BROWNFIELD SOLUTIONS LTD

GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

RENAISSANCE ASSOCIATES LTD

Viadux, Albion Street, Manchester

Phase I Geo-Environmental Assessment Report

MB/C4460/12696 Rev A

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PROJECT QUALITY CONTROL DATA SHEET

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Issued By:	**Client:**	**Engineer**
Brownfield Solutions Ltd William Smith House 173 – 183 Witton Street Northwich Cheshire CW9 5LP Tel: 01606 334 844 brownfield-solutions.com	Renaissance Associates Ltd 840 Birchwood Boulevard Birchwood Warrington WA3 7QZ	
	Contact: Kevin Gilsenan	Contact:

Written by:

M Buckley
BSc Hons AMIEnvSc
Graduate Project Engineer

Checked by:

T Mayall
MGeol (Hons) FGS
Senior Project Engineer

Approved by:

A J Stokoe
BSc (Hons) CSci MIEnvSc FGS
Associate

CSci Chartered Scientist

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10448-SHP-ZF-A-B5D9-G200-PL-001	P02	Plot 2b General Arrangement Ground Floor Plan
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Appendix B	Historical Maps
Appendix C	Geo-Environmental Data Report
Appendix D	BGS Exploratory Hole Records
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1.0 INTRODUCTION

1.1 Context

This report describes a desk-based Phase I Geo-Environmental Assessment Report carried out by Brownfield Solutions Limited (BSL) for Renaissance Associates Ltd for a site off Albion Street, Manchester and has been completed in general accordance with the following guidance:

- Environment Agency guidance - Land Contamination: Risk Management (LCRM).
- BS 10175:2011+A2:2017 Investigation of Potentially Contaminated Sites.
- BS5930: 2015+A1:2020 Code of Practice for Ground Investigations.
- BS EN 1997-1:2004+A1:2013 Eurocode 7. Geotechnical design. General rules plus UK National Annex.
- BS EN 1997-2:2007 Eurocode 7 Geotechnical design. Ground investigation and testing plus UK National Annex.
- NHBC Standards. Chapter 4.1: Land Quality - Managing Ground Conditions.

Definitions of terms and acronyms used within this report is presented in Section 7.0.

1.2 Proposed Development

The overall Viadux development in Manchester comprises the construction of a 39-storey residential tower, 76 storey residential tower, connecting podium structure, and conversion of the 1870's Grade II listed masonry Viaduct. The tower and podium are to be constructed over the existing viaduct. The works are also to include partial removal of the existing cast-iron bridge to "daylight" Great Bridgewater Street.

The Proposed Development of Phase 2, will be delivered across two plots as presented on the General Arrangement Plan Ground Floor Plot 2a and Plot 2b (ref. 10448-SHP-ZC- A-B5D9-G200-PL-00-001 P02 and 10448-SHP-ZF-A-B5D9-G200-PL-001 P02) provided to BSL by the client.

Further detail on the individual elements of the overall development is provided below and as shown on the Zone Reference Diagram (ref. 10448-SHP-ZZ- A-B5D9-Z460-PL-XX-001):

- Plot 1 is the first phase of the development comprising the 39-storey tower, a section of the podium structure, and part of the Viaduct conversion is nearing completion on site at the time of writing.
- Plot 2a is located immediately east of the recently completed Phase 1 building, on land currently comprising the grade II listed Castlefield Viaduct. This plot will deliver a 76-storey mixed use tower comprising a hotel (Use Class C1) and residential units above.
- Plot 2b, located at the western-most section of the site between the viaduct and Beetham Tower, consists of a 23-storey residential building.

1.3 Previous Reports

The following reports have been produced for the site and should be read in conjunction with this assessment:

Reports Pertaining to 'Whole Site'

- Curtins Consulting Ltd, Phase I Preliminary Site Assessment, reference B049266.002/RB/6812, dated June 2016.
- First Line Defence, Detailed UXO Desk Study, reference DA4017-00, dated 24th October 2016.
  Curtins Consulting Ltd, Phase II Site Investigation, reference B061321/P2/JB/8233, dated January 2017.
- Brownfield Solutions Ltd, Remedial Strategy, reference NS/C4460/9230 Rev B, dated August 2020.

Reports Pertaining to 'Phase 1'

- Brownfield Solutions Ltd, Geo-Environmental Assessment Report, reference TM/C4460/9347, dated June 2020.
- Brownfield Solutions Ltd, Piling Risk Assessment, reference AJS/C4460/9231 Rev B, dated August 2020.
- Brownfield Solutions Ltd, Letter Report of Dynamic Probing Investigation, reference JM/C4460/9613, dated October 2020.
- Brownfield Solutions Ltd, Drill and Grout Completion Plan, reference JM/C4460/9871, dated February 2021.

Reports pertaining to 'Phase 2'

- Brownfield Solutions Ltd, Geo-Environmental Assessment Report, reference TM/C4460/10587, dated December 2021.
- Brownfield Solutions Ltd, Piling Risk Assessment, reference AJS/C4460/9231 Rev D, dated June 2022.

1.4 Objectives and Scope

Following the Phase I Preliminary Site Assessment previously completed by Curtins in 2016, the objectives of this assessment were to provide an updated determination of the geo-environmental setting and ground conditions of the site as a whole, highlighting potential areas of concern that may govern the redevelopment based on more recent.

The scope of works comprises a Phase I Assessment and site walk-over, with a review of the site, surroundings, historical uses and environmental setting in order to develop a preliminary Conceptual Site Model (CSM).

This report is intended to meet the requirements of a Preliminary Investigation as defined in BS10175:2011+A2:2017 and has been produced in general accordance with the recommendations for a Tier 1 Preliminary Risk Assessment as described in LCRM guidance.

1.5 Limitations

This Phase 1 Geo-Environmental Assessment Report has been prepared in accordance with the relevant legislative framework, guidance and risk assessment methodology as outlined in Appendix A.

The findings and opinions conveyed via this assessment are based on information obtained from a number of sources as detailed within this report, BSL have assumed this information is correct and reliable. Nevertheless, BSL cannot and does not guarantee the authenticity or reliability of the information it has relied upon.

BSL have used reasonable skill, care and diligence in the production of this report. There may be other conditions prevailing on the site which are outside the scope of work and have not been highlighted by

this assessment and therefore have not been taken into account by this report. Responsibility cannot be accepted for such site conditions not revealed by the assessment.

This report has been prepared for the sole use and reliance of the Client, Renaissance Associates Ltd. No other third party may rely upon or reproduce the contents of this report without the written permission of Brownfield Solutions Ltd (BSL); a charge may be levied against such approval. If any unauthorised third party comes into possession of this report, then they rely on it at their own risk and BSL do not owe them any Duty of Care. This report may not be relied upon by the client or submitted to a third party for their reliance for the purposes of valuation, mortgage, insurance and regulatory approval, until all invoices have been settled in full.

Any recommendations made in this report should be confirmed with the Regulatory Authorities prior to implementation to ensure compliance.

This assessment has been based on the proposed planning layouts provided. Any subsequent change to the planning layout may have an impact on the validity of recommendations made within this report. Furthermore, new information, changed practices or new legislation may necessitate revised interpretation of the report after the date of its submission.

The site plans enclosed in this report should not be scaled off. Any site boundary line depicted on plans does not imply legal ownership of land.

Notwithstanding site observations concerning the presence or otherwise of archaeological issues, asbestos-containing materials (ACM) or invasive weeds (e.g. Japanese knotweed), this report does not constitute a formal survey of these potential issues and specialist advice should be sought.

2.0 THE SITE

2.1 Location

The site is located off Albion Street, Manchester, centred on National Grid Reference 383550, 397630 as shown on the Site Location Plan, Drawing No. C4460/01.

2.2 Site Description

BSL first visited the site prior to its redevelopment in April 2020 to carry out intrusive ground investigations. The main site features and potential issues identified at that stage are detailed below and are shown on the Site Features Plan, Drawing No. C4460/02. A selection of photographs from the site walkover are presented to the rear of this report.

Feature	Description
Site Area	Approximately 1.49 hectares.
Site Access	Access to the lower deck is gained either off Trafford Street to the south-west or off Albion Street to the east. The upper deck is accessed via a ramp off Albion Street
Current Land Use and Site Features	The lower deck has most recently been used as a car park and features a series of Victorian masonry arches with an internal arch barrel height of circa 6m. The southern half of the former car park is surfaced in concrete, whereas the central and northern areas are surfaced in poor quality macadam and concrete. The north-western area contains areas which were covered by piles of industrial and electrical equipment, fencing and signage. A portacabin, previously occupied by the car park management, was present in the eastern area in addition to two bars/nightclubs and an electricity substation in the south-western corner. None of the buildings were accessible during the walkover. Numerous manhole covers were located across the lower deck car park, denoting the presence of underground drainage. Internal lighting was powered by a series of overhead electricity cables generally located along the centreline of the arches. The eastern part of the site is dissected by an active 1980s Metrolink viaduct constructed from concrete with brick cladding, typically 7-8m above ground level. This area of the site is surfaced in macadam and was formerly used for vehicle sales, entrance to the car park, and partly as a nightclub.
Potential Sources of Gross Contamination	None were noted during the initial walkover in 2020. Since construction has commenced, areas have been used for fuel storage for refuelling of construction plant. All fuels were noted to be stored in either bunded fuel tanks on hard surfacing or enclosed COSHH cabinets, with overall good housekeeping, significantly minimising the risk and impact of any potential spillages.
Vegetation / Ecology	No trees or hedges have been noted during the investigations.
Topography	The site is broadly flat, but slopes very gently towards the south-west. The presence of the Victorian-era viaduct, upper deck service yard and Metrolink viaduct create a split-level site.
Site Boundaries	Existing Victorian masonry encloses the site to the north, west and south, whereas metal palisade fencing encloses the site to the east. The site is bounded by the Manchester Central Conference Complex and Great Northern Warehouse to the north, Albion Street to the east, the Deansgate Castlefield Metrolink station and Deansgate Locks to the south, and the Beetham Tower to the west.
Surrounding Area	The site is set within Central Manchester and is generally surrounded by commercial properties such as bars, restaurants, hotels, and other venues. A number of residential high-rise apartment buildings are also present in the immediate surroundings.

As of the most recent site visit in September 2023, the site as a whole had been cleared of all non-construction related vehicles and equipment and parts of the site had been temporarily repurposed into

site accommodation. The 'Phase 1' part of the development had been largely constructed with a 39-storey tower now occupying the central areas of the site, with internal construction works well underway.

3.0 GEO-ENVIRONMENTAL SETTING

3.1 Historical Setting

A review of the available historical Ordnance Survey Maps and satellite imagery has been conducted, with the pertinent issues that may have affected the site, or its environs, summarised below. The Historical Maps are presented in Appendix B. A review of the historical industrial data within the geo-environmental data report has also been undertaken below, the report is presented in Appendix C.

Notable features on site, and potentially contaminative or geotechnically relevant features within 100m of the site boundary have been presented. Any features that have potentially been infilled will be considered up to 250m from the site boundary.

Feature	Distance (m) & Direction	Years Present	Description
Burial Ground	Onsite (Lower Deck)	1851 – 1893	A burial ground is noted in the north west of the site circa 1851 mapping, in 1891 the burial ground is labelled as being disused however can still be seen up until 1893 mapping, on which it is no longer labelled.
Cotton Mill	Onsite (Lower Deck)	1851 – 1891	Trumpet Street Cotton Mill is noted in the north east of the site and a commercial cotton mill to the south east circa 1851, in 1891 these are now mapped as unnamed buildings however it should be noted that chimney features are present until 1893.
Iron Foundry	Onsite (Lower Deck)	1851 – 1891	An Iron Foundry is present in the south of the site circa 1851 mapping, which can no longer be seen on 1891 maps.
Railway	Onsite (Upper Deck)	1891 - 1980	The masonry arches have presumably been constructed across the site due to the numerous railway lines present by 1891 mapping, which lead into Central Station in the north. The railway lines can be noted on historical maps up until 1980, which have now been removed and turned into a car park.
Engineering works	Onsite (Lower Deck)	1948 - 1980	In the north eastern corner of the site is an engineering works which extends beyond the site boundary from 1948, this can no longer be seen on 1980 historical mapping.
Automobile Engineering works / works	Onsite (Lower Deck)	1948 - 2003	In the north western corner of the site is an automobile engineering works which extends beyond the site boundary from 1948. In 1960 mapping this is now described as a works up until 2003 which has now been changed into a car park.
Tanks	Onsite (Upper Deck)	1948 - 1969	Tanks are noted in the south of the site from 1948 which can no longer be seen on 1969 mapping.
Tram lines	Onsite (Upper Deck)	1990 – present	In 1990 the construction of a tram line runs through the south western area of the site, which is still present in 2023 running to Deansgate Castlefield tram stop.
Coal yards	From 20m E	1851 -1891	A coal yard is present 20m east and 20m south of the site circa 1851, which can no longer be seen on 1891 maps, presumed to have ceased operation.
Works	From 20m S	1891 - 1990	Numerous works are found within 100m of the site, the closest being 20m south found in 1948, which can no longer be seen on 1990 maps. Other works include engineering works and a finishing works with associated tanks located from circa 50m south-east.
Mills	From 50m E	1851 - 1908	Albion cotton mill and Gaythorn Bridge cotton mill can be found 50m east and south east of the site circa 1851, which can no longer be seen on 1908 maps.
Gas Works	From 100m S	1896 - 1985	A gas works (subsequently labelled as Gaythorn Gas Works) with numerous gas holders and tanks was located from circa 100m south of the site, first evident on mapping dated 1896, later also becoming host

Feature	Distance (m) & Direction	Years Present	Description
			to a rubber works and last shown on mapping dated 1985, after which the former gas works is a car park.

In summary, the map evidence indicates that the site has included various industrial uses from 1851 up until the present day. Historical land use in the surrounding area has been predominantly commercial and industrial with numerous mills and works.

In addition to the historical mapping records detailed above, BSL have been provided with an extract from the 1913 Pigot Map of Manchester, which shows two tunnels and associated locks connecting the River Irwell (north of the site) and the Rochdale Canal (south of the site). The southern-most tunnel and locks are indicated to cross the site, although subsequent maps show no indication of the tunnels and locks. It is believed that the tunnel and locks to the north of the site were constructed to form the Manchester and Salford Junction Canal, which was opened in 1839 and closed in 1922, and any infrastructure located onsite would have been removed during the construction of the Viadux arches which are constructed on pier foundations embedding into the sandstone bedrock. Therefore, the evidence suggests that the tunnel and locks indicated traversing the site on the 1813 Pigot map were a proposed route that was not implemented.

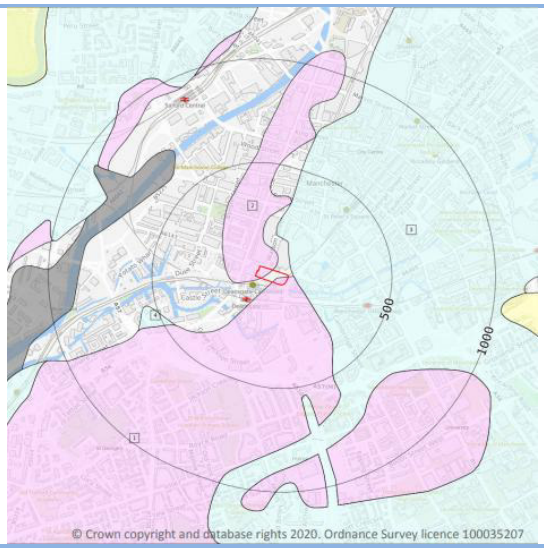
3.2 Published Geology

The following publications of the British Geological Survey (BGS) were examined in respect of the geology underlying the site:

- British Geological Survey (BGS) 1:50,000 Scale Geological Map Sheet 85. Solid and Drift Edition.
- BGS Geology of Britain Map Viewer.
- BGS GeoIndex Onshore.
- Coal Authority Interactive Map.
- Geo-Environmental Data Report.

Extracts of the 1:10,000 geological mapping from the Geo-Environmental Data Report are presented below for reference:

BGS 1:10 000 Superficial Geology



BGS 1:10 000 Solid Geology



Made Ground
Information from the Geo-Environmental Data Report presented in Appendix C indicates the majority of the site to be underlain with made ground as a result of previous development works undertaken.

Superficial Deposits
The site is indicated to be underlain by Glaciofluvial Sheet Deposits in the eastern and western part of the site. This stratum typically comprises sands and gravels.

Solid Geology
The deeper solid geology is indicated to be part of the Chester Formation which typically comprises sandstone.

A landform is shown running through the centre of the site, described as a buried channel or valley margin.

3.3 BGS Exploratory Hole Records

There are 6 BGS exploratory hole records within a relevant distance of the site (assumed as an approximate 50m radius).

A summary of the ground conditions is presented in the table below.

Reference	Distance from Site (m) and Direction	Depth Made Ground (m)	Depth Superficial Deposits (m)	Depth Solid Geology (m)
SJ89NW119 No 116	13m S	-	0 – 3.66 stone and clay 3.66 – 6.71 sand	6.71 – 11.28 sandstone
SJ89NW119 No 117		-	0 – 3.66 sand, clay, stones 3.66 – 7.01 sand	7.01 – 11.28 sandstone
SJ89NW119 No 118		-	0 – 3.66 sand, clay, stones 3.66 – 7.01 sand	7.01 – 11.28 sandstone
SJ89NW119 No 119		-	0 – 4.57 clay, sand, stones 4.57 – 9.45 sand	9.45 – 14.02 sandstone
SJ89NW119 No 120			0 – 4.57 sand, clay, stones 4.57 – 9.14 sand	9.14 – 12.50 sandstone
SJ89NW3790 A	37m E	0 – 0.70 made ground	0.70 – 5.10 sandy clay	5.10 – 15.00 sandstone

The BGS Borehole Logs are presented in Appendix D.

Further details on the ground conditions encountered during previous ground investigations on the site are presented in section 3.11.

3.4 Mining and Mineral Extraction

Coal Mining
The online Coal Authority Interactive Map layers have been reviewed and the details are summarised in the table below:

Relevant Interactive Map Data	Issue at Subject Site?
Coal Authority Reporting Area	Yes
High Risk Development Area	No

As the site lies within the Coal Authority Reporting Area, a mining search has been undertaken as the site could be affected by past or current coal mining.

The mining searches are presented in Appendix E, the main findings of which are presented below.

Highlighted Evidence	Issue	Details
Past Underground Mining	No	
Present Underground Mining	No	
Future Underground Mining	Yes	The property is not in an area where the Coal Authority has received an application for and is currently considering whether to grant a licence to remove or work coal by underground methods. The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods. The property is not in an area likely to be affected from any planned future underground coal mining. However, reserves of coal exist in the local area which could be worked at some time in the future. No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.
Mine Entries	No	
Past, present and future opencast coal mining	No	
Coal mining subsidence	No	
Mine gas	No	
Withdrawal of support	No	
Information from the Cheshire Brine Subsidence Compensation Board	No	

3.5 Hydrogeology

Based on the inferred geology, a summary of the Environment Agency aquifer designations is presented in the table below:

Stratum	Coverage	Aquifer Designation
Superficial	Full Site	Secondary (A) Aquifer. These are 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.
Bedrock	Full Site	Principal Aquifer. This is 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.

A summary of the pertinent hydrogeological features within the Geo-Environmental Data Report are provided below:

Feature	Distance (m) & Direction	Details
Nearest Active Groundwater Abstraction	513m NW	Licence No: NW/069/0004/019 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: Ground Water - North West Region Point: St Johns Manchester Annual Volume (m3): 543,120 Original Start Date: 13/09/2019
Nearest Active Potable Groundwater Abstraction	-	None within 2000m.
Source Protection Zones	73m E	Total catchment.

3.6 Hydrology

A summary of the pertinent hydrological aspects within the Geo-Environmental Data Report are provided below:

Feature	Distance (m) & Direction	Details
Nearest Watercourse	26m S 180m S	Rochdale Canal (considered to be a closed system not in hydraulic connectivity with aquifers). River Medlock.
Nearest Surface Water Abstraction	-	None active within 2000m.
Closest Active Licenced Discharge Consent	232m SW	Effluent Type: Sewage Discharges - Sewer Storm Overflow Permit Number: 016982719 Permit Version: 2 Receiving Water: River Medlock Effective Date: 01/12/1999

Information obtained from the Environment Agency (EA) Risk of Flooding from Rivers and the Sea (RoFRaS) database indicates that the risk of flooding across the site is very low to negligible (less than 1 in 1000 chance in any given year).

The British Geological Survey indicate there is a potential for groundwater flooding at the subject site, with a medium/high risk rating.

No further consideration of flood risk is undertaken in this report. Specialist flood risk advice should be sought with regards to drainage and flooding.

3.7 Landfill and Waste Management Sites

There are no active or historic landfill sites recorded within 500m.

There are 17 historical waste sites recorded within 500m of the site, the closest is located 157m north east recorded as a recycling centre. The other records predominantly relate to historical scrap yards.

3.8 Environmental Regulatory Data

A summary of the relevant environmental aspects, both on site and within 250m of the site contained in the Geo-Environmental Data Report, are presented in the table below:

Entry	On-site	0 – 50m	50 – 250m	Details
Recent Industrial Land Uses	-	2	25	The closest is located 36m south east of the site related to a business park / industrial estate. A vehicle service and repair centre (Duffy Motors) is located 52m north, and an electricity substation is located 68m east.
Current or Recent Fuel Stations	-	-	-	None within 250m.
Licensed Industrial Activities (Part A(1))	-	-	-	None within 250m.
Licensed Pollutant Release (Part A(2)/B)	-	-	-	None within 250m.
Radioactive Substances	-	-	-	None within 250m.
Pollution Incidents (EA/NRW)	-	-	-	None within 250m.

In regard to the entries identified above, only the vehicle service and repair garage and electricity substation are considered to be of significant relevance to be carried forward to the preliminary CSM and any other entries have not been considered further.

3.9 Radon

Information from the environmental database report indicates the property is in an area where <1% of properties are above the Action Level for radon, and therefore radon protective measures are not required in accordance with BRE Report 211 'Radon – Guidance on protective measures for new dwellings'.

3.10 UXO Risk

In accordance with CIRIA Report C681, BSL have reviewed non-specialist UXO data for the site using the online Zetica Bomb Risk Mapping data.

The map indicates the site to be in an area where the bomb risk is moderate to high. A copy of the map is presented in Appendix F.

A detailed risk assessment in accordance with CIRIA Report C681 has been completed and can be found within First Line Defence Detailed UXO Desk Study, reference DA4017-00, dated 24th October 2016, which concluded that the overall risk from UXO is low.

3.11 Other Potential Development Constraints

As shown on historical mapping a Burial Ground is present in the north west of the site between circa 1851 – 1893. Archaeology related works are outside the scope of this report, however a specialist should be contacted before any intrusive site works begin.

3.12 Summary of Previous Reports

A summary of the relevant points from the Phase I Preliminary Site Assessment (ref. B049266.002/RB/6812, dated June 2016) and Phase II Site Investigation (ref. B061321/P2/JB/8233, dated January 2017) completed by Curtins Consulting Ltd is presented below:

- The site has had previous development since 1848 for residential and commercial use including an iron foundry, cotton mill, railway infrastructure, burial ground, automobile engineering works and car parking.
- The surrounding area has historically featured a number of light industrial uses, such as mills, general works and railways within a close proximity. Beyond 250m from the site, previous land uses include a gas works, barracks, railways and railway goods stations and further mills and works.
- According to the published geological mapping records, made ground is indicated to be present across the site.
- Natural superficial deposits are only noted on the western portion of the site and these comprise Glaciofluvial Sheet Deposits of sand and gravel. The solid geology comprises sandstone of the Chester Pebble Beds Formation.
- According to the Environment Agency, the superficial deposits are classified as a Secondary A Aquifer, whereas the bedrock is classified as a Principal Aquifer.
- The closest fault present on mapping is located circa 250m to the north-east.
- The site is located within a Coal Mining Referral Area, although no evidence of mining was noted within historical mapping and the presence of mining related features was considered to be unlikely based on the historical usage of the site and was not considered further.
- The nearest watercourse is the Rochdale Canal located 24m south, although there are no surface water abstractions within 1km of the site.

- The site is not located in an area which is known to be at risk from extreme flooding or flooding from rivers and sea.
- The risk to human health was considered to be moderate.
- The risk to controlled waters is very low to moderate.
- The risk from ground gases was considered to be high.
- The site is not located in an area requiring radon precautions in foundations.
- The risk from UXO was considered to be medium to high.
- Following the Phase I Assessment, an intrusive ground investigation was undertaken between 17th November 2016 and 1st December 2016.
- On the lower deck, granular made ground comprising typical demolition material was encountered to between 1.30m and 5.45m bgl, which was underlain by orange brown gravel sands, silts and clays. Sandstone bedrock was encountered between 4.00m and 6.00m bgl to the base of the rotary boreholes at 35m bgl. Groundwater was encountered between 11.40m and 19.90m bgl.
- On the upper deck, made ground comprising typical granular demolition material was encountered in addition to historic brick platforms.
- Based on the revised CSM the risk to human health from soils was considered to be low.

A summary of the relevant points from the First Line Defence Detailed UXO Desk Study, reference DA4017-00, dated October 2016 is presented below:

- There is a low risk from German UXBs, incendiaries and bomblets.
- There is a low risk from Allied AAA ordnance.
- There is a negligible risk from other Allied military ordnance.
- The overall risk is low.
- Site Specific Unexploded Ordnance Awareness Briefings to all personnel conducting intrusive works was recommended.

A summary of the relevant points from the Geo-Environmental Assessment (ref. TM/C4460/9347, dated June 2020) completed by Brownfield Solutions Ltd is presented below:

- To supplement the initial ground investigation completed by Curtins in 2017, BSL completed an intrusive investigation between 20th April and 11th June 2020 in the Phase 1 (western) half of the site.
- Made ground was encountered to between 1.30m and 2.00m bgl and was predominantly granular in composition. Superficial gravelly sands were encountered to depths between 5.20m and 6.60m bgl.
- The solid geology initially comprising extremely weak becoming weak to medium strong red fine to coarse grained sandstone proven to depths of >45.60m bgl.
- Groundwater strikes ranged between 11.30m and 15.00m bgl (20.10m to 23.91m AOD).
- Chemical testing of groundwater retrieved from two boreholes, representative of the Principal Aquifer, has indicated that concentrations of metals, PAHs and petroleum hydrocarbons were below laboratory limits of detection and do not exceed UK Drinking Water Standards.
- Whilst there were elevated concentrations of inorganic compounds within the groundwater samples, there is little evidence to suggest that any contamination has originated from the site, which is not considered to pose a significant risk to controlled waters. The overall risk is considered to be low.
- The supplementary ground gas monitoring programme has confirmed previous assessments which place the site within Characteristic Situation 1 (CS1) and ground gas protection measures are not required.
- The majority of made ground and natural soils were classified as non-hazardous waste, whereas localised areas of made ground from the upper and lower decks was classified as hazardous for waste disposal purposes.

A summary of the relevant points from the Remedial Strategy (ref. NS/C4460/9230 Rev B, dated August 2020) and Piling Risk Assessment (ref. AJS/C4460/9231 Rev B, dated August 2020) completed by Brownfield Solutions Ltd is presented below:

- The most suitable remediation option to mitigate the risk to human health from contaminated made ground was considered to be a clean cover system. The cover system may comprise either hard standing or, in soft landscaping areas, 600mm thick "clean" validated topsoil.
- The presence of elevated PAHs will require the over-excavation of service runs and likely use of barrier pipe, with precise requirements to be determined by a pipeline risk assessment.
- The site was classified as Characteristic Situation 1 (CS1) with respect to ground gases, therefore ground gas protection measures are not required.
- The proposed piling method at the site is rotary bored piles socketed into the sandstone bedrock. The Piling Risk Assessment found the chosen piling methods are considered to be low/moderate to low in accordance with the Environment Agency's Piling Risk Assessment methodology. Due to the low risk at the site the use of specific mitigation measures are not considered necessary in respect of controlled waters, site end users and construction workers.

For the Phase II area, a summary of the relevant points from the Geo-Environmental Assessment Report (ref. TM/C4460/10587, dated December 2021) and Piling Risk Assessment (ref. AJS/C4460/9231 Rev D, dated June 2022) completed by Brownfield Solutions Ltd is presented below:

- Made ground was encountered from ground level to between 1.05m and 3.60m bgl and was predominantly granular in composition. Superficial gravelly sands were encountered to depths between 1.70m and 5.30m bgl.
- Solid geology comprising red sandstone, encountered from 4.50m bgl to 44.50m bgl.
- Groundwater recorded between 13.00m and 14.00m bgl during the ground investigation and between 11.30m and 11.49m bgl (24.00m and 24.31m AOD) during post-works monitoring.
- Elevated concentrations of PAHs have been recorded in the made ground in one location (BH206).
- Groundwater testing has revealed exceedances in inorganic compounds, but PAHs and hydrocarbons have not been detected. The overall risk to controlled waters has been assessed as low.
- Supplementary gas monitoring has supported the previous assessments which classified the site as CS1, and no ground gas protection measures are required.
- The most suitable remediation option to mitigate the risk to human health was considered to be a clean cover system, comprising 600mm thick "clean" topsoil/subsoil in soft landscaping areas.
- The majority of the made ground has been classified as non-hazardous for waste disposal purposes. WAC testing indicates the made ground is likely to be suitable for non-hazardous landfill.
- One sample of made ground has been classified as hazardous (BH02) and arisings from this location should be segregated for further testing prior to disposal.
- The risk to human health from localised elevations of PAHs in the shallow made ground soils was considered to be moderate/low and remedial measures were recommended.
- The proposed piling method at the site is rotary bored piles socketed into the sandstone bedrock. The Piling Risk Assessment found the chosen piling methods are considered to be low/moderate to low in accordance with the Environment Agency's Piling Risk Assessment methodology. Due to the low risk at the site the use of specific mitigation measures are not considered necessary in respect of controlled waters, site end users and construction workers.

4.0 PHASE 1 SUMMARY AND RISK ASSESSMENT

4.1 Introduction

The risk posed by any contaminants in soil or groundwater will depend on the nature and level of the source, the probability of exposure occurring, the potential pollution pathway and the likely effects on the receptors.

A contaminant is defined as a substance that has the potential to cause harm, a risk is considered to exist if such a substance is present at sufficient concentrations to cause harm and if a pathway is present through which a receptor could be exposed to the contaminant.

The following sections discuss the identified potential on-site and off-site sources, and any pollution that could impact receptors via the pathways associated with the proposed development. Pollution linkages are assessed which may represent a risk to human health and/or controlled water receptors from the information gained from the Phase I Assessment searches. The assessment has been carried out on a qualitative basis and aims to produce a complete and comprehensive Preliminary Conceptual Site Model.

Three potential impacts exist for any given site and all three need to be considered in the qualitative risk assessment, these are:

- On-site impacts.
- The site impacting its surroundings.
- Off-site sources impacting the subject site.

4.2 Potential Contaminative Sources

On-Site
From the information obtained, the following sources have been identified which may affect the redevelopment of the site for residential end use:

- Made ground associated with previous industrial developments and former railway.
- Former tanks.
- Former burial ground.

Off-Site
The following off-site sources have been identified which may affect the redevelopment of the site:

- Works (20m S).
- Coal yards (20m E).
- Cotton mills (50m E).
- Service and repair garage (52m N).
- Electricity substation (68m E).
- Gas works (100m S).

Associated Contaminants

The contaminants commonly associated with the potential sources of contamination identified are tabulated below:

Contaminative Sources	Department of the Environment Industry Profile or Other Source	Commonly Associated Contaminants
On Site		
Made Ground	Railway land	Heavy metals, polycyclic aromatic hydrocarbons (PAHs), petroleum hydrocarbons, asbestos, ground gases (carbon dioxide and methane).
Burial Ground	-	Ground gases (carbon dioxide and methane)
Works (Mills, foundries, engineering works)	Textile and Dye Manufacturing Metal manufacturing, refining, and finishing works – iron and steel Engineering Works – Railway Engineering Works.	Metals, inorganics, solvents, PAHs, petroleum hydrocarbons, asbestos.
Tanks	-	Petroleum Hydrocarbons
Off Site		
Unspecified works	-	Heavy metals, polycyclic aromatic hydrocarbons (PAHs), Total Petroleum Hydrocarbons (TPH), PCBs, asbestos
Coal Depot	-	PAH, TPH, carbonised wastes
Mill (Wool, cotton & fulling)	Textile and Dye Manufacturing	Metals, inorganics, solvents, pesticides
Service and Repair Garage	Road vehicle fuelling, service and repair	Petroleum hydrocarbons, PAHs, heavy metals, oils, asbestos, VOCs and SVOCs
Electricity Substation	Electrical works	Poly Chlorinated Biphenyls (PCBs), oils
Gas Works	Gas works	Heavy metals, polycyclic aromatic hydrocarbons (PAHs), Total Petroleum Hydrocarbons (TPH), BTEX, SVOCs, cyanides.

4.3 Pathways

A pathway is defined as a medium by which a contaminant comes into contact with, or otherwise impacts a receptor.

At this stage the potential contaminants identified above are considered to present potential risks to site end users and controlled waters through the following pathways:

Potential Pathways	
Pathways in respect to Human Health	• Ingestion of contaminated soils. • Dermal contact with contamination. • Inhalation of dusts. • Inhalation of gases or vapours in both indoor and outdoor air.
Pathways in respect to Controlled Waters – Surface water	• Surface run-off /over land flow. • Drainage discharge. • Base flow from groundwater.
Pathways in respect to Controlled Waters – Groundwater	• Leaching of mobile contamination into groundwater via the unsaturated zone. • Migration of perched groundwater in any permeable soils or along existing or proposed service runs. • Migration into the saturated zone and flow through the aquifers underlying the site.

Potential Pathways	
Pathways in respect to Property/structures/water pipes	• Direct contact with substances deleterious to building materials and potable water supply pipelines. • Migration of ground gases (methane) into confined spaces (explosion and damage to property).

4.4 Receptors

The identified receptors are listed below:

- Residential end users (human health).
- Structures/Property/Potable water supply pipes.
- Nearest watercourse – River Medlock 180m south (Controlled waters).
- Superficial Aquifer - Glaciofluvial Sheet Deposits (Controlled waters).
- Bedrock Aquifer - Chester Formation (Controlled waters).

The Rochdale Canal is not considered to be a viable sensitive surface water receptor from site borne contamination as canals are typically a closed hydraulic system, which would be isolated from the underlying aquifers. It is also unlikely any significant leachate would be generated and transported via surface water runoff to the canal. Therefore, this potential receptor is not considered further as part of the CSM.

Under current UK health and safety legislation, employers are required to carry out their own appropriate site-specific risk assessments and mitigation to protect employees. It has been assumed that any future construction works onsite will be undertaken in compliance with these requirements. Therefore, construction workers have not been specifically considered as part of this assessment.

4.5 Preliminary Conceptual Site Model (CSM)

The information obtained in the previous sections has been used to compile a Preliminary CSM. The identified potential contaminants and receptors have been assessed in the table below as to whether a plausible source-pathway-receptor pollutant linkage for the proposed end use of the site exists. The risk classification has been estimated in accordance with information in the BSL Guidance and Methodology in Appendix A.

The Preliminary CSM's are presented in the tables overleaf, any assessed risk above moderate will possibly require further action:

Human Health						
Potential Source	Potential Pathway	Potential Receptor	Likelihood	Severity	Level of Risk	Justification
On site Made Ground PAHs, heavy metals, petroleum hydrocarbons, asbestos, ground gases (carbon dioxide and methane)	Root uptake, ingestion, direct contact, inhalation of dusts	End-users (carpark users, retail employees, customers), Adjacent Residents	Low likelihood	Medium	Moderate / Low	The proposed development layout indicates the ground floor will be covered almost entirely in buildings and hard surfacing with limited soft landscaping areas comprising several trees in the south-eastern corner of the site. The presence of hardstanding across the vast majority of the site will break the pathway to site end users, however a potential pathway is considered to exist via the very limited soft landscaping The risk is considered to be moderate to low.
On site Tanks Upper Deck Petroleum Hydrocarbons	Ingestion, direct contact, inhalation of dusts, inhalation of vapours	End-users	Unlikely	Medium	Low	Historical mapping shows the presence of tanks in the south of the upper deck site between the dates of 1948 -1969 which were likely to be well above the ground and the underlying geology. Due to the tanks being situated on the upper deck and the presence of hardstanding across the vast majority of the site, this will break the pathway to site end users, in addition these features were removed several decades ago, with no further input to soils and volatiles are likely to have heavily degraded over this time. The risk is considered to be low.
On site Made ground and Burial Ground Ground Gas (carbon dioxide and methane)	Migration into confined spaces, inhalation and asphyxiation/ explosion	End-users / property / structures	Unlikely	Medium	Low	It is anticipated that the made ground is likely to consist of material which is not putrescible, and the likelihood of gas generation is considered to be very low. In addition, given the time in which the burial ground is expected to have been last used, with decomposition of bodies likely to have completed some time ago, any resultant ground gases generated will have likely dissipated. The risk is considered to be low.
Off site Works Heavy metals, PAH's, TPH, PCB's, asbestos, inorganics, solvents, BTEX, SVOCs, pesticides, cyanides.	Ingestion, direct contact, inhalation of dusts	End-users	Unlikely	Medium	Low	Multiple industrial works including engineering works, coal yard, mills, gas works and other unnamed works surround the site at varying distances presenting possible sources of similar contaminants. Given these sources are offsite, and these contaminants are generally not of high mobility, with the additional mitigation of the final development will include vast coverage of hardstanding; it is unlikely the site end users will be exposed to any contamination. Therefore, the overall risk is considered low.

Human Health						
Potential Source	Potential Pathway	Potential Receptor	Likelihood	Severity	Level of Risk	Justification
Offsite Service and Repair Garage Petroleum hydrocarbons, PAHs, heavy metals, oils, asbestos, VOCs and SVOCs	Ingestion, direct contact, inhalation of dusts, inhalation of vapours	End-users	Unlikely	Medium	Low	A service and repair garage is located 52m north of the site called Duffy Motors. Given these sources are offsite, and these contaminants are generally not of high mobility, with the additional mitigation of the final development will include vast coverage of hardstanding; it is unlikely that site end users will be exposed to any gross or significant contamination from this source. Therefore, the overall risk is considered low.
Offsite Electricity Substation Poly Chlorinated Biphenyls (PCBs), oils	Ingestion, direct contact, inhalation of dusts	End-users	Unlikely	Medium	Low	An electrical substation is located 68m east of the site. The mobility of these associated contaminants is low and any volumes present are likely to be small. In addition, the proposed development will be vastly covered in hardstanding which will beak the pathway to site end users. The risk is considered to be low.

Controlled Waters						
Potential Source	Potential Pathway	Potential Receptor	Likelihood	Severity	Level of Risk	Justification
Made Ground, associated with previous developments including burial ground PAHs, Metals, organics, nitrates.	Overland flow, / migration through saturated zone	River Medlock 180m away (Surface waters)	Unlikely	Medium	Low	The previous ground investigations did not identify any elevated concentrations of contaminants on the lower deck and there is no evidence of gross contamination within soils, therefore the made ground is not considered to represent a significant source of contamination. It is considered contaminants associated with the made ground and other past industrial uses are unlikely to impact the River. This is due to the generally low concentrations of harmful contaminants in the made ground soils, lack of a viable pathway and potential for contaminants to attenuate and degrade over the distance between source and receptor. Therefore, a low risk is posed to the river from the made ground and past developments.
	Leaching through unsaturated zone / Migration through saturated zone	Secondary A Aquifer in superficial deposits (Ground-water)	Unlikely	Medium	Low	As stated above, the made ground does not appear to contain significant concentrations of contaminants. In addition, the lower deck of the site is currently surfaced in hard standing and is covered by the upper deck, therefore surface water infiltration and leaching are considered to be unlikely and perched shallow groundwater has not been encountered within the made ground. The former burial ground is generally of small footprint and groundwater levels are generally relatively deep across the area, with degradation of remains taking place over a prolonged period; organics are now highly likely to have completely decomposed some time ago, with input of organics (e.g. nitrates etc) to the superficial aquifer from this source (and the aquifer below) now unlikely. The developed site will also be covered in buildings and hard standing, with the likelihood of a new drainage system, therefore surface water infiltration is likely to remain low, and the potential for contamination mobilisation with vertical migration will remain unlikely.
	Migration through saturated zone	Principal Aquifer in bedrock (Ground-water)	Unlikely	Medium	Low	As stated above, the site is currently surfaced in hardstanding and will remain so, with a new surface water drainage system installed which will further reduce the risk to controlled waters. In addition, the site is not located within a Source Protection Zone. Localised visual and olfactory evidence of hydrocarbon impaction of the bedrock above the groundwater table was identified in BH207. However, testing of groundwater from this location indicates the concentrations of hydrocarbons in groundwater are below laboratory limits of detection. Chemical testing of groundwater recovered from all borehole installations on site has indicated that the groundwater is not contaminated with respect to metals and

Controlled Waters						
Potential Source	Potential Pathway	Potential Receptor	Likelihood	Severity	Level of Risk	Justification
						hydrocarbons. Elevated inorganics are considered unlikely to be associated with contamination on site based on the soils chemical testing and historical information from the desk study, likely being from a wider area source.
On site Former Tanks Upper Deck Petroleum Hydrocarbons	Overland flow, / migration through saturated zone	River Medlock 180m away (Surface waters)	Unlikely	Medium	Low	It is considered contaminants associated with the tank on site are unlikely to impact the river. This is due to the distance of the tank situated on the upper deck and the thickness of hardstanding beneath, meaning there is lack of a viable pathway. The these tanks were removed some time ago, therefore further input from any possible leaks etc will not be taking place. Furthermore, the potential for contaminants to attenuate and degrade over the distance between source and receptor is high. Therefore, a low risk is posed to the river from the tanks.
	Leaching through unsaturated zone / Migration through saturated zone	Secondary A Aquifer in superficial deposits (Ground-water)	Unlikely	Medium	Low	The upper deck of the site where the tanks are situated is currently surfaced in hardstanding and will remain so, therefore surface water infiltration and leaching are considered to be unlikely. The developed site will also be covered in buildings and hard standing, with the likelihood of a new drainage system, therefore surface water infiltration is likely to remain low, and the potential for contamination mobilisation with vertical migration will remain unlikely.
	Migration through saturated zone	Principal Aquifer in bedrock (Ground-water)	Unlikely	Medium	Low	As stated above, the site is currently surfaced in hardstanding and will remain so, with a new surface water drainage system installed which will further reduce the risk to controlled waters. In addition, the site is not located within a Source Protection Zone. The risk is considered to be low.

Human Health Risk – Soils Contamination Summary
Based on the preliminary CSM and the current use of the site, the overall risk from land contamination at the site is considered to be **low to moderate** for a redeveloped site. This would need to be confirmed by appropriate intrusive investigation, testing and assessment.

Human Health Risk – Ground Gas Summary
A potential on site gas source has been identified associated with the made ground and burial ground, although the preliminary CSM considers these sources to be of low risk as part of this assessment, however previous assessmnets and requirements for the site necessitated for ground gas monitoring to be carried out.

Therefore, in accordance with BS8576 and CIRIA C665 as set out in Appendix A of this report, the gas generation potential is considered to be very low. The sensitivity of the development is moderate on account of the proposed high rise apartments use.

In line with current guidance, recommended ground gas monitoring should comprise 6 visits over a 2 month period (this is considered to have been achieved as part of existing/past assessments).

Controlled Waters Risk - Summary
Based on the preliminary CSM, BSL believes the overall risk to controlled waters at the site is **low.**

The above assessed level of risk will need to be confirmed by intrusive investigation and quantitative risk assessment.

5.0 PRELIMINARY GEOTECHNICAL ASSESSMENT

5.1 Hazard Identification

A preliminary geotechnical hazard identification exercise has been undertaken in general accordance with the Highways England document CD 622, 'Managing geotechnical risk'. Potential geotechnical hazards based on the expected ground conditions are listed below:

- Made ground of unknown nature; if placed in a non-engineered manner may cause excessive settlement of foundations, highways and infrastructure.
- Presence of obstructions in the ground from historical developments (e.g relict foundations) causing difficulties with excavations or penetrative works (e.g. piling).
- Attack of buried concrete by aggressive ground conditions; the site may contain unknown made ground and potentially sulphate bearing soils.
- Running sands or loose fill materials leading to difficulty with excavation due to trench collapse.
- Shallow groundwater/groundwater rise causing resulting in difficulties with excavations due to trench collapse.

Whilst the site lies within a Coal Authority reporting area, based on the available information, the risk from mining induced instability is considered to be very low and needs no further consideration.

The above identified geotechnical hazards will need to be considered as part of further investigations and assessments.

5.2 Foundation and Geotechnical Design

The proposed development will comprise a 39-storey tower over the service yard on the existing Grade II listed masonry viaduct (Phase 1), a 76-storey mixed hotel and residential tower (Plot 2a) and a 23-storey residential building (Plot 2b). In light of the high imposed loads, a deep foundation solution, such as rotary bored piles, will be required for the high rise buildings. However, the exact type of foundation solution should be informed by an onsite intrusive investigation to the confirm ground conditions.

Intrusive investigation should also obtain data to allow appropriate concrete classification in accordance with BRE SD1 and for preliminary highways/pavement design.

5.3 Drainage

Drainage to SuDS is unlikely to be viable at the site due to lack of available attenuation capacity and the depth of made ground encountered during previous investigations.

5.4 Recommendations

To confirm the ground conditions in respect to the identified potential geotechnical hazards and risks, an appropriate intrusive investigation will need to be undertaken.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Geo-Environmental Summary

The site has had several previous uses including a burial ground, cotton mill, iron foundry, railway, engineering works and car park. Based on the proposed residential development, the overall risk to human health from on site soils contamination is considered to be low to moderate.

The risk from off-site sources of contamination is considered to be low.

The risk from permanent ground gases is considered to be low and radon is not considered to pose a risk.

The overall risk to controlled waters is considered to be low.

Intrusive investigations will be required to confirm the above assessed levels of risks and determine remedial requirements, if any.

6.2 Geotechnical Summary

Intrusive investigations will be required to confirm the most suitable foundation solution and to obtain parameters for concrete classification, floor slab and highways design.

Whilst the site lies within a Coal Authority Reporting Area, mining related instability is not considered to pose a risk to the site.

6.3 Further Work

To confirm the risks to the identified receptors and confirm the ground conditions in respect to the identified geotechnical and geo-environmental risks, an appropriate intrusive investigation will need to be undertaken. Various phases of detailed intrusive investigation works have been carried out to date, therefore many of the objectives have already been achieved, however, for completeness, following the Phase I Desk Study the following works are/were recommended, although this list is not exhaustive and should be read in conjunction with any planning conditions that are applicable to the site:

- Intrusive ground investigations comprising:
  - Windowless sampling, trial pitting and rotary cored drilling.
  - Installation of standpipes in boreholes to allow gas concentrations and groundwater levels to be monitored.
  - Geotechnical testing of soils and rock.
  - Contamination analyses of soil, surface water and groundwater.
- Assessment and recommendations based on the above, including requirements for further work, if necessary.

7.0 ABBREVIATIONS AND DEFINITIONS

GLOSSARY	
Term / Abbreviation	**Definition**
AST	Above Ground Storage Tank.
B(a)P	Benzo (a) Pyrene.
BGS	British Geological Survey.
BRE	Building Research Establishment.
BS	British Standard.
BSL	Brownfield Solutions Ltd.
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes.
CBR	California Bearing Ratio (used in pavement/highways design).
CAR 2012	Control of Asbestos Regulations (2012).
CBCB	Cheshire Brine Compensation Board.
CBCD	Cheshire Brine Compensation District.
CBR	California Bearing Ratio.
CIEH	Chartered Institute of Environmental Health.
CIRIA	Construction Industry Research Association.
CL:AIRE	Contaminated Land: Applications in Real Environments.
CLEA	Contaminated Land Exposure Assessment.
CLO	Contaminated Land Officer.
COMAH	Control of Major Accident Hazards.
Contamination	Presence of a substance which is in, on or under land, and which has the potential to cause significant harm or to cause significant pollution of controlled water. There is no assumption in this definition that harm results from the presence of the contamination. Naturally enhanced concentrations of harmful substances can fall within this definition of contamination. Contamination may relate to soils, surface water, groundwater or ground gas.
Controlled Waters	Inland freshwater (any lake, pond or watercourse above the freshwater limit), water contained in underground strata and any coastal water between the limit of highest tide or the freshwater line to the three-mile limit of territorial waters.
CPT	Cone Penetration Test.
CSM	Conceptual Site Model. A schematic hypothesis of the nature and sources of contamination, potential migration pathways (including description of the ground and groundwater) and potential receptors, developed on the basis of the information from the preliminary investigation and refined during subsequent phases of investigation and which is an essential part of the risk assessment process. The conceptual site model is initially derived from the information obtained by the preliminary investigation (i.e. the Phase I Phase I Assessment). This conceptual model is used to focus subsequent investigations, where these are considered to be necessary, in order to meet the objectives of the investigations and the risk assessment. The results of intrusive investigations can provide additional data that can be used to further refine the conceptual site model.
DCP	Dynamic Cone Penetrometer.
DNAPL	Dense Non-Aqueous Phase Liquid.
DoWCoP	Definition of Waste Code of Practice.
DWS	Drinking Water Standard.
EA	Environment Agency.
EHO	Environmental health Officer.
EQS	Environmental Quality Standard.
GAC	Generic Assessment Criteria.

GLOSSARY	
Term / Abbreviation	**Definition**
GDR	Geotechnical Design Report.
GFR	Geotechnical Feedback Report.
GIR	Ground Investigation Report.
GSV	Gas Screening Value.
Harm	Adverse effect on the health of living organisms, or other interference with ecological systems of which they form part, and, in the case of human health, including property/structures and water supply pipelines.
Hazard	Inherently dangerous quality of a substance, procedure or event.
HDPE	High Density Polyethylene.
HSV	Hand Shear Vane.
K	Modulus of Subgrade Reaction.
LCRM	Land Contamination: Risk Management (EA guidance).
LNAPL	Light Non-Aqueous Phase Liquid (petrol, diesel, kerosene).
LOD	Limit of Detection (for particular method adopted).
MMP	Materials Management Plan.
Mv	Modulus of Volume of Compressibility.
ND	Not Detected.
NHBC	National House Building Council.
NR	Not Recorded.
OS	Ordnance Survey.
PAH	Polycyclic Aromatic Hydrocarbon.
Pathway	Mechanism or route by which a contaminant comes into contact with, or otherwise affects, a receptor.
PCB	Poly-Chlorinated Biphenyl.
PCSM	Preliminary Conceptual Site Model.
pH	Scale used to specify how acidic or basic a water-based solution is.
PHC	Petroleum Hydrocarbons.
PID	Photo Ionisation Detector.
PNEC	Predicted No-Effect Concentration.
Precision	Level of agreement within a series of measurements of a parameter.
PSD	Particle Size Distribution.
PVC	Polyvinyl Chloride.
Receptor	Human health, living organisms, ecological systems, controlled waters (surface waters and groundwater within aquifers), atmosphere, structures and utilities that could potentially be adversely affected by contaminant(s).
Risk	Probability of the occurrence, magnitude and consequences of an unwanted adverse effect on a receptor.
Risk Assessment	Process of establishing, to the extent possible, the existence, nature and significance of risk.
Sampling	Methods and techniques used to obtain a representative sample of the material under investigation.
SOM	Soil Organic Matter.
Source	Location from which contamination is, or was, derived. This could possibly be the location of the highest soil, groundwater or gas concentration of the contaminant(s).
SPT	Standard Penetration Test.
SVOCs	Semi Volatile Organic Compounds.
TOC	Total Organic Carbon.
TPH CWG	Total Petroleum Hydrocarbon (Criteria Working Group).

GLOSSARY	
Term / Abbreviation	**Definition**
TVOCs	Total volatile organic compounds.
UCS	Unconfined Compressive Strength.
Uncertainty	Parameter, associated with the result of a measurement that characterises the dispersion of the values that could reasonably be attributed to the measurement.
UST	Underground Storage Tank.
UXO	Unexploded Ordnance.
VCCs	Vibro Concrete Columns.
VSCs	Vibro Stone Columns
VOCs	Volatile Organic Compounds.
WAC	Waste Assessment Criteria.
WFD (in waste context)	Waste Framework Directive.
WFD (in water context)	Water Framework Directive.
Units	**Definition**
°	Degrees
Φ	Phi angle (in degrees)
g/l	Grams per Litre
Km	Kilometres
kPa	Kilo Pascal (Equivalent to kN/m^2)
$KN/m^2/mm$	Kilo Newton per metered squared per millimeter
kN/m^2	Kilo Newtons per metre squared
kPa	Kilo Pascal (Equivalent to kN/m^2)
l/hr	Litres per hour
MJ/kg	Mega joule per kilogram
MN	Mega Newton
M^2/MN	Mega Newton per metre squared
M	Metres
m bgl	Metres Below Ground Level
m OD	Metres Ordnance Datum (sea level)
µg/l	Micrograms per Litre (parts per billion)
µm	Micrometre
mb	Millibars (atmospheric pressure)
mg/kg	Milligrams per kilogram (parts per million)
mg/m^3	Milligram per metre cubed
mm	Millimetre
ppb	Parts Per Billion
Ppm	Parts Per Million

8.0 REFERENCES

References used in the production of this report are listed below; note not all of the below are relevant to the subject site and may not have been utilised.

