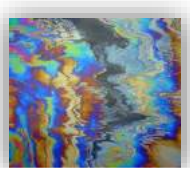


INVESTIGATE



REMEDIATE



REGENERATE

T E C H N I C A L R E P O R T

WALKOVER SURVEY
AND DESK STUDY
AT
MARY STREET,
HEYWOOD,
GREATER MANCHESTER,
FOR
MR M LENNON

DESK STUDY NO. 6628
DECEMBER 2018

SUB SURFACE NORTH WEST LIMITED
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WALKOVER SURVEY AND DESK STUDY AT MARY STREET, HEYWOOD, GREATER MANCHESTER, OL10 1EG.

CLIENT: MR M LENNON

ARCHITECT: GOOD & TILLOTSON

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1. INTRODUCTION

This report has been prepared in accordance with an emailed instruction, dated 07th November 2018, from the Architect on behalf of the Client.

The brief was set out in our estimate, ref. E2926A and dated 25th October 2018, and comprises a walkover survey and a desk study report including historical, geological and environmental appraisals together with a conceptual ground model and a Coal Mining Risk Assessment.

1.1 Site Location and Description

The site is located at Mary Street, Heywood, Greater Manchester, OL10 1EG, as indicated in Figure 1. The approximate National Grid Reference of the centre of the site is 385403, 410602.

As shown in Figure 2, the site comprises an almost rectangular shaped plot of land of 0.01ha. It is bound by Mary Street to the north, an empty plot of land followed by 20 Mary Street to the east, 12 Mary Street to the west and an access route for a semi-detached property to the south.

1.2 Proposed Development and Purpose of the Desk Study

We understand that it is proposed to develop the site with a two-storey detached residential property with garden areas to the front and rear, as shown in Figure 3.

The purpose of the desk study is to obtain information regarding the site's historical, geological and environmental setting in order to produce a conceptual ground model, to assess the ground conditions, to undertake a preliminary assessment of contamination sources, pathways and receptors relating to potential hazards that exist or will potentially exist on the site and to assess the need for ground investigation.

In addition a geological and mining appraisal was required to determine the geological structure, including the depth and thickness of coal and other mineral seam horizons, to determine the potential for mine-workings in these horizons based upon the available information and to provide our conclusions and recommendations.

1.3 Walkover Survey

The walkover survey was undertaken on 27th November 2018. Photographs taken during the site walkover are appended, with their locations and any surface features observed indicated in Figure 2.

At the time of the walkover, the southern 75% of the site comprised a garden area for 12 Mary Street with boundaries delineated by wooden fencing. The northern 25% of the

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site was open to Mary Street and was used as car parking for 12 Mary Street. The topography was flat and the ground surface was mainly grass and shrubs

No visual or olfactory contamination was noted during the walkover survey.

2. DESK STUDY

2.1 Historical Appraisal

The history of the site has been interpreted from the study of old Ordnance Survey plans supplied by GroundSure, as follows:

TABLE 1 SMALL SCALE SURVEYS

Date	Scale
1851	1:10,560
1890 – 1891	1:10,560
1908 – 1909	1:10,560
1928	1:10,560
1938	1:10,560
1955 – 1956	1:10,560
1965 – 1968	1:10,560
1974 – 1975	1:10,000
1981 – 1983 *	1:10,000
1987	1:10,000
1992	1:10,000
2002	1:10,000
2010	1:10,000
2014	1:10,000

TABLE 2 LARGE SCALE SURVEYS

Date	Scale
1851	1:1,056
1890	1:2,500
1910	1:2,500
1929	1:2,500
1937	1:2,500
1956	1:1,250 **
1957	1:2,500
1964 – 1968	1:1,250 **
1969	1:2,500
1971 – 1974	1:1,250 **
1978 – 1984	1:1,250 **
1985 – 1990	1:1,250 **
1986 – 1990	1:1,250 **
1988 – 1992	1:1,250 **
1991 – 1992	1:1,250 **
1994 *	1:1,250 **
1992 – 1995	1:1,250 **
1994 – 1995	1:1,250 **

* Site not covered by the survey.
** Published scale, the appended extract is reproduced at 1:2,000

Extracts of the above surveys are appended.

TABLE 3 HISTORICAL APPRAISAL

Date	On site	Beyond site boundary
1851	At the time of the earliest survey, the site comprised an end-terrace property and half of the adjacent property, fronting onto Long Field to the north. A small building was also depicted to the rear.	The terraced housing fronting onto Long Field continues to the east of the site boundary, with more terraced housing 10m to the north. Two reservoirs are depicted 55m to the north of the site boundary along with Dawson Hill cotton mill 90m to the north. A brickfield is shown 30m to the west of the site boundary, a rope walk is shown 65m to the northeast and a small river is shown 65m to the south.

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1890-1891	The southern half of the site has now been split into gardens for the terraced properties in the north. The road that the terraced properties front onto is now named Mary Street.	New buildings are depicted adjacent to the western site boundary and new terraced properties have been built 25m to the northwest and 30m to the west. Dawson Hill cotton mill has been extended and is now 25m to the north of the site boundary and the two reservoirs are now depicted as a single reservoir. A new rope walk is depicted 25m to the southeast of the site boundary and the rope walk to the northeast is no longer shown. A gravel pit is shown 60m to the east of the site boundary and a Cartridge Steam Ropery is shown 100m to the west. The small river 65m to the south is no longer shown, the nearest river is now 180m to the southwest. The brickfield is no longer depicted.
1908-1910	No significant changes are noted during this time.	The Cartridge Ropery has been extended and is now 55m to the west of the site boundary and the gravel pit has been extended to the east. A mortuary is now depicted 70m to the east of the site boundary and an electricity generating station is shown 200m to the south. A cotton mill (Plum Mill) and reservoir is now depicted 210m to the southwest of the site boundary.
1928-1929	A small extension has been added to the rear of one of the properties on site.	A row of six terraced properties is now depicted adjacent to the western site boundary. The gravel pit has been extended to the north and is now depicted as an unspecified pit. Part of the southern and western parts of the pit have been infilled and Taylor Street, a school and a church are now depicted in this area. Tanks are now shown 100m to the west of the site boundary and 200m to the south and a tramway is shown 160m to the southeast.
1937-1938	No significant changes are noted during this time.	The remainder of the unspecified pit to the east appears to have been infilled, with a police station and offices built in its place. An embankment is shown 120m to the northeast of the site boundary.
1955-1957	No significant changes are noted during this time.	Dawson Hill cotton mill has been extended to the east and is now depicted as a warehouse with further warehouses to the north. The reservoir at the mill appears to have been infilled. A sheet metal works is now depicted 105m to the northwest of the site boundary and allotment gardens are shown 190m to the west. The electricity generating station 200m to the south of the

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		site boundary is now depicted as an electricity substation.
1964-1968	No significant changes are noted during this time.	The warehouse to the north has been extended and is now 15m to the northeast of the site boundary. The embankment 120m to the northeast is no longer depicted and a building with a car park is shown in its place.
1969	All buildings on site (numbers 14 and 16 Mary Street) appear to have been demolished.	The building adjacent to the eastern site boundary (18 Mary Street) appears to have been demolished.
1971-1975	No significant changes are noted during this time.	No significant changes are noted during this time.
1978-1984	No significant changes are noted during this time.	The terraced housing 10m to the north of the site boundary and 20m to the northwest appear to have been demolished.
1985-1990	No significant changes are noted during this time.	The cotton mill (Plum Mill) and reservoir 210m to the southwest appear to have been demolished and infilled.
1991-1995	No significant changes are noted during this time.	The electricity substation 200m to the south appears to have been partially demolished and is now depicted as a works with a new smaller electricity substation alongside.
2002	No significant changes are noted during this time.	No significant changes are noted during this time.
2010	No significant changes are noted during this time.	No significant changes are noted during this time.
2014	No significant changes are noted during this time.	The large warehouse building 15m to the northeast has been demolished.

We are not aware of any other significant changes within the site and its immediate surrounding area.

2.2 Geological Appraisal

This geological appraisal is based on the appended Groundsure Geo Insight Report, the British Geological Survey (BGS) published sheet number 85, solid edition at 1:50,000 scale and dated 1975, an extract of which is given as Figure 4, and the BGS published sheet number SD81SE, at 1:10,000 scale and dated 2007, an extract of which is given in Figure 5.

Made Ground

The Geo Insight report indicates there are no records of artificial ground in the immediate vicinity of the site, however some may be expected due to past developments on and adjacent to the site. The nearest record of artificial ground is 212m to the southwest of the site boundary.

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Drift

The Geo Insight report indicates the drift strata beneath the site are expected to be Glaciofluvial Deposits from the Devensian period, generally comprising sands and gravels. The strata is indicated as having a high to very high permeability.

Bedrock

The Geo Insight report and BGS sheets indicate the bedrock beneath the site is anticipated to be mudstone, siltstone and sandstone belonging to the Pennine Lower Coal Measures Formation of Westphalian age. The Geo Insight report indicates the strata as having a low to high permeability.

The Geo Insight report and BGS sheets show two coal seams sub-cropping to the northeast of the site with a general north-northwest to south-southeast alignment. The first coal seam is unnamed and sub-crops 165m to the northeast and the second coal seam is the Arley Mine and sub-crops 346m to the northeast.

No geological faults are recorded within the site boundary, the nearest is recorded as being 444m to the west, running north-northwest to south-southeast with a downthrow to the east.

BGS sheet 85 shows an arrow 1400m to the northwest of the site boundary indicating that the strata generally dip down at approximately 10° towards the southwest.

No abandoned mineshafts are shown on the BGS sheets; however, some abandoned mineshafts may be present.

The anticipated succession of strata at the centre of the site is as tabulated below. The approximate thicknesses and depths given are the best that can be determined from the above information.

TABLE 1 STRATIGRAPHICAL SUCCESSION

Strata	Maximum Unworked Thickness (m approx.)	Vertical Interval (m approx.)	Depth of Base below Bedrock (m approx.)
Made Ground	Unknown		
Glacial Sands & Gravels	Unknown		
CARBONIFEROUS COAL MEASURES:			
Undifferentiated		29	
Coal	0.1		29
Undifferentiated		32	
Arley Mine Coal	0.5		61

Radon

The Geo Insight report contains information from the Radiation Protection Division of the Health Protection Agency (HPA). The HPA indicate that the site is not in a Radon Affected Area as less than 1% of surrounding properties are above the Action Level. The Action Level is 200 Becquerels/m^3.

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In addition, the report indicates that for new properties or extensions to existing properties, in accordance with the Building Research Establishment (BRE) publication BR211, no radon protection measures are required.

Ground Workings

The Geo Insight report indicates there are multiple historical surface ground-working features within 250m of the site boundary; including a mortuary 25m to the east, a reservoir 51m to the north and a refuse heap 57m to the east.

The report indicates there is one current (ceased) ground working within 250m of the site boundary, which is a brickfield 85m to the west.

In addition, the report indicates there are no records of historical underground working features within 250m of the site boundary.

Mining, Extraction & Natural Cavities

Information supplied by the Coal Authority indicates that the site is within a coal mining area and a full Mining Appraisal assessing the risk to ground stability due to mining is provided in Chapter 2.3.

The Geo Insight report indicates that there are no historical mining features within 1km of the site boundary.

The report indicates the site is not in an area affected by non-coal mining, non-coal mining cavities, natural cavities, brine extraction, gypsum extraction, tin mining or clay mining.

Natural Ground Subsidence

The Geo Insight report indicates that the risk from landslides, collapsible deposits and running sands is very low and the risk from shrinking/swelling clays, ground dissolution of soluble rocks and compressible deposits is negligible.

Railways and Tunnels

The Geo Insight report indicates three historical railway and tunnel features within 250m of the site boundary, which are tramway sidings 160m to the south and 229m to the south and railway sidings 244m to the north.

The report indicates there are no historical or active railways, active or inactive underground railway lines or railway tunnels within 250m of the site boundary.

Additionally, the report indicates that the site is not within 5km of the route of the High Speed 2 rail project or within 500m of the Crossrail 1 rail project.

2.3 Mining Appraisal

The presence of mineral seams, including coal, which might have been mined beneath the site has been determined from the published BGS sheets and the Coal Authority Mining Report, reference 51001780710001 and dated 14th February 2018, a copy of which is appended.

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The Coal Authority indicates that according to their limited, and probably incomplete, records the site surface is not considered to be affected by underground or opencast coal mining. However, the site is in an area where the Coal Authority believe there is coal at or close to the surface, which may have been worked at some time in the past. It should be noted that it did not become a statutory requirement to maintain and preserve plans of abandoned mines until the Mines (Coal) Regulations Act of 1872, by which date much unrecorded mining had taken place and of those plans that were made it is likely that not all will have survived.

The Coal Authority also indicates that there is no current mining or proposals to mine coal beneath the site, although reserves of coal exist which could be mined in the future subject to feasibility, licences and planning consents. It should be noted that on 23 December 2015 all underground coal mining ceased in the UK.

The Coal Authority are not aware of any recorded abandoned mine entries within the site or within 20 metres of the site boundary. However, the Coal Authority records may be incomplete and hence mine entries may be present for which the Coal Authority has no knowledge.

In any old mining area such as this, where records are generally incomplete, the existence of unrecorded mine entries should not be discounted and appropriate precautions should be taken during all earthworks. Should a mine entry be suspected appropriate action would need to be taken in the light of the established condition and location as determined by inspection and investigation.

In view of the anticipated depth of drift, the fact that the first coal seam is anticipated to be 29m below the bedrock and the Coal Authority statement that the site is not within a surface area that could be affected by recorded past underground mining, no further consideration needs to be given to coal mining.

2.4 Environmental Appraisal

This environmental appraisal is based on the appended Groundsure Enviro Insight Report.

<u>Historical Land Use</u>

The Enviro Insight report indicates that there are multiple historical sites of potentially contaminative land use on site and within 250m of the site boundary. These include a corporation yard within the site boundary, however this is possibly a mapping error as the Corporation Yard was adjacent to the south on the OS maps, an unspecified mill 6m to the northwest and an unspecified warehouse 18m to the northeast.

The report indicates that there are four historical tanks within 250m of the site boundary, with the nearest being unspecified tanks 104m to the north and 104m to the east.

The Enviro Insight report indicates that there are five historical energy features within 250m of the site boundary. These include four electricity substations, with the nearest being 104m to the north, and a gasometer 112m to the west.

The report indicates that there are no historical fuel sites or garages within 250m of the site boundary.

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Finally, the report indicates that there are multiple potentially infilled features within 250m of the site boundary. These include a brickfield 32m to the west, a reservoir 51m to the north and a refuse heap 57m to the east.

IPC/ IPPC/ Part A(1) Authorisations

The Enviro Insight report indicates there are no IPC, IPPC or Part 1(A) Authorised Activities within 500m of the site boundary.

Potentially Harmful Discharges

The Enviro Insight report indicates that there are no records of potentially harmful discharges to public sewers or controlled waters within 500m of the site boundary.

List 1 and List 2 Dangerous Substances Inventory Sites

The Enviro Insight report indicates that there are no sites with List 1 or List 2 Dangerous Substances Inventory within 500m of the site boundary.

Part A(2) and Part B Authorisations

The Enviro Insight report indicates that there is one site with Part B Authorisation related to air pollution within 500m of the site boundary, which is a current permit for unloading petrol at a service station 385m to the north.

The report indicates that there are no sites with Part A(2) Authorisation within 500m of the site boundary.

Radioactive Substance Licences

The Enviro Insight report indicates that there are no records of Category 3 or Category 4 Radioactive Substance Licenses within 500m of the site boundary.

Discharges

The Enviro Insight report indicates that there are no licensed discharge consents within 500m of the site boundary.

Water Industry Referrals for Potentially Harmful Discharges to Public Sewers

The Enviro Insight report indicates that there are no records of potentially harmful discharges to public sewers within 500m of the site boundary.

Planning Hazardous Substances Consents and Enforcements

The Enviro Insight report indicates that there are no Planning Hazardous Substances Consent within 500m of the site boundary.

Dangerous or Hazardous Sites

The Enviro Insight report indicates that there are no NIHHS or COMAH sites within 500m of the site boundary.

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Pollution Incidents

The Enviro Insight report indicates that there have been two pollution incidents within 250m of the site boundary; these were both 291m to the north in 2002 with minor air impact. In our opinion, any impact to the site from the recorded pollution incidents is negligible.

Contaminated Land

The Enviro Insight report indicates that there are no sites determined as contaminated under Section 78R of the Environmental Protection Act (1990) within 500m of the site boundary.

Landfill Sites

The Enviro Insight report indicates that there are no current or historical registered landfill sites within 250m of the site boundary.

Other Waste Treatment, Transfer and Disposal Sites

The Enviro Insight report indicates that there are no waste treatment, transfer or disposal sites within 250m of the site boundary.

Current Land Use

The Enviro Insight report indicates that there are twenty-six sites of current potentially contaminative industrial land use within 250m of the site boundary. These include a warehouse 83m to the north, a tank 108m to the north and an electricity substation 113m to the north.

The report indicates that there are two petrol stations within 500m of the site boundary, one 360m to the north indicated as open and another 457m to the east indicated as obsolete.

Hydrogeology and Hydrology

Designation of aquifers in the environmental data report are in accordance with the Environment Agency's April 2010 Groundwater Protection Policy.

The underlying glaciofluvial deposits are indicated to be a Secondary A aquifer, which comprises permeable layers capable of supporting water supplies at a local scale and in some cases forming an important source of base flow to rivers.

The underlying bedrock is also indicated to be a Secondary A aquifer.

The Enviro Insight report indicates that there is one groundwater abstraction licence within 1km of the site boundary, which is a historical permit 791m to the east. The report indicates that there are no surface water abstraction licences within 1km of the site boundary and no potable water abstraction licences within 2km.

There are no Source Protection Zones set up to protect the catchment within 500m of the site boundary, according to the Enviro Insight report.

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The Enviro Insight report indicates that there are no surface water features within 250m of the site boundary.

The report states that the site is located in a Flood Zone 1 with a low probability of flooding and a Flood Risk Assessment is not required. The Enviro Insight report indicates that there no Flood Defences or Flood Storage Areas present within 250m of the site boundary. The highest risk of flooding on site from rivers and sea, according to the Environment Agency, is very low.

The report indicates that there are British Geological Survey groundwater flooding susceptibility areas within 50m of the site boundary and these relate to “Superficial Deposits Flooding”.

Ground conditions, as determined from the British Geological Survey records, indicate that there is potential below surface for groundwater flooding in the area of the site. The confidence level for the above classification is low.

Environmental Sensitivity

The Enviro Insight report indicates three areas of Green Belt land, with the nearest being 707m to the northwest, seven areas of Ancient Woodland, with the nearest being 1155m to the northwest and a Nitrate Vulnerable Zone 1934m to the east. There are no other environmentally sensitive sites indicated within 2km of the site boundary.

2.5 Conceptual Ground Model

A conceptual ground model of a site and its environs uses available information to form a preliminary assessment of contamination sources, pathways and receptors, and the significance of hazards that exist or will potentially exist on the site. Its purpose is to identify the relationships between sources of contamination, pathways and receptors to allow exposure scenarios to be determined and thereby aid in the design of any intrusive investigation. It also forms the basis of the risk assessment.

Sources

Potential sources of contamination identified in the desk study are:

- General contaminants including asbestos in any made ground present on site, derived from past demolition processes on the site and the past industrial processes adjacent to the site.
- Hydrocarbon contamination from spillage and leakage of oils and fuels associated with the car parking area on site.
- Possible migration of ground gases from the brickfield 32m to the east, infilled reservoir 55m to the north and the infilled gravel pit 60m to the east later denoted as a refuse heap.

Pathways

Potential pathways between sources and receptors for the proposed development are:

- Direct contact with and ingestion of contaminated soil and inhalation of dust by site workers during construction and by end users of the site in landscaped areas.

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- Inhalation of vapours by site workers during construction and by the end users of the site in enclosed ground floor spaces.
- Uptake of contaminated groundwater by plants grown in landscaped areas.
- Migration of contaminants to controlled waters, including the underlying aquifers.
- Consumption by end users of the site of contaminated fruit and vegetables grown in the garden areas
- Accumulation of ground gases in enclosed spaces.

Receptors

Potential receptors for the proposed development are:

- Site workers during the demolition and construction phases.
- The end users of the site.
- Plants grown in landscaped areas.
- Controlled waters, including the underlying aquifers.

Conclusions

An appraisal of the sources, pathways and receptors has been considered and we have produced a conceptual ground model based upon the available information, as follows:

TABLE 4 CONCEPTUAL GROUND MODEL

Potential Source	**Nature of Hazard**	**Contaminants Associated with the Source**	**Pathway**	**Receptor**	**Preliminary Risk Rating**
Made Ground (likely from past demolition processes) Past industrial processes adjacent to the site	Contaminants in Made Ground	Gen. Contaminants Arsenic Cadmium Chromium Lead Mercury Nickel Selenium Boron Copper Zinc Cyanide Sulphide Sulphate pH Phenols Polynuclear Aromatic Hydrocarbons (PAH) Total Petroleum Hydrocarbons (TPH) VOCs SVOCs	Ingestion of soil Ingestion of dust Dermal contact Inhalation of dust Inhalation of vapours	Site Operatives End Users	Low
			Uptake via contaminated groundwater	Vegetation	Low
			Vertical and lateral movement of mobile contaminants to surface water and groundwater	Controlled Waters	Low
			Direct contact	Structures and Services	Low
Asbestos in Made Ground	Asbestos fibres	Asbestos fibres	Inhalation of fibres	Site Operatives End Users	Low
Vehicles (areas of site used for car parking)	Fuel/oil spillage and/or leakage from vehicles	Total Petroleum Hydrocarbons (TPH) Benzene/ Toluene/ Ethylbenzene/ Xylene (BTEX)	Ingestion of soil Ingestion of dust Dermal contact Inhalation of dust Inhalation of vapours	Site Operatives End Users	Low to Moderate

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			Uptake via contaminated groundwater	Vegetation	Low to Moderate
			Vertical and lateral movement of mobile contaminants to surface water and groundwater	Controlled Waters	Low to Moderate
			Direct contact	Structures and Services	Low to Moderate
Landfill (infilled gravel pit, infilled reservoir, refuse heap and brickfield)	Ground Gas (Asphyxiation, fire and explosion)	Methane Carbon Dioxide	Inhalation of gas Ignition of gas	Site Operatives End Users	Low to Moderate

The conceptual ground model indicates that an intrusive ground investigation is required to assess the ground conditions. The ground investigation should obtain soil samples for asbestos detection and contamination analysis and, where possible, groundwater and surface water samples for contamination analysis.

In addition, the conceptual ground model indicates that ground gases may be present and hence gas standpipes should be installed and monitored over an extended period of time to allow an assessment to be made.

2.6 General

No consideration has been given to flora and fauna as this was outside our brief.

This Phase I walkover survey and desk study should be followed by a Phase II ground investigation. It should be noted that dependent upon the findings of the ground investigation a Phase III remediation statement and Phase IV validation with report may be required.

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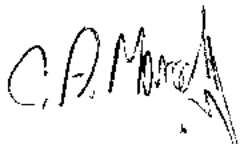
We trust that this report fulfils your present requirements but if you have any queries or we can be of further assistance please contact the undersigned or Miss Anna Marsden at our Preston office.

