

SLADEN ASSOCIATES

**PHASE 1 GEO-ENVIRONMENTAL
STUDY
Proposed Residential Development
Land at Parkmount Road
Blackley
Manchester**

**Prepared for
MSV Housing**

Date: December 2020

Job No: 20 2277

PHASE 1 GEO-ENVIRONMENTAL STUDY
Proposed Residential Development
Land at Parkmount Road
Blackley
Manchester

Prepared for: MSV Housing

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REPORT No 20 2277

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1 INTRODUCTION

Poole Dick Associates Ltd, acting on behalf of MSV Housing has instructed Sladen Associates to carry out a Phase 1 Geo-environmental Study for a proposed residential development at a site off Parkmount Road in the Blackley area of Manchester. The study was restricted to publicly available documentary sources of information and a site walkover survey and included no intrusive investigative work.

The study included a review of the history of the site based on available old Ordnance Survey Maps and more recent aerial photographs, a review of the site geology, and a search for records of any licensed landfill sites, pollution incidents etc. within the vicinity of the site. This report presents the factual results of the study and a conceptual model of potential pollution linkages together with comment on the potential constraints that may relate to re-development of the site.

2 THE SITE

2.1 LOCATION AND SURFACE CONDITIONS

The site comprises an 'L' shaped area of land immediately to the south of Parkmount Road and immediately east of Rochdale Road (the A664 Trunk Road), some 4.5 km north east of Manchester City Centre at National Grid Reference 3860 4021, see Figures 1 and 2. The site is bounded to the south by Shepherd Street and there is residential development to the east, although Helmsley Street South abuts the eastern boundary of the southern site area. The surrounding areas are predominantly residential although there are swimming baths and an academic facility, Harpurhey Campus, to the south.

At the time of the recent walkover the site was without built development and comprised grass covered open space. A more detailed description is included in the walkover observations later in the report.

2.2 PROPOSED DEVELOPMENT

It is proposed to re-develop the site with the construction of a series of townhouses and apartments. Figure 3 shows the currently proposed development layout. There will be two new access roadways, one from the north and another from the south. The apartments will have communal soft landscaped areas. The townhouses will have small front garden areas with parking and there will be further parking areas for the apartments.

2.3 HISTORY

Copies of the relevant historical Ordnance Survey (OS) maps are included in Appendix A, for reference. Aerial photography dating from 2000 to 2019 was also reviewed. The early, small scale, OS map of 1848 shows the site and surrounding area to be still predominantly in agricultural use although the route of Rochdale Road was already an established thoroughfare to the west and there was scattered housing fronting

the road, including one property in the northern site area. By the time of the first large scale OS mapping in 1893, a series of new streets had been developed, including Kenyon Street that roughly followed the eastern site boundary and James Street that passed west east through the centre of the site. Most of the site had by then been developed with terraced housing. There was a small school and open area in the south. To the south of Shepherd Street from the site was the Manchester Carriage and Tramway Company's Depot. A timber yard is shown a little way to the east of the southern site area, behind further terraced housing. A pond is shown to the north of the timber yard and a little way to the east of the study area.

By 1909 the school in the southern site area had been expanded. The timber yard and pond are no longer shown and the tram depot to the south had apparently been removed, and, by 1922, replaced with Public Baths.

Little change is then shown to the site layout on the subsequent map record until some time between 1971 and 1978, when all the pre-existing buildings on site were removed. Terraced housing in much of the surrounding areas was also removed as was Kenyon Street and the section of James Street that passed through the site. The area to the east of the site had been re-developed with new housing and flats.

Mapping from 1979 shows a garage to the west of Rochdale Road from the southern area of the site and another is shown some 30 m to the west on mapping from 1951 to 1968.

The site and two areas of land to the west of Rochdale Road from the site have remained vacant since that time.

2.4 GEOLOGY

The site is shown on mapping published by the British Geological Survey to be underlain partly by solid strata of the Manchester Marls Formation of Permian Age, within the south and central site areas, and partly by the more recent Chester Formation, part of the Sherwood Sandstone Group of Triassic Age, in the north. The stratigraphic boundary is locally formed by one of a series of faults. The Manchester Marls Formation comprises mainly weak calcareous mudstones and siltstones with some thin limestone beds. The Chester Formation comprises mainly weak sandstones and conglomerates.

The solid strata in the site area are shown to be overlain by natural drift deposits comprising glacial clay till.

2.5 HYDROGEOLOGY

The Manchester Marls Formation strata are generically classified as a Secondary 'B' Aquifer by the Environment Agency, as they are sometimes suitable for small scale water abstraction. The glacial till strata are designated as an Undifferentiated Secondary Aquifer but are unlikely locally to be suitable for water supply. However the Sherwood Sandstone Group is widely used for water supply purposes and the Chester Formation strata are designated as a Principal Aquifer, refer Appendix B.

There are no licensed groundwater abstractions within 1 km of the site and although there are a number of historical licences, only two active licensed abstractions are present within 1 to 2 km of the site. The nearer is some 1.3 km to the north west and the other some 1.6 km to the north west, both for industrial use, see Appendix B for details. There are no licensed potable groundwater abstractions within 2 km of the site and the site does not lie within any groundwater source protection areas.

There are no nearby natural surface water courses, the closest being a small stream that erupts some 260 m to the north east and flows northwards. The southerly flowing River Irk passes some 520 m to the west.

The site is not shown, on mapping published by the Environment Agency, to be potentially prone to flooding from rivers.

2.6 POLLUTION INCIDENTS

There are no recorded pollution incidents within 250 m of the site, refer Appendix B.

2.7 NEARBY LANDFILL SITES

Searches have revealed no evidence of current landfills within 250 m of the site. There is record of two former landfill areas within that search radius. The closer was a small site some 40 m to the west of the study area, the other was some 220 m to the west. No details of waste types or dates of operations are available, suggesting early facilities. The latter was for a while associated with a waste destructor.

2.8 MINING

The site is not in an area of former underground mining and is not designated as being in a high risk area by the Coal Authority.

Surface quarrying for brick clay has been undertaken in the general area but there is no reason to consider that such activity ever extended into the current study area.

2.9 RADON

The site is not in an area where radon protection measures would normally be required for any new buildings and extensions (BRE Report BR211, see also Appendix B).

2.10 OBSERVATIONS MADE DURING SITE WALKOVER STUDY

A site walkover was undertaken on 7th December 2020. Site photographs are included in Appendix C and photographic locations on Figure 2.

The site is located to the south of Parkmount Road and to the east of Rochdale Road and is an approximately 'L' shaped area of grass covered public open space. Shepherd Street is present directly to the south and Helmsley Street South to the east of the south-eastern part of the site. Directly to the east otherwise, are houses on Clayhill Walk and Edward Grant Court, an area of sheltered housing for the elderly.

Asphalt surfaced pavements are present around the site (within the site boundaries) to the north, west, south and south-east. A bus shelter is present within the footpath to the west of the northern part of the site. Flagstone footpaths are present to the east, and crossing the site in two locations.

Rochdale Road to the west is roughly 1 m lower than Clayhill Walk to the east (Pan 4 and 9) and the whole of the long north-south section of the 'L' shaped site is mounded in the centre, with the maximum mound height being about 1 m higher than Clayhill Walk (Pans 7 and 8). Ground levels also fall to the flagstone paths that cross the site (Pans 4 and 7). The south-eastern part of the site is much flatter, although still slightly raised above the level of the surrounding footpaths (Pan 12).

A number of fairly mature trees are present in the north and east of the site. Away from the pavements and footpaths, the site is otherwise fully grass covered. The grass is in good condition, with no evidence of dieback. No underground structures or services were identified during the walkover. No evidence for any bulk liquid storage was

identified. No waste disposal or storage areas were observed, some minor litter was present across the whole area.

Allowing for the observations noted above, there were no areas of potentially significant ground contamination seen during this walkover survey.

3 GEO-ENVIRONMENTAL CONSIDERATIONS

3.1 GEOTECHNICAL CONSIDERATIONS

From the information available, it would appear that solid strata, primarily mudstones and siltstones of the Manchester Marls Formation and sandstones of the Chester Formation underlie the site. The bedrock strata are expected to be overlain by natural superficial strata comprising glacial clay till. Some made ground may have accumulated as a result of the long history of urban development and within any former cellar areas, if present. The mounded nature of parts of the site may also be associated with some fill placement, possibly during demolition of the pre-existing buildings on site or excavated material associated with nearby developments.

The depth to natural soils may be such that construction of conventional shallow strip foundations on natural ground could be suitable to support structural loads. However, depending on the thickness of made ground, some form of deeper foundations, such as trench fill or mini-piles may be required. Foundations for pre-existing buildings may need to be broken out to facilitate new foundation construction.

Prior to finalization of design some intrusive investigation should be undertaken to provide data for design of foundations and site drainage

3.2 ENVIRONMENTAL CONSIDERATIONS

3.2.1 OVERVIEW

3.2.1.1 GROUND CONTAMINATION

The site was in agricultural use before being developed for residential use with the construction of terraced housing and associated roads and a small school. Following removal of the houses, school and on-site roadways in the 1970's the site has been grass covered open space. These uses would not be expected to be associated with a high potential for significant ground contamination.

There is expected to be some made ground on site but no site-specific data are available. The previous housing may possibly have had cellars and, as noted above, some mounding may also be associated with the presence of some made ground. The made ground could potentially include some waste materials, most likely inorganic but which could include such materials as ash, clinker and slag. The former roadway areas will likely be associated with some base course materials that could also potentially include some inorganic waste materials. The long history of residential use could have been associated with some disposal of ash in garden areas.

There are no nearby off-site land uses that have been identified that would potentially be associated with any high risk of contamination of the site soils. Although there was for a short period a timber works a little way to the west, a tram depot to the south and two garages were present to the west of Rochdale Road from the site, no commercial operations extended into the site area. In the anticipated ground conditions, which comprise clay soils, it is unlikely that any contaminants associated with the nearby operations would migrate onto site.

The age of the buildings formerly on site is such that they may have been associated with some asbestos-containing materials.

The main potential contamination possibly locally present in the site areas would be as follows:

- Possible metal and PAH (polyaromatic hydrocarbon) compounds and heavy TPH fractions, associated with any ash, clinker, slag or asphalt that may locally be present in any made ground. However, by their nature, these sources rarely exhibit high levels of leachable contamination.
- Local fuel and oil impaction from vehicles, although the hard cover nature of the former road areas would very much reduce the risk that any spillage that may have occurred would result in significant ground impaction.
- Possible asbestos from demolished buildings.

Prior to development, a ground investigation should be undertaken in the proposed development area to assess the potential for significant concentrations of potential contaminants to be present within the site soils and, if necessary, allow appropriate remedial precautions to be designed.

3.2.1.2 GROUND GAS

Searches have revealed no evidence of any recent nearby domestic waste landfills or other potential sources of significant volumes of bio-gas. There were two former landfill areas to the west of the site and although no details are available, they would appear to have been closed for a considerable period of time. As such they are unlikely to be still producing any significant volumes of bio-gas. The anticipated natural superficial glacial clays would exhibit very low gas permeability, making lateral migration onto the study site unlikely.

The proposed residential usage would be sensitive to any risks posed by ground gas emissions. Detailed analysis has shown, however, that ventilation rates in conventional buildings are generally such as to preclude the potential for development of any significant concentration of bio-gas unless ground gas emission rates are relatively high.

Although some made ground may be present on site that could be associated with elevated concentrations of carbon dioxide and possibly methane, the likely absence of any on-site sources of significant gas generation and absence of any potentially significant adjacent off-site sources leads to the conclusion that there is unlikely to be any viable pollution linkage and that bio-gas is unlikely to pose any significant risk to the proposed development.

The site is not in an area where radon protection measures would be required.

3.2.2 CONCEPTUAL MODEL OF POTENTIAL POLLUTION LINKAGES

3.2.2.1 GENERAL

Current practice with regard to contaminated land is based on development of a conceptual model of potential pollution linkages. This recognises that for any significant risk to be present there must be a 'source' of contamination, such as elevated levels of toxic substances in the ground, a 'receptor', such as a site user and a 'pathway' whereby the receptor could be exposed to the source to a degree that there is a significant risk of potential harm.

3.2.2.2 SOURCES

Based on the above discussion, the risk of significant local sources of ground contamination being present within the site soils is considered to be moderate. It is

possible that potentially contaminated made ground, such as ash and slag was introduced as a fill material or as a base course for roads, hard standing and floor slabs and some ash may be present as a result of the long history of residential usage. Such materials could exhibit elevated metal and possibly PAH concentrations although, by their nature, leachable concentrations are likely to be low. Some asbestos fibres may also be present, particularly if demolition was not carefully controlled. The vehicle access areas could potentially be associated with some spillage of fuels or oils.

There is no reason to consider that significant ground gas emissions are occurring but some elevated concentrations of bio-gas may be present in any areas of relatively deep made ground.

3.2.2.3 RECEPTORS

Potential receptors with respect to any ground contamination that may be present include site users and the wider environment. The proposed residential usage would be relatively sensitive to potential land contamination. Construction workers could be exposed to site soils on a short term basis.

With regard to the wider environment, the bedrock below the northern site area is designated as Principal Aquifer and the superficial soils and the bedrock below the southern site area are considered to be Secondary Aquifers. As such groundwater below the site would be considered to be a potentially sensitive receptor. There are, however, no potable groundwater abstractions or current surface water courses within a credible influencing distance.

3.2.2.4 PATHWAYS

For the proposed residential usage, site users could potentially be exposed to ground contamination through direct contact with soil, dust and vapour inhalation and dust ingestion. No private rear gardens are anticipated but as some new private garden areas potentially suitable for vegetable cultivation are envisaged, ingestion of soil attached to vegetables and vegetables that may have taken up some contamination from the site soils are also potentially viable pathways.

With regard to controlled waters, leachable contaminants, if present in the near surface soils, could potentially migrate down to the groundwater and thence eventual discharge to the surface water system of abstraction. Given the distance to those features, significant attenuation would occur in the groundwater prior to final discharge. In addition, the anticipated near surface clay soils would tend to restrict the potential for any non-aqueous phase liquids, such as fuels, to migrate any significant distance from a source or down to the bedrock aquifers.

Ground gas, if present under pressure, could enter buildings through joints and cracks within floor slab foundation system. However, the anticipated near surface clay soils would be practically impermeable to ground gas advective flow and there are unlikely to be any viable pathways for gas to migrate any significant distance horizontally from any off-site sources.

3.2.2.5 VIABLE POLLUTION LINKAGES AND PRELIMINARY RISK ASSESSMENT

Given the potential for some contaminants to be present in the near surface soils, in particular related to ash, other inorganic waste materials, asbestos and limited fuels and oils, and the sensitive nature of the proposed land use, risks to site users, if no precautions are taken, are judged to be moderate.

In view of the potential absence of significant sources of leachable contamination on site but location partly over a Principal Aquifer, there is considered to be a low to moderate risk to controlled waters if no precautions are taken.

Given the likely absence of significant nearby sources of significant volumes of bio-gas generation on or near the site and absence of any pathway from more distant sources, real risks associated with ground gas are judged to be low.

3.3 POTENTIAL MITIGATION MEASURES

Subject to the results intrusive investigation and subsequent risk assessments potential mitigation measures that may be required to allow safe re-development of the site for residential use could potentially include:

- Possible need for deepened foundations or mini-piles in any areas of relatively deep made ground, such as former cellars, if present.
- Probable need to break out foundations for former buildings to allow installation of new foundations and utilities.
- Possible need to remediate any local areas of significant soil impaction.
- Probable need for clean cover soils in soft-landscaped areas.
- Possible need for basic gas exclusion measures for residential structures
- Need for a discovery strategy to be in place during groundworks to handle any unexpected potential contamination encountered.

3.4 REQUIREMENTS FOR INTRUSIVE INVESTIGATION

It is recommended that an intrusive ground investigation should be carried out prior to final design and re-development of the site to provide information concerning potential land contamination, ground gas and data for foundation design. Based on the acquired information, more detailed risk assessments should be undertaken with respect to potential impacts on site users and controlled waters.

4 CONCLUSIONS

Natural ground conditions are likely to comprise predominantly mudstones, siltstones and sandstones overlain by glacial clay till. Some made ground may be present but no details are available. The natural strata should be suitable to support conventional shallow spread or trench fill foundations but some deeper foundations, such as mini-piles, may be required if any areas of relatively deep made ground are present.

There is some potential for at least limited local ground contamination, but apart from visual observations no site-specific data are available.

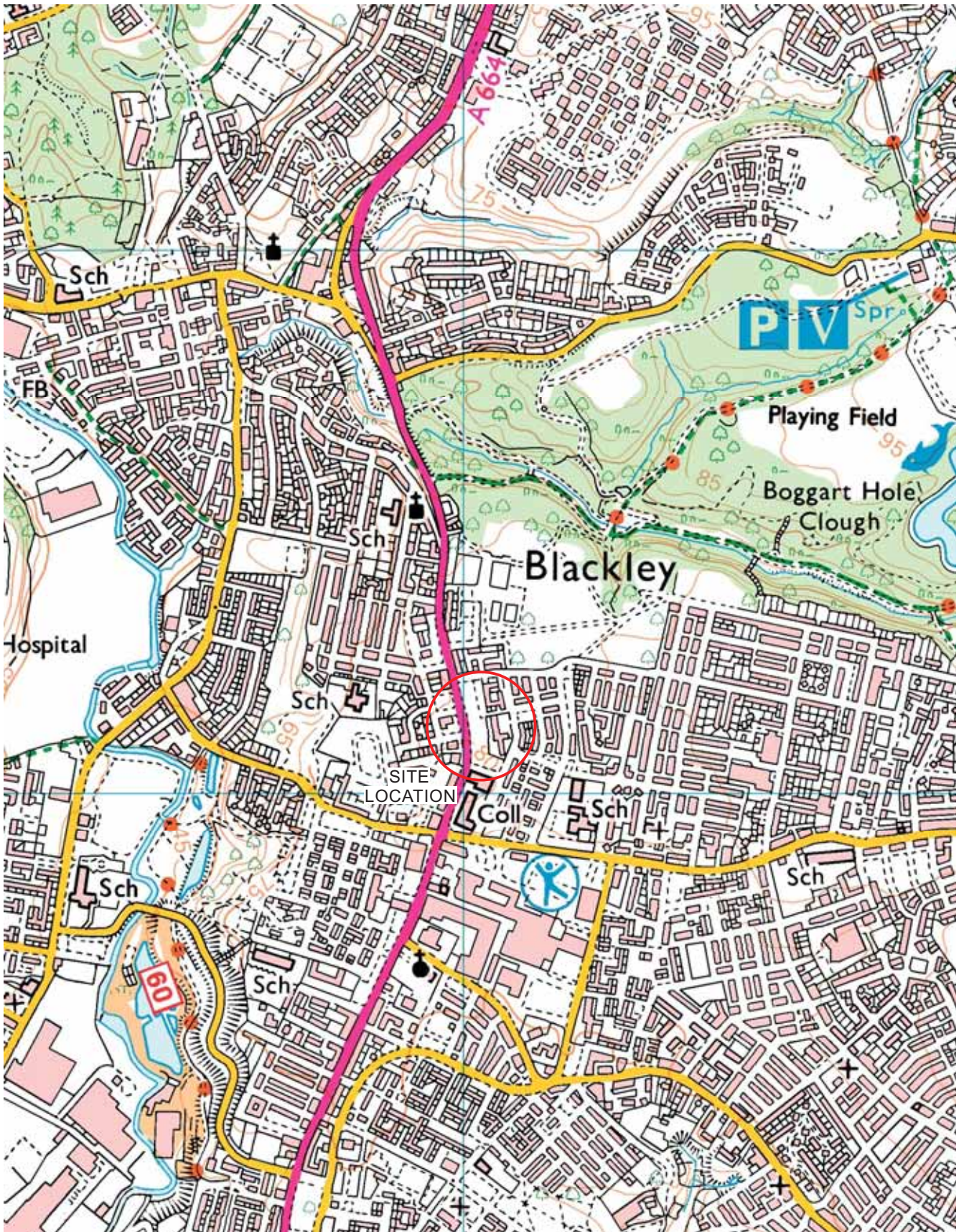
Ground gas is unlikely to pose a high risk to development.

The proposed residential development would be sensitive to potential ground contamination and it is recommended that an intrusive ground investigation should be carried out prior to detailed design and re-development of the site to allow more detailed risk assessments to be undertaken with respect to potential ground contamination and design of foundations.

Subject to the results of the intrusive investigation, some remedial precautions may be required for the proposed residential development, as detailed in the report.

Subject to the potential need for the above precautions, the present study has shown no reason why the site could not be safely re-developed for the proposed use.

FIGURES



Reproduced from the Ordnance Survey map
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SITE LOCATION PLAN

**SLADEN
ASSOCIATES**

Report No
20-2277

Project
Parkmount Road-Rochdale Road
Manchester

Figure
1



SITE LAYOUT PLAN WITH PHOTOGRAPHIC LOCATIONS

**SLADEN
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Report No
20-2277

Project
Parkmount Road-Rochdale Road
Manchester

Figure
2



**SLADEN
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20-2277

Project
Parkmount Road-Rochdale Road
Manchester

Figure
3

APPENDIX A HISTORICAL MAPS

Site Details:

PARKMOUNT
ROAD-ROCHDALE ROAD,
MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: County Series

Map date: 1893

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1893
Revised 1893
Edition N/A
Copyright N/A
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Production date: 01 December 2020

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Site Details:

PARKMOUNT
ROAD-ROCHDALE ROAD,
MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: County Series

Map date: 1909

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1909
Revised 1909
Edition N/A
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Site Details:

PARKMOUNT
ROAD-ROCHDALE ROAD,
MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: County Series

Map date: 1922

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1922
Revised 1922
Edition N/A
Copyright N/A
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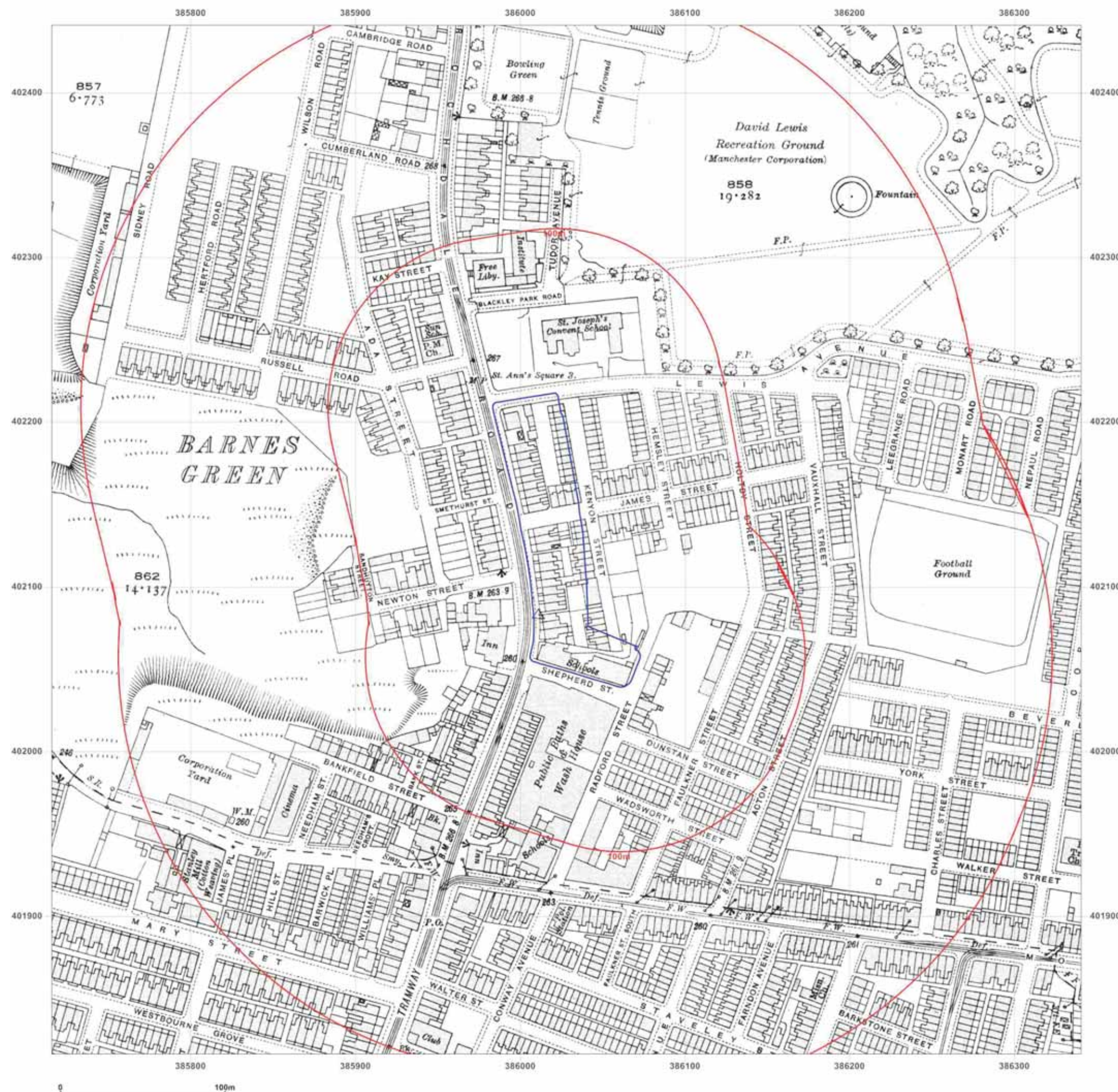


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Site Details:

PARKMOUNT
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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: County Series

Map date: 1932

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1932
Revised 1932
Edition N/A
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Site Details:

PARKMOUNT
ROAD-ROCHDALE ROAD,
MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: National Grid

Map date: 1950-1951

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1951
Revised 1951
Edition N/A
Copyright N/A
Levelled 1948

Surveyed 1950
Revised 1950
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised 1950
Edition 1951
Copyright N/A
Levelled 1949

