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URBAN SPLASH

LAND AT OLD MILL STREET, ANCOATS MANCHESTER

PHASE 1 DESK STUDY

NOVEMBER 2023

Wardell Armstrong
41-50 Futura Park, Aspinall Way, Middlebrook, Bolton, BL6 6SU
Telephone: +44 (0)1204 227 227 www.wardell-armstrong.com

DATE ISSUED:	**23 NOVEMBER 2023**
JOB NUMBER:	**GM12676**
REPORT NUMBER:	**002**
VERSION:	**V2.0**
STATUS:	**FINAL**

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NOVEMBER 2023

PREPARED BY:

Fay Lawrence Geologist

APPROVED BY:

Doug Brownjohn Technical Director

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DRAWINGS	**TITLE**	**SCALE**
GM12676-001	Site Location Plan	1:750@A3
GM12676-003	Walkover Photo Survey Location Plan	1:250@A3

EXECUTIVE SUMMARY

This Phase 1 Desk Study report has been prepared to assist in the proposed residential development at Old Mill Street, Ancoats, Manchester. A summary of the report is provided in Table 1.1.

Table 1.1 Executive Summary	
Site location	The site is approximately 0.15 hectares (ha) in size and is situated off Old Mill Street in Manchester City Centre. The site is centred at Ordnance Survey National Grid reference SJ 85487 98449 and the nearest postcode to the site is M4 6EE
Current Use and History	The site consists of gravel hardcore currently used for car parking and a section of Lampwick Lane. A review of historical OS topographic mapping shows that part of site has been used as a Factory and Machine works from 1881 until 1931-1932 when this part of the site was used as a Textile Engineering Works. A rectory was present on the remainder of the site between 1891-1969. A yard was recorded on site from 1978-1983 and the Engineering works were recorded until 2010 mapping. The site was used as a construction site compound as shown on 2015 google satellite imagery, before being used as car parking.
Adjacent land uses	The site is bordered to the north by Old Mill Street and to the west by the historic Ancoats Hospital. Terrace housing off Old Mill Street is east of the site, with the old Stubbs Mill, now utilised as office space, to the south. The Ashton Canal is situated c.70m south of the site and the Rochdale Canal is situated c.350m north of the site, with the New Islington Marina c.115m to the west. Access into the site is off Lampwick Lane, to the west of the site.
Geology/Anticipated Ground Conditions	Made ground was observed during the site walkover across the site in the form of gravel hardcore. Made ground is also suspected at the site from the historic industrial site use. Made ground is reported to be underlain by superficial glacial till deposits, in turn, underlain by the Manchester Marls Formation mudstone across the western half of the site, with Collyhurst Sandstone Formation sandstone recorded across the eastern half of the site.
Asbestos	Asbestos and Asbestos Containing Materials (ACMs) were not observed during the site walkover, but it is considered likely that asbestos could be present in made ground at the site associated with past historical use.
Groundwater Vulnerability	The site is underlain by a Secondary Undifferentiated superficial aquifer. The underlying solid strata of the Manchester Marls Formation is designated a Secondary B aquifer of low permeability fracture flow. The Collyhurst Sandstone Formation underlying the east of the site is designated a principal bedrock aquifer of high permeability intergranular flow.
Mining	The Coal Authority records no shallow working or mine entries within 100m of the site. Four coal seams to have been worked beneath the site; the Bradford Four Feet seam (345-386m bgl), the Parker seam (681m bgl), the Crombouke seam (1029-1064m bgl) and the Roger seam (983-1093m bgl)m last mined between 1900 and 1961. Due to the age and depth of the recorded underground workings at the site, the risk of ground instability or subsidence occurring at the site as a result of underground mining is considered to be low.
Unexploded Ordnance (UXO)	A Zetica Unexploded Bomb (UXB) risk map for the site has been reviewed. The area is indicated as having a bombing density of 15 to 49 bombs per 1000 acres and therefore designated as a moderate risk area. A Pre-Desk Study Assessment indicates that the site is unlikely to have seen WWI or WWII bombing and, whilst consider prudent, a detailed risk assessment is not considered essential.
Contamination Issues	Contamination may be present across the site within made ground conjectured to be present from historical industrial land use and observed during the site walkover, an electrical substation on site, ground gas associated with coal mining and made ground.
Radon Requirements	The site is located in an area where less than 1% of homes are above the action level and therefore there is no requirement for radon protection measures.
Preliminary Conceptual Model and Risk Assessment	A Conceptual Site Model and Preliminary Environmental Risk Assessment created for the site show the risk of contamination is considered to be Moderate to Low.
Geotechnical Issues	Geotechnical risks identified across the site include made ground of unknown strength, composition and thickness, unknown ground conditions, and possible in-ground obstructions. The risk to the site of landslides, collapsible deposits, running sands or shrink/swell clays is thought to be very low.
Recommendations	It is recommended that a Phase 2 Ground Investigation is carried out to determine the geological conditions on site, geotechnical parameters and the potential for contamination. Further to this, some remedial measures may be necessary depending on the nature and extent of the made ground and the geotechnical nature of the subsurface materials.

1 INTRODUCTION

1.1 Instruction

1.1.1 Wardell Armstrong LLP (WA) have been commissioned to prepare this Phase 1 Desk Study by Urban Splash in support of a proposed residential development. The project is located at Old Mill Street, Ancoats, Manchester.

1.2 Site Location

1.2.1 The site is approximately 0.15 hectares (ha) in size and is situated off Old Mill Street in Manchester City Centre. The site is centred at Ordnance Survey National Grid Reference SJ 85487 98449 and the nearest postcode to the site is M4 6EE. The site has a generally flat topography.

1.2.2 The location of the site is detailed on Figure 1 below and on Drawing Number GM12676-001.

Figure 1: Aerial image showing the approximate site boundary.

Reproduced from Bing Satellite Imagery



1.3 Proposed Site Use

1.3.1 This Phase 1 Desk Study has been written to assist in the full planning application at the site for a residential-led development to provide 40 no. apartments (Use Class C3) and ground floor commercial space (Use Class E), together with landscaping, parking, cycle parking, supporting infrastructure and associated works.

1.4 Scope and Objectives

1.4.1 The purpose of this report is to support the proposed development of the site by identifying and examining readily available documentary sources of information relating to the following:

- Past and current uses of the site and surrounding area and the nature of any hazards and physical constraints;
- Environmental setting including geology, geochemistry, mining, hydrogeology and hydrology;
- Potential contamination sources, pathways and receptors as part of a preliminary conceptual site model; and
- Provide information on the preliminary risk assessment.

1.4.2 The results of the desk study researches are presented in this report and conclusions are drawn regarding the geological, geotechnical, mining, and environmental hazards that could potentially affect the development on the site.

1.4.3 This report has been prepared in general accordance with BS5930:2015+A1:2020, BS10175:2011+A2:2017 and the Environment Agency (EA) Land Contamination Risk Management (LCRM) guidance.

1.5 Limitations of Report

1.5.1 The report does not constitute or contain a valuation nor is it a full rigorous environmental audit.

1.5.2 The opinions and findings of the report are given without the benefit of any physical site investigation, sampling or testing.

1.5.3 The findings and recommendations are considered to be valid and appropriate at the time of preparation and for the specific purpose or purposes intended. Wardell Armstrong LLP will not be liable if any findings are used by third parties, without the written agreement of the company, or if an interpretation is made and action taken without further consultation.

1.5.4 The possibility of significant variation in ground conditions existing on site in comparison to those described within this report cannot be discounted.

1.6 Data Sources

1.6.1 The following sources of information have been reviewed:

- A Groundsure report, dated 26 May 2023 (Ref: GS-EUW-3YK-9AB-IVR), attached as Appendix A;
- Site walkover photographs with annotations attached at Appendix B;
- The British Geological Survey (BGS) - GeoIndex [online] geological mapping interactive mapping database. Available at: https://mapapps2.bgs.ac.uk/geoindex/home.html (accessed 02 June 2023). Borehole Logs attached at Appendix C;
- Geological Survey of England and Wales National Grid Series 1:10,560 Scale, Sheet SJ89NE Gorton, published 2004;
- GOV.uk [online] Check the long term flood risk for an area in England. Available at https://www.gov.uk/check-long-term-flood-risk (accessed 02 June 2023);
- GOV.uk [online] Flood map for planning. Available at https://flood-map-for-planning.service.gov.uk/ (accessed 02 June 2023);
- The Coal Authority Interactive Map Viewer [online]. Available at https://mapapps2.bgs.ac.uk/coalauthority/home.html (accessed 02 June 2023);
- Consultants Coal Authority Mining Report, attached at Appendix D;
- Zetica Unexploded Bomb Risk Map attached at Appendix E;
- Zetica Pre-Desk Study Assessment attached at Appendix F;
- Wardell Armstrong Upper Kirby Street, Manchester Desk Study Report, issued March 2016; and
- Published and unpublished information and records held by Wardell Armstrong.

2 SITE SETTING

2.1 Site Description/Use

2.1.1 At the time of writing, the site consists of gravel hardcore currently used for car parking, and part of Lampwick Lane. The site is bordered to the north by Old Mill Street and to the west by the old Ancoats Hospital. Terrace housing off Old Mill Street is east of the site, with the old Stubbs Mill, now utilised as office space, to the south. The Ashton Canal is situated c.70m south of the site and the Rochdale Canal is situated c.350m north of the site, with the New Islington Marina c.115m to the west. Access into the site is off Lampwick Lane, west of the site. The New Islington Metrolink station of the Piccadilly to Ashton-under-Lyme Metrolink is c.170m south of the site.

Site Walkover

2.1.2 A site walkover was carried out for the proposed residential development site on 01 June 2023 by a WA Engineer. Photographs and notes taken during the site walkover are attached as Appendix B.

2.1.3 The following observations were made during the site walkover:

- The site consists of gravel hardcore, with the eastern half of the site used for car parking and the western half of the site blocked off by concrete blocks, with a small wooden fence diving the two halves. The western half of the site was unused at the time of the walkover.
- A brick building is present in the north eastern corner of the site, potentially a utilities shed or electrical substation. Loose wooden fence panels at the northern border of the site and some littering was noted.
- Metal and wooden fencing runs along the sites eastern, northern and western borders, with a padlocked metal fence present on the western fence likely related to past site uses as a secure compound as seen on historic satellite imagery. The sites southern border is open with the exception of concrete boulders.
- The site is surrounded by the old Ancoats Hospital to the west, which was a construction site at the time of the walkover, and office space at the old Stubbs Mill to the south. Residential developments surround the site to the north and east. Access into the site was off Old Mill Street to the north of the site.

2.2 Site History

2.2.1 Published OS County and National Grid series topographical maps dating from 1848 to 2023 have been reviewed. A summarised chronological site history identifying the features that may be relevant to the development is presented in Table 3.1. Copies of the historical maps included with the Groundsure report are attached as Appendix A.

Table 2.1: Summary of Historical Mapping

Date of mapping	On Site Lane Use	Surrounding Areas Lane Use
1848 1:10,560	Site is shown as undeveloped grassland	North: c.5m Residential developments East: c.10m Industrial and residential developments, c.500m Brick Field South: c.80-120m Canal, wharf and residential developments West: c.90m Residential developments
1851 1:1,056	Site remains unchanged	North: c.80m Timber yard and Coal yard, c.120m Manchester Flint Glass Works East: c.50m Piercy Street Sizing Works, c.90m Piercy Street Foundry, c.100m Wellington Mills and Pollard Street Iron Works South: c.80m Canal now labelled 'Ashton Under Lyne, Oldham and Stockport Canal', c.120m Hatton Street Brewery
1891 1:500	Machine Works are on site across the south. Rectory is present in the northwest of the site. Terrace houses and associated out buildings are across the sites eastern border.	North: c.80m Timber yard and Coal yard no longer shown, c.120m Manchester Flint Glass Works has extended south across brick field with three chimneys East: c.90m Piercy Street Foundry now labelled Iron Foundry, c.100m Wellington Mills and Pollard Street Iron Works no longer shown, c.100m Victoria Mills South: c.0m Machine Works, c.120m Hatton Street Brewery no longer shown West: c.1m Ancoats Hospital, c.10m St Jude's Church, c.40m Electric Engineering Works
1890-1894 1:10,560	No map coverage	South: c.500m Goods station and railway West: c.210m Spindle Works, c.250m Wharf
1889-1893 1:2,500	Site remains unchanged	East: c.120m Phoenix Mill and two Cotton Mills, c.200m Ancoats Engineering Works, c.250m Beswick Street Mill South: c.150m Soho Iron Works, c.160m Tramway, c.250m disused Cotton Mill, c.250m Vulcan Iron Works West: c.140m Wire Works and Dye Works
1905-1906 1:10,560	Site remains unchanged	East: c.500m Brick Field no longer shown South:
1908 1:2,500	Site remains unchanged	North: c.250m Engineering Works East: c.120m Cotton Mill disused South: c.100m Girls Institute, c.130m Fire station, c.150m Soho Iron Works now Cotton Waste Mill, Chemical Works and Sawmill West: c.100m Bedstead & Safe Works, 140m Wire Works no longer shown and Dye Works labelled as disused

1922 1:1,250	Site remains unchanged	North: c.250m Engineering Works no longer shown South: c.150m Sawmill now Star Iron Works West: c.250m Sun Mill
1931-1932 1:2,500	Building associated with machine works previously mapped on site and extending south of the site is now labelled as Mill Street Textile Engineering Works	East: c.100m Brass & Iron Foundry, c.120m Chemical manufactory, c.150m Bridge Mill South: c..120m Wharf now shown as Mortuary, c.90m Waste Paper Works and Cotton Waste Mill, c.110m Cotton Mill now a Bag factory West: c.110m York Mill, c.120m Shirt manufactory, c.140m Clothing manufactory, c.150m Engineering Works, c.210m Spindle Works now a Chain Works and Toy Factory
1948 1:1,250	Site remains unchanged	East: c.60m Oil and Tallow Works, c.120m Cotton Mill now shown as Ministry of Works Warehouse, c.200m Ancoats Engineering Works now shown as Albert Cabinet Works, c.250m Beswick Street Mill no longer shown South: c.100m Cotton Waste Mill, c.120m Boiler house, c.130m Fire station now a Chair frame factory, c.160m Tramway no longer shown West: c.120m Corporation Cleansing Garage Depot, c.170m Engineering Works, c.190m Engineering Works, c.210m Chain Works no longer shown, c.250m Paint Factory
1949 1:2,500	Site remains unchanged	East: c.120m Ministry of Works Warehouse no longer shown, c.250m Hope Stationary Mills West: c.120m York Mill
1963 1:1,250	No map coverage	North: c.5m Residential developments no longer shown
1965 1:2,500	Mill Street Textile Engineering Works now labelled as Works	Mapping is limited with all surrounding works and mills simply labelled as 'Mill' or 'Works', or many industrial buildings no longer labelled.
1968 1:1,250	No map coverage	North: c.5m New residential development
1969 1:2,500	Rectory no longer shown on site	East: c.10m Terrace housing no longer present
1978 1:2,500 Limited coverage	Yard shown on site in place of Rectory	West: All engineering works and factories now shown as residential developments
1974-1979 1:1,250 Limited coverage	Site remains unchanged	South: c.100-150m Works and factories shown as Depots
1979-1983 1:1,250 Limited coverage	Yard no longer shown on site	South: c.100m Victoria Mills now labelled as Victoria Industrial Estate West: c.240m Scrap Yard
1985-1989 1:1,250	Site remains unchanged	West: c.120m York Mill now shown as car park
2001 1:10,000	Site remains unchanged	Many works and factories in the surrounding area no longer labelled and likely disused. More commercial developments in the surrounding area including schools (East c.250m, West c.300m) and Central Retail Park c.240m west. Road network improvements surrounding the site.

2010 1:10,000	Works no longer shown on site.	Industrial developments south of site no longer shown, with further residential developments shown to the south and east. The Ashton Canal Islington branch is shown to the west of the site.
Present day	Site comprises gravel hardcore car parking and a section of Lampwick Lane.	Site is surrounded by residential developments, with the Metrolink line between Piccadilly station and Holt town stop running approximately east-west c.160m south of the site. Central retail park c.240m west is no longer shown.

2.2.2 Historical OS mapping provided in the Groundsure report shows the site was undeveloped grassland until 1891 when the site was developed into a rectory and Machine works, with terrace house outbuildings across the sites eastern border. By 1931-1932 mapping, the Machine Works is shown as Mill Street Textile Engineering Works, which are shown on site until 2010. The rectory was present until 1969, when it is shown to have been replaced by a yard until 1983. In 2015 Google satellite imagery shows the site to have been utilised as a compound with storage containers.

2.3 Asbestos

2.3.1 The Health and Safety at Work Act, Control of Asbestos Regulations and Construction (Design and Management) Regulations impose duties upon employers, site owners, their agents and contractors in respect of hazardous materials including asbestos. Other health and safety and welfare regulations place duties on employers to undertake appropriate risk assessments. This could include the commissioning of surveys, identification and management of hazardous materials including any proposals for remedial work.

2.3.2 Given the historical details and observations noted during the site visit it is considered that asbestos is unlikely to be present in infrastructure on the site, but could be present in the made ground at the site associated with past historical use. Any works undertaken in areas where asbestos is known or suspected to be present should be done in accordance with the Control of Asbestos Regulations (2012).

2.4 Ecology and Heritage

2.4.1 There are a number of legal or planning constraints relating to wildlife habitats and protected species on or adjacent to a site. The habitats and species can also be linked via surface or groundwater and can be affected by activities on the site such as noise, dust or pollution.

2.4.2 Reference to the Groundsure report indicates no National Nature Reserves, Marine Conservation Zones or Sites of Special Scientific Interest within 1km of the site. Furthermore, no Ramsar sites, Special Areas of Conservation, Special Protection Areas, Designated Ancient Woodland, Biospheres Reserves, or Greenbelt areas were identified within 2km of the site.

2.4.3 Although a site visit has been carried out, this was not specifically for ecological purposes, or by a suitably qualified ecologist. The Preliminary Ecological Appraisal carried out by WA dated June 2023 should be consulted for further information on ecology at the site.

2.4.4 There are seven listed buildings located within 250m of the site, the closest of which is located 29m southwest of the site recorded at Ardwick and Ancoats Hospital. This building is listed as Grade II. The Heritage Report carried out by WA dated June 2023 should be consulted for further information on heritage at the site.

3 GEOLOGICAL AND HYDROGEOLOGICAL INFORMATION

3.1 Geology

3.1.1 The assessment of the geology of the site is based on the published geological mapping (geological maps referenced in section 1.6) supplemented by the geological memoir, BGS GeoIndex, the BGS Lexicon of Named Rock Units and published and unpublished information held by WA. A summary of relevant geological information is provided in Table 3.1. This information has been supplemented by information contained within the Groundsure report.

Table 3.1 Summary of Relevant Geological Data

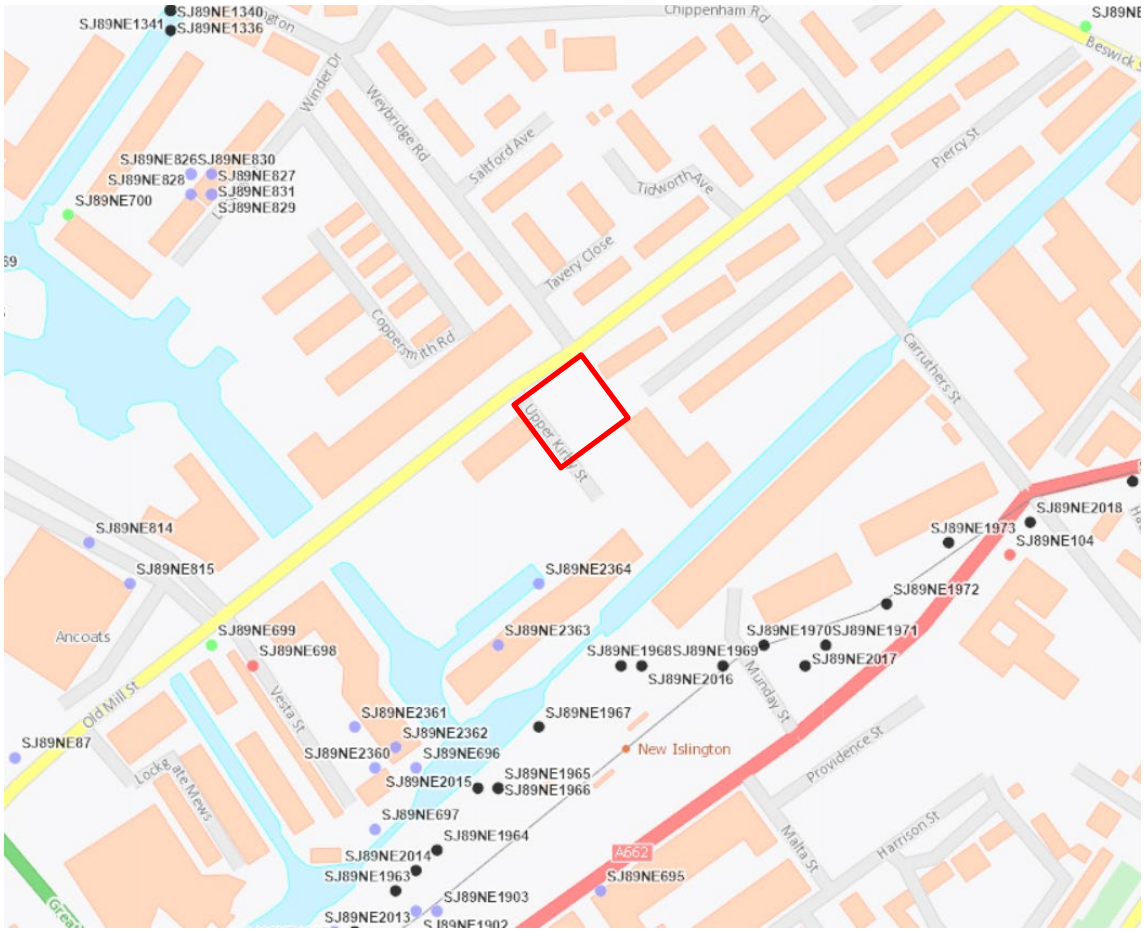
Strata	Description
Made Ground	Made ground is not recorded across the site, however gravel hardcore was observed across the site during the site walkover. Made ground is suspected to be present across the site due to the previous site history.
Superficial Deposits	The site is reported to be underlain by Devensian Diamicton glacial till deposits
Solid Geology	The site is reported to be underlain by the Manchester Marls Formation mudstone, with the Collyhurst Sandstone Formation sandstone encroaching onto the sites eastern border.
Geological Structures	The closest fault to the site is located 425m north of the site.
Geohazards	**Hazard Rating**
Natural cavities	None.
Landslides	Very low.
Collapsible deposits*	Very low.
Compressible deposits*	Negligible.
Ground dissolution	Negligible.
Running sands	Very low.
Shrinkage/swelling clay	Very low.

*Rating for superficial deposits. Made ground, if present at the site, may present a collapsible or compressible risk.

3.1.2 The nearest BGS borehole is a trial pit conducted c.60m south of the site (Ref: SJ89NE2364) and reports the ground conditions to comprise made ground of tarmac, red bricks and dark brown to black fine to coarse sand with black medium to coarse subangular gravel of sandstone with large subangular to angular stone bricks up to 0.5m bgl. This is underlain by firm dark brown to black clay with yellow staining leaching and very stiff light brown mottled grey/black sandy clay labelled as possible made ground to 3.0m bgl. The location of the BGS Borehole logs within 250m of the site is shown on Figure 2 and the full borehole logs are attached as Appendix C.

Figure 2: BGS Boreholes surrounding the site.

Reproduced from BGS Geoindex



3.2 Hydrogeology

3.2.1 Hydrogeological information provided in the Groundsure report indicates the site is underlain by a Secondary Undifferentiated superficial aquifer. The underlying solid strata of the Manchester Marls Formation is designated a Secondary B aquifer of low permeability fracture flow. The Collyhurst Sandstone Formation underlying the east of the site is designated a Principal bedrock aquifer of high permeability intergranular flow.

3.2.2 Secondary Undifferentiated aquifers typically have variable characteristics and may be identified as Secondary A or B aquifers (minor or non-aquifers).

3.2.3 Secondary B aquifers are generally regarded as containing limited quantities of groundwater. Groundwater flow through such rocks, although imperceptible, does take place and needs to be considered in assessing the risk associated with persistent pollutants.

3.2.4 Principal aquifers are highly permeable formations usually with a known or probable presence of significant fracturing. They are usually highly productive, strategic reserves able to support large abstractions, public water supply and river base flow.

3.2.5 The Groundsure report has identified the site to lie in an area where solution features that enable rapid movement of a pollutant may be present. The Groundsure report state that significant soluble rocks are likely to be present, however problems are unlikely except with considerable surface or subsurface water flow. The percentage of the sites 1km grid square covered by the maximum soluble rock risk is designated as 2.0%.

3.2.6 There are no groundwater, surface water or potable water abstraction licences or Source Protection Zones within 500m of the site. It is stated within the Groundsure report that the site lies within an area that is considered to be at a low risk of groundwater flooding.

3.2.7 BGS records of boreholes within 250m of the area have been reviewed for details on groundwater depth. Details of groundwater observations are summarised in Table 3.2 and included on the BGS borehole logs attached as Appendix C.

Table 3.2: Groundwater observations surrounding the site

BGS Borehole Ref	Distance from site	Groundwater depth	Observed strata at groundwater strike
17722639	98m South	3.60m	Stiff brown mottled blue clay
17722632	179m Southwest	0.50m	Yellow sand and fine to coarse gravel sized fragments of ash, clinker and brick (Made Ground)
937232	218m Southwest	1.70-1.60m	Black/brown ash, cinder, stones, sand, clay bricks, brick pieces, concrete (Made Ground)
15629947	233m South	2.50m	Clay, bricks, cinder (Made Ground)

3.3 Hydrology

Watercourses

3.3.1 The Ashton Canal runs east-west c.63m southeast of the site containing several locks, and the Rochdale Canal runs east-west c.350m north of the site. The Islington branch of the Ashton Canal is 220m west of the site connecting the Ashton and Rochdale Canals. The Water Framework Directive have assigned the Ashton Canal (Ref: GB1210219) a 'fail' chemical rating and an ecological rating of moderate.

3.3.2 The site is located within the 'Medlock (Lumb Brook to Irwell) water body catchment (Ref: GB112069061152) which has been assigned a 'fail' chemical rating and ecological rating of moderate by the EA.

Groundwater bodies

3.3.3 The 'Manchester and East Cheshire Permo-Triassic Sandstone Aquifers' (Ref: GB41201G101100) aquifer is recorded as being present on site and has been assigned a poor chemical rating and quantitative poor rating by the EA.

Flooding

3.3.4 The Ambient Risk analytics FloodMap contained within the Groundsure report classifies the site as having a negligible surface water flood risk.

3.3.5 The Groundsure report states that the site does not lie within an Environment Agency Flood Zone 2 or 3 Area.

3.3.6 The flood maps available on the UK government website show the predicted likelihood of flooding in an area in the context of current and the proposed land use considered in development planning. The site lies within an Environment Agency Flood Zone 1 with a low probability of flooding from rivers or surface water.

3.3.7 The Groundsure report has identified no areas benefitting from flood defences, flood storage areas, or historical flood events occurring within 250m of the site.

4 MINING AND QUARRYING

4.1 General

4.1.1 Research of the mining setting is based on examination of the Groundsure report as well as published topographical and geological information along with other mining archive information. The site lies within a Coal Consultation Area, therefore a Consultants Coal Mining Report for the site has been obtained, attached as Appendix D.

4.2 Surface Workings

4.2.1 The Groundsure report, Coal Authority report and research of topographical, geological and other archive mining records has indicated no evidence of surface extraction including quarries, pits, or workings within 250m of the site.

4.2.2 The Groundsure report has identified 21 No. surface workings within 250m of the site relating to canals, wharfs and waterbodies.

4.3 Shallow Coal Mining

4.3.1 The site does not lie in an area designated by the Coal Authority as having recorded or probable unrecorded shallow workings.

4.4 Deep Coal Mining

4.4.1 The site lies in a Coal Consultation Area due to past underground coal mining occurring beneath the site and across the wider area. The Coal Authority records four coal seams to have been worked beneath the site, as summarised in Table 4.1. Full details of underground coal mining at the site is contained within the Coal Authority Report.

Table 4.1: Summary of underground coal mining at the site

Seam worked	Depth of workings (m)	Extraction thickness (cm)	Year last mined
Bradford Four Feet	345 - 386	120	1900
Parker	681	80	1935
Crombouke	1029 - 1064	120	1932 - 1947
Roger	983 - 1093	180	1958 - 1961

4.4.2 The site is not located within a Development High Risk Area as designated by the Coal Authority. Due to the age and depth of the recorded underground workings at the site, as well as the extraction thickness at the seams, the risk of ground instability or subsidence occurring at the site as a result of underground mining is considered to be low.

4.5 Mine Entries

4.5.1 The Coal Authority report indicates that there are no recorded mine shafts on or within 100m of the site boundary. However, it did not become a statutory requirement to maintain and preserve plans of abandoned mines until 1872. Mine workings are known to have been carried out in Manchester before this date, therefore the possibility that unrecorded mine entries may be present beneath the site cannot be discounted.

4.5.2 If during any future works at the site a feature is discovered which may represent an unrecorded mine entry, such as circular brickwork or anomalous areas of fill/timber, it should be reported, investigated and acted upon as necessary.

4.6 Coal Mine Gas

4.6.1 Examination of the mining and geological information indicates that it is unlikely given the depth of the coal mining, and overlying superficial glacial till deposits, that gases migrating from now abandoned coal mine workings may affect the site.

4.7 Non-Coal Mining

4.7.1 The Groundsure report highlights sporadic underground mining of restricted extent may have occurred at a vein mineral located 308m north of the site, and underground mining of limestone occurring 413m east of the site. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered.

5 ENVIRONMENTAL SETTING AND CONSULTATIONS

5.1 Statutory Sources

5.1.1 Information from various statutory sources has been summarised from the Groundsure report, attached as Appendix A. The results from a site visit have also been considered as part of this assessment.

5.2 Contaminated Land Register Entries and Notices

5.2.1 The site or an area within 500m of the site has not been identified as potentially contaminated by the Local Authority under the Part IIA of the Environmental Protection Act 1990.

5.3 Waste Management

5.3.1 From the information examined there are no recorded active or historic landfill sites within potential influencing distance of the site boundary.

5.3.2 The Groundsure report has identified several historical waste sites within 500m of the site relating to Wastepaper Works and Scrap Yards, the closest of which was located 74-89m south/southeast of the site as identified on historical maps from 1931-1948. Full details on waste management activities within influencing distance of the site are included within the Groundsure report attached as Appendix A.

5.3.3 There are several Waste exemptions within 500m of the site, the closest of which is located 9m northeast of the site at Ancoats Dental Practice for sorting and de-naturing of controlled drugs for disposal.

5.4 Radon

5.4.1 UKHSA and BGS radon maps and information provided in the Groundsure report have been consulted to assess the radon levels across the site.

5.4.2 The site is located in an area where less than 1% of homes are above the action level and therefore there is no requirement for radon protection measures.

5.5 Environmental Issues

5.5.1 There are five Licensed pollutant releases (Part A(2)/B) within 500m of the site, however these are all historic permits the closest of which is located 249m northeast at Phoenix Mill for Di-isocyanate processes.

5.5.2 There are several Licensed Discharges to controlled waters within 500m of the site. The closest license to the site is a historic license for Soho Works located 138m southwest of the site for miscellaneous discharges into the Ashton Canal, revoked in 1991.

5.5.3 There are several recorded EA/NRW Pollution Incidents within 500m of the site. The closest of which occurred 99m southeast of the site in 2002 and resulted in a Category 3 (minor) impact to land resulting from pollution of commercial waste and construction and demolition waste. One pollution incident located 372m northeast of the site resulted in a Category 2 (significant) impact to land, resulting from pollution of construction and demolition wastes and household wastes dated 2019.

5.5.4 The Groundsure report does not highlight any further environmental issues within a 500m radius of the site relating to the following:

- Control of Major Accident Hazards (COMAH), regulated explosive sites and hazardous substance storage;
- Historical licenced industrial activities (IPC) and Licensed industrial activities (Part A(1));
- Licensed pollutant release to surface waters (red list), pollutant releases to public sewers, pollution inventory substances and pollution inventory waste transfers;
- List 1 and List 2 Dangerous Substances, Radioactive Substance Authorisations; and
- Pollution Inventory Radioactive Waste.

5.6 Unexploded Ordnance

5.6.1 A Zetica Unexploded Bomb (UXB) risk map for the site has been reviewed. The area is indicated as having a bombing density of 15 to 49 bombs per 1000 acres and therefore designated as a moderate risk area. The risk map is attached at Appendix E.

5.6.2 A Pre-Desk-Study Assessment was prepared by Zetica to further assess the risk of Unexploded Ordnance at the site (Attached as Appendix F). It is considered unlikely the site was subject to bombing and a detailed risk assessment, whilst always prudent, is not considered essential in this instance.

6 PRELIMINARY CONCEPTUAL SITE MODEL

6.1 Background

6.1.1 Following a review of the information presented in this report a preliminary conceptual site model has been prepared to show the characteristics of the site and show the relationships between possible contaminants, pathways and receptors. The Preliminary Conceptual Site model is based upon a future residential development with amenity/retail units on the ground floor. It is understood the land is being considered for future residential development and therefore, a residential without home grown produce end land use has been considered as the most conservative end land use for this assessment. This should be refined as more detail becomes available on the proposed end use and on the ground conditions present.

6.1.2 Potential Sources of Contamination:

- Made Ground associated with gravel hardcore observed during the site walkover;
- Made ground associated with historical site use;
- Electrical substation on site;
- Ground gas associated with on and off site made ground;
- Ground gas associated with underground coal mining;
- Historical industrial site use; and
- Construction site currently adjacent to site.

6.1.3 Potential Pathways

- Human health - inhalation, ingestion, dermal contact;
- Controlled waters - leaching, migration, over ground and underground flow (Secondary Undifferentiated/Secondary B aquifer);
- Buildings/infrastructure - gas migration, direct contact; and
- Flora and Fauna - ingestion, root uptake.

6.1.4 Potential Receptors

- Human health – site workers during development, occupiers of the proposed development, and adjacent residential developments;
- Controlled water – groundwater, surface water (Ashton and Rochdale Canals); and
- Proposed buildings/infrastructure.

6.2 Preliminary Conceptual Site Model

6.2.1 Table 6.1 summaries the conceptual site model and potential pollution linkages.

TABLE 6.1: Conceptual Site Model & Potential Pollutant Linkages		
Source (Contaminant)	**Pathway**	**Receptor**
Made Ground associated with gravel hardcore observed on site during site walkover	1. Inhalation 2. Dermal contact 3. Ingestion 4. Surface runoff/overland flow 5. Groundwater migration 6. Direct contact (aggressive attack) 7. Gas migration	1. Future occupiers 2. Construction workers 3. Groundwater 4. Surface water 5. Building materials (substructure) 6. Water supply pipes 7. Flora and fauna
Made ground associated with historical site use.	1. Inhalation 2. Dermal contact 3. Ingestion 4. Surface runoff/overland flow 5. Groundwater migration 6. Direct contact (aggressive attack) 7. Gas migration	1. Future occupiers 2. Construction workers 3. Groundwater 4. Surface water 5. Building materials (substructure) 6. Water supply pipes 7. Flora and fauna
Electrical substation on site.	1. Inhalation 2. Dermal contact 3. Ingestion 4. Surface runoff/overland flow 5. Groundwater migration 6. Direct contact (aggressive attack) 7. Gas migration	1. Future occupiers 2. Construction workers 3. Groundwater 4. Surface water 5. Building materials (substructure) 6. Water supply pipes 7. Flora and fauna
Ground gas associated with on and off site made ground.	1. Inhalation 2. Direct contact (aggressive attack) 3. Gas migration	1. Future occupiers 2. Construction workers
Ground gas associated with underground coal mining.	1. Inhalation 2. Direct contact (aggressive attack) 3. Gas migration	1. Future occupiers 2. Construction workers
Historic industrial land use including a machine works and textile engineering works.	1. Inhalation 2. Dermal contact 3. Ingestion 4. Surface runoff/overland flow 5. Groundwater migration 6. Direct contact (aggressive attack) 7. Gas migration	1. Future occupiers 2. Construction workers 3. Groundwater 4. Surface water 5. Building materials 6. Water supply pipes 7. Flora and fauna
Construction site currently adjacent to site.	1. Inhalation 2. Dermal contact 3. Ingestion 4. Surface runoff/overland flow 5. Groundwater migration 6. Direct contact (aggressive attack) 7. Gas migration	1. Future occupiers 2. Construction workers 3. Groundwater 4. Surface water 5. Building materials (substructure) 6. Water supply pipes 7. Flora and fauna

7 PRELIMINARY ENVIRONMENTAL RISK ASSESSMENT

7.1 Introduction

7.1.1 In line with EA Land Contamination Risk Management (LCRM) guidance the information gathered throughout this report can be used to carry out a Preliminary Risk Assessment. The Risk Assessment is provided for each identified source, pathway, receptor linkage in Table 7.5.

7.1.2 The CIRIA document Contaminated Land Risk Assessment – a guide to good practice C552, 2001 defines the Consequence of Risk, Probability of Risk Being Realised and Risk Classification Definition. These definitions are provided in Tables 7.1, 7.2 and 7.3, and the Risk Classification Matrix (Table 7.4) is used to provide a qualitative Risk Assessment for each identified source, pathway, receptor linkage.

Table 7.1 – Consequence of Risk Being Realised (based on CIRIA C552 2001)

Classification	Category	Definition	Examples (Not necessarily specific to this site)
Severe short-term (acute) risks only	Humans	Short-term (acute) risk to human health likely to result in "significant harm" as defined by the Environment Protection Act 1990, Part 2A.	High concentrations of cyanide on the surface of an informal recreation area.
	Controlled Waters	Short-term risk of pollution (note: Water Resources Act contains no scope for considering significance of pollution) of sensitive water resource.	Major spillage of contaminants from site into controlled water.
	Property	Catastrophic damage to buildings/property.	Explosion causing building collapse (can also equate to a short-term human health risk if buildings are occupied.
	Ecological System	A short-term risk to a particular ecosystem, or organism forming part of such ecosystem.	
Medium chronic (long term) risks; "significant harm"	Humans	Chronic damage to Human Health ("significant harm" as defined in Defra 2006).	Concentrations of a contaminant from site exceed the generic, or site-specific assessment criteria
	Controlled Waters	Pollution of sensitive water resources (note: Water Resources Act contains no scope for considering significance of pollution).	Leaching of contaminants from a site into a major or minor aquifer.
	Ecological System	A significant change in a particular ecosystem	Death of a species within a designated nature reserve.
Mild chronic (long term) risks; less sensitive receptors	Controlled Waters	Pollution of non-sensitive water resources.	Pollution of non-classified groundwater
	Property	Significant damage to buildings, structures and services ("significant harm" as defined in Circular on Contaminated Land, Defra, 2006). Damage to sensitive buildings/structures/services	Damage to building rendering it unsafe to occupy (e.g., foundation damage resulting in instability)
	Ecological System	Significant damage to crops. Damage to the environment.	

Table 7.1 – Consequence of Risk Being Realised (based on CIRIA C552 2001)			
Classification	**Category**	**Definition**	**Examples (Not necessarily specific to this site)**
Minor chronic (long term) risks; mild	Financial / project	Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve.	
	Humans	Non-permanent health effects to human health (easily prevented by means such as personal protective clothing, etc).	The presence of contaminants at such concentrations that protective equipment is required during site works.
	Property	Easily repairable effects of damage to buildings, structures and services	The loss of plants in a landscaping scheme. Discolouration of concrete.

TABLE 7.2: Probability of Risk Being Realised (C552 CIRIA, 2001)	
Classification	**Definition**
High Likelihood	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution.
Likely	There is a pollution 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	There is a pollution 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	There is a pollution linkage, but circumstances are such that it is improbable that an event would occur even in the very long term.

TABLE 7.3: Risk Classification Definitions (C552 CIRIA, 2001)	
Very High	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	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	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that 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	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	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.

TABLE 7.4: Risk Classification Matrix (C552 CIRIA, 2001)					
		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very High	High	Moderate	Moderate/Low
	Likely	High	Moderate	Moderate/Low	Low
	Low Likelihood	Moderate	Moderate/Low	Low	Very Low
	Unlikely	Moderate/Low	Low	Very Low	Very Low

Table 7.5: Preliminary Qualitative Risk Assessment

Source / Contaminant	Pathway(s)	Receptor	Consequence of Risk Being Realised	Probability of Risk Being Realised	Risk Classification	Necessary Actions / Commentary
Made Ground associated with associated with historical site use and gravel hardcore observed on site during site walkover.	Inhalation, Dermal Contact, Ingestion, Migration via drains and services	Future occupiers, construction workers.	Medium	Likely	Moderate	Made ground and Infilled ground were observed across the site in the form of gravel hardcore. Given the site history and demolition of previous buildings, made ground is conjectured likely to be present beneath the site. The nature of these deposits is currently unknown and therefore, there is potential for it to present a risk to human health and the surrounding environment. It is recommended that an intrusive investigation is undertaken in order to determine the nature and composition of the near surface deposits.
	Surface water runoff, migration via drains and groundwater migration	Canals, Secondary Undifferentiated superficial Aquifer and Secondary B and adjacent Principal bedrock aquifers beneath the Site	Mild	Likely	Moderate/Low	
	Direct contact (aggressive attack)	Future buildings and water pipes	Mild	Likely	Moderate/Low	
Electrical substation on site.	Inhalation, Dermal Contact, Ingestion, Migration via drains and services	Future occupiers, construction workers.	Medium	Low likelihood	Moderate/Low	An electrical substation located on site may provide a source of contamination. It is recommended that an intrusive investigation is undertaken in order to determine the impact on the near surface deposits.
	Surface water runoff, migration via drains and groundwater migration	Canals, Secondary Undifferentiated superficial Aquifer and Secondary B and adjacent Principal bedrock aquifers beneath the Site	Medium	Low likelihood	Moderate/Low	
	Direct contact (aggressive attack)	Future buildings and water pipes	Medium	Low likelihood	Moderate/Low	

Table 7.5: Preliminary Qualitative Risk Assessment						
Source / Contaminant	**Pathway(s)**	**Receptor**	**Consequence of Risk Being Realised**	**Probability of Risk Being Realised**	**Risk Classification**	**Necessary Actions / Commentary**
Ground gas associated with on and off site made ground.	Inhalation, Ingestion, Migration via underground drains and services	Future occupiers, construction workers.	Severe	Low likelihood	Moderate	Made ground observed during the site walkover and conjectured to be present on site from historical land use may provide a source of ground gas. It is recommended that a ground gas assessment following a period of monitoring is carried out to support any future design.
Ground gas associated with underground coal mining	Inhalation, Dermal Contact, Ingestion, Migration via drains and services	Future occupiers, construction workers.	Severe	Unlikely	Moderate/Low	Abandoned coal workings recorded by the Coal Authority to be resent beneath the site may provide a source of ground gas. The risk of mine gas at the site is considered to be low given the depth of the recorded workings and the thickness of superficial glacial till at the site. It is recommended that a ground gas assessment following a period of monitoring is carried out to support any future design.
Historic industrial land use including a machine works and textile engineering works.	Inhalation, Dermal Contact, Ingestion, Migration via drains and services	Future occupiers, construction workers.	Medium	Likely	Moderate	The historic industrial site use may provide a source of contamination. It is recommended that an intrusive investigation is undertaken in order to determine the impact on the near surface deposits.

Table 7.5: Preliminary Qualitative Risk Assessment

Source / Contaminant	Pathway(s)	Receptor	Consequence of Risk Being Realised	Probability of Risk Being Realised	Risk Classification	Necessary Actions / Commentary
	Surface water runoff, migration via drains and groundwater migration	Canals, Secondary Undifferentiated superficial Aquifer and Secondary B and adjacent Principal bedrock aquifers beneath the Site	Medium	Likely	Moderate	
	Direct contact (aggressive attack)	Future buildings and water pipes	Medium	Likely	Moderate	
Construction site currently adjacent to site.	Inhalation, Dermal Contact, Ingestion, Migration via drains and services	Future occupiers, construction workers.	Mild	Likely	Moderate/Low	Construction site currently adjacent to development (at the time of writing) may provide a source of contamination to the site. It is recommended that an intrusive investigation is undertaken in order to determine the impact on the near surface deposits.
	Surface water runoff, migration via drains and groundwater migration	Canals, Secondary Undifferentiated superficial Aquifer and Secondary B and adjacent Principal bedrock aquifers beneath the Site	Mild	Likely	Moderate/Low	
	Direct contact (aggressive attack)	Future buildings and water pipes	Mild	Low Likelihood	Low	

8 PRELIMINARY GEOTECHNICAL RISK ASSESSMENT

8.1.1 Based on the available information summarised in this report the site is considered to present an overall Low to Moderate geotechnical risk.

8.1.2 Table 8.1 presents the Preliminary Geotechnical Risk Assessment for the site, noting potential constraints for the proposed development. This assessment is site specific and based on the information obtained from this desk study.

Table 8.1 - Tabulated Preliminary Geotechnical Risk Assessment

Risk Item	Description	Implication/Impact	Considered Risk	Design Stage Recommendation
In-ground obstructions	Obstructions may be present from historical land-use	Obstructions can impact excavations and installations during below ground works	Moderate	A ground investigation should be undertaken including the recording of any obstruction locations and depths.
Unknown ground conditions	Limited geotechnical ground investigation records are available.	The ground could be unsuitable for development. Mitigative actions to improve the ground could be significant.	Moderate	A ground investigation should be undertaken including an assessment of the geotechnical parameters for the site.
Made ground	Made ground is observed on site in the form of gravel hardcore and is also conjectured to be present from historical industrial land use.	The nature and extent of these made ground deposits is unknown and the depth to bedrock on site is also unknown.	Moderate	A ground investigation should be undertaken to investigate the made ground on site. Samples should be taken and tested during any ground investigation works being undertaken at the site. Further assessment should be undertaken as the design developed
Underground Coal Mining	The Coal Authority has identified historic underground deep coal mining beneath the site (345-1093m bgl).	Given the depth and age of the workings, any ground movement from deep underground coal mines is thought to have now ceased.	Low	N/A

8.1.3 Made ground can present variable strengths under loading and therefore it is unlikely the made ground would be suitable for any structural support associated with the proposed development. Site investigations will be required to confirm a suitable founding strata, but it is likely that foundations will need to be extended beneath made ground deposits and founded in more competent strata.

8.1.4 Given the anticipated ground conditions, the potential for excessive total and differential settlement of the proposed development (roadways, drainage, external areas) should be considered at the detailed design stage. The structural loads associated with proposed structures may need to be founded in competent strata as it is unlikely that made ground will be a suitable founding strata.

8.1.5 A detailed ground investigation is required to determine the ground conditions on site. Further to this, some remedial measures may be necessary depending on the nature and extent of made ground beneath the site.

9 CONCLUSIONS AND RECOMMENDATIONS

9.1 Conclusions

9.1.1 Based on available information summarised in this report, the ground conditions beneath the site are considered to present an overall moderate/low risk to the future development. There are potential environmental and geotechnical constraints that need to be fully investigated and assessed prior to the future development.

9.2 Recommendations

9.2.1 It is recommended that a detailed investigation of the ground conditions will be required prior to the intended development of the site. Further to this, some remedial measures may be necessary depending on the nature and extent of the made ground and the geotechnical nature of the subsurface materials.

9.2.2 It is recommended that a Phase 2 Ground Investigation is carried out to determine the geological conditions on site, geotechnical parameters and the potential for contamination. Table 9.1 outlines the preliminary objectives that the ground investigation would be anticipated to target. The list presented in Table 9.1 is not exhaustive and general investigation, sampling and testing across the site will be required to better understand the overall risk posed by the site.

Table 9.1 Preliminary Ground Investigation Objectives

Geo-environmental Objectives	Geotechnical Objectives
• To reduce uncertainty in knowledge of the site, enabling the initial conceptual model to be refined and a reassessment of risk; • Target sampling and chemical testing across the site; • Provide sufficient information to target further ground investigation or design a suitable remediation approach if required; and • Undertake groundwater and gas monitoring.	• To reduce uncertainty in knowledge of the site, enabling review of the Geotechnical Risk Assessment; • To identify the nature and parameters of the made ground, ground strata, and groundwater; • Establish parameters prior to design of foundations, temporary and permanent works; • Provide sufficient information to target further ground investigation or design a suitable geotechnical design report if required; and • Locate, map and investigate and identify potential construction difficulties.

9.2.3 Based on the available information, it is considered likely that an investigation of contamination issues at the site will be required. This is likely to include an intrusive investigation comprising of the following:

- A combination of trial pitting and cable percussive boreholes, and insitu and laboratory testing of made ground, groundwater and ground gas to target potential sources of contamination within and outside of the current site;
- A quantitative risk assessment to determine if significant contamination is present; and
- If significant contamination is identified, calculation of site-specific remedial targets, liaison with the regulators and remediation.

9.2.4 A geotechnical assessment should be undertaken to:

- Determine the type, strength and bearing characteristics of the made ground and underlying geology;
- Provide recommendations for a suitable and economic foundation solution for the development; and
- Provide recommendations with regard to any other geotechnical aspects pertaining to the development.

9.2.5 A programme of gas and groundwater monitoring is recommended following an intrusive investigation to assess the risk from ground and landfill gas at the site.

9.2.6 The conclusions and recommendations presented are based on the information currently available on the proposed development of a residential-led development to provide 40 no. apartments (Use Class C3) and ground floor commercial space (Use Class E), together with landscaping, parking, cycle parking, supporting infrastructure and associated works. If this is changes at any point in the future, the report and its conclusions should be reviewed.

9.3 Additional Comments

There may be matters relating to the site that have not been identified by the desk study researches carried out to date. Such matters might affect future development of the site and might either be identified by the further investigations recommended or come to light through other sources. Regardless of this, if any such matters do come to light, then they will need to be investigated and dealt with by seeking appropriate professional advice.

APPENDICES

Appendix A

Groundsure Report



Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: 1056 Scale Town Plan
Map date: **1851**
Scale: 1:1,056
Printed at: 1:1,056

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

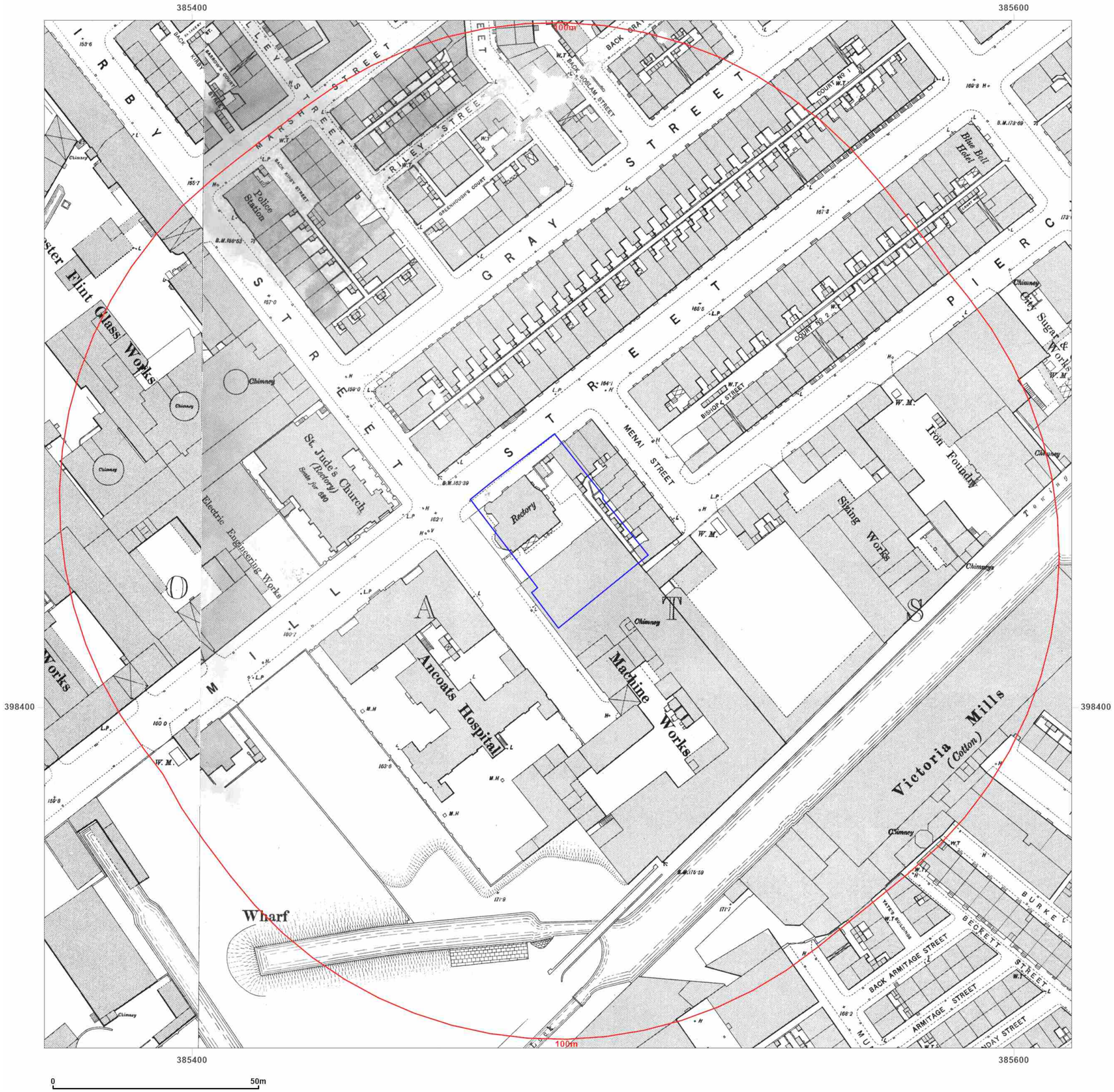
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Production date: 26 May 2023

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



Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series Town Plan

Map date: **1891**

Scale: 1:500

Printed at: 1:1,000

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

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

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Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series

Map date: **1889-1893**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1893
Revised N/A
Edition 1893
Copyright N/A
Levelled N/A

Surveyed 1889
Revised N/A
Edition 1889
Copyright N/A
Levelled N/A

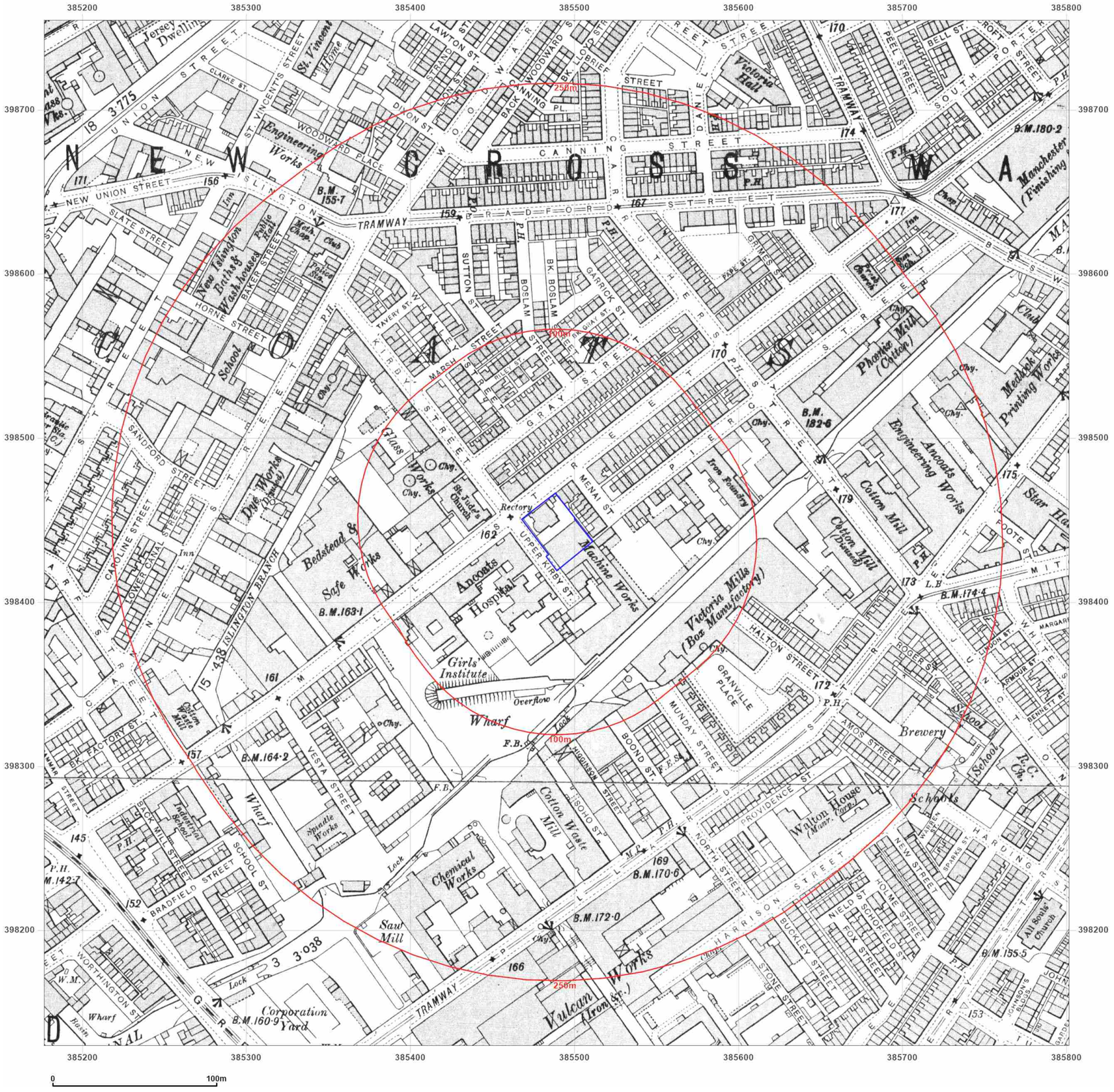
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Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series

Map date: **1908**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1891
Revised 1905
Edition 1908
Copyright N/A
Levelled N/A

Surveyed 1891
Revised 1905
Edition 1908
Copyright N/A
Levelled N/A

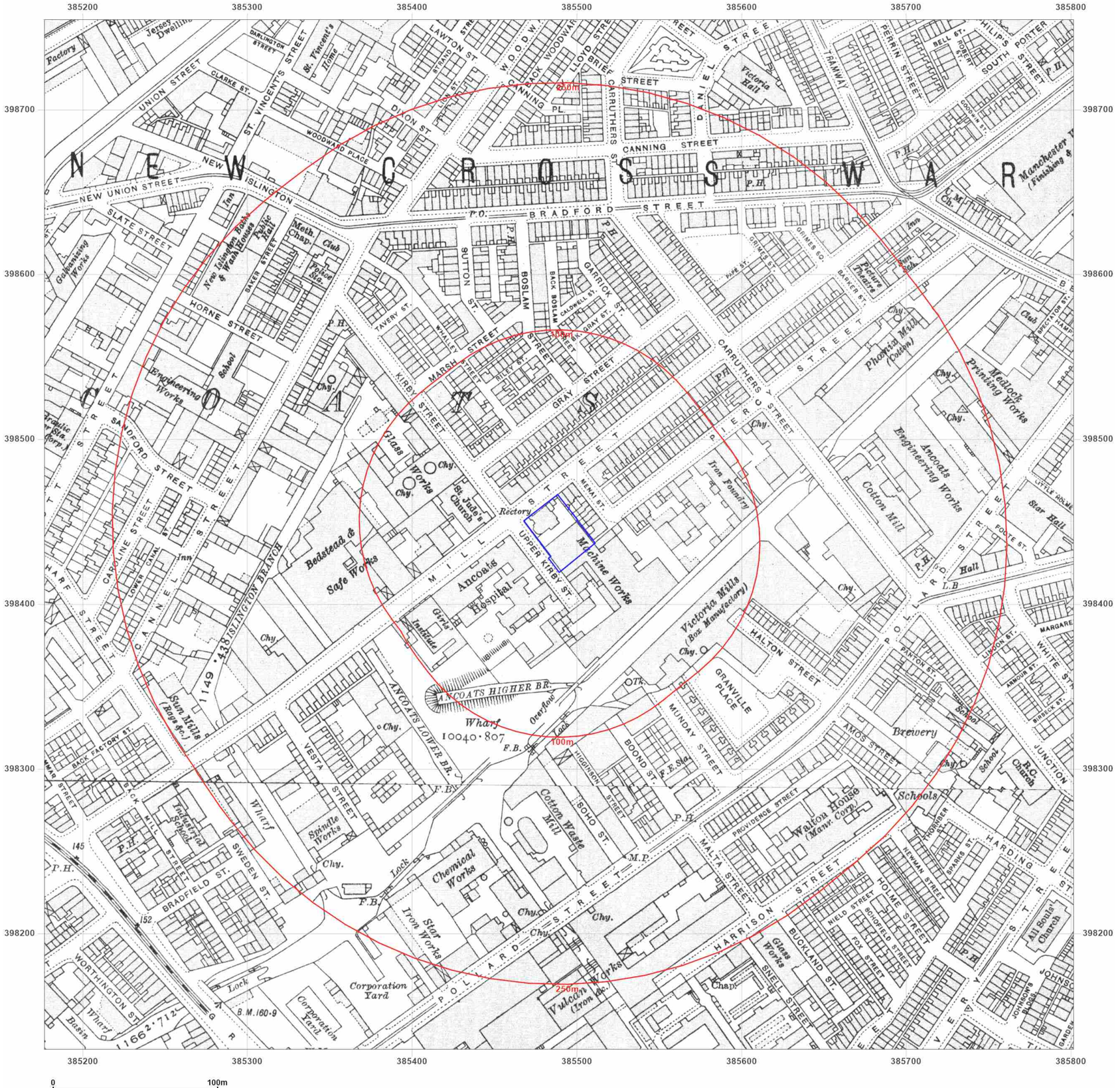
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Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series

Map date: **1922**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1922
Revised 1916
Edition 1922
Copyright N/A
Levelled 1915

Surveyed 1922
Revised 1916
Edition 1922
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Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series

Map date: **1931-1932**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1873
Revised 1931
Edition N/A
Copyright N/A
Levelled 1927