SUB SURFACE CONSULTANTS LIMITED
REPORT No. 6628
DECEMBER 2018



M. S. Banwell
Geotechnical Technician
For and on behalf of
Sub Surface Consultants Limited



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Director
For and on behalf of
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PHOTOGRAPHS

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Photographs

Site: MARY STREET, HEYWOOD, GREATER MANCHESTER

Client: MR M LENNON

Architect: GOOD & TILLOTSON

Job No. 6628

Sheet 1 / 1

Survey Date 27/11/18

WALKOVER SURVEY PHOTOGRAPHS

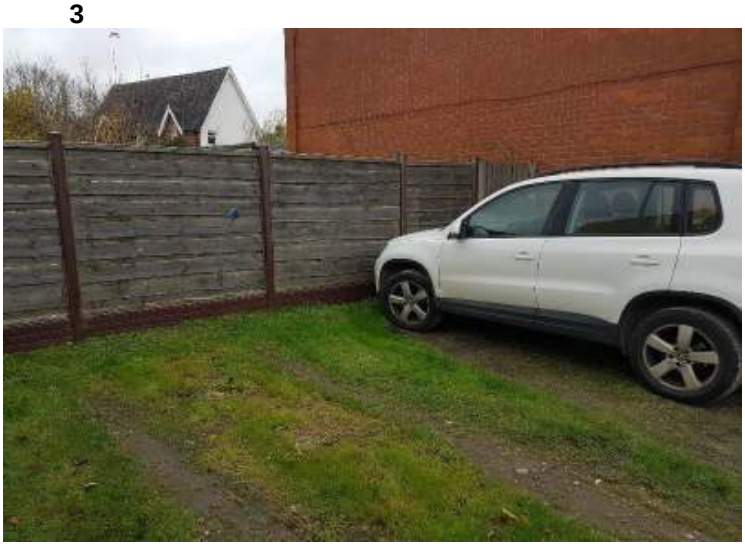
1



2



3



GEOINSIGHT REPORT

Geo Insight

Address:	**Mary Street, Heywood,**
Date:	**7 Nov 2018**
Reference:	**CMAPS-CM-754706-4199-071118GEO**
Client:	**CENTREMAPS**

NW N NE



W E

SW S SE

Aerial Photograph Capture date:	02-May-2011
Grid Reference:	385403,410602
Site Size:	0.01ha

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Overview of Findings

The Groundsure Geo Insight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 and 1:10,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Non-coal mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Geology 1:10,000 Scale		
1.1 Artificial Ground	1.1 Is there any Artificial Ground/ Made Ground present beneath the study site at 1:10,000 scale?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site at 1:10,000 scale?*	Yes
	1.2.2 Are there any records of landslip within 500m of the study site boundary at 1:10,000 scale?	No
1.3 Bedrock, Solid Geology and linear features	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale?	Yes

Section 2: Geology 1:50,000 Scale		
2.1 Artificial Ground	2.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	2.1.2 Are there any records relating to permeability of artificial ground within the study site*boundary?	No
2.2 Superficial Geology and Landslips	2.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*	Yes
	2.2.2 Are there any records of permeability of superficial ground within 500m of the study site?	Yes
	2.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	2.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	No

Section 2: Geology 1:50,000 Scale

2.3 Bedrock, Solid Geology and linear features	2.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	2.3.2 Are there any records relating to permeability of bedrock ground within the study site boundary?	Yes
	2.3.3 Are there any records of linear features within 500m of the study site boundary?	Yes

Section 3: Radon

3. Radon	3.1Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
	3.2Radon Protection	No radon protective measures are necessary.

Section 4: Ground Workings	On-site	0-50m	51-250	251-500	501-1000
4.1 Historical Surface Ground Working Features from Small Scale Mapping	0	2	18	Not Searched	Not Searched
4.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
4.3 Current Ground Workings	0	0	1	2	6

Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.1 Historical Mining	0	0	0	0	0
5.2 Coal Mining	1	0	0	0	0
5.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
5.4 Non-Coal Mining*	0	0	0	0	0
5.5 Non–Coal Mining Cavities	0	0	0	0	0
5.5 Natural Cavities	0	0	0	0	0

Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.6 Brine Extraction	0	0	0	0	0
5.7 Gypsum Extraction	0	0	0	0	0
5.8 Tin Mining	0	0	0	0	0
5.9 Clay Mining	0	0	0	0	0

Section 6: Natural Ground Subsidence	On-site
6.1 Shrink-Swell Clay	Negligible
6.2 Landslides	Very Low
6.3 Ground Dissolution of Soluble Rocks	Negligible
6.4 Compressible Deposits	Negligible
6.5 Collapsible Deposits	Very Low
6.5 Running Sand	Very Low

Section 7: Borehole Records	On-site	0-50m	51-250
7 BGS Recorded Boreholes	0	0	18

Section 8: Estimated Background Soil Chemistry	On-site	0-50m	51-250
8 Records of Background Soil Chemistry	1	0	0

Section 9: Railways and Tunnels	On-site	0-50m	51-250	250-500
9.1 Tunnels	0	0	0	Not Searched
9.2 Historical Railway and Tunnel Features	0	0	14	Not Searched
9.3 Historical Railways	0	0	0	Not Searched
9.4 Active Railways	0	0	0	Not Searched
9.5 Railway Projects	0	0	0	0

1:10,000 Scale Availability

NW N NE

W E

SW S SE



1_10,000 Availability Legend

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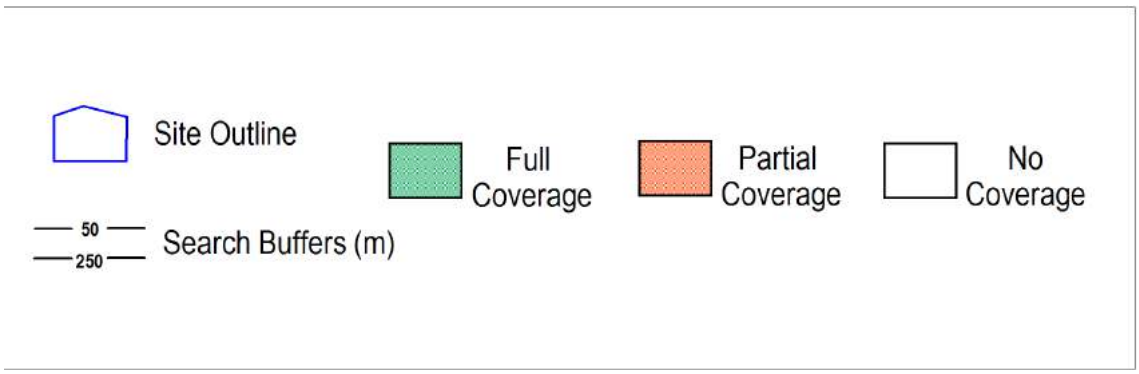


Availability of 1:10,000 Scale Geology Mapping

The following information represents the availability of the key components of the 1:10,000 scale geological data.

ID	Distance	Artificial Coverage	Superficial Coverage	Bedrock Coverage	Mass Movement Coverage
1	0.0	Some deposits are mapped	Full	Full	Some deposits are mapped
2	398.0	Some deposits are mapped	Full	Full	Some deposits are mapped
3	591.0	Some deposits are mapped	Full	Full	Some deposits are mapped
4	716.0	Some deposits are mapped	Full	Full	Some deposits are mapped

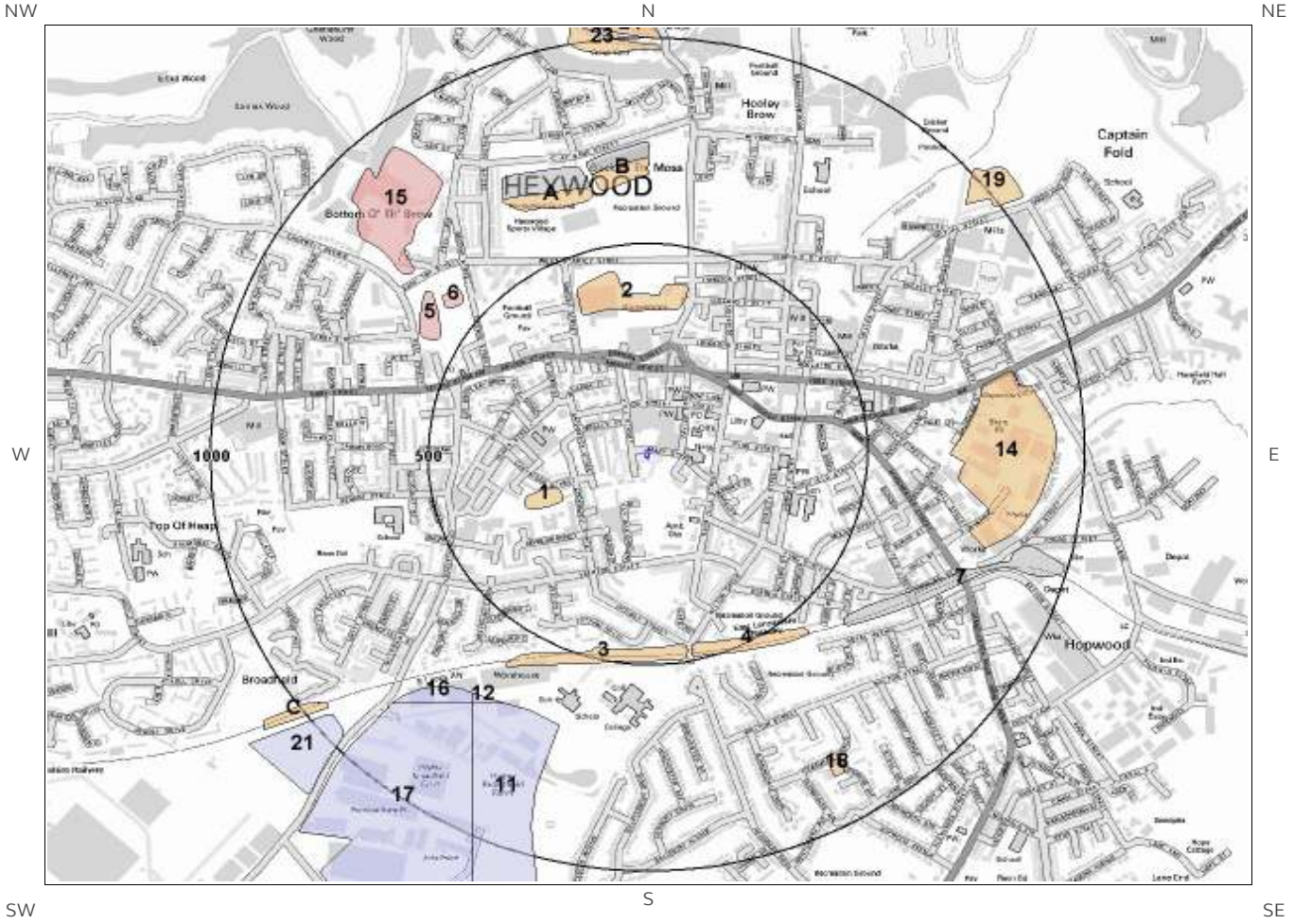
Guidance: The 1:10,000 scale geological interpretation is the most detailed generally available from BGS and is the scale at which most geological surveying is carried out in the field. The database is presented as four types of geology (artificial, mass movement, superficial and bedrock), although not all themes are mapped or available on every map sheet. Therefore a coverage layer showing the availability of the four themes is presented above.

The definitions of coverage are as follows:

Geology	Full Coverage	Partial Coverage	No Coverage
Bedrock	The whole tile has been mapped	Some but not all the tile has been mapped	No coverage
Superficial	The whole tile has been mapped	Some but not all of the tile has been mapped	No coverage
Artificial	Some deposits are mapped on this tile	-	No deposits are mapped
Mass Movement	Some deposits are mapped on this tile	-	No coverage

1 Geology (1:10,000 scale).

1.1 Artificial Ground map (1:10,000 scale)



Artificial Ground Legend

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Site Outline

500
1000
Search Buffers (m)

Made Ground (undivided)

Worked Ground (undivided)

Infilled Ground

Disturbed Ground (undivided)

Landscaped Ground (undivided)

Reclaimed Ground

1. Geology 1:10,000 scale

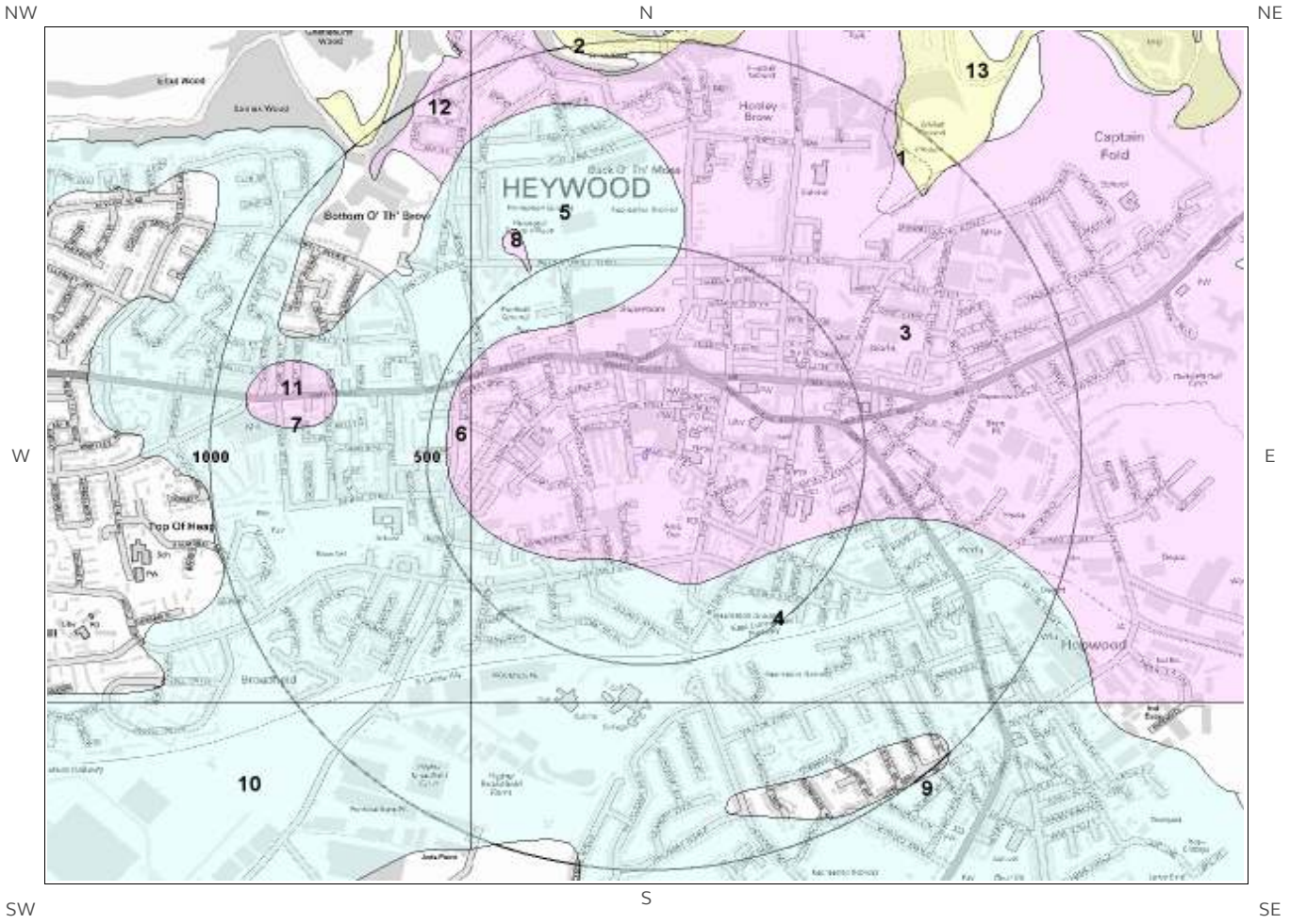
1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

Are there any records of Artificial/ Made Ground within 500m of the study site boundary at 1:10,000 scale? Yes

ID	Distance	Direction	LEX Code	Description	Rock Description
1	212.0	SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	339.0	N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	455.0	S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	459.0	S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

1.2 Superficial Deposits and Landslips map (1:10,000 scale)



Artificial Ground Legend

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Site Outline

500
1000
Search Buffers (m)

1.2 Superficial Deposits and Landslips

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary at 1:10,000 scale? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
3	0.0	On Site	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel
4	254.0	S	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
5	354.0	N	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
6	398.0	W	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel
7	422.0	W	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton

1.2.2 Landslip

Are there any records of Landslip within 500m of the study site boundary at 1:10,000 scale?

No

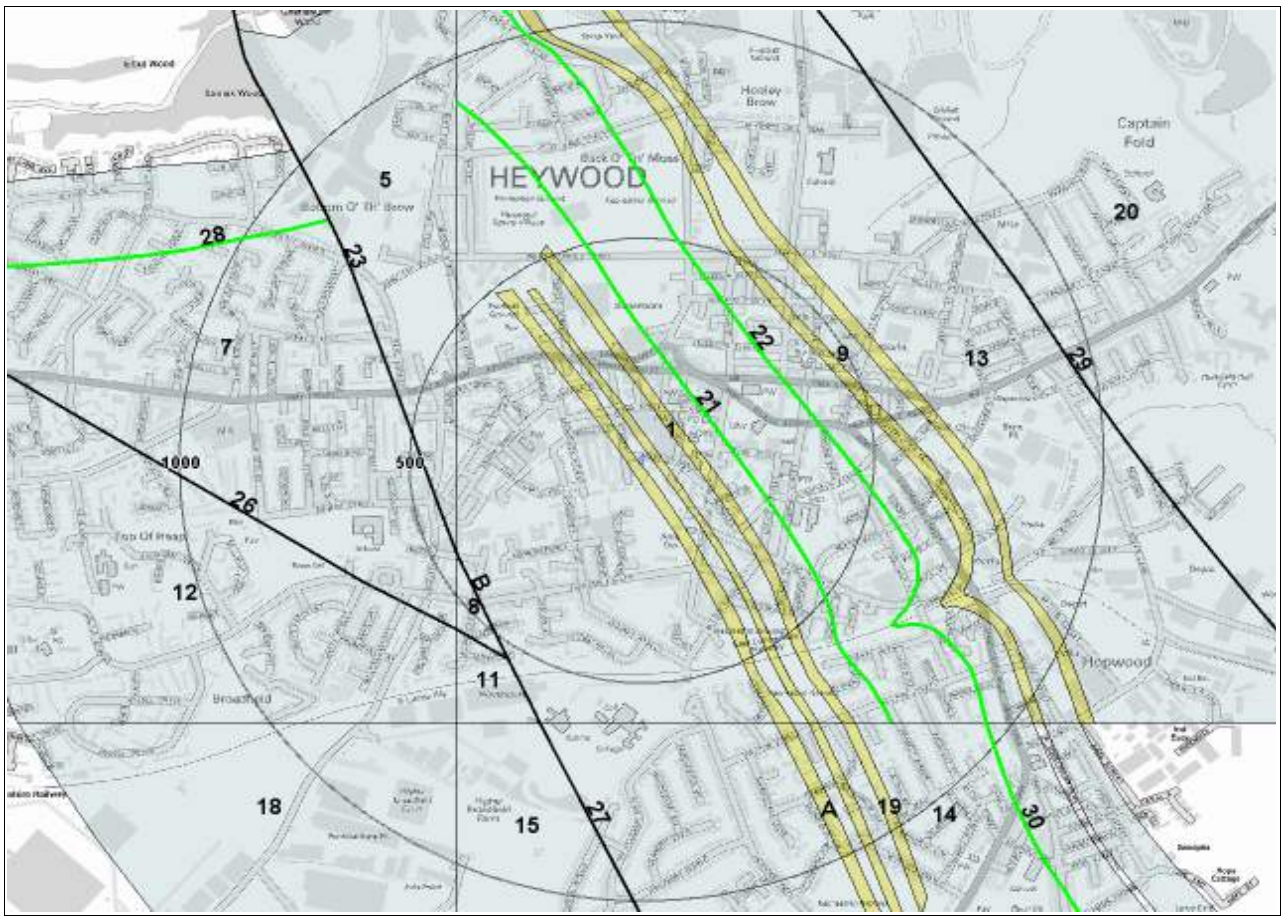
Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:10,000 scale

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.3 Bedrock and linear features map (1:10,000 scale)

NW N NE



W E

SW S SE

Bedrock and linear features Legend

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Site Outline

500
1000
Search Buffers (m)

1.3 Bedrock and linear features

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary at 1:10,000 scale.