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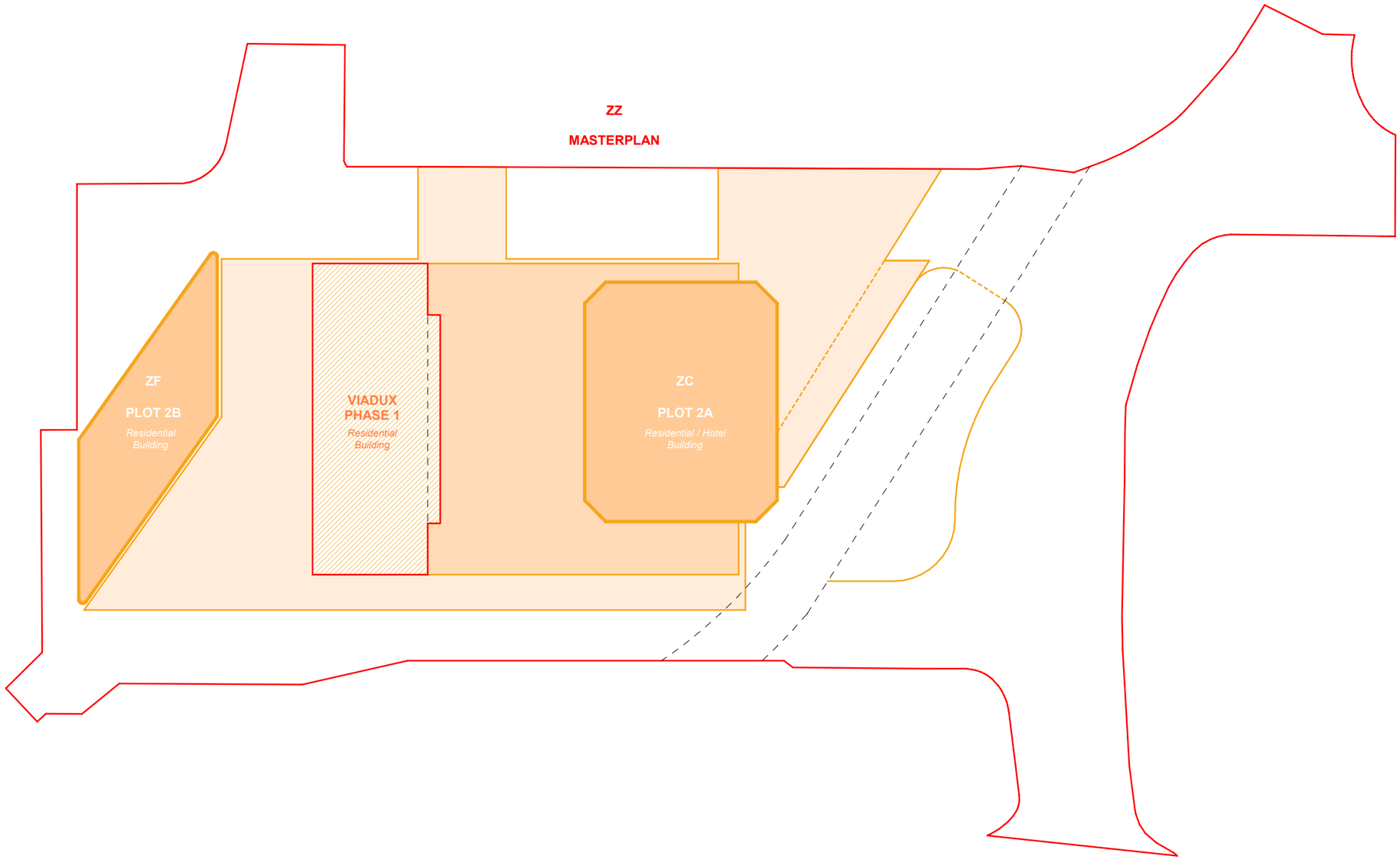
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DRAWINGS



Masterplan - Zone References

ZZ - Masterplan: Site wide drawings

ZC - Plot 2a Residential

ZF - Plot 2b Residential

This drawing is copyright
Do not scale off dimensions.
All dimensions to be checked on site by Contractor.

Contractor to report any dimensional discrepancies, errors or omissions prior to commencing on site.

NORTH

Rev	Date	Description
P01	26-03-2024	Planning Issue
P02	31-10-2024	Planning Issue - Hotel & Residential

Project Title
Viadux Phase 2 - Plot 2a & 2b
Manchester

Drawing Title
Viadux Phase 2 - Plot 2a & 2b
Masterplan
Zone Reference Diagram

Job No
10448

Scale
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1 : 375@ A1

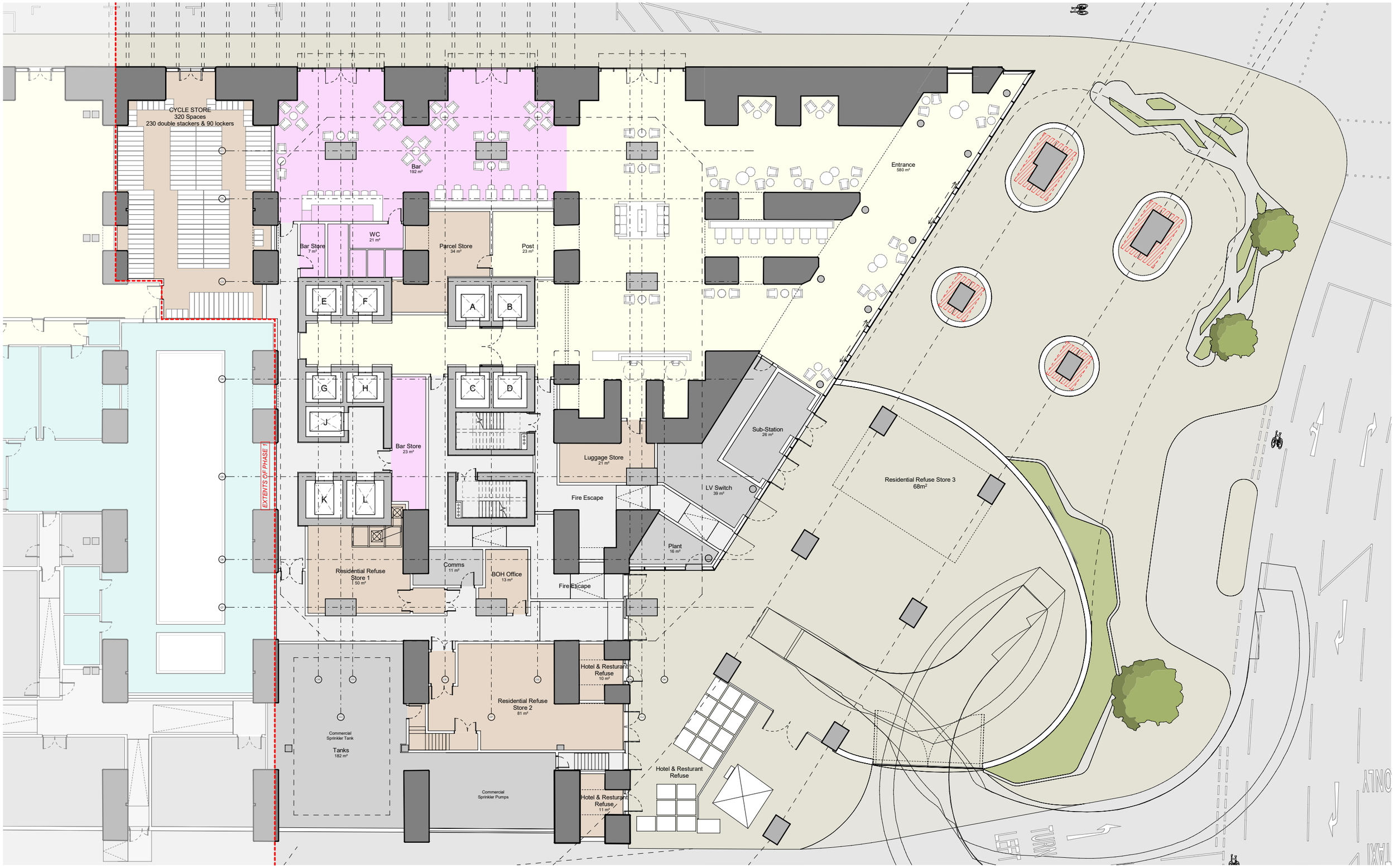
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10448-SHP-ZZ- A-B5D9-Z460-PL-XX-001

Revision
P02

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SCALE 1:125

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NORTH

Rev	Date	Description
P01	26-03-2024	Planning Issue
P02	31-10-2024	Planning Issue - Hotel & Residential

DRAFT

Project Title
Viadux Phase 2 - Plot 2a & 2b
Manchester

Status
PLANNING

Drawing Title
Viadux Phase 2 - Plot 2a
General Arrangement
Ground Floor Plan

Job No
10448

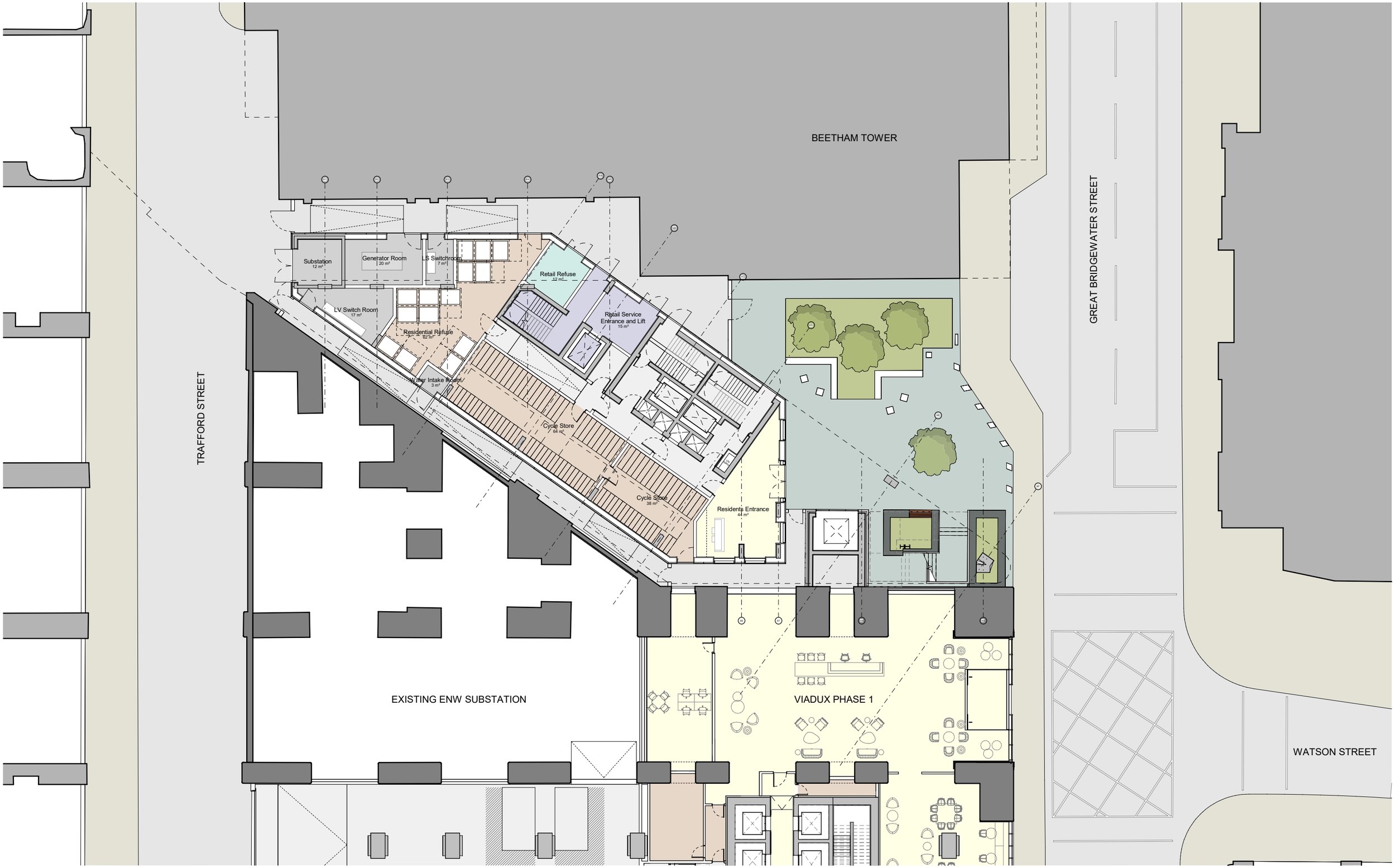
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SCALE 1:125

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NORTH

Rev	Date	Description
P01	26-03-2024	Planning Issue
P02	31-10-2024	Planning Issue - Hotel & Residential

Project Title
Viadux Phase 2 - Plot 2a & 2b
Manchester

Status
PLANNING

Drawing Title
Viadux Phase 2 - Plot 2b
General Arrangement
Ground Floor Plan

Job No
10448

Scale
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SHP Drawing Code
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Revision
P02

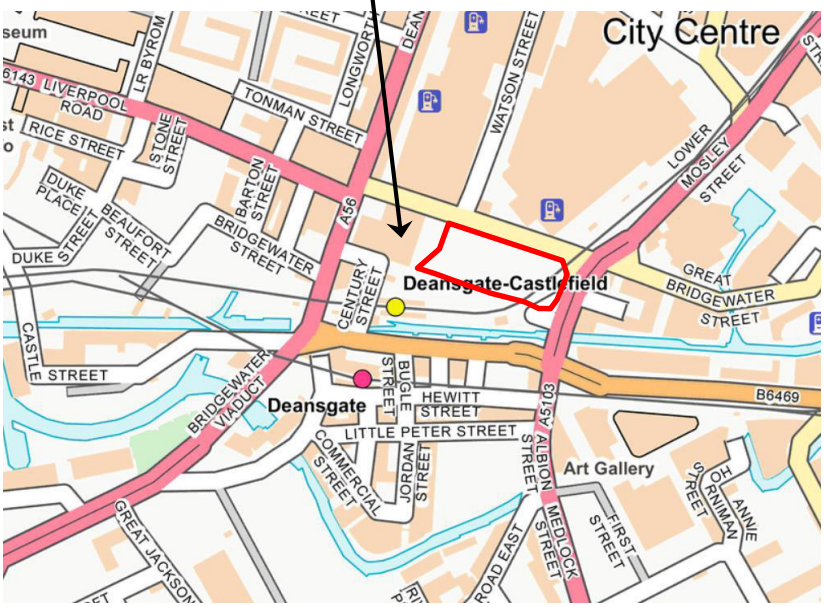
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SITE LOCATION

NEAREST POSTCODE: M1 5NZ



REV	DATE	DESCRIPTION	BY	CKD

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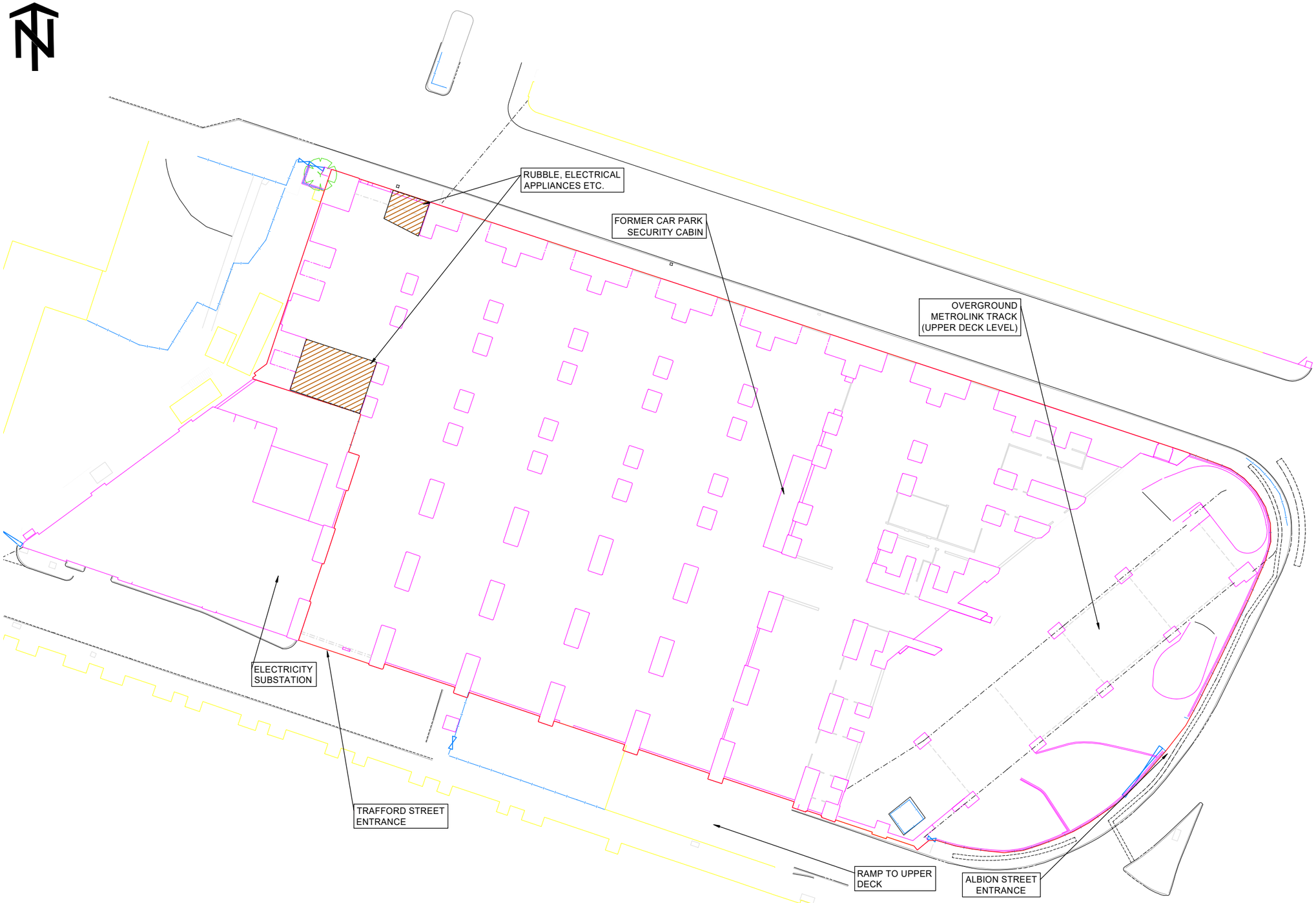
CLIENT
DOMIS CONSTRUCTION

PROJECT TITLE
VIADUX, ALBION STREET, MANCHESTER

DRAWING TITLE
SITE LOCATION PLAN

DRAWING No.	REVISION	SCALE	DATE
C4460/01	-	NTS	24/03/20

DRAWN BY	CHECKED BY
SD	NS



KEY

APPROXIMATE SITE BOUNDARY

MASONRY ARCHWAYS

NOTES

1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCING WORKS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT & ENGINEER FOR VERIFICATION. FIGURED DIMENSIONS ONLY ARE TO BE TAKEN FROM THIS DRAWING.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS REPORTS. THIS DRAWING IS COPYRIGHT OF BSL.
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DOMIS CONTRUCTION LTD

PROJECT TITLE

VIADUX, ALBION STREET, MANCHESTER

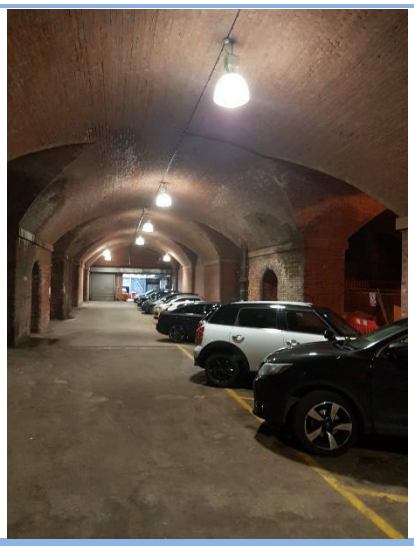
DRAWING TITLE

SITE FEATURES PLAN - LOWER DECK

DRAWING No.	REVISION	SCALE	DATE
C4460/02	-	NTS	10/06/20

DRAWN BY	CHECKED BY
TM	AJS

PHOTOGRAPHS



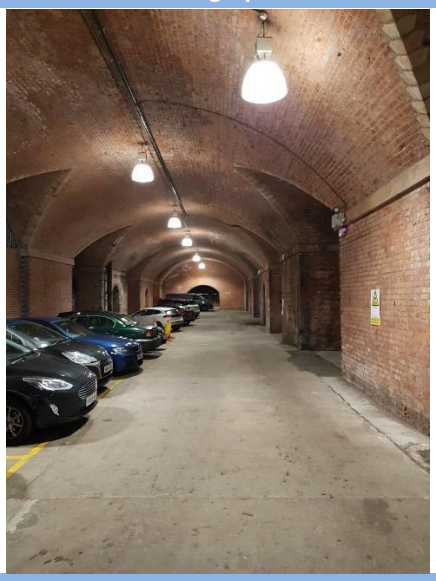
Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6

APPENDIX A

BSL Methodology and Guidance

BSL Phase I Geo-Environmental Assessment Reports - Methodology and Guidance

Background

This Appendix provides information on the approaches, methods and guidance used by Brownfield Solutions Ltd in the preparation of this report.

The term 'geo-environmental' is used to describe aspects relating to ground-related environmental issues (such as potential soils and groundwater contamination). The term 'geotechnical' is used to describe aspects relating to the physical nature of the site (such as foundation requirements). It should be noted that this is an integrated investigation and these two main aspects are related, unless otherwise specified within the report.

Phase I reports are written in general accordance with the description of a Preliminary Investigation as defined in BS10175:2011+A2:2017 and are also produced in general accordance with the recommendations for a Tier 1 Preliminary Risk Assessment as described in LCRM guidance.

The first stage of the investigation and assessment of a site is the Preliminary Investigation/Tier 1 Preliminary Risk Assessment, often referred to as a Phase 1 Desk Study, comprising a desk study and walk-over survey and collation of desk-based searches, which culminates in the Preliminary Risk Assessment and the development of a preliminary/initial **Conceptual Site Model (CSM)**. From this are identified any potential geotechnical and geo-environmental hazards and the qualitative degree of risk associated with them. In the case of the geotechnical hazard identification, this is referred to as the **Ground Model.**

From the geo-environmental perspective, the hazard Identification process uses professional judgement to evaluate all the hazards in terms of possible contaminant linkages (of source-pathway-receptor). Possible contaminant linkages are potentially unacceptable risks in terms of the current contaminated land regime legal framework and require either remediation or further assessment. These are normally addressed via intrusive ground investigation and generic risk assessment as part of Phase II investigations and reports.

The second stage is the Ground Investigation, Generic Risk Assessment and Geotechnical Interpretation. This represents the further assessment mentioned above. The Ground Investigation comprises field work and laboratory testing based on the findings of the Preliminary Risk Assessment, to reduce uncertainty in the geotechnical and geo-environmental hazard identification. This may include an exploratory, a detailed or/and supplementary Investigations as described in BS 10175:2011+A2:2017. Phase II Assessments are produced in general accordance with the recommendations for a Tier 2 Generic Quantitative Risk Assessment as described in LCRM guidance and are also intended to fulfil the requirements of a Ground Investigation Report (GIR) as detailed in BS EN 1997-2:2007.

Contaminated Land - Legislative Background

Land contamination can be addressed in several ways, e.g. during planning, under Part 2A, following an incident, during an investigation into environmental damages, or during the application of an environmental permit, or its surrender.

For the planning process the key test is **as a minimum the site cannot be determined as contaminated land**, e.g. there is not significant harm, significant possibility of significant harm to human health or that there is not significant harm to, or the significant possibility that the pollution of controlled waters will occur.

Environmental liabilities and risks have been evaluated in terms of a source -pathway - target relationship in accordance with the approach set out in:

- The 1995 Environment Act.
- The Contaminated Land Statutory Guidance, DEFRA – April 2012.
- The Contaminated Land (England) Regulations 2006.
- The Contaminated Land (England) Amendment Regulations 2012.
- Water Resources Act.
- Water Framework Directive.
- Environmental Damage Regulations.
- Environment Agency (EA) - Land Contamination Risk Management (LCRM) 2019.

Contaminated land is defined within the legislative framework as land which is in such condition by reason of substances in, on or under the land that:

1) Significant harm is being caused or there is a significant possibility of such harm being caused.
2) Significant pollution of controlled waters is being or is likely to be caused.

The potential for harm is based on the presence of three factors:

Source - substances that are potential contaminants or pollutants that may cause harm.
Pathway - a potential route by which contaminants can move from the source to the receptor, and the impact of that migration on the source e.g., attenuation.
Receptor - a receptor that may be harmed, for example the water environment, humans and water, considering the sensitivity of the receptor.

Where a source, pathway and target are all present a pollutant linkage exists and there is potential for harm to be caused.



Where any one of the “pollution linkages” between the above is absent there is deemed to be no risk.

The presence of a source does not automatically imply that a contamination problem exists, since contamination must be defined in terms of pollutant linkages and unacceptable risk of harm. The nature and importance of both pathways and receptors are site specific and will vary according to the intended end use of the site, its characteristics and its surroundings.

The key principle which supports the S-P-R approach is ‘suitable for use’ criteria. This requires remedial action only where contamination is considered to pose unacceptable actual or potential risks to health or the environment and, taking into account the proposed use of the site.

Relevant Guidance Documents
This report has been prepared in accordance with the list of guidance below, however the list is not exhaustive:

- DETR: Circular 02/2000: Environmental Protection Act 1990: Part IIA: Contaminated land. 2012.
- Environment Agency technical advice to third parties on Pollution of Controlled Waters for Part IIA of the EPA1990, May 2002.
- BS 10175:2011+A2:2017.
- Environment Agency (EA) - Land Contamination Risk Management (LCRM). 2019.
- Groundwater Protection https://www.gov.uk/government/collections/groundwater-protection
- UK Technical Advisory Group (UKTAG) - - Water Framework Directive
- Incidents and their classification: the Common Incident Classification Scheme (CICS) – Used by the Environment Agency to classify pollution incidents.

Relevant Legislative Documents
The following is a non-exhaustive list of legislative framework documents that has been considered in the production of this report:

- The Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance (2012).
- The Environment Protection Act (1990).
- The Water Resources Act (1991).
- The Environment Act (1995).
- The Contaminated Land (England) Act (2000).
- The Pollution Prevention and Control (England and Wales) Regulations (2000).
- The Landfill Regulations (England and Wales) Regulations (2002).
- The Landfill (England and Wales) (Amendment) Regulations (2004).
- Contaminated Land (England) Regulations (2012).
- The Environmental Damage (Prevention and Remediation) Regulations (2009).
- Environmental Permitting Regulations (England and Wales) Regulations (2010).
- The Water Environment (Water Framework Directive) (England and Wales) Regulations (2017).
- Health and Safety at Work Act.
- National Planning Policy Framework (NPPF) – latest version.

Contaminated Land Risk Assessment Approach

Contaminated Land Risk Assessment is a technique that identifies and considers the associated risk, determines whether the risks are significant and whether action needs to be taken. The four main stages of risk assessment are:



LCRM outlines the framework to be followed for risk assessment in the UK. The framework is designed to be consistent with UK legislation and policies including planning. The starting point of the risk assessment is to identify the context of the problem and the objectives of the process. Under LCRM, three tiers of risk assessment exist – Stage/Tier Preliminary Risk Assessment, Stage 2 Generic Quantitative Assessment and Stage 3 Detailed Quantitative Assessment.

Further information can be found at the below site:
https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm

Formulating and developing a conceptual model for the site is an important requirement of risk assessment, this supports the identification and assessment of pollutant linkages. Development of the conceptual model forms the main part of preliminary risk assessment, and the model is subsequently refined or revised as more information and understanding is obtained through the risk assessment process.

Risk is a combination of the likelihood of an event occurring and the magnitude of its consequences. Therefore, both the likelihood and the consequences of an event must be taken into account when assessing risk.

The risk assessment process needs to take into account the degree of confidence required in decisions. Identification of uncertainties is an essential step in risk assessment.

The likelihood of an event is classified on a four-point system using the following terms and definitions from CIRIA C552, with reference to Incidents and their classification: the Common Incident Classification Scheme (CICS), Environmental Protection Act 1990: Part 2A – Contaminated Land Statutory Guidance 2012 and other guidance as appropriate which will be detailed within the main body of the report if applied.

The likelihood of a given receptor being impacted is related to a number of factors, e.g. the geology which could inhibit contaminant migration. For example, a site with a significant thickness of clay between it and a receptor may reduce migration of contamination via the subsurface, which will reduce the likelihood of a given receptor being impacted. The geology or drainage for example could offer a preferential pathway e.g. mines shafts/faults increasing the likelihood and potential magnitude of an impact. The depth of contamination will also affect the exposure pathway, for example petroleum hydrocarbons at depth are unlikely to reach a receptor via dermal contact but could via vapour pathways which will influence the likelihood of an impact being felt e.g. if there are no buildings on site.

The terms and definitions used for the assessment of the likelihood are provided below:

High likelihood: There is a pollution linkage and an event 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.
Examples - Extensive areas with concentrations above saturation limits for mobile contamination e.g. petroleum hydrocarbons within the water table.

Likely: There is a pollution linkage and all the elements are present and in the right place, which means it is probable that an event will occur. Circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term.
Examples – Localised areas of contaminants with concentrations above saturation limits for mobile contamination e.g. localised petroleum hydrocarbons within the water table; shallow contamination above relevant human health generic assessment criteria is present with little or no hardstanding,

Low likelihood: There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain even over a longer period such event would take place, and is less likely in the short term.
Examples - A thickness/distance of low permeability deposits preventing contaminant migration to a receptor is present; a site is mostly covered hard standing preventing exposure to soil contamination.

Unlikely: There is a pollution linkage but circumstances are such that it is improbable the event would occur even in the long term.
Examples – A site is underlain by a substantial thickness of low permeability clays, between the source and potential receptors which will inhibit significantly, but not completely rule out migration to sensitive receptors.

The severity is also classified using a system based on CIRIA C552, with reference to Incidents and their classification: the Common Incident Classification Scheme (CICS), Environmental Protection Act 1990: Part 2A – Contaminated Land Statutory Guidance 2012 and other guidance as appropriate which will be detailed within the main body of the report, if applied. The terms and definitions are:

Severe: Short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. A short-term risk to a particular ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000);
Examples – High concentrations of contaminant on surface of recreation area, major spillage of contaminants from site into controlled waters, explosion causing building to collapse.

Medium: Chronic damage to human health ('significant harm' as defined in DETR 2000). Pollution of sensitive water resources. A significant change in a particular ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000);
Examples - Concentrations of contaminants exceed the generic assessment criteria, leaching of contaminants from a site to a Principal or Secondary Aquifer, death of species within a designated nature reserve.

Mild: Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures, services or the environment.
Examples – Pollution of non-classified groundwater or damage to buildings rendering it unsafe to occupy.

Minor: harm, not necessarily significant harm, which may result in financial loss or expenditure to resolve. Non-permanent health effects to human health (easily prevented by use of personal protective clothing etc). Easily repairable effects of damage to buildings, structures and services.
Examples – Presence of contaminants at such concentrations PPE is required during site work, loss of plants in landscaping scheme or discolouration of concrete.

Once the likelihood and severity have been determined, a risk category can be assigned using the table below.

		Consequences			
		Severe	Medium	Mild	Minor
Probability	Highly likely	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
	Negligible	Negligible Risk / No Linkage			

Definitions of the risk categories obtained from the above table are as follows together with an assessment of the further work that might be required:

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 is currently happening. This risk, if realised, could result in substantial liability. Urgent investigation 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 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 any such harm would be severe, or if any harm were to occur it would be more likely to be relatively mild. Investigation is normally required to clarify the risk and determine the 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.

Some linkages may be identified which constitutes a theoretical connection between a source and a receptor, but professional judgement shows them not to be possible for some reason. These are labelled 'negligible risk' and 'no linkage' in the summary table, which give rise to an overall **negligible** risk category and no further action is required.

Ground Gas Risk Assessment

BS8485:2015+A1:2019, BS 8576:2013, CL:AIRE RB17, and NHBC 'Hazardous Ground Gas - An essential guide for housebuilders' 2023, are the current guidance which gives up-to-date advice on all aspects of permanent ground gas risk. BS8576 alongside CIRIA C682 also provides guidance on assessment of hydrocarbon vapour intrusion.

The CL:AIRE publication 'Good Practice for Coal Mine Gas Emissions" 2021 provides guidance on the assessment of risks from mine gas sources.

The above all outline good practice in investigation, the collection of relevant data and monitoring programmes in a risk-based approach to ground gas contamination. The aim of the guidance is for a consistent approach to decision making, particularly relating to the scope of protective design measures on a site-specific basis.

Legislative Framework
BS8485:2015+A1:2019, BS 8576:2013 and CIRIA C665 provides technical guidance, however they also recognise the context into which the guidance has to be employed. Government policy is based upon a "suitable for use approach", which is relevant to both the current and proposed future use of land. When considering the current use of land, Part IIA of the Environment Protection Act 1990 provides the regulatory regime. The presence of hazardous ground gases could provide the "source" in a "pollutant linkage" which could lead the regulator to determine that considerable harm or there is a significant possibility of such harm being caused. Under such circumstances, the regulator would determine the land to be "contaminated land" under the provisions of the Act, setting out the process of remediation as described in the DETR Circular 02/2000 *Statutory guidance on contaminated land*.

Generation Potential of Sources
BS 8576:2013 Figure 6 provides a basis for assessing the generation potential from sources identified as part of the Phase I Assessment. These are summarised below:

Generation Potential	Typical Sources
Very Low	• Natural carbonate soil and strata, e.g. chalk and limestone. • Natural soil strata with a low degradable organic content, e.g. alluvium, peat. • In-filled pond less than 15 m diameter, in-filled before 1930s to 1940s. • Made ground with low degradable organic content (e.g. up to 5% organic material such as pieces of wood, pieces of paper, rags, etc. with a high proportion of ash and no food or other easily degradable waste). • Mine workings shallow or shaft (where there is clear evidence that they are flooded). • Inert landfill sites.
Low	• Natural soil strata with a high degradable organic content (DOC). • Made ground with total organic carbon (TOC) up to 6% (e.g. dock silt, no food or other easily degradable waste). • Foundry sand (includes phenolic binders, rags and wood that decay, albeit at low rates). • Landfill 1945 to mid 1960s (see also Moderate below).
Moderate	• Sewage sludge. • Mine workings – unflooded, more than 50 years since last worked (gas is liberated from coal when mine workings are excavated; this continues for up to about 50 years). • Landfill 1945 to mid 1960s (this could also be "low" or, if disturbed, "high").
High	• Landfill mid 1960s to early 1990s. • Mine workings – unflooded – less than 50 years since last worked.
Very High	• Municipal landfill sites. • Landfill early 1990s onward.

Frequency and Duration of Monitoring

BS8576 notes to determine where and how to monitor ground gases requires consideration of credible pathways of possible exposure of the receptors, taking into account what is known about the geology and hydrogeology, building construction and services layout, foreseeable events such as flooding, changes in groundwater level, climate change, extreme weather conditions, the closure of mines, and possible changes to the gas regime caused by future development.

The monitoring period for a specific site should cover the "worst case" scenario. A "worst case" scenario will typically occur during falling atmospheric pressure and, in particular, weather conditions such as rainfall, frost and dry weather.

The benefits of additional information and whether it is likely to change the scope of gas protection should be considered, as are the consequences of failing to characterise adequately pollutant linkages. Investigations concerned with ground gas are required to provide monitoring data sufficient to allow prediction of worst case conditions enabling the confident assessment of risk and subsequent design of appropriate gas protection schemes. Monitoring programmes should not be an academic exercise in data collection. CL:AIRE publication TB17 "Ground Gas Monitoring and 'Worst-Case' Conditions" provides further guidance.

Below are matrices that will aid in determining an appropriate number of gas monitoring visits and the length of monitoring period.

Typical/idealised periods of monitoring

		Generation of Potential Source				
		Very Low	Low	Moderate	High	Very High
Sensitivity of Development	Low (Commercial)	1 month	2 months	3 months	6 months	12 months
	Moderate (Apartments)	2 months	3 months	6 months	12 months	24 months
	High (Low rise Residential)	3 months	6 months	6 months	12 months	24 months

Typical/idealised frequency of monitoring/Number of Visits Required

		Gas Generation of Potential Source				
		Very Low	Low	Moderate	High	Very High
Sensitivity of Development	Low (Commercial)	4	6	6	12	12
	Moderate (Apartments)	6	6	9	12	24
	High (Low rise Residential)	6	9	12	24	24

Notes

1 Generation potential of sources based on descriptions within BS 8576:2013.

2 At least two sets of readings should be at low and falling atmospheric pressure (but not restricted to periods below <1000 mb) known as worst case conditions. Historical data can be used as part of the data set (Table 5.5b).

RB17 Approach

CL:AIRE RB17 (Card et al 2012) is a pragmatic approach to ground gas risk assessment and was developed because gas concentration, pressure and flow rate measured in a well headspace may not be representative of the conditions in the surrounding formation.

In these low-risk situations, the approach is to use the conceptual site model and the estimation of the likely gas generation from a source to identify where or if gas monitoring is required to better define the risks.

Under this approach, for sites with natural soils only with no credible methane source, then no action is required (no monitoring or gas protection measures) as this represents Characteristic Situation 1 (CS1).

Radon
Advice on radon protection in England is provided by the UK Health Security Agency, https://www.ukradon.org/information/ukmaps and by the BRE (BR 211 (Scivyer 2023)).

Areas of the country can be categorised according to the percentage of existing homes where radon is present above the Action Level:

- 0-1% lower probability.
- 1-3% and 3-10% intermediate probability.
- >10% higher probability.

Basic radon protection measures are required in new buildings and extensions in areas of England and Wales where 3-10% of properties exceed the Action Level and full radon protection measures where >10% exceed the Action Level.

Unexploded Ordnance (UXO) Guidance

Clients have a legal duty under the CDM 2015 Regulations to provide designers and contractors with project-specific health and safety information needed to identify hazards and risks. This includes the possibility of unexploded ordnance (UXO) being encountered on the site. Further details are given in CIRIA report C681.

BSL carry out non-specialist UXO screening exercises by considering any evidence of UK defence activities on or near the site evident from gathered desk study information and the unexploded aerial delivered bomb (UXB) online risk maps produced by Zetica. Other data sources are available, but as a first stage screening exercise the freely available online Zetica maps have been used. The level of risk stated is that determined by Zetica, a company experienced and considered competent in the assessment of UXO.

Geotechnical Guidance

A preliminary risk assessment of geotechnical hazards is carried out at the desk study stage and confirmed (or amended) at the ground investigation stage. The desk-based stage my include the requirements for a Coal Mining Risk Assessment (CMRA) which specifically assesses the risks from mining induced instability and related issues in high risk development areas: https://www.gov.uk/guidance/planning-applications-coal-mining-risk-assessments

APPENDIX B

Historical Maps



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Site Details:

CAR PARK JUNCTION GREAT BRIDGEWATER STREET,
ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

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
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Levelled N/A

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Production date: 17 February 2020

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



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Site Details:

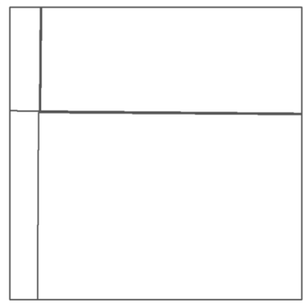
CAR PARK JUNCTION GREAT
BRIDGEWATER STREET,
ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: County Series Town Plan
Map date: **1891**
Scale: 1:500
Printed at: 1:1,000

N
W E
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Surveyed 1891
Revised N/A
Edition N/A
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GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Site Details:

CAR PARK JUNCTION GREAT
BRIDGEWATER STREET,
ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: County Series

Map date: **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

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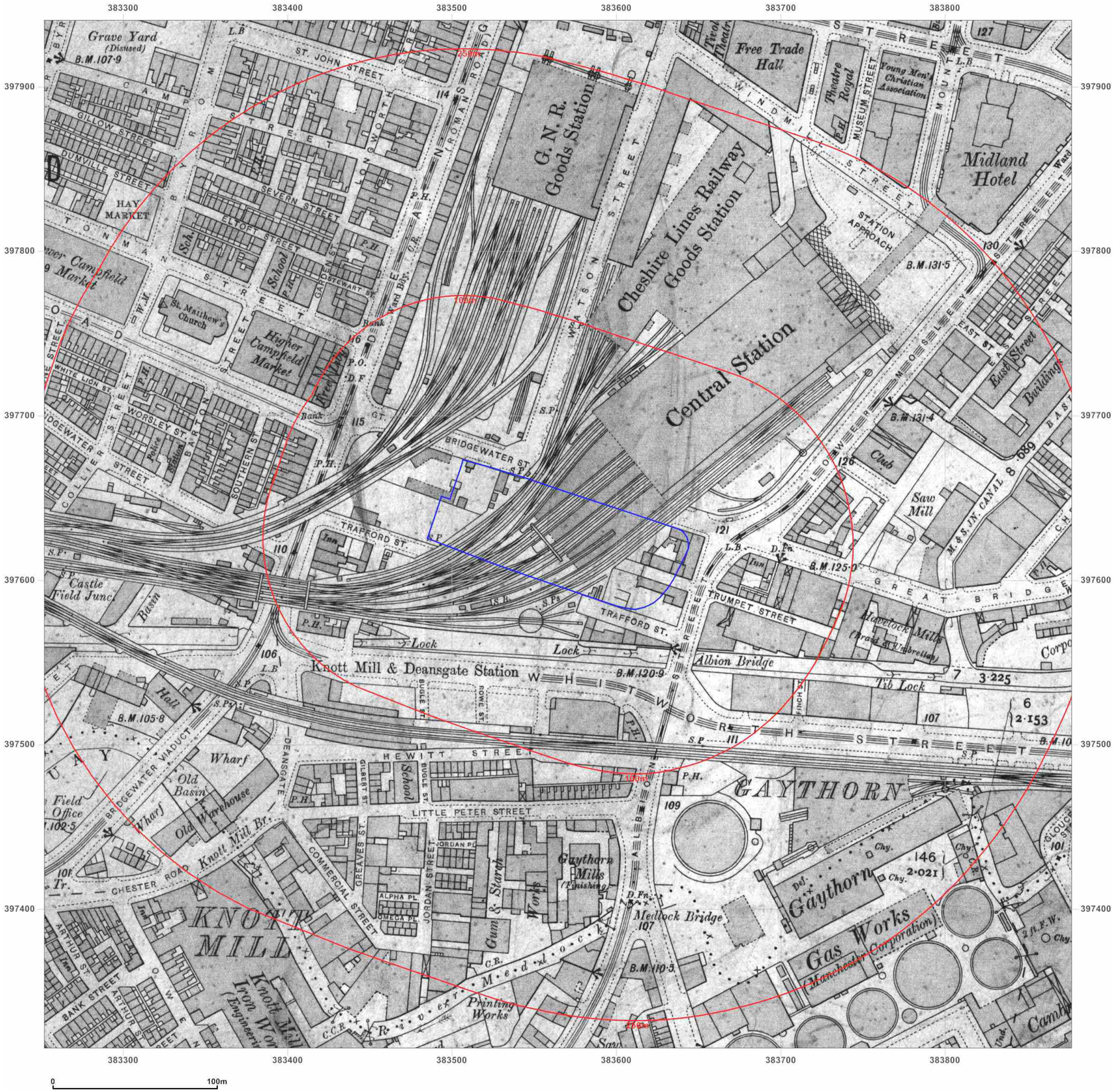
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Site Details:

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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: County Series

Map date: **1908**

Scale: 1:2,500

Printed at: 1:2,500

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

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Site Details:

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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: County Series

Map date: **1922**

Scale: 1:2,500

Printed at: 1:2,500

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

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Site Details:

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Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: County Series

Map date: 1932

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1873
Revised 1932
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MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1948**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1948
Revised 1948
Edition N/A
Copyright 1949
Levelled 1927

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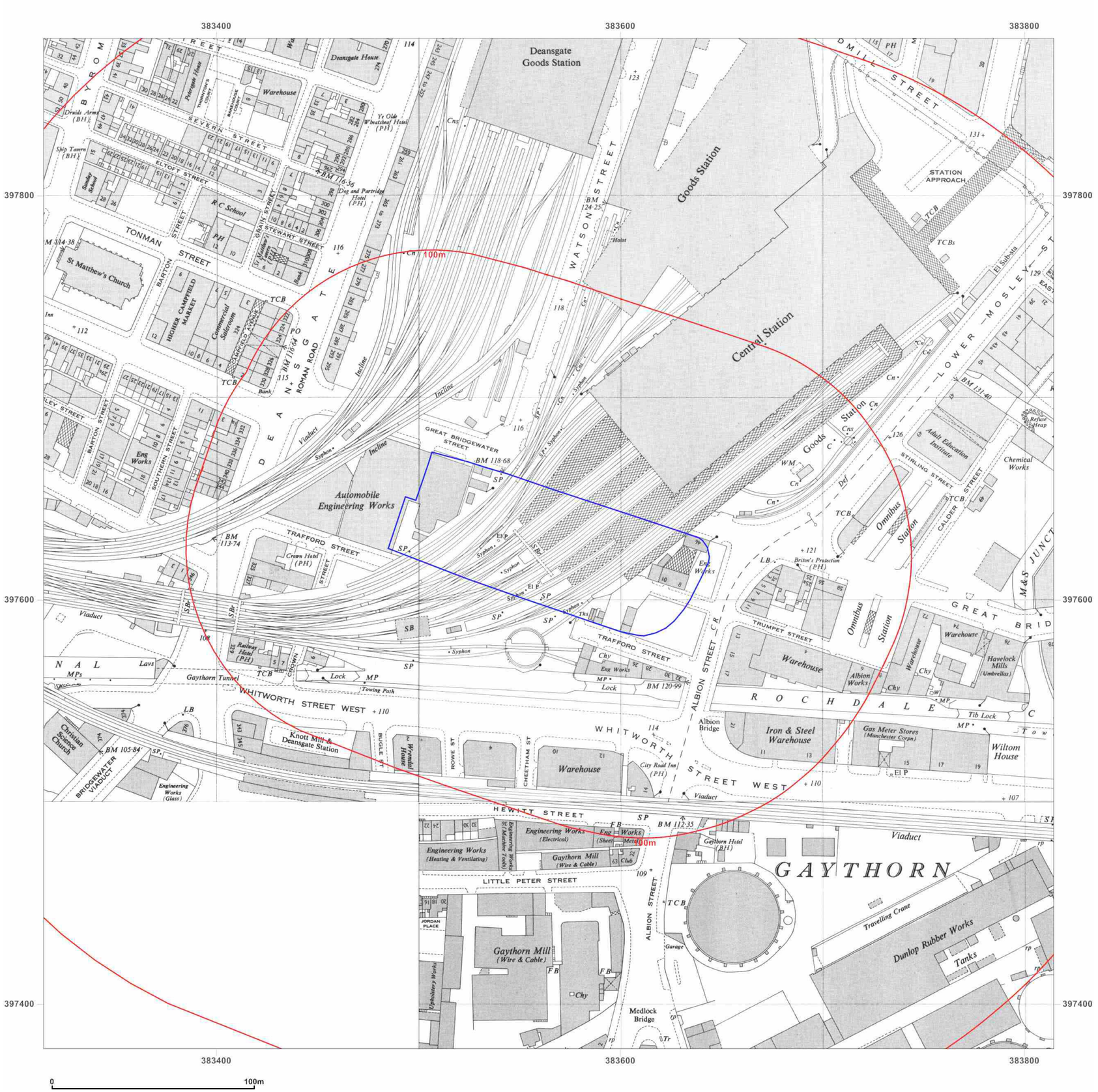
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Site Details:

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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1948-1953**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1948 Revised 1948 Edition N/A Copyright 1948 Levelled 1927	Surveyed 1948 Revised 1948 Edition N/A Copyright 1948 Levelled 1927
	Surveyed 1948 Revised 1953 Edition N/A Copyright 1953 Levelled 1927

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MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1951-1955**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1948 Revised 1955 Edition N/A Copyright 1955 Levelled 1927		Surveyed 1951 Revised 1951 Edition N/A Copyright 1951 Levelled 1927
Surveyed 1953 Revised 1953 Edition N/A Copyright 1954 Levelled 1927		

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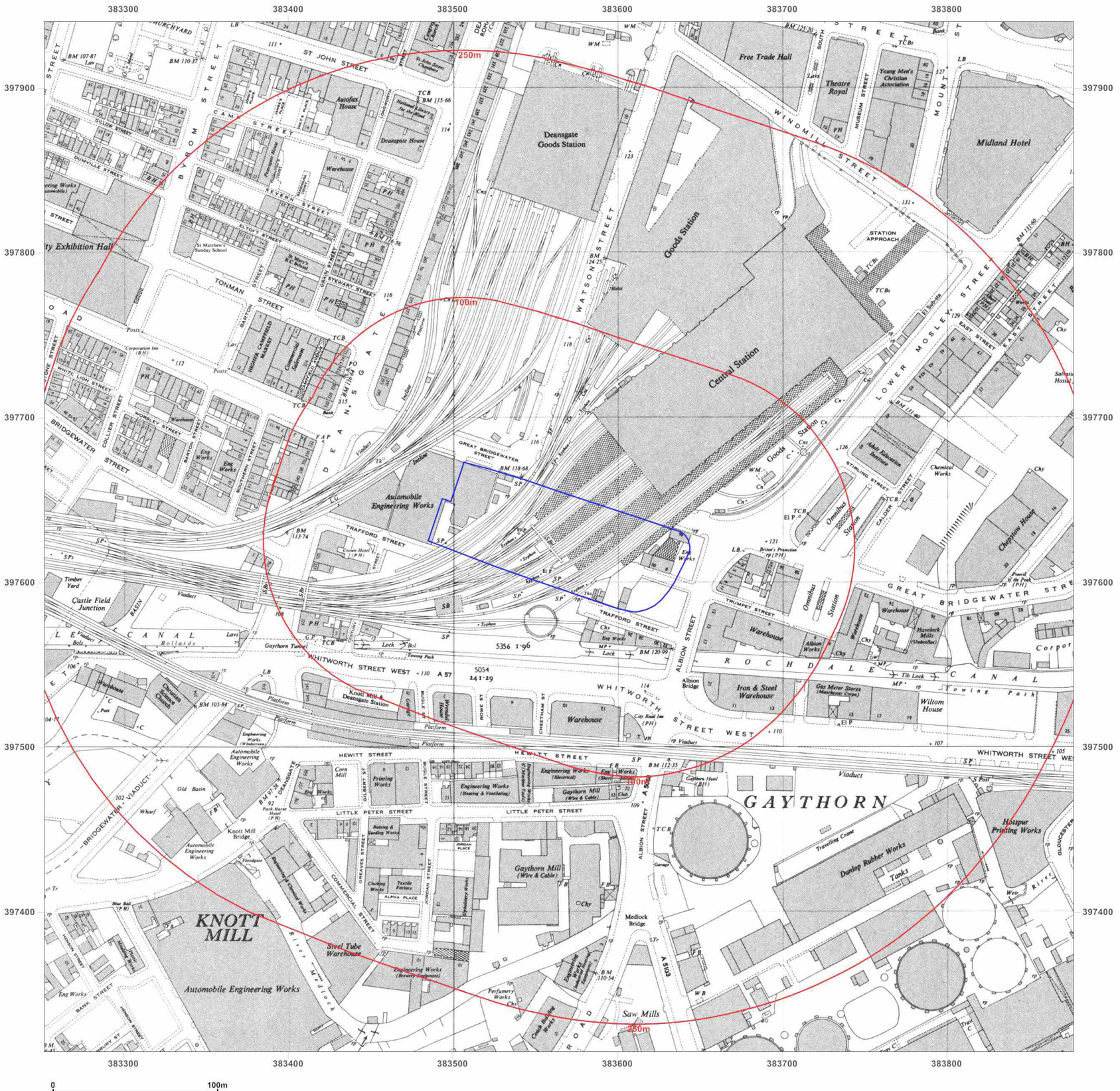
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Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1956**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1953
Revised 1953
Edition N/A
Copyright 1957
Levelled 1927

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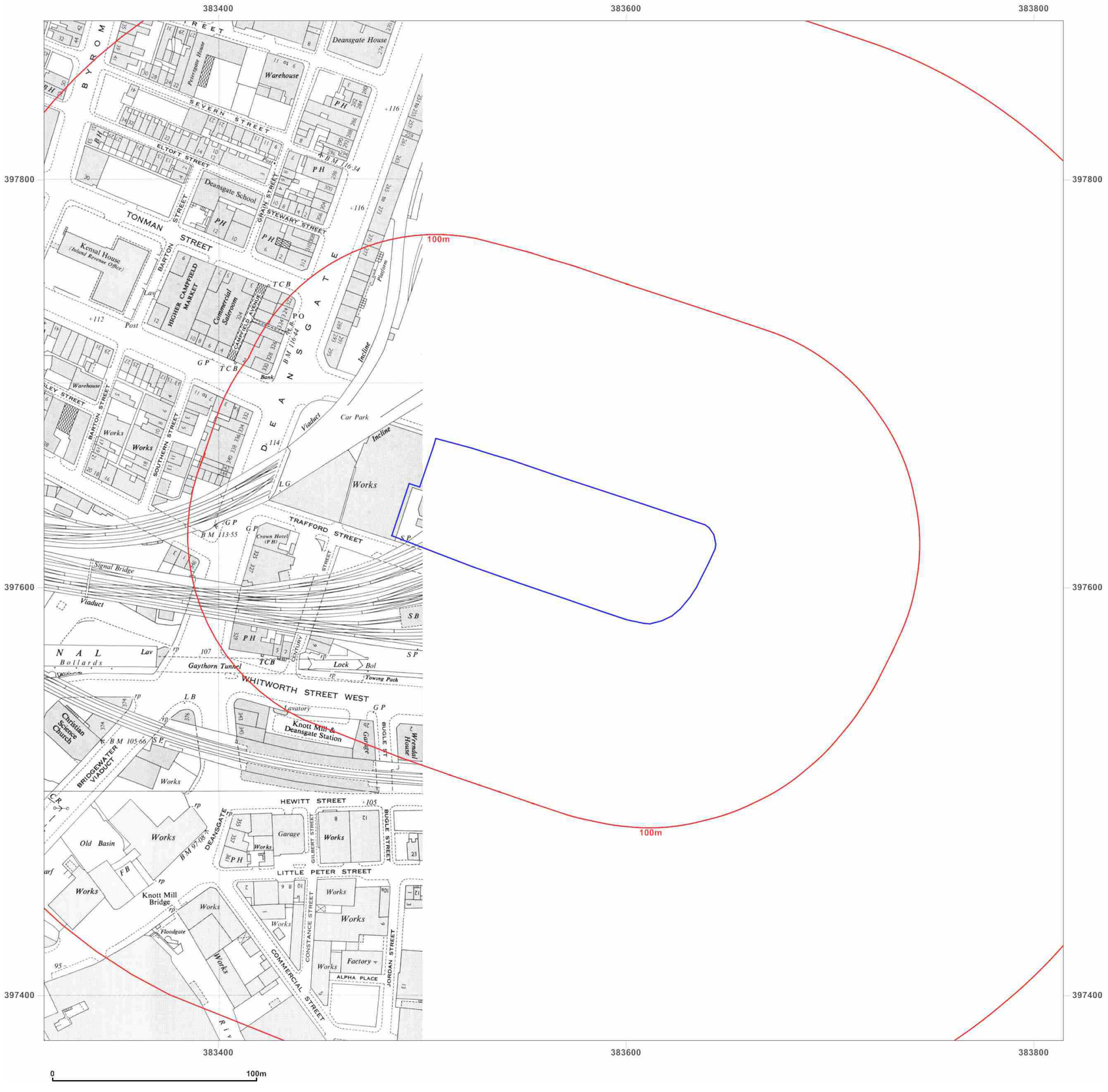
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Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

