



GEO-ENVIRONMENTAL CONSULTING ENGINEERS

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LAND AT CROMPTON AVENUE, ROCHDALE

Phase 1 - Preliminary Risk Assessment



Prepared for:



Report Ref: BEK-22081-1 (Rev C)

July 2022

Project Quality Assurance Information Sheet

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LAND AT CROMPTON AVENUE, ROCHDALE

Phase 1 - Preliminary Risk Assessment

PROJECT NO: 22081
REPORT REF: BEK-22081-1
DATE: July 2022

REVISION STATUS / HISTORY

Rev	Date	Issue / Comment	Prepared	Checked
C	18 April 2023	Slight mods to development layout plan	JMashiter	MBuckley

GENERAL REPORT LIMITATIONS

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Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by BEK for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

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Unless explicitly agreed otherwise, in writing, this report has been prepared under BEK's limited standard Terms and Conditions as included within our proposal to the Client.

The report needs to be considered in the light of the BEK proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.

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1. INTRODUCTION

1.1 Appointment

1.1.1 BEK Enviro Limited (BEK) have been commissioned by Lancet Homes to prepare a Preliminary Risk Assessment for land located at Crompton Avenue, Rochdale (hereafter referred to as 'the site') to assess potential risks associated with contamination and ground gas with respect to the re-development of the site for a residential development.

1.1.2 The site location and site layout are presented on BEK Drawing No 22081-1 and BEK Drawing No 22081-2, respectively. Copies of these drawings are presented in Appendix F.

1.2 Proposed Development

1.2.1 The proposed development is for 22 two-storey houses with gardens. The proposed site layout is presented on MPSL Planning & Design Ltd. drawing 20109 – 01 Rev E Entitled Planning Layout. A copy of the proposed site layout drawing is presented in Appendix F.

1.3 Objective & Scope of Work

1.3.1 This report provides the details of the works undertaken by BEK to assess the potential risks from contamination and ground gas as part of an initial assessment to satisfy the above conditions.

1.3.2 The assessment will include a site walkover/inspection and a review of the following:

- Recent Ordnance Survey Map
- Coal Authority Website
- BGS Web Page
- Site Specific GroundSure Reports & Historical Maps
- Magic Maps
- Rochdale Metropolitan Borough Council Planning Portal
- Drawings provided by Lancet Homes
- Zetica UXO Website

1.3.3 The assessment will include the derivation of a preliminary conceptual site model to identify potentially significant pollutant linkages specific to the proposed development. This will establish areas of potential concern based on identified risks and/or potential risks and identify any actions required to assess or reduce the risks identified.



1.4 Limitations

- 1.4.1 The conclusions and recommendations presented in this report are the result of our professional interpretation of the information currently available. BEK reserves the right to amend the conclusions and recommendations if further information becomes available.
- 1.4.2 However, it should be noted that much of the information has been derived from reports written by others and BEK takes no responsibility for the accuracy of that information. Notwithstanding the above, the reports reviewed have all been written by professional environmental consultants with a duty of care to provide relevant and accurate information.
- 1.4.3 This report does not include an assessment of the vegetation of site and in particular the identification of any invasive plant species.

2. SITE DESCRIPTION

2.1 Site Location

- 2.1.1 The site is located immediately east of Crompton Avenue, Rochdale, at postcode OL16 4PB. The site is approximately 1.5 km south-east of Rochdale town centre. Access is currently off Crompton Avenue.
- 2.1.2 The National Grid Reference for the centre of the site is 390679, 411276. The site location plan is shown on BEK Drawing No 22081-1 presented in Appendix F.

2.2 Site Layout & Description

- 2.2.1 An engineer from BEK visited the site on 27th May 2022 to carry out a site walkover/inspection. A series of photographs taken during the site inspection is provided as Appendix E.
- 2.2.2 The site is occupied by a roughly rectangular shaped plot of land of approximately 1.02ha. The site is a field covered with grass, rough vegetation, and some shrubs and trees.
- 2.2.3 Access is via a gate from Crompton Avenue in the south-western corner. Limited waste materials and made ground deposits were observed in the south-western area of the site adjacent to a now demolished stables/paddock area immediately south-west of the site.

2.3 Surrounding Land Use

- 2.3.1 The area immediately surrounding the site is predominantly residential, comprising houses with gardens. Some shops are present in the area. Immediately to the south of the site are sports pitches. The Kingsway Business Park is present 800 m to the east. The M62 motorway is located approximately 700 m to the south.

3. SITE HISTORY

- 3.1 The history of the site has been established using historical OS maps supplied by Groundsure. Reference has also been made to the Rochdale Metropolitan Borough Council planning portal. A selection of the maps reviewed is presented in Appendix A.

1851 - 1910

- 3.2 The site is a field with a footpath running east-west across the northern half. Springhill Farm and numerous houses are located just beyond the north-western and northern boundary. The north-eastern boundary is formed by a lane, with a pond beyond to the east.
- 3.3 The surrounding area mostly comprises fields, with residential areas to the west, north and north-east. Balderstone Old Mill (disused) is located approximately 150 m to the south-west (see Figure 1).

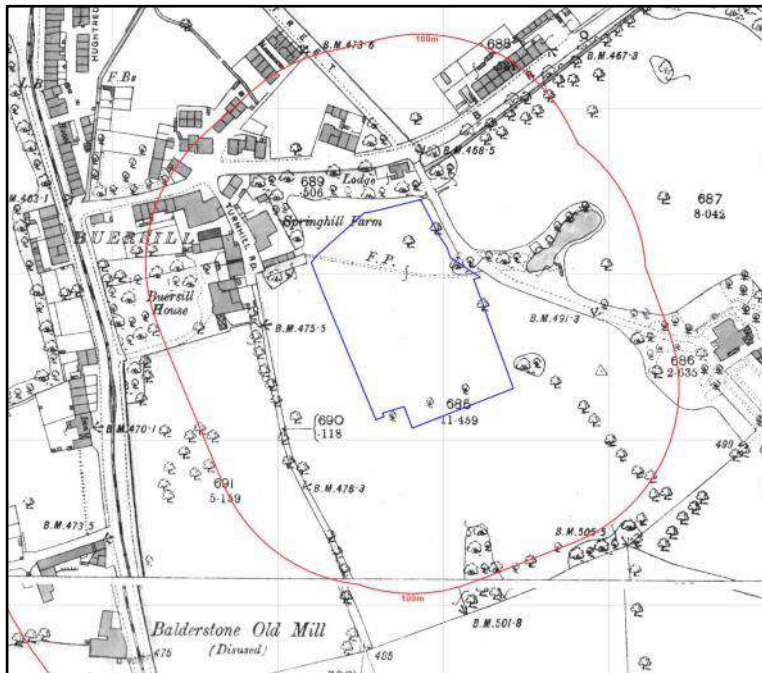


Figure 1: Extract from 1890 map

1928 - 1976

- 3.4 The site remains unchanged. Further residential development has taken place to the west and north. Balderstone Mill (cotton) has been redeveloped 150 m to the south-west. The 1928 1:10,560 map shows Crompton Avenue has been developed. By the 1975/1976 mapping, a large building (the current location of Fieldway Sheltered Housing) has been built just beyond the north-eastern boundary. The pond to the east of the site is absent. Rochdale has been extensively developed to the north and west, and the M62 motorway has been constructed 700 m to the south. A large school and a mill have been built 500m to the north-west (see Figure 2).

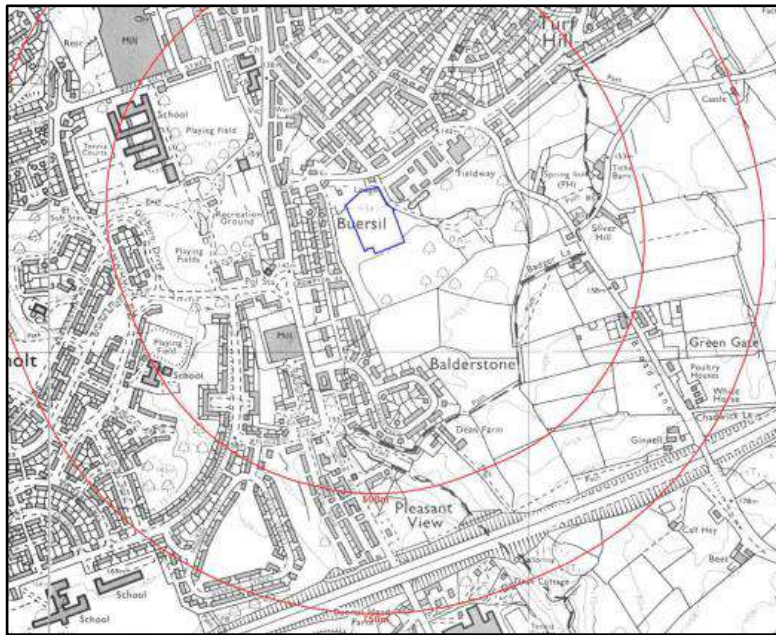


Figure 2: Extract from 1975-1976 map

1988 – present day

- 3.5 The site remains a field. Springhill Hospice has been constructed 100 m to the east. The sports field has been developed immediately to the south.
- 3.6 The 2010 1:10,000 mapping first shows the development of the Kingsway Business Park 1km to the east, which has since expanded westwards. The remainder of the surrounding area remains relatively unchanged to the present day.



Figure 3: Recent aerial photograph (site outline in red)

4. ENVIRONMENTAL SETTING

4.0.1 An Enviro+GeoInsight Report has been obtained from Groundsure and information provided in this report has been used within this section. A copy of the report is presented in Appendix B.

4.1 Geology

4.1.1 The site geology is illustrated in the Enviro+GeoInsight Report which has sourced data from several sources including British Geological Society (BGS), BRITPITS database and the Coal Authority. A copy of the report is presented in Appendix B.

BGS Information

4.1.2 In addition, BEK has sought site investigation information from the BGS website. A review of the BGS Borehole Viewer indicates that there are only two recorded BGS exploratory locations within 500m of the site, and at this distance they may not be representative of site ground conditions (see Figure 4).



Figure 4: Reviewed BGS Exploratory Locations within 500 m of the site

4.1.3 BEK has reviewed the nearby boreholes. The shallow ground conditions encountered are summarised below:

Depth to Top of Stratum (m)	Strata
0	Made Ground
1.25 - 1.4	Silty SAND and GRAVEL
2.8 – 2.9	Silty SAND
4.7 – 4.95	Silty CLAY with sand partings

Table 1: BGS Borehole Strata

4.1.4 Copies of the BGS Boreholes are provided within Appendix C.

Made Ground

- 4.1.5 According to the Enviro+GeoInsight Report there are no records of artificial ground (made ground) located at the site. However, there is an area of made ground located to the south-west of the site. The made ground is likely to be associated with previous development works.

Superficial Geology

- 4.1.6 The Enviro+GeoInsight Report states that 'Hummocky Glacial Deposits, Devensian – Diamicton' (Boulder Clay) are present below the site and are laterally continuous in the surrounding area. These strata generally have a low permeability.

Bedrock

- 4.1.7 The Enviro+GeoInsight Report states that the solid geology underlying the site comprises the 'Pennine Lower Coal Measures Formation – mudstone, siltstone and sandstone' and the 'Old Lawrence Rock – Sandstone'.
- 4.1.8 The Pennine Lower Coal Measures generally comprise 'Interbedded grey mudstone, siltstone and pale grey sandstone, commonly with mudstones containing marine fossils in the lower part, and more numerous and thicker coal seams in the upper part'. The Old Lawrence Rock is part of the Pennine Lower Coal Measures. The bedrock can have high permeability through fracture flow.

Linear Features

- 4.1.9 A linear feature, identified by Groundsure as a normal fault, is located on site.

4.2 Mining & Ground Stability

- 4.2.1 Information in the Enviro+GeoInsight Report indicates that the site is located within a coal mining area as defined by the Coal Authority. However, reference to the Coal Authority Interactive Map suggests that the site is not located within a 'Development High Risk Area'. Moreover, there are no coal mining features located within 250 m of the site.
- 4.2.2 However, Groundsure identify nine possible historic surface ground workings within 250 m of the site. These relate to historic ponds, reservoirs, an unspecified pit (and an unspecified heap), which may or may not have been infilled.
- 4.2.3 Based on the Coal Authority's guidance entitled 'Risk Based Approach to Development Management – Guidance for Developers' (2017) the site is located within a Development Low Risk Area within the coalfield and as such 'there is no need for you to submit any coal mining information with your planning application' and a Desk Based Coal Mining Risk Assessment is not required.

- 4.2.4 The Enviro+GeoInsight Report provides hazard ratings associated with ground subsidence at the site, as summarised below:

Shrink-Swell Clay:	Low
Landslides:	Very Low
Ground Dissolution of Soluble Rocks:	Negligible
Compressible Deposits:	Negligible
Collapsible Deposits:	Very Low
Running Sands:	Very Low

- 4.2.5 It can be seen from the above that the site is unlikely to be affected by natural ground instability.

4.3 Hydrogeology

- 4.3.1 The underlying superficial strata are classified as a 'Secondary A Aquifer', which are described as '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.'. The superficial aquifer is classed as being of high vulnerability.

- 4.3.2 The underlying bedrock is also classified by the EA as a 'Secondary A Aquifer'. The bedrock aquifer is classed as being of low vulnerability.

- 4.3.3 The Enviro+GeoInsight Report indicates that there are no groundwater abstraction licenses within 500 m of the site.

- 4.3.4 The site is not located within a Source Protection Zone.

- 4.3.5 The site is at a low risk from groundwater flooding.

4.4 Hydrology

- 4.4.1 The Enviro+GeoInsight Report indicates that there are nine surface water features within 250 m of the site. These are described as 'inland rivers not influenced by normal tidal action', and are located to the north, north-east, north-west and west. The main feature is 'Sudden Brook' located beyond 100m to the west.

- 4.4.2 There are no surface water abstractions within 500m of the site.

- 4.4.3 There are no records of licensed discharges to controlled waters situated within 250 m of the site.

- 4.4.4 According to Groundsure the site is located within Flood Zone 1, which is the lowest level of flood risk from river and sea flooding.

4.5 Contaminated Land & Landfill Activities

- 4.5.1 Information provided in the Enviro+GeoInsight Report indicates that there are no records of historic landfilling located within 500 m of the site.
- 4.5.2 There are no licensed waste operations within 500 m of the site.
- 4.5.3 There are two waste exemptions located within 500 m of the site. These relate to the use of waste in construction, at two locations between 400 m and 500 m to south and south-east. These operations are unlikely to have impacted upon the site.
- 4.5.4 A review of the historical maps identified the presence and probable infilling of a pond located just to the east of the site (the pond is no longer shown on mapping from 1988).
- 4.5.5 There are no EA recorded pollution incidents located within 250 m of the site.
- 4.5.6 There are no NIHHS or COMAH sites located on/within 500 m of the site.
- 4.5.7 There are no Part A(1), Part A(2), Part B or IPC Authorised Activities located within 500m of the site.
- 4.5.8 There are no licensed pollutant releases located within 500 m of the site.
- 4.5.9 A number of potentially contaminative historical land uses are located on and within 250 m of the site. These refer to an unspecified pit 65m to the north, pumps, a woolen mill, unspecified mills, and an unspecified heap.
- 4.5.10 The Groundsure report identifies numerous historical tanks within 500 m of the site, mostly unspecified.
- 4.5.11 Five historic garages are identified within 500 m of the site, the closest being located 400m to the south.
- 4.5.12 The Groundsure report identifies eleven historic electricity substations within 500 m of the site, the closest being 100 m to the north-west.
- 4.5.13 There are no current or recent petrol stations identified within 250 m of the site.
- 4.5.14 There are eight potentially contaminative industrial sites located within 250 m of the site. The closest record refers to 'Diamond Packaging', located 110 m to the south-west. Other current industrial uses include electricity substations, construction services, a breakdown and recovery business, and vehicle repair, testing and servicing. These operations have the potential to pose a contaminative risk to the site.

4.6 Sensitive Land Uses

- 4.6.1 The site is located within a SSSI Impact Risk Zone.
- 4.6.2 The Rochdale Canal, located approximately 800 m to the north-west, is classed as a SSSI.
- 4.6.3 The site is not located in a Nitrate Vulnerable Zone (NVZ).
- 4.6.4 The site is not affected by any other of the ecological systems identified as a statutory receptor in the DETR Circular 01/2006.

4.7 Radon

- 4.7.1 The Enviroinsight report states that 'the property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level. Therefore, 'no radon protective measures are necessary.'

4.8 UXO Risk

- 4.8.1 Zetica online UXO risk mapping indicates that the UXO risk is low.

5. POTENTIAL POLLUTANT LINKAGES

5.1 General

5.1.1 This section identifies the potential contaminants of concern, sources, pathways and receptors that may be associated with the site based on its known history and the current condition, and with respect to the proposed light industrial/commercial development.

5.1.2 This information is used to develop a conceptual model which is a qualitative description of potential sources of environmental pollutants, the pathways by which they are transported and the receptors:

- i) Potential sources of contamination: these include any actual or potentially contaminating materials and activities, located either on or in the vicinity of the site
- ii) Potential pathways for contamination migration: these comprise the routes or mechanisms by which contaminants may migrate from the source to the receptor including environmental migration pathways and human health exposure pathways
- iii) Potential receptors of contamination: these include future land users, ecological systems, water resources and property.

5.2 Potential Contaminants of Concern

5.2.1 The earliest available historical maps dating from 1851 show the site to be a field with a footpath running east-west across the northern part. The site has remained a field until the present day. During the site walkover, some made ground and waste was observed close to the gate from Crompton Avenue.

5.2.2 The surrounding area has historically been fields and farmland, with the development of surrounding residential areas over time. The historic pond to the east of the site appears to have been infilled (prior to 1975) and historic heaps have been identified close to the site. Historic mills have been located nearby. Sheltered housing and a hospice have been built to the north-east and east. The M62 motorway has been constructed 700 m to the south.

5.2.3 The historic use of the surrounding area for some light industrial and commercial purposes may pose a low risk of contamination of the shallow soils underlying the site. Key contaminants of concern may include hydrocarbons from fuels, lubricating oils and greases, metals, asbestos, sulphates, phenols and cyanide.

5.2.4 Based on available information, significant made ground is unlikely at the site and any made present is likely to be associated with the access point off Crompton Avenue where some waste materials and made ground were observed during the walkover. The nature and source of any made ground is currently unknown and it could contain contaminants of concern.

5.2.5 The potential contaminants of concern associated with made ground and the historic use of the surrounding area are presented below:

Contaminants Associated General Made Ground & Historic Activities	
Arsenic	Zinc
Cadmium	Sulphate
Chromium	Cyanide
Copper	Phenols
Lead	Polycyclic Aromatic Hydrocarbons (PAHs)
Mercury	Total Petroleum Hydrocarbons (TPHCWG)
Nickel	Asbestos
Selenium	pH

Table 2: Potential Contaminants of Concern

5.2.6 It should be noted that the above list represents a broad range of potential contaminants of concern. Additional contaminants of concern may be present if ground conditions differ from those anticipated.

5.2.7 Based on the available background information, the potential risks from ground gas are considered to be very low. There is no significant made ground expected on site and there is no significant infilled land or natural organic strata (ie peat) located within close proximity to the site. However, the risk pathway remains active until ground conditions can be confirmed on site.

5.3 Potential Pathways

5.3.1 The pathways through which contaminants may reach receptors are in part dependent by the nature and behaviour of the contaminant and the intended end use of the site.

5.3.2 The following potential pathways have been identified with respect to the existing site condition, the environmental setting and the proposed re-development of the site to a light industrial/commercial end-use with associated infrastructure, all of which are assessed in the conceptual model:

- Inhalation/ingestion of contaminative dust or soil (groundworkers/future site users)
- Indoor inhalation of ground gas/organic vapours
- Contamination affecting the integrity of service pipelines by direct contact

- Buildings affected by direct contact with elevated concentrations of sulphate and/or extreme pH
- Dissolution or suspension (leaching) of contaminants from site soils leading to contamination of perched water/groundwater.

5.4 Receptors

5.4.1 Potential site specific receptors that may be affected by contamination at the site are listed below:

Future Site Users

5.4.2 Future occupants of the site could be at risk from indoor inhalation of vapours and/or ground gas. These risks are considered as low unless a potential source is identified on site.

5.4.3 As the proposed development will feature gardens and landscaping, there is a direct exposure pathway to the shallow ground for future occupants/users of the site (dermal contact, dust inhalation and/or ingestion).

Construction Workers

5.4.4 The primary risks to construction workers are associated with shallow excavations and inhalation/ingestion of contaminated dust, or dermal contact with contaminants.

5.4.5 Standard personal protective equipment and site specific risk assessments and method statements should reduce risks associated with all contaminants of concern due to short exposure duration.

Off Site Receptors

5.4.6 Off site receptors include nearby home owners, nearby site users, and sensitive land uses. Human health could be at risk through inhalation of contaminated dust generated during earthworks.

Buildings & Services

5.4.7 Concrete used for the construction of buildings can be affected by high levels of sulphate and extreme pH.

5.4.8 The integrity of service pipes can be affected by concentrations of organic contamination.

5.4.9 Buildings can be affected by the build-up of ground gas/vapours.

Controlled Waters

- 5.4.10 There are controlled surface water features within 250 m of the site, including Sudden Brook.
- 5.4.11 The superficial strata (Boulder Clay) are classified by the EA as a 'Secondary A Aquifer'. These strata are relatively impermeable and any water trapped/held within the deposits are not considered to represent a significant sensitive receptor.
- 5.4.12 The underlying bedrock is classified as a Secondary A Aquifer and is unlikely to be impacted due to the presence of laterally continuous Boulder Clay which will inhibit vertical migration of contamination to the underlying bedrock. Notwithstanding, it may be prudent to prove the presence of Boulder Clay below the site.
- 5.4.13 The site is not located within a source protection zone, and there are no groundwater abstractions within 250 m of the site.
- 5.4.14 Given the sites historical use as a field (likely to have resulted in low contaminant levels), risks to groundwater are generally considered to be low.

5.5 Preliminary Conceptual Model

- 5.5.1 The identified potential sources of contaminants, pathways and receptors have been assessed to establish plausible pollutant linkages. All potentially significant pollutant linkages are detailed in Appendix D.

5.6 Potentially Significant Pollutant Linkages

- 5.6.1 A number of possible 'significant pollutant linkages' have been identified associated with the site.
- 5.6.2 There is the possibility that direct contact with contaminated soils could lead to dermal contact/inhalation/ingestion by people on site (**Link 1**).
- 5.6.3 There is the possibility of windblown particulates released during earthworks could be inhaled by people both on site and off site (**Link 2**).
- 5.6.4 Human health could be at risk by the inhalation of ground gas (**Link 3**) or volatile contamination (**Link 4**) migrating into properties on site.
- 5.6.5 Property (including structures and services) could be affected by direct contact to high concentrations of contaminants of concern (**Link 5**) or build-up of organic vapours/ground gas in confined areas (**Link 6**).



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- 5.6.7 Dissolution or suspension (leaching) of contaminants from site soils leading to lateral migration within perched permeable layers within the made ground/natural strata, affecting underground services and piles/foundations (**Link 7**).
- 5.6.8 Dissolution or suspension (leaching) of contaminants from site soils leading to impact on the underlying aquifers (**Link 8**).
- 5.6.9 Site investigation is required to identify site specific conditions and assess the risks associated with each identified plausible pollutant linkage.

6. RECOMMENDATIONS

6.1 Based on the findings of the Preliminary Risk Assessment herein, risks associated with contamination and ground gas have been identified with respect to the proposed redevelopment to residential end use.

6.2 Based on an assessment of the site, risks have been identified to human health and property (including services). Ground investigation will be required to determine shallow ground conditions and quantify the potential risks identified.

6.3 To assess the potential risk associated with contamination at the site, BEK recommends that the following works should be undertaken:

Ground Investigation

6.4 The investigation should comprise the excavation of trial pits across the site to characterise the shallow ground conditions across the site. The investigation should provide widespread information for the ground conditions across the site, to prove the nature and thickness of any made ground present, and characterise the underlying natural strata.

6.5 In-situ strength tests (Shear Vane) could also be carried out during the site investigation works (depending on ground conditions) to provide additional geotechnical information.

6.6 The site investigation should be supervised by an experienced engineer who will be responsible for recording ground conditions encountered.

6.7 The engineer will recover representative samples for laboratory testing. All samples recovered for chemical testing will be stored in appropriate sampling vessels in a precooled cool box and dispatched to the laboratory within 24 hours.

Laboratory Testing

6.8 Following a review of ground conditions encountered, a selection of samples should be tested for the contaminants of concern listed in Table 1 of this report. If visual or olfactory evidence of contamination is encountered during the site investigation then it may be necessary to undertake additional testing.