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
2	0.0	On Site	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
3	10.0	NE	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
4	78.0	NE	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
5	398.0	W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
6	438.0	NE	RSC-SDST	Riddle Scout Rock - Sandstone	Langsettian Sub-age
7	444.0	W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
8	448.0	SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
9	462.0	NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age

1.3.2 Linear features

Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale? Yes

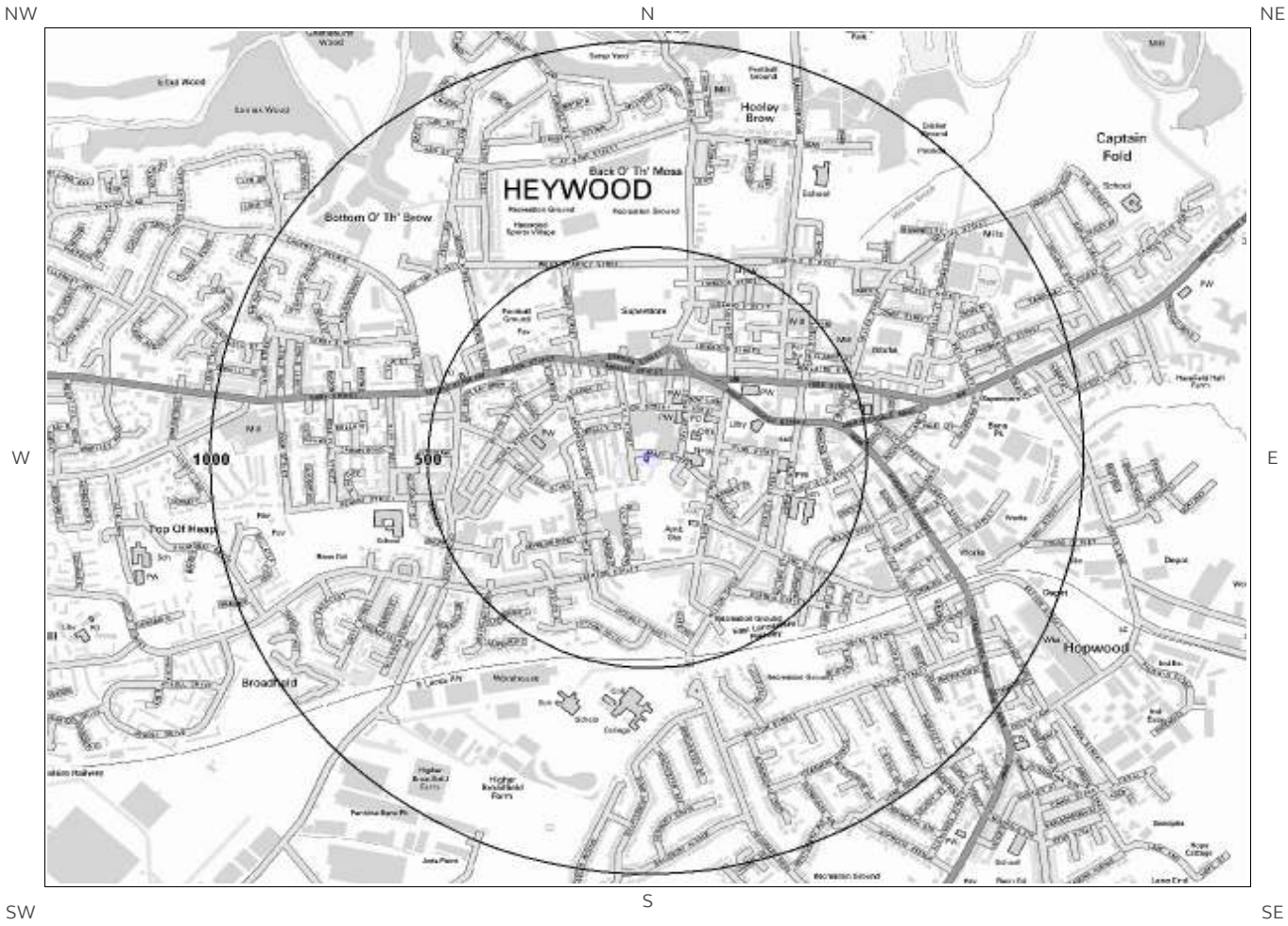
ID	Distance (m)	Direction	Category Description	Feature Description
21	165.0	NE	ROCK	Coal seam, inferred
22	346.0	NE	ROCK	Coal seam, inferred
23	444.0	W	FAULT	Normal fault, inferred; crossmarks on downthrow side
24B	448.0	SW	FAULT	Normal fault, inferred; crossmarks on downthrow side

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of great Britain at 1:10,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2 Geology 1:50,000 Scale

2.1 Artificial Ground map



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Site Outline

500
1000
Search Buffers (m)

Made Ground (undivided)

Disturbed Ground (undivided)

Worked Ground (undivided)

Landscaped Ground (undivided)

Infilled Ground

Reclaimed Ground

2. Geology 1:50,000 scale

2.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 085

2.1.1 Artificial/ Made Ground

Are there any records of Artificial/ Made Ground within 500m of the study site boundary? No

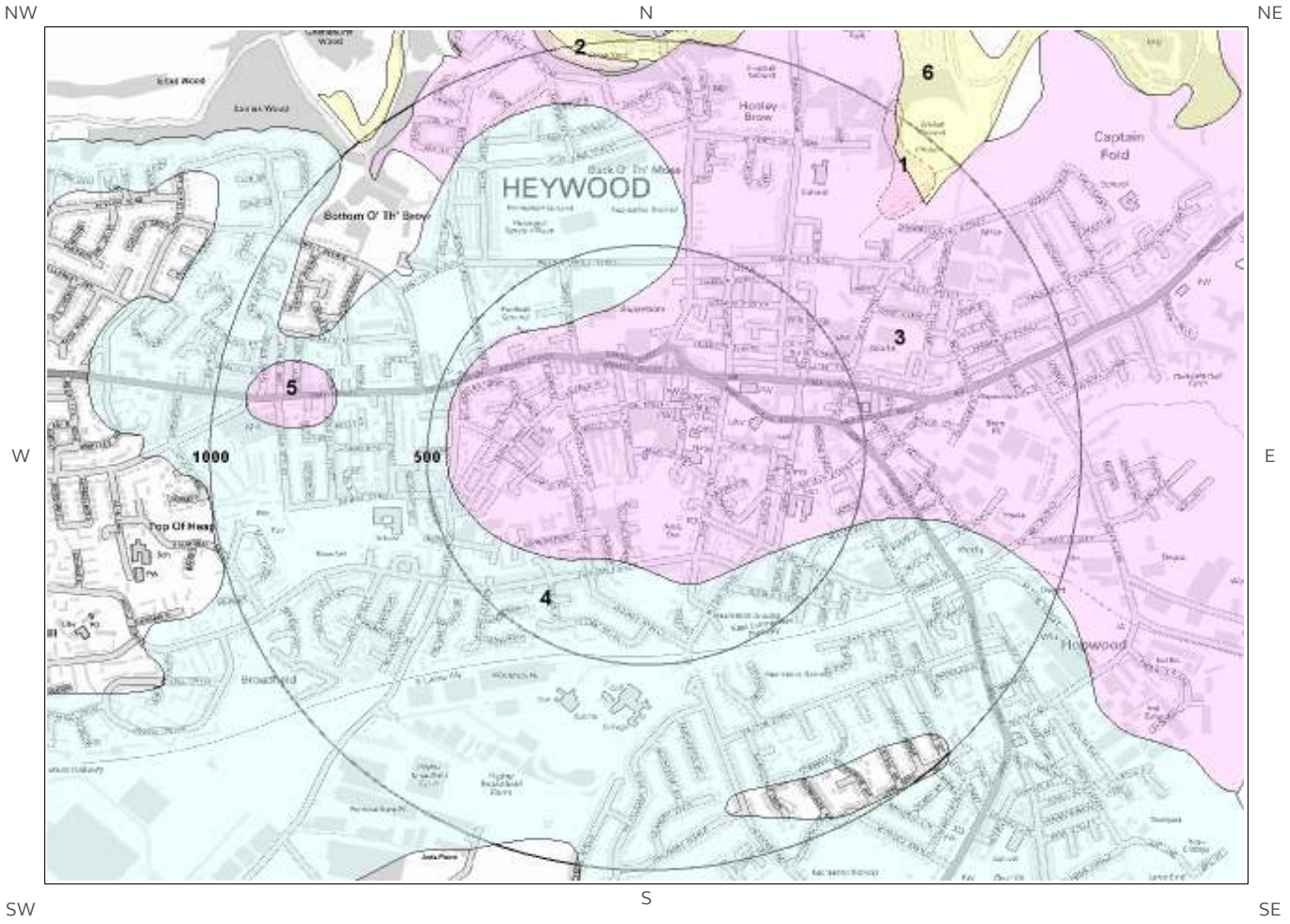
Database searched and no data found.

2.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? No

Database searched and no data found.

2.2 Superficial Deposits and Landslips map (1:50,000 scale)



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Site Outline

500
1000
Search Buffers (m)

2.2 Superficial Deposits and Landslips

2.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance	Direction	LEX Code	Description	Rock Description
3	0.0	On Site	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
4	254.0	S	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

2.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	Very High	High

2.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

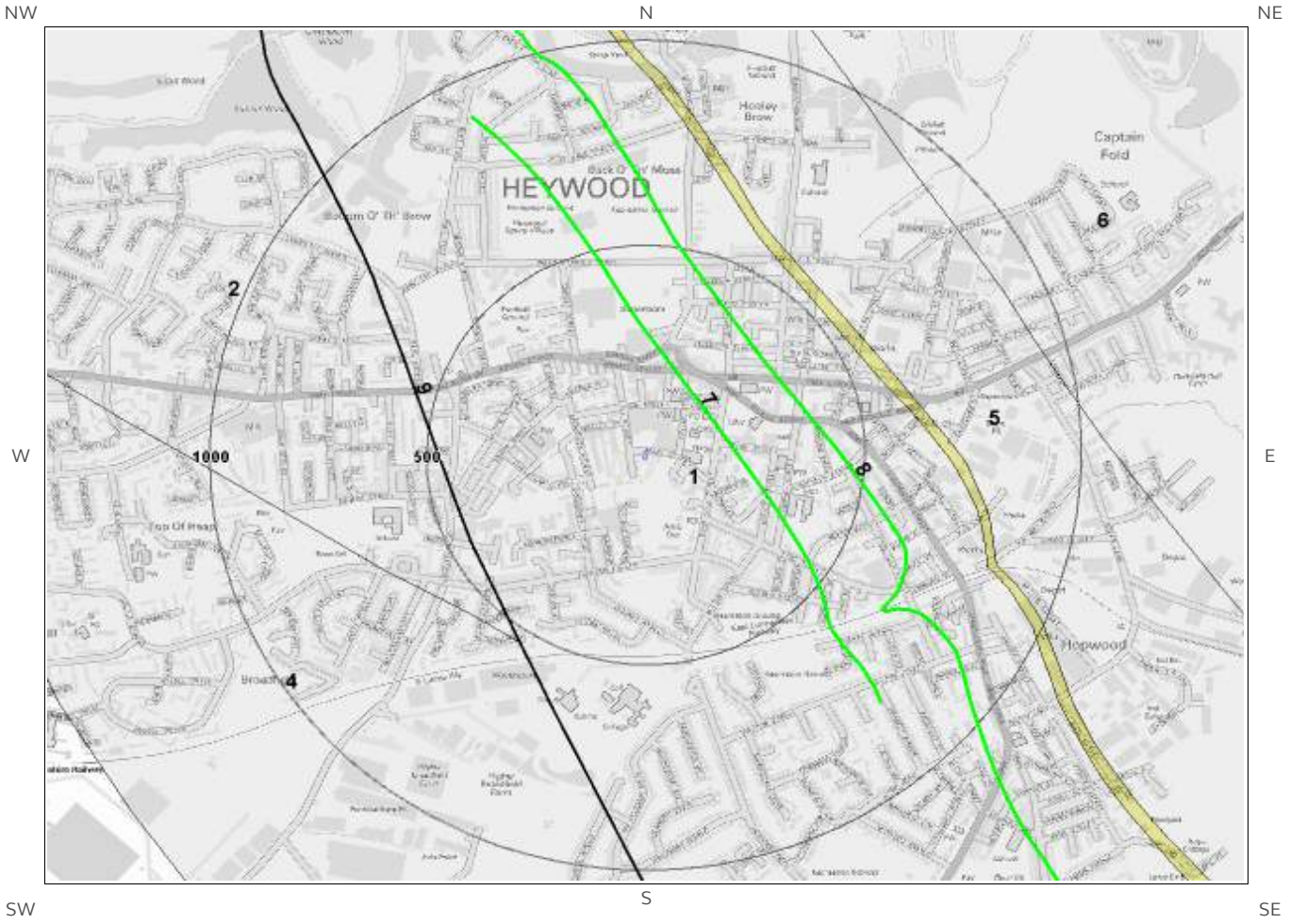
This Geology shows the main components as discrete layers, there are: Artificial/ Made Ground, Superficial/ Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site boundary? No

Database searched and no data found.

2.3 Bedrock and linear features map (1:50,000 scale)



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Site Outline

500
1000
Search Buffers (m)

2.3 Bedrock, Solid Geology & linear features

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 085

2.3.1 Bedrock/Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary:

ID	Distance	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
2	444.0	W	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

2.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site boundary? Yes

Distance	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	High	Low

2.3.3 Linear features

Are there any records of linear features within 500m of the study site boundary? Yes

ID	Distance	Direction	Category Description	Feature Description
7	166.0	NE	ROCK	Coal seam, inferred
8	346.0	NE	ROCK	Coal seam, inferred
9	444.0	W	FAULT	Fault, inferred

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/Solid Geology and linear features such as faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nation wide coverage.

3 Radon Data

3.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

3.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

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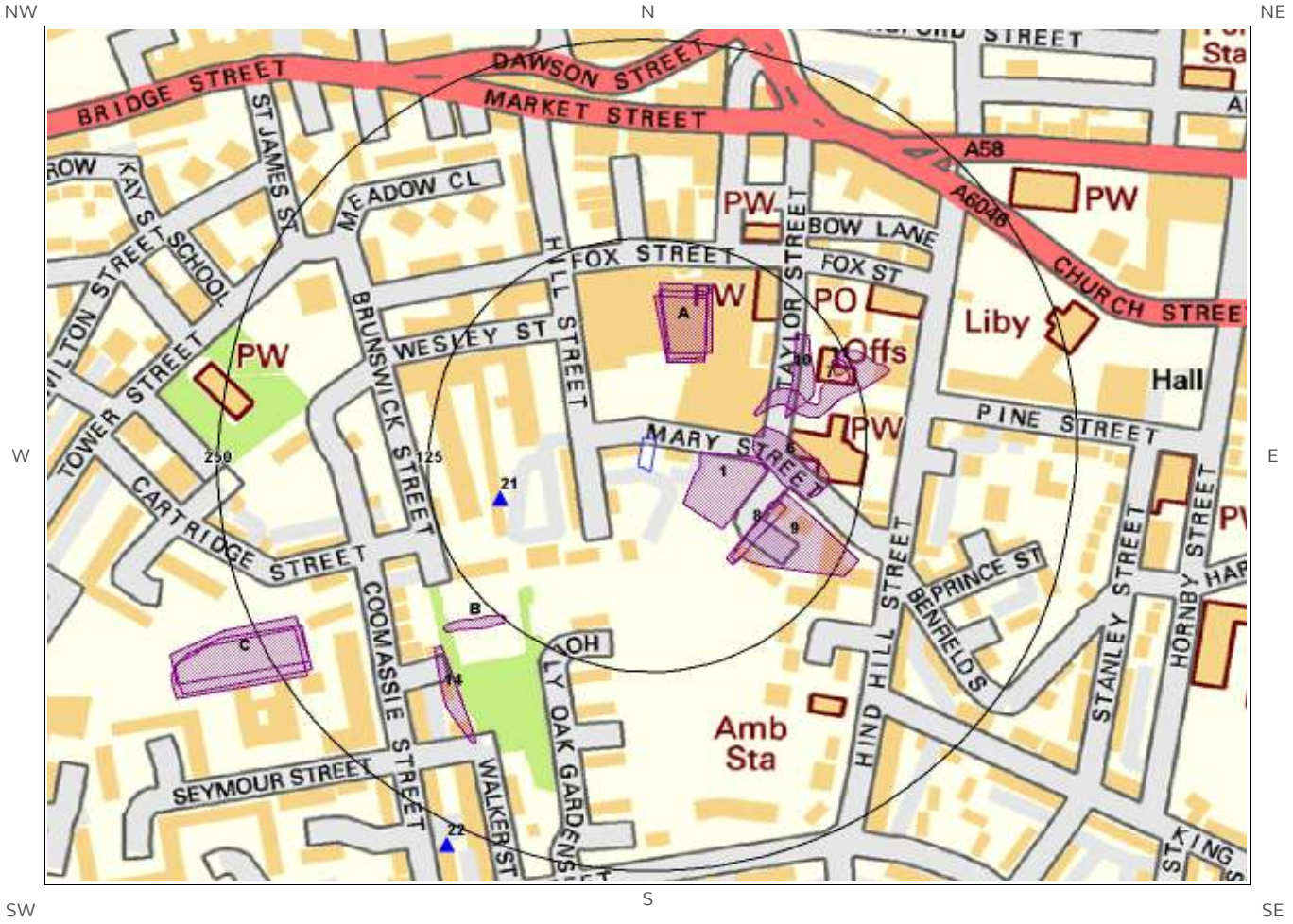
4 Ground Workings map



Ground Workings Legend

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Site Outline

125
250
Search Buffers (m)

Historic Surface Ground Workings

Historic Underground Workings

Current Ground Workings

4 Ground Workings

4.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Use	Date
1	25.0	E	385450 410580	Mortuary	1949
2A	49.0	N	385423 410682	Pond	1890
3A	51.0	N	385425 410684	Reservoir	1909
4A	51.0	N	385425 410684	Reservoir	1928
5A	55.0	N	385427 410688	Reservoir	1938
6	57.0	E	385489 410598	Refuse Heap	1890
7	60.0	E	385522 410647	Refuse Heap	1909
8	69.0	SE	385468 410554	Mortuary	1909
9	69.0	SE	385491 410553	Mortuary	1928
10	78.0	E	385494 410652	Unspecified Pit	1928
11	114.0	E	385517 410657	Unspecified Heap	1928
12B	124.0	SW	385301 410496	Unspecified Ground Workings	1928
13B	124.0	SW	385301 410496	Unspecified Ground Workings	1909
14	163.0	SW	385289 410452	Pond	1890
15C	224.0	SW	385164 410474	Reservoir	1938
16C	224.0	SW	385161 410480	Reservoir	1975
17C	224.0	SW	385161 410480	Reservoir	1949
18C	224.0	SW	385161 410480	Reservoir	1968
19C	228.0	SW	385161 410471	Reservoir	1909
20C	228.0	SW	385161 410471	Reservoir	1928

4.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the Groundsure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? No

Database searched and no data found.

4.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

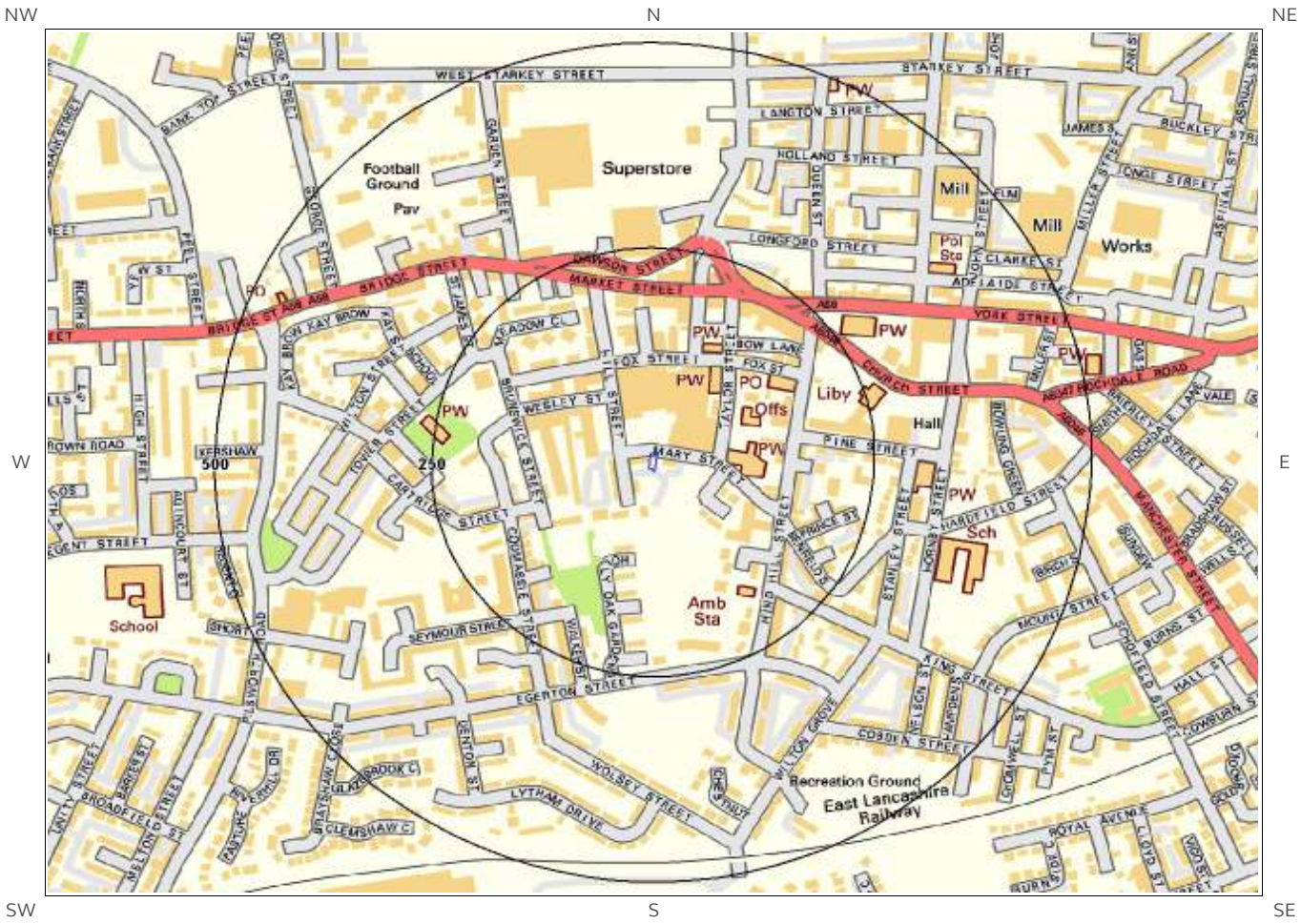
Are there any BGS Current Ground Workings within 1000m of the study site boundary? Yes

The following Current Ground Workings information is provided by British Geological Survey:

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
21	85.0	W	385316 410575	Clay & Shale	Long Field Brick Field	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
22	263.0	SW	385284 410358	Sand & Gravel	Pot Hall Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	282.0	S	385505 410327	Sand	Pot Hall Sand Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	759.0	NE	386074 410977	Clay & Shale	Heywood Brick Field	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	784.0	NW	384791 411105	Clay & Shale	Mill Bank Brick Works	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	814.0	E	386192 410834	Sand	Captain Fold Sand Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	881.0	NW	385015 411405	Sand	Lomax Sandpit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	896.0	E	386284 410805	Sand	Captain Fold Sand Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	926.0	SW	384711 409975	Clay & Shale	Field Head Brick Works	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

---

5 Mining, Extraction & Natural Cavities map



Mining, Extraction and Natural Cavities Legend

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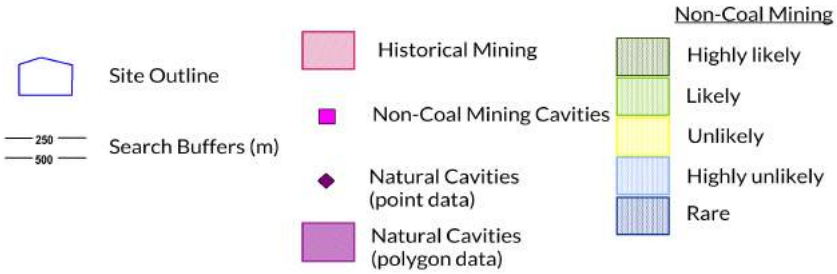


5 Mining, Extraction & Natural Cavities

5.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? Yes

The following Coal Mining information provided by the Coal Authority is not represented on Mapping:

Distance (m)	Direction	Details
0.0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

5.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary? No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

5.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled "Review of mining instability in Great Britain, 1990" PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? No

Database searched and no data found.

5.6 Natural Cavities

This dataset provides information based on the Peter Brett Associates natural cavities database. The dataset is made up of points and polygons. Where polygons are used these represent an area in which it is expected the cavities could be found. It does not indicate that cavities are present everywhere within the polygon, and caution should be used in the interpretation of this data.

Are there any Natural Cavities within 1000m of the study site boundary? No

Database searched and no data found.

5.7 Brine Extraction

This data provides information from the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

5.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

5.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level..

