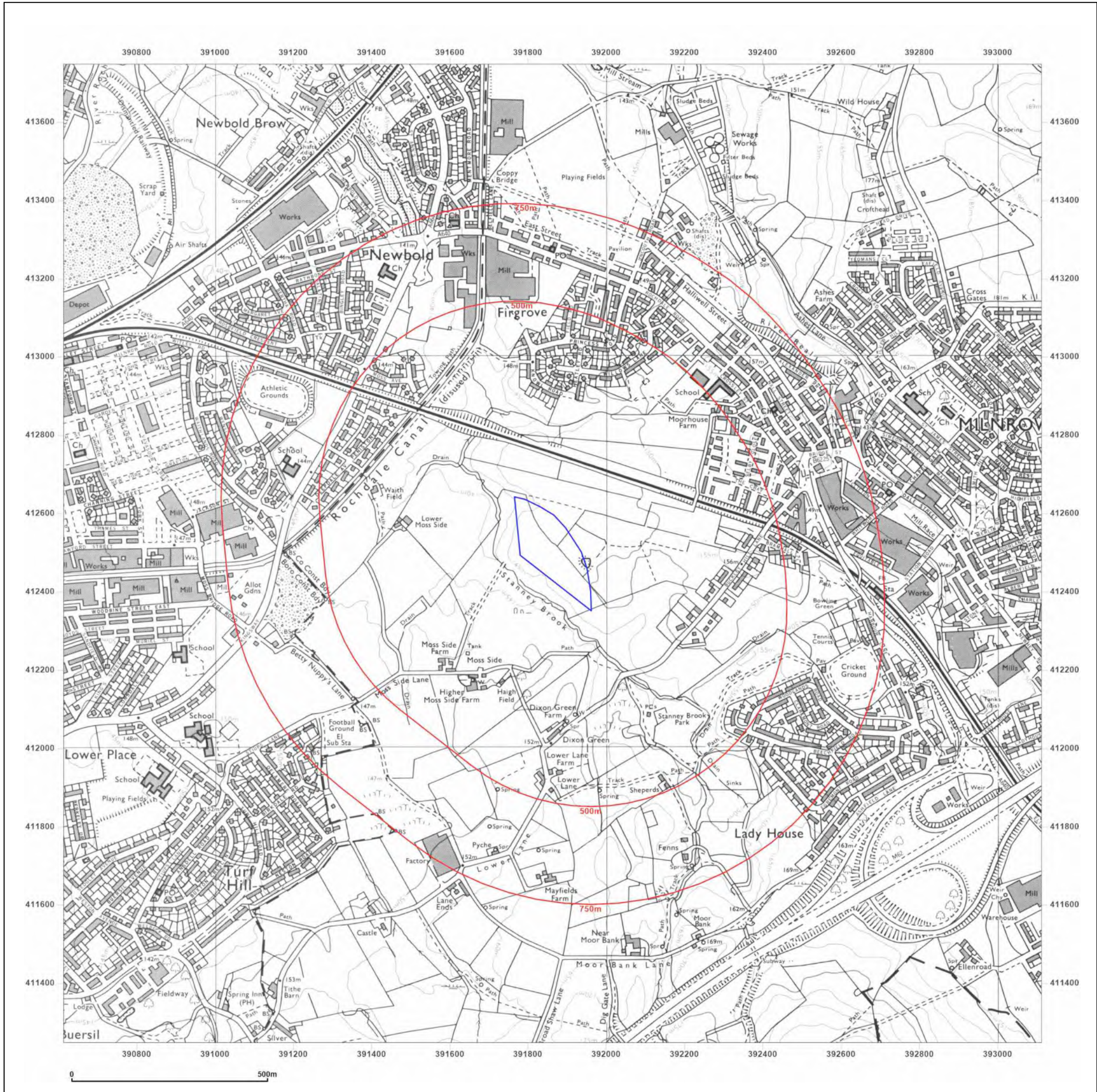
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Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000



2001

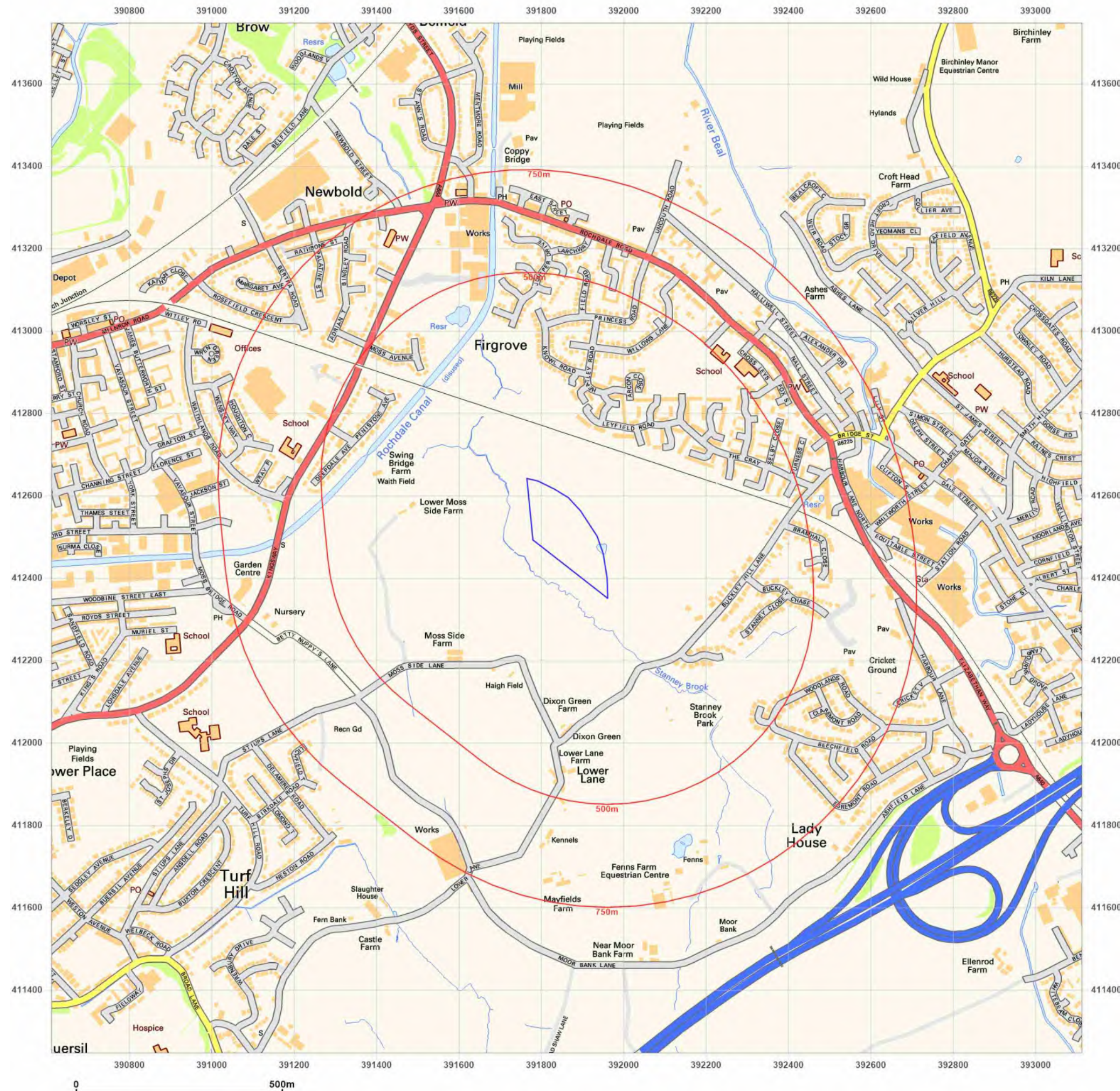


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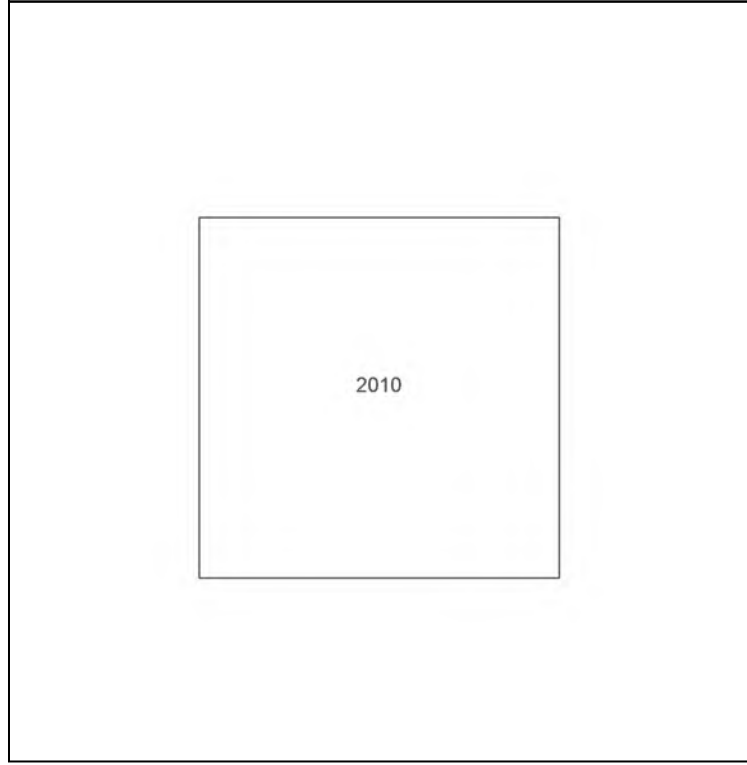
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Grid Ref: 391862, 412497

Map Name: National Grid
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Printed at: 1:10,000