6.9 In addition, if soils or made ground materials are to be removed from site to facilitate the development works then it may be necessary to test soils/made ground for Waste Acceptance Criteria (WAC) and/or for Waste Duty of Care purposes.

6.10 Samples may also be submitted for geotechnical testing (depending on ground conditions) to support an assessment for foundation design.

- 6.11 All testing will be carried out by a UKAS accredited laboratory to MCERTS standard (where applicable).

Risk Assessment

- 6.12 The investigation findings will be assessed as part of a quantitative risk assessment to amend the conceptual site model and identify any potential significant pollutant linkages.
- 6.13 The assessment will be undertaken in accordance with current UK guidance and policy.

Reporting

- 6.14 The investigation findings should be assessed in accordance with current UK policy and guidance to identify any potential significant pollutant linkages and determine the requirements for mitigation and/or remediation.
- 6.15 The works undertaken will be detailed in a Site Investigation & Ground Assessment report along with full justifications for the assessment and the conclusions/recommendations.

Other Considerations

- 6.16 It is recommended that the site investigation includes a full geotechnical assessment to inform foundation design.
- 6.17 We would also recommend that consideration is given to the requirements of the water supply service provider as site investigation works may be required to facilitate the completion of the UKWIR risk assessment for water pipe selection.

APPENDIX A

Historical OS Maps

Site Details:

LAND AT CROMPTON AVENUE,
ROCHDALE, OL16 4PB

Client Ref: 7480-22081-JE
Report Ref: GS-8788334
Grid Ref: 390681, 411276

Map Name: County Series

Map date: 1890-1891

Scale: 1:2,500

Printed at: 1:2,500



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

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

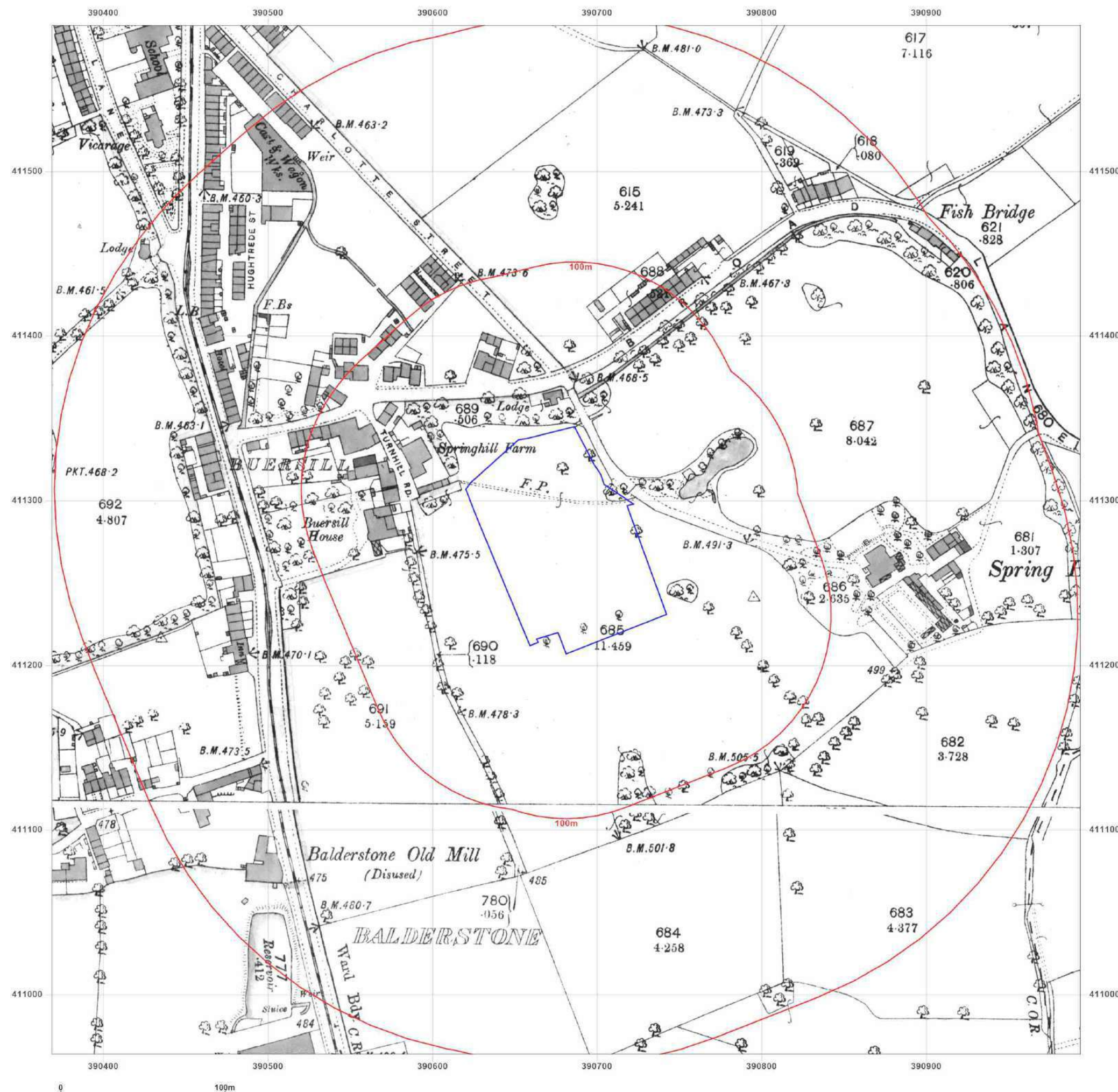


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Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LAND AT CROMPTON AVENUE,
ROCHDALE, OL16 4PB

Client Ref: 7480-22081-JE
Report Ref: GS-8788334
Grid Ref: 390681, 411276

Map Name: County Series

Map date: 1910

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1910
Revised 1910
Edition N/A
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Surveyed 1910
Revised 1910
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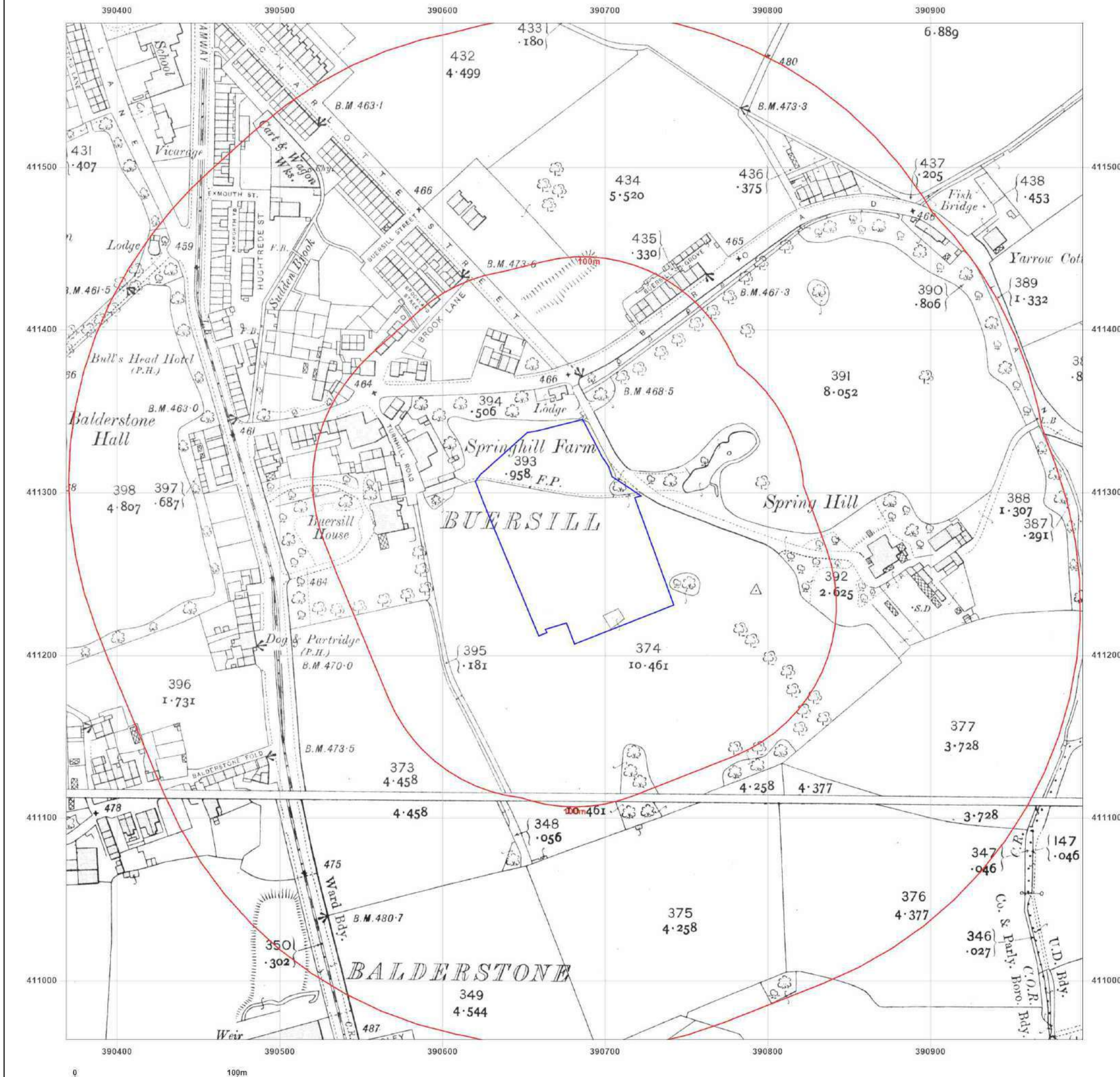


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Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LAND AT CROMPTON AVENUE,
ROCHDALE, OL16 4PB

Client Ref: 7480-22081-JE
Report Ref: GS-8788334
Grid Ref: 390681, 411276

Map Name: County Series

Map date: 1930

Scale: 1:2,500

Printed at: 1:2,500



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Edition N/A
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Revised 1930
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Site Details:

LAND AT CROMPTON AVENUE,
ROCHDALE, OL16 4PB

Client Ref: 7480-22081-JE
Report Ref: GS-8788334
Grid Ref: 390681, 411276

Map Name: National Grid

Map date: 1955

Scale: 1:1,250

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Revised 1955
Edition N/A
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Revised 1955
Edition N/A
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Site Details:

LAND AT CROMPTON AVENUE,
ROCHDALE, OL16 4PB

Client Ref: 7480-22081-JE
Report Ref: GS-8788334
Grid Ref: 390681, 411276

Map Name: National Grid

Map date: 1956

Scale: 1:1,250

Printed at: 1:2,000



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Edition N/A
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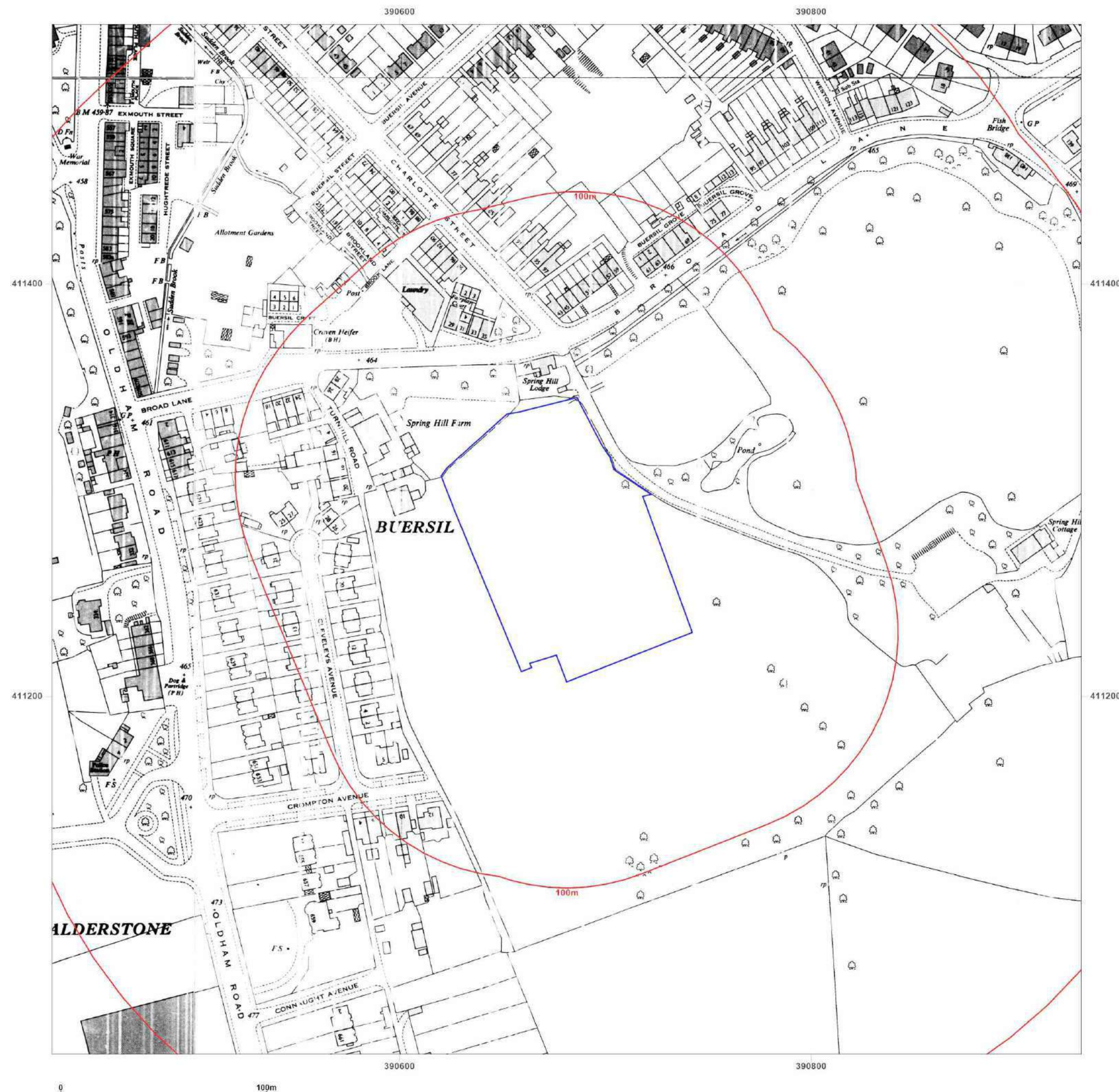


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Site Details:

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ROCHDALE, OL16 4PB

Client Ref: 7480-22081-JE
Report Ref: GS-8788334
Grid Ref: 390681, 411276

Map Name: National Grid

Map date: 1956

Scale: 1:2,500

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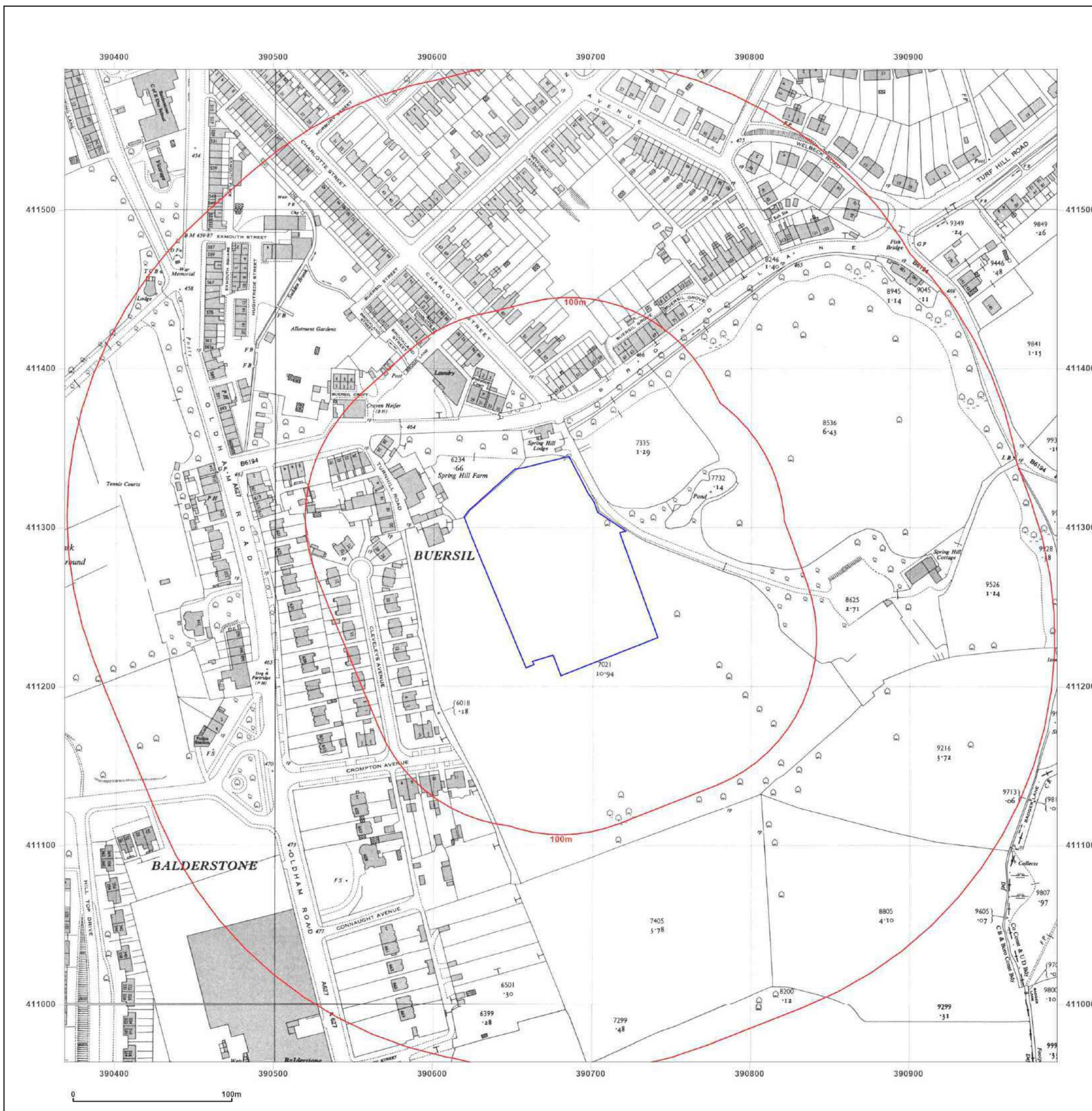


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Site Details:

LAND AT CROMPTON AVENUE,
ROCHDALE, OL16 4PB

Client Ref: 7480-22081-JE
Report Ref: GS-8788334
Grid Ref: 390681, 411276

Map Name: National Grid

Map date: 1971-1974

Scale: 1:1,250

Printed at: 1:2,000



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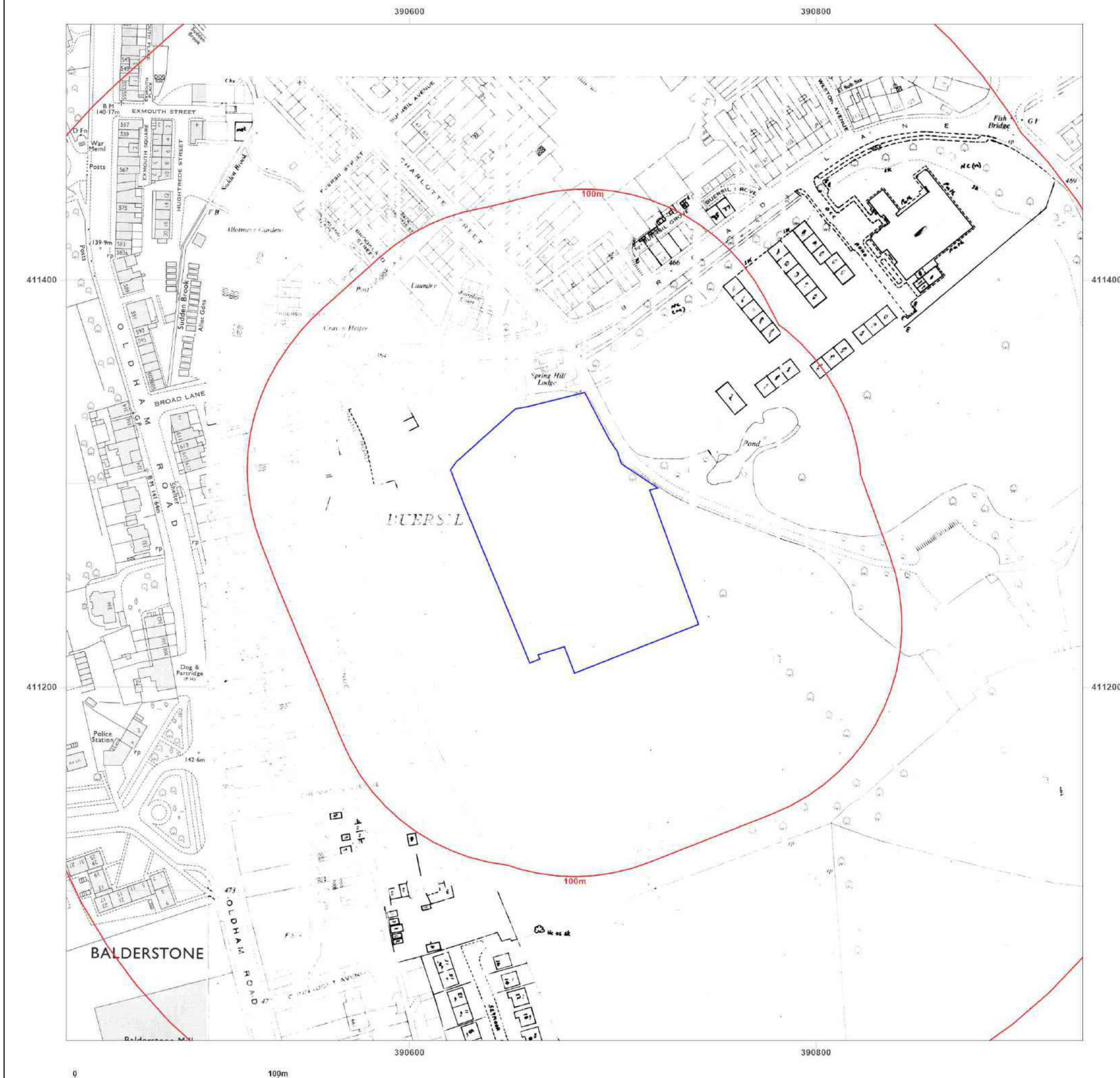


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Site Details:

LAND AT CROMPTON AVENUE,
ROCHDALE, OL16 4PB

Client Ref: 7480-22081-JE
Report Ref: GS-8788334
Grid Ref: 390681, 411276

Map Name: National Grid

Map date: 1976-1980

Scale: 1:1,250

Printed at: 1:2,000



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Site Details:

LAND AT CROMPTON AVENUE,
ROCHDALE, OL16 4PB

Client Ref: 7480-22081-JE
Report Ref: GS-8788334
Grid Ref: 390681, 411276

Map Name: National Grid

Map date: 1988-1992

Scale: 1:1,250

Printed at: 1:2,000



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Revised 1990
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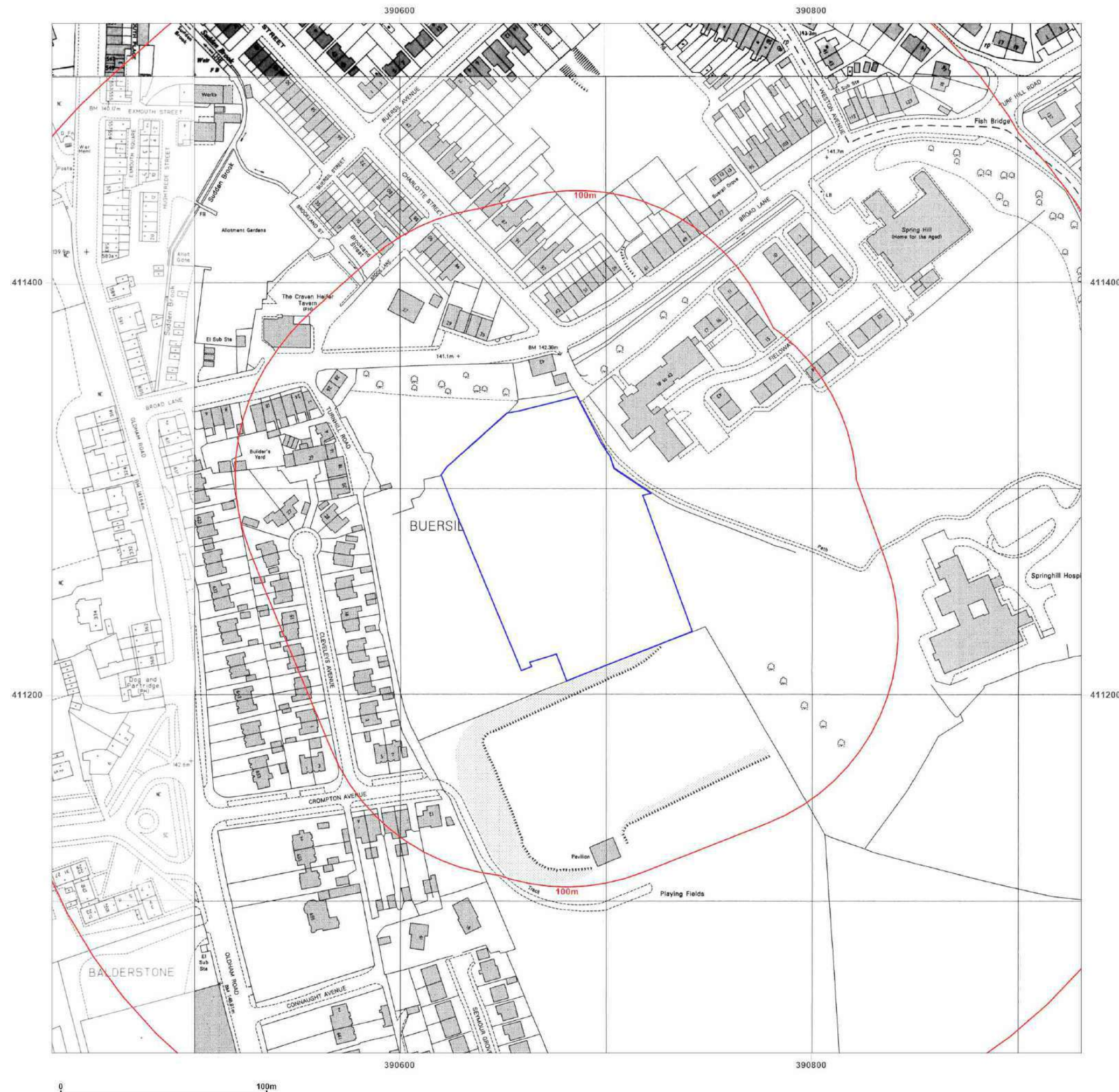


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Site Details:

LAND AT CROMPTON AVENUE,
ROCHDALE, OL16 4PB

Client Ref: 7480-22081-JE
Report Ref: GS-8788334
Grid Ref: 390681, 411276

Map Name: National Grid

Map date: 1992

Scale: 1:1,250

Printed at: 1:2,000



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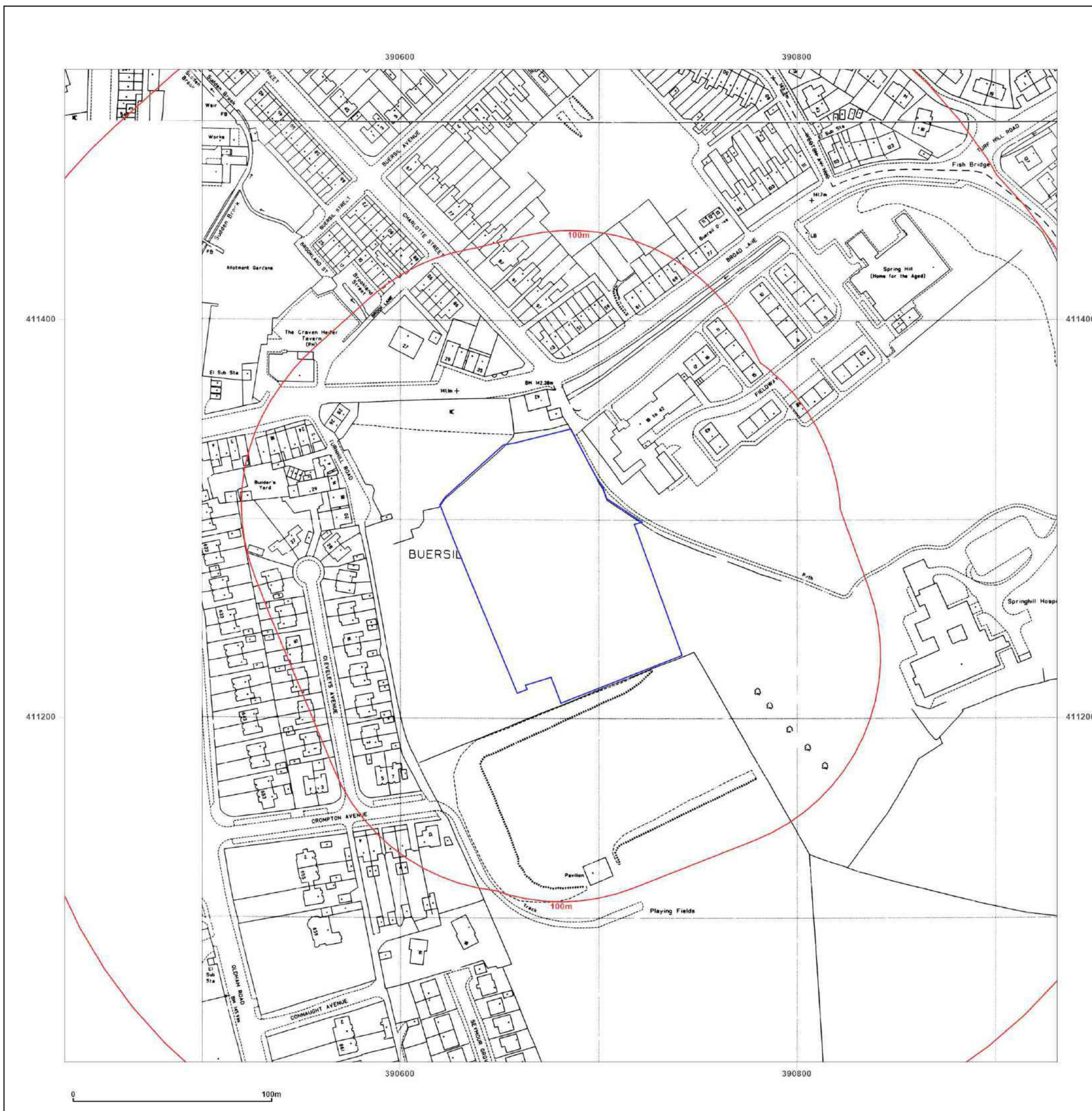


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Site Details:

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ROCHDALE, OL16 4PB

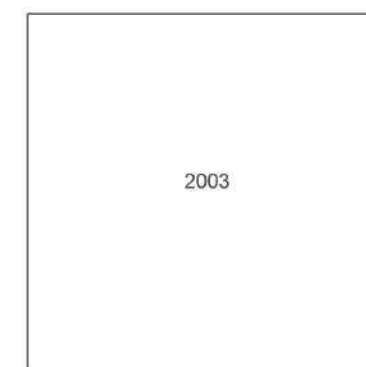
Client Ref: 7480-22081-JE
Report Ref: GS-8788334
Grid Ref: 390681, 411276

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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Production date: 30 May 2022

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APPENDIX B

Enviro+GeoInsight Report

LAND AT CROMPTON AVENUE, ROCHDALE, OL16 4PB

Order Details

Date: 30/05/2022
Your ref: 7480-22081-JE
Our Ref: GS-8788335

Site Details

Location: 390679 411273
Area: 1.02 ha
Authority: [Rochdale Metropolitan Borough Council](#)



Summary of findings

p. 2

Aerial image

p. 8

OS MasterMap site plan

p.13

groundsure.com/insightuserguide

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
14	1.1	<u>Historical industrial land uses</u>	0	0	10	18	-
16	1.2	<u>Historical tanks</u>	0	0	0	8	-
16	1.3	<u>Historical energy features</u>	0	0	7	4	-
17	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	<u>Historical garages</u>	0	0	0	5	-
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
19	2.1	<u>Historical industrial land uses</u>	0	0	14	25	-
21	2.2	<u>Historical tanks</u>	0	0	0	11	-
22	2.3	<u>Historical energy features</u>	0	0	8	9	-
23	2.4	Historical petrol stations	0	0	0	0	-
23	2.5	<u>Historical garages</u>	0	0	0	8	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
24	3.1	Active or recent landfill	0	0	0	0	-
24	3.2	Historical landfill (BGS records)	0	0	0	0	-
25	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
25	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
25	3.5	Historical waste sites	0	0	0	0	-
25	3.6	Licensed waste sites	0	0	0	0	-
25	3.7	<u>Waste exemptions</u>	0	0	0	2	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
27	4.1	<u>Recent industrial land uses</u>	0	0	8	-	-
28	4.2	Current or recent petrol stations	0	0	0	0	-
28	4.3	Electricity cables	0	0	0	0	-
28	4.4	Gas pipelines	0	0	0	0	-
29	4.5	Sites determined as Contaminated Land	0	0	0	0	-



29	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
29	4.7	Regulated explosive sites	0	0	0	0	-
29	4.8	Hazardous substance storage/usage	0	0	0	0	-
29	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
30	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
30	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
30	4.12	Radioactive Substance Authorisations	0	0	0	0	-
30	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	0	5	-
31	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
31	4.15	Pollutant release to public sewer	0	0	0	0	-
32	4.16	List 1 Dangerous Substances	0	0	0	0	-
32	4.17	List 2 Dangerous Substances	0	0	0	0	-
32	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
32	4.19	Pollution inventory substances	0	0	0	0	-
32	4.20	Pollution inventory waste transfers	0	0	0	0	-
33	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
34	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
35	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
36	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
37	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
37	5.5	Groundwater vulnerability- local information	None (within 0m)				
38	5.6	<u>Groundwater abstractions</u>	0	0	0	0	9
41	5.7	<u>Surface water abstractions</u>	0	0	0	0	7
43	5.8	Potable abstractions	0	0	0	0	0
43	5.9	Source Protection Zones	0	0	0	0	-
43	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
44	6.1	<u>Water Network (OS MasterMap)</u>	0	2	7	-	-



45	6.2	<u>Surface water features</u>	0	0	1	-	-
46	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
46	6.4	<u>WFD Surface water bodies</u>	0	0	1	-	-
46	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
48	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
49	7.2	<u>Historical Flood Events</u>	0	0	1	-	-
49	7.3	Flood Defences	0	0	0	-	-
49	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
49	7.5	Flood Storage Areas	0	0	0	-	-
50	7.6	Flood Zone 2	None (within 50m)				
50	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
51	8.1	<u>Surface water flooding</u>	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding					
53	9.1	<u>Groundwater flooding</u>	Low (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
54	10.1	<u>Sites of Special Scientific Interest (SSSI)</u>	0	0	0	0	4
55	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
55	10.3	<u>Special Areas of Conservation (SAC)</u>	0	0	0	0	4
56	10.4	Special Protection Areas (SPA)	0	0	0	0	0
56	10.5	National Nature Reserves (NNR)	0	0	0	0	0
56	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
56	10.7	Designated Ancient Woodland	0	0	0	0	0
57	10.8	Biosphere Reserves	0	0	0	0	0
57	10.9	Forest Parks	0	0	0	0	0
57	10.10	Marine Conservation Zones	0	0	0	0	0
57	10.11	<u>Green Belt</u>	0	0	0	0	3
58	10.12	Proposed Ramsar sites	0	0	0	0	0



58	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
58	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
58	10.15	Nitrate Sensitive Areas	0	0	0	0	0
59	10.16	<u>Nitrate Vulnerable Zones</u>	0	0	0	0	1
60	10.17	<u>SSSI Impact Risk Zones</u>	2	-	-	-	-
62	10.18	<u>SSSI Units</u>	0	0	0	0	4
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
64	11.1	World Heritage Sites	0	0	0	-	-
65	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
65	11.3	National Parks	0	0	0	-	-
65	11.4	<u>Listed Buildings</u>	0	3	4	-	-
66	11.5	Conservation Areas	0	0	0	-	-
66	11.6	Scheduled Ancient Monuments	0	0	0	-	-
66	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
67	12.1	<u>Agricultural Land Classification</u>	Grade 4 (within 250m)				
68	12.2	Open Access Land	0	0	0	-	-
68	12.3	Tree Felling Licences	0	0	0	-	-
68	12.4	Environmental Stewardship Schemes	0	0	0	-	-
69	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
70	13.1	Priority Habitat Inventory	0	0	0	-	-
70	13.2	Habitat Networks	0	0	0	-	-
70	13.3	Open Mosaic Habitat	0	0	0	-	-
70	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
71	14.1	<u>10k Availability</u>	Identified (within 500m)				
72	14.2	<u>Artificial and made ground (10k)</u>	1	0	0	3	-
74	14.3	<u>Superficial geology (10k)</u>	1	0	0	1	-



75	14.4	Landslip (10k)	0	0	0	0	-
76	14.5	<u>Bedrock geology (10k)</u>	3	1	2	1	-
77	14.6	<u>Bedrock faults and other linear features (10k)</u>	1	0	1	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
78	15.1	<u>50k Availability</u>	Identified (within 500m)				
79	15.2	<u>Artificial and made ground (50k)</u>	0	0	0	1	-
80	15.3	Artificial ground permeability (50k)	0	0	-	-	-
81	15.4	<u>Superficial geology (50k)</u>	1	0	0	1	-
82	15.5	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
82	15.6	Landslip (50k)	0	0	0	0	-
82	15.7	Landslip permeability (50k)	None (within 50m)				
83	15.8	<u>Bedrock geology (50k)</u>	3	1	2	1	-
84	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
84	15.10	<u>Bedrock faults and other linear features (50k)</u>	1	0	1	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
85	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence					
86	17.1	<u>Shrink swell clays</u>	Low (within 50m)				
87	17.2	<u>Running sands</u>	Very low (within 50m)				
88	17.3	<u>Compressible deposits</u>	Negligible (within 50m)				
89	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
90	17.5	<u>Landslides</u>	Very low (within 50m)				
91	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
92	18.1	Natural cavities	0	0	0	0	-
93	18.2	<u>BritPits</u>	0	0	0	1	-
93	18.3	<u>Surface ground workings</u>	0	5	4	-	-
94	18.4	Underground workings	0	0	0	0	0
94	18.5	Historical Mineral Planning Areas	0	0	0	0	-



94	18.6	Non-coal mining	0	0	0	0	0
94	18.7	Mining cavities	0	0	0	0	0
94	18.8	JPB mining areas	None (within 0m)				
95	18.9	<u>Coal mining</u>	Identified (within 0m)				
95	18.10	Brine areas	None (within 0m)				
95	18.11	Gypsum areas	None (within 0m)				
95	18.12	Tin mining	None (within 0m)				
95	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
96	19.1	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
97	20.1	<u>BGS Estimated Background Soil Chemistry</u>	1	1	-	-	-
97	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
97	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
98	21.1	Underground railways (London)	0	0	0	-	-
98	21.2	Underground railways (Non-London)	0	0	0	-	-
98	21.3	Railway tunnels	0	0	0	-	-
98	21.4	Historical railway and tunnel features	0	0	0	-	-
98	21.5	Royal Mail tunnels	0	0	0	-	-
99	21.6	Historical railways	0	0	0	-	-
99	21.7	Railways	0	0	0	-	-
99	21.8	Crossrail 1	0	0	0	0	-
99	21.9	Crossrail 2	0	0	0	0	-
99	21.10	HS2	0	0	0	0	-



Recent aerial photograph



Capture Date: 23/05/2019

Site Area: 1.02ha



Recent site history - 2018 aerial photograph



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Capture Date: 01/07/2018

Site Area: 1.02ha



Recent site history - 2012 aerial photograph



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Capture Date: 26/03/2012

Site Area: 1.02ha



Recent site history - 2011 aerial photograph



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Capture Date: 02/05/2011

Site Area: 1.02ha



Recent site history - 2000 aerial photograph



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Capture Date: 19/06/2000

Site Area: 1.02ha



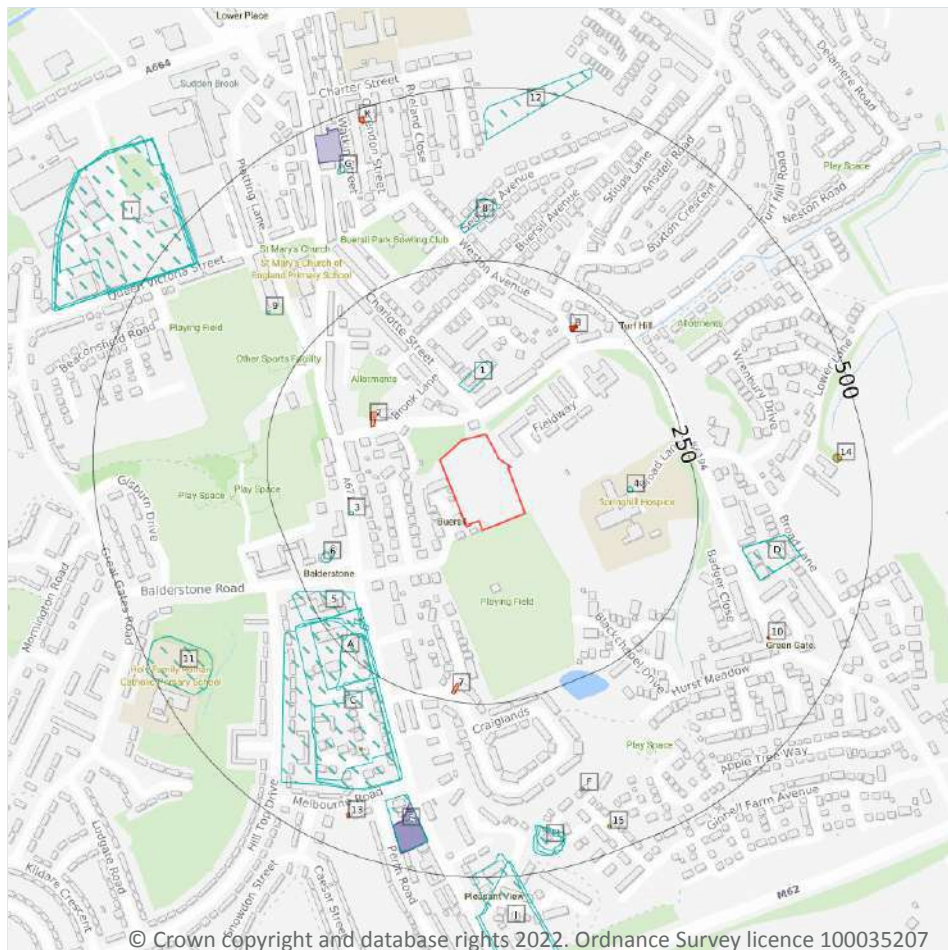
OS MasterMap site plan



Site Area: 1.02ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

28

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 14**

ID	Location	Land use	Dates present	Group ID
1	65m N	Unspecified Pit	1908	690645



ID	Location	Land use	Dates present	Group ID
3	144m W	Pump	1851	675612
4	152m E	Pump	1851	675615
5	188m SW	Unspecified Mill	1891	774845
A	192m SW	Unspecified Mill	1976	776073
6	192m W	Police Station	1967 - 1976	698811
C	195m SW	Unspecified Mill	1954 - 1967	785205
A	201m SW	Woollen Mill	1851	671046
A	215m SW	Unspecified Heap	1907	650739
C	217m SW	Unspecified Mill	1907 - 1938	780781
C	265m SW	Unspecified Mill	1891	783161
8	292m N	Unspecified Pit	1928	690646
D	318m E	Unspecified Commercial/Industrial	1928	643276
D	318m E	Unspecified Works	1891 - 1908	696050
9	324m NW	Pump	1851	675611
E	395m S	Garage	1967	693863
11	414m SW	Unspecified Heap	1976	650742
G	422m NW	Gravel Pit	1851	652944
12	424m N	Unspecified Heap	1967 - 1976	702312
H	431m S	Unspecified Heap	1967	650740
H	433m S	Refuse Heap	1928 - 1938	704625
H	435m S	Refuse Heap	1954	723934
I	449m NW	Unspecified Mill	1891	714925
I	452m NW	Unspecified Mill	1954	706278
I	452m NW	Unspecified Mill	1908 - 1938	772878
I	454m NW	Unspecified Mill	1967 - 1976	739827
J	466m S	Unspecified Mill	1954 - 1967	784324
J	479m S	Unspecified Mill	1891	729389

This data is sourced from Ordnance Survey / Groundsure.



1.2 Historical tanks

Records within 500m

8

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 14**

ID	Location	Land use	Dates present	Group ID
C	352m SW	Unspecified Tank	1890	84295
F	398m S	Unspecified Tank	1955	97793
F	398m S	Unspecified Tank	1966	98197
F	398m S	Unspecified Tank	1977	92917
F	398m S	Unspecified Tank	1966	95816
F	398m S	Unspecified Tank	1955	96073
14	451m E	Unspecified Tank	1993 - 1999	101451
15	461m S	Unspecified Tank	1996	84293

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

11

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 14**

ID	Location	Land use	Dates present	Group ID
2	107m NW	Electricity Substation	1990	45535
B	193m NE	Electricity Substation	1980	58232
B	195m NE	Electricity Substation	1955	49408



ID	Location	Land use	Dates present	Group ID
B	199m NE	Electricity Substation	1955	50161
B	199m NE	Electricity Substation	1990	55156
A	202m SW	Electricity Substation	1990	45534
7	222m S	Electricity Substation	1996	45533
10	392m SE	Electricity Substation	1993 - 1999	55686
13	446m S	Electricity Substation	1978 - 1988	51968
K	479m N	Electricity Substation	1988	49848
K	479m N	Electricity Substation	1993 - 1994	52495

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

5

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 14**

ID	Location	Land use	Dates present	Group ID
E	404m S	Garage	1996	15288
E	415m S	Garage	1955 - 1966	19472
E	415m S	Garage	1977	15649



ID	Location	Land use	Dates present	Group ID
E	424m S	Garage	1955 - 1966	19744
G	438m NW	Garage	1973 - 1985	18337

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

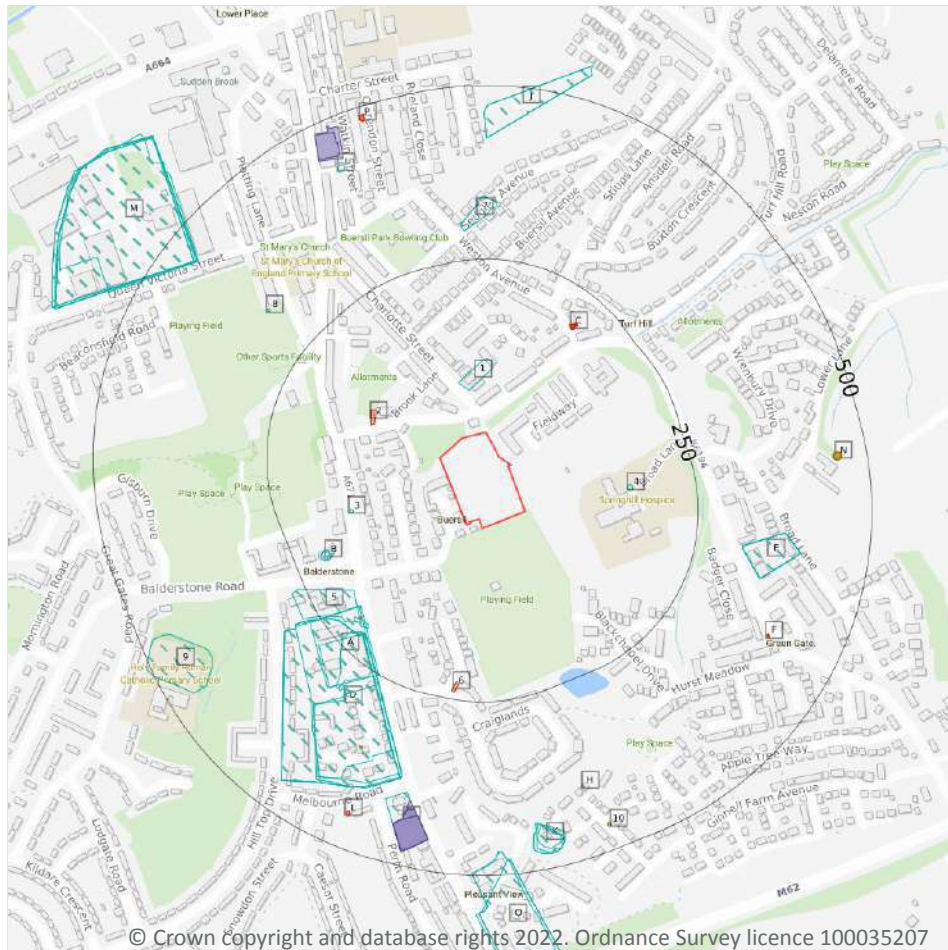
0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.