Surveyed 1873
Revised 1932
Edition N/A
Copyright N/A
Levelled 1927

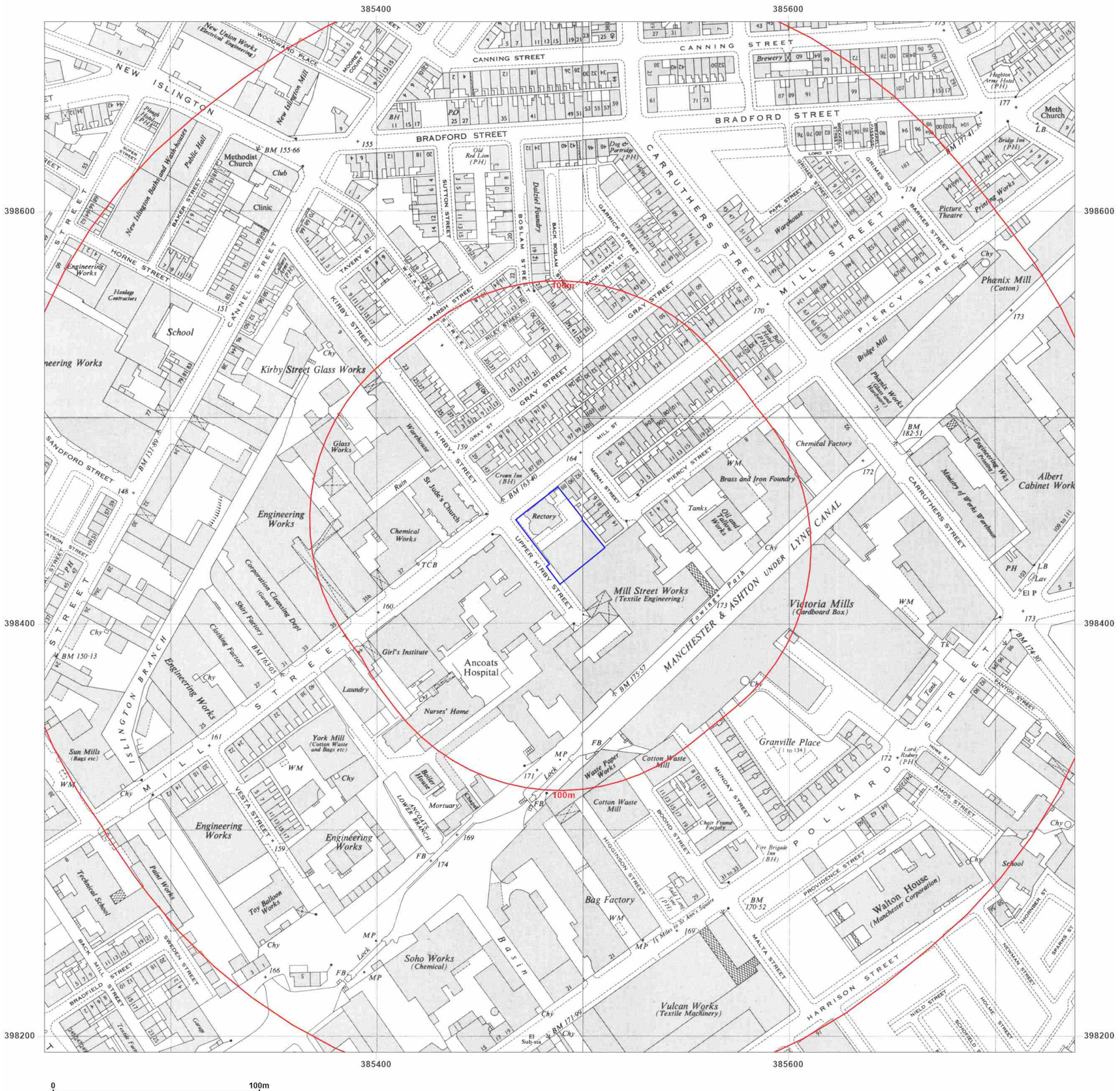
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Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1948**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1948
Revised 1948
Edition N/A
Copyright 1948
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Surveyed 1948
Revised 1948
Edition N/A
Copyright 1948
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Revised 1948
Edition N/A
Copyright 1948
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Copyright 1948
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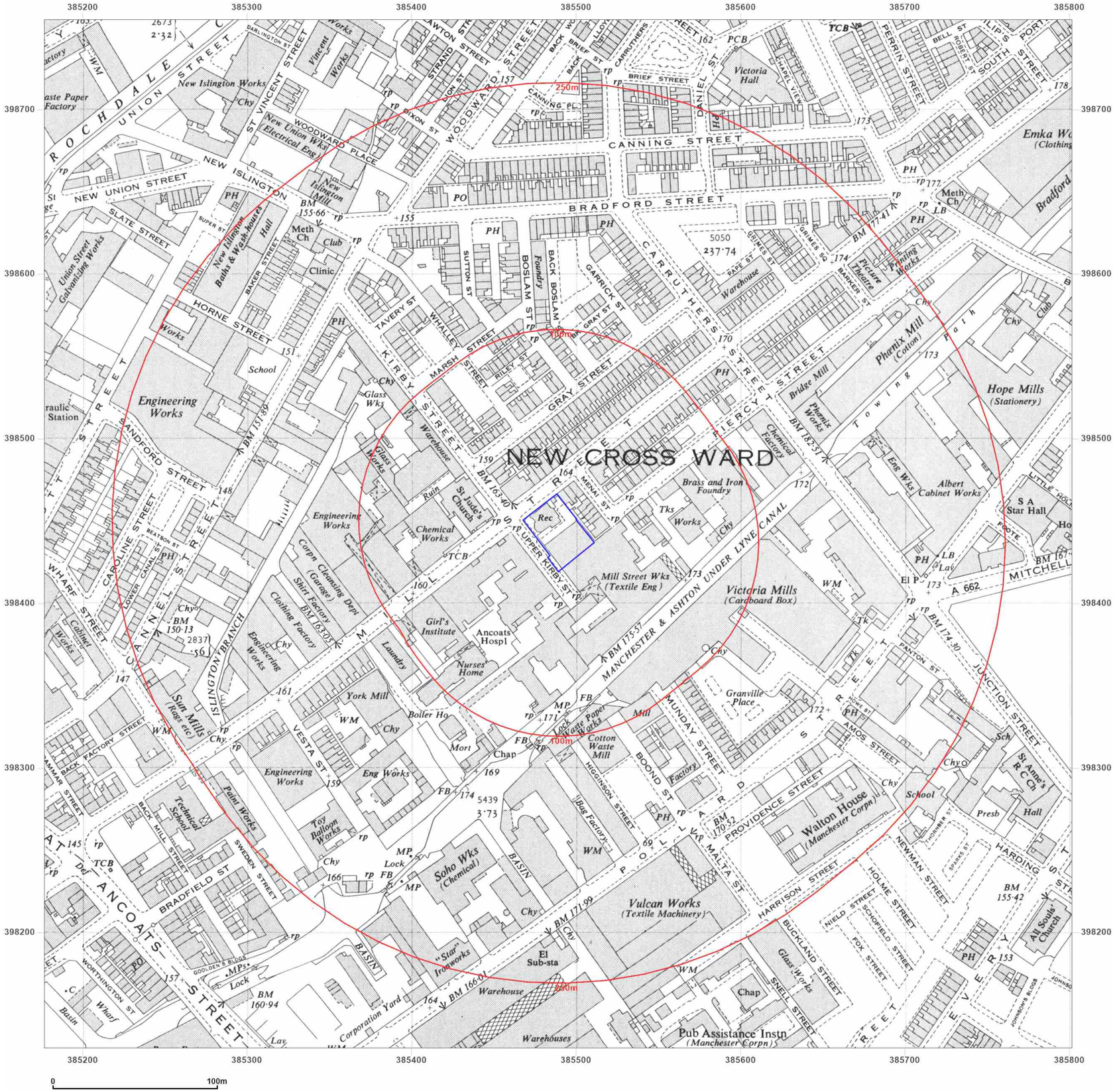
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Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1949**

Scale: 1:2,500

Printed at: 1:2,500

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Revised 1948
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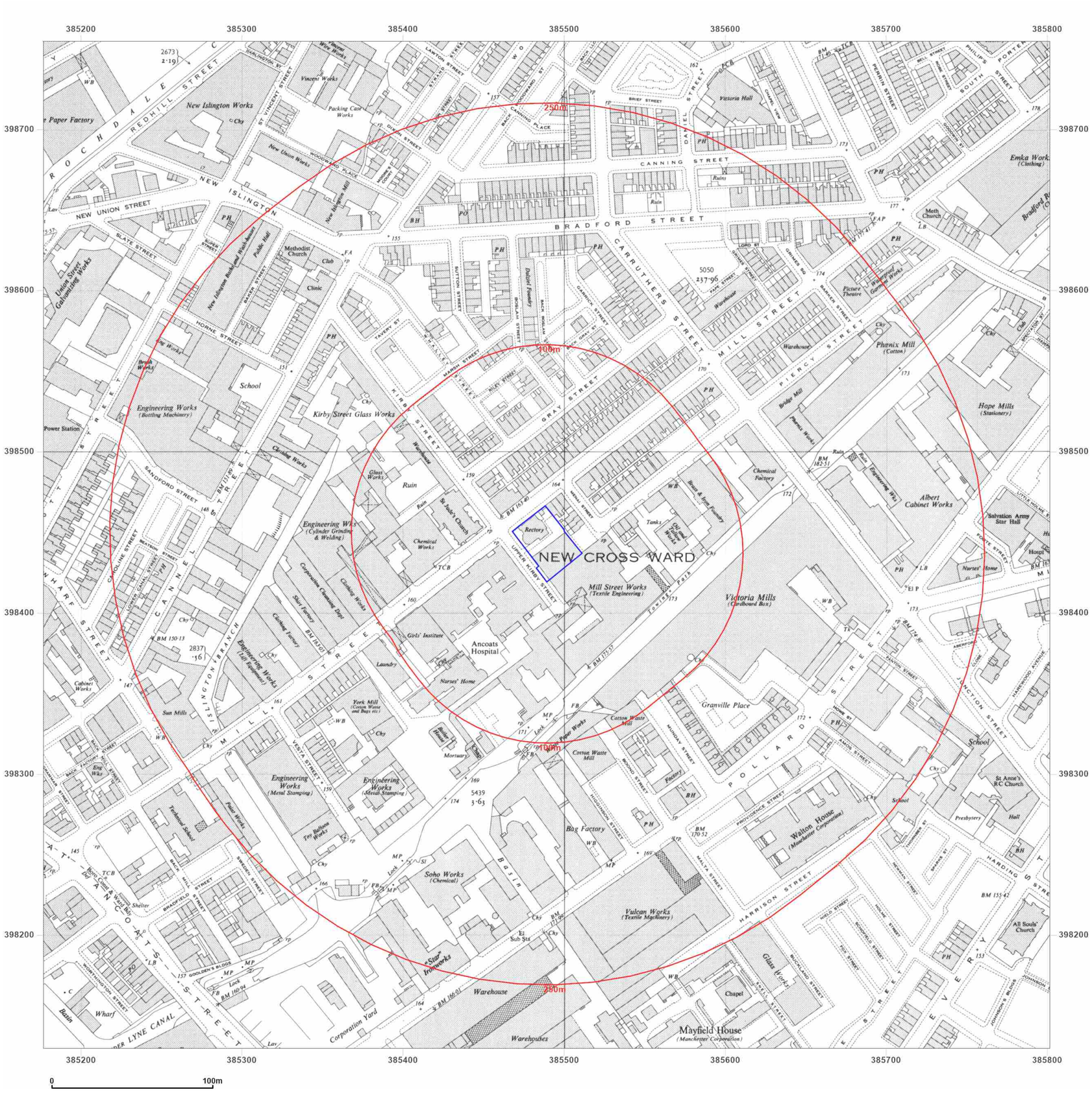
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Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1952**

Scale: 1:2,500

Printed at: 1:2,500

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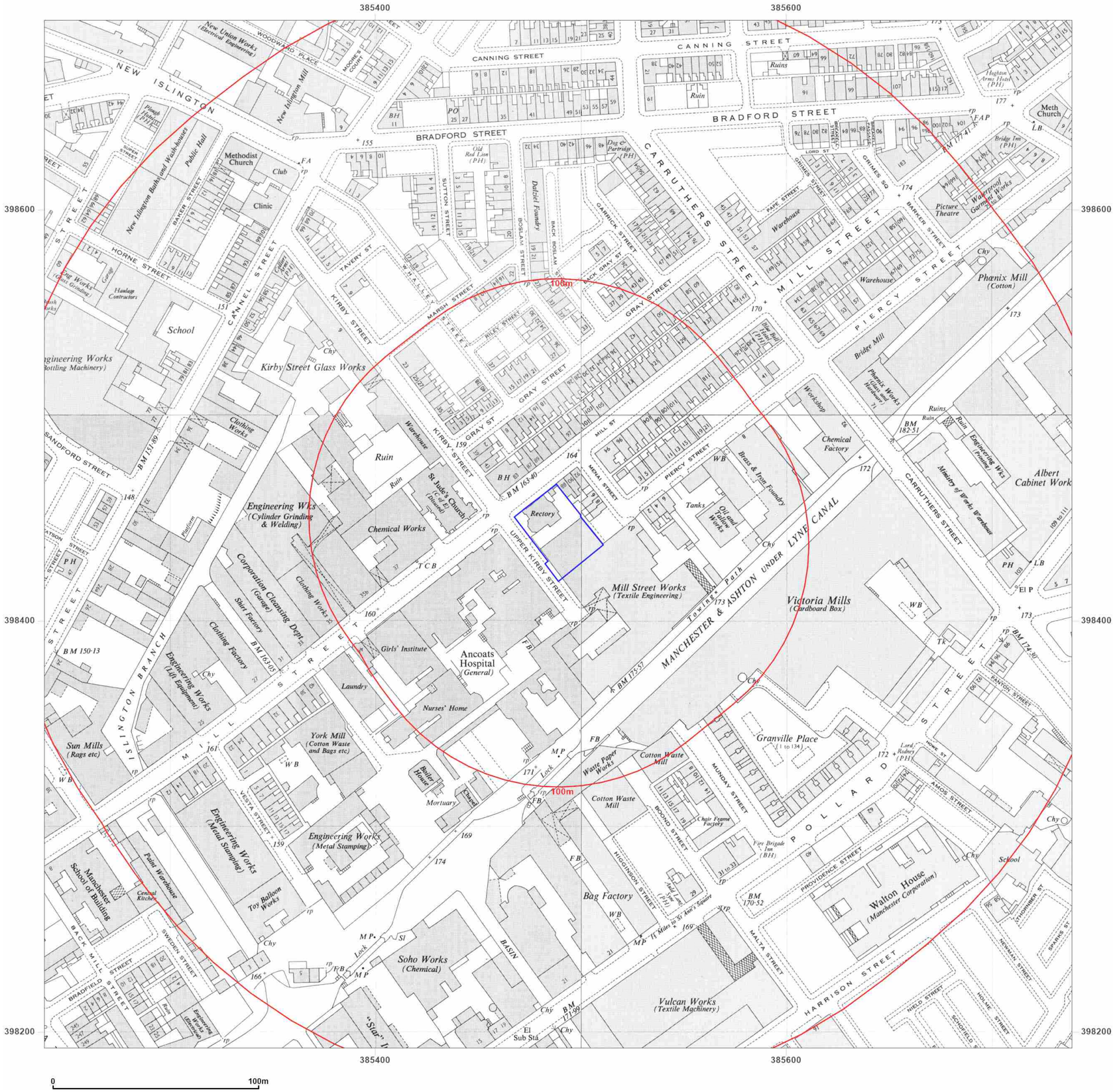
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Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1951-1955**

Scale: 1:1,250

Printed at: 1:2,000

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Revised 1951
Edition N/A
Copyright 1951
Levelled 1929

Surveyed 1948
Revised 1955
Edition N/A
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Revised 1951
Edition N/A
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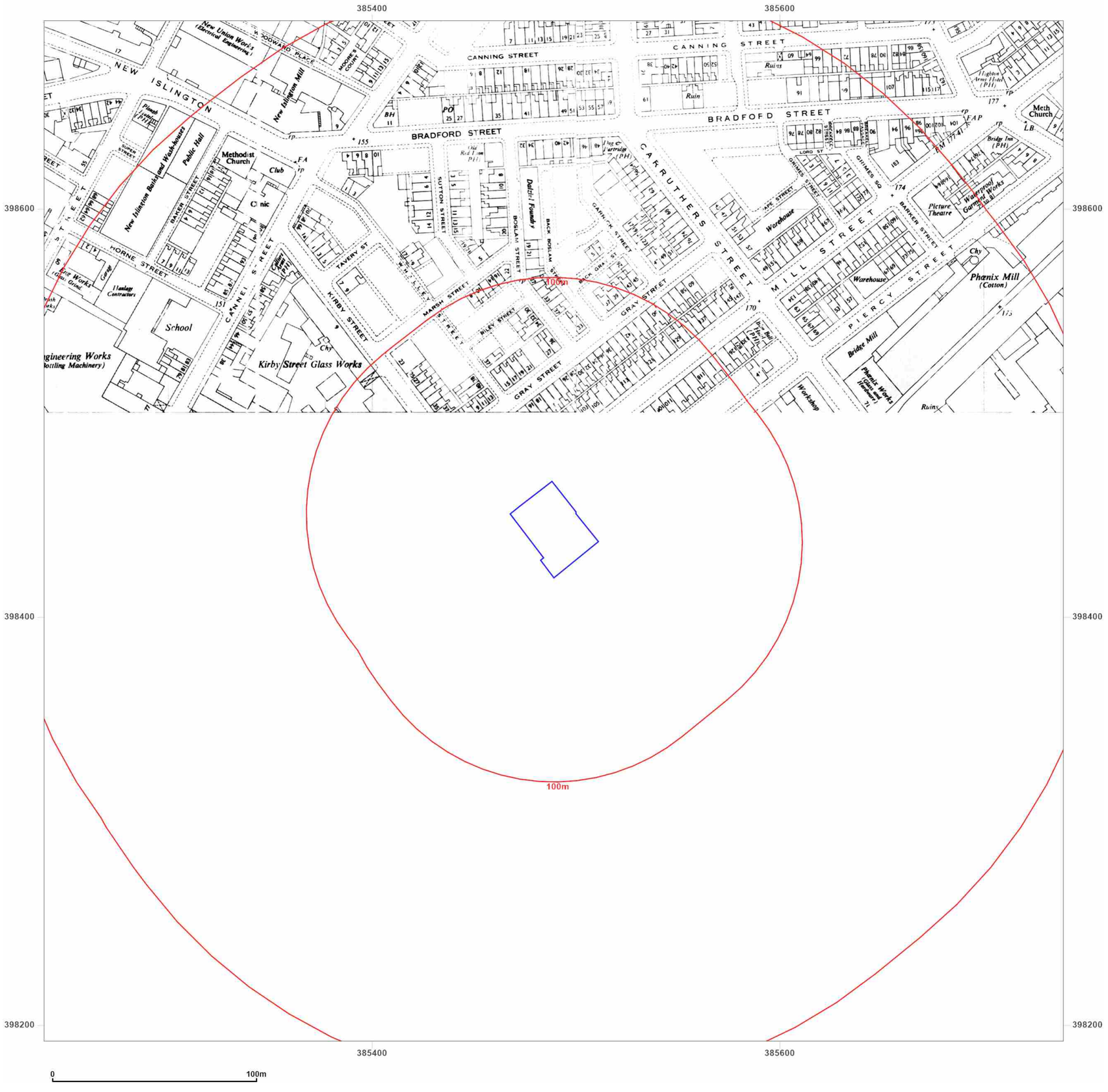
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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1952-1955**

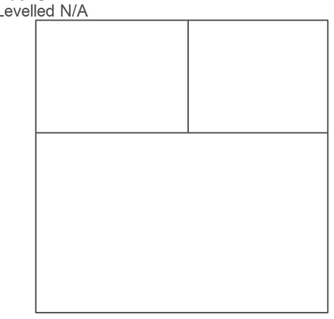
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Edition N/A
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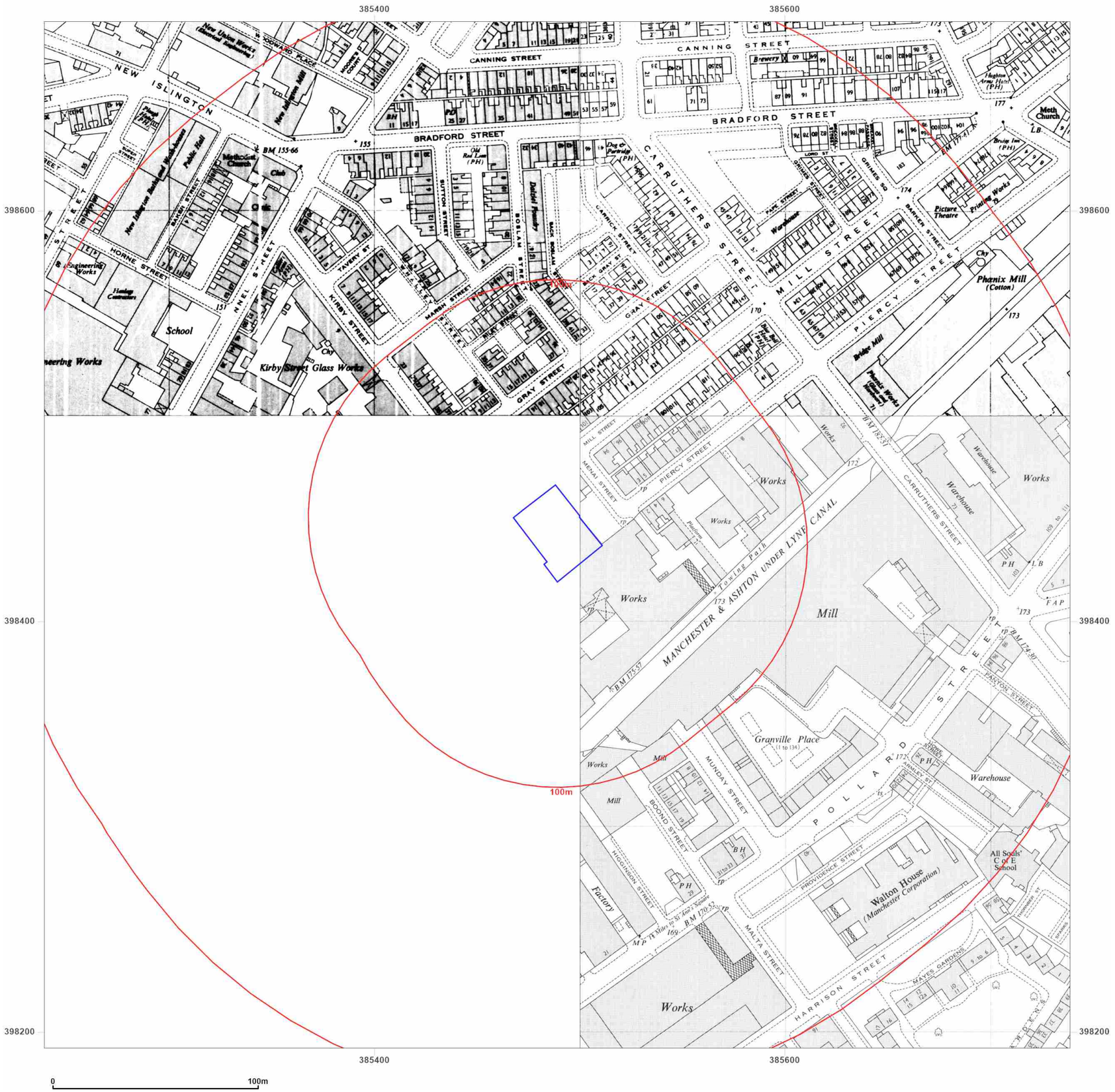
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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1952-1957**

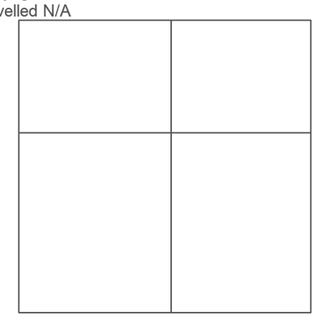
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Edition N/A
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Revised N/A
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1948
Revised 1957
Edition N/A
Copyright 1957
Levelled 1929

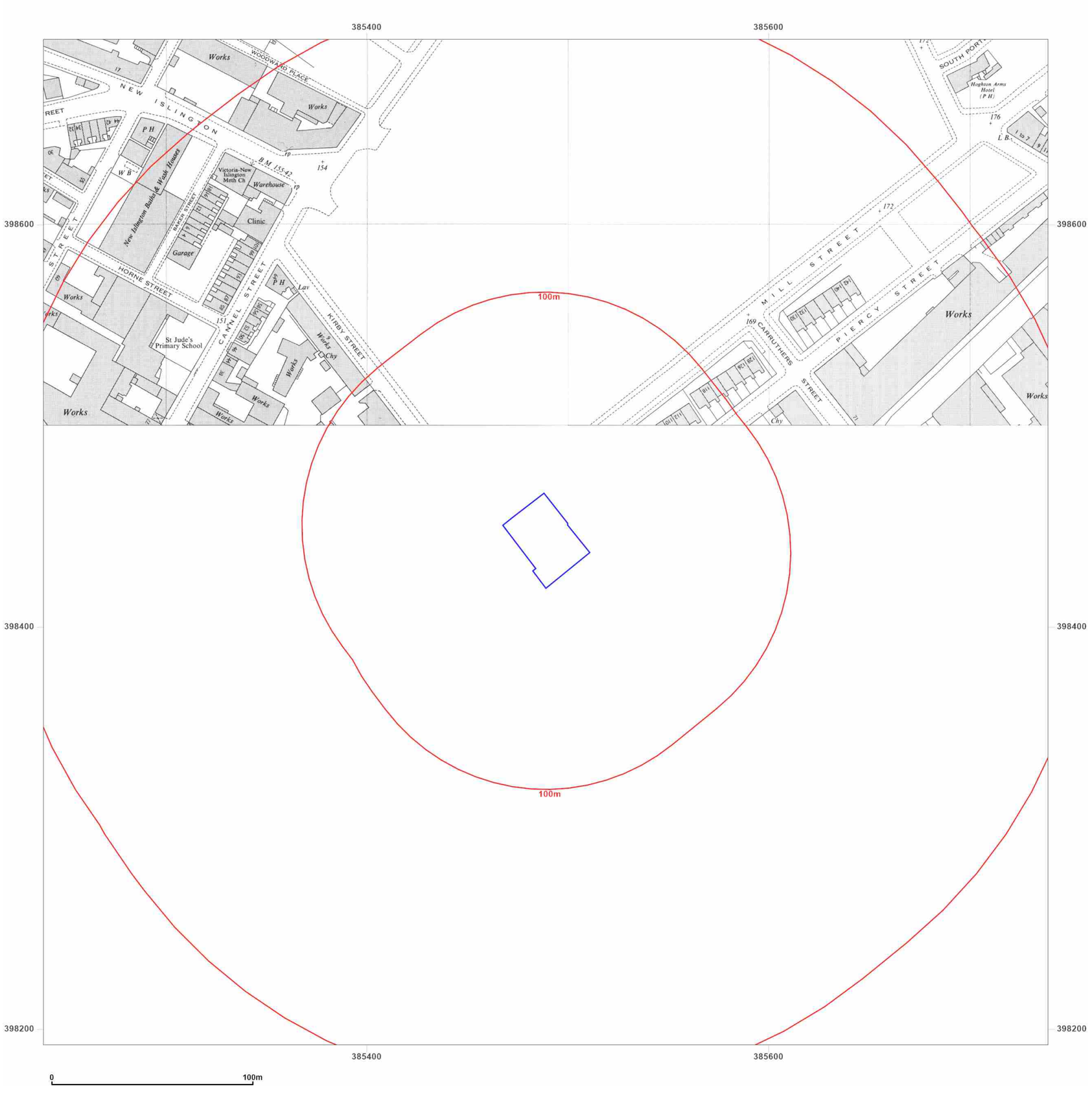
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Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1963**

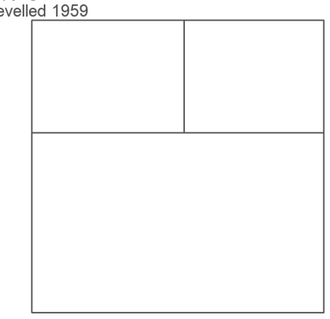
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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1965**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed N/A
Revised 1964
Edition N/A
Copyright 1965
Levelled 1959

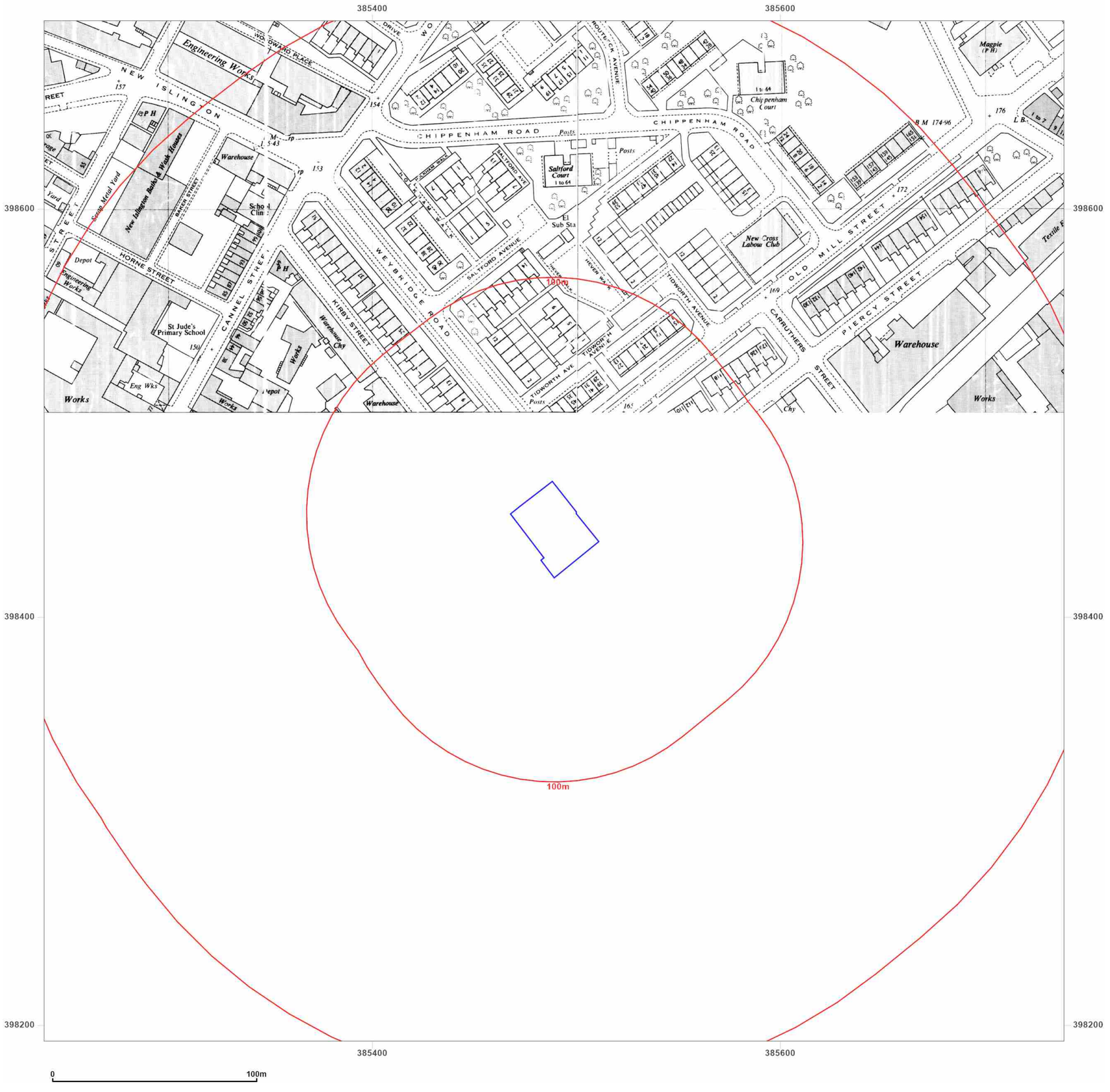
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Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1968**

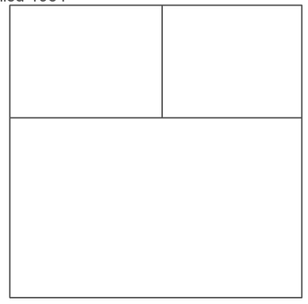
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Revised 1967
Edition N/A
Copyright 1968
Levelled 1964

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



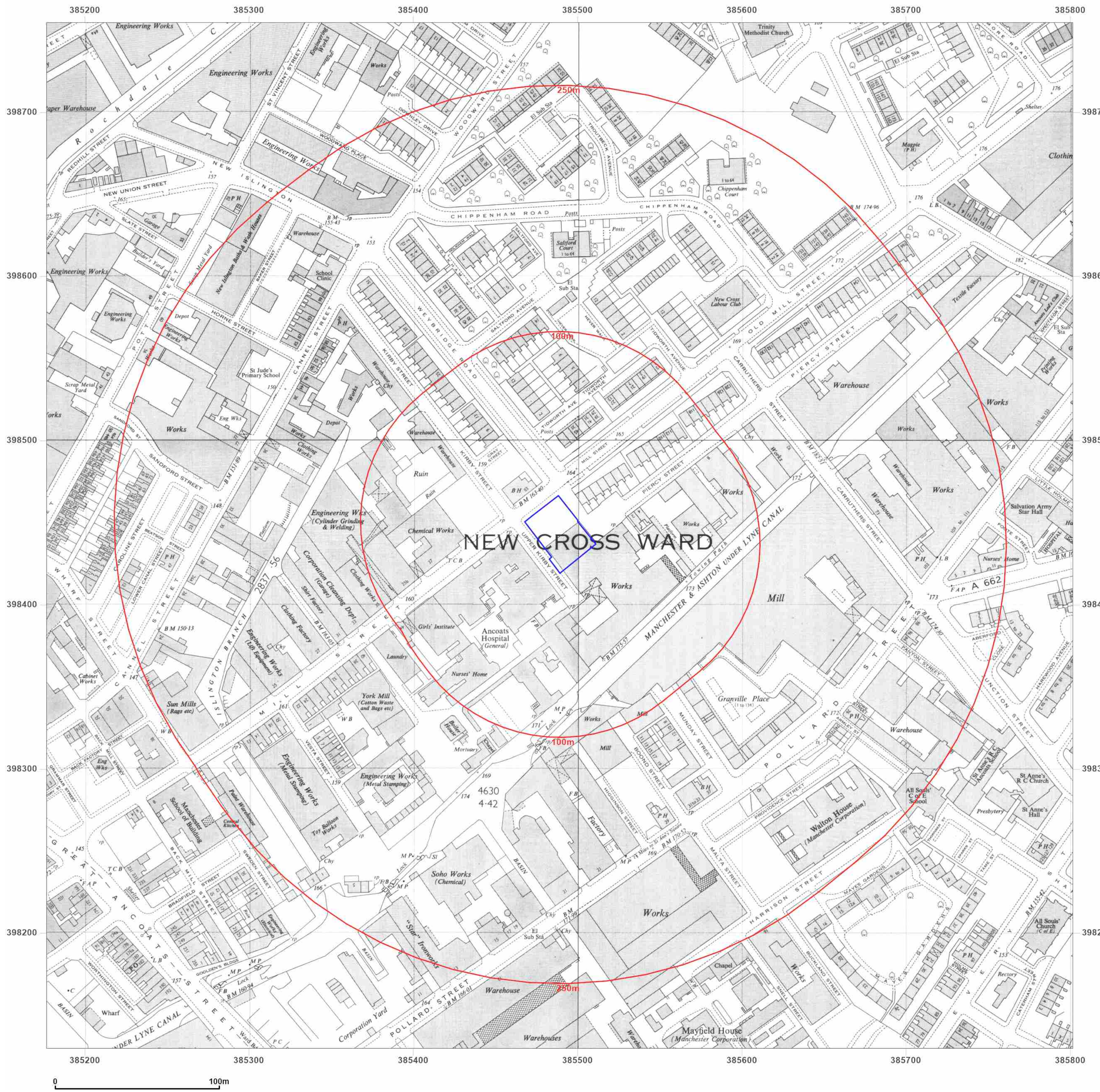
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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1969**

Scale: 1:2,500

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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

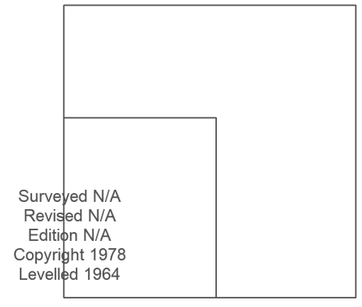
Map Name: National Grid

Map date: **1978**

Scale: 1:1,250

Printed at: 1:2,000

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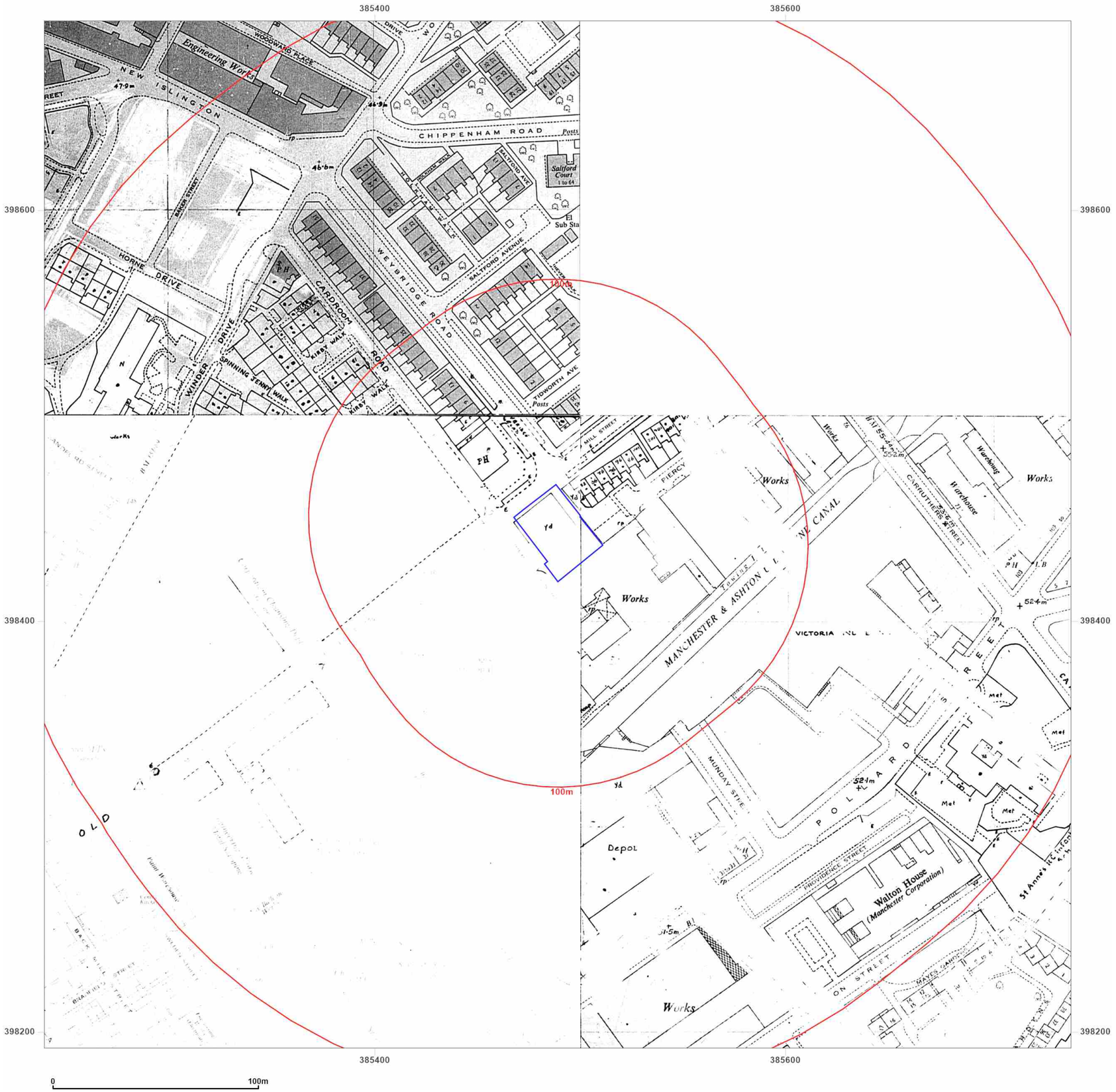
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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1974-1979**

Scale: 1:1,250

Printed at: 1:2,000

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Edition N/A
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Surveyed N/A Revised N/A Edition N/A Copyright 1974 Levelled N/A	Surveyed 1964 Revised 1979 Edition N/A Copyright 1979 Levelled 1964

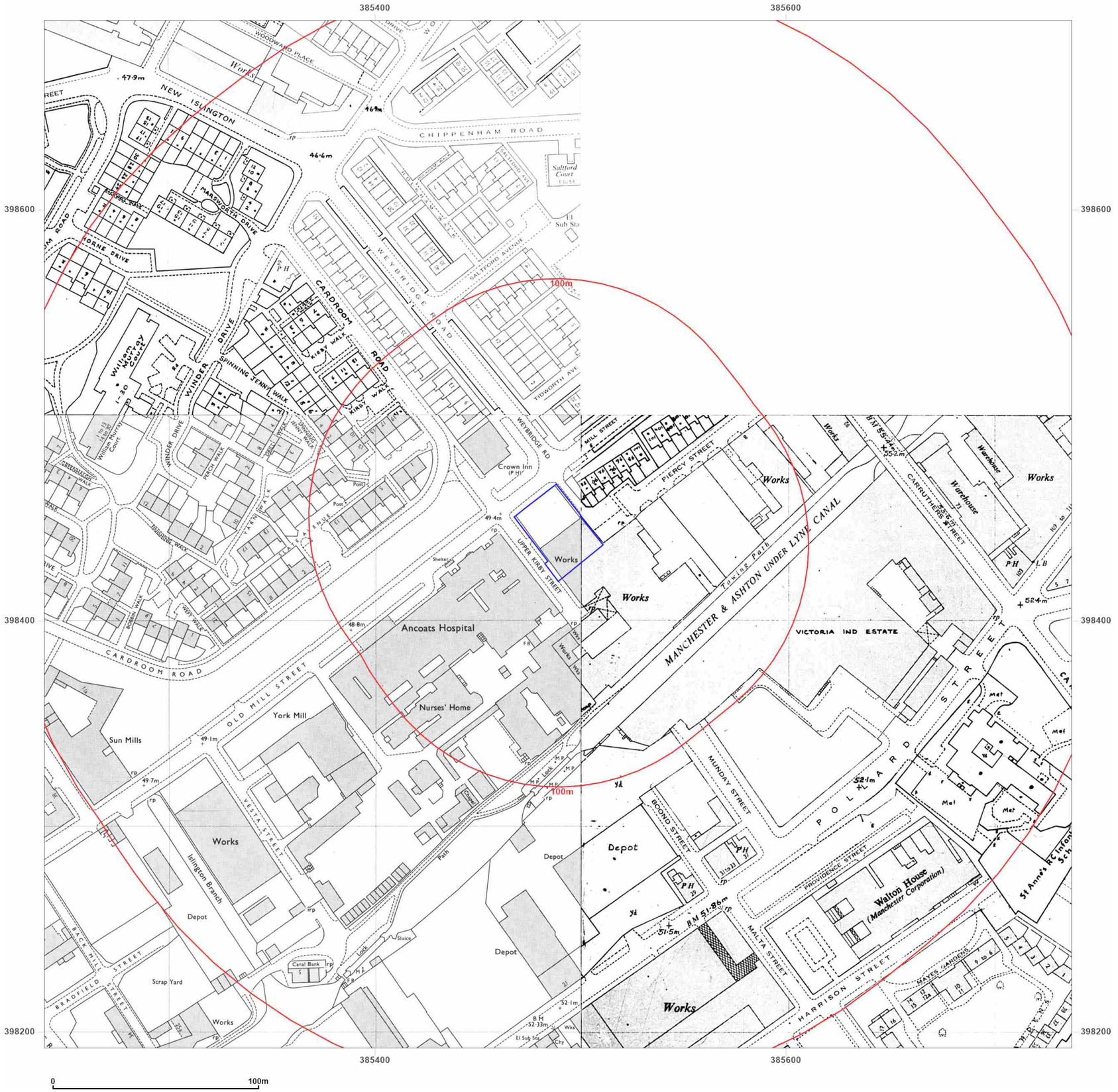
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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1979-1983**

Scale: 1:1,250

Printed at: 1:2,000

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Revised 1980
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Surveyed 1964
Revised 1979
Edition N/A
Copyright 1979
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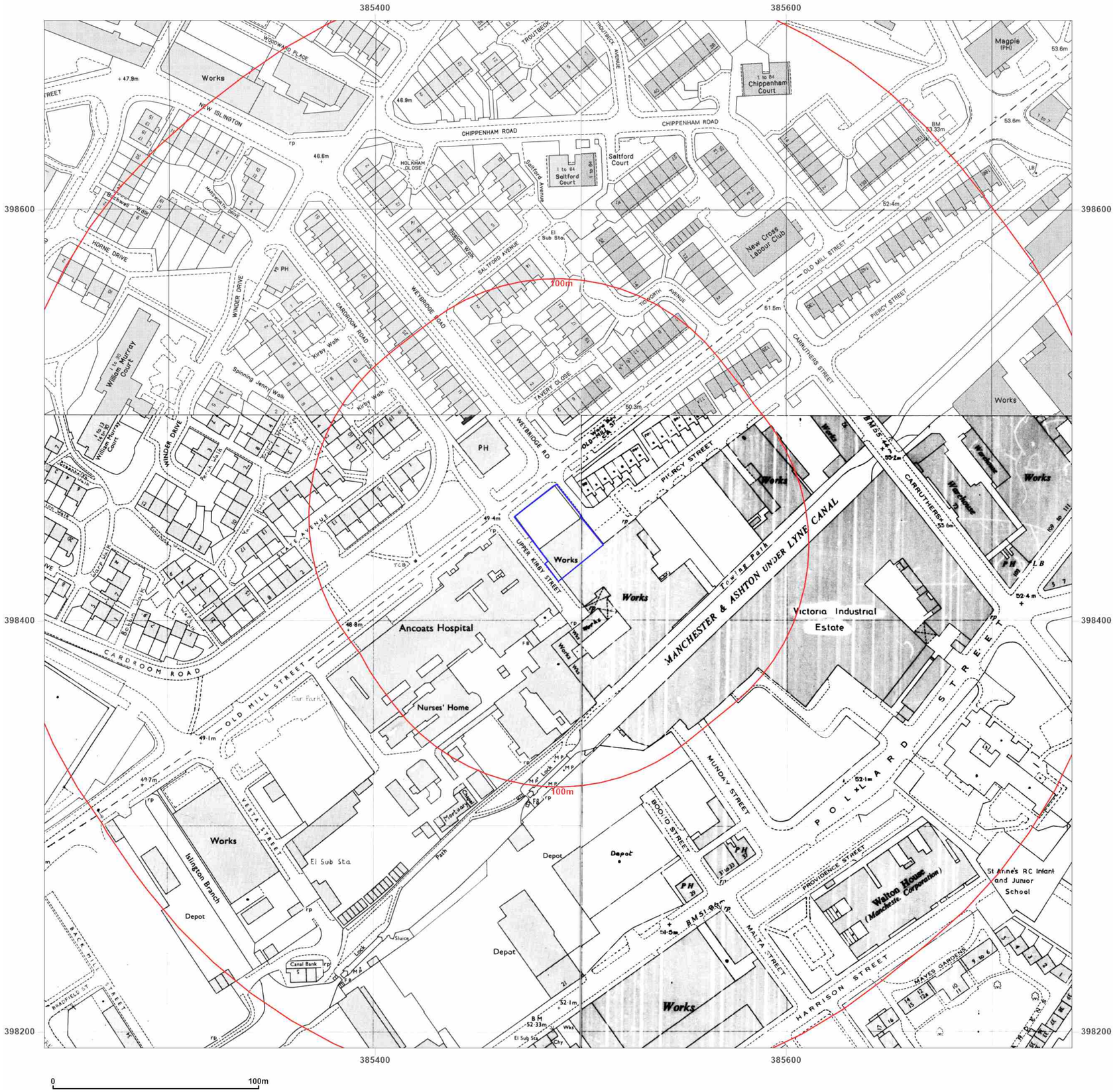
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Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1985-1989**

Scale: 1:1,250

Printed at: 1:2,000

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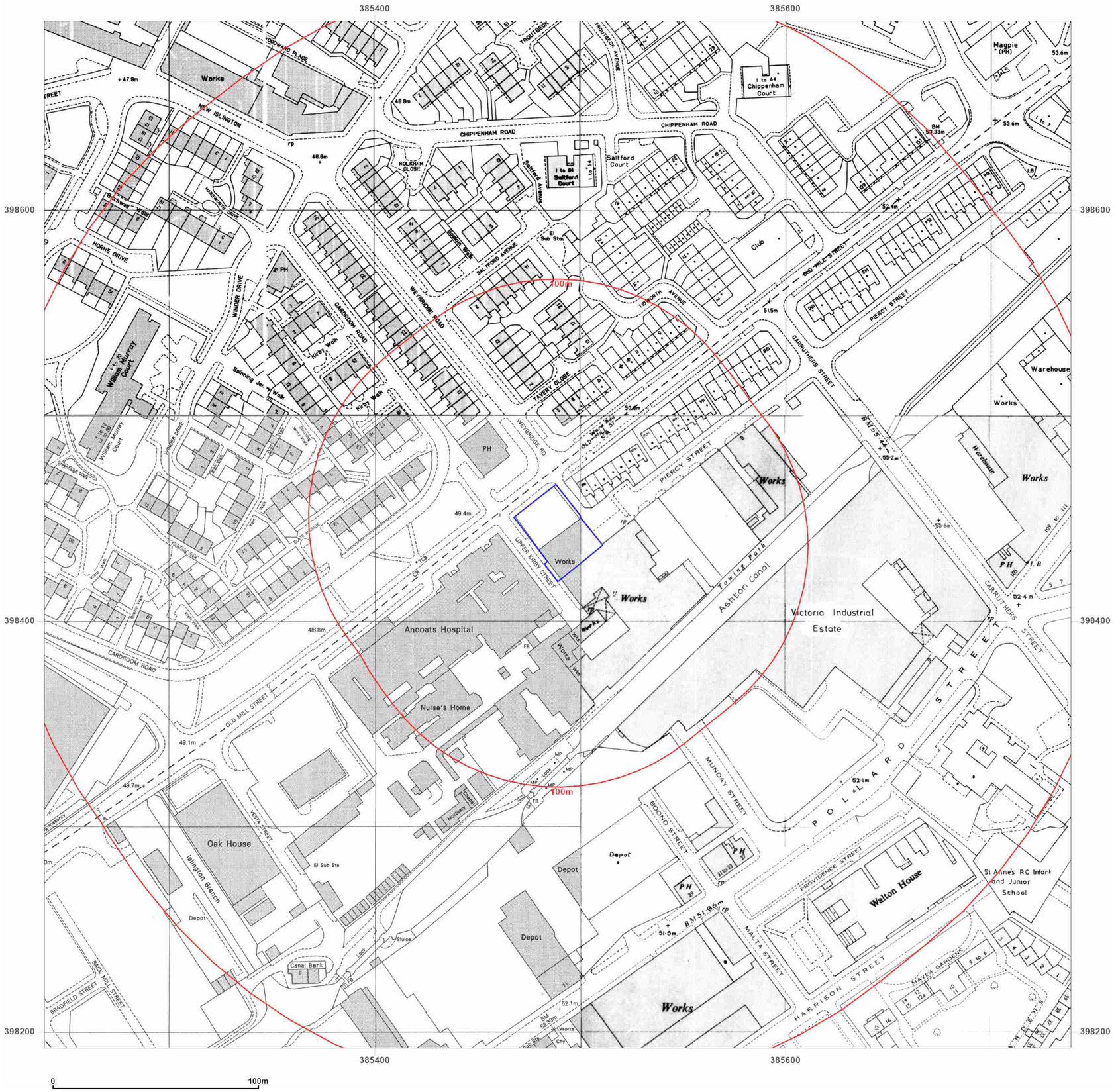
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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1988-1992**

Scale: 1:1,250

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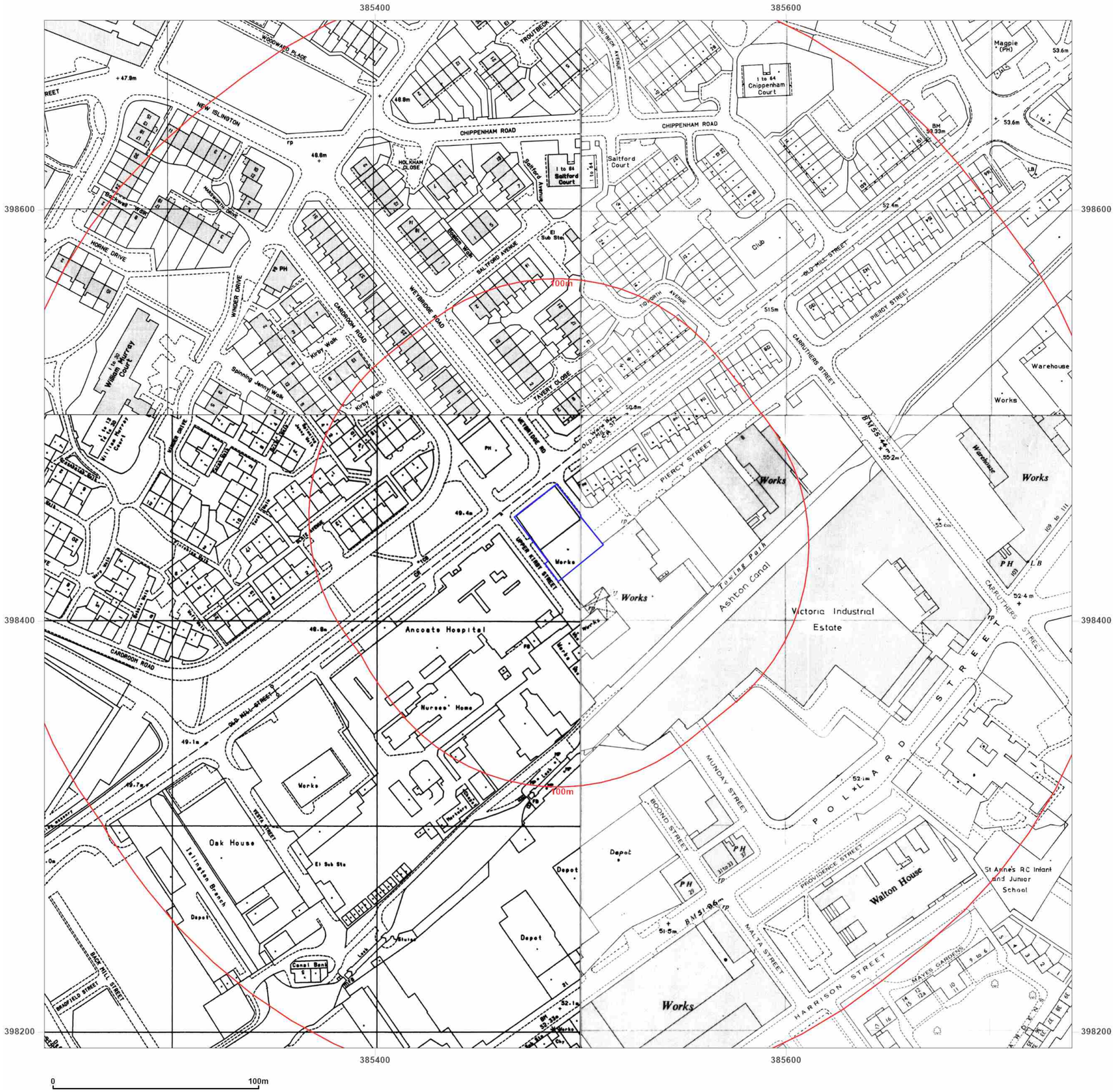
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Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1990-1994**

Scale: 1:1,250

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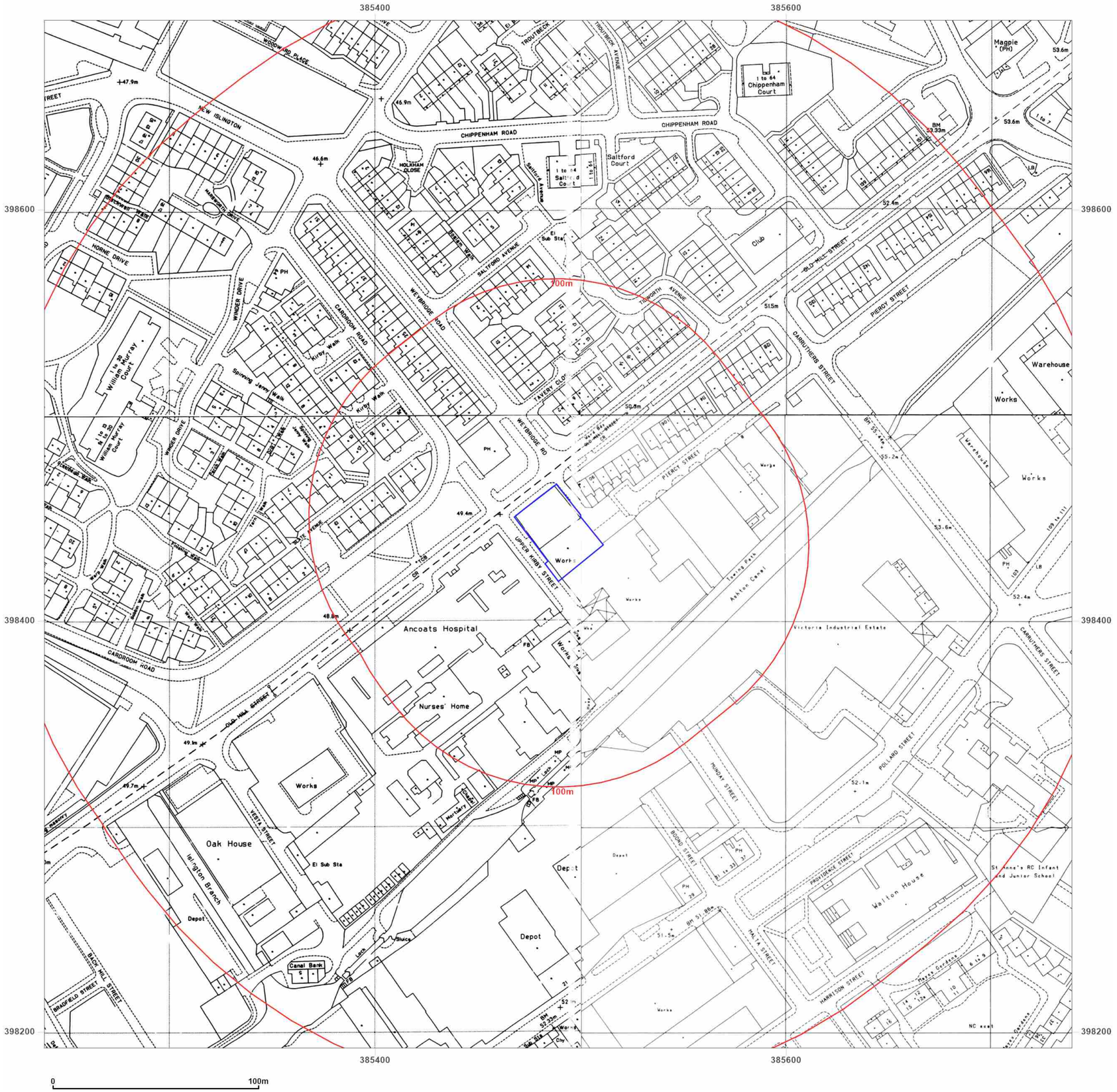
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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1990-1994**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1992 Revised 1992 Edition N/A Copyright 1992 Levelled N/A	Surveyed 1994 Revised 1994 Edition N/A Copyright 1994 Levelled N/A
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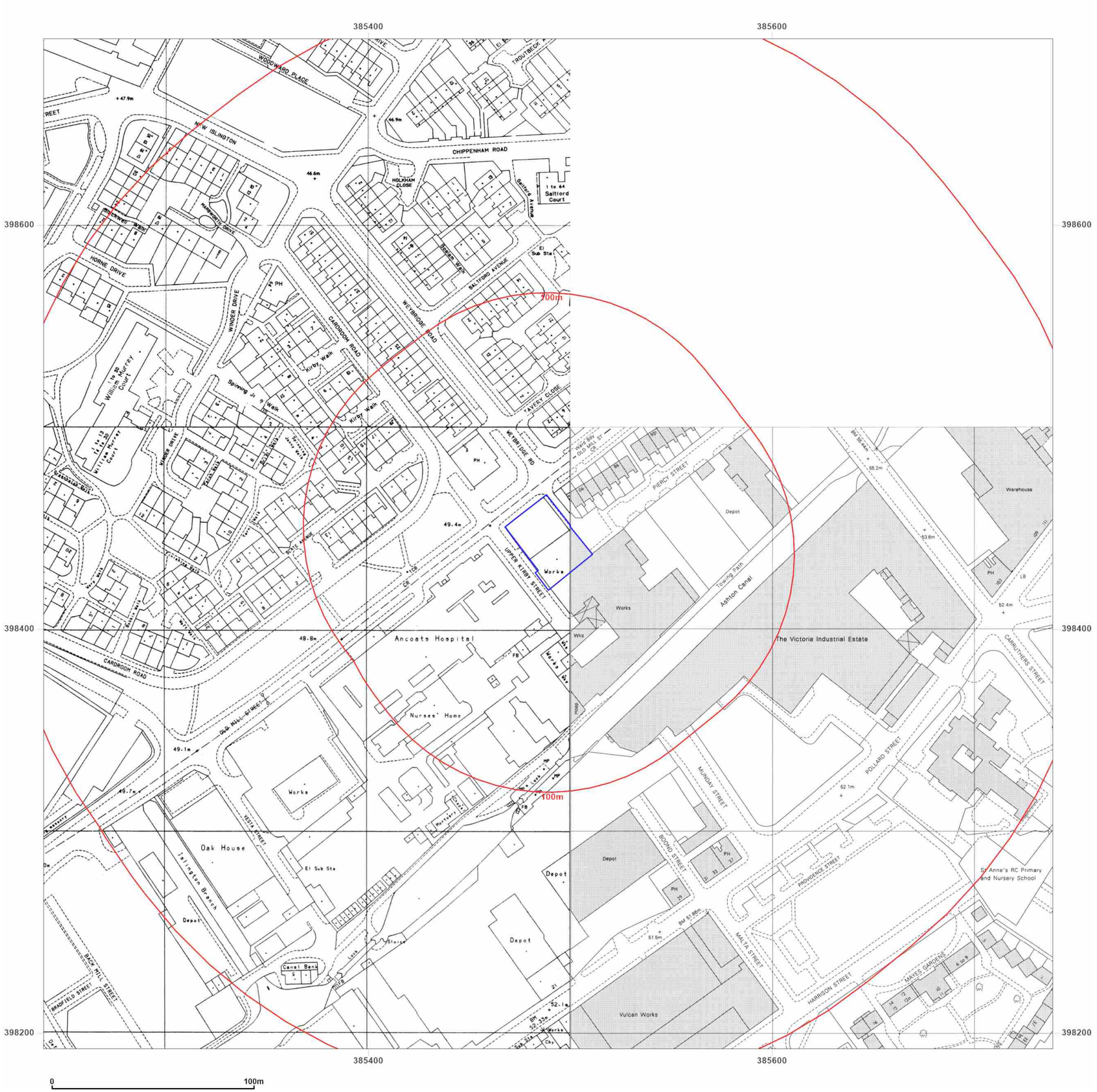
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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1991-1994**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1948
Revised 1980
Edition N/A
Copyright 1992
Levelled N/A