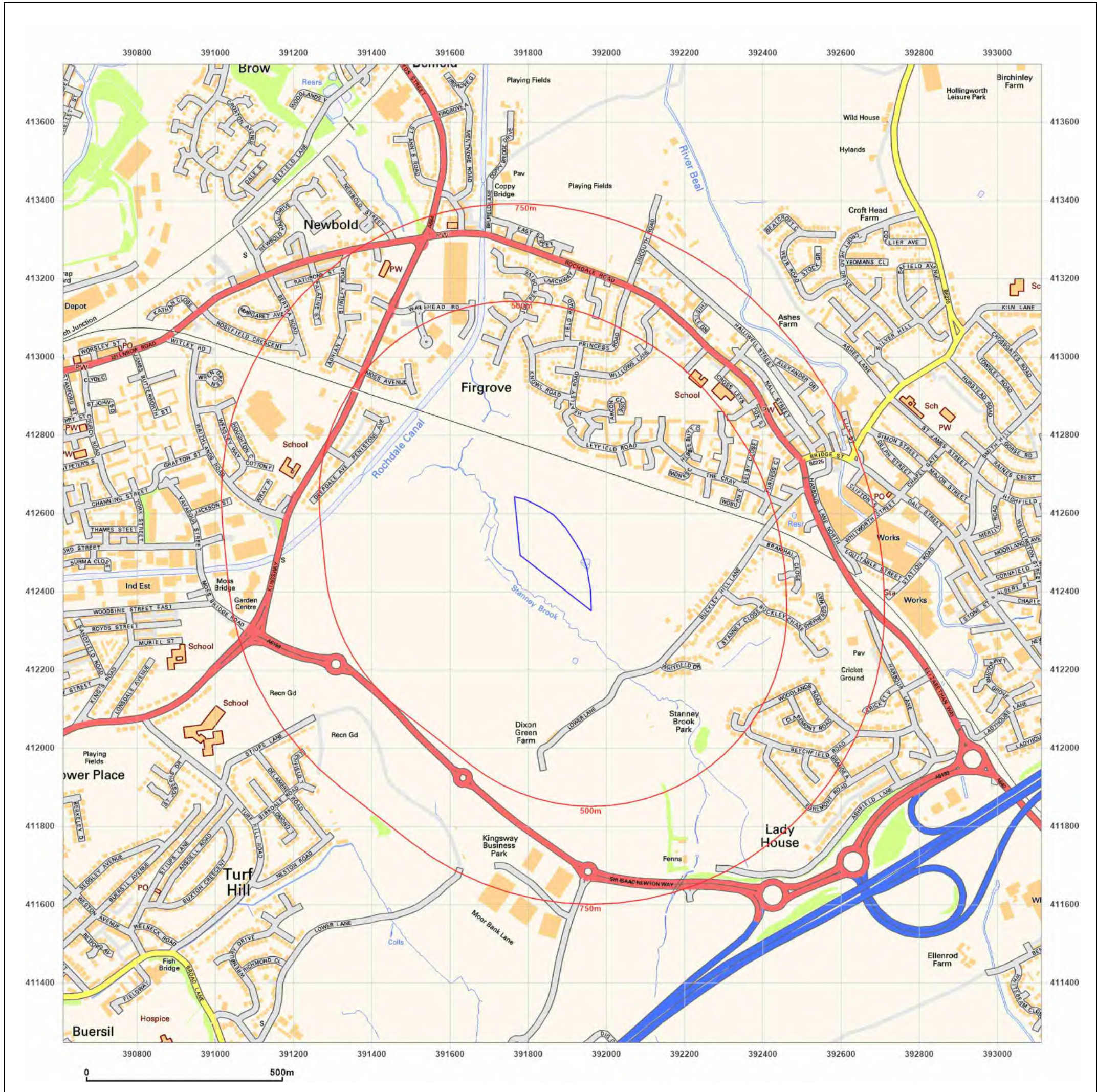


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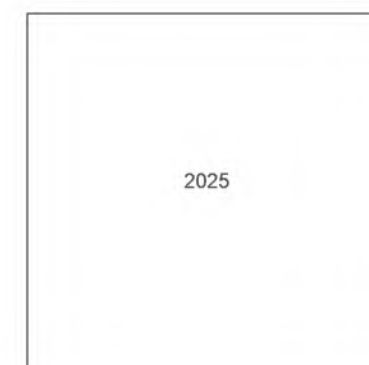
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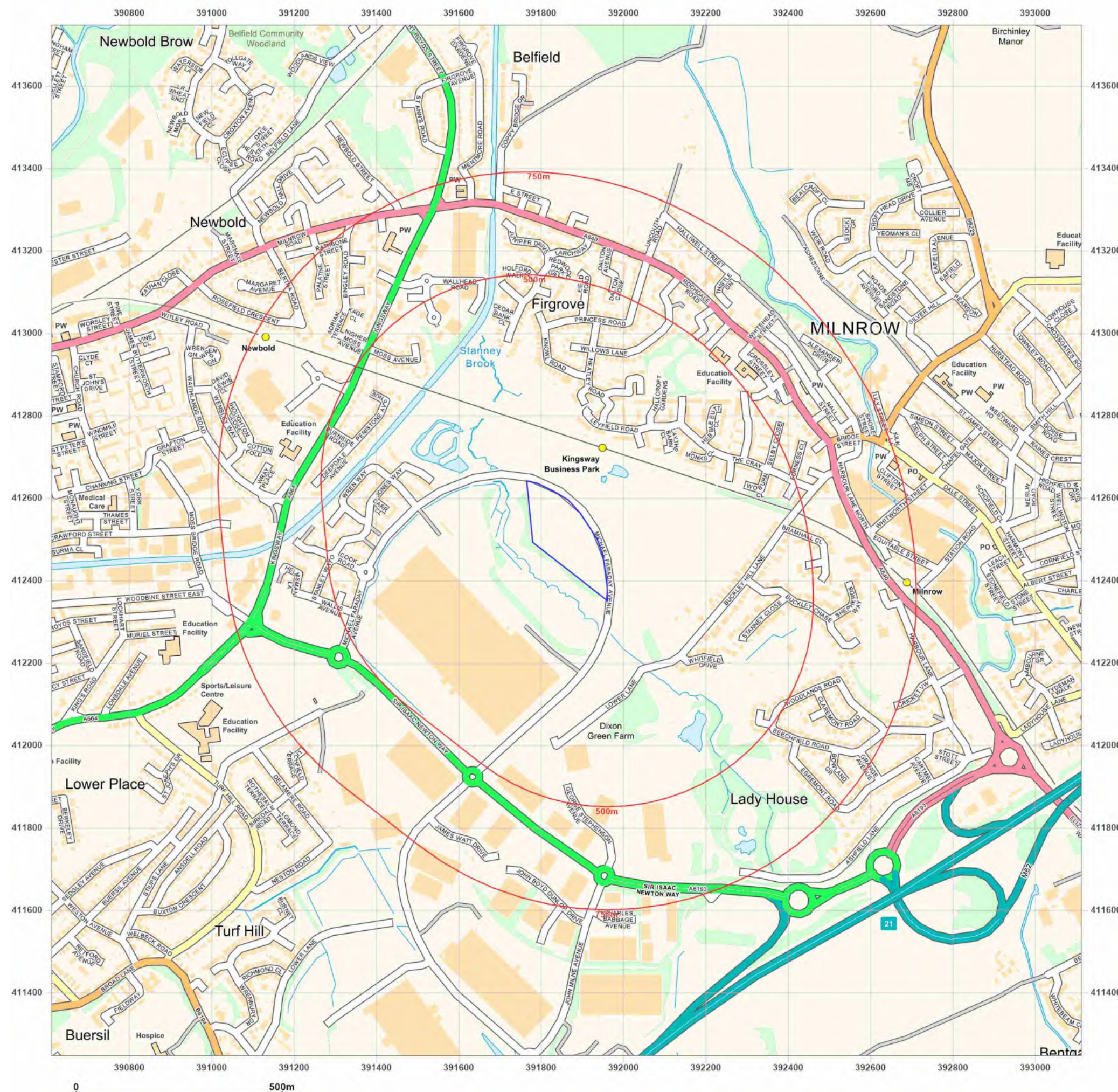


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Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: County Series

Map date: 1891

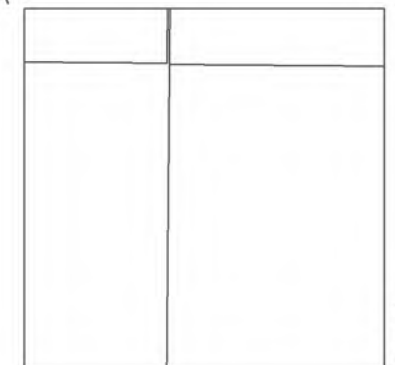
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 Revised 1891
 Edition N/A
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 Levelled N/A

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 Revised 1891
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 Levelled N/A



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 Edition N/A
 Copyright N/A
 Levelled N/A

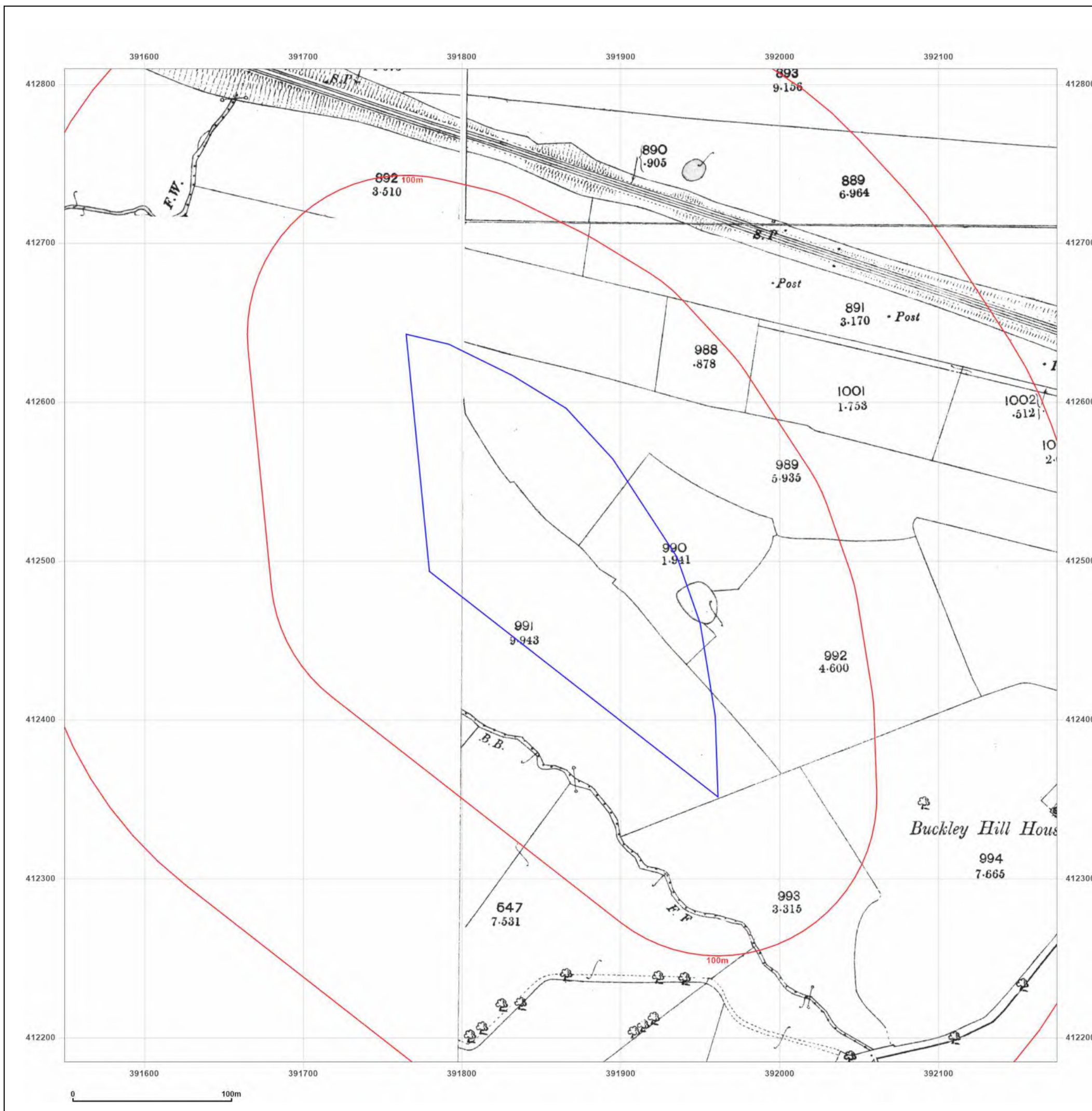


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Site Details:

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Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: County Series

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 Revised 1891
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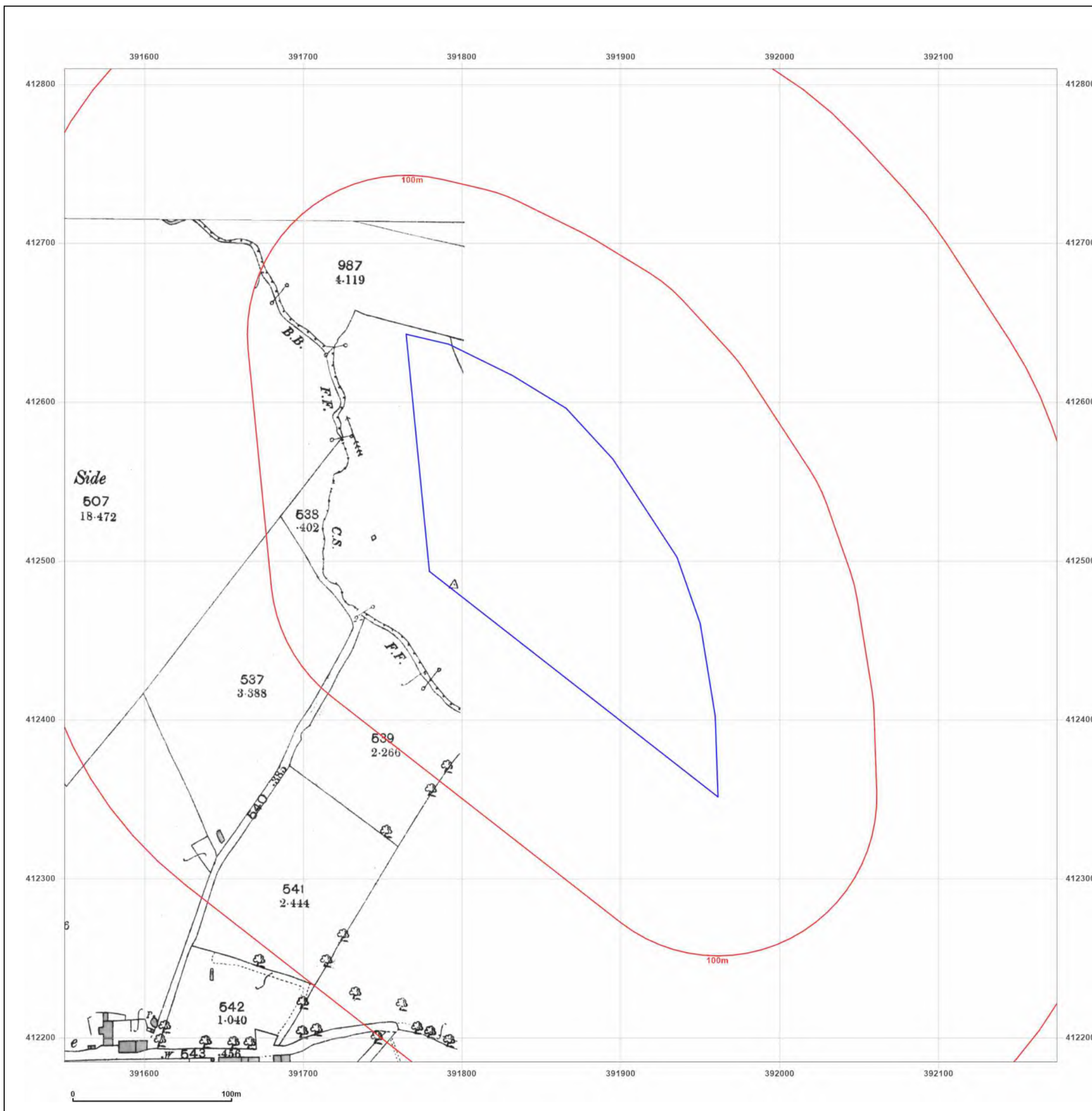


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Site Details:

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Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: County Series

Map date: 1910

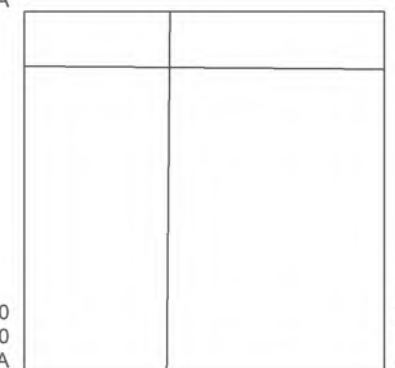
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 Revised 1910
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 Levelled N/A



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 Edition N/A
 Copyright N/A
 Levelled N/A

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

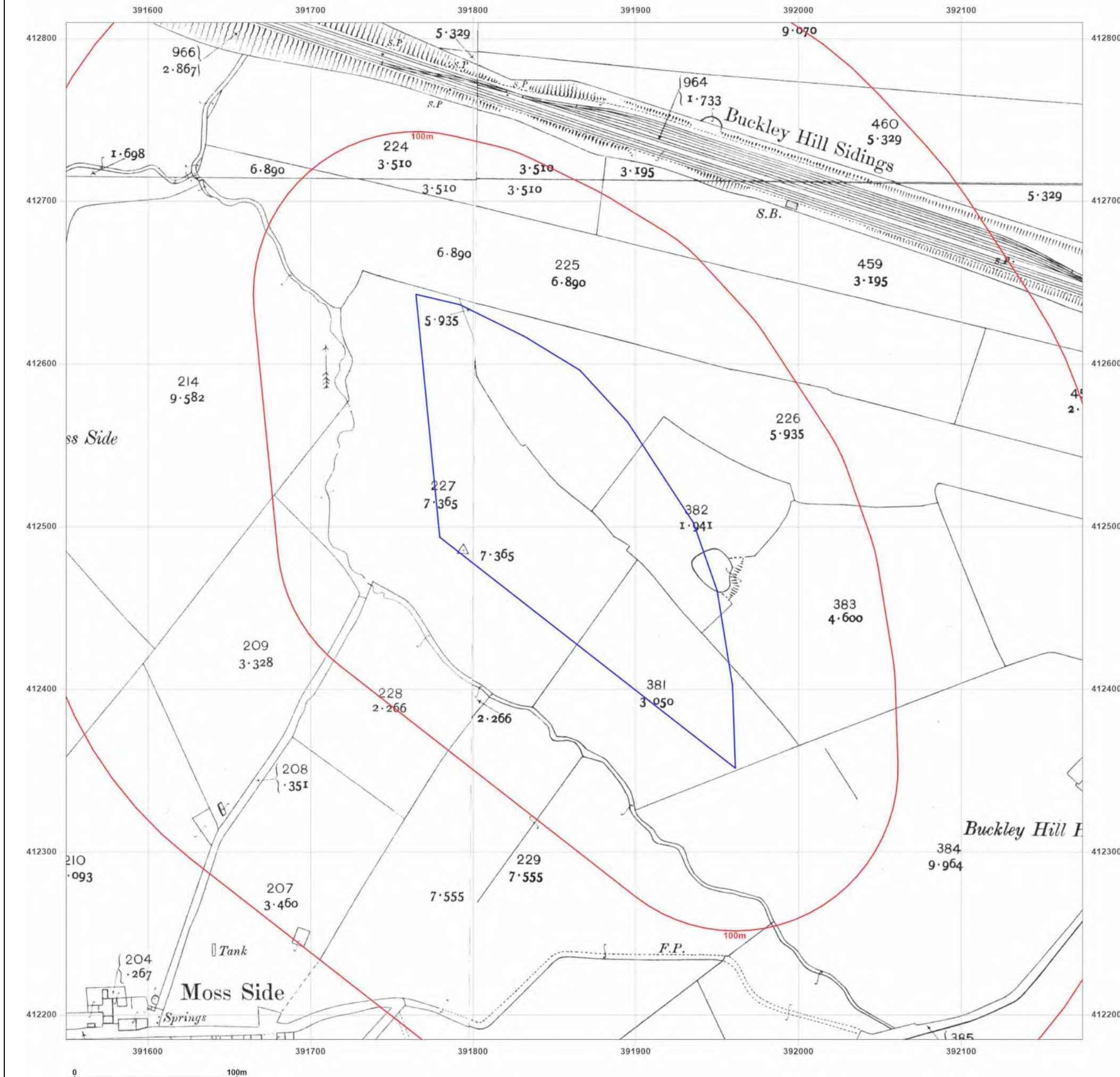


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Site Details:

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Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: County Series

Map date: 1930

Scale: 1:2,500

Printed at: 1:2,500



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 Edition N/A
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Surveyed 1930
 Revised 1930
 Edition N/A
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 Levelled N/A

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 Edition N/A
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 Levelled N/A