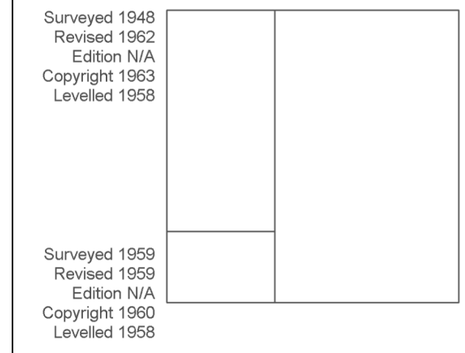
Map Name: National Grid

Map date: **1960-1963**

Scale: 1:1,250

Printed at: 1:2,000

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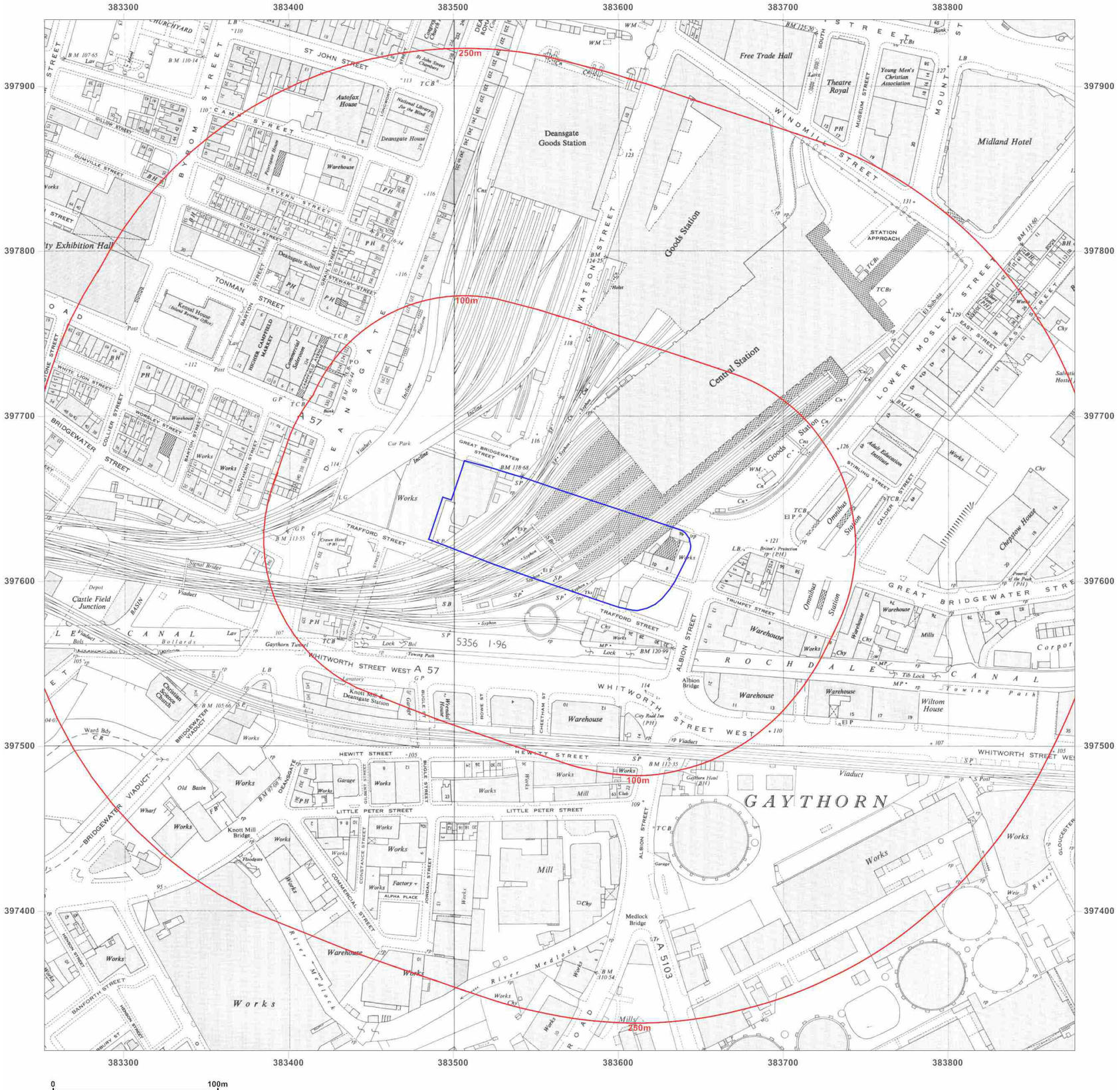
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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1963**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1963
Revised 1963
Edition N/A
Copyright 1965
Levelled 1958

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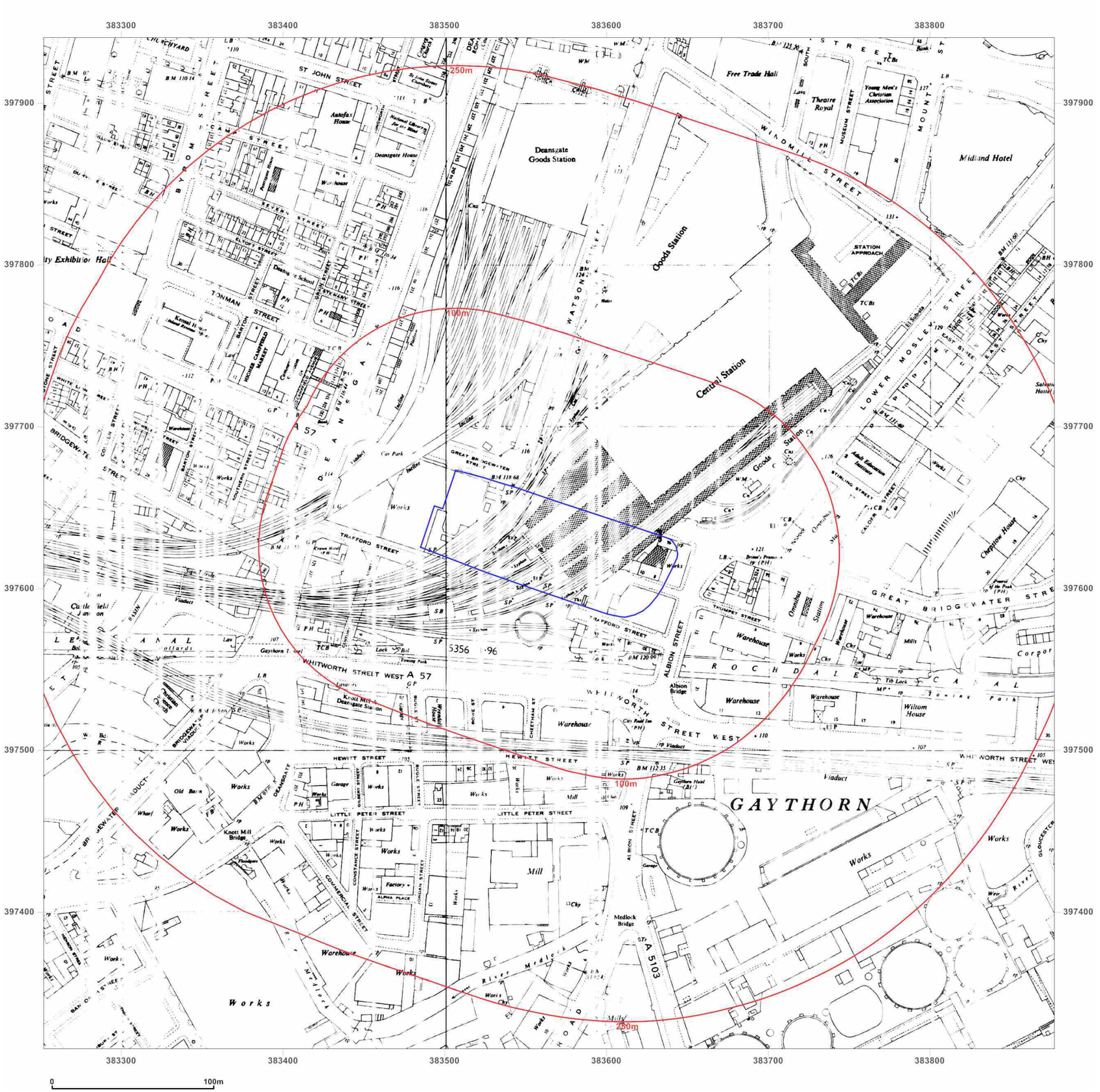
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MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1964**

Scale: 1:2,500

Printed at: 1:2,500

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

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MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1969-1973**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1948 Revised 1968 Edition N/A Copyright 1969 Levelled 1963		Surveyed 1948 Revised 1968 Edition N/A Copyright 1969 Levelled 1963

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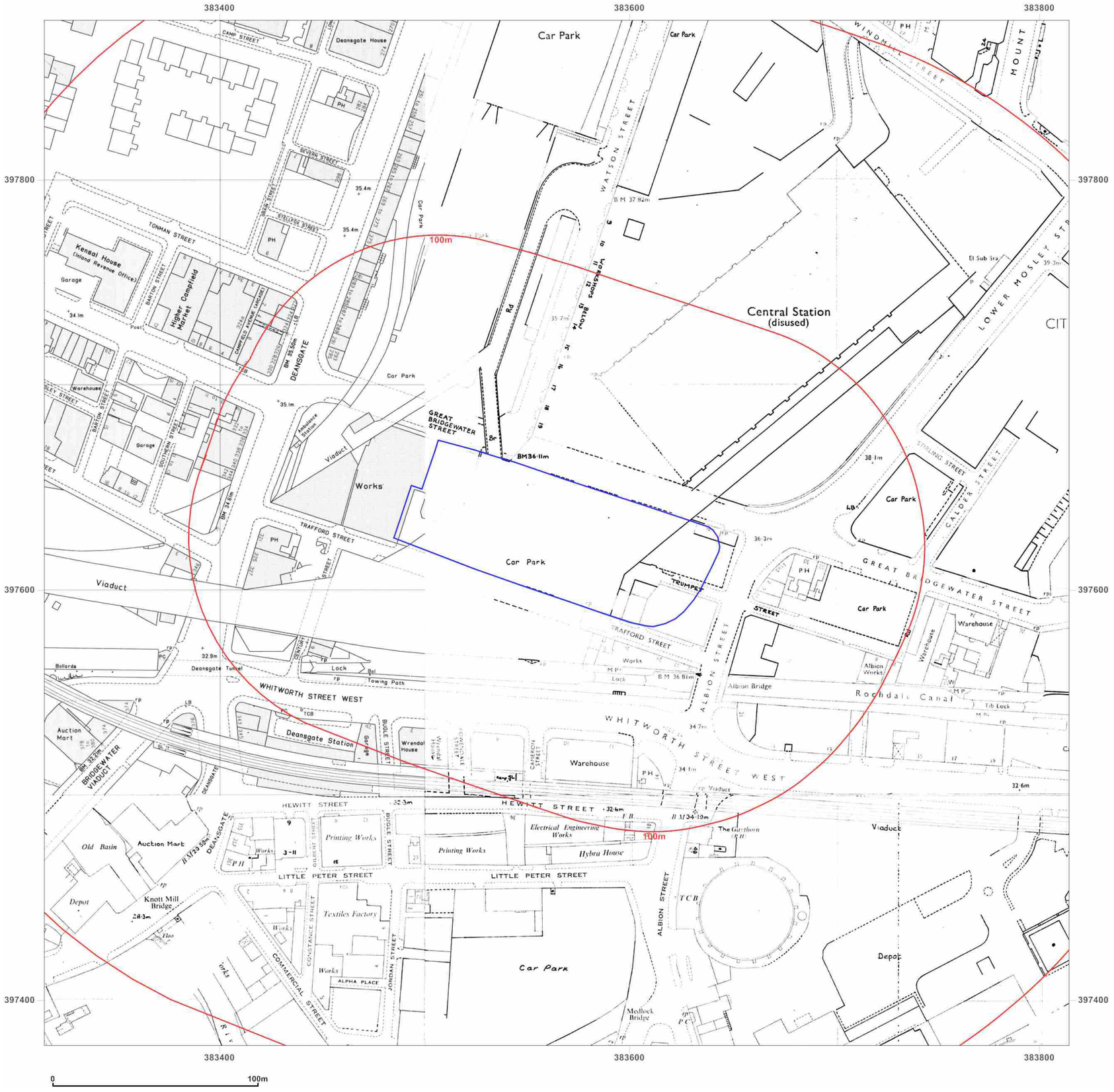
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MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid
Map date: **1980-1985**
Scale: 1:1,250
Printed at: 1:2,000

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Surveyed 1948 Revised 1979 Edition N/A Copyright 1981 Levelled 1963	Surveyed N/A Revised N/A Edition N/A Copyright 1985 Levelled 1963
Surveyed N/A Revised N/A Edition N/A Copyright 1980 Levelled 1963	Surveyed N/A Revised N/A Edition N/A Copyright 1980 Levelled 1963

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MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1986-1990**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1963 Revised 1986 Edition N/A Copyright 1986 Levelled 1963		Surveyed N/A Revised N/A Edition N/A Copyright 1986 Levelled 1963
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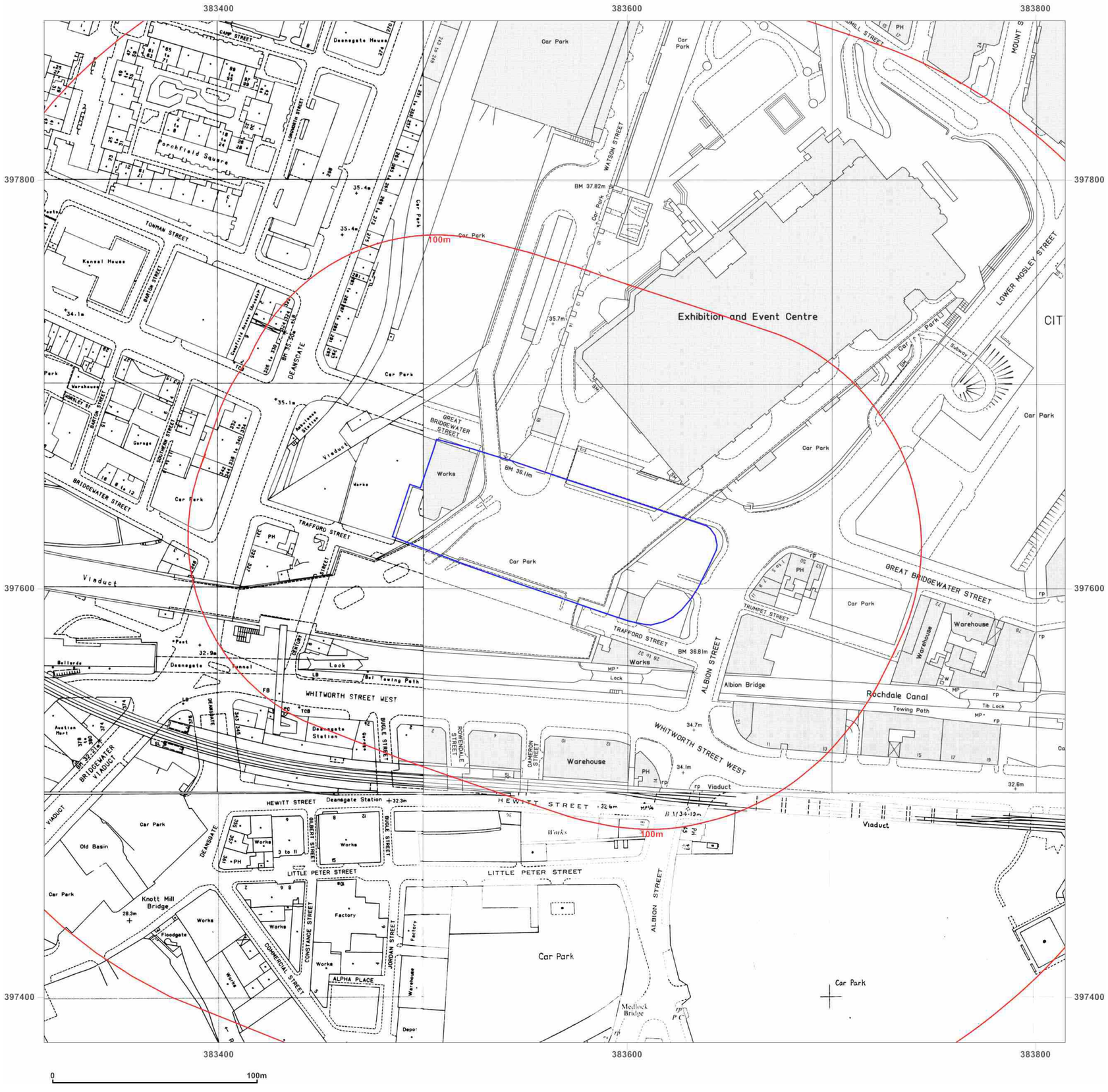
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Site Details:

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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid
Map date: **1987-1992**
Scale: 1:1,250
Printed at: 1:2,000

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Surveyed 1948 Revised 1979 Edition N/A Copyright 1990 Levelled N/A		Surveyed 1948 Revised 1987 Edition N/A Copyright 1988 Levelled 1963
Surveyed 1992 Revised 1992 Edition N/A Copyright 1992 Levelled N/A		Surveyed N/A Revised N/A Edition N/A Copyright 1987 Levelled 1963

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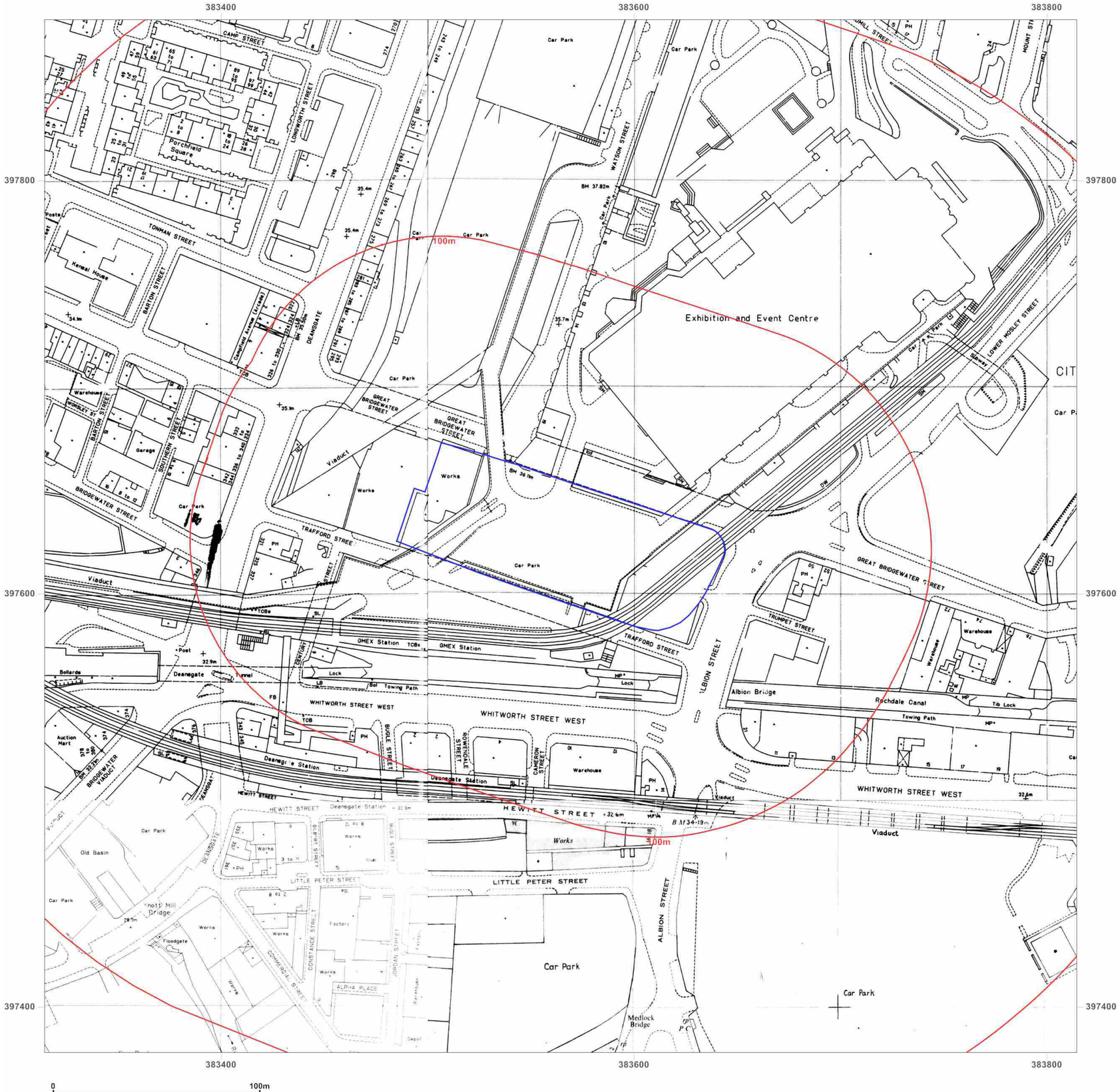
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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1990-1995**

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 1992 Revised 1992 Edition N/A Copyright 1992 Levelled N/A
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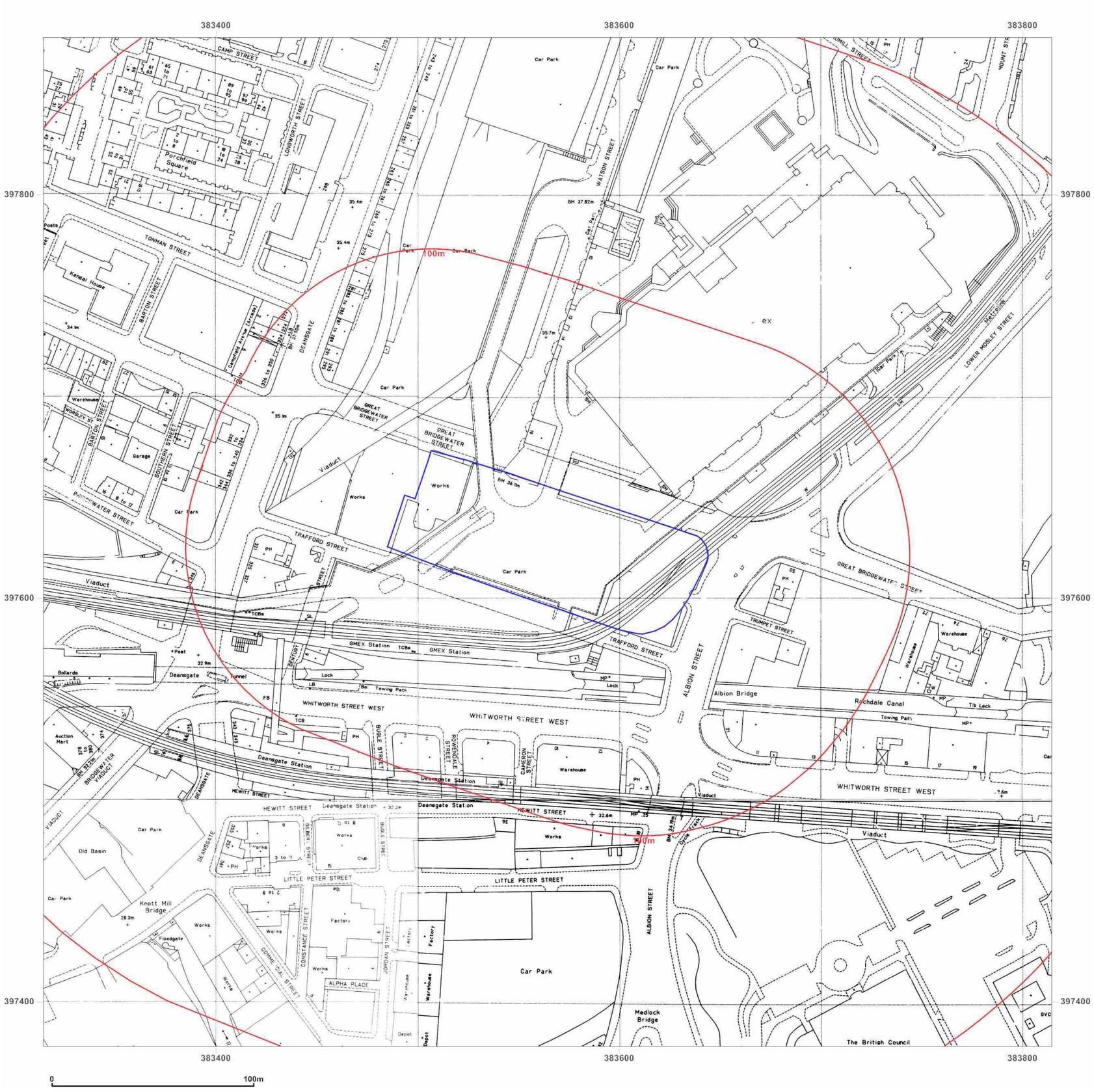
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MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid
Map date: **1992-1995**
Scale: 1:1,250
Printed at: 1:2,000

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Surveyed 1994 Revised 1994 Edition N/A Copyright 1994 Levelled N/A		Surveyed N/A Revised 1994 Edition N/A Copyright 1994 Levelled N/A
Surveyed 1995 Revised 1995 Edition N/A Copyright 1995 Levelled N/A		Surveyed 1992 Revised 1992 Edition N/A Copyright 1992 Levelled N/A

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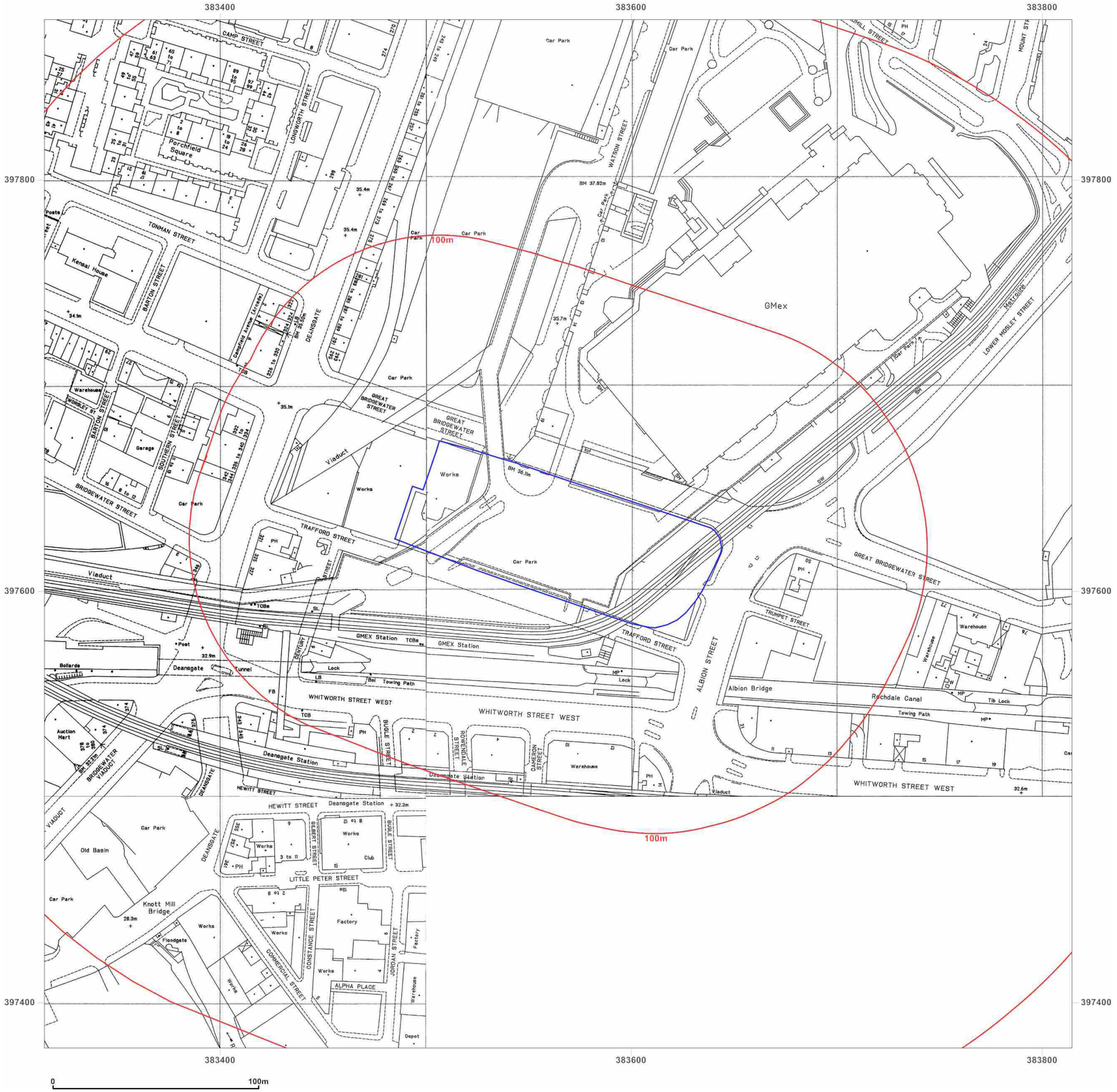
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Site Details:

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MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1994-1995**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1994 Revised 1994 Edition N/A Copyright 1994 Levelled N/A		Surveyed N/A Revised 1994 Edition N/A Copyright 1994 Levelled N/A
Surveyed 1995 Revised 1995 Edition N/A Copyright 1995 Levelled N/A		

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Site Details:

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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid
Map date: **1995**
Scale: 1:1,250
Printed at: 1:2,000

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Surveyed 1995 Revised 1995 Edition N/A Copyright 1995 Levelled N/A		Surveyed N/A Revised 1995 Edition N/A Copyright 1995 Levelled N/A
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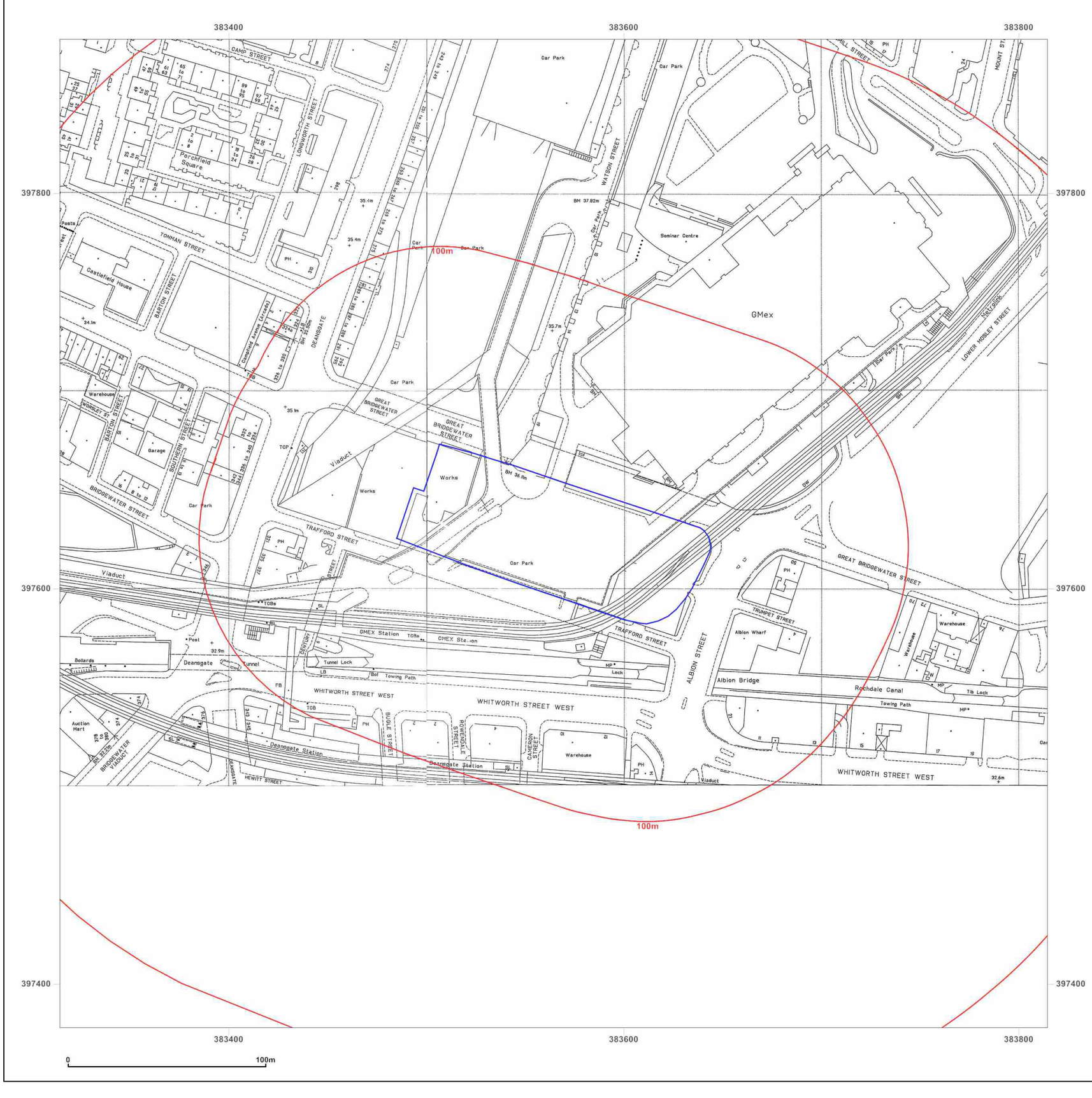
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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1995**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

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

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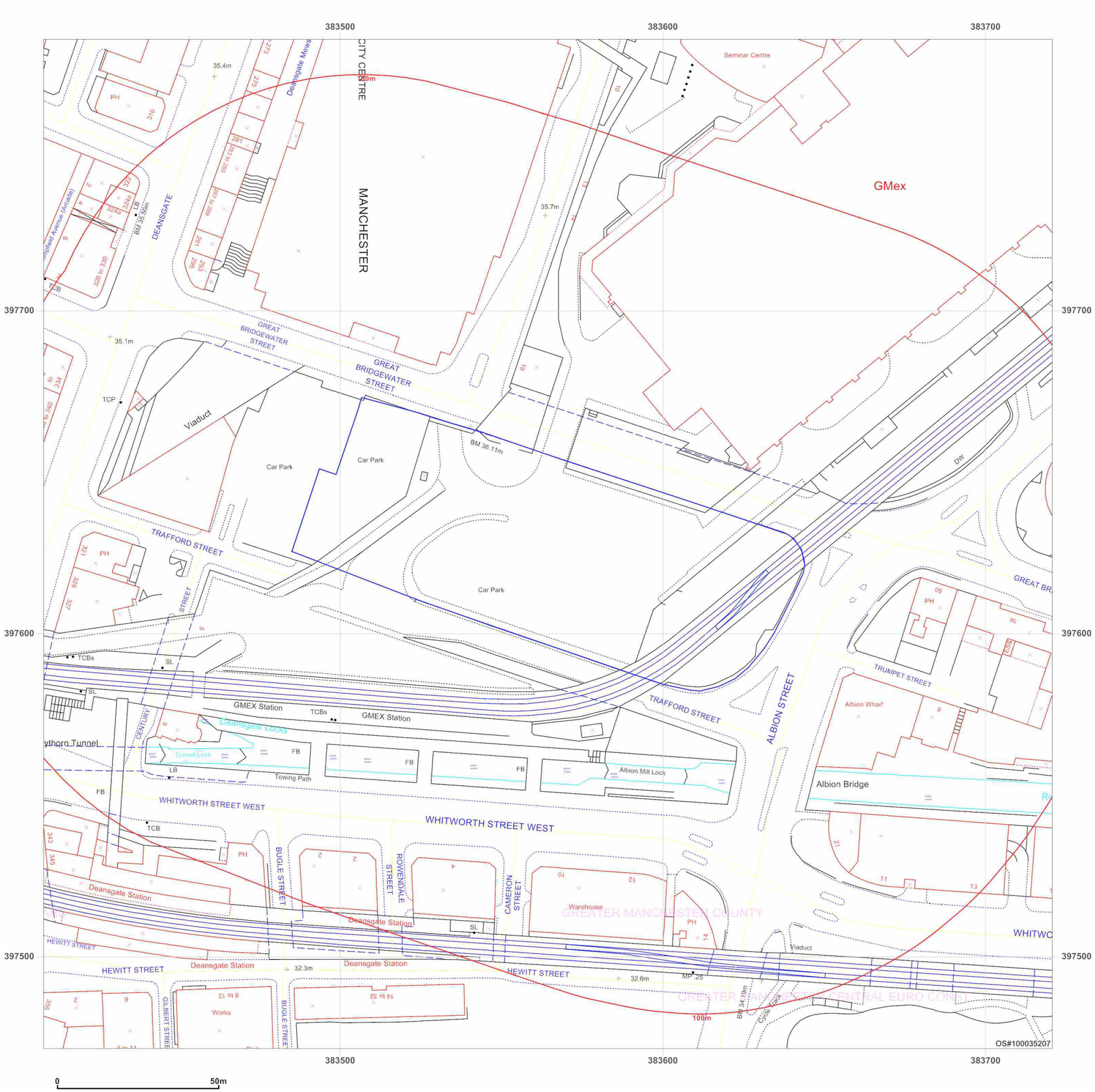
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Production date: 17 February 2020

Map legend available at:
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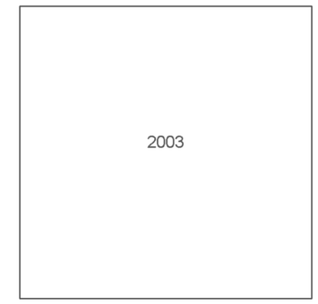
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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

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

N
W E
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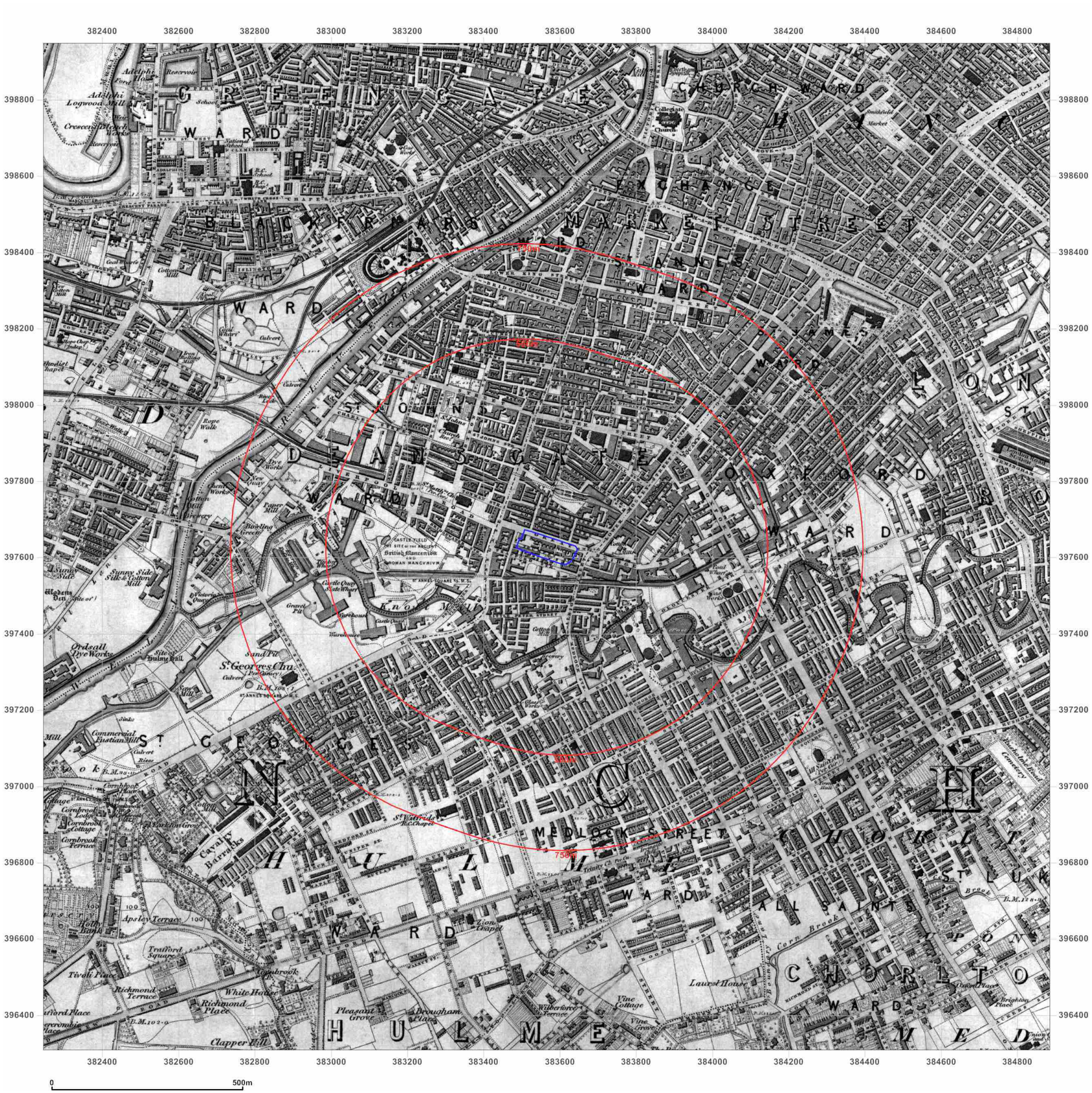
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Site Details:

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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

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

Groundsure INSIGHTS

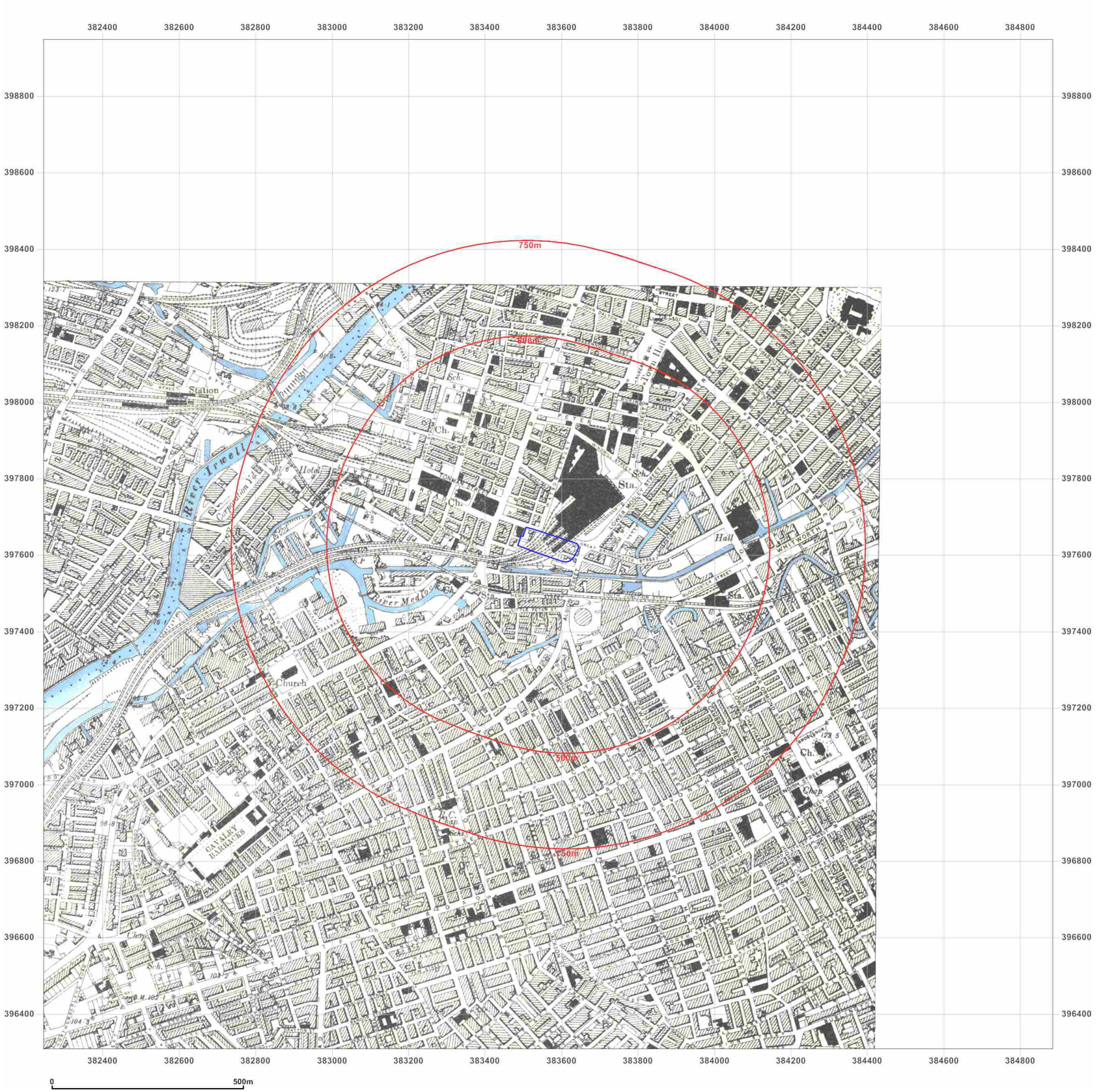
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MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

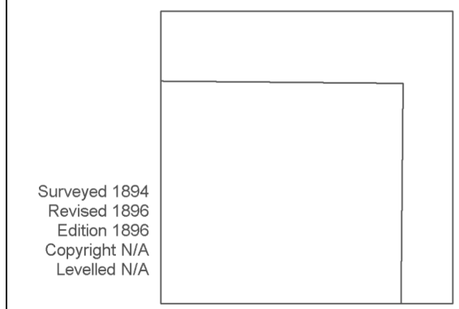
Map Name: County Series

Map date: **1896**

Scale: 1:10,560

Printed at: 1:10,560

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

Groundsure INSIGHTS

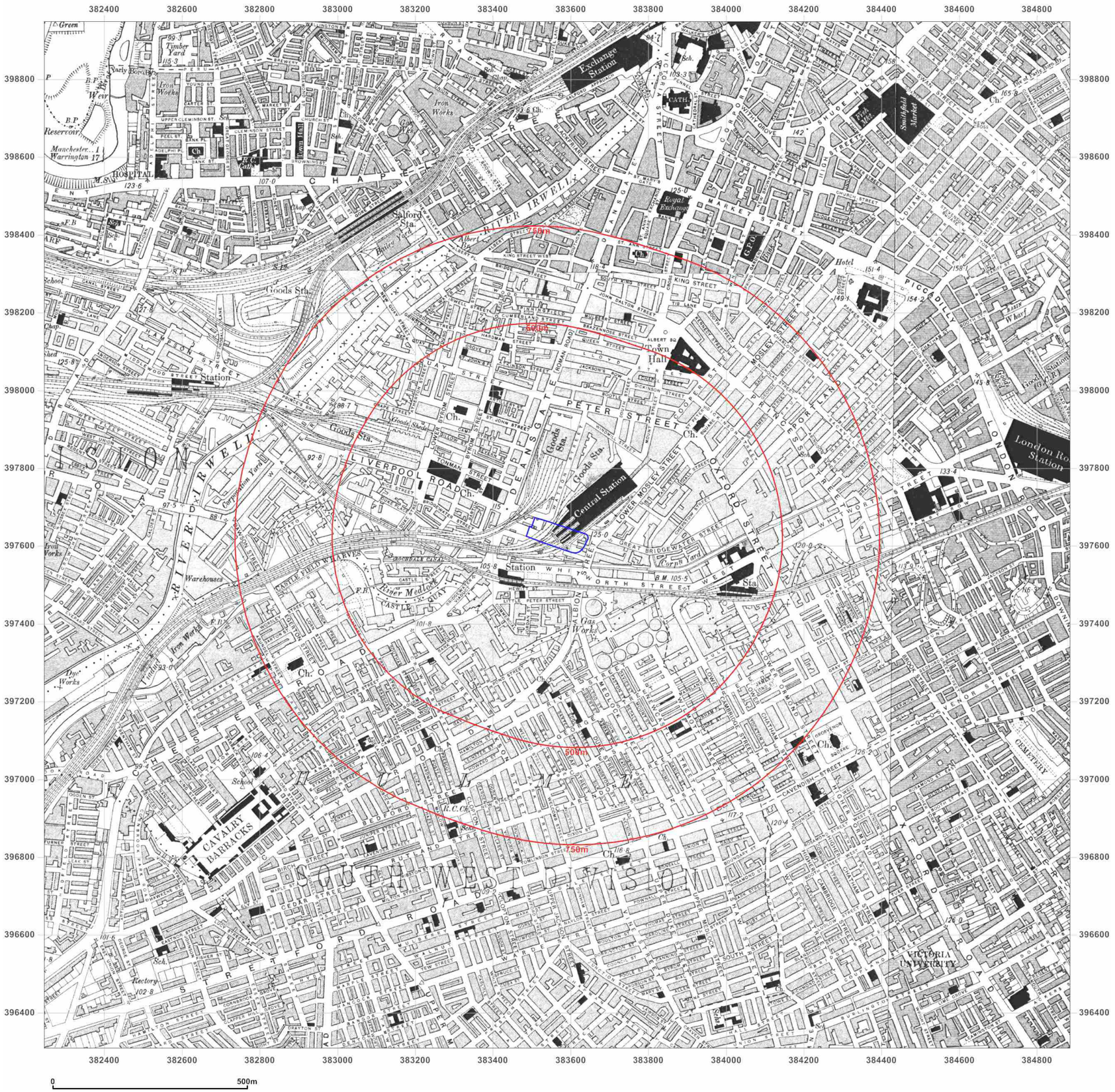
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Sample Data

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Site Details:

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MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: County Series

Map date: **1905-1906**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
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Surveyed 1844
Revised 1906
Edition 1906
Copyright N/A
Levelled N/A

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

Surveyed 1844
Revised 1905
Edition 1905
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1905
Edition 1905
Copyright N/A
Levelled N/A

Groundsure INSIGHTS

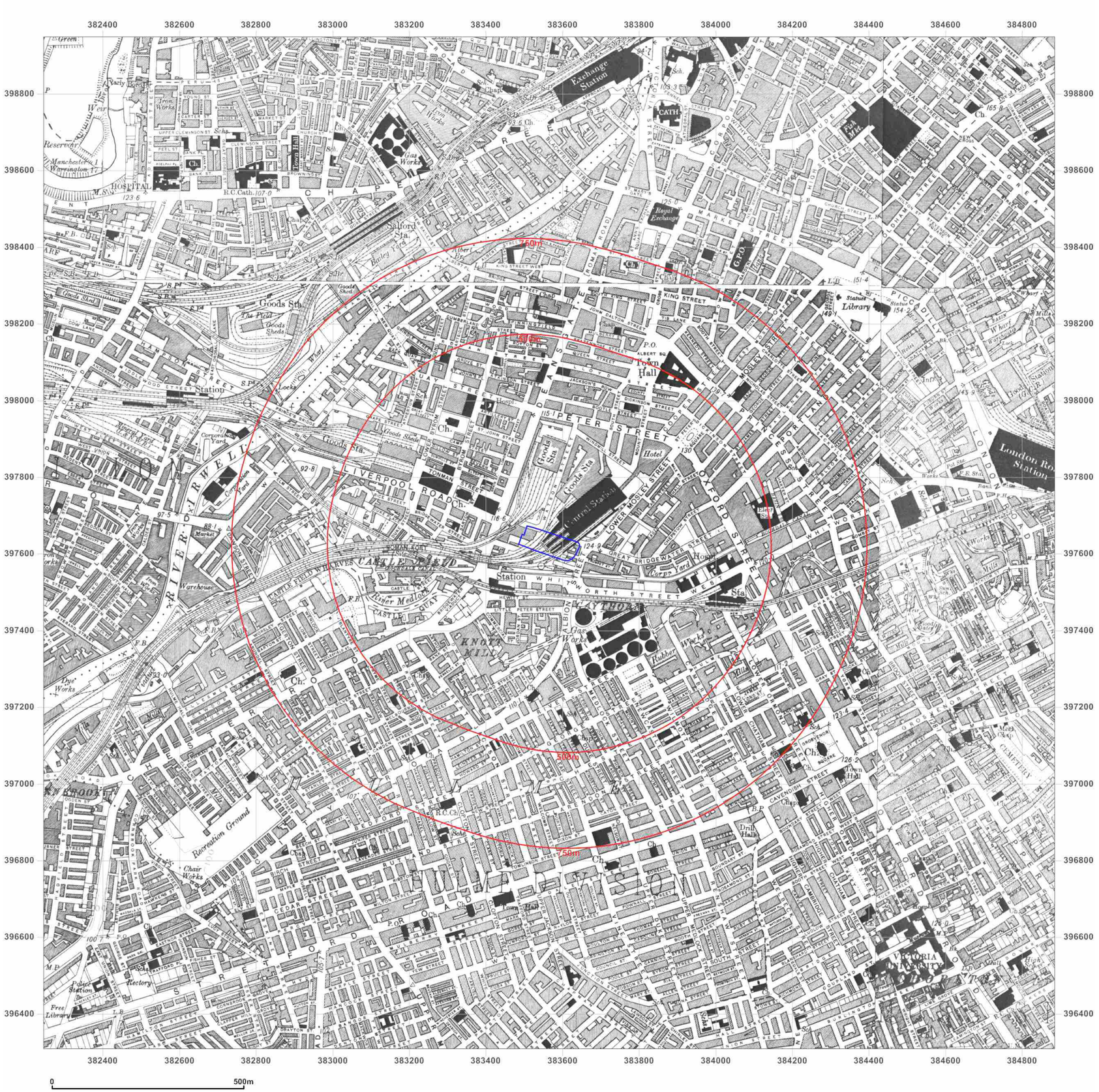
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MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