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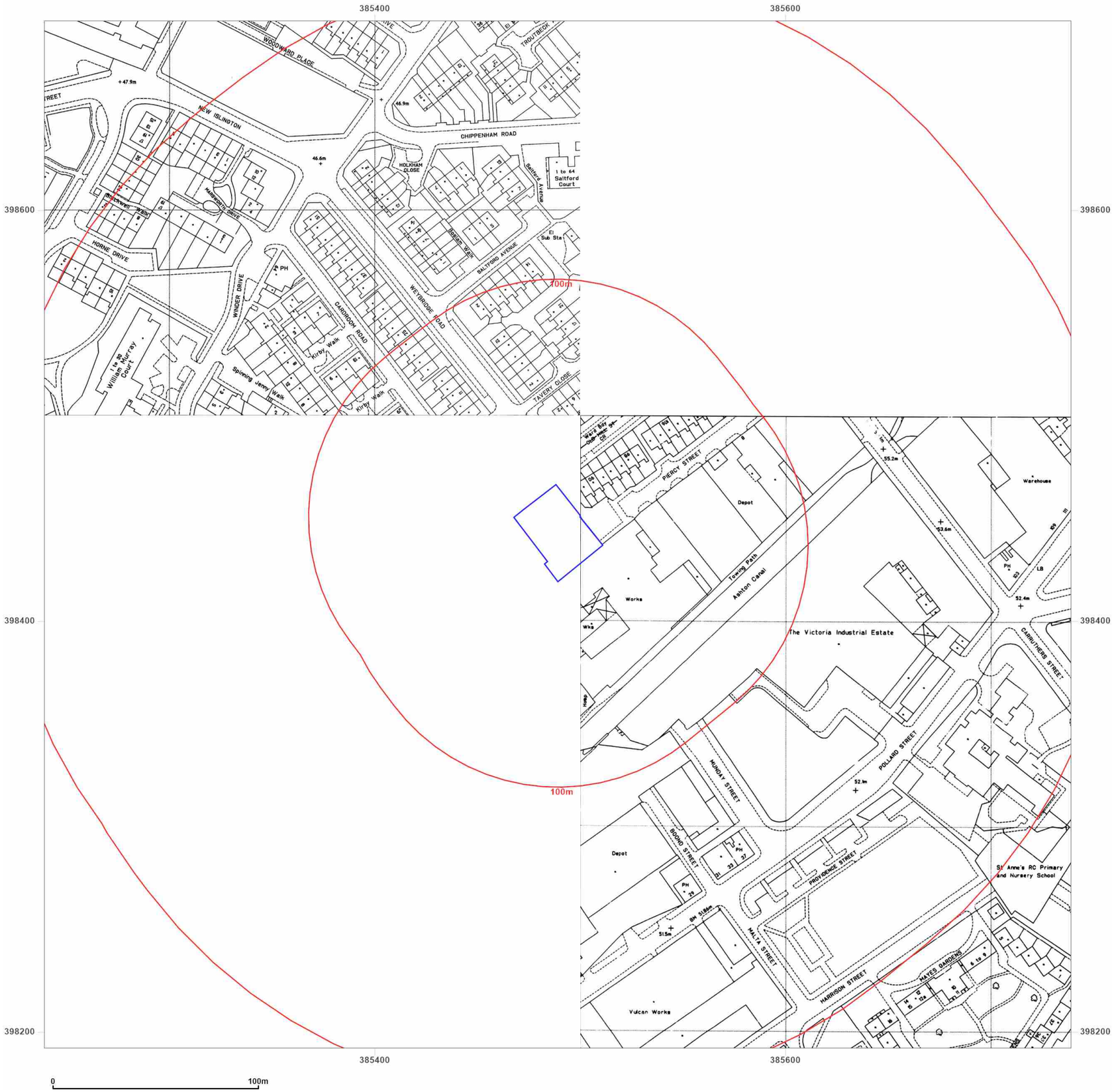
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Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

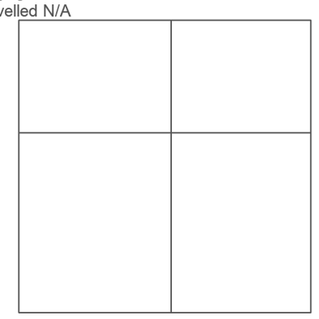
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Scale: 1:1,250

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Revised 1994
Edition N/A
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Edition N/A
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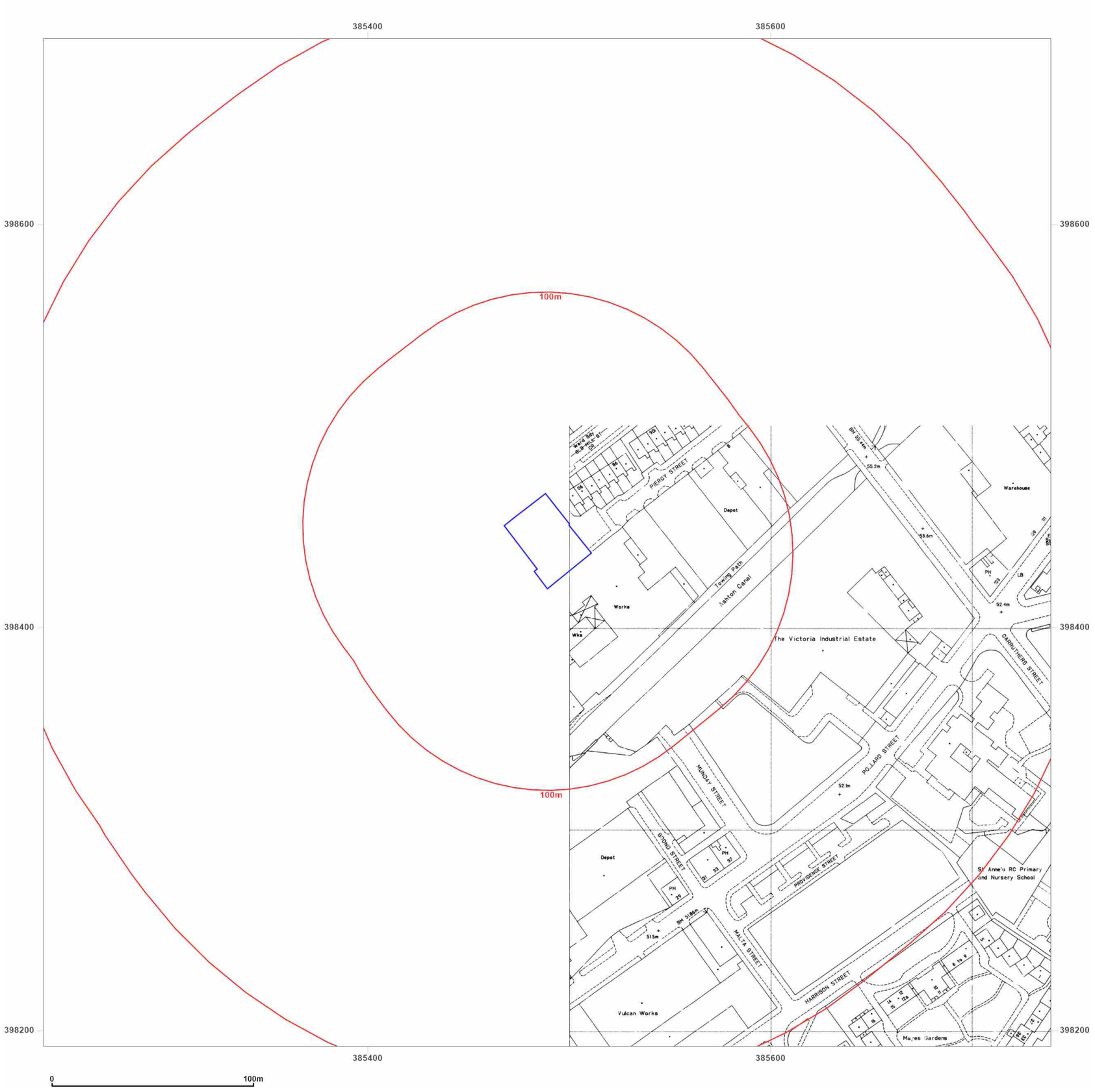
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Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

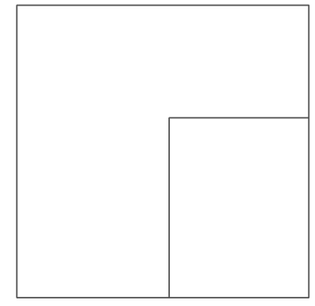
Map Name: National Grid

Map date: **1994**

Scale: 1:1,250

Printed at: 1:2,000

N
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S



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

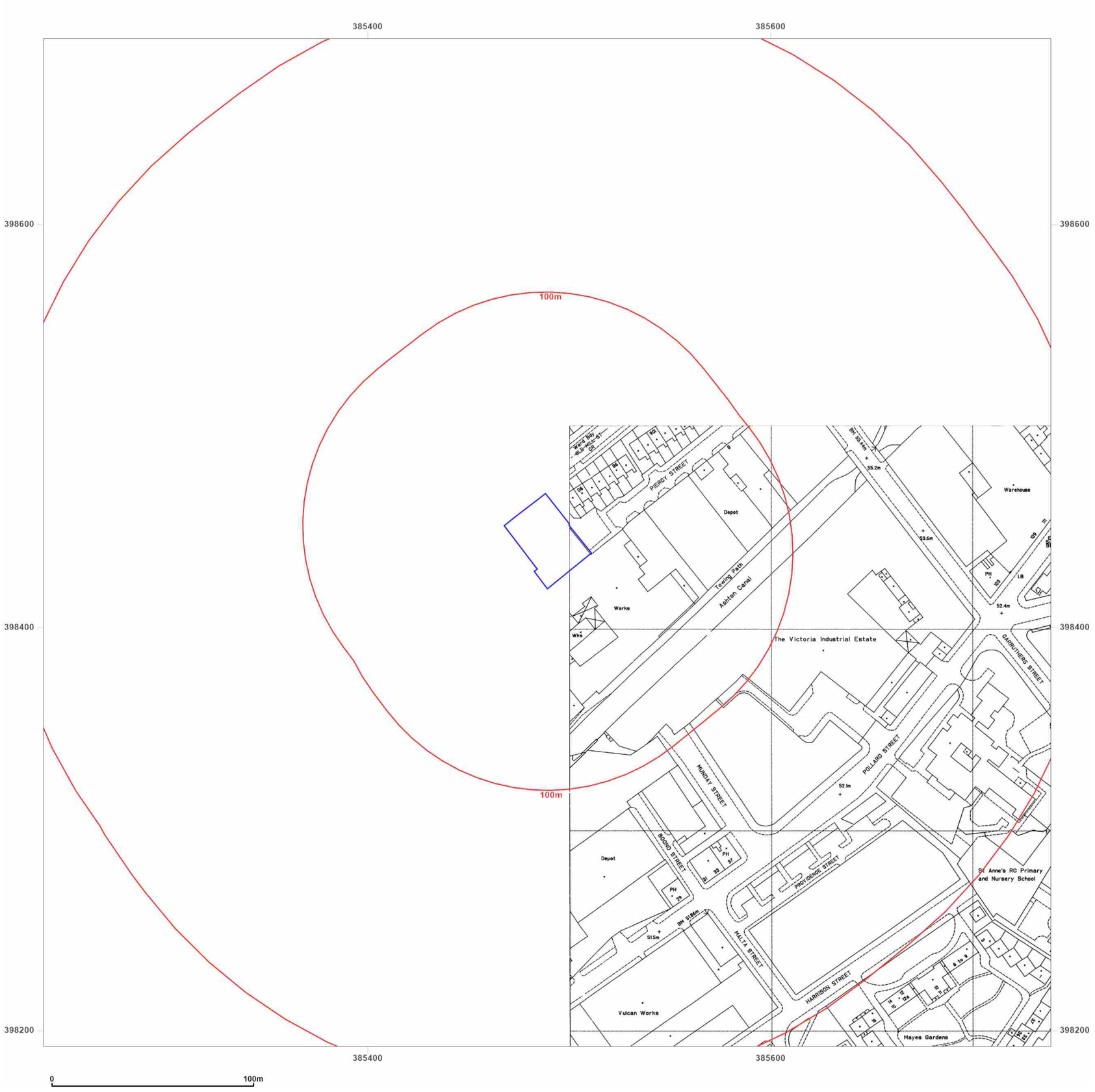
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Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

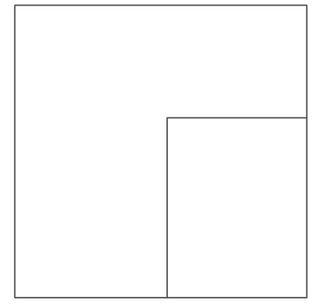
Map Name: National Grid

Map date: **1994**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S



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

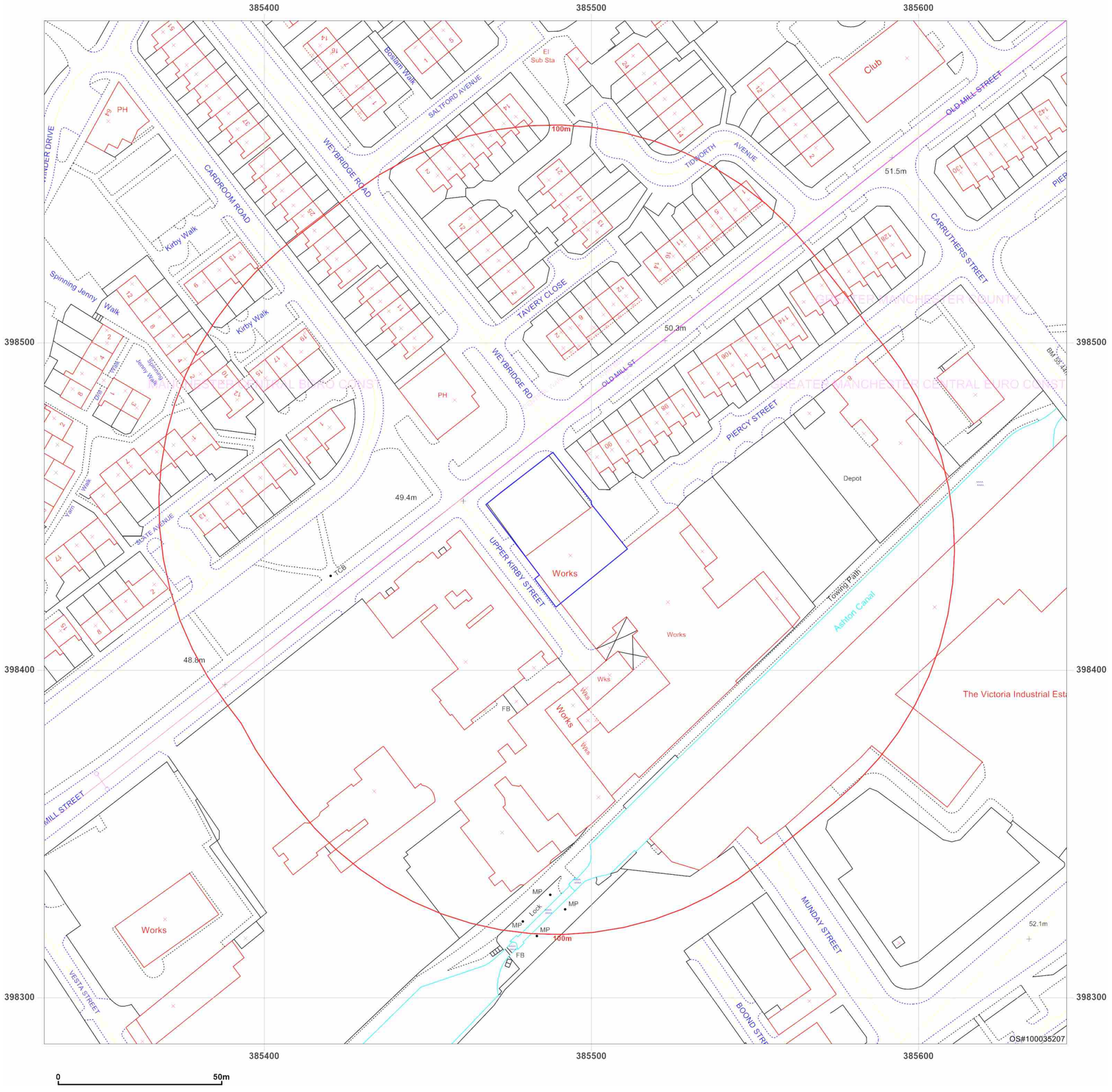
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Site Details:

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Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

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

N
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2003

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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series

Map date: **1848**

Scale: 1:10,560

Printed at: 1:10,560

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

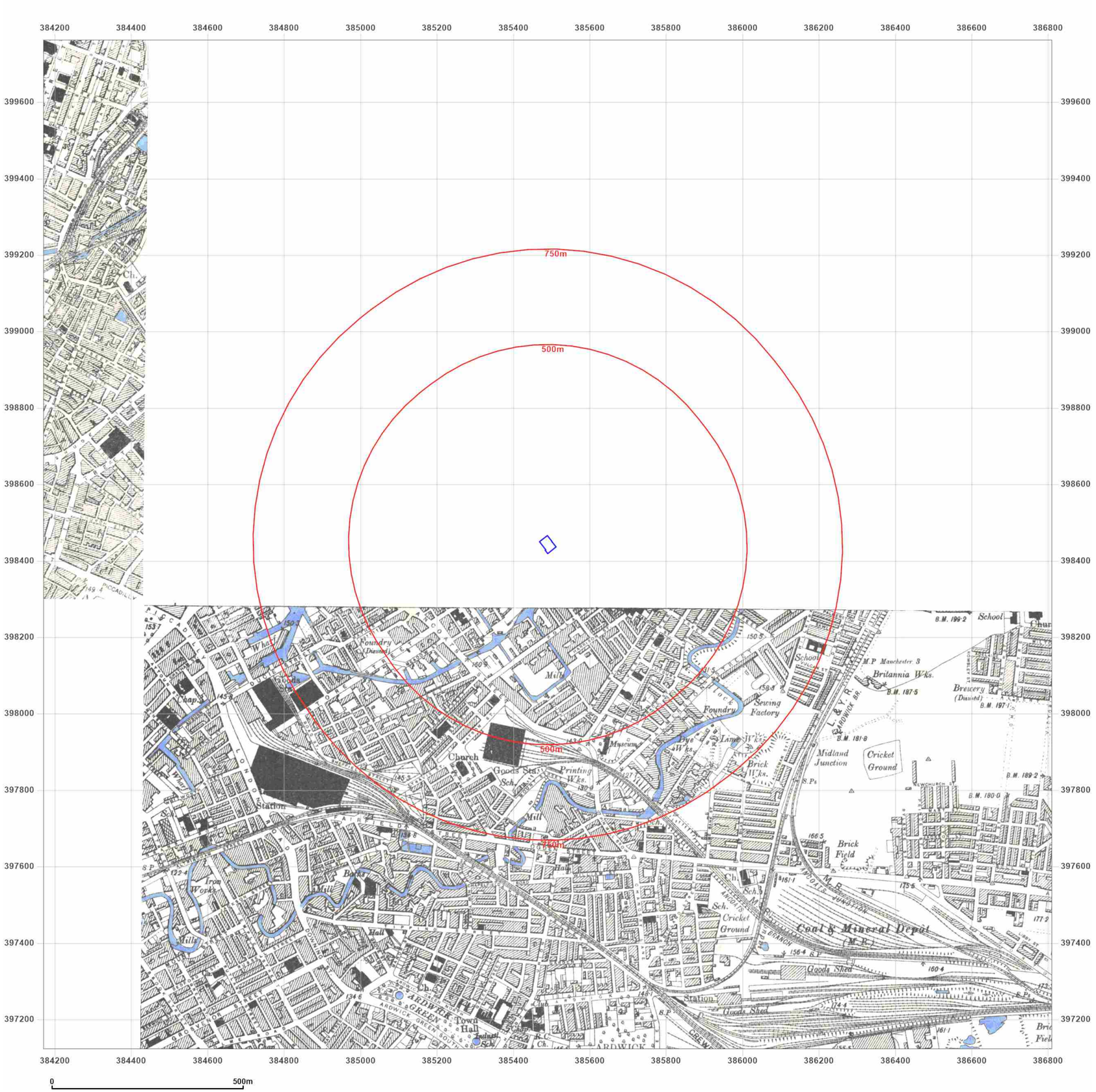
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Site Details:

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Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series

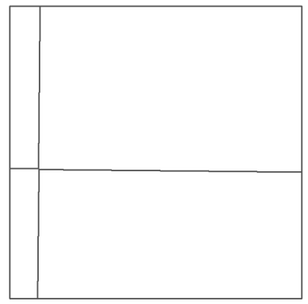
Map date: **1890-1894**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
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Surveyed 1889
Revised 1889
Edition 1894
Copyright N/A
Levelled N/A



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

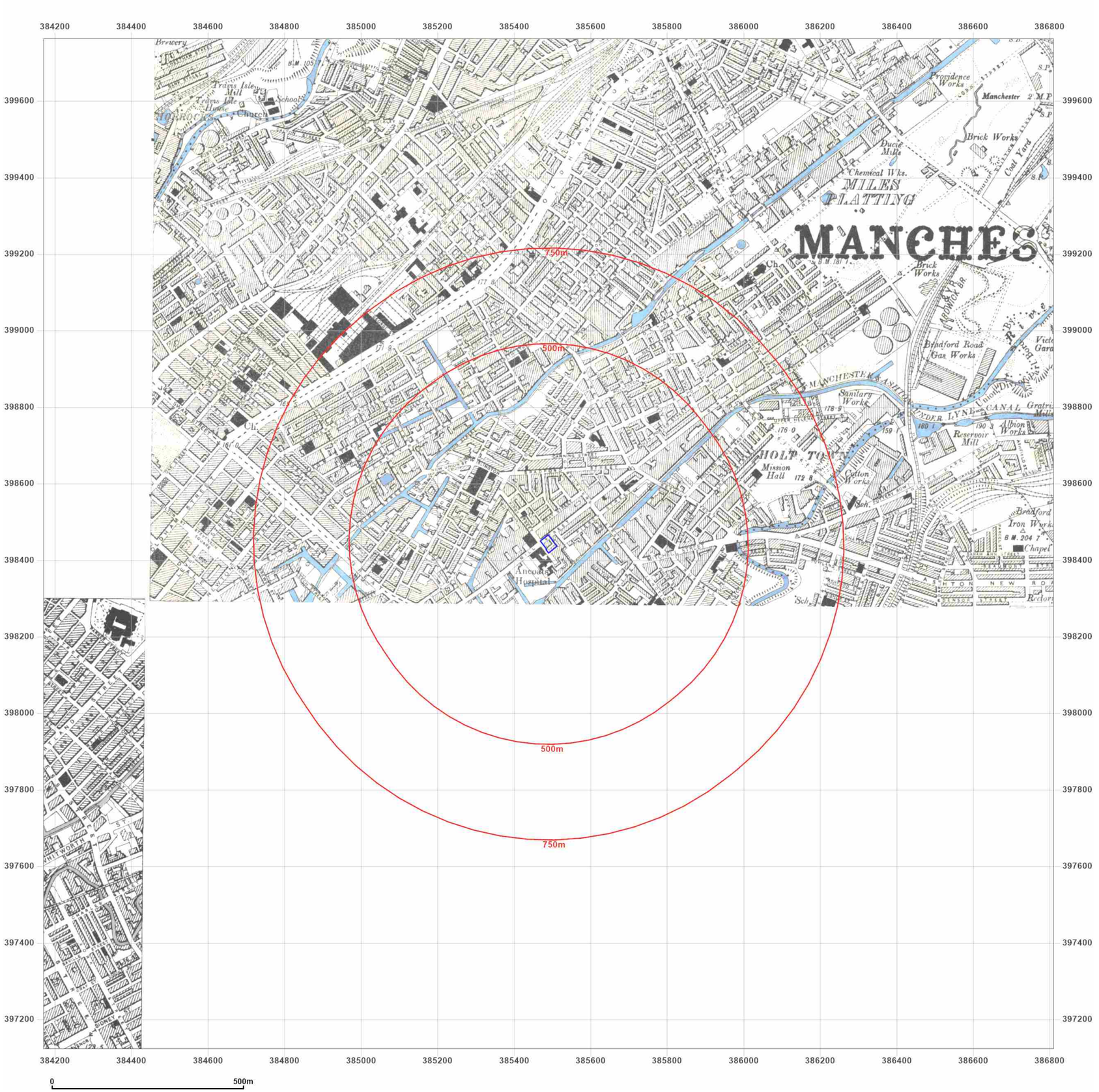
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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series

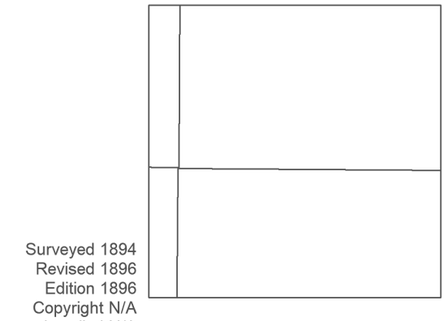
Map date: **1891-1896**

Scale: 1:10,560

Printed at: 1:10,560

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



Surveyed 1894
Revised 1896
Edition 1896
Copyright N/A
Levelled N/A

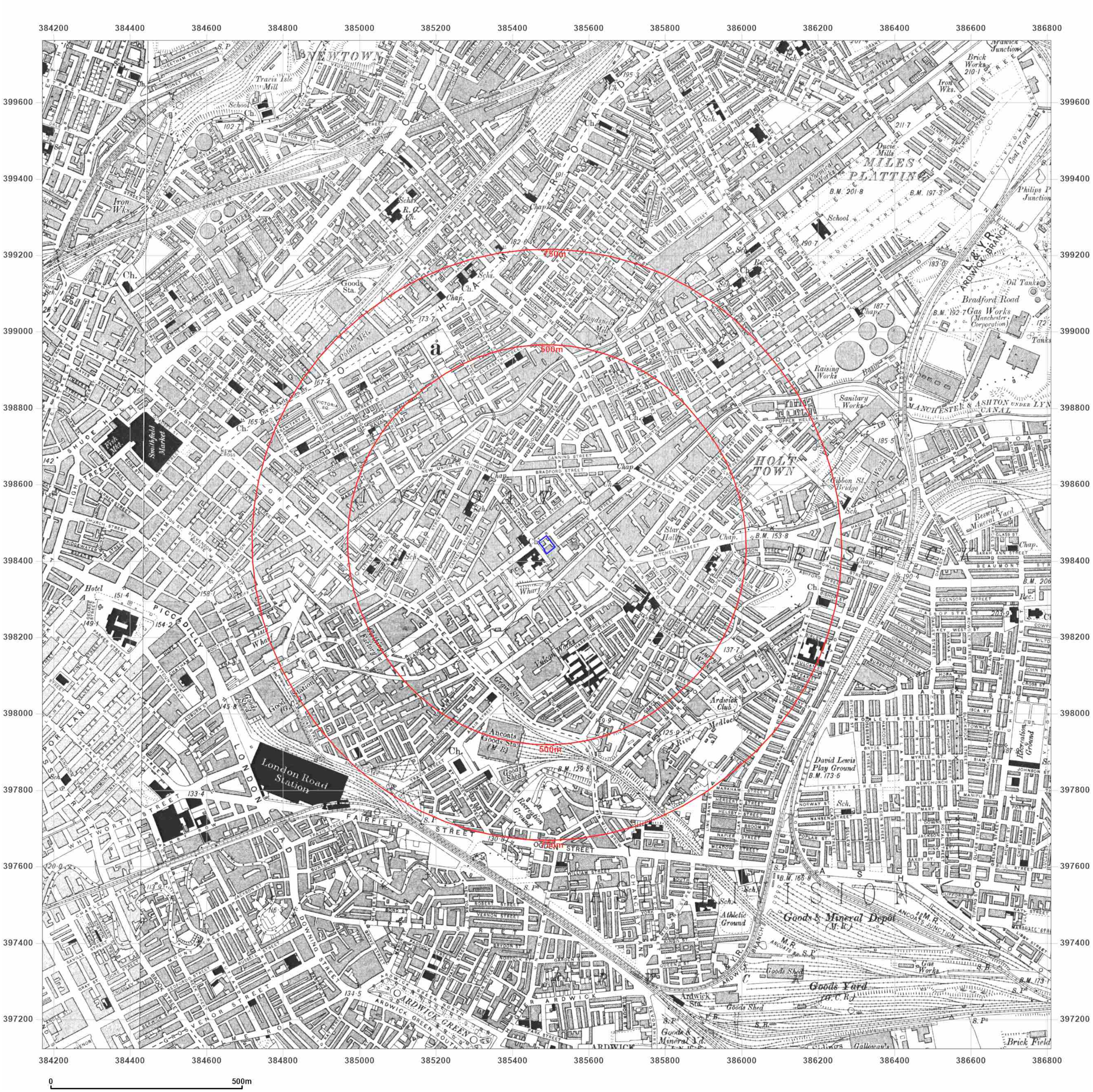
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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

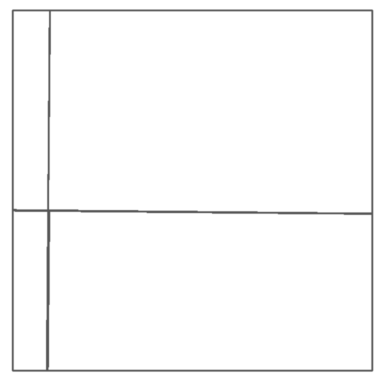
Map Name: County Series

Map date: **1905-1906**

Scale: 1:10,560

Printed at: 1:10,560

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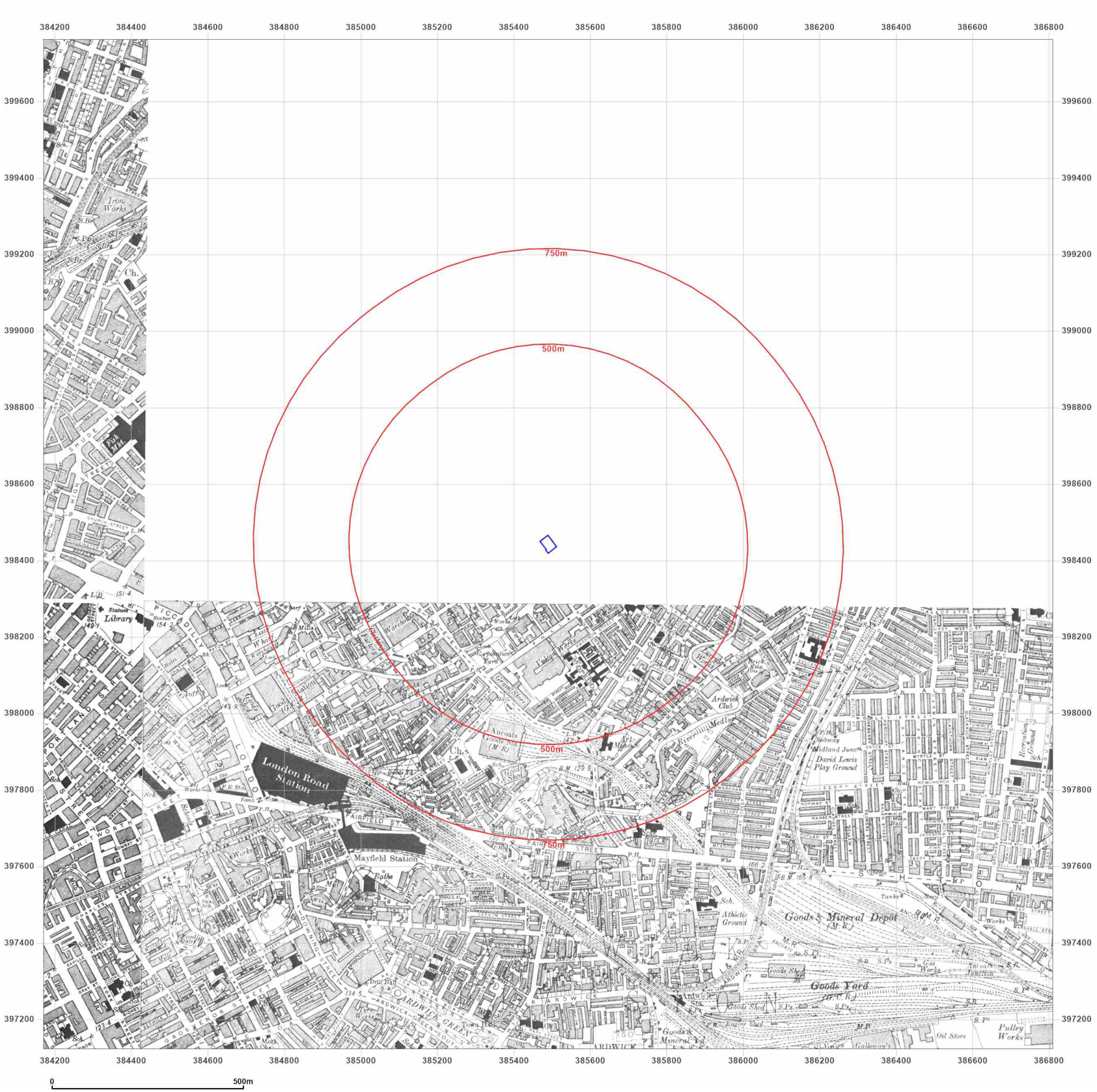
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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series

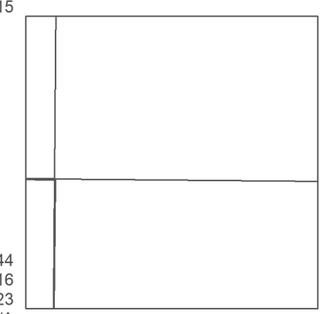
Map date: **1923**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
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Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915



Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

Surveyed 1844
Revised 1915
Edition 1923
Copyright N/A
Levelled 1915

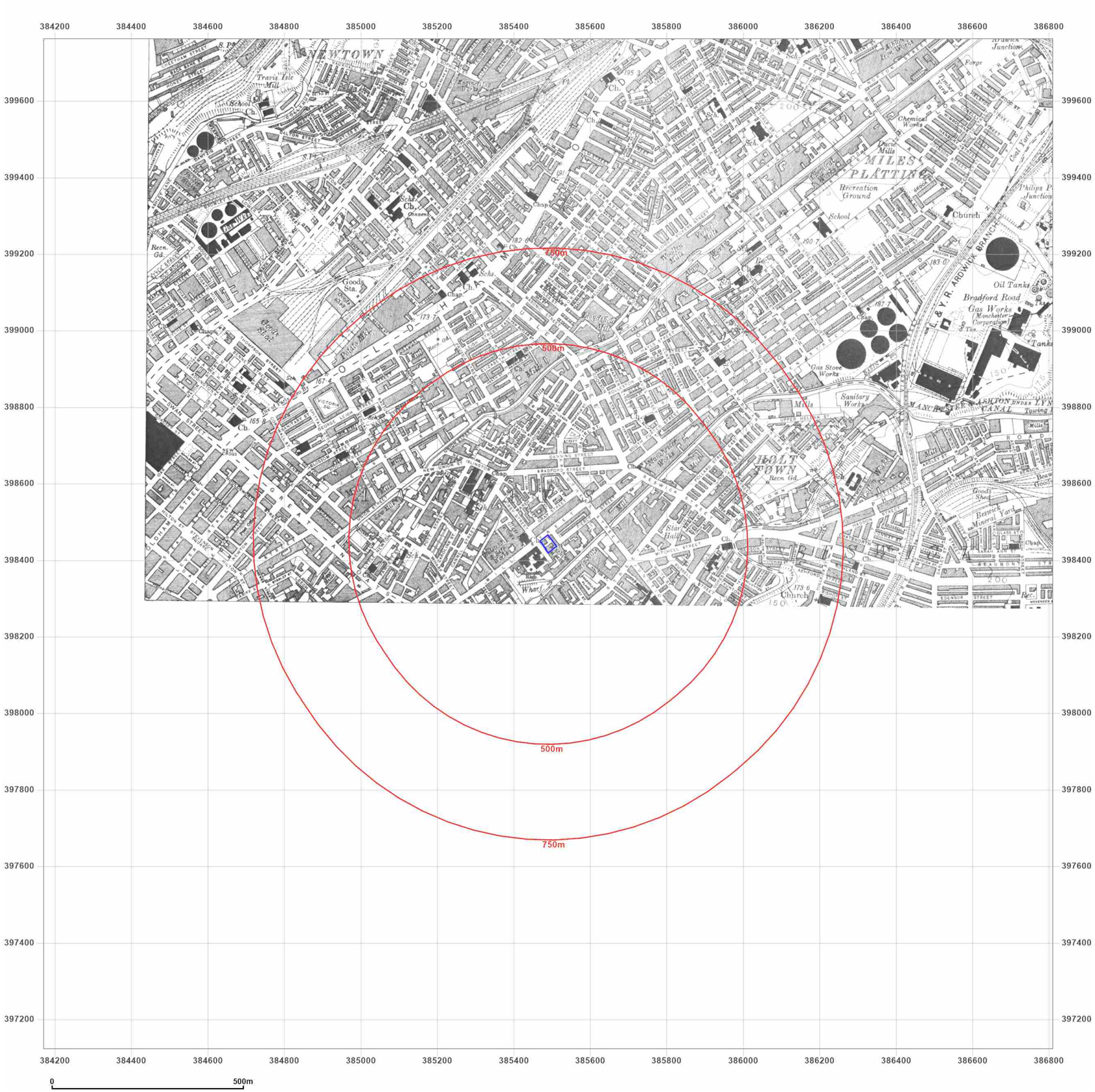
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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series

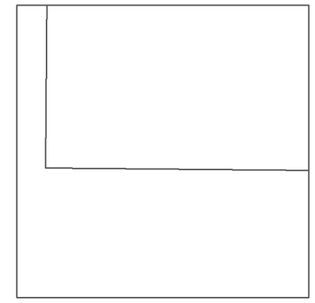
Map date: **1923**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1844
Revised 1921
Edition 1923
Copyright N/A
Levelled 1906



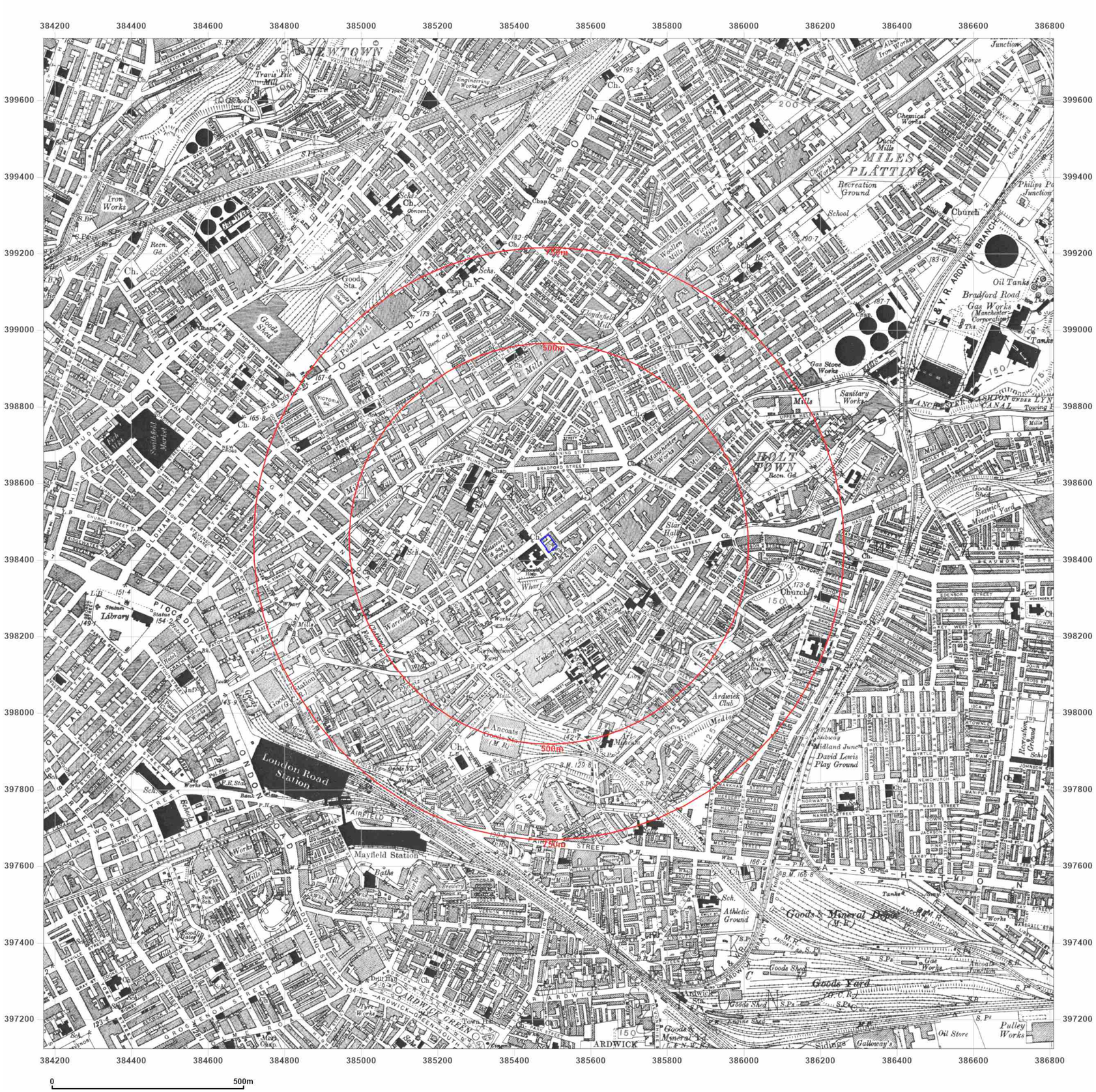
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Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series

Map date: **1923**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

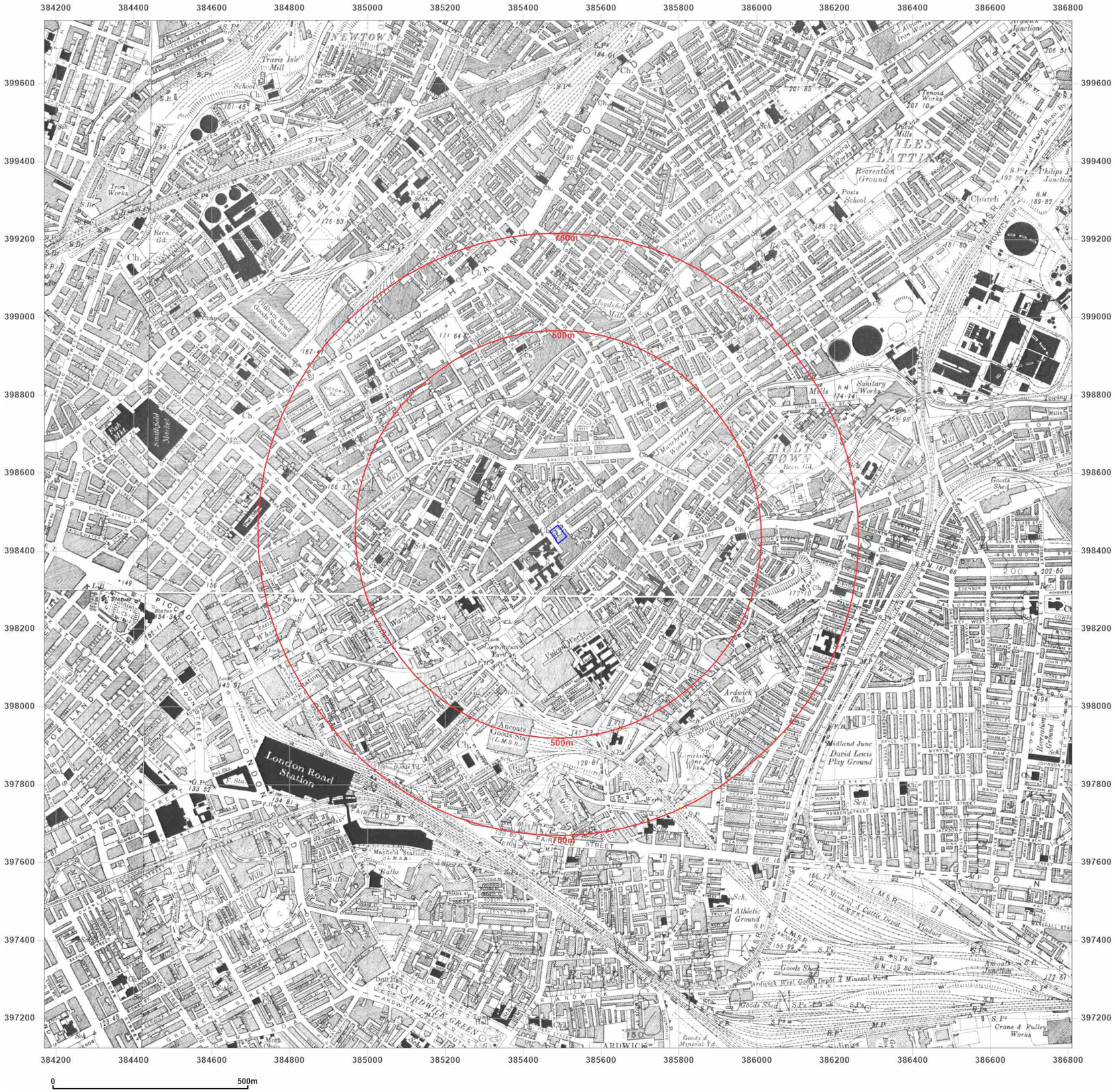
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Site Details:

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Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series

Map date: **1931-1934**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1844
Revised 1931
Edition 1931
Copyright N/A
Levelled 1927

Surveyed 1844
Revised 1933
Edition 1933
Copyright N/A
Levelled 1927

Surveyed 1844
Revised 1932
Edition 1932
Copyright N/A
Levelled 1927

Surveyed 1844
Revised 1934
Edition 1934
Copyright N/A
Levelled 1927

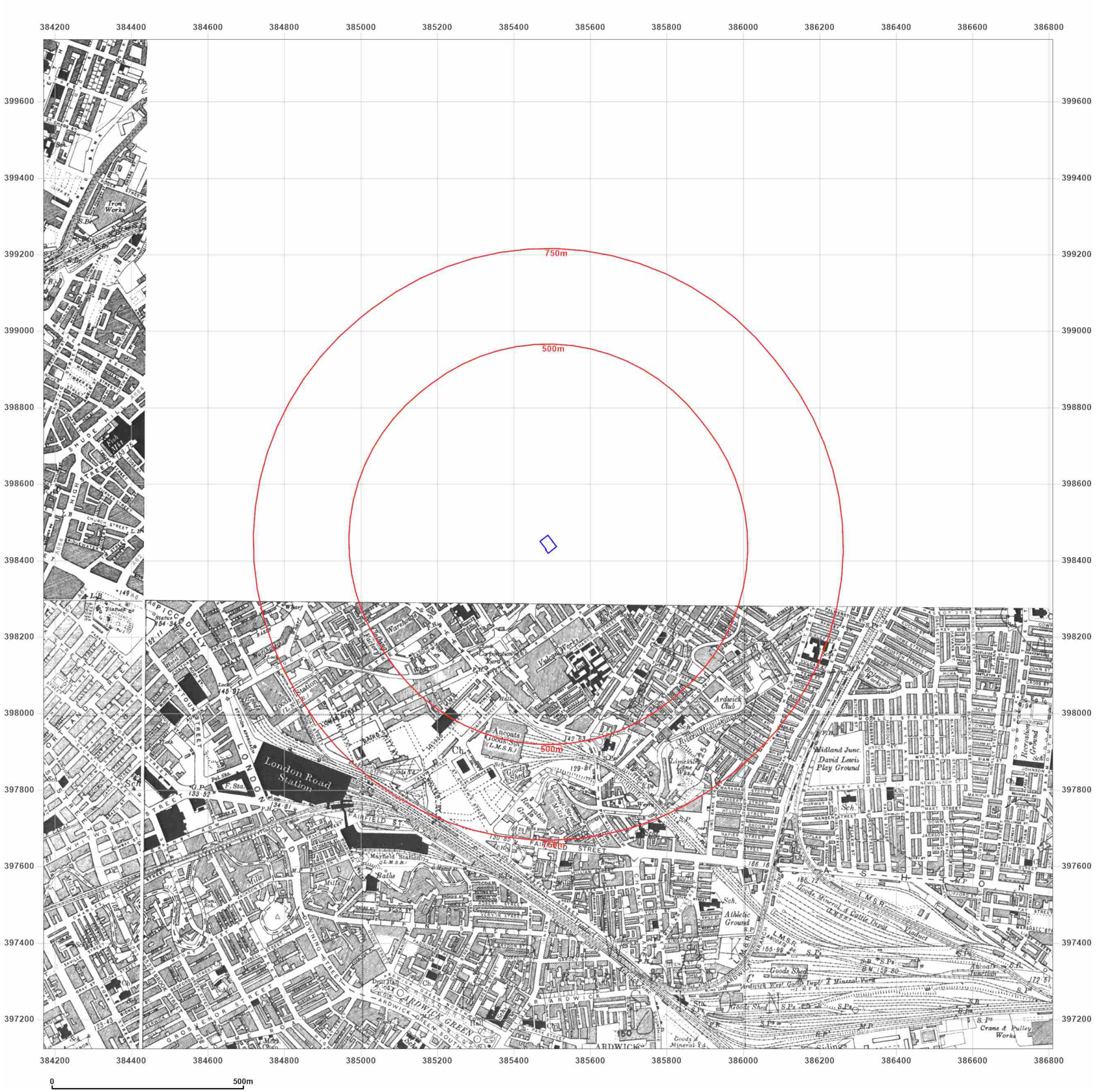
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Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series

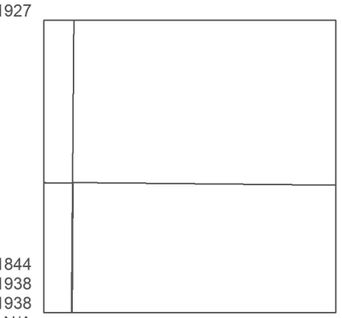
Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1844
Revised 1938
Edition 1938
Copyright N/A
Levelled 1927



Surveyed 1844
Revised 1938
Edition 1938
Copyright N/A
Levelled 1927

Surveyed 1844
Revised 1938
Edition 1938
Copyright N/A
Levelled 1927

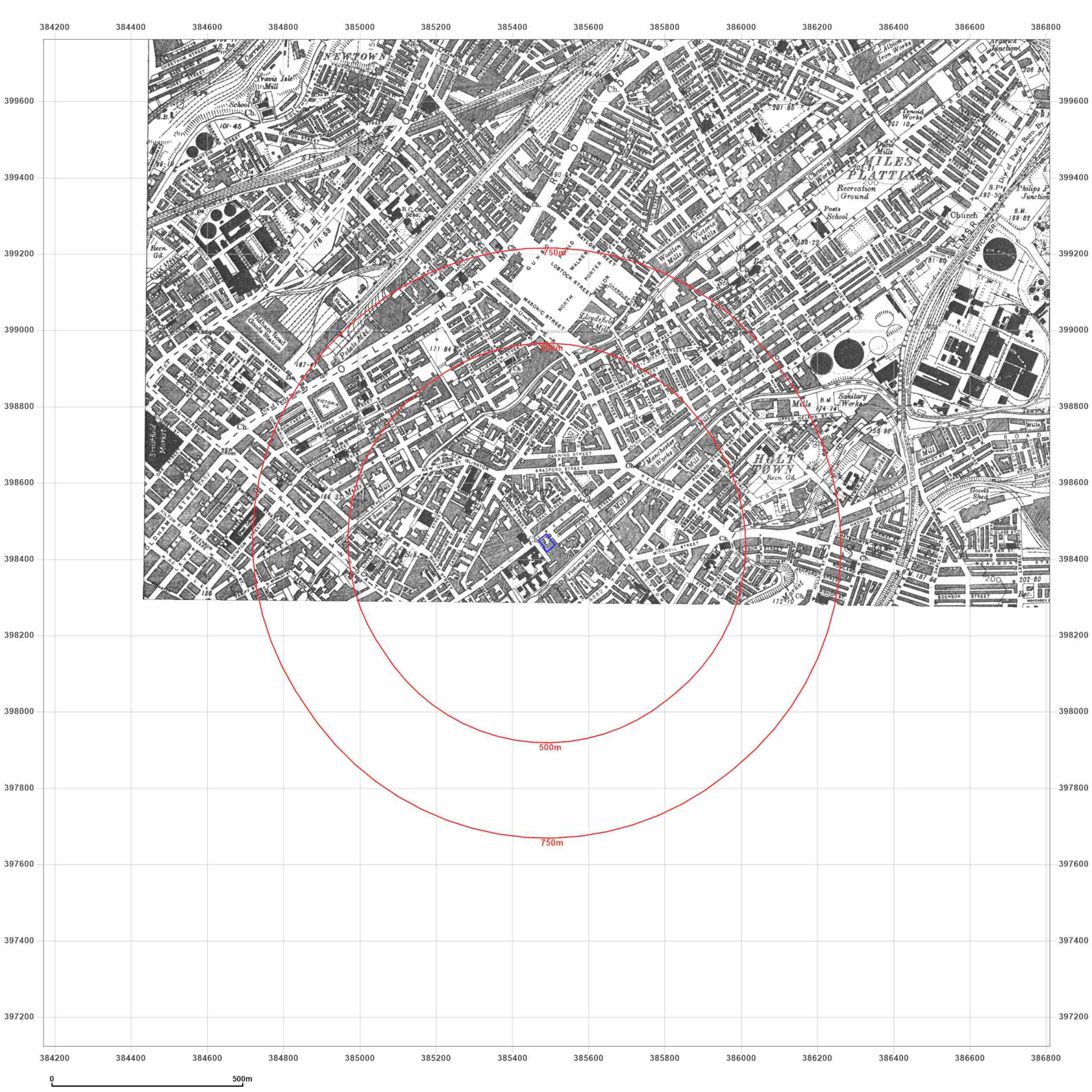
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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: County Series

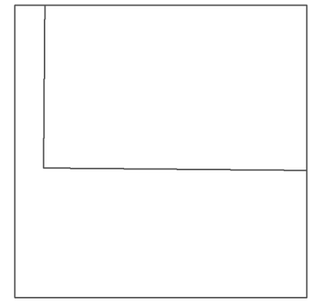
Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1844
Revised 1938
Edition 1938
Copyright N/A
Levelled 1927



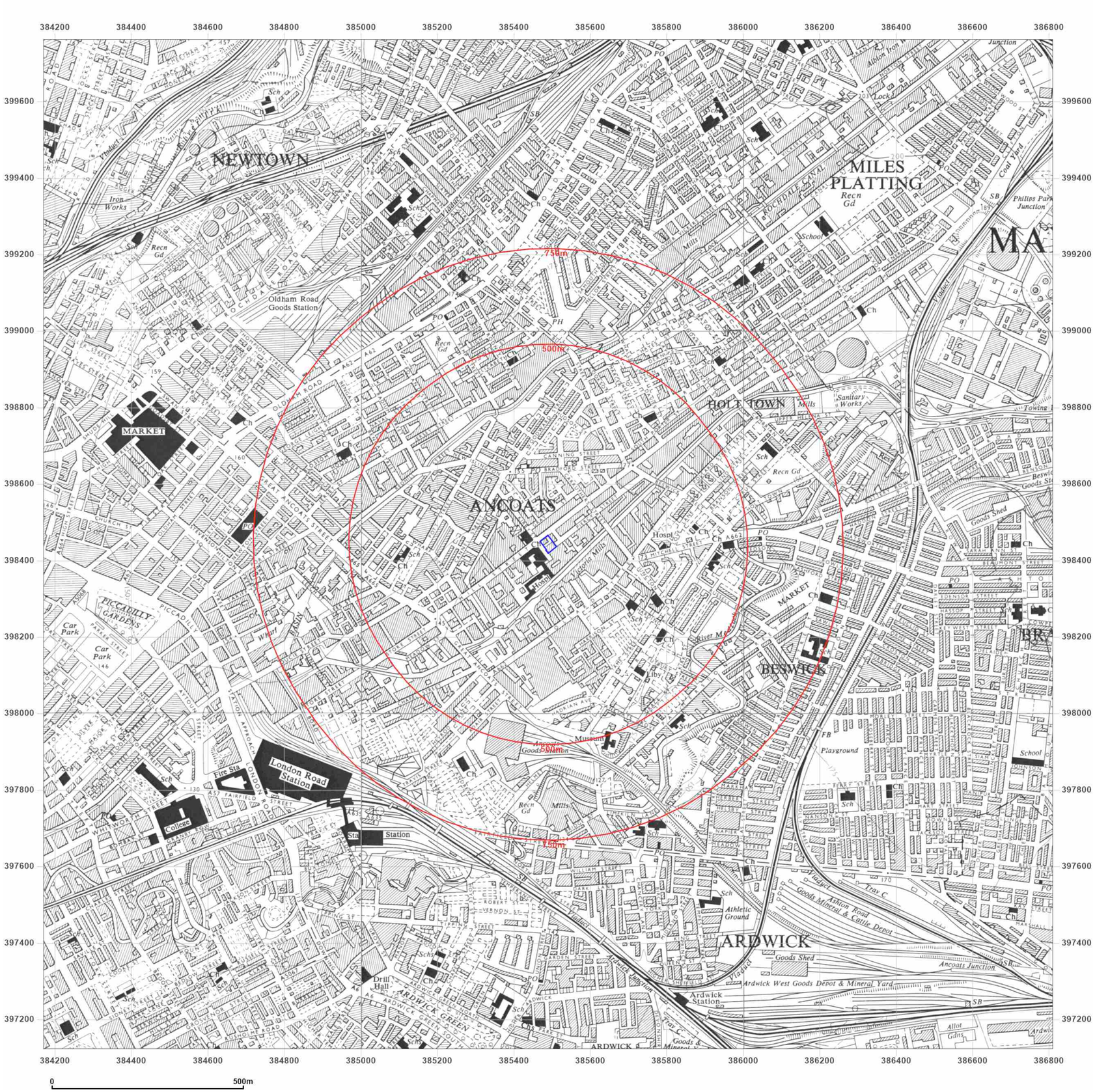
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Site Details:

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Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: Provisional

Map date: **1956**

Scale: 1:10,560

Printed at: 1:10,560

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

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

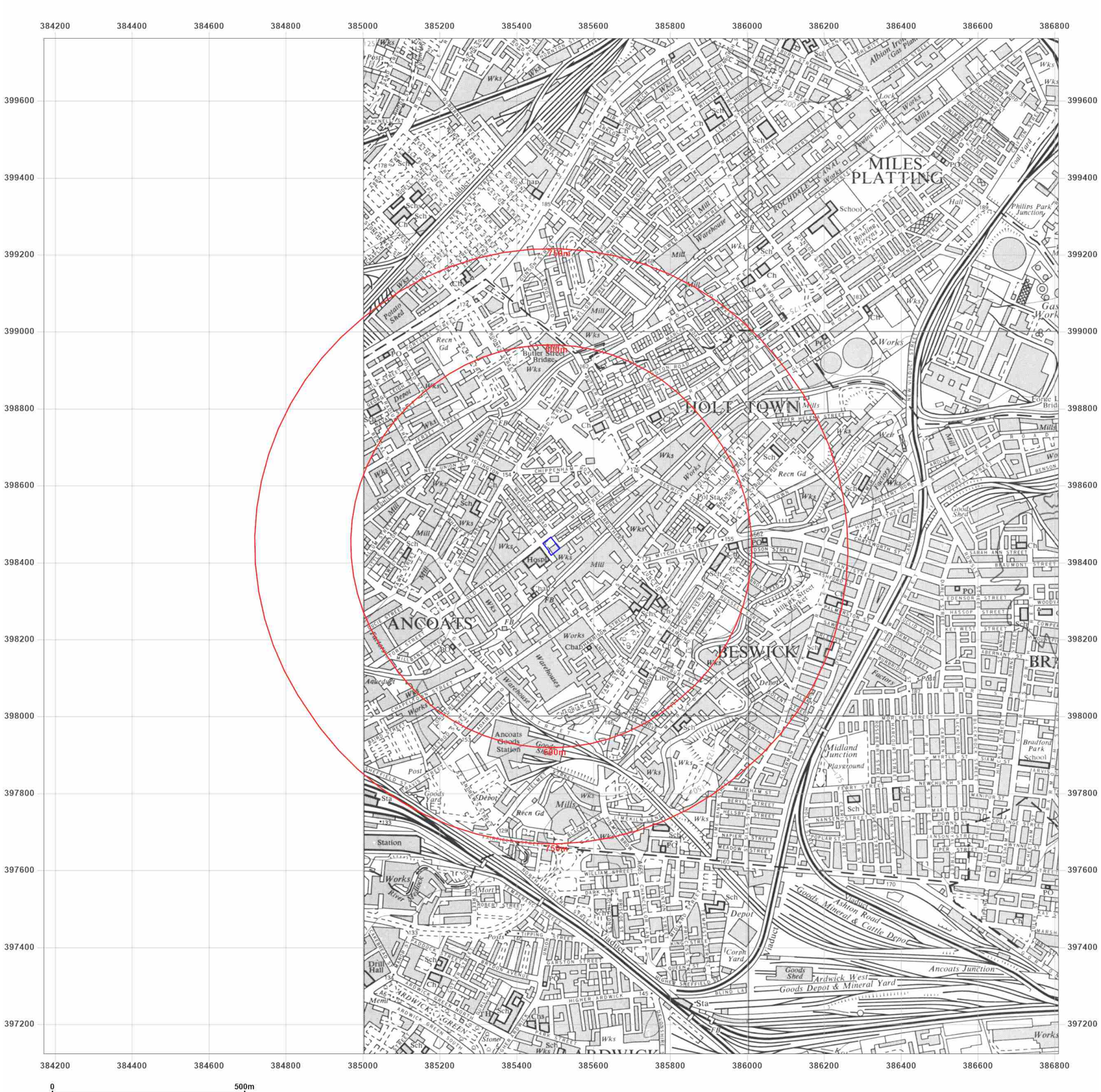
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Site Details:

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Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: Provisional

Map date: **1968**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
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Surveyed 1968
Revised 1968
Edition N/A
Copyright 1968
Levelled N/A

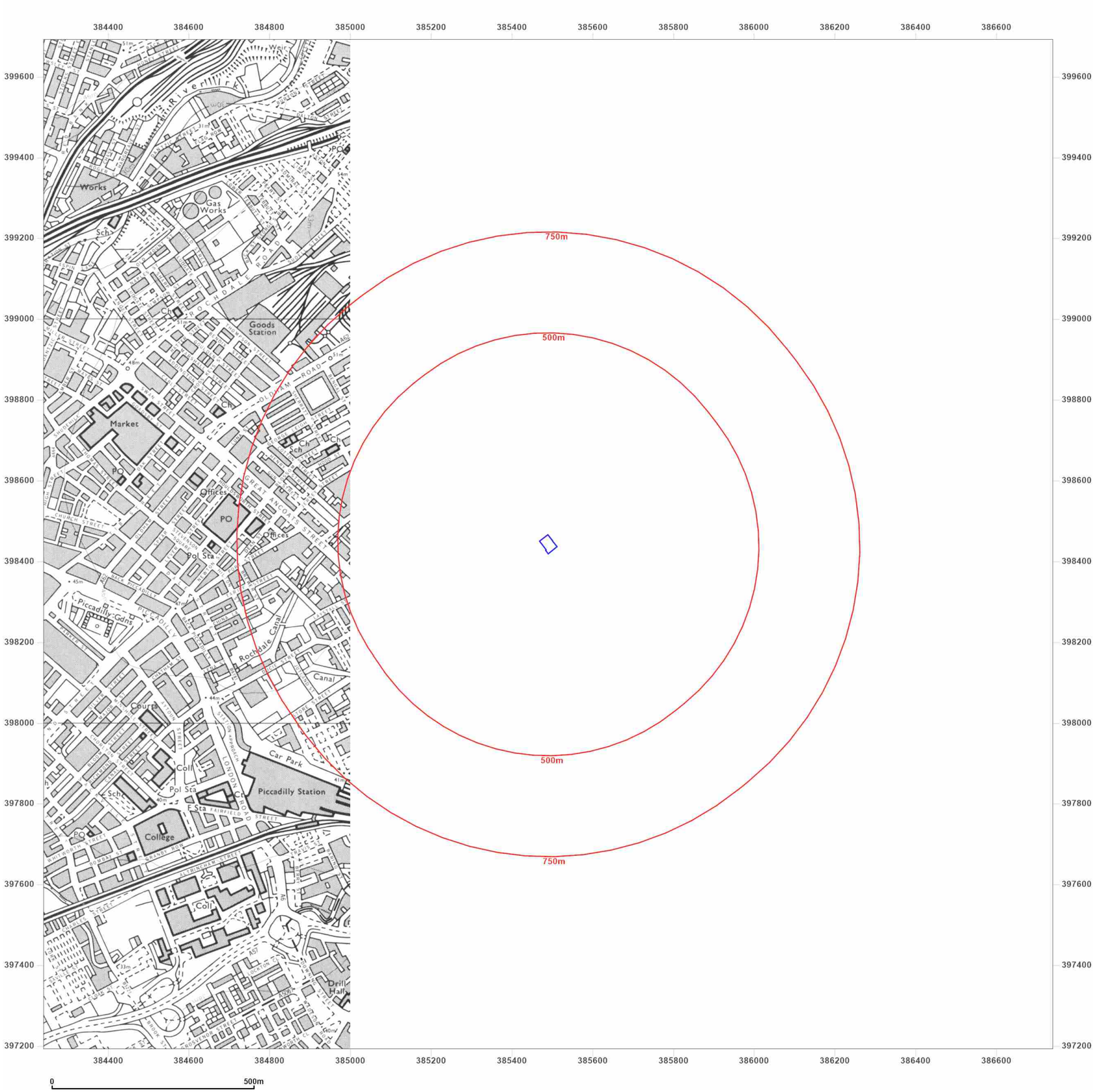
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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

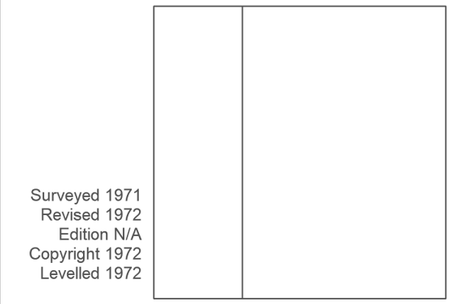
Map Name: National Grid

Map date: **1972**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1971
Revised 1972
Edition N/A
Copyright 1972
Levelled 1972

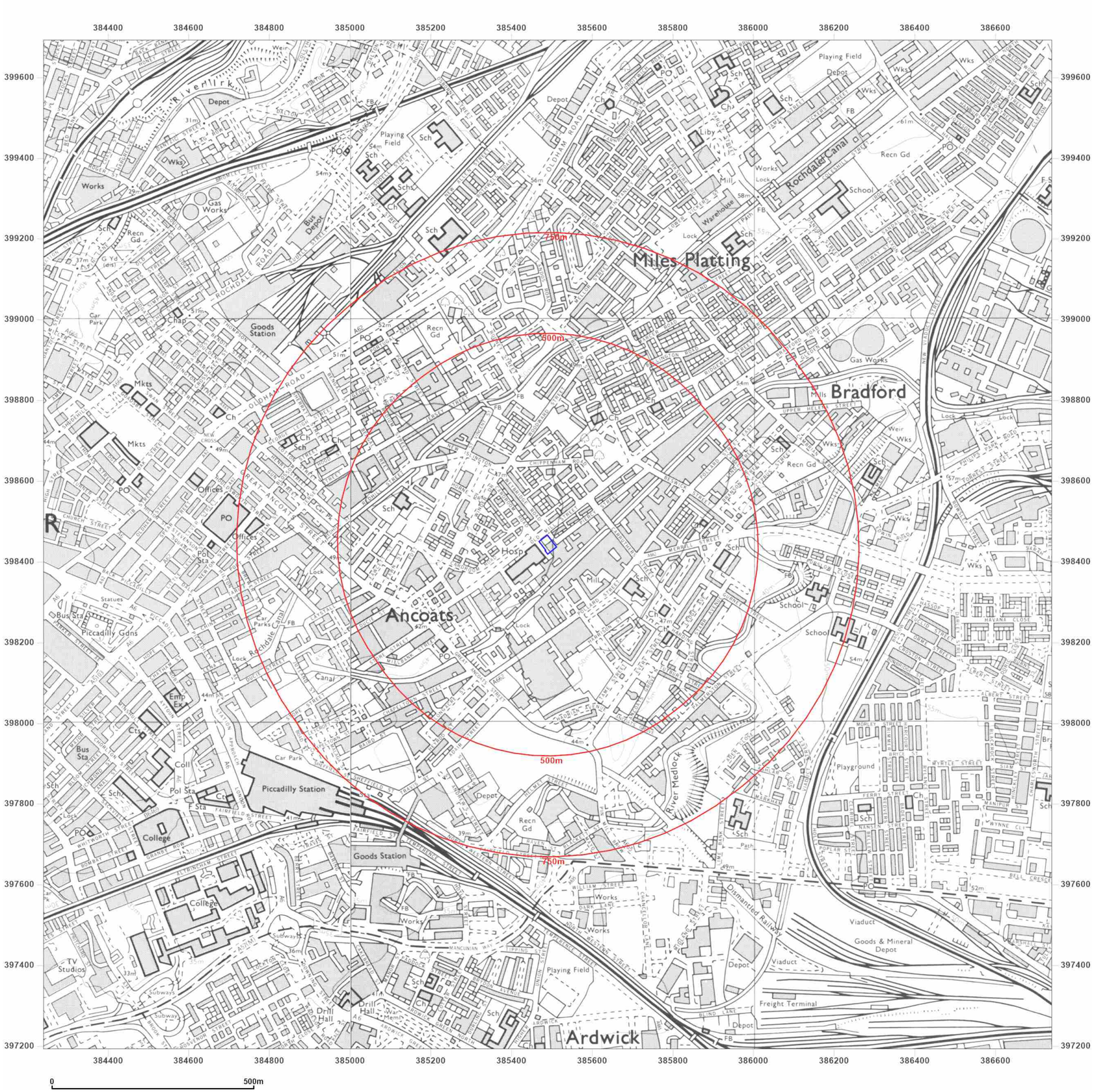
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Site Details:

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MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1980-1981**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1976 Revised 1980 Edition N/A Copyright 1980 Levelled 1976	Surveyed 1976 Revised 1980 Edition N/A Copyright 1981 Levelled 1976

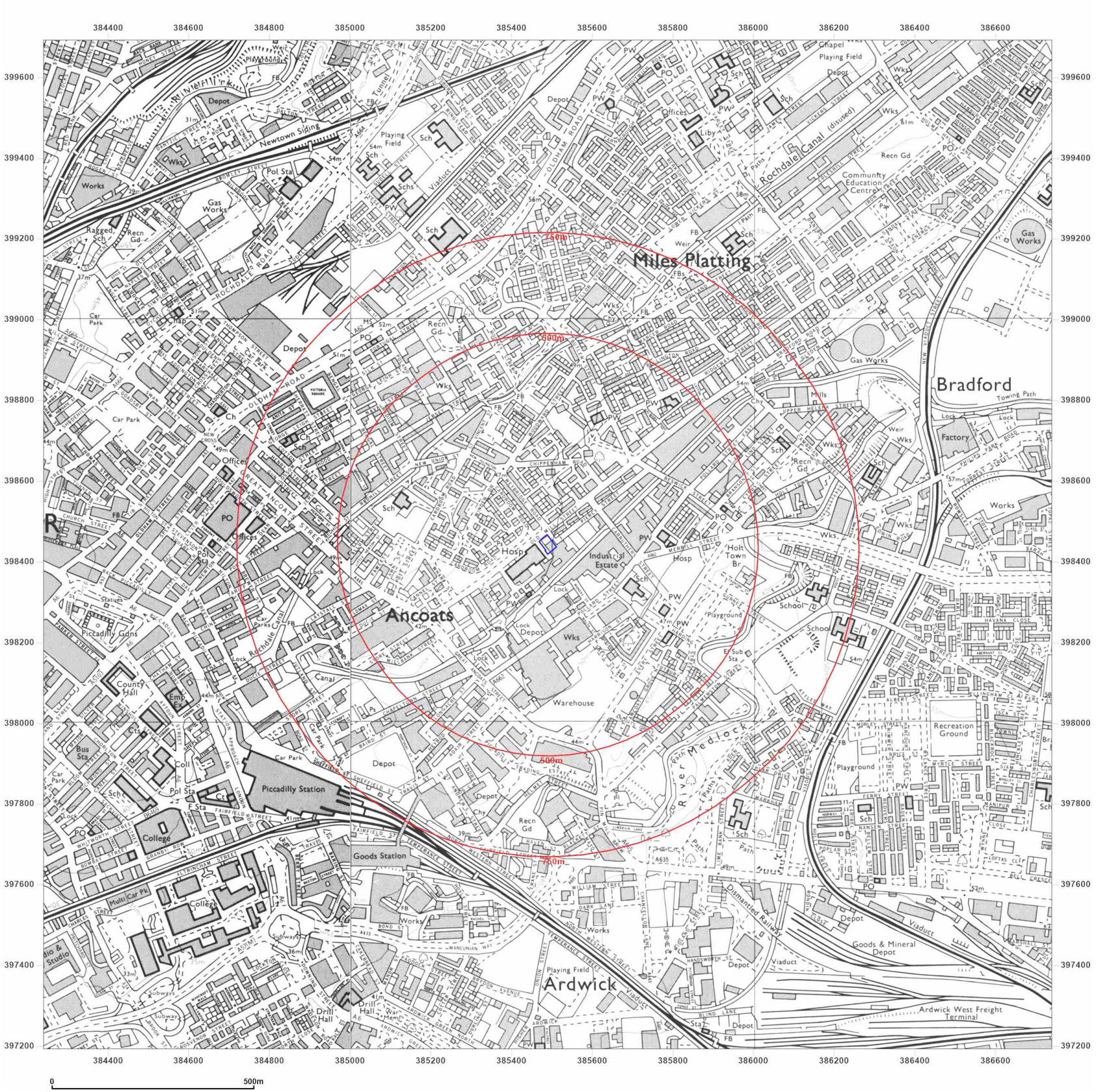
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Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1985**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1983 Revised 1985 Edition N/A Copyright 1985 Levelled 1981	Surveyed 1985 Revised 1985 Edition N/A Copyright 1985 Levelled 1981

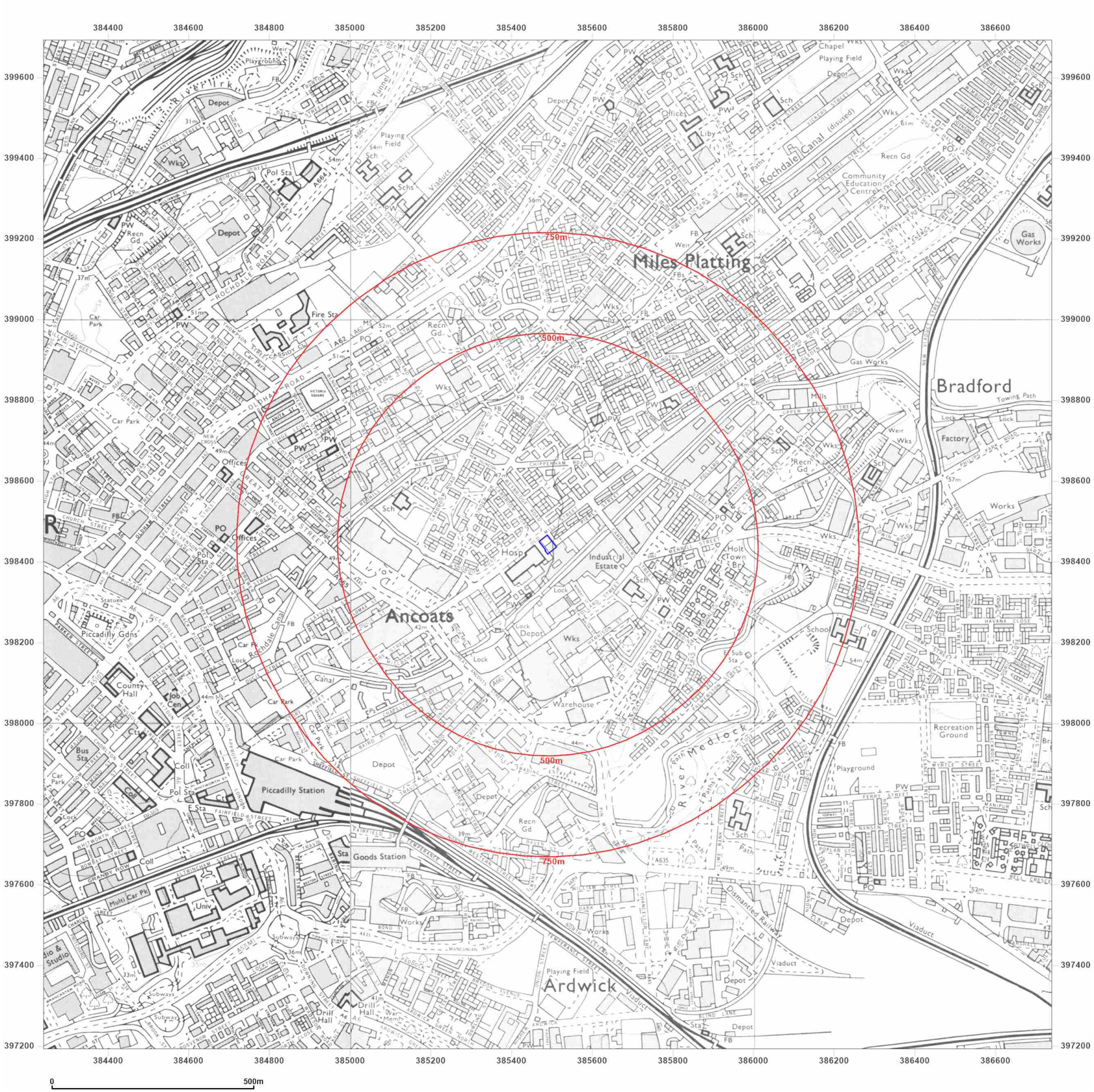
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Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **1988-1991**

Scale: 1:10,000

Printed at: 1:10,000

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S

Surveyed 1986 Revised 1988 Edition N/A Copyright 1988 Levelled 1981	Surveyed 1985 Revised 1991 Edition N/A Copyright 1991 Levelled 1981

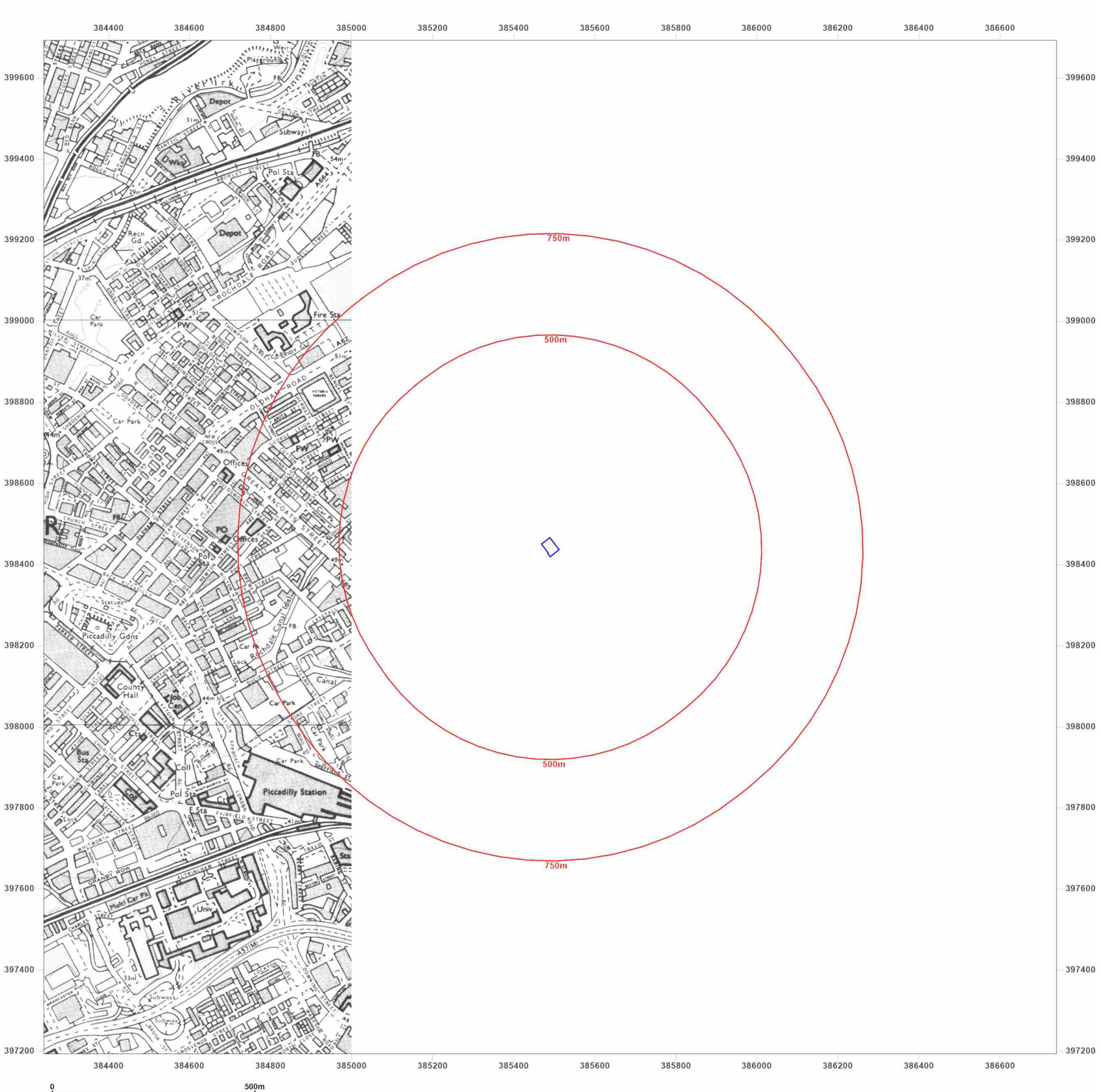
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Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

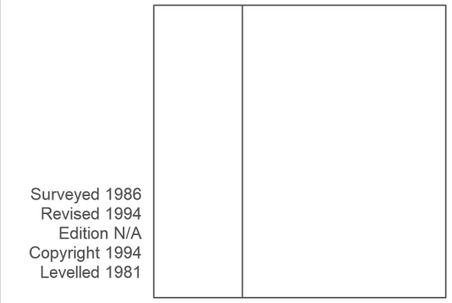
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Map date: **1994**

Scale: 1:10,000

Printed at: 1:10,000

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Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

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2001

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2010

Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

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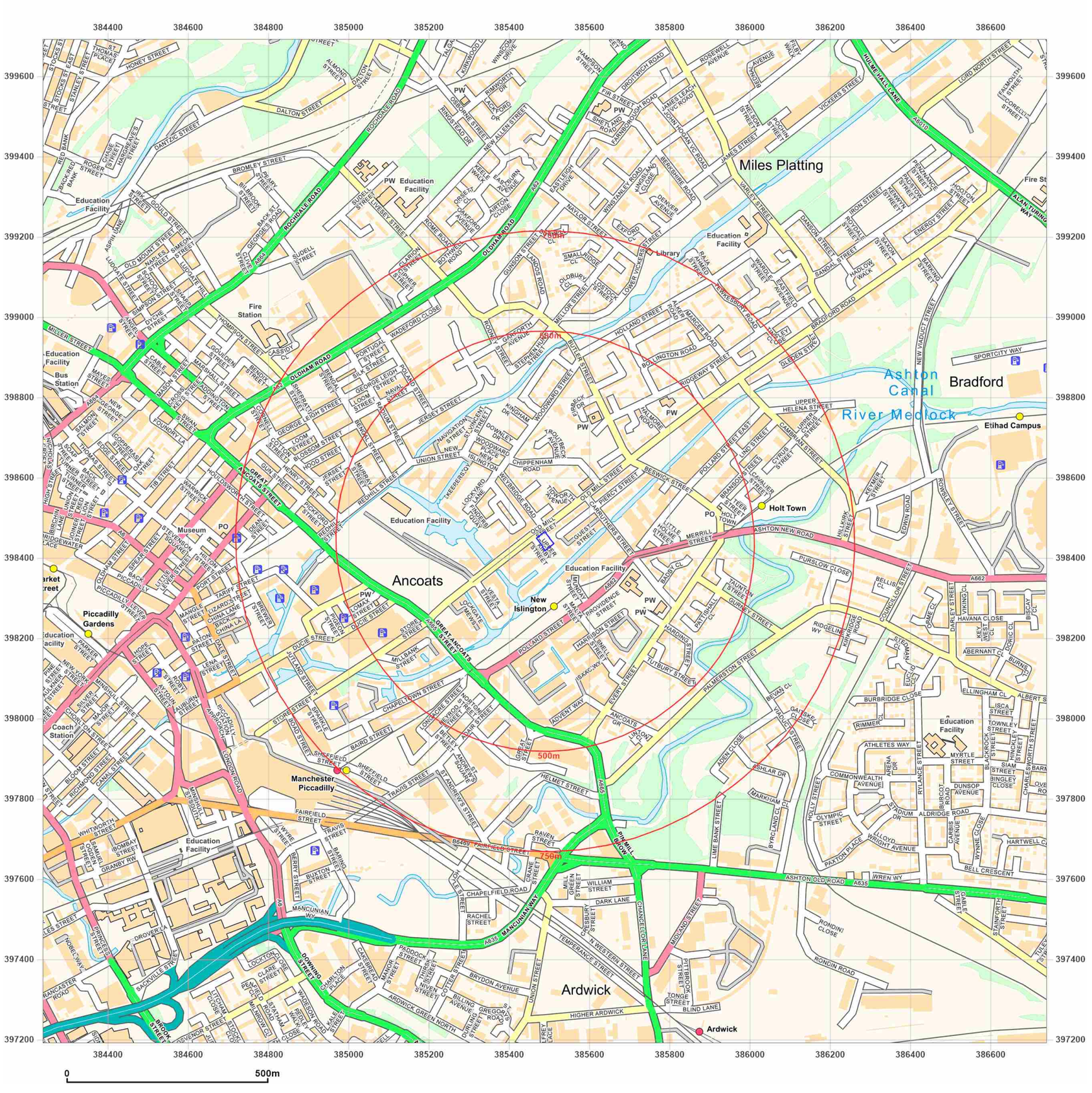
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Groundsure INSIGHTS

Site Details:

OLD MILL STREET,
MANCHESTER, M4 6EE

Client Ref: GM12676
Report Ref: GS-2R7-WVD-WRS-4N9
Grid Ref: 385489, 398442

Map Name: National Grid

Map date: **2023**

Scale: 1:10,000

Printed at: 1:10,000

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Groundsure LOCATION INTELLIGENCE

Enviro+Geo Insight

OLD MILL STREET, MANCHESTER, M4 6EE

Order Details

Date: 26/05/2023

Your ref: GM12676

Our Ref: GS-EUW-3YK-9AB-IVR

Site Details

Location: 385483 398446

Area: 0.1 ha

Authority: Manchester City Council ↗



Summary of findings p. 2 >

OS MasterMap site plan p.12 >

Aerial image p. 8 >

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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
13 >	1.1 >	Historical industrial land uses >	3	12	41	99	-
19 >	1.2 >	Historical tanks >	0	2	21	23	-
21 >	1.3 >	Historical energy features >	0	0	8	22	-
23 >	1.4 >	Historical petrol stations >	0	0	0	0	-
23 >	1.5 >	Historical garages >	0	0	6	26	-
24 >	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
25 >	2.1 >	Historical industrial land uses >	4	15	50	120	-
32 >	2.2 >	Historical tanks >	0	4	39	39	-
36 >	2.3 >	Historical energy features >	0	0	30	66	-
39 >	2.4 >	Historical petrol stations >	0	0	0	0	-
40 >	2.5 >	Historical garages >	0	0	8	33	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
42 >	3.1 >	Active or recent landfill >	0	0	0	0	-
42 >	3.2 >	Historical landfill (BGS records) >	0	0	0	0	-
43 >	3.3 >	Historical landfill (LA/mapping records) >	0	0	0	0	-
43 >	3.4 >	Historical landfill (EA/NRW records) >	0	0	0	0	-
43 >	3.5 >	Historical waste sites >	0	0	8	15	-
46 >	3.6 >	Licensed waste sites >	0	0	0	0	-
46 >	3.7 >	Waste exemptions >	0	1	5	69	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
54 >	4.1 >	Recent industrial land uses >	0	1	16	-	-
56 >	4.2 >	Current or recent petrol stations >	0	0	0	0	-
56 >	4.3 >	Electricity cables >	0	0	0	0	-
56 >	4.4 >	Gas pipelines >	0	0	0	0	-
56 >	4.5 >	Sites determined as Contaminated Land >	0	0	0	0	-

56 >	4.6 >	Control of Major Accident Hazards (COMAH) >	0	0	0	0	-
57 >	4.7 >	Regulated explosive sites >	0	0	0	0	-
57 >	4.8 >	Hazardous substance storage/usage >	0	0	0	0	-
57 >	4.9 >	Historical licensed industrial activities (IPC) >	0	0	0	0	-
57 >	4.10 >	Licensed industrial activities (Part A(1)) >	0	0	0	0	-
57 >	4.11 >	Licensed pollutant release (Part A(2)/B) >	0	0	1	4	-
58 >	4.12 >	Radioactive Substance Authorisations >	0	0	0	0	-
58 >	4.13 >	Licensed Discharges to controlled waters >	0	0	1	15	-
61 >	4.14 >	Pollutant release to surface waters (Red List) >	0	0	0	0	-
61 >	4.15 >	Pollutant release to public sewer >	0	0	0	0	-
61 >	4.16 >	List 1 Dangerous Substances >	0	0	0	0	-
62 >	4.17 >	List 2 Dangerous Substances >	0	0	0	0	-
62 >	4.18 >	Pollution Incidents (EA/NRW) >	0	0	15	5	-
64 >	4.19 >	Pollution inventory substances >	0	0	0	0	-
64 >	4.20 >	Pollution inventory waste transfers >	0	0	0	0	-
65 >	4.21 >	Pollution inventory radioactive waste >	0	0	0	0	-

Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
66 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
68 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
70 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
71 >	5.4 >	Groundwater vulnerability- soluble rock risk >	Identified (within 0m)				
71 >	5.5 >	Groundwater vulnerability- local information >	None (within 0m)				
72 >	5.6 >	Groundwater abstractions >	0	0	0	0	38
82 >	5.7 >	Surface water abstractions >	0	0	0	0	0
82 >	5.8 >	Potable abstractions >	0	0	0	0	9
85 >	5.9 >	Source Protection Zones >	0	0	0	0	-
85 >	5.10 >	Source Protection Zones (confined aquifer) >	0	0	0	0	-

Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
86 >	6.1 >	Water Network (OS MasterMap) >	0	0	8	-	-

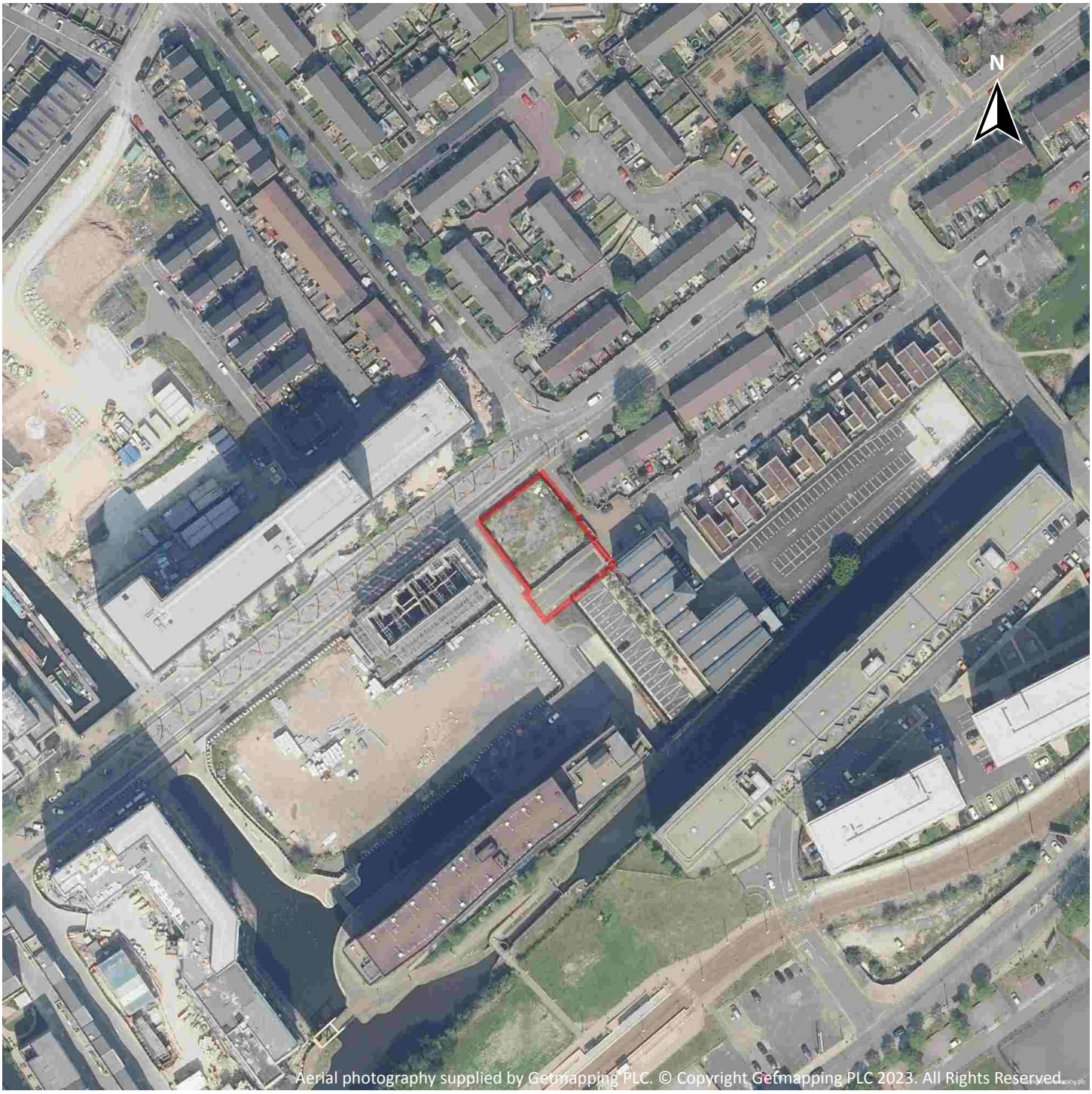
87 >	6.2 >	Surface water features >	0	0	4	-	-
87 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
88 >	6.4 >	WFD Surface water bodies >	0	0	1	-	-
88 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
90 >	7.1 >	Risk of flooding from rivers and the sea >	None (within 50m)				
90 >	7.2 >	Historical Flood Events >	0	0	0	-	-
90 >	7.3 >	Flood Defences >	0	0	0	-	-
91 >	7.4 >	Areas Benefiting from Flood Defences >	0	0	0	-	-
91 >	7.5 >	Flood Storage Areas >	0	0	0	-	-
92 >	7.6 >	Flood Zone 2 >	None (within 50m)				
92 >	7.7 >	Flood Zone 3 >	None (within 50m)				
Page	Section	Surface water flooding >					
93 >	8.1 >	Surface water flooding >	1 in 1000 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
95 >	9.1 >	Groundwater flooding >	High (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
96 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	0
96 >	10.2 >	Conserved wetland sites (Ramsar sites) >	0	0	0	0	0
96 >	10.3 >	Special Areas of Conservation (SAC) >	0	0	0	0	0
96 >	10.4 >	Special Protection Areas (SPA) >	0	0	0	0	0
97 >	10.5 >	National Nature Reserves (NNR) >	0	0	0	0	0
97 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	0
97 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	0
97 >	10.8 >	Biosphere Reserves >	0	0	0	0	0
98 >	10.9 >	Forest Parks >	0	0	0	0	0
98 >	10.10 >	Marine Conservation Zones >	0	0	0	0	0
98 >	10.11 >	Green Belt >	0	0	0	0	0
98 >	10.12 >	Proposed Ramsar sites >	0	0	0	0	0

98 >	10.13 >	Possible Special Areas of Conservation (pSAC) >	0	0	0	0	0
99 >	10.14 >	Potential Special Protection Areas (pSPA) >	0	0	0	0	0
99 >	10.15 >	Nitrate Sensitive Areas >	0	0	0	0	0
99 >	10.16 >	Nitrate Vulnerable Zones >	0	0	0	0	4
100 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
101 >	10.18 >	SSSI Units >	0	0	0	0	0
Page	Section	**Visual and cultural designations >**	On site	0-50m	50-250m	250-500m	500-2000m
102 >	11.1 >	World Heritage Sites >	0	0	0	-	-
103 >	11.2 >	Area of Outstanding Natural Beauty >	0	0	0	-	-
103 >	11.3 >	National Parks >	0	0	0	-	-
103 >	11.4 >	Listed Buildings >	0	1	6	-	-
104 >	11.5 >	Conservation Areas >	0	0	0	-	-
104 >	11.6 >	Scheduled Ancient Monuments >	0	0	0	-	-
104 >	11.7 >	Registered Parks and Gardens >	0	0	0	-	-
Page	Section	**Agricultural designations >**	On site	0-50m	50-250m	250-500m	500-2000m
105 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
106 >	12.2 >	Open Access Land >	0	0	0	-	-
106 >	12.3 >	Tree Felling Licences >	0	0	0	-	-
106 >	12.4 >	Environmental Stewardship Schemes >	0	0	0	-	-
106 >	12.5 >	Countryside Stewardship Schemes >	0	0	0	-	-
Page	Section	**Habitat designations >**	On site	0-50m	50-250m	250-500m	500-2000m
107 >	13.1 >	Priority Habitat Inventory >	0	0	0	-	-
107 >	13.2 >	Habitat Networks >	0	0	0	-	-
108 >	13.3 >	Open Mosaic Habitat >	0	1	0	-	-
108 >	13.4 >	Limestone Pavement Orders >	0	0	0	-	-
Page	Section	**Geology 1:10,000 scale >**	On site	0-50m	50-250m	250-500m	500-2000m
109 >	14.1 >	10k Availability >	Identified (within 500m)				
110 >	14.2 >	Artificial and made ground (10k) >	0	0	1	1	-
111 >	14.3 >	Superficial geology (10k) >	1	0	0	3	-

112 >	14.4 >	Landslip (10k) >	0	0	0	0	-
113 >	14.5 >	Bedrock geology (10k) >	2	0	4	5	-
114 >	14.6 >	Bedrock faults and other linear features (10k) >	0	0	0	1	-
Page	Section	**Geology 1:50,000 scale >**	On site	0-50m	50-250m	250-500m	500-2000m
115 >	15.1 >	50k Availability >	Identified (within 500m)				
116 >	15.2 >	Artificial and made ground (50k) >	0	0	1	1	-
117 >	15.3 >	Artificial ground permeability (50k) >	0	0	-	-	-
118 >	15.4 >	Superficial geology (50k) >	1	0	0	2	-
119 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
119 >	15.6 >	Landslip (50k) >	0	0	0	0	-
119 >	15.7 >	Landslip permeability (50k) >	None (within 50m)				
120 >	15.8 >	Bedrock geology (50k) >	2	0	4	2	-
121 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
121 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	0	1	-
Page	Section	**Boreholes >**	On site	0-50m	50-250m	250-500m	500-2000m
122 >	16.1 >	BGS Boreholes >	0	0	38	-	-
Page	Section	**Natural ground subsidence >**					
126 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
127 >	17.2 >	Running sands >	Very low (within 50m)				
128 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
129 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
130 >	17.5 >	Landslides >	Very low (within 50m)				
131 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	**Mining, ground workings and natural cavities >**	On site	0-50m	50-250m	250-500m	500-2000m
133 >	18.1 >	Natural cavities >	0	0	0	0	-
134 >	18.2 >	BritPits >	0	0	0	0	-
134 >	18.3 >	Surface ground workings >	0	2	19	-	-
135 >	18.4 >	Underground workings >	0	0	0	0	0
135 >	18.5 >	Historical Mineral Planning Areas >	0	0	0	0	-

135 >	18.6 >	Non-coal mining >	0	0	0	2	0
136 >	18.7 >	Mining cavities >	0	0	0	0	0
136 >	18.8 >	JPB mining areas >	Identified (within 0m)				
136 >	18.9 >	Coal mining >	Identified (within 0m)				
137 >	18.10 >	Brine areas >	None (within 0m)				
137 >	18.11 >	Gypsum areas >	None (within 0m)				
137 >	18.12 >	Tin mining >	None (within 0m)				
137 >	18.13 >	Clay mining >	None (within 0m)				
Page	Section	**Radon** >					
138 >	19.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	**Soil chemistry** >	On site	0-50m	50-250m	250-500m	500-2000m
140 >	20.1 >	BGS Estimated Background Soil Chemistry >	3	4	-	-	-
140 >	20.2 >	BGS Estimated Urban Soil Chemistry >	2	4	-	-	-
141 >	20.3 >	BGS Measured Urban Soil Chemistry >	0	0	-	-	-
Page	Section	**Railway infrastructure and projects** >	On site	0-50m	50-250m	250-500m	500-2000m
142 >	21.1 >	Underground railways (London) >	0	0	0	-	-
142 >	21.2 >	Underground railways (Non-London) >	0	0	0	-	-
143 >	21.3 >	Railway tunnels >	0	0	0	-	-
143 >	21.4 >	Historical railway and tunnel features >	0	0	1	-	-
143 >	21.5 >	Royal Mail tunnels >	0	0	0	-	-
143 >	21.6 >	Historical railways >	0	0	0	-	-
144 >	21.7 >	Railways >	0	0	9	-	-
144 >	21.8 >	Crossrail 1 >	0	0	0	0	-
144 >	21.9 >	Crossrail 2 >	0	0	0	0	-
145 >	21.10 >	HS2 >	0	0	0	0	-

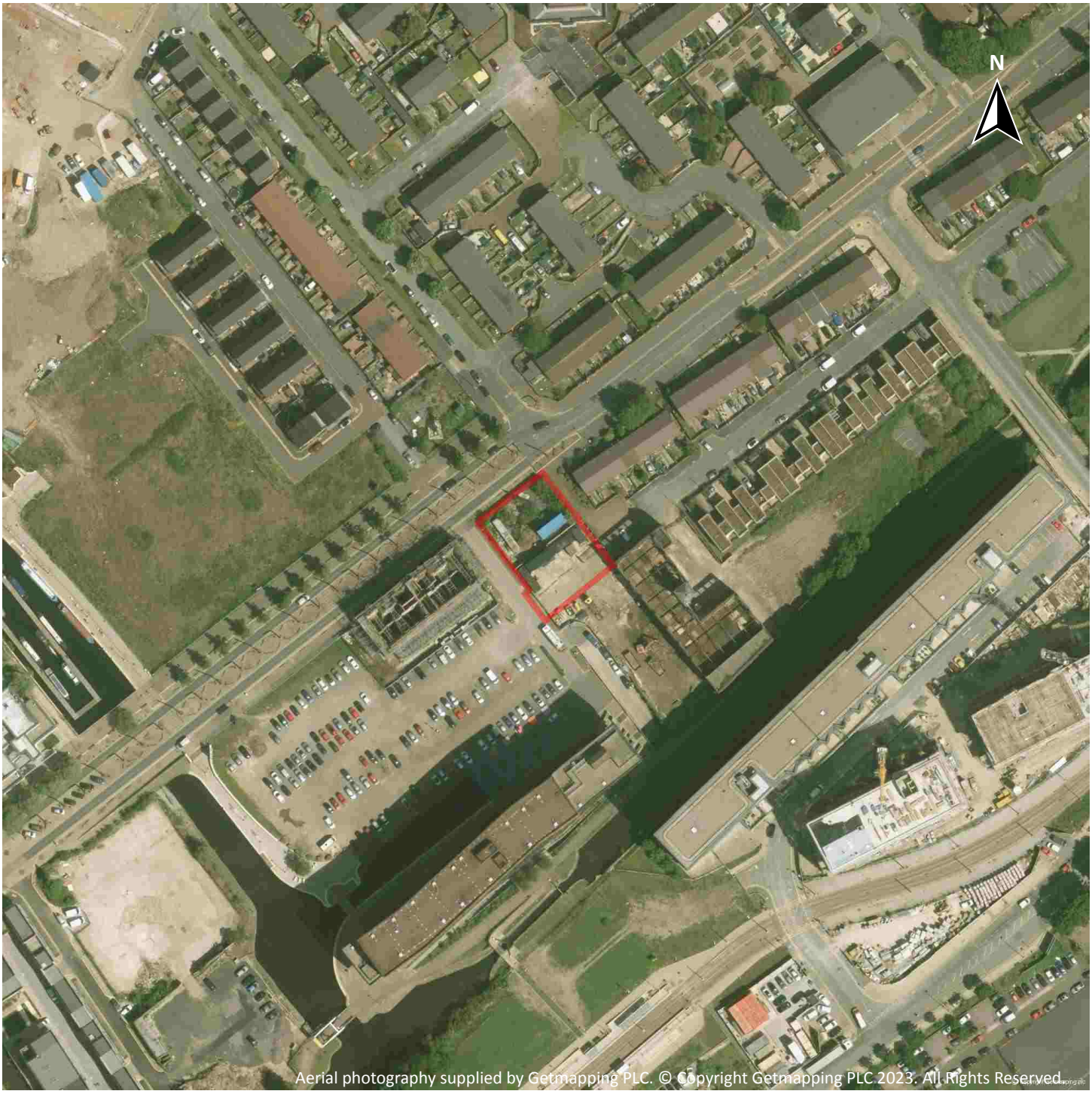
Recent aerial photograph



Capture Date: 22/04/2019

Site Area: 0.1ha

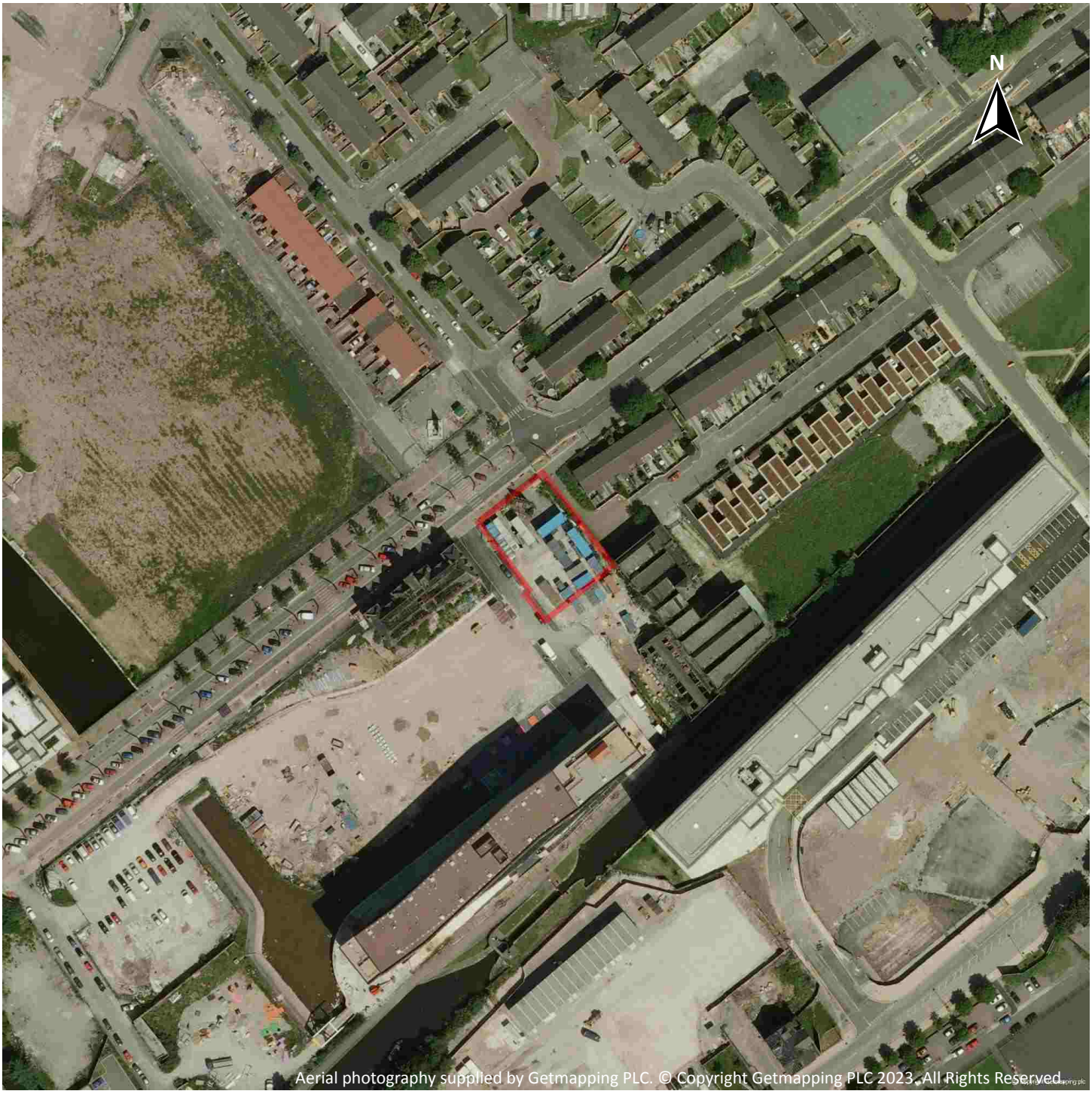
Recent site history - 2015 aerial photograph



Capture Date: 11/06/2015

Site Area: 0.1ha

Recent site history - 2009 aerial photograph



Capture Date: 02/06/2009

Site Area: 0.1ha

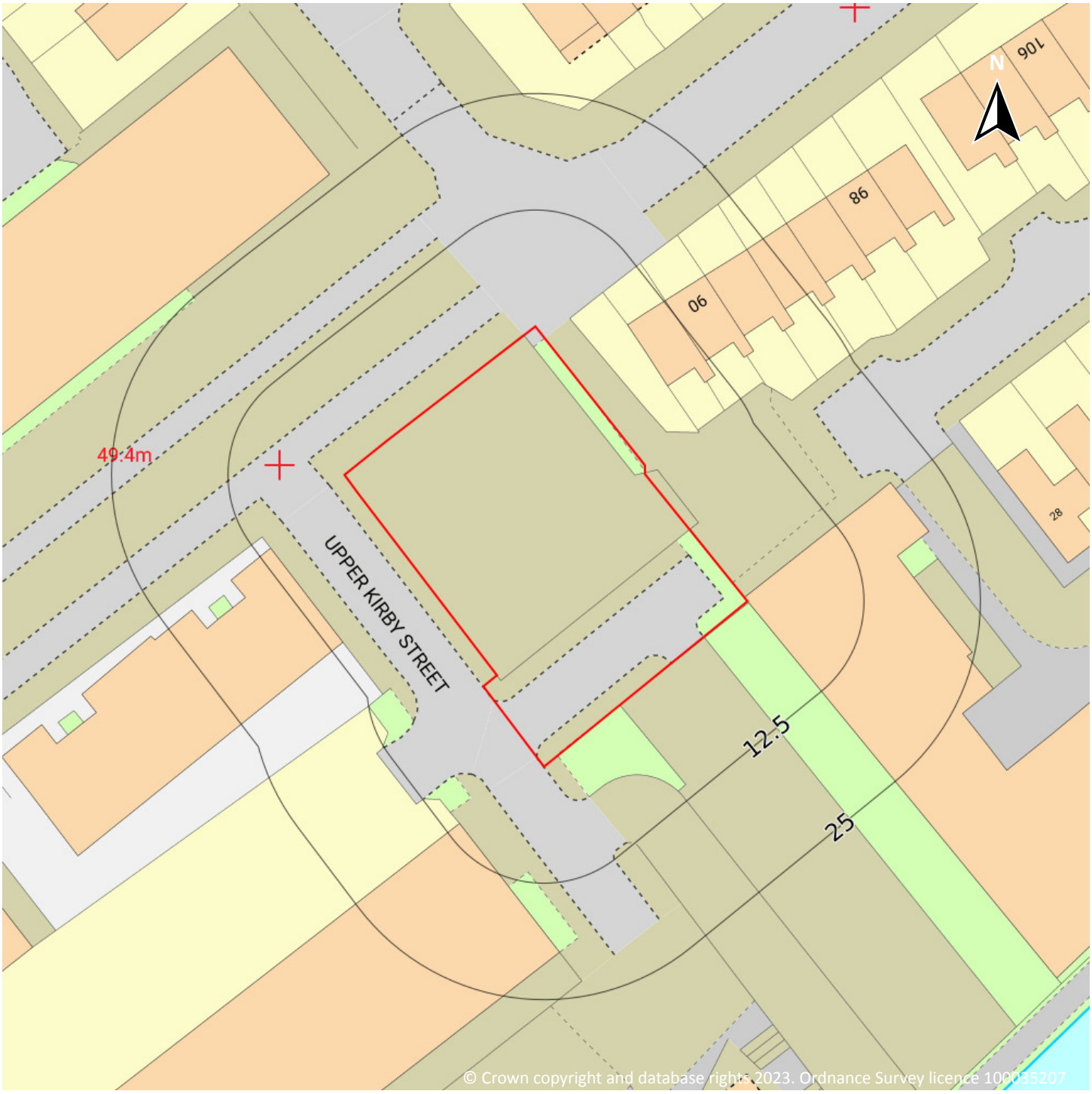
Recent site history - 2000 aerial photograph



Capture Date: 19/06/2000

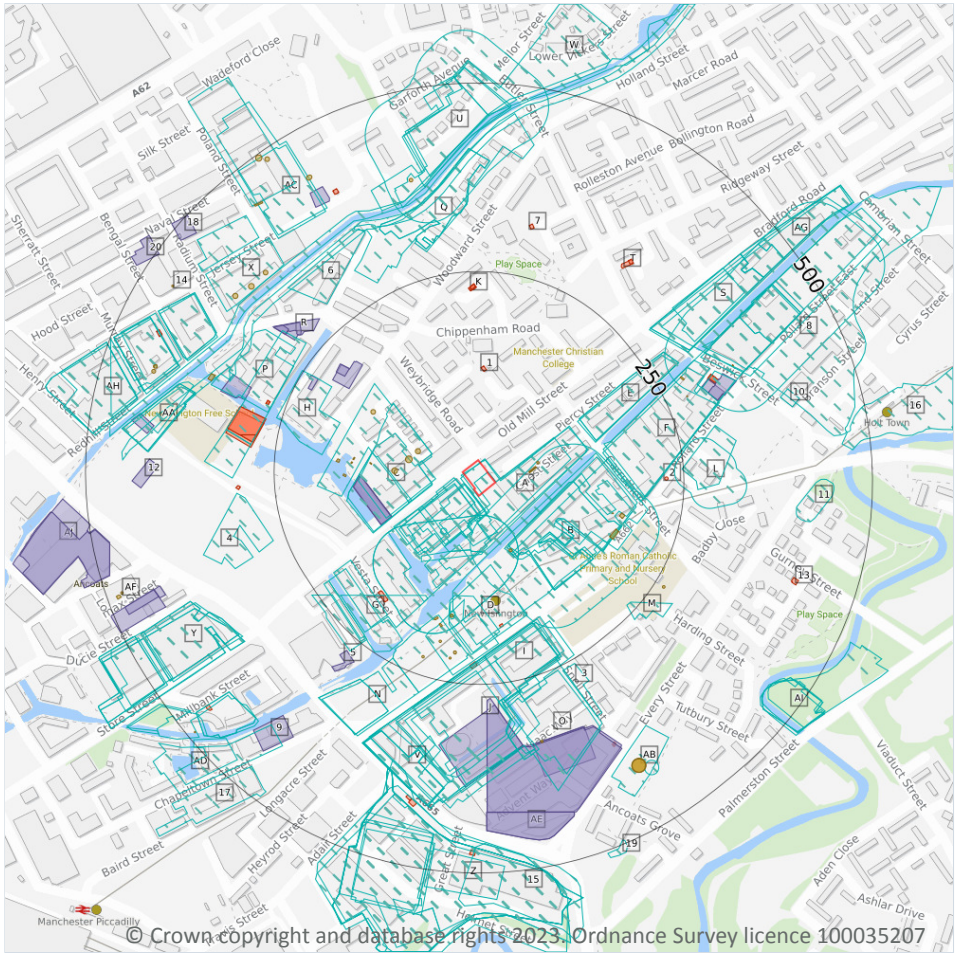
Site Area: 0.1ha

OS MasterMap site plan



Site Area: 0.1ha

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	155

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

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

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Unspecified Commercial/Industrial**	**1933**	**796757**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Unspecified Works**	**1968**	**830477**
A	**On site**	**Machine Works**	**1921 - 1923**	**953970**
A	5m S	Hospital	1985 - 1991	926141
A	6m SW	Hospital	1891	962056
A	10m S	Hospital	1978	988199
A	11m SW	Hospital	1956 - 1968	937930
A	16m S	Hospital	1921	885106
A	16m SW	Hospital	1923	891870
B	20m SE	Unspecified Mills	1938	917952
A	26m S	Unspecified Wharf	1906	879975
A	26m S	Unspecified Wharf	1921	971613
C	37m W	Unspecified Works	1968	830476
C	43m W	Unspecified Commercial/Industrial	1933	796758
C	43m W	Glass Works	1921 - 1923	903107
A	62m SW	Unspecified Tank	1923	825272
B	63m SE	Unspecified Mill	1978	916152
B	70m SE	Unspecified Mills	1933	861126
B	70m SE	Unspecified Mills	1921	986585
B	71m SE	Unspecified Mills	1956 - 1968	898421
B	73m SE	Unspecified Mills	1923	937329
A	73m S	Unspecified Wharf	1923	854227
C	77m W	Bedstead and Safe Works	1921 - 1923	988994
B	82m SE	Industrial Estate	1985 - 1991	854771
D	93m S	Unspecified Mill	1923	975402
D	133m S	Unspecified Mill	1915	977947
E	136m NE	Unspecified Mill	1923	971932
D	139m S	Unspecified Depot	1985 - 1991	858910
E	140m NE	Unspecified Mill	1933 - 1938	856419

ID	Location	Land use	Dates present	Group ID
E	140m NE	Unspecified Mill	1921	911603
F	148m E	Unspecified Commercial/Industrial	1923	958186
F	150m E	Unspecified Commercial/Industrial	1956	899187
G	150m SW	Unspecified Works	1915	888993
F	153m E	Unspecified Works	1968	830475
D	156m S	Unspecified Tank	1915	857486
D	162m S	Unspecified Tank	1923	861167
D	167m S	Unspecified Works	1915 - 1923	892569
H	175m W	Unspecified Works	1968	830474
I	179m SE	Unspecified Works	1968	907384
J	181m S	Unspecified Commercial/Industrial	1956	796795
J	183m S	Vulcan Works	1915	918761
J	183m S	Vulcan Works	1934 - 1938	930130
J	184m S	Vulcan Works	1905	883538
J	187m S	Vulcan Works	1923	923425
G	188m SW	Unspecified Works	1968	957976
I	191m SE	Unspecified Works	1985 - 1991	918302
G	200m SW	Unspecified Works	1923	982336
J	213m S	Unspecified Warehouse	1968	908490
J	220m S	Unspecified Warehouse	1985 - 1991	945086
G	228m SW	Unspecified Wharf	1923	917487
J	232m S	Unspecified Mills	1890	808185
G	234m SW	Unspecified Wharf	1915	854827
L	238m E	Hospital	1985	899552
M	239m SE	Railway Building	1890	820432
N	243m SW	Corporation Yard	1923	916320
L	248m E	Hospital	1956	945599
O	254m S	Unspecified Workhouse	1915 - 1923	892233

ID	Location	Land use	Dates present	Group ID
3	256m SE	Unspecified Works	1923	830480
P	264m NW	Unspecified Works	1968	830440
P	265m NW	Coal Wharf	1851	794093
4	267m W	Unspecified Mill	1968	810291
Q	270m NW	Sawmills	1923	938961
F	272m NE	Unspecified Mill	1938	920927
P	283m W	Unspecified Mill	1968	810292
S	285m NE	Unspecified Works	1923	939107
6	286m NW	Unspecified Works	1968	830462
S	287m NE	Unspecified Works	1921	920682
S	287m NE	Unspecified Works	1933 - 1938	936908
Q	288m N	Sawmills	1933 - 1938	910990
Q	288m N	Sawmills	1921	964387
N	290m SW	Corporation Yard	1915	937912
N	290m SW	Corporation Yard	1934 - 1938	938193
F	300m NE	Unspecified Commercial/Industrial	1985 - 1991	918075
F	319m NE	Unspecified Mill	1923	912959
S	319m NE	Unspecified Works	1968	889764
U	321m N	Unspecified Commercial/Industrial	1938	925844
V	325m S	Unspecified Warehouse	1968	893418
Q	326m NW	Disused Canal	1991	849130
F	326m NE	Unspecified Works	1968	830455
8	328m NE	Brick Field	1851	817950
V	337m S	Grain Store	1915	945610
V	337m S	Grain Store	1923	849549
V	337m S	Grain Store	1905	904364
U	349m N	Unspecified Mills	1921 - 1923	864010
Q	350m NW	Disused Canal	1985	2367192

ID	Location	Land use	Dates present	Group ID
W	355m N	Unspecified Commercial/Industrial	1956	886609
X	363m NW	Glass Works	1851	797986
Y	363m SW	Unspecified Warehouse	1923	896333
Y	365m SW	Unspecified Disused Foundry	1890	794069
Y	365m SW	Clothing Foundry	1905	817104
Y	366m SW	Unspecified Warehouse	1934 - 1938	871212
Y	366m SW	Unspecified Warehouse	1915	961707
Z	368m S	Railway Sidings	1956 - 1968	845148
AA	368m W	Sawmill	1923	932999
U	369m N	Unspecified Commercial/Industrial	1933	990780
AA	370m W	Sawmill	1933 - 1938	905698
AA	370m W	Sawmill	1921	903562
AA	371m NW	Unspecified Mills	1923	957445
AA	375m W	Unspecified Mill	1968	810293
AA	375m NW	Unspecified Mills	1921	849304
AA	375m NW	Unspecified Mills	1933 - 1938	900155
AB	376m SE	Grave Yard	1851	817298
Z	380m S	Railway Sidings	1934	857332
Z	380m S	Railway Sidings	1915	905447
Z	380m S	Railway Sidings	1905	943711
Z	380m S	Railway Sidings	1938	947526
Z	380m S	Railway Sidings	1923	964887
U	381m N	Unspecified Works	1968	830463
AC	387m NW	Unspecified Works	1991	974737
AC	390m NW	Unspecified Works	1985	849231
F	391m NE	Unspecified Mill	1933	913105
F	391m NE	Unspecified Mill	1921	967711
10	394m E	Police Station	1968	832596

ID	Location	Land use	Dates present	Group ID
Z	399m S	Goods Station	1956	897884
AA	400m W	Unspecified Mill	1923	960726
11	401m E	Tanks	1851	832184
AA	402m W	Unspecified Works	1968	830441
AA	403m W	Unspecified Mill	1933 - 1938	910742
AA	403m W	Unspecified Mill	1921	958771
AD	410m SW	Unspecified Works	1923	970752
V	410m S	Railway Building	1938	820434
Z	410m S	Railway Sidings	1890	860700
X	412m NW	Unspecified Works	1968	830454
AD	415m SW	Unspecified Wharves	1923	956711
AB	417m SE	Unspecified Tank	1985 - 1991	982136
AD	417m SW	Unspecified Wharves	1934 - 1938	857499
AD	417m SW	Unspecified Wharves	1915	985290
AG	430m NE	Unspecified Mill	1921	941996
AG	430m NE	Unspecified Mill	1933 - 1938	974727
AC	440m NW	Unspecified Works	1968	848216
AH	441m W	Unspecified Mills	1923	954294
AH	442m W	Unspecified Mills	1921	878606
AH	442m W	Unspecified Mills	1933 - 1938	900882
Z	451m S	Goods Station	1968	941668
AI	451m SE	Unspecified Works	1905	900664
AI	451m SE	Unspecified Works	1923	945484
AI	451m SE	Unspecified Works	1915	957217
AI	451m SE	Unspecified Commercial/Industrial	1934	796794
AI	454m SE	Unspecified Works	1968	895289
Z	455m S	Goods Station	1905 - 1938	920838
W	457m N	Unspecified Mill	1968	810298

ID	Location	Land use	Dates present	Group ID
15	461m S	Unspecified Commercial/Industrial	1985 - 1991	988506
16	462m E	Cotton Mills	1851	862251
Z	463m S	Goods Station	1890	970801
AD	464m SW	Unspecified Works	1968	872464
17	468m SW	Unspecified Works	1968	830437
AG	469m NE	Unspecified Mill	1923	926128
Y	470m SW	Unspecified Factory	1968	821377
AD	471m SW	Unspecified Workshop	1923	811070
Z	472m S	Goods Shed	1968	834671
AD	477m SW	Unspecified Works	1915	830439
Y	481m SW	Clothing Factory	1923	871590
Y	484m SW	Clothing Factory	1934 - 1938	898959
Y	484m SW	Clothing Factory	1915	930283
19	495m S	Unspecified Ground Workings	1923	800646

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**46**

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

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

ID	Location	Land use	Dates present	Group ID
A	47m E	Tanks	1948 - 1951	142420
A	47m E	Tanks	1948	131391
A	61m E	Tanks	1948 - 1951	127701
C	62m NW	Unspecified Tank	1893	115973

ID	Location	Land use	Dates present	Group ID
C	69m W	Unspecified Tank	1893	115974
B	82m SE	Unspecified Tank	1908 - 1922	137618
C	87m W	Unspecified Tank	1893	115981
C	121m W	Tanks	1891	106804
C	140m NW	Unspecified Tank	1893	115976
C	144m W	Unspecified Tank	1891	115975
C	147m W	Unspecified Tank	1891	115980
C	154m W	Tanks	1891	106805
B	161m E	Unspecified Tank	1891	115982
D	161m S	Unspecified Tank	1908 - 1922	128680
C	164m W	Unspecified Tank	1891	115979
B	168m SE	Unspecified Tank	1948	127493
D	170m S	Tanks	1908	106802
B	171m E	Unspecified Tank	1948 - 1951	139591
D	177m S	Tanks	1908 - 1932	132347
D	198m S	Unspecified Tank	1908 - 1922	143306
D	208m S	Unspecified Tank	1948 - 1967	126201
D	217m S	Unspecified Tank	1908 - 1932	148442
D	224m S	Unspecified Tank	1889	115908
M	261m SE	Unspecified Tank	1908 - 1931	129703
F	278m E	Unspecified Tank	1891	115983
F	282m NE	Unspecified Tank	1891	115984
O	335m S	Unspecified Tank	1889	115906
F	351m NE	Unspecified Tank	1891	115985
P	352m W	Unspecified Tank	1948	133167
X	369m NW	Unspecified Tank	1893 - 1908	148194
X	369m NW	Unspecified Tank	1893 - 1908	132899
X	378m NW	Unspecified Tank	1893 - 1908	128641

ID	Location	Land use	Dates present	Group ID
Q	379m N	Unspecified Tank	1893	115995
AB	406m SE	Unspecified Tank	1948 - 1951	132951
AB	407m SE	Unspecified Tank	1985 - 1990	132759
AB	407m SE	Unspecified Tank	1948 - 1957	134196
AA	428m W	Unspecified Tank	1965	115971
AA	428m W	Unspecified Tank	1908	115970
AC	433m NW	Unspecified Tank	1891 - 1893	137832
AC	444m NW	Tanks	1951	132646
14	455m NW	Unspecified Tank	1891	115972
AF	478m W	Unspecified Tank	1891	115977
AF	482m W	Unspecified Tank	1891	115978
AC	484m NW	Unspecified Tank	1893 - 1908	145581
AD	489m SW	Unspecified Tank	1891	115907
AC	491m NW	Unspecified Tank	1893 - 1908	124226

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	**30**

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

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

ID	Location	Land use	Dates present	Group ID
1	118m N	Electricity Substation	1967 - 1994	76092
D	172m S	Electricity Substation	1997	62188
G	180m SW	Electricity Substation	1988 - 1997	81397
D	220m S	Electricity Substation	1948 - 1997	65447

ID	Location	Land use	Dates present	Group ID
K	225m N	Electricity Substation	1994	68754
2	225m E	Electricity Substation	1994 - 1997	68555
K	225m N	Electricity Substation	1987	78295
K	226m N	Electricity Substation	1978 - 1991	64036
P	270m W	Hydraulic Power Station	1948 - 1951	65750
P	271m W	Hydraulic Power Station	1908 - 1931	72594
P	271m W	Corporation Hydraulic Power Station	1948 - 1951	66629
P	272m W	Electricity Substation	1978 - 1994	70177
P	272m W	Electricity Substation	1987	64729
P	278m W	Hydraulic Power Station	1948 - 1955	84311
P	296m W	Electricity Substation	1988 - 1997	64799
F	313m NE	Electricity Substation	1989	73379
F	313m NE	Electricity Substation	1948 - 1967	73404
7	314m N	Electricity Substation	1967 - 1994	75887
F	314m NE	Electricity Substation	1994	82404
T	318m NE	Electricity Substation	1989	72199
T	329m NE	Electricity Substation	1967 - 1994	67904
AB	372m SE	Electricity Substation	1989 - 1991	74775
AB	374m SE	Electricity Substation	1994 - 1997	81016
AC	400m NW	Electricity Substation	1967 - 1994	76474
V	407m S	Electricity Substation	1948 - 1978	69011
V	411m S	Electricity Substation	1981	62187
13	414m E	Electricity Substation	1990 - 1997	67796
AA	438m NW	Electricity Substation	1983 - 1994	67631
AD	453m SW	Electricity Substation	1991 - 1997	69001
Z	470m S	Electricity Substation	1985 - 1994	78122

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	32

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

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

ID	Location	Land use	Dates present	Group ID
C	111m SW	Corporation Cleansing Department Garage	1948	21128
C	111m SW	Garage	1965 - 1967	27438
C	112m SW	Corporation Cleansing Department Garage	1948 - 1955	25856
H	187m NW	Garage	1965	21074
H	201m NW	Garage	1963	22256
H	228m NW	Garage	1951	20323
J	269m S	Garage and Workshops	1951	20550
5	270m SW	Garage	1948	20325
R	272m NW	Garage	1967	22827
J	278m S	Co-op Garage and Workshops	1948	20621
R	282m NW	Garage	1965	23113
J	285m S	Co-operation Garage and Workshops	1948	20539
R	298m NW	Garage	1963	21004
F	301m E	Garage	1965 - 1967	26353

ID	Location	Land use	Dates present	Group ID
P	302m W	Garage	1951	20322
F	306m E	Garage	1963	23572
O	334m S	Garage	1989 - 1990	27786
O	335m S	Garage	1991	21495
O	336m S	Garage	1994 - 1997	26249
9	390m SW	Garage	1948	20317
AC	396m NW	Garage	1951	20321
12	404m W	Garage	1948	24546
AA	414m W	Garage	1951	20319
AE	420m S	Garage	1996	21966
AE	420m S	Garage	1994	23944
AF	426m W	Garage	1948	21756
AF	432m W	Garage	1991 - 1992	24800
AF	435m W	Garage	1997	22282
18	474m NW	Garage	1948 - 1951	26710
AJ	477m W	Garage	1990	22515
AJ	477m W	Garage	1996	22785
20	495m NW	Garages	1948 - 1951	25993

This data is sourced from Ordnance Survey / Groundsure.