Surveyed 1930
 Revised 1930
 Edition N/A
 Copyright N/A
 Levelled N/A

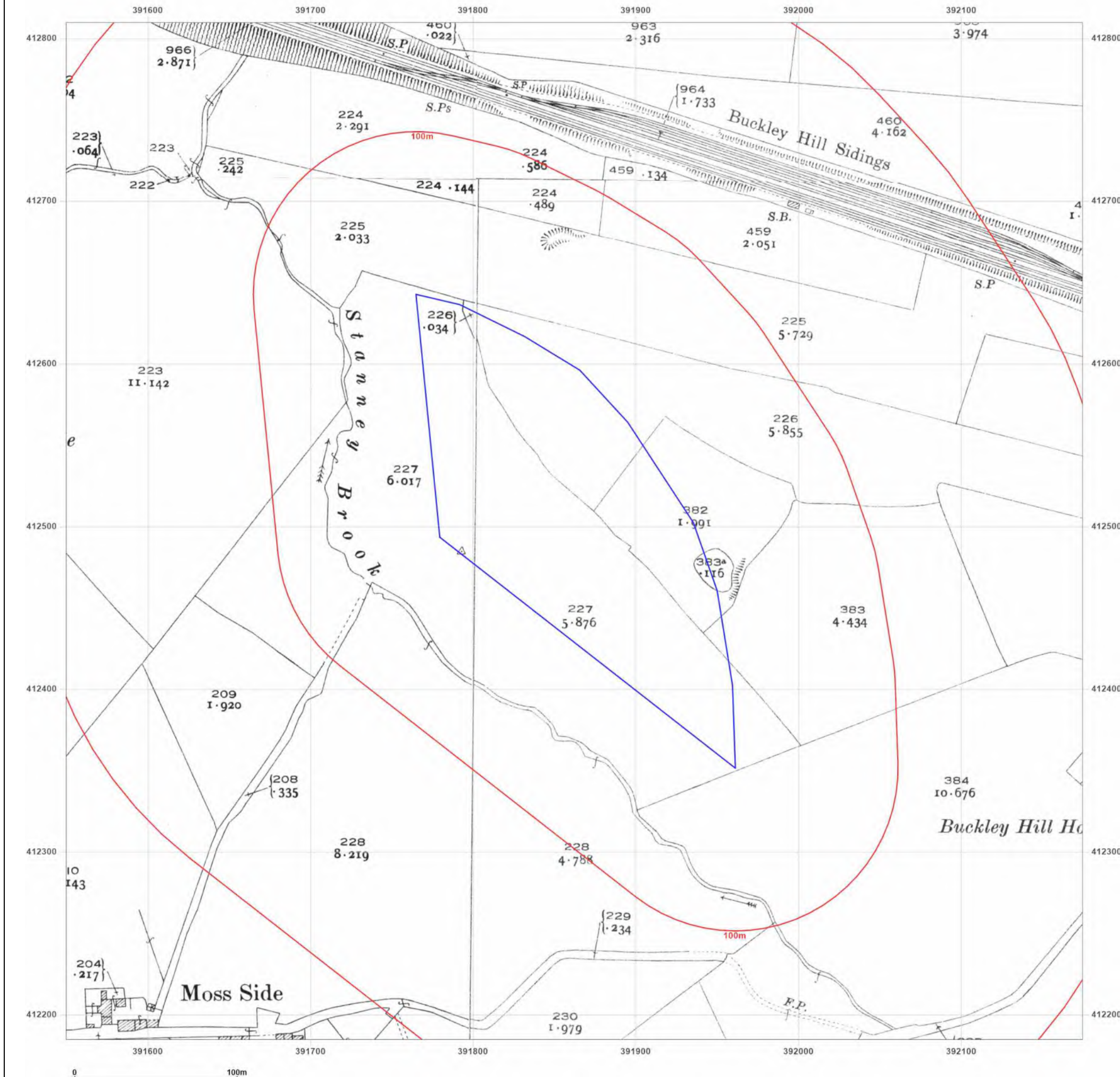


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Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: National Grid

Map date: 1955

Scale: 1:1,250

Printed at: 1:2,000



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 Edition N/A
 Copyright N/A
 Levelled 1928

Surveyed 1955
 Revised 1955
 Edition N/A
 Copyright N/A
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 Copyright N/A
 Levelled 1928

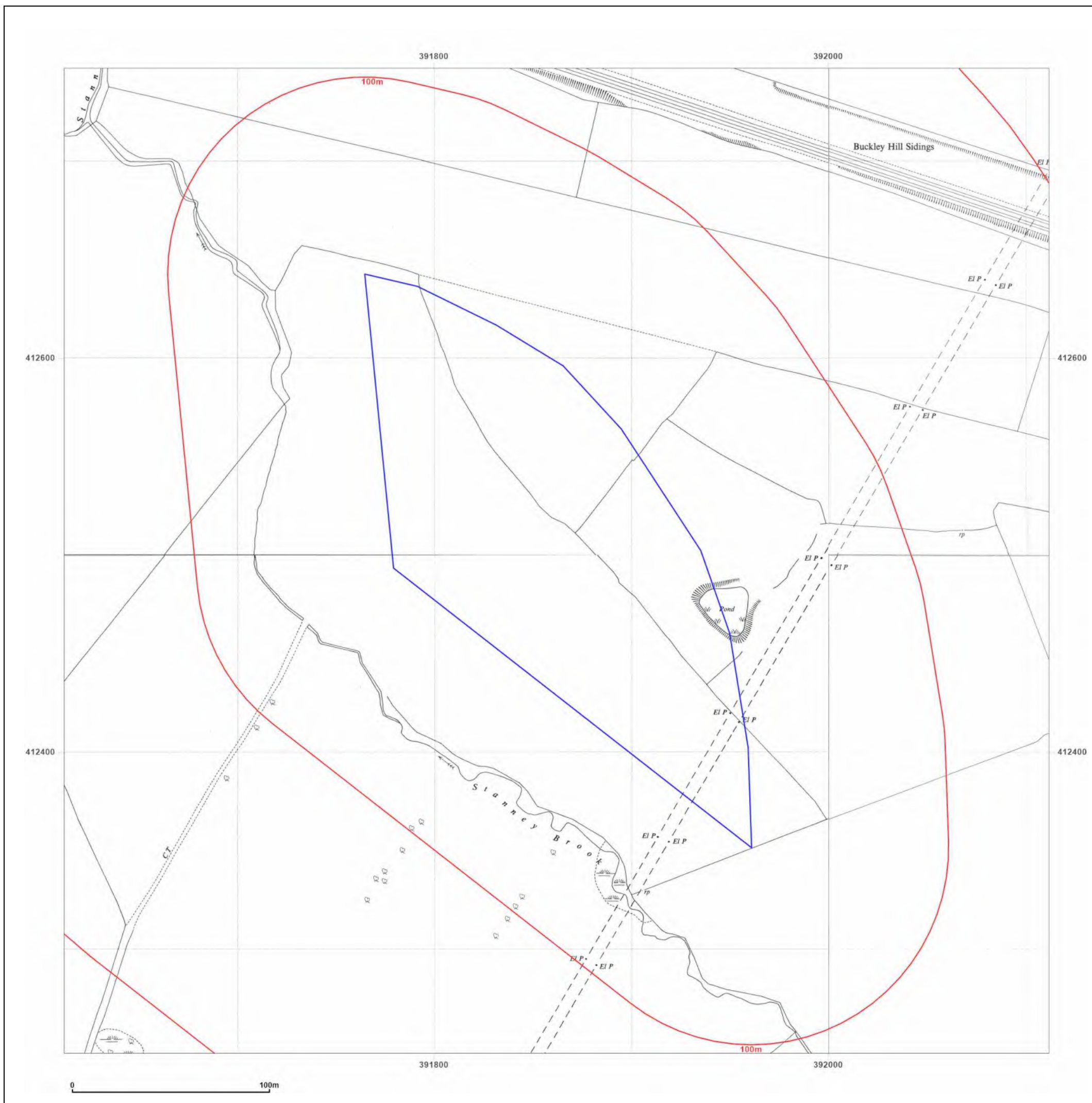


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Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: National Grid

Map date: 1956

Scale: 1:1,250

Printed at: 1:2,000



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Surveyed 1955
 Revised N/A
 Edition N/A
 Copyright 1956
 Levelled 1928

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 Revised N/A
 Edition N/A
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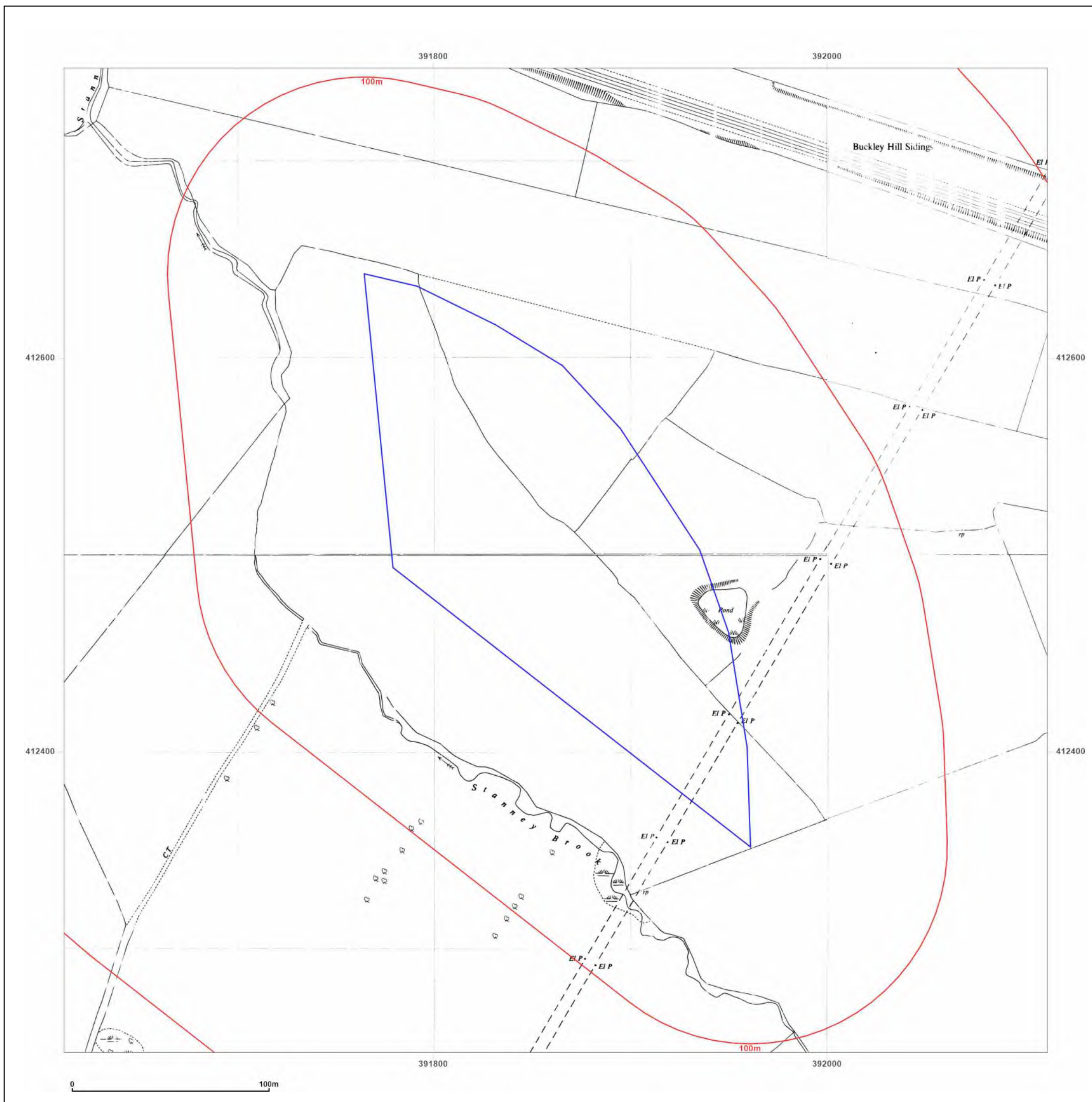