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 1921
Edition 1923
Copyright N/A
Levelled 1906

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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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

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

Groundsure INSIGHTS

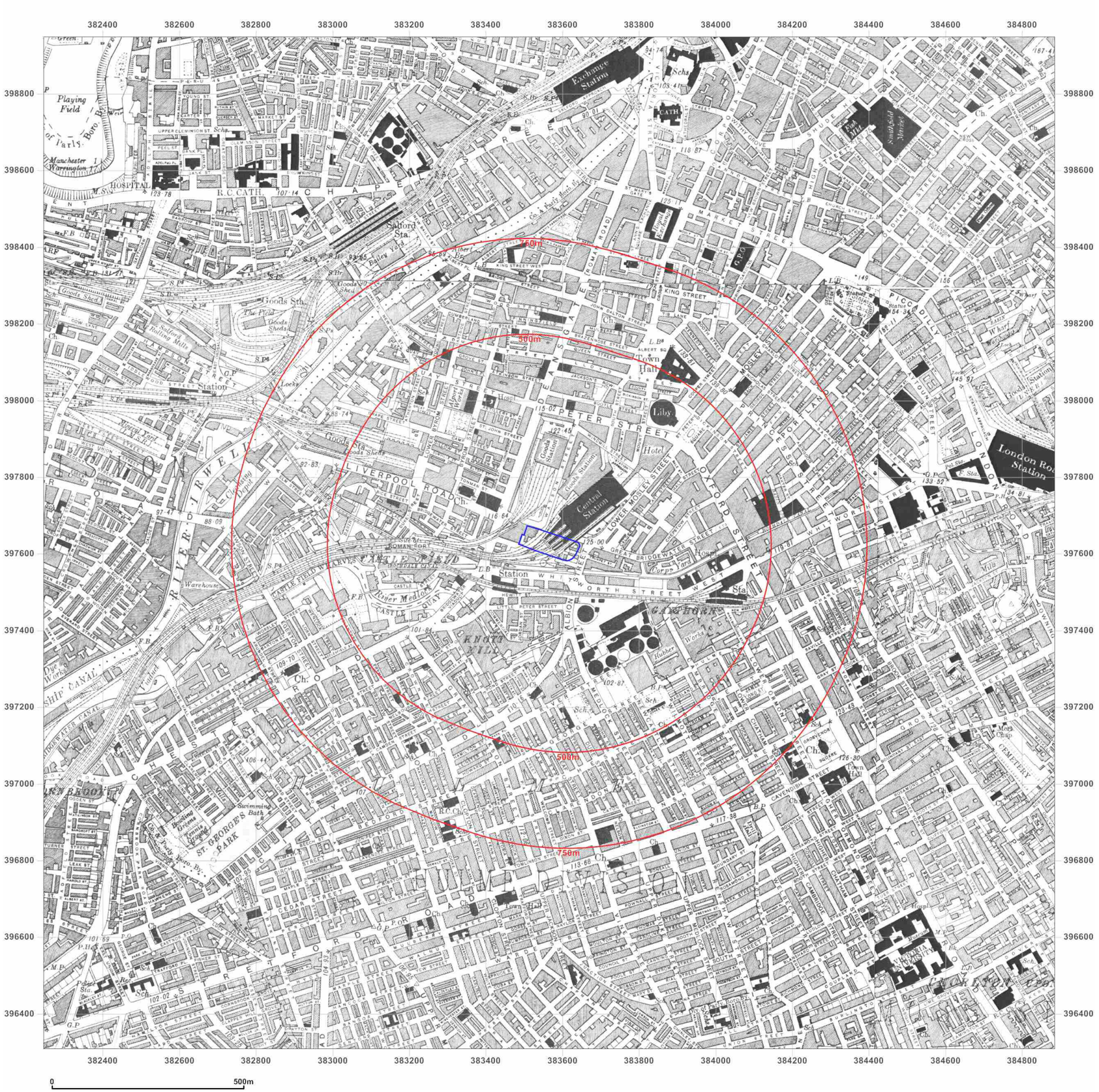
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Site Details:

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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: County Series
Map date: **1931-1934**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

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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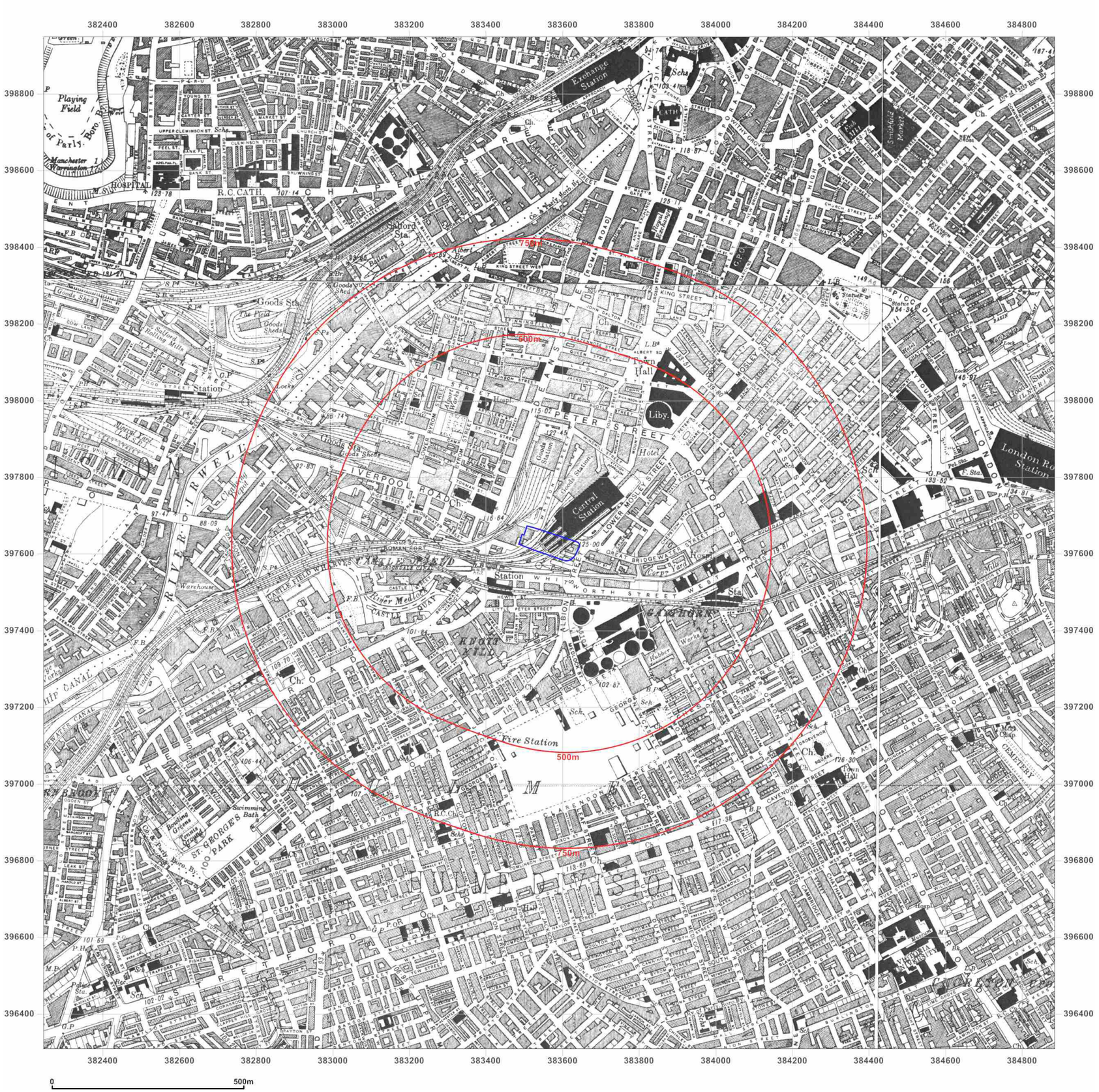
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Site Details:

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Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: County Series
Map date: **1938**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

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

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

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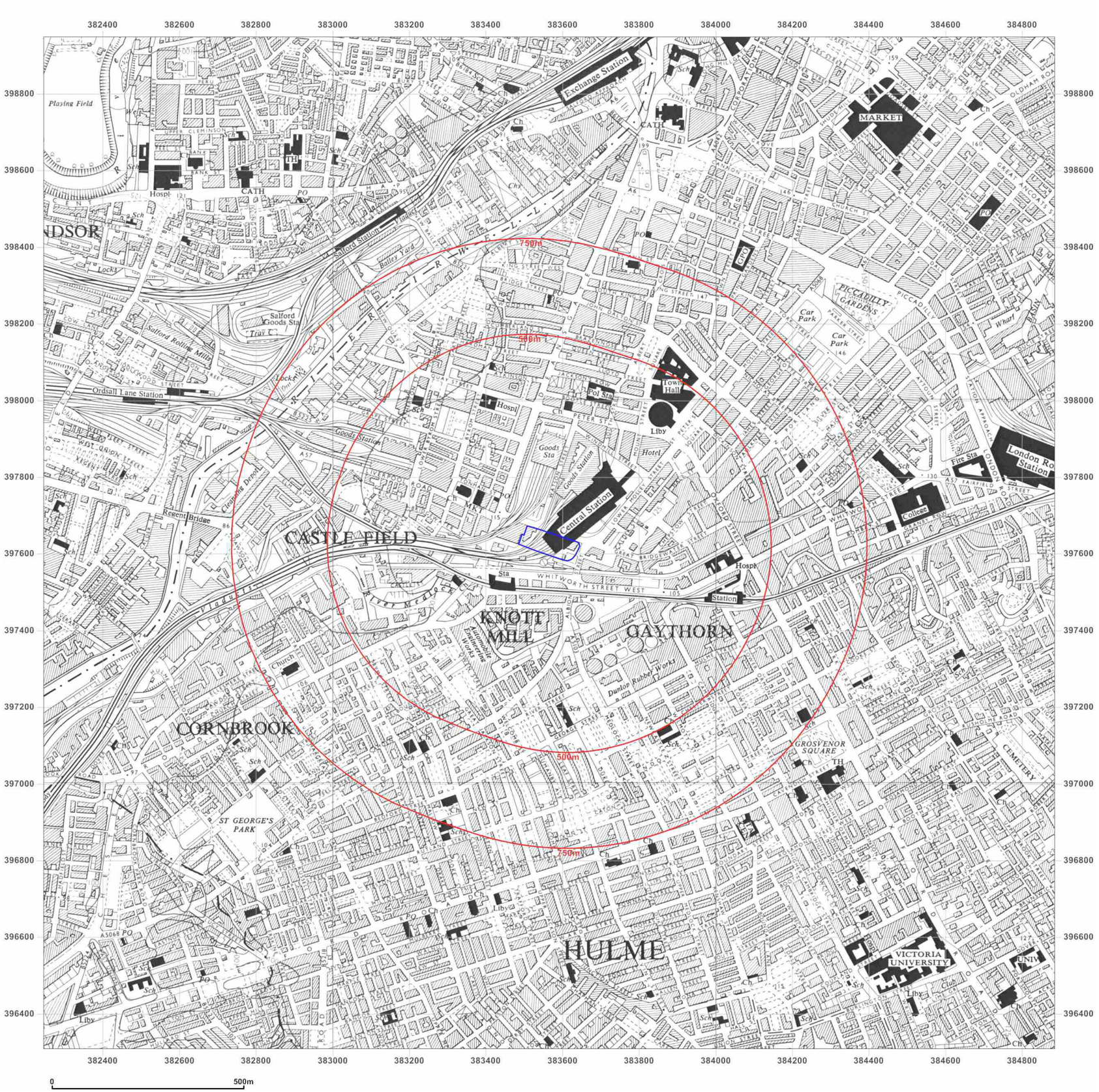
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MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: Provisional

Map date: **1956**

Scale: 1:10,560

Printed at: 1:10,560

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

Groundsure INSIGHTS

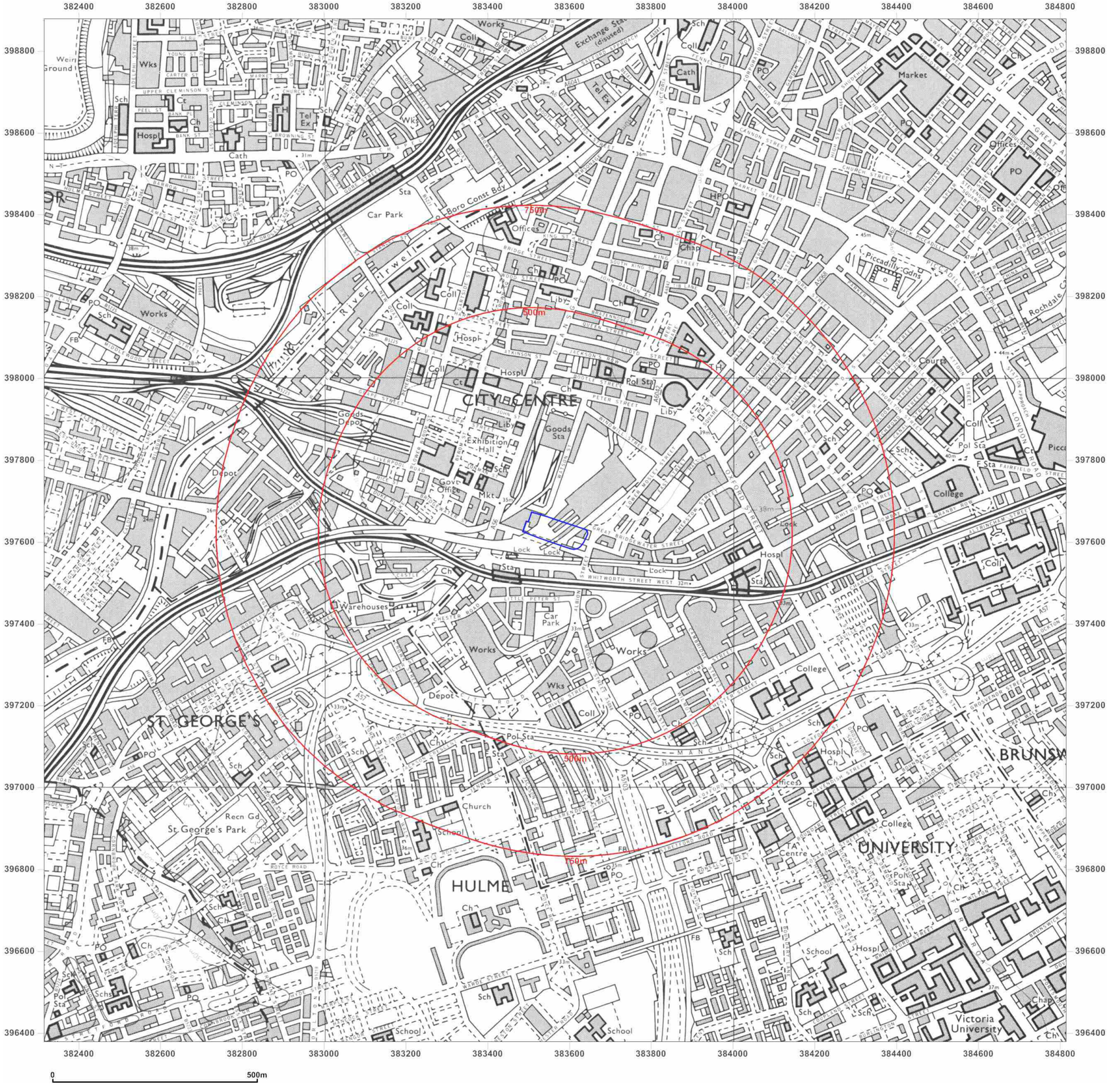
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Site Details:

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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1972**

Scale: 1:10,000

Printed at: 1:10,000

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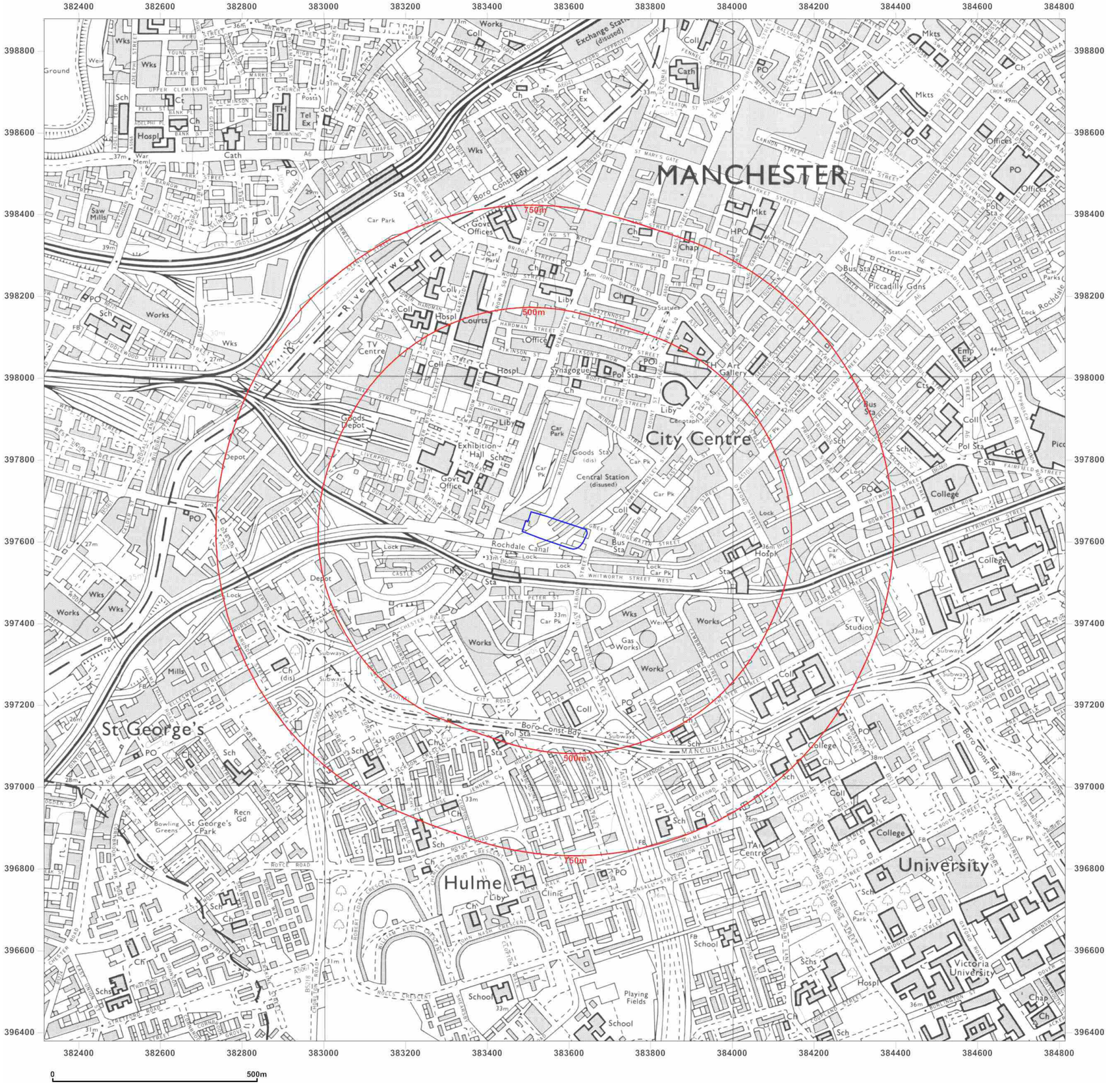
Surveyed 1971
Revised 1972
Edition N/A
Copyright 1972
Levelled 1972

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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1980**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
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Surveyed 1976
Revised 1980
Edition N/A
Copyright 1980
Levelled 1976

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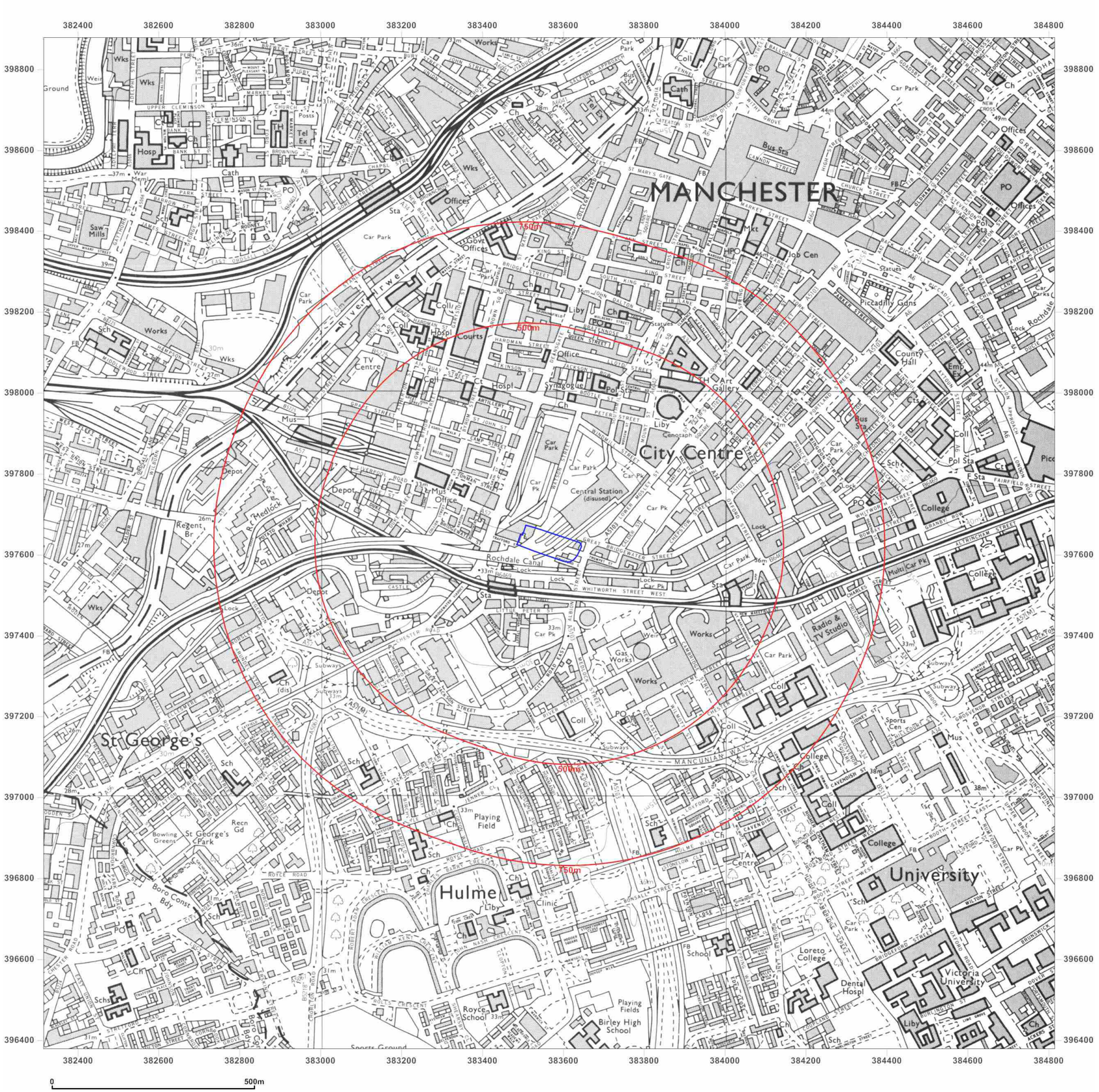
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Site Details:

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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1985**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

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

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Site Details:

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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid
Map date: **1988**
Scale: 1:10,000
Printed at: 1:10,000

N
W E
S

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

Groundsure INSIGHTS

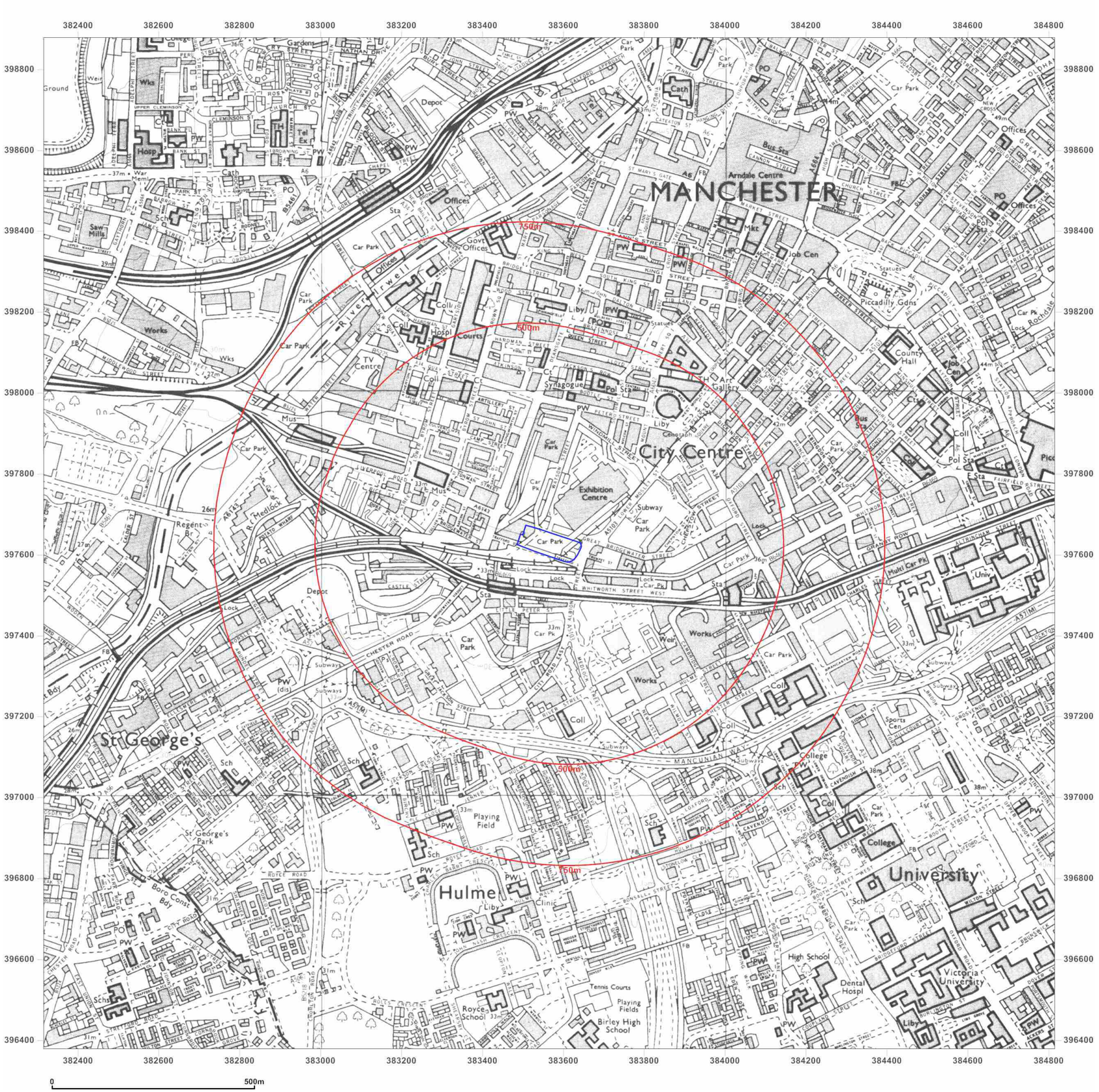
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Site Details:

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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **1994**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1986
Revised 1994
Edition N/A
Copyright 1994
Levelled 1981

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Site Details:

CAR PARK JUNCTION GREAT BRIDGEWATER STREET,
ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

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

N
W E
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2001

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Site Details:

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ALBION STREET,
MANCHESTER, M1 5NZ

Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

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

N
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2010

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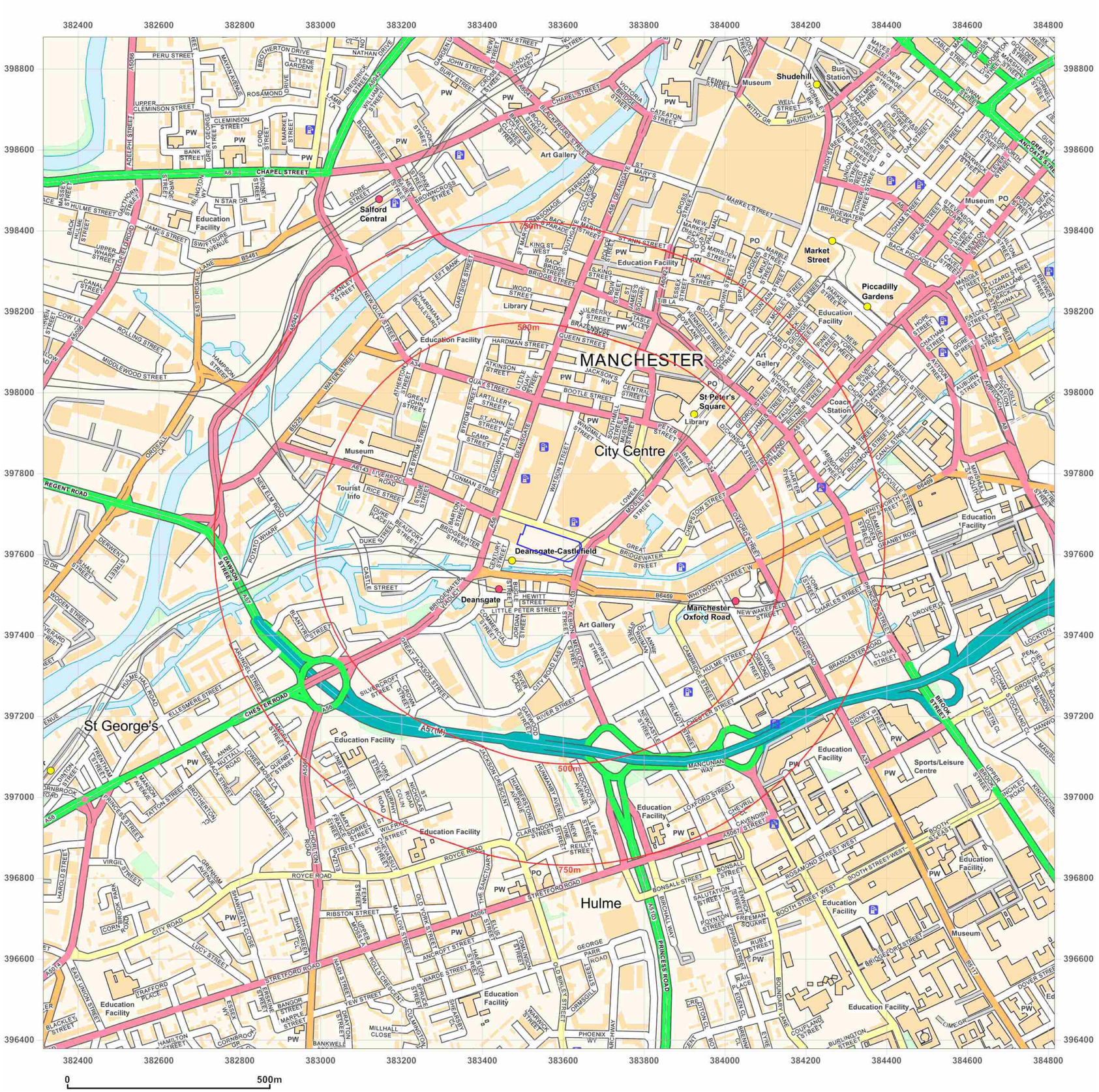
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Client Ref: C4460-730-SD
Report Ref: BRO-6623108
Grid Ref: 383564, 397628

Map Name: National Grid

Map date: **2020**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
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2020

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APPENDIX C

Geo-Environmental Data Report

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo
Insight

CAR PARK JUNCTION GREAT BRIDGEWATER STREET, ALBION STREET, MANCHESTER, M1 5NZ

Order Details

Date: 17/02/2020

Your ref: C4460-730-SD

Our Ref: BRO-6623109

Client: Brownfield Solutions ltd

Site Details

Location: 383545 397645

Area: 0.8 ha



Summary of findings p. 2

OS MasterMap site plan p.12

Aerial image p. 8

groundsure.com/insightuserguide

Contact us with any questions at:
info@groundsure.com
08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	9	9	52	131	-
21	1.2	Historical tanks	2	3	40	73	-
25	1.3	Historical energy features	0	0	8	45	-
28	1.4	Historical petrol stations	0	0	0	0	-
28	1.5	Historical garages	0	0	9	31	-
30	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
31	2.1	Historical industrial land uses	15	17	93	200	-
43	2.2	Historical tanks	5	3	78	144	-
52	2.3	Historical energy features	0	0	17	98	-
56	2.4	Historical petrol stations	0	0	0	0	-
56	2.5	Historical garages	0	0	21	71	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
61	3.1	Active or recent landfill	0	0	0	0	-
61	3.2	Historical landfill (BGS records)	0	0	0	0	-
62	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
62	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
62	3.5	Historical waste sites	0	0	4	13	-
65	3.6	Licensed waste sites	0	0	0	1	-
65	3.7	Waste exemptions	0	0	33	11	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
70	4.1	Recent industrial land uses	0	2	25	-	-
72	4.2	Current or recent petrol stations	0	0	0	1	-
73	4.3	Electricity cables	0	0	0	0	-
73	4.4	Gas pipelines	0	0	0	0	-
73	4.5	Sites determined as Contaminated Land	0	0	0	0	-

73	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
73	4.7	Regulated explosive sites	0	0	0	0	-
74	4.8	Hazardous substance storage/usage	0	0	0	0	-
74	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
74	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
74	**4.11**	**Licensed pollutant release (Part A(2)/B)**	0	0	0	4	-
75	4.12	Radioactive Substance Authorisations	0	0	0	0	-
75	**4.13**	**Licensed Discharges to controlled waters**	0	0	15	11	-
79	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
79	4.15	Pollutant release to public sewer	0	0	0	0	-
80	4.16	List 1 Dangerous Substances	0	0	0	0	-
80	4.17	List 2 Dangerous Substances	0	0	0	0	-
80	**4.18**	**Pollution Incidents (EA/NRW)**	0	0	0	1	-
80	4.19	Pollution inventory substances	0	0	0	0	-
81	4.20	Pollution inventory waste transfers	0	0	0	0	-
81	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
82	**5.1**	**Superficial aquifer**	Identified (within 500m)				
84	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
86	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
87	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
87	5.5	Groundwater vulnerability- local information	None (within 0m)				
88	**5.6**	**Groundwater abstractions**	0	0	0	0	47
100	**5.7**	**Surface water abstractions**	0	0	0	0	2
101	**5.8**	**Potable abstractions**	0	0	0	0	9
104	**5.9**	**Source Protection Zones**	0	0	1	0	-
104	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
105	**6.1**	**Water Network (OS MasterMap)**	0	3	21	-	-

107	**6.2**	**Surface water features**	0	2	7	-	-
108	**6.3**	**WFD Surface water body catchments**	1	-	-	-	-
108	**6.4**	**WFD Surface water bodies**	0	0	1	-	-
109	**6.5**	**WFD Groundwater bodies**	1	-	-	-	-

Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
110	7.1	Risk of Flooding from Rivers and Sea (RoFRaS)	None (within 50m)				
110	7.2	Historical Flood Events	0	0	0	-	-
110	7.3	Flood Defences	0	0	0	-	-
110	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
111	7.5	Flood Storage Areas	0	0	0	-	-
112	7.6	Flood Zone 2	None (within 50m)				
112	7.7	Flood Zone 3	None (within 50m)				

Page	Section	Surface water flooding	
113	**8.1**	**Surface water flooding**	1 in 30 year, 0.3m - 1.0m (within 50m)

Page	Section	Groundwater flooding	
115	**9.1**	**Groundwater flooding**	Moderate-High (within 50m)

Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
116	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
116	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
116	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
116	10.4	Special Protection Areas (SPA)	0	0	0	0	0
117	10.5	National Nature Reserves (NNR)	0	0	0	0	0
117	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
117	10.7	Designated Ancient Woodland	0	0	0	0	0
117	10.8	Biosphere Reserves	0	0	0	0	0
118	10.9	Forest Parks	0	0	0	0	0
118	10.10	Marine Conservation Zones	0	0	0	0	0
118	10.11	Green Belt	0	0	0	0	0
118	10.12	Proposed Ramsar sites	0	0	0	0	0

118	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
119	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
119	10.15	Nitrate Sensitive Areas	0	0	0	0	0
119	**10.16**	**Nitrate Vulnerable Zones**	0	0	0	0	3
120	**10.17**	**SSSI Impact Risk Zones**	1	-	-	-	-
121	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
122	11.1	World Heritage Sites	0	0	0	-	-
123	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
123	11.3	National Parks	0	0	0	-	-
123	**11.4**	**Listed Buildings**	0	3	19	-	-
125	**11.5**	**Conservation Areas**	0	0	4	-	-
125	**11.6**	**Scheduled Ancient Monuments**	0	0	1	-	-
126	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
127	**12.1**	**Agricultural Land Classification**	Urban (within 250m)				
128	12.2	Open Access Land	0	0	0	-	-
128	12.3	Tree Felling Licences	0	0	0	-	-
128	12.4	Environmental Stewardship Schemes	0	0	0	-	-
128	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
129	13.1	Priority Habitat Inventory	0	0	0	-	-
129	13.2	Habitat Networks	0	0	0	-	-
129	13.3	Open Mosaic Habitat	0	0	0	-	-
129	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
130	**14.1**	**10k Availability**	Identified (within 500m)				
131	**14.2**	**Artificial and made ground (10k)**	1	0	1	1	-
132	**14.3**	**Superficial geology (10k)**	2	1	0	1	-

133	14.4	Landslip (10k)	0	0	0	0	-
134	14.5	Bedrock geology (10k)	1	0	1	0	-
135	14.6	Bedrock faults and other linear features (10k)	1	0	2	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
136	15.1	50k Availability	Identified (within 500m)				
137	15.2	Artificial and made ground (50k)	1	0	0	0	-
138	15.3	Artificial ground permeability (50k)	1	0	-	-	-
139	15.4	Superficial geology (50k)	2	1	0	1	-
140	15.5	Superficial permeability (50k)	Identified (within 50m)				
140	15.6	Landslip (50k)	0	0	0	0	-
140	15.7	Landslip permeability (50k)	None (within 50m)				
141	15.8	Bedrock geology (50k)	1	0	1	0	-
142	15.9	Bedrock permeability (50k)	Identified (within 50m)				
142	15.10	Bedrock faults and other linear features (50k)	1	0	2	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
143	16.1	BGS Boreholes	1	7	141	-	-
Page	Section	Natural ground subsidence					
150	17.1	Shrink swell clays	Very low (within 50m)				
151	17.2	Running sands	Low (within 50m)				
153	17.3	Compressible deposits	Very low (within 50m)				
155	17.4	Collapsible deposits	Very low (within 50m)				
156	17.5	Landslides	Very low (within 50m)				
157	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
159	18.1	Natural cavities	0	0	0	0	-
160	18.2	BritPits	0	0	0	0	-
160	18.3	Surface ground workings	0	8	10	-	-
161	18.4	Underground workings	0	0	0	0	0
161	18.5	Historical Mineral Planning Areas	0	0	0	0	-

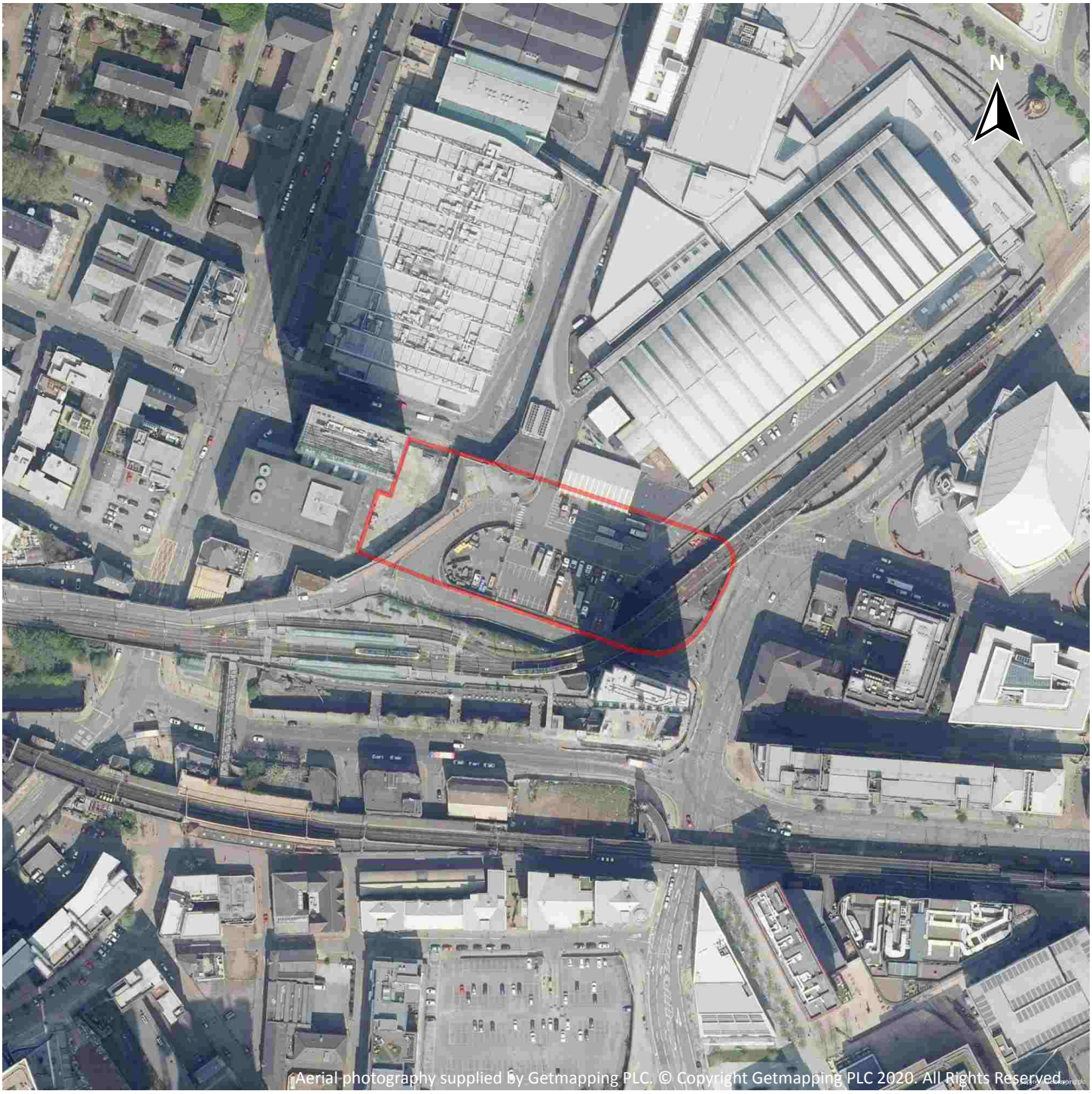
161	18.6	Non-coal mining	0	0	0	0	0
161	18.7	Mining cavities	0	0	0	0	0
162	**18.8**	**JPB mining areas**	Identified (within 0m)				
162	**18.9**	**Coal mining**	Identified (within 0m)				
162	18.10	Brine areas	None (within 0m)				
162	18.11	Gypsum areas	None (within 0m)				
163	18.12	Tin mining	None (within 0m)				
163	18.13	Clay mining	None (within 0m)				

Page	Section	Radon					
164	**19.1**	**Radon**	Less than 1% (within 0m)				

Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
165	**20.1**	**BGS Estimated Background Soil Chemistry**	2	0	-	-	-
165	**20.2**	**BGS Estimated Urban Soil Chemistry**	5	3	-	-	-
166	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
167	21.1	Underground railways (London)	0	0	0	-	-
167	21.2	Underground railways (Non-London)	0	0	0	-	-
168	21.3	Railway tunnels	0	0	0	-	-
168	**21.4**	**Historical railway and tunnel features**	22	19	43	-	-
171	21.5	Royal Mail tunnels	0	0	0	-	-
171	**21.6**	**Historical railways**	0	6	0	-	-
172	**21.7**	**Railways**	3	9	21	-	-
173	21.8	Crossrail 1	0	0	0	0	-
173	21.9	Crossrail 2	0	0	0	0	-
174	21.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 22/04/2019

Site Area: 0.8ha

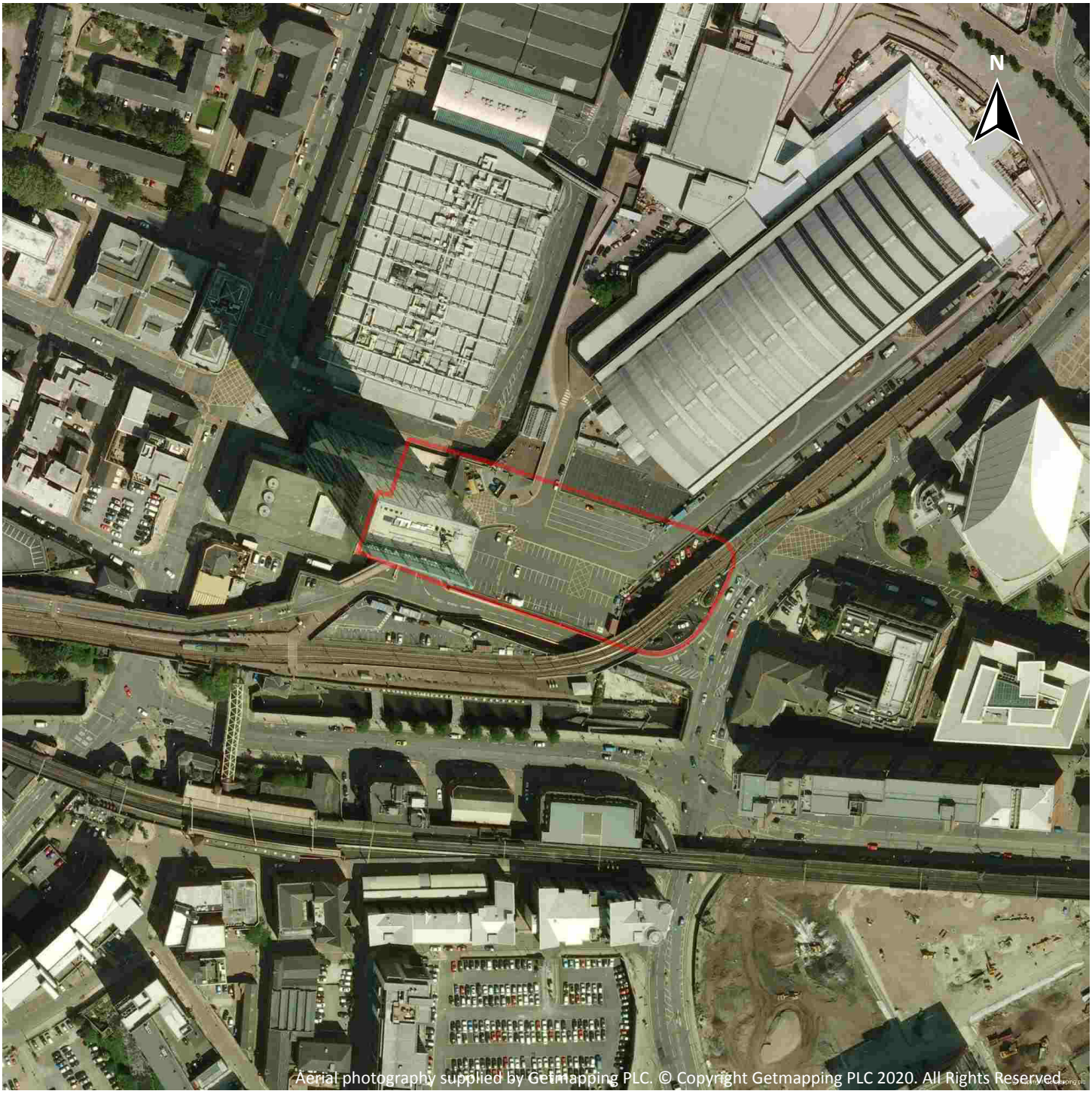
Recent site history - 2015 aerial photograph



Capture Date: 11/06/2015

Site Area: 0.8ha

Recent site history - 2009 aerial photograph



Capture Date: 02/06/2009

Site Area: 0.8ha

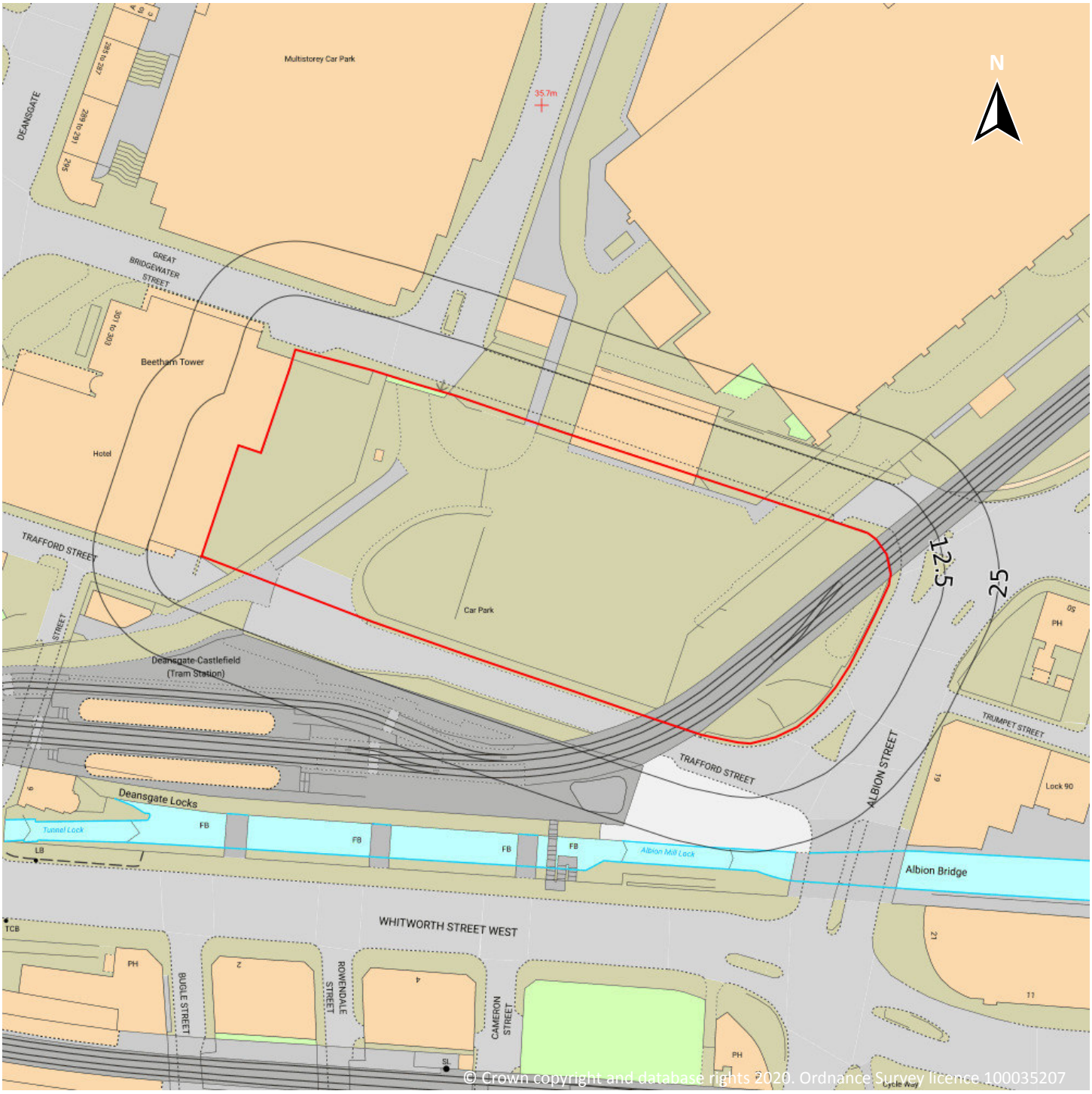
Recent site history - 2000 aerial photograph