Are there any Tin Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.10 Clay Mining

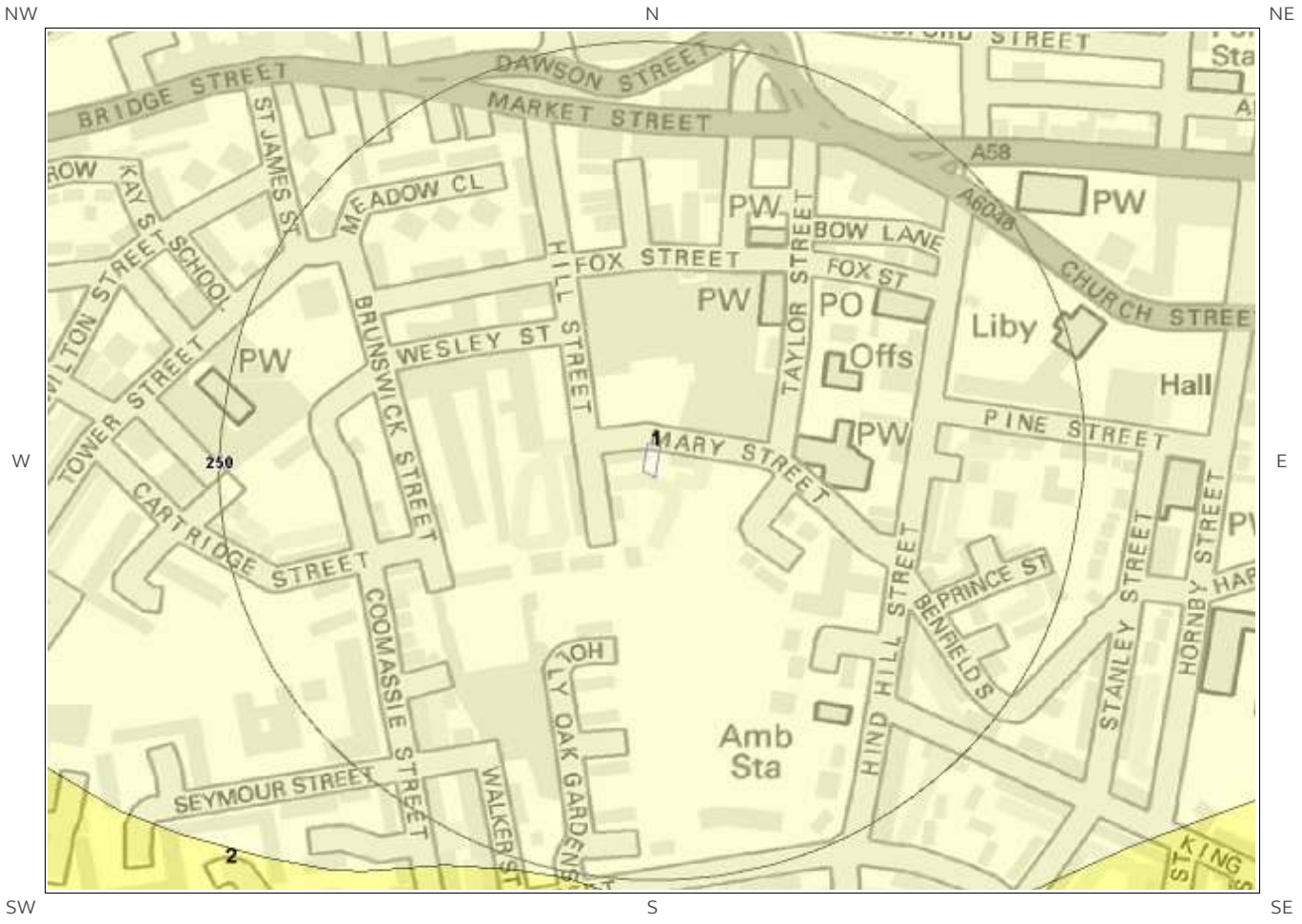
This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

Are there any Clay Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

6 Natural Ground Subsidence

6.1 Shrink-Swell Clay map



Shrink Swell Clay Legend

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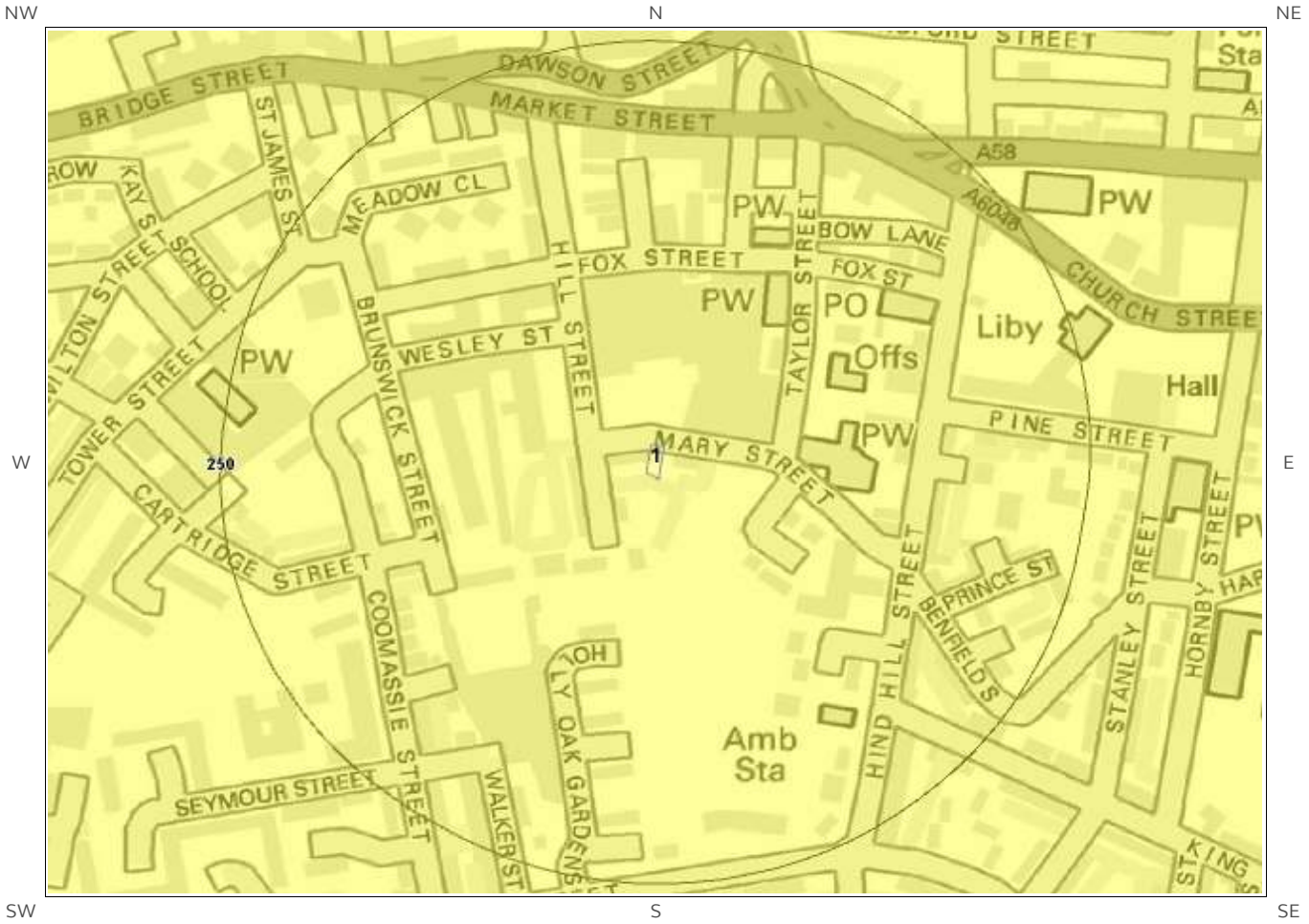
Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

6.2 Landslides map



Landslides Legend

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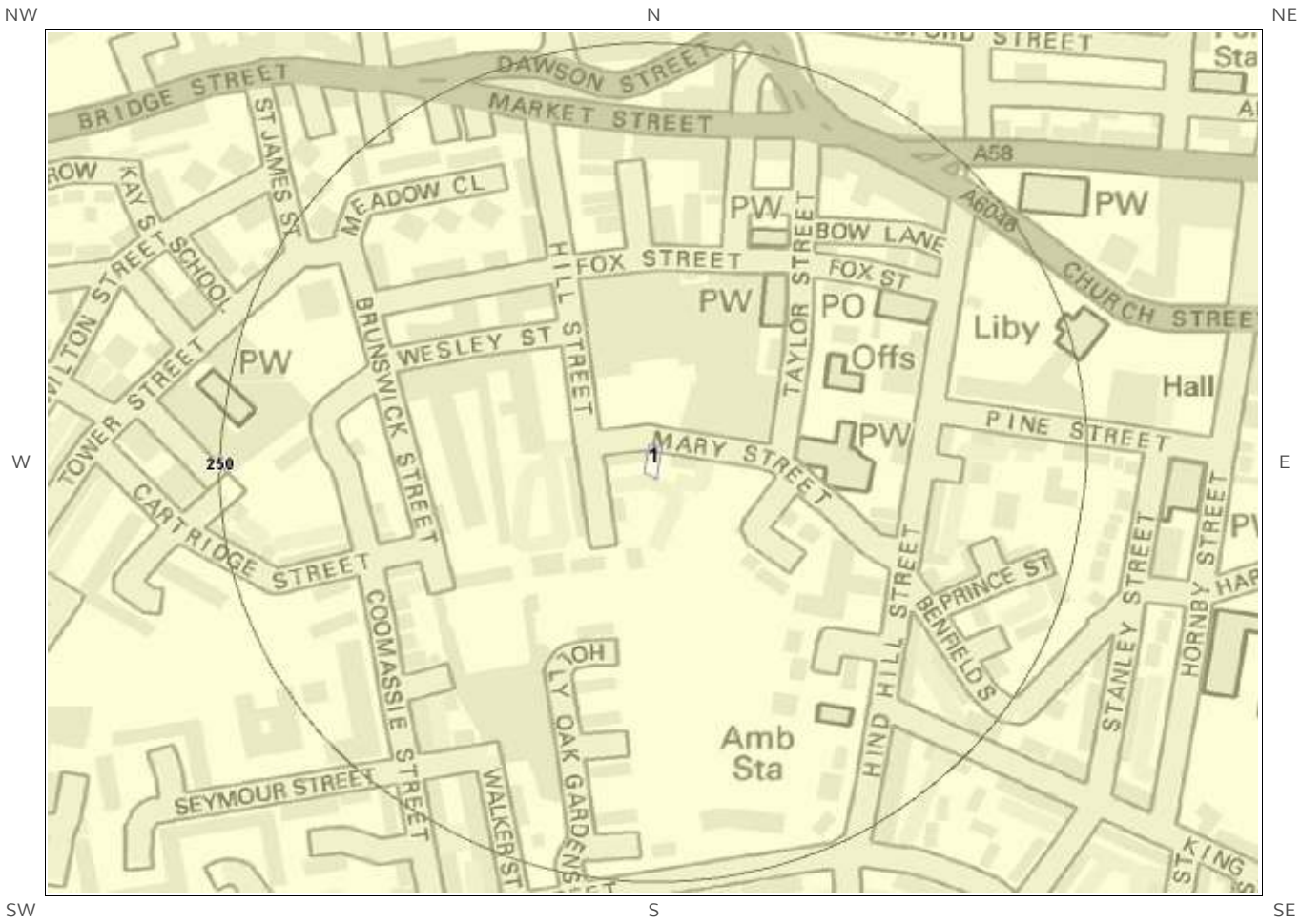
Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

6.3 Ground Dissolution of Soluble Rocks map



Ground Dissolution Soluble Rocks Legend

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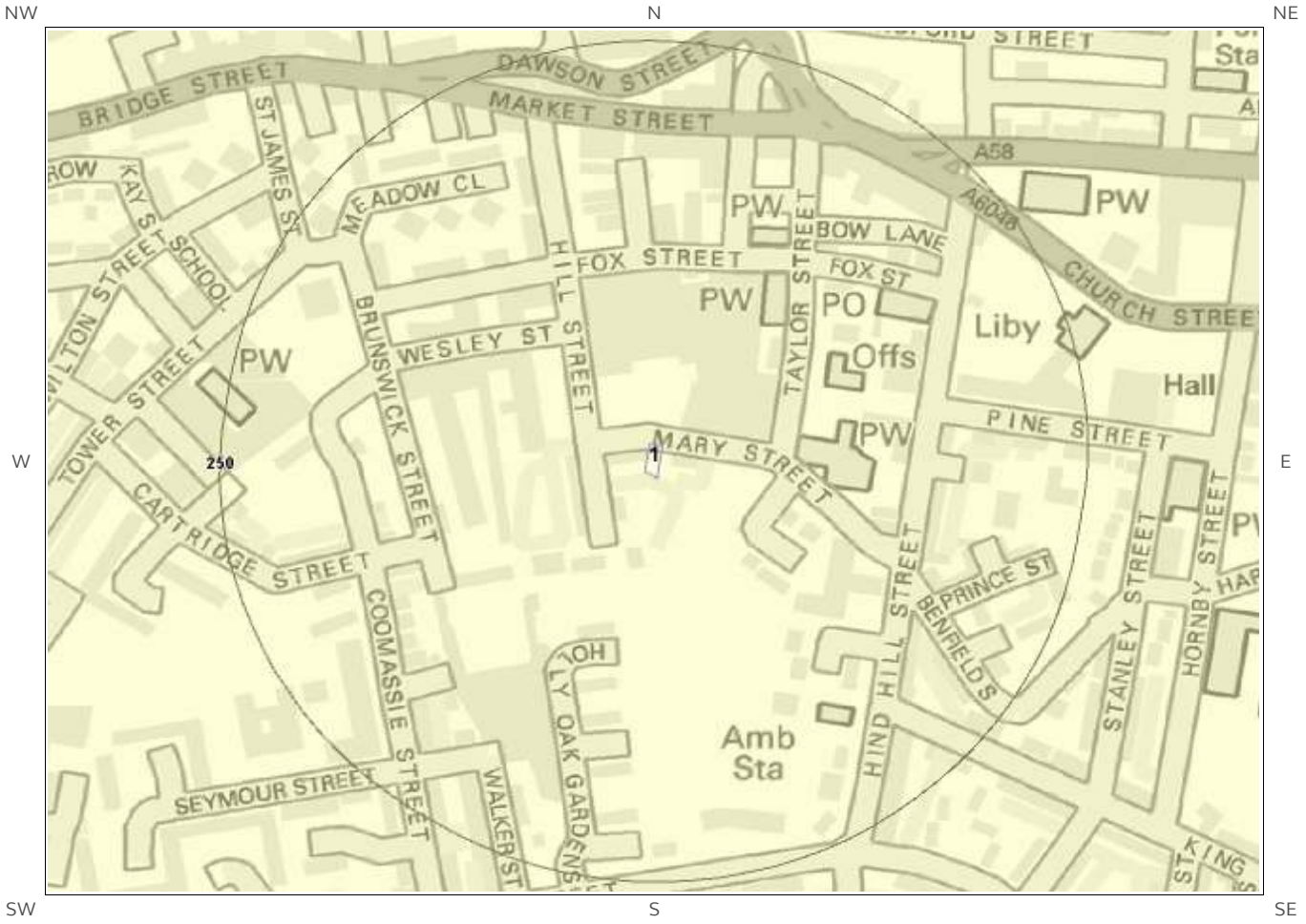
Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

6.4 Compressible Deposits map



Compressible Deposits Legend

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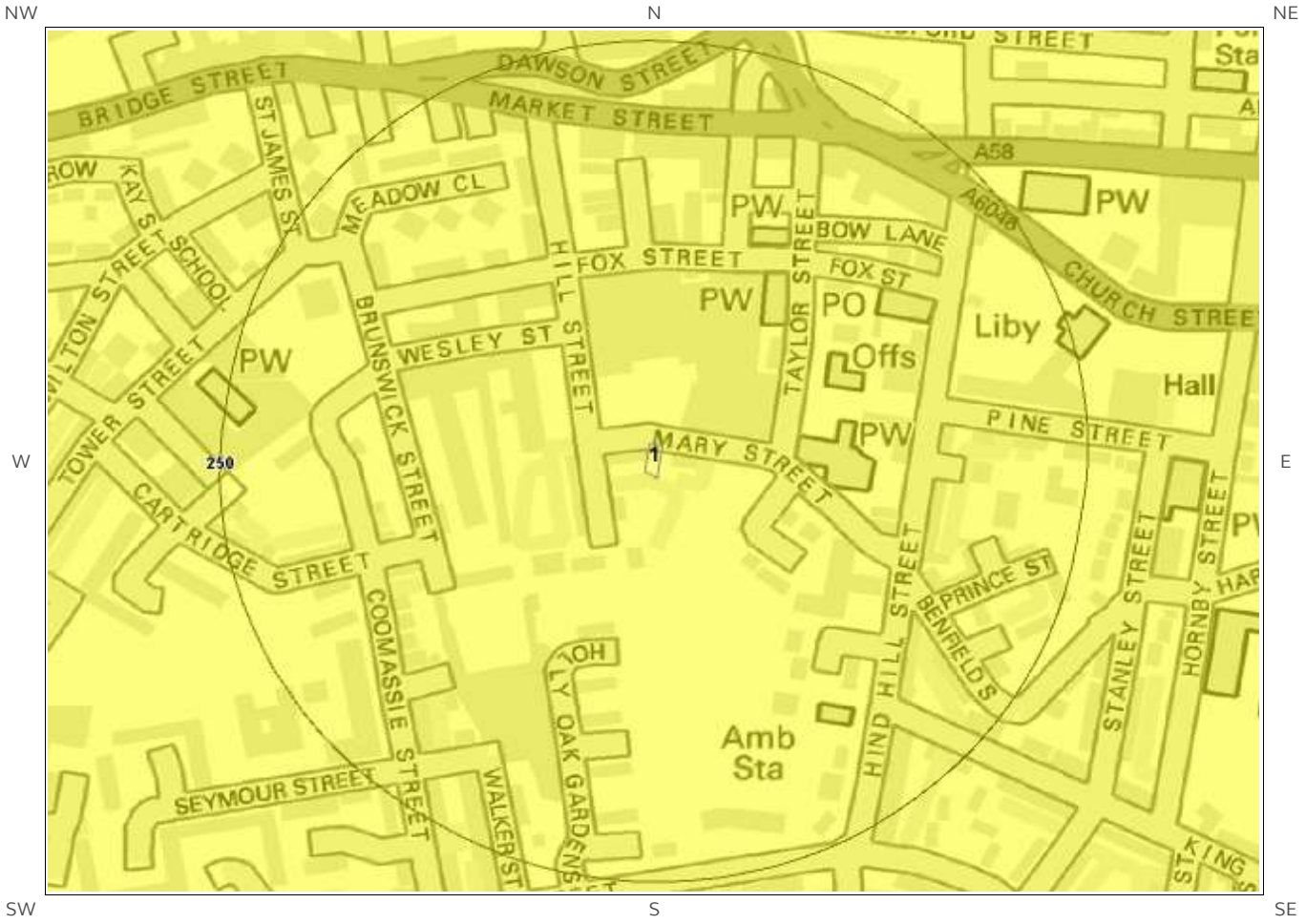
Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

6.5 Collapsible Deposits map



Collapsible Deposits Legend

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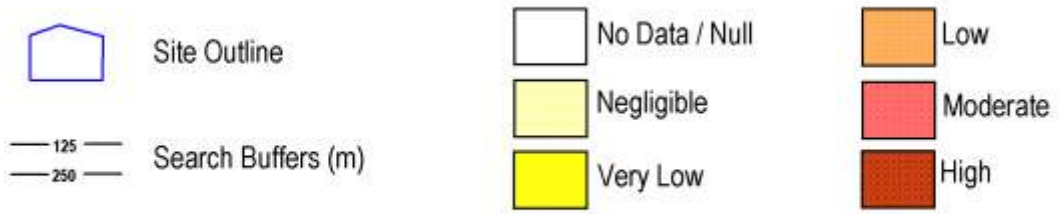
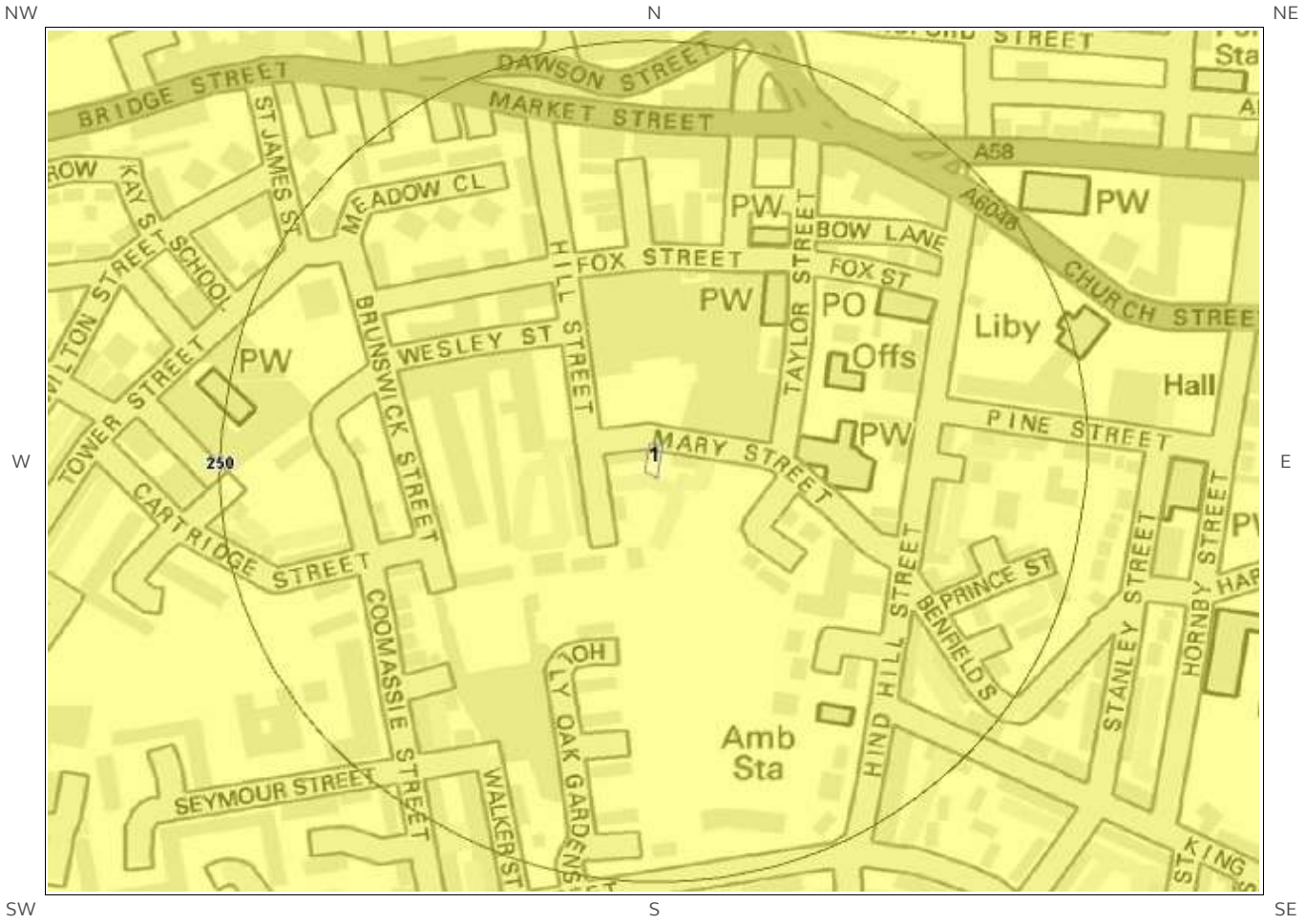


6.6 Running Sand map



Running Sand Legend

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Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

6 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site*[*] boundary? Very Low

6.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.