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Site Details:

Plot Q Kingsway

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Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: National Grid

Map date: 1956

Scale: 1:2,500

Printed at: 1:2,500



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Edition 1956
Copyright N/A
Levelled 1928

Surveyed 1955
Revised 1955
Edition 1956
Copyright N/A
Levelled 1928

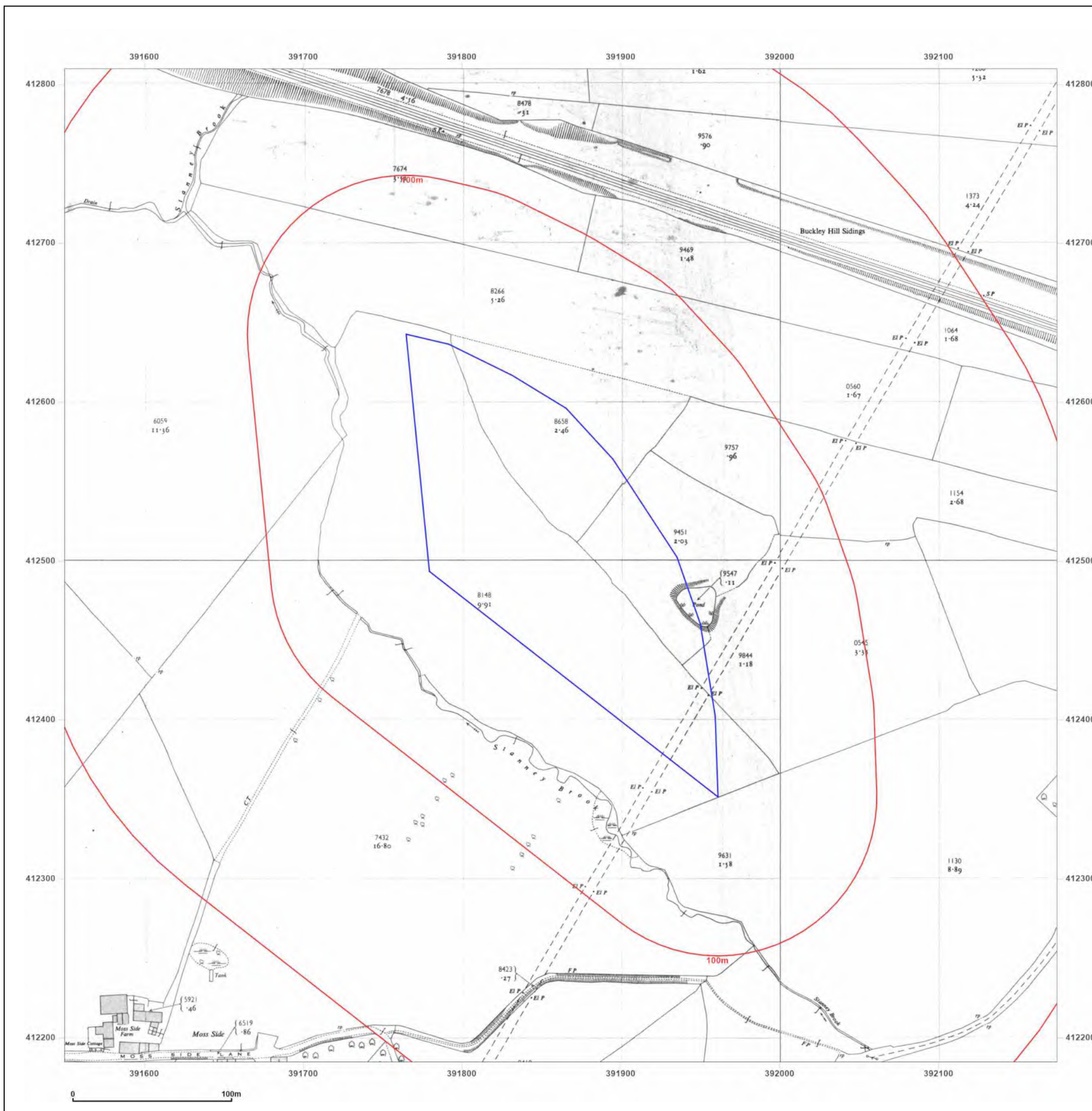


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Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: National Grid

Map date: 1973-1975

Scale: 1:1,250

Printed at: 1:2,000



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

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

Surveyed N/A
Revised N/A
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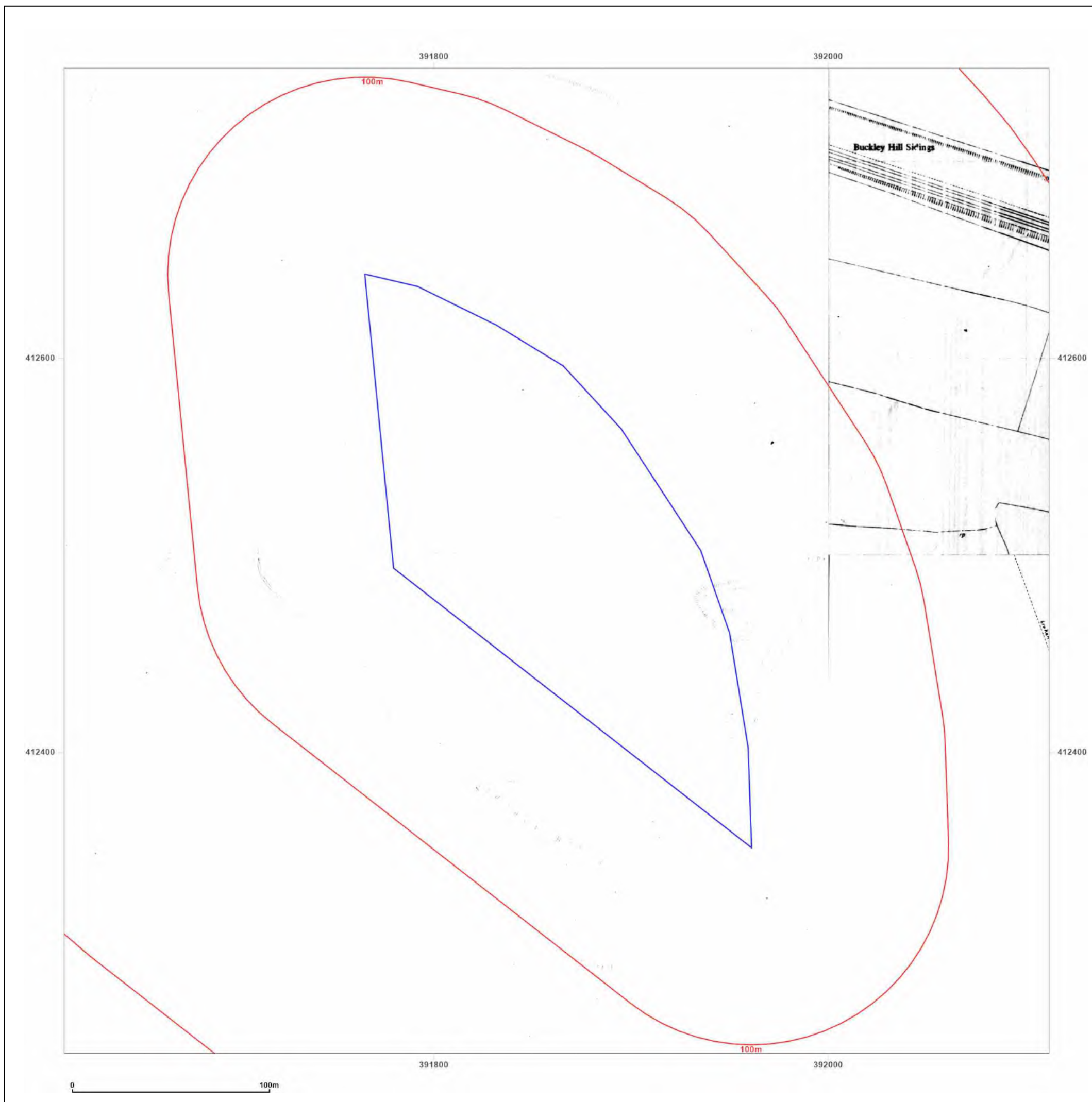


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Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: National Grid

Map date: 1983-1984

Scale: 1:1,250

Printed at: 1:2,000



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Edition N/A
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Levelled 1962

Surveyed 1962
Revised 1983
Edition N/A
Copyright 1983
Levelled 1962

Surveyed 1956
Revised 1984
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Copyright 1984
Levelled 1956