Capture Date: 27/06/2000

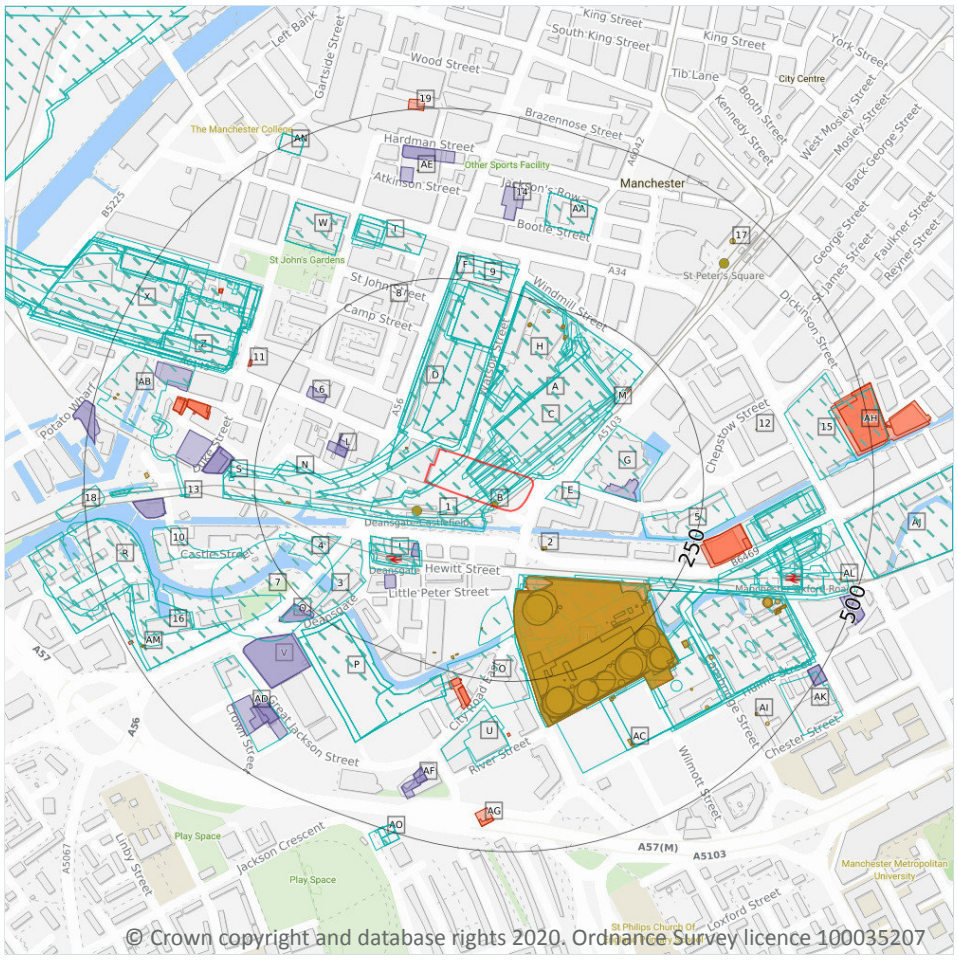
Site Area: 0.8ha

OS MasterMap site plan



Site Area: 0.8ha

1 Past land use



1.1 Historical industrial land uses

Records within 500m	201

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**	**Railway Sidings**	**1905 - 1916**	**871753**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Railway Sidings**	**1956**	**917334**
A	**On site**	**Railway Sidings**	**1923**	**923309**
A	**On site**	**Railway Sidings**	**1932 - 1938**	**982150**
C	**On site**	**Railway Station**	**1956**	**888631**
C	**On site**	**Railway Station**	**1905 - 1938**	**896284**
C	**On site**	**Railway Station**	**1896**	**915817**
C	**On site**	**Disused Station**	**1978**	**925495**
C	**On site**	**Railway Sidings**	**1896**	**975593**
D	14m NW	Railway Sidings	1971	946450
D	14m NW	Railway Sidings	1985	958621
D	14m NW	Railway Sidings	1978	989903
E	24m SE	Bus Station	1978	842916
C	25m N	Disused Station	1985	891253
1	29m S	Railway Building	1905 - 1938	978111
A	37m NW	Railway Building	1923	820272
E	42m NE	Railway Building	1905 - 1938	985774
A	44m N	Railway Building	1923	820271
F	59m NW	Railway Buildings	1923	833657
G	60m E	Cotton Mills	1851	811452
H	80m N	Goods Station	1923	943574
H	83m N	Goods Station	1932 - 1938	883356
H	83m N	Goods Station	1905 - 1916	938206
I	86m S	Railway Station	1978	855265
I	86m S	Railway Station	1956 - 1971	962338
J	94m S	Unspecified Commercial/Industrial	1851 - 1896	849974
H	95m N	Goods Station	1956	923306
I	97m S	Railway Station	1985 - 1994	880682
J	100m S	Unspecified Commercial/Industrial	1932 - 1938	872530

ID	Location	Land use	Dates present	Group ID
J	100m S	Gas Works	1905 - 1923	927583
J	100m S	Unspecified Works	1971	976313
J	108m S	Unspecified Commercial/Industrial	1956	976686
I	110m S	Railway Station	1905 - 1938	975016
I	117m SW	Railway Station	1896	899988
K	121m S	Unspecified Tank	1956	940796
K	126m S	Cotton Mill	1851	797881
K	128m S	Unspecified Tank	1896	890603
3	129m SW	Unspecified Commercial/Industrial	1851	796718
K	129m S	Unspecified Tank	1971	856760
K	129m S	Unspecified Tank	1978 - 1985	858491
K	130m S	Gasometer	1905 - 1923	885805
K	130m S	Unspecified Tank	1932 - 1938	946195
4	147m SW	Unspecified Commercial/Industrial	1851	796720
M	149m NE	Railway Building	1932 - 1938	946173
N	153m W	Railway Buildings	1905 - 1938	962263
F	155m N	Goods Station	1905 - 1938	846931
F	162m N	Disused Goods Station	1978	814351
F	162m N	Goods Station	1971	945855
F	163m N	Goods Station	1956	945355
5	166m E	Corporation Yard	1905 - 1938	920120
O	179m S	Brewery	1851	822706
7	181m SW	Quay	1905 - 1938	872988
J	186m SE	Unspecified Works	1978	921026
K	191m S	Railway Sidings	1896	794671
J	208m SE	Unspecified Tank	1851	825228
J	213m SE	Unspecified Tank	1851	825227
J	213m SE	Railway Sidings	1905 - 1938	864885

ID	Location	Land use	Dates present	Group ID
J	221m SE	Rubber Works	1923 - 1938	926915
J	221m SE	Unspecified Commercial/Industrial	1905	944072
J	224m SE	Rubber Works	1916	915281
P	225m SW	Automobile Works	1956	813191
P	225m SW	Unspecified Works	1978	940175
P	225m SW	Unspecified Works	1971	948531
J	232m SE	Gas Works	1985	894760
J	232m SE	Gas Works	1978	953907
P	237m SW	Unspecified Commercial/Industrial	1923	846058
P	237m SW	Unspecified Mill	1932 - 1938	877197
P	237m SW	Unspecified Commercial/Industrial	1905	896875
P	237m SW	Unspecified Mill	1916	904261
J	248m SE	Unspecified Tanks	1956	991069
J	253m SE	Unspecified Tanks	1896	952761
J	253m SE	Unspecified Tank	1932 - 1938	893786
J	253m SE	Gasometer	1905 - 1923	961140
9	257m N	Railway Buildings	1923	833653
J	260m SE	Gasometer	1978	909770
J	260m SE	Gasometer	1985	937412
J	260m SE	Unspecified Tank	1971	953873
J	262m SE	Gasometer	1905 - 1923	856404
J	262m SE	Unspecified Tank	1932 - 1938	943763
J	264m S	Unspecified Tanks	1956	927953
J	265m S	Gasometer	1978	910445
J	265m S	Unspecified Tank	1971	973500
J	269m SE	Unspecified Tank	1932 - 1938	864386
J	269m SE	Gasometer	1905 - 1923	911162
R	270m SW	Quay	1851	846276

ID	Location	Land use	Dates present	Group ID
J	273m S	Gasometer	1905 - 1923	967050
J	273m S	Unspecified Tank	1932 - 1938	989404
J	274m S	Unspecified Tank	1932 - 1938	939747
J	274m S	Gasometer	1905 - 1923	964160
S	278m W	Railway Building	1916	972538
S	280m W	Railway Building	1923	820260
S	283m W	Railway Building	1932 - 1938	982027
J	285m SE	Unspecified Commercial/Industrial	1896	857423
10	286m W	Slate Wharf	1851	837258
T	286m N	Hospital	1978	946410
T	286m N	Hospital	1956 - 1971	988332
J	287m SE	Gasometer	1905 - 1923	889070
J	287m SE	Unspecified Tank	1932 - 1938	961454
U	288m S	Unspecified Works	1971	830421
J	288m SE	Unspecified Works	1985 - 1994	862878
J	288m SE	Unspecified Works	1978	976366
J	292m SE	Railway Sidings	1896	989778
J	292m SE	Rubber Works	1956	849382
J	293m SE	Unspecified Tank	1851	987864
U	301m S	Glass Works	1851	797987
J	302m SE	Railway Sidings	1985 - 1994	928139
T	308m N	Hospital	1916	943105
T	309m N	Hospital	1923	963711
J	310m SE	Unspecified Works	1978	865006
J	310m SE	Unspecified Works	1985 - 1994	927569
T	311m N	Hospital	1932 - 1938	946842
J	318m E	Hospital	1923	848326
T	320m N	Hospital	1985 - 1988	928879

ID	Location	Land use	Dates present	Group ID
J	323m E	Hospital	1932 - 1938	949847
W	323m NW	Unspecified Works	1932 - 1938	898924
W	323m NW	Unspecified Commercial/Industrial	1905	935109
W	323m NW	Unspecified Commercial/Industrial	1923	991353
X	324m NW	Railway Sidings	1916 - 1938	893253
X	324m NW	Railway Sidings	1894	920471
Y	326m NW	Railway Sidings	1923	921834
Y	327m NW	Railway Sidings	1988 - 1994	962023
Z	327m NW	Railway Building	1978	848652
Z	327m NW	Railway Building	1971	911620
Z	327m NW	Railway Building	1985	938373
J	327m E	Coal Wharf	1851	794097
Y	328m NW	Goods Depot	1978	893922
Y	328m NW	Goods Depot	1971	912312
Y	328m NW	Railway Sidings	1956	956450
Z	328m NW	Railway Sidings	1956	951082
J	328m E	Hospital	1956 - 1971	915521
J	328m E	Hospital	1978	957282
Y	329m NW	Railway Sidings	1896	979167
Z	329m NW	Railway Buildings	1896	833656
X	331m NW	Railway Sidings	1932	936526
X	331m NW	Railway Sidings	1905	984895
Z	331m NW	Goods Sheds	1905 - 1938	958104
J	331m E	Railway Station	1905 - 1938	962635
J	332m E	Hospital	1916	938342
Z	332m NW	Goods Station	1956	821661
Z	335m NW	Goods Sheds	1905 - 1938	880509
Z	338m NW	Railway Building	1978	907268

ID	Location	Land use	Dates present	Group ID
Z	338m NW	Railway Building	1985	923295
Z	338m NW	Railway Building	1971	983624
J	340m SE	Unspecified Tank	1851	825246
13	346m W	Railway Building	1905 - 1923	846298
J	350m E	Railway Station	1896	887032
S	350m W	Unspecified Ground Workings	1851	800610
J	351m E	Railway Station	1956	923967
J	357m E	Gas Works	1851	802208
R	358m SW	Unspecified Depot	1978	853404
R	358m SW	Unspecified Depot	1985 - 1994	921090
AA	359m N	Police Station	1978	880849
AA	359m N	Police Station	1956 - 1971	884199
AA	359m N	Police Station	1985 - 1994	940998
J	365m E	Railway Station	1988 - 1994	912150
J	368m E	Railway Building	1956	820261
J	368m E	Railway Station	1971	960776
J	368m E	Railway Station	1985	962611
J	368m E	Railway Station	1978	981767
AB	372m W	Unspecified Depot	1985 - 1988	896077
Z	374m NW	Railway Buildings	1932 - 1938	921932
Z	376m NW	Railway Building	1905 - 1923	869326
J	378m SE	Unspecified Tank	1896	825247
AD	379m SW	Unspecified Depot	1971	818414
15	382m E	Unspecified Commercial/Industrial	1923	796724
J	384m SE	Unspecified Tanks	1851	815405
16	391m SW	Warehouse	1851	837278
Y	392m NW	Unspecified Commercial/Industrial	1851	796722
J	394m E	Tanks	1851	832185

ID	Location	Land use	Dates present	Group ID
S	400m W	Railway Buildings	1905	833631
Y	400m NW	Railway Sidings	1851	921813
Y	423m NW	Railway Sidings	1971	888837
Y	423m NW	Railway Sidings	1985	891167
Y	423m NW	Railway Sidings	1978	944715
S	429m W	Railway Building	1916 - 1923	906988
R	433m W	Unspecified Warehouses	1971	812727
S	440m W	Railway Building	1932 - 1938	878526
AH	446m E	Electricity Station	1916 - 1923	992043
Y	449m NW	Railway Building	1956 - 1971	913293
Y	449m NW	Railway Building	1985	916120
Y	449m NW	Railway Building	1978	967702
R	453m SW	Unspecified Ground Workings	1851	800608
Y	454m NW	Goods Sheds	1905 - 1938	895888
AJ	460m E	Unspecified Mills	1916	861845
AJ	460m E	Unspecified Commercial/Industrial	1923	874542
AJ	460m E	Unspecified Commercial/Industrial	1905	968335
AJ	460m E	Unspecified Mills	1932 - 1938	989884
AK	460m SE	Unspecified Mills	1916 - 1923	874195
R	462m W	Warehouse	1851	837277
18	471m W	Timber Wharf	1851	811392
Y	477m NW	Railway Building	1896	878088
AN	477m NW	Hospital	1971	860292
AN	477m NW	Hospital	1978	862722
AN	477m NW	Hospital	1985 - 1994	942775
AO	489m S	Police Station	1971	857014
AO	489m S	Police Station	1985	942388
AO	489m S	Police Station	1978	959949

ID	Location	Land use	Dates present	Group ID
AO	497m S	Fire Station	1938	891974
AO	498m S	Fire Station	1978	845320
AO	498m S	Fire Station	1985	871241
AO	498m S	Fire Station	1971	964050

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**118**

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
B	**On site**	**Tanks**	**1948 - 1979**	**130142**
B	**On site**	**Tanks**	**1948**	**141151**
E	35m NE	Unspecified Tank	1891	115955
A	42m NW	Unspecified Tank	1979	148049
A	42m NW	Unspecified Tank	1979	134110
2	67m SE	Tanks	1891	106783
J	99m S	Gas Works	1893 - 1908	148771
J	108m SE	Gas Works	1891	138194
J	109m SE	Gas Works	1922	148353
K	122m S	Unspecified Tank	1953 - 1969	138911
K	123m S	Unspecified Tank	1980 - 1985	129756
K	123m S	Unspecified Tank	1948 - 1979	134540
K	128m S	Gasometer	1908 - 1922	137166
K	128m S	Unspecified Tank	1932	149223

ID	Location	Land use	Dates present	Group ID
K	154m SE	Unspecified Tank	1979	126042
K	155m SE	Unspecified Tank	1953 - 1985	135604
K	160m SE	Unspecified Tank	1908 - 1932	134188
K	176m S	Unspecified Tank	1891	115954
N	200m W	Unspecified Tank	1932	115649
H	208m N	Unspecified Tank	1986	147812
H	210m N	Unspecified Tank	1988 - 1999	136452
H	210m N	Unspecified Tank	1986 - 1999	144065
J	211m S	Gas Works	1948	138071
J	211m SE	Tanks	1948 - 1979	124597
H	211m N	Unspecified Tank	1988	124833
J	211m SE	Unspecified Tank	1891	115953
J	215m SE	Tanks	1953 - 1969	129358
J	217m SE	Tanks	1979	106781
J	221m SE	Unspecified Tank	1979	115952
J	221m SE	Tanks	1948	147005
O	221m S	Tanks	1948	106777
J	221m SE	Unspecified Tank	1969	140316
H	222m N	Unspecified Tank	1986 - 1999	148721
J	223m SE	Unspecified Tank	1948 - 1979	131914
J	223m SE	Disused Gas Holder Station	1985	108346
J	223m SE	Gas Holder Station	1980	144973
H	224m N	Unspecified Tank	1988	133750
O	226m S	Tanks	1948	107130
J	229m SE	Unspecified Tank	1891	115951
8	230m N	Unspecified Tank	1891	115646
O	230m S	Unspecified Tank	1891	115779
J	232m SE	Unspecified Tank	1891	133313

ID	Location	Land use	Dates present	Group ID
J	234m S	Tanks	1893	133419
J	235m S	Tanks	1891	127920
H	239m N	Unspecified Tank	1988 - 1999	137115
J	251m SE	Tanks	1932	107129
J	251m SE	Gasometers	1908 - 1922	124662
J	251m SE	Unspecified Tank	1953	127502
J	251m SE	Gasometer	1948	135973
J	251m SE	Unspecified Tank	1963 - 1979	148209
J	251m SE	Gasometer	1891 - 1893	128004
J	259m S	Unspecified Tank	1948 - 1979	129606
J	260m SE	Unspecified Tank	1953	134836
J	260m SE	Gasometer	1893 - 1969	136753
J	260m SE	Unspecified Tank	1963 - 1979	138510
J	260m SE	Gasometer	1948	142120
J	262m SE	Gas Holder	1980 - 1985	125516
J	262m SE	Gasometer	1891	124584
J	263m SE	Unspecified Tank	1953 - 1985	140482
J	265m SE	Unspecified Tank	1891 - 1893	143653
J	267m S	Gasometer	1948	135027
J	267m S	Unspecified Tank	1963 - 1979	141523
J	267m S	Gasometer	1893 - 1969	129302
J	267m S	Unspecified Tank	1953	145833
J	269m S	Unspecified Tank	1963 - 1979	128106
J	269m S	Gasometer	1893 - 1948	135717
J	269m SE	Gasometer	1893	138389
J	269m S	Unspecified Tank	1953 - 1979	137402
J	270m S	Unspecified Tank	1953	136419
J	270m SE	Gasometer	1891	126443

ID	Location	Land use	Dates present	Group ID
J	270m SE	Unspecified Tank	1953 - 1979	147656
J	272m SE	Unspecified Tank	1893	147070
J	280m SE	Gasometer	1969	108524
J	280m SE	Unspecified Tank	1953 - 1985	147415
J	281m SE	Unspecified Tank	1893	123594
J	286m SE	Gasometer	1891 - 1893	138622
J	286m SE	Unspecified Tank	1963 - 1979	129031
J	286m SE	Gasometer	1948	144835
J	287m SE	Unspecified Tank	1953	128601
J	292m SE	Unspecified Tank	1893	125584
J	292m SE	Gasometer	1891	108523
J	308m SE	Unspecified Tank	1998	124573
J	308m SE	Unspecified Tank	1969 - 1998	138462
J	309m SE	Unspecified Tank	1948 - 1990	148192
J	310m SE	Unspecified Tank	1980 - 1990	133041
J	312m SE	Unspecified Tank	1987 - 1990	144099
J	317m SE	Unspecified Tank	1891 - 1893	137941
12	336m E	Unspecified Tank	1891	115956
J	353m SE	Unspecified Tank	1893 - 1922	122317
J	365m SE	Unspecified Tank	1908	115778
AC	375m SE	Unspecified Tank	1948 - 1979	133333
J	377m SE	Unspecified Tank	1893	115950
J	378m SE	Gasometer	1891 - 1908	131372
AC	385m SE	Unspecified Tank	1980 - 1985	135450
J	394m SE	Unspecified Tank	1922	115957
J	397m SE	Tanks	1953	106778
J	399m SE	Unspecified Tank	1893 - 1922	143428
J	400m SE	Unspecified Tank	1948 - 1953	145471

ID	Location	Land use	Dates present	Group ID
J	400m SE	Tanks	1950	106780
J	400m SE	Unspecified Tank	1955	135178
J	401m SE	Unspecified Tank	1948 - 1953	135406
J	402m SE	Unspecified Tank	1955	123253
J	404m SE	Unspecified Tank	1948 - 1953	141893
S	404m W	Unspecified Tank	1922	115648
J	405m SE	Unspecified Tank	1955	135180
AE	409m N	Unspecified Tank	1891	115645
17	454m NE	Unspecified Tank	1994 - 1999	133983
AI	458m SE	Unspecified Tank	1922	115781
AB	466m W	Unspecified Tank	1963	133635
AB	469m W	Unspecified Tank	1963	131255
AL	471m E	Unspecified Tank	1953	136354
AL	471m E	Unspecified Tank	1955	136262
AM	477m SW	Unspecified Tank	1980	132153
AM	477m SW	Unspecified Tank	1980	143849
AM	478m SW	Unspecified Tank	1963	141829
AM	478m SW	Unspecified Tank	1960	123914
AM	478m SW	Unspecified Tank	1969	143958
AI	480m SE	Unspecified Tank	1948 - 1985	122344

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	**53**

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
J	99m S	Gas Works	1893 - 1908	79545
J	108m SE	Gas Works	1891	72601
J	109m SE	Gas Works	1922	81689
K	128m S	Gasometer	1908 - 1922	65948
M	180m NE	Electricity Substation	1948 - 1985	80627
J	211m S	Gas Works	1948	66529
J	223m SE	Disused Gas Holder Station	1985	59539
J	223m SE	Gas Holder Station	1980	77508
J	251m SE	Gasometers	1908 - 1922	65853
J	251m SE	Gasometer	1948	78274
J	251m SE	Gasometer	1891 - 1893	80269
O	254m S	Electricity Substation	1998	73868
O	255m S	Electricity Transformers	1969 - 1985	83603
J	260m SE	Gasometer	1893 - 1969	68062
J	260m SE	Gasometer	1948	71445
J	260m E	Hydraulic Power Station	1932	78003
J	262m SE	Gas Holder	1980 - 1985	70318
J	262m E	Hydraulic Power Station	1948 - 1979	64692
J	262m SE	Gasometer	1891	67026
J	263m E	Hydraulic Power Station	1948 - 1973	64396
O	265m S	Electricity Substation	1948 - 1979	78830
J	267m S	Gasometer	1948	69283
O	267m S	Electricity Substation	1969 - 1990	82938
J	267m S	Gasometer	1893 - 1969	65691
J	269m S	Gasometer	1893 - 1948	65525
J	269m SE	Gasometer	1893	75823
J	270m SE	Gasometer	1891	71699
J	280m SE	Gasometer	1969	59717

ID	Location	Land use	Dates present	Group ID
J	284m SE	Electricity Substation	1998	62182
J	286m SE	Gasometer	1891 - 1893	71826
J	286m SE	Gasometer	1948	64845
J	292m SE	Gasometer	1891	59716
11	300m NW	Electricity Substation	1948 - 1995	75611
J	317m E	Electricity Substation	1948 - 1999	65682
U	326m S	Electricity Substation	1998	62183
Z	331m W	Electricity Substation	1979	77417
Z	333m W	Electricity Substation	1995	82695
Z	333m W	Electricity Substation	1948 - 1979	80738
Z	351m W	Electricity Substation	1948	82720
Z	367m W	Electricity Substation	1986	67819
Z	367m W	Electricity Substation	1990	69796
Z	371m W	Electricity Substation	1981	80246
Z	371m W	Electricity Substation	1994 - 1995	83961
J	378m SE	Gasometer	1891 - 1908	84082
Z	393m NW	Electricity Substation	1986 - 1995	67220
Z	393m NW	Electricity Substation	1994 - 1995	65816
AG	437m S	Electricity Substation	1948 - 1979	83591
AH	450m E	Electricity Station	1908 - 1922	81883
AG	451m S	Electricity Substation	1953	65840
AH	457m E	Electricity Station	1950 - 1955	66381
AH	461m E	Electricity Station	1948	73425
AM	489m SW	Electricity Substation	1995 - 1997	72564
19	497m N	Electricity Substation	1957	67933

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	40

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
I	88m S	Garage	1963 - 1981	26858
I	88m S	Garage	1986 - 1990	26912
G	104m E	Garage	1973	20296
L	122m W	Garage	1994 - 1995	24725
L	122m W	Garage	1981 - 1990	24287
L	123m W	Garage	1995	20992
I	143m S	Garage	1960 - 1969	25290
K	147m S	Garage	1953 - 1979	24802
6	181m NW	Garage	1981	20294
Q	253m SW	Garage	1980	25490
Q	258m SW	Garage	1969	22918
S	281m W	Garage	1981 - 1986	26958
S	283m W	Garage	1963	21869
S	291m W	Garage	1963	21949

ID	Location	Land use	Dates present	Group ID
V	294m SW	Garage	1980 - 1990	25615
V	298m SW	Garage	1995 - 1997	27082
S	316m W	Garage	1981	20293
14	351m N	Garage	1948	20292
Z	373m W	Garage	1981 - 1990	24611
S	382m W	Garage	1963 - 1981	25923
S	384m W	Garage	1986	21682
AE	393m N	Garage	1962 - 1973	24856
AD	396m SW	Garage	1980 - 1990	24581
AD	396m SW	Garage	1980	21660
AF	396m S	Garage	1960 - 1963	24336
AD	397m SW	Garage	1963	21028
AD	397m SW	Garage	1979	23209
AD	397m SW	Garage	1995 - 1997	24964
AD	397m SW	Garage	1960 - 1969	25973
AF	398m S	Garage	1979	22408
AF	405m S	Garage	1959	21005
AD	411m SW	Garage	1959	23792
AE	420m N	Garage	1963 - 1970	27244
AE	422m N	Garage	1962	24181
AL	479m E	Garage	1948 - 1998	27861
AB	482m W	Boat Repair Yard	1948 - 1949	26540
AK	483m SE	Garage	1962 - 1987	25909
AK	483m SE	Garage	1968	21471
AL	484m E	Garage	1955 - 1990	26377
AB	488m W	Boat Repair Yard	1949 - 1953	27284

This data is sourced from Ordnance Survey / Groundsure.

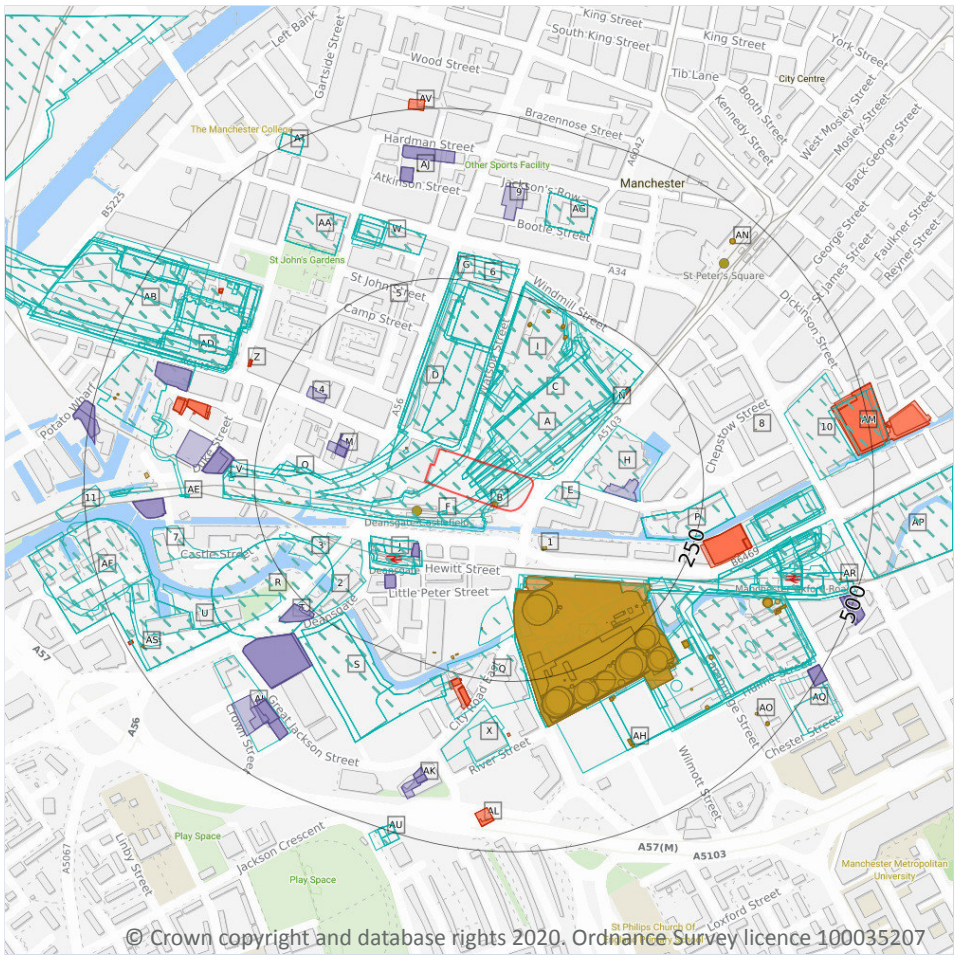
1.6 Historical military land

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



2.1 Historical industrial land uses

Records within 500m	325

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 31**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Railway Station**	**1938**	**896284**
A	**On site**	**Railway Station**	**1932**	**896284**
A	**On site**	**Railway Station**	**1916**	**896284**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Railway Station**	**1905**	**896284**
A	**On site**	**Railway Station**	**1923**	**896284**
A	**On site**	**Railway Station**	**1956**	**888631**
A	**On site**	**Disused Station**	**1978**	**925495**
A	**On site**	**Railway Sidings**	**1896**	**975593**
A	**On site**	**Railway Station**	**1896**	**915817**
C	**On site**	**Railway Sidings**	**1938**	**982150**
C	**On site**	**Railway Sidings**	**1932**	**982150**
C	**On site**	**Railway Sidings**	**1916**	**871753**
C	**On site**	**Railway Sidings**	**1905**	**871753**
C	**On site**	**Railway Sidings**	**1923**	**923309**
C	**On site**	**Railway Sidings**	**1956**	**917334**
D	14m NW	Railway Sidings	1971	946450
D	14m NW	Railway Sidings	1978	989903
D	14m NW	Railway Sidings	1985	958621
E	24m SE	Bus Station	1978	842916
A	25m N	Disused Station	1985	891253
F	29m S	Railway Building	1938	978111
F	29m S	Railway Building	1932	978111
F	29m S	Railway Building	1916	978111
F	29m S	Railway Building	1905	978111
F	29m S	Railway Building	1923	978111
C	37m NW	Railway Building	1923	820272
E	42m NE	Railway Building	1938	985774
E	42m NE	Railway Building	1932	985774
E	42m NE	Railway Building	1916	985774
E	42m NE	Railway Building	1905	985774
E	42m NE	Railway Building	1923	985774

ID	Location	Land Use	Date	Group ID
C	44m N	Railway Building	1923	820271
G	59m NW	Railway Buildings	1923	833657
H	60m E	Cotton Mills	1851	811452
I	80m N	Goods Station	1923	943574
I	83m N	Goods Station	1938	883356
I	83m N	Goods Station	1932	883356
I	83m N	Goods Station	1916	938206
I	83m N	Goods Station	1905	938206
J	86m S	Railway Station	1971	962338
J	86m S	Railway Station	1956	962338
J	86m S	Railway Station	1978	855265
K	94m S	Unspecified Commercial/Industrial	1896	849974
I	95m N	Goods Station	1956	923306
J	97m S	Railway Station	1988	880682
J	97m S	Railway Station	1985	880682
J	97m S	Railway Station	1994	880682
K	100m S	Unspecified Commercial/Industrial	1938	872530
K	100m S	Unspecified Commercial/Industrial	1932	872530
K	100m S	Gas Works	1916	927583
K	100m S	Gas Works	1905	927583
K	100m S	Gas Works	1923	927583
K	100m S	Unspecified Works	1971	976313
K	108m S	Unspecified Commercial/Industrial	1956	976686
J	110m S	Railway Station	1938	975016
J	110m S	Railway Station	1932	975016
J	110m S	Railway Station	1916	975016
J	110m S	Railway Station	1905	975016
J	110m S	Railway Station	1923	975016

ID	Location	Land Use	Date	Group ID
J	117m SW	Railway Station	1896	899988
L	121m S	Unspecified Tank	1956	940796
L	126m S	Cotton Mill	1851	797881
L	128m S	Unspecified Tank	1896	890603
2	129m SW	Unspecified Commercial/Industrial	1851	796718
L	129m S	Unspecified Tank	1971	856760
L	129m S	Unspecified Tank	1978	858491
L	129m S	Unspecified Tank	1985	858491
L	130m S	Gasometer	1916	885805
L	130m S	Gasometer	1905	885805
L	130m S	Unspecified Tank	1938	946195
L	130m S	Unspecified Tank	1932	946195
L	130m S	Gasometer	1923	885805
3	147m SW	Unspecified Commercial/Industrial	1851	796720
N	149m NE	Railway Building	1938	946173
N	149m NE	Railway Building	1932	946173
O	153m W	Railway Buildings	1938	962263
O	153m W	Railway Buildings	1932	962263
O	153m W	Railway Buildings	1916	962263
O	153m W	Railway Buildings	1905	962263
O	153m W	Railway Buildings	1923	962263
G	155m N	Goods Station	1938	846931
G	155m N	Goods Station	1932	846931
G	155m N	Goods Station	1916	846931
G	155m N	Goods Station	1905	846931
G	155m N	Goods Station	1923	846931
G	162m N	Goods Station	1971	945855
G	162m N	Disused Goods Station	1978	814351

ID	Location	Land Use	Date	Group ID
G	163m N	Goods Station	1956	945355
P	166m E	Corporation Yard	1938	920120
P	166m E	Corporation Yard	1932	920120
P	166m E	Corporation Yard	1916	920120
P	166m E	Corporation Yard	1905	920120
P	166m E	Corporation Yard	1923	920120
Q	179m S	Brewery	1851	822706
R	181m SW	Quay	1938	872988
R	181m SW	Quay	1932	872988
R	181m SW	Quay	1916	872988
R	181m SW	Quay	1905	872988
R	181m SW	Quay	1923	872988
K	186m SE	Unspecified Works	1978	921026
L	191m S	Railway Sidings	1896	794671
K	199m SE	Unspecified Commercial/Industrial	1851	849974
K	208m SE	Unspecified Tank	1851	825228
K	213m SE	Unspecified Tank	1851	825227
K	213m SE	Railway Sidings	1938	864885
K	213m SE	Railway Sidings	1932	864885
K	213m SE	Railway Sidings	1916	864885
K	213m SE	Railway Sidings	1905	864885
K	213m SE	Railway Sidings	1923	864885
K	221m SE	Rubber Works	1938	926915
K	221m SE	Rubber Works	1932	926915
K	221m SE	Unspecified Commercial/Industrial	1905	944072
K	221m SE	Rubber Works	1923	926915
K	224m SE	Rubber Works	1916	915281
S	225m SW	Unspecified Works	1971	948531

ID	Location	Land Use	Date	Group ID
S	225m SW	Automobile Works	1956	813191
S	225m SW	Unspecified Works	1978	940175
K	232m SE	Gas Works	1978	953907
K	232m SE	Gas Works	1985	894760
S	237m SW	Unspecified Mill	1938	877197
S	237m SW	Unspecified Mill	1932	877197
S	237m SW	Unspecified Mill	1916	904261
S	237m SW	Unspecified Commercial/Industrial	1905	896875
S	237m SW	Unspecified Commercial/Industrial	1923	846058
K	248m SE	Unspecified Tanks	1956	991069
K	253m SE	Unspecified Tanks	1896	952761
K	253m SE	Gasometer	1916	961140
K	253m SE	Gasometer	1905	961140
K	253m SE	Unspecified Tank	1938	893786
K	253m SE	Unspecified Tank	1932	893786
K	253m SE	Gasometer	1923	961140
6	257m N	Railway Buildings	1923	833653
K	260m SE	Unspecified Tank	1971	953873
K	260m SE	Gasometer	1978	909770
K	260m SE	Gasometer	1985	937412
K	262m SE	Gasometer	1916	856404
K	262m SE	Gasometer	1905	856404
K	262m SE	Unspecified Tank	1938	943763
K	262m SE	Unspecified Tank	1932	943763
K	262m SE	Gasometer	1923	856404
K	264m S	Unspecified Tanks	1956	927953
K	265m S	Unspecified Tank	1971	973500
K	265m S	Gasometer	1978	910445

ID	Location	Land Use	Date	Group ID
K	269m SE	Gasometer	1916	911162
K	269m SE	Gasometer	1905	911162
K	269m SE	Unspecified Tank	1938	864386
K	269m SE	Unspecified Tank	1932	864386
K	269m SE	Gasometer	1923	911162
U	270m SW	Quay	1851	846276
K	273m S	Gasometer	1916	967050
K	273m S	Gasometer	1905	967050
K	273m S	Unspecified Tank	1938	989404
K	273m S	Unspecified Tank	1932	989404
K	273m S	Gasometer	1923	967050
K	274m S	Gasometer	1916	964160
K	274m S	Gasometer	1905	964160
K	274m S	Unspecified Tank	1938	939747
K	274m S	Unspecified Tank	1932	939747
K	274m S	Gasometer	1923	964160
V	278m W	Railway Building	1916	972538
V	280m W	Railway Building	1923	820260
V	283m W	Railway Building	1938	982027
V	283m W	Railway Building	1932	982027
K	285m SE	Unspecified Commercial/Industrial	1896	857423
7	286m W	Slate Wharf	1851	837258
W	286m N	Hospital	1971	988332
W	286m N	Hospital	1956	988332
W	286m N	Hospital	1978	946410
K	287m SE	Gasometer	1916	889070
K	287m SE	Gasometer	1905	889070
K	287m SE	Unspecified Tank	1938	961454

ID	Location	Land Use	Date	Group ID
K	287m SE	Unspecified Tank	1932	961454
K	287m SE	Gasometer	1923	889070
X	288m S	Unspecified Works	1971	830421
K	288m SE	Unspecified Works	1988	862878
K	288m SE	Unspecified Works	1978	976366
K	288m SE	Unspecified Works	1985	862878
K	288m SE	Unspecified Works	1994	862878
K	292m SE	Railway Sidings	1896	989778
K	292m SE	Rubber Works	1956	849382
K	293m SE	Unspecified Tank	1851	987864
X	301m S	Glass Works	1851	797987
K	302m SE	Railway Sidings	1988	928139
K	302m SE	Railway Sidings	1985	928139
K	302m SE	Railway Sidings	1994	928139
W	308m N	Hospital	1916	943105
W	309m N	Hospital	1923	963711
K	310m SE	Unspecified Works	1988	927569
K	310m SE	Unspecified Works	1978	865006
K	310m SE	Unspecified Works	1985	927569
K	310m SE	Unspecified Works	1994	927569
W	311m N	Hospital	1938	946842
W	311m N	Hospital	1932	946842
K	318m E	Hospital	1923	848326
W	320m N	Hospital	1988	928879
W	320m N	Hospital	1985	928879
K	323m E	Hospital	1938	949847
K	323m E	Hospital	1932	949847
AA	323m NW	Unspecified Works	1938	898924

ID	Location	Land Use	Date	Group ID
AA	323m NW	Unspecified Works	1932	898924
AA	323m NW	Unspecified Commercial/Industrial	1905	935109
AA	323m NW	Unspecified Commercial/Industrial	1923	991353
AB	324m NW	Railway Sidings	1916	893253
AC	326m NW	Railway Sidings	1923	921834
AC	327m NW	Railway Sidings	1988	962023
AC	327m NW	Railway Sidings	1994	962023
AD	327m NW	Railway Building	1971	911620
AD	327m NW	Railway Building	1978	848652
AD	327m NW	Railway Building	1985	938373
K	327m E	Coal Wharf	1851	794097
AC	328m NW	Goods Depot	1971	912312
AC	328m NW	Railway Sidings	1956	956450
AC	328m NW	Goods Depot	1978	893922
AD	328m NW	Railway Sidings	1956	951082
K	328m E	Hospital	1971	915521
K	328m E	Hospital	1956	915521
K	328m E	Hospital	1978	957282
AC	329m NW	Railway Sidings	1896	979167
AD	329m NW	Railway Buildings	1896	833656
AB	331m NW	Railway Sidings	1938	893253
AB	331m NW	Railway Sidings	1932	936526
AB	331m NW	Railway Sidings	1905	984895
AD	331m NW	Goods Sheds	1938	958104
AD	331m NW	Goods Sheds	1932	958104
AD	331m NW	Goods Sheds	1916	958104
AD	331m NW	Goods Sheds	1905	958104
AD	331m NW	Goods Sheds	1923	958104

ID	Location	Land Use	Date	Group ID
K	331m E	Railway Station	1938	962635
K	331m E	Railway Station	1932	962635
K	331m E	Railway Station	1916	962635
K	331m E	Railway Station	1905	962635
K	331m E	Railway Station	1923	962635
K	332m E	Hospital	1916	938342
AD	332m NW	Goods Station	1956	821661
AD	335m NW	Goods Sheds	1938	880509
AD	335m NW	Goods Sheds	1932	880509
AD	335m NW	Goods Sheds	1916	880509
AD	335m NW	Goods Sheds	1905	880509
AD	335m NW	Goods Sheds	1923	880509
AD	338m NW	Railway Building	1971	983624
AD	338m NW	Railway Building	1978	907268
AD	338m NW	Railway Building	1985	923295
K	340m SE	Unspecified Tank	1851	825246
AE	346m W	Railway Building	1916	846298
AE	346m W	Railway Building	1905	846298
AE	346m W	Railway Building	1923	846298
K	350m E	Railway Station	1896	887032
V	350m W	Unspecified Ground Workings	1851	800610
K	351m E	Railway Station	1956	923967
K	357m E	Gas Works	1851	802208
AF	358m SW	Unspecified Depot	1988	921090
AF	358m SW	Unspecified Depot	1978	853404
AF	358m SW	Unspecified Depot	1985	921090
AF	358m SW	Unspecified Depot	1994	921090
AG	359m N	Police Station	1971	884199

ID	Location	Land Use	Date	Group ID
AG	359m N	Police Station	1956	884199
AG	359m N	Police Station	1988	940998
AG	359m N	Police Station	1978	880849
AG	359m N	Police Station	1985	940998
AG	359m N	Police Station	1994	940998
K	365m E	Railway Station	1988	912150
K	365m E	Railway Station	1994	912150
K	368m E	Railway Station	1971	960776
K	368m E	Railway Building	1956	820261
K	368m E	Railway Station	1978	981767
K	368m E	Railway Station	1985	962611
AD	372m W	Unspecified Depot	1988	896077
AD	372m W	Unspecified Depot	1985	896077
AD	374m NW	Railway Buildings	1938	921932
AD	374m NW	Railway Buildings	1932	921932
AD	376m NW	Railway Building	1916	869326
AD	376m NW	Railway Building	1905	869326
AD	376m NW	Railway Building	1923	869326
K	378m SE	Unspecified Tank	1896	825247
AI	379m SW	Unspecified Depot	1971	818414
10	382m E	Unspecified Commercial/Industrial	1923	796724
K	384m SE	Unspecified Tanks	1851	815405
U	391m SW	Warehouse	1851	837278
AC	392m NW	Unspecified Commercial/Industrial	1851	796722
K	394m E	Tanks	1851	832185
V	400m W	Railway Buildings	1905	833631
AC	400m NW	Railway Sidings	1851	921813
AC	423m NW	Railway Sidings	1971	888837

ID	Location	Land Use	Date	Group ID
AC	423m NW	Railway Sidings	1978	944715
AC	423m NW	Railway Sidings	1985	891167
AF	423m W	Quay	1851	846276
V	429m W	Railway Building	1916	906988
AF	433m W	Unspecified Warehouses	1971	812727
V	434m W	Railway Building	1923	906988
V	440m W	Railway Building	1938	878526
V	440m W	Railway Building	1932	878526
AM	446m E	Electricity Station	1923	992043
AC	449m NW	Railway Building	1971	913293
AC	449m NW	Railway Building	1956	913293
AC	449m NW	Railway Building	1978	967702
AC	449m NW	Railway Building	1985	916120
AF	453m SW	Unspecified Ground Workings	1851	800608
AC	454m NW	Goods Sheds	1938	895888
AC	454m NW	Goods Sheds	1932	895888
AC	454m NW	Goods Sheds	1916	895888
AC	454m NW	Goods Sheds	1905	895888
AC	454m NW	Goods Sheds	1923	895888
AM	457m E	Electricity Station	1916	992043
AP	460m E	Unspecified Mills	1938	989884
AP	460m E	Unspecified Mills	1932	989884
AP	460m E	Unspecified Mills	1916	861845
AP	460m E	Unspecified Commercial/Industrial	1905	968335
AP	460m E	Unspecified Commercial/Industrial	1923	874542
AQ	460m SE	Unspecified Mills	1923	874195
AF	462m W	Warehouse	1851	837277
11	471m W	Timber Wharf	1851	811392

ID	Location	Land Use	Date	Group ID
AC	477m NW	Railway Building	1896	878088
AT	477m NW	Hospital	1971	860292
AT	477m NW	Hospital	1988	942775
AT	477m NW	Hospital	1978	862722
AT	477m NW	Hospital	1985	942775
AT	477m NW	Hospital	1994	942775
AU	489m S	Police Station	1971	857014
AU	489m S	Police Station	1978	959949
AU	489m S	Police Station	1985	942388
AQ	497m SE	Unspecified Mills	1916	874195
AU	497m S	Fire Station	1938	891974
AU	498m S	Fire Station	1971	964050
AU	498m S	Fire Station	1978	845320
AU	498m S	Fire Station	1985	871241

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**230**

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 31**

ID	Location	Land Use	Date	Group ID
B	**On site**	**Tanks**	**1951**	**130142**
B	**On site**	**Tanks**	**1948**	**130142**
B	**On site**	**Tanks**	**1979**	**130142**
B	**On site**	**Tanks**	**1963**	**130142**
B	**On site**	**Tanks**	**1948**	**141151**
E	35m NE	Unspecified Tank	1891	115955

ID	Location	Land Use	Date	Group ID
C	42m NW	Unspecified Tank	1979	148049
C	42m NW	Unspecified Tank	1979	134110
1	67m SE	Tanks	1891	106783
K	99m S	Gas Works	1908	148771
K	107m SE	Gas Works	1893	148771
K	108m SE	Gas Works	1891	138194
K	109m SE	Gas Works	1922	148353
L	122m S	Unspecified Tank	1969	138911
L	122m S	Unspecified Tank	1953	138911
L	123m S	Unspecified Tank	1979	134540
L	123m S	Unspecified Tank	1963	134540
L	123m S	Unspecified Tank	1948	134540
L	123m S	Unspecified Tank	1980	129756
L	123m S	Unspecified Tank	1980	129756
L	123m S	Unspecified Tank	1985	129756
L	128m S	Gasometer	1908	137166
L	128m S	Gasometer	1922	137166
L	128m S	Unspecified Tank	1932	149223
L	154m SE	Unspecified Tank	1979	126042
L	155m SE	Unspecified Tank	1969	135604
L	155m SE	Unspecified Tank	1953	135604
L	156m SE	Unspecified Tank	1980	135604
L	156m SE	Unspecified Tank	1980	135604
L	156m SE	Unspecified Tank	1985	135604
L	160m SE	Unspecified Tank	1908	134188
L	160m SE	Unspecified Tank	1922	134188
L	160m SE	Unspecified Tank	1932	134188
L	176m S	Unspecified Tank	1891	115954

ID	Location	Land Use	Date	Group ID
O	200m W	Unspecified Tank	1932	115649
I	208m N	Unspecified Tank	1986	147812
I	210m N	Unspecified Tank	1988	136452
I	210m N	Unspecified Tank	1986	144065
I	211m N	Unspecified Tank	1996	136452
I	211m N	Unspecified Tank	1995	136452
I	211m N	Unspecified Tank	1994	136452
I	211m N	Unspecified Tank	1999	136452
K	211m S	Gas Works	1948	138071
K	211m SE	Tanks	1969	124597
K	211m SE	Tanks	1953	124597
K	211m SE	Tanks	1979	124597
K	211m SE	Tanks	1948	124597
I	211m N	Unspecified Tank	1988	124833
K	211m SE	Unspecified Tank	1891	115953
I	212m N	Unspecified Tank	1996	144065
I	212m N	Unspecified Tank	1995	144065
I	212m N	Unspecified Tank	1994	144065
I	212m N	Unspecified Tank	1999	144065
K	215m SE	Tanks	1969	129358
K	215m SE	Tanks	1953	129358
K	217m SE	Tanks	1979	106781
K	221m SE	Unspecified Tank	1979	115952
K	221m SE	Tanks	1948	147005
Q	221m S	Tanks	1948	106777
K	221m SE	Unspecified Tank	1969	140316
I	222m N	Unspecified Tank	1986	148721
K	223m SE	Unspecified Tank	1969	131914

ID	Location	Land Use	Date	Group ID
K	223m SE	Unspecified Tank	1953	131914
K	223m SE	Gas Holder Station	1980	144973
K	223m SE	Gas Holder Station	1980	144973
K	223m SE	Disused Gas Holder Station	1985	108346
K	223m SE	Unspecified Tank	1979	131914
K	223m SE	Unspecified Tank	1963	131914
K	223m SE	Unspecified Tank	1948	131914
I	224m N	Unspecified Tank	1988	133750
I	225m N	Unspecified Tank	1996	148721
I	225m N	Unspecified Tank	1995	148721
I	225m N	Unspecified Tank	1994	148721
I	225m N	Unspecified Tank	1999	148721
Q	226m S	Tanks	1948	107130
K	229m SE	Unspecified Tank	1891	115951
5	230m N	Unspecified Tank	1891	115646
Q	230m S	Unspecified Tank	1891	115779
K	232m SE	Unspecified Tank	1891	133313
K	234m S	Tanks	1893	133419
K	235m S	Tanks	1891	127920
I	239m N	Unspecified Tank	1988	137115
I	239m N	Unspecified Tank	1996	137115
I	239m N	Unspecified Tank	1995	137115
I	239m N	Unspecified Tank	1994	137115
I	239m N	Unspecified Tank	1999	137115
K	251m SE	Gasometers	1908	124662
K	251m SE	Gasometers	1922	124662
K	251m SE	Tanks	1932	107129
K	251m SE	Unspecified Tank	1953	127502

ID	Location	Land Use	Date	Group ID
K	251m SE	Unspecified Tank	1979	148209
K	251m SE	Unspecified Tank	1963	148209
K	251m SE	Gasometer	1948	135973
K	251m SE	Gasometer	1893	128004
K	252m SE	Gasometer	1891	128004
K	259m S	Unspecified Tank	1979	129606
K	259m S	Unspecified Tank	1948	129606
K	260m SE	Unspecified Tank	1979	138510
K	260m SE	Unspecified Tank	1963	138510
K	260m SE	Gasometer	1948	142120
K	260m SE	Gasometer	1969	136753
K	260m SE	Unspecified Tank	1953	134836
K	262m SE	Gasometer	1893	136753
K	262m SE	Gas Holder	1980	125516
K	262m SE	Gas Holder	1980	125516
K	262m SE	Gas Holder	1985	125516
K	262m SE	Gasometer	1891	124584
K	263m SE	Unspecified Tank	1969	140482
K	263m SE	Unspecified Tank	1953	140482
K	263m SE	Unspecified Tank	1979	140482
K	263m SE	Unspecified Tank	1963	140482
K	265m SE	Unspecified Tank	1980	140482
K	265m SE	Unspecified Tank	1980	140482
K	265m SE	Unspecified Tank	1985	140482
K	265m SE	Unspecified Tank	1893	143653
K	266m SE	Unspecified Tank	1891	143653
K	267m S	Unspecified Tank	1979	141523
K	267m S	Unspecified Tank	1963	141523

ID	Location	Land Use	Date	Group ID
K	267m S	Gasometer	1948	135027
K	267m S	Gasometer	1969	129302
K	267m S	Unspecified Tank	1953	145833
K	269m S	Unspecified Tank	1979	128106
K	269m S	Unspecified Tank	1963	128106
K	269m S	Gasometer	1948	135717
K	269m SE	Gasometer	1893	138389
K	269m S	Unspecified Tank	1969	137402
K	269m S	Unspecified Tank	1953	137402
K	270m S	Unspecified Tank	1979	137402
K	270m S	Unspecified Tank	1963	137402
K	270m S	Unspecified Tank	1953	136419
K	270m S	Gasometer	1893	129302
K	270m SE	Gasometer	1891	126443
K	270m SE	Unspecified Tank	1953	147656
K	271m SE	Unspecified Tank	1979	147656
K	271m SE	Unspecified Tank	1963	147656
K	271m S	Gasometer	1893	135717
K	272m SE	Unspecified Tank	1893	147070
K	280m SE	Gasometer	1969	108524
K	280m SE	Unspecified Tank	1953	147415
K	281m SE	Unspecified Tank	1979	147415
K	281m SE	Unspecified Tank	1963	147415
K	281m SE	Unspecified Tank	1893	123594
K	281m SE	Unspecified Tank	1980	147415
K	281m SE	Unspecified Tank	1985	147415
K	286m SE	Gasometer	1893	138622
K	286m SE	Unspecified Tank	1979	129031

ID	Location	Land Use	Date	Group ID
K	286m SE	Unspecified Tank	1963	129031
K	286m SE	Gasometer	1948	144835
K	287m SE	Unspecified Tank	1953	128601
K	288m SE	Gasometer	1891	138622
K	292m SE	Unspecified Tank	1893	125584
K	292m SE	Gasometer	1891	108523
K	308m SE	Unspecified Tank	1998	124573
K	308m SE	Unspecified Tank	1998	138462
K	309m SE	Unspecified Tank	1969	138462
K	309m SE	Unspecified Tank	1969	148192
K	309m SE	Unspecified Tank	1953	148192
K	309m SE	Unspecified Tank	1979	148192
K	309m SE	Unspecified Tank	1948	148192
K	309m SE	Unspecified Tank	1980	148192
K	309m SE	Unspecified Tank	1985	148192
K	309m SE	Unspecified Tank	1987	148192
K	309m SE	Unspecified Tank	1987	148192
K	309m SE	Unspecified Tank	1990	148192
K	310m SE	Unspecified Tank	1980	133041
K	310m SE	Unspecified Tank	1980	133041
K	310m SE	Unspecified Tank	1985	133041
K	310m SE	Unspecified Tank	1987	133041
K	310m SE	Unspecified Tank	1987	133041
K	310m SE	Unspecified Tank	1990	133041
K	312m SE	Unspecified Tank	1987	144099
K	312m SE	Unspecified Tank	1987	144099
K	312m SE	Unspecified Tank	1990	144099
K	317m SE	Unspecified Tank	1893	137941

ID	Location	Land Use	Date	Group ID
K	318m SE	Unspecified Tank	1891	137941
8	336m E	Unspecified Tank	1891	115956
K	353m SE	Unspecified Tank	1893	122317
K	353m SE	Unspecified Tank	1922	122317
K	365m SE	Unspecified Tank	1908	115778
AH	375m SE	Unspecified Tank	1969	133333
AH	375m SE	Unspecified Tank	1953	133333
AH	376m SE	Unspecified Tank	1979	133333
AH	376m SE	Unspecified Tank	1948	133333
K	377m SE	Unspecified Tank	1893	115950
K	378m SE	Gasometer	1891	131372
K	379m SE	Gasometer	1908	131372
AH	385m SE	Unspecified Tank	1980	135450
AH	385m SE	Unspecified Tank	1980	135450
AH	385m SE	Unspecified Tank	1985	135450
K	394m SE	Unspecified Tank	1922	115957
K	397m SE	Tanks	1953	106778
K	399m SE	Unspecified Tank	1893	143428
K	399m SE	Unspecified Tank	1922	143428
K	400m SE	Unspecified Tank	1948	145471
K	400m SE	Unspecified Tank	1953	145471
K	400m SE	Tanks	1950	106780
K	400m SE	Unspecified Tank	1955	135178
K	400m SE	Unspecified Tank	1955	135178
K	401m SE	Unspecified Tank	1948	135406
K	402m SE	Unspecified Tank	1953	135406
K	402m SE	Unspecified Tank	1955	123253
K	404m SE	Unspecified Tank	1948	141893