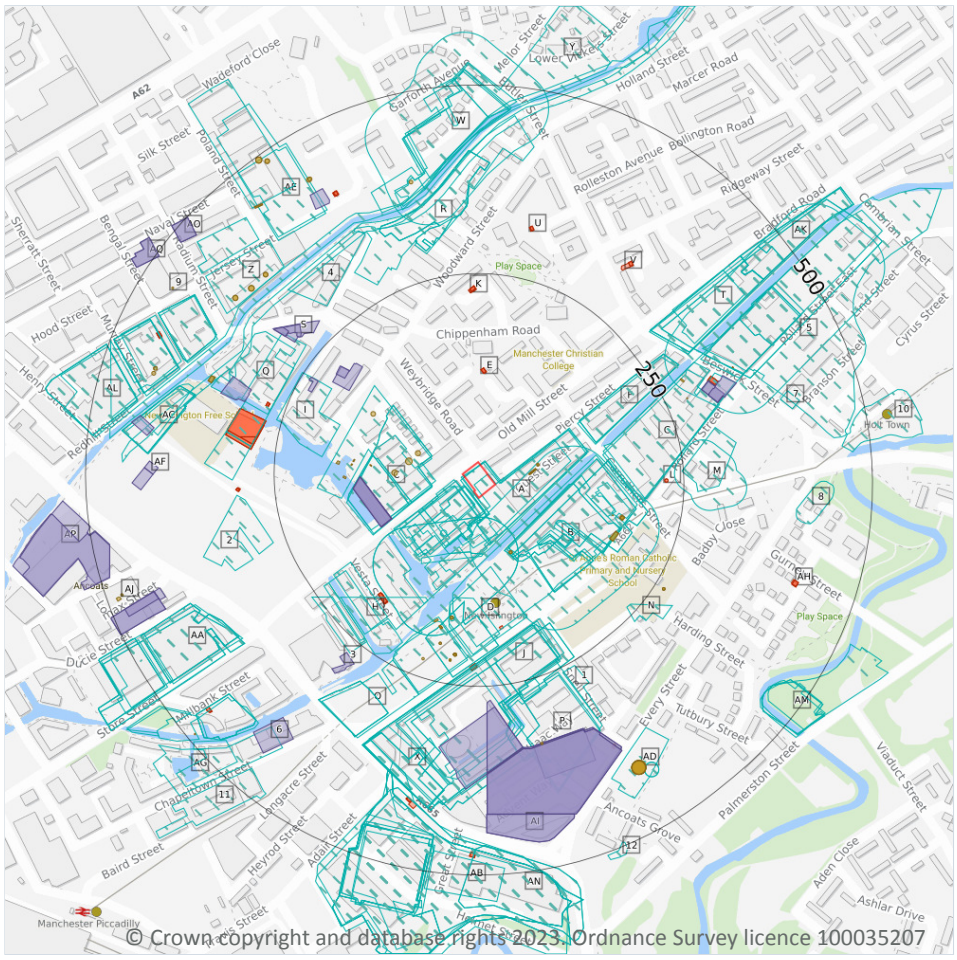
1.6 Historical military land

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	189

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 25 >**

ID	Location	Land Use	Date	Group ID
A	On site	Machine Works	1921	953970
A	On site	Unspecified Commercial/Industrial	1933	796757
A	On site	Unspecified Works	1968	830477

ID	Location	Land Use	Date	Group ID
A	**On site**	**Machine Works**	**1923**	**953970**
A	5m S	Hospital	1985	926141
A	5m S	Hospital	1991	926141
A	6m SW	Hospital	1891	962056
A	10m S	Hospital	1978	988199
A	11m SW	Hospital	1968	937930
A	12m SW	Hospital	1956	937930
A	16m S	Hospital	1921	885106
A	16m SW	Hospital	1923	891870
B	20m SE	Unspecified Mills	1938	917952
A	26m S	Unspecified Wharf	1921	971613
A	26m S	Unspecified Wharf	1906	879975
C	37m W	Unspecified Works	1968	830476
C	43m W	Glass Works	1921	903107
C	43m W	Unspecified Commercial/Industrial	1933	796758
C	44m W	Glass Works	1923	903107
A	62m SW	Unspecified Tank	1923	825272
B	63m SE	Unspecified Mill	1978	916152
B	70m SE	Unspecified Mills	1921	986585
B	70m SE	Unspecified Mills	1933	861126
B	71m SE	Unspecified Mills	1956	898421
B	71m SE	Unspecified Mills	1968	898421
B	73m SE	Unspecified Mills	1923	937329
A	73m S	Unspecified Wharf	1923	854227
C	77m W	Bedstead and Safe Works	1921	988994
C	82m W	Bedstead and Safe Works	1923	988994
B	82m SE	Industrial Estate	1985	854771
B	82m SE	Industrial Estate	1991	854771

ID	Location	Land Use	Date	Group ID
D	93m S	Unspecified Mill	1923	975402
D	133m S	Unspecified Mill	1915	977947
F	136m NE	Unspecified Mill	1923	971932
D	139m S	Unspecified Depot	1985	858910
D	139m S	Unspecified Depot	1991	858910
F	140m NE	Unspecified Mill	1921	911603
F	140m NE	Unspecified Mill	1938	856419
F	140m NE	Unspecified Mill	1933	856419
G	148m E	Unspecified Commercial/Industrial	1923	958186
G	150m E	Unspecified Commercial/Industrial	1956	899187
H	150m SW	Unspecified Works	1915	888993
G	153m E	Unspecified Works	1968	830475
D	156m S	Unspecified Tank	1915	857486
D	162m S	Unspecified Tank	1923	861167
D	167m S	Unspecified Works	1915	892569
D	172m S	Unspecified Works	1923	892569
I	175m W	Unspecified Works	1968	830474
J	179m SE	Unspecified Works	1968	907384
D	181m S	Unspecified Commercial/Industrial	1956	796795
D	183m S	Vulcan Works	1938	930130
D	183m S	Vulcan Works	1934	930130
D	183m S	Vulcan Works	1915	918761
D	184m S	Vulcan Works	1905	883538
D	187m S	Vulcan Works	1923	923425
H	188m SW	Unspecified Works	1968	957976
J	191m SE	Unspecified Works	1985	918302
J	191m SE	Unspecified Works	1991	918302
H	200m SW	Unspecified Works	1923	982336

ID	Location	Land Use	Date	Group ID
D	213m S	Unspecified Warehouse	1968	908490
D	220m S	Unspecified Warehouse	1985	945086
D	220m S	Unspecified Warehouse	1991	945086
H	228m SW	Unspecified Wharf	1923	917487
D	232m S	Unspecified Mills	1890	808185
H	234m SW	Unspecified Wharf	1915	854827
M	238m E	Hospital	1985	899552
N	239m SE	Railway Building	1890	820432
O	243m SW	Corporation Yard	1923	916320
M	248m E	Hospital	1956	945599
P	254m S	Unspecified Workhouse	1915	892233
1	256m SE	Unspecified Works	1923	830480
P	258m S	Unspecified Workhouse	1923	892233
Q	264m NW	Unspecified Works	1968	830440
Q	265m NW	Coal Wharf	1851	794093
2	267m W	Unspecified Mill	1968	810291
R	270m NW	Sawmills	1923	938961
G	272m NE	Unspecified Mill	1938	920927
Q	283m W	Unspecified Mill	1968	810292
T	285m NE	Unspecified Works	1923	939107
4	286m NW	Unspecified Works	1968	830462
T	287m NE	Unspecified Works	1921	920682
T	287m NE	Unspecified Works	1938	936908
T	287m NE	Unspecified Works	1933	936908
R	288m N	Sawmills	1921	964387
R	288m N	Sawmills	1933	910990
O	290m SW	Corporation Yard	1938	938193
O	290m SW	Corporation Yard	1934	938193

ID	Location	Land Use	Date	Group ID
O	290m SW	Corporation Yard	1915	937912
G	300m NE	Unspecified Commercial/Industrial	1985	918075
G	300m NE	Unspecified Commercial/Industrial	1991	918075
R	311m N	Sawmills	1938	910990
G	319m NE	Unspecified Mill	1923	912959
T	319m NE	Unspecified Works	1968	889764
W	321m N	Unspecified Commercial/Industrial	1938	925844
X	325m S	Unspecified Warehouse	1968	893418
R	326m NW	Disused Canal	1991	849130
G	326m NE	Unspecified Works	1968	830455
5	328m NE	Brick Field	1851	817950
X	337m S	Grain Store	1915	945610
X	337m S	Grain Store	1905	904364
X	337m S	Grain Store	1923	849549
W	349m N	Unspecified Mills	1923	864010
R	350m NW	Disused Canal	1985	2367192
W	353m N	Unspecified Mills	1921	864010
Y	355m N	Unspecified Commercial/Industrial	1956	886609
Z	363m NW	Glass Works	1851	797986
AA	363m SW	Unspecified Warehouse	1923	896333
AA	365m SW	Clothing Foundry	1905	817104
AA	365m SW	Unspecified Disused Foundry	1890	794069
AA	366m SW	Unspecified Warehouse	1938	871212
AA	366m SW	Unspecified Warehouse	1934	871212
AA	366m SW	Unspecified Warehouse	1915	961707
AB	368m S	Railway Sidings	1968	845148
AC	368m W	Sawmill	1923	932999
W	369m N	Unspecified Commercial/Industrial	1933	990780

ID	Location	Land Use	Date	Group ID
AC	370m W	Sawmill	1921	903562
AC	370m W	Sawmill	1938	905698
AC	370m W	Sawmill	1933	905698
AC	371m NW	Unspecified Mills	1923	957445
AC	375m W	Unspecified Mill	1968	810293
AC	375m NW	Unspecified Mills	1921	849304
AC	375m NW	Unspecified Mills	1938	900155
AC	375m NW	Unspecified Mills	1933	900155
AD	376m SE	Grave Yard	1851	817298
AB	380m S	Railway Sidings	1938	947526
AB	380m S	Railway Sidings	1934	857332
AB	380m S	Railway Sidings	1915	905447
AB	380m S	Railway Sidings	1905	943711
AB	380m S	Railway Sidings	1923	964887
W	381m N	Unspecified Works	1968	830463
AE	387m NW	Unspecified Works	1991	974737
AE	390m NW	Unspecified Works	1985	849231
G	391m NE	Unspecified Mill	1921	967711
G	391m NE	Unspecified Mill	1933	913105
7	394m E	Police Station	1968	832596
AB	399m S	Railway Sidings	1956	845148
AB	399m S	Goods Station	1956	897884
AC	400m W	Unspecified Mill	1923	960726
8	401m E	Tanks	1851	832184
AC	402m W	Unspecified Works	1968	830441
AC	403m W	Unspecified Mill	1921	958771
AC	403m W	Unspecified Mill	1938	910742
AC	403m W	Unspecified Mill	1933	910742

ID	Location	Land Use	Date	Group ID
AG	410m SW	Unspecified Works	1923	970752
X	410m S	Railway Building	1938	820434
AB	410m S	Railway Sidings	1890	860700
Z	412m NW	Unspecified Works	1968	830454
AG	415m SW	Unspecified Wharves	1923	956711
AD	417m SE	Unspecified Tank	1985	982136
AD	417m SE	Unspecified Tank	1991	982136
AG	417m SW	Unspecified Wharves	1938	857499
AG	417m SW	Unspecified Wharves	1934	857499
AG	417m SW	Unspecified Wharves	1915	985290
AK	430m NE	Unspecified Mill	1921	941996
AK	430m NE	Unspecified Mill	1938	974727
AK	430m NE	Unspecified Mill	1933	974727
AE	440m NW	Unspecified Works	1968	848216
AL	441m W	Unspecified Mills	1923	954294
AL	442m W	Unspecified Mills	1921	878606
AL	442m W	Unspecified Mills	1938	900882
AL	442m W	Unspecified Mills	1933	900882
AB	451m S	Goods Station	1968	941668
AM	451m SE	Unspecified Works	1905	900664
AM	451m SE	Unspecified Works	1923	945484
AM	451m SE	Unspecified Works	1915	957217
AM	451m SE	Unspecified Commercial/Industrial	1934	796794
AM	454m SE	Unspecified Works	1968	895289
AB	455m S	Goods Station	1905	920838
AB	455m S	Goods Station	1923	920838
AB	456m S	Goods Station	1938	920838
AB	456m S	Goods Station	1934	920838

ID	Location	Land Use	Date	Group ID
AB	456m S	Goods Station	1915	920838
Y	457m N	Unspecified Mill	1968	810298
AN	461m S	Unspecified Commercial/Industrial	1985	988506
AN	461m S	Unspecified Commercial/Industrial	1991	988506
10	462m E	Cotton Mills	1851	862251
AB	463m S	Goods Station	1890	970801
AG	464m SW	Unspecified Works	1968	872464
11	468m SW	Unspecified Works	1968	830437
AK	469m NE	Unspecified Mill	1923	926128
AA	470m SW	Unspecified Factory	1968	821377
AG	471m SW	Unspecified Workshop	1923	811070
AB	472m S	Goods Shed	1968	834671
AG	477m SW	Unspecified Works	1915	830439
AA	481m SW	Clothing Factory	1923	871590
AA	484m SW	Clothing Factory	1938	898959
AA	484m SW	Clothing Factory	1934	898959
AA	484m SW	Clothing Factory	1915	930283
12	495m S	Unspecified Ground Workings	1923	800646

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**82**

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 25 >**

ID	Location	Land Use	Date	Group ID
A	47m E	Tanks	1951	142420
A	47m E	Tanks	1951	142420

ID	Location	Land Use	Date	Group ID
A	47m E	Tanks	1948	142420
A	47m E	Tanks	1948	131391
A	61m E	Tanks	1951	127701
A	61m E	Tanks	1948	127701
C	62m NW	Unspecified Tank	1893	115973
C	69m W	Unspecified Tank	1893	115974
B	82m SE	Unspecified Tank	1908	137618
B	82m SE	Unspecified Tank	1922	137618
C	87m W	Unspecified Tank	1893	115981
C	121m W	Tanks	1891	106804
C	140m NW	Unspecified Tank	1893	115976
C	144m W	Unspecified Tank	1891	115975
C	147m W	Unspecified Tank	1891	115980
C	154m W	Tanks	1891	106805
B	161m E	Unspecified Tank	1891	115982
D	161m S	Unspecified Tank	1908	128680
D	161m S	Unspecified Tank	1922	128680
C	164m W	Unspecified Tank	1891	115979
B	168m SE	Unspecified Tank	1948	127493
B	168m SE	Unspecified Tank	1948	127493
D	170m S	Tanks	1908	106802
B	171m E	Unspecified Tank	1951	139591
B	171m E	Unspecified Tank	1951	139591
B	171m E	Unspecified Tank	1948	139591
B	171m E	Unspecified Tank	1948	139591
D	177m S	Tanks	1908	132347
D	177m S	Tanks	1922	132347
D	177m S	Tanks	1932	132347

ID	Location	Land Use	Date	Group ID
D	198m S	Unspecified Tank	1908	143306
D	198m S	Unspecified Tank	1922	143306
D	208m S	Unspecified Tank	1955	126201
D	208m S	Unspecified Tank	1948	126201
D	209m S	Unspecified Tank	1965	126201
D	209m S	Unspecified Tank	1967	126201
D	209m S	Unspecified Tank	1951	126201
D	209m S	Unspecified Tank	1948	126201
D	209m S	Unspecified Tank	1967	126201
D	217m S	Unspecified Tank	1908	148442
D	217m S	Unspecified Tank	1922	148442
D	217m S	Unspecified Tank	1932	148442
D	224m S	Unspecified Tank	1889	115908
N	261m SE	Unspecified Tank	1908	129703
N	261m SE	Unspecified Tank	1922	129703
N	261m SE	Unspecified Tank	1931	129703
G	278m E	Unspecified Tank	1891	115983
G	282m NE	Unspecified Tank	1891	115984
P	335m S	Unspecified Tank	1889	115906
G	351m NE	Unspecified Tank	1891	115985
Q	352m W	Unspecified Tank	1948	133167
Q	353m W	Unspecified Tank	1948	133167
Z	369m NW	Unspecified Tank	1893	148194
Z	369m NW	Unspecified Tank	1908	148194
Z	369m NW	Unspecified Tank	1893	132899
Z	369m NW	Unspecified Tank	1908	132899
Z	378m NW	Unspecified Tank	1893	128641
Z	378m NW	Unspecified Tank	1908	128641

ID	Location	Land Use	Date	Group ID
R	379m N	Unspecified Tank	1893	115995
AD	406m SE	Unspecified Tank	1951	132951
AD	406m SE	Unspecified Tank	1948	132951
AD	407m SE	Unspecified Tank	1985	132759
AD	407m SE	Unspecified Tank	1990	132759
AD	407m SE	Unspecified Tank	1990	132759
AD	407m SE	Unspecified Tank	1989	132759
AD	407m SE	Unspecified Tank	1957	134196
AD	407m SE	Unspecified Tank	1951	134196
AD	407m SE	Unspecified Tank	1948	134196
AC	428m W	Unspecified Tank	1965	115971
AC	428m W	Unspecified Tank	1908	115970
AE	433m NW	Unspecified Tank	1893	137832
AE	434m NW	Unspecified Tank	1891	137832
AE	444m NW	Tanks	1951	132646
AE	445m NW	Tanks	1951	132646
9	455m NW	Unspecified Tank	1891	115972
AJ	478m W	Unspecified Tank	1891	115977
AJ	482m W	Unspecified Tank	1891	115978
AE	484m NW	Unspecified Tank	1893	145581
AE	484m NW	Unspecified Tank	1908	145581
AG	489m SW	Unspecified Tank	1891	115907
AE	491m NW	Unspecified Tank	1893	124226
AE	491m NW	Unspecified Tank	1908	124226

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**96**

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 25 >**

ID	Location	Land Use	Date	Group ID
E	118m N	Electricity Substation	1987	76092
E	118m N	Electricity Substation	1967	76092
E	118m N	Electricity Substation	1994	76092
E	118m N	Electricity Substation	1978	76092
E	118m N	Electricity Substation	1983	76092
E	118m N	Electricity Substation	1991	76092
D	172m S	Electricity Substation	1997	62188
H	180m SW	Electricity Substation	1997	81397
H	181m SW	Electricity Substation	1989	81397
H	181m SW	Electricity Substation	1988	81397
H	181m SW	Electricity Substation	1991	81397
H	181m SW	Electricity Substation	1992	81397
D	220m S	Electricity Substation	1951	65447
D	220m S	Electricity Substation	1948	65447
D	221m S	Electricity Substation	1955	65447
D	221m S	Electricity Substation	1989	65447
D	221m S	Electricity Substation	1981	65447
D	221m S	Electricity Substation	1948	65447
D	221m S	Electricity Substation	1978	65447
D	221m S	Electricity Substation	1988	65447
D	221m S	Electricity Substation	1991	65447
D	221m S	Electricity Substation	1992	65447
D	221m S	Electricity Substation	1997	65447

ID	Location	Land Use	Date	Group ID
K	225m N	Electricity Substation	1994	68754
L	225m E	Electricity Substation	1994	68555
L	225m E	Electricity Substation	1997	68555
K	225m N	Electricity Substation	1987	78295
K	226m N	Electricity Substation	1978	64036
K	226m N	Electricity Substation	1983	64036
K	226m N	Electricity Substation	1991	64036
Q	270m W	Hydraulic Power Station	1951	65750
Q	270m W	Hydraulic Power Station	1948	65750
Q	271m W	Hydraulic Power Station	1908	72594
Q	271m W	Hydraulic Power Station	1922	72594
Q	271m W	Hydraulic Power Station	1931	72594
Q	271m W	Corporation Hydraulic Power Station	1948	66629
Q	271m W	Corporation Hydraulic Power Station	1951	66629
Q	272m W	Electricity Substation	1994	70177
Q	272m W	Electricity Substation	1987	64729
Q	272m W	Electricity Substation	1978	70177
Q	272m W	Electricity Substation	1983	70177
Q	272m W	Electricity Substation	1991	70177
Q	278m W	Hydraulic Power Station	1955	84311
Q	278m W	Hydraulic Power Station	1948	84311
Q	296m W	Electricity Substation	1997	64799
Q	296m W	Electricity Substation	1989	64799
Q	296m W	Electricity Substation	1988	64799
Q	296m W	Electricity Substation	1991	64799
Q	296m W	Electricity Substation	1992	64799
G	313m NE	Electricity Substation	1989	73379
G	313m NE	Electricity Substation	1951	73404

ID	Location	Land Use	Date	Group ID
G	313m NE	Electricity Substation	1948	73404
G	314m NE	Electricity Substation	1967	73404
G	314m NE	Electricity Substation	1951	73404
G	314m NE	Electricity Substation	1948	73404
U	314m N	Electricity Substation	1989	75887
G	314m NE	Electricity Substation	1994	82404
U	314m N	Electricity Substation	1994	75887
U	315m N	Electricity Substation	1967	75887
V	318m NE	Electricity Substation	1989	72199
V	329m NE	Electricity Substation	1967	67904
V	329m NE	Electricity Substation	1994	67904
AD	372m SE	Electricity Substation	1990	74775
AD	372m SE	Electricity Substation	1990	74775
AD	372m SE	Electricity Substation	1989	74775
AD	373m SE	Electricity Substation	1991	74775
AD	374m SE	Electricity Substation	1994	81016
AD	374m SE	Electricity Substation	1997	81016
AE	400m NW	Electricity Substation	1978	76474
AE	400m NW	Electricity Substation	1983	76474
AE	400m NW	Electricity Substation	1991	76474
AE	400m NW	Electricity Substation	1994	76474
AE	400m NW	Electricity Substation	1967	76474
AE	401m NW	Electricity Substation	1987	76474
X	407m S	Electricity Substation	1967	69011
X	407m S	Electricity Substation	1951	69011
X	407m S	Electricity Substation	1948	69011
X	407m S	Electricity Substation	1967	69011
X	408m S	Electricity Substation	1978	69011

ID	Location	Land Use	Date	Group ID
X	408m S	Electricity Substation	1955	69011
X	408m S	Electricity Substation	1948	69011
X	411m S	Electricity Substation	1981	62187
AH	414m E	Electricity Substation	1990	67796
AH	415m E	Electricity Substation	1994	67796
AH	415m E	Electricity Substation	1997	67796
AH	415m E	Electricity Substation	1991	67796
AC	438m NW	Electricity Substation	1994	67631
AC	439m NW	Electricity Substation	1987	67631
AC	439m NW	Electricity Substation	1983	67631
AC	439m NW	Electricity Substation	1991	67631
AG	453m SW	Electricity Substation	1991	69001
AG	453m SW	Electricity Substation	1992	69001
AG	453m SW	Electricity Substation	1997	69001
AB	470m S	Electricity Substation	1985	78122
AB	470m S	Electricity Substation	1991	78122
AB	470m S	Electricity Substation	1994	78122

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	**41**

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'.

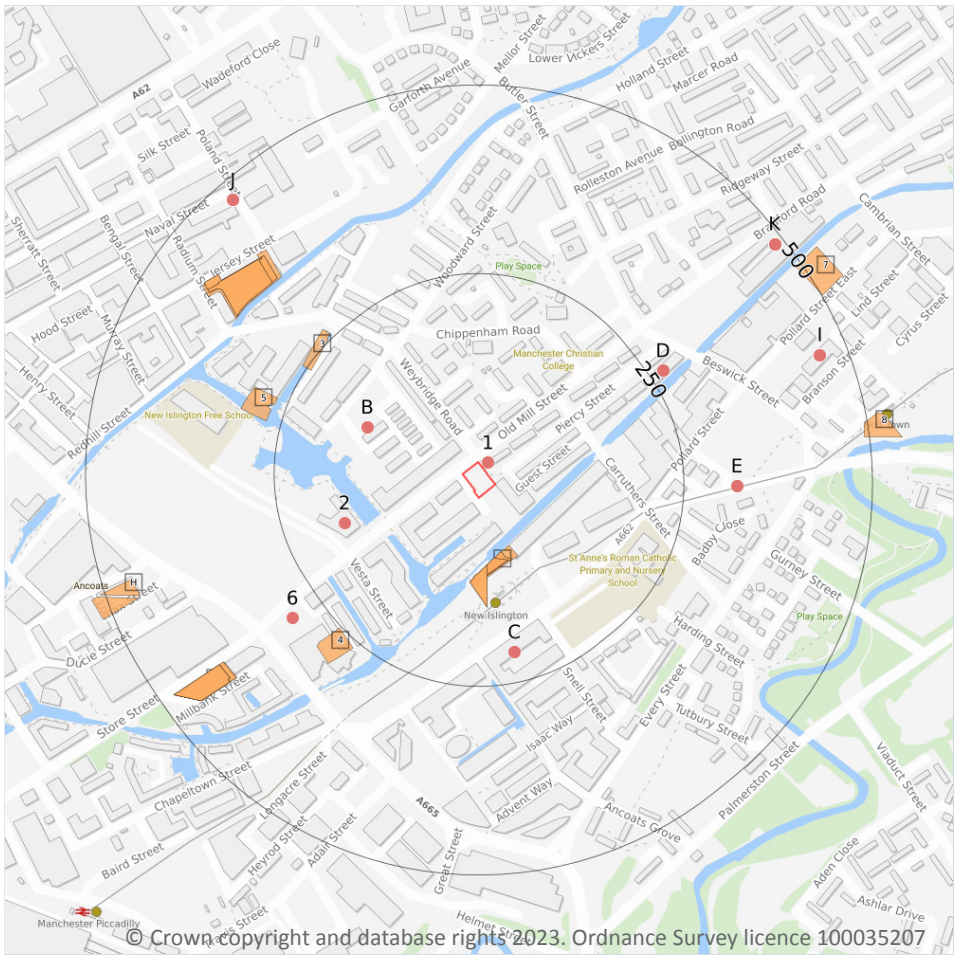
Features are displayed on the Past land use - un-grouped map on **page 25 >**

ID	Location	Land Use	Date	Group ID
C	111m SW	Garage	1965	27438
C	111m SW	Garage	1967	27438
C	111m SW	Corporation Cleansing Department Garage	1948	21128
C	112m SW	Corporation Cleansing Department Garage	1955	25856
C	112m SW	Corporation Cleansing Department Garage	1948	25856
I	187m NW	Garage	1965	21074
I	201m NW	Garage	1963	22256
I	228m NW	Garage	1951	20323
D	269m S	Garage and Workshops	1951	20550
3	270m SW	Garage	1948	20325
S	272m NW	Garage	1967	22827
D	278m S	Co-op Garage and Workshops	1948	20621
S	282m NW	Garage	1965	23113
D	285m S	Co-operation Garage and Workshops	1948	20539
S	298m NW	Garage	1963	21004
G	301m E	Garage	1965	26353
G	301m E	Garage	1967	26353
Q	302m W	Garage	1951	20322
G	306m E	Garage	1963	23572
P	334m S	Garage	1990	27786
P	334m S	Garage	1989	27786
P	335m S	Garage	1991	21495
P	336m S	Garage	1997	26249

ID	Location	Land Use	Date	Group ID
P	336m S	Garage	1994	26249
6	390m SW	Garage	1948	20317
AE	396m NW	Garage	1951	20321
AF	404m W	Garage	1948	24546
AF	410m W	Garage	1948	24546
AC	414m W	Garage	1951	20319
AI	420m S	Garage	1994	23944
AI	420m S	Garage	1996	21966
AJ	426m W	Garage	1948	21756
AJ	432m W	Garage	1991	24800
AJ	432m W	Garage	1992	24800
AJ	435m W	Garage	1997	22282
AO	474m NW	Garage	1948	26710
AO	474m NW	Garage	1951	26710
AP	477m W	Garage	1990	22515
AP	477m W	Garage	1996	22785
AQ	495m NW	Garages	1948	25993
AQ	495m NW	Garages	1951	25993

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

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

3.5 Historical waste sites

Records within 500m	23

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

Features are displayed on the Waste and landfill map on **page 42 >**

ID	Location	Address	Further Details	Date
A	74m SE	Site Address: N/A	Type of Site: Waste Paper Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1931
A	76m S	Site Address: N/A	Type of Site: Waste Paper Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1951
A	76m S	Site Address: N/A	Type of Site: Waste Paper Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1948

ID	Location	Address	Further Details	Date
A	82m S	Site Address: N/A	Type of Site: Waste Paper Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1951
A	82m S	Site Address: N/A	Type of Site: Waste Paper Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1948
A	89m S	Site Address: N/A	Type of Site: Waste Paper Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1955
A	89m S	Site Address: N/A	Type of Site: Waste Paper Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1948
3	243m NW	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1967
4	252m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1980
5	265m W	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1967
F	355m NW	Site Address: N/A	Type of Site: Waste Paper Factory Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1931
F	357m NW	Site Address: N/A	Type of Site: Waste Paper Factory Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1951

ID	Location	Address	Further Details	Date
F	357m NW	Site Address: N/A	Type of Site: Waste Paper Factory Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1948
F	357m NW	Site Address: N/A	Type of Site: Waste Paper Factory Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1948
F	357m NW	Site Address: N/A	Type of Site: Waste Paper Factory Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1951
G	399m SW	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1967
G	400m SW	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1978
G	406m SW	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1955
G	407m SW	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1980
H	456m W	Site Address: N/A	Type of Site: Waste Paper Mills Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1931
H	459m W	Site Address: N/A	Type of Site: Waste Paper Mills Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1932

ID	Location	Address	Further Details	Date
7	492m NE	Site Address: N/A	Type of Site: Waste Paper Mills Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1931
8	493m E	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1992

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

3.6 Licensed waste sites

Records within 500m	**0**

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

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

3.7 Waste exemptions

Records within 500m	**75**

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 42 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	9m NE	Ancoats (Revive) Dental Practice, First Floor, Ancoats PCC, Manchester, M4 6EE	WEX306345	Treating waste exemption	Not on a Farm	Sorting and de-naturing of controlled drugs for disposal
B	141m NW	-	WEX243781	Using waste exemption	Not on a farm	Use of waste in construction
B	141m NW	-	WEX243781	Treating waste exemption	Not on a farm	Screening and blending of waste
2	170m W	OLD MILL STREET, MANCHESTER, M4 6EE	WEX234237	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

ID	Location	Site	Reference	Category	Sub-Category	Description
C	211m S	Vulcan Mill Phase 2 - New build construction by Russells, Malta Street, Manchester, M4 7AN	WEX118448	Treating waste exemption	Not on a farm	Screening and blending of waste
C	211m S	Vulcan Mill Phase 2 - New build construction by Russells, Malta Street, Manchester, M4 7AN	WEX118448	Using waste exemption	Not on a farm	Use of waste in construction
D	268m NE	Urban Splash Site off, Piercy Street, Manchester, M4 7HY	WEX186803	Treating waste exemption	Not on a farm	Screening and blending of waste
D	268m NE	Urban Splash Site off, Piercy Street, Manchester, M4 7HY	WEX186803	Using waste exemption	Not on a farm	Use of waste in construction
6	294m SW	-	WEX284226	Using waste exemption	Not on a farm	Use of waste in construction
E	320m E	-	WEX300251	Treating waste exemption	Not on a Farm	Screening and blending of waste
E	320m E	-	WEX166443	Treating waste exemption	Not on a farm	Screening and blending of waste
I	463m E	Manchester Joinery and Interiors Limited, Branson Street, Manchester, M40 7FJ	WEX212482	Disposing of waste exemption	Not on a farm	Disposal by incineration
I	463m E	Manchester Joinery and Interiors Limited, Branson Street, Manchester, M40 7FJ	WEX212482	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
I	463m E	Fire Doors Manchester Limited, Branson Street, Manchester, M40 7FJ	WEX212646	Disposing of waste exemption	Not on a farm	Disposal by incineration
I	463m E	Fire Doors Manchester Limited, Branson Street, Manchester, M40 7FJ	WEX212646	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
I	463m E	Manchester Joinery and Interiors Limited, Branson Street, Manchester, M40 7FJ	WEX212482	Using waste exemption	Not on a farm	Burning of waste as a fuel in a small appliance

ID	Location	Site	Reference	Category	Sub-Category	Description
I	463m E	Fire Doors Manchester Limited, Branson Street, Manchester, M40 7FJ	WEX212646	Using waste exemption	Not on a farm	Burning of waste as a fuel in a small appliance
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Disposing of waste exemption	Non-Agricultural Waste Only	Deposit of waste from dredging of inland waters
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Disposing of waste exemption	Non-Agricultural Waste Only	Deposit of waste from a railway sanitary convenience
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Disposing of waste exemption	Non-Agricultural Waste Only	Deposit of waste from a portable sanitary convenience
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Disposing of waste exemption	Non-Agricultural Waste Only	Depositing samples of waste for the purposes of testing or analysing them
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Disposing of waste exemption	Non-Agricultural Waste Only	Disposal by incineration
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Disposing of waste exemption	Non-Agricultural Waste Only	Burning waste in the open
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Disposing of waste exemption	Non-Agricultural Waste Only	Burning waste at a port under a Plant Health notice
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place

ID	Location	Site	Reference	Category	Sub-Category	Description
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of sludge
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Cleaning, washing, spraying or coating relevant waste
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting mixed waste
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Manual treatment of waste
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste food
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Crushing and emptying waste vehicle oil filters
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste aerosol cans
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste toner cartridges by sorting, dismantling, cleaning or refilling
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Crushing waste fluorescent tubes
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Dewatering using flocculants

ID	Location	Site	Reference	Category	Sub-Category	Description
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Physical treatment of waste edible oil and fat to produce biodiesel
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of textiles
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste at a water treatment works
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of waste at a waste water treatment works
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Aerobic composting and associated prior treatment
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Anaerobic digestion at premises used for agriculture and burning of resultant biogas
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Anaerobic digestion at premises not used for agriculture and burning of resultant biogas
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of kitchen waste in a wormery
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of non-hazardous pesticide washings by carbon filtration for disposal

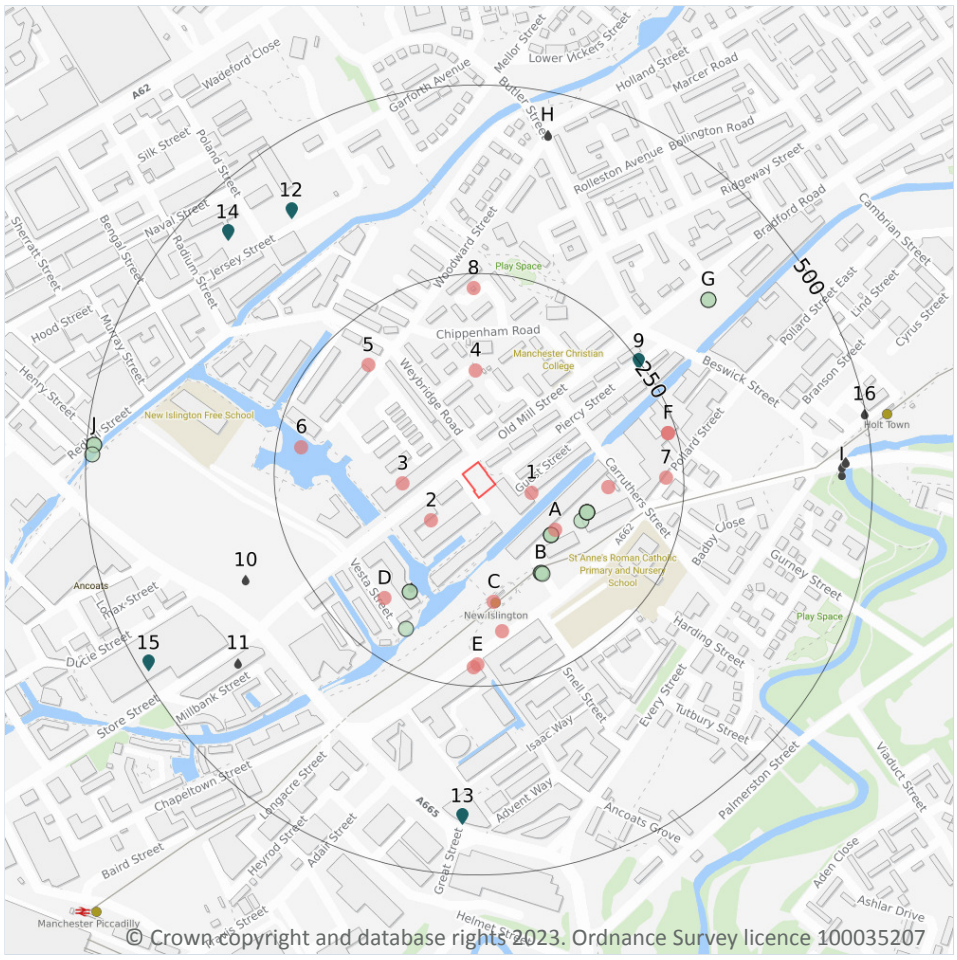
ID	Location	Site	Reference	Category	Sub-Category	Description
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of silver
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of monopropylene glycol from aircraft antifreeze fluids
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste in a biobed or biofilter
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of central heating oil by filtration
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Screening and blending of waste
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Mechanical treatment of end-of-life tyres
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of scrap metal
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction

ID	Location	Site	Reference	Category	Sub-Category	Description
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Spreading waste on agricultural land to confer benefit
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Spreading waste on non-agricultural land to confer benefit
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Use of mulch
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Spreading of plant matter to confer benefit
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Incorporation of ash into soil
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Use of depolluted end-of-life vehicles for vehicle parts
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Use of baled end-of-life tyres in construction
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in the construction of entertainment or educational installations etc
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Burning of waste as a fuel in a small appliance
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste derived biodiesel as fuel

ID	Location	Site	Reference	Category	Sub-Category	Description
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Use of sludge for the purposes of re-seeding a waste water treatment plant
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Use of effluent to clean a highway gravel bed
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste for a specified purpose
J	474m NW	30a Poland Street M4 6BH	EPR/TE5580PZ/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste to manufacture finished goods
K	487m NE	Brunswick mill, Old mill yard, Manchester, M407ez	WEX168923	Treating waste exemption	Not on a farm	Screening and blending of waste
K	487m NE	Brunswick mill, Old mill yard, Manchester, M407ez	WEX168923	Storing waste exemption	Not on a farm	Storage of waste in a secure place
K	487m NE	Brunswick mill, Old mill yard, Manchester, M407ez	WEX168923	Treating waste exemption	Not on a farm	Sorting mixed waste
K	487m NE	Brunswick mill, Old mill yard, Manchester, M407ez	WEX168923	Using waste exemption	Not on a farm	Use of waste in construction
K	487m NE	Brunswick mill, Old mill yard, Manchester, M407ez	WEX168923	Using waste exemption	Not on a farm	Use of mulch

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

4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m	17

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 54 >**

ID	Location	Company	Address	Activity	Category
1	49m E	Electricity Sub Station	Greater Manchester, M4	Electrical Features	Infrastructure and Facilities
2	69m SW	Lampwick Quay	Greater Manchester, M4	Moorings and Unloading Facilities	Water
3	81m W	Weavers Quay	Greater Manchester, M4	Moorings and Unloading Facilities	Water

ID	Location	Company	Address	Activity	Category
A	100m SE	Milliners Wharf	Greater Manchester, M4	Moorings and Unloading Facilities	Water
4	122m N	Electricity Sub Station	Greater Manchester, M4	Electrical Features	Infrastructure and Facilities
C	140m S	New Islington (Mancheste r Metrolink)	Greater Manchester, M4	Tram, Metro and Light Railway Stations and Stops	Public Transport, Stations and Infrastructure
A	150m E	Electricity Sub Station	Greater Manchester, M4	Electrical Features	Infrastructure and Facilities
C	179m S	Electricity Sub Station	Greater Manchester, M4	Electrical Features	Infrastructure and Facilities
D	183m SW	Electricity Sub Station	Greater Manchester, M4	Electrical Features	Infrastructure and Facilities
5	191m NW	Electricity Sub Station	Greater Manchester, M4	Electrical Features	Infrastructure and Facilities
6	217m W	Marina	Greater Manchester, M4	Moorings and Unloading Facilities	Water
E	221m S	Chimney	Greater Manchester, M4	Chimneys	Industrial Features
E	224m S	Electricity Sub Station	Greater Manchester, M4	Electrical Features	Infrastructure and Facilities
7	226m E	Electricity Sub Station	Greater Manchester, M4	Electrical Features	Infrastructure and Facilities
8	231m N	Electricity Sub Station	Greater Manchester, M4	Electrical Features	Infrastructure and Facilities
F	239m E	Crooked Cartoon	Hope Mill, 113, Pollard Street, Manchester, Greater Manchester, M4 7JA	Plate Makers, Print Finishers and Type Setters	IT, Advertising, Marketing and Media Services
F	239m E	White Bear Studios	Fifth Floor, Hope Mill, 113, Pollard Street, Manchester, Greater Manchester, M4 7JA	Recording Studios and Record Companies	IT, Advertising, Marketing and Media Services

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m	0

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

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

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

Records within 500m	5

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

Features are displayed on the Current industrial land use map on **page 54 >**

ID	Location	Address	Details	
9	249m NE	Manchester Coppersmiths, Phoenix Mill, Piercy St, M4 7HY	Process: Di-isocyanate Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
12	415m NW	Presbar Diecastings Ltd, Rear 62-64 Jersey St, Ancoats M4 6JW	Process: Non-ferrous Metal Foundry Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
13	422m S	Advent Manchester, 309 Great Ancoats Street, Manchester M4 7DF	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
14	447m NW	Bill Howarth Metals, 109 Jersey Street, Ancoats M12 6BF	Process: Non-ferrous Metal Foundry Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
15	486m SW	Presbar Diecastings Ltd, Store Street, Piccadilly Village, Ancoats, Manchester, M1 2WD	Process: Non-ferrous Metal Foundry Processes Status: Historical Permit Permit Type: Part B	Enforcement: 2 Enforcement Notified Date of enforcement: 12/09/2013, 09/01/2014 Comment: Statutory noise nuisance

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	**0**

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m	**16**

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 54 >**

ID	Location	Address	Details	
D	148m SW	SOHO WORKS SITE SWO, POLLARD STREET, ANCOATS, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991041 Permit Version: 1 Receiving Water: MANCHESTER & ASHTON CANAL	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 30/09/1985 Revocation Date: 01/07/1991
10	320m SW	GREAT ANCOATS STREET, SSO, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 01MAN0024 Permit Version: 1 Receiving Water: SHOOTERS BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 15/09/1993 Revocation Date: 15/09/1993
11	386m SW	GREAT ANCOATS STREET, SSO, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 01MAN0023 Permit Version: 1 Receiving Water: SHOOTERS BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 15/09/1993 Revocation Date: 15/09/1993
H	443m N	RIDGEWAY ST/BUTLER ST, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0129 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 18/10/1999
H	443m N	ROLLESTON AVENUE/BUTLER STREET CSO, 2 ROLLESTON AVENUE, MANCHESTER, GREATER MANCHESTER, M40 7HH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0032 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 02/09/2010
H	443m N	BUTLER ST/HOLLAND ST, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0037 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 29/04/2019
H	443m N	BUTLER ST/HOLLAND ST, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0037 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 02/09/2010

ID	Location	Address	Details	
H	443m N	ROLLESTON AVENUE/BUTLER STREET CSO, 2 ROLLESTON AVENUE, MANCHESTER, GREATER MANCHESTER, M40 7HH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0032 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 04/02/2016
I	459m E	BESWICK ST ASHTON NEW RD CSO 281D0, MITCHELL ARMS, 215 EVERY STREET, MANCHESTER, GREATER MANCHESTER, M4 7EU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982710 Permit Version: 3 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 21/03/2018 Effective Date: 01/04/2018 Revocation Date: -
I	459m E	BESWICK ST/HOLT TOWN BRIDGE, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0256 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 01/01/1995 Revocation Date: 31/08/1999
I	459m E	BESWICK ST ASHTON NEW RD CSO 281D0, MITCHELL ARMS, 215 EVERY STREET, MANCHESTER, GREATER MANCHESTER, M4 7EU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982710 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: - Effective Date: 31/08/1999 Revocation Date: 31/03/2018
I	465m E	BUTLER STREET/WOODWARD STREET CSO, 112-130 BUTLER STREET, MANCHESTER, GREATER MANCHESTER, M4 7JJ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0038 Permit Version: 4 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 06/12/2018 Effective Date: 06/12/2018 Revocation Date: -
I	465m E	ROLLESTON AVENUE/BUTLER STREET CSO, 2 ROLLESTON AVENUE, MANCHESTER, GREATER MANCHESTER, M40 7HH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0032 Permit Version: 4 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 23/10/2019 Effective Date: 23/10/2019 Revocation Date: -
I	465m E	BUTLER STREET/WOODWARD STREET CSO, 112-130 BUTLER STREET, MANCHESTER, GREATER MANCHESTER, M4 7JJ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0038 Permit Version: 3 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 05/02/2016 Effective Date: 05/02/2016 Revocation Date: 05/12/2018

ID	Location	Address	Details	
I	465m E	ROLLESTON AVENUE/BUTLER STREET CSO, 2 ROLLESTON AVENUE, MANCHESTER, GREATER MANCHESTER, M40 7HH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0032 Permit Version: 3 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 05/02/2016 Effective Date: 05/02/2016 Revocation Date: 22/10/2019
16	497m E	HOLT TOWN/WESTON STREET, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0373 Permit Version: 1 Receiving Water: -	Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 01/01/1995 Revocation Date: 24/11/2014

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	**0**

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

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

4.15 Pollutant release to public sewer

Records within 500m	**0**

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	**0**

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

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

4.17 List 2 Dangerous Substances

Records within 500m	0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m	20

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 54 >**

ID	Location	Details	
A	99m SE	Incident Date: 30/05/2002 Incident Identification: 82011 Pollutant: Inert Materials and Wastes:Specific Waste Materials Pollutant Description: Construction and Demolition Materials and Wastes:Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
A	99m SE	Incident Date: 30/05/2002 Incident Identification: 82011 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
A	99m SE	Incident Date: 30/05/2002 Incident Identification: 82011 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
A	123m E	Incident Date: 28/08/2001 Incident Identification: 27218 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
A	127m E	Incident Date: 12/08/2001 Incident Identification: 23613 Pollutant: Specific Waste Materials Pollutant Description: Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	127m E	Incident Date: 12/08/2001 Incident Identification: 23613 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)

ID	Location	Details	
A	127m E	Incident Date: 12/08/2001 Incident Identification: 23613 Pollutant: General Biodegradable Materials and Wastes:Specific Waste Materials:Specific Waste Materials:Specific Waste Materials Pollutant Description: Food and Drink:Commercial Waste:Household Waste:Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	127m E	Incident Date: 12/08/2001 Incident Identification: 23613 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	127m E	Incident Date: 12/08/2001 Incident Identification: 23613 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Food and Drink	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
B	128m SE	Incident Date: 10/10/2002 Incident Identification: 114010 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
B	129m SE	Incident Date: 29/05/2003 Incident Identification: 161551 Pollutant: Inert Materials and Wastes:Oils and Fuel Pollutant Description: Other Inert Material or Waste:Mixed/Waste Oils	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
B	131m SE	Incident Date: 14/07/2003 Incident Identification: 173497 Pollutant: Oils and Fuel Pollutant Description: Unidentified Oil	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
D	155m SW	Incident Date: 22/07/2002 Incident Identification: 93360 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
D	155m SW	Incident Date: 22/07/2002 Incident Identification: 93360 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
D	198m SW	Incident Date: 11/03/2002 Incident Identification: 63079 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)

ID	Location	Details	
G	372m NE	Incident Date: 23/07/2019 Incident Identification: 1721462 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)
G	372m NE	Incident Date: 23/07/2019 Incident Identification: 1721462 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)
J	490m W	Incident Date: 17/05/2001 Incident Identification: 5825 Pollutant: Contaminated Water Pollutant Description: Other Contaminated Water	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
J	490m W	Incident Date: 17/05/2001 Incident Identification: 5825 Pollutant: Contaminated Water Pollutant Description: Other Contaminated Water	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
J	491m W	Incident Date: 22/05/2001 Incident Identification: 6328 Pollutant: Contaminated Water Pollutant Description: Other Contaminated Water	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

Records within 500m	0

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

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

4.20 Pollution inventory waste transfers

Records within 500m	0

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

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

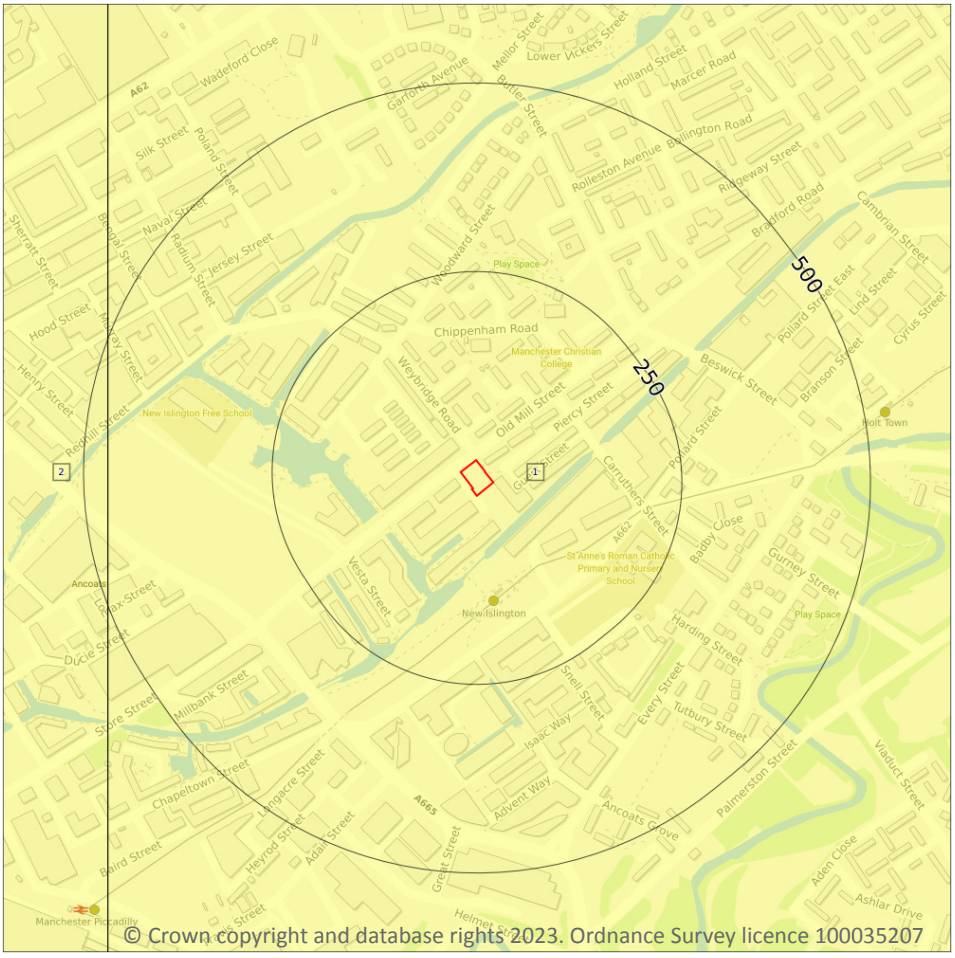
4.21 Pollution inventory radioactive waste

Records within 500m	0

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

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

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	2

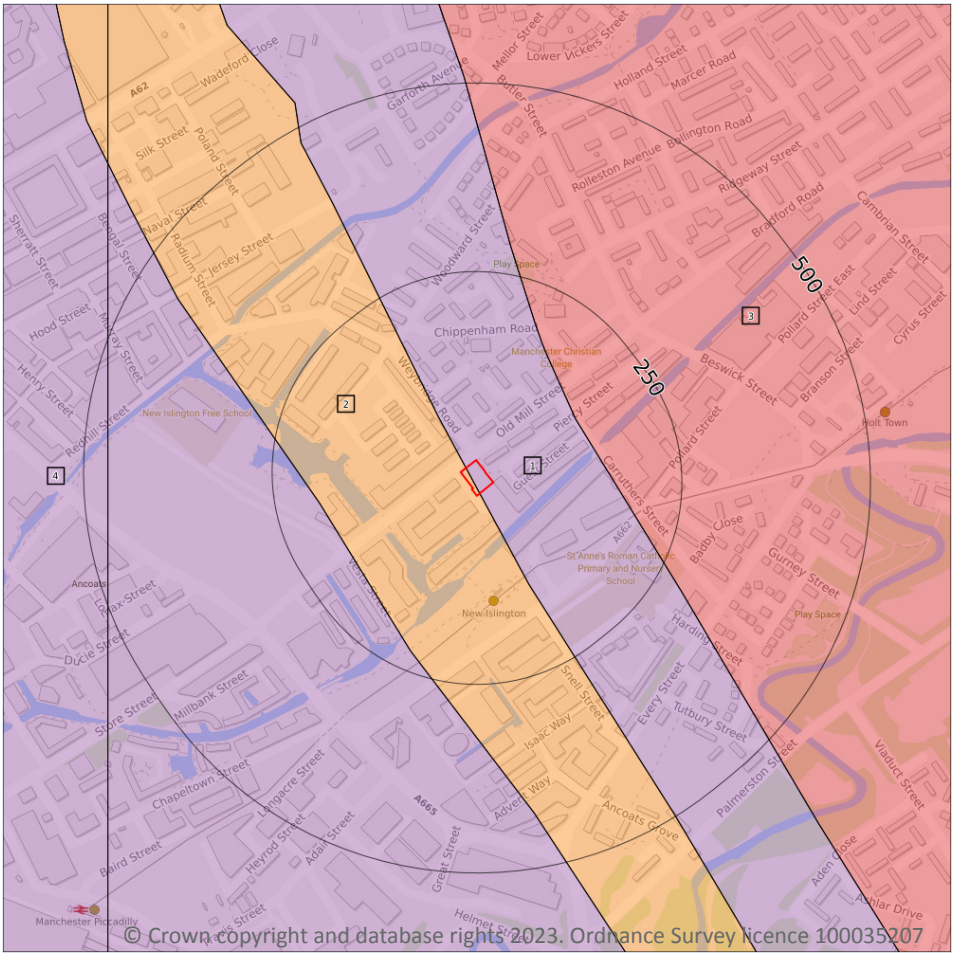
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 66 >**

ID	Location	Designation	Description
1	**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**
2	468m W	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



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Site Outline

Search buffers in metres (m)

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

5.2 Bedrock aquifer

Records within 500m	4

Aquifer status of groundwater held within bedrock geology.