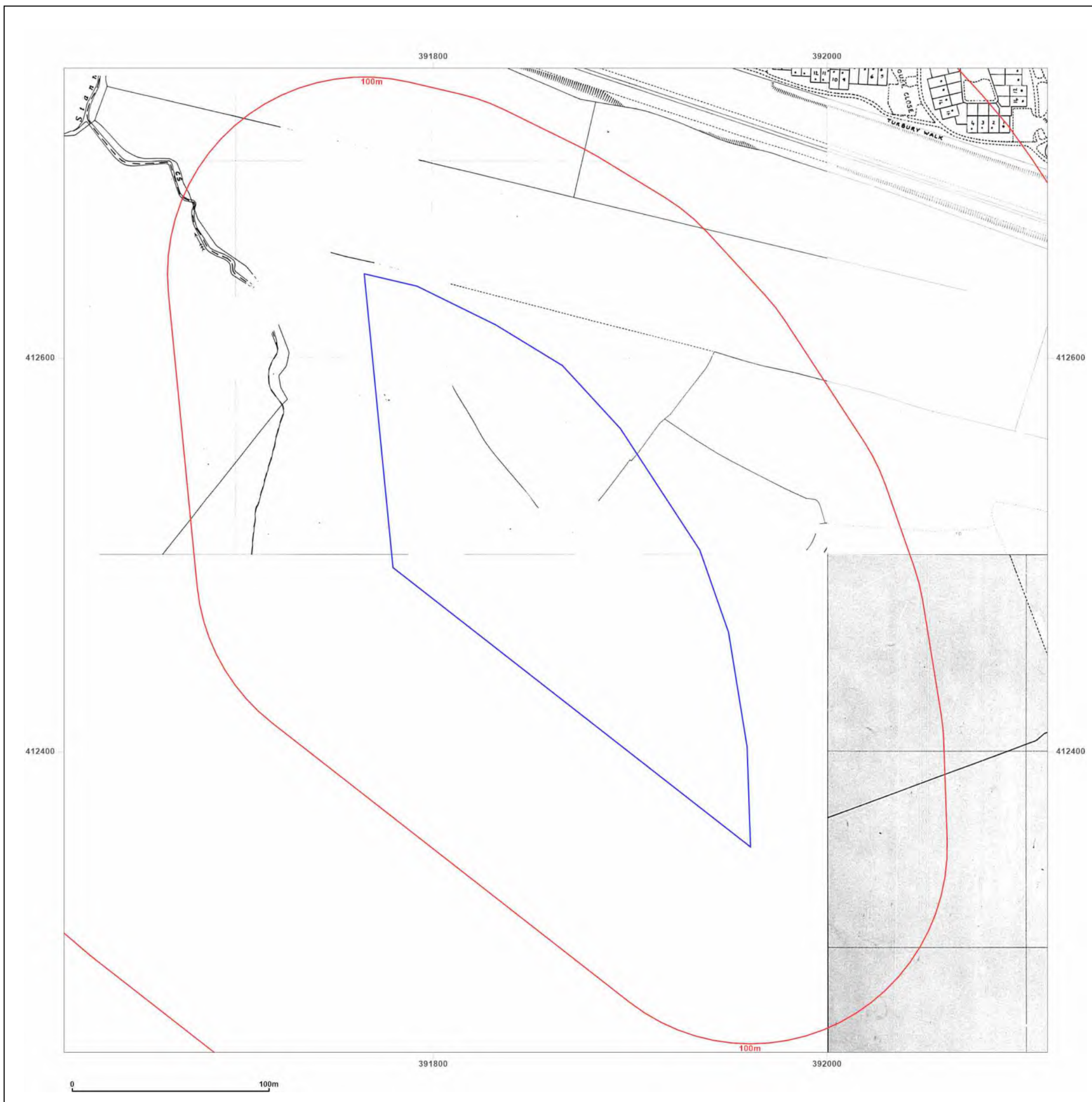


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Site Details:

Plot Q Kingsway

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Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: National Grid

Map date: 1984-1989

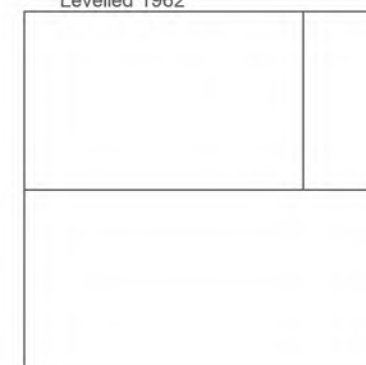
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Printed at: 1:2,000



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Revised 1984
Edition N/A
Copyright 1984
Levelled 1962

Surveyed 1955
Revised 1988
Edition N/A
Copyright 1989
Levelled N/A

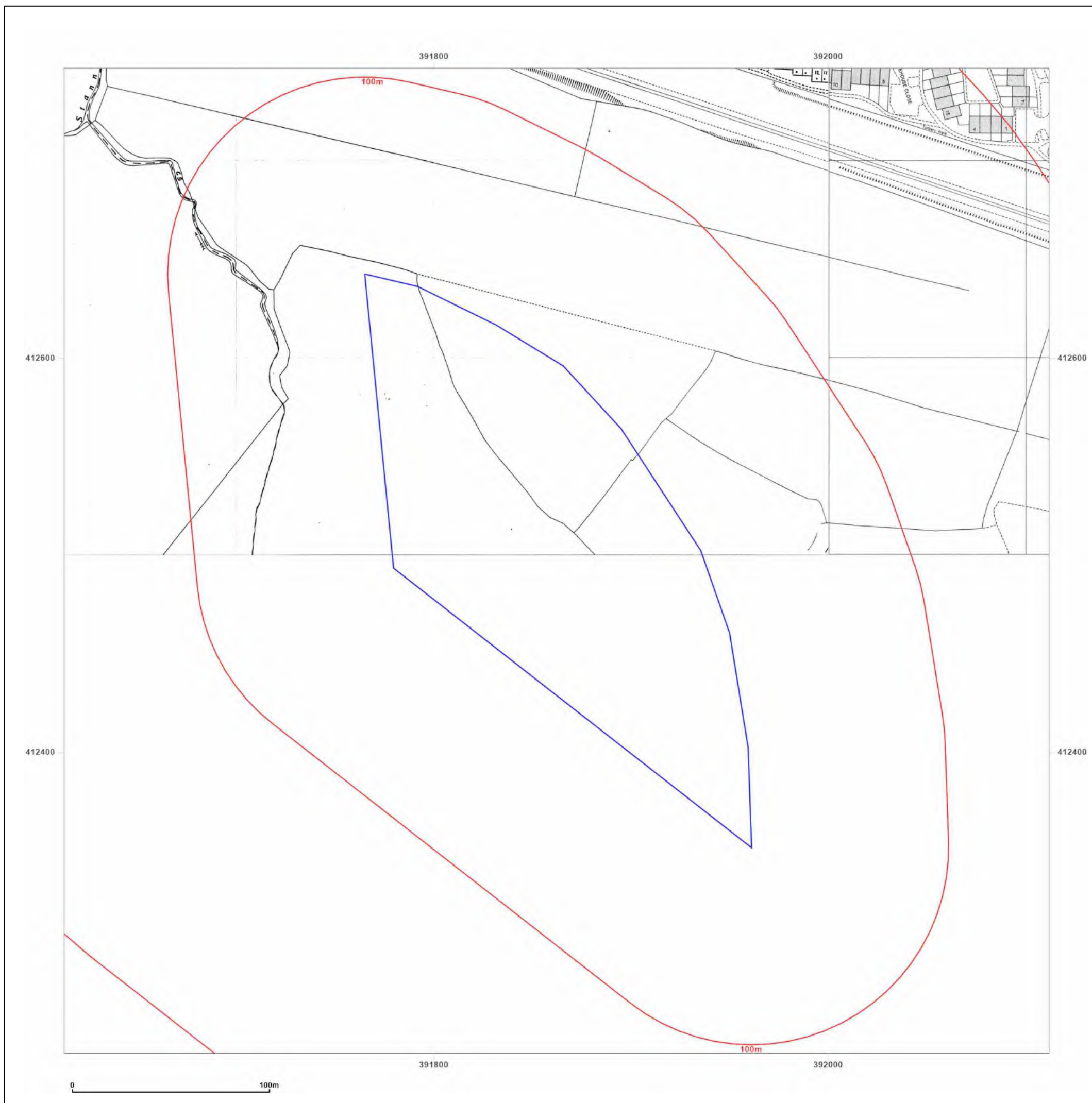


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Site Details:

Plot Q Kingsway

Client Ref: PO 12906
Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: National Grid

Map date: 1992

Scale: 1:1,250

Printed at: 1:2,000



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Edition N/A
Copyright 1992
Levelled N/A