ID	Location	Land Use	Date	Group ID
K	404m SE	Unspecified Tank	1953	141893
V	404m W	Unspecified Tank	1922	115648
K	405m SE	Unspecified Tank	1955	135180
AJ	409m N	Unspecified Tank	1891	115645
AN	454m NE	Unspecified Tank	1996	133983
AN	454m NE	Unspecified Tank	1995	133983
AN	454m NE	Unspecified Tank	1994	133983
AN	454m NE	Unspecified Tank	1999	133983
AO	458m SE	Unspecified Tank	1922	115781
AD	466m W	Unspecified Tank	1963	133635
AD	467m W	Unspecified Tank	1963	133635
AD	469m W	Unspecified Tank	1963	131255
AD	470m W	Unspecified Tank	1963	131255
AR	471m E	Unspecified Tank	1953	136354
AR	471m E	Unspecified Tank	1955	136262
AS	477m SW	Unspecified Tank	1980	132153
AS	477m SW	Unspecified Tank	1980	143849
AS	478m SW	Unspecified Tank	1963	141829
AS	478m SW	Unspecified Tank	1960	123914
AS	478m SW	Unspecified Tank	1969	143958
AO	480m SE	Unspecified Tank	1969	122344
AO	480m SE	Unspecified Tank	1953	122344
AO	480m SE	Unspecified Tank	1980	122344
AO	480m SE	Unspecified Tank	1980	122344
AO	480m SE	Unspecified Tank	1985	122344
AO	480m SE	Unspecified Tank	1979	122344
AO	480m SE	Unspecified Tank	1963	122344
AO	480m SE	Unspecified Tank	1948	122344

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**115**

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 31**

ID	Location	Land Use	Date	Group ID
K	99m S	Gas Works	1908	79545
K	107m SE	Gas Works	1893	79545
K	108m SE	Gas Works	1891	72601
K	109m SE	Gas Works	1922	81689
L	128m S	Gasometer	1908	65948
L	128m S	Gasometer	1922	65948
N	180m NE	Electricity Substation	1979	80627
N	180m NE	Electricity Substation	1963	80627
N	180m NE	Electricity Substation	1948	80627
N	180m NE	Electricity Substation	1951	80627
N	180m NE	Electricity Substation	1973	80627
N	180m NE	Electricity Substation	1948	80627
N	181m NE	Electricity Substation	1985	80627
K	211m S	Gas Works	1948	66529
K	223m SE	Gas Holder Station	1980	77508
K	223m SE	Gas Holder Station	1980	77508
K	223m SE	Disused Gas Holder Station	1985	59539
K	251m SE	Gasometers	1908	65853
K	251m SE	Gasometers	1922	65853
K	251m SE	Gasometer	1948	78274
K	251m SE	Gasometer	1893	80269
K	252m SE	Gasometer	1891	80269
Q	254m S	Electricity Substation	1998	73868

ID	Location	Land Use	Date	Group ID
Q	255m S	Electricity Transformers	1969	83603
Q	255m S	Electricity Transformers	1980	83603
Q	255m S	Electricity Transformers	1980	83603
Q	255m S	Electricity Transformers	1985	83603
K	260m SE	Gasometer	1948	71445
K	260m E	Hydraulic Power Station	1932	78003
K	260m SE	Gasometer	1969	68062
K	262m SE	Gasometer	1893	68062
K	262m SE	Gas Holder	1980	70318
K	262m SE	Gas Holder	1980	70318
K	262m SE	Gas Holder	1985	70318
K	262m E	Hydraulic Power Station	1979	64692
K	262m E	Hydraulic Power Station	1948	64692
K	262m SE	Gasometer	1891	67026
K	263m E	Hydraulic Power Station	1951	64396
K	263m E	Hydraulic Power Station	1973	64396
K	263m E	Hydraulic Power Station	1948	64396
Q	265m S	Electricity Substation	1953	78830
Q	265m S	Electricity Substation	1979	78830
Q	265m S	Electricity Substation	1948	78830
K	267m S	Gasometer	1948	69283
Q	267m S	Electricity Substation	1969	82938
Q	267m S	Electricity Substation	1980	82938
Q	267m S	Electricity Substation	1980	82938
Q	267m S	Electricity Substation	1985	82938
Q	267m S	Electricity Substation	1987	82938
Q	267m S	Electricity Substation	1987	82938
Q	267m S	Electricity Substation	1990	82938

ID	Location	Land Use	Date	Group ID
K	267m S	Gasometer	1969	65691
K	269m S	Gasometer	1948	65525
K	269m SE	Gasometer	1893	75823
K	270m S	Gasometer	1893	65691
K	270m SE	Gasometer	1891	71699
K	271m S	Gasometer	1893	65525
K	280m SE	Gasometer	1969	59717
K	284m SE	Electricity Substation	1998	62182
K	286m SE	Gasometer	1893	71826
K	286m SE	Gasometer	1948	64845
K	288m SE	Gasometer	1891	71826
K	292m SE	Gasometer	1891	59716
Z	300m NW	Electricity Substation	1979	75611
Z	300m NW	Electricity Substation	1948	75611
Z	301m NW	Electricity Substation	1995	75611
Z	301m NW	Electricity Substation	1994	75611
Z	301m NW	Electricity Substation	1995	75611
Z	301m NW	Electricity Substation	1981	75611
Z	301m NW	Electricity Substation	1979	75611
Z	301m NW	Electricity Substation	1948	75611
Z	302m NW	Electricity Substation	1986	75611
Z	302m NW	Electricity Substation	1990	75611
K	317m E	Electricity Substation	1985	65682
K	318m E	Electricity Substation	1951	65682
K	318m E	Electricity Substation	1988	65682
K	318m E	Electricity Substation	1973	65682
K	318m E	Electricity Substation	1948	65682
K	318m E	Electricity Substation	1996	65682

ID	Location	Land Use	Date	Group ID
K	318m E	Electricity Substation	1995	65682
K	318m E	Electricity Substation	1994	65682
K	318m E	Electricity Substation	1999	65682
K	318m E	Electricity Substation	1979	65682
X	326m S	Electricity Substation	1998	62183
AD	331m W	Electricity Substation	1979	77417
AD	333m W	Electricity Substation	1995	82695
AD	333m W	Electricity Substation	1979	80738
AD	336m W	Electricity Substation	1948	80738
AD	351m W	Electricity Substation	1948	82720
AD	367m W	Electricity Substation	1986	67819
AD	367m W	Electricity Substation	1990	69796
AD	371m W	Electricity Substation	1981	80246
AD	371m W	Electricity Substation	1995	83961
AD	371m W	Electricity Substation	1994	83961
K	378m SE	Gasometer	1891	84082
K	379m SE	Gasometer	1908	84082
AD	393m NW	Electricity Substation	1995	67220
AD	393m NW	Electricity Substation	1986	67220
AD	393m NW	Electricity Substation	1990	67220
AD	393m NW	Electricity Substation	1995	65816
AD	393m NW	Electricity Substation	1994	65816
AL	437m S	Electricity Substation	1979	83591
AL	437m S	Electricity Substation	1948	83591
AM	450m E	Electricity Station	1922	81883
AL	451m S	Electricity Substation	1953	65840
AM	451m E	Electricity Station	1908	81883
AM	457m E	Electricity Station	1955	66381

ID	Location	Land Use	Date	Group ID
AM	461m E	Electricity Station	1950	66381
AM	461m E	Electricity Station	1948	73425
AS	489m SW	Electricity Substation	1995	72564
AS	489m SW	Electricity Substation	1997	72564
AS	489m SW	Electricity Substation	1995	72564
AS	489m SW	Electricity Substation	1997	72564
AV	497m N	Electricity Substation	1957	67933
AV	498m N	Electricity Substation	1957	67933

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	**92**

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 31**

ID	Location	Land Use	Date	Group ID
J	88m S	Garage	1979	26858
J	88m S	Garage	1963	26858
J	88m S	Garage	1986	26912
J	88m S	Garage	1990	26912
J	88m S	Garage	1963	26858

ID	Location	Land Use	Date	Group ID
J	88m S	Garage	1981	26858
J	88m S	Garage	1979	26858
H	104m E	Garage	1973	20296
M	122m W	Garage	1995	24725
M	122m W	Garage	1994	24725
M	122m W	Garage	1981	24287
M	123m W	Garage	1995	20992
M	124m W	Garage	1986	24287
M	124m W	Garage	1990	24287
J	143m S	Garage	1960	25290
J	143m S	Garage	1969	25290
J	143m S	Garage	1963	25290
L	147m S	Garage	1979	24802
L	147m S	Garage	1963	24802
L	147m S	Garage	1953	24802
4	181m NW	Garage	1981	20294
T	253m SW	Garage	1980	25490
T	253m SW	Garage	1980	25490
T	258m SW	Garage	1969	22918
V	281m W	Garage	1981	26958
V	282m W	Garage	1986	26958
V	283m W	Garage	1963	21869
V	291m W	Garage	1963	21949
Y	294m SW	Garage	1980	25615
Y	294m SW	Garage	1980	25615
Y	294m SW	Garage	1990	25615
Y	298m SW	Garage	1995	27082
Y	298m SW	Garage	1997	27082

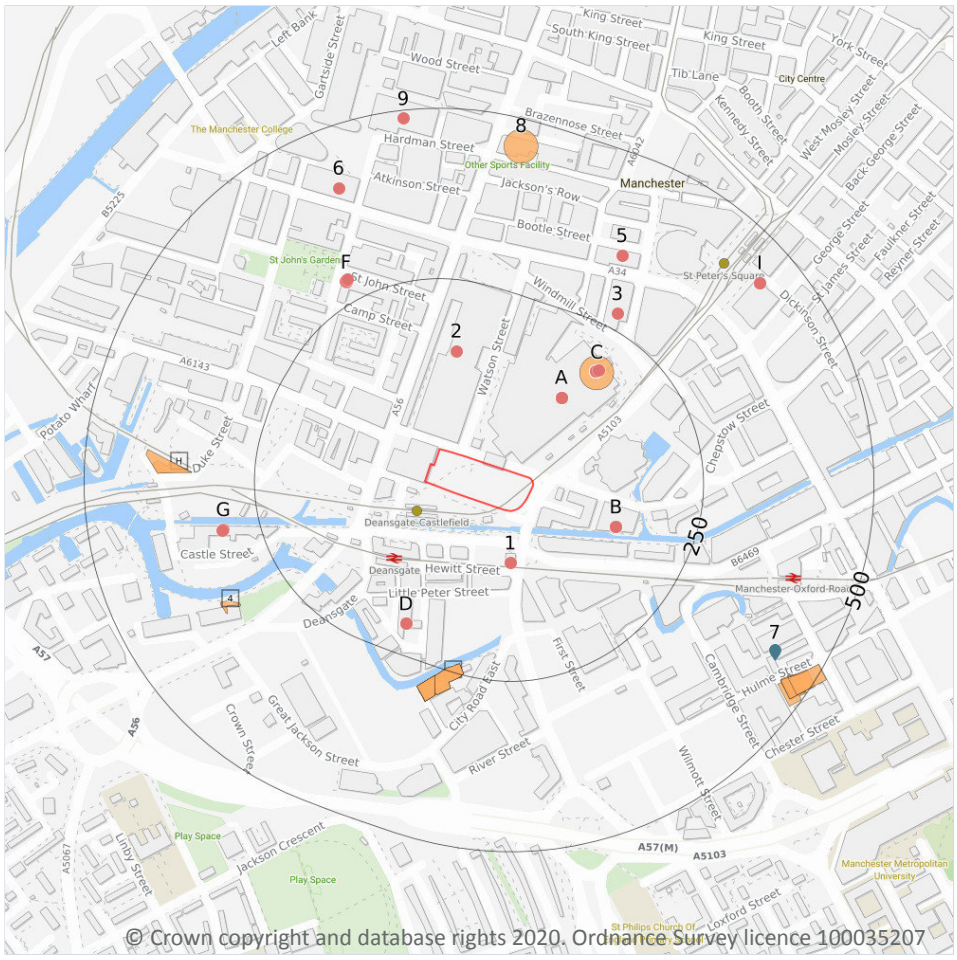
ID	Location	Land Use	Date	Group ID
Y	298m SW	Garage	1995	27082
Y	298m SW	Garage	1997	27082
V	316m W	Garage	1981	20293
9	351m N	Garage	1948	20292
AD	373m W	Garage	1981	24611
AD	373m W	Garage	1986	24611
AD	373m W	Garage	1990	24611
V	382m W	Garage	1963	25923
V	384m W	Garage	1963	25923
V	384m W	Garage	1981	25923
V	384m W	Garage	1986	21682
AJ	393m N	Garage	1962	24856
AJ	393m N	Garage	1973	24856
AJ	393m N	Garage	1970	24856
AJ	393m N	Garage	1963	24856
AI	396m SW	Garage	1980	24581
AI	396m SW	Garage	1990	24581
AI	396m SW	Garage	1980	21660
AK	396m S	Garage	1963	24336
AI	397m SW	Garage	1979	23209
AI	397m SW	Garage	1963	21028
AI	397m SW	Garage	1995	24964
AI	397m SW	Garage	1997	24964
AI	397m SW	Garage	1995	24964
AI	397m SW	Garage	1997	24964
AI	397m SW	Garage	1960	25973
AI	397m SW	Garage	1969	25973
AK	398m S	Garage	1979	22408

ID	Location	Land Use	Date	Group ID
AK	405m S	Garage	1960	24336
AK	405m S	Garage	1959	21005
AI	411m SW	Garage	1959	23792
AJ	420m N	Garage	1970	27244
AJ	420m N	Garage	1963	27244
AJ	422m N	Garage	1962	24181
AR	479m E	Garage	1995	27861
AR	479m E	Garage	1998	27861
AR	479m E	Garage	1987	27861
AR	479m E	Garage	1969	27861
AR	479m E	Garage	1948	27861
AR	479m E	Garage	1953	27861
AR	479m E	Garage	1962	27861
AD	482m W	Boat Repair Yard	1948	26540
AQ	483m SE	Garage	1987	25909
AQ	483m SE	Garage	1969	25909
AQ	483m SE	Garage	1962	25909
AQ	483m SE	Garage	1965	25909
AQ	483m SE	Garage	1965	25909
AQ	483m SE	Garage	1968	21471
AQ	484m SE	Garage	1985	25909
AR	484m E	Garage	1965	26377
AR	484m E	Garage	1965	26377
AR	484m E	Garage	1968	26377
AR	485m E	Garage	1955	26377
AR	485m E	Garage	1990	26377
AR	485m E	Garage	1985	26377
AD	487m W	Boat Repair Yard	1949	26540

ID	Location	Land Use	Date	Group ID
AD	488m W	Boat Repair Yard	1949	27284
AD	490m W	Boat Repair Yard	1949	26540
AD	490m W	Boat Repair Yard	1953	27284

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	17

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 61**

ID	Location	Address	Further Details	Date
C	157m NE	Site Address: Manchester Central Convention, Windmill Street, Manchester, Greater Manchester, M2 3GX	Type of Site: Recycling Centre Planning application reference: 103313/FO/2013/C1 Description: Scheme comprises relocation of waste storage facility to allow creation of a business recycling centre and construction of screening. Data source: Historic Planning Application Data Type: Point	12/11/2013
E	235m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1987
E	235m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1987

ID	Location	Address	Further Details	Date
E	235m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1990
E	262m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1968
E	262m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1995
E	262m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1997
E	262m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1995
4	324m SW	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1948
H	341m W	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1979
H	342m W	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1986

ID	Location	Address	Further Details	Date
8	434m N	Site Address: St. Johns House, 2-10 Queen Street, MANCHESTER, Greater Manchester, M2 5JB	Type of Site: Recycling Storage Facility Planning application reference: 088327/FO/2008/C1 Description: Scheme comprises construction of recycling storage facility and bicycle storage facility including mesh fencing to lloyd street elevation. Construction - fencing site works. An application (ref: 088327/FO/2008/C1) for detailed planning permission was w hdrawn from Manchester C.C. Planning decision obtained Data source: Historic Planning Application Data Type: Point	-
J	457m 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	1932
J	457m 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	1953
J	457m 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	1932
J	458m 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	1953
J	464m 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	1948

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

3.6 Licensed waste sites

Records within 500m	1

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

Features are displayed on the Waste and landfill map on **page 61**

ID	Location	Details		
7	428m SE	Site Name: Terra Vac (uk) Ltd Site Address: Little Ireland Phase B, Great Marlborough Street, Manchester, M1 5NN Correspondence Address: Unit 7a, Whitwood Enterprise Park, Castleford, WF10 5PX	Type of Site: Mobile Plant Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TER003 EPR reference: - Operator: Terra Vac (uk) Ltd Waste Management licence No: 50191 Annual Tonnage: 0	Issue Date: 17/06/2002 Effective Date: - Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

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

3.7 Waste exemptions

Records within 500m	44

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 61**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	77m S	Axis Tower, Albion Street, Manchester, M1 5NZ	WEX074989	Using waste exemption	Not on a farm	Use of waste in construction
A	126m N	, WINDMILL STREET, MANCHESTER, M2 3GX	WEX217816	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	126m N	, WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Storing waste exemption	Not on a farm	Storage of waste in secure containers
A	126m N	, WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	126m N	, WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Sorting mixed waste
A	126m N	, WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Manual treatment of waste

ID	Location	Site	Reference	Category	Sub-Category	Description
A	126m N	, WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Treatment of waste food
A	126m N	, WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Treatment of kitchen waste in a wormery
A	126m N	, WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
A	126m N	, WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Screening and blending of waste
A	126m N	, WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Recovery of scrap metal
A	126m N	, WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Using waste exemption	Not on a farm	Use of waste in construction
A	126m N	, WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Using waste exemption	Not on a farm	Use of waste in the construction of entertainment or educational installations etc
A	126m N	, WINDMILL STREET, MANCHESTER, M2 3GX	WEX063339	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	136m SE	EVERSHEDS HOUSE 70 GREAT BRIDGEWATER STREET MANCHESTER M1 5ES	EPR/QE5657AK/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of kitchen waste in a wormery
B	136m SE	EVERSHEDS HOUSE 70 GREAT BRIDGEWATER STREET MANCHESTER M1 5ES	EPR/QE5657AK/A001	Using waste exemption	Non-Agricultural Waste Only	Spreading waste on non-agricultural land to confer benefit
B	136m SE	EVERSHEDS HOUSE 70 GREAT BRIDGEWATER STREET MANCHESTER M1 5ES	EPR/QE5657AK/A001	Using waste exemption	Non-Agricultural Waste Only	Use of mulch
2	145m N	THE MEWS, GREAT NORTHERN WAREHOUSE 235 DEANSGATE MANCHESTER M3 4EN	EPR/BF0603EU/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in the construction of entertainment or educational installations etc
C	184m NE	-	WEX210229	Storing waste exemption	Not on a farm	Storage of waste in a secure place

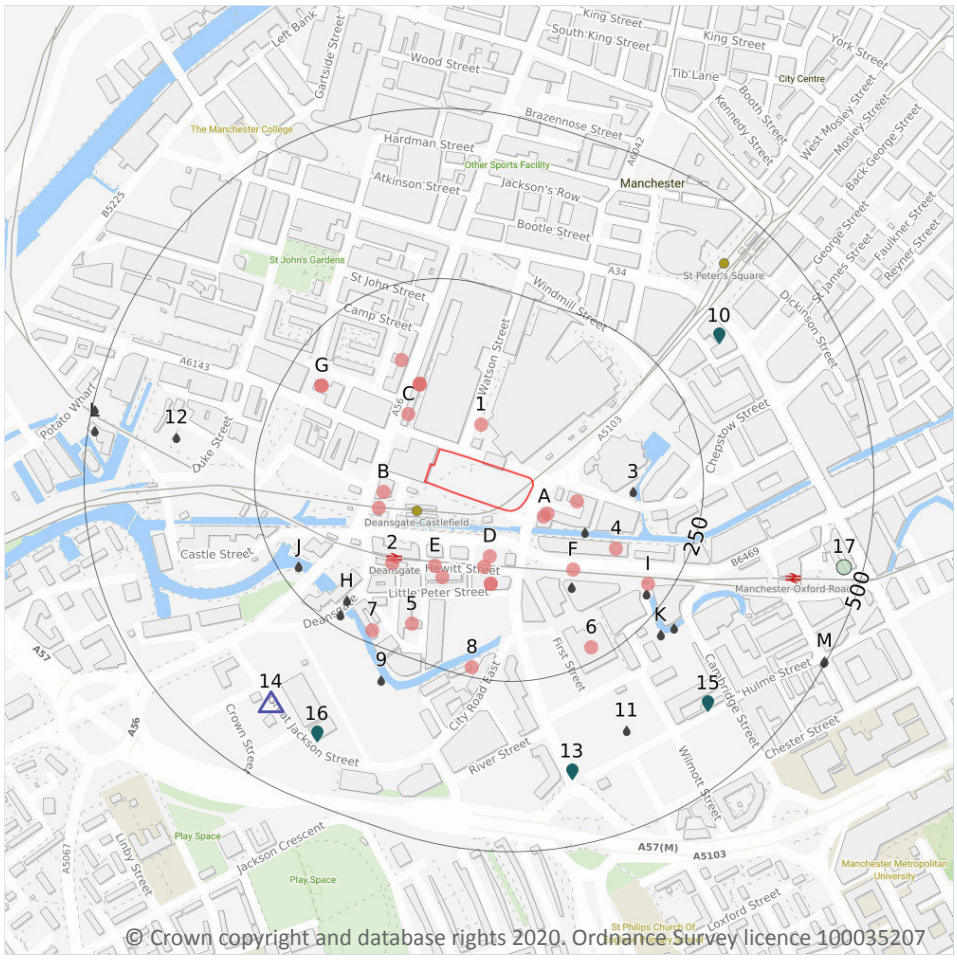
ID	Location	Site	Reference	Category	Sub-Category	Description
C	184m NE	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers
C	184m NE	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
C	184m NE	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE/A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting mixed waste
C	184m NE	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE/A001	Treating waste exemption	Non-Agricultural Waste Only	Manual treatment of waste
C	184m NE	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste food
C	184m NE	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of kitchen waste in a wormery
C	184m NE	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE/A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
C	184m NE	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE/A001	Treating waste exemption	Non-Agricultural Waste Only	Screening and blending of waste
C	184m NE	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE/A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of scrap metal
C	184m NE	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction

ID	Location	Site	Reference	Category	Sub-Category	Description
C	184m NE	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in the construction of entertainment or educational installations etc
C	187m NE	MANCHESTER CENTRAL CONVENTION COMPLEX PETERSFIELD MANCHESTER M2 3GX	EPR/KE5983NV/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
D	206m S	1, ALPHA PLACE, MANCHESTER, M15 4PP	WEX017965	Storing waste exemption	Not on a farm	Storage of waste in secure containers
D	206m S	1, ALPHA PLACE, MANCHESTER, M15 4PP	WEX017965	Storing waste exemption	Not on a farm	Storage of waste in a secure place
3	272m NE	Windmill Green, 24 Mount Street, Manchester, M2 3NN	WEX105155	Using waste exemption	Not on a farm	Use of waste in construction
F	280m NW	25 St. John Street MANCHESTER M3 4DT	EPR/DE5245SP/A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal
F	281m NW	98, HARLEY STREET, LONDON, W1G 7HZ	WEX099367	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
F	283m NW	25 St John Street M34DT	EPR/FE5081QV/A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal
G	304m W	Bestway Panacea Holdings Limited, BULK REGISTRATION for Bestway Panacea Holdings Limited for 108 sites, M34LZ	NRW-WME005755	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
G	306m W	Bestway National Chemists LTD, BULK REGISTRATION for Bestway National Chemists Ltd (107 sites), M34LZ	NRW-WME036650	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
5	352m NE	Brazennose House M2 5PB	EPR/ZE5544KA/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place

ID	Location	Site	Reference	Category	Sub-Category	Description
6	410m N	1 Spinningfields M3 3JE	EPR/QE5341ZN/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction
I	441m NE	New Build Construction Works by Russells, 3 St Peter Square, Manchester, M2 3DF	WEX118443	Treating waste exemption	Not on a farm	Screening and blending of waste
I	441m NE	New Build Construction Works by Russells, 3 St Peter Square, Manchester, M2 3DF	WEX118443	Using waste exemption	Not on a farm	Use of waste in construction
9	487m N	Barclays Bank PLC, 1st Floor, 3 Hardman Street Manchester M3 3HF	EPR/AH0474PP/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place

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

4 Current industrial land use



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4.1 Recent industrial land uses

Records within 250m	27

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 70**

ID	Location	Company	Address	Activity	Category
A	36m SE	Locus Properties Ltd	19, Albion Wharf, Manchester, Greater Manchester, M1 5LN	Business Parks and Industrial Estates	Industrial Features
A	38m SE	Albion Wharf	Greater Manchester, M1	Moorings and Unloading Facilities	Water

ID	Location	Company	Address	Activity	Category
1	52m N	Duffy Motors Manchester Ltd	Arch 16-17, Watson Street, Manchester, Greater Manchester, M3 4LP	Vehicle Repair, Testing and Servicing	Repair and Servicing
B	63m W	Nettl	323-325, Deansgate, Manchester, Greater Manchester, M3 4LQ	Published Goods	Industrial Products
A	68m E	Electricity Sub Station	Greater Manchester, M1	Electrical Features	Infrastructure and Facilities
C	68m NW	Feather & Black Ltd	289-291, Deansgate, Manchester, Greater Manchester, M3 4EW	Beds and Bedding	Consumer Products
D	71m S	Warehouse	Greater Manchester, M1	Container and Storage	Transport, Storage and Delivery
B	78m SW	Deansgate-Castlefield (Mancheste r Metrolink)	Greater Manchester, M3	Tram, Metro and Light Railway Stations and Stops	Public Transport, Stations and Infrastructure
D	89m S	Mancoco	84, Hewitt Street, Manchester, Greater Manchester, M15 4GB	Food and Beverage Industry Machinery	Industrial Products
C	99m N	Isovitality Nutriceutica ls Ltd	Great Northern Warehouse 275, Deansgate, Manchester, Greater Manchester, M3 4EL	Catering and Non Specific Food Products	Foodstuffs
C	100m N	Natural Flooring Solutions	Great Northern Warehouse 275, Deansgate, Manchester, Greater Manchester, M3 4EL	Construction Completion Services	Construction Services
C	100m N	Cars for Stars	Great Northern Warehouse 275, Deansgate, Manchester, Greater Manchester, M3 4EL	Vehicle Hire and Rental	Hire Services
E	110m S	G T Autos	88, Hewitt Street, Manchester, Greater Manchester, M15 4GB	Vehicle Repair, Testing and Servicing	Repair and Servicing
D	111m S	Miller Energy	Madison House 37, Little Peter Street, Manchester, Greater Manchester, M15 4QJ	Structural Engineers	Engineering Services
D	111m S	E P C Now	37, Little Peter Street, Manchester, Greater Manchester, M15 4QJ	Civil Engineers	Engineering Services
F	120m SE	Kickstart Motorcycles	77 Arches, Whitworth Street West, Manchester, Greater Manchester, M1 5WQ	Vehicle Repair, Testing and Servicing	Repair and Servicing
E	122m S	Integra Consulting	14-32, Hewitt Street, Manchester, Greater Manchester, M15 4GB	Structural Engineers	Engineering Services
2	129m S	Deansgate Rail Station	Greater Manchester, M15	Railway Stations, Junctions and Halts	Public Transport, Stations and Infrastructure

ID	Location	Company	Address	Activity	Category
C	141m NW	Santander Corporate Banking	298, Deansgate, Manchester, Greater Manchester, M3 4HH	Vehicle Hire and Rental	Hire Services
4	150m SE	Curtins	17-19, Whitworth Street West, Manchester, Greater Manchester, M1 5WG	Structural Engineers	Engineering Services
G	196m NW	R M R I Consulting Ltd	Castlefield House, Liverpool Road, Manchester, Greater Manchester, M3 4SB	Civil Engineers	Engineering Services
G	197m NW	N U Oil & Gas	Fifth Floor Castlefield House, Liverpool Road, Manchester, Greater Manchester, M3 4SB	Special Purpose Machinery and Equipment	Industrial Products
5	203m S	Zerum	4, Jordan Street, Manchester, Greater Manchester, M15 4PY	Civil Engineers	Engineering Services
I	217m SE	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities
6	230m SE	Auto Trader Ltd	1, Tony Wilson Place, Manchester, Greater Manchester, M15 4FN	Published Goods	Industrial Products
7	231m S	Hulley & Kirkwood	2, Commercial Street, Manchester, Greater Manchester, M15 4RQ	Civil Engineers	Engineering Services
8	236m S	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	**1**

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 70**

ID	Location	Company	Address	LPG	Status
14	395m SW	OBSOLETE	14, Great Jackson Street, Castlefield, Manchester, Greater Manchester, M15 4NG	Not Applicable	Obsolete

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	4

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 70**

ID	Location	Address	Details	
10	346m NE	The Laundry Shop, Unit 5, Peter House, Oxford Street, Manchester	Process: Dry Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
13	392m S	Jessop & Baird Ltd, Hulme St, M15 6AL	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

ID	Location	Address	Details	
15	398m SE	Dunlop Ltd, Cambridge St, M60 1PD	Process: Rubber Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
16	403m SW	Tom Garner Motors, A Branch of Robins & Day Ltd, Chester Rd, Manchester, M15 4GA	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

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	**26**

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 70**

ID	Location	Address	Details	
A	99m SE	TRUMPET STREET, SSO, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 01MAN0168 Permit Version: 1 Receiving Water: RIVER TIB CULVERT-MEDLOCK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 15/09/1993 Revocation Date: 15/09/1993
F	139m SE	ALBION STREET/HEWITT ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982706 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 30/09/1994 Revocation Date: 13/11/2019

ID	Location	Address	Details	
F	139m SE	ALBION STREET/HEWITT ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0251 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: 01/01/1995
3	146m E	GREAT BRIDGEWATER ST, OPPOSITE CHEPSTOW STREET, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 01MAN0163 Permit Version: 1 Receiving Water: RIVER TIB CULVERT	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 15/09/1993 Revocation Date: 15/09/1993
H	209m SW	DEANSGATE, L. PETER ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0157 Permit Version: 1 Receiving Water: TUNNEL TO 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	209m SW	DEANSGATE, L. PETER ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0157 Permit Version: 2 Receiving Water: TUNNEL TO MEDLOCK	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 18/07/2014
J	223m SW	POTATO WHARF, OFF LIVERPOOL RD, MANCHESTER	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: 0175/5 Permit Version: 1 Receiving Water: CROWTON BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 20/01/1975 Revocation Date: 31/03/1991
J	223m SW	POTATO WHARF, OFF LIVERPOOL RD, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0175/5 Permit Version: 1 Receiving Water: CROWTON BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 20/01/1975 Revocation Date: 31/03/1991
J	223m SW	POTATO WHARF, OFF LIVERPOOL RD, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0175/5 Permit Version: 2 Receiving Water: CROWTON BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/04/1991 Revocation Date: 31/12/1994

ID	Location	Address	Details	
J	223m SW	POTATO WHARF, OFF LIVERPOOL RD, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0175/5 Permit Version: 3 Receiving Water: CROWTON BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/01/1995 Revocation Date: 30/06/1995
J	223m SW	POTATO WHARF, OFF LIVERPOOL RD, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0175/5 Permit Version: 4 Receiving Water: CROWTON BROOK	Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 01/07/1995 Revocation Date: 08/03/2016
I	224m SE	GREAT BRIDGEWATER ST, OPPOSITE CHEPSTOW STREET, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982707 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 30/09/1994 Revocation Date: -
I	224m SE	GREAT BRIDGEWATER ST, OPPOSITE CHEPSTOW STREET, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0252 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: 01/01/1995
H	232m SW	CHESTER RD AT OWEN ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982719 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: - Effective Date: 01/12/1999 Revocation Date: -
H	232m SW	CHESTER RD AT OWEN ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0276 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: 01/12/1999
K	278m SE	CAMBRIDGE STREET CSO 282D9, 1 CAMBRIDGE STREET, MANCHESTER, GREATER MANCHESTER, M1 5BW	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982721 Permit Version: 3 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 11/04/2018 Effective Date: 11/04/2018 Revocation Date: -

ID	Location	Address	Details	
K	278m SE	LOWER CAMBRIDGE ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0285 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: 15/11/1999
K	278m SE	WILMOTT ST AT RIVER ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0184 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
K	286m SE	CAMBRIDGE STREET CSO 282D9, 1 CAMBRIDGE STREET, MANCHESTER, GREATER MANCHESTER, M1 5BW	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982721 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: - Effective Date: 15/11/1999 Revocation Date: 10/04/2018
9	295m S	OWEN STREET, MANCHESTER, M15 4PZ	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: EPRFB3091RH Permit Version: 1 Receiving Water: THE RIVER MEDLOCK	Status: SURRENDERED UNDER EPR 2010 Issue date: 04/10/2016 Effective Date: 04/10/2016 Revocation Date: 02/07/2018
11	362m SE	NEWCASTLE ST/CHESTER ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0361 Permit Version: 1 Receiving Water: -	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: -
12	370m W	RICE ST NEAR CASTLE ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 01MAN0171 Permit Version: 1 Receiving Water: BRIDGEWATER CANAL	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 15/09/1993 Revocation Date: 15/09/1993
L	490m W	TOPHAM RES DEVELOPMENT SWO, LIVERPOOL ROAD/POTATO WHARF, CASTLEFIELD	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991276 Permit Version: 1 Receiving Water: BRIDGEWATER CANAL	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 18/05/1988 Revocation Date: 01/07/1991

ID	Location	Address	Details	
L	496m W	READY MIXED CONCRETE DEPOT, LIVERPOOL ROAD	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: 016990275 Permit Version: 1 Receiving Water: BRIDGEWATER CANAL	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 10/03/1977 Revocation Date: 31/08/1989
M	497m SE	CHESTER STREET CSO, JUNCTION OF CHESTER STREET/, LOWER OSMOND STREET, MANCHESTER, M1 5QF	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016983278 Permit Version: 2 Receiving Water: THE RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 09/07/2018 Effective Date: 09/07/2018 Revocation Date: -
M	497m SE	LOWER ORMOMD ST/HULME ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0282 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: 09/08/2019

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	1

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 70**

ID	Location	Details	
17	471m E	Incident Date: 12/07/2001 Incident Identification: 15886 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 4 (No Impact) 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.

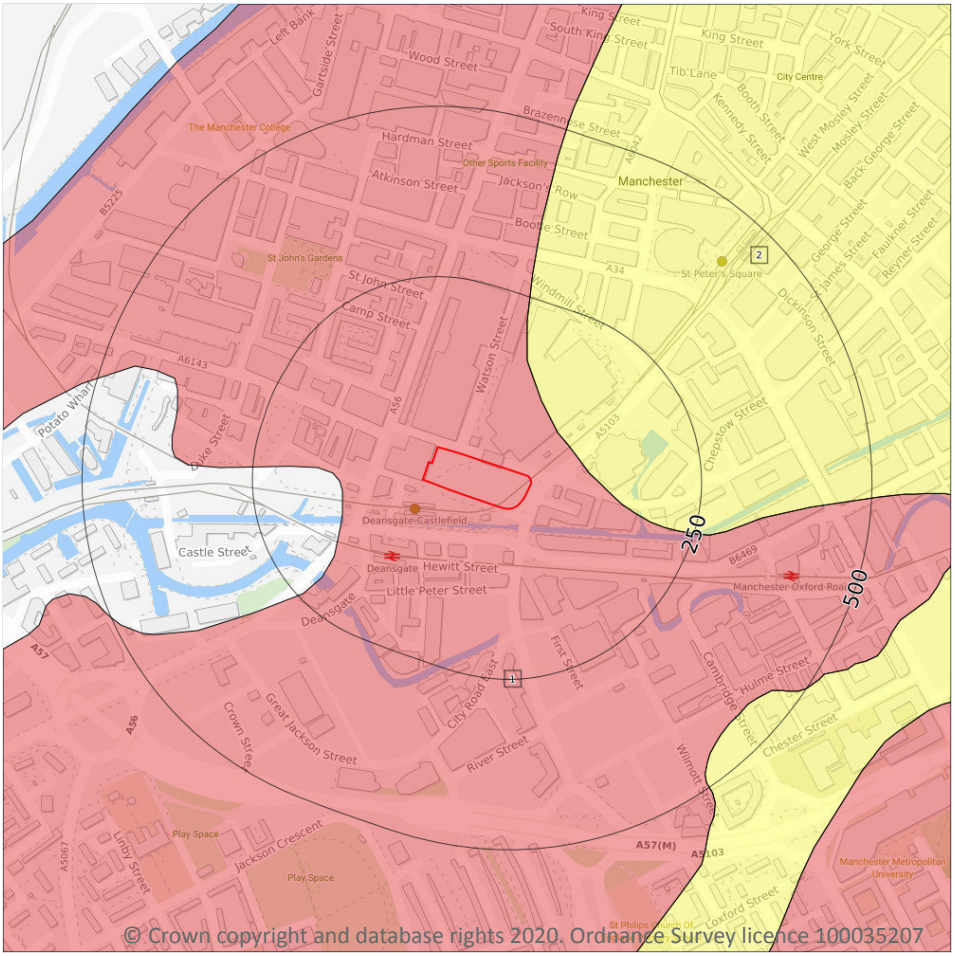
4.21 Pollution inventory radioactive waste

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



5.1 Superficial aquifer

Records within 500m	2

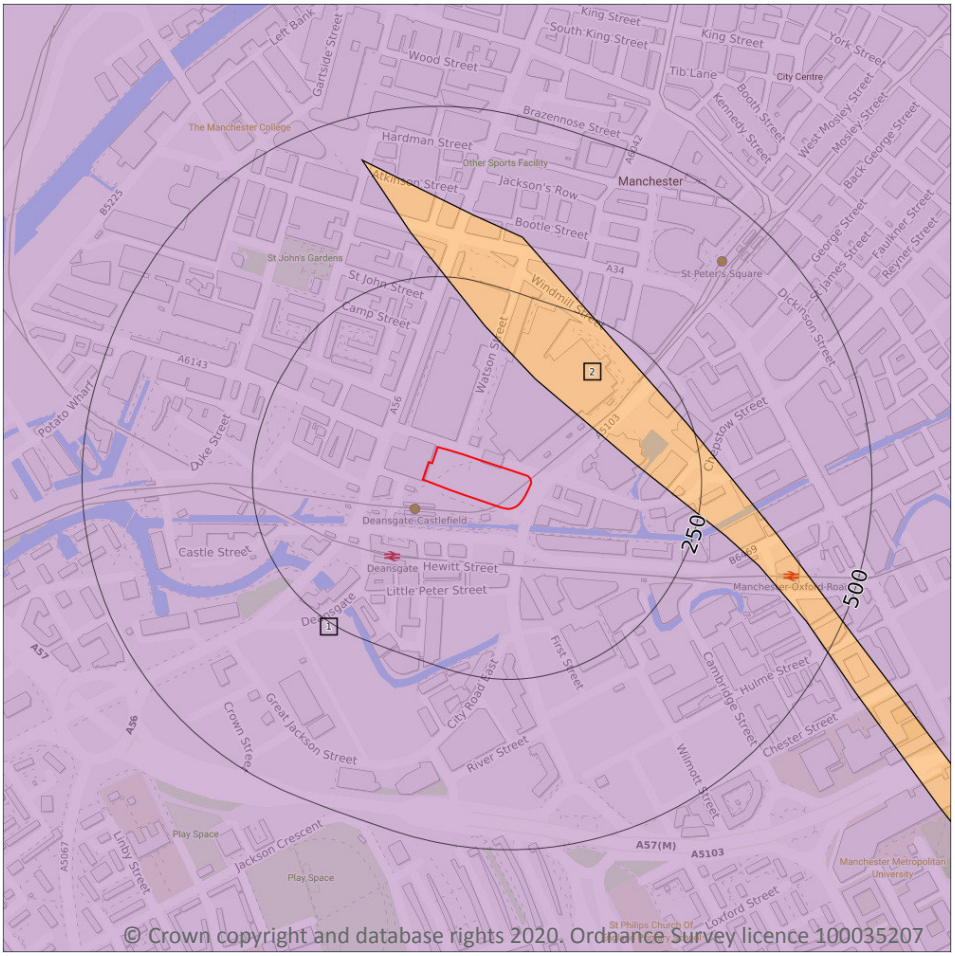
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 82**

ID	Location	Designation	Description
1	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
2	74m NE	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



5.2 Bedrock aquifer

Records within 500m	2

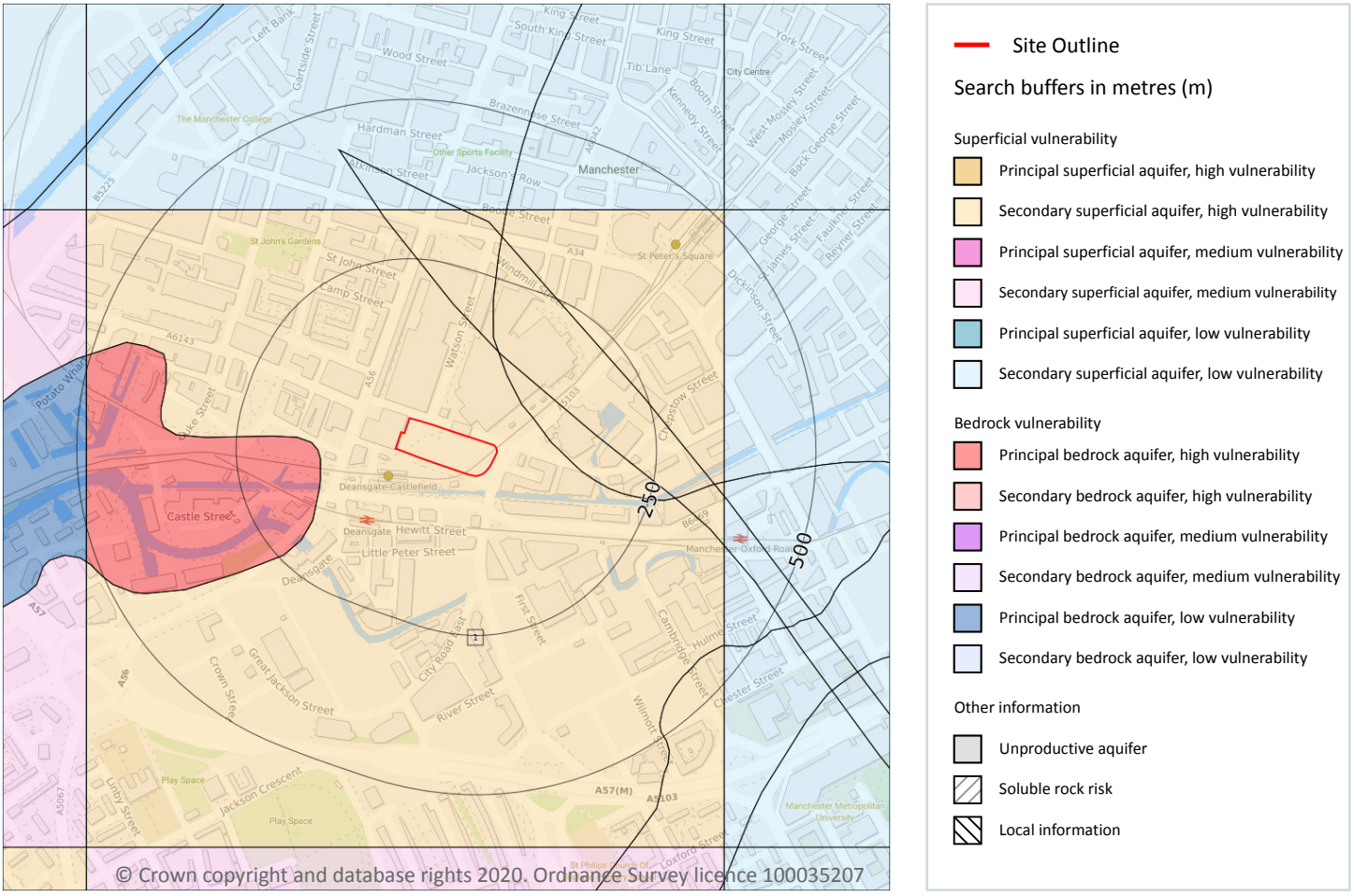
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 84**

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	116m NE	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

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

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m	1

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

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

Features are displayed on the Groundwater vulnerability map on **page 86**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	**Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: High Infiltration value: >70% Dilution value: 300-550mm/year**	**Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: High**	**Vulnerability: High 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	0

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

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

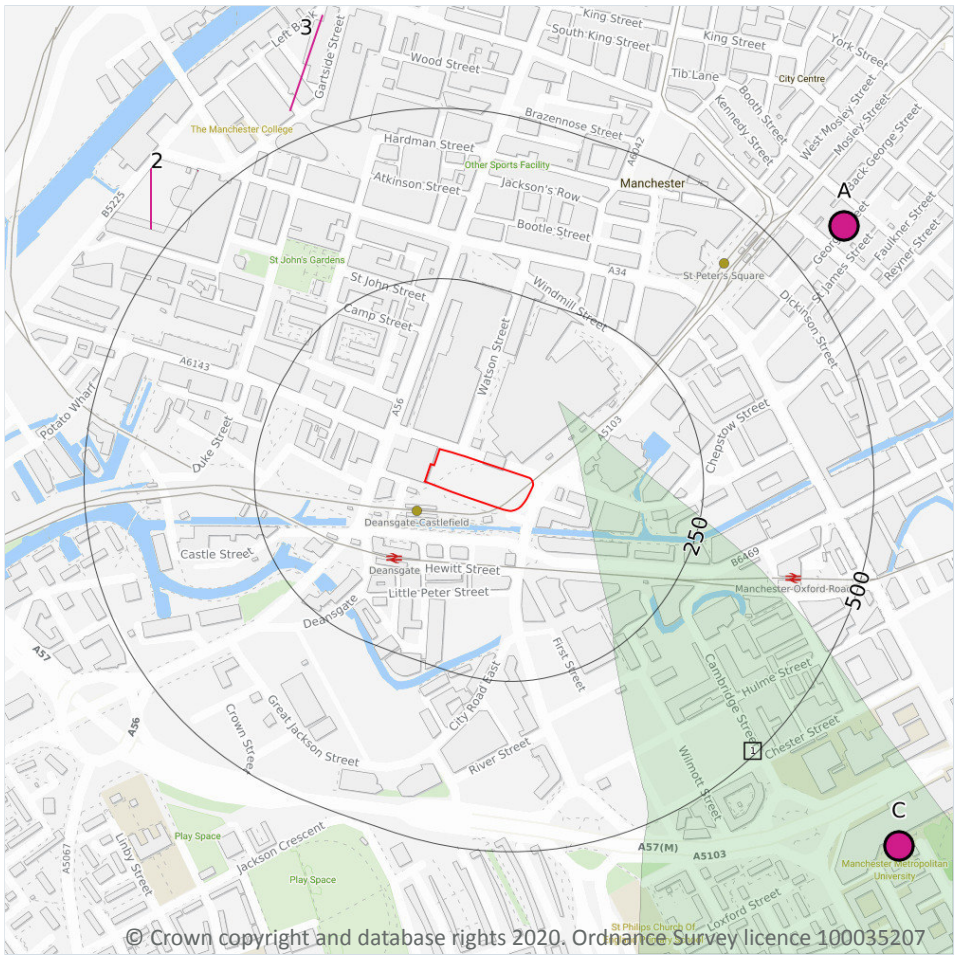
5.5 Groundwater vulnerability- local information

Records on site	0

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

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

Abstractions and Source Protection Zones



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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	47

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 88**

ID	Location	Details	
2	513m NW	Status: Active Licence No: NW/069/0004/019 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: Ground Water - North West Region Point: ST JOHNS MANCHESTER Data Type: Poly4 Name: Manchester Quays Development (MGY) Ltd Easting: 383094 Northing: 398099	Annual Volume (m^3): 543,120 Max Daily Volume (m^3): 1,488 Original Application No: - Original Start Date: 13/09/2019 Expiry Date: 31/12/2020 Issue No: 1 Version Start Date: 13/09/2019 Version End Date: -
3	542m NW	Status: Historical Licence No: 2569007089 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: 2 BOREHOLES AT GARTSIDE STREET MANCHESTER Data Type: Line Name: HER MAJESTY'S COURT SERVICE Easting: 383335 Northing: 398310	Annual Volume (m^3): 200,000 Max Daily Volume (m^3): 1,179 Original Application No: - Original Start Date: 26/01/2005 Expiry Date: 31/03/2011 Issue No: 2 Version Start Date: 10/07/2008 Version End Date: -
A	590m NE	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: -
A	590m NE	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): 1,100 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: -

ID	Location	Details	
-	742m E	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): 139,128 Max Daily Volume (m^3): 1,010 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: -
-	742m E	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): 139,128 Max Daily Volume (m^3): 1,010 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: -
C	745m SE	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): 283,240 Max Daily Volume (m^3): 1,532 Original Application No: - Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -
C	745m SE	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): 283,240 Max Daily Volume (m^3): 1,532 Original Application No: - Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -

ID	Location	Details	
-	842m S	Status: Active Licence No: NW/069/0004/003 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT MANCHESTER METROPOLITAN UNIVERSITY Data Type: Point Name: Manchester Metropolitan University Easting: 383715 Northing: 396746	Annual Volume (m^3): 274,115 Max Daily Volume (m^3): 751 Original Application No: - Original Start Date: 20/09/2013 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/01/2015 Version End Date: -
-	842m S	Status: Active Licence No: NW/069/0004/003 Details: Heat Pump Direct Source: Ground Water - North West Region Point: BOREHOLE AT MANCHESTER METROPOLITAN UNIVERSITY Data Type: Point Name: Manchester Metropolitan University Easting: 383715 Northing: 396746	Annual Volume (m^3): 274,115 Max Daily Volume (m^3): 751 Original Application No: - Original Start Date: 20/09/2013 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/01/2015 Version End Date: -
-	1044m N	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: -
-	1044m N	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: -

ID	Location	Details	
-	1044m N	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: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2007 Version End Date: -
-	1469m NW	Status: Historical Licence No: 2569007085 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT HOPE STREET, SALFORD, MANCHESTER" Data Type: Point Name: READY MIXED CONCRETE (NORTH WEST) LIMITED Easting: 382190 Northing: 398330	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/11/2000 Expiry Date: - Issue No: 1 Version Start Date: 01/11/2000 Version End Date: -
-	1469m NW	Status: Active Licence No: 2569007085 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT HOPE STREET, SALFORD, MANCHESTER Data Type: Point Name: CEMEX UK MATERIALS LTD Easting: 382190 Northing: 398330	Annual Volume (m^3): 23,000 Max Daily Volume (m^3): 115 Original Application No: - Original Start Date: 01/11/2000 Expiry Date: - Issue No: 4 Version Start Date: 21/12/2018 Version End Date: -
-	1548m N	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	
-	1548m N	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: -
-	1548m N	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: -
-	1548m N	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: -
-	1548m N	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): 500,000 Max Daily Volume (m^3): 2,500 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	
-	1548m N	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): 500,000 Max Daily Volume (m^3): 2,500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1580m N	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: -
-	1580m N	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: -
-	1580m N	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	
-	1580m N	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: -
-	1580m N	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): 500,000 Max Daily Volume (m^3): 2,500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1580m N	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): 500,000 Max Daily Volume (m^3): 2,500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1598m E	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: -

ID	Location	Details	
-	1598m E	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): 331,858 Max Daily Volume (m^3): 909 Original Application No: - Original Start Date: 08/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/02/1966 Version End Date: -
-	1613m N	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: -
-	1613m N	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: -
-	1613m N	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: -

ID	Location	Details	
-	1613m N	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: -
-	1613m N	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): 500,000 Max Daily Volume (m^3): 2,500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1613m N	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): 500,000 Max Daily Volume (m^3): 2,500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1692m S	Status: Active Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383865 Northing: 395909	Annual Volume (m^3): 227,000 Max Daily Volume (m^3): 900 Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 08/05/2014 Version End Date: -

ID	Location	Details	
-	1692m S	Status: Active Licence No: 2569007007 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383865 Northing: 395909	Annual Volume (m^3): 227,000 Max Daily Volume (m^3): 900 Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 08/05/2014 Version End Date: -
-	1706m S	Status: Historical Licence No: 2569007007 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER" Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/08/1995 Version End Date: -
-	1706m S	Status: Historical Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER" Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/08/1995 Version End Date: -
-	1706m S	Status: Historical Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/12/2003 Version End Date: -

ID	Location	Details	
-	1706m S	Status: Historical Licence No: 2569007007 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/12/2003 Version End Date: -
-	1706m S	Status: Historical Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383900 Northing: 395900	Annual Volume (m^3): 227,000 Max Daily Volume (m^3): 900 Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 23/11/2009 Version End Date: -
-	1706m S	Status: Historical Licence No: 2569007007 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383900 Northing: 395900	Annual Volume (m^3): 227,000 Max Daily Volume (m^3): 900 Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 23/11/2009 Version End Date: -
-	1775m S	Status: Historical Licence No: 2569007009 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS LANE WEST MANCHESTER" Data Type: Point Name: HYDES BREWERY LTD Easting: 383220 Northing: 395850	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 07/10/2000 Version End Date: -

ID	Location	Details	
-	1775m S	Status: Historical Licence No: 2569007009 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS LANE WEST MANCHESTER" Data Type: Point Name: HYDES BREWERY LTD Easting: 383220 Northing: 395850	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 07/10/2000 Version End Date: -
-	1775m S	Status: Historical Licence No: 2569007009 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS LANE WEST MANCHESTER Data Type: Point Name: HYDES BREWERY LTD Easting: 383220 Northing: 395850	Annual Volume (m^3): 66,826 Max Daily Volume (m^3): 373 Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 07/10/2000 Version End Date: -
-	1775m S	Status: Active Licence No: 2569007009 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS LANE WEST MANCHESTER Data Type: Point Name: HYDES BREWERY LTD Easting: 383220 Northing: 395850	Annual Volume (m^3): 66,826 Max Daily Volume (m^3): 373 Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 19/07/2018 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	**2**

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 88**

ID	Location	Details	
-	1010m W	Status: Historical Licence No: 2569007053 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "R IRWELL AT IRWELL WORKS, ORDSALL LANE, SALFORD" Data Type: Point Name: CDS COMPUTER DESIGN SYSTEMS LTD Easting: 382500 Northing: 397400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 22/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/11/1987 Version End Date: -
-	1010m W	Status: Historical Licence No: 2569007053 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: R IRWELL AT IRWELL WORKS, ORDSALL LANE, SALFORD Data Type: Point Name: CDS COMPUTER DESIGN SYSTEMS LTD Easting: 382500 Northing: 397400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 22/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/11/1987 Version End Date: -

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 88**

ID	Location	Details	
-	1548m N	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	
-	1548m N	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: -
-	1548m N	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): 500,000 Max Daily Volume (m^3): 2,500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1580m N	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: -
-	1580m N	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	
-	1580m N	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): 500,000 Max Daily Volume (m^3): 2,500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1613m N	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: -
-	1613m N	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: -
-	1613m N	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): 500,000 Max Daily Volume (m^3): 2,500 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	1

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 88**

ID	Location	Type	Description
1	73m E	3	Total catchment

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

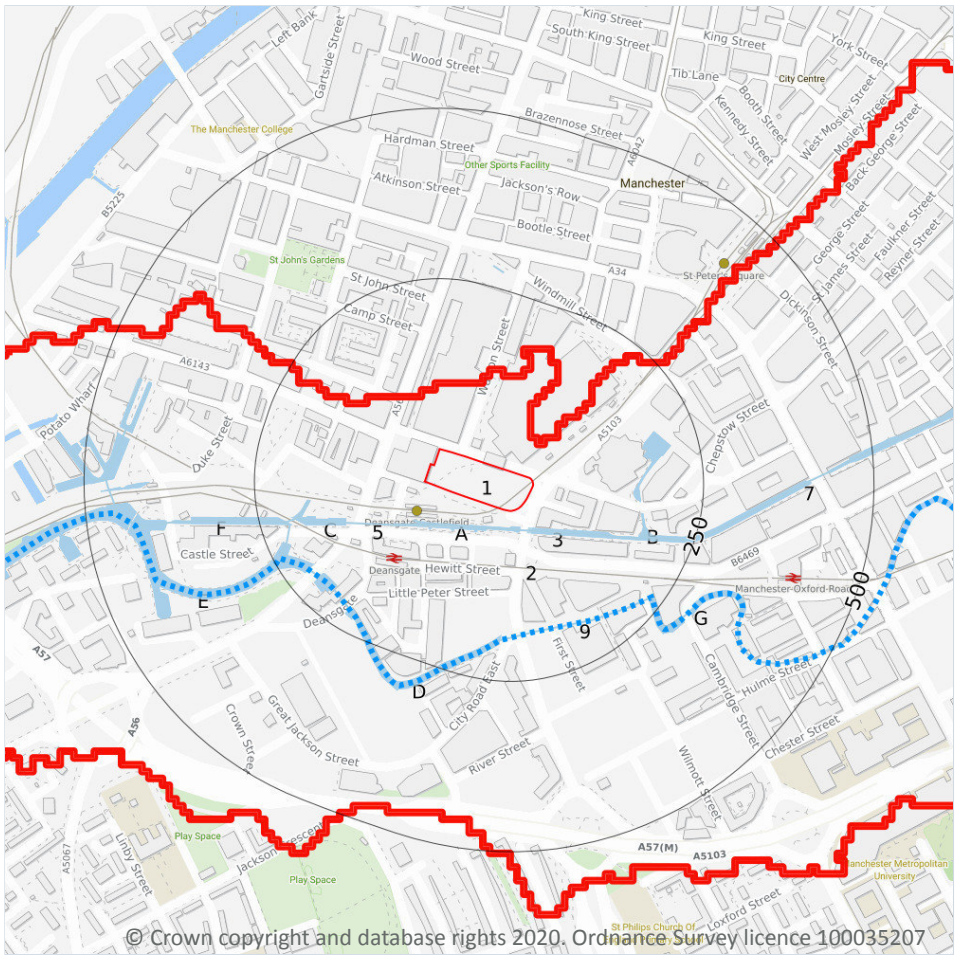
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

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

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

6 Hydrology



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6.1 Water Network (OS MasterMap)

Records within 250m	24

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 105**

ID	Location	Type of water feature	Ground level	Permanence	Name
3	26m S	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal

ID	Location	Type of water feature	Ground level	Permanence	Name
A	45m S	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
A	46m S	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
A	58m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	61m S	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
5	78m SW	Canal. A manmade watercourse for inland navigation.	Underground	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
C	130m SW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
B	169m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	172m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
7	179m SE	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
9	180m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Medlock
D	190m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Medlock
C	193m W	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
C	203m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Medlock

ID	Location	Type of water feature	Ground level	Permanence	Name
C	206m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Medlock
C	207m SW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	River Medlock
C	208m W	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bridgewater Canal
C	208m W	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bridgewater Canal
C	213m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Medlock
F	215m W	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
C	217m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Medlock
C	224m SW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bridgewater Canal
G	232m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Medlock
E	237m SW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bridgewater Canal

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	**9**

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 105**

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 105**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	**On site**	**River WB catchment**	**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	1

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

Features are displayed on the Hydrology map on **page 105**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Biological rating	Year
8	180m S	River	Medlock (Lumb Brook to Irwell)	GB112069061152	Moderate	Good	Moderate	2016

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 105**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
1	**On site**	**Manchester and East Cheshire Permo-Triassic Sandstone Aquifers**	**GB41201G101100**	**Poor**	**Poor**	**Poor**	**2015**

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 Sea (RoFRaS)

Records within 50m	0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition; 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).