Surveyed 1950
Revised 1950
Edition N/A
Copyright N/A
Levelled N/A

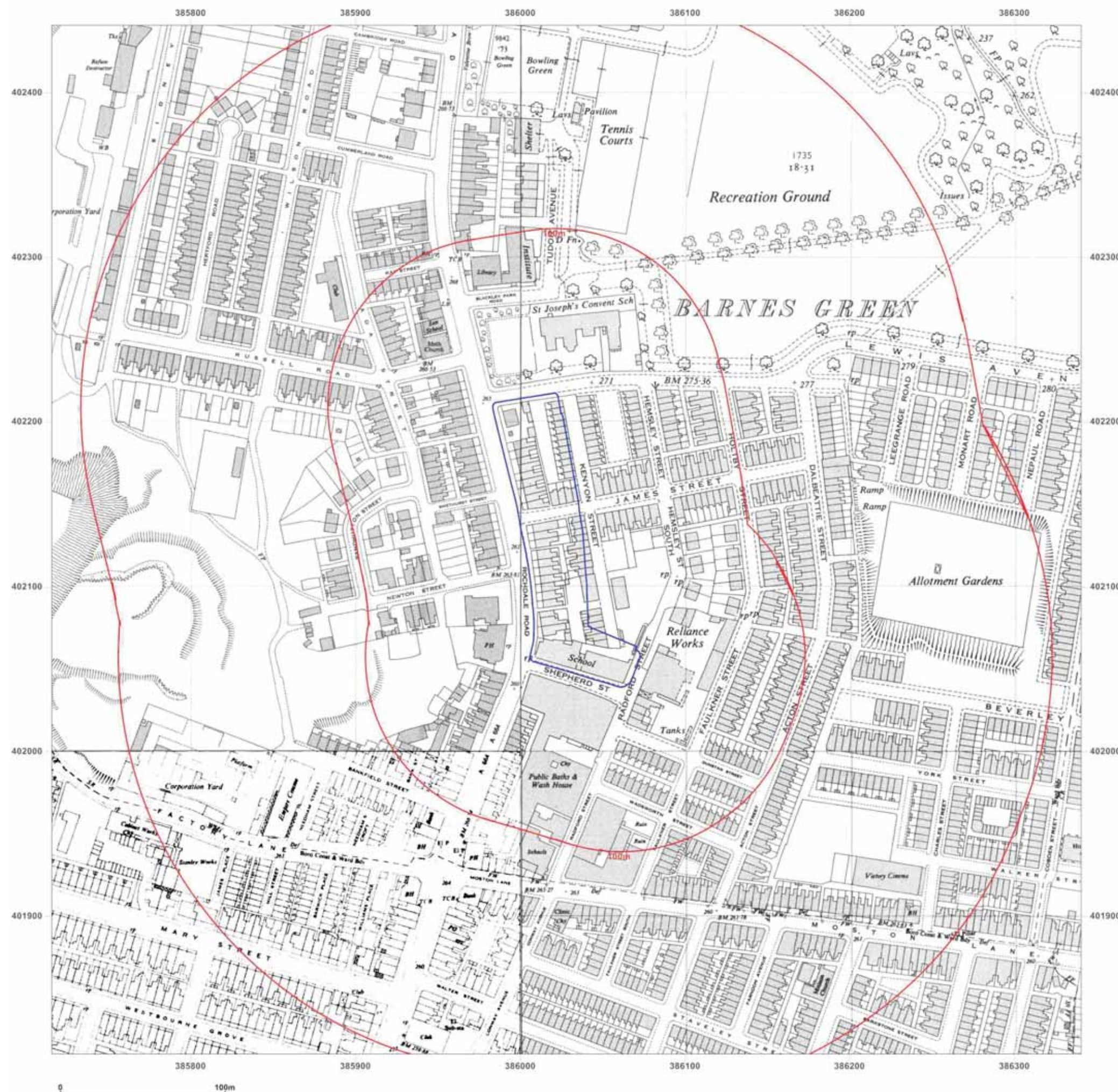


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Production date: 01 December 2020

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Site Details:

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ROAD-ROCHDALE ROAD,
MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: National Grid

Map date: 1950-1952

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1951 Revised N/A Edition N/A Copyright N/A Levelled 1948	Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled N/A
Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled N/A	Surveyed 1951 Revised 1951 Edition N/A Copyright N/A Levelled 1929



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Site Details:

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ROAD-ROCHDALE ROAD,
MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: National Grid

Map date: 1971-1973

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1950
Revised 1970
Edition N/A
Copyright 1971
Levelled 1964

Surveyed 1949
Revised 1972
Edition N/A
Copyright 1973
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Site Details:

PARKMOUNT
ROAD-ROCHDALE ROAD,
MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: National Grid

Map date: 1977-1980

Scale: 1:1,250

Printed at: 1:2,000



Surveyed N/A Revised N/A Edition N/A Copyright 1979 Levelled 1964	Surveyed N/A Revised N/A Edition N/A Copyright 1978 Levelled N/A
Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled N/A	Surveyed 1950 Revised 1979 Edition N/A Copyright 1980 Levelled 1964

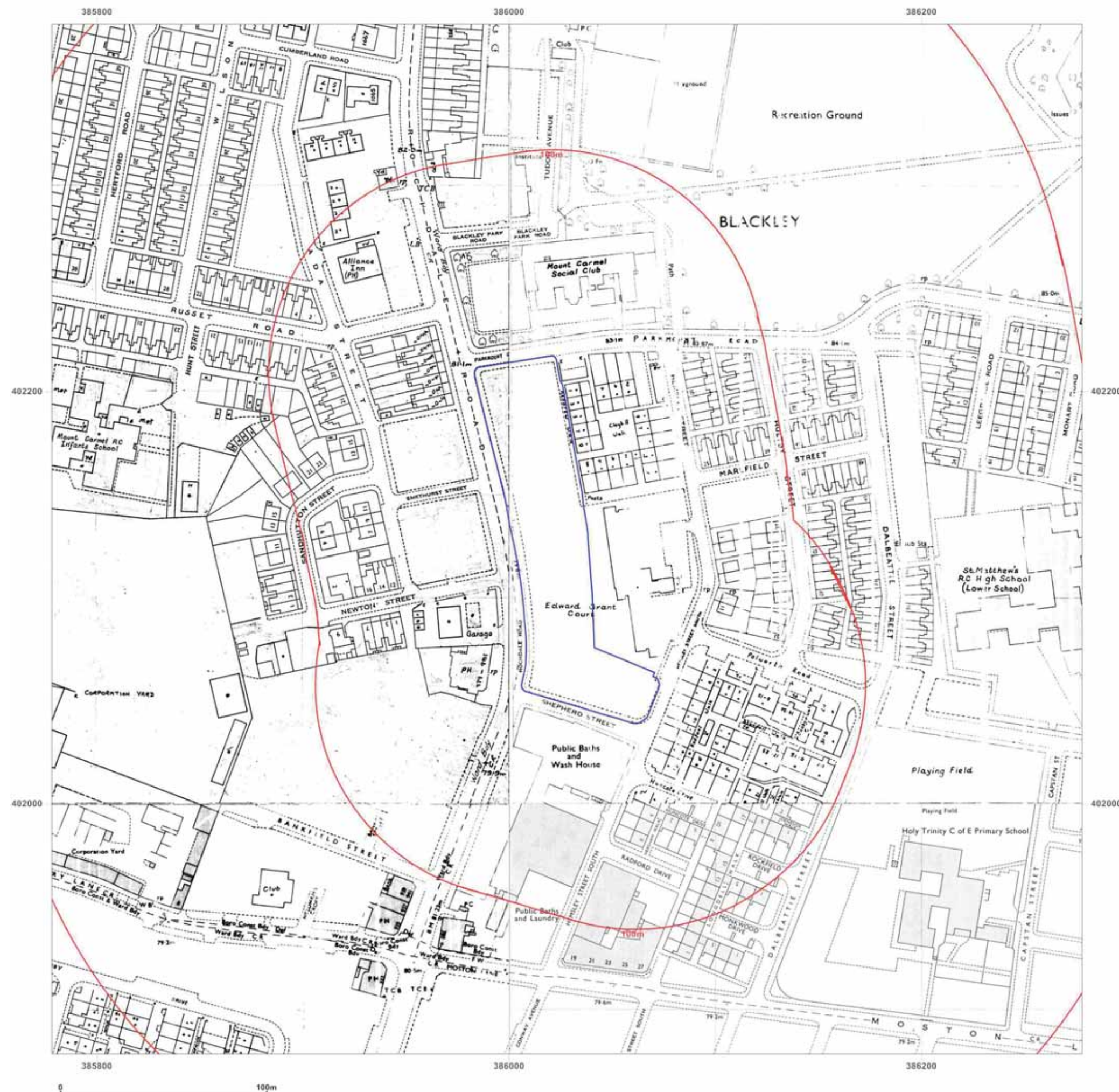


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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: National Grid

Map date: 1982-1986

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1951
Revised 1983
Edition N/A
Copyright 1984
Levelled 1964

Surveyed 1964
Revised 1986
Edition N/A
Copyright 1986
Levelled 1964

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1982
Levelled 1964

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1982
Levelled 1964

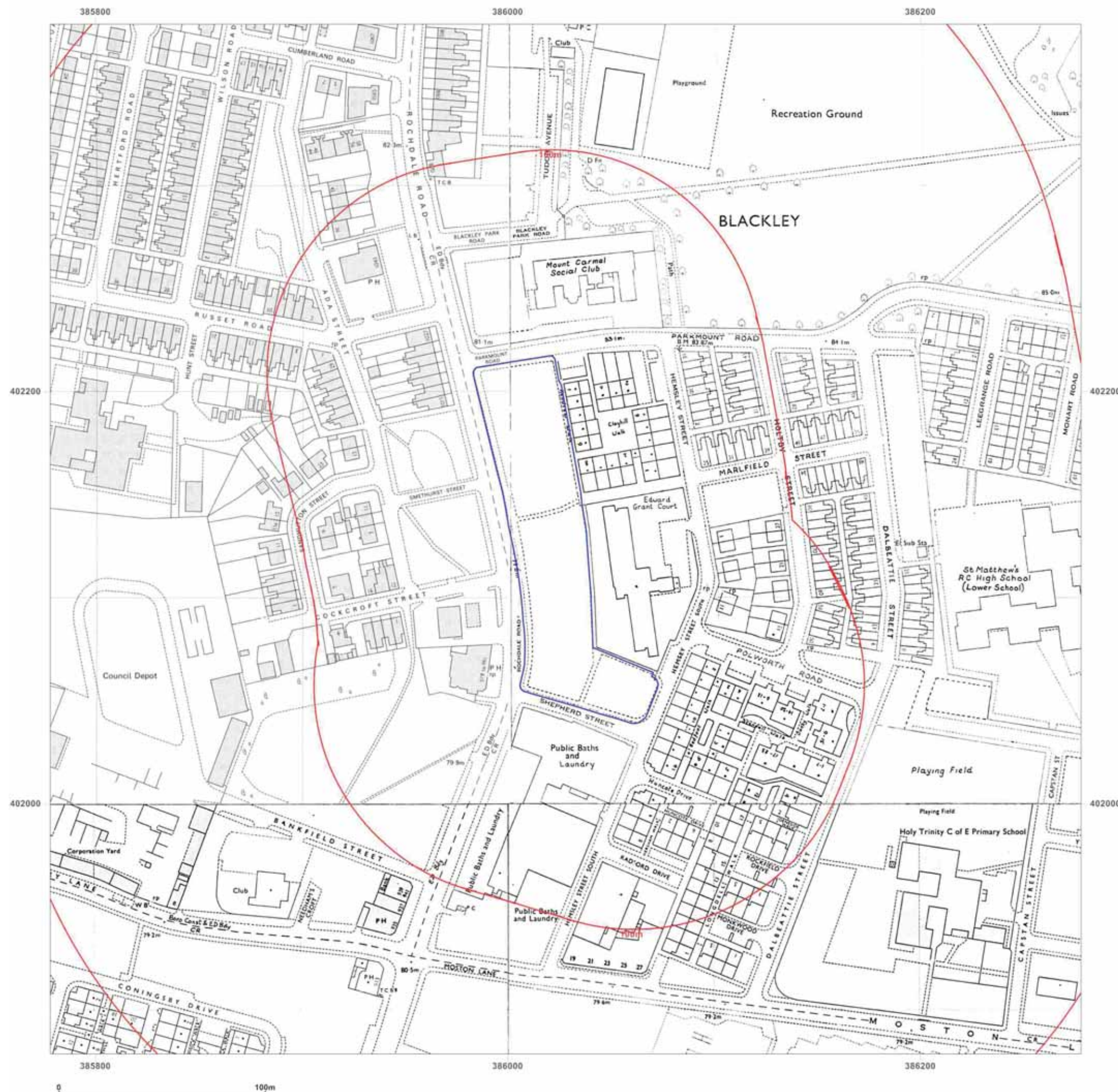


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Production date: 01 December 2020

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www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

PARKMOUNT
ROAD-ROCHDALE ROAD,
MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: National Grid

Map date: 1988-1992

Scale: 1:1,250

Printed at: 1:2,000



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

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

Surveyed 1949
Revised 1987
Edition N/A
Copyright 1988
Levelled 1964

Surveyed 1964
Revised 1988
Edition N/A
Copyright 1988
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Site Details:

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ROAD-ROCHDALE ROAD,
MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: National Grid

Map date: 1989-1994

Scale: 1:1,250

Printed at: 1:2,000



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

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

Surveyed 1992
Revised N/A
Edition N/A
Copyright 1992
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Surveyed 1950
Revised 1989
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Site Details:

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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



2003



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Site Details:

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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: County Series

Map date: 1848

Scale: 1:10,560

Printed at: 1:10,560



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



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

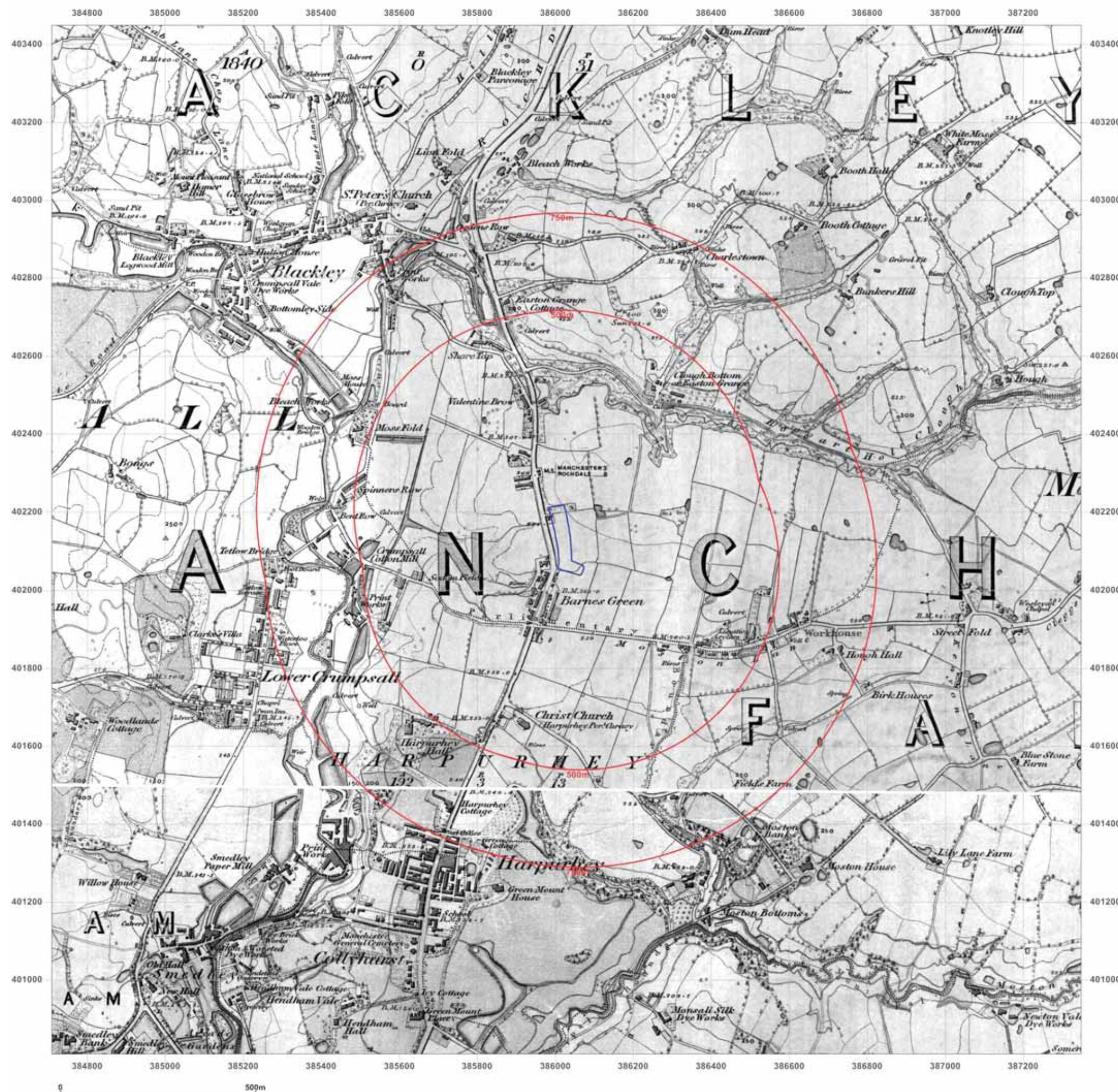


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Site Details:

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ROAD-ROCHDALE ROAD,
MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: County Series

Map date: 1891

Scale: 1:10,560

Printed at: 1:10,560



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

Surveyed 1891
Revised 1891
Edition 1891
Copyright N/A
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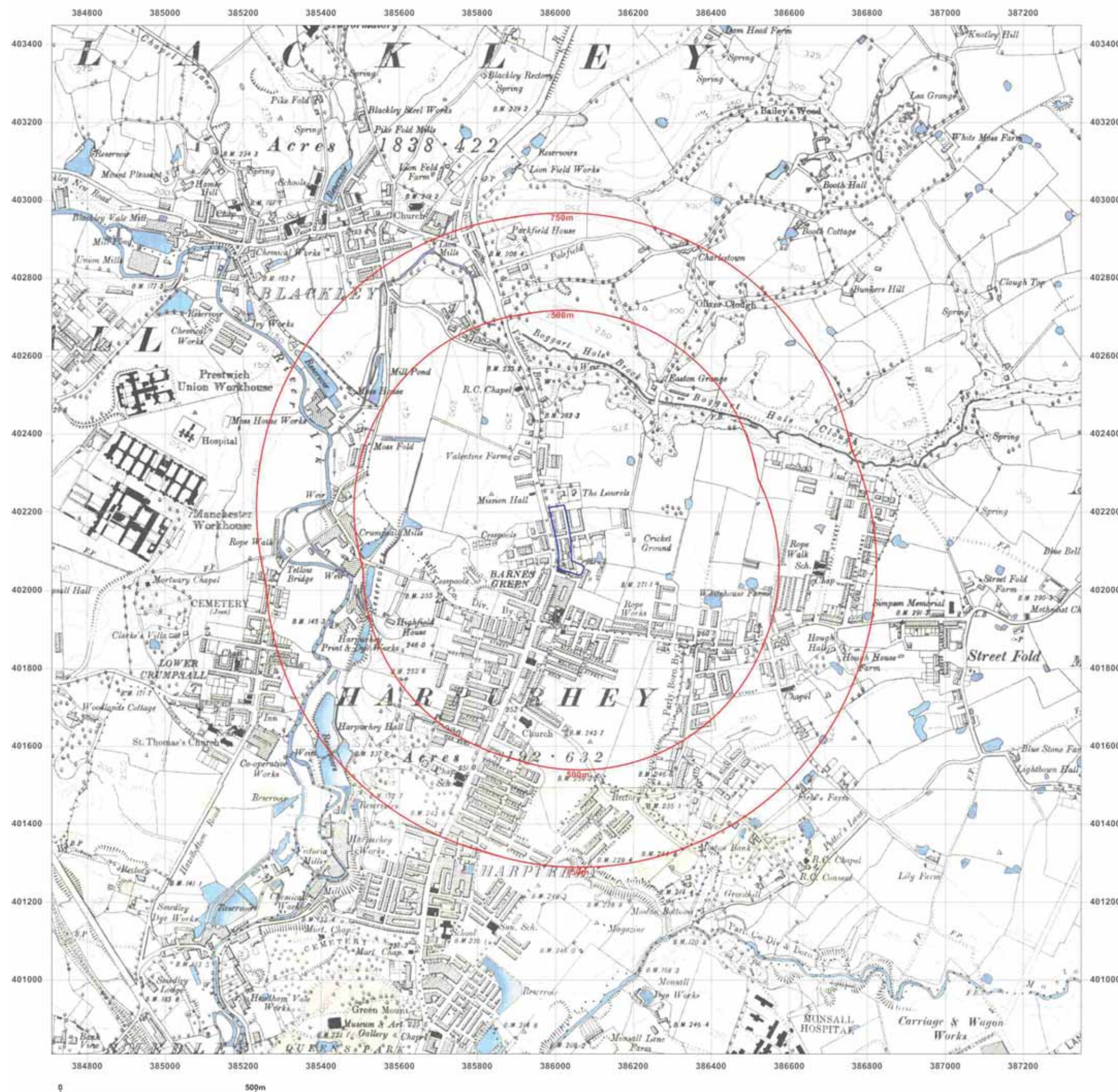


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Site Details:

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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: County Series

Map date: 1906

Scale: 1:10,560

Printed at: 1:10,560



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

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

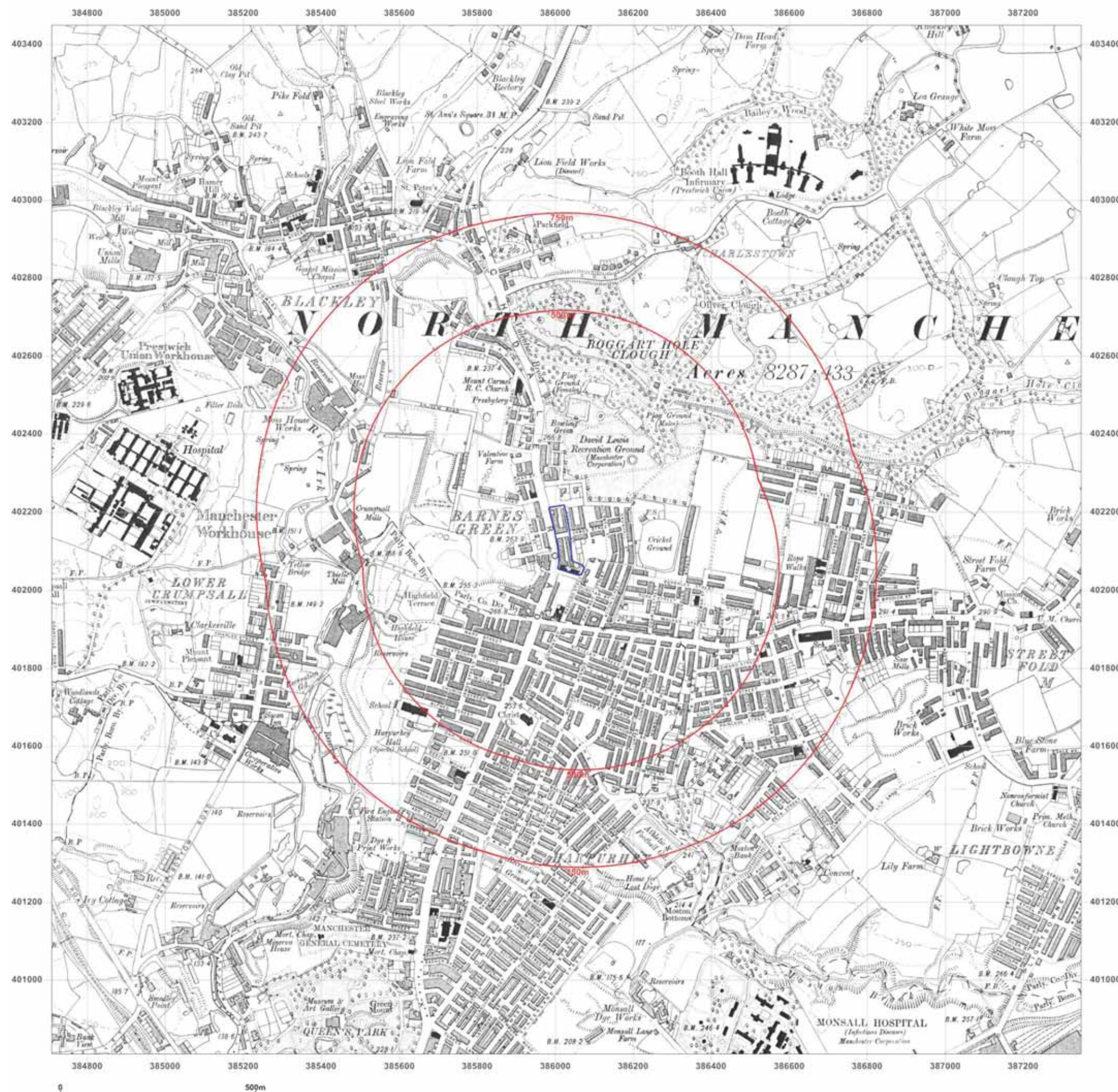


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Site Details:

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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: County Series

Map date: 1915

Scale: 1:10,560

Printed at: 1:10,560



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

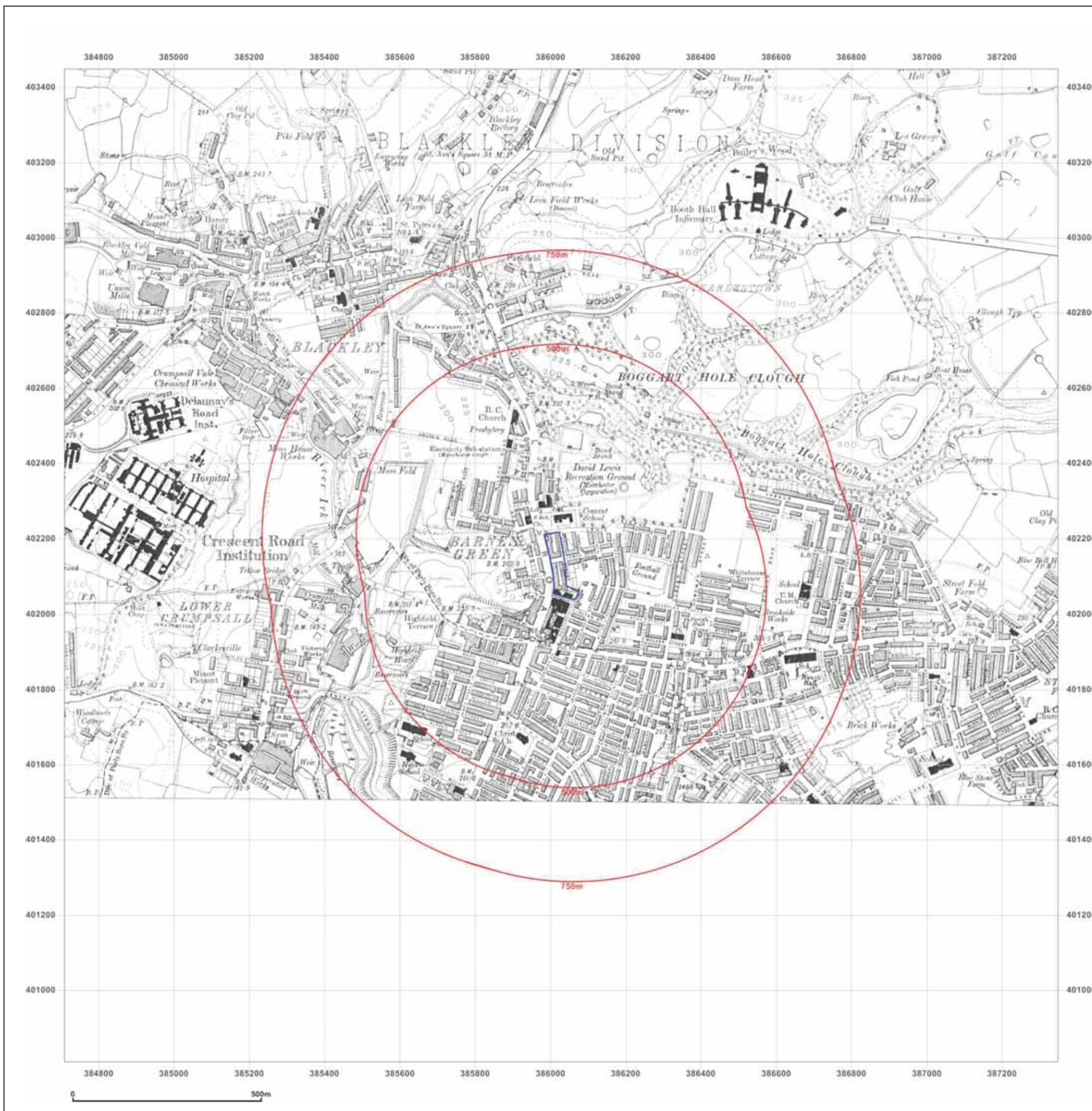


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Site Details:

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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: County Series

Map date: 1923

Scale: 1:10,560

Printed at: 1:10,560



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

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

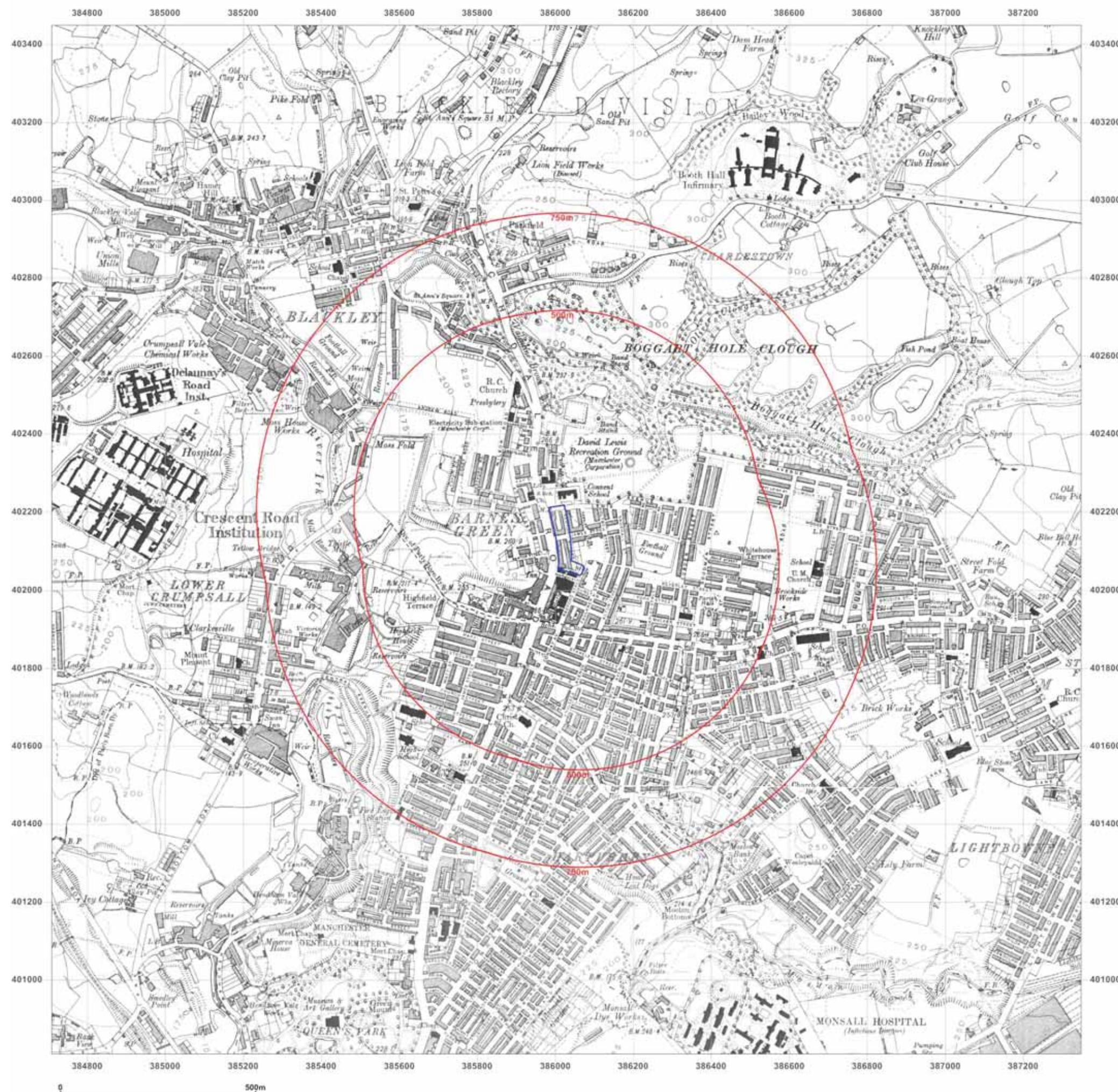


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Site Details:

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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: County Series

Map date: 1933

Scale: 1:10,560

Printed at: 1:10,560



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

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

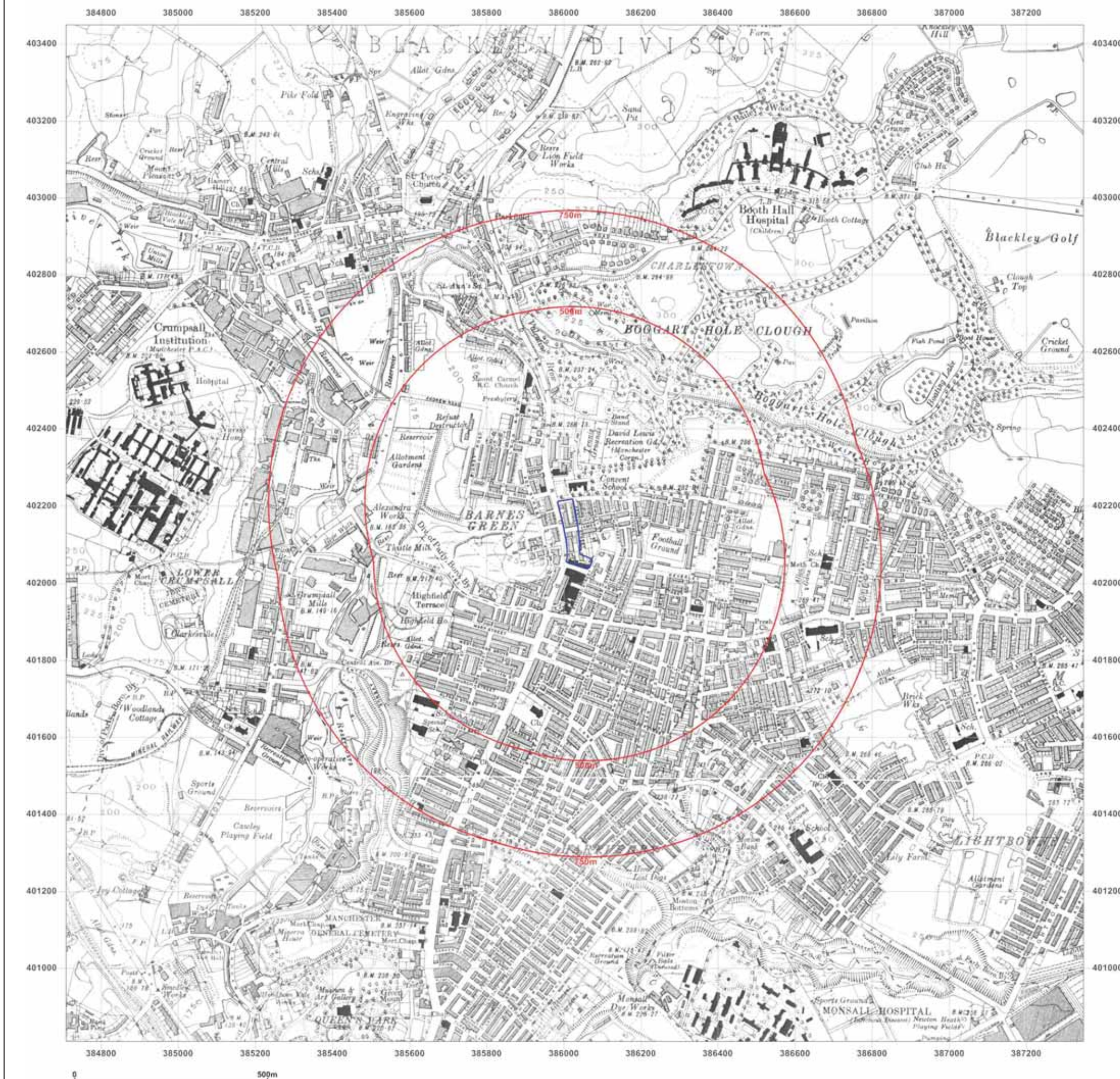


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Site Details:

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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



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

Surveyed 1844
Revised 1938
Edition 1938
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Levelled 1927



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Site Details:

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Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: Provisional

Map date: 1956

Scale: 1:10,560

Printed at: 1:10,560



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

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

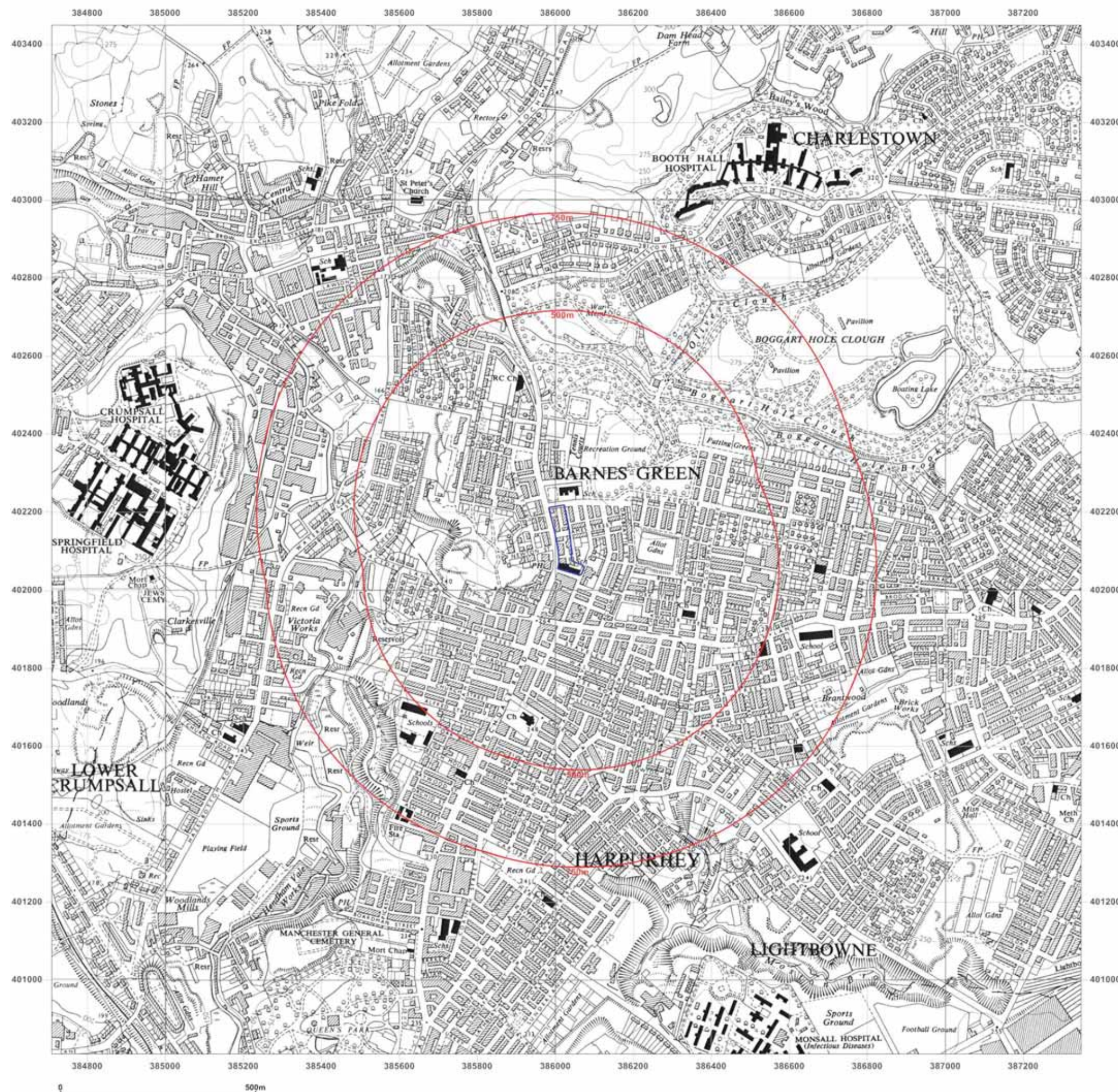


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Site Details:

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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: Provisional

Map date: 1966-1968

Scale: 1:10,560

Printed at: 1:10,560



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

Surveyed 1966
Revised 1966
Edition N/A
Copyright N/A
Levelled N/A

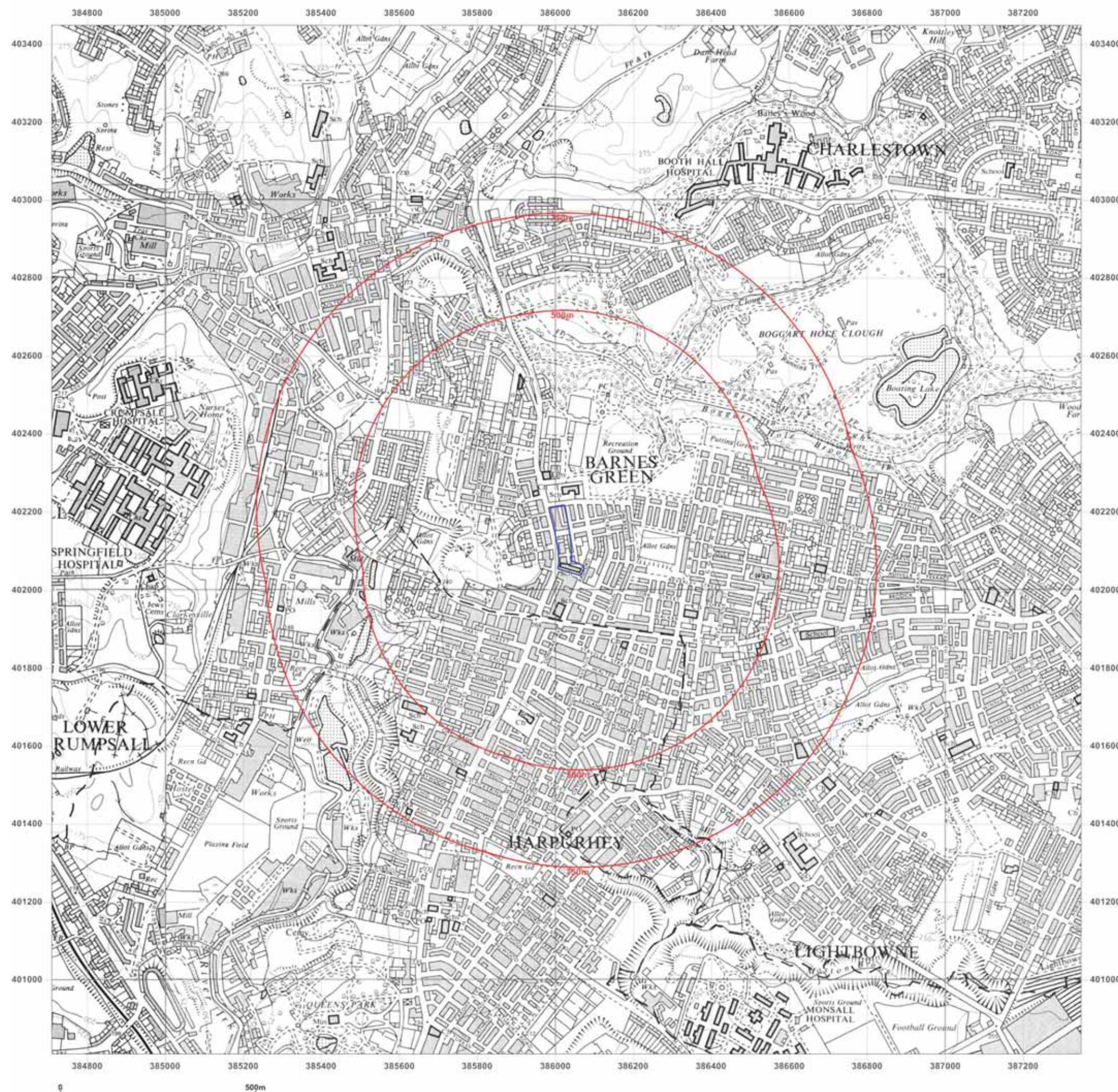


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Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: National Grid

Map date: 1975-1977

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1975
Revised 1977
Edition N/A
Copyright N/A
Levelled N/A

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

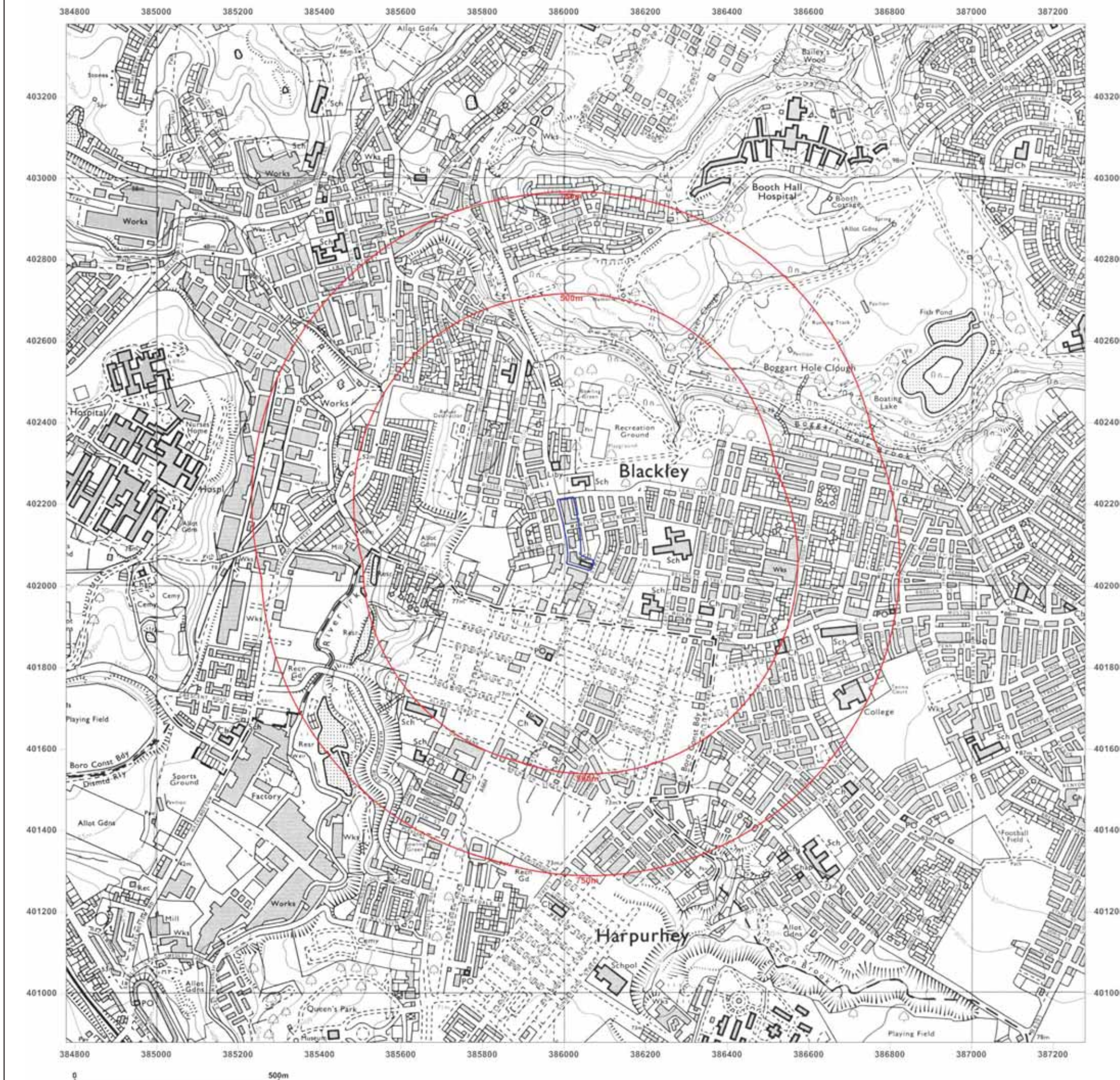


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Site Details:

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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: National Grid

Map date: 1980-1985

Scale: 1:10,000

Printed at: 1:10,000



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

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

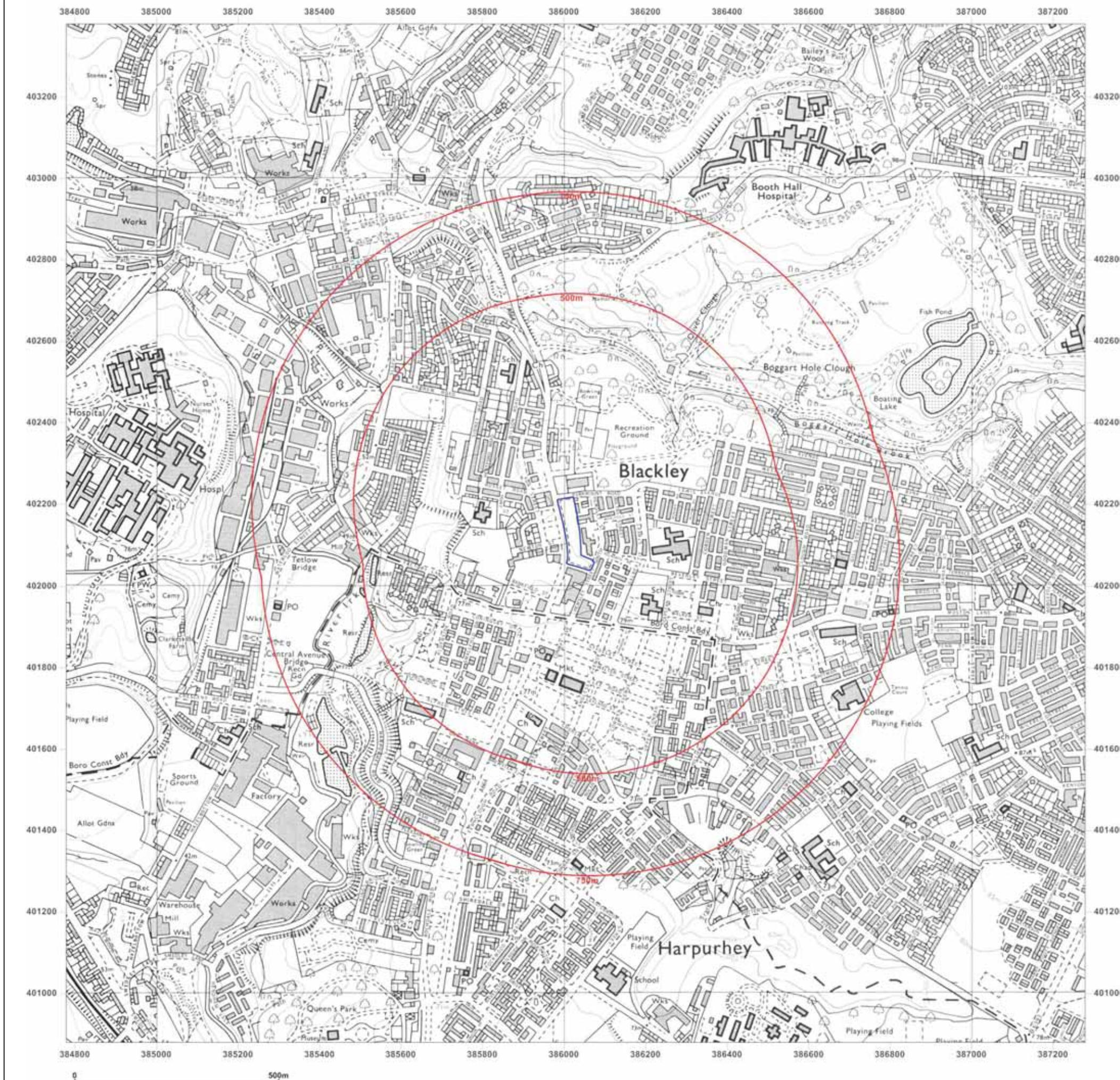


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Site Details:

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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: National Grid

Map date: 1988

Scale: 1:10,000

Printed at: 1:10,000



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

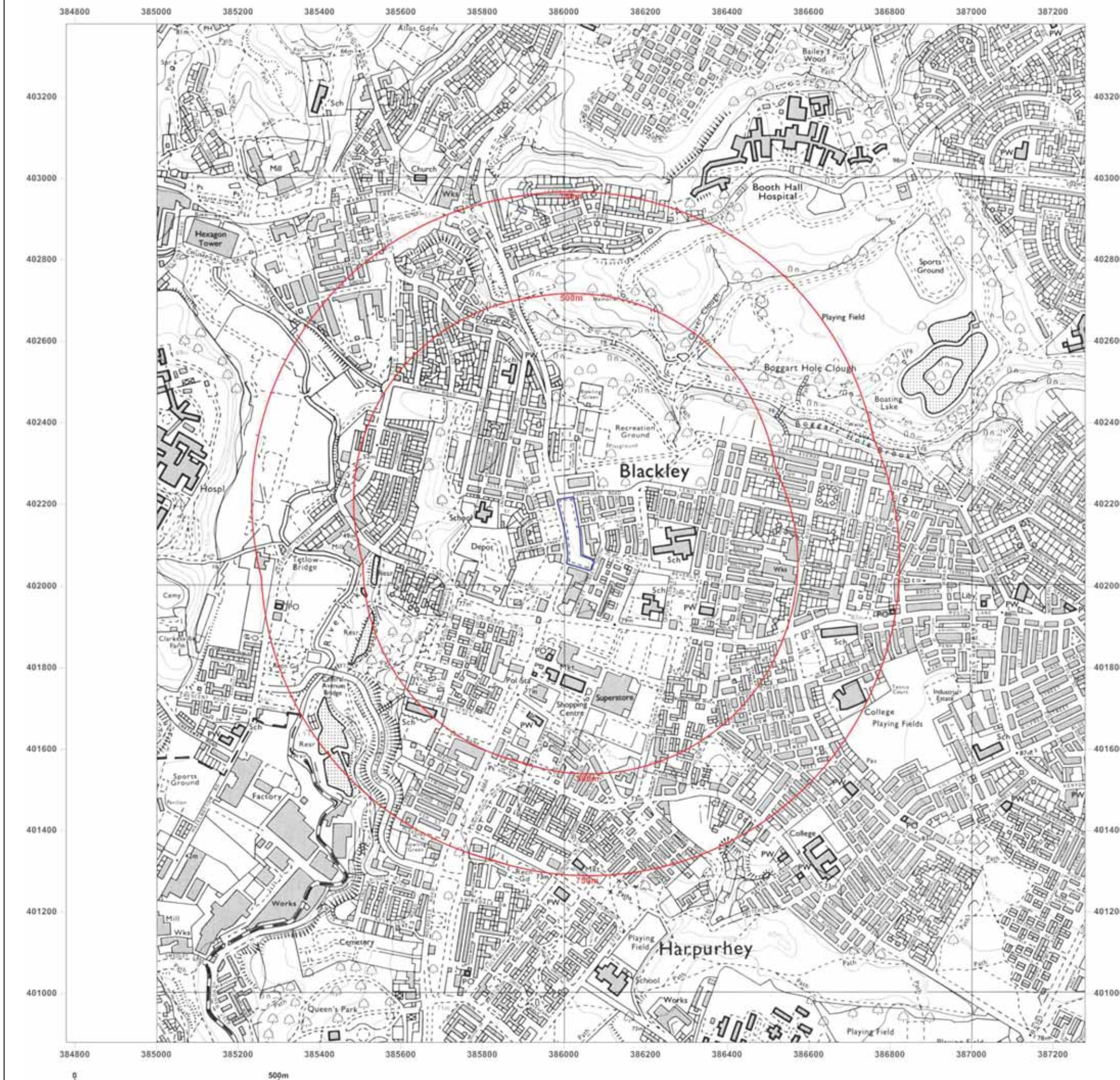


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Site Details:

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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000



2001

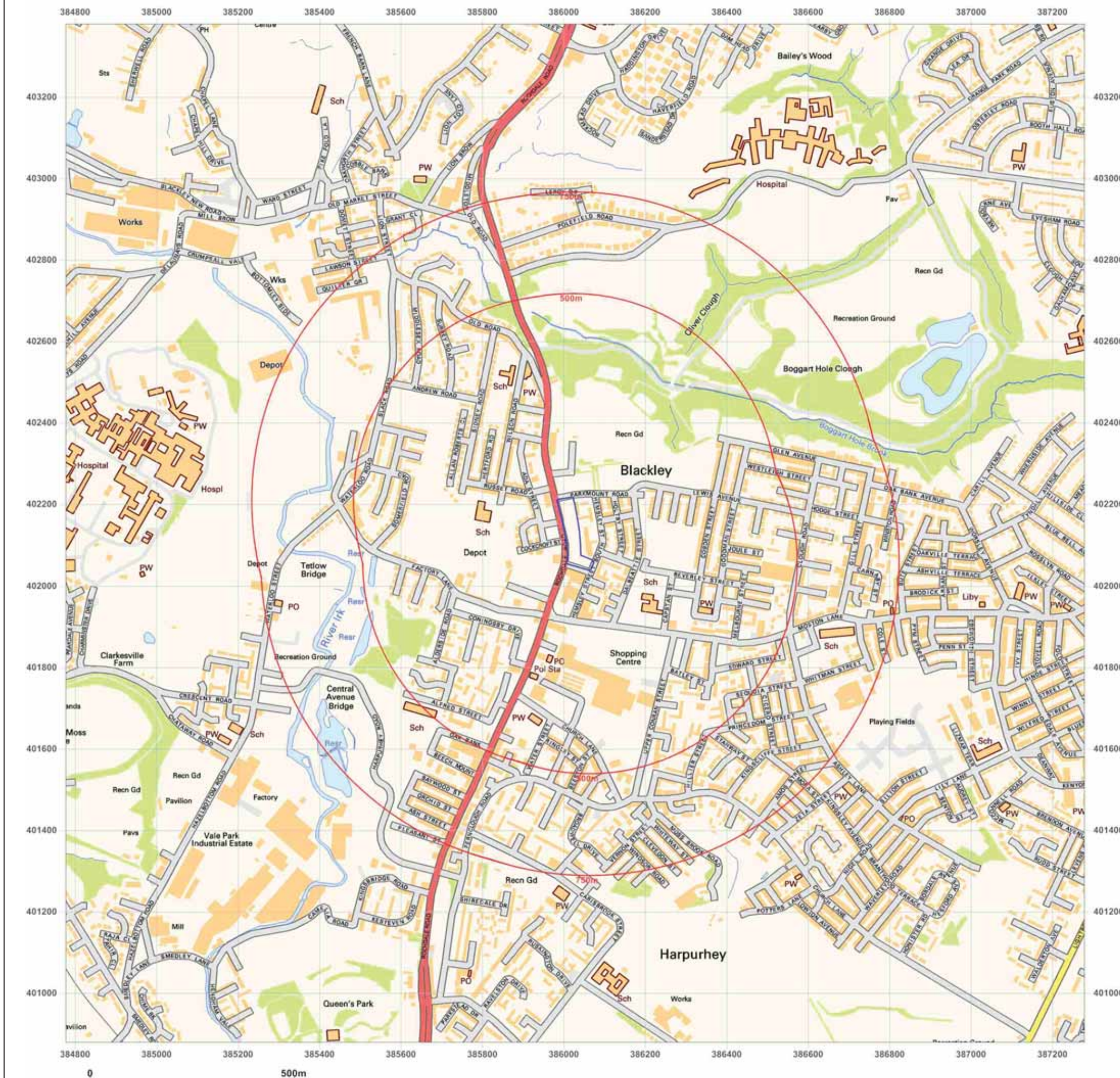


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Production date: 01 December 2020

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Site Details:

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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



2010

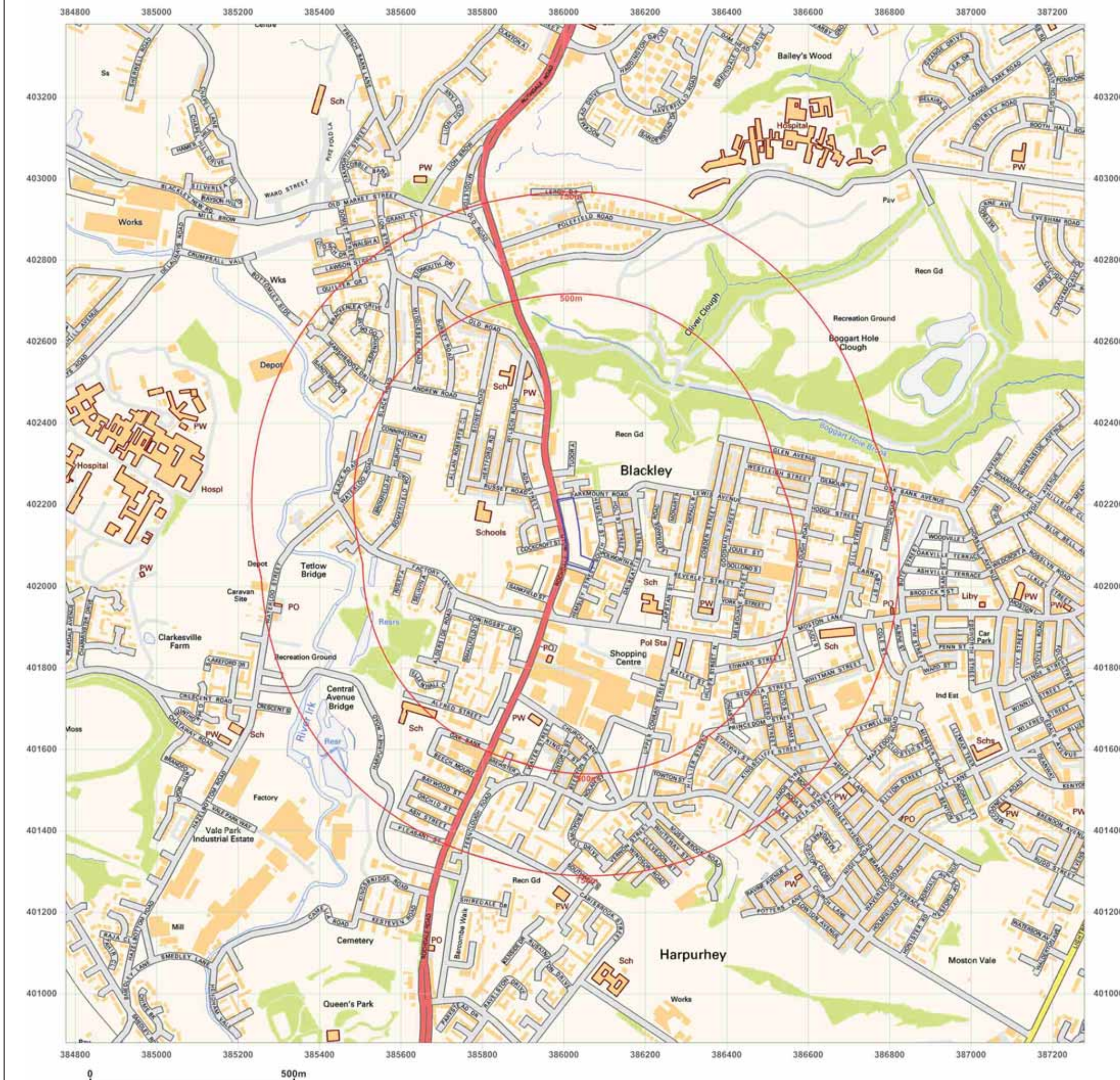


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Site Details:

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MANCHESTER, M9 8AH

Client Ref: 20-2277
Report Ref: SA1-7328686
Grid Ref: 386028, 402128

Map Name: National Grid

Map date: 2020

Scale: 1:10,000

Printed at: 1:10,000



2020

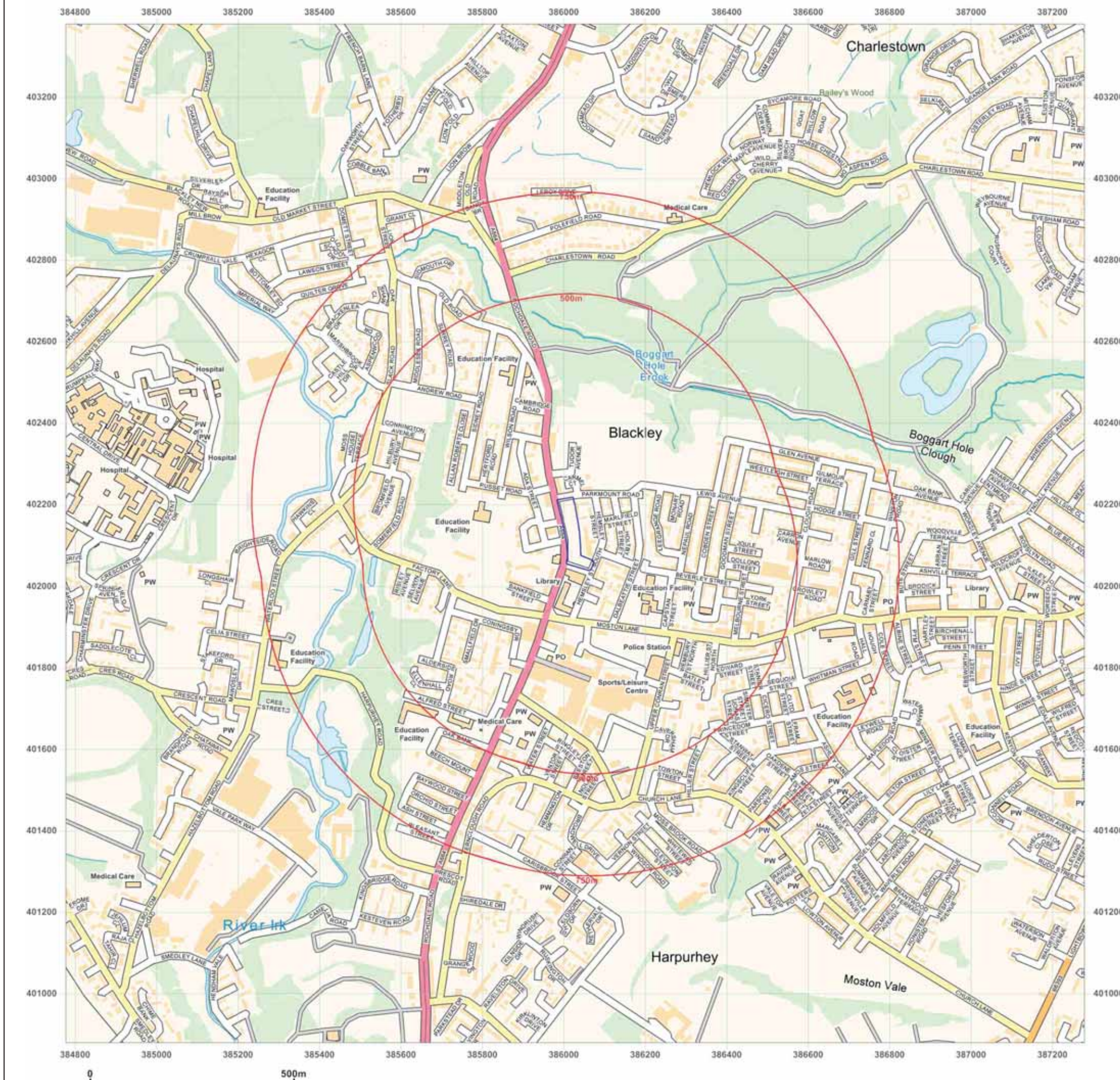


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APPENDIX B
FACTUAL INFORMATION CONCERNING NEARBY LAND
USE

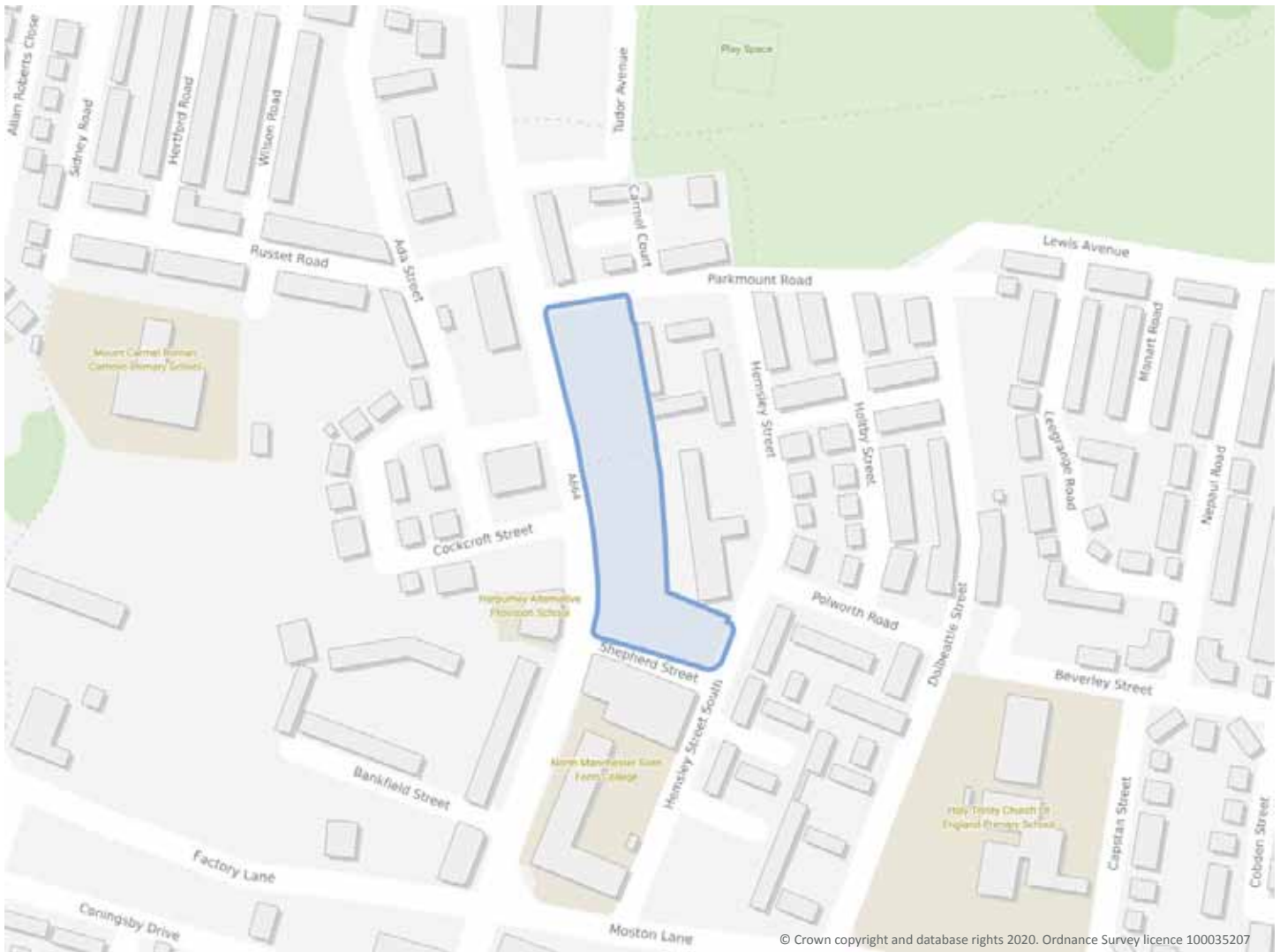
PARKMOUNT ROAD-ROCHDALE ROAD, MANCHESTER, M9 8AH

Order Details

Date: 01/12/2020
Your ref: 20-2277
Our Ref: SA1-7328687
Client: Sladen Associates Ltd

Site Details

Location: 386022 402129
Area: 0.69 ha
Authority: [Manchester City Council](#)



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Summary of findings

p. 2 **Aerial image**

p. 8

OS MasterMap site plan

p.12 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
<u>13</u>	<u>1.1</u>	<u>Historical industrial land uses</u>	0	0	27	35	-
<u>16</u>	<u>1.2</u>	<u>Historical tanks</u>	0	1	0	3	-
<u>16</u>	<u>1.3</u>	<u>Historical energy features</u>	0	0	7	9	-
17	1.4	Historical petrol stations	0	0	0	0	-
<u>18</u>	<u>1.5</u>	<u>Historical garages</u>	0	2	1	1	-
18	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
<u>19</u>	<u>2.1</u>	<u>Historical industrial land uses</u>	0	0	34	47	-
<u>22</u>	<u>2.2</u>	<u>Historical tanks</u>	0	3	0	4	-
<u>23</u>	<u>2.3</u>	<u>Historical energy features</u>	0	0	19	16	-
25	2.4	Historical petrol stations	0	0	0	0	-
<u>25</u>	<u>2.5</u>	<u>Historical garages</u>	0	3	2	1	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
26	3.1	Active or recent landfill	0	0	0	0	-
26	3.2	Historical landfill (BGS records)	0	0	0	0	-
27	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
<u>27</u>	<u>3.4</u>	<u>Historical landfill (EA/NRW records)</u>	0	1	1	0	-
<u>27</u>	<u>3.5</u>	<u>Historical waste sites</u>	0	0	2	5	-
29	3.6	Licensed waste sites	0	0	0	0	-
<u>29</u>	<u>3.7</u>	<u>Waste exemptions</u>	0	0	8	11	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
<u>31</u>	<u>4.1</u>	<u>Recent industrial land uses</u>	0	1	11	-	-
<u>32</u>	<u>4.2</u>	<u>Current or recent petrol stations</u>	0	0	1	1	-
33	4.3	Electricity cables	0	0	0	0	-
33	4.4	Gas pipelines	0	0	0	0	-
33	4.5	Sites determined as Contaminated Land	0	0	0	0	-



33	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
33	4.7	Regulated explosive sites	0	0	0	0	-
34	4.8	Hazardous substance storage/usage	0	0	0	0	-
34	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
34	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
34	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	1	2	-
35	4.12	<u>Radioactive Substance Authorisations</u>	0	0	0	6	-
36	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	0	1	-
36	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
36	4.15	Pollutant release to public sewer	0	0	0	0	-
37	4.16	List 1 Dangerous Substances	0	0	0	0	-
37	4.17	List 2 Dangerous Substances	0	0	0	0	-
37	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	0	0	1	-
37	4.19	Pollution inventory substances	0	0	0	0	-
38	4.20	Pollution inventory waste transfers	0	0	0	0	-
38	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
39	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
41	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
43	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
44	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
45	5.5	Groundwater vulnerability- local information	None (within 0m)				
46	5.6	<u>Groundwater abstractions</u>	0	0	0	0	8
49	5.7	Surface water abstractions	0	0	0	0	0
49	5.8	Potable abstractions	0	0	0	0	0
49	5.9	Source Protection Zones	0	0	0	0	-
49	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
50	6.1	Water Network (OS MasterMap)	0	0	0	-	-



50	6.2	Surface water features	0	0	0	-	-
51	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
51	6.4	<u>WFD Surface water bodies</u>	0	0	0	-	-
52	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
53	7.1	Risk of Flooding from Rivers and Sea (RoFRaS)	None (within 50m)				
53	7.2	Historical Flood Events	0	0	0	-	-
53	7.3	Flood Defences	0	0	0	-	-
53	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
54	7.5	Flood Storage Areas	0	0	0	-	-
55	7.6	Flood Zone 2	None (within 50m)				
55	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
56	8.1	<u>Surface water flooding</u>	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding					
58	9.1	<u>Groundwater flooding</u>	Low (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
59	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
60	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
60	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
60	10.4	Special Protection Areas (SPA)	0	0	0	0	0
60	10.5	National Nature Reserves (NNR)	0	0	0	0	0
61	10.6	<u>Local Nature Reserves (LNR)</u>	0	0	1	0	1
61	10.7	<u>Designated Ancient Woodland</u>	0	0	0	1	1
61	10.8	Biosphere Reserves	0	0	0	0	0
62	10.9	Forest Parks	0	0	0	0	0
62	10.10	Marine Conservation Zones	0	0	0	0	0
62	10.11	Green Belt	0	0	0	0	0
62	10.12	Proposed Ramsar sites	0	0	0	0	0



62	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
63	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
63	10.15	Nitrate Sensitive Areas	0	0	0	0	0
63	10.16	<u>Nitrate Vulnerable Zones</u>	1	0	0	0	2
64	10.17	<u>SSSI Impact Risk Zones</u>	1	-	-	-	-
65	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
66	11.1	World Heritage Sites	0	0	0	-	-
67	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
67	11.3	National Parks	0	0	0	-	-
67	11.4	<u>Listed Buildings</u>	0	1	1	-	-
68	11.5	Conservation Areas	0	0	0	-	-
68	11.6	Scheduled Ancient Monuments	0	0	0	-	-
68	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
69	12.1	<u>Agricultural Land Classification</u>	Urban (within 250m)				
70	12.2	Open Access Land	0	0	0	-	-
70	12.3	Tree Felling Licences	0	0	0	-	-
70	12.4	Environmental Stewardship Schemes	0	0	0	-	-
70	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
71	13.1	<u>Priority Habitat Inventory</u>	0	0	3	-	-
72	13.2	Habitat Networks	0	0	0	-	-
72	13.3	Open Mosaic Habitat	0	0	0	-	-
72	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
73	14.1	<u>10k Availability</u>	Identified (within 500m)				
74	14.2	<u>Artificial and made ground (10k)</u>	0	0	2	5	-
76	14.3	<u>Superficial geology (10k)</u>	1	0	0	3	-



77	14.4	Landslip (10k)	0	0	0	0	-
78	14.5	<u>Bedrock geology (10k)</u>	2	1	1	3	-
79	14.6	<u>Bedrock faults and other linear features (10k)</u>	1	0	1	1	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
80	15.1	<u>50k Availability</u>	Identified (within 500m)				
81	15.2	Artificial and made ground (50k)	0	0	0	0	-
81	15.3	Artificial ground permeability (50k)	0	0	-	-	-
82	15.4	<u>Superficial geology (50k)</u>	1	0	0	3	-
83	15.5	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
83	15.6	Landslip (50k)	0	0	0	0	-
83	15.7	Landslip permeability (50k)	None (within 50m)				
84	15.8	<u>Bedrock geology (50k)</u>	2	1	1	3	-
85	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
85	15.10	<u>Bedrock faults and other linear features (50k)</u>	1	0	1	1	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
86	16.1	<u>BGS Boreholes</u>	0	1	17	-	-
Page	Section	Natural ground subsidence					
88	17.1	<u>Shrink swell clays</u>	Very low (within 50m)				
89	17.2	<u>Running sands</u>	Very low (within 50m)				
90	17.3	<u>Compressible deposits</u>	Negligible (within 50m)				
91	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
92	17.5	<u>Landslides</u>	Very low (within 50m)				
93	17.6	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
94	18.1	Natural cavities	0	0	0	0	-
95	18.2	BritPits	0	0	0	0	-
95	18.3	<u>Surface ground workings</u>	0	1	23	-	-
96	18.4	Underground workings	0	0	0	0	0
96	18.5	Historical Mineral Planning Areas	0	0	0	0	-



96	18.6	Non-coal mining	0	0	0	0	0
97	18.7	Mining cavities	0	0	0	0	0
97	18.8	JPB mining areas	None (within 0m)				
97	18.9	<u>Coal mining</u>	Identified (within 0m)				
97	18.10	Brine areas	None (within 0m)				
98	18.11	Gypsum areas	None (within 0m)				
98	18.12	Tin mining	None (within 0m)				
98	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
99	19.1	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
100	20.1	<u>BGS Estimated Background Soil Chemistry</u>	4	2	-	-	-
100	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
101	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
102	21.1	Underground railways (London)	0	0	0	-	-
102	21.2	Underground railways (Non-London)	0	0	0	-	-
103	21.3	Railway tunnels	0	0	0	-	-
103	21.4	<u>Historical railway and tunnel features</u>	0	1	0	-	-
103	21.5	Royal Mail tunnels	0	0	0	-	-
103	21.6	Historical railways	0	0	0	-	-
104	21.7	Railways	0	0	0	-	-
104	21.8	Crossrail 1	0	0	0	0	-
104	21.9	Crossrail 2	0	0	0	0	-
104	21.10	HS2	0	0	0	0	-