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

Surveyed N/A
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Levelled N/A

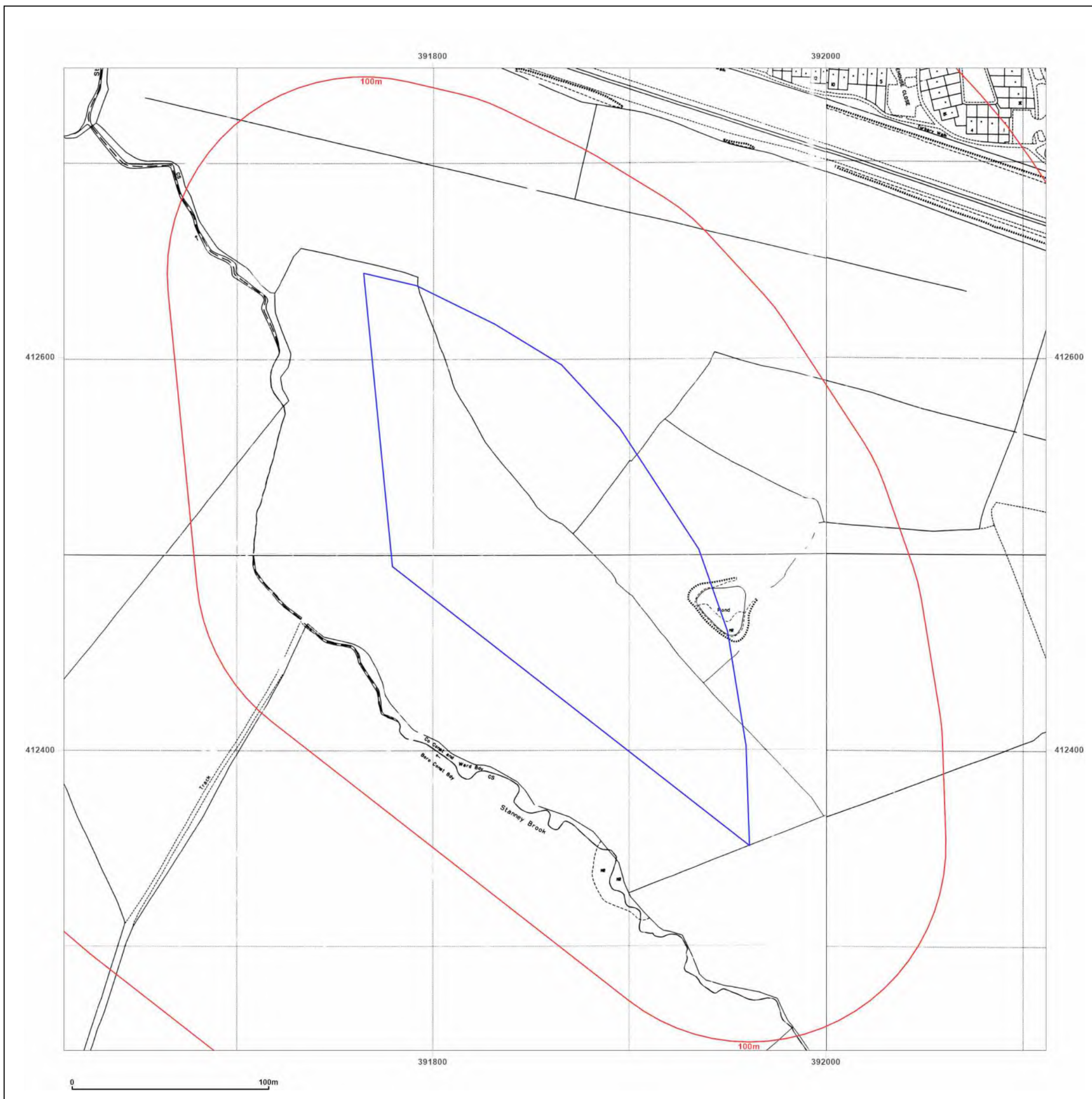


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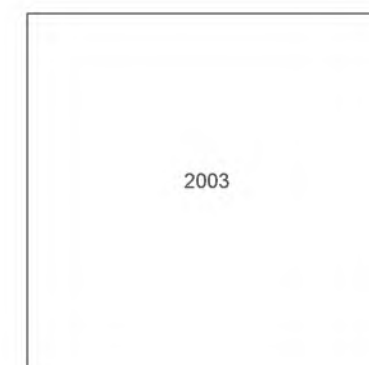
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Report Ref: GS-BLX-FKH-8TE-6HE
Grid Ref: 391862, 412497

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250

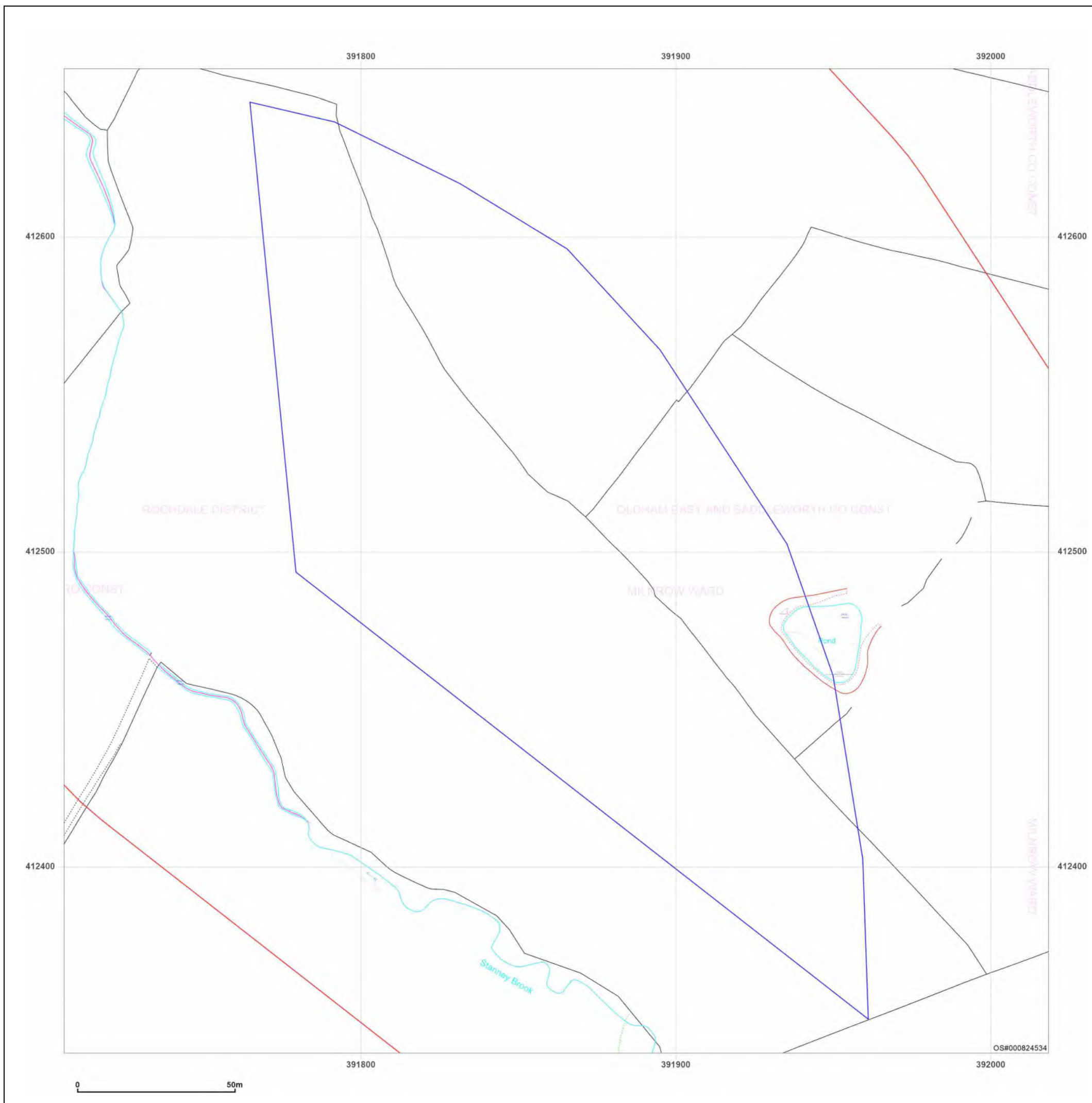


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

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Production date: 06 November 2025

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



Appendix 4: Coal Mining Report



The Coal
Authority

Consultants Coal Mining Report

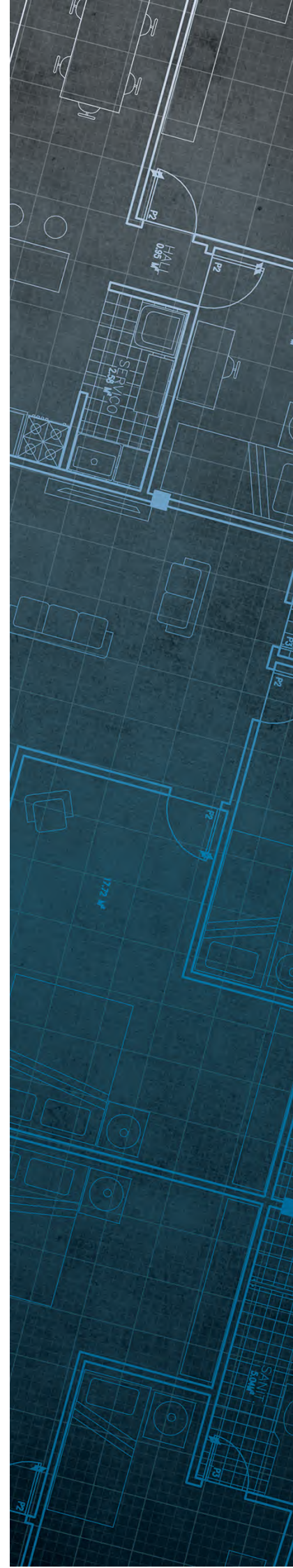
Plot Q Kingsway
Greater Manchester

Date of enquiry:
Date enquiry received:
Issue date:

6 November 2025
6 November 2025
6 November 2025

Our reference:
Your reference:

51003536488001
GS-F1A-RKP-IM2-XJ7



Consultants

Coal Mining Report

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

Client name

GROUNDSURE LIMITED

Enquiry address

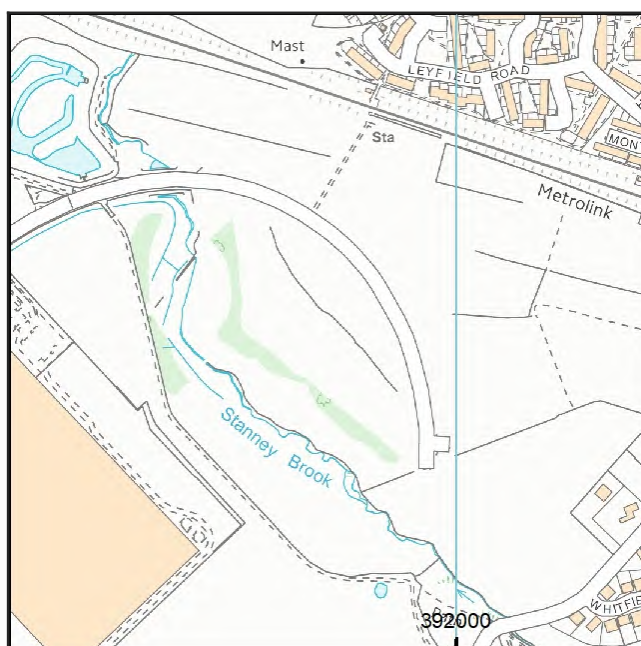
Plot Q Kingsway
Greater Manchester

How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

reports@miningremediation.gov.uk



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	LOWER MOUNTAIN	Coal	3XBO	95	North	5.2	South	60	1907
unnamed	LOWER MOUNTAIN	Coal	3XB1	95	North	5.2	South	60	1905
unnamed	LOWER MOUNTAIN	Coal	A0DR	109	East			60	1915

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

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

NW1260	6600	NW1261
--------	------	--------

For assistance in identifying the specific abandoned mine plans relevant to your requirements, **please contact us at InformationManagers@MiningRemediation.gov.uk**.

Outcrops

No outcrops recorded.

Geological faults, fissures and breaklines

Please refer to the 'Summary of findings' map (on separate sheet) for details of any geological faults, fissures or breaklines either within or intersecting the enquiry boundary.

Faults under or close to the property recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

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

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

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

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

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

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

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

Withdrawal of support notices

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

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

Payments to owners of former copyhold land

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

Section 4 – Further information

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

Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Development advice

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

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please email us at reports@miningremediation.gov.uk.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **email us at reports@miningremediation.gov.uk**.