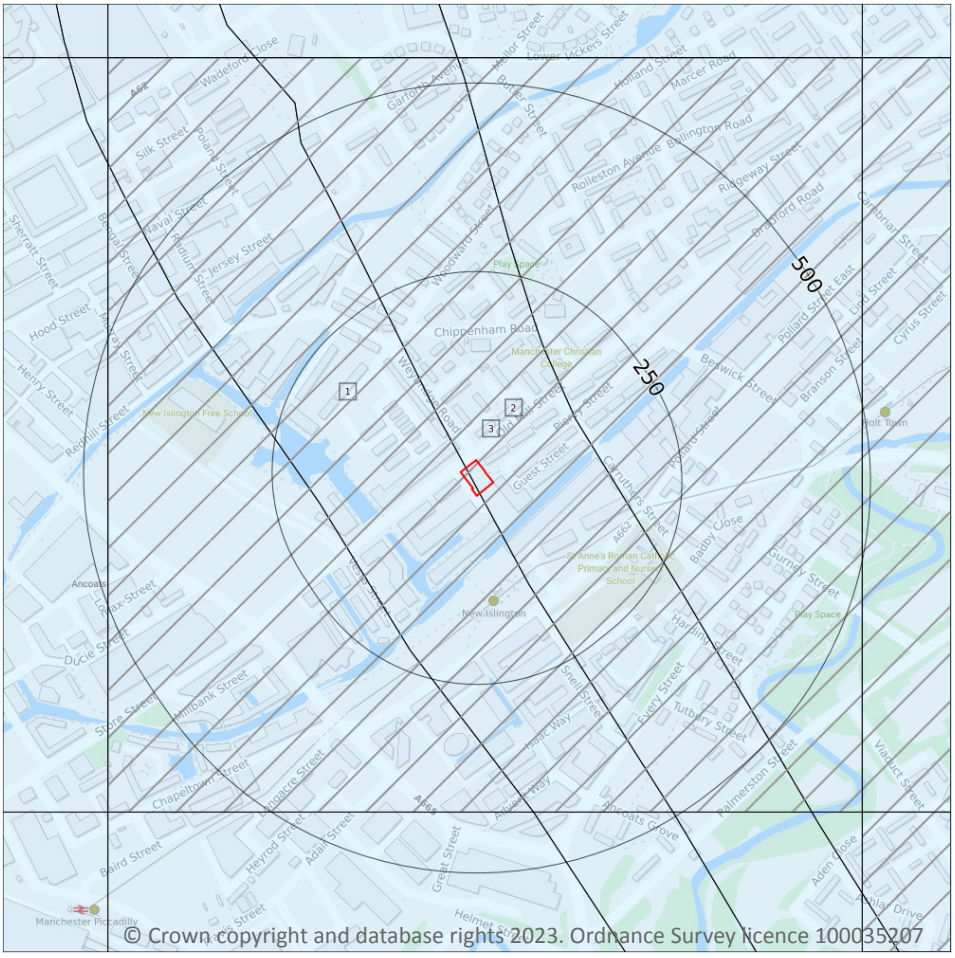
Features are displayed on the Bedrock aquifer map on **page 68 >**

ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	On site	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering. These are generally the water-bearing parts of the former non-aquifers

ID	Location	Designation	Description
3	137m NE	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
4	468m W	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major 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	2

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

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

Features are displayed on the Groundwater vulnerability map on **page 70 >**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal 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	1

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

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
3	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	2.0%

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

5.5 Groundwater vulnerability- local information

Records on site	0

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

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

Abstractions and Source Protection Zones



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Site Outline

Search buffers in metres (m)

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

5.6 Groundwater abstractions

Records within 2000m	38

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 72 >**

ID	Location	Details	
-	913m S	Status: Historical Licence No: 2569006001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, BROADIE ST, ARDWICK, MANCHESTER" Data Type: Point Name: MOSELEY RUBBER CO LTD Easting: 385240 Northing: 397540	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 08/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/02/1966 Version End Date: -
-	913m S	Status: Historical Licence No: 2569006001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, BROADIE ST, ARDWICK, MANCHESTER Data Type: Point Name: MOSELEY RUBBER CO LTD Easting: 385240 Northing: 397540	Annual Volume (m^3): 331858 Max Daily Volume (m^3): 909.2 Original Application No: - Original Start Date: 08/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/02/1966 Version End Date: -
-	1304m SW	Status: Historical Licence No: NW0690006001 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLES AT ORIGIN DEVELOPMENTS, MANCHESTER Data Type: Point Name: West Contracting Easting: 384378 Northing: 397733	Annual Volume (m^3): 139128 Max Daily Volume (m^3): 1010 Original Application No: - Original Start Date: 19/01/2009 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 19/01/2009 Version End Date: -
-	1304m SW	Status: Historical Licence No: NW/069/0006/001 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLES AT ORIGIN DEVELOPMENTS, MANCHESTER Data Type: Point Name: West Contracting Easting: 384378 Northing: 397733	Annual Volume (m^3): 139128 Max Daily Volume (m^3): 1010 Original Application No: - Original Start Date: 19/01/2009 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 19/01/2009 Version End Date: -

ID	Location	Details	
-	1440m W	Status: Historical Licence No: 2569007069 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT GEORGE ST, MANCHESTER" Data Type: Point Name: BRITISH TELECOM Easting: 384100 Northing: 398000	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 100 Version Start Date: 27/01/1971 Version End Date: -
-	1440m W	Status: Historical Licence No: 2569007069 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT GEORGE ST, MANCHESTER Data Type: Point Name: BRITISH TELECOMMUNICATIONS PLC Easting: 384100 Northing: 398000	Annual Volume (m^3): 1100 Max Daily Volume (m^3): 860 Original Application No: - Original Start Date: 01/04/1984 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -
-	1658m S	Status: Historical Licence No: NW/069/0004/005 Details: Heat Pump Direct Source: Ground Water - North West Region Point: AREA OF ABSTRACTION - LOWER CARBONIFEROUS LIMESTONE Data Type: Poly4 Name: G T Energy UK Limited Easting: 385729 Northing: 396778	Annual Volume (m^3): 2049840 Max Daily Volume (m^3): 8640 Original Application No: - Original Start Date: 17/01/2013 Expiry Date: 16/01/2037 Issue No: 2 Version Start Date: 11/06/2013 Version End Date: -
-	1696m NE	Status: Historical Licence No: 2569005061 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT NORTON STREET, MILES PLATTING, MANCHESTER" Data Type: Point Name: HANSON QUARRY PRODUCTS EUROPE LTD Easting: 386550 Northing: 399790	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 08/02/2000 Expiry Date: - Issue No: 2 Version Start Date: 01/07/2000 Version End Date: -

ID	Location	Details	
-	1696m NE	Status: Active Licence No: 2569005061 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT NORTON STREET, MILES PLATTING, MANCHESTER Data Type: Point Name: HANSON QUARRY PRODUCTS EUROPE LIMITED Easting: 386550 Northing: 399790	Annual Volume (m^3): 33000 Max Daily Volume (m^3): 125 Original Application No: NPS/WR/011609 Original Start Date: 08/02/2000 Expiry Date: - Issue No: 3 Version Start Date: 13/08/2012 Version End Date: -
-	1704m N	Status: Historical Licence No: 2569005015 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "B/HOLE, LITTLE GREEN WORKS, COLLYHURST RD, MANCHESTER 10" Data Type: Point Name: PACKAGING PRODUCTS LTD Easting: 385000 Northing: 400100	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/02/1995 Version End Date: -
-	1704m N	Status: Active Licence No: 2569005015 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/HOLE, LITTLE GREEN WORKS, COLLYHURST RD, MANCHESTER 10 Data Type: Point Name: Packaging Products (Coatings) Ltd Easting: 385000 Northing: 400100	Annual Volume (m^3): 438689 Max Daily Volume (m^3): 1636.56 Original Application No: NPS/WR/006003 Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/02/2011 Version End Date: -
-	1785m W	Status: Historical Licence No: 2569007070 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT DIAL HOUSE, CHAPEL ST, SALFORD" Data Type: Point Name: BRITISH TELECOM Easting: 383700 Northing: 398700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 100 Version Start Date: 27/01/1971 Version End Date: -

ID	Location	Details	
-	1785m W	Status: Historical Licence No: 2569007070 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT DIAL HOUSE, CHAPEL ST, SALFORD Data Type: Point Name: BRITISH TELECOMMUNICATIONS PLC Easting: 383700 Northing: 398700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 101 Version Start Date: 01/04/1984 Version End Date: -
-	1785m W	Status: Active Licence No: 2569007070 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT DIAL HOUSE CHAPEL STREET SALFORD Data Type: Point Name: BRITISH TELECOMMUNICATIONS PLC Easting: 383700 Northing: 398700	Annual Volume (m^3): 45 Max Daily Volume (m^3): 30 Original Application No: 2333 Original Start Date: 27/01/1971 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2007 Version End Date: -
-	1804m NW	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 1) AT PREMISES, STRANGEWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1804m NW	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 1) AT PREMISES, STRANGEWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -

ID	Location	Details	
-	1804m NW	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 1) AT PREMISES, STRANGEWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1804m NW	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 1) AT PREMISES, STRANGEWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1804m NW	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 1 AT PREMISES STRANGEWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m^3): 500000 Max Daily Volume (m^3): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1804m NW	Status: Historical Licence No: 2569004023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 1 AT PREMISES STRANGEWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m^3): 500000 Max Daily Volume (m^3): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -

ID	Location	Details	
-	1806m NW	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 2) AT PREMISES, STRANGEWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1806m NW	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 2) AT PREMISES, STRANGEWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1806m NW	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 2) AT PREMISES, STRANGEWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1806m NW	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 2) AT PREMISES, STRANGEWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -

ID	Location	Details	
-	1806m NW	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 2 AT PREMISES STRANGEWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m^3): 500000 Max Daily Volume (m^3): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1806m NW	Status: Historical Licence No: 2569004023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 2 AT PREMISES STRANGEWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m^3): 500000 Max Daily Volume (m^3): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1809m NW	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 3) AT PREMISES, STRANGEWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1809m NW	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 3) AT PREMISES, STRANGEWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -

ID	Location	Details	
-	1809m NW	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 3) AT PREMISES, STRANGEWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1809m NW	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 3) AT PREMISES, STRANGEWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1809m NW	Status: Historical Licence No: 2569004023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 3 AT PREMISES STRANGEWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m^3): 500000 Max Daily Volume (m^3): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1809m NW	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 3 AT PREMISES STRANGEWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m^3): 500000 Max Daily Volume (m^3): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -

ID	Location	Details	
-	1852m NW	Status: Historical Licence No: 2569004011 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT DERBY BREWERY, CHEETHAM, MANCHESTER 3" Data Type: Point Name: JOSEPH HOLT LTD Easting: 384100 Northing: 399700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1966 Version End Date: -
-	1852m NW	Status: Historical Licence No: 2569004011 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT DERBY BREWERY, CHEETHAM, MANCHESTER 3" Data Type: Point Name: JOSEPH HOLT LTD Easting: 384100 Northing: 399700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1966 Version End Date: -
-	1852m NW	Status: Active Licence No: 2569004011 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT DERBY BREWERY, CHEETHAM, MANCHESTER 3 Data Type: Point Name: JOSEPH HOLT LTD Easting: 384100 Northing: 399700	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 181.84 Original Application No: 0423 Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1966 Version End Date: -
-	1852m NW	Status: Active Licence No: 2569004011 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT DERBY BREWERY, CHEETHAM, MANCHESTER 3 Data Type: Point Name: JOSEPH HOLT LTD Easting: 384100 Northing: 399700	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 181.84 Original Application No: 0423 Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1966 Version End Date: -

ID	Location	Details	
-	1865m SW	Status: Active Licence No: NW/069/0006/003 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LOWER CHATHAM STREET Data Type: Point Name: Manchester Metropolitan University Easting: 384180 Northing: 397091	Annual Volume (m^3): 283240 Max Daily Volume (m^3): 1532 Original Application No: NPS/WR/015264 Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -
-	1865m SW	Status: Active Licence No: NW/069/0006/003 Details: Heat Pump Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LOWER CHATHAM STREET Data Type: Point Name: Manchester Metropolitan University Easting: 384180 Northing: 397091	Annual Volume (m^3): 283240 Max Daily Volume (m^3): 1532 Original Application No: NPS/WR/015264 Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	0

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

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

5.8 Potable abstractions

Records within 2000m	9

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 72 >**

ID	Location	Details	
-	1804m NW	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 1) AT PREMISES, STRANGEWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1804m NW	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 1) AT PREMISES, STRANGEWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1804m NW	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 1 AT PREMISES STRANGEWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m^3): 500000 Max Daily Volume (m^3): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1806m NW	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 2) AT PREMISES, STRANGEWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -

ID	Location	Details	
-	1806m NW	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 2) AT PREMISES, STRANGEWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1806m NW	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 2 AT PREMISES STRANGEWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m^3): 500000 Max Daily Volume (m^3): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1809m NW	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 3) AT PREMISES, STRANGEWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1809m NW	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 3) AT PREMISES, STRANGEWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -

ID	Location	Details	
-	1809m NW	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 3 AT PREMISES STRANGEWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m^3): 500000 Max Daily Volume (m^3): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	**0**

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

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

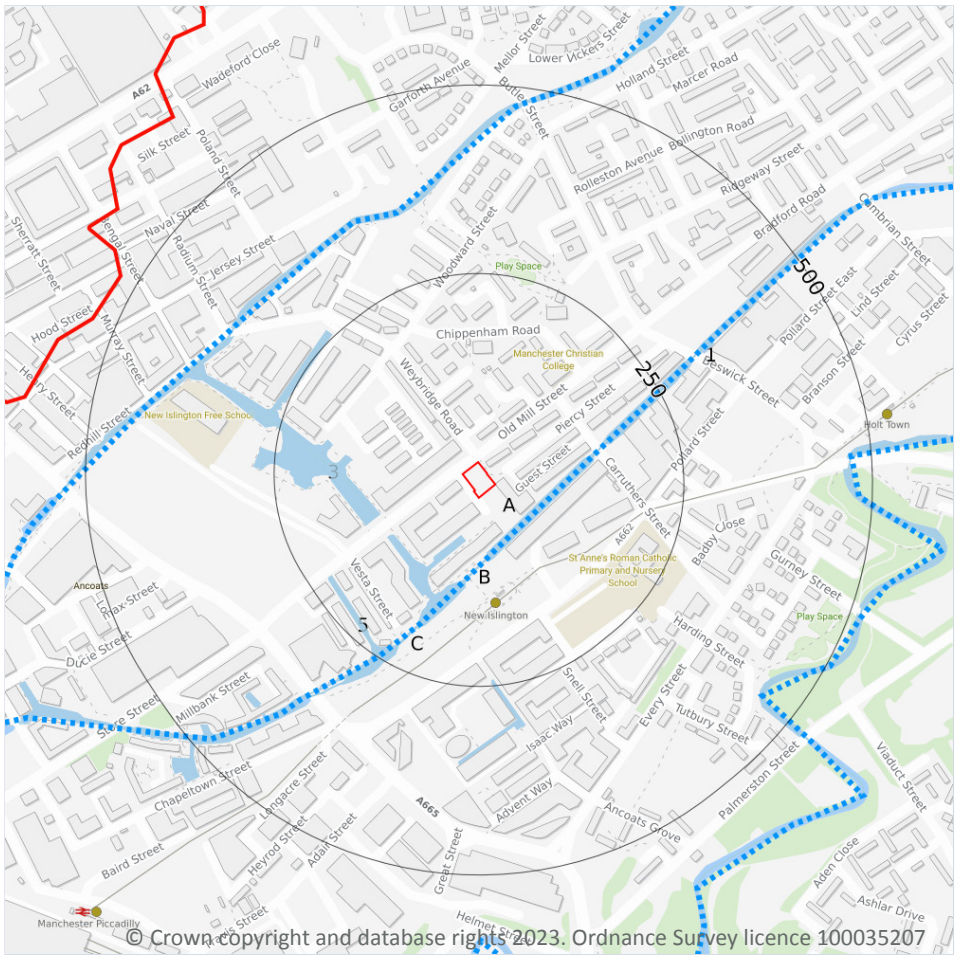
5.10 Source Protection Zones (confined aquifer)

Records within 500m	**0**

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

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

6 Hydrology



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6.1 Water Network (OS MasterMap)

Records within 250m	8

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 86 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	63m SE	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ashton Canal

ID	Location	Type of water feature	Ground level	Permanence	Name
B	86m S	Lock or flight of locks. An enclosure in a canal or navigable river with gates and sluices at either end.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ashton Canal
B	103m S	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ashton Canal
3	127m W	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	193m SW	Lock or flight of locks. An enclosure in a canal or navigable river with gates and sluices at either end.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ashton Canal
C	215m SW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ashton Canal
5	222m SW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Islington Branch
C	248m SW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ashton Canal

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	4

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 86 >**

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 86 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River**	**Medlock (Lumb Brook to Irwell)**	**GB112069061152**	**Roch Irk Medlock**	**Irwell**

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

6.4 WFD Surface water bodies

Records identified	**2**

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 86 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
A	63m SE	Canal	Ashton Canal and Peak Forest Canal, lower section	GB71210219 ↗	Moderate	Fail	Moderate	2019
15	452m SE	River	Medlock (Lumb Brook to Irwell)	GB112069061152 ↗	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site	**1**

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

Features are displayed on the Hydrology map on **page 86 >**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**Manchester and East Cheshire Permo-Triassic Sandstone Aquifers**	**GB41201G101100** ↗	**Poor**	**Poor**	**Poor**	**2019**

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

7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m	0

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

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

7.2 Historical Flood Events

Records within 250m	0

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

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

7.3 Flood Defences

Records within 250m	0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

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

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

7.5 Flood Storage Areas

Records within 250m	0

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

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

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

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

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

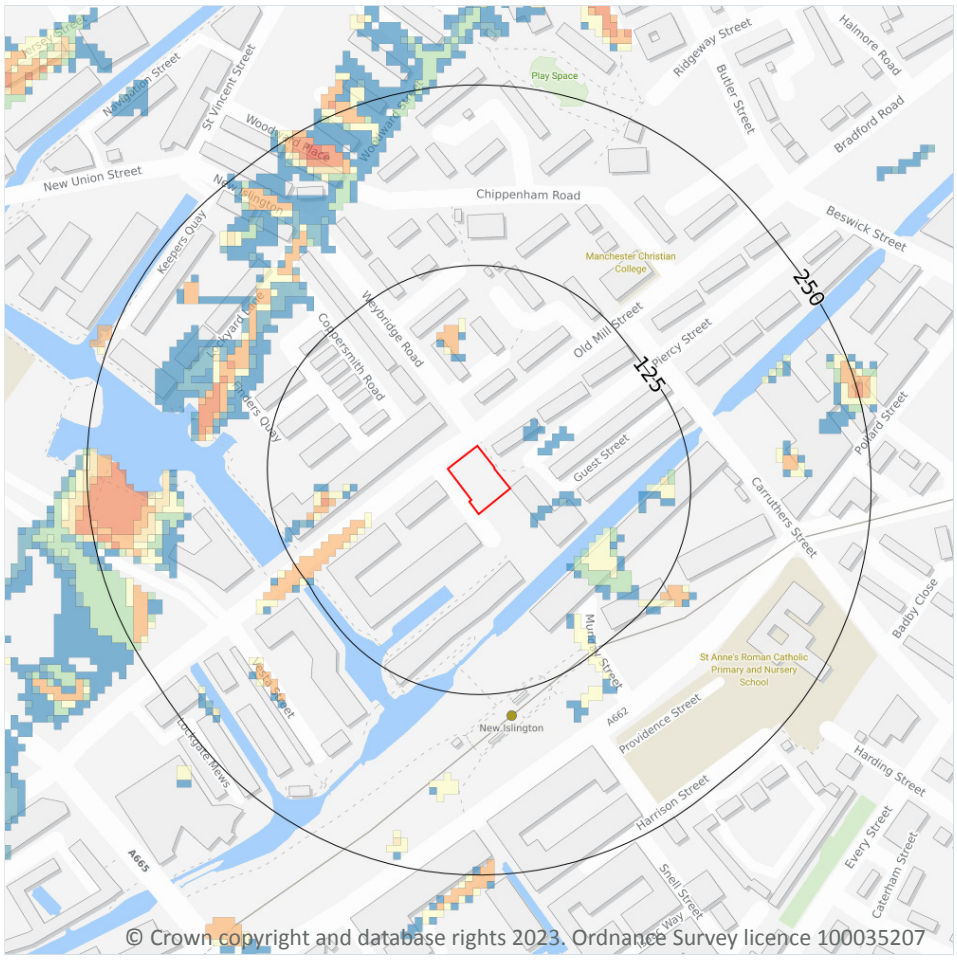
7.7 Flood Zone 3

Records within 50m	0

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

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

8 Surface water flooding



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8.1 Surface water flooding

Highest risk on site	**Negligible**
Highest risk within 50m	**1 in 1000 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 93 >**

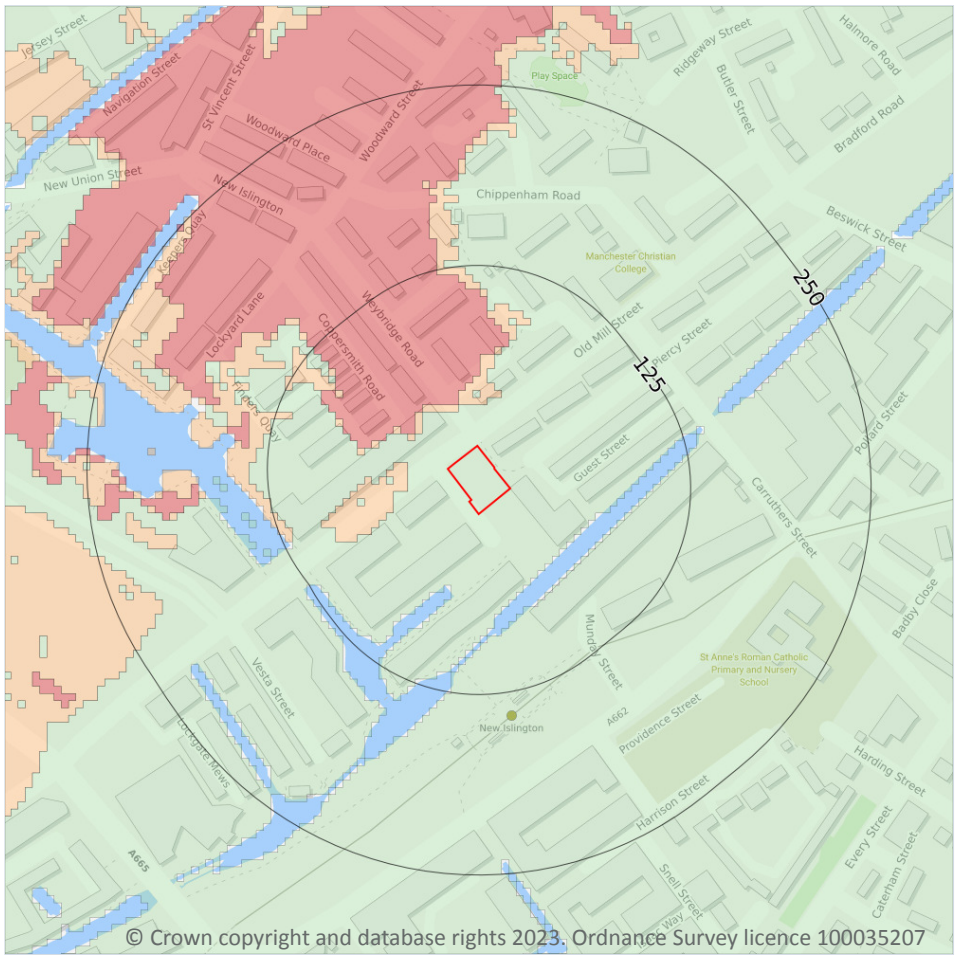
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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

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

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



9.1 Groundwater flooding

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

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 95 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	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	0

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

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

10.12 Proposed Ramsar sites

Records within 2000m	0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

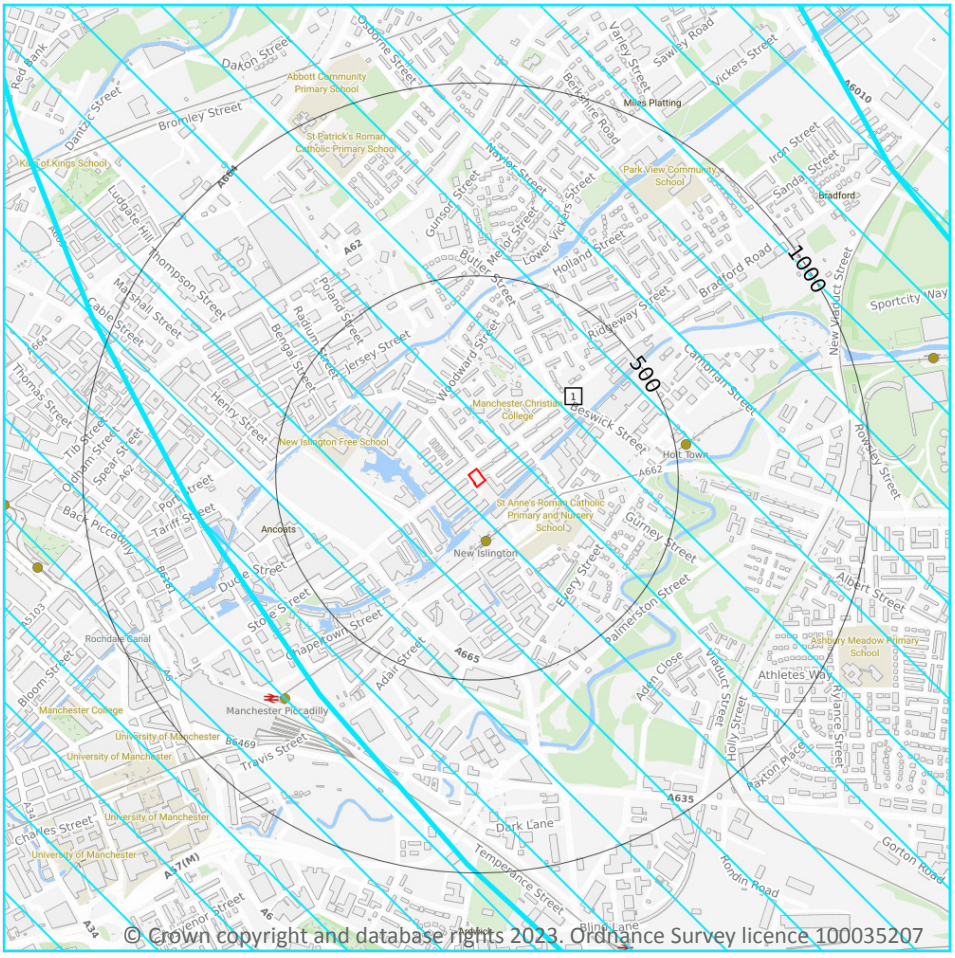
Records within 2000m	4

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

Location	Name	Type	NVZ ID	Status
539m NW	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	638	Existing
1384m W	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	638	Existing
1667m W	Irwell / Man. Ship Canal (Kearsley to Irlam Locks) NVZ	Surface Water	643	Existing
1782m NW	Irwell / Man. Ship Canal (Kearsley to Irlam Locks) NVZ	Surface Water	643	Existing

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

SSSI Impact Zones and Units



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10.17 SSSI Impact Risk Zones

Records on site	1

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

Features are displayed on the SSSI Impact Zones and Units map on **page 100 >**

ID	Location	Type of developments requiring consultation
1	**On site**	**Infrastructure - Airports, helipads and other aviation proposals.** **Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t).** **Combustion - General combustion processes >50mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.**

This data is sourced from Natural England.

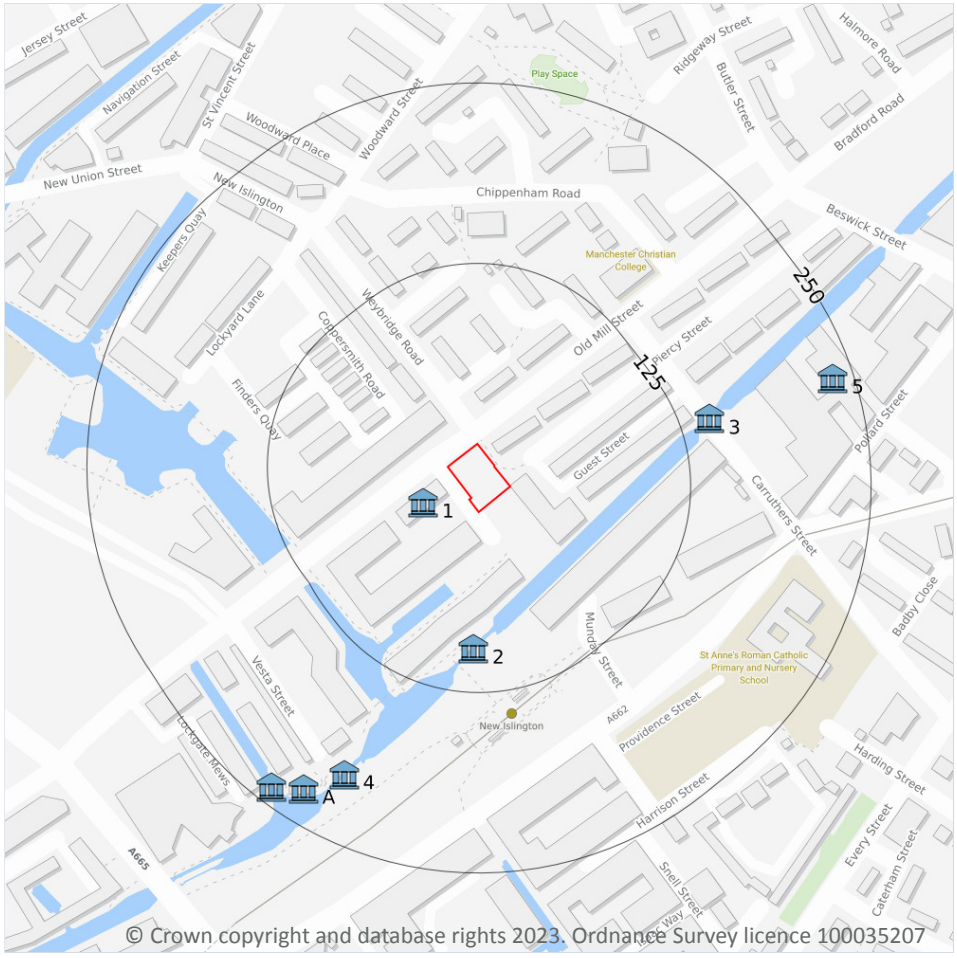
10.18 SSSI Units

Records within 2000m	**0**

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

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

11 Visual and cultural designations



Site Outline

Search buffers in metres (m)

Listed buildings

Conservation areas

Conservation areas - no data

National Parks

Areas of Outstanding Natural Beauty

Registered parks and gardens

Scheduled Monuments

World Heritage Sites

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	7

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

Features are displayed on the Visual and cultural designations map on **page 102 >**

ID	Location	Name	Grade	Reference Number	Listed date
1	29m SW	Ardwick And Ancoats Hospital	II	1283019	03/10/1974
2	95m S	Ashton Canal Lock Number 3 On South Side Of Ancoats Hospital	II	1283048	06/06/1994
3	146m E	Bridge Number 4 Over Ashton Canal	II	1197777	06/06/1994
4	204m SW	Ashton Canal Lock Number 2 Off South End Of Vesta Street	II	1207654	06/06/1994
A	227m SW	Ashton Canal Lock Keepers Cottage Beside Lock Number 2 At Islington Branch Junction Basin	II	1279636	06/06/1994

ID	Location	Name	Grade	Reference Number	Listed date
5	236m E	Hope Mill	II*	1246950	06/06/1994
A	238m SW	Ashton Canal Towpath Bridge Over Junction With Islington Branch Canal West Of Lock Number 2	II	1197830	06/06/1994

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.

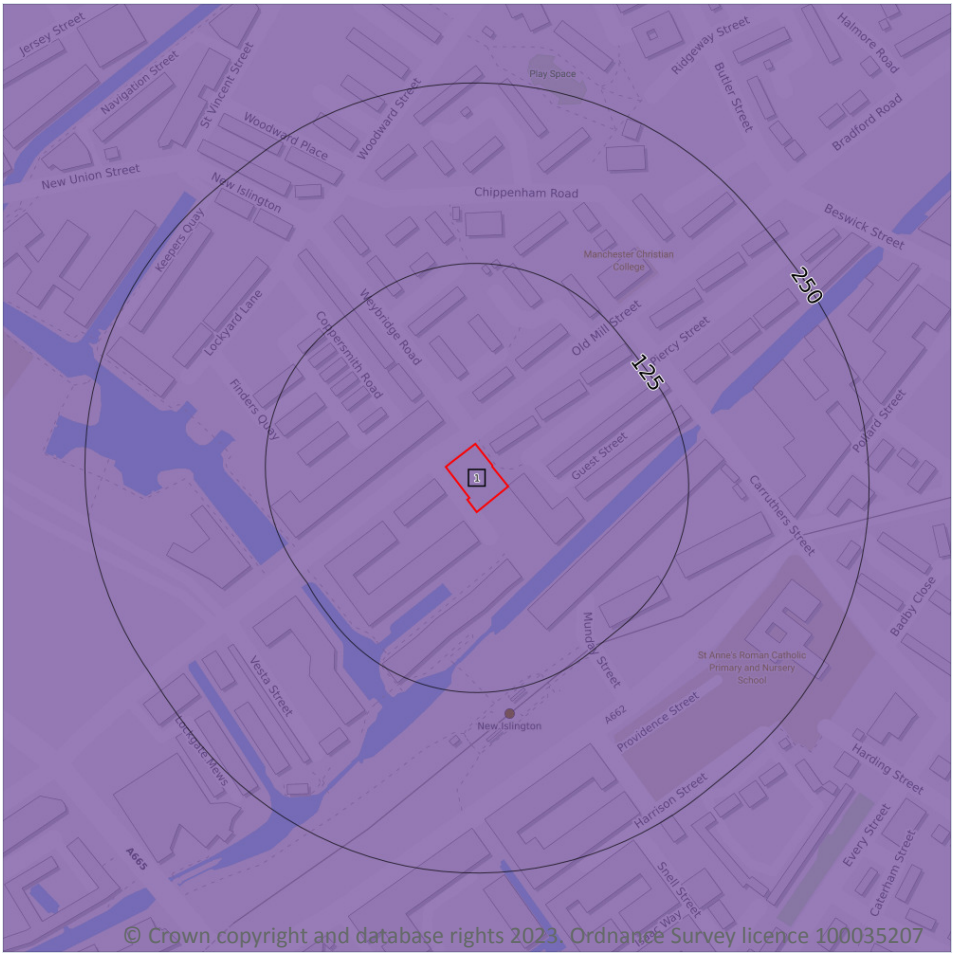
11.7 Registered Parks and Gardens

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	1

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

Features are displayed on the Agricultural designations map on **page 105 >**

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

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

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

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

12.3 Tree Felling Licences

Records within 250m	0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

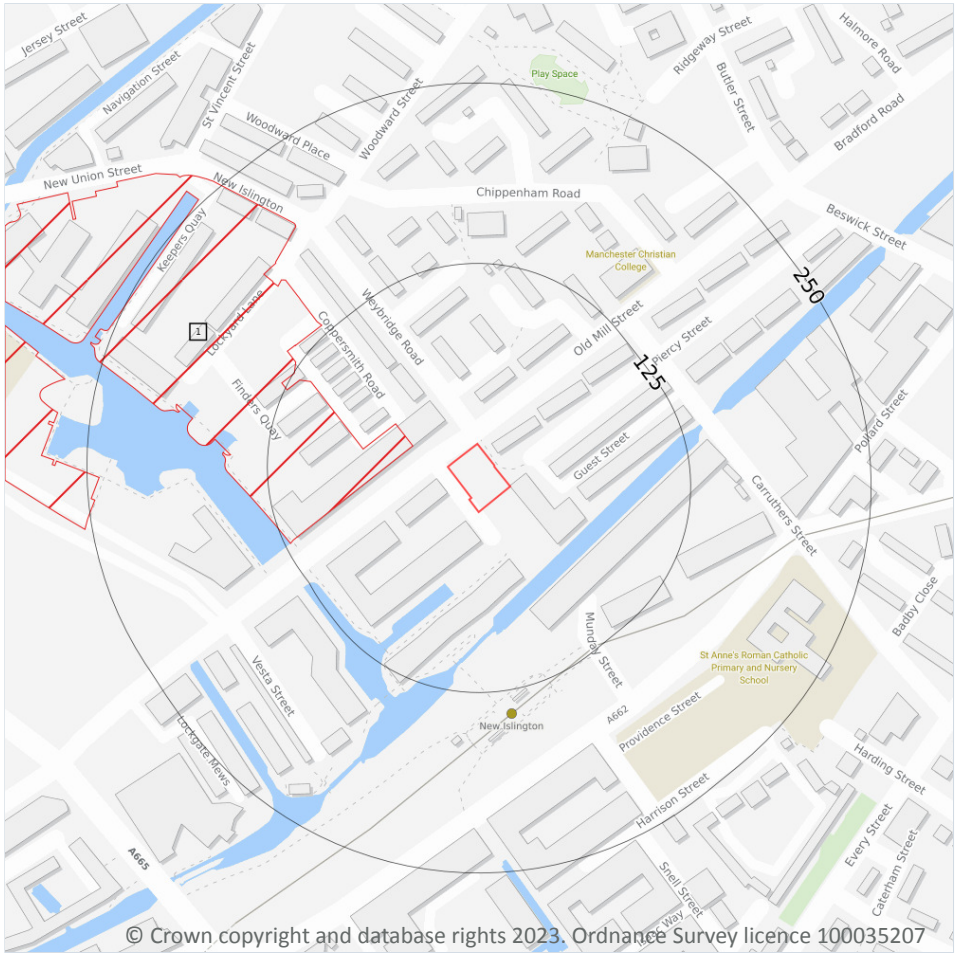
12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

13 Habitat designations



Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

Habitat Networks

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

13.1 Priority Habitat Inventory

Records within 250m	0

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	1

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

Features are displayed on the Habitat designations map on **page 107 >**

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
1	28m NW	NLUD Ref: 421501470	Low	National Land Use Database - Previously Developed Land	UK Perspectives Aerial Photography	-

This data is sourced from Natural England.

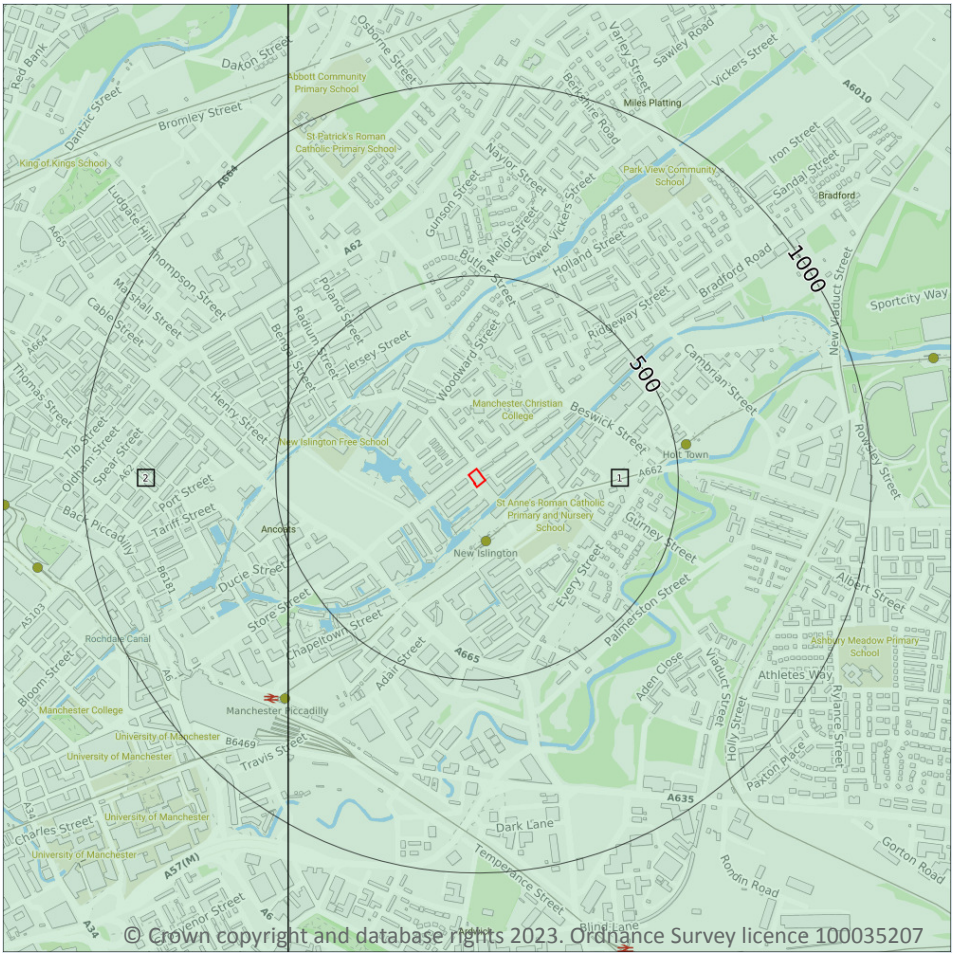
13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	2

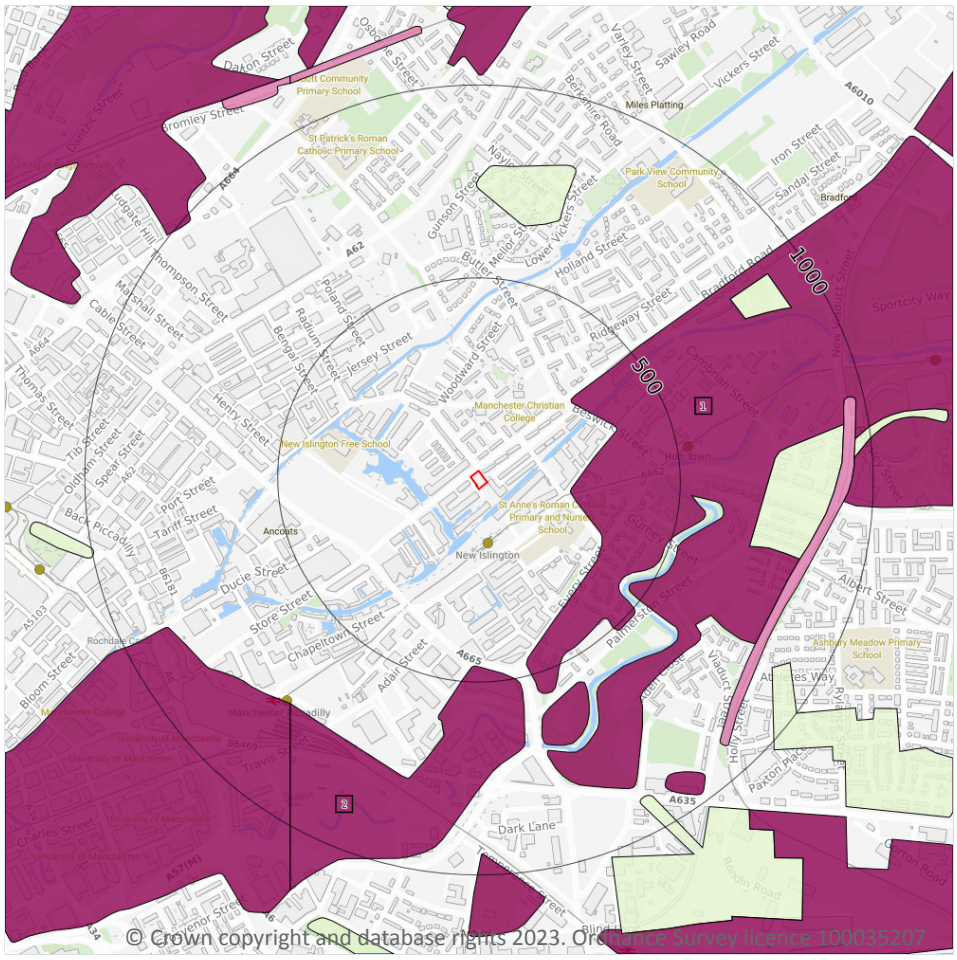
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 109 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**SJ89NE**
2	468m W	Full	Full	Full	No coverage	SJ89NW

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	2

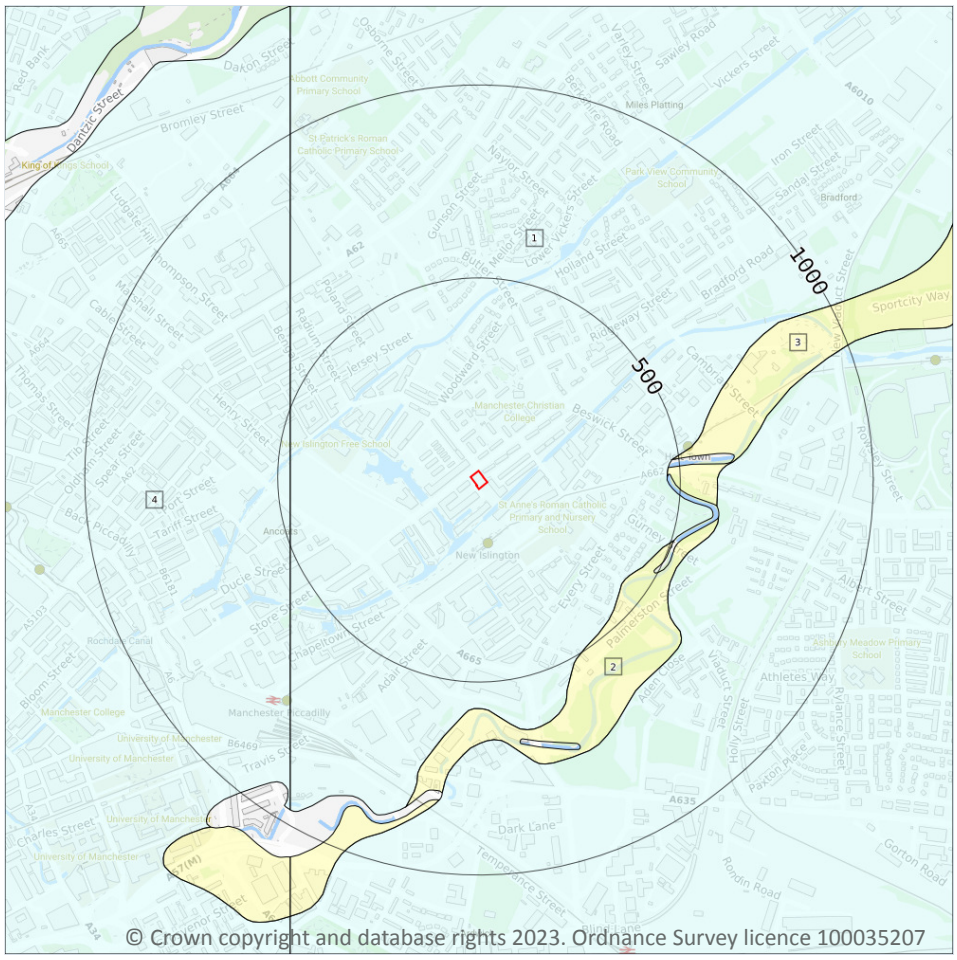
Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 110 >**

ID	Location	LEX Code	Description	Rock description
1	216m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	458m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m **4**

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 111 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TILLD-DMTN**	**Till, Devensian - Diamicton**	**Diamicton**
2	437m SE	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
3	467m E	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

ID	Location	LEX Code	Description	Rock description
4	468m W	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton

This data is sourced from the British Geological Survey.

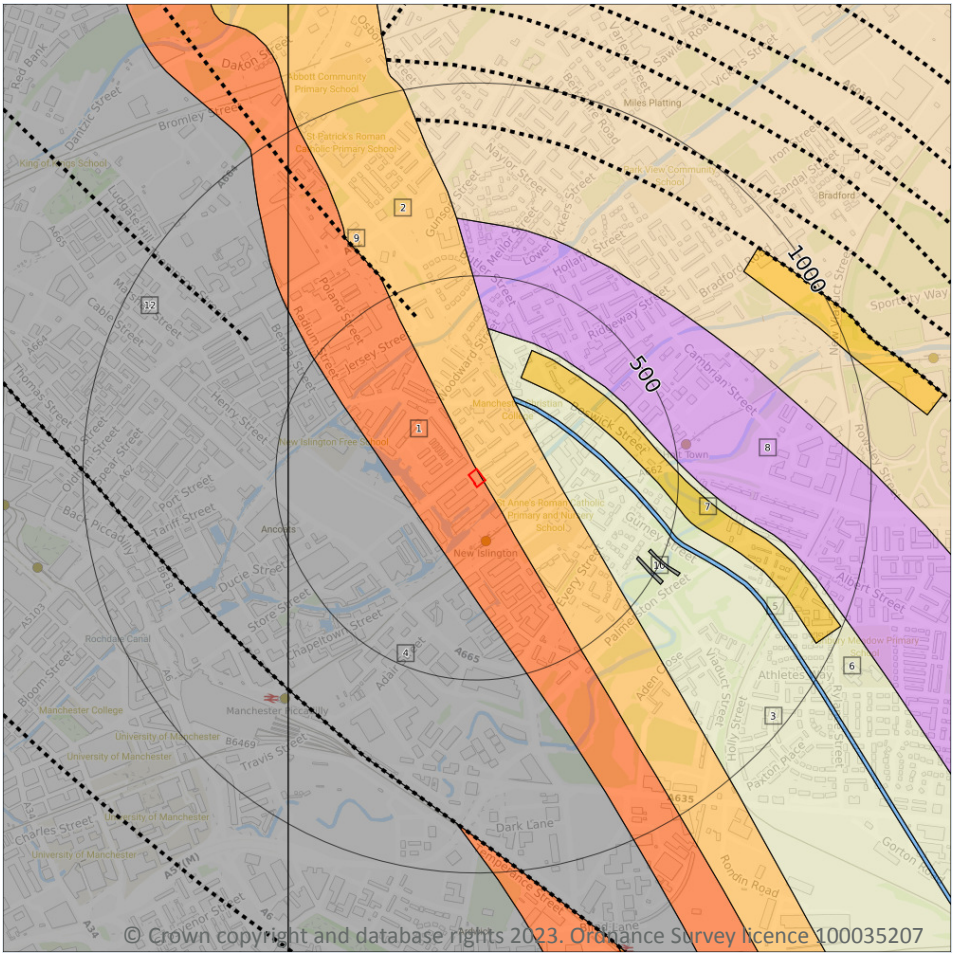
14.4 Landslip (10k)

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 **11**

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 113 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**MM-MDST**	**Manchester Marls Formation - Mudstone**	**Late Permian Epoch [Obsolete name]**
2	**On site**	**CS-SDST**	**Collyhurst Sandstone Formation - Sandstone**	**Cisuralian Epoch**
3	164m NE	HA-MDSS	Halesowen Formation - Mudstone, Siltstone And Sandstone	Westphalian D Sub-age

ID	Location	LEX Code	Description	Rock age
4	166m SW	CPB-SDST	Chester Pebble Beds Formation - Sandstone	Early Triassic Epoch
5	200m NE	GML-LMST	Great Mine Limestone - Limestone	Westphalian D Sub-age
6	209m NE	HA-MDSS	Halesowen Formation - Mudstone, Siltstone And Sandstone	Westphalian D Sub-age
7	263m NE	HTS-SDST	Holt Town Sandstone Bed - Sandstone	Westphalian D Sub-age
8	355m N	ETM-STMD	Etruria Formation - Sandstone And Mudstone	Westphalian Age
10	442m SE	YDLS-LMST	Yard Limestone - Limestone	Westphalian D Sub-age
11	462m SE	HYLS-LMST	Half Yard Limestone - Limestone	Westphalian D Sub-age
12	468m W	CPB-SDST	Chester Pebble Beds Formation - Sandstone	Early Triassic Epoch

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	**1**

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 113 >**

ID	Location	Category	Description
9	425m N	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	1

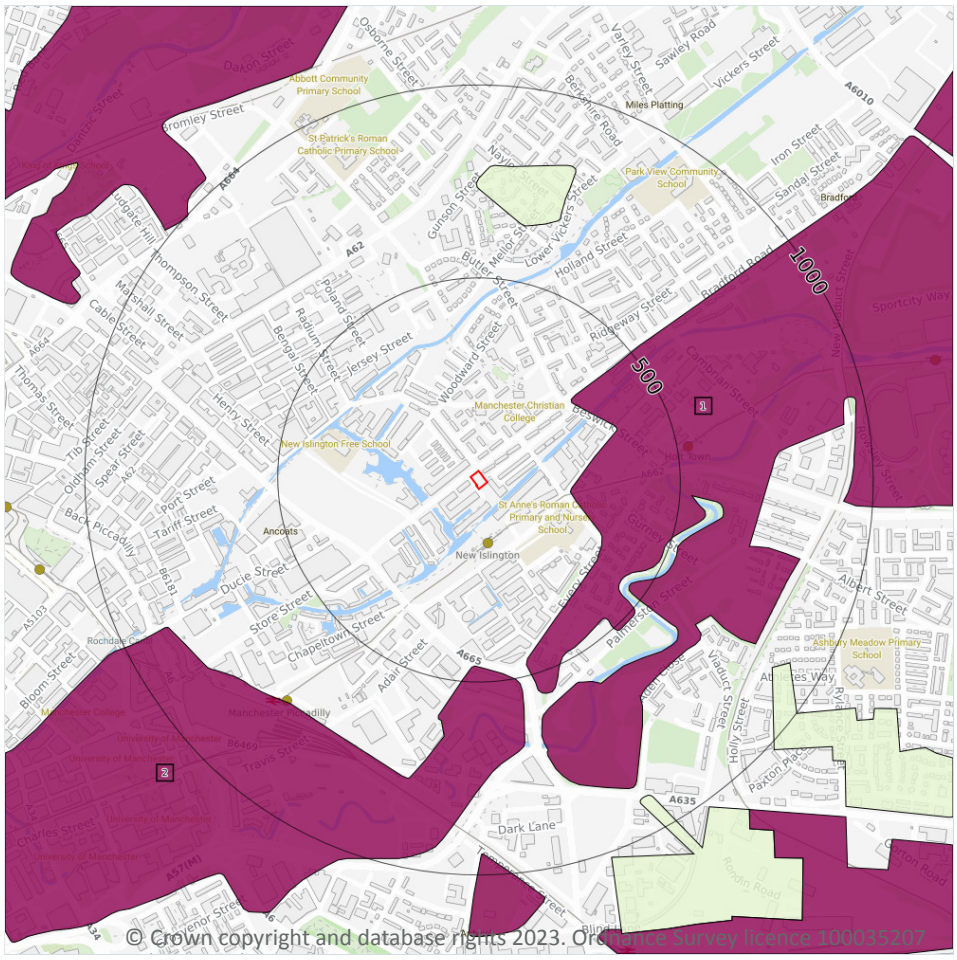
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 115 >**

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

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m	2

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.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 116 >**

ID	Location	LEX Code	Description	Rock description
1	217m E	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	458m S	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

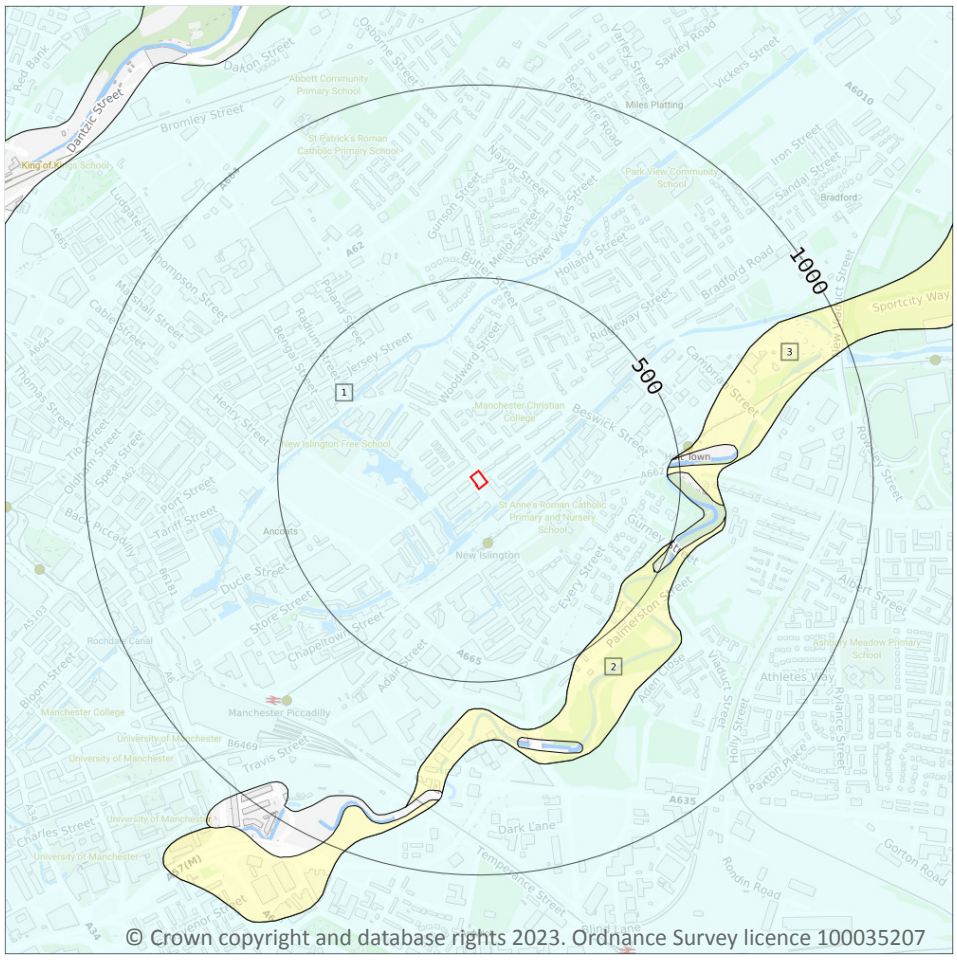
15.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m **3**

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

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 118 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TILLD-DMTN**	**TILL, DEVENSIAN**	**DIAMICTON**
2	437m SE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
3	466m E	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**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.

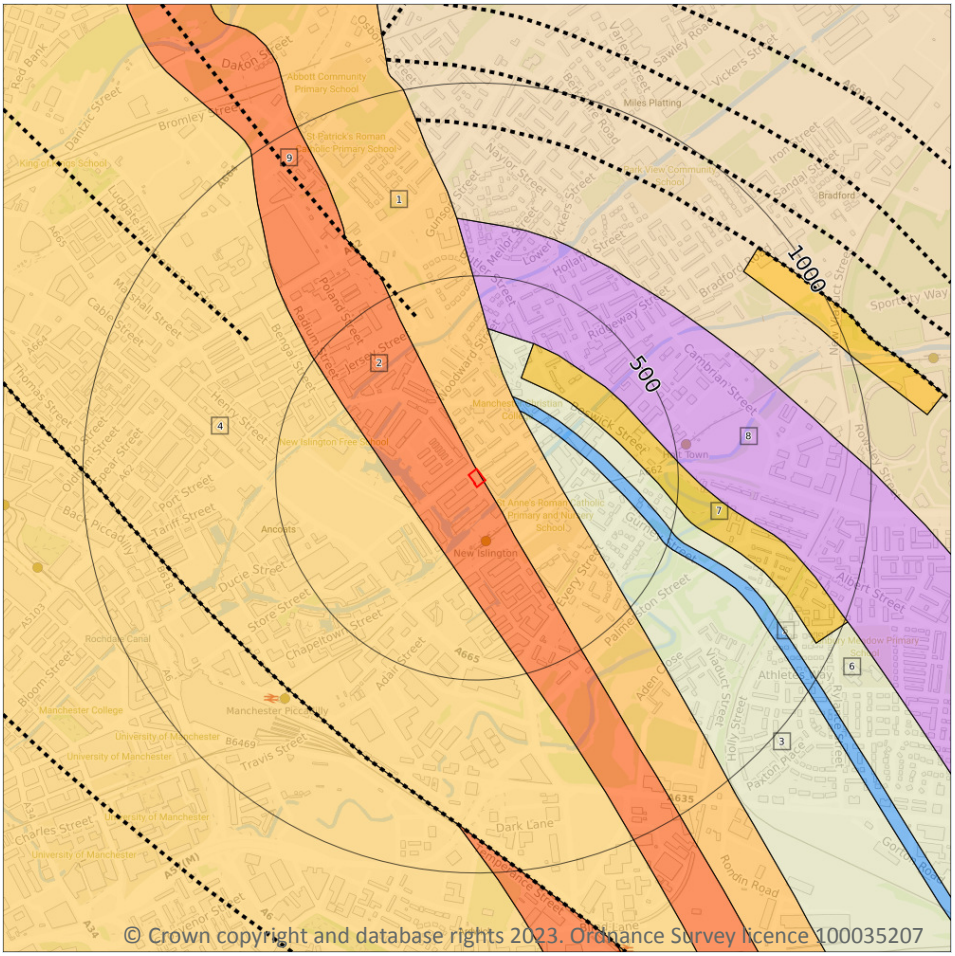
15.7 Landslip permeability (50k)

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 **8**

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 120 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**CS-SDST**	**COLLYHURST SANDSTONE FORMATION - SANDSTONE**	**-**
2	**On site**	**MM-MDST**	**MANCHESTER MARLS FORMATION - MUDSTONE**	**-**
3	163m NE	HA-MDSS	HALESOWEN FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
4	167m SW	CHES-SDST	CHESTER FORMATION - SANDSTONE	OLENEKIAN
5	188m NE	GML-LMST	GREAT MINE LIMESTONE - LIMESTONE	WESTPHALIAN
6	209m NE	HA-MDSS	HALESOWEN FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
7	262m NE	HTS-SDST	HOLT TOWN SANDSTONE BED - SANDSTONE	WESTPHALIAN
8	354m N	ETM-STMD	ETRURIA FORMATION - SANDSTONE AND MUDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m **2**

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**	**Low**	**Low**
On site	**Intergranular**	**High**	**High**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m **1**

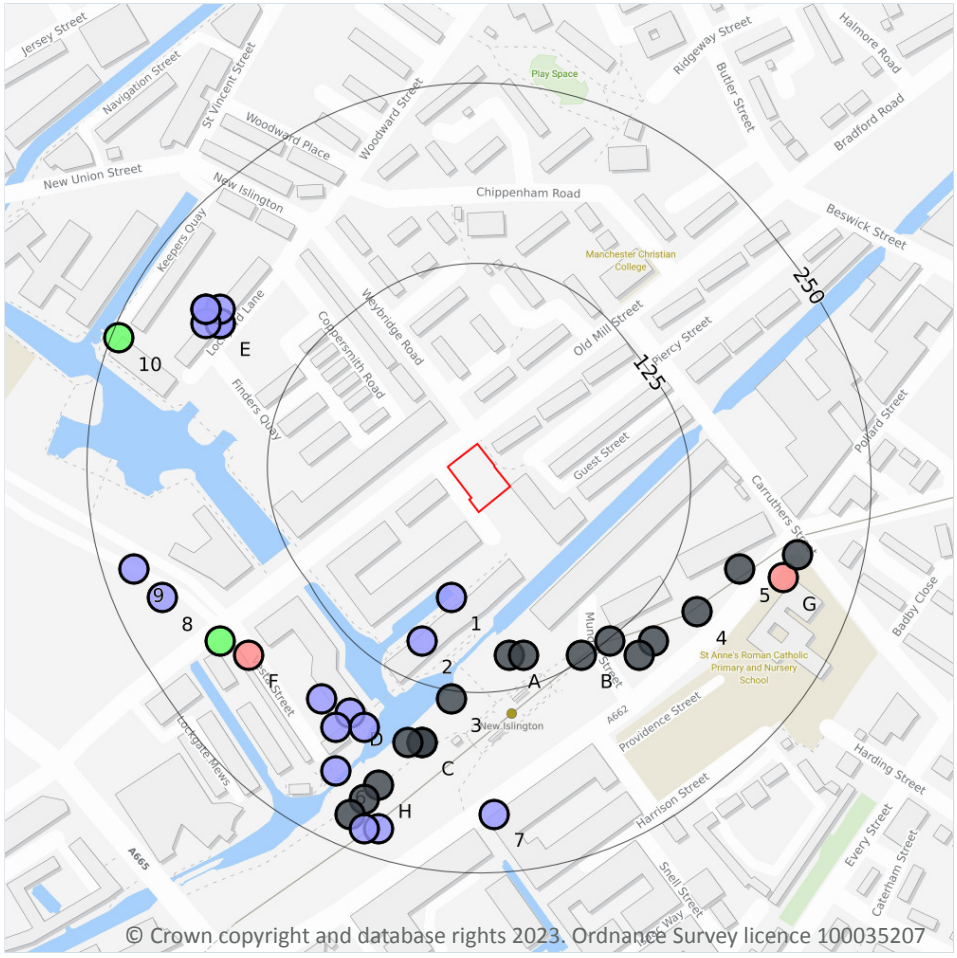
Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 120 >**

ID	Location	Category	Description
9	426m N	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.