6.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

6.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

* This includes an automatically generated 50m buffer zone around the site

6.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

6.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

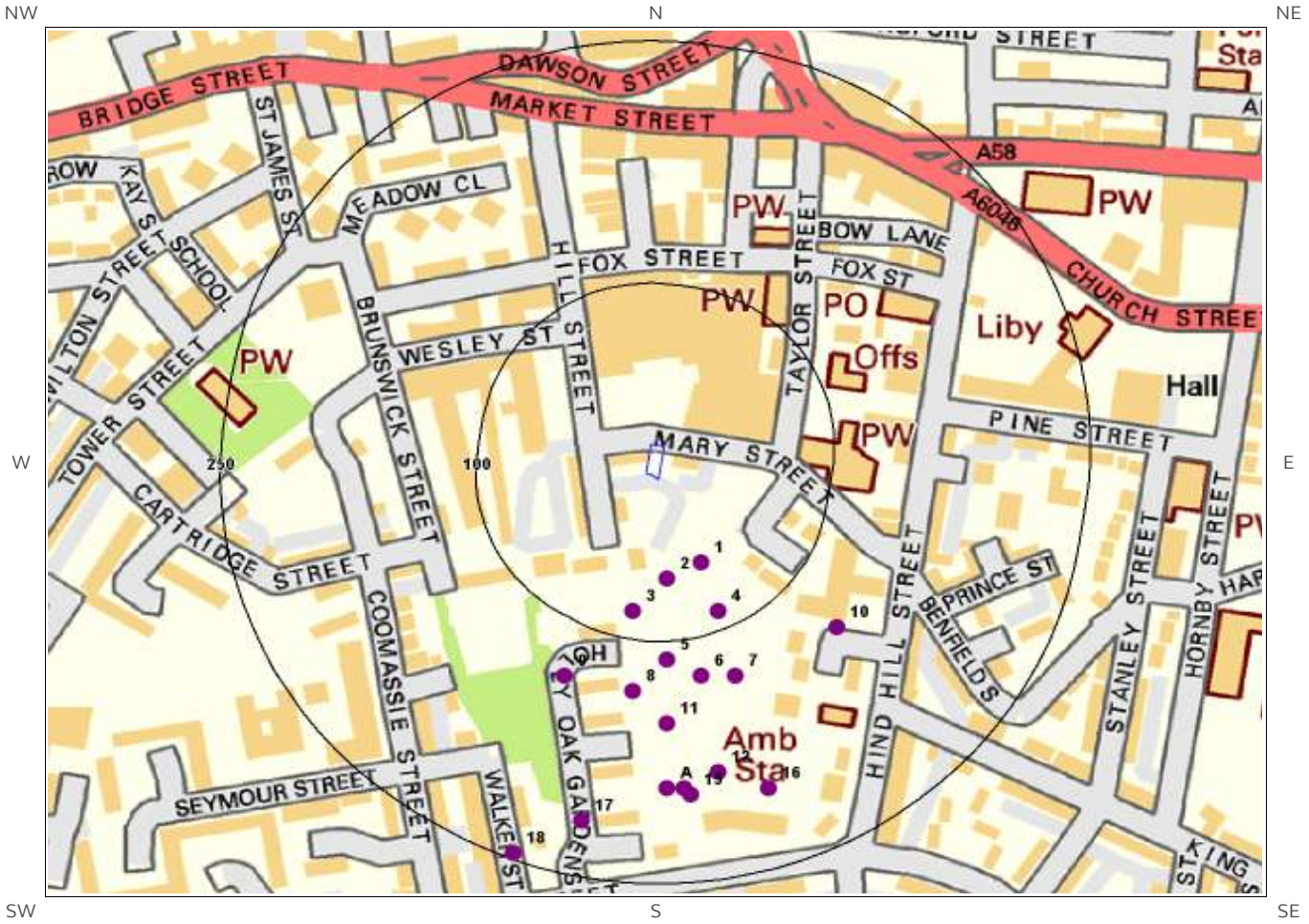
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

6.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

7 Borehole Records map



Borehole Records Legend

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Ordnance Survey licence 100035207.

Site Outline

Borehole Locations

125
250
Search Buffers (m)

7 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary: 18

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	57.0	SE	385430 410540	SD81SE390	15.0	MARY STREET/HIND HILL STREET HEYWOOD 12
2	62.0	S	385410 410530	SD81SE396	2.9	MARY STREET/HIND HILL STREET HEYWOOD TP6
3	83.0	S	385390 410510	SD81SE388	16.04	MARY STREET/HIND HILL STREET HEYWOOD 10
4	88.0	SE	385440 410510	SD81SE395	0.6	MARY STREET/HIND HILL STREET HEYWOOD TP5
5	111.0	S	385410 410480	SD81SE655	15.0	HEYWOOD, LANCASHIRE 2
6	124.0	S	385430 410470	SD81SE394	2.4	MARY STREET/HIND HILL STREET HEYWOOD TP4
7	129.0	S	385450 410470	SD81SE389	16.3	MARY STREET/HIND HILL STREET HEYWOOD 11
8	132.0	S	385390 410460	SD81SE387	15.22	MARY STREET/HIND HILL STREET HEYWOOD 9
9	133.0	SW	385350 410470	SD81SE656	15.0	HEYWOOD, LANCASHIRE 3
10	139.0	SE	385510 410500	SD81SE391	3.15	MARY STREET/HIND HILL STREET HEYWOOD TP1
11	151.0	S	385410 410440	SD81SE393	2.5	MARY STREET/HIND HILL STREET HEYWOOD TP3
12	185.0	S	385440 410410	SD81SE392	2.3	MARY STREET/HIND HILL STREET HEYWOOD TP2
13A	191.0	S	385410 410400	SD81SE386	15.0	MARY STREET/HIND HILL STREET HEYWOOD 8
14A	192.0	S	385420 410400	SD81SE654	15.0	HEYWOOD, LANCASHIRE 1
15	196.0	S	385424 410396	SD81SE3	56.08	HEYWOOD ELECTRICITY STATION
16	202.0	S	385470 410400	SD81SE385	14.3	MARY STREET/HIND HILL STREET HEYWOOD 7
17	216.0	S	385360 410380	SD81SE657	15.0	HEYWOOD, LANCASHIRE 4
18	247.0	S	385320 410360	SD81SE658	15.0	HEYWOOD, LANCASHIRE 5

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

#1: scans.bgs.ac.uk/sobi_scans/boreholes/30116
#2: scans.bgs.ac.uk/sobi_scans/boreholes/30122
#3: scans.bgs.ac.uk/sobi_scans/boreholes/30114
#4: scans.bgs.ac.uk/sobi_scans/boreholes/30121
#5: scans.bgs.ac.uk/sobi_scans/boreholes/17948264
#6: scans.bgs.ac.uk/sobi_scans/boreholes/30120
#7: scans.bgs.ac.uk/sobi_scans/boreholes/30115
#8: scans.bgs.ac.uk/sobi_scans/boreholes/30113
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#11: scans.bgs.ac.uk/sobi_scans/boreholes/30119
#12: scans.bgs.ac.uk/sobi_scans/boreholes/30118
#13A: scans.bgs.ac.uk/sobi_scans/boreholes/30112
#14A: scans.bgs.ac.uk/sobi_scans/boreholes/17948263
#15: scans.bgs.ac.uk/sobi_scans/boreholes/29726
#16: scans.bgs.ac.uk/sobi_scans/boreholes/30111
#17: scans.bgs.ac.uk/sobi_scans/boreholes/17948266
#18: scans.bgs.ac.uk/sobi_scans/boreholes/17948267

8 Estimated Background Soil Chemistry

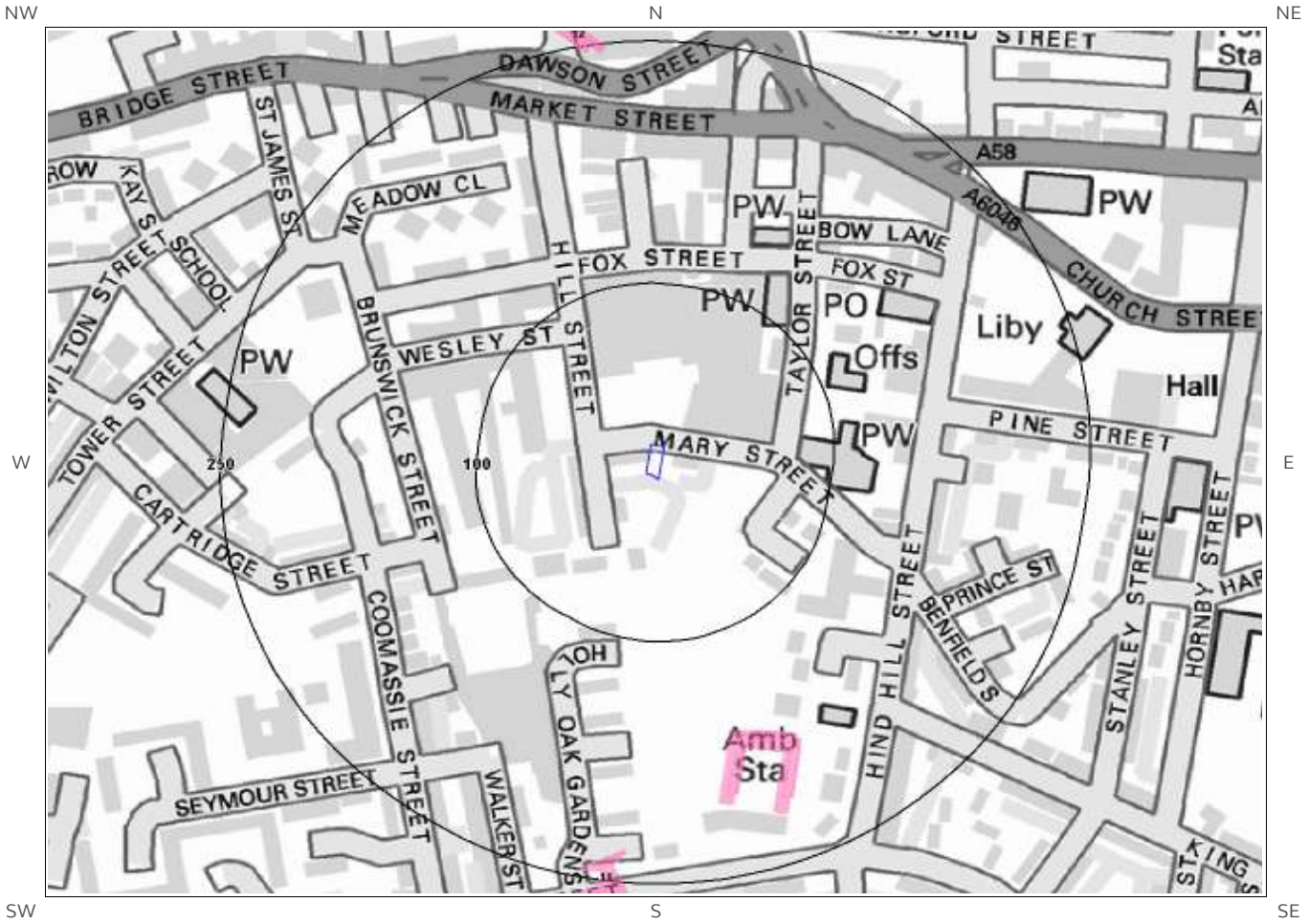
Records of background estimated soil chemistry within 250m of the study site boundary: 1

For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geo Insight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuSoilExAs	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg

*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.

9 Railways and Tunnels map



Railways and Tunnels Legend

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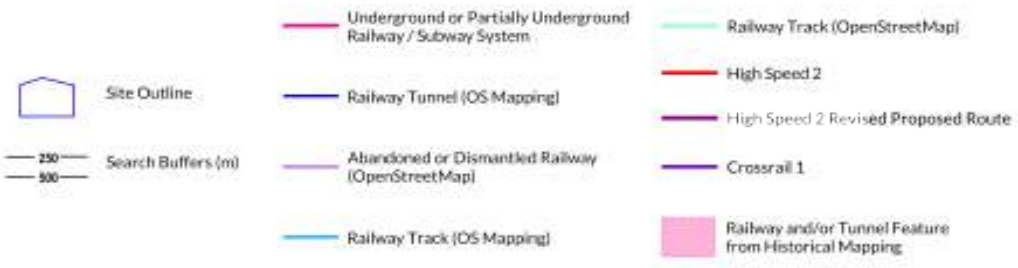
© OpenStreetMapContributors



9 Railways and Tunnels

9.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary? No

Have any underground railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary? No

Have any other railway tunnels been identified within 250m of the site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels map.

9.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary? No

Have any historical railway or tunnel features been identified within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Details	Date
1A	160	S	385448 410411	Tramway Sidings	1937
2A	164	S	385453 410415	Tramway Sidings	1956
3A	164	S	385453 410415	Tramway Sidings	1956
4A	164	S	385453 410415	Tramway Sidings	1967
5A	164	S	385453 410415	Tramway Sidings	1967
6A	165	S	385453 410415	Tramway Sidings	1971

ID	Distance (m)	Direction	NGR	Details	Date
7A	165	S	385453 410415	Tramway Sidings	1956
8A	165	S	385452 410415	Tramway Sidings	1985
9A	165	S	385452 410415	Tramway Sidings	1988
10A	165	S	385452 410415	Tramway Sidings	1988
11	229	S	385392 410308	Tramway Sidings	1891
12	244	N	385186 411005	Railway Sidings	1891
13B	246	N	385236 411008	Railway Sidings	1910
14B	249	N	385235 411008	Railway Sidings	1930

Any records that have been identified are represented on the Railways and Tunnels map.

9.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary? No

Have any historical railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels map.

9.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary? No

Have any active railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels map.

9.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

Is the study site within 5km of the route of the High Speed 2 rail project?	No
Is the study site within 500m of the route of the Crossrail 1 rail project?	No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a ***Groundsure HS2 and Crossrail 1 Report****.*

The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

Please note that this assessment takes account of both the original Phase 2b proposed route and the amended route proposed in 2016. As the Phase 2b route is still under consultation, Groundsure are providing information on both options until the final route is formally confirmed. Practitioners should take account of this uncertainty when advising clients.

Contact Details

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Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email:**enquiries@bgs.ac.uk**
Web:**www.bgs.ac.uk**
BGS Geological Hazards Reports and general geological enquiries

British Gypsum

British Gypsum Ltd
East Leake
Loughborough
Leicestershire
LE12 6HX

The Coal Authority

200 Lichfield Lane
Mansfield
Notts NG18 4RG
Tel: 0345 7626 848
DX 716176 Mansfield 5
www.coal.gov.uk

Public Health England

Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
https://www.gov.uk/government/organisations/public-health-england
Email: **enquiries@phe.gov.uk**
Main switchboard: 020 7654 8000

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COAL AUTHORITY MINING REPORT

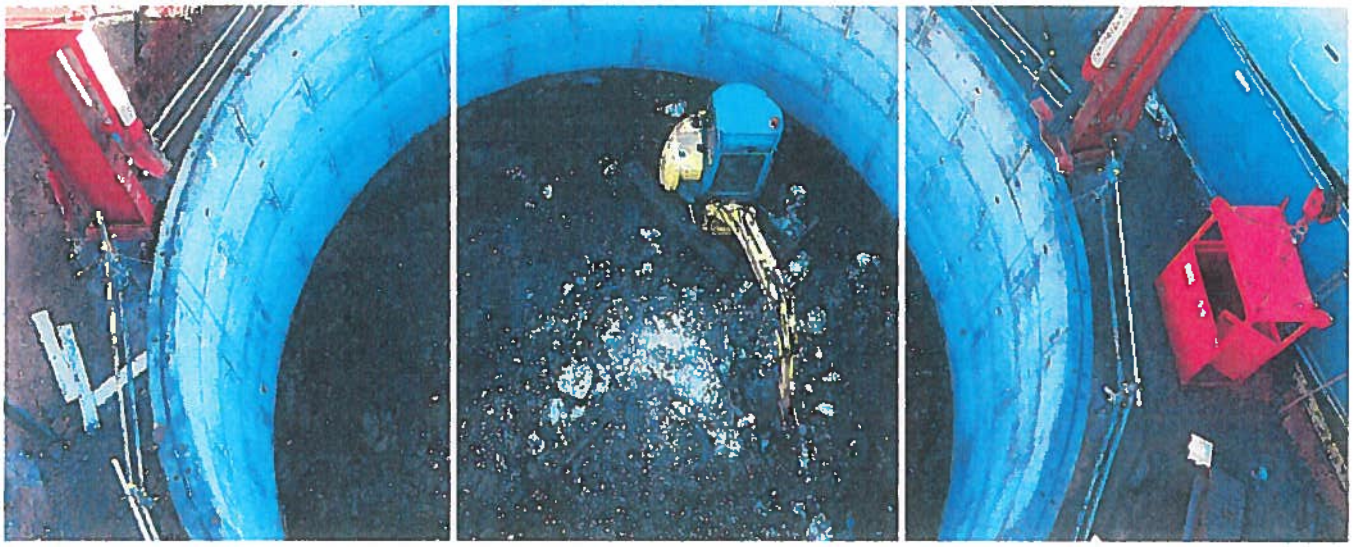
The Coal Authority

Resolving the impacts of mining

British Geological Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

Ground Stability Non-Residential Report



LAND AT , MARY STREET, HEYWOOD, GREATER MANCHESTER, OL10 1EG

Date of enquiry:	14 February 2018
Date enquiry received:	14 February 2018
Issue date:	14 February 2018
Our reference:	510017807100O1
Your reference:	HEL/Mary St

Ground Stability Non-Residential Report

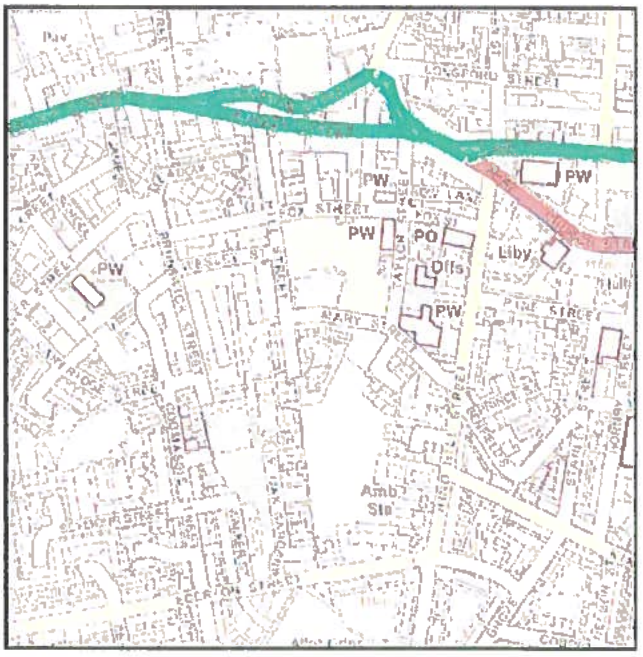
This report is based on and limited to the records held by the Coal Authority; the records and geological interpretation of the British Geological Survey (BGS) and the records of the Cheshire Brine Subsidence Compensation Board, at the time the report was produced.

Client name

ROCHDALE MBC

Enquiry address

LAND AT , MARY STREET, HEYWOOD, GREATER MANCHESTER, OL10 1EG



Approximate position of property

Map data

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Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com

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

Coal Authority Summary

Has the search report highlighted evidence or potential of		
1	Past underground coal mining	Yes
2	Present underground coal mining	No
3	Future underground coal mining	Yes
4	Mine entries	No
5	Coal mining geology	No
6	Past opencast coal mining	No
7	Present opencast coal mining	No
8	Future opencast coal mining	No
9	Coal mining subsidence	No
10	Mine gas	No
11	Hazards related to coal mining	No
12	Withdrawal of support	No
13	Working facilities order	No
14	Payments to owners of former copyhold land	No
15	Information from the Cheshire Brine Subsidence Compensation Board	No

BGS Summary

Has the search report highlighted evidence or potential of		
1	Shrinkable clay	No
2	Running sand	Yes
3	Deposits which could compress	No
4	Deposits which could collapse	No
5	Natural landslide activity	Yes
6	Soluble rocks	No

Detailed findings from the Coal Authority

1. Past underground coal mining

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

However the property is in an area where the Coal Authority believe there is coal at or close to the surface. This coal may have been worked at some time in the past. The potential presence of coal workings at or close to the surface should be considered prior to any site works or future development activity. Your attention is drawn to the Comments on the Coal Authority information section of the report.

2. Present underground coal mining

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

3. Future underground coal mining

The property is not in an area where the Coal Authority has plans to grant a licence to remove coal using underground methods.

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

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

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

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

4. Mine entries

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

There may however be mine entries/additional mine entries in the local area which the Coal Authority has no knowledge of.

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

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

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

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

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

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

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

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

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

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

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

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

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

14. Payments to owners of former copyhold land

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

15. Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

Comments on the Coal Authority information

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In view of the mining circumstances a prudent developer would seek appropriate technical advice before any works are undertaken.

Therefore if development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply good engineering practice developed for mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or mines of coal without the permission of the Coal Authority. Developers should be aware that the investigation of coal seams/former mines of coal may have the potential to generate and/or displace underground gases and these risks both under and adjacent to the development should be fully considered in developing any proposals. The need for effective measures to prevent gases entering into public properties either during investigation or after development also needs to be assessed and properly addressed. This is necessary due to the public safety implications of any development in these circumstances.

Detailed findings from BGS

1. Shrinkable clay

The property is not in an area underlain by shrinkable clay.

2. Running sand

The property is in an area underlain by sand. Some sands, if voids are present, may flow if they come into contact with water.

However, the sand deposits in this area are unlikely to cause ground movement.

3. Deposits which could compress

The property is not in an area underlain by deposits which could compress and cause ground movement.

4. Deposits which could collapse

The property is not in an area underlain by deposits which could collapse and cause ground movement.

5. Natural landslide activity

The property is in an area where the local geology and steepness of slope could combine to create the likelihood of landslide activity.

However, landslide activity is unlikely to occur.

6. Soluble rocks

The property is not in an area underlain by soluble rocks.

Comments on the BGS information

These features should not necessarily give cause for concern.

Whether or not a property is affected by ground movement can depend on a number of factors such as its age, type of construction, and on its surroundings and such matters as drainage and nearby trees.

Since 1992 buildings should have been designed and constructed according to buildings regulations to ensure natural ground movement will not cause damage to a building.

However, you should consider the possible consequences before you:
- carry out any building or excavation work
- alter the ground surface or drainage of surface or ground water
- plant or remove large shrubs or trees

Ground movement can cause uneven damage or subsidence to a property.

Developers should always carry out an appropriate risk assessment before starting any work on, or around, a property.

If you own the property and it is damaged by ground movement: You should contact your insurance company and anyone else who has an interest in the property, for example, the mortgage lender.

If you are considering buying the property and BGS has identified that ground movement could occur you should tell your professional advisers.

Additional remarks

This report has been prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority, British Geological Survey and Cheshire Brine Subsidence Compensation Board's Terms and Conditions applicable at the time the report was produced. The information provided by the Coal Authority has been compiled in response to the Law Society's CON29M Coal Mining and Brine Subsidence Claim enquiries and are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

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Alternative formats

If you would like this report in an alternative format, please contact our communications team.