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

Opencast mines

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

Coal Authority managed tips

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

Site investigations

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

Remediated sites

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

Coal mining subsidence

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

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

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

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

Mine water treatment schemes

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

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

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

Future underground mining

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

Coal mining licensing

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

Court orders

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

Section 46 notices

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

Withdrawal of support notices

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

Payment to owners of former copyhold land

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

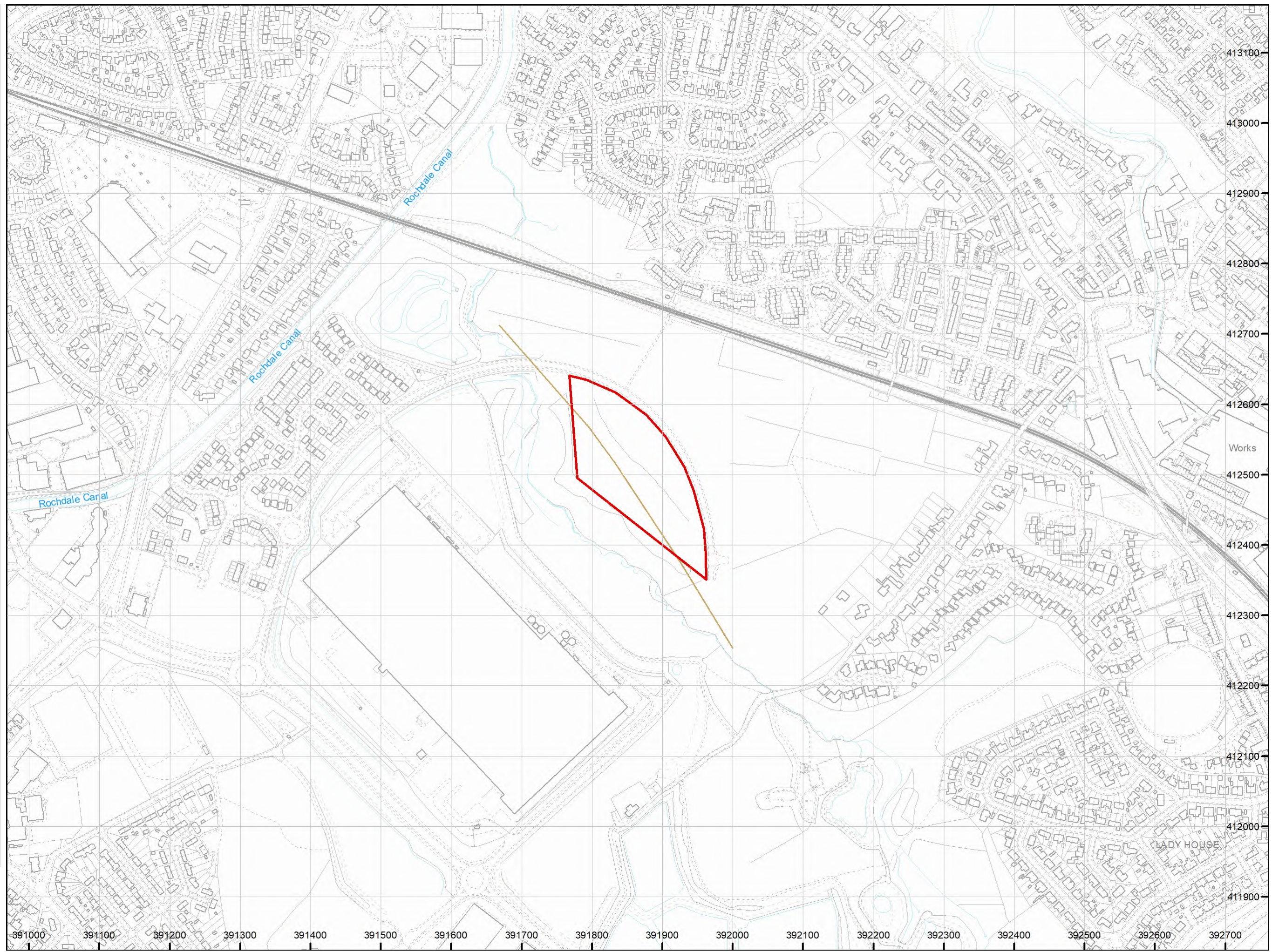
The map highlights any specific surface or subsurface features within or near to the boundary of the site.

Key

Approximate position of the enquiry boundary shown 

Geological faults 

How to contact us
0345 762 6848 (UK)
+44 (0)1623 637 000 (International)
reports@miningremediation.gov.uk



Appendix 5: Historical LA Correspondence

Oliver Stewart

From: Michael Moore P <Michael.Moore@rochdale.gov.uk>
Sent: 21 June 2022 09:57
To: Oliver Stewart; Contaminated Land
Subject: RE: Possible Landfill - Kingsway Business Park

This email originated from outside of our organisation. Please exercise caution with content, links and attachments.

Good morning Oliver,

According to our records there is no landfill outlined in red below.

Regards

Michael Moore P

Environmental Health Senior Officer (Environment Prot)
Place



☎ 01706 924107

📠 07976 059366

✉ michael.moore@rochdale.gov.uk

Rochdale Borough Council
Floor 3, Number One Riverside
Smith Street, Rochdale, OL16 1XU

To access our services go to www.rochdale.gov.uk

For news, events and social media updates go to www.rochdale.gov.uk/newsandevents

Please consider the environment before printing this email.

From: Oliver Stewart <Oliver.Stewart@bwbconsulting.com>
Sent: 13 June 2022 12:28
To: Contaminated Land <Contaminated.Land@Rochdale.Gov.UK>
Subject: Possible Landfill - Kingsway Business Park

:CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

To Contaminated Land team,

I'm writing to enquire into an area of land situated just south of Kingsway Business Park tram station, postcode OL16 4JN.

There seems to be a discrepancy between data provided to us from a third party source and information gained through separate historical mapping and council records.

The third party data is showing a landfill recorded on site, sourcing local authority records, whereas the public council records and historical mapping are vacant of any development on this area of land entirely minus agriculture.

I have attached the relevant image provided, listing the dashed zone as Buckley Hill Lane.

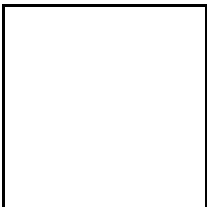


Please let us know of any charges this may incur.

Thank you for any assistance,

Oliver Stewart BSc (Hons) MSc
Graduate Geoenvironmental Consultant | BWB Consulting Limited

Whitehall Waterfront, 2 Riverside Way, Leeds LS1 4EH
M 07469 295004 T 0113 233 8000 W www.bwbconsulting.com



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Appendix 6: Classification of Risk

BWB RISK ASSESSMENT CLASSIFICATION (REFERENCE CIRIA C552, CONTAMINATED LAND RISK ASSESSMENT: A GUIDE TO GOOD PRACTICE, 2001)

CIRIA C552, *Contaminated Land Risk Assessment A Guide to Good Practice*, 2001 sets out a methodology for estimating risk. The methodology for risk evaluation is a qualitative method for interpreting the output for the risk estimation stage of the assessment. It involves the classification of the:

- Magnitude of the potential consequence (severity) of risk occurring; and
- Magnitude of the probability (likelihood) of the risk occurring.

The classification of consequence and probability are replicated in **Table 1** and **Table 2**, respectively.

Table 1: Classification of Consequence

Classification	Definition	Examples
Severe (Sv)	Short term (acute) risk to human health likely to result in "significant harm" as defined by the Environment Protection Act 1990, Part IIA. Short term risk of pollution of sensitive water resource. Catastrophic damage to buildings/property. A short-term risk to a particular ecosystem, or organism forming part of such ecosystem.	High concentrations of cyanide on the surface of an informal recreation area. Major spillage of contaminants from site into controlled water. Explosion, causing building collapse (can also equate to a short-term human health risk if buildings are occupied).
Medium (Md)	Chronic damage to Human Health ("significant harm"). Pollution of sensitive water resources. A significant change in a particular ecosystem, or organism forming part of such ecosystem.	Concentrations of a contaminant from site exceeding the generic or site-specific assessment criteria. Leaching of contaminants from a site to a major or minor aquifer. Death of species within a designated nature reserve.
Mild (Mi)	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services. Damage to sensitive buildings/structures/services or the environment.	Pollution of non-classified groundwater. Damage to building rendering it unsafe to occupy (e.g. foundation damage resulting in instability).
Minor (Mr)	Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. Non-permanent health effects to human health (easily prevented by measures such as protective clothing etc.). Easily repairable effects of damage to buildings, structures and services.	The presence of contaminants at such concentration that protective equipment is required during site works. The loss of plants in a landscaping scheme. Discolouration of concrete.

The classification of consequence does not take into account the probability of the consequence being realised. Therefore, there may be more than one consequence for a particular pollutant linkage. Both a severe and medium classification can result in death.

Severe relates to short term (acute) risk while medium relates to long term (chronic) risk. Mild relates to significant harm but to less sensitive receptors. Minor classification relates to harm which is not significant but could have a financial cost.

Table 2: Classification of Probability

Classification	Definition
High likelihood (Hi)	There is a pollutant linkage and an event that either appears very likely in the short term and almost inevitable in the long term, or there is evidence at the receptor of harm or pollution.
Likely (Li)	There is a pollutant linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.
Low likelihood (Lw)	There is a pollutant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term.
Unlikely (Ui)	There is a pollutant linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

The classification gives a guide as to the severity and consequence of identified risk when compared with other risk presented on the site. It should be noted that if a risk is identified it cannot be classified as “no risk” but as “very low risk”. Differing stakeholders may have a different view on the acceptability of a risk.

Once the consequence and probability have been classified these can be compared using a matrix to identify an overall risk category, as shown in **Table 3**. These categories and the actions required are categorised in **Table 4**.

Table 3: Risk Evaluation Matrix

Consequence		Severe (Sv)	Medium (Md)	Mild (Mi)	Minor (Mr)
Probability	High likelihood (Hi)	Very High Risk (VH)	High Risk (H)	Moderate Risk (M)	Mod/Low Risk (M/L)
	Likely (Li)	High Risk (H)	Moderate Risk (M)	Mod/Low Risk (M/L)	Low Risk (L)
	Low likelihood (Lw)	Moderate Risk (M)	Mod/Low Risk (M/L)	Low Risk (L)	Very Low Risk (VL)
	Unlikely (Ui)	Mod/Low Risk (M/L)	Low Risk (L)	Very Low Risk (VL)	Very Low Risk (VL)

Table 4: Risk Categorisations

Very High Risk (VH)	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High Risk (H)	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short-term and are likely over the longer-term.
Moderate Risk (M)	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer-term.
Low Risk (L)	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low Risk (VL)	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.

Reference:

CIRIA C552 *Contaminated land risk assessment. A guide to good practice*. Rudland, D J, Lancefield, R M, Mayell, P N, 2001.