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.

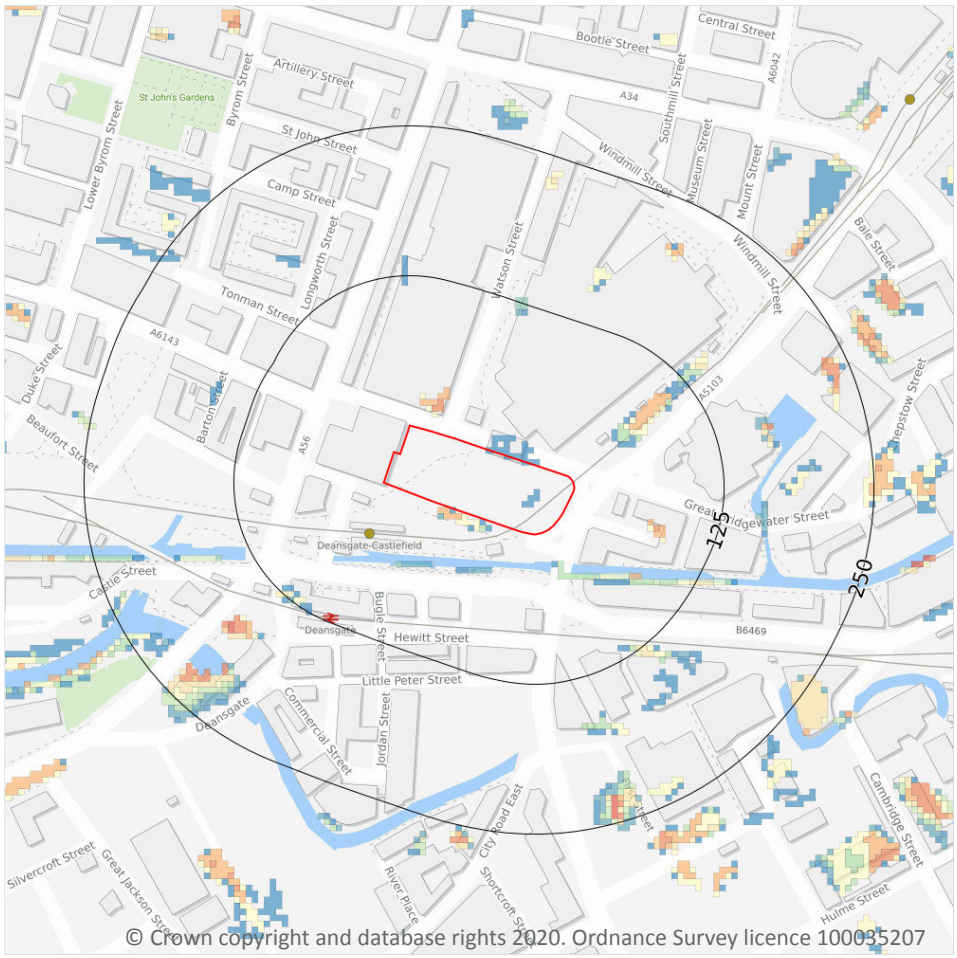
7.7 Flood Zone 3

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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Site Outline

Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site	**1 in 30 year, 0.1m - 0.3m**
Highest risk within 50m	**1 in 30 year, 0.3m - 1.0m**

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

Features are displayed on the Surface water flooding map on **page 113**

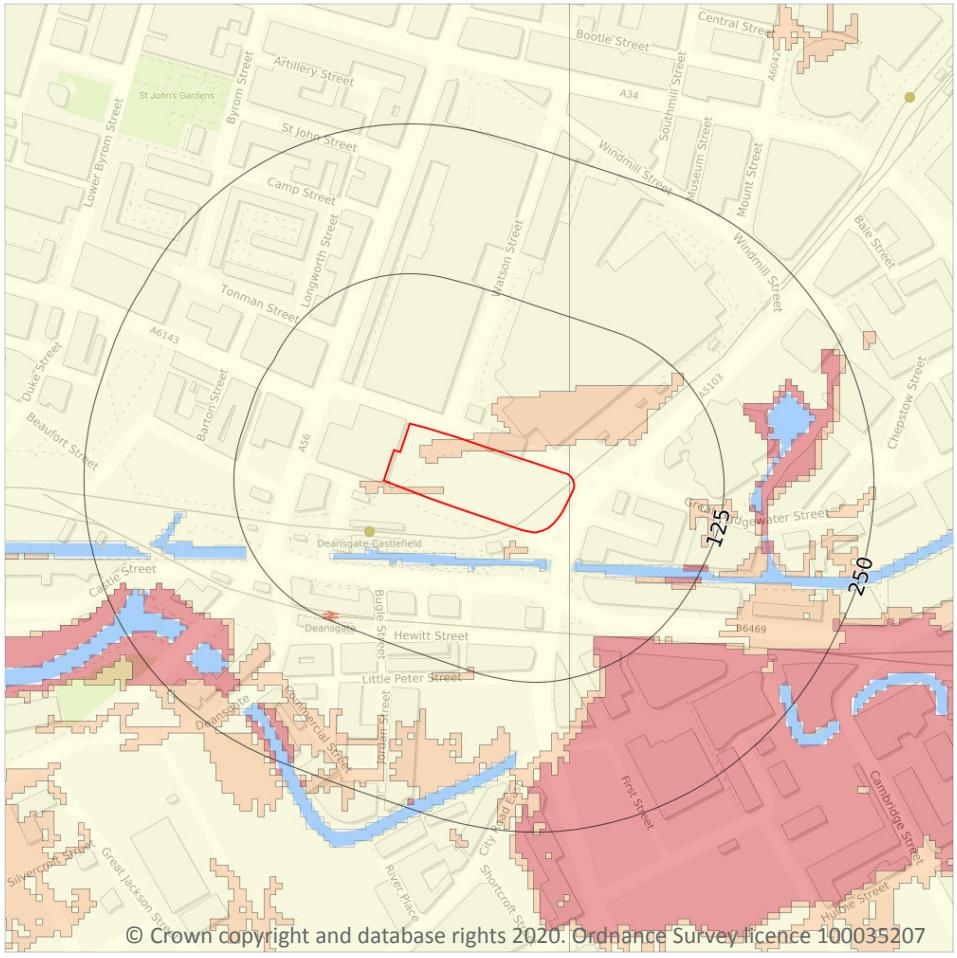
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.1m and 0.3m
1 in 100 year	Between 0.1m and 0.3m
1 in 30 year	Between 0.1m and 0.3m

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site	**Moderate-High**
Highest risk within 50m	**Moderate-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 115**

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	3

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

Location	Name	Type	NVZ ID	Status
1014m NE	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	S638	Existing
1053m N	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	S638	Existing
1086m NW	Irwell / Man. Ship Canal (Kearsley to Irlam Locks) NVZ	Surface Water	S643	Existing

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

SSSI Impact Zones and Units



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- Site Outline

Search buffers in metres (m)

- SSSI Impact Risk Zones

SSSI Units

- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site	1

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

Features are displayed on the SSSI Impact Zones and Units map on **page 120**

ID	Location	Type of developments requiring consultation
1	On site	**Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons > 4000m². 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.

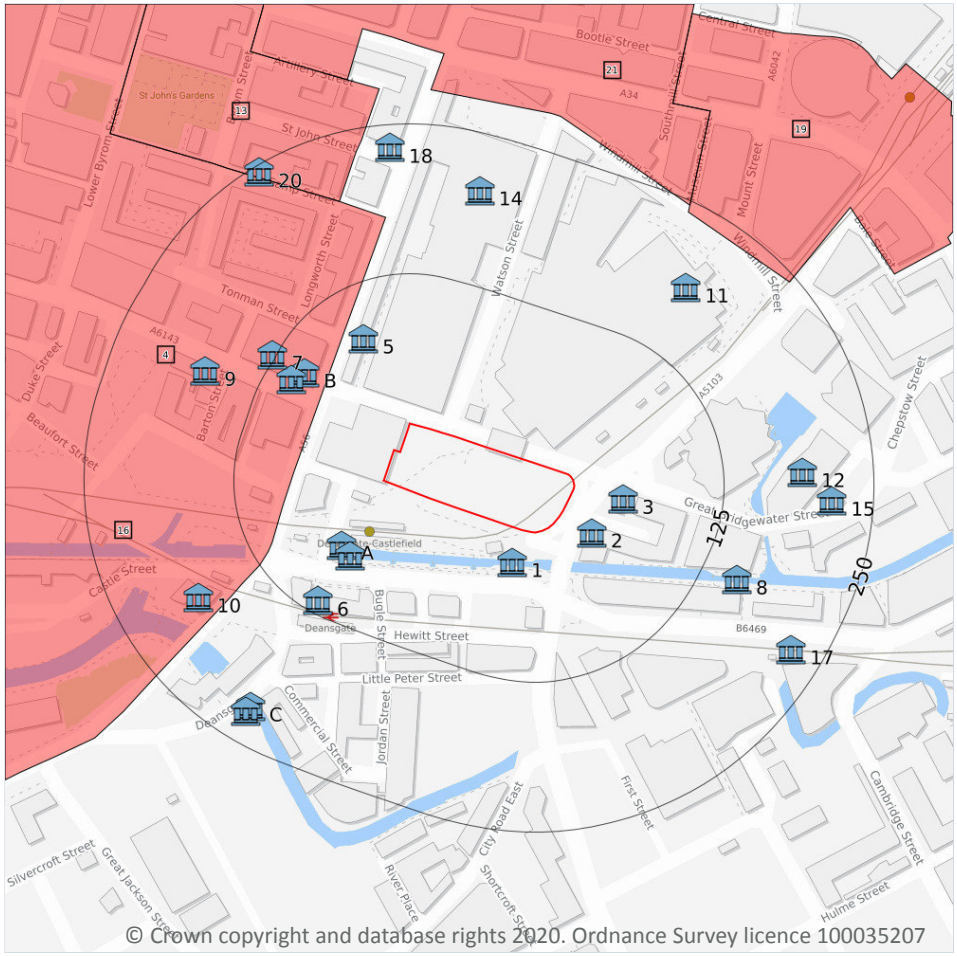
10.18 SSSI Units

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	22

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 122**

ID	Location	Name	Grade	Reference Number	Listed date
1	28m S	Rochdale Canal Lock Number 90, Approximately 30 Metres West Of Albion Bridge, Manchester, M1	II	1247482	06/06/1994
2	30m SE	13-17, Albion Street, Manchester, M1	II	1279694	03/10/1974
3	42m E	The Britons Protection Ph The Britons Protection Public House, Manchester,THE BRITONS PROTECTION PH	II	1292050	16/03/1990

ID	Location	Name	Grade	Reference Number	Listed date
A	64m SW	Rochdale Canal Lock Keepers Cottage At Lock Number 91, Next To Gaythorn Tunnel, Manchester, M3	II	1247597	29/01/1986
A	69m SW	Rochdale Canal Lock Number 91 At East End Of Gaythorn Tunnel, Manchester, M3	II	1247483	29/01/1986
5	81m NW	235-291, Deansgate, Manchester, M3	II	1210103	28/02/1989
B	97m NW	Castlefield Information Centre, Manchester, M3	II	1200853	17/05/1974
B	104m NW	K6 Telephone Kiosk Beside South West Corner Of Number 330 Deansgate, Manchester, M3	II	1219441	29/10/1987
6	114m SW	Deansgate Station, Manchester, M3	II	1376146	20/08/1998
7	128m NW	Former Market Hall, Manchester, M3	II	1197915	17/05/1974
8	155m SE	Rochdale Canal Lock Number 89 (Tib Lock), On South Side Of Havelock Mills, Manchester, M1	II	1247596	06/06/1994
9	171m NW	29-41, Liverpool Road, Manchester, M3	II	1219402	06/06/1994
10	183m SW	Former Congregational Chapel, Manchester, M3	II	1292311	20/06/1988
11	184m NE	G Mex, Manchester, M2	II*	1270514	18/12/1963
12	191m E	Chepstow House, Manchester, M1	II	1283067	28/06/1974
14	203m N	Deansgate Goods Station And Attached Carriage Ramp, Manchester, M3	II*	1268529	04/05/1979
15	215m E	Peveril Of The Peak Public House, Manchester, M1	II	1293058	20/06/1988
C	219m SW	Boundary Stone On Knott Mill Bridge, Manchester, M15	II	1282975	06/06/1994
17	223m SE	Manchester South Junction And Altrincham Railway Viaduct, Manchester, M1	II	1200837	06/06/1994
C	224m SW	Floodgate On East Side Of Knott Mill Bridge, Manchester, M15	II	1210156	06/06/1994
18	231m N	K6 Telephone Kiosk In Front Of St John Street Chambers, Manchester, M3	II	1270788	29/10/1987
20	244m NW	Manchester & Salford Junction Canal Tunnel, Manchester, M3	II	1405199	20/11/2012

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

11.5 Conservation Areas

Records within 250m	4

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

Features are displayed on the Visual and cultural designations map on **page 122**

ID	Location	Name	District	Date of designation
4	72m W	Castlefield	Manchester	13/10/1979
13	194m N	St John Street	Manchester	04/11/1970
19	237m NE	St Peter's Square	Manchester	01/12/1973
21	246m NE	Deansgate and Peter Street	Manchester	26/06/1985

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

11.6 Scheduled Ancient Monuments

Records within 250m	1

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.

Features are displayed on the Visual and cultural designations map on **page 122**

ID	Location	Ancient monument name	Reference number
16	219m W	Remains of eastern wall of the Roman fort	1001953

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

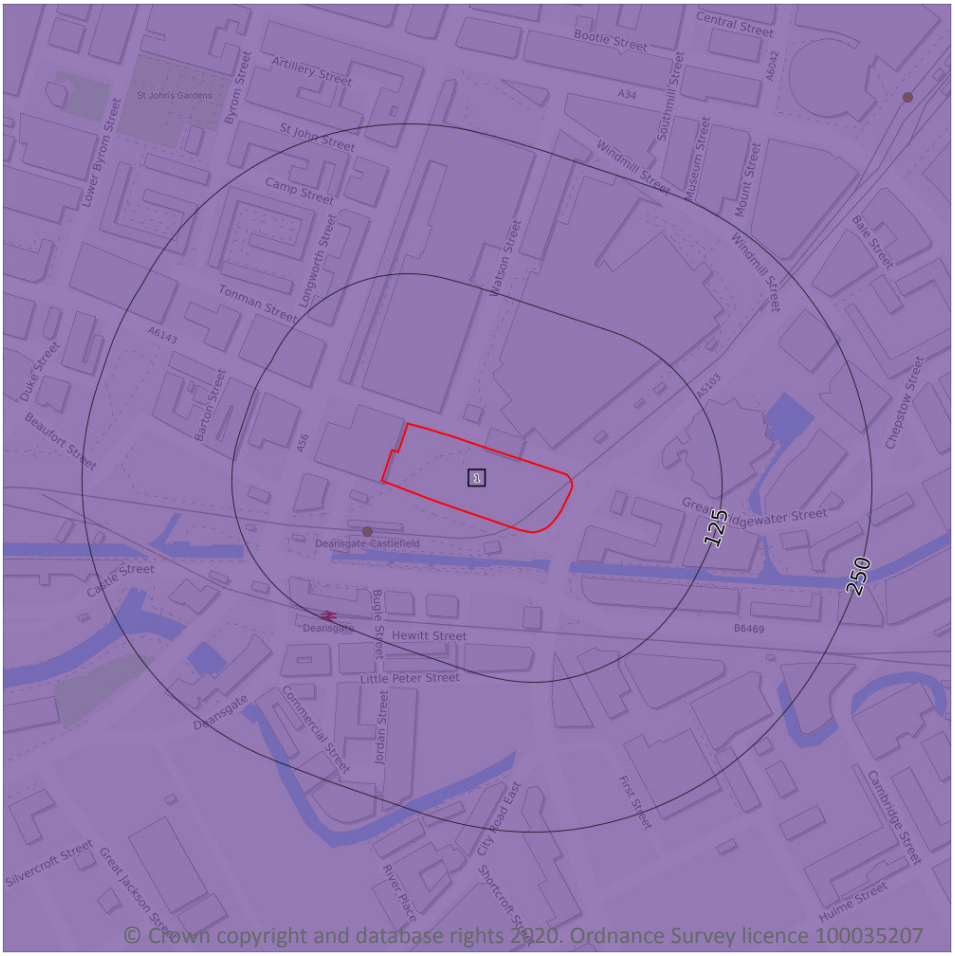
11.7 Registered Parks and Gardens

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 English Heritage, 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 127**

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.

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

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	0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m	1

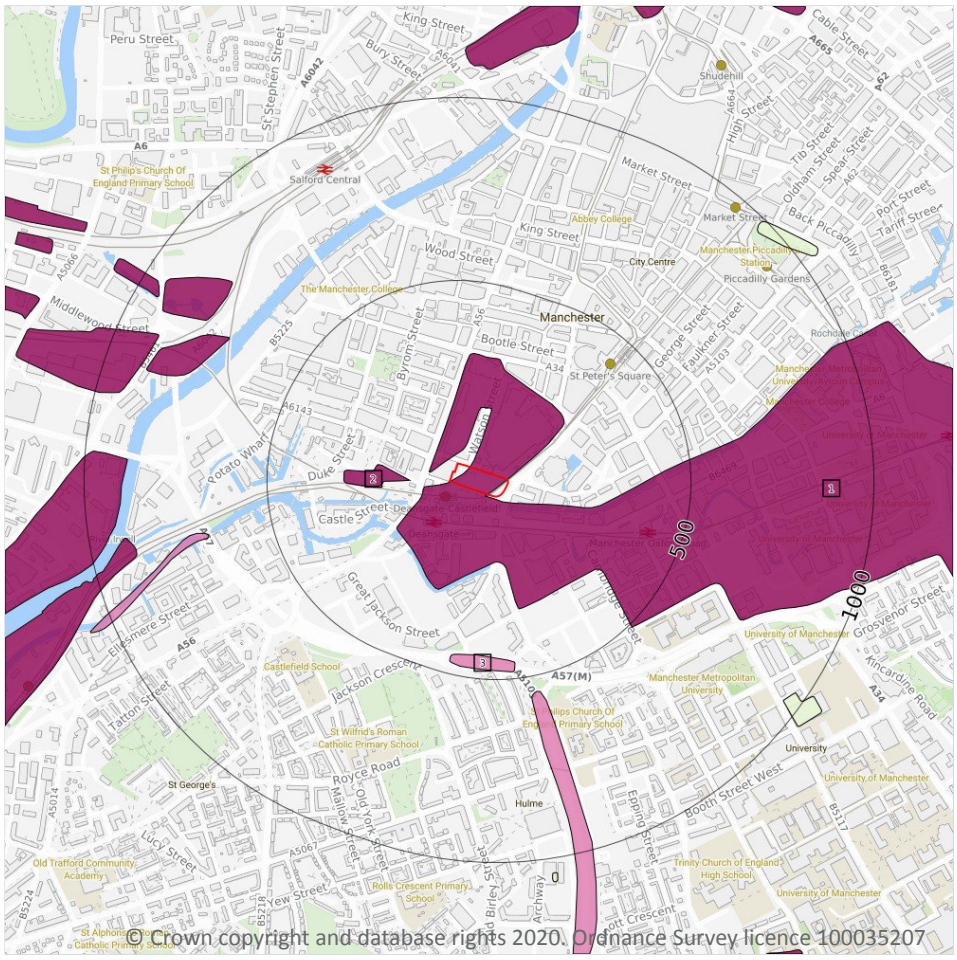
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 130**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**SJ89NW**

This data is sourced from the British Geological Survey.

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



14.2 Artificial and made ground (10k)

Records within 500m	3

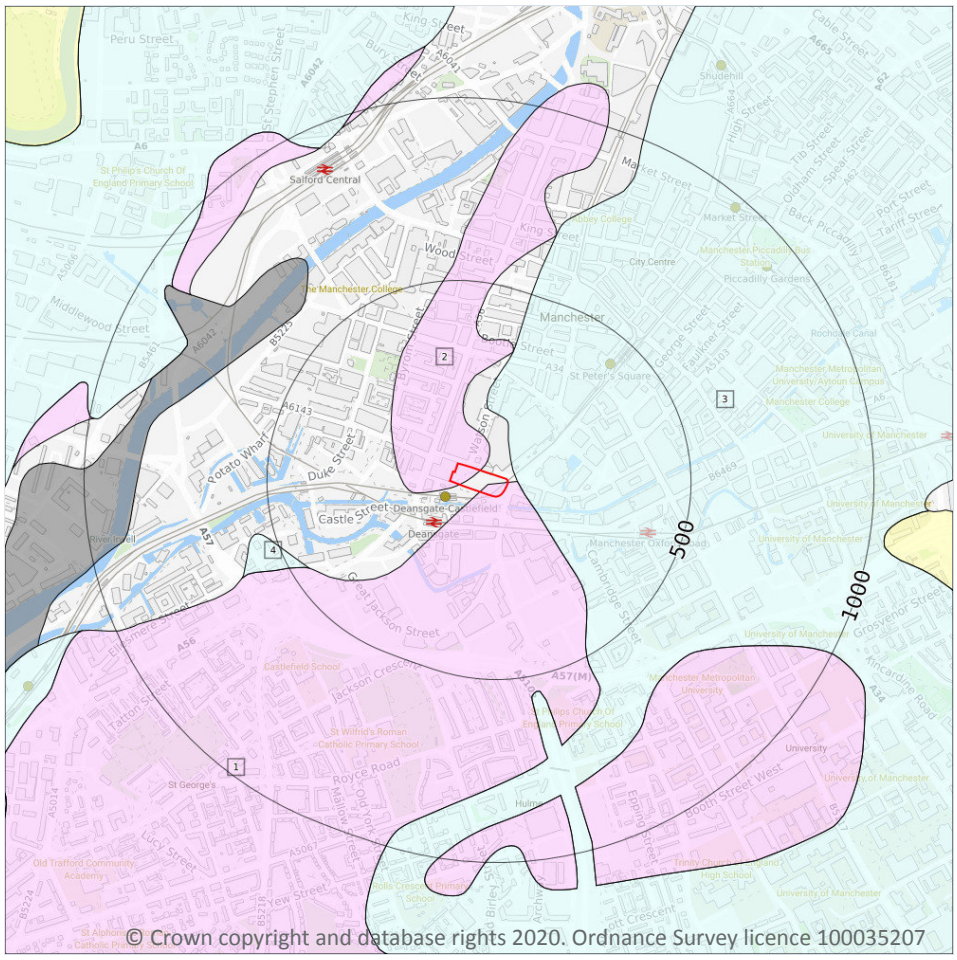
Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 131**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**Made Ground (Undivided)**	**Artificial Deposit**
2	110m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	436m S	WGR-VOID	Worked Ground (Undivided)	Void

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



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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 132**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**GFSDD-XSV**	**Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel**	**Sand And Gravel**
2	**On site**	**GFSDD-XSV**	**Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel**	**Sand And Gravel**
3	24m E	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
4	453m SW	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton

This data is sourced from the British Geological Survey.

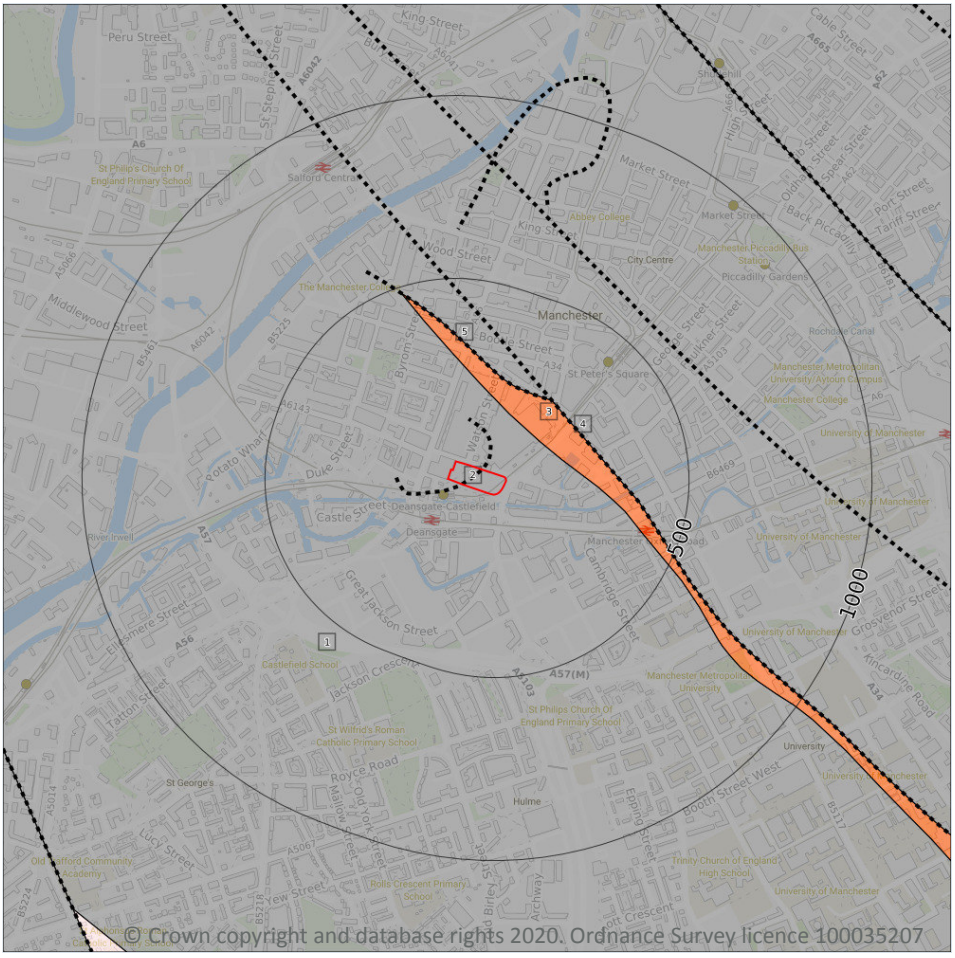
14.4 Landslip (10k)

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	2

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 134**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**CPB-SDST**	**Chester Pebble Beds Formation - Sandstone**	**Early Triassic Epoch**
3	137m NE	MM-MDST	Manchester Marls Formation - Mudstone	Late Permian Epoch [Obsolete name]

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	3

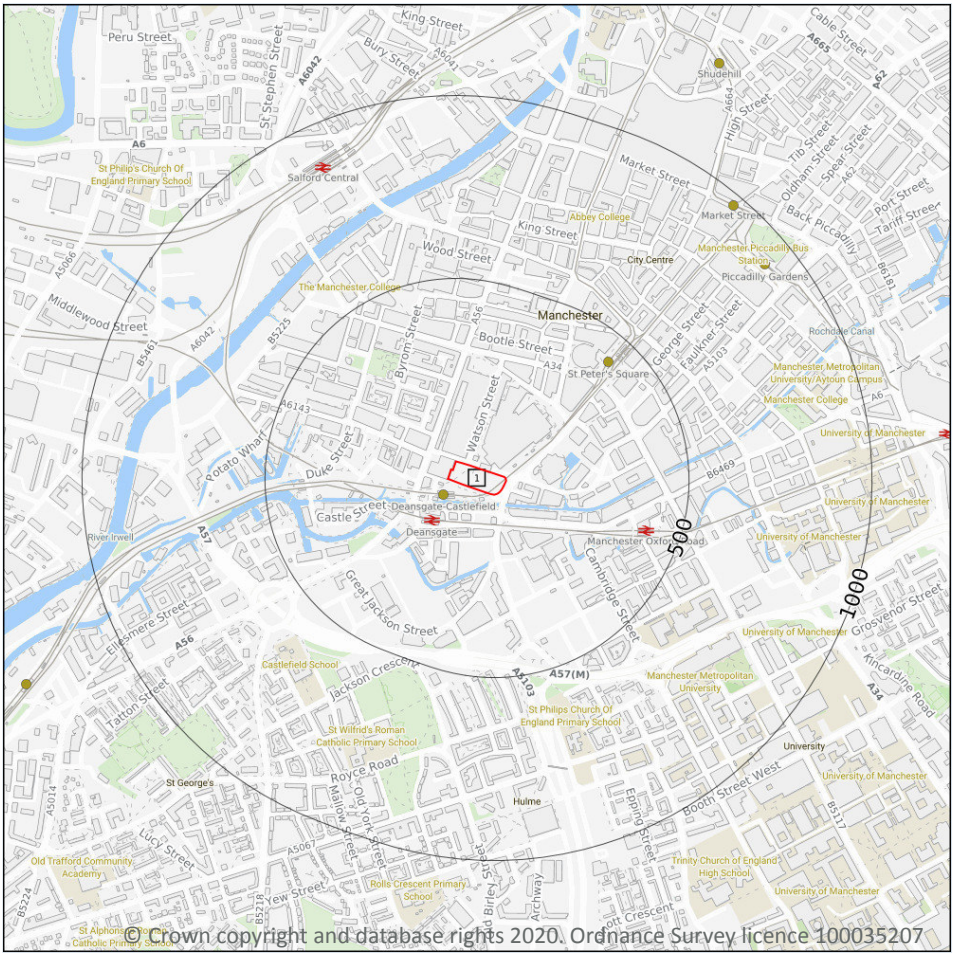
Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 134**

ID	Location	Category	Description
2	**On site**	**LANDFORM**	**Buried channel or valley margin**
4	234m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
5	239m 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



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Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

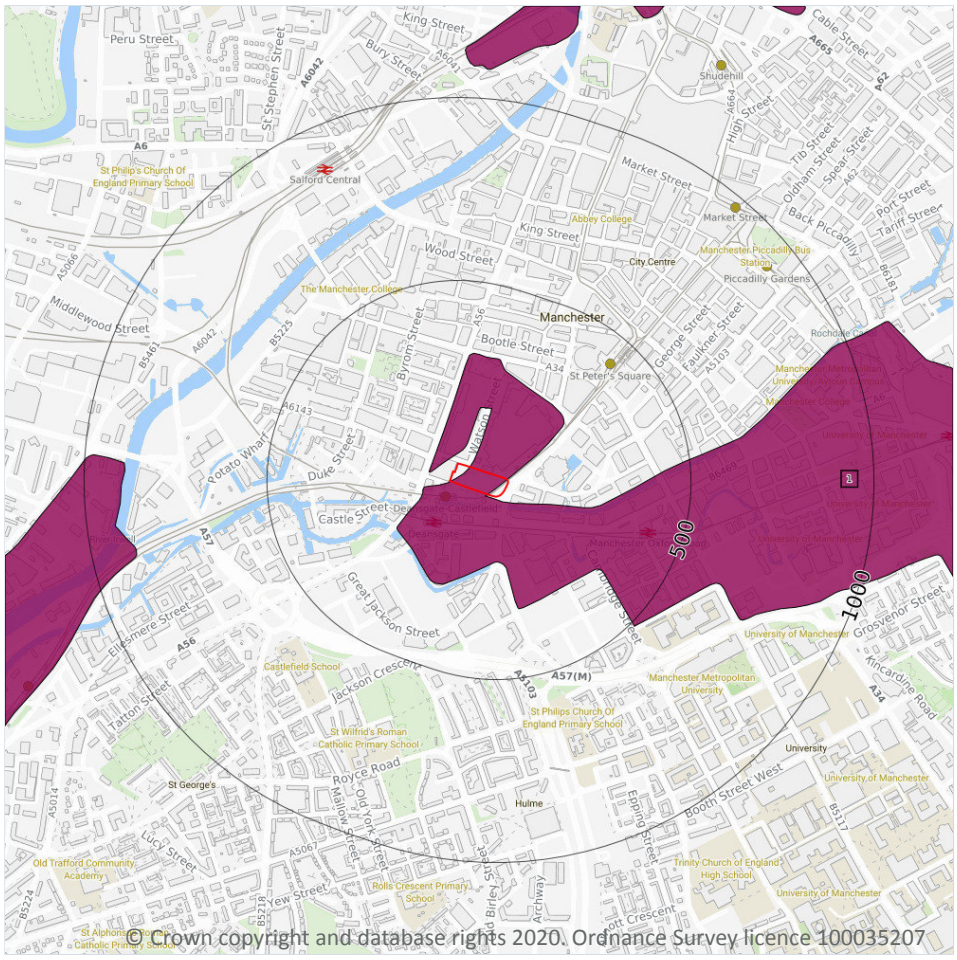
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 136**

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	1

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 137**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**MADE GROUND (UNDIVIDED)**	**ARTIFICIAL DEPOSIT**

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

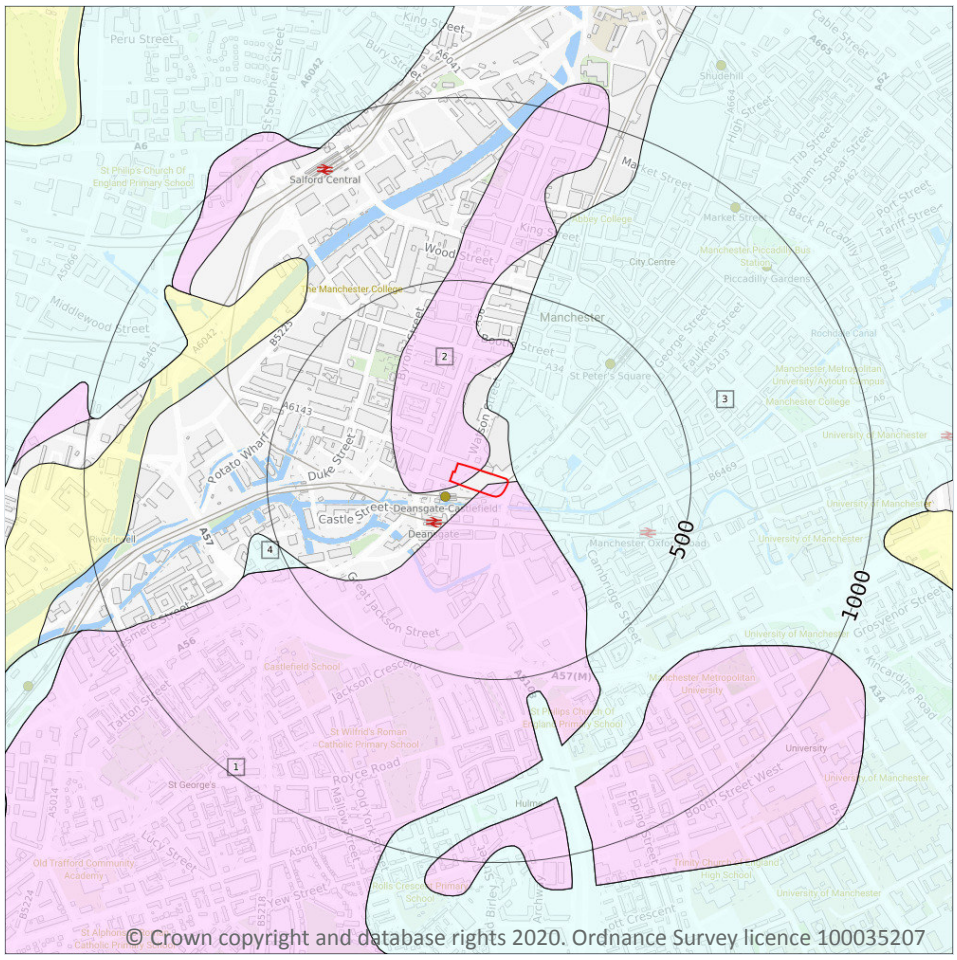
Records within 50m	1

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).

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



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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 **4**

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 139**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**GFSDD-XSV**	**GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN**	**SAND AND GRAVEL**
2	**On site**	**GFSDD-XSV**	**GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN**	**SAND AND GRAVEL**
3	24m E	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
4	453m SW	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	3

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Intergranular**	**Very High**	**High**
On site	**Intergranular**	**Very High**	**High**
24m SE	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.

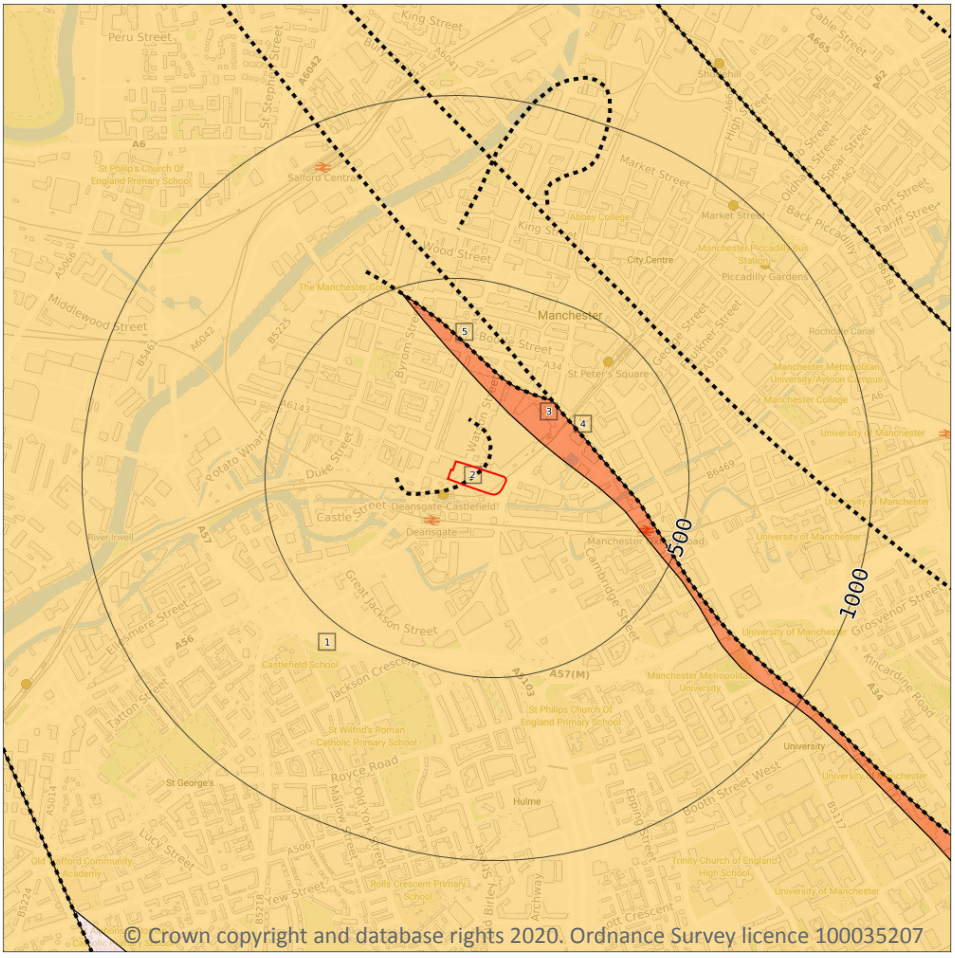
15.7 Landslip permeability (50k)

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	2

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 141**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**CHES-SDST**	**CHESTER FORMATION - SANDSTONE**	**OLENEKIAN**
3	137m NE	MM-MDST	MANCHESTER MARLS FORMATION - MUDSTONE	-

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**High**	**Moderate**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	3

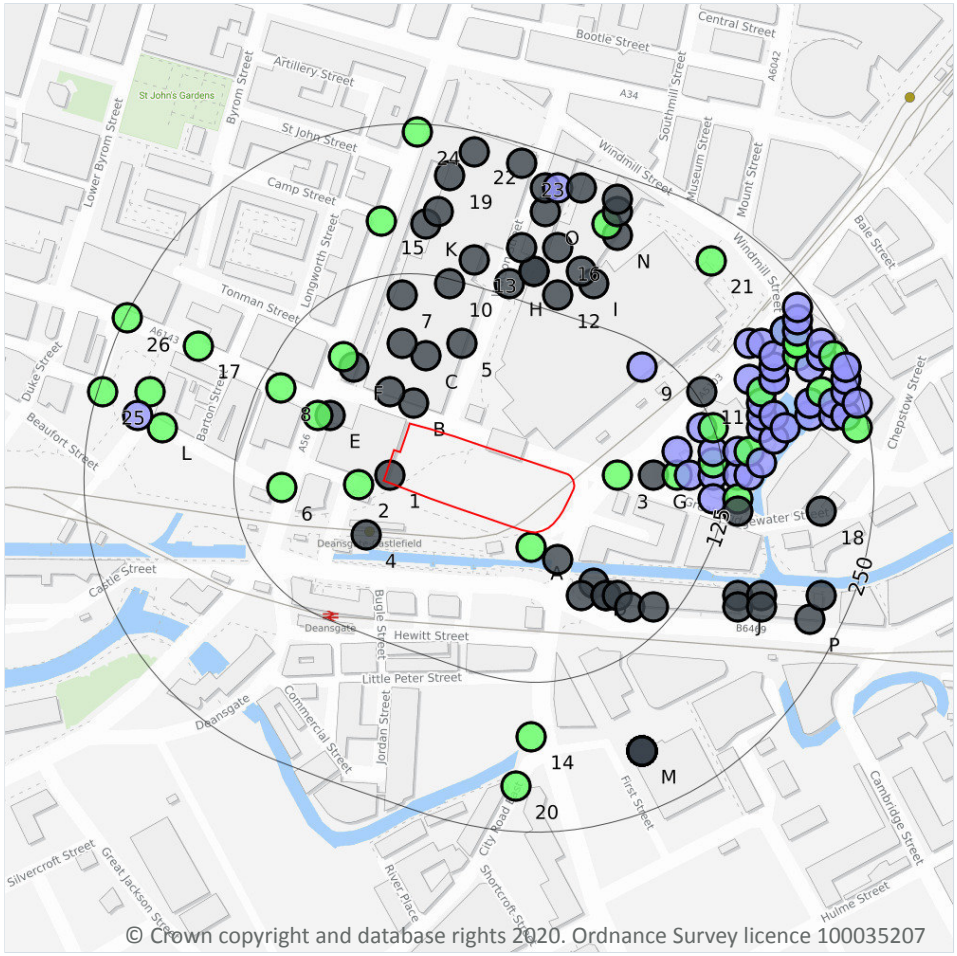
Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 141**

ID	Location	Category	Description
2	**On site**	**LANDFORM**	**Approximate margin of buried (superficial deposit-filled) channel or valley**
4	234m NE	FAULT	Fault, inferred
5	239m N	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.