Recent aerial photograph



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Capture Date: 22/04/2019

Site Area: 0.69ha



Recent site history - 2015 aerial photograph



Capture Date: 11/06/2015

Site Area: 0.69ha



Recent site history - 2009 aerial photograph



Capture Date: 02/06/2009

Site Area: 0.69ha



Recent site history - 2000 aerial photograph



Capture Date: 19/06/2000

Site Area: 0.69ha



OS MasterMap site plan

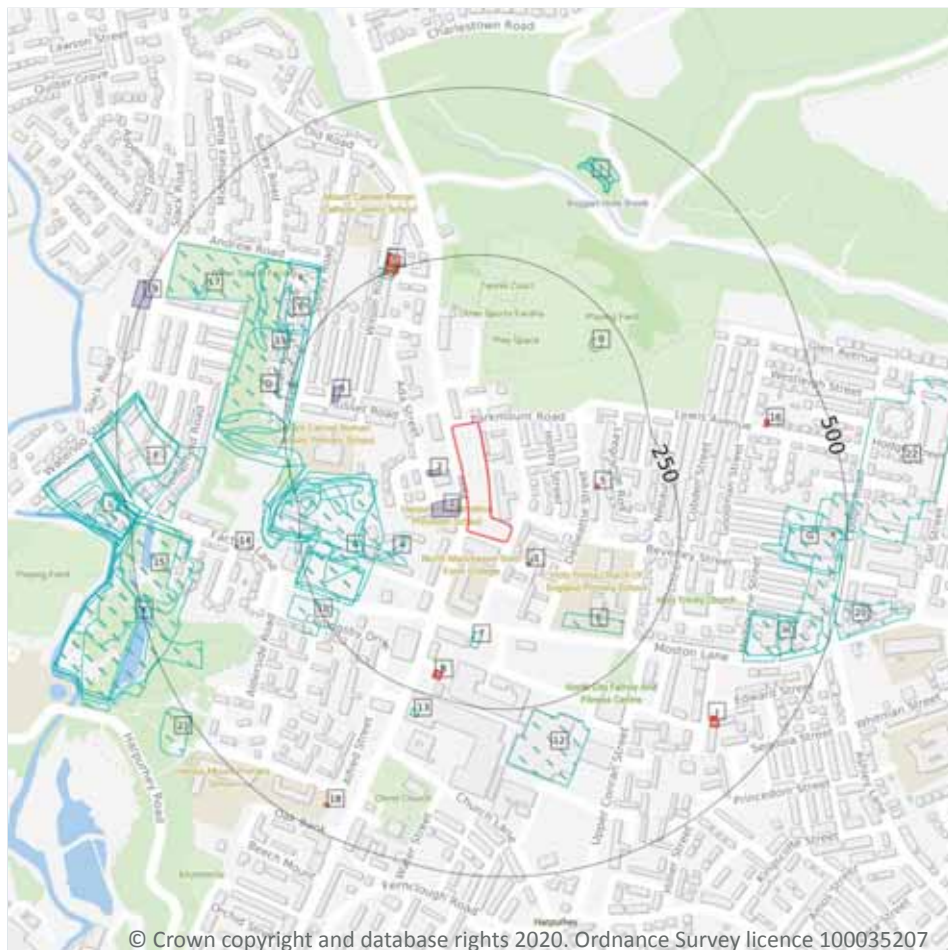


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Site Area: 0.69ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

62

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
4	93m W	Unspecified Ground Workings	1956	695267



ID	Location	Land use	Dates present	Group ID
A	103m SW	Unspecified Ground Workings	1906 - 1915	761908
A	125m W	Unspecified Depot	1988	668851
A	128m W	Refuse Heap	1933	717527
A	134m W	Unspecified Ground Workings	1938	751192
6	139m SE	Rope Works	1891	666705
7	140m S	Police Station	1915 - 1923	733230
A	149m W	Cesspools	1891	667919
A	154m W	Unspecified Pit	1933	691238
A	164m W	Corporation Yard	1915	712805
A	166m SW	Corporation Yard	1923 - 1933	755513
A	170m W	Unspecified Heap	1891	651108
A	179m W	Unspecified Heap	1956 - 1966	738684
9	201m NE	Unspecified Tank	1906	674965
A	202m W	Cesspools	1891	667918
A	214m W	Refuse Heap	1956 - 1966	778544
A	225m W	Unspecified Ground Workings	1966 - 1975	725631
10	225m SW	Unspecified Mill	1915	657184
A	229m W	Unspecified Ground Workings	1980	733942
A	230m W	Refuse Heap	1891	717682
11	235m W	Refuse Destructor	1938	776745
A	235m W	Unspecified Ground Workings	1956	744792
C	237m N	Electric Substation	1915 - 1923	722558
E	240m W	Refuse Destructor	1975	720552
D	242m W	Corporation Yard	1915	681772
D	247m W	Unspecified Heap	1906	651093
D	247m W	Refuse Heap	1915 - 1923	708105
12	253m S	Unspecified Store	1988	656662
E	256m NW	Refuse Destructor	1933	789251



ID	Location	Land use	Dates present	Group ID
13	277m S	Police Station	1988	680458
E	287m NW	Refuse Heap	1933 - 1938	694877
E	299m NW	Unspecified Ground Workings	1956 - 1966	733828
F	367m W	Unspecified Works	1933	769478
G	373m E	Unspecified Works	1915	719047
H	377m E	Soap Works	1915 - 1923	767104
H	379m E	Unspecified Works	1980	679096
I	393m NE	Unspecified Ground Workings	1938	697797
I	393m NE	Unspecified Ground Workings	1933	707267
15	397m W	Printing and Dyeing Works	1891	657687
F	403m W	Unspecified Mills	1891	653291
F	407m W	Unspecified Commercial/Industrial	1915	643363
G	408m E	Unspecified Commercial/Industrial	1933	751525
F	408m W	Unspecified Mill	1906	657183
I	409m NE	Unspecified Ground Workings	1938	764156
G	410m E	Unspecified Works	1966 - 1988	780586
K	411m W	Print Works	1851	680243
17	416m NW	Unspecified Ground Workings	1906	648404
K	426m W	Unspecified Works	1956	771361
F	440m W	Unspecified Works	1980	702930
L	478m W	Unspecified Mill	1975 - 1988	716408
L	480m W	Unspecified Mill	1966	704006
L	484m W	Unspecified Mill	1938	756950
L	485m W	Unspecified Mill	1933	778586
L	487m W	Unspecified Mill	1906 - 1915	726906
K	487m W	Unspecified Works	1966	764838
L	490m W	Unspecified Mill	1923	724551
L	490m W	Cotton Mill	1851	644507



ID	Location	Land use	Dates present	Group ID
20	491m E	Unspecified Works	1923	679097
21	494m SW	Unspecified Heap	1915 - 1923	703913
K	497m W	Unspecified Commercial/Industrial	1933	643365
K	497m W	Unspecified Works	1915 - 1923	744448
22	500m E	Rope Walk	1891	641269

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

4

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

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

ID	Location	Land use	Dates present	Group ID
3	44m SE	Tanks	1950 - 1971	89525
E	315m NW	Tanks	1951	91391
E	317m NW	Tanks	1951 - 1968	90499
14	343m W	Tank or Trough	1893	88504

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

16

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

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



ID	Location	Land use	Dates present	Group ID
5	138m NE	Electricity Substation	1971 - 1992	54984
B	212m S	Electricity Substation	1982	50890
B	212m S	Electricity Substation	1949 - 1995	53875
D	239m W	Electricity Substation	1994	45907
C	240m N	Electricity Substation	1909 - 1968	56442
C	242m N	Electricity Substation	1951 - 1994	56939
C	244m N	Electricity Sub-Station	1979	46416
J	402m SE	Electricity Substation	1993 - 1994	49267
J	402m SE	Electricity Substation	1980	50645
J	402m SE	Electricity Substation	1989	58254
J	402m SE	Electricity Substation	1982	48866
J	402m SE	Electricity Substation	1978	52371
J	402m SE	Electricity Substation	1988	57607
16	406m E	Electricity Substation	1971 - 1992	52653
18	458m SW	Electricity Substation	1982 - 1995	57131
G	477m E	Electricity Substation	1981 - 1992	53562

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.



1.5 Historical garages

Records within 500m

4

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

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

ID	Location	Land use	Dates present	Group ID
1	13m W	Garage	1979	14692
2	32m W	Garage	1951 - 1968	19789
8	174m W	Garage	1951 - 1968	18266
19	486m W	Garage	1979	14695

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

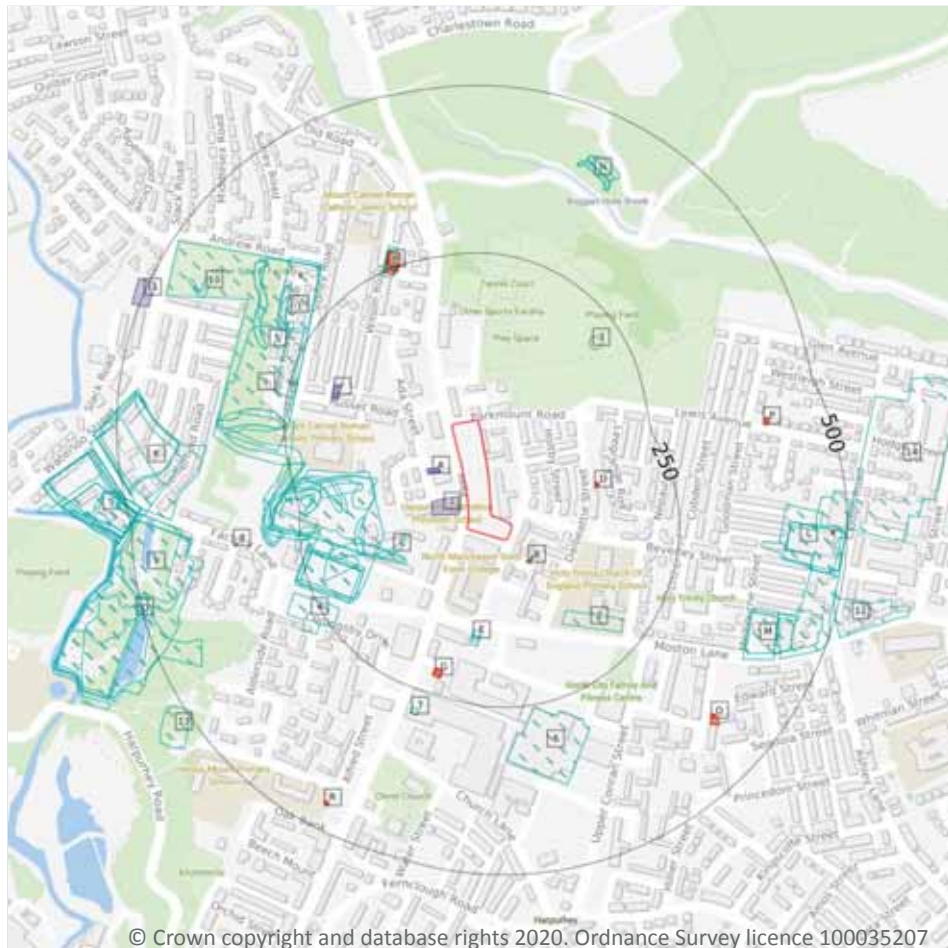
0

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



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

2.1 Historical industrial land uses

Records within 500m

81

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 19**

ID	Location	Land Use	Date	Group ID
C	93m W	Unspecified Ground Workings	1956	695267
C	103m SW	Unspecified Ground Workings	1915	761908
C	103m SW	Unspecified Ground Workings	1906	761908



ID	Location	Land Use	Date	Group ID
C	125m W	Unspecified Depot	1988	668851
C	128m W	Refuse Heap	1933	717527
C	134m W	Unspecified Ground Workings	1938	751192
2	139m SE	Rope Works	1891	666705
E	140m S	Police Station	1915	733230
E	147m S	Police Station	1923	733230
C	149m W	Cesspools	1891	667919
C	154m W	Unspecified Pit	1933	691238
C	164m W	Corporation Yard	1915	712805
C	166m SW	Corporation Yard	1933	755513
C	170m W	Unspecified Heap	1891	651108
C	171m W	Corporation Yard	1923	755513
C	179m W	Unspecified Heap	1966	738684
C	185m W	Unspecified Heap	1956	738684
3	201m NE	Unspecified Tank	1906	674965
C	202m W	Cesspools	1891	667918
C	214m W	Refuse Heap	1966	778544
C	214m W	Refuse Heap	1956	778544
C	225m W	Unspecified Ground Workings	1975	725631
4	225m SW	Unspecified Mill	1915	657184
C	226m W	Unspecified Ground Workings	1966	725631
C	229m W	Unspecified Ground Workings	1980	733942
C	230m W	Refuse Heap	1891	717682
5	235m W	Refuse Destructor	1938	776745
C	235m W	Unspecified Ground Workings	1956	744792
H	237m N	Electric Substation	1923	722558
J	240m W	Refuse Destructor	1975	720552
I	242m W	Corporation Yard	1915	681772



ID	Location	Land Use	Date	Group ID
H	247m N	Electric Substation	1915	722558
I	247m W	Unspecified Heap	1906	651093
I	247m W	Refuse Heap	1915	708105
I	252m W	Refuse Heap	1923	708105
6	253m S	Unspecified Store	1988	656662
J	256m NW	Refuse Destructor	1933	789251
7	277m S	Police Station	1988	680458
J	287m NW	Refuse Heap	1938	694877
J	288m NW	Refuse Heap	1933	694877
J	299m NW	Unspecified Ground Workings	1966	733828
J	299m NW	Unspecified Ground Workings	1956	733828
K	367m W	Unspecified Works	1933	769478
L	373m E	Unspecified Works	1915	719047
M	377m E	Soap Works	1923	767104
M	379m E	Unspecified Works	1980	679096
N	393m NE	Unspecified Ground Workings	1938	697797
N	393m NE	Unspecified Ground Workings	1933	707267
9	397m W	Printing and Dyeing Works	1891	657687
K	403m W	Unspecified Mills	1891	653291
K	407m W	Unspecified Commercial/Industrial	1915	643363
L	408m E	Unspecified Commercial/Industrial	1933	751525
K	408m W	Unspecified Mill	1906	657183
N	409m NE	Unspecified Ground Workings	1938	764156
L	410m E	Unspecified Works	1980	780586
L	410m E	Unspecified Works	1966	780586
L	410m E	Unspecified Works	1988	780586
L	410m E	Unspecified Works	1975	780586
Q	411m W	Print Works	1851	680243



ID	Location	Land Use	Date	Group ID
10	416m NW	Unspecified Ground Workings	1906	648404
M	417m E	Soap Works	1915	767104
M	422m E	Unspecified Commercial/Industrial	1933	751525
Q	426m W	Unspecified Works	1956	771361
K	440m W	Unspecified Works	1980	702930
S	478m W	Unspecified Mill	1980	716408
S	478m W	Unspecified Mill	1988	716408
S	478m W	Unspecified Mill	1975	716408
S	480m W	Unspecified Mill	1966	704006
S	484m W	Unspecified Mill	1938	756950
S	485m W	Unspecified Mill	1933	778586
S	487m W	Unspecified Mill	1906	726906
S	487m W	Unspecified Mill	1915	726906
Q	487m W	Unspecified Works	1966	764838
S	490m W	Unspecified Mill	1923	724551
S	490m W	Cotton Mill	1851	644507
12	491m E	Unspecified Works	1923	679097
13	494m SW	Unspecified Heap	1915	703913
Q	497m W	Unspecified Commercial/Industrial	1933	643365
Q	497m W	Unspecified Works	1915	744448
Q	499m W	Unspecified Works	1923	744448
14	500m E	Rope Walk	1891	641269

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

7

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 19**

ID	Location	Land Use	Date	Group ID
B	44m SE	Tanks	1950	89525
B	44m SE	Tanks	1971	89525
B	44m SE	Tanks	1950	89525
J	315m NW	Tanks	1951	91391
J	317m NW	Tanks	1968	90499
J	317m NW	Tanks	1951	90499
8	343m W	Tank or Trough	1893	88504

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

35

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. 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 19**

ID	Location	Land Use	Date	Group ID
D	138m NE	Electricity Substation	1992	54984
D	138m NE	Electricity Substation	1971	54984
D	139m NE	Electricity Substation	1986	54984
G	212m S	Electricity Substation	1982	50890
G	212m S	Electricity Substation	1988	53875
G	212m S	Electricity Substation	1949	53875
G	212m S	Electricity Substation	1973	53875
G	212m S	Electricity Substation	1995	53875
G	212m S	Electricity Substation	1949	53875
G	212m S	Electricity Substation	1967	53875
I	239m W	Electricity Substation	1994	45907
H	240m N	Electricity Substation	1909	56442



ID	Location	Land Use	Date	Group ID
H	240m N	Electricity Substation	1922	56442
H	242m N	Electricity Substation	1994	56939
H	244m N	Electricity Sub-Station	1979	46416
H	244m N	Electricity Substation	1951	56939
H	244m N	Electricity Substation	1984	56939
H	245m N	Electricity Substation	1968	56442
H	245m N	Electricity Substation	1951	56442
O	402m SE	Electricity Substation	1993	49267
O	402m SE	Electricity Substation	1994	49267
O	402m SE	Electricity Substation	1989	58254
O	402m SE	Electricity Substation	1980	50645
O	402m SE	Electricity Substation	1978	52371
O	402m SE	Electricity Substation	1982	48866
O	402m SE	Electricity Substation	1988	57607
P	406m E	Electricity Substation	1971	52653
P	406m E	Electricity Substation	1992	52653
P	406m E	Electricity Substation	1986	52653
R	458m SW	Electricity Substation	1995	57131
R	458m SW	Electricity Substation	1988	57131
R	458m SW	Electricity Substation	1982	57131
L	477m E	Electricity Substation	1981	53562
L	477m E	Electricity Substation	1981	53562
L	477m E	Electricity Substation	1992	53562

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**6**

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'.

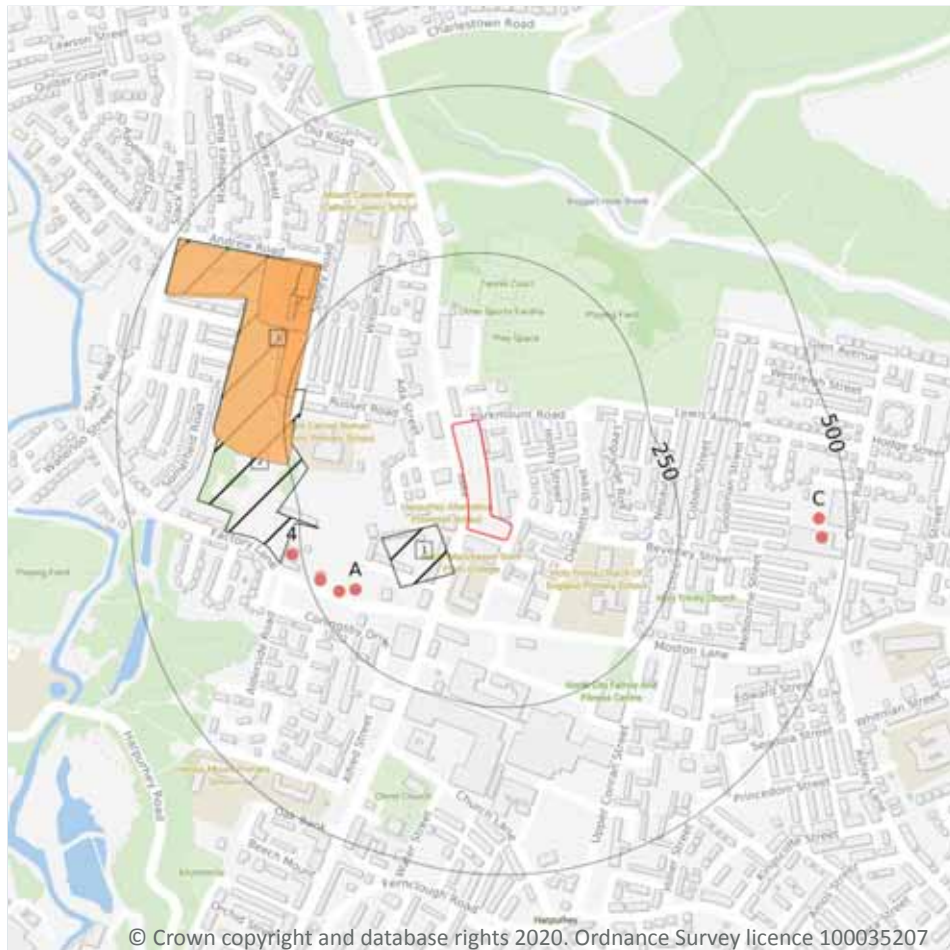
Features are displayed on the Past land use - un-grouped map on **page 19**

ID	Location	Land Use	Date	Group ID
1	13m W	Garage	1979	14692
A	32m W	Garage	1951	19789
A	35m W	Garage	1968	19789
F	174m W	Garage	1951	18266
F	177m W	Garage	1968	18266
11	486m W	Garage	1979	14695

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



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

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m

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

2

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

Features are displayed on the Waste and landfill map on **page 26**

ID	Location	Details		
1	40m W	Site Address: Land at Bankfield Street, Blackley, Manchester, Greater Manchester Licence Holder Address: -	Waste Licence: - Site Reference: F028 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded: - Last Recorded: -
2	222m W	Site Address: Land at Factory Lane, Blackley, Manchester, Greater Manchester Licence Holder Address: -	Waste Licence: - Site Reference: F018 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded: - Last Recorded: -

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

3.5 Historical waste sites

Records within 500m

7

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 26**



ID	Location	Address	Further Details	Date
3	234m W	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1938
B	240m W	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1975
B	255m NW	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1933
B	284m NW	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1951
B	284m NW	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1932
B	285m NW	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1968
B	285m NW	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1951

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



3.6 Licensed waste sites

Records within 500m

0

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

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

3.7 Waste exemptions

Records within 500m

19

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 26**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	191m SW	Factory Lane Depot Factory Lane Harpurhay Manchester M9 8AB	EA/EPR/VP378 1RR/A001	Treating waste exemption	Non-Agricultural Waste Only	Repair or refurbishment of WEEE
A	214m SW	Harpurey Business Centre Factory Lane MANCHESTER M9 8AB	EPR/KE5842G B/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers
A	214m SW	Harpurey Business Centre Factory Lane MANCHESTER M9 8AB	EPR/KE5842G B/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
A	232m W	Amey Street Lighting Depot, Factory Lane, Harpurhay, Manchester, M9 8AB	EA/EPR/VP388 5KJ/A001	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
A	234m W	FACTORY LANE, MANCHESTER, M9 8AB	WEX251185	Storing waste exemption	Not on a farm	Storage of waste in secure containers
A	234m W	FACTORY LANE, MANCHESTER, M9 8AB	WEX251185	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	234m W	FACTORY LANE, MANCHESTER, M9 8AB	WEX108312	Storing waste exemption	Not on a farm	Storage of waste in secure containers
A	234m W	FACTORY LANE, MANCHESTER, M9 8AB	WEX108312	Storing waste exemption	Not on a farm	Storage of waste in a secure place
4	265m W	6TH FLOOR HEXAGON TOWER MANCHESTER LANCASHIRE M9 8ZS	EPR/KF0400NZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Crushing waste fluorescent tubes

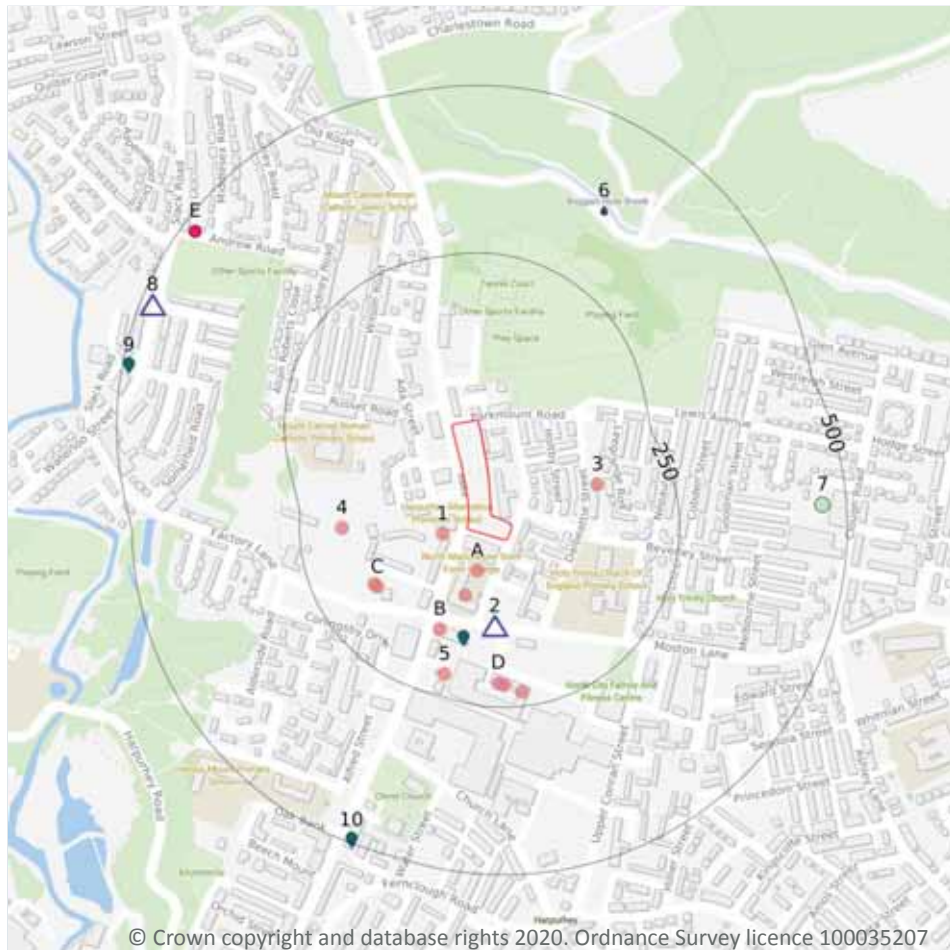


ID	Location	Site	Reference	Category	Sub-Category	Description
C	457m E	Unit 4b Clough Road, Brookside Works, Manchester, M9 4FP	EA/EPR/VP384 OKK/A001	Treating waste exemption	Non- Agricultural waste only	Repair or refurbishment of WEEE
C	462m E	Unit 2 Whitehouse Works Clough Road MANCHESTER M9 4FP	EPR/MH0915D X/A001	Treating waste exemption	Non- Agricultural Waste Only	Mechanical treatment of end- of-life tyres
C	462m E	Unit 2 Whitehouse Works Clough Road MANCHESTER M9 4FP	EPR/MH0915D X/A001	Using waste exemption	Non- Agricultural Waste Only	Use of baled end-of-life tyres in construction
C	462m E	Unit 1 Whitehouse Works Clough Road MANCHESTER M9 4FP	EPR/RH0877U C/A001	Treating waste exemption	Non- Agricultural Waste Only	Physical treatment of waste edible oil and fat to produce biodiesel
C	462m E	Unit 1 Whitehouse Works Clough Road MANCHESTER M9 4FP	EPR/RH0877U C/A001	Treating waste exemption	Non- Agricultural Waste Only	Mechanical treatment of end- of-life tyres
C	462m E	Unit 1 Whitehouse Works Clough Road MANCHESTER M9 4FP	EPR/RH0877U C/A001	Using waste exemption	Non- Agricultural Waste Only	Use of baled end-of-life tyres in construction
C	462m E	Unit 1 Whitehouse Works Clough Road MANCHESTER M9 4FP	EPR/RH0877U C/A001	Using waste exemption	Non- Agricultural Waste Only	Use of waste derived biodiesel as fuel
C	462m E	Unit 2 Whitehouse Works Clough Road MANCHESTER M9 4FP	EPR/WH0574 NJ/A001	Treating waste exemption	Non- Agricultural Waste Only	Physical treatment of waste edible oil and fat to produce biodiesel
C	462m E	Unit 2 Whitehouse Works Clough Road MANCHESTER M9 4FP	EPR/WH0574 NJ/A001	Treating waste exemption	Non- Agricultural Waste Only	Mechanical treatment of end- of-life tyres
C	462m E	Unit 2 Whitehouse Works Clough Road MANCHESTER M9 4FP	EPR/WH0574 NJ/A001	Using waste exemption	Non- Agricultural Waste Only	Use of baled end-of-life tyres in construction