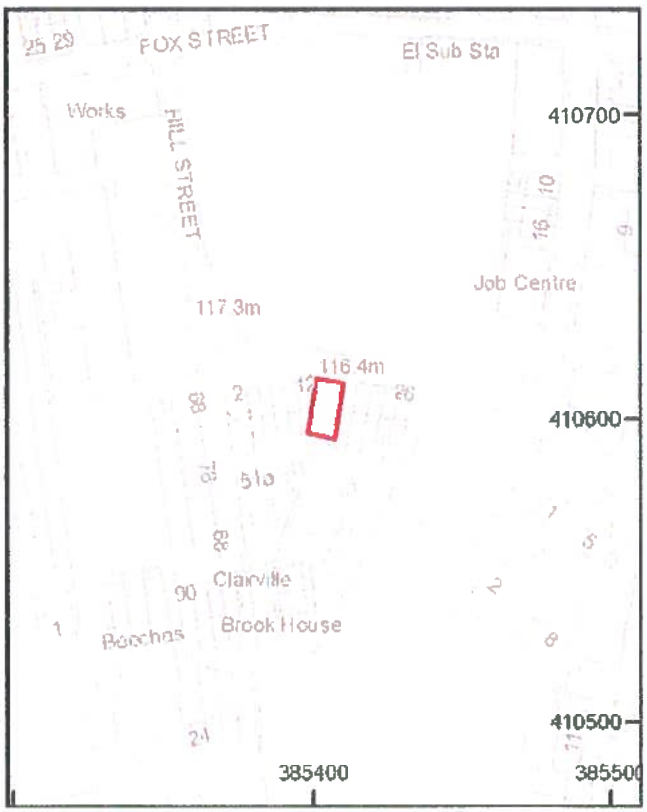
Terms and conditions

Our full terms and conditions can be found on our website - www.groundstability.com.

Enquiry boundary

Key

Approximate position of enquiry boundary shown



Map data

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/thecoalauthority
/coalauthority

General information

This report has been prepared by the Coal Authority using the information held by the Authority, together with information supplied by the British Geological Survey (BGS) and the Cheshire Brine Subsidence Compensation Board.

1. The Coal Authority, the Cheshire Brine Subsidence Compensation Board and the British Geological Survey (BGS) are referred to in the report as the suppliers.
2. This report is confidential and has been prepared specifically for the property and for use by the owner only. It should not be relied upon by any other property or by any other third party.
3. The report is based on and limited to:
   a. the specific features identified in the report
   b. each suppliers interpretation of the records it holds relating to the particular features for which the report states that the supplier is responsible at the time the report is prepared
4. The records used do not represent an exhaustive or comprehensive list of all the records that may exist or may be available for the property. No physical inspection of the property has or will be carried out in the preparation of this report.
5. Information from the Coal Authority is based on records in its possession relating to coal mining activity. There may be information held by others on historical coal mining, and information on other types of mining, which is not searched for as part of this report.
6. Information from BGS relates solely to the 6 natural ground stability hazards as described in this report. It does not cover any other geological hazards or man-made hazards (such as contaminated land). BGS may hold data on other geological hazards and features that may affect the property which are not searched for as part of this report. Consequently the report should not be taken as a guarantee that there are no other geological hazards or other issues affecting the property. For a more detailed interpretation please visit the BGS's website www.bgs.as.uk
7. Information from BGS is prepared using the BGS GeoSure database which is based on 1:10,000 scale geological mapping reduced to 1:50,000 scale.

8. The information from suppliers may be derived from records from a number of disparate sources which vary in age, quantity and quality. Such records may include material donated to the suppliers from third parties, which may not have been subject to any verifications or other quality control process.

9. Raw data used to prepare this report may have been transcribed from analogue to digital format, or may have been acquired by means of automated measuring techniques. Consequently, some data may have been processed without human intervention and may contain undetected errors.

10. The records available to the suppliers are constantly being updated. The suppliers cannot be held responsible for any changes in the information on which this report is based which occur after the date the report was produced.

11. If this report is for a residential property, insurance is included. This report includes a policy and key facts summary which outline the significant features, benefits and limitations of the cover provided. Full terms and conditions are shown in the policy document.

12. The report gives an indication of whether ground movement could occur at the property. This does not necessarily mean that the property is or will be affected by ground instability. Such an assessment can only be made by inspection of the property by a qualified professional, such as a surveyor or engineer. This report does not therefore –

    - include any information or warranty relating to the actual state, or the structural or other condition, of the property
    - determine the saleability or value, or the safety, of the property
    - indicate the suitability of the property for any particular purpose (including, without limitation, its suitability for development (within the meaning of section 55 of the Town and Country Planning Act 1990 as amended) or any building, excavation or landscaping work)
    - act as a substitute for any physical inspection, specialist interpretations and/or professional advice

ENVIROINSIGHT REPORT

Enviro Insight

Address:	**Mary Street, Heywood,**
Date:	**7 Nov 2018**
Reference:	**CMAPS-CM-754706-4199-071118EDR**
Client:	**CENTREMAPS**

NW N NE



W E

SW S SE

Aerial Photograph Capture date:	02-May-2011
Grid Reference:	385403,410602
Site Size:	0.01ha

Report Reference: CMAPS-CM-754706-4199-071118EDR
Client Reference: 4199

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Overview of Findings

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Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	4	9	46	78
1.2 Additional Information – Historical Tank Database	0	0	13	59
1.3 Additional Information – Historical Energy Features Database	0	0	32	36
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	0	0	26
1.6 Historical military sites	0	0	0	0
1.7 Potentially Infilled Land	0	2	17	55

Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	0	1
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	0	0
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	0	2
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency/Natural Resources Wales Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	0	0	0	6	7
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	3	3
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	4	3
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	3	Not searched	Not searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	0	0	13	2

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	0	0	26	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	0	2
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Records of Artificial Ground and Made Ground present beneath the study site	None identified
5.2 Records of Superficial Ground and Drift Geology present beneath the study site	Identified
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m
6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site	Identified
6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site	Identified

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	2	11
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	12
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	1	0	#250GWV#	#500GWV#	Not searched	Not searched

Section 6: Hydrogeology and Hydrology

	0-500m					
	On-site	0-50m	51-250	251-500	501-1000	1000-1500
6.9 Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site	No	No	No	No	No	Yes
6.10 Ordnance Survey MasterMap Water Network entries within 500m of the site	0	0	0	0	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	No	No	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Enviroment Agency Zone 2 floodplains within 250m of the study site	None identified
7.2 Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	None identified
7.3 Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site	Very Low
7.4 Flood Defences within 250m of the study site	None identified
7.5 Areas benefiting from Flood Defences within 250m of the study site	None identified
7.6 Areas used for Flood Storage within 250m of the study site	None identified
7.7 Maximum BGS Groundwater Flooding susceptibility within 50m of the study site	Potential below Surface
7.8 BGS confidence rating for the Groundwater Flooding susceptibility areas	Low

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	0
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	7
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	0	0	0	0	0	1
8.14 Records of Green Belt land	0	0	0	0	1	2

Section 9: Natural Hazards

9.1 Maximum risk of natural ground subsidence	Very Low
9.1.1 Maximum Shrink-Swell hazard rating identified on the study site	Negligible
9.1.2 Maximum Landslides hazard rating identified on the study site	Very Low
9.1.3 Maximum Soluble Rocks hazard rating identified on the study site	Negligible
9.1.4 Maximum Compressible Ground hazard rating identified on the study site	Negligible
9.1.5 Maximum Collapsible Rocks hazard rating identified on the study site	Very Low
9.1.6 Maximum Running Sand hazard rating identified on the study site	Very Low
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

Section 10: Mining

10.1 Coal mining areas within 75m of the study site	Identified
10.2 Non-Coal Mining areas within 50m of the study site boundary	None identified
10.3 Brine affected areas within 75m of the study site	None identified

Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

1. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licences, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

7. Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier “A” on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as “Not Shown”.

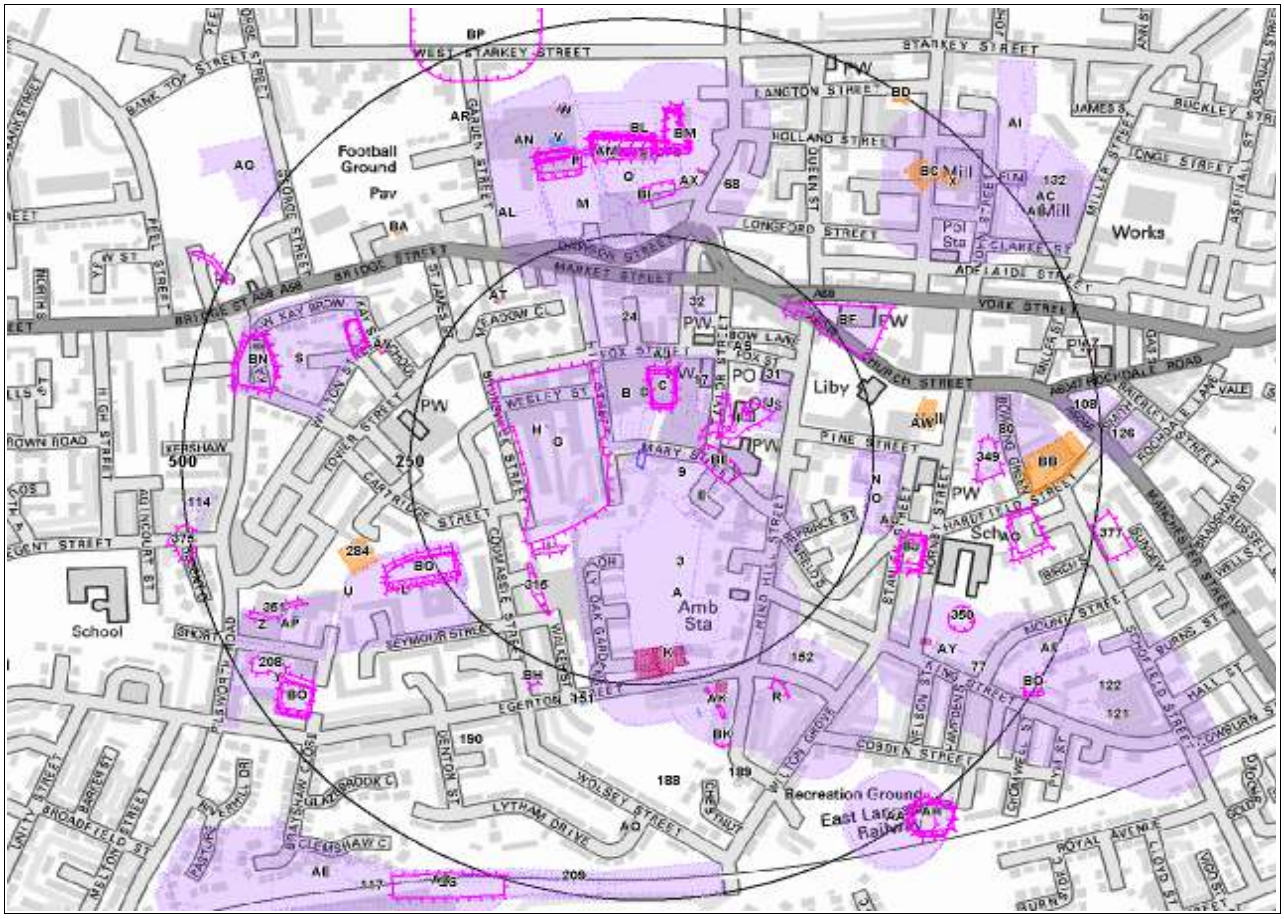
All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

1. Historical Land Use

NW N NE

W E

SW S SE



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Site Outline

250
500
Search Buffers (m)

Historical 1:10,000 and 1:10,560 scale mapping

Industrial Land Use

Potentially Infilled Land

Historical 1:2,500, 1:1,250 and 1:500 scale mapping

Energy Features

Petrol Stations

Historical military sites

Tanks

Garages

1. Historical Industrial Sites

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 137

ID	Distance [m]	Direction	Use	Date
1A	0	On Site	Corporation Yard	1949
2A	0	On Site	Corporation Yard	1938
3	0	On Site	Corporation Yard	1909
4D	0	N	Unspecified Mill	1909
5B	6	NW	Unspecified Mill	1938
6B	6	NW	Unspecified Mill	1928
7C	18	NE	Unspecified Warehouse	1987
8C	18	NE	Unspecified Warehouse	1992
9	25	E	Mortuary	1949
10A	28	SE	Corporation Yard	1968
11G	32	W	Brick Field	1851
12A	33	SE	Corporation Yard	1928
13D	40	NE	Unspecified Commercial/Industrial	1949
14C	54	N	Unspecified Commercial/Industrial	1975
15BE	57	E	Refuse Heap	1890
16F	60	E	Refuse Heap	1909
17	61	NE	Rope Walk	1851
18E	69	SE	Mortuary	1909
19E	69	SE	Mortuary	1928
20F	78	E	Unspecified Pit	1928
21G	111	W	Chimney	1975
22H	111	W	Chimney	1987
23H	111	W	Chimney	1992
24	111	N	Cotton Mill	1851
25F	114	E	Unspecified Heap	1928
26J	115	E	Police Station	1968
27I	124	SW	Unspecified Ground Workings	1909
28I	124	SW	Unspecified Ground Workings	1928
29J	132	E	Police Station	1987
30J	132	E	Police Station	1992
31	145	NE	Police Station	1975
32	158	N	Unspecified	1851

			Commercial/Industrial	
33Q	167	N	Cotton Mills	1890
34K	206	S	Electricity Substation	1992
35K	206	S	Electricity Substation	1987
36K	210	S	Unspecified Tanks	1938
37K	213	S	Unspecified Tanks	1928
38R	214	S	Electricity Generating Station	1909
39L	218	SW	Unspecified Mill	1949
40L	218	SW	Unspecified Mill	1975
41L	218	SW	Unspecified Mill	1968
42L	218	SW	Unspecified Mill	1938
43BF	219	NE	Grave Yard	1851
44M	221	N	Unspecified Mill	1909
45L	222	SW	Unspecified Mill	1909
46L	222	SW	Unspecified Mill	1928
47M	224	N	Unspecified Mill	1938
48N	226	E	Unspecified Mill	1949
49M	226	N	Unspecified Mill	1928
50O	226	E	Unspecified Mill	1909
51AM	229	N	Unspecified Mill	1949
52N	232	E	Unspecified Mill	1928
53O	232	E	Unspecified Mill	1938
54P	233	N	Unspecified Works	1968
55P	233	N	Unspecified Works	1975
56N	234	E	Unspecified Mill	1968
57N	234	E	Unspecified Commercial/Industrial	1975
58P	249	N	Unspecified Mill	1992
59P	249	N	Unspecified Mill	1987
60P	259	N	Cotton Mill	1851
61AK	263	S	Unspecified Ground Workings	1928
62BH	266	SW	Gravel Pit	1851
63Q	273	N	Unspecified Commercial/Industrial	1851
64T	283	N	Unspecified Mill	1938
65Q	284	N	Unspecified Mill	1928
66R	285	SE	Sand Pit	1851
67BK	313	S	Unspecified Pit	1928
68	313	N	Constabulary Station	1851
69S	319	W	Unspecified Mills	1890
70S	321	W	Unspecified Mills	1909
71S	321	W	Unspecified Mills	1928
72S	324	NW	Cotton Mill	1851
73BM	324	N	Cotton Mill	1851
74T	326	N	Unspecified Tank	1949

75T	326	N	Unspecified Tank	1975
76T	326	N	Unspecified Tank	1968
77	329	SE	Brewery	1909
78U	349	SW	Chimney	1975
79U	349	SW	Chimney	1968
80	358	E	Cotton Mill	1851
81X	361	NE	Cotton Mills	1890
82AP	363	SW	Cotton Mills	1890
83V	364	N	Unspecified Tanks	1968
84V	364	N	Unspecified Tanks	1987
85V	364	N	Unspecified Tanks	1992
86V	364	N	Unspecified Tanks	1975
87AY	379	SE	Disused Brewery	1928
88W	394	N	Unspecified Tanks	1909
89AO	400	E	Rope Walk	1851
90W	402	N	Filter Beds	1909
91X	413	NE	Unspecified Mill	1928
92X	413	NE	Unspecified Mill	1909
93X	417	NE	Unspecified Mill	1938
94X	419	NE	Unspecified Commercial/Industrial	1968
95X	419	NE	Unspecified Mill	1949
96Y	420	SW	Unspecified Mill	1938
97X	421	NE	Unspecified Mill	1987
98X	421	NE	Unspecified Mill	1975
99X	421	NE	Unspecified Mill	1992
100Z	421	SW	Unspecified Mill	1928
101Y	424	SW	Unspecified Mill	1909
102Y	424	SW	Unspecified Mill	1928
103Z	430	SW	Unspecified Mill	1938
104AA	435	SE	Railway Terminus	1928
105AA	437	SE	Railway Terminus	1938
106AB	439	NE	Unspecified Mill	1909
107AB	441	NE	Unspecified Mill	1928
108	448	E	Unspecified Commercial/Industrial	1851
109AC	451	NE	Unspecified Commercial/Industrial	1968
110AC	451	NE	Unspecified Mill	1949
111Y	454	SW	Unspecified Mill	1967
112AD	461	S	Railway Sidings	1949
113AD	461	S	Railway Sidings	1968
114	463	W	Cotton Mill	1851
115AF	463	SE	Brewery	1890
116AE	471	S	Railway Sidings	1938
117	473	S	Railway Sidings	1890
118AE	476	S	Railway Sidings	1909

119AF	478	SE	Disused Brewery	1938
120AE	480	S	Railway Sidings	1928
121	480	SE	Unspecified Mill	1909
122	481	SE	Unspecified Mills	1949
123AG	485	NW	Cotton Mill	1851
124BQ	485	SE	Unspecified Pit	1938
125AC	485	NE	Cotton Mill	1851
126	488	E	Cotton Mill	1851
127AA	488	SE	Unspecified Heap	1968
128AH	488	SE	Unspecified Heap	1949
129AG	490	NW	Unspecified Mill	1983
130AC	493	NE	Unspecified Mill	1938
131BR	493	NW	Unspecified Ground Workings	1909
132	494	NE	Unspecified Mill	1928
133AH	494	SE	Unspecified Heap	1928
134AH	494	SE	Unspecified Heap	1938
135AI	495	NE	Unspecified Mill	1909
136AI	496	NE	Unspecified Mill	1928
137BS	496	S	Cuttings	1851

1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary: 72

ID	Distance (m)	Direction	Use	Date
138AJ	104	N	Unspecified Tank	1996
139AJ	104	N	Unspecified Tank	1998
140AJ	104	N	Unspecified Tank	1999
141H	104	W	Unspecified Tank	1956
142H	104	W	Unspecified Tank	1956
143H	105	W	Unspecified Tank	1956
144G	106	W	Unspecified Tank	1929
145G	106	W	Unspecified Tank	1937
146G	112	W	Unspecified Tank	1937
147G	112	W	Unspecified Tank	1929
148G	112	W	Gasometer	1910
149K	211	S	Tanks	1929
150K	212	S	Tanks	1929
151	275	S	Tanks	1910
152	283	SE	Unspecified Tank	1891

153AK	284	S	Unspecified Tank	1930
154BI	289	N	Unspecified Tank	1973
155AL	306	NW	Unspecified Tank	1995
156AL	307	NW	Unspecified Tank	1973
157AL	307	NW	Unspecified Tank	1996
158AL	307	NW	Unspecified Tank	1985
159AL	307	NW	Unspecified Tank	1984
160AL	307	NW	Unspecified Tank	1986
161AL	307	NW	Unspecified Tank	1990
162AM	351	N	Unspecified Tank	1984
163AM	351	N	Unspecified Tank	1985
164AM	351	N	Unspecified Tank	1990
165AM	351	N	Unspecified Tank	1986
166AM	351	N	Unspecified Tank	1973
167AM	351	N	Unspecified Tank	1984
168AM	351	N	Unspecified Tank	1985
169AM	351	N	Unspecified Tank	1990
170AM	351	N	Unspecified Tank	1986
171AM	352	N	Unspecified Tank	1973
172V	354	N	Unspecified Tank	1956
173V	354	N	Unspecified Tank	1964
174V	355	N	Unspecified Tank	1967
175V	355	N	Unspecified Tank	1956
176V	355	N	Unspecified Tank	1956
177V	364	N	Tanks	1956
178V	364	N	Tanks	1956
179V	364	N	Tanks	1984
180V	364	N	Tanks	1985
181V	364	N	Tanks	1986
182V	364	N	Tanks	1956
183V	364	N	Tanks	1973
184V	364	N	Tanks	1964
185V	364	N	Unspecified Tank	1967
186BL	365	N	Unspecified Tank	1930
187V	365	N	Unspecified Tank	1967
188	367	S	Unspecified Tank	1910
189	369	S	Unspecified Tank	1891
190	369	SW	Unspecified Tank	1930
191AN	375	N	Unspecified Tank	1937
192AN	375	N	Unspecified Tank	1929
193W	394	N	Tanks	1910
194AO	408	E	Unspecified Tank	1978
195AO	409	E	Unspecified Tank	1967
196AO	409	E	Unspecified Tank	1967
197AO	409	E	Unspecified Tank	1965
198AO	409	E	Unspecified Tank	1974

199AP	410	SW	Tanks	1991
200AP	410	SW	Tanks	1994
201AP	410	SW	Tanks	1996
202AP	414	SW	Tanks	1991
203AQ	416	S	Tanks	1930
204AQ	416	S	Tanks	1910
205AR	429	NW	Unspecified Tank	1956
206AR	429	NW	Unspecified Tank	1956
207AP	431	SW	Unspecified Tank	1890
208	464	SW	Unspecified Tank	1890
209	481	S	Unspecified Tank	1930

1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary: 68

ID	Distance (m)	Direction	Use	Date
210AJ	104	N	Electricity Substation	1998
211AJ	104	N	Electricity Substation	1999
212AJ	104	N	Electricity Substation	1996
213AJ	109	N	Electricity Substation	1990
214AJ	110	N	Electricity Substation	1995
215G	112	W	Gasometer	1910
216AS	154	NE	Electricity Substation	1981
217AS	154	NE	Electricity Substation	1989
218AS	154	NE	Electricity Substation	1956
219AS	154	NE	Electricity Substation	1968
220AS	155	NE	Electricity Substation	1999
221AS	155	NE	Electricity Substation	1967
222AS	155	NE	Electricity Substation	1967
223AS	155	NE	Electricity Substation	1956
224AS	155	NE	Electricity Substation	1956
225K	207	S	Electricity Substation	1956
226K	207	S	Electricity Substation	1971
227K	208	S	Electricity Substation	1967
228K	208	S	Electricity Substation	1967
229K	208	S	Electricity Substation	1956
230K	208	S	Electricity Substation	1956
231K	208	S	Electricity Substation	1988
232K	208	S	Electricity Substation	1985
233K	208	S	Electricity Substation	1988

234K	208	S	Electricity Substation	1991
235K	209	S	Electricity Substation	1996
236K	215	S	Electricity Substation	1994
237AT	231	NW	Electricity Substation	1995
238AT	231	NW	Electricity Substation	1998
239AT	231	NW	Electricity Substation	1999
240AT	231	NW	Electricity Substation	1996
241AT	232	NW	Electricity Substation	1990
242AK	261	S	Electricity Generating Station	1910
243AU	273	E	Electricity Substation	1981
244AU	275	E	Electricity Substation	1967
245AU	275	E	Electricity Substation	1956
246AU	275	E	Electricity Substation	1967
247AU	275	E	Electricity Substation	1956
248AU	275	E	Electricity Substation	1968
249AU	275	E	Electricity Substation	1956
250AW	300	E	Electricity Substation	1981
251AV	300	NW	Electricity Substation	1973
252AV	300	NW	Electricity Substation	1998
253AV	300	NW	Electricity Substation	1999
254AV	300	NW	Electricity Substation	1996
255AV	300	NW	Electricity Substation	1995
256AV	301	NW	Electricity Substation	1990
257AV	301	NW	Electricity Substation	1984
258AV	301	NW	Electricity Substation	1985
259AV	301	NW	Electricity Substation	1986
260AW	301	E	Electricity Substation	1989
261AW	303	E	Electricity Substation	1999
262AX	309	N	Electricity Substation	1995
263AX	310	N	Electricity Substation	1990
264AX	311	N	Electricity Substation	1999
265AX	311	N	Electricity Substation	1998
266AX	311	N	Electricity Substation	1996
267AX	327	N	Electricity Substation	1956
268AX	328	N	Electricity Substation	1973
269AX	328	N	Electricity Substation	1956
270AN	350	N	Electricity Substation	1956
271AN	350	N	Electricity Substation	1956
272AN	350	N	Electricity Substation	1956
273AY	363	SE	Electricity Substation	1978
274AY	364	SE	Electricity Substation	1990
275AY	364	SE	Electricity Substation	1974
276AZ	498	E	Electricity Substation	1989
277AZ	500	E	Electricity Substation	1999

1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary: 0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 26

ID	Distance (m)	Direction	Use	Date
278AW	297	E	Garage	1967
279AW	297	E	Garage	1967
280AW	300	E	Garage	1956
281AW	300	E	Garage	1968
282AW	300	E	Garage	1956
283AW	300	E	Garage	1956
284	305	W	Repair Works	1930
285BA	362	NW	Garage	1999
286BA	362	NW	Garage	1998
287BA	362	NW	Garage	1996
288BA	362	NW	Garage	1995
289BB	413	E	Garage	1981
290BB	414	E	Garage	1967
291BB	414	E	Garage	1967
292BB	415	E	Garage	1989
293BB	416	E	Garage	1999
294BC	427	NE	Carriage Works	1930
295BC	427	NE	Carriage Works	1910
296BB	434	E	Garage	1968
297BB	444	E	Garage	1956
298BB	445	E	Garage	1956
299BD	487	NE	Garage	1956
300BD	487	NE	Garage	1973
301BD	487	NE	Garage	1990
302BD	488	NE	Garage	1956
303BD	488	NE	Garage	1985

1.6 Historical military sites

Certain military installations were not noted on historic mapping for security reasons. Whilst not all military land is necessarily of concern, Groundsure has researched and digitised a number of Ordnance Factories and other military industrial features (e.g. Ordnance Depots, Munitions Testing Grounds) which may be of contaminative concern. This research was drawn from a number of different sources, and should not be regarded as a definitive or exhaustive database of potentially contaminative military installations. The boundaries of sites within this database have been estimated from the best evidence available to Groundsure at the time of compilation.