2 Past land use - un-grouped



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

2.1 Historical industrial land uses

Records within 500m

39

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
1	65m N	Unspecified Pit	1908	690645
3	144m W	Pump	1851	675612
4	152m E	Pump	1851	675615



ID	Location	Land Use	Date	Group ID
5	188m SW	Unspecified Mill	1891	774845
A	192m SW	Unspecified Mill	1976	776073
B	192m W	Police Station	1976	698811
D	195m SW	Unspecified Mill	1967	785205
B	199m W	Police Station	1967	698811
A	201m SW	Woollen Mill	1851	671046
D	214m SW	Unspecified Mill	1954	785205
A	215m SW	Unspecified Heap	1907	650739
D	217m SW	Unspecified Mill	1938	780781
D	217m SW	Unspecified Mill	1928	780781
D	217m SW	Unspecified Mill	1907	780781
D	265m SW	Unspecified Mill	1891	783161
7	292m N	Unspecified Pit	1928	690646
E	318m E	Unspecified Commercial/Industrial	1928	643276
E	318m E	Unspecified Works	1908	696050
E	318m E	Unspecified Works	1891	696050
8	324m NW	Pump	1851	675611
G	395m S	Garage	1967	693863
9	414m SW	Unspecified Heap	1976	650742
I	422m NW	Gravel Pit	1851	652944
J	424m N	Unspecified Heap	1976	702312
J	424m N	Unspecified Heap	1967	702312
K	431m S	Unspecified Heap	1967	650740
K	433m S	Refuse Heap	1938	704625
K	433m S	Refuse Heap	1928	704625
K	435m S	Refuse Heap	1954	723934
M	449m NW	Unspecified Mill	1891	714925
M	452m NW	Unspecified Mill	1954	706278



ID	Location	Land Use	Date	Group ID
M	452m NW	Unspecified Mill	1938	772878
M	452m NW	Unspecified Mill	1928	772878
M	452m NW	Unspecified Mill	1908	772878
M	454m NW	Unspecified Mill	1976	739827
M	454m NW	Unspecified Mill	1967	739827
O	466m S	Unspecified Mill	1967	784324
O	466m S	Unspecified Mill	1954	784324
O	479m S	Unspecified Mill	1891	729389

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

11

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
D	352m SW	Unspecified Tank	1890	84295
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H	398m S	Unspecified Tank	1966	98197
H	398m S	Unspecified Tank	1977	92917
H	398m S	Unspecified Tank	1955	96073
H	398m S	Unspecified Tank	1966	95816
N	451m E	Unspecified Tank	1994	101451
N	451m E	Unspecified Tank	1993	101451
N	451m E	Unspecified Tank	1999	101451
N	451m E	Unspecified Tank	1994	101451
10	461m S	Unspecified Tank	1996	84293

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

17

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
2	107m NW	Electricity Substation	1990	45535
C	193m NE	Electricity Substation	1980	58232
C	195m NE	Electricity Substation	1955	49408
C	199m NE	Electricity Substation	1990	55156
C	199m NE	Electricity Substation	1955	50161
C	200m NE	Electricity Substation	1955	50161
A	202m SW	Electricity Substation	1990	45534
6	222m S	Electricity Substation	1996	45533
F	392m SE	Electricity Substation	1994	55686
F	392m SE	Electricity Substation	1993	55686
F	392m SE	Electricity Substation	1999	55686
F	392m SE	Electricity Substation	1994	55686
L	446m S	Electricity Substation	1978	51968
L	446m S	Electricity Substation	1988	51968
P	479m N	Electricity Substation	1988	49848
P	479m N	Electricity Substation	1994	52495
P	479m N	Electricity Substation	1993	52495

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**8**

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'.

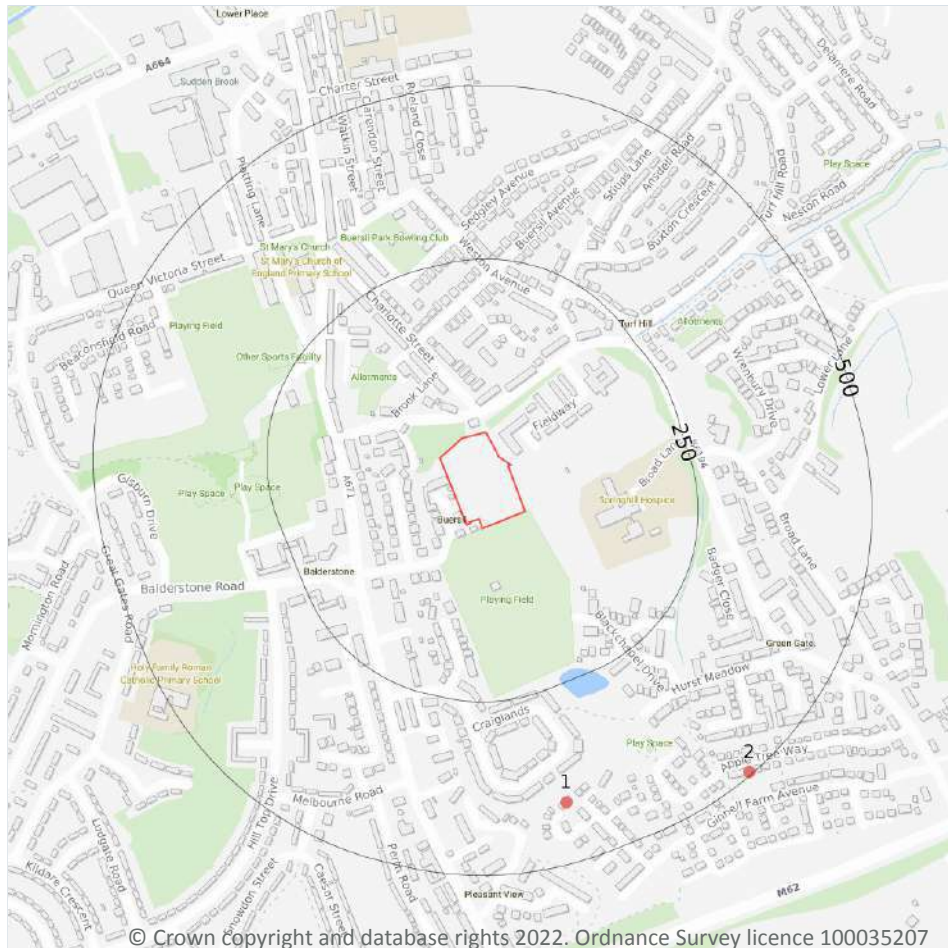
Features are displayed on the Past land use - un-grouped map on **page 19**

ID	Location	Land Use	Date	Group ID
G	404m S	Garage	1996	15288
G	415m S	Garage	1955	19472
G	415m S	Garage	1966	19472
G	415m S	Garage	1977	15649
G	424m S	Garage	1955	19744
G	424m S	Garage	1966	19744
I	438m NW	Garage	1985	18337
I	443m NW	Garage	1973	18337

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- 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**0**

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

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

3.5 Historical waste sites

Records within 500m**0**

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

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

3.6 Licensed waste sites

Records within 500m**0**

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**2**

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 24**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	412m S	DEAN FARM, BADGER LANE, ROCHDALE, OL16 4RQ	WEX134175	Using waste exemption	Not on a farm	Use of waste in construction

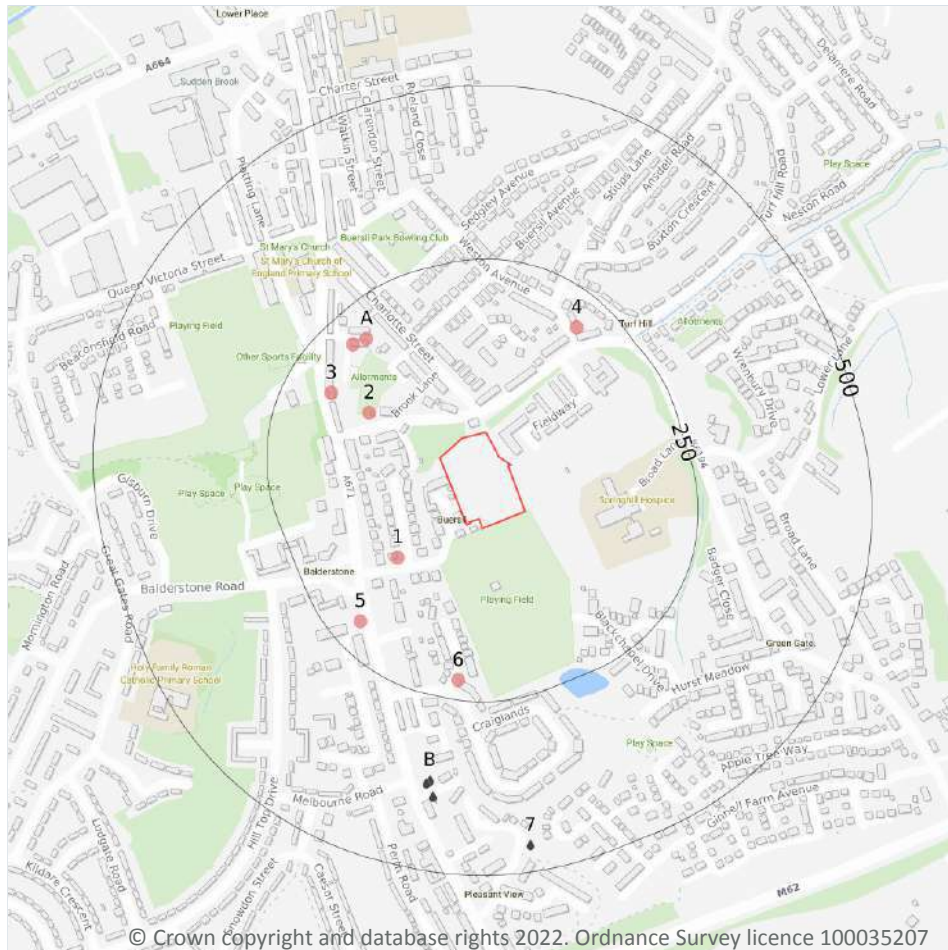


ID	Location	Site	Reference	Category	Sub-Category	Description
2	496m SE	-	WEX279220	Using waste exemption	Not on a farm	Use of waste in construction

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
- Licensed Discharges to controlled waters

4.1 Recent industrial land uses

Records within 250m

8

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 27**

ID	Location	Company	Address	Activity	Category
1	110m SW	Diamond Packaging	3, Crompton Avenue, Rochdale, Greater Manchester, OL16 4PB	Packaging	Industrial Products
2	121m NW	Electricity Sub Station	Greater Manchester, OL16	Electrical Features	Infrastructure and Facilities
3	183m NW	Air Quality Control	585, Oldham Road, Rochdale, Greater Manchester, OL16 4SU	Construction Completion Services	Construction Services



ID	Location	Company	Address	Activity	Category
A	199m NW	Manchester Recovery Service	1, Exmouth Street, Rochdale, Greater Manchester, OL16 4SX	Vehicle Breakdown and Recovery Services	Personal, Consumer and Other Services
4	200m NE	Electricity Sub Station	Greater Manchester, OL16	Electrical Features	Infrastructure and Facilities
A	205m NW	Ainsworth Exhausts	4, Exmouth Street, Rochdale, Greater Manchester, OL16 4SX	Vehicle Repair, Testing and Servicing	Repair and Servicing
5	207m SW	Electricity Sub Station	Greater Manchester, OL11	Electrical Features	Infrastructure and Facilities
6	221m S	Electricity Sub Station	Greater Manchester, OL16	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.



4.5 Sites determined as Contaminated Land

Records within 500m**0**

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m**0**

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m**0**

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m**0**

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m**0**

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

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



4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

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

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

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

Records within 500m

0

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

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m

0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m

5

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 27**

ID	Location	Address	Details	
B	370m S	OLDHAM ROAD CSO 35027, 705 OLDHAM ROAD, ROCHDALE, GREATER MANCHESTER, OL16 4RH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0093 Permit Version: 4 Receiving Water: CLVRT SEC OF SUDDEN BROOK	Status: VARIED UNDER EPR 2010 Issue date: 29/05/2018 Effective Date: 29/05/2018 Revocation Date: -

ID	Location	Address	Details	
B	375m S	OLDHAM ROAD CSO 35027, 705 OLDHAM ROAD, ROCHDALE, GREATER MANCHESTER, OL16 4RH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0093 Permit Version: 3 Receiving Water: CULVERTED SECTION OF SUDDEN BR	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 23/06/2004 Effective Date: 23/06/2004 Revocation Date: 28/05/2018
B	393m S	OLDHAM ROAD CSO 35027, 705 OLDHAM ROAD, ROCHDALE, GREATER MANCHESTER, OL16 4RH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0093 Permit Version: 1 Receiving Water: -	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/04/1991 Revocation Date: 31/12/1994
B	393m S	OLDHAM ROAD CSO 35027, 705 OLDHAM ROAD, ROCHDALE, GREATER MANCHESTER, OL16 4RH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0093 Permit Version: 2 Receiving Water: SUDDEN BROOK	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 01/01/1995 Revocation Date: 22/06/2004
7	461m S	OLDHAM ROAD PS, OFF OLDHAM RD, ROCHDALE, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: 016993132 Permit Version: 1 Receiving Water: SUDDEN BROOK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 17/07/1996 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**0**

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

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

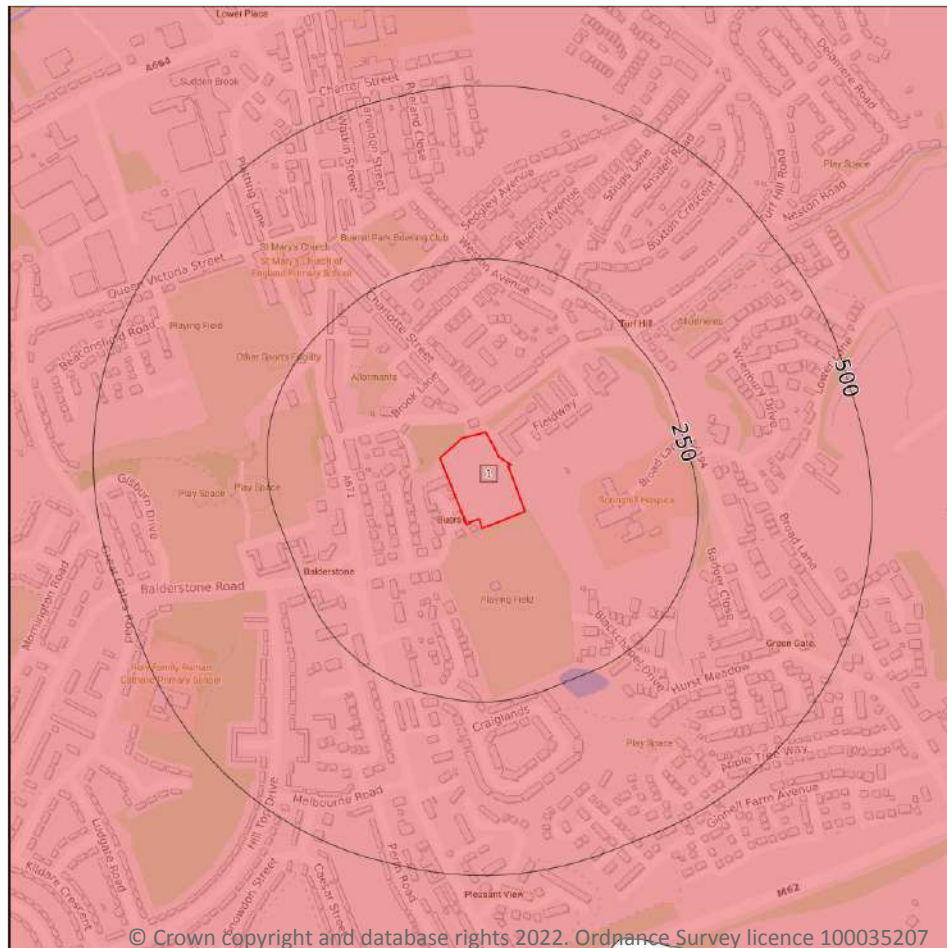
0

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

1

Aquifer status of groundwater held within superficial geology.

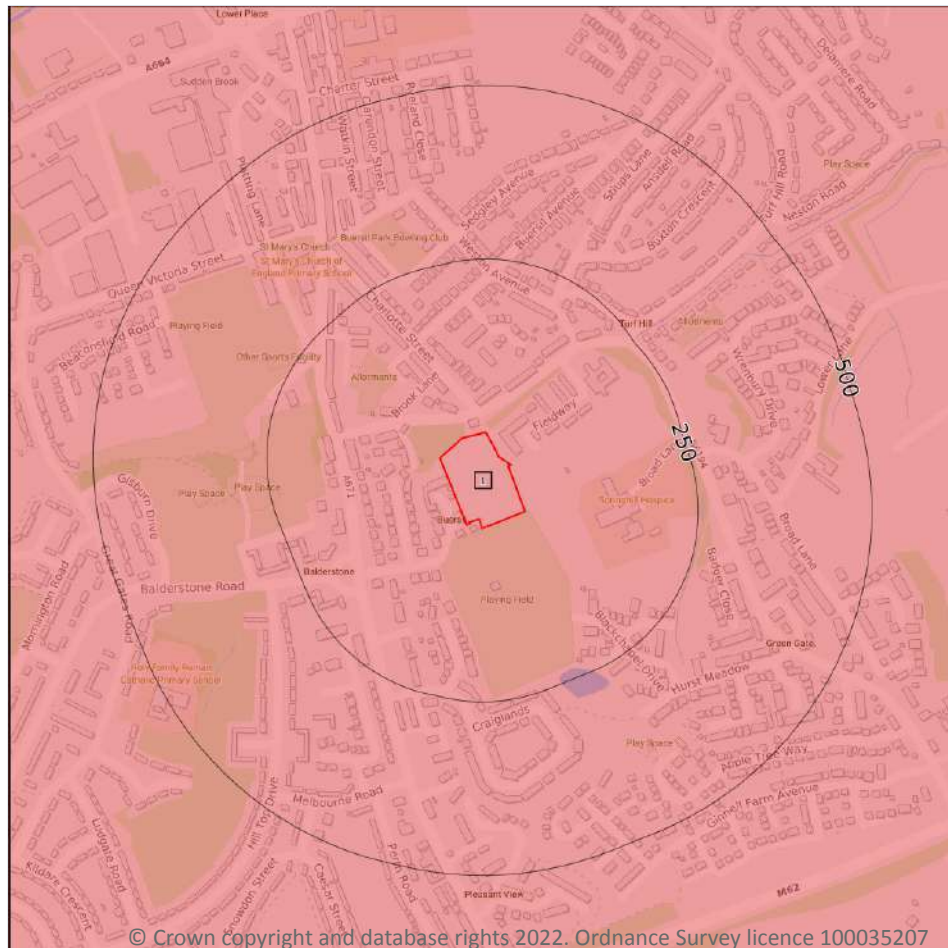
Features are displayed on the Hydrogeology map on **page 34**

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

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



Bedrock aquifer



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

5.2 Bedrock aquifer

Records within 500m

1

Aquifer status of groundwater held within bedrock geology.

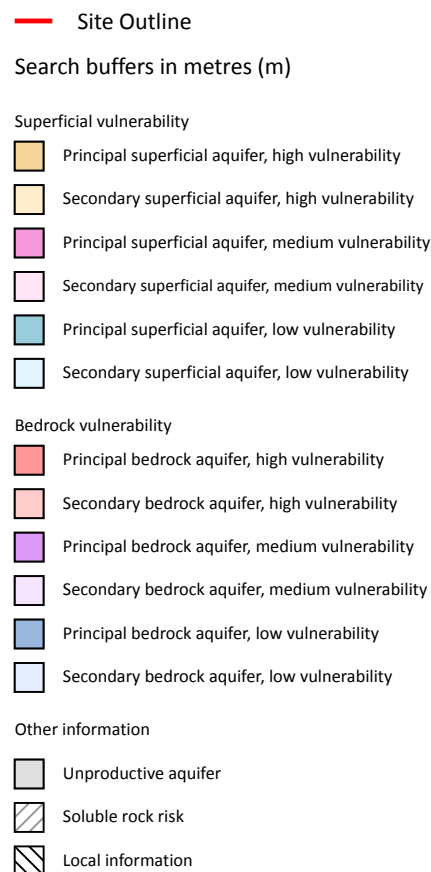
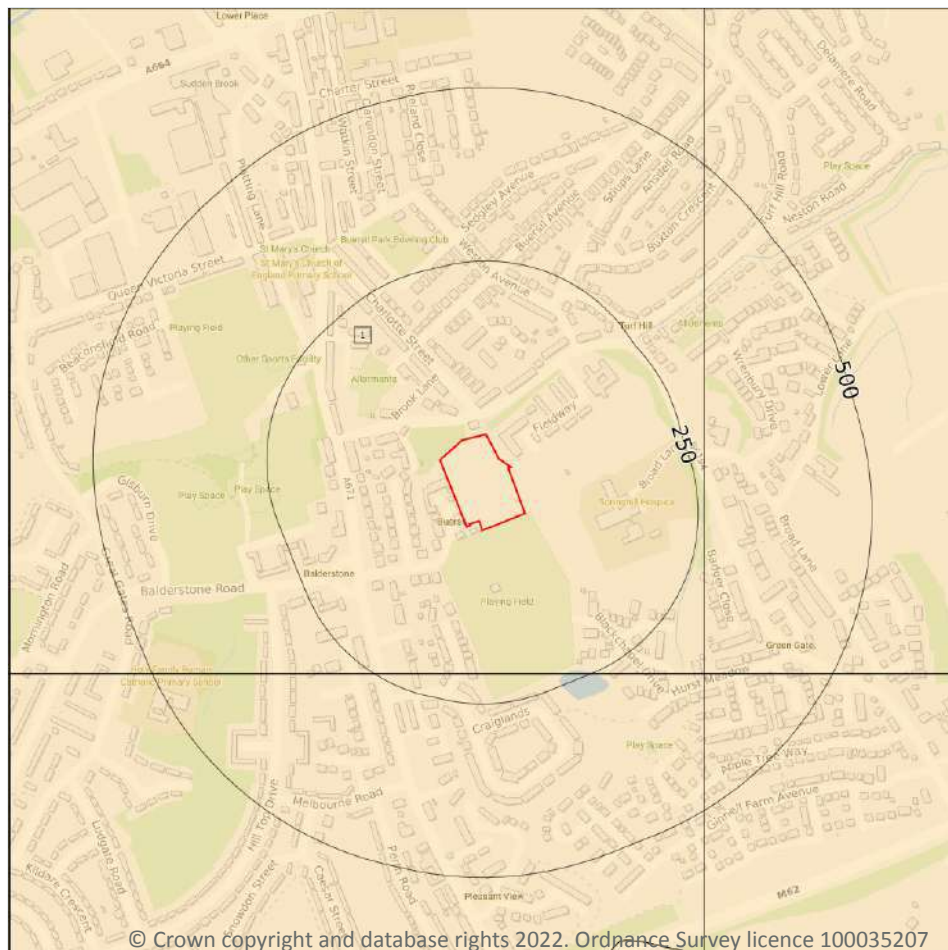
Features are displayed on the Bedrock aquifer map on **page 35**

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

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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

1

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

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

Features are displayed on the Groundwater vulnerability map on **page 36**

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

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

5.4 Groundwater vulnerability- soluble rock risk

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

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

9

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 38**

ID	Location	Details	
-	707m E	Status: Historical Licence No: 2569002060 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "WELL AT CASTLE FARM, LOWER LANE, MILNROW" Data Type: Point Name: SANDERSON Easting: 391400 Northing: 411500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 11/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/02/1966 Version End Date: -
-	707m E	Status: Historical Licence No: 2569002060 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: WELL AT CASTLE FARM, LOWER LANE, MILNROW Data Type: Point Name: SANDERSON Easting: 391400 Northing: 411500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 11/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/02/1966 Version End Date: -
-	742m NE	Status: Historical Licence No: 2569002159 Details: General Farming & Domestic Direct Source: Ground Water - North West Region Point: "WELL AT FARM, LOWER LANE, MILNROW, ROCHDALE" Data Type: Point Name: HARTLE Easting: 391400 Northing: 411600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/02/1966 Version End Date: -
-	742m NE	Status: Historical Licence No: 2569002159 Details: General Farming & Domestic Direct Source: Ground Water - North West Region Point: WELL AT FARM, LOWER LANE, MILNROW, ROCHDALE Data Type: Point Name: HARTLE Easting: 391400 Northing: 411600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/02/1966 Version End Date: -