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



4 Current industrial land use



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

4.1 Recent industrial land uses

Records within 250m

12

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 31**

ID	Location	Company	Address	Activity	Category
1	38m W	Electricity Sub Station	Greater Manchester, M9	Electrical Features	Infrastructure and Facilities
A	56m S	Chimney	Greater Manchester, M9	Chimneys	Industrial Features
A	95m S	Electricity Sub Station	Greater Manchester, M9	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
3	142m NE	Electricity Sub Station	Greater Manchester, M9	Electrical Features	Infrastructure and Facilities
B	155m S	Asda Petrol	Harpurhey Shopping Centre, Lee Road, Manchester, Greater Manchester, M9 4DJ	Petrol and Fuel Stations	Road and Rail
C	160m SW	Mast (Telecommunication)	Greater Manchester, M9	Telecommunications Features	Infrastructure and Facilities
C	162m SW	Electricity Sub Station	Greater Manchester, M9	Electrical Features	Infrastructure and Facilities
4	187m W	Council Depot	Greater Manchester, M9	Container and Storage	Transport, Storage and Delivery
D	214m S	Ziggys	Unit 45 Harpurhey Shopping Centre, Lee Road, Manchester, Greater Manchester, M9 4DH	Workwear	Industrial Products
5	217m S	Electricity Sub Station	Greater Manchester, M9	Electrical Features	Infrastructure and Facilities
D	218m S	Specsavers Hearcare	Unit 41 North City Shopping Centre, Lee Road, Manchester, Greater Manchester, M9 4DH	Disability and Mobility Equipment	Consumer Products
D	229m S	Specsavers Hearcare	33-A, North City Shopping Centre, Specsavers Opticians, Lee Road, Moston, Manchester, Greater Manchester, M9 4DH	Disability and Mobility Equipment	Consumer Products

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

2

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 31**

ID	Location	Company	Address	LPG	Status
2	130m S	ASDA	Moston Lane, Harpurhey District Centre, Manchester, Greater Manchester, M9 4DS	No	Open
8	482m W	UNBRANDED	Slack Road, Blackley, Manchester, Greater Manchester, M9 8AW	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

3

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 31**

ID	Location	Address	Details	
B	158m S	Asda Harpurhey, Harpuhey District Centre, Moston Lane, Harpurhey, M9 1DJ	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
9	490m W	Save, Slack Rd, M9 8AW	Process: Petrol Vapour Recovery 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	
10	495m S	Northern Dry Cleaners, 670 Rochdale Road, Harpurhey, Manchester, M9 5TT	Process: Dry Cleaning 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	6
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Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

Features are displayed on the Current industrial land use map on **page 31**

ID	Location	Address	Details	
E	480m NW	PO Box 42, Hexagon House, Manchester, M9 8ZS	Operator: ITS Testing Services (UK) Limited Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: BZ1846 Date of approval: 21/07/2005	Effective from: - Last date of update: 01/01/2020 Status: Surrendered
E	480m NW	Zeneca Specialities, Po Box 42, Hexagon House, Manchester, M9 8ZS	Operator: Zeneca Specialities Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AQ7437 Date of approval: 16/03/1995	Effective from: 31/03/1995 Last date of update: 01/01/2015 Status: Revoked/cancelled
E	480m NW	Avecia Ltd, Po Box 42, hexagon House, Manchester, M9 8ZS	Operator: Avecia Ltd Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: BG4372 Date of approval: 15/07/1999	Effective from: 22/07/1999 Last date of update: 01/01/2015 Status: Revoked/cancelled
E	480m NW	Avecia Ltd, Po Box 42, Hexagon House, Manchester, M9 8ZS	Operator: Avecia Ltd Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: BG4399 Date of approval: 15/07/1999	Effective from: 22/07/1999 Last date of update: 01/01/2015 Status: Superseded By Variation
E	480m NW	Avecia Ltd, Po Box 42, Hexagon House, Manchester, M9 8ZS	Operator: Avecia Ltd Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: BG4399 Date of approval: 01/12/2003	Effective from: 01/01/2004 Last date of update: 01/01/2015 Status: Revoked/cancelled



ID	Location	Address	Details	
E	480m NW	PO Box 42, Hexagon House, Manchester, M9 8ZS	Operator: ITS Testing Services (UK) Limited Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: BZ1820 Date of approval: 21/07/2005	Effective from: - Last date of update: 01/01/2020 Status: Surrendered

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

4.13 Licensed Discharges to controlled waters

Records within 500m

1

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 31**

ID	Location	Address	Details	
6	365m NE	PUBLIC CONVENIENCES & PARKS CAFE, BOGGART HALL CLOUGH, ROCHDALE RD, MANCHESTER, LANCASHIRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0171/1344 Permit Version: 1 Receiving Water: RIVER LEVEN	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 25/02/1971 Effective Date: 25/02/1971 Revocation Date: -

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

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

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

4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

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



4.16 List 1 Dangerous Substances

Records within 500m

0

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

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

4.17 List 2 Dangerous Substances

Records within 500m

0

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 31**

ID	Location	Details	
7	464m E	Incident Date: 03/04/2001 Incident Identification: 1430 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

Records within 500m

0

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

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



4.20 Pollution inventory waste transfers

Records within 500m

0

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

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

4.21 Pollution inventory radioactive waste

Records within 500m

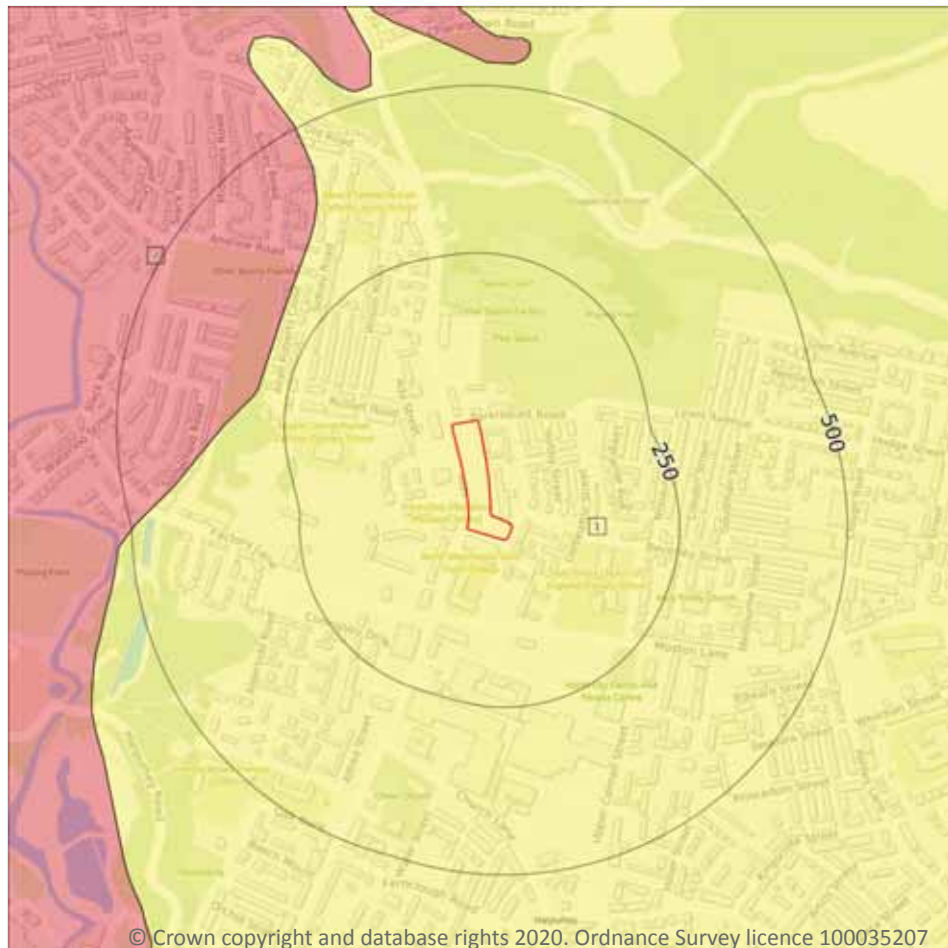
0

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

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



5 Hydrogeology - Superficial aquifer



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

5.1 Superficial aquifer

Records within 500m

2

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 39**

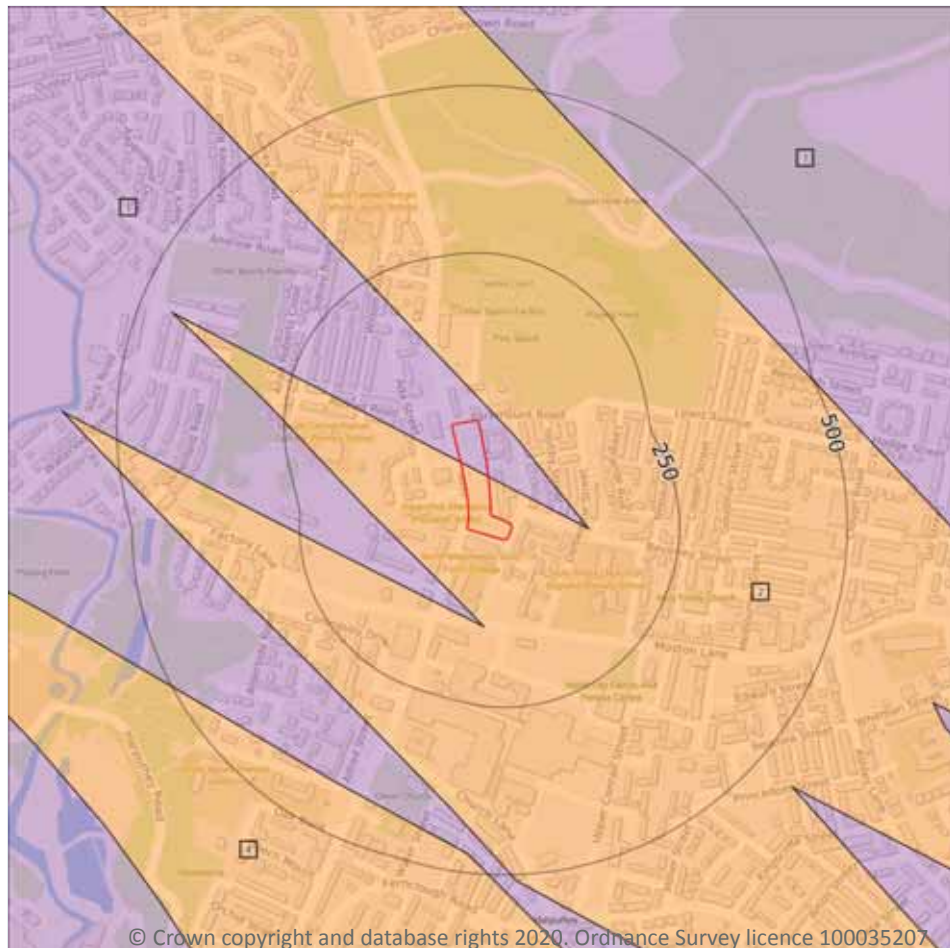
ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	292m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers



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



Bedrock aquifer



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

5.2 Bedrock aquifer

Records within 500m

4

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 41**

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

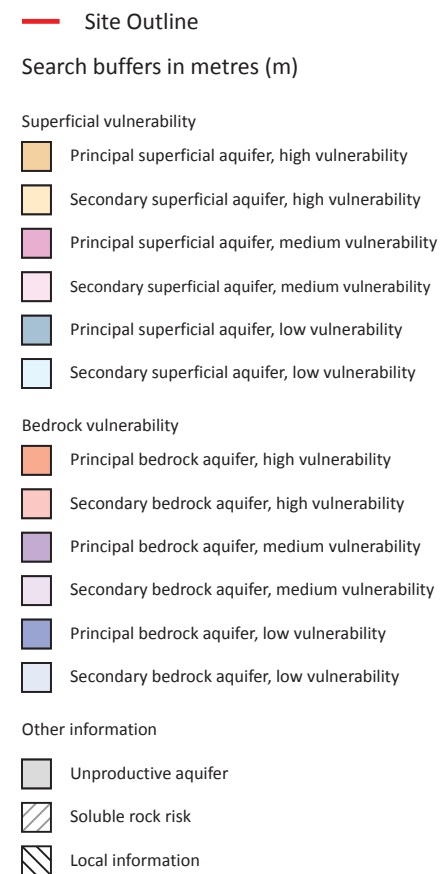
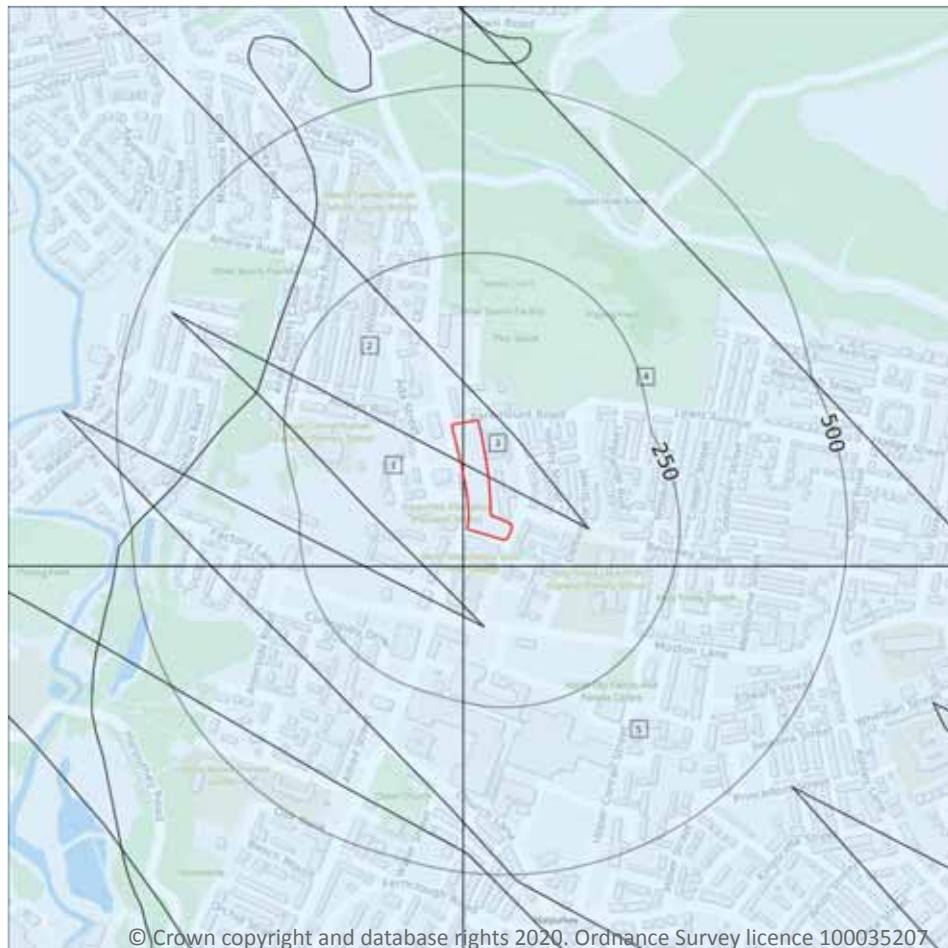


ID	Location	Designation	Description
3	405m NE	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
4	426m SW	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons 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

5

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 43**



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures
3	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures
4	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
5	39m S	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

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

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



5.5 Groundwater vulnerability- local information

Records on site

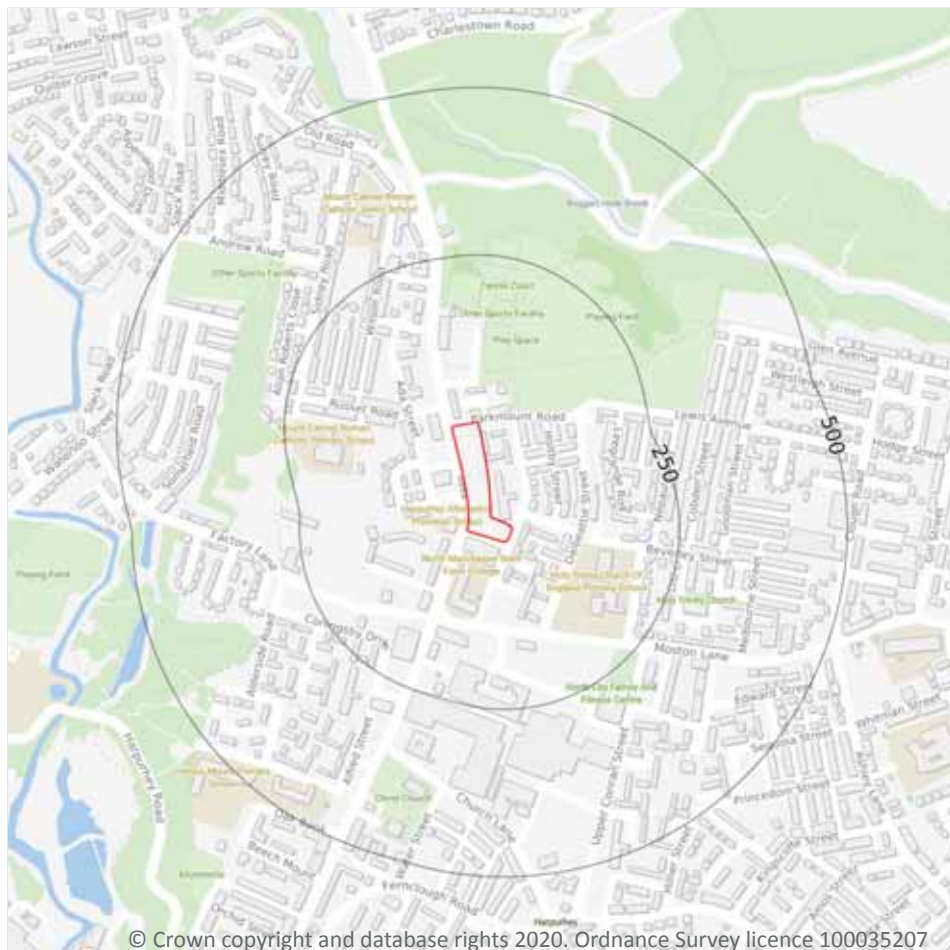
0

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

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



Abstractions and Source Protection Zones



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

5.6 Groundwater abstractions

Records within 2000m

8

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 46**

ID	Location	Details	
-	1201m NW	Status: Historical Licence No: 2569005012 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT BLACKLEY, MANCHESTER" Data Type: Point Name: AVECIA LTD Easting: 385000 Northing: 402900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/05/1994 Expiry Date: - Issue No: 101 Version Start Date: 01/07/1999 Version End Date: -
-	1201m NW	Status: Historical Licence No: 2569005012 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT BLACKLEY, MANCHESTER Data Type: Point Name: AVECIA LTD Easting: 385000 Northing: 402900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/05/1994 Expiry Date: - Issue No: 101 Version Start Date: 01/07/1999 Version End Date: -
-	1320m NW	Status: Historical Licence No: 2569005044 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "2 BOREHOLES AT BLACKLEY, MANCHESTER" Data Type: Point Name: BELDEN (UK) LTD Easting: 384890 Northing: 402950	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/01/1966 Expiry Date: - Issue No: 103 Version Start Date: 16/11/2001 Version End Date: -
-	1320m NW	Status: Active Licence No: 2569005044 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: 2 BOREHOLES AT BLACKLEY, MANCHESTER Data Type: Point Name: British Cables Company Limited Easting: 384890 Northing: 402950	Annual Volume (m ³): 477,271 Max Daily Volume (m ³): 1,363 Original Application No: - Original Start Date: 22/01/1966 Expiry Date: - Issue No: 106 Version Start Date: 11/10/2018 Version End Date: -



ID	Location	Details	
-	1579m NW	Status: Historical Licence No: 2569005044 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: 2 BOREHOLES AT BLACKLEY, MANCHESTER 121 Data Type: Point Name: BELDEN (UK) LTD Easting: 384610 Northing: 402990	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/01/1966 Expiry Date: - Issue No: 102 Version Start Date: 03/04/2000 Version End Date: -
-	1579m NW	Status: Historical Licence No: 2569005044 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "2 BOREHOLES AT BLACKLEY, MANCHESTER \$121" Data Type: Point Name: BELDEN (UK) LTD Easting: 384610 Northing: 402990	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/01/1966 Expiry Date: - Issue No: 103 Version Start Date: 16/11/2001 Version End Date: -
-	1579m NW	Status: Historical Licence No: 2569005044 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: 2 BOREHOLES AT BLACKLEY, MANCHESTER \$121 Data Type: Point Name: BELDEN (UK) LTD Easting: 384610 Northing: 402990	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/01/1966 Expiry Date: - Issue No: 103 Version Start Date: 16/11/2001 Version End Date: -
-	1579m NW	Status: Active Licence No: 2569005044 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLES X 2 AT BLACKLEY MANCHESTER Data Type: Point Name: British Cables Company Limited Easting: 384610 Northing: 402990	Annual Volume (m ³): 477,271 Max Daily Volume (m ³): 1,363 Original Application No: - Original Start Date: 22/01/1966 Expiry Date: - Issue No: 106 Version Start Date: 11/10/2018 Version End Date: -

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



5.7 Surface water abstractions

Records within 2000m

0

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

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

5.8 Potable abstractions

Records within 2000m

0

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

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

5.9 Source Protection Zones

Records within 500m

0

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

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m

0

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

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



6 Hydrology



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

6.1 Water Network (OS MasterMap)

Records within 250m

0

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

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

0

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.



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 50**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River WB catchment	Irk (Wince to Irwell)	GB112069061131	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 50**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	523m W	River	Irk (Wince to Irwell)	GB112069061131	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 50**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Manchester and East Cheshire Permo-Triassic Sandstone Aquifers	<u>GB41201G101100</u>	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
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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
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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



— 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, 0.3m - 1.0m

Highest risk within 50m

1 in 30 year, Greater than 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 56**

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.

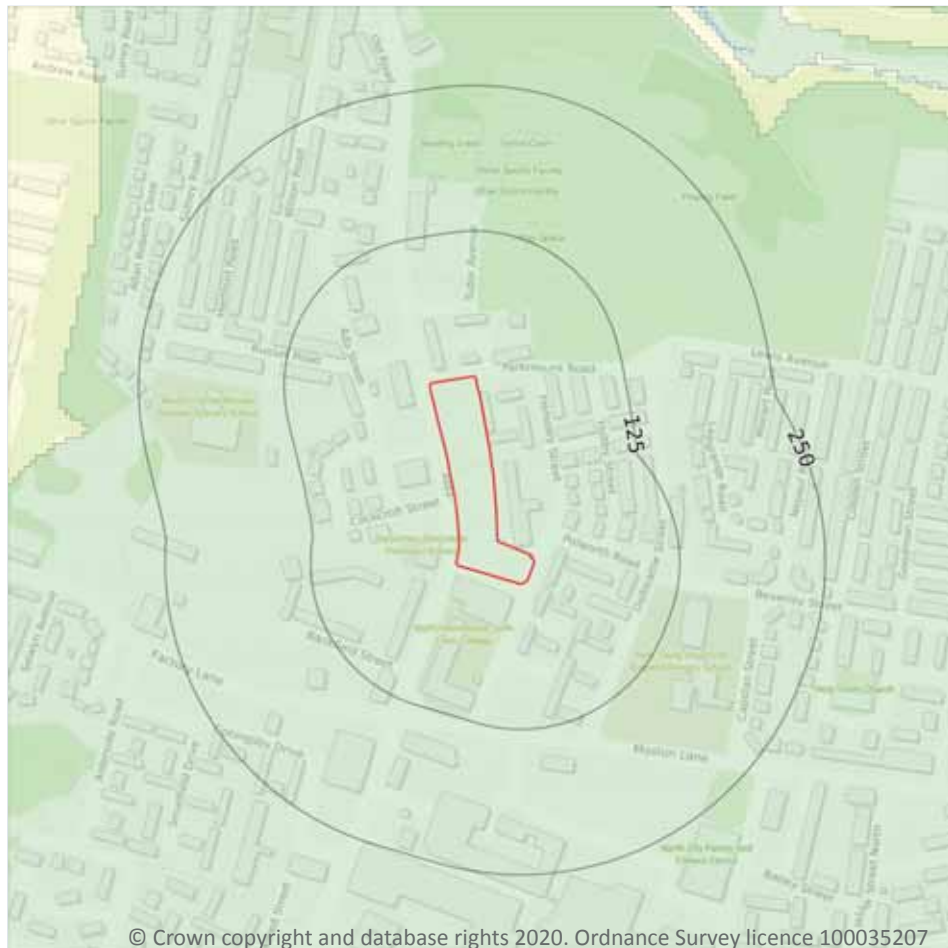
The table below shows the maximum flood depths for a range of return periods for the site.