16 Boreholes



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16.1 BGS Boreholes

Records within 250m	38

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

Features are displayed on the Boreholes map on **page 122 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	62m S	385470 398360	ANCOATS HOSPITAL SITE ANCOATS MANCHESTER TP6	3.0	N	17722641 ↗
2	98m S	385450 398330	ANCOATS HOSPITAL SITE ANCOATS MANCHESTER TP5	4.0	N	17722639 ↗

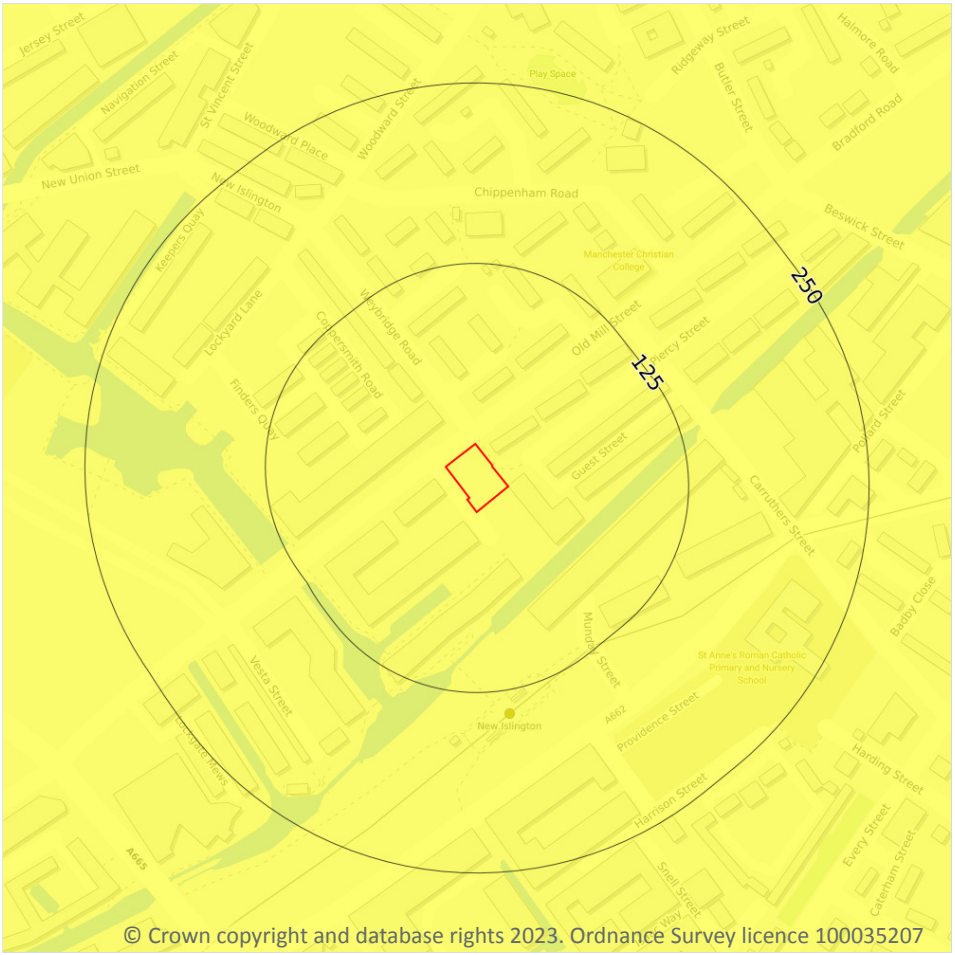
ID	Location	Grid reference	Name	Length	Confidential	Web link
A	102m S	385510 398320	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM TP C3	-	Y	N/A
A	104m S	385520 398320	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM BHC1	-	Y	N/A
B	122m SE	385560 398320	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM TP C4	-	Y	N/A
B	127m SE	385580 398330	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM TP C5	-	Y	N/A
3	131m S	385470 398290	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM TP C2	-	Y	N/A
B	146m SE	385610 398330	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM TP C6	-	Y	N/A
B	147m SE	385600 398320	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM BHC2	-	Y	N/A
4	156m SE	385640 398350	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM TP C7	-	Y	N/A
C	164m S	385450 398260	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM TP B9	-	Y	N/A
C	164m S	385450 398260	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM TP C1	-	Y	N/A
D	165m SW	385400 398280	ANCOATS HOSPITAL SITE ANCOATS MANCHESTER TP3	4.0	N	17722636 ↗
C	167m S	385440 398260	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM BHB10	-	Y	N/A
D	169m SW	385410 398270	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 5	8.1	N	937113 ↗
5	169m E	385670 398380	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM TP C8	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
D	169m SW	385380 398290	ANCOATS HOSPITAL SITE ANCOATS MANCHESTER TP2	3.0	N	17722635 ↗
D	179m SW	385390 398270	ANCOATS HOSPITAL SITE ANCOATS MANCHESTER TP1	3.0	N	17722632 ↗
E	186m NW	385310 398550	WINDER DRIVE TP 4	2.15	N	937246 ↗
E	186m NW	385310 398550	HOSTEL WINDER DRIVE ANCOATS 2	6.5	N	937248 ↗
F	187m SW	385330 398320	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 7/7A	34.15	N	937115 ↗
E	192m NW	385310 398560	WINDER DRIVE TP 2	1.1	N	937244 ↗
E	195m NW	385300 398550	WINDER DRIVE TP 3	2.25	N	937245 ↗
F	198m SW	385310 398330	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 8	21.33	N	937116 ↗
G	199m E	385700 398374	HUGH STEVENSON & SONS LTD, POLLARD STREET	60.96	N	936506 ↗
E	200m NW	385300 398560	WINDER DRIVE TP 1	1.7	N	937243 ↗
E	200m NW	385300 398560	HOSTEL WINDER DRIVE ANCOATS 1	10.0	N	937247 ↗
H	202m S	385420 398230	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM TP B8	-	Y	N/A
G	205m E	385710 398390	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM BHD1	-	Y	N/A
6	205m SW	385390 398240	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 6	8.2	N	937114 ↗
7	210m S	385500 398210	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 4	8.08	N	937112 ↗
H	214m S	385410 398220	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM BHB9	-	Y	N/A
8	218m W	385270 398360	WHARF STREET 2	5.0	N	937232 ↗
H	228m S	385400 398210	MANCHESTER METRO PHASE 3 EXTENSION TO COMMONWEALTH WEALTH GAMES STADIUM TP B7	-	Y	N/A
9	229m W	385250 398380	WHARF STREET 1	5.0	N	937231 ↗
H	230m S	385420 398200	ASHTON CANAL CORRIDOR TP 16	2.8	N	15629948 ↗

ID	Location	Grid reference	Name	Length	Confidential	Web link
H	233m S	385410 398200	ASHTON CANAL CORRIDOR TP 15	3.1	N	15629947 ↗
10	245m W	385240 398540	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 9	27.7	N	937117 ↗

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

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

17.1 Shrink swell clays

Records within 50m	1

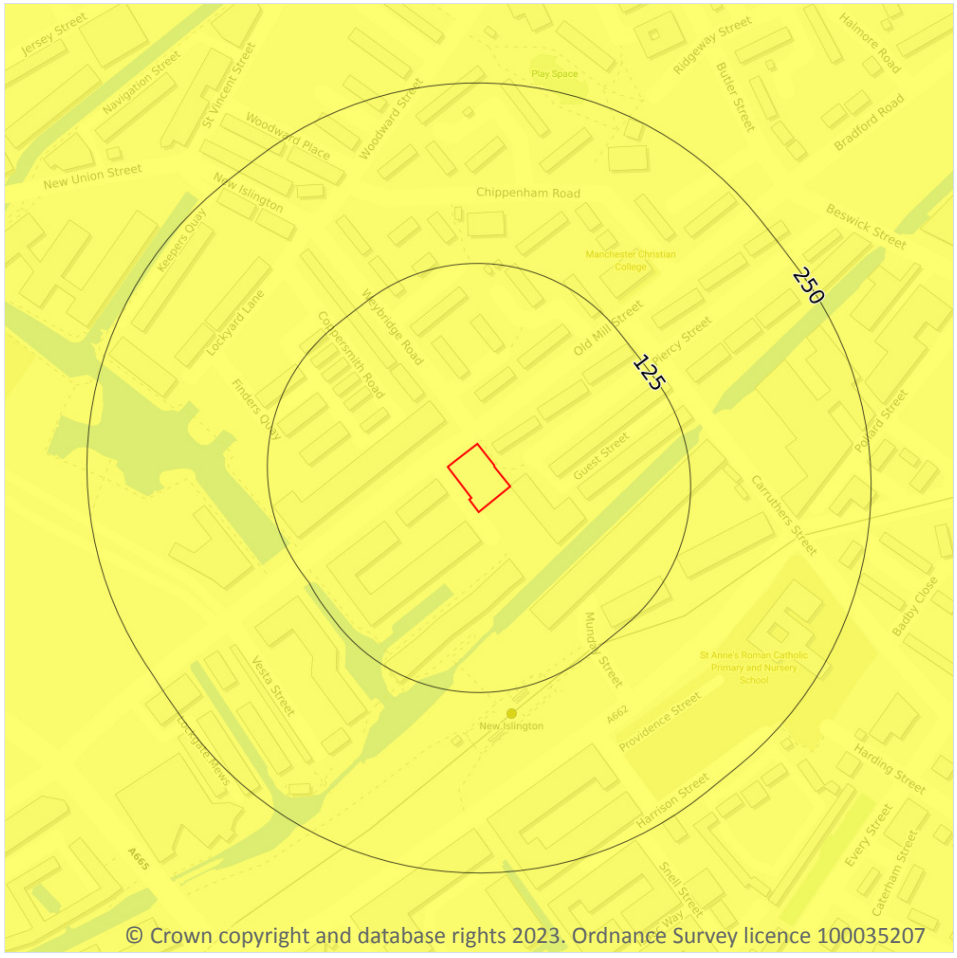
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 126 >**

Location	Hazard rating	Details
On site	**Very low**	**Ground conditions predominantly low plasticity.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



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Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	1

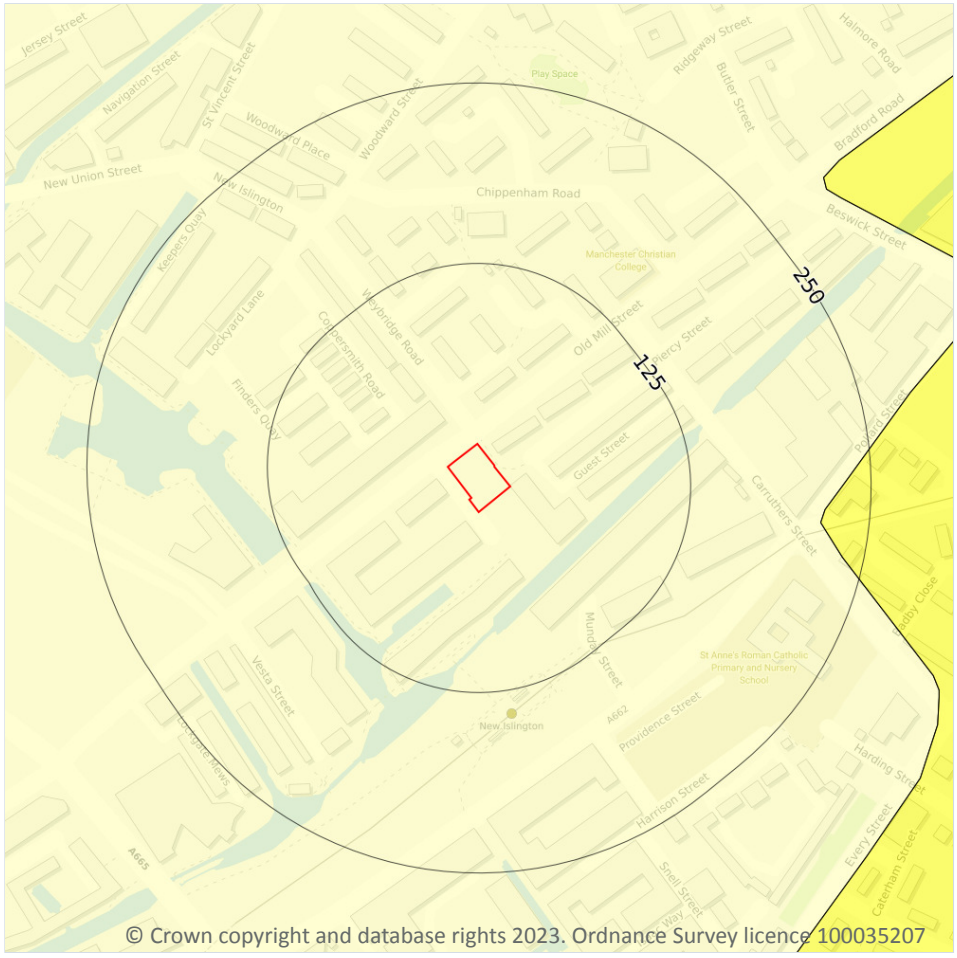
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 127 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	1

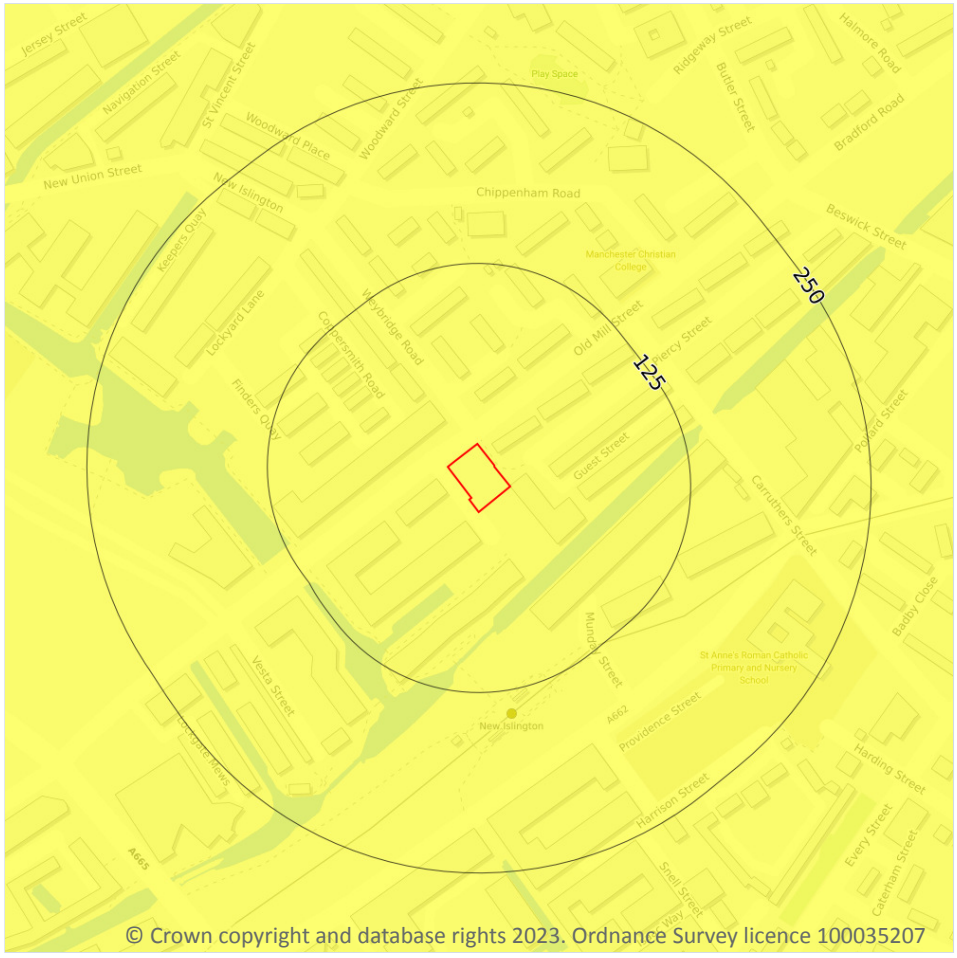
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 128 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	1

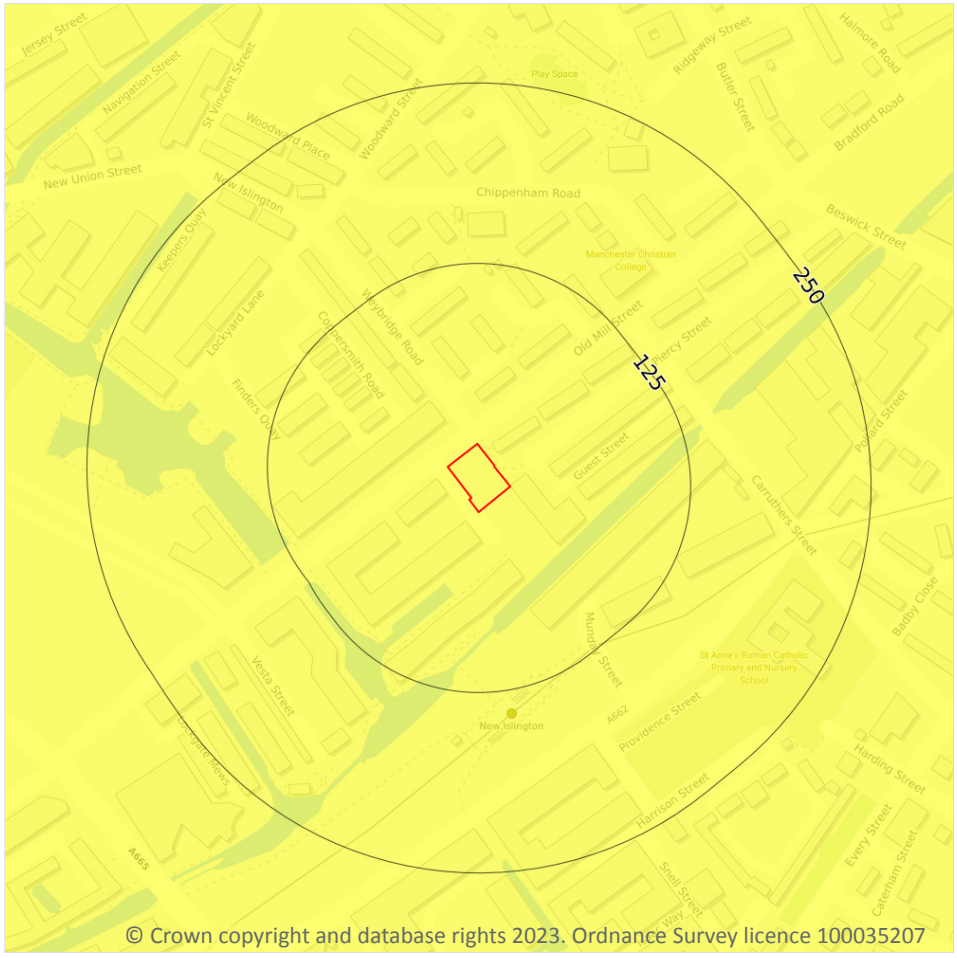
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 129 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

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

17.5 Landslides

Records within 50m	1

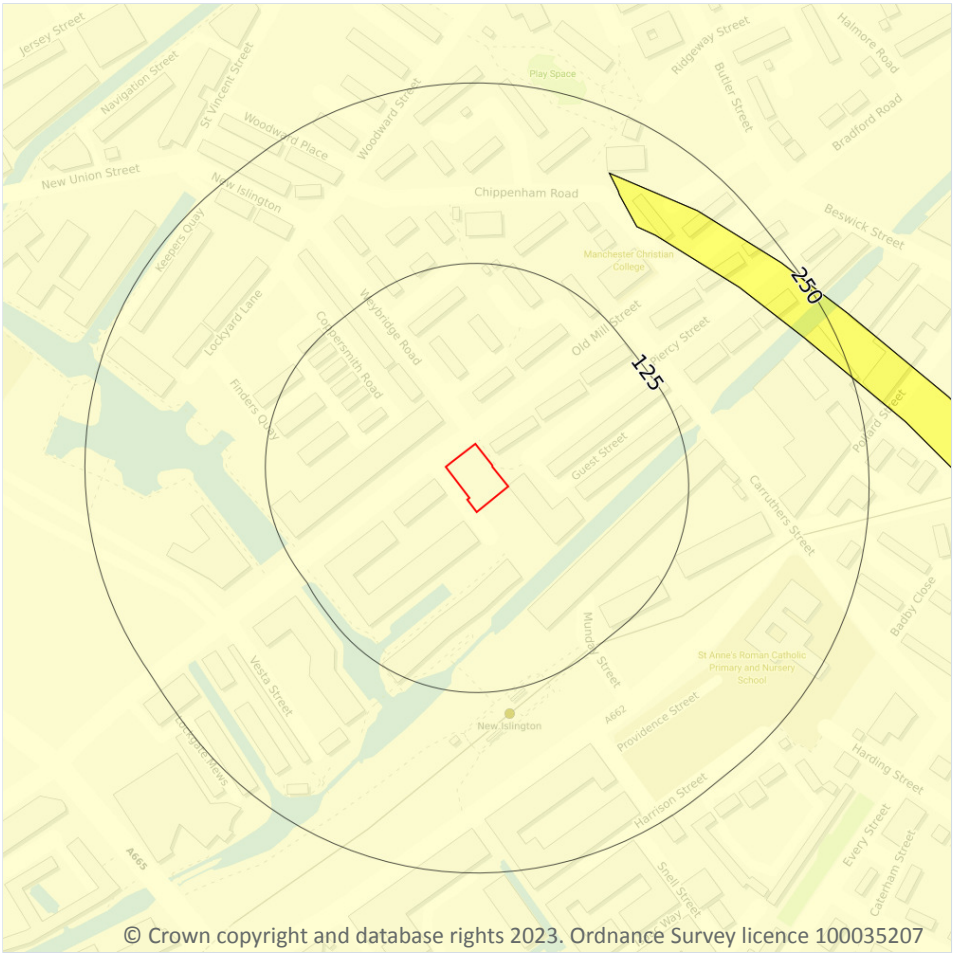
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 130 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



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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

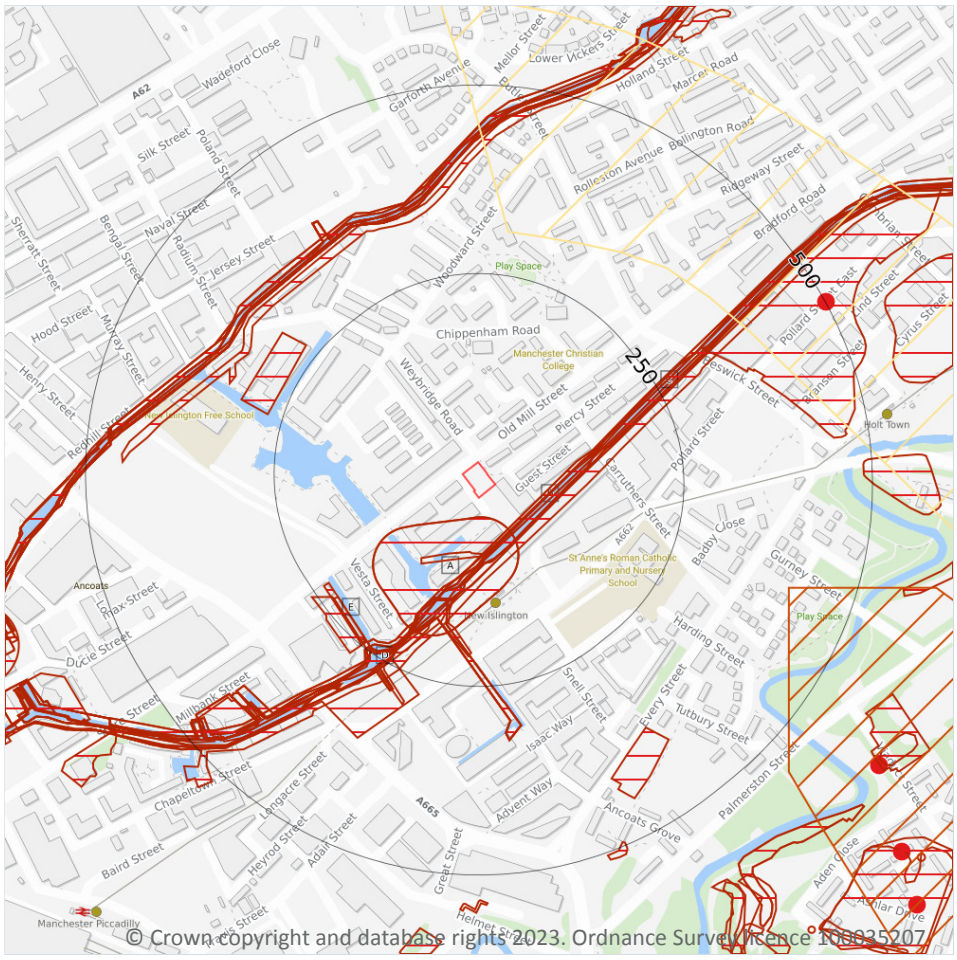
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 131 >**

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

This data is sourced from the British Geological Survey.

18 Mining, ground workings and natural cavities



Site Outline

Search buffers in metres (m)

- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities

Non Coal Mining

- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m	0

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

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m	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.

18.3 Surface ground workings

Records within 250m	21

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 133 >**

ID	Location	Land Use	Year of mapping	Mapping scale
A	26m S	Unspecified Wharf	1921	1:10560
A	26m S	Unspecified Wharf	1906	1:10560
B	54m SE	Canal	1985	1:10000
B	54m SE	Canal	1978	1:10000
B	58m SE	Canal	1968	1:10560
B	58m SE	Canal	1956	1:10560
C	59m SE	Canal	1938	1:10560
C	59m SE	Canal	1933	1:10560
C	59m SE	Canal	1921	1:10560
C	59m SE	Canal	1906	1:10560
C	59m SE	Canal	1891	1:10560
A	60m SE	Canal	1923	1:10560
B	72m SE	Canal	1991	1:10000
A	73m S	Unspecified Wharf	1923	1:10560
D	137m S	Water Body	1905	1:10560
D	140m S	Canal	1938	1:10560
D	140m S	Canal	1934	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
D	140m S	Canal	1915	1:10560
D	140m S	Water Body	1890	1:10560
E	228m SW	Unspecified Wharf	1923	1:10560
E	234m SW	Unspecified Wharf	1915	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	**0**

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

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	**2**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 133 >**

ID	Location	Name	Commodity	Class	Likelihood
2	308m N	Not available	Vein Mineral	A	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

ID	Location	Name	Commodity	Class	Likelihood
4	413m E	Ardwick	Limestone - Ardwick	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	0

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

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site	1

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

Location	Details
On site	**In addition to being located inside an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) have information such as mining plans and maps held within their archive of mining activities that have occurred within 1km of this property which may supplement this information. Please note, the plans held by JPB may also relate to non-mining records. Further details and a quote for services (if appropriate) can be obtained by emailing this report to enquiries.gs@jpb.co.uk ↗.**

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	1

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

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

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0

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

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

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

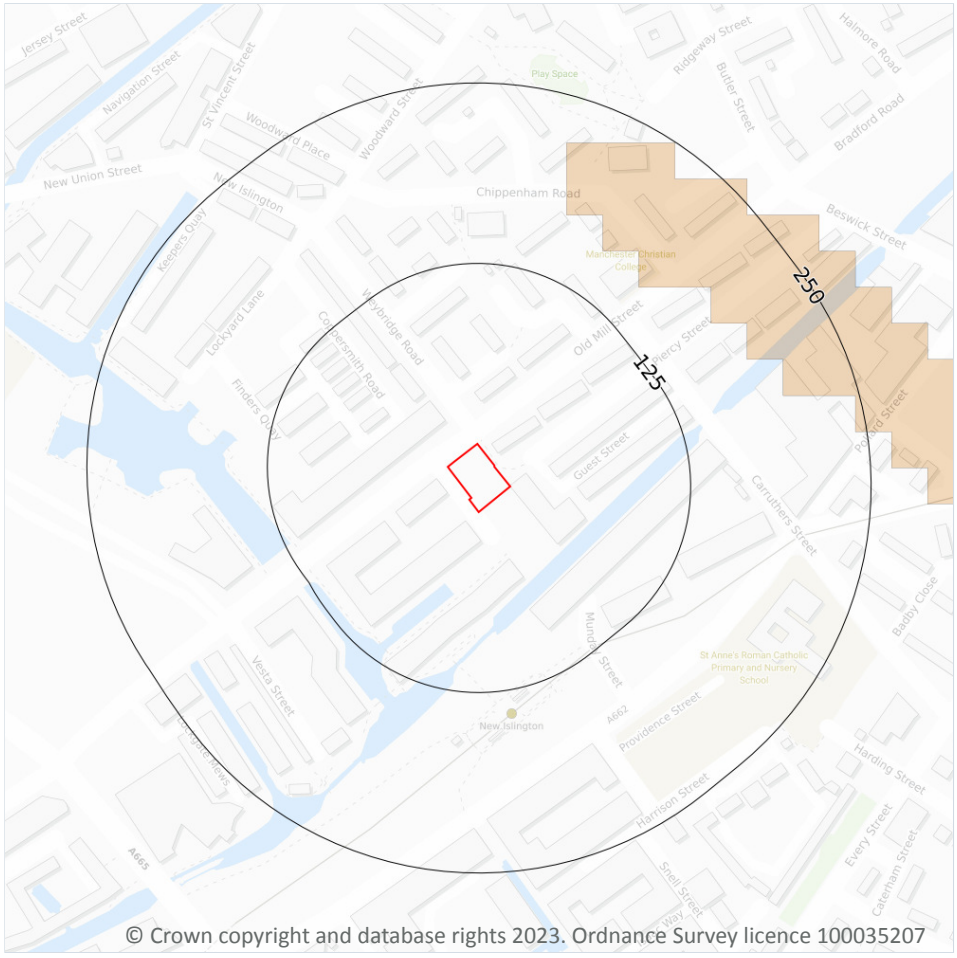
18.13 Clay mining

Records on site	0

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

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

19 Radon



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Site Outline

Search buffers in metres (m)

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

19.1 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 138 >**

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.

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m **7**

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**25 - 35 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**30 - 45 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**	**30 - 45 mg/kg**
15m S	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
33m N	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
35m N	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
49m NW	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m **6**

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

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	**22**	**3.8**	**69**	**47**	**0.9**	**91**	**34**	**27**	**4**
On site	**23**	**4**	**431**	**296**	**0.9**	**88**	**115**	**28**	**34**
19m S	25	4.4	303	208	0.8	92	116	30	28
22m S	22	3.8	74	51	0.8	95	35	28	4
33m N	22	3.8	498	342	0.9	83	118	25	36
35m N	21	3.7	72	49	0.8	87	34	26	4

This data is sourced from the British Geological Survey.

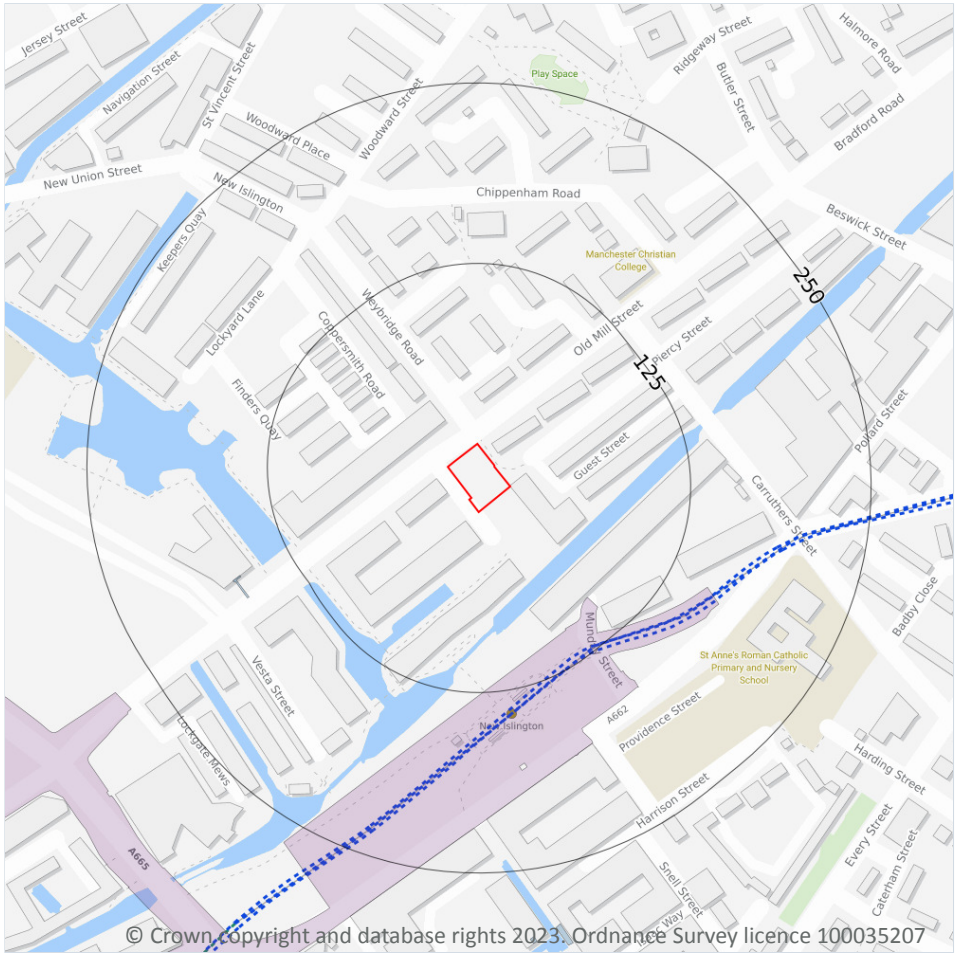
20.3 BGS Measured Urban Soil Chemistry

Records within 50m	**0**

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

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects



Site Outline

Search buffers in metres (m)

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

21.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	1

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 142 >**

Location	Land Use	Year of mapping	Mapping scale
162m SW	Tramway Sidings	1891	500

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	0

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

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m	0

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

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	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 142 >**

Location	Name	Type
120m SE		light_rail
120m SE		light_rail
123m SE	Not given	Multi Track
124m SE		light_rail
125m SE		light_rail
190m E		light_rail
194m E		light_rail
230m S		light_rail
232m S		light_rail

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

Data providers

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

Terms and conditions

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

Appendix B

Site Walkover Photographs

Photograph Survey

CLIENT:	Urban Splash Estates Limited
PROJECT:	Old Mill Street, Manchester
SITE VISIT:	Ground conditions walkover
SITE VISIT DATE:	01/06/2023
JOB NO.:	GM12676
PREPARED BY:	Fay Lawrence

Photo Locations are shown on Drawing Number GM12676-002, which should be read in conjunction with this Photograph Survey.

Photo Location 1 – View of the site looking north, showing gravel hardstanding and car parking



Photograph Survey

Photo Location 2 – View of the site looking south showing fence surrounding the site and access to the site off Old Mill Street



Photo Location 3 – View of the sites southern border showing concrete boulders



Photo Location 4 – View looking northwest



Photo Location 5 – Northern corner of the site showing loose fence panels and a brick building

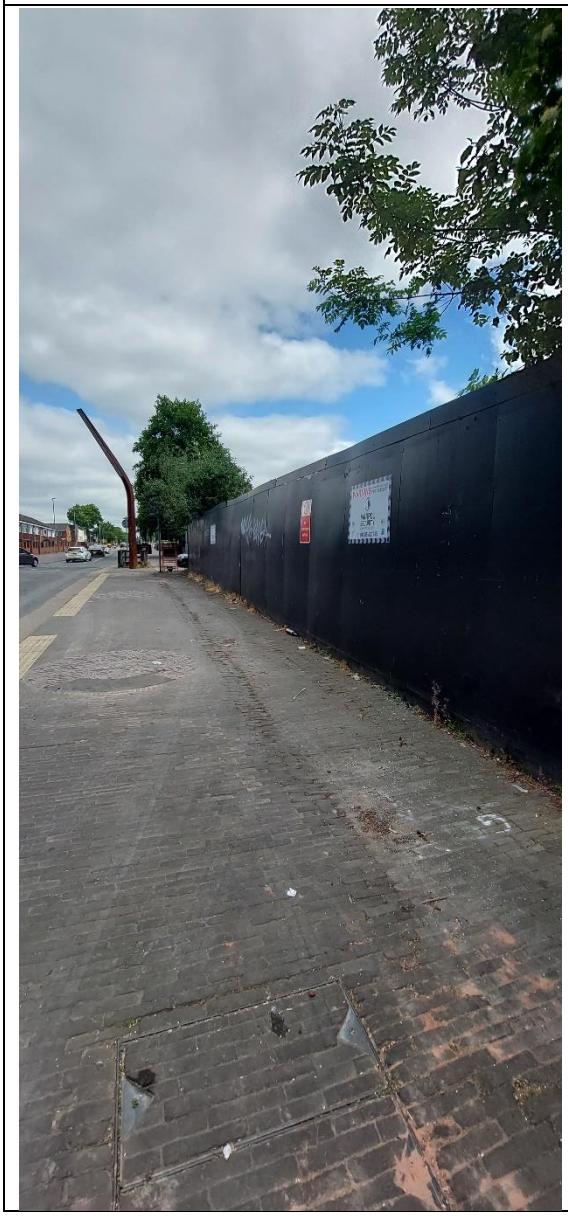


Photo Location 6 – View of site looking west showing car parking and adjacent building site



Photo Location 7 – View of the site looking north showing gravel hardstanding



Photo Location 8 – Sites northern border


Photograph Survey

Photo Location 9 – Sites eastern border



Photo Location 10 – View of site looking northeast showing car parking and eastern border

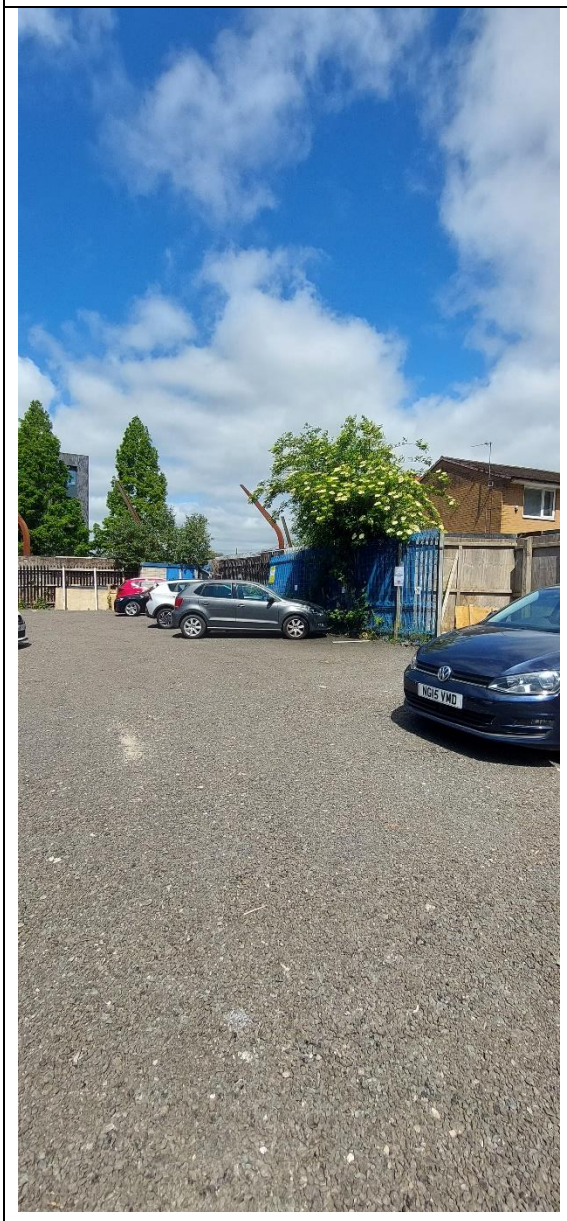
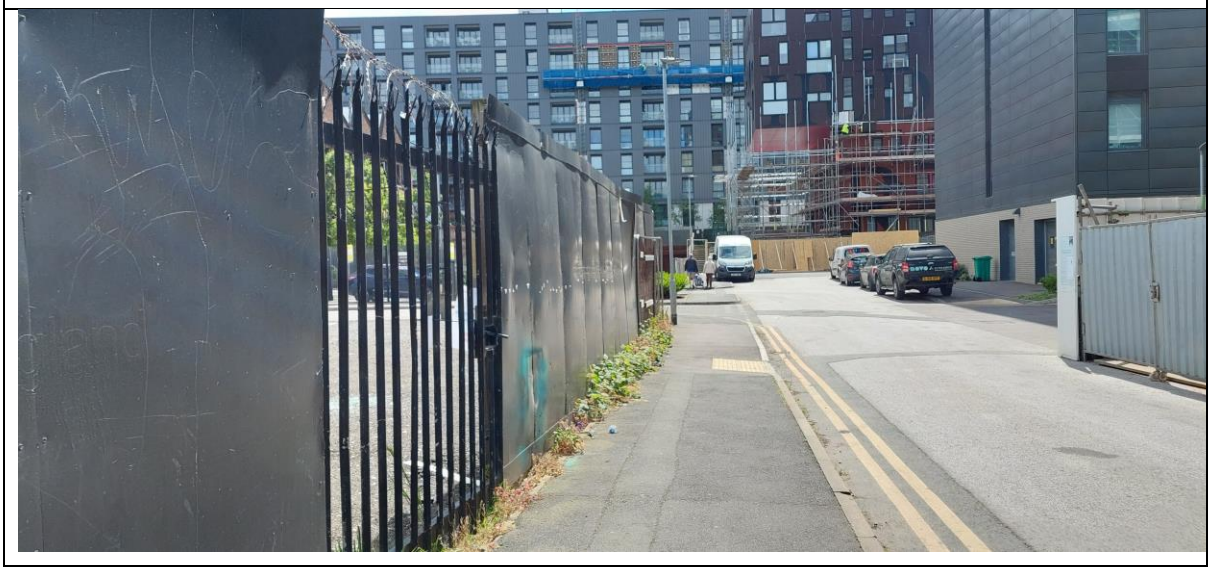


Photo Location 11 – View of sites western border looking north



Photo Location 12 – Southwestern corner of the site



Appendix C

BGS Borehole Logs

(*11932) Wt.30370/0370 10,000 9/39 A.& E.W.Ltd. Gp.685

152

104 NE. 146.

Name and Number of Shaft or Bore given by Geological Survey:

County Lancashire

6" Quarter Sheet 104 NE

Messrs Hugh Stevenson Sons, Ltd.

SJ89NE 104 146.

Geological Classification	Description	Thickness	Depth
	Pollard Street Ancoats Manchester. 4		
	Details below from Manchester Corporation Waterworks Department 20 January 1944:—		
	Surface 148ft. O.D.		
	Depth 200ft.		
	Yield 2000 gallons per hour.		
	Plant now dismantled (1944).		

British Geological Survey

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GEO – RESEARCH LTD.

B/H No. 4

CONTRACT INNER RING ROAD, SECTION 2, PHASE I
LOCATION MANCHESTER

SHEET No. 1
No. of sheets 1

CLIENT
MANCHESTER CORPORATION

Percussion U D SPT B
Rotary Cored runs O/H
CASING Size to. Size to.
0.150 3.040

Ground Level 51.20m
Commenced 15/1/72
Completed 15/1/72

Weather GOOD

STRATUM. (Scale: 20mm to 1 metre) 1. Thickness	Depth 2. m	Sample No.	Blow Count (N) LL/PL/PI	Legend 5.	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve 8 Results of any other Tests: mm 75 / mm 40 / mm 20 / mm 10 / mm 5; mm 2.40 / μm 600 / μm 210 / μm 150 / μm 75	TRIAXIAL TEST: Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stren. kN/m² kN/m² Shear/∠° kN/m²	WATER REMARKS 10.
Tarmac setts, clay and ash FILL (iii)	0.91	B1									
1.52	1.52										
Soft to firm brown mottled silty stony CLAY (Boulder Clay) (i)		B2									
1.22	2.74										
Stiff to hard brown silty sandy CLAY with pebbles (Boulder Clay) (i)	3.04	D1 U1			14.6 15.4 15.8	TAQ		2180 2160 2160	567 680 646	100 200 400 316/0°	
	4.57	U2	39.14.25. (CI)		19.0 18.0 19.5	TAQ		2090 2130 2090	272 336 228	100 200 400 139/0°	
	6.09	U3			15.9 15.7 15.6	TAQ		2160 2160 2160	479 470 507	100 200 400 243/0°	
	7.61 7.62	D2 U4			15.9 16.3	TAQ		2160 2160	271 277	100 200 137/0°	
5.34	8.08										Water Table Not Establishe
			BOREHOLE		COMPLETE						

REMARKS:

Sample	Depth m	M.C. % D.W.	S.G.	C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.
B1	0.91		2.65	8%	Dynamic	7	8	4	5				
B1				5%								1640	20.0
B2	1.52		2.65	8%	Dynamic	8	7	4	5				
				6%								1740	16.0

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B/H No. 5

CONTRACT INNER RING ROAD, SECTION 2, PHASE I

SHEET No. 1

LOCATION MANCHESTER

No. of sheets 1

CLIENT MANCHESTER CORPORATION

Ground Level 49.98m

Commenced 14/12/71

Completed 14/12/71

Weather DRY

Percussion U D SPT B

CASING Size 0.150 to 3.040 Size to

Rotary Cored runs O/H

STRATUM. (Scale: 20mm to 1 metre) 1. Thickness	Depth 2. m	Sample No.	Blow Count (N) LL/PL/PI	5. Legend	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve 8	TRIAXIAL TEST Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stren. kN/m² kN/m² Shear/ϕ° kN/m²	WATER REMARKS 10.
							mm 75 / 2.40 mm; mm 40 / 600 µm; mm 20 / 210 µm; mm 10 / 150 µm; mm 5 / 75 µm				
Loose clay, ash, gravel and rubble FILL	0.30	D1			14.1						
(iii)	1.00	CP1 B1	1.2.2.3. (8)		18.1						
1.45	1.45										
Very soft to soft grey/brown/blue mottled silty CLAY with sandstone pieces	1.50	D2 U1	(10)		22.9 29.7			1850	46	100	
					27.3	TAQ		2000	77	200	
					25.4			1980	79	400	
	2.25	D3			27.5	SO_3 S	0.01			34/0°	
	2.50	U2*	(21)		26.6			1980	29	100	
(i) 1.30	2.75				26.5	TAQ		2000	33	200	
					27.2			1900	24	400	
Stiff to hard brown and grey sandy silty CLAY with pebbles (Boulder Clay)	3.00	D4			14.5					14/0°	
	3.15	U3	35.15.20. (CL/CI) (39)		18.1			2070	388	100	
					16.7	TAQ		2120	465	200	
					16.1			2120	526	400	
										230/0°	
										150/12°	
(i)	3.90	D5			15.6						
	4.65	U4*	(48)		21.1			2040	341	100	
					21.2	TAQ		2020	331	200	
					19.4			2000	331	400	
										167/0°	
	5.40	D6			12.4						
	6.15	U5	(43)		17.3			2160	189	100	
					17.1	TAQ		2160	184	200	
					16.5			2180	172	400	
										91/0°	
	6.90	D7			13.3						
	7.65	U6	(50)		17.2			2110	280	100	
					16.9	TAQ		2120	318	200	
5.35	8.10				16.0			2130	407	400	Water Table Not Establis
										168/0° 100/11°	
			BOREHOLE		COMPLETE						

REMARKS:

* Consolidation Results – see separate sheet.

Sample	Depth m	M.C. % D.W.	S.G.	C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.
B1	1.00		2.65	2%	Static	2	2	1	2				

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GEO – RESEARCH LTD.

B/H No. 6

CONTRACT: INNER RING ROAD, SECTION 2, PHASE I
LOCATION: MANCHESTER

SHEET No. 1
No. of sheets 1

CLIENT: MANCHESTER CORPORATION

Percussion: U / D / SPT / B
Rotary: Cored runs / O/H
Legend

CASING: Size 0.150 to 3.040 Size to.

Ground Level 49.63m
Commenced 14/12/71
Completed 15/12/71

Weather: DRY

STRATUM. (Scale:20mm to 1 metre) 1. Thickness	Depth 2.m	Sample No.	Blow Count (N) LL/PL/PI	Legend 5.	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve 8 Results of any other Tests: mm 75 / mm 2.40; mm 40 / µm 600; mm 20 / µm 210; mm 10 / µm 150; mm 5 / µm 75	TRIAXIAL TEST: Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stren. kN/m³ kN/m² Shear/∠° kN/m²	WATER REMARKS 10.
Ash and rubble FILL 0.30	0.15 0.30	D1			27.5						
Soft to firm brown/ grey CLAY with bands of sand and organic material (i) 1.20	0.50	D2			27.5						
	1.00	U1	43.24.19. (CI) (12)		29.3 32.3 31.4	TAQ		1900 1830 1860	88 64 98	100 200 400 42/0°	
	1.50	D3			15.6						
Stiff to hard brown sandy silty CLAY with pebbles (i)	1.75	U2	(19)		24.6 20.9 22.9	TAQ		2190 2070 2120	194 152 152	100 200 400 83/0°	
	2.50	D4			16.9	SO_3 S	0.03				
	3.25	U3	(40)		15.4 14.7 15.6	TAQ		2150 2160 2160	491 452 479	100 200 400 237/0°	
	4.00	D5			17.7						Dry
	4.75	U4	(46)		16.7 16.8 16.8	TAQ		2160 2150 2150	187 184 145	100 200 400 86/0°	
	5.50	D6			13.0						
	6.25	U5	36.15.21. (CI) (59)		16.5 16.0 16.5	TAQ		2140 2150 2150	407 407 413	100 200 400 205/0°	
	7.00	D7			14.5						
	7.75	U6	(57)		16.1 16.0 16.0	TAQ		2150 2170 2170	163 208 208	100 200 400 97/0°	
6.70	8.20										Water Table Not Established
			BOREHOLE		COMPLETE						

REMARKS:

Sample	Depth m	M.C. % D.W.	S.G.	C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.
U1	1.00		2.65	6%	Static	1	1	2	1				

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GEO – RESEARCH LTD.

B/H No. 7

CONTRACT: INNER RING ROAD, SECTION 2, PHASE I
LOCATION: MANCHESTER

SHEET No. 1
No. of sheets 1

CLIENT: MANCHESTER CORPORATION

Percussion: U D SPT B
Rotary: Cored runs, O/H
CASING: Size to. Size to.

Ground Level 48.50m
Commenced 1/12/71
Completed 2/12/71

Weather: LIGHT RAIN/DRY AND COLD

STRATUM. (Scale: 20mm to 1 metre) 1. Thickness	Depth 2.m	Sample No.	Blow Count (N) LL/PL/PI	5. Legend	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve: 75mm	40mm	20mm	10mm	5mm / 2.40mm	600µm	210µm	150µm	75µm	TRIAXIAL TEST: Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stran. kN/m² kN/m² Shear/∠° kN/m²	WATER REMARKS 10.
					8 Results of any other Tests														
Clay and rubble FILL (iii) 1.28	0.00 / 1.28	B1			25.5														
Wet SAND with concrete and rubble (iii) 1.07	2.35	B2			12.8		–	–	–	–	100 / 8	89	76	23	13				
Possible Basement Slab																			

REMARKS: Trial Pit dug to 1.280 initially. Due to unidentifiable obstruction Borehole was moved five times over a period of two days. Eventually abandoned and Borehole 7A drilled in its place.

Sample	Depth m	M.C. % D.W.	S.G.	C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.
B1	0.00		2.65	6%	Static	1	1	1	1				
B2	1.28		2.65	8%	Dynamic	5	6	5	6				

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GEO – RESEARCH LTD.

B/H No. 7A

CONTRACT INNER RING ROAD, SECTION 2, PHASE I

LOCATION MANCHESTER

SHEET No. 1

No. of sheets 4

CLIENT MANCHESTER CORPORATION

Ground Level 49.05m

Commenced 2/12/71

Completed 13/12/71

Weather DRY/COLD/SHOWERS/DRY

Percussion U D B — SPT — Rotary — Cored runs — O/H

CASING Size 0.200 to 29.000 Size to

STRATUM. (Scale: 20mm to 1 metre) 1. Thickness	Depth 2.m	Sample No.	Blow Count (N) LL/PL/PI	5. Legend	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve mm 75 / mm 40 / mm 20 / mm 10 / mm 5 / mm 2.40 / µm 600 / µm 210 / µm 150 / µm 75 — 8. Results of any other Tests	TRIAXIAL TEST Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stren. kN/m² kN/m² Shear/φ° kN/m²	WATER REMARKS 10.
Clay and brick rubble FILL (ii) 0.45	0.30	D1			20.6						
	0.45										
Stiff grey/* 0.20	0.50	D2			26.9						
	0.65	U1**	(35)		27.1			1960	183	100	
Stiff brown/blue mottled silty CLAY with traces of organic material and pebbles (i)	1.00	D3			23.5	TAQ		2000	227	200	
					25.2			1990	188	400	
					17.9					100/0°	
	1.15	U2	42.19.23. (CI) (48)		17.2			2040	191	100	
					17.2	TAQ		2040	226	200	Dry
					17.7			2000	236	400	
										109/0°	
	1.90	D4			37.6	SO_3S	0.01				
2.00	2.65										
Stiff to hard brown silty CLAY with gravel and sandstone pebbles (Boulder Clay) (i)		U3	(50)		15.8			2130	485	100	
					15.1	TAQ		2170	581	200	
					15.3			2140	587	400	
										276/0°	
	3.40	D5			16.4						
	4.15	U4	(59)		15.6			2160	690	100	
					15.8	TAQ		2150	587	200	Dry
					15.7			2160	692	400	
										328/0°	
	4.90	D6			18.1						
	5.65	U5**	(67)		11.5			2220	354	100	
					11.6	TAQ		2190	305	200	
					11.2			2220	421	400	
										180/0°	
	6.40	D7			15.9						
	7.00	U6	35.13.22. (CL/CI) (54)		15.3			2160	213	100	
					14.4	TAQ		2190	274	200	
					15.3			2180	282	400	
										128/0°	
	7.75	D8			13.4						
	8.50	U7**	(47)		14.5			2200	432	100	
					14.9	TAQ		2190	344	200	
					14.6			2180	344	400	
6.35	9.00									187/0°	

Continued on Sheet 2.

REMARKS:

* brown silty CLAY with traces of coal and siltstone.

** Consolidation Results – see separate sheet.

Sample	Depth	M.C. % D.W.	Air Voids	Type	C. B. R. TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.

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S588WF 6/8

GEO – RESEARCH LTD. B/H No. 7A

CONTRACT INNER RING ROAD, SECTION 2, PHASE I — SHEET No. 2

LOCATION MANCHESTER — No. of sheets 4

CLIENT MANCHESTER CORPORATION — Ground Level 49.05m

Percussion U / D / SPT / B — CASING Size 0.200 to 29.000 — Commenced 2/12/71 — Completed 13/12/71

Weather DRY/COLD/SHOWERS/DRY — Rotary: Cored runs / O/H

STRATUM. (Scale: 20mm to 1 metre) 1. Thickness	Depth 2. m	Sample No.	Blow Count (N) LL/PL/PI	Legend 5.	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve 8. mm 75 / 40 / 20 / 10 / 5; mm 2.40 / µm 600 / 210 / 150 / 75	TRIAXIAL TEST Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stren. kN/m² kN/m² Shear/x° kN/m²	WATER REMARKS 10.
	9.00										
Stiff to hard brown silty CLAY with gravel and sandstone pebbles (Boulder Clay) (i)	9.25	D9			12.8						
	10.00	U8	(53)		14.2			2150	335	100	
					14.0	TAQ		2180	366	200	
					13.2			2200	388	400	
										182/0°	
	10.75	D10			12.3						
	11.50	U9	(62)		17.9			2120	231	100	
					18.5	TAQ		2110	238	200	
					17.3			2130	204	400	
										112/0°	
	12.25	D11			11.6						Dry
	13.00	U10	26.12.14. (CL) (65)		11.3			2250	368	100	
					11.3	TAQ		2250	363	200	
					11 2			2240	476	400	
										201/0°	
	13.75	D12			10.0						
	14.00	U11	(80)		13.5			2190	317	100	
					13.3	TAQ		2230	434	200	
					13.1			2210	361	400	
	14.50	U12	(80)							185/0°	
					10.2			2150	251	100	
6.15	15.15				10.2	TAQ		2150	340	200	
									587	400	
	15.25	P1	6.8.14.23.		4.6					196/0°	
Very dense SAND and sandy SILT with bands of clay (Boulder Clay)		B1*	(51)		7.1					50/20°	
					3.1						Dry
(ii) 1.20	16.25 16.35	D13			23.4						
Stiff to hard grey/ brown and blue laminated CLAY with bands of red cemented sand and sandstone boulders and pebbles (i)	16.50	P2 B2	16.20.28.30. (94)		17.8						
	17.25	U13	(158)		17.9			2110	241	100	
					24.1	TAQ		2110	319	200	
					19.7			2070	241	400	
										134/0°	Dry
1.80	18.15										

Continued on Sheet 3.

REMARKS:

* B1 Moisture Content : 22.6

Sample	Depth	M.C. % D.W.		C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.

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GEO – RESEARCH LTD.

B/H No. 7A

CONTRACT INNER RING ROAD, SECTION 2, PHASE I
LOCATION MANCHESTER

SHEET No. 3
No. of sheets 4

CLIENT
MANCHESTER CORPORATION

Ground Level 49.05m
Commenced 2/12/71
Completed 13/12/71

Weather DRY/COLD/SHOWERS/DRY

Percussion U D B
SPT
Rotary
Cored runs
O/H
Legend

CASING Size 0.200 to. Size 29.000 to.

STRATUM. (Scale: 20mm to 1 metre) 1. Thickness	Depth 2. m	Sample No.	Blow Count (N) LL/PL/PI	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve 8. Results of any other Tests	TRIAXIAL TEST Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T., Pres. Stren. kN/m² kN/m² Shear/ϕ° kN/m²	WATER REMARKS 10.
Dense well graded sandy GRAVEL with cobbles and boulders (Boulder Clay) (ii) 1.00	18.15	D14				mm 75 40 20 10 5 / mm 2.40 600 210 150 75				4/12/71 BH @ 19.150 Cas @ 3.000 Water Nil
	18.50	CP3 B3	8.9.19.12. (48)							
	19.15	P4	8.9.13.10.	14.4						7/12/71 SWL 18.150
Very stiff brown silty CLAY with some* 0.35	19.50	B4	(40) 29.12.17. (CL)	21.3						
Dense well graded small to medium GRAVEL and SAND with cobbles and boulders Blowing from 21.00m (Boulder Clay) (ii)	19.60	CP5 B5	14.6.6.8. (34)							
	20.00	D15								
	20.50	CP6 B6	7.9.18.8. (42)							Water Added
	21.00	D16								
	21.50	CP7 B7	4.5.7.17. (33)	2.9		100 81 55 48 37 27 21 12 3 2 1				
2.50	22.00	D17								
Dense uniform light brown SAND with some gravel – blowing (iii)	22.50	CP8 B8	4.7.7.9. (27)	7.6		100 100 89 8 4 2				
	23.00	D18			SO_3 W	13.72 pH 6.50				Water Added to Ground Level
1.50	23.50	P9	7.8.8.8.							
Dense brown medium SAND and fine GRAVEL with small fragments of coal – blowing (Boulder Clay) (iii)		B9	(31)	4.5		100 93 82 77 71 48 5 3 2				
	24.00	D19								
	24.50	CP10 B10	4.5.8.8. (25)							
	25.00	D20								
1.75	25.25									
Dense well graded sandy GRAVEL with boulders – blowing (Boulder Clay) (ii)	25.50	CP11 B11	4.4.7.8. (23)							8/12/71 BH @ 27.150 Cas @ 27.000 Water standing @ G.L.
	26.00	D21								
	26.50	CP12 B12	3.6.10.7. (26)	5.3		100 96 81 67 54 42 21 5 3 2				9/12/71 SWL 24.400
1.90	27.00 27.15	D22								

Continued on Sheet 4.

REMARKS:
* claybound gravel.
(i)

Sample	Depth	M.C. % D.W.	C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.

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GEO – RESEARCH LTD. B/H No. 7A

CONTRACT INNER RING ROAD, SECTION 2, PHASE I — SHEET No. 4

LOCATION MANCHESTER — No. of sheets 4

CLIENT MANCHESTER CORPORATION — Ground Level 49.05m

Commenced 2/12/71

Completed 13/12/71

Weather DRY/COLD/SHOWERS/DRY

Percussion U D B; SPT; Rotary; Cored runs; O/H; Legend 5

CASING: Size 0.200 to 29.000; Size to.