ID	Location	Details	
-	742m NE	Status: Historical Licence No: 2569002159 Details: General Farming & Domestic Direct Source: Ground Water - North West Region Point: WELL AT FARM LOWER LANE MILNROW ROCHDALE Data Type: Point Name: HARTLE Easting: 391400 Northing: 411600	Annual Volume (m ³): 5123.34 Max Daily Volume (m ³): 31.822 Original Application No: - Original Start Date: 01/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -
-	1066m E	Status: Historical Licence No: 2569002086 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "WELL AT BROADSHAW FARM, MILNROW, ROCHDALE" Data Type: Point Name: CROSTON Easting: 391800 Northing: 411100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 02/02/1966 Version End Date: -
-	1066m E	Status: Historical Licence No: 2569002086 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: WELL AT BROADSHAW FARM, MILNROW, ROCHDALE Data Type: Point Name: CROSTON Easting: 391800 Northing: 411100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 02/02/1966 Version End Date: -
-	1588m SE	Status: Historical Licence No: 2569002204 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, OLD BARN FARM, BURNEDGE, ROCHDALE" Data Type: Point Name: CRYER Easting: 392200 Northing: 410600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 24/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 24/04/1969 Version End Date: -



ID	Location	Details	
-	1588m SE	Status: Historical Licence No: 2569002204 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, OLD BARN FARM, BURNEDGE, ROCHDALE Data Type: Point Name: CRYER Easting: 392200 Northing: 410600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 24/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 24/04/1969 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m

7

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 38**

ID	Location	Details	
A	646m NW	Status: Historical Licence No: 2569002178 Details: Boiler Feed Direct Source: "Surface, Non-Tidal - North West Region" Point: "CATCHPIT FED BY SURFACE DRAINAGE AT PREMISES, ROCHDALE" Data Type: Point Name: DUNPHY COMBUSTION LTD. Easting: 390200 Northing: 411800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 12/02/1991 Version End Date: -
A	646m NW	Status: Active Licence No: 2569002178 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: CATCHPIT FED BY SURFACE DRAINAGE AT PREMISES, ROCHDALE Data Type: Point Name: DUNPHY COMBUSTION LTD Easting: 390200 Northing: 411800	Annual Volume (m ³): 2,318.46 Max Daily Volume (m ³): 34.09 Original Application No: CW 1093 Original Start Date: 18/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 12/02/1991 Version End Date: -



ID	Location	Details	
-	852m NW	Status: Historical Licence No: 2569002107 Details: Boiler Feed Direct Source: "Surface, Non-Tidal - North West Region" Point: "ROCHDALE CANAL AT QUEENSWAY,ROCHDALE" Data Type: Point Name: SEALOCRETE PLA LTD Easting: 390070 Northing: 411960	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/12/1993 Version End Date: -
-	852m NW	Status: Historical Licence No: 2569002107 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "ROCHDALE CANAL AT QUEENSWAY,ROCHDALE" Data Type: Point Name: SEALOCRETE PLA LTD Easting: 390070 Northing: 411960	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/12/1993 Version End Date: -
-	852m NW	Status: Historical Licence No: 2569002107 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: ROCHDALE CANAL AT QUEENSWAY,ROCHDALE Data Type: Point Name: SEALOCRETE PLA LTD Easting: 390070 Northing: 411960	Annual Volume (m ³): 10455.8 Max Daily Volume (m ³): 45.46 Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	852m NW	Status: Historical Licence No: 2569002107 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: ROCHDALE CANAL AT QUEENSWAY,ROCHDALE Data Type: Point Name: SEALOCRETE PLA LTD Easting: 390070 Northing: 411960	Annual Volume (m ³): 10455.8 Max Daily Volume (m ³): 45.46 Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -



ID	Location	Details	
-	1025m N	Status: Historical Licence No: 2569002076 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: ROCHDALE CANAL AT ROCHDALE, LANCS Data Type: Point Name: J & J MAKIN CONVERTORS LTD Easting: 390300 Northing: 412300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m	0
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Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

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

5.9 Source Protection Zones

Records within 500m	0
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Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

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

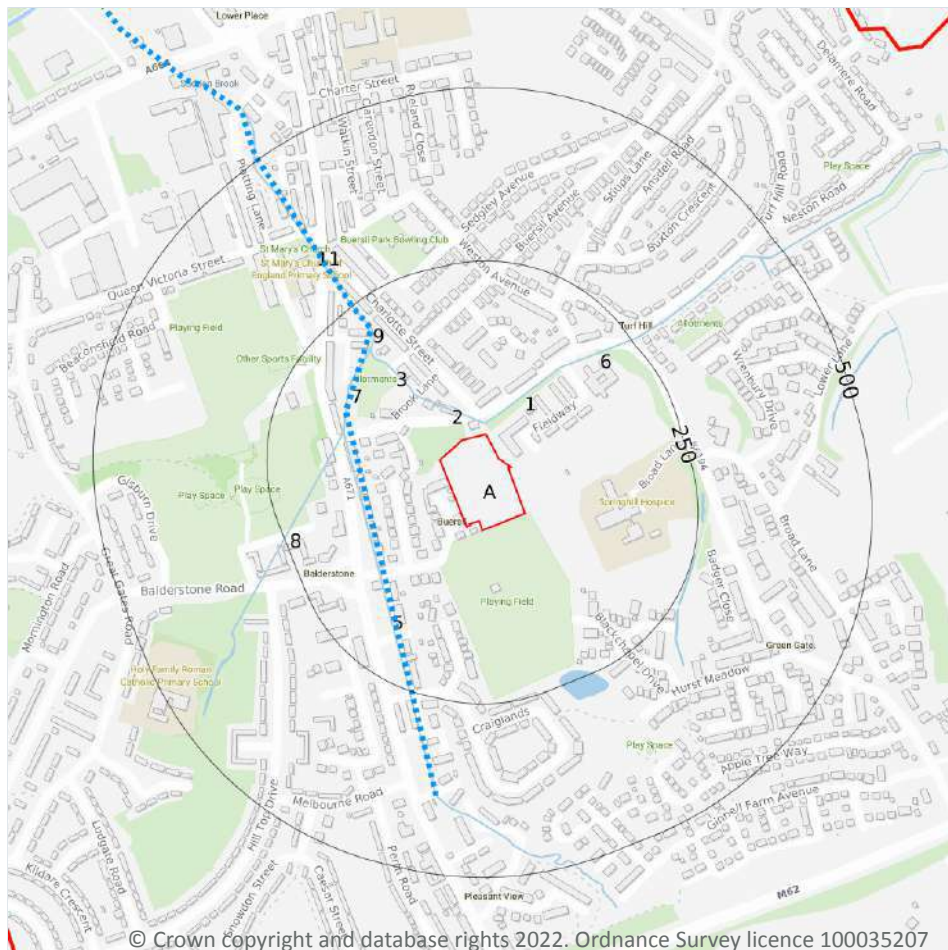
5.10 Source Protection Zones (confined aquifer)

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

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

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

6 Hydrology



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

6.1 Water Network (OS MasterMap)

Records within 250m

9

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

Features are displayed on the Hydrology map on **page 44**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	16m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
2	16m N	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
3	93m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
5	124m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Sudden Brook
6	143m NE	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
7	144m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Sudden Brook
8	144m W	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
9	185m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Sudden Brook
11	243m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Sudden Brook

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

1

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 44**

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 44**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	Roch (Spodden to Irwell)	GB112069064600	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 44**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
4	116m W	River	Roch (Spodden to Irwell)	GB112069064600	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site

1

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

Features are displayed on the Hydrology map on **page 44**

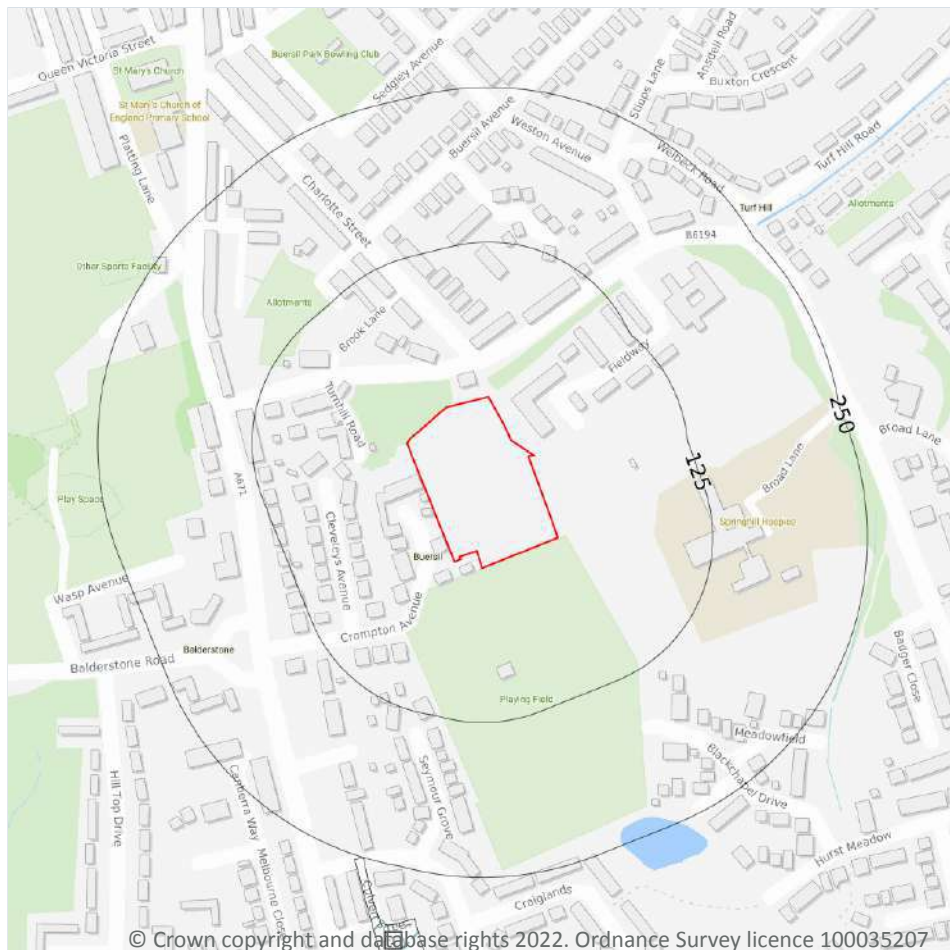


ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Northern Manchester Carboniferous Aquifers	<u>GB41202G101800</u>	Poor	Poor	Good	2019

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



7 River and coastal flooding



- Site Outline
- Search buffers in metres (m)
- River and coastal flooding:
- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m

0

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

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



7.2 Historical Flood Events

Records within 250m

1

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.

Features are displayed on the River and coastal flooding map on **page 48**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
1	250m S	Ea013_Culvert Street, Rochdale	2016-11-21 2016-11-21	Ordinary watercourse	Obstruction/blockage - debris screen	Fluvial

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

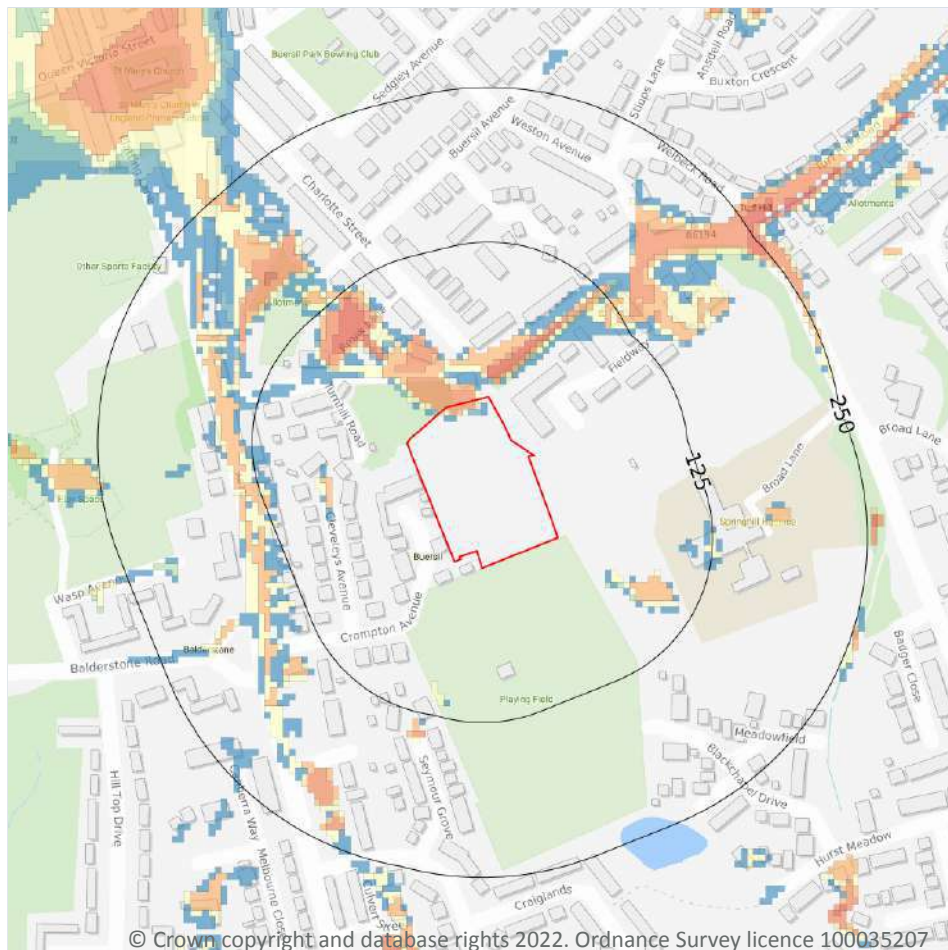
Records within 50m	0
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Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each 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 51**

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.

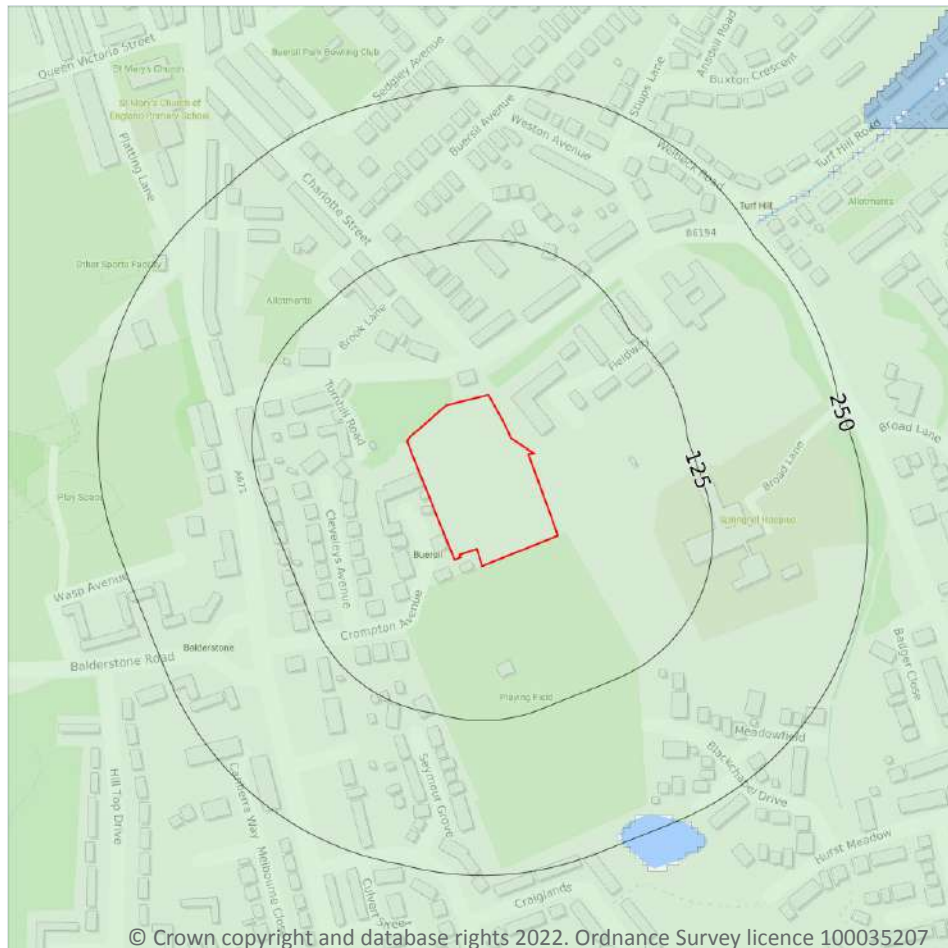
The table below shows the maximum flood depths for a range of return periods for the site.

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

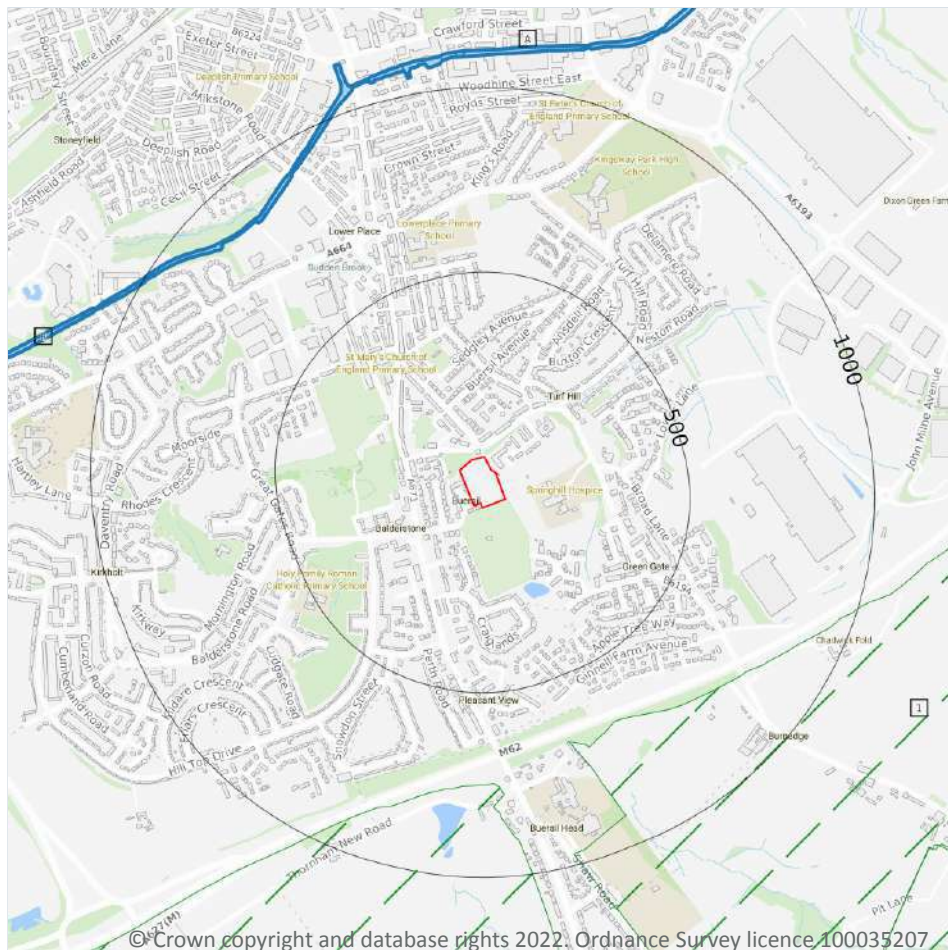
Low

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 53**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- + Special Areas of Conservation (SAC)
- Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

4

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

Features are displayed on the Environmental designations map on **page 54**

ID	Location	Name	Data source
A	862m NW	Rochdale Canal	Natural England

ID	Location	Name	Data source
B	1076m NW	Rochdale Canal	Natural England
-	1298m W	Rochdale Canal	Natural England
-	1615m W	Rochdale Canal	Natural England

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m

4

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

Features are displayed on the Environmental designations map on **page 54**

ID	Location	Name	Features of interest	Habitat description	Data source
A	862m NW	Rochdale Canal	Floating water-plantain.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural England
B	1076m NW	Rochdale Canal	Floating water-plantain.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural England
-	1298m W	Rochdale Canal	Floating water-plantain.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural England



ID	Location	Name	Features of interest	Habitat description	Data source
-	1615m W	Rochdale Canal	Floating water-plantain.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural England

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

10.4 Special Protection Areas (SPA)

Records within 2000m

0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m

0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m

0

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

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

10.7 Designated Ancient Woodland

Records within 2000m

0

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

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



10.8 Biosphere Reserves

Records within 2000m**0**

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

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

10.9 Forest Parks

Records within 2000m**0**

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m**0**

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

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

10.11 Green Belt

Records within 2000m**3**

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

Features are displayed on the Environmental designations map on **page 54**

ID	Location	Name	Local Authority name
1	671m SE	Merseyside and Greater Manchester	Rochdale
2	746m S	Merseyside and Greater Manchester	Rochdale
3	1487m SE	Merseyside and Greater Manchester	Oldham

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

1

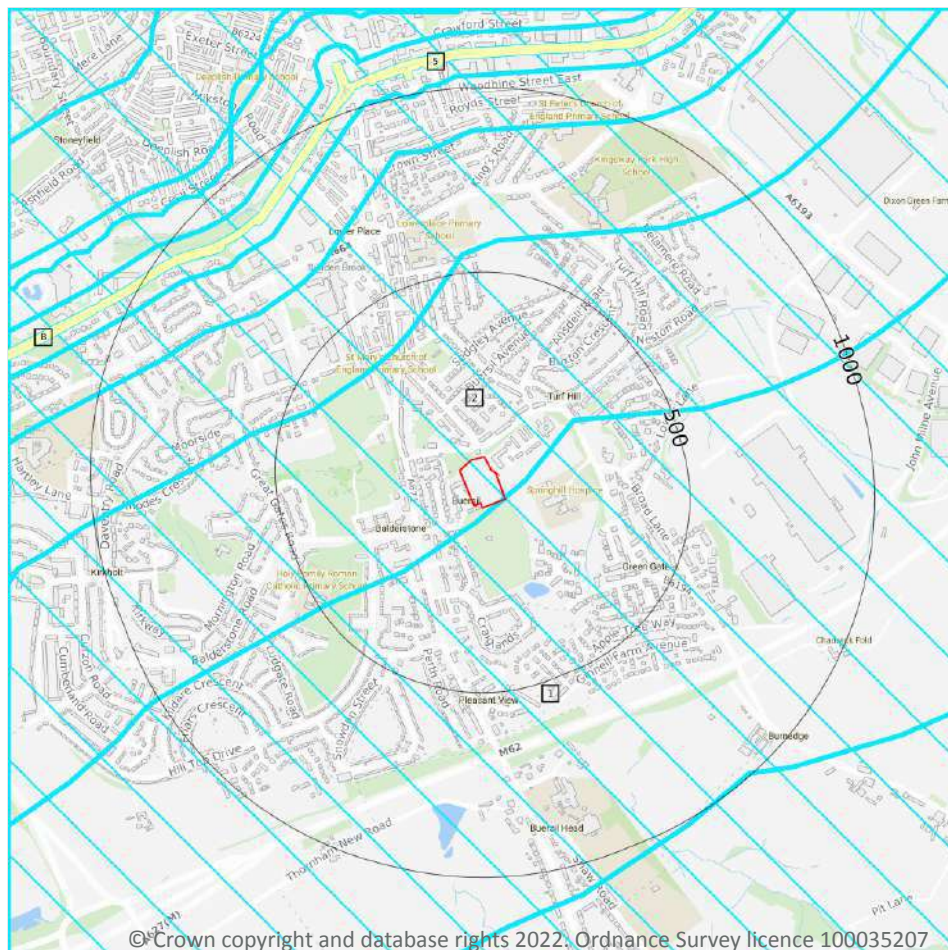
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
1064m S	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	638	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

2

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

Features are displayed on the SSSI Impact Zones and Units map on **page 60**

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Pipelines, pylons and overhead cables. any transport proposal including road, rail and by water (excluding routine maintenance). airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Rural non-residential - Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha. Rural residential - Any residential development of 100 or more houses outside existing settlements/urban areas. Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.
2	On site	Infrastructure - Pipelines, pylons and overhead cables. any transport proposal including road, rail and by water (excluding routine maintenance). airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Rural non-residential - Large non residential developments outside existing settlements/urban areas where net additional gross internal floorspace is > 1,000m² or footprint exceeds 0.2ha. Residential - Residential development of 100 units or more. Rural residential - Any residential development of 50 or more houses outside existing settlements/urban areas. Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 500 tonnes maximum annual operational throughput. incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Discharges - Any discharge of water or liquid waste of more than 2m³/day to ground (ie to seep away) or to surface water, such as a beck or stream. Water supply - Large infrastructure such as warehousing / industry where net additional gross internal floorspace is > 1,000m² or any development needing its own water supply .