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

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

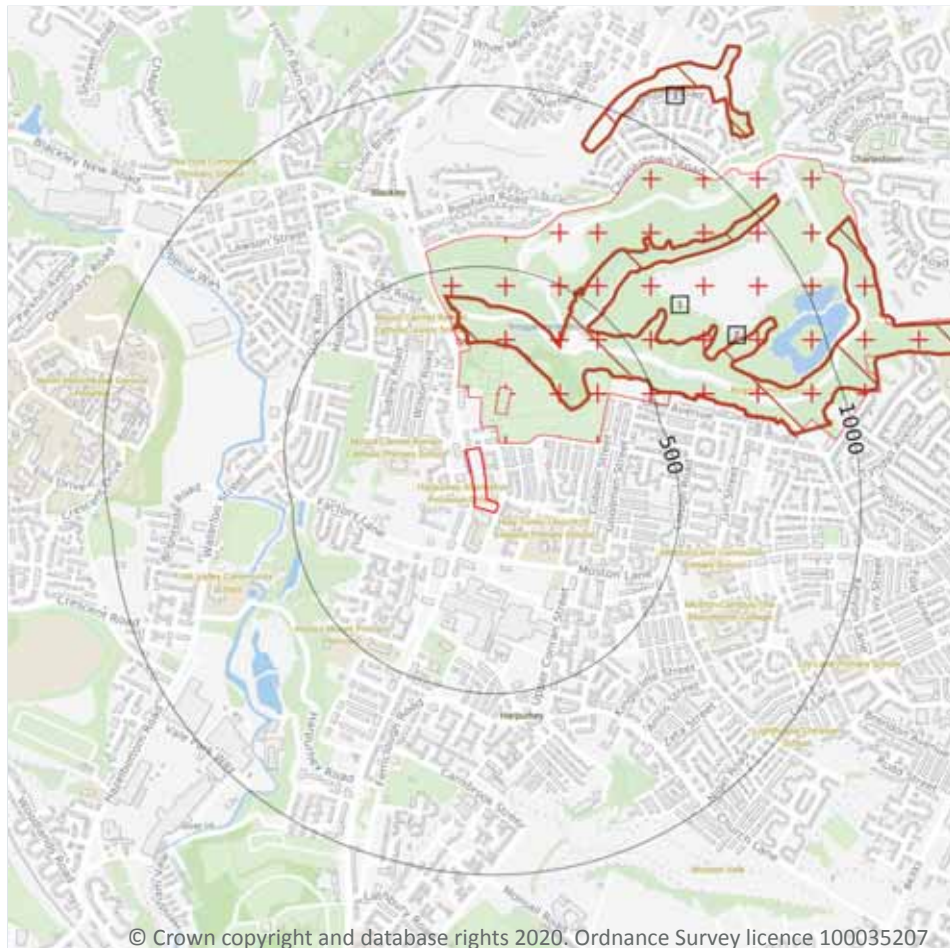
Low

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 58**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- + Local Nature Reserves (LNR)
- ▨ Designated Ancient Woodland

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

2

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

Features are displayed on the Environmental designations map on **page 59**

ID	Location	Name	Data source
1	53m E	Boggart Hole Clough	Natural England
-	1870m NW	Blackley Forest	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m

2

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

Features are displayed on the Environmental designations map on **page 59**

ID	Location	Name	Woodland Type
2	260m NE	Boggart Hole Clough	Ancient & Semi-Natural Woodland
3	872m N	Unknown	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m

0

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

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



10.9 Forest Parks

Records within 2000m

0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

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

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

10.11 Green Belt

Records within 2000m

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

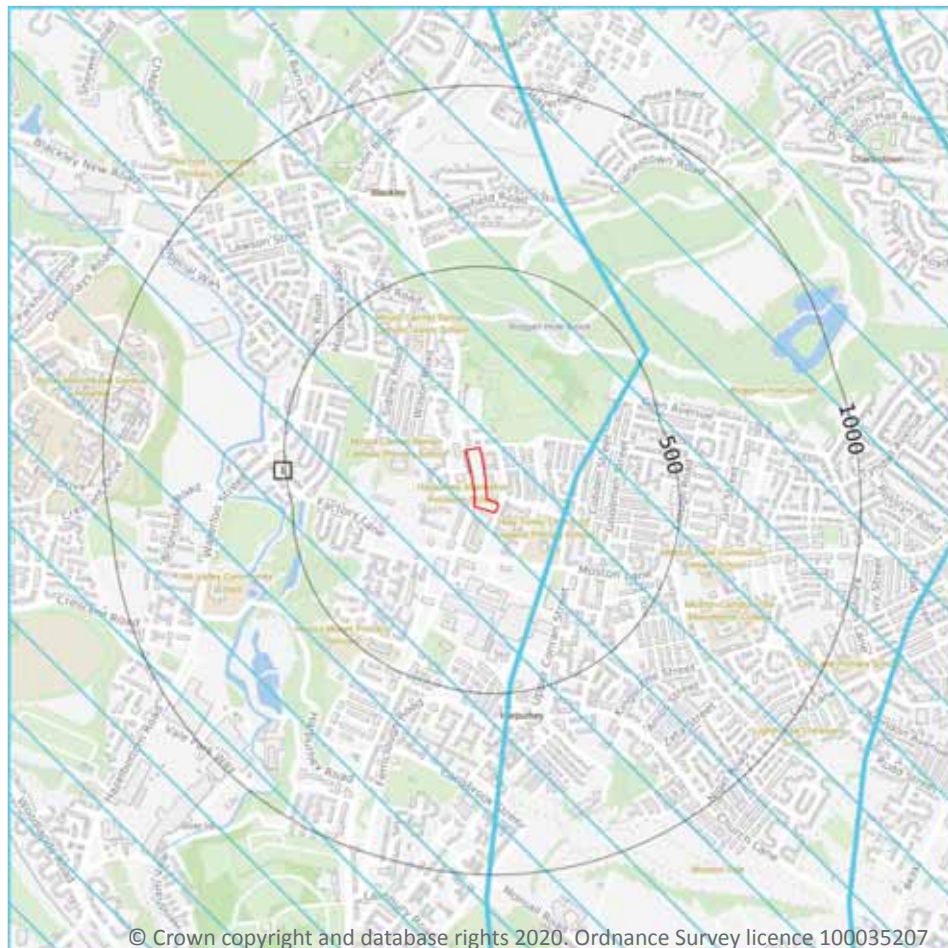
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	S638	Existing
1844m SW	Irwell / Man. Ship Canal (Kearsley to Irlam Locks) NVZ	Surface Water	S643	Existing
1891m NW	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	S638	Existing

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



SSSI Impact Zones and Units



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

10.17 SSSI Impact Risk Zones

Records on site

1

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

Features are displayed on the SSSI Impact Zones and Units map on **page 64**

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

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0
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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**2**

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 66**

ID	Location	Name	Grade	Reference Number	Listed date
1	28m S	Harpurhey Baths And Laundry, Manchester, M9	II	1270790	06/06/1994
2	69m NW	Gpo Pillar Box To West Of Junction With Blackley Park Road, Manchester, M9	II	1247606	03/10/1974

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



11.5 Conservation Areas

Records within 250m

0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

This data is sourced from 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 69**

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



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- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m

3

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

Features are displayed on the Habitat designations map on **page 71**

ID	Location	Main Habitat	Other habitats
1	165m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	219m N	No main habitat but additional habitats present	Additional: DWOOD (INV 50%)
3	242m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.



13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

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

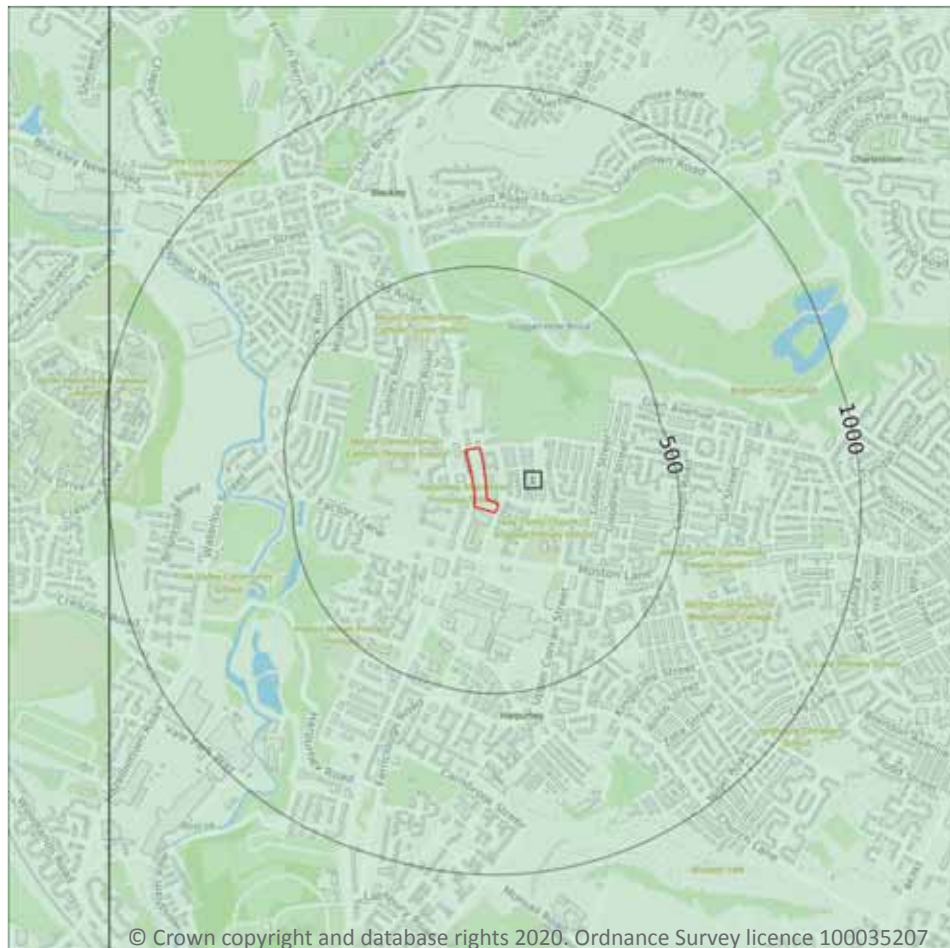
0

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

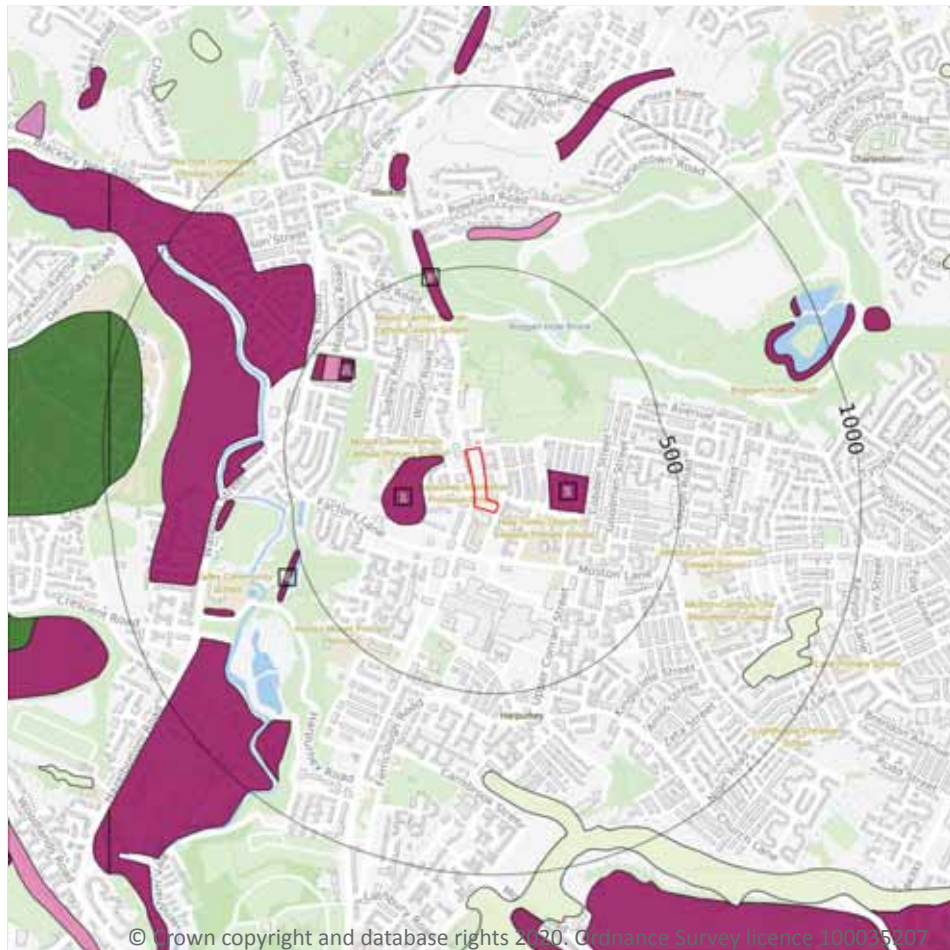
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 73**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SD80SE

This data is sourced from the British Geological Survey.

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



— Site Outline
Search buffers in metres (m)

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

14.2 Artificial and made ground (10k)

Records within 500m

7

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 74**

ID	Location	LEX Code	Description	Rock description
1	66m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	143m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	360m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	369m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

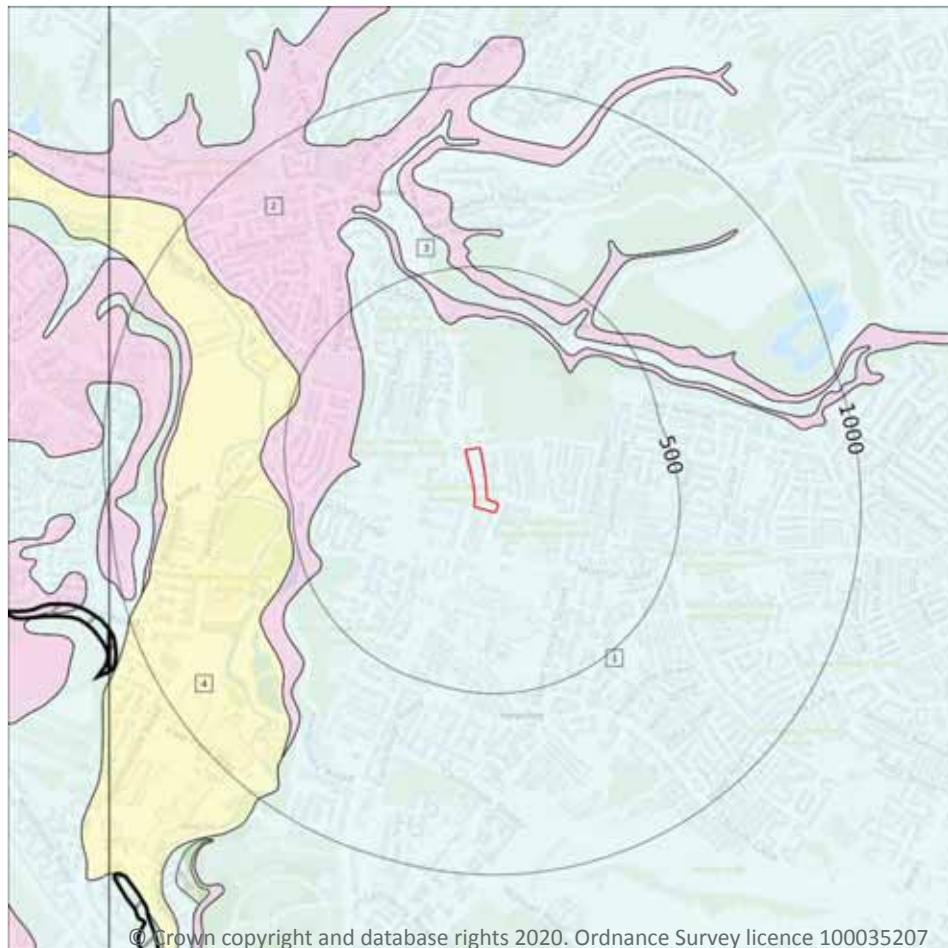


ID	Location	LEX Code	Description	Rock description
A	400m NW	WGR-VOID	Worked Ground (Undivided)	Void
A	443m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	497m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



- Site Outline
- Search buffers in metres (m)
- Landslip (10k)
- Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m

4

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

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 76**

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
2	295m W	GFSDDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel
3	355m NE	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton



ID	Location	LEX Code	Description	Rock description
4	486m W	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

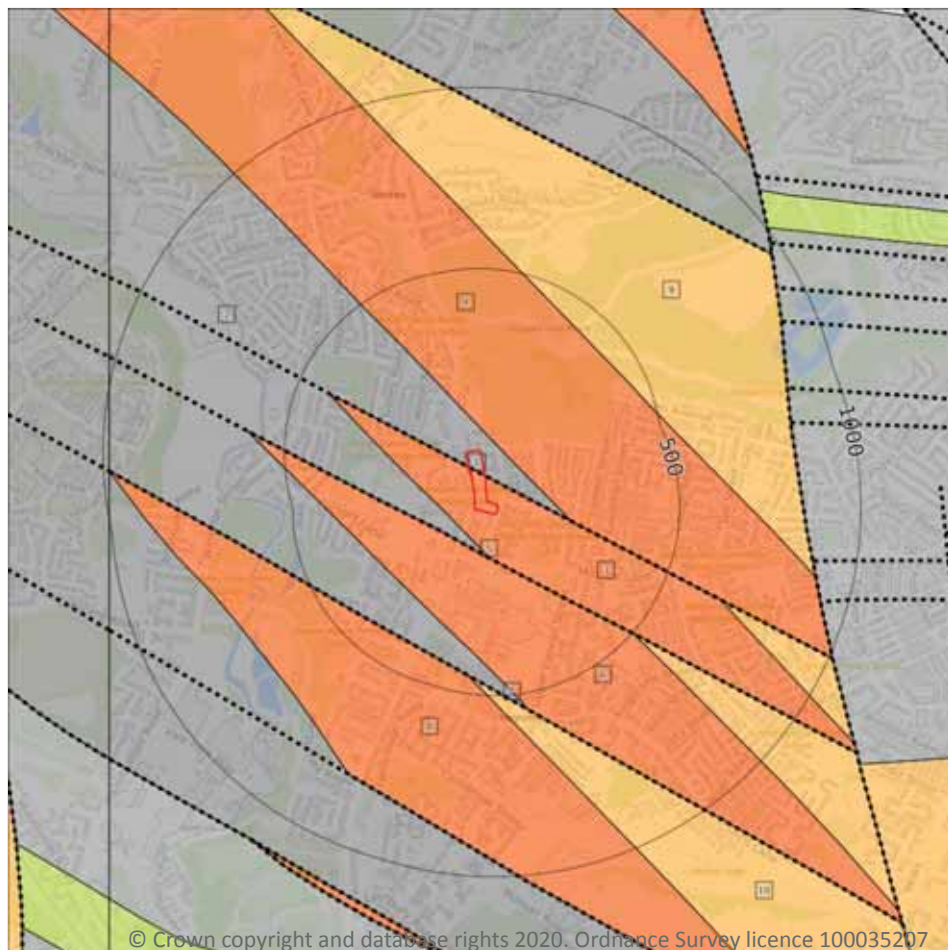
0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

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

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

14.5 Bedrock geology (10k)

Records within 500m

7

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 78**

ID	Location	LEX Code	Description	Rock age
2	On site	CPB-SDST	Chester Pebble Beds Formation - Sandstone	Early Triassic Epoch
3	On site	MM-MDST	Manchester Marls Formation - Mudstone	Late Permian Epoch [Obsolete name]
4	43m NE	MM-MDST	Manchester Marls Formation - Mudstone	Late Permian Epoch [Obsolete name]



ID	Location	LEX Code	Description	Rock age
6	99m SW	MM-MDST	Manchester Marls Formation - Mudstone	Late Permian Epoch [Obsolete name]
8	410m SW	MM-MDST	Manchester Marls Formation - Mudstone	Late Permian Epoch [Obsolete name]
9	424m NE	CS-SDST	Collyhurst Sandstone Formation - Sandstone	Cisuralian Epoch
10	449m S	CS-SDST	Collyhurst Sandstone Formation - Sandstone	Cisuralian Epoch

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.

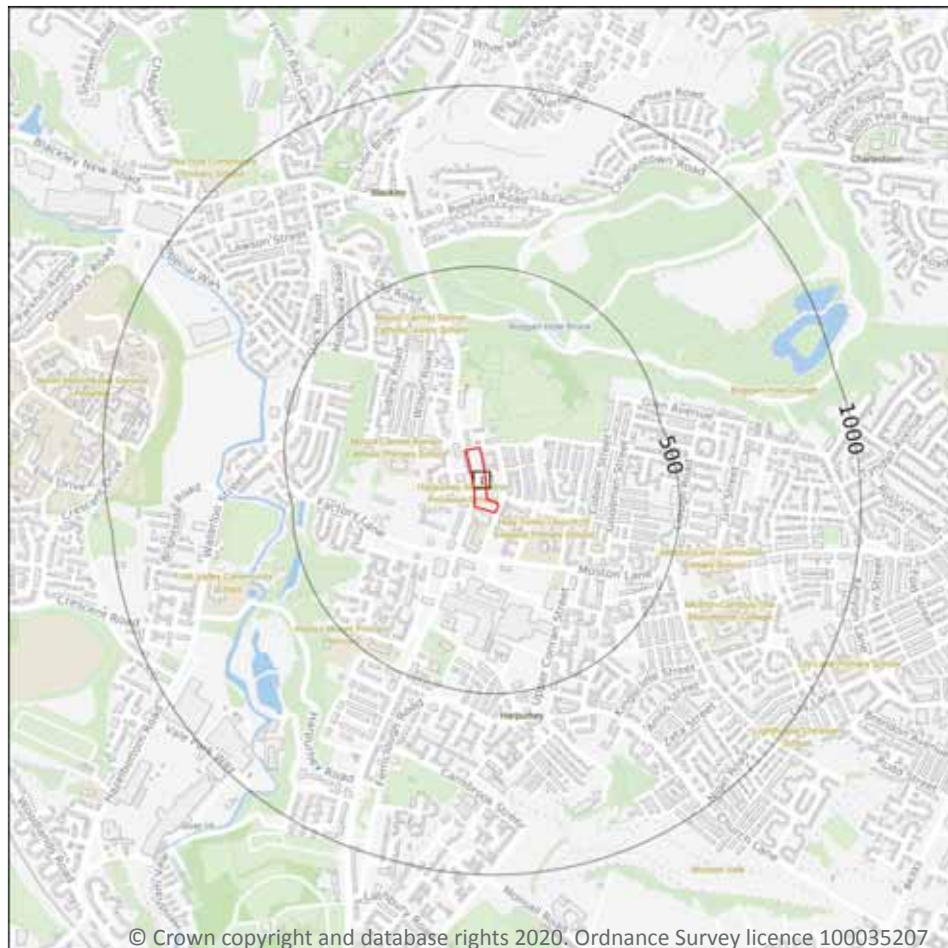
Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 78**

ID	Location	Category	Description
1	On site	FAULT	Normal fault, inferred; crossmarks on downthrow side
5	99m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side
7	410m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline

Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

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 80**

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

This data is sourced from the British Geological Survey.

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

15.2 Artificial and made ground (50k)

Records within 500m

0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

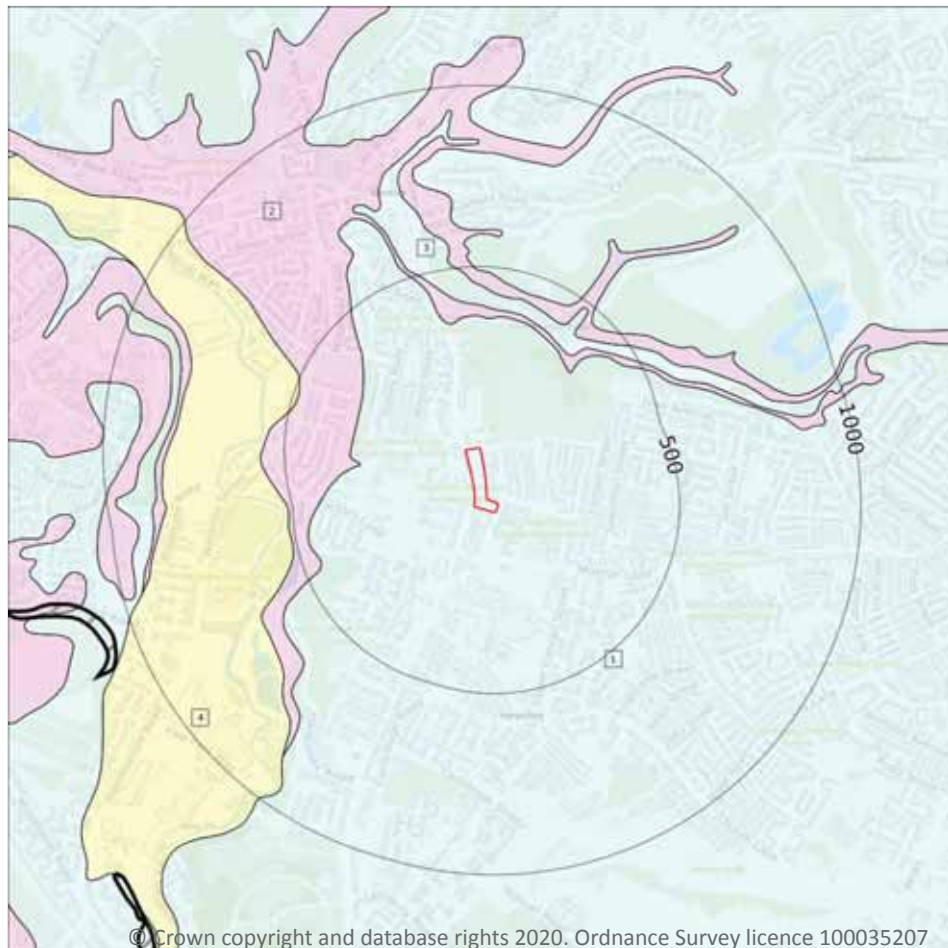
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



- Site Outline
- Search buffers in metres (m)
- Landslip (50k)
- Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m

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 82**

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON
2	294m W	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVANSIAN	SAND AND GRAVEL
3	355m NE	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON



ID	Location	LEX Code	Description	Rock description
4	486m W	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

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

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

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

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

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

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

This data is sourced from the British Geological Survey.