Records of historical military sites within 500m of the search boundary: 0

Database searched and no data found.

1.7 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 74

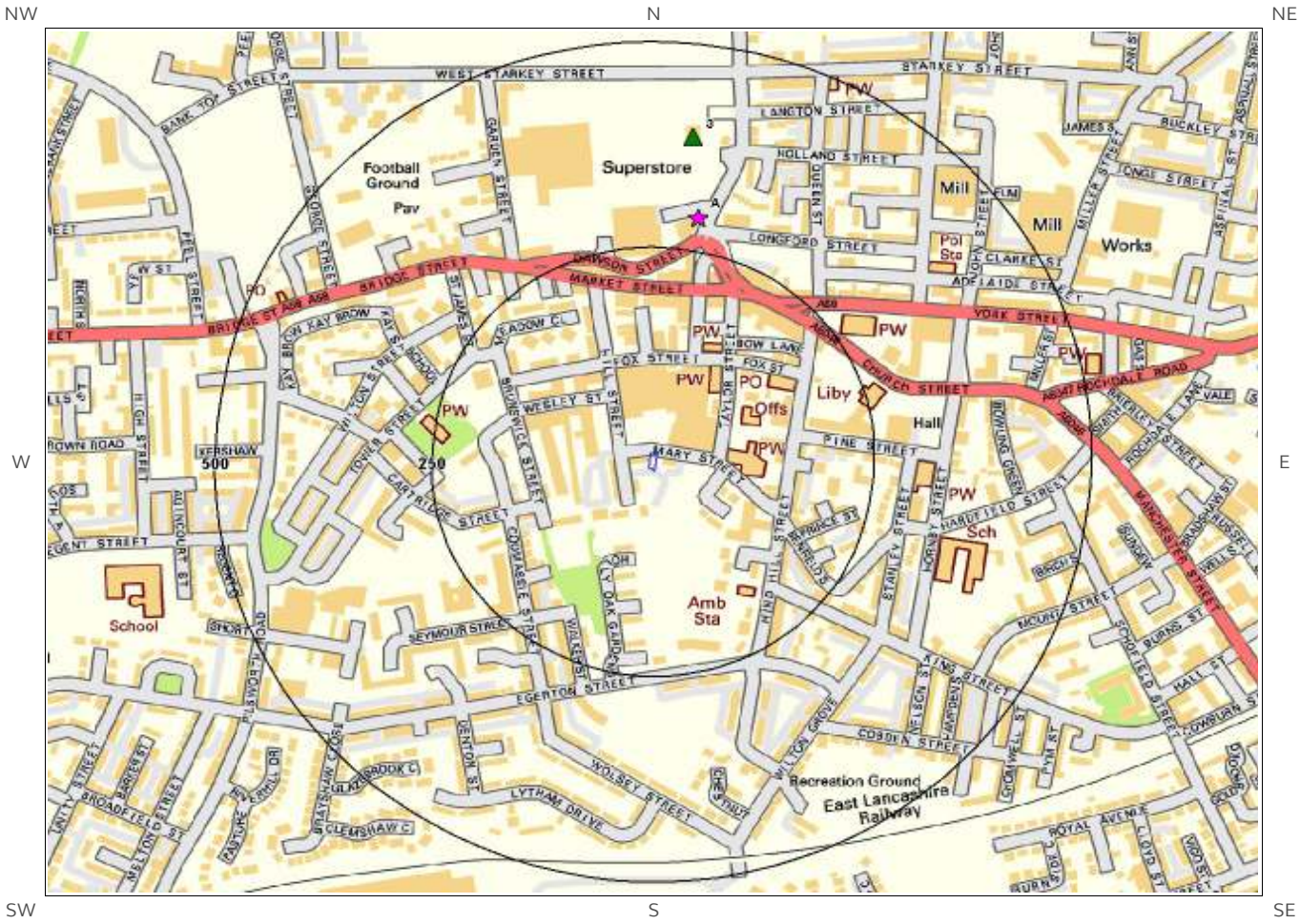
The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	Distance(m)	Direction	Use	Date
304H	32	W	Brick Field	1851
305C	49	N	Pond	1890
306C	51	N	Reservoir	1909
307C	51	N	Reservoir	1928
308C	55	N	Reservoir	1938
309BE	57	E	Refuse Heap	1890
310F	60	E	Refuse Heap	1909
311F	78	E	Unspecified Pit	1928
312F	114	E	Unspecified Heap	1928
313I	124	SW	Unspecified Ground Workings	1909
314I	124	SW	Unspecified Ground Workings	1928
315	163	SW	Pond	1890
316BF	219	NE	Grave Yard	1851
317BG	224	SW	Reservoir	1938
318BG	224	SW	Reservoir	1975
319BG	224	SW	Reservoir	1949
320BG	224	SW	Reservoir	1968
321BG	228	SW	Reservoir	1928
322BG	228	SW	Reservoir	1909
323AK	263	S	Unspecified Ground Workings	1928
324BH	266	SW	Gravel Pit	1851
325R	285	SE	Sand Pit	1851
326BI	287	N	Reservoirs	1928
327BJ	293	E	Ponds	1949
328BJ	294	E	Pond	1968

329BJ	295	E	Ponds	1928
330BJ	295	E	Reservoirs	1909
331BJ	297	E	Ponds	1938
332BJ	297	E	Ponds	1890
333BK	313	S	Unspecified Pit	1928
334AV	322	W	Ponds	1890
335AV	324	W	Reservoirs	1928
336AV	324	W	Ponds	1909
337P	326	N	Ponds	1890
338P	332	N	Ponds	1851
339AM	337	N	Pond	1890
340BL	343	N	Reservoirs	1909
341BL	344	N	Reservoirs	1938
342BM	345	N	Ponds	1890
343AM	346	N	Reservoirs	1928
344P	348	N	Pond	1938
345V	349	N	Reservoirs	1928
346AM	350	N	Reservoirs	1949
347BM	352	N	Reservoirs	1928
348BM	357	N	Reservoirs	1949
349	364	E	Ponds	1890
350	376	SE	Reservoirs	1890
351	400	SW	Ponds	1890
352W	402	N	Filter Beds	1909
353AO	405	E	Reservoirs	1890
354AO	407	E	Ponds	1851
355BN	408	W	Ponds	1851
356BN	409	W	Ponds	1890
357BN	409	W	Reservoirs	1928
358BN	409	W	Ponds	1909
359Y	436	SW	Pond	1968
360Y	436	SW	Pond	1975
361Y	436	SW	Reservoir	1949
362BO	439	SW	Reservoir	1938
363BO	443	SW	Reservoir	1928
364BO	443	SW	Reservoir	1909
365Y	452	SW	Pond	1890
366BP	454	N	Pool	1992
367BP	454	N	Pool	1987
368BQ	485	SE	Unspecified Pit	1938
369BQ	486	SE	Reservoir	1909
370AA	488	SE	Unspecified Heap	1968
371AH	488	SE	Unspecified Heap	1949
372BR	493	NW	Unspecified Ground Workings	1909
373AH	494	SE	Unspecified Heap	1928

374AH	494	SE	Unspecified Heap	1938
375	494	W	Pond	1851
376BS	496	S	Cuttings	1851
377	497	E	Ponds	1890

2. Environmental Permits, Incidents and Registers Map



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- Site Outline
- Search Buffers (m) (250, 500)
- Recorded Pollution Incident
- Dangerous Substances (List 1)
- Dangerous Substances (List 2)
- Water Industry Referrals
- Licenced Discharge Consents
- Red List Discharge Consents
- RAS 3 & 4 Authorisations
- Part A(1) Authorised Processes and Historic IPC Authorisations
- Part A(2) and Part B Authorised Processes
- COMAH / NIHHS Sites
- Sites Determined as Contaminated Land
- Hazardous Substance Consents and Enforcements

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency/Natural Resources Wales and Local Authorities reveal the following information:

2.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

0

Database searched and no data found.

2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

1

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
3	385	N	385448 410994	Address: Morrisons Petrol Station, 2 Dawson Street, Heywood, Lancashire, OL10 4ND Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

0

Database searched and no data found.

2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site: 0

Database searched and no data found.

2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

2

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
1A	291	N	385455 410899	Incident Date: 08-Mar-2002 Incident Identification: 62617 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
2A	291	N	385455 410899	Incident Date: 19-Mar-2002 Incident Identification: 64960 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.

2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

Records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site 0

Database searched and no data found.

3. Landfill and Other Waste Sites Map

NW N NE

W E

SW S SE



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Site Outline

250 500 Search Buffers (m)

EA/NRW Active Landfill

EA/NRW Historic Landfill

BGS / DoE Survey Landfill

Historic and Planned Waste Sites

EA/NRW Licensed Waste Site

Local Authority/Historical Mapping Landfill Records

3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site:

13

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
10	751	NW		Site Address: Peel Lane, Heywood, Greater Manchester Waste Licence: Yes Site Reference: D023 Waste Type: Inert, Industrial, Commercial, Household, Liquid sludge Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 01-Jan-1974 Licence Surrendered: Licence Holder Address: - Operator: Heywood Corporation Licence Holder: Rochdale Metropolitan Borough Council First Recorded: 31-Dec-1900 Last Recorded: 26-Apr-1975
Not shown	783	E		Site Address: Roe Acre Mill, Rochdale Road East, Heywood, Greater Manchester Waste Licence: - Site Reference: D121, 0786 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Rochdale Canal Company Licence Holder: Roe Acre Dye and Finishing Company Limited First Recorded: 01-May-1972 Last Recorded: 31-Aug-1992
Not shown	911	NE		Site Address: Mutual Street, Heywood Waste Licence: Yes Site Reference: D053, RD/LIC/323/83 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 03-May-1984 Licence Surrendered: Licence Holder Address: - Operator: Mutual Mills Limited Licence Holder: Mutual Mills Limited First Recorded: 31-Dec-1882 Last Recorded: 31-Dec-1986
Not shown	941	N		Site Address: Hooley Bridge Works, Bamford Road, Heywood, Greater Manchester Waste Licence: - Site Reference: D079 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -

ID	Distance (m)	Direction	NGR	Details	
Not shown	943	N		Site Address: Queens Park Road, Heywood, Greater Manchester Waste Licence: - Site Reference: D060 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Heywood Corporation Licence Holder: - First Recorded: - Last Recorded: 31-Dec-1976
Not shown	987	N		Site Address: Hooley Bridge, Bamford Road, Heywood, Lancashire Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: William R Lee Limited Licence Holder: - First Recorded: - Last Recorded: -
Not shown	1039	N		Site Address: Former Gasholder Site, Victoria Terrace, Greater Manchester Waste Licence: - Site Reference: D080 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -
Not shown	1060	E		Site Address: Brook Bank, Green Lane, Heywood, Bury, Greater Manchester Waste Licence: Yes Site Reference: D043, D15461, RD/LIC/193/80 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 01-Oct-1980 Licence Surrendered: Licence Holder Address: Brook Bank, Green Lane, Heywood Operator: - Licence Holder: Gort Bank Sand Pits Limited First Recorded: - Last Recorded: -
Not shown	1087	NW		Site Address: Roach Mill, Peel Lane, Greater Manchester Waste Licence: Yes Site Reference: D037, 0068 Waste Type: Industrial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 06-Jun-1978 Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: Globegrove Limited / Rochdale Metropolitan Borough Council First Recorded: - Last Recorded: -
Not shown	1274	N		Site Address: Buly and Rochdale Old Road, Heywood, Lancashire Waste Licence: - Site Reference: - Waste Type: Inert, Industrial, Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: James R Crompton and Brotheers Licence Holder: - First Recorded: - Last Recorded: -
Not shown	1292	E		Site Address: Land South of Chadwick Lane, Heywood, Rochdale Waste Licence: Yes Site Reference: RD/LIC/350/84, D009, RD/LIC/265/83, 4200/9007 Waste Type: Inert, Industrial, Commercial, Household, Special Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 28-Sep-1984 Licence Surrendered: 28-Apr-1994 Licence Holder Address: Victoria House, Higher Bury Street, Stockport Operator: - Licence Holder: Wilderness Quarries Limited First Recorded: 31-Dec-1984 Last Recorded: 31-Dec-1986
Not shown	1329	N		Site Address: Simpson Clough Mills, Heywood Waste Licence: Yes Site Reference: D002, RD/LIC/031/76 Waste Type: Inert, Industrial, Special Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 24-Nov-1977 Licence Surrendered: Licence Holder Address: Simpson Clough Mill, Heywood, Lancashire Operator: - Licence Holder: James R Ccompton and Brothers Limited First Recorded: 31-Dec-1939 Last Recorded: -

ID	Distance (m)	Direction	NGR	Details	
Not shown	1344	N		Site Address: Park View Landfill Site, Bamford Waste Licence: Yes Site Reference: RD/LIC/666/90, D114 Waste Type: Inert, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 06-Jun-1991 Licence Surrendered: 29-Apr-1994 Licence Holder Address: - Operator: - Licence Holder: North West Developments (1990) Limited First Recorded: 31-Dec-1990 Last Recorded: 31-Dec-1993

3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

6

The following landfill records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
Not shown	840	NW	384800.0 411200.0	Address: Destructor Works, Peel Lane, Heywood, Lancs BGS Number: 136.0	Risk: No risk to aquifer Waste Type: N/A
Not shown	976	SE	386300.0 410200.0	Address: Rochdale Canal, Green Lane, Heywood, Lancs BGS Number: 518.0	Risk: No risk to aquifer Waste Type: N/A
Not shown	992	N	385500.0 411600.0	Address: Hooley Bridge, Bamford Rd, Heywood, Lancs BGS Number: 200.0	Risk: No risk to aquifer Waste Type: N/A
Not shown	1049	NE	386200.0 411300.0	Address: Rear of Mutual St, Heywood, Lancs BGS Number: 135.0	Risk: No risk to aquifer Waste Type: N/A
Not shown	1105	N	385600.0 411700.0	Address: Queens Park Rd, Heywood, Lancs BGS Number: 124.0	Risk: No risk to aquifer Waste Type: N/A
Not shown	1390	N	385300.0 412000.0	Address: Bury and Rochdale Old Rd, Heywood, Lancs BGS Number: 119.0	Risk: No risk to aquifer Waste Type: N/A

3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

7

The following landfill records are represented as points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
38C	535	NE	385816 410982	Refuse Tip	1967 mapping	Polygon
39C	535	NE	385816 410982	Refuse Tip	1967 mapping	Polygon
Not shown	765	NW	384805 411228	Refuse Tip	1974 mapping	Polygon
Not	794	NW	384851	Refuse Tip	1974 mapping	Polygon

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
shown			411288			
Not shown	1053	NE	386241 411294	Refuse Tip	1967 mapping	Polygon
Not shown	1395	N	385240 412012	Refuse Tip	1961 mapping	Polygon
Not shown	1410	N	385622 412013	Refuse Tip	1961 mapping	Polygon

3.2 Other Waste Sites

3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

3

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details		
7A	291	S	385476 410268	Type of Site: Refuse Destructor Site Address: N/A	Planning Application Reference: N/A Date: 1910	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
8A	291	S	385476 410268	Type of Site: Refuse Destructor Site Address: N/A	Planning Application Reference: N/A Date: 1930	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
9	487	NW	384951 410892	Type of Site: Scrap Yard Site Address: N/A	Planning Application Reference: N/A Date: 1989	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon

3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

15

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
23	537	NW	384938 410884	Site Address: Britannia Street, Off Georges Street, Heywood, Rochdale, Lancashire, OL10 4PL Type: Metal Recycling Site (mixed MRS's) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ROC002 EPR reference: EA/EPR/TP3292CR/V002 Operator: Rochdale Borough Council Waste Management licence No: 53486 Annual Tonnage: 25000.0	Issue Date: 11/09/1998 Effective Date: 28/03/2003 Modified: 27/03/2003 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Britannia Street M R S Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details	
24B	691	E	386100 410600	Site Address: Silvester House, Roeacre Tannery, Bradshaw Street, Heywood, Lancs, OL10 1PN Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ROE005 EPR reference: CP3198EN/A001 Operator: Roeacre Industries Ltd Waste Management licence No: 100414 Annual Tonnage: 0.0	Issue Date: 24/11/2008 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Roeacre Transfer Station Correspondence Address: -
25B	691	E	386100 410600	Site Address: Silvester House, Roeacre Tannery, Bradshaw Street, Heywood, Lancashire, OL10 1PN Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PGC003 EPR reference: EA/EPR/CP3198EN/A001 Operator: P G C Skip Hire Ltd Waste Management licence No: 100414 Annual Tonnage: 24999.0	Issue Date: 24/11/2008 Effective Date: 17/03/2011 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Roeacre Transfer Station Correspondence Address: -
Not shown	792	E	386197 410690	Site Address: Silvester House, Roe Acre Tannery, Bradshaw Street, Heywood, Lancashire, OL10 1PN Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PGC006 EPR reference: EA/EPR/AB3206XV/T001 Operator: P G C Demolition Limited Waste Management licence No: 100414 Annual Tonnage: 24999.0	Issue Date: 24/11/2008 Effective Date: 20/08/2013 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Revoked Site Name: Roe Acre Transfer Station Correspondence Address: -
Not shown	800	NW	384919 411251	Site Address: Waste Recycling Centre, Peel Lane, Heywood, Rochdale, Lancashire, OL10 4PS Type: 75kte HCI Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HEY008 EPR reference: EA/EPR/BB3501LB/A001 Operator: Heywood Recycling Limited Waste Management licence No: 401361 Annual Tonnage: 75000.0	Issue Date: 29/04/2014 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Revoked Site Name: Waste Recycling Centre Correspondence Address: -
Not shown	828	NW	384902 411274	Site Address: Peel Lane, Heywood, Rochdale, Lancashire, OL10 4PS Type: 75kte HCI Waste TS + treatment Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MAY001 EPR reference: EA/EPR/FB3401LL/A001 Operator: Mayer Skip And Excavation Limited Waste Management licence No: 404207 Annual Tonnage: 74999.0	Issue Date: 15/08/2017 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Mayer Skip And Excavation Hire Limited Correspondence Address: -
Not shown	840	NW	384800 411200	Site Address: Peel Lane, Heywood, Rochdale, Lancashire, OL10 4UH Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GMW019 EPR reference: SP3696CH/V	Issue Date: 01/02/1995 Effective Date: - Modified: 27/05/2009 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Peel Lane Civic Amenity Site

ID	Distance (m)	Direction	NGR	Details	
				Operator: Viridor Waste (Greater Manchester) Ltd Waste Management licence No: 53676 Annual Tonnage: 3943.0	Correspondence Address: -
Not shown	840	NW	384800 411200	Site Address: Land/premises At, Peel Lane, Heywood, Rochdale, Lancashire, OL10 4UH Type: Household Waste Amenity Site Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GMW019 EPR reference: EA/EPR/SP3696CH/S003 Operator: Viridor Waste (Greater Manchester) Ltd Waste Management licence No: 53676 Annual Tonnage: 796553.27	Issue Date: 01/02/1995 Effective Date: - Modified: 27/05/2009 Surrendered Date: 09/12/2011 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Peel Lane H W R C Correspondence Address: -
Not shown	840	NW	384800 411200	Site Address: Peel Lane, Heywood, Rochdale, OL10 Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GMW019 EPR reference: - Operator: G M Waste Ltd Waste Management licence No: 53676 Annual Tonnage: 3943.33	Issue Date: 01/02/1995 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Peel Lane Civic Amenity Site Correspondence Address: -
Not shown	840	NW	384800 411200	Site Address: Land/premises At, Peel Lane, Heywood, Rochdale, Lancashire, OL10 4UH Type: Household Waste Amenity Site Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GMW019 EPR reference: EA/EPR/SP3696CH/S003 Operator: Viridor Waste (Greater Manchester) Ltd Waste Management licence No: 53676 Annual Tonnage: 796553.266	Issue Date: 01/02/1995 Effective Date: - Modified: 27/05/2009 Surrendered Date: 09/12/2011 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Peel Lane H W R C Correspondence Address: -
Not shown	960	N	385425 411573	Site Address: Bamford Road, Heywood, Lancashire, OL10 4AA Type: Metal Recycling Site (mixed MRS's) Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: JHA002 EPR reference: - Operator: James Hartley Scrap Metals Ltd Waste Management licence No: 53431 Annual Tonnage: 0.0	Issue Date: 30/07/1999 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: James Hartley Scrap Metals Ltd Correspondence Address: Hooley Bridge Works, Bamford Road, Heywood, Lancashire, OL10 4AA
Not shown	960	N	385425 411573	Site Address: Hooley Bridge Works, Bamford Road, Heywood, Lancashire, OL10 4AE Type: Metal Recycling Site (mixed MRS's) Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: JHA002 EPR reference: EA/EPR/MP3892CP/V002 Operator: James Hartley (Scrap Metal) Ltd Waste Management licence No: 53431 Annual Tonnage: 75000.0	Issue Date: 30/07/1999 Effective Date: - Modified: 29/10/2010 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: James Hartley Scrap Metals Ltd Correspondence Address: -
Not shown	960	N	385425 411573	Site Address: Bamford Road, Heywood, Lancashire, OL10 4AA	Issue Date: 30/07/1999 Effective Date: -