This data is sourced from Natural England.



10.18 SSSI Units

Records within 2000m

4

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

Features are displayed on the SSSI Impact Zones and Units map on **page 60**

ID: 5
 Location: 862m NW
 SSSI name: Rochdale Canal
 Unit name: Failsworth
 Broad habitat: Standing Open Water And Canals
 Condition: Unfavourable - Recovering
 Reportable features:

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

ID: B
 Location: 1076m NW
 SSSI name: Rochdale Canal
 Unit name: Failsworth
 Broad habitat: Standing Open Water And Canals
 Condition: Unfavourable - Recovering
 Reportable features:

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

ID: -
 Location: 1298m W
 SSSI name: Rochdale Canal
 Unit name: Failsworth
 Broad habitat: Standing Open Water And Canals
 Condition: Unfavourable - Recovering
 Reportable features:

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



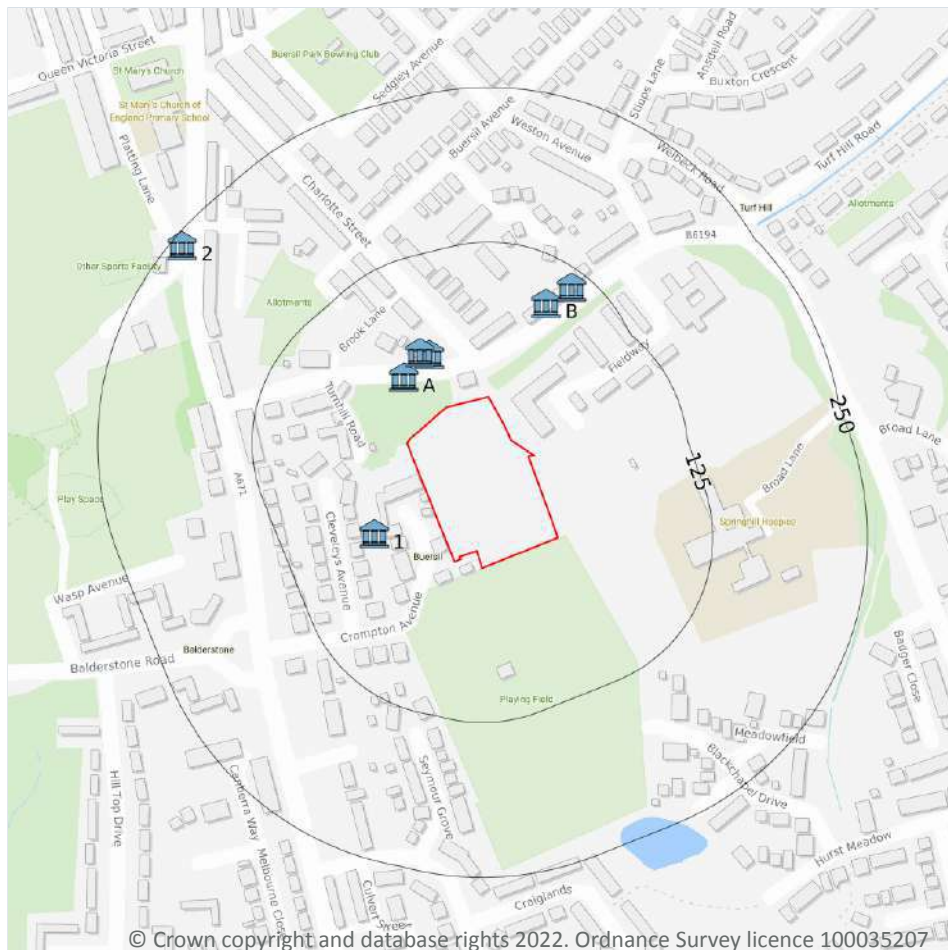
ID: -
Location: 1615m W
SSSI name: Rochdale Canal
Unit name: Failsworth
Broad habitat: Standing Open Water And Canals
Condition: Unfavourable - Recovering
Reportable features:

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

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



11 Visual and cultural designations



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

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

7

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

Features are displayed on the Visual and cultural designations map on **page 64**

ID	Location	Name	Grade	Reference Number	Listed date
A	41m NW	Flagstone Boundary Wall To The West of No 42, Balderstone and Kirkholt, Rochdale, OL16	II	1084240	24/08/1993
A	44m N	33 and 35, Broad Lane, Kingsway, Rochdale, OL16	II	1346243	12/02/1985
A	49m NW	31, Broad Lane, Kingsway, Rochdale, OL16	II	1084265	12/02/1985
1	52m W	Flagstone Wall On East Side of Footpath From Turnhill Road/crompton Avenue, Balderstone and Kirkholt, Rochdale, OL16	II	1253201	24/08/1993

ID	Location	Name	Grade	Reference Number	Listed date
B	89m NE	61-73, Broad Lane, Kingsway, Rochdale, OL16	II	1084266	12/02/1985
B	111m NE	75 and 77, Broad Lane, Kingsway, Rochdale, OL16	II	1346244	12/02/1985
2	241m NW	Buersil and Balderstone War Memorial, Balderstone and Kirkholt, Rochdale, OL11	II	1429198	21/09/2015

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

11.5 Conservation Areas

Records within 250m

0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

Records within 250m

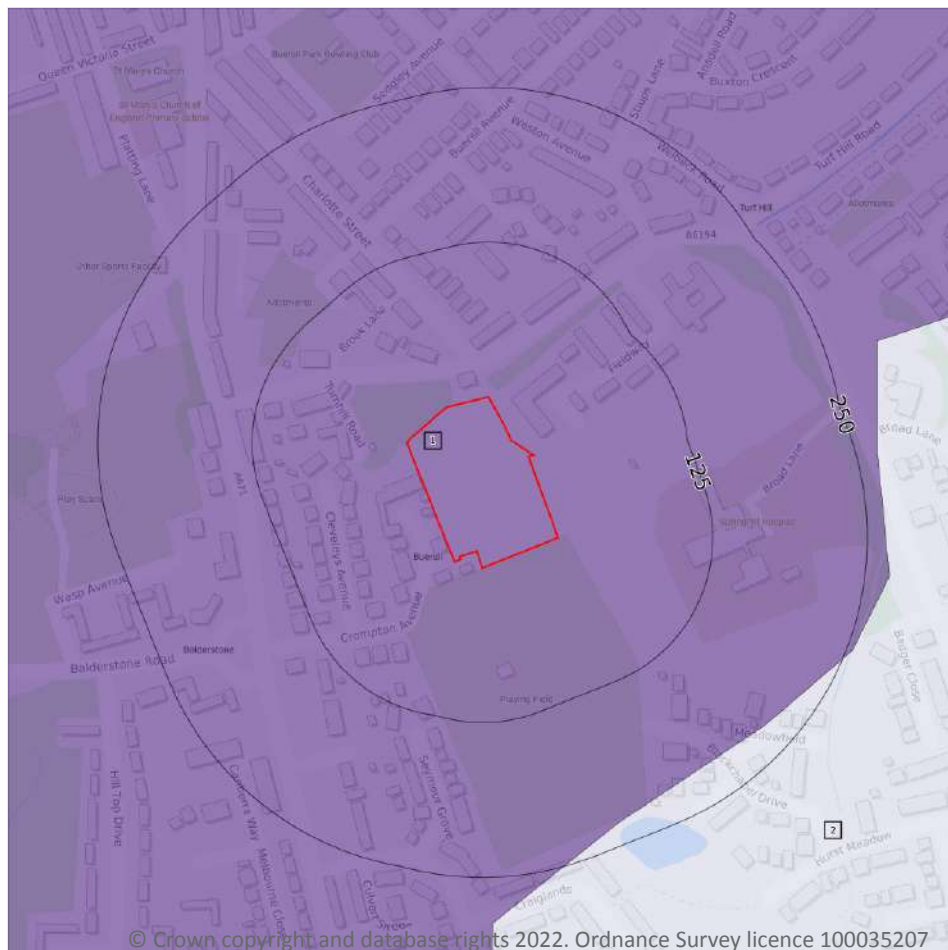
0

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

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



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

2

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

Features are displayed on the Agricultural designations map on **page 67**

ID	Location	Classification	Description
1	On site	Urban	-

ID	Location	Classification	Description
2	219m SE	Grade 4	Poor quality agricultural land. Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0
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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
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Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0
----------------------------	----------

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

0

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

This data is sourced from Natural England.



13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m**0**

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m**0**

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m**0**

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m**0**

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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

1

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

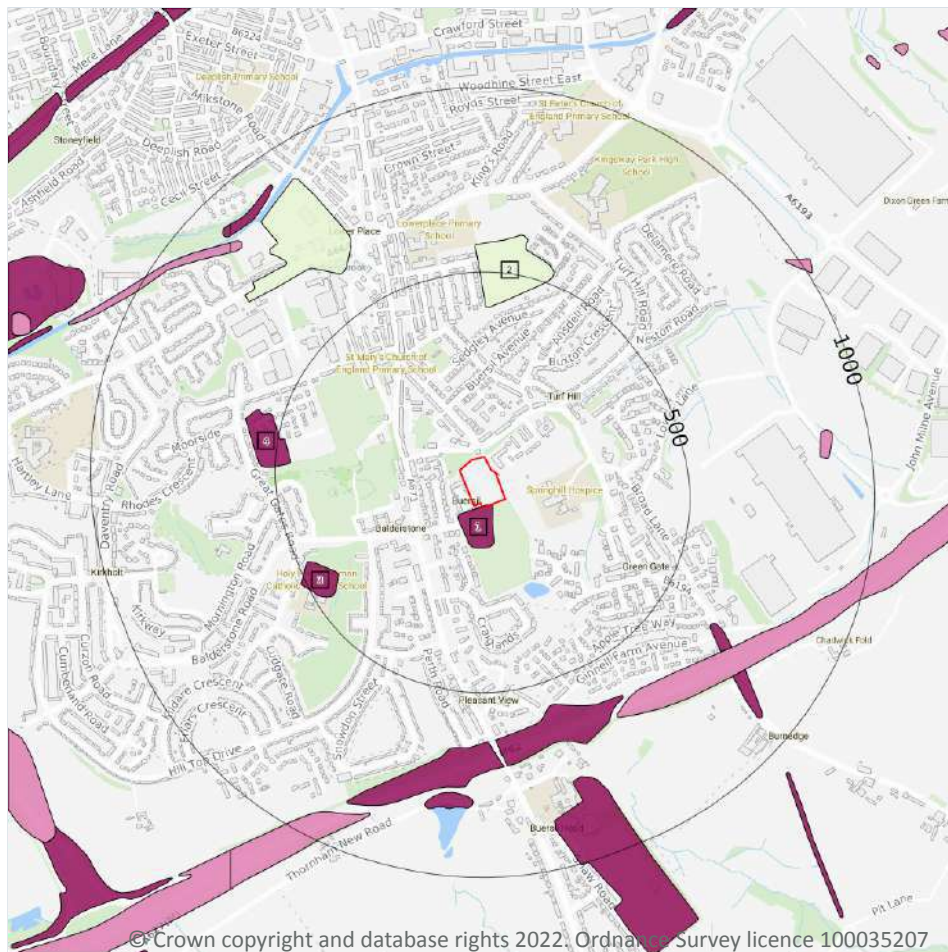
Features are displayed on the Geology 1:10,000 scale - Availability map on **page 71**

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

This data is sourced from the British Geological Survey.



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



- Site Outline**
- Search buffers in metres (m)**
- Reclaimed ground
 - Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

4

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 72**

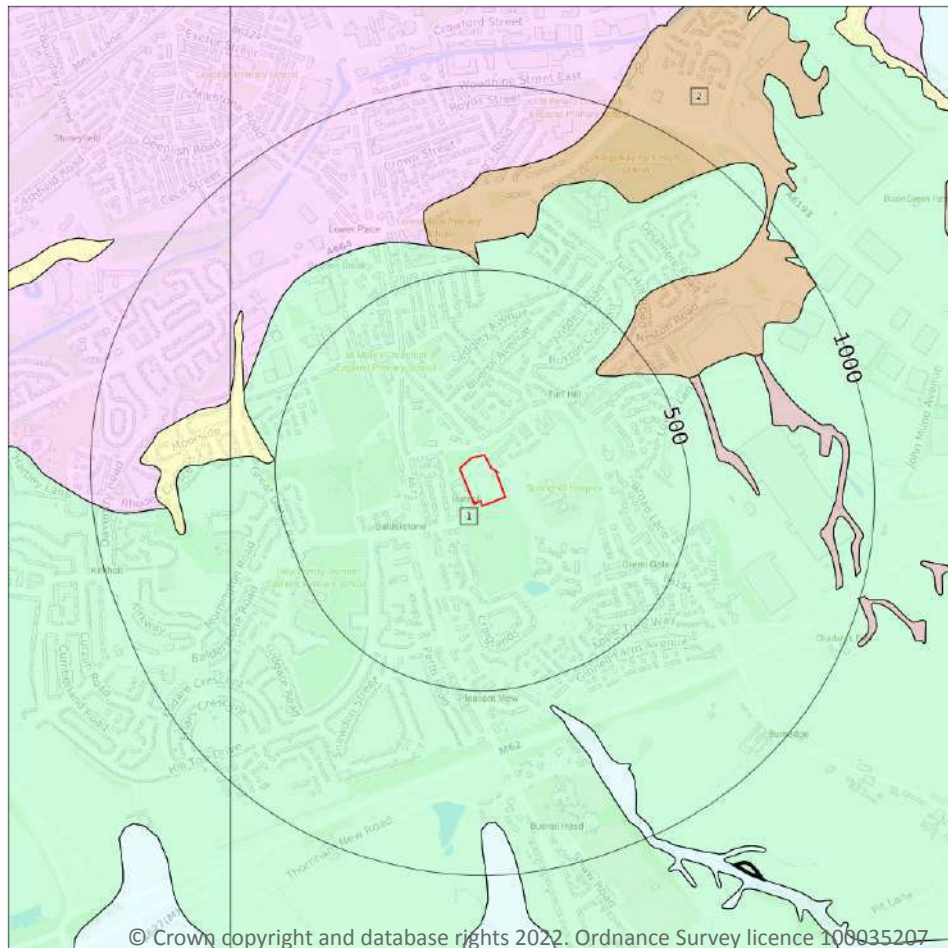
ID	Location	LEX Code	Description	Rock description
1	On site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	405m N	WMGR-ARTDP	Infilled Ground	Artificial Deposit
3	410m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	460m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit



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

2

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 74**

ID	Location	LEX Code	Description	Rock description
1	On site	HMGDD-DMTN	Hummocky (moundy) Glacial Deposits, Devensian - Diamicton	Diamicton
2	375m NE	PEAT-P	Peat - Peat	Peat

This data is sourced from the British Geological Survey.



14.4 Landslip (10k)

Records within 500m

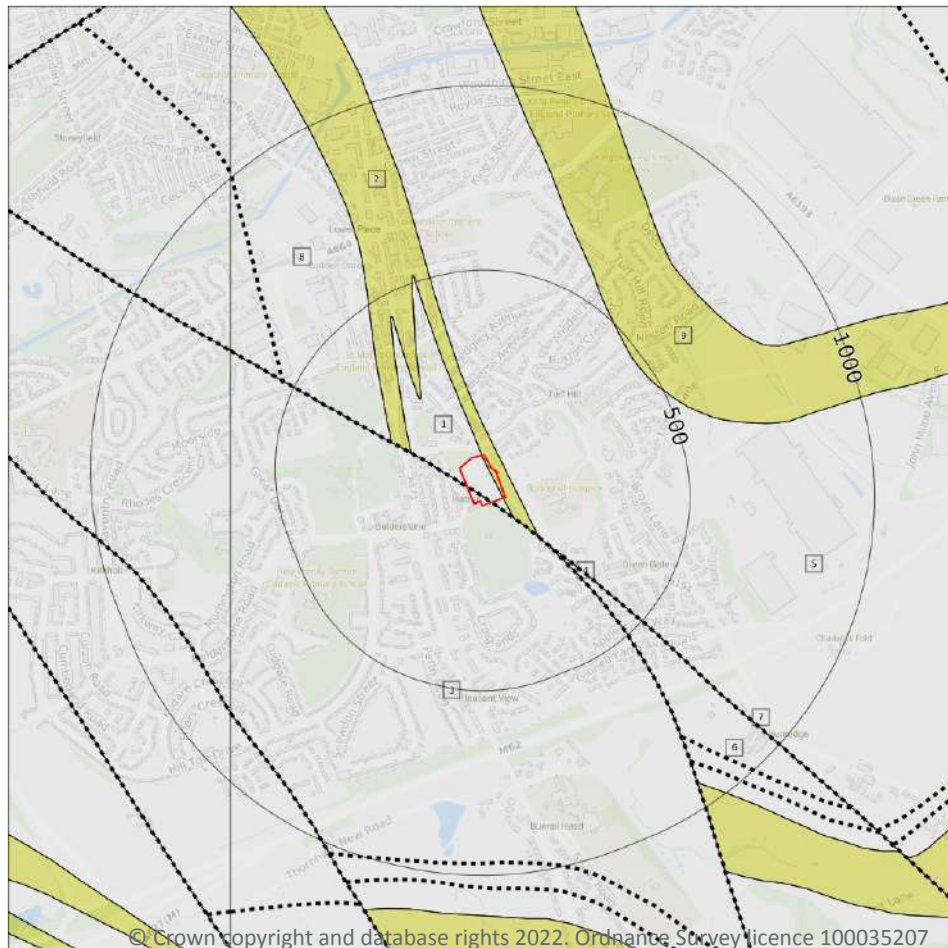
0

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 76**

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
2	On site	OL-SDST	Old Lawrence Rock - Sandstone	Langsettian Sub-age
3	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age

ID	Location	LEX Code	Description	Rock age
5	22m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
6	182m SE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
8	198m W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
9	476m NE	MLRS-SDST	Milnrow Sandstone - Sandstone	Langsettian Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

2

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.

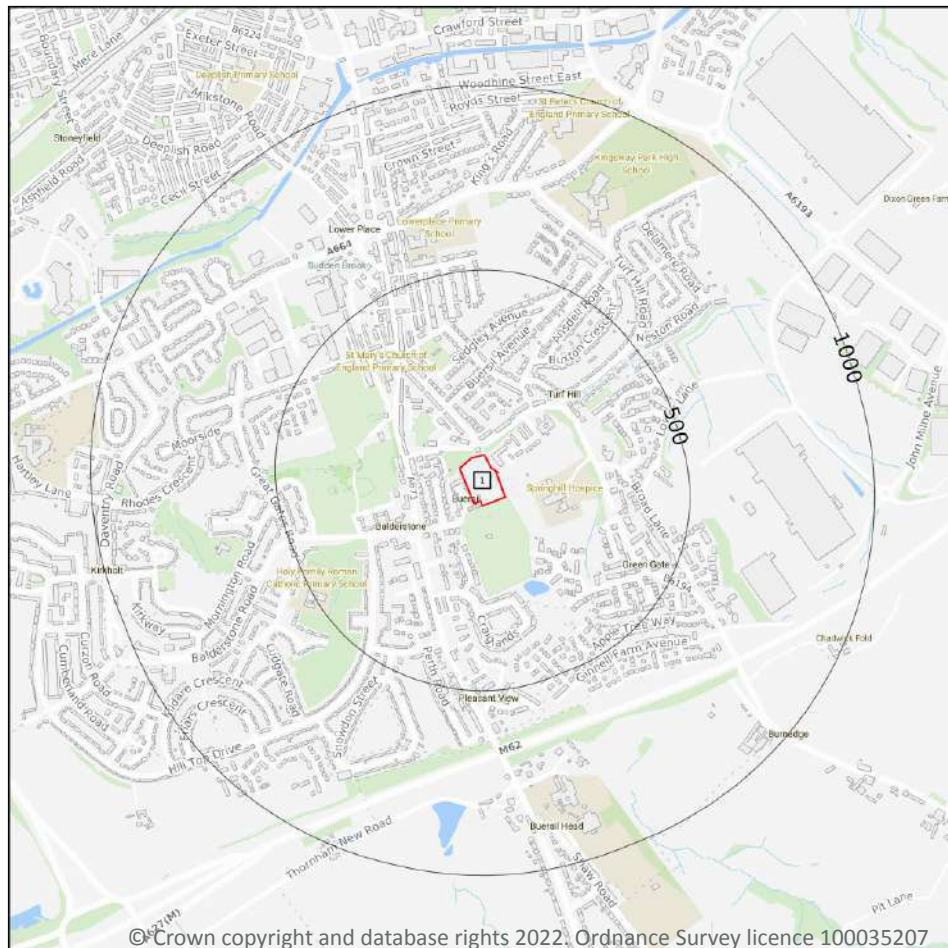
Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 76**

ID	Location	Category	Description
4	On site	FAULT	Normal fault, inferred; crossmarks on downthrow side
7	182m SE	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 78**

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

This data is sourced from the British Geological Survey.



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



- Site Outline
- Search buffers in metres (m)
- Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m

1

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

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 79**

ID	Location	LEX Code	Description	Rock description
1	404m N	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

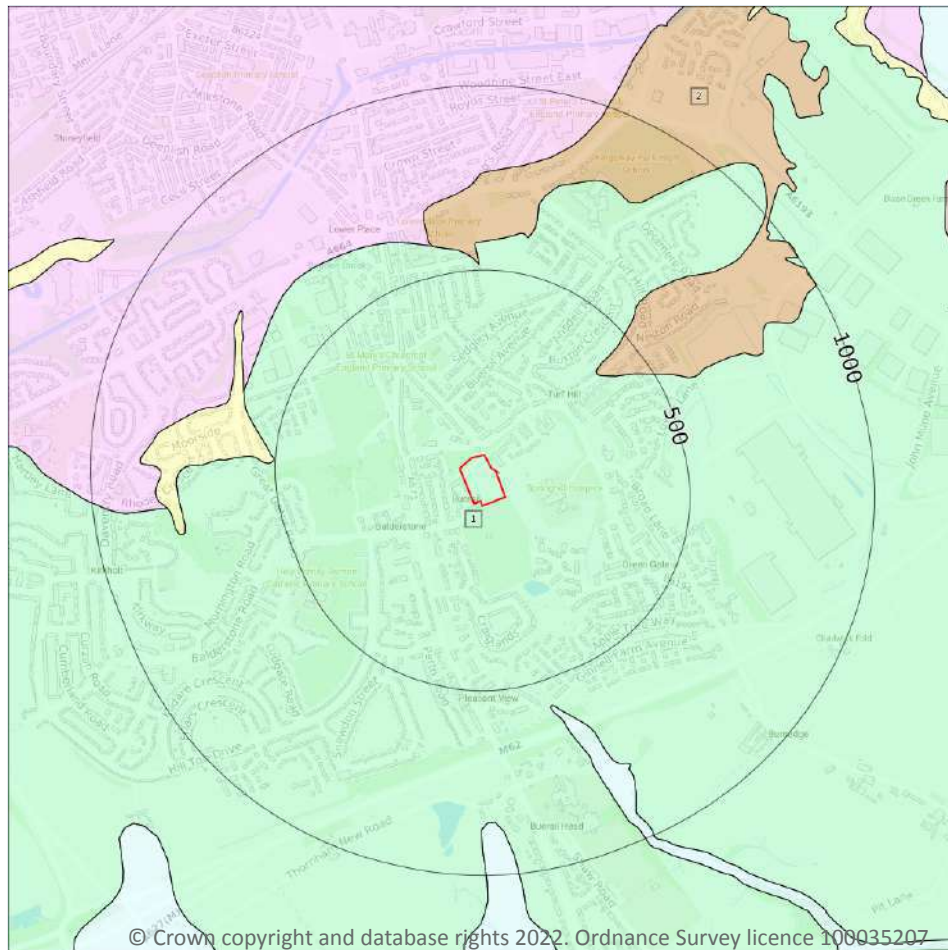
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



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

15.4 Superficial geology (50k)

Records within 500m

2

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 81**

ID	Location	LEX Code	Description	Rock description
1	On site	HMGDD-DMTN	HUMMOCKY (MOUNDY) GLACIAL DEPOSITS, DEVENSIAN	DIAMICTON
2	376m NE	PEAT-P	PEAT	PEAT

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)

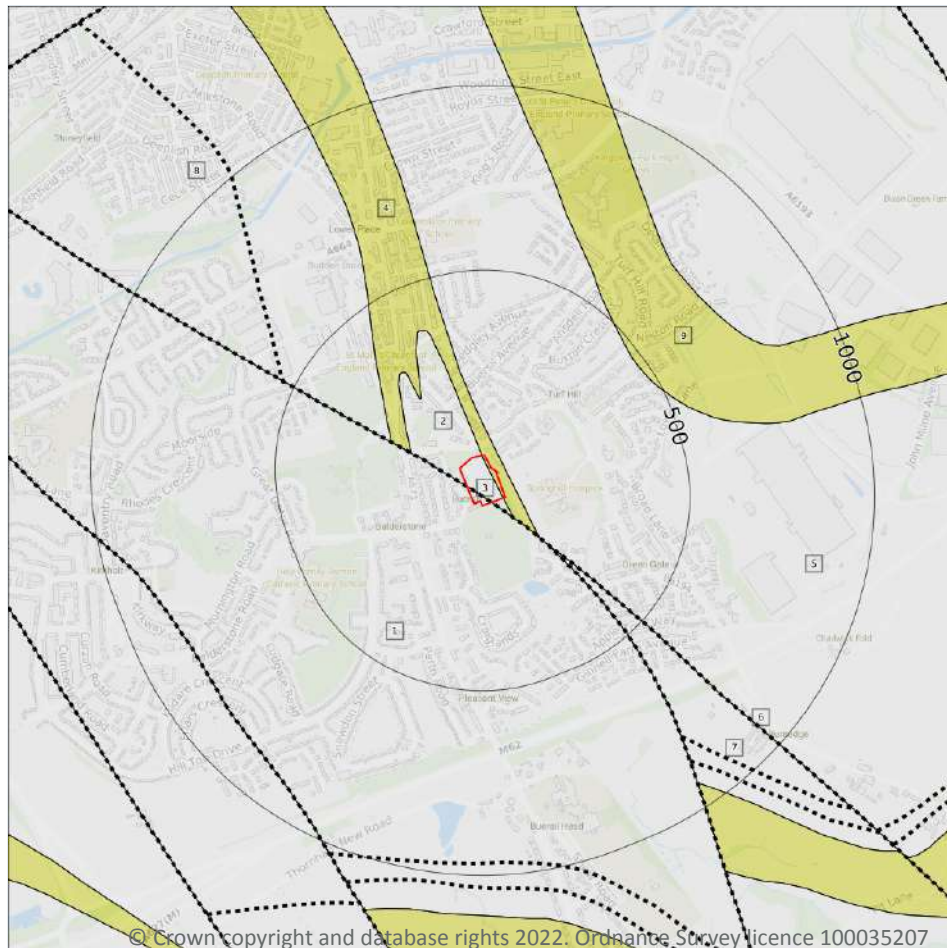
Records within 50m

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 83**

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



ID	Location	LEX Code	Description	Rock age
5	22m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
7	181m SE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
8	199m W	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
9	476m NE	MLRS-SDST	MILNROW SANDSTONE - SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	2
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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	High	Moderate
On site	Fracture	Moderate	Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	2
----------------------------	----------

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 83**

ID	Location	Category	Description
3	On site	FAULT	Fault, inferred
6	181m SE	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.