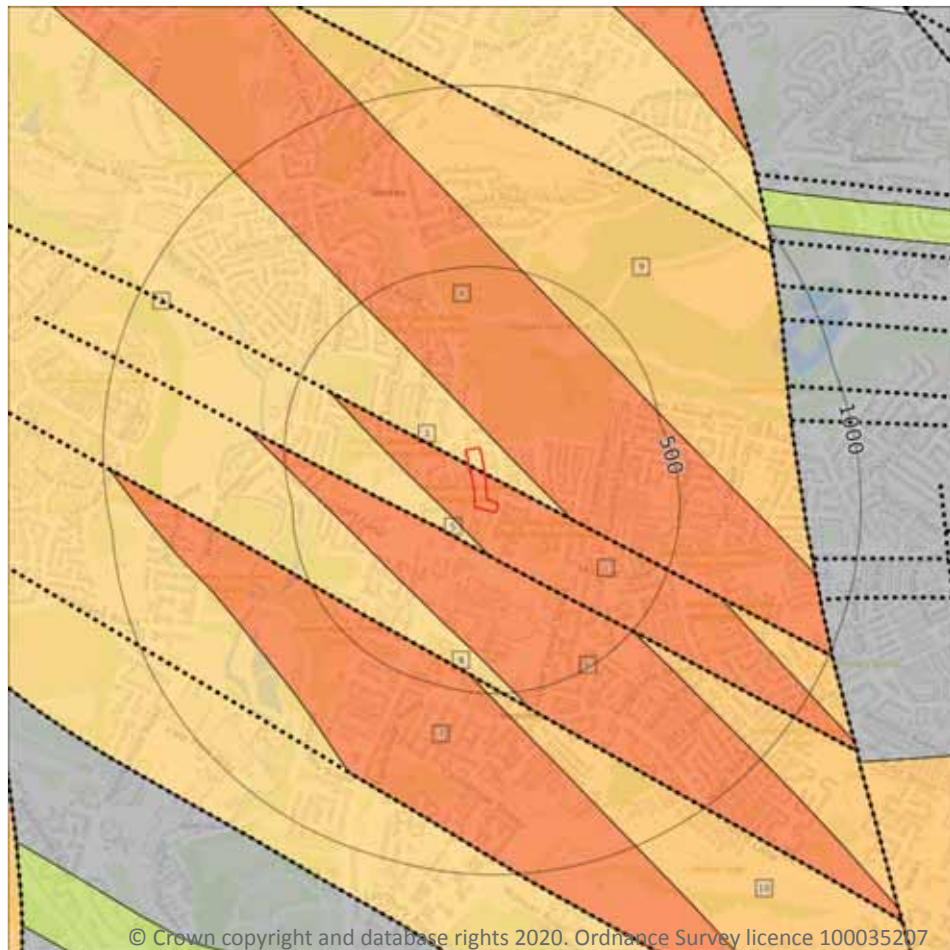
15.7 Landslip permeability (50k)

Records within 50m	0
---------------------------	----------

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

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

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

15.8 Bedrock geology (50k)

Records within 500m

7

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 84**

ID	Location	LEX Code	Description	Rock age
1	On site	MM-MDST	MANCHESTER MARLS FORMATION - MUDSTONE	-
2	On site	CHES-SDST	CHESTER FORMATION - SANDSTONE	OLENEKIAN
4	43m NE	MM-MDST	MANCHESTER MARLS FORMATION - MUDSTONE	-
6	99m SW	MM-MDST	MANCHESTER MARLS FORMATION - MUDSTONE	-



ID	Location	LEX Code	Description	Rock age
7	410m SW	MM-MDST	MANCHESTER MARLS FORMATION - MUDSTONE	-
9	423m NE	CS-SDST	COLLYHURST SANDSTONE FORMATION - SANDSTONE	-
10	449m S	CS-SDST	COLLYHURST SANDSTONE FORMATION - SANDSTONE	-

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m

2

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

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

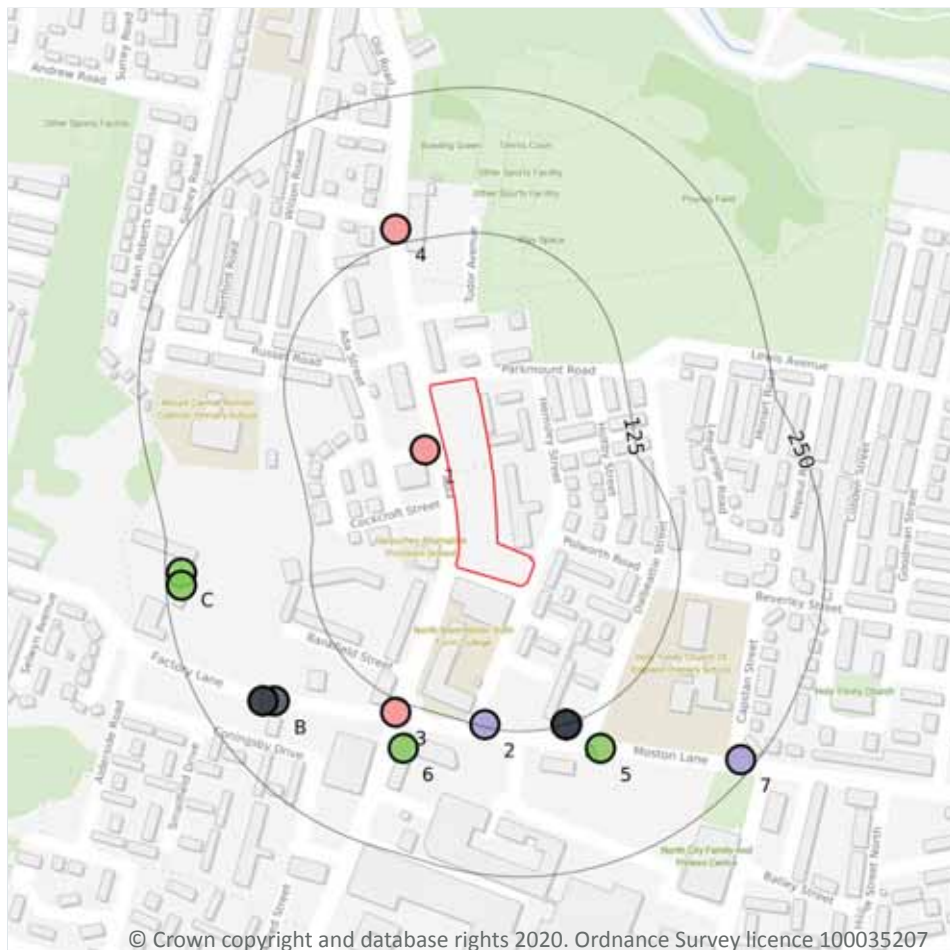
Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 84**

ID	Location	Category	Description
3	On site	FAULT	Fault, inferred
5	99m SW	FAULT	Fault, inferred
8	410m SW	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.



16 Boreholes



— Site Outline
Search buffers in metres (m)

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

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16.1 BGS Boreholes

Records within 250m

18

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 86**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	16m W	385979 402156	MANCHESTER CORP. SEWAGE SCHEMES. BORE SEWER SHAFTS	44.65	N	27621
2	123m S	386030 401920	NORTH MANCHESTER RELIEF SEWER 2	10.0	N	28506

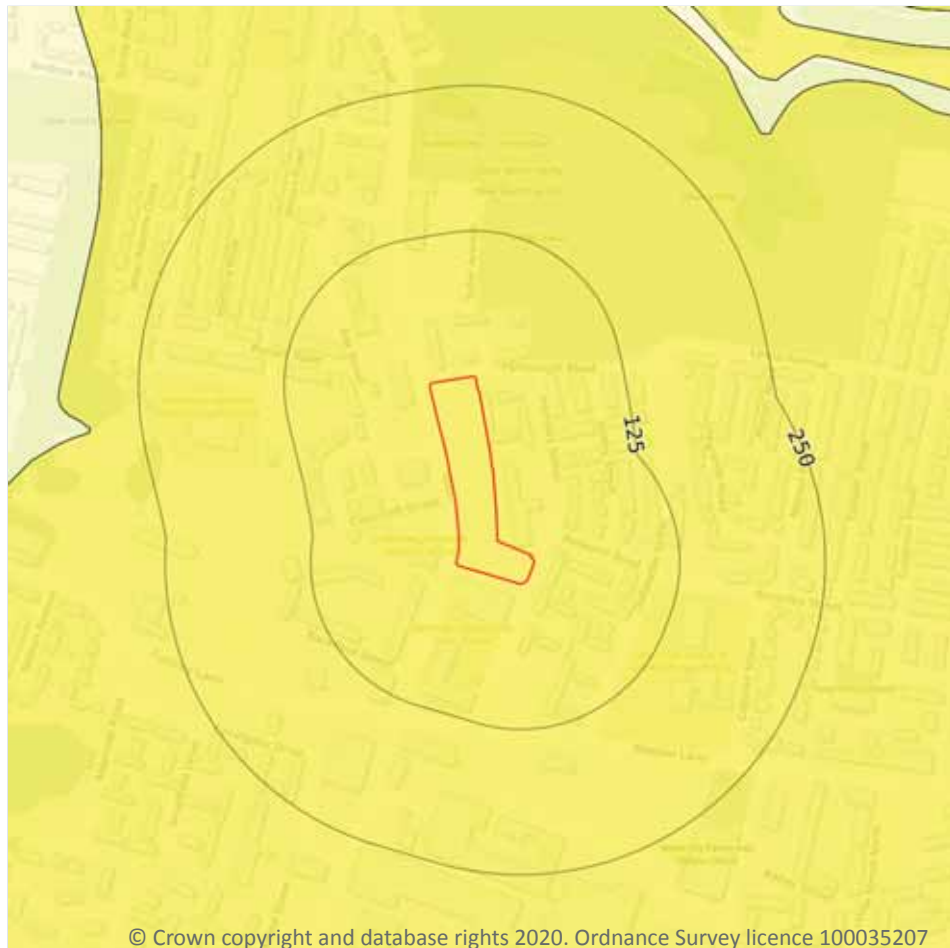


ID	Location	Grid reference	Name	Length	Confidential	Web link
A	125m S	386100 401920	1 MONKWOOD DRIVE BLACKLEY B1	-	Y	N/A
A	125m S	386100 401920	1 MONKWOOD DRIVE BLACKLEY B3	-	Y	N/A
A	125m S	386100 401920	1 MONKWOOD DRIVE BLACKLEY B5	-	Y	N/A
A	125m S	386100 401920	1 MONKWOOD DRIVE BLACKLEY B2	-	Y	N/A
A	125m S	386100 401920	1 MONKWOOD DRIVE BLACKLEY B4	-	Y	N/A
A	125m S	386100 401920	1 MONKWOOD DRIVE BLACKLEY 6	-	Y	N/A
3	135m SW	385954 401931	MANCHESTER CORP. SEWAGE SCHEMES. BORE SEWER SHAFTS	44.96	N	27622
4	138m N	385954 402346	MANCHESTER CORP. SEWAGE SCHEMES. BORE SEWER SHAFTS	34.44	N	27620
5	155m SE	386130 401900	NORTH MANCHESTER RELIEF SEWER 3	12.25	N	28507
6	162m S	385960 401900	NORTH MANCHESTER RELIEF SEWER 1	12.0	N	28505
B	195m SW	385850 401940	FACTORY LANE MAIN DRAINAGE 1B	-	Y	N/A
B	203m SW	385840 401940	FACTORY LANE MAIN DRAINAGE 1	-	Y	N/A
B	203m SW	385840 401940	FACTORY LANE MAIN DRAINAGE 1A	-	Y	N/A
C	236m W	385770 402050	MANCHESTER N.E.D.O. NO. 6	11.43	N	28760
C	236m W	385770 402040	MANCHESTER N.E.D.O. NO. 7	15.85	N	28759
7	238m SE	386250 401890	NORTH MANCHESTER RELIEF SEWER 4	10.0	N	28508

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



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

17.1 Shrink swell clays

Records within 50m

1

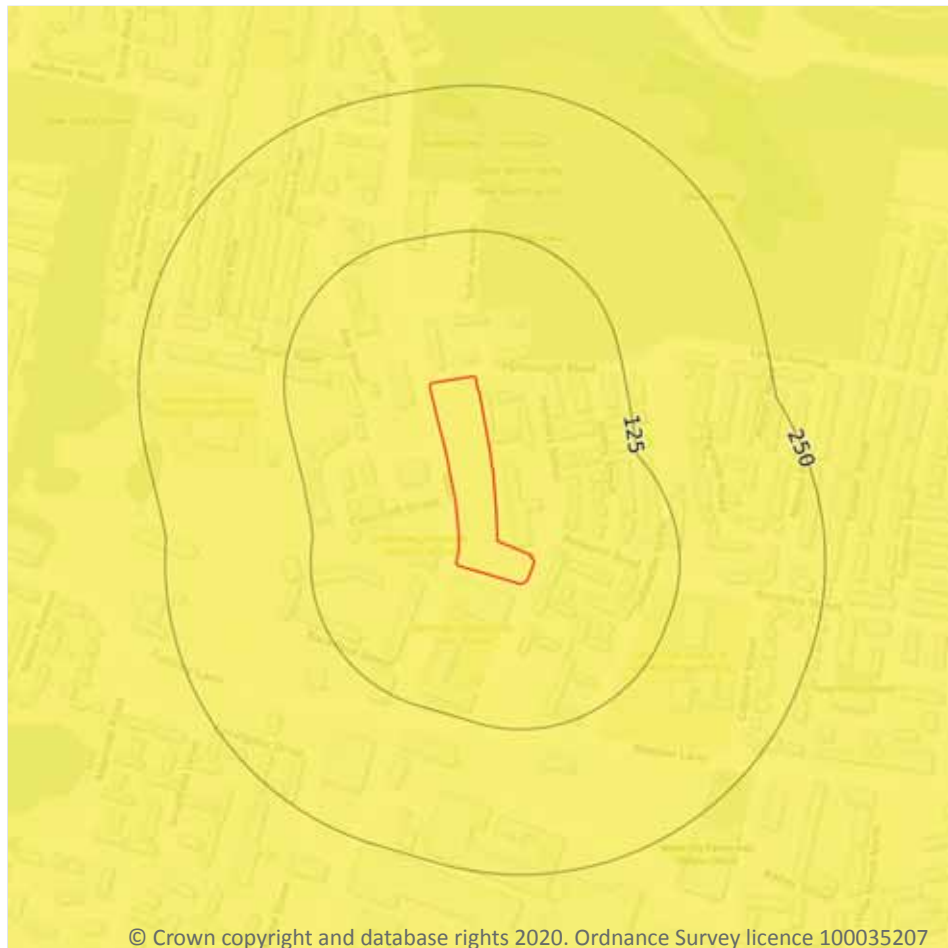
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 88**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



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

17.2 Running sands

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Running sands map on **page 89**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



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

17.3 Compressible deposits

Records within 50m

1

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

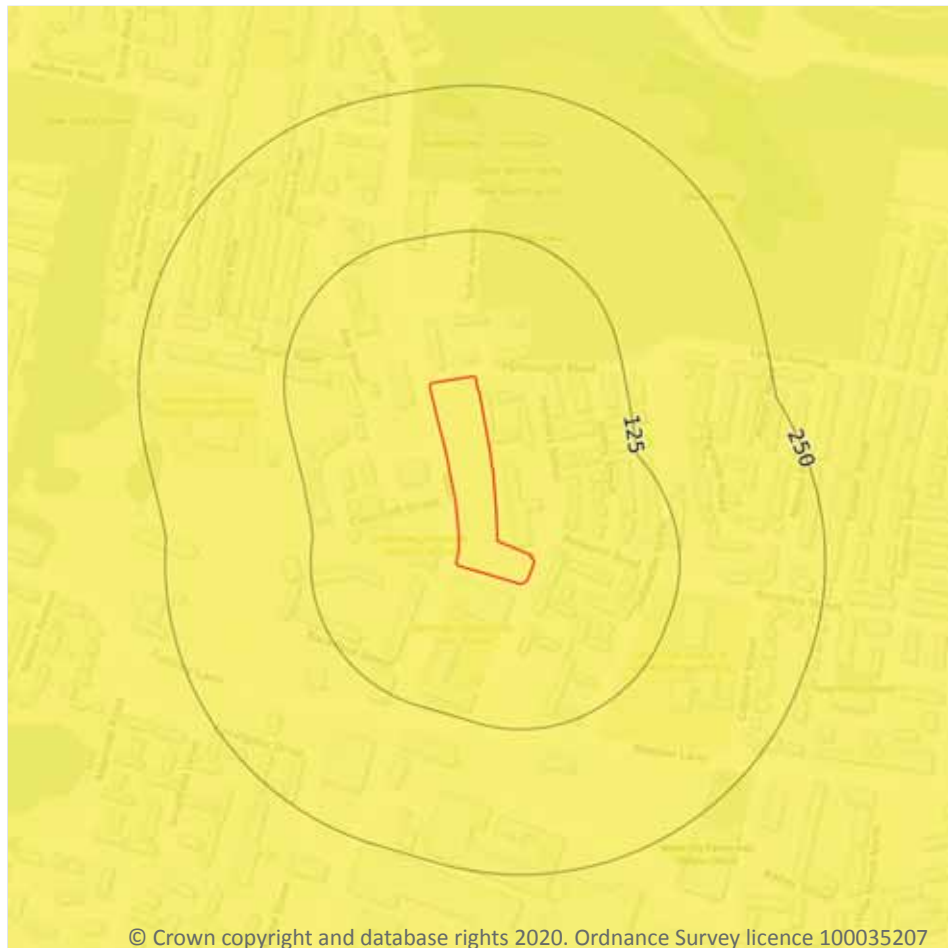
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 90**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



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

17.4 Collapsible deposits

Records within 50m

1

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

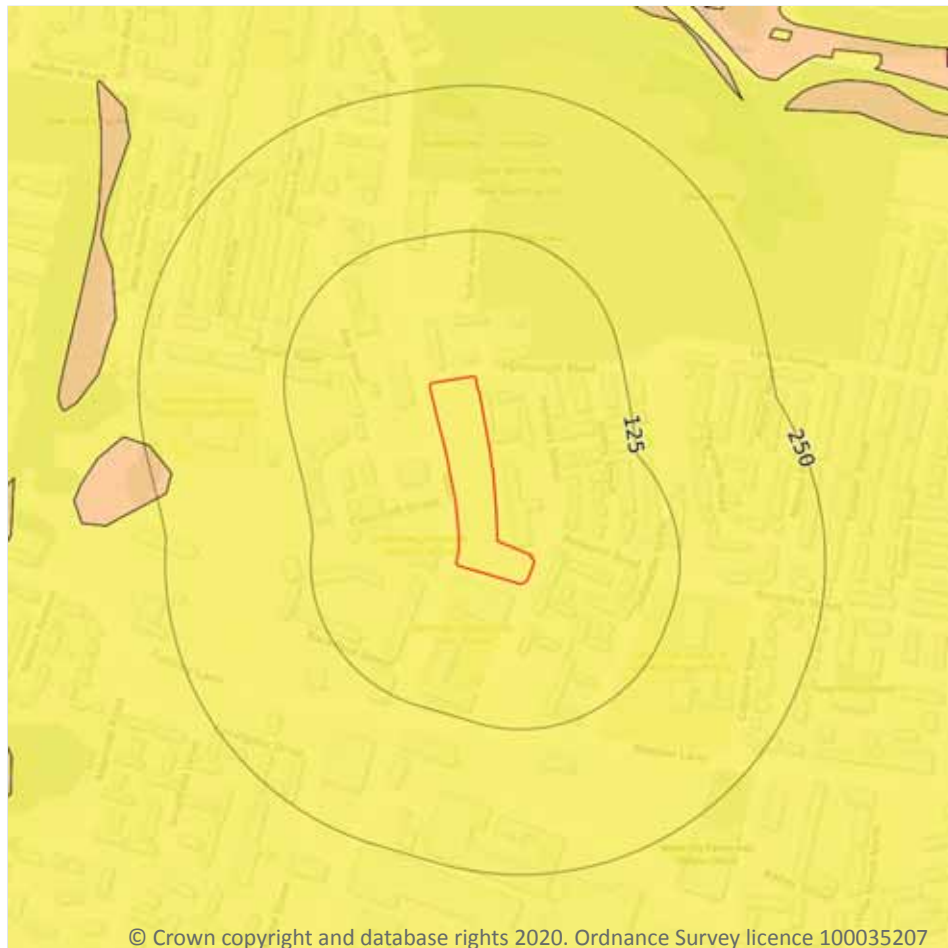
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 91**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



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

17.5 Landslides

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Landslides map on **page 92**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



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

17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

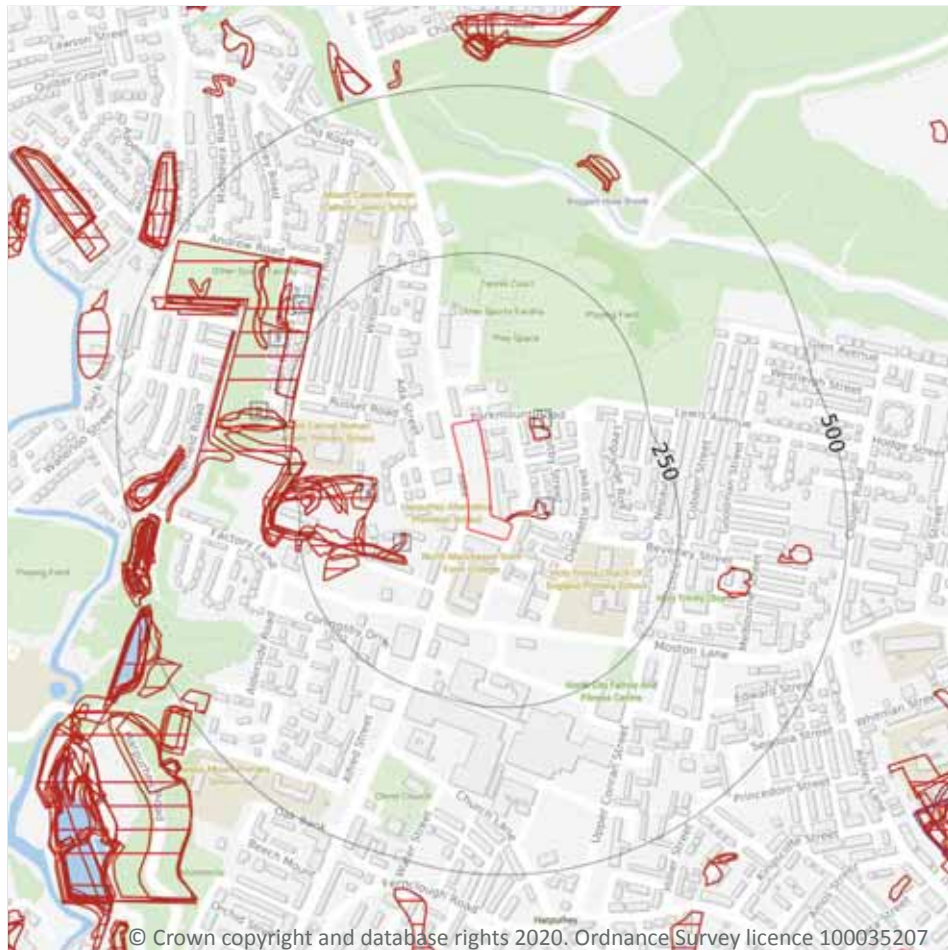
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 93**

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

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
 - Natural cavities (Point)
 - BritPits
 - Surface ground workings
 - Underground workings
 - Historical Mineral Planning Areas
 - Mining Cavities
- Non Coal Mining
 - Sporadic underground mining of restricted extent possible
 - Localised small scale underground mining possible
 - Small scale mining possible
 - Underground mining known or likely within or in close proximity
 - Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m

0

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

This data is sourced from 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

24

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 94**

ID	Location	Land Use	Year of mapping	Mapping scale
1	2m N	Pond	1891	1:10560
2	74m E	Pond	1851	1:10560
A	93m W	Unspecified Ground Workings	1956	1:10560
A	103m SW	Unspecified Ground Workings	1915	1:10560
A	103m SW	Unspecified Ground Workings	1906	1:10560
B	128m W	Refuse Heap	1933	1:10560
B	134m W	Unspecified Ground Workings	1938	1:10560
B	149m W	Cesspools	1891	1:10560
A	154m W	Unspecified Pit	1933	1:10560
A	170m W	Unspecified Heap	1891	1:10560
B	179m W	Unspecified Heap	1966	1:10560
B	185m W	Unspecified Heap	1956	1:10560
A	202m W	Cesspools	1891	1:10560
B	214m W	Refuse Heap	1966	1:10560
B	214m W	Refuse Heap	1956	1:10560
B	225m W	Unspecified Ground Workings	1975	1:10000
B	226m W	Unspecified Ground Workings	1966	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
B	229m W	Unspecified Ground Workings	1980	1:10000
B	230m W	Refuse Heap	1891	1:10560
3	235m W	Refuse Destructor	1938	1:10560
A	235m W	Unspecified Ground Workings	1956	1:10560
C	240m W	Refuse Destructor	1975	1:10000
D	247m W	Unspecified Heap	1906	1:10560
D	247m W	Refuse Heap	1915	1:10560

This 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 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**0**

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

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site**1**

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

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

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site**0**

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

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



18.11 Gypsum areas

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

This data is sourced from British Gypsum.

18.12 Tin mining

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

This data is sourced from Mining Searches UK.

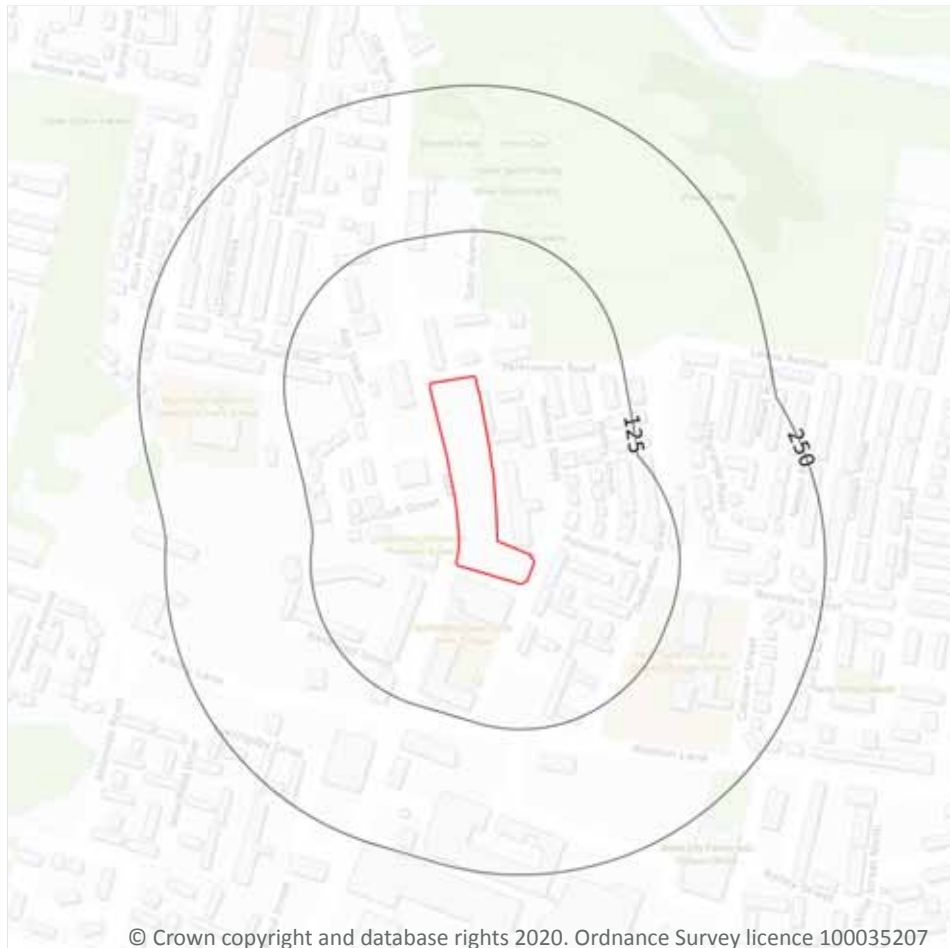
18.13 Clay mining

Records on site	0
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Generalised areas that may be affected by kaolin and ball clay extraction.

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

19 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 99**

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

6

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
24m NE	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
39m SE	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

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

This data is sourced from the British Geological Survey.



20.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

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

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)
- C1** Crossrail 1 Stations
- Crossrail 1 Route
- Crossrail 1 Worksites
- C2** Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- 🚂 Railway stations
- ⋯ Active railways
- ⋯ Active tunnels
- ⋯ Abandoned railways
- Historic railways
- Historic tunnels
- 🚂 Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

21.1 Underground railways (London)

Records within 250m

0

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

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m

0

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



This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m

1

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

Features are displayed on the Railway infrastructure and projects map on **page 102**

Location	Land Use	Year of mapping	Mapping scale
20m SW	Tramway Sidings	1893	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

0

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

This data is sourced from OpenStreetMap.



21.7 Railways

Records within 250m**0**

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

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m**0**

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m**0**

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m**0**

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

This data is sourced from HS2 Ltd.

Data providers

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

Terms and conditions

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



APPENDIX C

SITE PHOTOGRAPHS

Panoramic Photograph 1



Panoramic Photograph 2



Panoramic Photograph 3



Panoramic Photograph 4



Panoramic Photograph 5



Panoramic Photograph 6



Panoramic Photograph 7



Panoramic Photograph 8



Panoramic Photograph 9



Panoramic Photograph 10



Panoramic Photograph 11



Panoramic Photograph 12



Panoramic Photograph 13