STRATUM. (Scale: 20mm to 1 metre) 1. Thickness	Depth 2. m	Sample No.	Blow Count (N) LL/PL/PI	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve 8 Results of any other Tests: mm 75 / mm 40 / mm 20 / mm 10 / mm 5 / mm 2.40 / µm 600 / µm 210 / µm 150 / µm 75	TRIAXIAL TEST: Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stren. kN/m² kN/m² Shear/∠° kN/m²	WATER REMARKS 10.
	27.15									
Dense uniform brown medium SAND with speckles of coal, some fine gravel and occasional cobbles or boulders and thin bands of silt or clay	27.50	CP13 B13	5.5.9.9. (28)							
	28.00	D23								
	28.50	P14 B14	4.4.6.8. (22)							9/12/71
(Boulder Clay) (iii)	29.00	D24								BH @ 29. Cas @ 29. SWL 24.
	29.50	P15 B15	6.8.8.9. (31)							10/12/71 SWL 24.
	30.00	D25								
	30.50	P16 B16	8.9.11.10 (38)	20.6		- - - - - 100 100 46 23 7				
	31.00	D26								Water Added
	31.50	P17 B17	7.9.10.10 (36)							
	32.00	D27								
	32.50	P18 B18	9.10.10.10 (39)							
	33.00	D28								
	33.50	P19 B19	16.12.12.12 (52)	21.5		- - - - 100 100 99 33 14 4				
7.00	34.00 34.15	D29								OOB @ 34.1 Cas @ 29.0 SWL 24.0 13/12/71 SWL 23.1 Wl - 23.1
			BOREHOLE	COMPLETE						BH Backfille as casing withdrawn.

REMARKS:

Sample	Depth	M.C. % D.W.	C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.

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GEO – RESEARCH LTD. B/H No. 8

CONTRACT. INNER RING ROAD, SECTION 2, PHASE I — SHEET No. 1

LOCATION MANCHESTER — No. of sheets 3

CLIENT MANCHESTER CORPORATION — Ground Level 49.29m

Commenced 14/12/71

Completed 15/12/71

Weather DRY

Percussion U D SPT B — Rotary: Cored runs, O/H — Legend

CASING: Size 0.150 to 16.450; Size to.

STRATUM. (Scale: 20mm to 1 metre) 1. Thickness	Depth 2. m	Sample No.	Blow Count (N) LL/PL/PI	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve 8	TRIAXIAL TEST: Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stren. kN/m² kN/m² Shear/∠° kN/m²	WATER REMARKS 10.
						mm 75 / 40 / 20 / 10 / 5; mm 2.40 / 600 / 210 / 150 / 75				
Cinder and brick FILL (iii)	0.76	D1		17.1						
	1.21	B1		18.7						
1.52	1.52									
		D2			SO_3 S	0.08				
Very stiff to hard brown silty CLAY with occasional pebbles (Boulder Clay) (i)	1.82	U1	(40)	18.2			1980	271	100	
				18.8	TAQ		2050	307	200	
				18.4			2020	321	400	
									150/0°	
									115/4°	
	2.89	D3		21.0						
	3.35	U2	(43)	17.2			2090	235	100	
				16.6	TAQ		2090	296	200	
				16.5			2110	269	400	
									133/0°	
	4.26	D4		17.5						
	4.87	U3	37.15.22. (GI) (42)	16.5			2150	377	100	
				16.9	TAQ		2160	410	200	
				15.4			2190	429	400	
									203/0°	
	5.48	D5		20.9					160/6°	
	6.40	U4	(47)	15.1			2170	302	100	
				15.7	TAQ		2130	338	200	
				16.3			2120	294	400	
									156/0°	
	7.31	D6		15.2						
	7.92	U5		16.4			2140	388	100	
				14.9	TAQ		2140	260	200	
				14.0			2180	271	400	
									153/0°	
	8.53	D7		15.5						
7.62	9.14									

Continued on Sheet 2.

REMARKS:

Sample	Depth m	M.C. % D.W.	S.G.	C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.
B1	1.21		2.65	9%	Dynamic	26	35	18	32				

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For other symbols used see overleaf

S589NE 699

GEO – RESEARCH LTD. B/H No. 8

CONTRACT: INNER RING ROAD, SECTION 2, PHASE I — SHEET No. 2

LOCATION: MANCHESTER — No. of sheets 3

CLIENT: MANCHESTER CORPORATION — Ground Level 49.29m

Commenced 14/12/71

Completed 15/12/71

Weather: DRY

Percussion: U / D / SPT / B — Rotary: Cored runs / O/H — Legend 5

CASING: Size 0.150 to. 16.450 Size to.

STRATUM. (Scale: 20mm to 1 metre) 1. Thickness	Depth 2.m	Sample No.	Blow Count (N) LL/PL/PI	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve 8 Results of any other Tests: mm 75 / mm 40 / mm 20 / mm 10 / mm 5 / μm 2.40 / μm 600 / μm 210 / μm 150 / μm 75	TRIAXIAL TEST: Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stren. kN/m² kN/m² Shear/∠° kN/m²	WATER REMARKS 10.
	9.14									
Very stiff to hard brown silty CLAY with occasional pebbles. Bands of brown SAND 14.93m to 17.08m	9.44	B2		18.0						
(Boulder Clay)	10.36	D8		13.4						
(i)	10.97	U6	(48)	15.0			2160	280	100	
				14.6	TAQ		2160	280	200	
				14.4			2170	332	400	
									149/0°	
	11.58	D9		16.9						
	12.49	U7	(45)	11.9			2230	299	100	
				12.7	TAQ		2200	310	200	
				10.8			2260	518	400	
									188/0°	
	13.41	D10		15.1						
	14.02	U8	21.11.10. (CL) (53)	8.9			2240	554	100	
				9.7	TAQ		2220	969	200	
				9.7			2180	1191	400	
									452/0°	
	14.93	D11		15.8						
	15.54	U9	(64)	12.9	TAQ		2180	282	100	
									141/0°	
									100/30°	
	16.45	D12		13.0						
	17.06	U10	(63)	27.0			2020	172	100	
				21.8	TAQ		2040	135	200	
				22.0			2030	221	400	
									88/0°	
	17.98	D13		17.6						
9.14	18.28									

Continued on Sheet 3.

REMARKS:

Sample	Depth	M.C. % D.W.	C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.

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GEO – RESEARCH LTD.

S589WR 699

B/H No. 8

CONTRACT INNER RING ROAD, SECTION 2, PHASE I

LOCATION MANCHESTER

SHEET No. 3

No. of sheets 3

CLIENT MANCHESTER CORPORATION

Ground Level 49.29m

Commenced 14/12/71

Completed 15/12/71

Weather DRY

Percussion U D SPT B

Rotary Cored runs O/H

CASING Size 0.150 to. 16.450 Size to.

STRATUM. (Scale:20mm to 1 metre) 1. Thickness	Depth 2.m	Sample No.	Blow Count (N) LL/PL/PI	5. Legend	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve 8 Results of any other Tests: mm 75 / mm 40 / mm 20 / mm 10 / mm 5 (mm 2.40 / μm 600 / μm 210 / μm 150 / μm 75)	TRIAXIAL TEST: Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stren. kN/m² kN/m² Shear/x° kN/m²	WATER REMARKS 10.
	18.28										
Very stiff to hard brown silty CLAY with occasional pebbles (Boulder Clay) (i)	18.58	U11	(57)		14.8						
					16.2	TAQ		2150	413	100	
					17.9			2130	374	200	
	19.19	D14			22.2			2100	396	400	
										197/0°	
	20.11	U12	(61)		16.3						
					17.7	TAQ		2110	402	100	
					16.8			2100	490	200	
								2100	709	400	
										267/0°	
										105/19°	
	21.02	D15			18.9						
3.05	21.33										Water Table Not Establis
			BOREHOLE		COMPLETE						

REMARKS:

Sample	Depth	M.C. % D.W.		C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.

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GEO – RESEARCH LTD.

B/H No. 9 · 700

CONTRACT INNER RING ROAD, SECTION 2, PHASE I

LOCATION MANCHESTER

SHEET No. 1

No. of sheets 4

CLIENT MANCHESTER CORPORATION

Ground Level 47.57m

Commenced 15/12/71

Completed 20/12/71

Weather DRY

Percussion U / D / B — SPT

CASING Size 0.150 to 18.290 Size to.

Rotary — Cored runs — O/H

STRATUM. (Scale:20mm to 1 metre) 1. Thickness	Depth 2. m	Sample No.	Blow Count (N) LL/PL/PI	5. Legend	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve mm 75 / 40 / 20 / 10 / 5; mm 2.40 / 600 / 210 / 150 / 75 μm — 8. Results of any other Tests	TRIAXIAL TEST Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stren. kN/m² kN/m² Shear/∠° kN/m²	WATER REMARKS 10.
TARMAC and * 0.18	0.18										
Clay and rubble FILL (iii)	1.00	B1									
	1.50	B2			24.6						
1.82	2.00	D1			15.5	SO₃	0.02				
Stiff to hard brown silty CLAY with some grey and blue mottling and thin bands of silt and sand. Large boulder at 8.95m. Traces of coal and grey sandstone. (Boulder Clay) (i)	2.15	U1	38.16.22. (CI) (17)		13.5	TAQ		2130	490 532 581	100 200 400 267/0° 200/7°	
	2.90	D2			14.9						
	3.65	U2	(36)		15.8 15.1 15.5	TAQ		2150 2150 2160	515 589 623	100 200 400	
	4.20	D3			14.8					288/0° 200/8°	
	5.00	U3	(40)		16.2 16.7	TAQ		2200 2150	415 496	100 200 228/0° 140/16°	
	5.75	D4			15.6						Dry
	6.50	U4	32.13.19. (CL) (40)		12.8 12.4 12.5	TAQ		2220 2220 2230	373 376 415	100 200 400 194/0°	
	7.25	D5			18.1						
	8.00	U5	(44)		12.2 13.3 13.8	TAQ		2170 2140 2160	245 221 255	100 200 400 120/0°	
	8.75	D6			10.8						
7.14	8.95 9.14	B3									

Continued on Sheet 2.

REMARKS:

* STONE SETTS.

Sample	Depth	M.C. % D.W.		C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.

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GEO – RESEARCH LTD. SJ 89 NE B/H No. 9 700

CONTRACT INNER RING ROAD, SECTION 2, PHASE I
LOCATION MANCHESTER
SHEET No. 2
No. of sheets 4

CLIENT MANCHESTER CORPORATION
Ground Level 47.57m
Commenced 15/12/71
Completed 20/12/71

Weather DRY

Percussion U D SPT B
Rotary Cored runs O/H
CASING Size 0.150 to. 18.290 Size to.

STRATUM. (Scale: 20mm to 1 metre) 1. Thickness	Depth 2. m	Sample No.	Blow Count (N) LL/PL/PI	5. Legend	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve 8 Results of any other Tests: mm 75 / mm 2.40; mm 40 / µm 600; mm 20 / µm 210; mm 10 / µm 150; mm 5 / µm 75	TRIAXIAL TEST: Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stren. kN/m² kN/m² Shear/x° kN/m²	WATER REMARKS 10.
	9.14										
Stiff to hard brown silty CLAY with some grey and blue mottling and thin bands of silt and sand. Traces of coal and grey sandstone. (Boulder Clay) (i)	9.50	U6	(56)		14.6 14.3 14.8	TAQ		2160 2160 2180	269 307 327	100 200 400 151/0° 100/7°	
	10.25	D7			14.0						
	11.00	U7	41.15.26. (CI) (62)		10.4 10.0 10.2	TAQ		2230 2240 2250	493 493 552	100 200 400 256/0°	Dry
	11.75	D8			10.0						
	12.50	U8	(80)		13.1 13.8 13.1	TAQ		2220 2210 2220	395 393 407	100 200 400	
3.71	12.85										
Firm to hard brown silty CLAY with bands of yellow and red sand, many stones and boulders and bands of light brown clayey silt. (Boulder Clay) (i)	13.00	P1 B4*	8.8.10.12. (38)		9.3 13.1					199/0°	
	13.50	U9	(70)		23.7 23.5 23.2	TAQ		2010 2020 2020	50 186 166	100 200 400 67/0°	
	14.25	D9			11.5						Water Added
	15.00	U10	24.14.10. (CL) (59)		13.1 11.3	TAQ		2190 2210	235 274 363	100 200 400 145/0° 80/10°	
	15.75	D10			17.0						
	16.50	U11	(108)		10.2 10.0 9.7	TAQ		2140 2200 2140	360 692 692	100 200 400 291/0°	
	17.25	D11			14.7						
4.67	17.52										
Continued on Sheet 3.											

REMARKS:
* B4 Moisture Content : 16.0

Sample	Depth	M.C. % D.W.	C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.

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GEO – RESEARCH LTD. B/H No. 9

CONTRACT: INNER RING ROAD, SECTION 2, PHASE I — SHEET No. 3

LOCATION: MANCHESTER — No. of sheets 4

CLIENT: MANCHESTER CORPORATION — Ground Level 47.57m

Commenced 15/12/71

Completed 20/12/71

Weather: DRY

Percussion: U / D / SPT / B — Rotary: Cored runs / O/H — Legend 5

CASING: Size 0.150 to 18.290

STRATUM. (Scale: 20mm to 1 metre) 1. Thickness	Depth 2.m	Sample No.	Blow Count (N) LL/PL/PI	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve 8 Results of any other Tests: mm 75 / mm 2.40	mm 40 / µm 600	mm 20 / µm 210	mm 10 / µm 150	mm 5 / µm 75	TRIAXIAL TEST: Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stren. kN/m² kN/m² Shear/∠° kN/m²	WATER REMARKS 10.
	17.52	D12		9.3										
Compact clayey SAND and GRAVEL with cobbles and boulders (Boulder Clay)(ii) 0.68	17.75	CP2 B5	4.5.5.6. (20)	22.2		– 100	– 98	– 21	– 9	100 4				
	18.20													Dry
	18.25	D13												Water Added
Dense brown medium SAND and fine to coarse GRAVEL with cobbles and boulders – clayey in parts (Boulder Clay) (ii)	18.75	CP3 B6	4.5.16.7. (32)	16.9	SO_3W	7.55 pH 7.50 – 98	– 91	– 30	100 19	99 12				
	19.25	D14												18/12/71 BH @ 20.2 Cas @ 18.2 Water Nil
	19.75	CP4 B7	5.4.9.8. (26)											20/12/71 SWL 18.7 Wl – 18.7
2.30	20.50													
		D15												
Light brown uniform medium SAND with some pebbles and some speckles of coal. Slightly more pebbles from 26.00m to 26.55m (Boulder Clay) (iii)	20.75	P5 B8	4.4.6.9. (23)	17.8		– 99	– 98	– 22	– 10	100 5				
	22.25	P6 B9	6.6.9.6. (27)											
	24.00	P7 B10	6.8.8.8. (30)	20.0		– 100	– 99	– 36	– 15	– 5				
	24.50	D16												
	25.00	P8 B11	7.6.10.9. (32)											
	25.50	D17												
	26.00	P9 B12	5.7.9.10. (31)	14.2		– 94	– 84	100 13	97 5	97 3				
6.05	26.55													

Continued on Sheet 4.

REMARKS:

Sample	Depth	M.C. % D.W.	C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.

For other symbols used see overleaf

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SJ89NE 700

B/H No. 9

CONTRACT	INNER RING ROAD, SECTION 2, PHASE I	SHEET No.	4
LOCATION	MANCHESTER	No. of sheets	4
CLIENT	MANCHESTER CORPORATION	Ground Level	47.57m
		Commenced	15/12/71
		Completed	20/12/71
Weather	DRY		

Percussion: SPT U D B

CASING: Size 0.150 to 18.290 Size to.

Rotary: Cored runs; O/H

STRATUM. (Scale: 20mm to 1 metre) 1. Thickness	Depth 2. m	Sample No.	Blow Count (N) LL/PL/PI	5. Legend	M.C % Core Rec. % 6.	Type of Test 7.	Grading % Passing Sieve 8 Results of any other Tests: mm 75 / mm 40 / mm 20 / mm 10 / mm 5; mm 2.40 / µm 600 / µm 210 / µm 150 / µm 75	TRIAXIAL TEST: Bulk Density Kg/m³	Dev. Stress kN/m²	Lat. U.C.T. Pres. Stren. kN/m² kN/m² Shear/∠° kN/m²	WATER REMARKS 10.
Hard grey/brown silty CLAY with many stones and boulders and bands of sandstone fragments (Boulder Clay) (i) 1.15	26.55	D18									
	27.25	P10 B13	10.16 24.37. (87)								
	27.70										
			BOREHOLE		COMPLETE						OCB @ 27.7 Cas @ 18.2 SWL 18.7 BH Backfille as casing withdrawn.

REMARKS:

Sample	Depth	M.C. % D.W.		C. B. R. Air Voids	Type	TOP 0.1	TOP 0.2	BOTTOM 0.1	BOTTOM 0.2	Value	COMPACTION B.S. 1377 No.	Max. Dry Density	Optm. M.C.

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SJ89NE · 814

MANCHESTER CITY COUNCIL

CITY ENGINEER AND SURVEYOR'S DEPARTMENT

SITE INVESTIGATION FOR HIGHWAY IMPROVEMENTS

LOCATION · WHARF STREET

BOREHOLE NO. 1 (SJ 8525 9838)

DATE COMMENCED 17-8-82

DATE COMPLETED 17-8-82

SCALE 1:50

THICKNESS	LEGEND	STRATUM	DEPTH	LEVEL	SAMPLE NO.	MOISTURE CONTENT (%)	PLASTIC LIMIT	LIQUID LIMIT	PLASTICITY INDEX	REMARKS
				G.L.						
0.10		TOPSOIL	0.1							
1.40		CLAY, BRICK CONCRETE SANDSTONE COBBLES METAL WOOD TOPSOIL ETC. MADE GROUND	1.50	0.50 0.50 TO 1.00	P1 D1	20.3 16.6				SPTI N = 12
0.30		SOFT BROWN GREY SILTY CLAY WITH BRICK FRAGMENTS	1.80	1.50 TO 1.70	D2	25.6				
3.20		STIFF TO VERY STIFF BROWN SILTY AND SANDY CLAY WITH GREY FISSURES ROOT, STONE AND COAL INCLUSIONS	5.0	1.80 TO 2.30 2.50 TO 2.60 3.30 TO 3.80 3.90 TO 4.00 4.50 TO 5.0	U1 D3 U2 D4 U3	17.0 17.2				CBR = 4% CBR = 8%

REMARKS NO WATER ENCOUNTERED DURING DRILLING OPERATIONS

British Geological Survey

SJ89NE 815

MANCHESTER CITY COUNCIL

CITY ENGINEER AND SURVEYOR'S DEPARTMENT

SITE INVESTIGATION FOR HIGHWAY IMPROVEMENTS

LOCATION WHARF STREET

BOREHOLE NO. 2 (SJ 8527 9836)

DATE COMMENCED 17·8·82

DATE COMPLETED 17·8·82

SCALE 1:50

THICKNESS	LEGEND	STRATUM	DEPTH	LEVEL	SAMPLE NO.	MOISTURE CONTENT (%)	PLASTIC LIMIT	LIQUID LIMIT	PLASTICITY INDEX	REMARKS
				G.L.						
0·10		TOPSOIL	0·1							
1·60		CLAY, BRICKS, CINDER ETC – MADE GROUND (SEE REMARKS BELOW)	1·70	0·50 0·50 TO 0·70 1·0 TO 1·50 1·60	P1 D1 D2 W1	20·9 6·6				SPT1 N = 27
(APPROX) 1·30		VERY SOFT GREY SILTY CLAY WITH BRICKS, METAL & ORGANIC INCLUSIONS	APPROX 3·0	1·70 1·70 TO 2·50	P2 D3	31·1	37	25	12	SPT2 N = 2 (NO RECOVERY)
2·0		STIFF TO VERY STIFF BROWN SILTY AND SANDY CLAY WITH GREY FISSURES ROOT STONE AND COAL INCLUSIONS	5·0	3·20 TO 3·30 3·30 TO 3·75 3·90 TO 4·0 4·50 TO 5·00	D4 U1 D5 U2	26·2 17·2				CBR = 5% CBR = 11%

REMARKS

1) TARMAC, CONCRETE OBSTRUCTION ENCOUNTERED AT 1·0M OBSTRUCTION DRIVEN DOWN / PENETRATED AT 1·70m b.g.l.

11) GROUND WATER ENCOUNTERED AT 1·70m RISING TO A STANDING LEVEL OF 1·60m

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SJ89NE 826
8530 9856

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WINDER DRIVE
Suggested Site for Shared House.

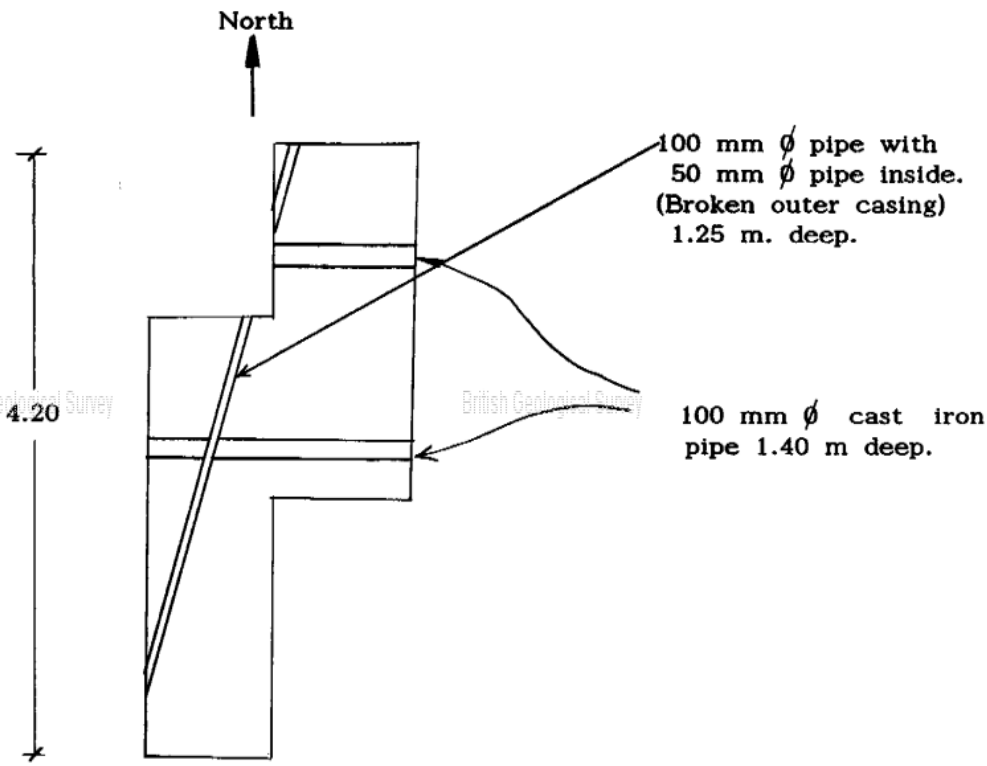
NCDC
ACCESSION
NUMBER
39520.

TRIAL PIT No. 1.

0.00 - 0.40 Topsoil wih roots.

0.4 - 1.700 Bricks, brick pieces, ashes, cinders, rubble, clay and occasional flags and kerbs.

Trial pit abandoned due to number of obstuctions.



All dimensions in metres.

PLAN

SJ89NE 828
8530 9855

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WINDER DRIVE
Suggested Site for Shared House.

TRIAL PIT No. 3.

0.00 - 0.50 Topsoil with roots and ashes.

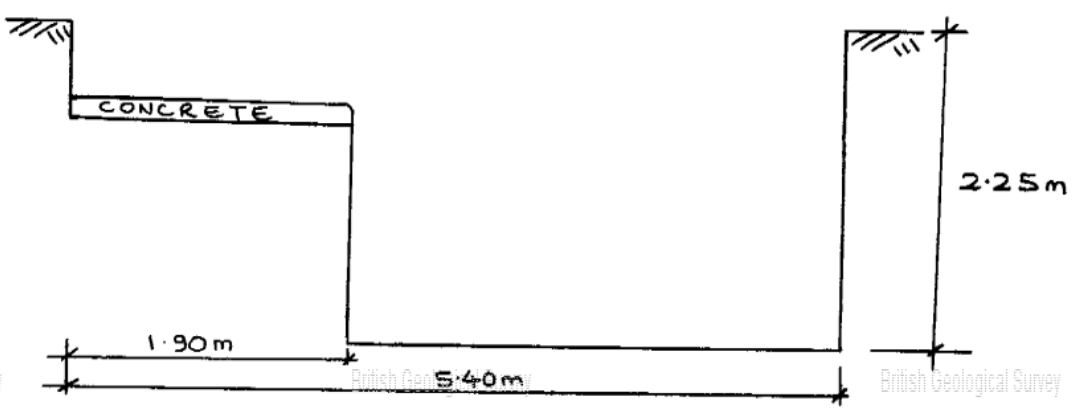
0.50 - 0.60 Concrete.

0.60 - 0.65 Ashes.

0.65 - 2.250 Brick, brick pieces, concrete pieces, topsoil, cinders, kerbs flags, timber and metal.

Trial pit abandoned - Sides Collapsing.

Triat pit 5.40 m long (N - S) x 0.8 m wide.



SECTION

SJ89NE 827
85319856

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WINDER DRIVE
Suggested Site for Shared House.

TRIAL PIT No. 2.

0.000 - 0.300	Topsoil with roots.
0.300 - 0.600	Ashes, cinders, stones, clay, and rubble.
0.600 - 0.625	Timber.
0.625 - 0.700	Ashes.
0.700 - 0.800	Concrete.
0.800 - 1.100	Bricks, brick pieces, concrete pieces, clay, stones, ashes etc.
1.10	Laid Setts.

Trial pit 5.1 m long (N - S) x 0.8 m.

Trial pit abandoned on encountering setts.

All Depths in metres.

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SJ89NE
8531 9855

829

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WINDER DRIVE
Suggested Site for Shared House.

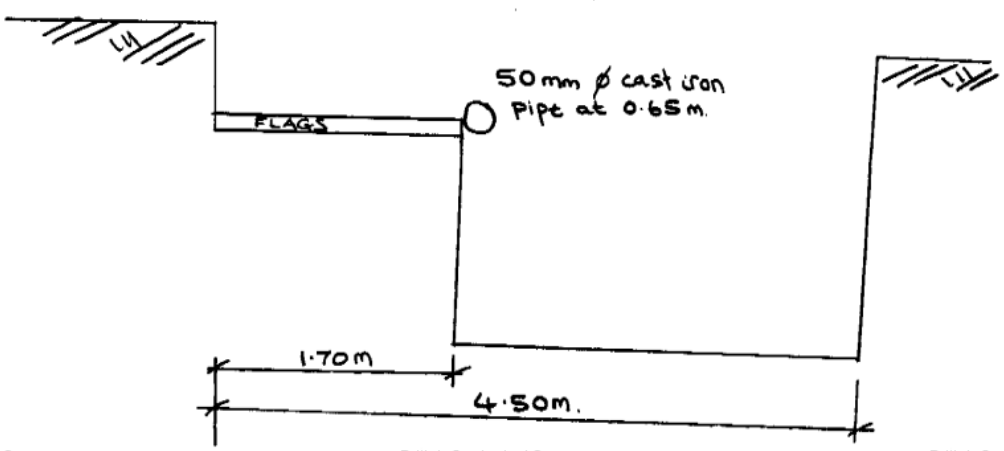
TRIAL PIT No. 4.

0.00 - 0.30	Topsoil with roots.
0.30 - 0.50	Brick pieces, ashes, stones, rubble etc.
0.50 - 0.60	Ashes.
0.60 - 0.65	Bituminous Surfacing.
0.65 - 0.70	Flags.
0.70 - 0.80	Ashes, cinder and sand.
0.80 - 2.15	Bricks, brick and concrete pieces, stones, ashes, cinders, clay, flags and kerbs.

Trial pit 4.50 m long (N -S) x 0.8 m wide.

Sides of pit collapsing at 2.15 m.

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SECTION

SJ89NE 830
8530 9856

BOREHOLE RECORD SHEET

STRATA SURVEYS LTD.,
HOLMES CHAPEL ROAD,
MIDDLEWICH, CHESHIRE.
Telephone: Middlewich (STD 0606 84) 4637

BOREHOLE No. 1

Sheet 1 of 1

Job No.: 3258/36 Location: HOSTEL, WINDER DRIVE, ANCOATS.

Client: MANCHESTER CITY COUNCIL.

Scale: 1:50

Diam. & Boring Type 150mm SPA.

Description of Strata	Reduced Level	Legend	Thickness (m)	Depth (m)	Samples from	Samples to	Samples Type	N Value	Apparent Cohesion kN/m2	Ø degrees	Daily Progress Water Levels Remarks
Ground Level											
TOPSOIL.			0.10	0.10							7-1-87.
Medium dense brick and rubble FILL.			3.20		0.50	–	P_1				P_1 - no penetration.
					1.00		D_1				One hour to chisel from 0.10m to 3.30m.
					1.50	1.95	P_2	13			
					2.50	2.95	P_3	21			
Very stiff brown, grey, slightly sandy CLAY, with occasional fine sand pockets and fine gravel.			6.00	3.30	3.30	3.75	U_1		214	0	
					4.00		D_2				
					4.50	4.95	U_2		166	0	
					5.50		D_3				
					6.00	6.45	U_3		115	6	
					7.00		D_4				
					7.50	7.95	U_4				
					8.50		D_5				
Very stiff brown slightly sandy laminated CLAY.			(0.70)	9.30	9.50	9.95	U_5		130	11	NO WATER MET.
Borehole complete.				10.00							

U - undisturbed D - disturbed B - bulk W - groundwater P - standard penetration CP - cone penetration V - vane test

British Geological Survey

SJ89NE 831
8531 9855

BOREHOLE RECORD SHEET

STRATA SURVEYS LTD.,
HOLMES CHAPEL ROAD,
MIDDLEWICH, CHESHIRE.
Telephone: Middlewich (STD 0606 84) 4637

BOREHOLE No. 2
Sheet 1 of 1
Scale: 1:50
Diam. & Boring Type 150mm SPA.

Job No.: 3258/36 Location: HOSTEL, WINDER DRIVE, ANCOATS
Client: MANCHESTER CITY COUNCIL.

Description of Strata (Ground Level)	Reduced Level	Legend	Thickness (m)	Depth (m)	Samples from	Samples to	Samples Type	N Value	Apparent Cohesion kN/m2	Ø degrees	Daily Progress Water Levels Remarks
											8-1-87.
Brick rubble FILL.			0.30	0.30							
CONCRETE (FILL)			0.80								1½ hours chiselling concrete.
				1.10	1.10	1.55	P_1	26			
Soft to firm, brown, grey, clayey FILL with bricks and rubble.			2.10		2.00		D				
					2.50	2.95	U		53	0	
					3.00		D_2				20 min 8-1 3.00 3.00 3.20 3.00
				3.20	3.20						
					3.30	3.75	U_2		29	0	
Stiff, brown slightly silty CLAY, with some fine to medium gravel.			3.30		4.00		D_3				Sample U_2 was disturbed.
					4.50	4.95	U_3				
					5.50		D_4				
					6.00	6.45	U_4				
				6.50							
Borehole complete.											

U · undisturbed D · disturbed B · bulk W · groundwater P · standard penetration CP · cone penetration V · vane test

British Geological Survey

MANCHESTER
ENGINEERING DESIGN CONSULTANCY

MATERIALS TESTING LABORATORY,
HOOPER STREET
HIGHWAYS DEPOT,
ARDWICK,
MANCHESTER M12 6LA
TEL: 0161-273 5519
FAX: 0161-273 8669

British Geological Survey

ASHTON CANAL CORRIDOR
ENVIRONMENTAL IMPROVEMENTS PHASE 1

Trial Pit No.15

Depth (m)		Description	
0.00 - 0.200	-	Cobbles/setts	
0.200 - 0.700	-	Bricks, laid in course onto flags	
0.700 - 3.10	-	Black/brown ashes, cinders, stones, sand, clay bricks, brick pieces, concrete etc., - made ground	D1 at 12.20m D2 at 2.50m W1 at 2.50m

Note - appears contaminated with oil !
side collapsing

Water entry at 2.50m fast

Note - outside back walls firm to stiff brown silty and sandy CLAY with grey fissures, stone and coal inclusions

SV of clay = 90.0 kN/m^2

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British Geological Survey

ASHTON CANAL CORRIDOR
ENVIRONMENTAL IMPROVEMENTS PHASE 1

Trial Pit No.16

Depth (m)		Description	
0.00 - 0.200	-	Cobbles/setts	
0.200 - 1.00	-	Brown compact ashes, cinders, brick pieces sand/stones etc., made ground	
1.00 - 1.30	-	Black claybound ashes, cinders, stones etc., made ground	D1 at 1.25m
1.30 - 2.80	-	Stiff very stiff brown silty and sandy CLAY with grey fissures, stone and coal inclusions	

SV of clay = 146.2 kN/m^2

Norwest Holst Soil Engineering Ltd.

TRIAL PIT LOG

Hole ID. **TP1** Sheet 1 of 1

Contract No.	F11459	Method	Machine Excavated	Coordinates	0.0 E
Project	Ancoats, Manchester	Equipment	JCB 3CX		0.0 N
				Ground Level	0.00m AOD
Client	English Partnerships	Logged by	BJH	Date Started	02/08/1999
				Date Completed	02/08/1999
Consultant	Pell Frischmann Consultants Ltd				

Description of Strata	Legend	Depth Below G.L.	O.D. Level	Sampling	Notes
MADE GROUND: Tarmacadam.		0.06			
MADE GROUND: Yellow fine sand and medium to coarse subangular to rounded gravel.		0.50		GD 0.50	
MADE GROUND: Yellow sand and fine to coarse gravel sized fragments of ash, clinker and red brick.		1.20		GD 1.50	
Firm brown to grey mottled green CLAY.		2.10		GD 2.50	
Firm brown to greyish brown fissured slightly sandy CLAY.		3.00		D 3.00	key for GD ?
Trial pit complete at 3.00 m.					

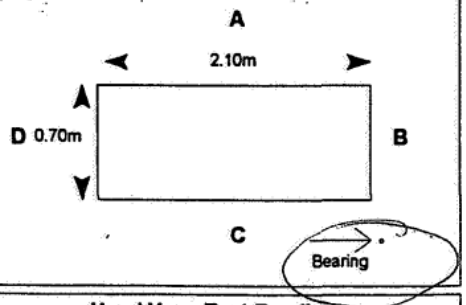
Stability: Stable

Shoring: No shoring used

Groundwater: Slow inflow at 0.50m. Inflow rate increases at 1.50m. No water encountered from 1.50m.

Remarks: Any water sample ?

Sketch Plan of Trial Pit



Hand Vane Test Readings

Depth	HV Peak	HV Remoulded	Remarks

REMARKS - All depths in metres, all soil strengths in KPa.
See legend sheet for key to symbols and abbreviations.
All bearings given relate to magnetic north

Form	ARIAL TP LOG
Version	2.00
Revised	01/10/1998

British Geological Survey

Norwest Holst Soil Engineering Ltd.

TRIAL PIT LOG

Hole ID. TP2 — Sheet 1 of 1

Contract No.	F11459	Method	Machine Excavated	Coordinates	0.0 E
Project	Ancoats, Manchester	Equipment	JCB 3CX		0.0 N
				Ground Level	0.00m AOD
Client	English Partnerships	Logged by	BJH	Date Started	02/08/1999
				Date Completed	02/08/1999
Consultant	Pell Frischmann Consultants Ltd				

Description of Strata	Legend	Depth Below G.L.	O.D. Level	Sampling		Notes
MADE GROUND: Tarmacadam.		0.06				
MADE GROUND: Dark brown to black coarse subangular gravel with some large stone bricks.		0.50		GD	0.50	
Stiff dark grey mottled brown CLAY with occasional fine to coarse subangular to rounded gravels and sand.		1.50		GD	1.50	
Stiff light grey to brown CLAY becoming sandy with depth.				GD	2.50	
		3.00		D	3.00	
Trial pit complete at 3.00 m.						

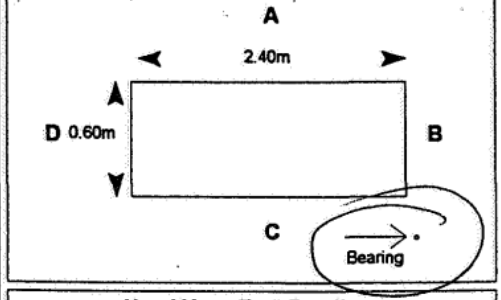
Stability: Stable

Shoring: No shoring used

Groundwater: No groundwater encountered

Remarks:

Sketch Plan of Trial Pit



Hand Vane Test Readings

Depth	HV Peak	HV Remoulded	Remarks

REMARKS - All depths in metres, all soil strengths in KPa.
See legend sheet for key to symbols and abbreviations.
All bearings given relate to magnetic north

Form	ARIAL TP LOG
Version	2.00
Revised	01/10/1998

British Geological Survey

Norwest Holst Soil Engineering Ltd.

TRIAL PIT LOG

Hole ID. **TP3** Sheet 1 of 1

Contract No.	F11459	Method	Machine Excavated	Coordinates	0.0 E
Project	Ancoats, Manchester	Equipment	JCB 3CX		0.0 N
				Ground Level	0.00m AOD
Client	English Partnerships	Logged by	BJH	Date Started	02/08/1999
				Date Completed	02/08/1999
Consultant	Pell Frischmann Consultants Ltd				

Description of Strata	Legend	Depth Below G.L.	O.D. Level	Sampling	Notes
MADE GROUND: Tarmacadam.		0.06			
MADE GROUND: Yellow sand and fine to coarse unconsolidated angular gravel of sandstone with some red bricks.				GD 0.50	
		1.50		GD 1.50	
Stiff light grey mottled brown slightly sandy CLAY becoming dry with depth. ↓ v stiff, hard ?				GD 2.50	
				GD 3.50	
		4.00		D 4.00	
Trial pit complete at 4.00 m.					

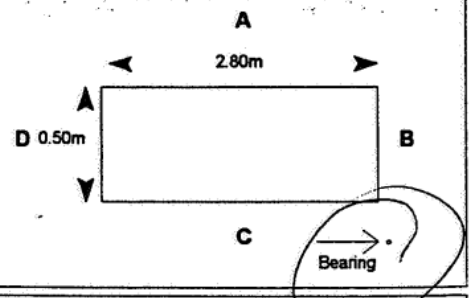
Stability: Stable

Shoring: No shoring used

Groundwater: None encountered

Remarks: Disused service pipe at 0.70m.

Sketch Plan of Trial Pit



Hand Vane Test Readings

Depth	HV Peak	HV Remoulded	Remarks

REMARKS - All depths in metres, all soil strengths in KPa.
See legend sheet for key to symbols and abbreviations.
All bearings given relate to magnetic north

Form	ARIAL TP LOG
Version	2.00
Revised	01/10/1998

British Geological Survey

Norwest Holst Soil Engineering Ltd.

TRIAL PIT LOG

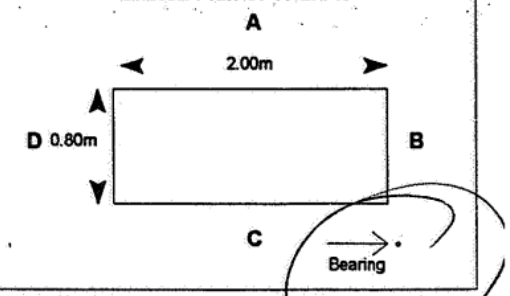
Hole ID. TP5 **Sheet 1 of 1**

Contract No.	F11459	Method	Machine Excavated	Coordinates	0.0 E
Project	Ancoats, Manchester	Equipment	JCB 3CX		0.0 N
				Ground Level	0.00m AOD
Client	English Partnerships	Logged by	BJH	Date Started	02/08/1999
				Date Completed	02/08/1999
Consultant	Pell Frischmann Consultants Ltd				

Description of Strata	Legend	Depth Below G.L.	O.D. Level	Sampling	Notes
MADE GROUND: Tarmacadam.		0.06			
MADE GROUND: Yellowish brown sand with coarse subangular to rounded gravel sized fragments of sandstone.		0.50		GD 0.50	
Firm light grey mottled blue becoming brown with depth fissured CLAY with occasional fine to coarse subrounded to subangular gravels. —below 1.00m becoming stiff and more sandy				GD 1.50	
Stiff brown mottled blue to CLAY with some fine sand.		2.50		GD 2.50	
				GD 3.50	
Trial pit complete at 4.00 m.		4.00		D 4.00	

Stability	Stable
Shoring	No shoring used
Groundwater	Strike at 3.60m. Very slow seepage, but insufficient for sample to be taken
Remarks	

Sketch Plan of Trial Pit



Hand Vane Test Readings

Depth	HV Peak	HV Remoulded	Remarks

REMARKS - All depths in metres, all soil strengths in KPa.
See legend sheet for key to symbols and abbreviations.
All bearings given relate to magnetic north

Form	ARIAL TP LOG
Version	2.00
Revised	01/10/1998

British Geological Survey

Norwest Holst Soil Engineering Ltd.

TRIAL PIT LOG

Hole ID. TP6 **Sheet 1 of 1**

Contract No.	F11459	Method	Machine Excavated	Coordinates	0.0 E
Project	Ancoats, Manchester	Equipment	JCB 3CX		0.0 N
				Ground Level	0.00m AOD
Client	English Partnerships	Logged by	BJH	Date Started	02/08/1999
				Date Completed	02/08/1999
Consultant	Pell Frischmann Consultants Ltd				

Description of Strata	Legend	Depth Below G.L.	O.D. Level	Sampling		Notes
MADE GROUND: Tarmacadam.		0.06				
MADE GROUND: Red brick layer.		0.20				
MADE GROUND: Dark brown to black fine to coarse sand with black medium to coarse subangular gravel of sandstone with large subangular to angular stone bricks.		0.50		D	0.50	
Firm dark brown to black CLAY, with yellow staining/leaching.		1.50		D	1.50	
Very stiff light brown mottled grey/black sandy CLAY becoming increasingly saturated with depth. fill ?				D	2.50	
		3.00		D	3.00	
Trial pit complete at 3.00 m.						

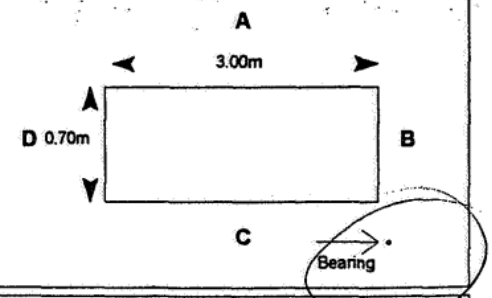
Stability: Stable

Shoring: No shoring used

Groundwater: None encountered

Remarks: 0.50m-1.50m red brick wall/foundations visible in pit wall. 1.20m disused service pipe.

Sketch Plan of Trial Pit



Hand Vane Test Readings

Depth	HV Peak	HV Remoulded	Remarks

REMARKS - All depths in metres, all soil strengths in KPa.
See legend sheet for key to symbols and abbreviations.
All bearings given relate to magnetic north

Form	ARIAL TP LOG
Version	2.00
Revised	01/10/1998

British Geological Survey

Appendix D

Coal Authority Consultants Report

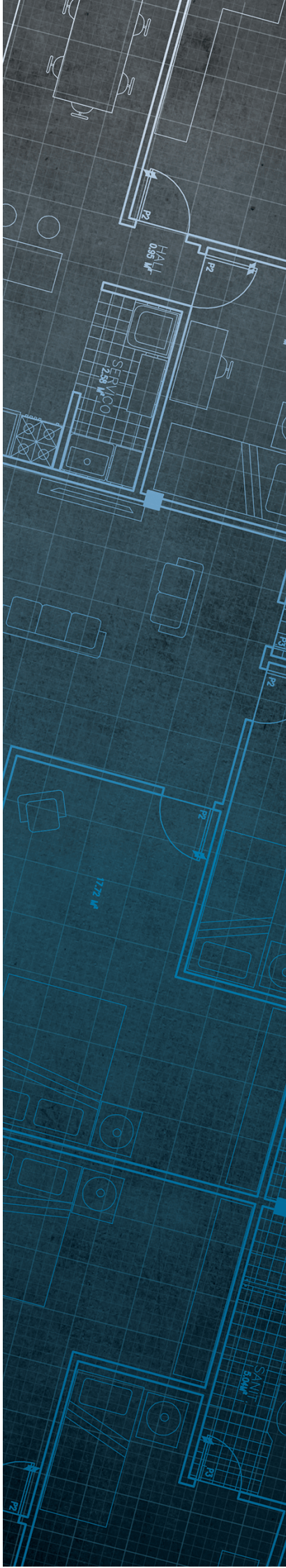
The Coal Authority

Consultants

Coal Mining Report

Old Mill Street
Manchester
M4 6EE

Date of enquiry:	**30 May 2023**
Date enquiry received:	**30 May 2023**
Issue date:	**30 May 2023**
Our reference:	**51003357801001**
Your reference:	**GM12676**



Consultants
Coal Mining Report

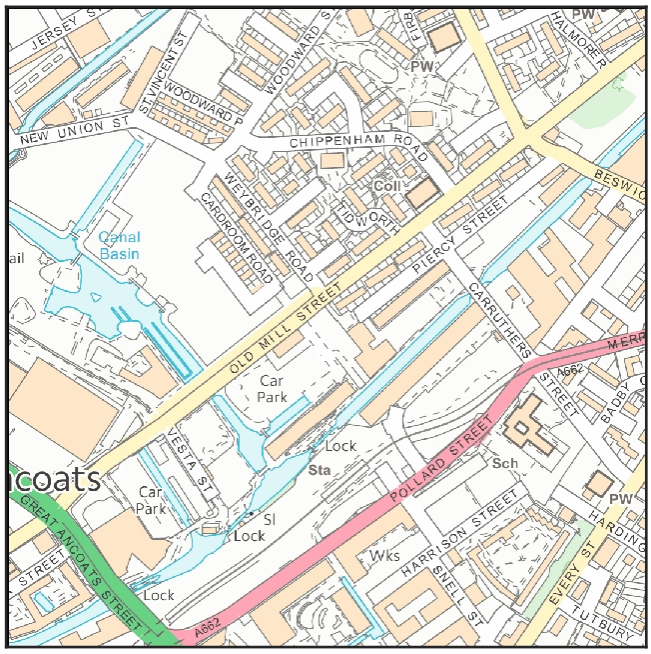
This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

Wardell Armstrong LLP

Enquiry address

Old Mill Street
Manchester
M4 6EE



Approximate position of property

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How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com

@coalauthority
/company/the-coal-authority
/thecoalauthority
/thecoalauthority

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	BRADFORD FOUR FEET	Coal	35D3	345	South	12.0	South-West	120	1900
unnamed	BRADFORD FOUR FEET	Coal	35CT	386	Beneath Property	18.4	South-West	120	1900
unnamed	PARKER	Coal	35BO	681	North-East	18.0	South-West	80	1935
unnamed	ROGER	Coal	35B1	983	East	17.5	South-West	180	1958
unnamed	CROMBOUKE	Coal	359E	1029	East	16.5	South-West	120	1932
unnamed	ROGER	Coal	35B0	1049	North-East	19.0	South-West	180	1961
unnamed	CROMBOUKE	Coal	359K	1064	East	13.3	South-West	120	1947
unnamed	ROGER	Coal	35B3	1093	East	15.9	South-West	180	1958

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:

NW1167	2655	

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

Outcrops

No outcrops recorded.

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Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

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

Site investigations
None recorded within 50 metres of the enquiry boundary.

Remediated sites
None recorded within 50 metres of the enquiry boundary.

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

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

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

Mine gas
None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes
None recorded within 500 metres of the enquiry boundary.

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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.

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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 call us on 0345 762 6848 or email us at groundstability@coal.gov.uk.

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Section 5 – Data definitions

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

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

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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.

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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.

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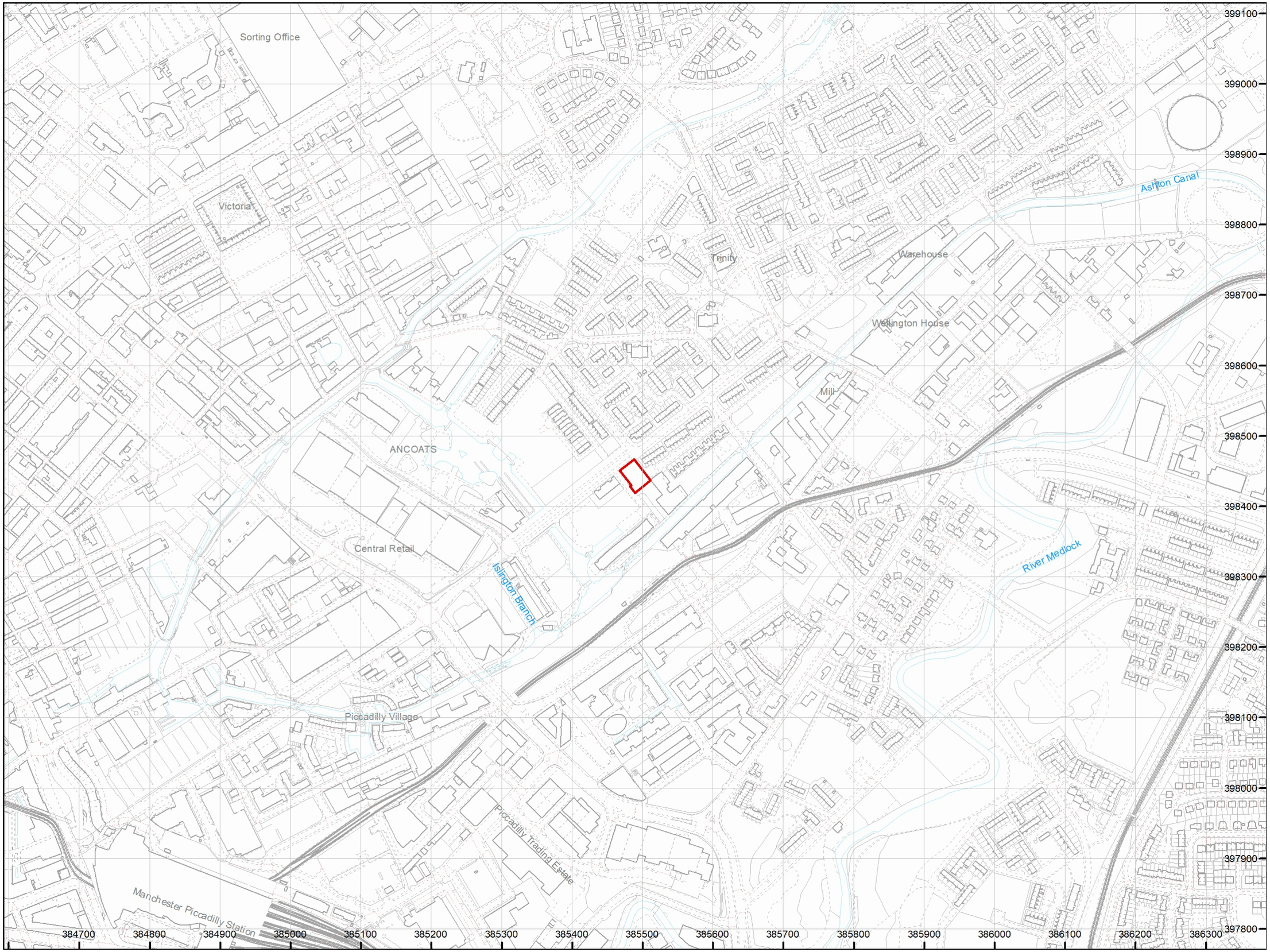
Summary of findings

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Map data

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



How to contact us
0345 762 6848 (UK)
+44 (0)1623 637 000 (International)
www.groundstability.com

Appendix E

Zetica Risk Mapping

UNEXPLODED BOMB RISK MAP

SITE LOCATION

Map Centre: 385501,398458



LEGEND

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

miltary	**industry**	**UXO find**
transport	**dock**	**Luftwaffe targets**
utilities	**Bombing decoy**	**other**

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

The map indicates the potential for Unexploded Bombs (UXB) to be present as a result of World War Two (WWII) bombing.

You can incorporate the map into your preliminary risk assessment* for potential Unexploded Ordnance (UXO) for a site. Using this map, you can make an informed decision as to whether more in-depth detailed risk assessment* is necessary.

What do I do if my site is in a moderate or high risk area?

Generally, we recommend that a detailed UXO desk study and risk assessment is undertaken for sites in a moderate or high UXB risk area.

Similarly, if your site is near to a designated Luftwaffe target or bombing decoy then additional detailed research is recommended.

More often than not, this further detailed research will conclude that the potential for a significant UXO hazard to be present on your site is actually low.

Never plan site work or undertake a risk assessment using these maps alone. More detail is required, particularly where there may be a source of UXO from other military operations which are not reflected on these maps.

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

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

A low risk really means that there is no greater probability of encountering UXO than anywhere else in the UK.

If you are unsure whether other sources of UXO may be present, you can ask for one of our **pre-desk study assessments (PDSA)**

If I have any questions, who do I contact?

tel: **+44 (0) 1993 886682**

email: **uxo@zetica.com**

web: **www.zeticauxo.com**

The information in this UXB risk map is derived from a number of sources and should be used in conjunction with the accompanying notes on our website: **(https://zeticauxo.com/downloads-and-resources/risk-maps/)**

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

It is important to note that this map is not a UXO risk assessment and should not be reported as such when reproduced.

*Preliminary and detailed UXO risk assessments are advocated as good practice by industry guidance such as CIRIA C681 'Unexploded Ordnance (UXO), a guide for the construction industry'.

Appendix F

Zetica Pre-Desk-Study Assessment

Pre-Desk Study Assessment

Site:	Old Mill Street, Manchester, Greater Manchester
Client:	Wardell Armstrong
Contact:	Fay Lawrence
Date:	8th June 2023
Pre-WWI Military Activity on or Affecting the Site	None identified.
WWI Military Activity on or Affecting the Site	None identified.
WWI Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Salford Docks and the Manchester Ship Canal. ■ Transport infrastructure and public utilities. ■ Industries important to the war effort, including munitions factories, aircraft manufacturing, and chemical and engineering works. ■ Royal Flying Corps (RFC) Alexandra Park. ■ Military barracks and training areas. ■ Anti-Aircraft (AA) guns.
WWI Bombing	None identified on the Site.
Interwar Military Activity on or Affecting the Site	None identified.
WWII Military Activity on or Affecting the Site	None identified.
WWII Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Salford Docks and the Manchester Ship Canal. ■ Transport infrastructure and public utilities. ■ Industries important to the war effort, including aircraft manufacturing and chemical and engineering works. ■ Military barracks, camps, and training areas. ■ AA and anti-invasion defences.
WWII Bombing Decoys (within 5km of Site)	None.
WWII Bombing	During WWII the Site was located in the County Borough (CB) of Manchester, which officially recorded 737No. High Explosive (HE) bombs with a bombing density of 27.0 bombs per 405 hectares (ha). The Manchester area was heavily bombed between the 22nd and 24th December 1940 (the 'Manchester Blitz'). Over 400No. HE bombs and more than 30,000 Incendiary Bombs (IBs) fell across the region. Bombing was concentrated on Manchester city centre, approximately 1.5km west of the Site. No readily available records have been found to indicate that the Site was bombed.
Post-WWII Military Activity on or Affecting the Site	None identified.

Recommendation	A detailed desk study, whilst always prudent, is not considered essential in this instance.
Further information	For information about Zetica's detailed UXO desk studies and other UXO services, please visit our website: www.zeticauxo.com. Details and downloadable resources covering the most common sources of UXO hazard affecting sites in the UK can be found **here**. If you have any further queries, please don't hesitate to get in contact with us at uxo@zetica.com or 01993 886 682.

This summary is based on a cursory review of readily available records. Caution is advised if you plan to action work based on this summary.

It should be noted that where a potentially significant source of UXO hazard has been identified on the Site, the requirement for a detailed desk study and risk assessment has been confirmed and no further research will be undertaken at this stage. It is possible that further in-depth research as part of a detailed UXO desk study and risk assessment may identify other potential sources of UXO hazard on the Site.

DRAWINGS



KEY

Site Boundary



Notes:

Boundaries are indicative. Aerial imagery shown for context purposes only.

REVISION	DETAILS	DATE	DRAWN	CHK'D	APP'D
C	Site Boundary Updated	08/11/23	EK	--	--

CLIENT

URBAN SPLASH

PROJECT

OLD MILL STREET
MANCHESTER

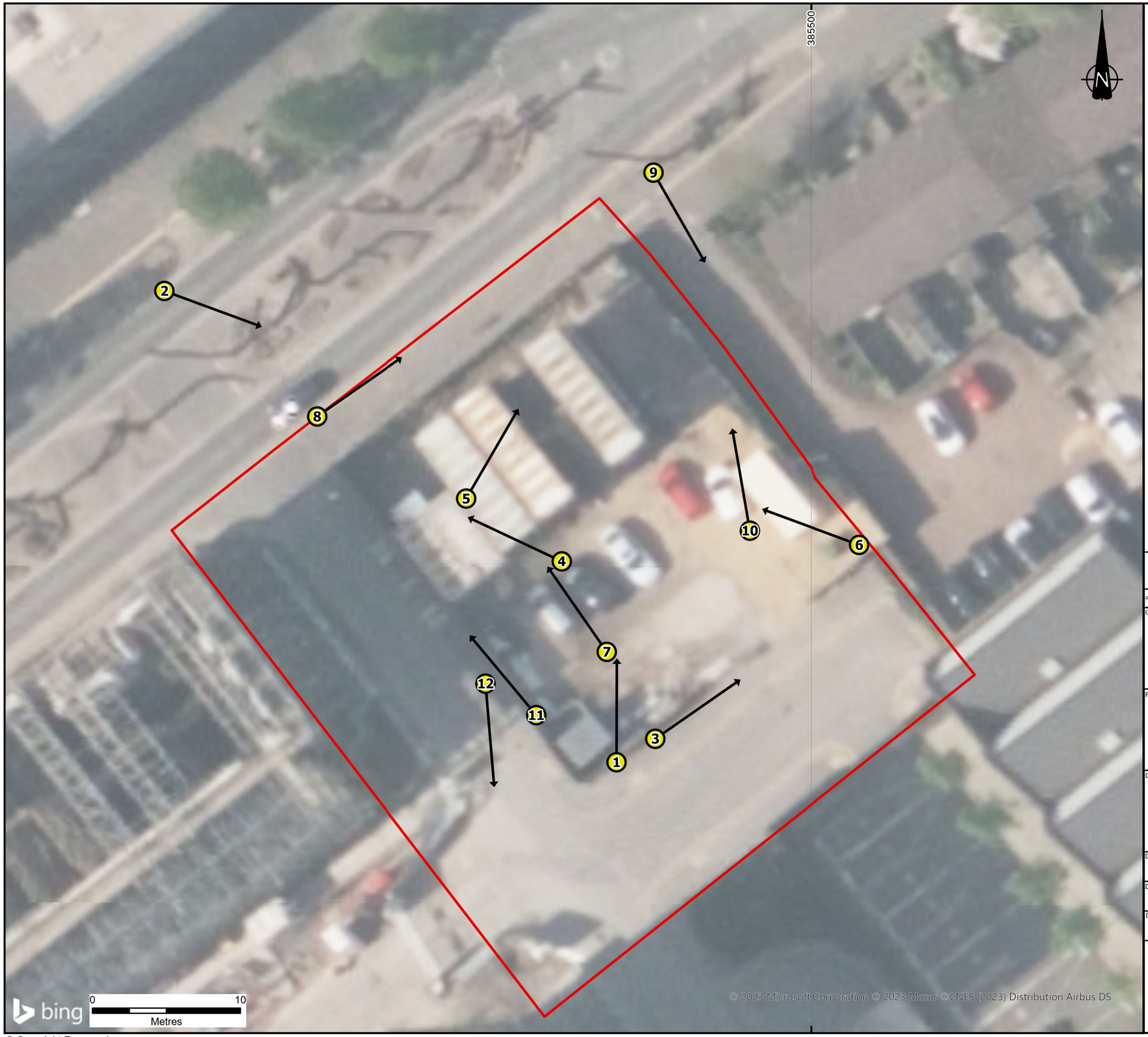
DRAWING TITLE

SITE LOCATION PLAN

DRG No.		REV
GM12676-001		C
DRG SIZE	SCALE	DATE
A3	1:750	08/11/2023
DRAWN BY	CHECKED BY	APPROVED BY
EK	BF	DB

wardell armstrong

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KEY

- Site Boundary
- Walkover Photo Survey Locations
- Photo Directions

Notes:

Boundaries are indicative. Aerial imagery shown for context purposes only.

This drawing should be reviewed in conjunction with the Wardell Armstrong LLP Site Walkover Notes and Photographs attached as Appendix B

REVISION	DETAILS	DATE	DRAWN	CHK'D	APP'D
C	Site Boundary Updated	08/11/23	EK	--	--

CLIENT

URBAN SPLASH

PROJECT

OLD MILL STREET
MANCHESTER

DRAWING TITLE

WALKOVER PHOTO SURVEY LOCATION PLAN

DRG No.	REV
GM12676-003	C

DRG SIZE	SCALE	DATE
A3	1:250	08/11/2023

DRAWN BY	CHECKED BY	APPROVED BY
EK	BF	DB

wardell armstrong

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wardell-armstrong.com

STOKE-ON-TRENT
Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)1782 276 700

BIRMINGHAM
Two Devon Way
Longbridge Technology Park
Longbridge
Birmingham
B31 2TS
Tel: +44 (0)121 580 0909

BOLTON
41-50 Futura Park
Aspinall Way
Middlebrook
Bolton
BL6 6SU
Tel: +44 (0)1204 227 227

BRISTOL
Temple Studios
Temple Gate
Redcliffe
Bristol
BS1 6QA
Tel: +44 (0)117 203 4477

BURY ST EDMUNDS
Armstrong House
Lamdin Road
Bury St Edmunds
Suffolk
IP32 6NU
Tel: +44 (0)1284 765 210

CARDIFF
Tudor House
16 Cathedral Road
Cardiff
CF11 9LJ
Tel: +44 (0)292 072 9191

CARLISLE
Marconi Road
Burgh Road Industrial Estate
Carlisle
Cumbria
CA2 7NA
Tel: +44 (0)1228 550 575

EDINBURGH
Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GLASGOW
24 St Vincent Place
Glasgow
G1 2EU
Tel: +44 (0)141 428 4499

LEEDS
36 Park Row
Leeds
LS1 5JL
Tel: +44 (0)113 831 5533

LONDON
Third Floor
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)207 242 3243

NEWCASTLE UPON TYNE
City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

TRURO
Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

International office:

ALMATY
29/6 Satpaev Avenue
Hyatt Regency Hotel
Office Tower
Almaty
Kazakhstan
050040
Tel: +7(727) 334 1310

wardell armstrong