16 Boreholes

16.1 BGS Boreholes

Records within 250m

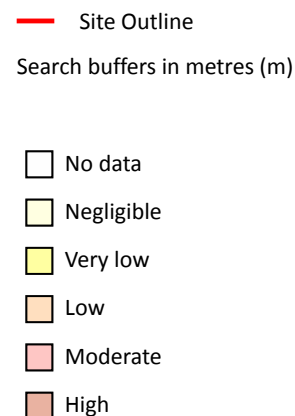
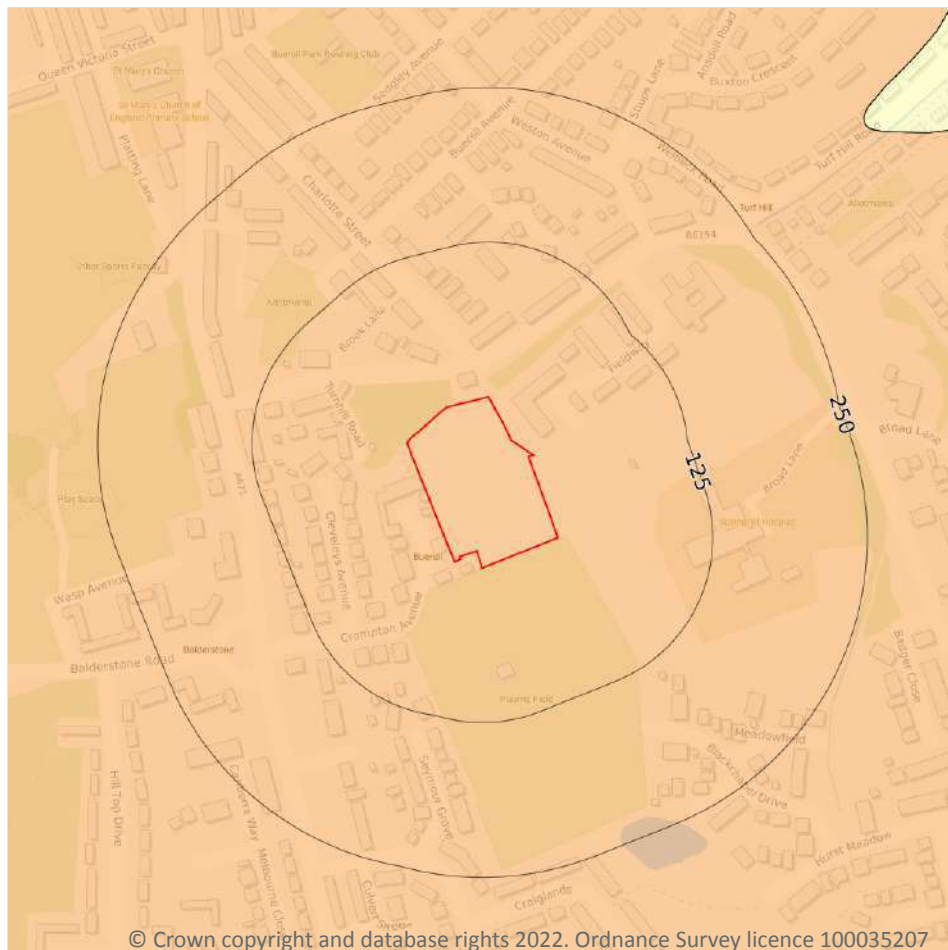
0

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

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



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).

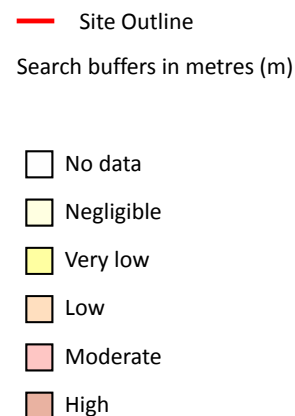
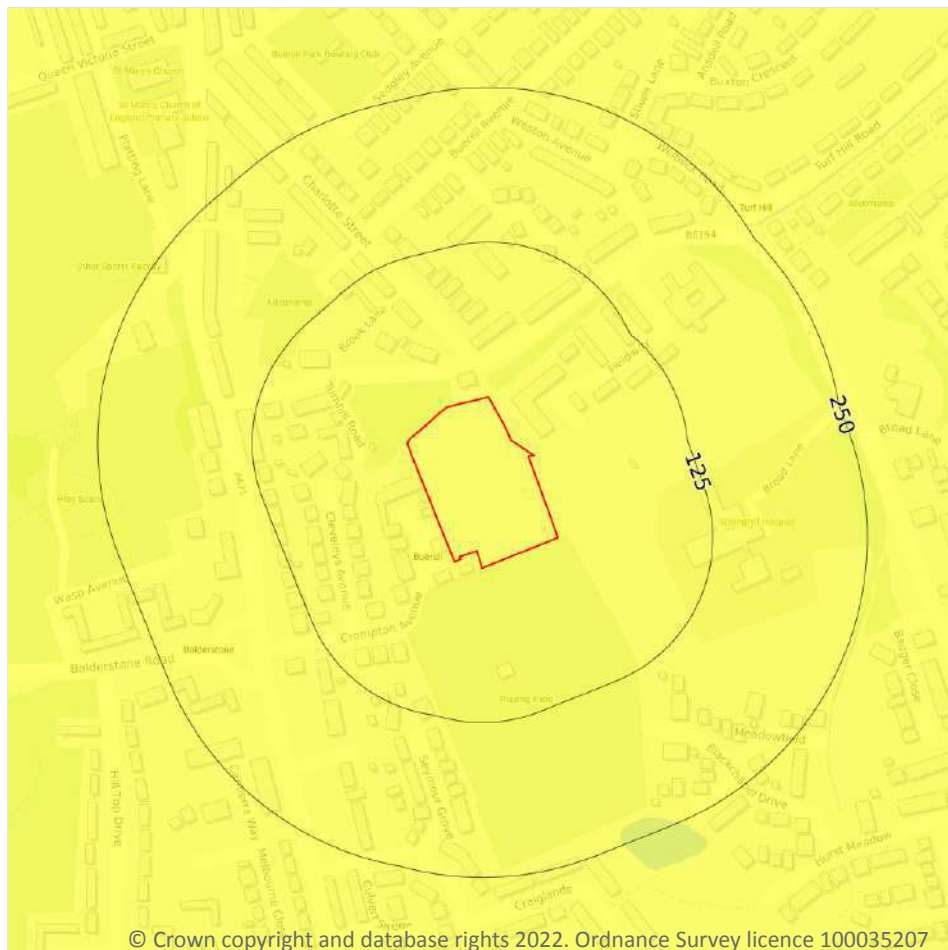
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 86**

Location	Hazard rating	Details
On site	Low	Ground conditions predominantly medium plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



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.

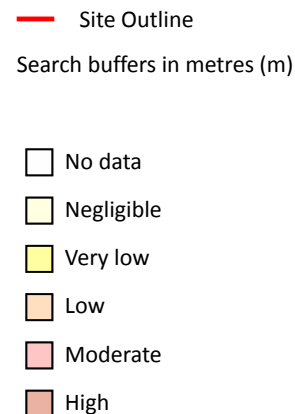
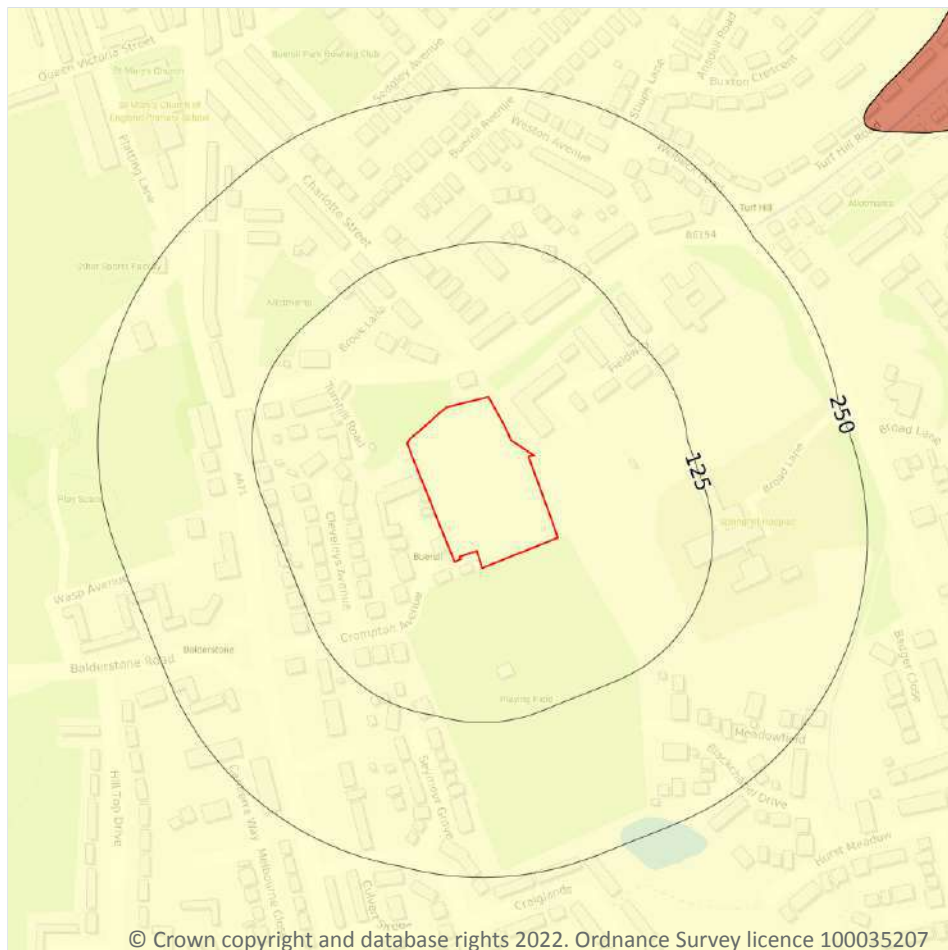
Features are displayed on the Natural ground subsidence - Running sands map on **page 87**

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



17.3 Compressible deposits

Records within 50m

1

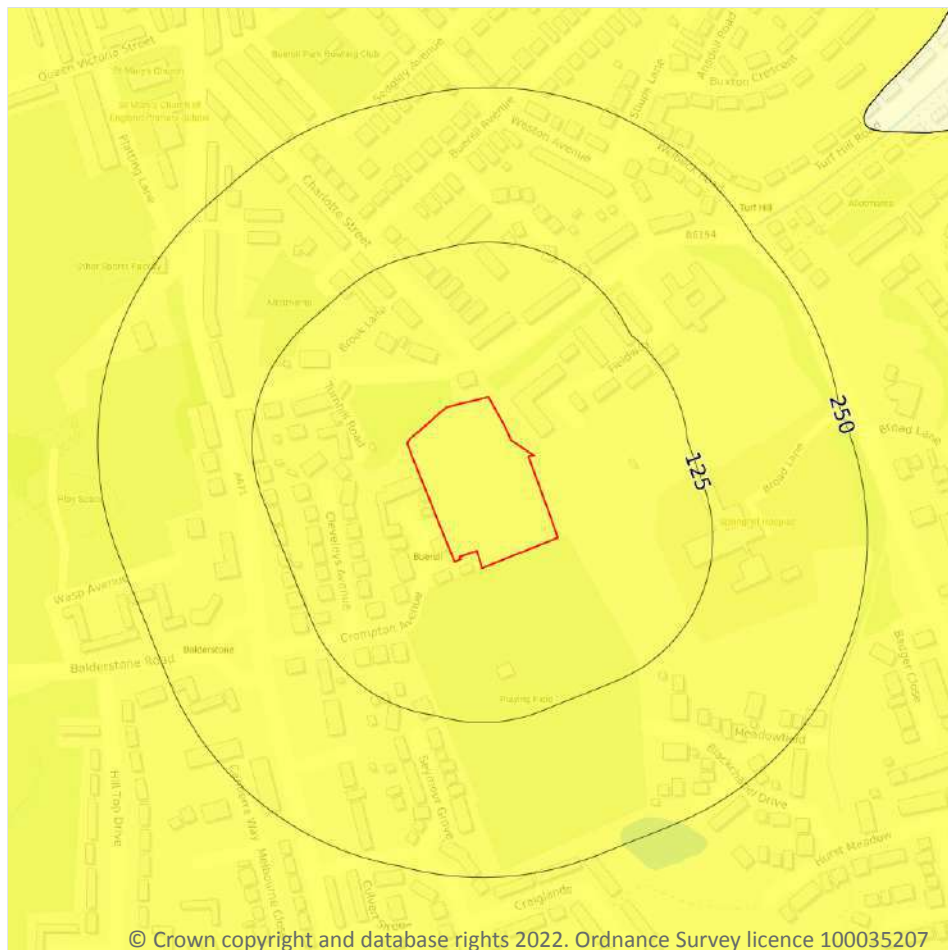
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 88**

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.

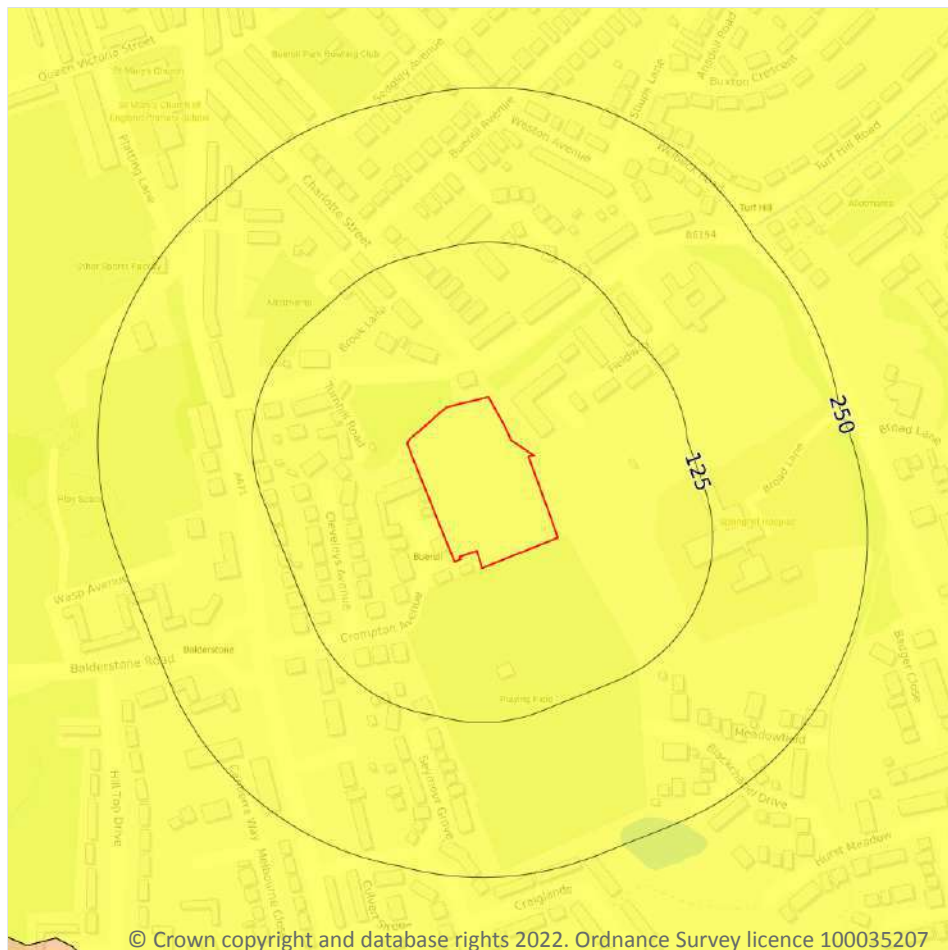
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 89**

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.

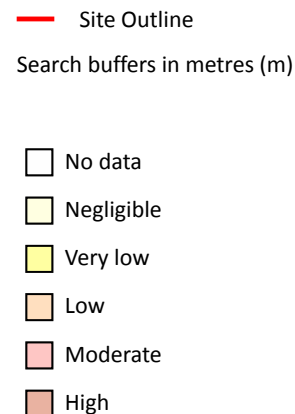
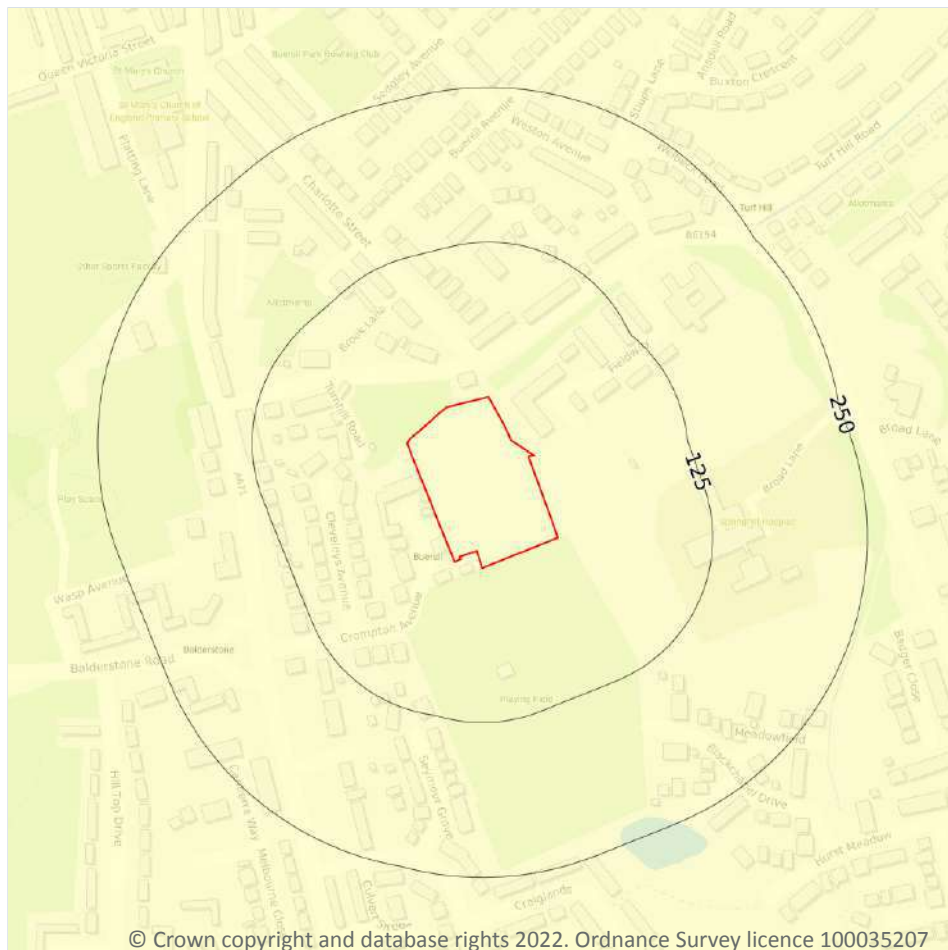
Features are displayed on the Natural ground subsidence - Landslides map on **page 90**

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



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.

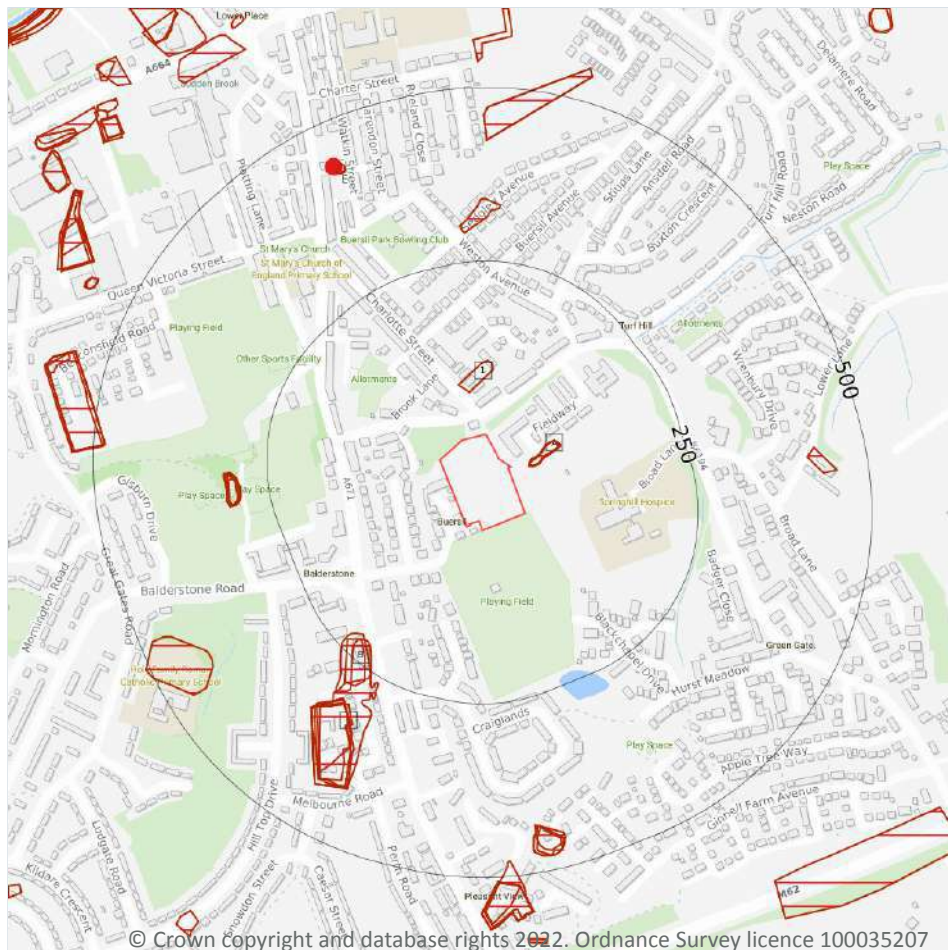
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 91**

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

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



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

18.1 Natural cavities

Records within 500m

0

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

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m

1

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 92**

ID	Location	Details	Description
E	434m NW	Name: Lower Place Gravel Pit Address: Lower Place, ROCHDALE, Lancashire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m

9

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 92**

ID	Location	Land Use	Year of mapping	Mapping scale
A	26m E	Pond	1976	1:10000
A	26m E	Pond	1967	1:10560
A	26m E	Pond	1954	1:10560
A	28m E	Pond	1928	1:10560
A	28m E	Pond	1908	1:10560
1	65m N	Unspecified Pit	1908	1:10560
B	215m SW	Unspecified Heap	1907	1:10560
C	218m SW	Ponds	1851	1:10560
B	222m SW	Reservoir	1891	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 Stantec UK Ltd.