16 Boreholes



16.1 BGS Boreholes

Records within 250m	149

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 143**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	**On site**	**383490 397630**	**FESTIVAL MARKETPLACE 3/2**	**-**	**Y**	**N/A**
A	13m S	383608 397570	MANCHESTER CORP. B.SEWER	14.02	N	1042261
B	17m N	383510 397690	FESTIVAL MARKETPLACE 1/8	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
2	21m W	383464 397622	MANCHESTER CORP. B.SEWER	12.5	N	1042262
A	27m SE	383630 397560	GREAT BRIDGEWATER STREET 1	-	Y	N/A
B	32m NW	383490 397700	FESTIVAL MARKETPLACE TP 1/8	-	Y	N/A
3	37m E	383680 397630	LOWER MOSLEY STREET PHASE 2 A	14.5	N	13469181
4	48m S	383470 397580	FESTIVAL MARKETPLACE 3/1	-	Y	N/A
C	58m N	383520 397730	FESTIVAL MARKETPLACE TP 1/6	-	Y	N/A
D	60m SE	383660 397540	HACIENDA SITE WHITWORTH STREET MANCHESTER WS02	-	Y	N/A
E	61m NW	383440 397680	FESTIVAL MARKETPLACE TP 3/1	-	Y	N/A
D	63m SE	383650 397530	HACIENDA SITE WHITWORTH STREET MANCHESTER WS01	-	Y	N/A
F	66m NW	383460 397720	FESTIVAL MARKETPLACE 1/7	-	Y	N/A
G	67m E	383710 397630	GREAT BRIDGEWATER STREET 2	-	Y	N/A
C	67m N	383500 397740	FESTIVAL MARKETPLACE TP 1/7	-	Y	N/A
E	70m NW	383430 397680	CITY CENTRE - PHASE 2 29	12.5	N	1043527
D	74m SE	383670 397530	HACIENDA SITE WHITWORTH STREET MANCHESTER WS03	-	Y	N/A
D	74m SE	383670 397530	HACIENDA SITE WHITWORTH STREET MANCHESTER WS04	-	Y	N/A
5	76m N	383550 397740	FESTIVAL MARKETPLACE 1/6	-	Y	N/A
F	79m NW	383451 397729	MANCHESTER CORP. DEANSGATE	10.67	N	1042210
D	80m SE	383680 397530	HACIENDA SITE WHITWORTH STREET MANCHESTER WS05	-	Y	N/A
6	85m W	383400 397620	BRIDGEWATER STREET / RICE STREET MAIN DRAINAGE 1	12.0	N	1045617
G	87m E	383730 397630	GT BRIDGEWATER ST 109	30.0	N	1042749
G	90m E	383730 397650	GT BRIDGEWATER ST TP 101	2.0	N	1042756
D	94m SE	383690 397520	HACIENDA SITE WHITWORTH STREET MANCHESTER WS06	-	Y	N/A
G	97m E	383740 397630	GT BRIDGEWATER ST TP 103	2.0	N	1042758
7	107m N	383500 397780	FESTIVAL MARKETPLACE 1/5	-	Y	N/A
8	108m NW	383399 397703	MANCHESTER CORP. E.SEWER	12.5	N	1042233

ID	Location	Grid reference	Name	Length	Confidential	Web link
9	108m NE	383700 397720	LOWER MOSLEY STREET PHASE 2 B	5.0	N	13469182
D	109m SE	383710 397520	HACIENDA SITE WHITWORTH STREET MANCHESTER WS07	-	Y	N/A
G	116m E	383750 397670	GT BRIDGEWATER ST TP 102	2.0	N	1042757
G	117m E	383760 397630	GT BRIDGEWATER ST TP 105	3.0	N	1042760
G	117m E	383760 397610	GT BRIDGEWATER ST TP 106	3.0	N	1042761
G	118m E	383760 397640	GT BRIDGEWATER ST 108	30.0	N	1042748
G	120m E	383760 397650	GT BRIDGEWATER ST TP 104	3.0	N	1042759
10	122m N	383540 397790	FESTIVAL MARKETPLACE TP 1/5	-	Y	N/A
G	125m E	383760 397670	GT BRIDGEWATER ST 106	30.0	N	1042746
11	130m NE	383750 397700	GREAT BRIDGEWATER STREET 3	-	Y	N/A
H	136m N	383590 397790	FESTIVAL MARKETPLACE TP 2/8	-	Y	N/A
G	136m E	383780 397630	GT BRIDGEWATER ST TP 107	4.0	N	1042762
G	137m E	383780 397610	GT BRIDGEWATER ST 111	21.0	N	1042751
G	138m E	383780 397600	GREAT BRIDGEWATER STREET 4/4A	-	Y	N/A
12	139m N	383630 397780	FESTIVAL MARKETPLACE TP 2/7	-	Y	N/A
G	139m E	383780 397650	GT BRIDGEWATER ST TP 108	4.0	N	1042763
13	146m N	383560 397810	FESTIVAL MARKETPLACE 1/4	-	Y	N/A
G	146m E	383790 397630	GT BRIDGEWATER ST TP 125	3.0	N	1042780
G	149m E	383790 397650	GT BRIDGEWATER ST 107	30.0	N	1042747
H	152m N	383610 397800	FESTIVAL MARKETPLACE 2/4	-	Y	N/A
H	152m N	383610 397800	FESTIVAL MARKETPLACE STG 2 BHD	-	Y	N/A
G	157m E	383800 397640	GT BRIDGEWATER ST TP 109	3.0	N	1042764
I	158m N	383660 397790	FESTIVAL MARKETPLACE 2/3	-	Y	N/A
J	162m SE	383780 397530	WHITWORTH STREET WEST MANCHESTER 2	-	Y	N/A
G	163m E	383800 397670	GT BRIDGEWATER ST TP 110	2.0	N	1042765
I	164m N	383650 397800	FESTIVAL MARKETPLACE STG 2 BHC	-	Y	N/A
G	166m E	383800 397680	GT BRIDGEWATER ST 110	9.0	N	1042750
J	166m SE	383780 397520	WHITWORTH STREET WEST MANCHESTER 1	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
H	167m N	383600 397820	FESTIVAL MARKETPLACE TP 2/5	-	Y	N/A
K	167m N	383520 397840	FESTIVAL MARKETPLACE TP 1/4	-	Y	N/A
G	169m NE	383790 397710	GT BRIDGEWATER ST TP 116	2.0	N	1042771
G	170m E	383800 397690	GT BRIDGEWATER ST TP 112	3.0	N	1042767
14	170m S	383608 397412	MANCHESTER CORP. B.SEWER	11.28	N	1042260
15	171m N	383483 397842	MANCHESTER CORP. DEANSGATE	13.41	N	1042209
G	171m E	383810 397660	GT BRIDGEWATER ST TP 111	3.0	N	1042766
G	174m NE	383800 397700	GT BRIDGEWATER ST 102	15.0	N	1042741
G	176m E	383810 397680	GT BRIDGEWATER ST TP 126	3.0	N	1042781
16	177m N	383630 397820	FESTIVAL MARKETPLACE TP 2/6	-	Y	N/A
K	178m N	383530 397850	FESTIVAL MARKETPLACE 1/3	-	Y	N/A
J	180m SE	383800 397530	WHITWORTH STREET WEST MANCHESTER 3	-	Y	N/A
G	183m E	383820 397670	GT BRIDGEWATER ST TP 113	3.0	N	1042768
J	184m SE	383800 397520	WHITWORTH STREET WEST MANCHESTER 4	-	Y	N/A
17	185m NW	383330 397738	MANCHESTER CORP. E.SEWER	12.19	N	1042234
G	186m NE	383790 397740	GREAT BRIDGEWATER STREET 201	6.5	N	1043325
G	187m NE	383810 397710	GREAT BRIDGEWATER STREET TP203	3.0	N	1043333
G	187m NE	383810 397710	GT BRIDGEWATER ST TP 115	2.0	N	1042770
L	190m W	383300 397670	BRIDGEWATER STREET / RICE STREET MAIN DRAINAGE 2	12.0	N	1045618
G	192m NE	383810 397720	GREAT BRIDGEWATER STREET 203	6.75	N	1043327
G	194m NE	383800 397740	GREAT BRIDGEWATER STREET TP202	0.8	N	1043332
G	197m NE	383810 397730	GT BRIDGEWATER ST TP 117	3.0	N	1042772
M	202m SE	383700 397400	GAYTHORN GASWORKS M16	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M18	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M2	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M5	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS R2	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS R2	-	Y	N/A

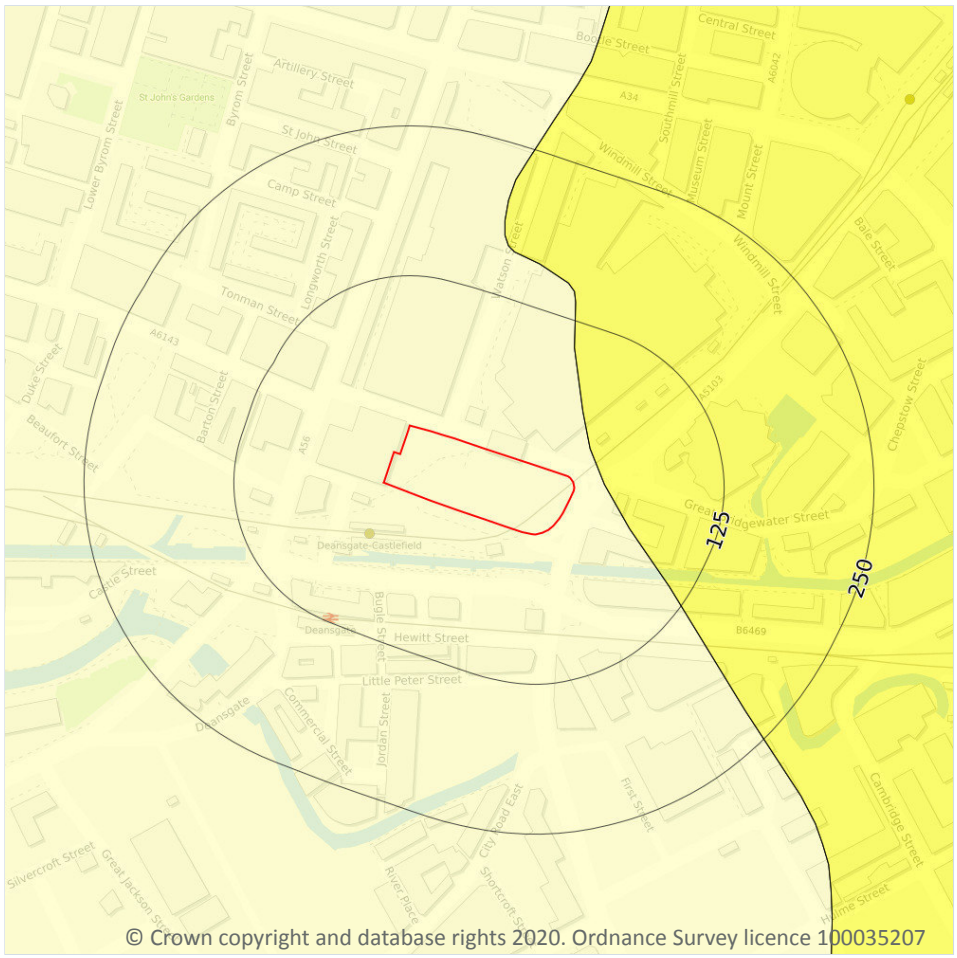
ID	Location	Grid reference	Name	Length	Confidential	Web link
M	202m SE	383700 397400	GAYTHORN GASWORKS M15	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M1	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M7	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M6	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M11	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M12A	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M13	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M14	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M3	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M7A	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M8	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M9	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M17	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS R1	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M4	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M10	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS M12	-	Y	N/A
M	202m SE	383700 397400	GAYTHORN GASWORKS R1	-	Y	N/A
N	202m N	383680 397830	FESTIVAL MARKETPLACE TP 2/4	-	Y	N/A
O	202m N	383620 397850	FESTIVAL MARKETPLACE 2/2	-	Y	N/A
G	204m E	383840 397680	GT BRIDGEWATER ST TP 114	2.0	N	1042769
G	207m E	383840 397690	GREAT BRIDGEWATER STREET TP206	3.7	N	1043336
G	207m E	383840 397690	GREAT BRIDGEWATER STREET 204	7.1	N	1043328
18	207m E	383850 397600	GREAT BRIDGEWATER STREET 5	-	Y	N/A
L	209m W	383290 397700	CITY CENTRE - PHASE 2 30	11.12	N	1043528
N	209m N	383671 397840	CENTRAL STATION	12.8	N	1042388
19	210m N	383540 397880	FESTIVAL MARKETPLACE TP 1/3	-	Y	N/A
20	212m S	383595 397371	MANCHESTER CORP. B.SEWER	11.28	N	1042259

ID	Location	Grid reference	Name	Length	Confidential	Web link
L	212m W	383280 397680	BRIDGEWATER STREET / RICE STREET MAIN DRAINAGE B	5.0	N	1045623
G	214m NE	383830 397730	GT BRIDGEWATER ST 113	24.0	N	1042753
21	215m NE	383758 397809	CENTRAL STATION	17.07	N	1042389
G	216m NE	383820 397750	GT BRIDGEWATER ST 101	25.0	N	1042740
G	216m NE	383820 397750	GREAT BRIDGEWATER STREET TP201	2.9	N	1043331
G	218m NE	383840 397720	GT BRIDGEWATER ST TP 118	0.0	N	1042773
G	219m NE	383830 397740	GREAT BRIDGEWATER OFFICES	12.0	N	1045464
G	219m NE	383830 397740	GT BRIDGEWATER ST 114	28.0	N	1042754
G	220m E	383850 397700	GT BRIDGEWATER ST 103	25.0	N	1042742
N	221m N	383680 397850	FESTIVAL MARKETPLACE STG 2 BHB	-	Y	N/A
O	221m N	383620 397870	FESTIVAL MARKETPLACE TP 2/2	-	Y	N/A
G	224m E	383860 397680	GREAT BRIDGEWATER STREET 205	7.15	N	1043329
O	224m N	383630 397870	MANCHESTER INTERNATIONAL CONVENTION CENTRE SHAFTS	-2.0	N	15939135
P	224m SE	383840 397510	WHITWORTH STREET WEST MANCHESTER 5	-	Y	N/A
G	225m NE	383830 397750	GT BRIDGEWATER ST TP 119	2.0	N	1042774
P	225m SE	383850 397530	WHITWORTH STREET WEST MANCHESTER 6	-	Y	N/A
G	226m E	383860 397690	GT BRIDGEWATER ST TP 127	3.0	N	1042782
G	230m NE	383830 397760	GREAT BRIDGEWATER STREET TP204	3.0	N	1043334
N	231m N	383680 397860	FESTIVAL MARKETPLACE 2/1	-	Y	N/A
O	231m N	383650 397870	FESTIVAL MARKETPLACE TP 2/3	-	Y	N/A
G	232m NE	383850 397730	GREAT BRIDGEWATER STREET TP205	1.3	N	1043335
22	233m N	383560 397900	FESTIVAL MARKETPLACE TP 1/2	-	Y	N/A
G	233m E	383870 397680	GREAT BRIDGEWATER STREET TP209	1.3	N	1043339
G	233m E	383870 397680	GT BRIDGEWATER ST TP 123	3.0	N	1042778
23	234m N	383600 397890	FESTIVAL MARKETPLACE 1/2	-	Y	N/A
G	236m NE	383830 397770	GREAT BRIDGEWATER STREET 202	7.1	N	1043326
G	236m NE	383850 397740	GT BRIDGEWATER ST TP 120	2.0	N	1042775

ID	Location	Grid reference	Name	Length	Confidential	Web link
G	239m E	383870 397700	GT BRIDGEWATER ST TP 122	3.0	N	1042777
G	241m NE	383860 397730	GT BRIDGEWATER ST 112	25.0	N	1042752
G	241m E	383880 397670	GT BRIDGEWATER ST 105	25.0	N	1042745
G	242m E	383870 397710	GREAT BRIDGEWATER STREET TP208	3.2	N	1043338
24	243m N	383513 397916	MANCHESTER CORP. DEANSGATE	13.11	N	1042208
G	246m E	383880 397690	GREAT BRIDGEWATER STREET TP210	1.5	N	1043340
G	246m NE	383870 397720	GT BRIDGEWATER ST TP 121	3.0	N	1042776
G	246m NE	383870 397720	GREAT BRIDGEWATER STREET TP207	3.2	N	1043337
25	246m W	383250 397700	BRIDGEWATER STREET / RICE STREET MAIN DRAINAGE 3	12.5	N	1045619
26	248m NW	383271 397761	MANCHESTER CORP. E.SEWER	11.28	N	1042235

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



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17.1 Shrink swell clays

Records within 50m	2

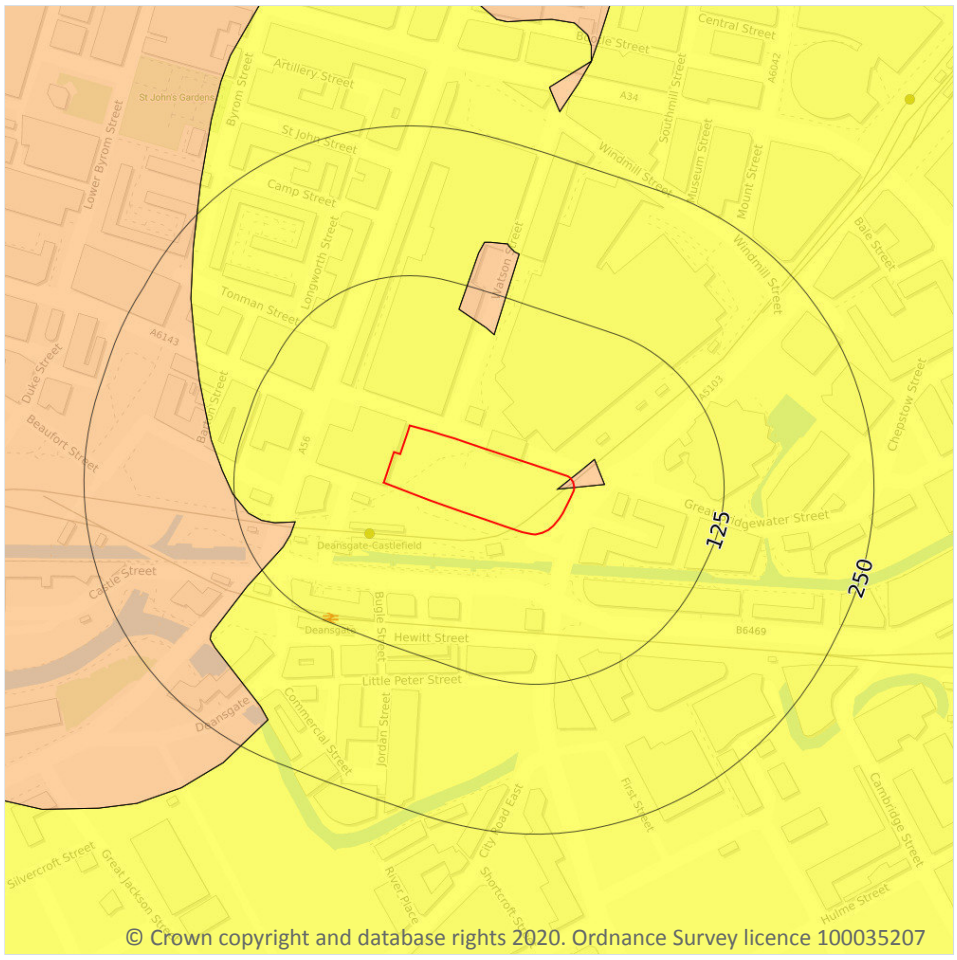
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 150**

Location	Hazard rating	Details
On site	**Negligible**	**Ground conditions predominantly non-plastic.**
24m E	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	2

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

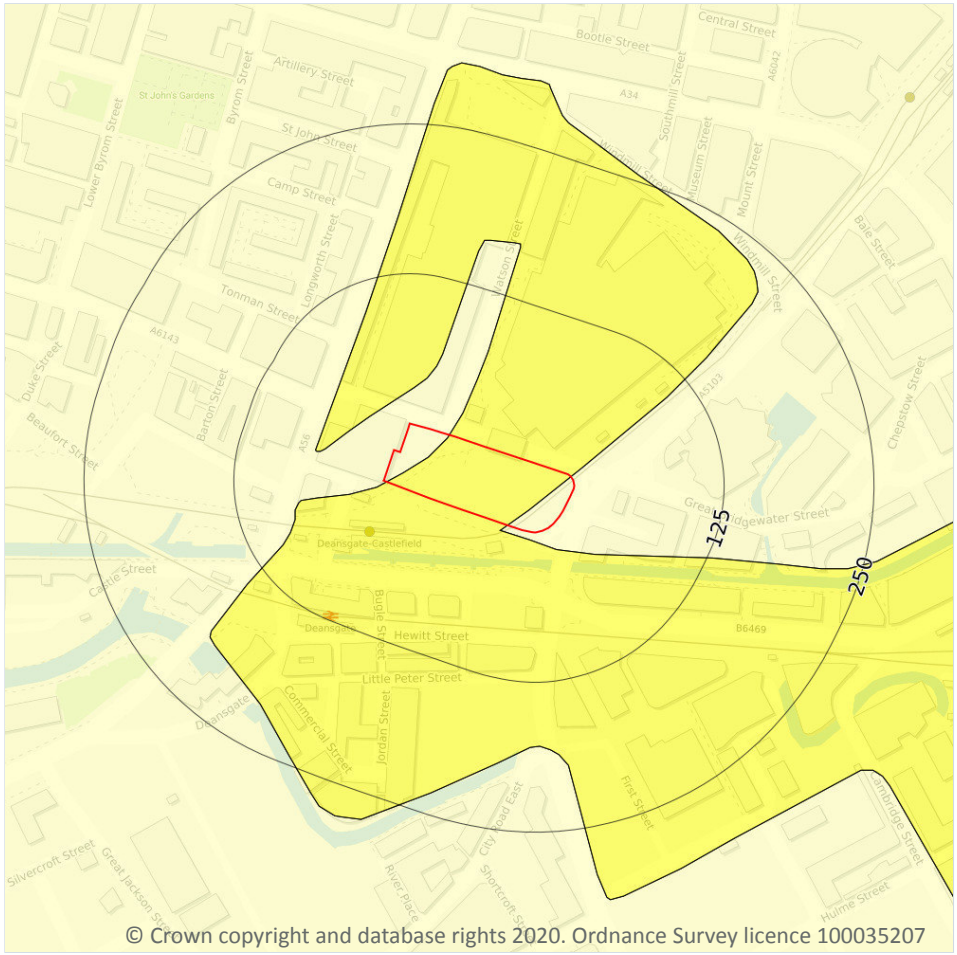
Features are displayed on the Natural ground subsidence - Running sands map on **page 151**

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

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



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Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	2

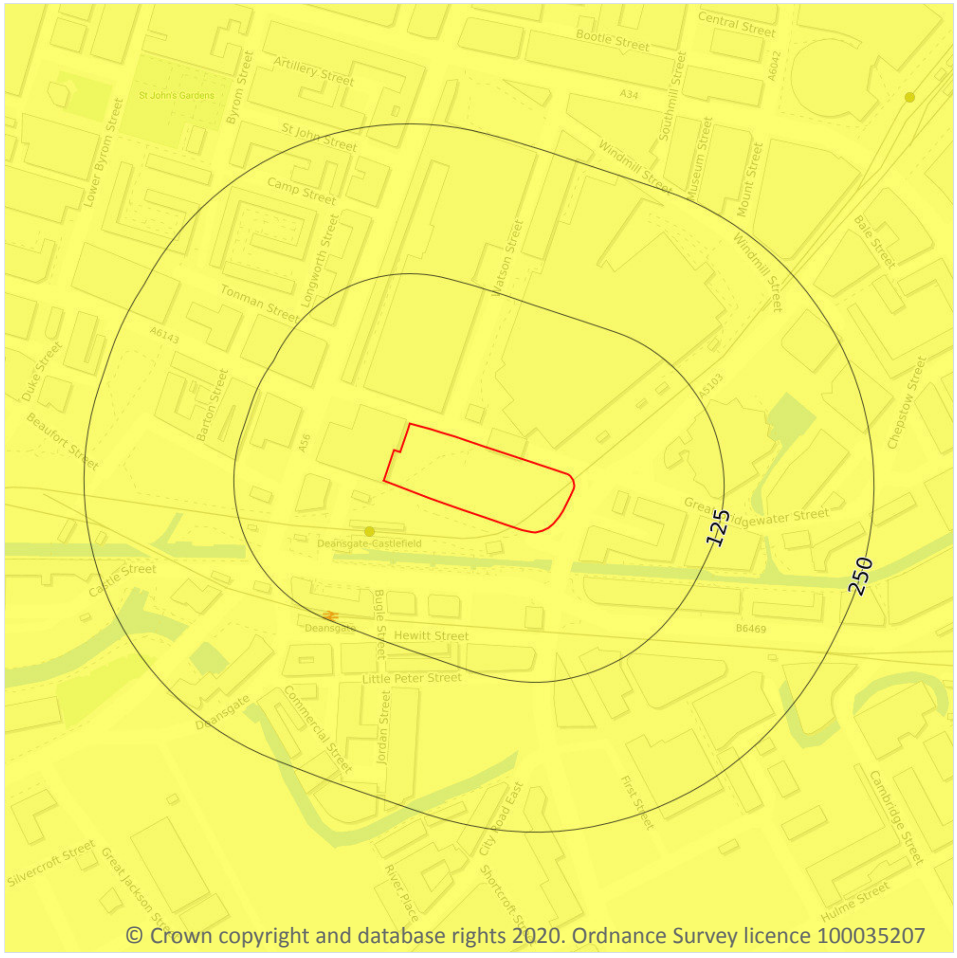
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 153**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**
On site	**Very low**	**Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.**

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

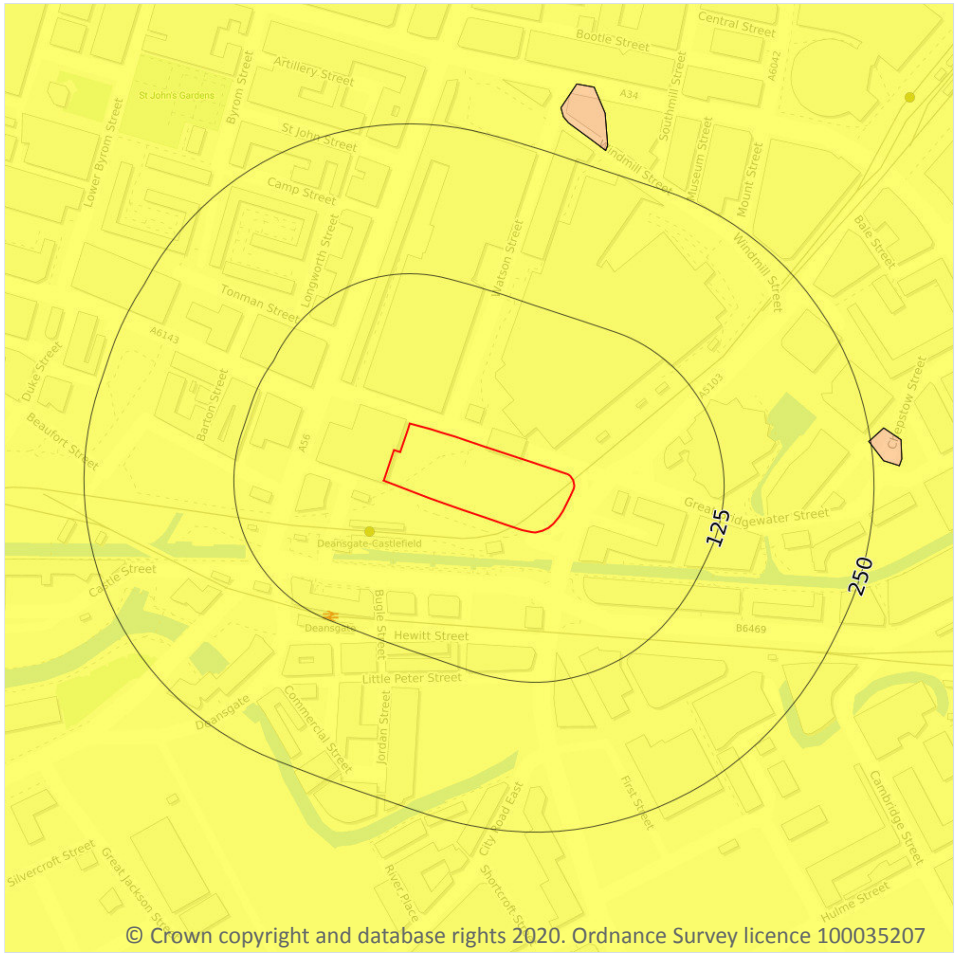
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 155**

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



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17.5 Landslides

Records within 50m	1

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

Features are displayed on the Natural ground subsidence - Landslides map on **page 156**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



Site Outline

Search buffers in metres (m)

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

17.6 Ground dissolution of soluble rocks

Records within 50m	1

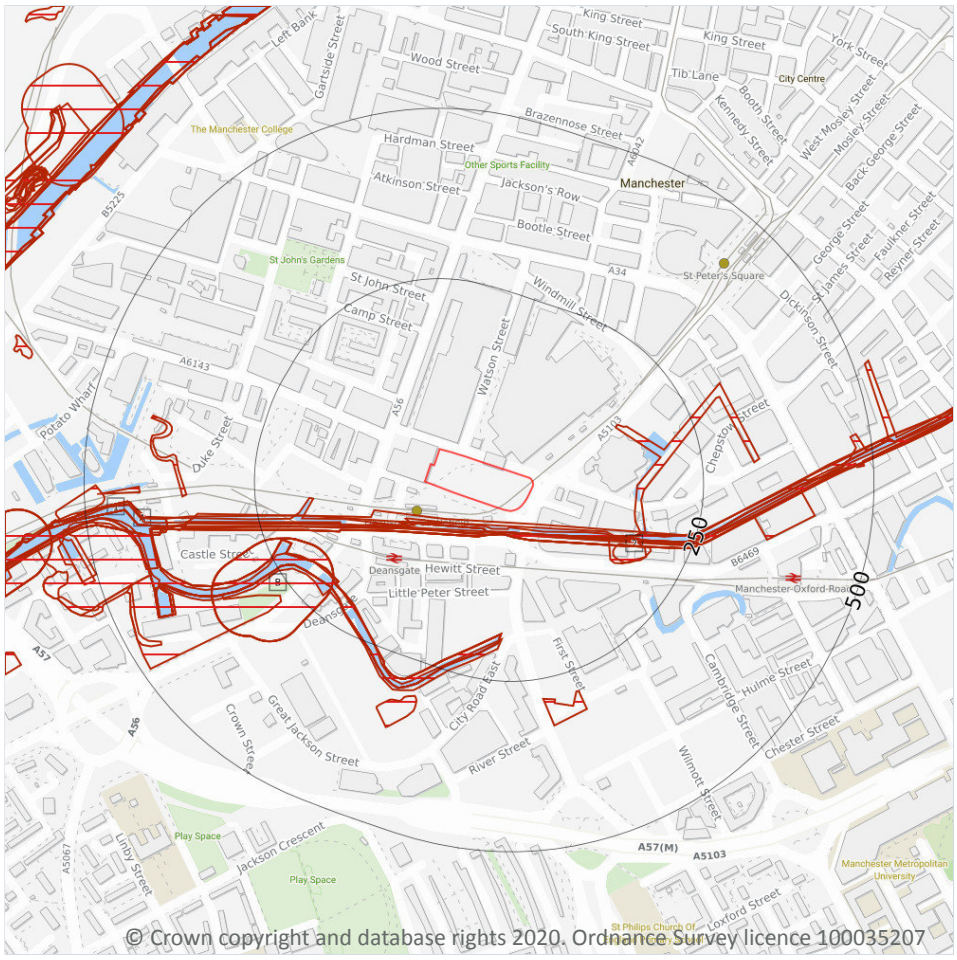
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 157**

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



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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 Peter Brett Associates (PBA).

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	18

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 159**

ID	Location	Land Use	Year of mapping	Mapping scale
A	17m S	Canal	1988	1:10000
1	22m S	Canal	1956	1:10560
2	24m S	Canal	1896	1:10560
A	31m S	Canal	1938	1:10560
A	31m S	Canal	1932	1:10560
A	31m S	Canal	1916	1:10560
A	31m S	Canal	1905	1:10560
A	31m S	Canal	1923	1:10560
3	148m SE	Pond	1851	1:10560
B	181m SW	Quay	1938	1:10560
B	181m SW	Quay	1932	1:10560
B	181m SW	Quay	1916	1:10560
B	181m SW	Quay	1905	1:10560
B	181m SW	Quay	1923	1:10560
C	181m S	Canal	1971	1:10000
C	181m S	Canal	1978	1:10000
C	181m S	Canal	1985	1:10000

ID	Location	Land Use	Year of mapping	Mapping scale
C	181m S	Canal	1994	1:10000

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	0

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

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	0

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

This data is sourced from Peter Brett Associates (PBA).

18.8 JPB mining areas

Records on site	1

Areas which could be affected by former coal 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. Further details and a quote for services 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 Mining Searches UK.

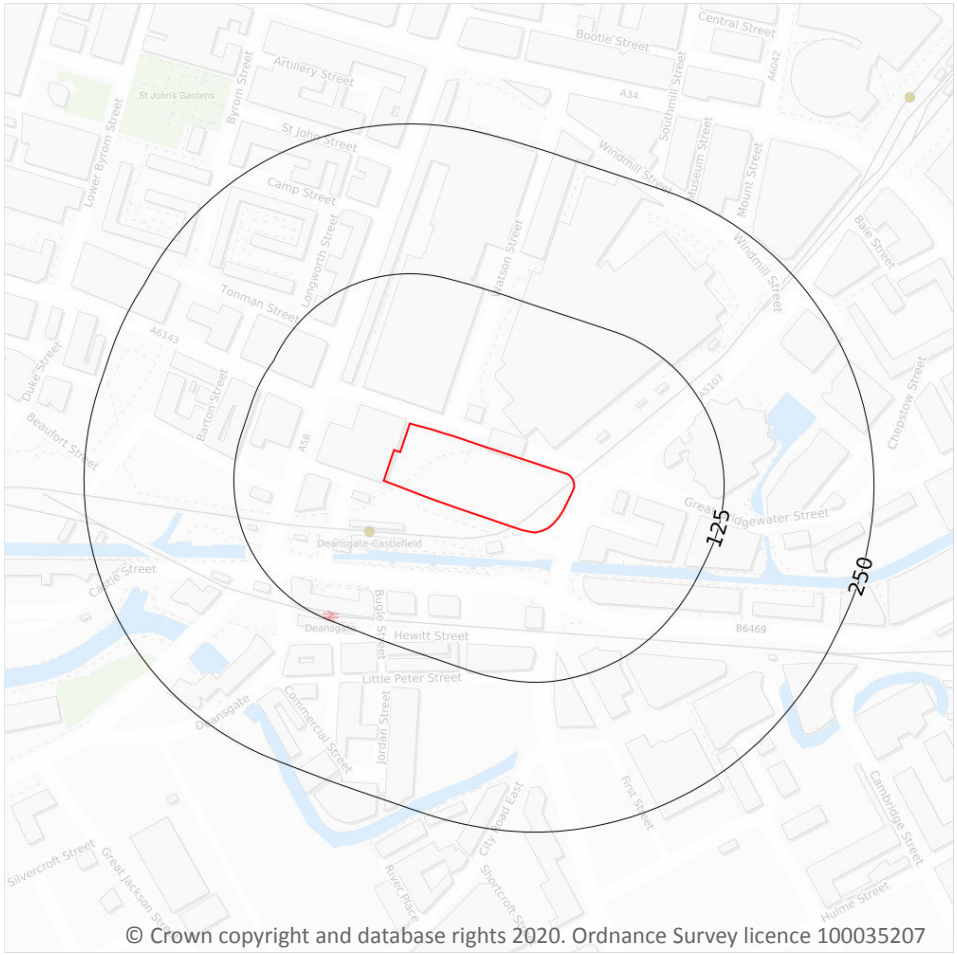
18.13 Clay mining

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

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

Features are displayed on the Radon map on **page 164**

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

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

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m **2**

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 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	**15 - 25 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**30 - 45 mg/kg**

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m **8**

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	**16**	**2.8**	**56**	**38**	**-**	**59**	**28**	**22**	**6**
On site	**15**	**2.6**	**56**	**38**	**-**	**61**	**24**	**21**	**5**
On site	**17**	**3**	**477**	**328**	**-**	**55**	**34**	**22**	**12**
On site	**16**	**2.8**	**61**	**42**	**-**	**66**	**26**	**22**	**5**
On site	**16**	**2.8**	**53**	**36**	**-**	**63**	**28**	**23**	**6**
18m SW	17	3	270	185	-	58	35	22	11

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)
27m N	16	2.8	57	39	-	58	27	22	6
28m NW	17	3	588	404	-	53	33	22	12

This data is sourced from the British Geological Survey.

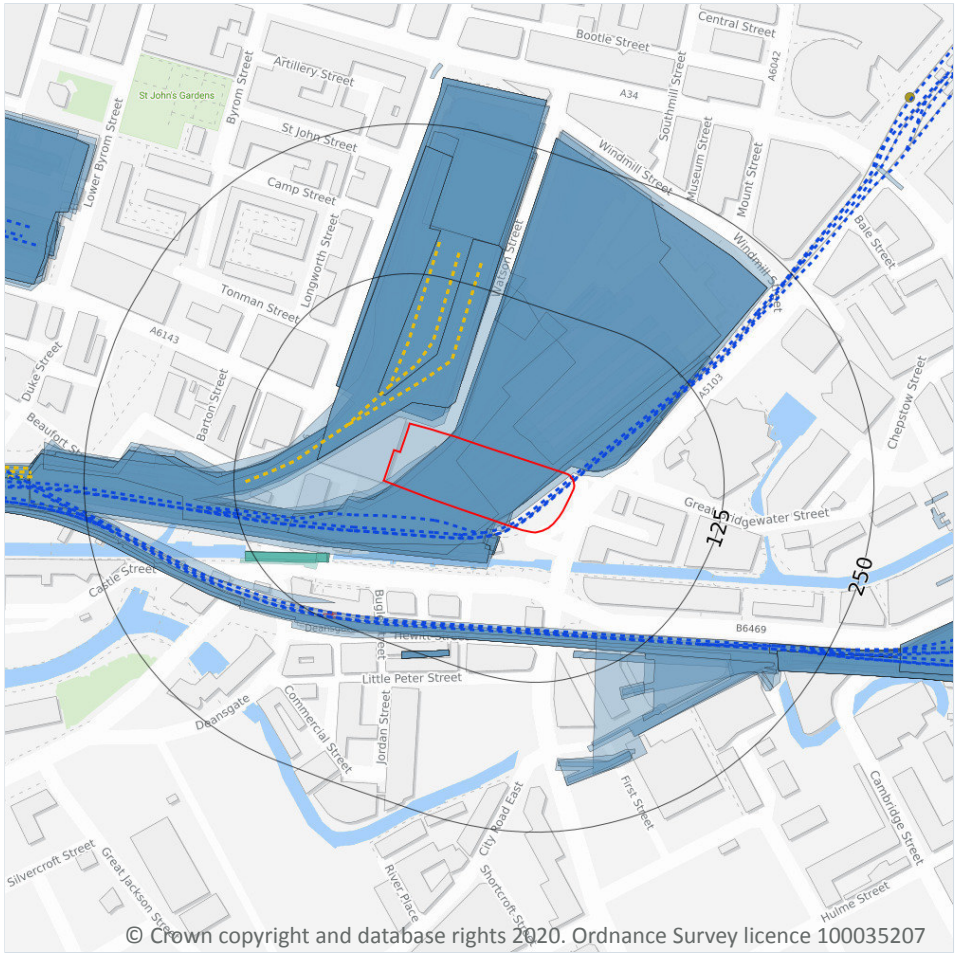
20.3 BGS Measured Urban Soil Chemistry

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 1 Worksites
- 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	84

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 167**

Location	Land Use	Year of mapping	Mapping scale
On site	**Railway Sidings**	**1948**	**1250**
On site	**Railway Sidings**	**1979**	**1250**
On site	**Railway Sidings**	**1951**	**1250**
On site	**Railway Sidings**	**1948**	**2500**
On site	**Railway Sidings**	**1893**	**2500**
On site	**Railway Sidings**	**1908**	**2500**
On site	**Railway Sidings**	**1922**	**2500**
On site	**Railway Sidings**	**1932**	**2500**
On site	**Railway Sidings**	**1979**	**2500**
On site	**Railway Sidings**	**1963**	**2500**
On site	**Railway Sidings**	**1891**	**500**
On site	**Railway**	**1922**	**-**
On site	**Railway**	**1932**	**-**
On site	**Railway Sidings**	**1955**	**-**
On site	**Railways**	**1893**	**-**
On site	**Railway Sidings**	**1938**	**10560**
On site	**Railway Sidings**	**1932**	**10560**

Location	Land Use	Year of mapping	Mapping scale
On site	**Railway Sidings**	**1916**	**10560**
On site	**Railway Sidings**	**1905**	**10560**
On site	**Railway Sidings**	**1923**	**10560**
On site	**Railway Sidings**	**1956**	**10560**
On site	**Railway Sidings**	**1896**	**10560**
8m N	Railway Sidings	1891	500
14m NW	Railway Sidings	1971	10000
14m NW	Railway Sidings	1978	10000
14m NW	Railway Sidings	1985	10000
14m NE	Railway Sidings	1891	500
16m N	Railway Sidings	1891	500
18m NW	Railway Sidings	1963	2500
18m NW	Railway Sidings	1948	1250
19m N	Railway Sidings	1951	1250
19m N	Railway Sidings	1948	1250
27m N	Railway Sidings	1891	500
27m NE	Railway Sidings	1951	1250
27m NE	Railway Sidings	1948	1250
28m NE	Railway Sidings	1963	2500
34m NW	Railway Sidings	1979	1250
35m S	Railway Sidings	1955	-
35m NW	Railway Sidings	1955	-
36m N	Railway	1933	-
48m N	Railway Sidings	1973	1250
63m W	Railway Sidings	1963	1250
76m SW	Tunnel	1995	1250
76m SW	Tunnel	1994	1250
76m SW	Tunnel	1955	-

Location	Land Use	Year of mapping	Mapping scale
76m SW	Tunnel	1932	-
76m SW	Tunnel	1948	2500
76m SW	Tunnel	1979	2500
76m SW	Tunnel	1963	2500
77m SW	Tunnel	1948	1250
77m SW	Tunnel	1963	1250
77m SW	Tunnel	1979	1250
77m SW	Tunnel	1981	1250
83m SW	Tunnel	1986	1250
83m SW	Tunnel	1990	1250
86m SW	Tunnel	1932	2500
90m N	Railway Sidings	1973	1250
97m SE	Railways	1893	-
108m N	Railway Sidings	1979	1250
109m N	Railway Sidings	1955	-
114m S	Railway Sidings	1980	1250
114m S	Railway Sidings	1985	1250
114m S	Railway Sidings	1987	1250
114m S	Railway Sidings	1990	1250
115m N	Railway	1893	-
132m SE	Railway Sidings	1891	500
135m W	Railway Sidings	1955	-
146m SE	Railway Sidings	1893	2500
153m W	Railway Sidings	1979	1250
189m S	Railway Sidings	1893	2500
191m S	Railway Sidings	1896	10560
192m S	Railway Sidings	1891	500
205m SE	Railway Sidings	1948	2500

Location	Land Use	Year of mapping	Mapping scale
205m SE	Railway Sidings	1979	2500
213m SE	Railway Sidings	1938	10560
213m SE	Railway Sidings	1932	10560
213m SE	Railway Sidings	1916	10560
213m SE	Railway Sidings	1905	10560
213m SE	Railway Sidings	1923	10560
216m SE	Railway Sidings	1963	2500
225m SE	Railway Sidings	1969	1250
225m SE	Railway Sidings	1953	1250
226m SE	Railway Sidings	1980	1250
243m N	Railway Sidings	1963	2500

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	6

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

Features are displayed on the Railway infrastructure and projects map on **page 167**

Location	Description
25m NW	Razed
25m NW	Dismantled

Location	Description
34m NW	Razed
34m NW	Dismantled
36m NW	Razed
36m NW	Dismantled

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	**33**

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 167**

Location	Name	Type
On site	**Metrolink**	**light rail**
On site	**Metrolink**	**tram**
On site	**Not given**	**Multi Track**
13m S	Metrolink	light rail
13m S	Metrolink	light rail
16m S	Metrolink	light rail
20m S	Metrolink	light rail
26m S	Metrolink	light rail
29m S	Metrolink	light rail
38m SW	Metrolink	light rail
47m SW	Metrolink	light rail
49m SW	Metrolink	light rail
81m S	-	rail
81m S	-	rail
83m S	Not given	Multi Track
84m S	-	rail
125m W	Metrolink	light rail

Location	Name	Type
125m W	Metrolink	light rail
159m SE	-	rail
165m W	Metrolink	light rail
208m NE	Metrolink	tram
208m NE	Metrolink	tram
226m SE	-	rail
226m W	-	rail
226m W	-	rail
228m SE	-	rail
229m W	-	rail
229m W	-	rail
232m W	Not given	Multi Track
232m W	Not given	Multi Track
233m SE	Not given	Multi Track
233m SE	Not given	Multi Track
236m NE	Metrolink	tram

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	**0**

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	**0**

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

Data providers

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

Terms and conditions

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

APPENDIX D

BGS Exploratory Hole Records

(B11857) Wt. 17852—8154—5,000 12/26 Gp. 180. O.A.

62

G.S.M. Nos. 122-126

SJ 89 NW 21-125

SECTION OF Bores & Shafts at Stowell Storm Relief Overflow Sewer Cornbrook, Manchester.

Maps: One-inch 82. Six-inch 104 S.W.E County Lancs.

Height above O.D. Latitude Longitude

) Wt. 5990—S.33 2000 6/22 Gp. 147

SJ 89 NW 116-120

SECTION OF Manholes in B Sewer at Manchester contd.

Maps: One-inch Six-inch 104 S.W.E. County

Height above O.D. Latitude Longitude

Communicated by Date of sinking

Made by Dip of Strata

	Thickness.			Depth from Surface.		
	M	ft		M	ft	
No. 110 No. 13 116 Junction of City Road & Short St.						
Stone, clay & sand	3·66	12	–	3·66	12	–
Sand & ballast	3·05	10	–	6·71	22	–
Sandstone.	4·57	15	–	11·28	37	–
No. 117 No. 14. South side of Medlock Bridge, City Road.						
Sand, clay, & stones	3·66	12	–	3·66	12	–
Sand & ballast.	3·35	11	–	7·01	23	–
Sandstone.	4·27	14	–	11·28	37	–
No. 118 No. 15 North side of Medlock Bridge, City Road.						
Sand, clay & stones	3·66	12	–	3·66	12	–
Sand & ballast	3·35	11	–	7·01	23	–
Sandstone.	4·27	14	–	11·28	37	–
No. 119 No. 17 18 Traff. Street, off Albion St.						
Clay, sand & stones	4·57	15	–	4·57	15	–
Sand & ballast	4·88	16	–	9·45	31	–
Sandstone.	4·57	15	–	14·02	46	–
No. 114 No. 19 120 Trafford St. off Deansgate.						
Sand, clay & stones	4·57	15	–	4·57	15	–
Ballast & sand.	4·57	15	–	9·14	30	–
Sandstone.	3·35	11	–	12·50	41	–

MANCHESTER CITY COUNCIL

CITY ENGINEER AND SURVEYORS DEPARTMENT

SITE INVESTIGATION FOR Main Drainage	DATE COMMENCED 7.6.83
LOCATION LOWER MOSLEY STREET - PHASE II	BORING METHOD Cable Percussive
BOREHOLE No. A (sheet 1 of 2)	BORING DIAMETER 150mm
GRID REFERENCE	SCALE:

DATE	CASING DEPTH (m)	WATER LEVEL MORNING & EVENING	DEPTH OF STRATA BELOW GL	Reduced Level	DESCRIPTION	No. and Type of Sample	SAMPLE DEPTH PENETRATION From	SAMPLE DEPTH PENETRATION To	No. of Blows	Legend
7.6.83			0.1		Bituminous surfacing					
			0.3		Reinforced concrete and hardcore					
			0.70		Reinforced concrete, hardcore					
					Very stiff brown silty and sandy CLAY with grey fissures, stone inclusions and bands of silty laminated clay	U1	1.0	1.45		
						D1	1.5			
						U2	2.0	2.45		
						D2	2.5			
						U3	3.0	3.45		
						D3	3.5			
						U4	4.0	4.45		
						D4	4.5			
						U5	5.0	5.45		
			5.1							
7.6.83	5.0	Dry			Very dense red fine/ medium grained SANDSTONE	P1	5.10	5.40	64	
8.6.83		Dry								
7.6.83	5.0	Dry	6.0							
					Borehole advanced to 15.0m by Rotary drilling (see sheet 2)					

NGDC ACCESSION NUMBER 39798

WATER OBSERVATIONS DURING BORING				WATER LEVEL IN CASED/UNCASED BOREHOLE ON COMPLETION		
DEPTH OF WATER ENTRY (m)	ESTIMATED SEE PAGE	STANDING LEVEL (m)	DEPTH OF CASING WHEN SEALED (m)	DATE	WATER LEVEL	DEPTH OF CASING
				REMARKS:-		

SAMPLE TEST KEY

D – DISTURBED SAMPLE B – BULK SAMPLE U – UNDISTURBED SAMPLE
P – SPT SAMPLE W – WATER SAMPLE

NOTE: WHERE FULL 0.3 PENETRATION HAS NOT BEEN ACHIEVED, THE NUMBER OF BLOWS FOR THE QUOTED PENETRATION IS GIVEN (NOT N – VALUE)

ALL DEPTHS AND REDUCED LEVELS IN (m) UNLESS OTHERWISE STATED

REMARKS

Trial hole excavated to 1.50m below ground level.
Concrete footing 2.50m wide proved 0.7m from kerb from 0.3 to 0.7m below ground level.
Borehole back filled on completion.

M/c 5931

BOREHOLE RECORD SHEET

Ground Level	Site Reference	Borehole No. A (sheet 2 of 2)

Boring Method: Rotary Drilling (60mm diameter cores).

Site: LOWER MOSLEY STREET - PHASE II

Drilling and Casing Progress	Penetration of Core Barrel From	Penetration of Core Barrel To	R.Q.D. %	Core Recovery % T	Core Recovery % S	Depth B.G.L. / O.D.	Description of Strata	Dip on Sample	Symbolic Log
8.6.83	6.0	7.5	8	31	19		Very dense fine/medium SAND with occasional pebbles becoming —	5°	
	7.5	9.0	55	99	90		Red/brown fine/medium grained very thinly to thinly bedded	8° 8°	
	9.0	10.5	24	97	86		Moderate to slightly weathered SANDSTONE, Moderately strong	10°	
8.6.83	10.5	12.0	82	96	91			10°	
9.6.83	12.0	13.5	16	32	29		(Bunter Sandstone)? - sub-vertical discontinued from 6.0 - 7.50m	10°	
	13.5	14.5	77	100	98		- pebbly zones at 7.50 and 12.0m - mudstone bands at 8.3, 9.60 and 11.10m	10°	

REMARKS:

Lost circulating water return at 6.30m. Water returned at 7.70m.
Cores broke along bedding planes.
T = Total Core Recovery
S = Solid Core Recovery

Scale:

Logged By:

APPENDIX E

Mining Search Report

The Coal Authority

CON29M
coal mining report

ALBION STREET, MANCHESTER, MANCHESTER, M1 5NZ

Known or potential coal mining risks

Future underground coal mining **Page 4**

Further action

No further reports from the Coal Authority are required. Further information on any next steps can be found in our Professional opinion.

For more information on our reports please visit www.groundstability.com

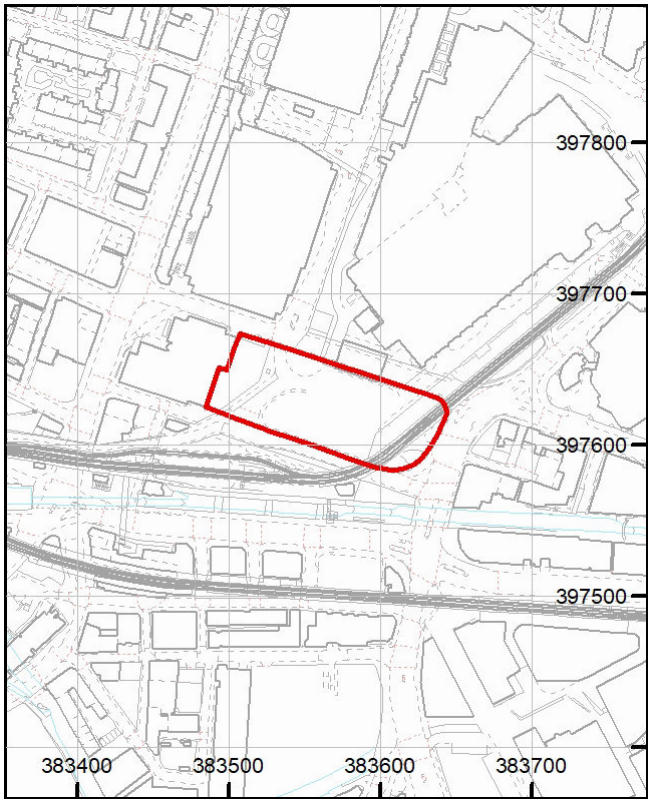
Professional opinion

According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. It is unlikely that these features will impact on the stability of the enquiry boundary.

Enquiry boundary

Key

Approximate position of enquiry boundary shown



We can confirm that the location is **on the coalfield**

Map data

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This report is prepared in accordance with the latest Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.

Accessibility

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

Professional opinion

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 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.

If you are looking to develop, or undertake works, within a coal mining development high risk area your Local Authority planning department may require a Coal Mining Risk Assessment to be undertaken by a qualified mining geologist or engineer. Should you require any additional information then please contact the Coal Authority on 0345 762 6848 or email cmra@coal.gov.uk.

Detailed findings

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

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1 Past underground coal mining

The property is not within a surface area that could be affected by any past recorded underground coal mining.

2 Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3 Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

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

4 Mine entries

There are no recorded coal mine entries known to the Coal Authority within, or within 20 metres, of the boundary of the property.

5 Coal mining geology

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.

6 Past opencast coal mining

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

7 Present opencast coal mining

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8 Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9 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.

10 Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11 Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Coal Authority, under its Emergency Surface Hazard Call Out procedures.

12 Withdrawal of support

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.

13 Working facilities order

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

14 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.

Statutory cover

Coal mining subsidence

In the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations.

When the works are the responsibility of the Coal Authority, our dedicated public safety and subsidence team will manage the claim. The house or land owner ("the owner") is covered for these works under the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994). Please note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you believe your land or property is suffering from coal mining subsidence damage and you need more information on what to do next, please use the following link to our website which sets out what your rights are and what you need to consider before making a claim.
www.gov.uk/government/publications/coal-mining-subsidence-damage-notice-form

Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call 0800 288 4242. Further information can be found on our website: www.gov.uk/coalauthority.

Glossary

Key terms

adit - horizontal or sloped entrance to a mine

coal mining subsidence - ground movement caused by the removal of coal by underground mining

Coal Mining Subsidence Act 1991 - the Act setting out the duties of the Coal Authority to repair damage caused by coal mining subsidence

coal mining subsidence damage - damage to land, buildings or structures caused by the removal of coal by underground mining

coal seams - bed of coal of varying thickness

future opencast coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal from the surface

future underground coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal underground. Although it is unlikely, remaining coal reserves could create a possibility for future mining, which would be licensed by the Coal Authority

mine entries - collective name for shafts and adits

mine gas - reports of alleged mine gas emissions received by the Coal Authority within 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

payments to owners of former copyhold land - historically, copyhold land gave rights to coal to the copyholder. Legislation was set up to allow others to work this coal, but they had to issue a notice and pay compensation if a copyholder came forward

shaft - vertical entry into a mine

site investigation - investigations of coal mining risks carried out with the Coal Authority's permission

stop notice - a delay to repairs because further coal mining subsidence damage may occur and it would be unwise to carry out permanent repairs

subsidence claim - a formal notice of subsidence damage to the Coal Authority since it was established on 31 October 1994

withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

working facilities orders - a court order which gave permission, restricted or prevented coal mine workings

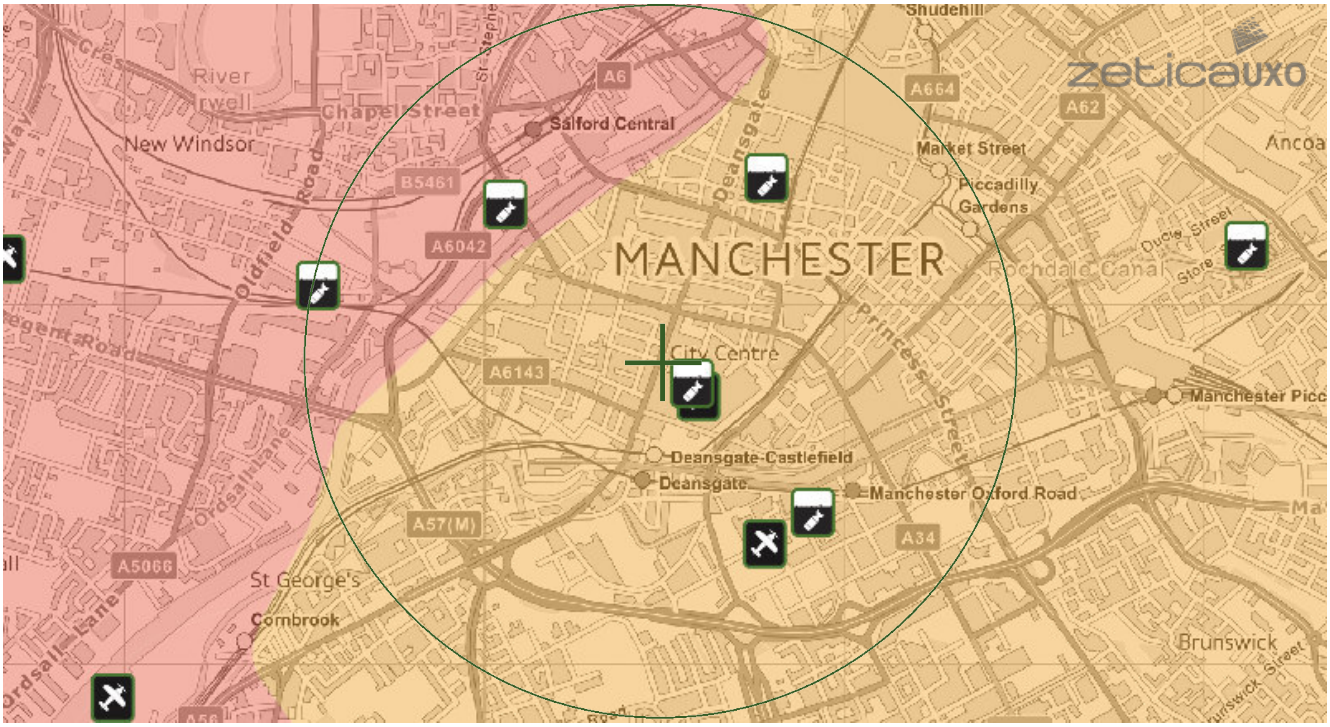
APPENDIX F

UXO Screening Map

UNEXPLODED BOMB RISK MAP

SITE LOCATION

Location: M3 4ED,
Map Centre: 383502,397838



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

LEGEND

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

Miltary | **Industry** | **UXO find** | **Other**
Transport | **Docks** | **Luftwaffe targets**
Utilities | **Bombing decoy** | **Airfields**

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

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

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

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

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

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

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

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

If I have any questions, who do I contact?

tel: +44 (0) 1993 886682 **email:** uxo@zetica.com **web:** www.zeticauxo.com

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

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North

William Smith House
173 – 183 Witton Street
Northwich
Cheshire
CW9 5LP

Tel: 01606 334 844

South

Unit 5, Alfred Court
Saxon Business Park
Stoke Prior
Bromsgrove
Worcestershire
B60 4AD

Tel: 01215 729 014

www.brownfield-solutions.com