18.8 JPB mining areas

Records on site

0

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

This data is sourced from Johnson Poole and Bloomer.



18.9 Coal mining

Records on site	1
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Areas which could be affected by past, current or future coal mining.

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

This data is sourced from the Coal Authority.

18.10 Brine areas

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

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

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

18.11 Gypsum areas

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

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

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

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.13 Clay mining

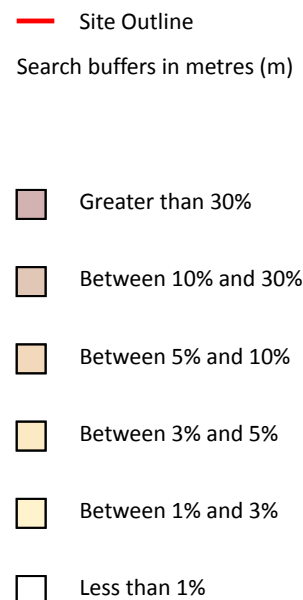
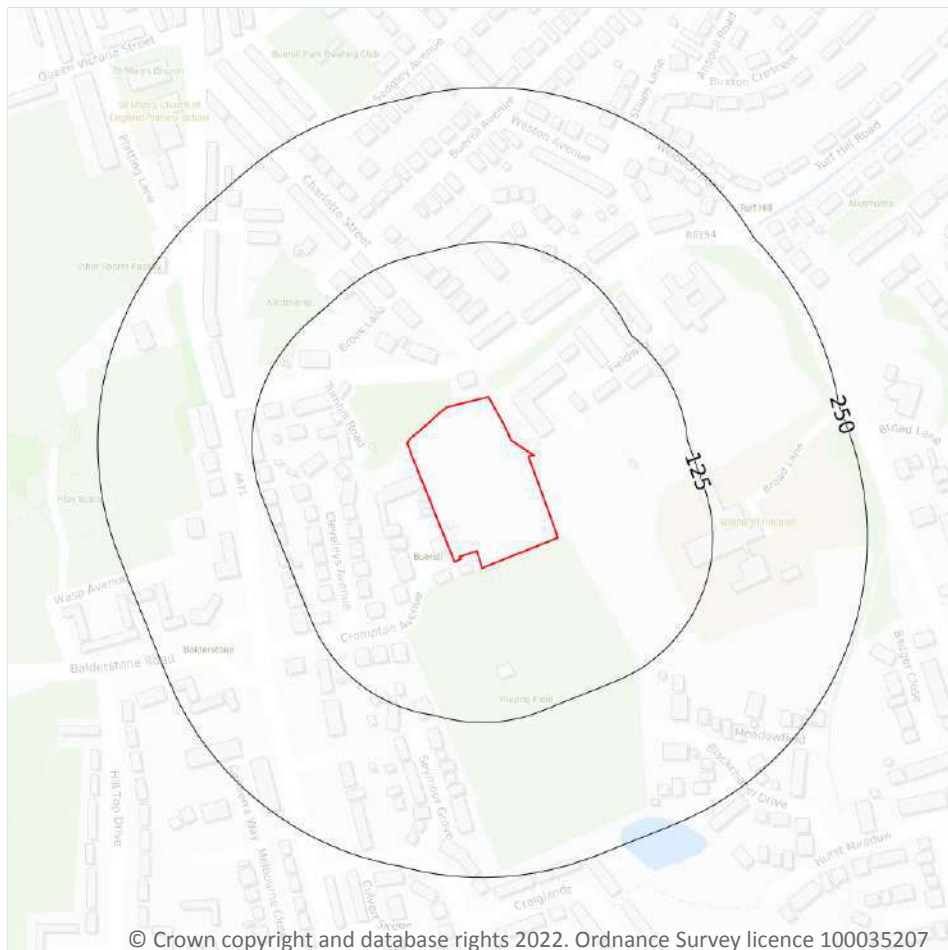
Records on site	0
-----------------	---

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

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



19 Radon



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 96**

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

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



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
6m S	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

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

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	0
---------------------	---

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

This data is sourced from Ordnance Survey/Groundsure.

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

BGS Borehole Records

Norwest Holst Soil Engineering Ltd.						Borehole No. 1	
Contract No. F8699A		BOREHOLE LOG		Sheet 1 of 2			
Location St Mary's School, Rochdale		Client Tameside M.B.		Chainage 509154, 123		Ground Level m.A.O.D.	
Method of Boring Percussion		Diameter of Borehole 150mm		Date 18/12/89			
Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/ R.O.D. %	Daily Progress
BITUMINOUS SURFACING		0.20					
MADE GROUND: Stone hardcore		1.25			1.00	19	
Medium dense brown silty SAND and GRAVEL		2.90			2.00	28	
Medium dense brown silty medium SAND		4.95			3.00	18	
Soft brown laminated silty CLAY with sand partings		6.30			4.00	24	
Medium dense brown SAND and GRAVEL		8.00			5.00 (18)		
Stiff brown sandy CLAY with occasional gravel		9.00			6.50	15	
Firm brown laminated silty CLAY					8.00 (52)		
					9.50 (53)		
Type of Sample Is S.P.T.  Undisturbed Ic C.P.T.  Vane O Jar  Water ● Bulk  Piezometer		Remarks (Observations of Ground Water etc.) () U100 blows Slight seepage at 3.50m Water struck at 6.30m, level rose after 20 mins to 4.50m Final standing level 11.30m Water levels are subject to seasonal or tidal variations and should not be taken as constant					

Norwest Holst Soil Engineering Ltd.						Borehole No. 2	
Contract No. F8699A		BOREHOLE LOG		Sheet 1 of 1			
Location St Mary's School, Rochdale		Client SONSU, 124		Chainage			
Method of Boring Percussion		Ground Level		m.A.O.D.			
Diameter of Borehole 150mm		Date 19/12/89					
Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.Q.D. %	Daily Progress
BITUMINOUS SURFACING		0.20					
MADE GROUND: Stone hardcore	[Cross-hatch pattern]	1.40			1.00	22	
Dense brown silty SAND and GRAVEL	[Stippled pattern]	2.80			2.00	35	
Medium dense brown silty medium SAND	[Dotted pattern]	4.70			3.00 4.00	16 14	
soft brown laminated silty CLAY with sand partings	[Horizontal lines]	6.20			5.00 (28) NR		
Dense brown SAND and GRAVEL with bands of brown silty clay.	[Stippled with horizontal lines]	8.80			6.50 (50) NR 8.00	38	
Firm brown laminated silty CLAY with occasional pebbles	[Horizontal lines with dots]	10.00			9.00 (56)		
Type of Sample Is S.P.T. ■ Undisturbed Ic C.P.T. X Vane O Jar △ Water ● Bulk ■ Piezometer		Remarks (Observations of Ground Water etc.) () U100 blows NR - No recovery Slight seepage at 2.80m Water struck at 6.20m, level rose after 20 mins to 4.10m Final standing level 9.60m					

APPENDIX D

Potential Pollutant Linkages

POTENTIAL RECEPTOR	COMMENTS	Include in PCM
PROPERTY: Other		
On Site		
Crops	None intended on site	x
Domestic Produce	May be grown in residential gardens	✓
Livestock	None anticipated on site	x
Domestic Animals	May be owned by residents	✓
Game	None known on site	x
Off Site		
Crops	Possibly in fields surrounding the site	x
Domestic Produce	Possibly in houses in vicinity of the site	✓
Livestock	Possibly in fields surrounding the site	x
Domestic Animals	May belong to adjacent residents	✓
Game	Not applicable	x
PROPERTY: Buildings		
On Site		
	New residential properties, services	✓
Off Site		
	Mostly residential, some commercial properties in the surrounding area, services, flora	✓
HUMANS		
On Site		
Occupiers	Site users	✓
Construction Workers	During ground excavations	✓
Surface water users	No current surface waters or abstractions located on site	x
Groundwater users	No groundwater abstractions on site	x
Off Site		
Residents	Residents adjacent to the site	✓
Recreational users	Recreational Users of the area within 250 m of the site.	✓
Surface water users	No surface waters or abstractions within 250m	x
Groundwater users	No groundwater abstractions within 250m	x
Controlled Waters		
On Site		
Surface Waters	There are no surface water features on site.	x
Groundwater	Where present, the superficial strata (Boulder Clay) is classified by the EA as a 'Secondary A Aquifer'. This strata is relatively impermeable and any water trapped/held within the deposits is not considered to represent a sensitive receptor. The underlying bedrock is classified as a Secondary A Aquifer. Where superficial deposits are absent at the site a direct pathway between perched water in any made ground deposits and the bedrock aquifer may exist, making the bedrock aquifer a potential receptor. The site is not located within a Source Protection Zone. There are no recorded groundwater abstractions located within 250 m of the site.	✓
Off Site		
Controlled Waters	There are surface water features within 250 m of the site.	✓
Ecological Systems		
On/Off Site		
SSSSIs, national nature reserves, SACs etc	There are no sensitive ecological receptors identified within 250m of the site.	x

Table A: Potential Receptors to be Considered in the Preliminary Conceptual Model

Link	Source	Hazard	Transport Mechanism	Pathway	Medium of Exposure	Receptor	Risk Summary*
1	Contaminated soils	Direct contact /ingestion of soil or dust	Direct contact with contaminated soil	Dermal contact/ingestion of soil at surface	Soil	Humans (on-site)	Low
2	Contaminated soils	Particulate inhalation	Wind blown particulates	Inhalation of particulates	Air	Humans (on-site/off-site)	Low
3	Contaminated Soils/Landfill	Inhalation of Ground Gas	Degradation of contaminants generating ground gas through unsaturated zone of soil leading to inhalation	Inhalation of Gases	Air	Humans (on-site/off-site)	Low
4	Contaminated Soils	Vapour Inhalation	Volatalisation of organic compounds through unsaturated zone of soil leading to inhalation	Inhalation of Gases	Air	Humans (on-site/off-site)	Low
5	Contaminated Soils	Damage to structure/services	Direct contact of contaminants with building structures/services	Direct contact	Soil/Water	Structures, services	Low
6	Contaminated Soils/Landfill	Damage to structure	Degradation of contaminants generating ground gas through unsaturated zone to soil leading to build-up/explosion risk	Migration through soils	Air	Structures	Low
7	Contaminated Soils	Degradation of perched water quality	Dissolution or suspension of contaminants into perched waters	Dissolution or Suspension	Water	Perched Waters	Low
8	Contaminated Soils	Pollution of underlying groundwater	Dissolution or suspension of contaminants into groundwaters (Bedrock Aquifer)	Dissolution or Suspension	Water	Groundwaters	Low

Table B: Preliminary Conceptual Model

***Relative Risk Screening and Prioritisation for further Investigation & or Assessment**

High	Higher probability of occurrence and identification of primary sources of contamination with respect to most sensitive receptors.
Medium	Pollutant linkage generally dependent on the presence of other primary pollutant linkages and/or where pollutant linkage generally associated with less sensitive receptors.
Low	Lower probability of occurrence such as based on requirement for significant migration pathway or where pollutant linkage requires the presence of source contaminants at concentration likely to be much higher than other identified pollutant linkages.

APPENDIX E

Site Photographs



P1: Looking south-east across the site from the north-western corner



P2: Looking north-east across the site from the south-west



P3: Looking west across the southern half of the site from the eastern boundary



P4: Looking north across the west of the site from the south-west of the site



P5: Gated access to Crompton Avenue in south-west of the site



P6: . Limited waste materials and made ground deposits were observed in the south-western area of the site adjacent to a now demolished stables/paddock area immediately south-west of the site.

Comments:



Photographs 1 to 6

This appendix is for illustrative purposes only and is for use only in conjunction with associated reports relating to the project

Site: Crompton Avenue

Title: Appendix E – Site Photographs

Project No: 22081

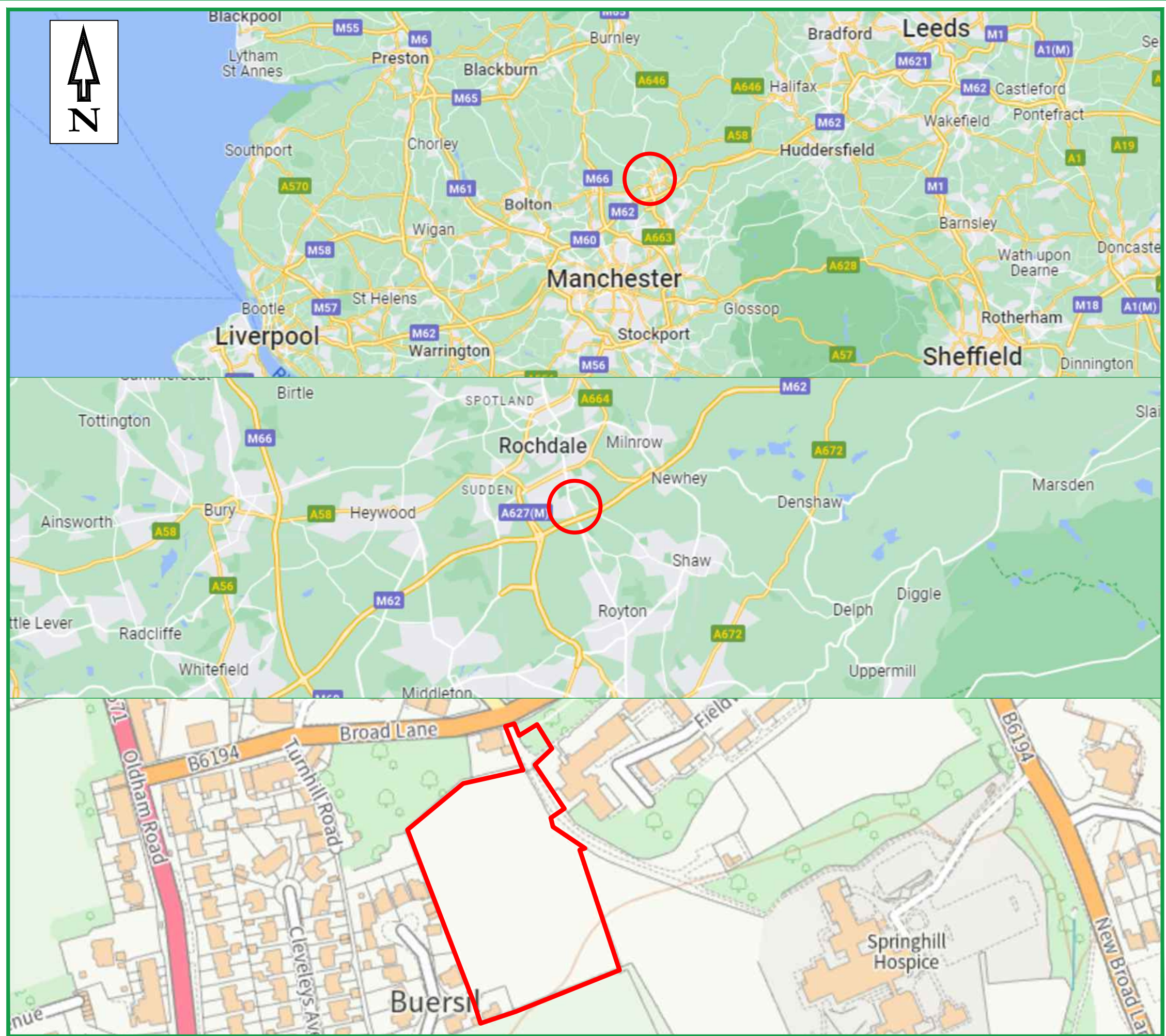
Created By:
JM

Date:
June 2022

Client: Lancet Homes

APPENDIX F

Drawings



LEGEND

—— SITE LOCATION

A	AMENDED REDLINE BOUNDARY	03/04/23	D.E
REV	DESCRIPTION	DATE	BY



GEO-ENVIRONMENTAL CONSULTING ENGINEERS

Suite One, No 3 Mitton Road Business Park,
Mitton Road, Whalley, Lancashire, BB7 9YE
Tel: 01254 377 622
Email: mbuckley@bekenviro.co.uk
Web: www.bekenviro.co.uk

CLIENT.

LANCET HOMES

JOB TITLE.

LAND OFF CROMPTON
AVEBNUE, ROCHDALE

DRAWING TITLE.

SITE LOCATION PLAN

SCALE © A3. N'TS	DRAWN BY. D.E.	APPROVED BY. M.B.	DATE. 14/06/22
DRAWING No. 22081-1			REV. A



LEGEND

— SITE FOOTPRINT

A	AMENDED REDLINE BOUNDARY	03/04/23	D.E
REV	DESCRIPTION	DATE	BY



GEO-ENVIRONMENTAL CONSULTING ENGINEERS
Suite One, No 3 Mitton Road Business Park,
Mitton Road, Whalley, Lancashire, BB7 9YE
Tel: 01254 377 622
Email: mbuckley@bekenviro.co.uk
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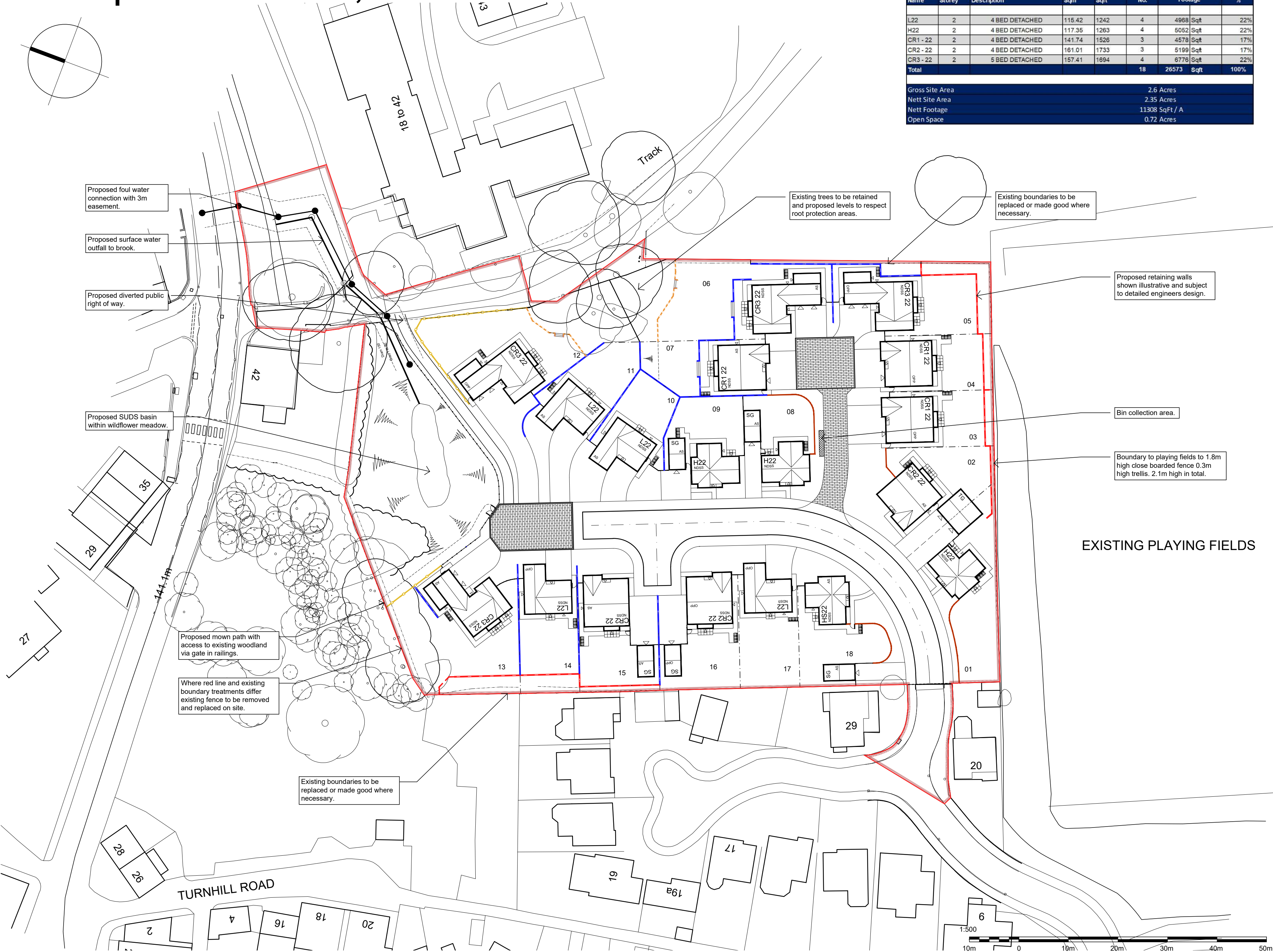
CLIENT.	LANCET HOMES
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JOB TITLE.	LAND OFF CROMPTON AVEBNUE, ROCHDALE
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DRAWING TITLE.	SITE LAYOUT PLAN
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SCALE © A3. NTS	DRAWN BY. D.E.	APPROVED BY. M.B.	DATE. 14/06/22
DRAWING No.	22081-2	REV.	A

Crompton Avenue, Rochdale.



Schedule Of Accommodation							
Name	Storey	Description	Sqm	Sqft	No.	Footage	%
L22	2	4 BED DETACHED	115.42	1242	4	4968 Sqft	22%
H22	2	4 BED DETACHED	117.35	1263	4	5052 Sqft	22%
CR1 - 22	2	4 BED DETACHED	141.74	1526	3	4578 Sqft	17%
CR2 - 22	2	4 BED DETACHED	161.01	1733	3	5199 Sqft	17%
CR3 - 22	2	5 BED DETACHED	157.41	1694	4	6776 Sqft	22%
Total					18	26573 Sqft	100%
Gross Site Area			2.6 Acres				
Nett Site Area			2.35 Acres				
Nett Footage			11308 SqFt / A				
Open Space			0.72 Acres				

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Do not scale from this drawing - Work to figured dimensions only. All dimensions to be checked on site prior to the execution of any work.

For the avoidance of doubt all dimensions are measured to wall structure and not the finishes unless otherwise stated.

Where any discrepancy is found to exist within or between drawings and/or documents it should be reported to the architect immediately.

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NOTE:
Layout to be read in conjunction with boundary treatment layout, boundary treatment details, materials layout and engineer's drawing for retaining wall heights.

- KEY**
- Denotes proposed tegula paved areas
 - Denotes bin collection area
 - Denotes access gates to private properties.
 - Denotes 1.8m high screen brick wall & piers, to match adjacent property.
 - Denotes 1.8m high close-boarded timber screen fence with 0.3m high trellis. 2.1m total height.
 - Denotes 1.8m high plot divisional fence.
 - Denotes 1.2m high iron railings - painted black
 - Denotes retaining wall **A** Low rendered wall within gardens
 - Denotes retaining wall **B** Brick retaining wall within gardens
 - Denotes retaining wall **C** Brick retaining wall with piers and timber fence infill.
 - Denotes retaining wall **D** Low timber retaining wall.
 - Denotes proposed steps in gardens. Location and size shown indicatively, refer to engineers details for more information.

17.04.2023	Site boundary amended. Drainage strategy updated to reflect RSI 8 of the Drainage Strategy Plan.	CW
06.04.2023	Layout finalised for submission.	AC
31.03.2023	Notes added and plot 18 garage moved forward.	AC
20.01.2023	Boundary treatments amended & SUDS area updated.	AC
29.11.2022	Plot 02 & 03 amended.	AC

Rev Date Revision Initial

* Client

LANCET HOMES

* Drawing Title

PLANNING LAYOUT

* Project

Proposed Residential Development, Crompton Avenue, Rochdale.

Job No	20109	Dirg No	01	Drawn	AC	Rev	E
Scale	1:500 @ A2	Date	APRIL 2023	Stage	FOR PLANNING		

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