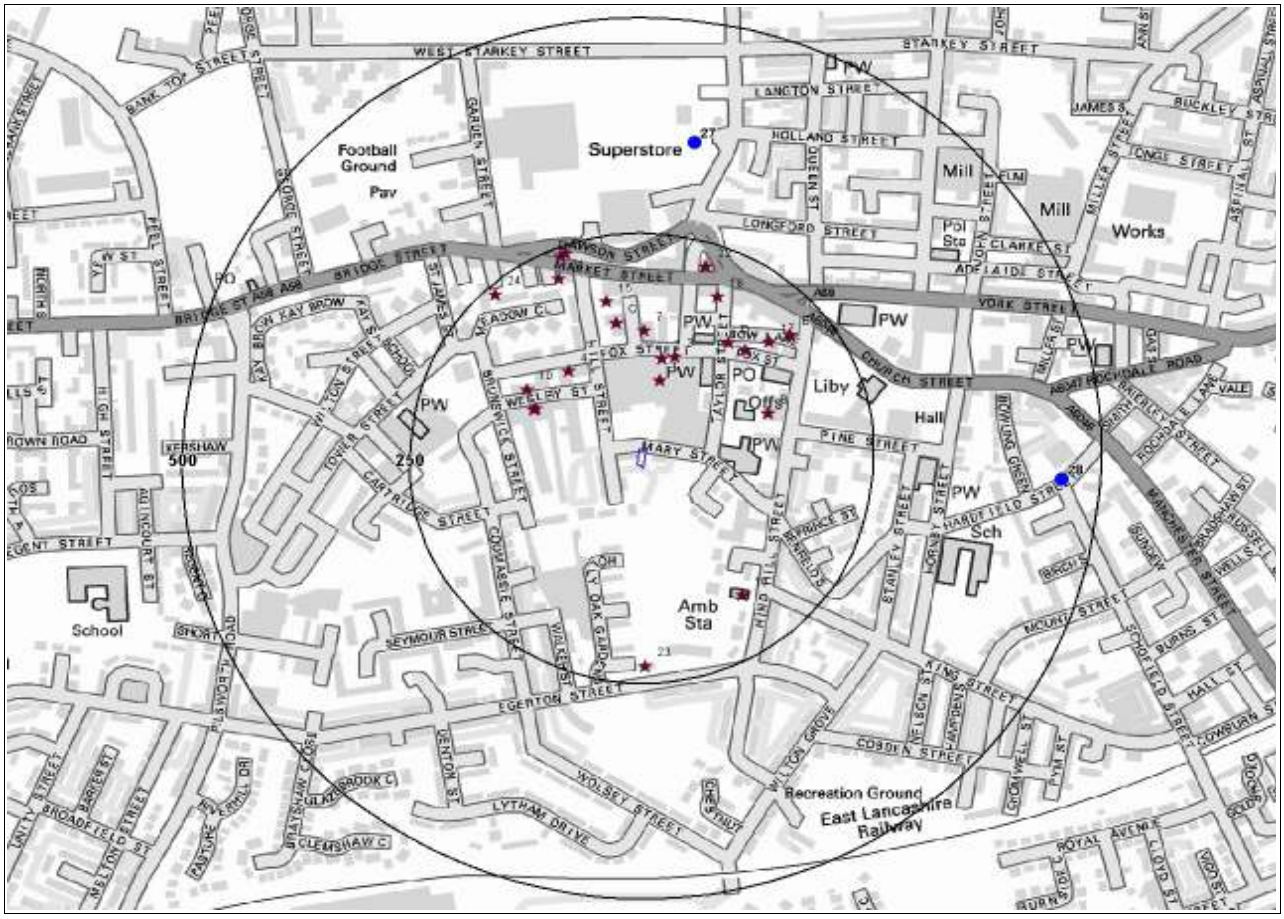
ID	Distance (m)	Direction	NGR	Details	
				Type: Metal Recycling Site (mixed MRS's) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: JHA002 EPR reference: - Operator: James Hartley Scrap Metals Ltd Waste Management licence No: 53431 Annual Tonnage: 0.0	Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: James Hartley Scrap Metals Ltd Correspondence Address: Hooley Bridge Works, Bamford Road, Heywood, Lancashire, OL10 4AA
Not shown	1160	E	386538 410340	Site Address: Rochdale Metropolitan Borough Council, Green Lane, Heywood, Rochdale, Lancashire, OL10 2DY Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ROC006 EPR reference: EA/EPR/DP3694CE/A001 Operator: Rochdale Metropolitan Borough Council Waste Management licence No: 50455 Annual Tonnage: 4999.0	Issue Date: 01/06/2006 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Green Lane Transfer Station Correspondence Address: -
Not shown	1195	E	386570 410325	Site Address: Green Lane, Heywood, Lancashire, OL10 2DY Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NNW001 EPR reference: EA/EPR/LP3892CQ/S002 Operator: North West Water Ltd Waste Management licence No: 53420 Annual Tonnage: 50000.0	Issue Date: 07/01/2000 Effective Date: - Modified: - Surrendered Date: 27/06/2001 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Nww - Heywood Transfer Station Correspondence Address: -

4. Current Land Use Map

NW N NE

W E

SW S SE



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Site Outline

Search Buffers (m)

250

500

Current Industrial Sites

Petrol & Fuel Sites

Electricity Transmission Cables

Gas Transmission Pipelines

4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 26

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	83	N	Warehouse	385423 410694	OL10	Container and Storage	Transport, Storage and Delivery
2	108	N	Tank	385425 410719	OL10	Tanks (Generic)	Industrial Features
3	113	N	Electricity Sub Station	385439 410721	OL10	Electrical Features	Infrastructure and Facilities
4	120	NW	Works	385323 410704	OL10	Unspecified Works Or Factories	Industrial Features
5A	124	NW	Works	385287 410661	OL10	Unspecified Works Or Factories	Industrial Features
6A	126	W	Ibex Marina Ropes	385284 410660	Cartridge Ropery, Brunswick Street, Heywood, OL10 1HA	Ropes, Nets and Cordage	Industrial Products
7	138	N	Warehouse	385406 410751	OL10	Container and Storage	Transport, Storage and Delivery
8B	140	E	The Old Police Station	385541 410654	22, Hind Hill Street, Heywood, OL10 1AQ	Business Parks and Industrial Estates	Industrial Features
9B	140	E	2020 Industries Ltd	385542 410655	Tops Business Centre, Hind Hill Street, Heywood, OL10 1AQ	Air and Water Filtration	Industrial Products
10	142	NW	Warehouse	385277 410683	OL10	Container and Storage	Transport, Storage and Delivery
11C	149	N	C&J Autos	385375 410760	Mission Street Garage, Mission Street, Heywood, OL10 1HY	Vehicle Repair, Testing and Servicing	Repair and Servicing
12C	149	N	C & J Autos	385375 410760	Mission Street Garage, Mission Street, Heywood, OL10 1HY	Vehicle Repair, Testing and Servicing	Repair and Servicing
13D	154	NE	Heywood Accessories & Spares	385498 410737	Taylor Street, Heywood, OL10 1EF	Vehicle Parts and Accessories	Motoring
14D	159	NE	Electricity Sub Station	385517 410728	OL10	Electrical Features	Infrastructure and Facilities
15	176	N	A M S	385364 410784	6-8, Mission Street, Heywood, OL10 1HY	Vehicle Repair, Testing and Servicing	Repair and Servicing
16	182	SE	Heywood Ambulance Station	385513 410444	Hind Hill Street, Heywood, OL10 1AN	Ambulance and Medical Transportation Services	Health Support Services
17	184	NE	Chimney	385543 410738	OL10	Chimneys	Industrial Features

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
18	194	NE	Hamilton Logistics Manchester Ltd	385486 410790	1b, Market Street, Heywood, OL10 1HT	Distribution and Haulage	Transport, Storage and Delivery
19E	207	NE	C T S Communications	385566 410746	6, Hind Hill Street, Heywood, OL10 1JZ	Radar and Telecommunications Equipment	Industrial Products
20E	207	NE	Internet Voip Phone	385566 410746	6, Hind Hill Street, Heywood, OL10 1JZ	Radar and Telecommunications Equipment	Industrial Products
21	218	NW	Techno Mobile	385311 410811	57, Market Street, Heywood, OL10 1HZ	Electrical Equipment Repair and Servicing	Repair and Servicing
22	222	N	Carters Appliance Care	385473 410825	4, Market Street, Heywood, OL10 4LY	Electrical Equipment Repair and Servicing	Repair and Servicing
23	229	S	Electricity Sub Station	385407 410362	OL10	Electrical Features	Infrastructure and Facilities
24	240	NW	Electricity Sub Station	385242 410793	OL10	Electrical Features	Infrastructure and Facilities
25F	240	N	Rothwells Super Travel	385313 410837	60, Market Street, Heywood, OL10 4LY	Bus and Coach Stations, Depots and Companies	Public Transport, Stations and Infrastructure
26F	242	N	Eye Centre Heywood Ltd	385319 410841	58, Market Street, Heywood, OL10 4LY	Photographic and Optical Equipment	Household, Office, Leisure and Garden

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 2

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
27	360	N	385461 410968	MORRISONS	Bamford Road, Heywood, Greater Manchester, OL10 4PU	No	Open
28	457	E	385865 410577	OBSOLETE	Hardfield Street, Heywood, Greater Manchester, OL10 1DG	Not Applicable	Obsolete

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site: 0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site: 0

Database searched and no data found.

---

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

5.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL

5.3 Bedrock and Solid Geology

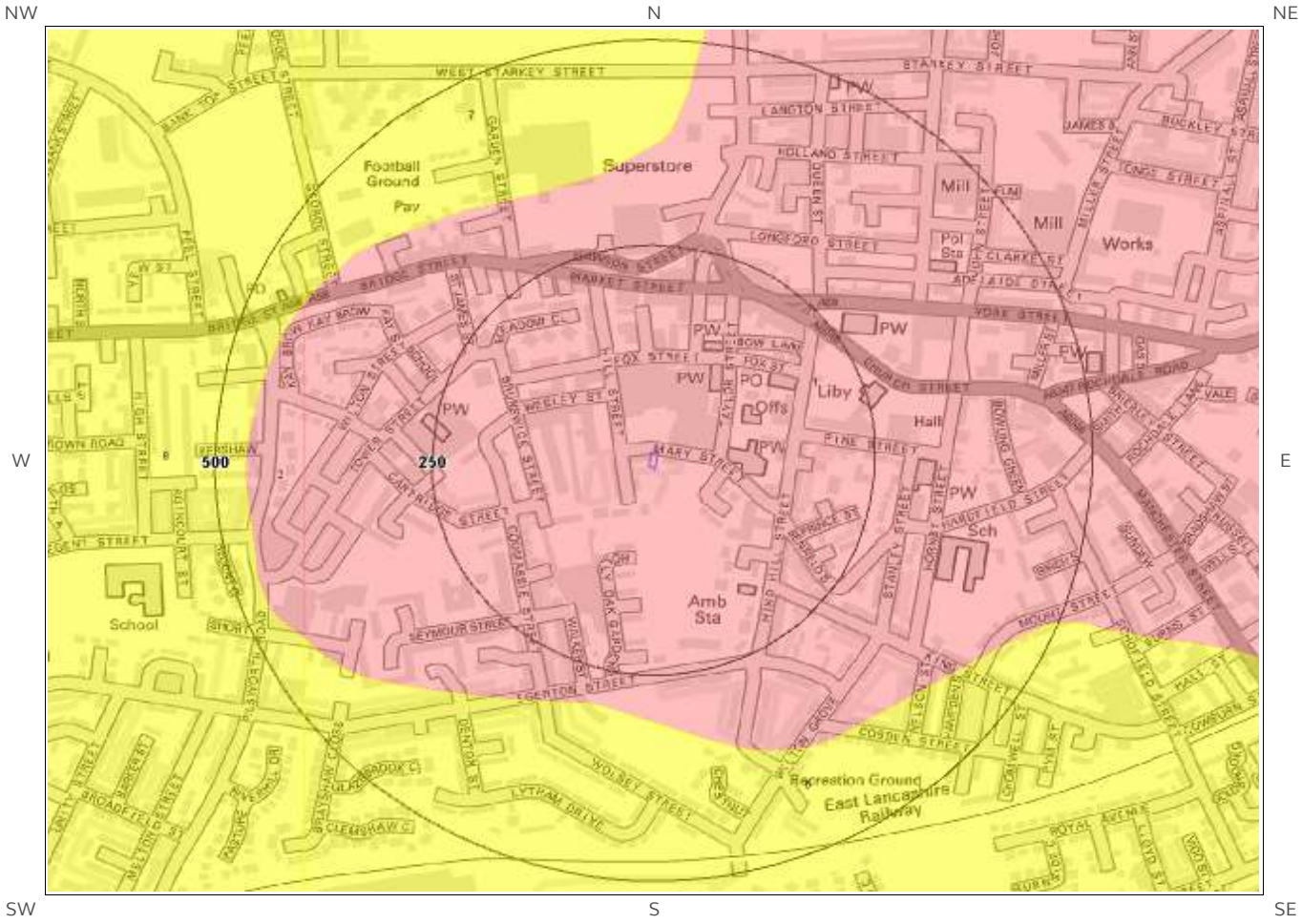
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

6a. Aquifer Within Superficial Geology



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Site Outline

250 — 500 — Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

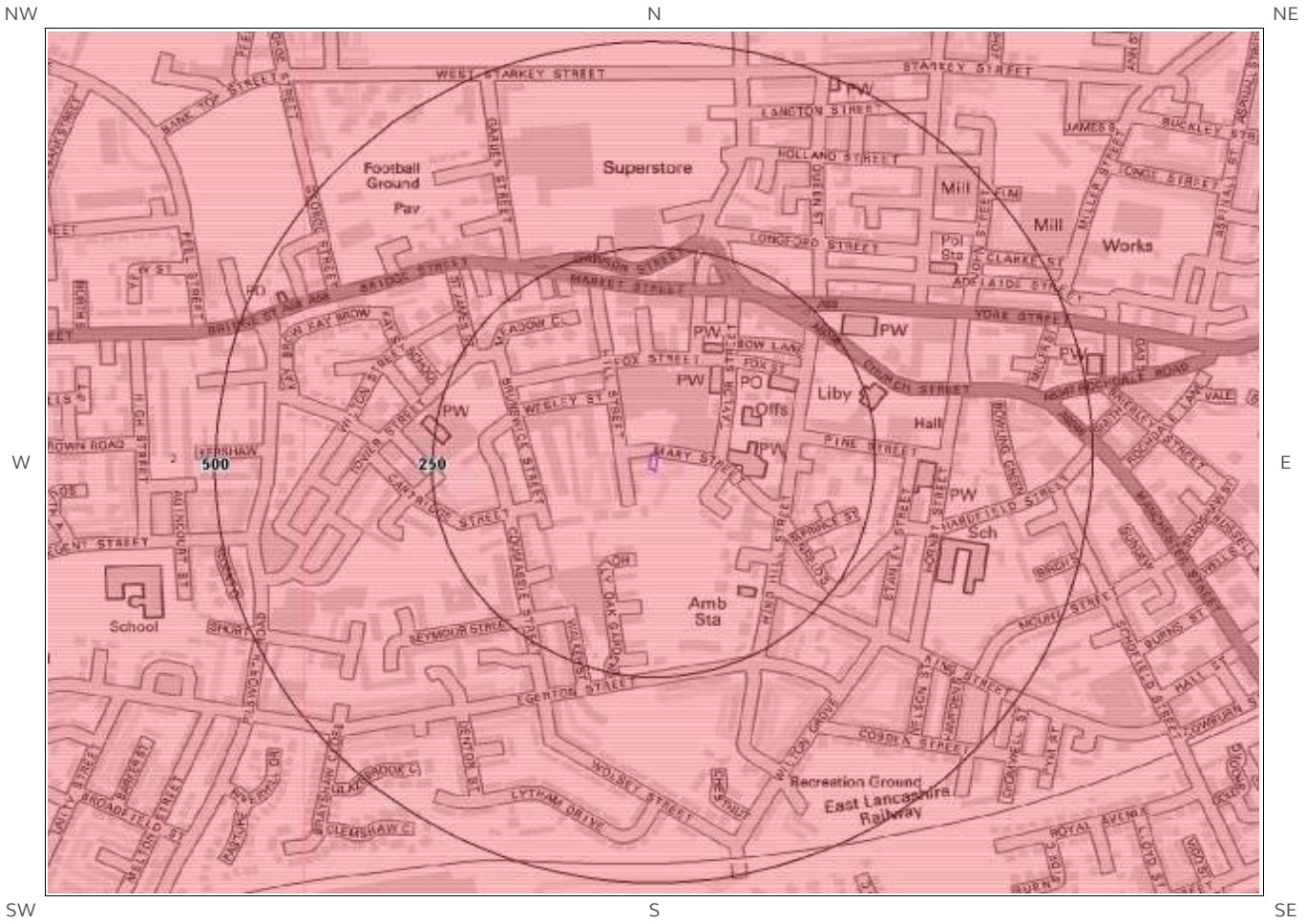
Secondary (B) Aquifer - Lower Permeability Layers

Secondary Aquifer - Undifferentiated Layers

Unproductive

Unknown (lakes and landslip)

6b. Aquifer Within Bedrock Geology and Abstraction Licences



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Site Outline

250 — 500 — Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

Secondary (B) Aquifer - Lower Permeability Layers

Groundwater Abstraction Licence

Secondary Aquifer - Undifferentiated Layers

Unproductive

Unknown (lakes and landslip)

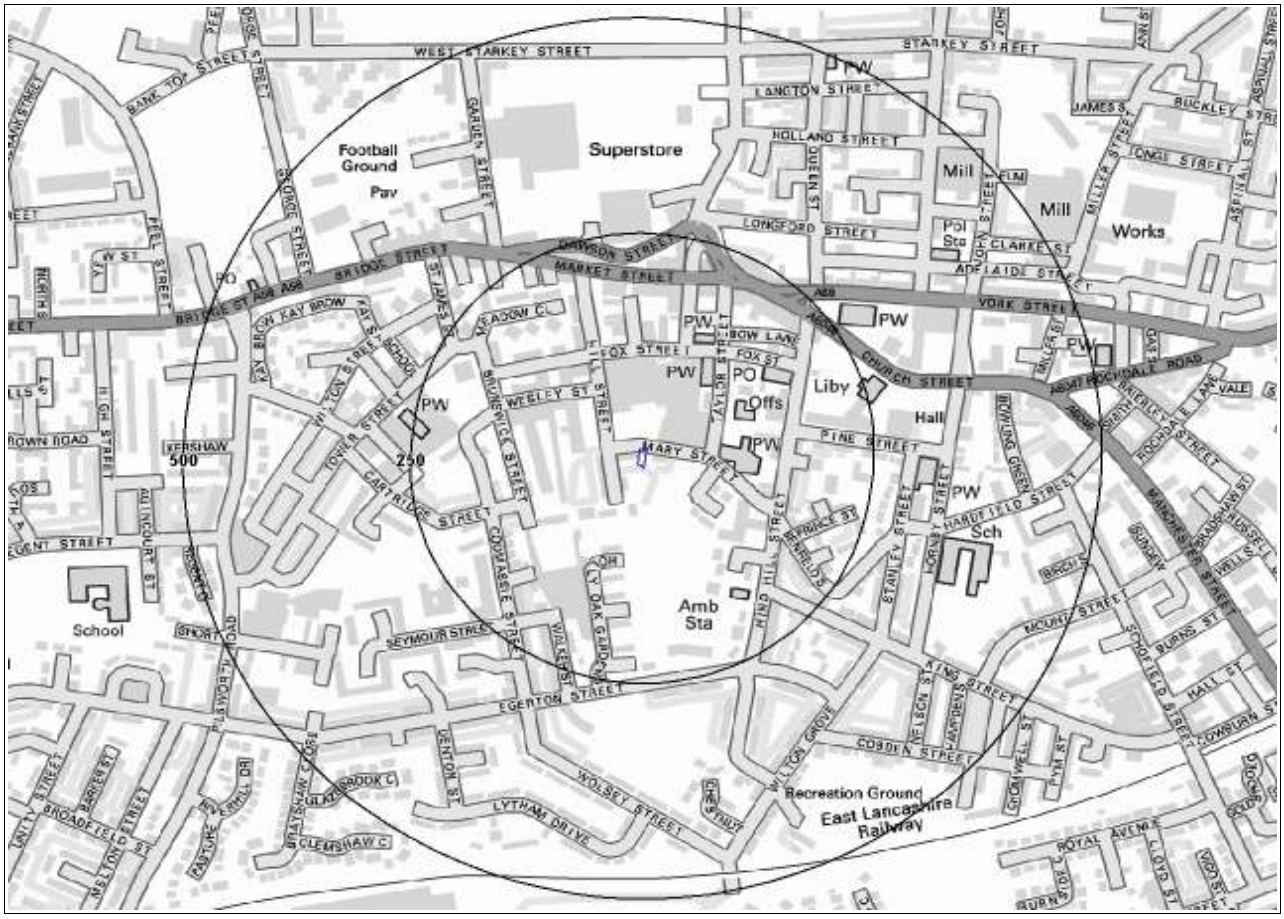
Surface Water Abstraction Licence

6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licences

NW N NE

W E

SW S SE



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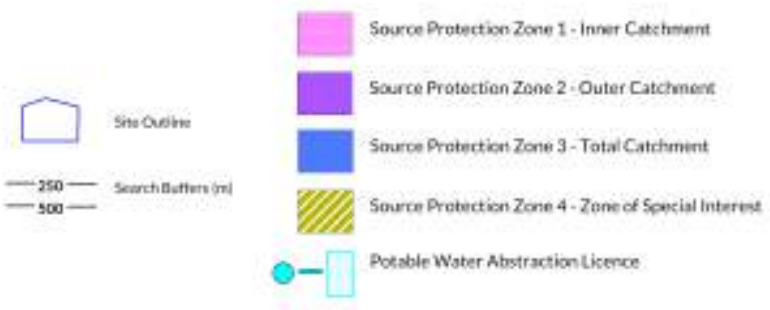
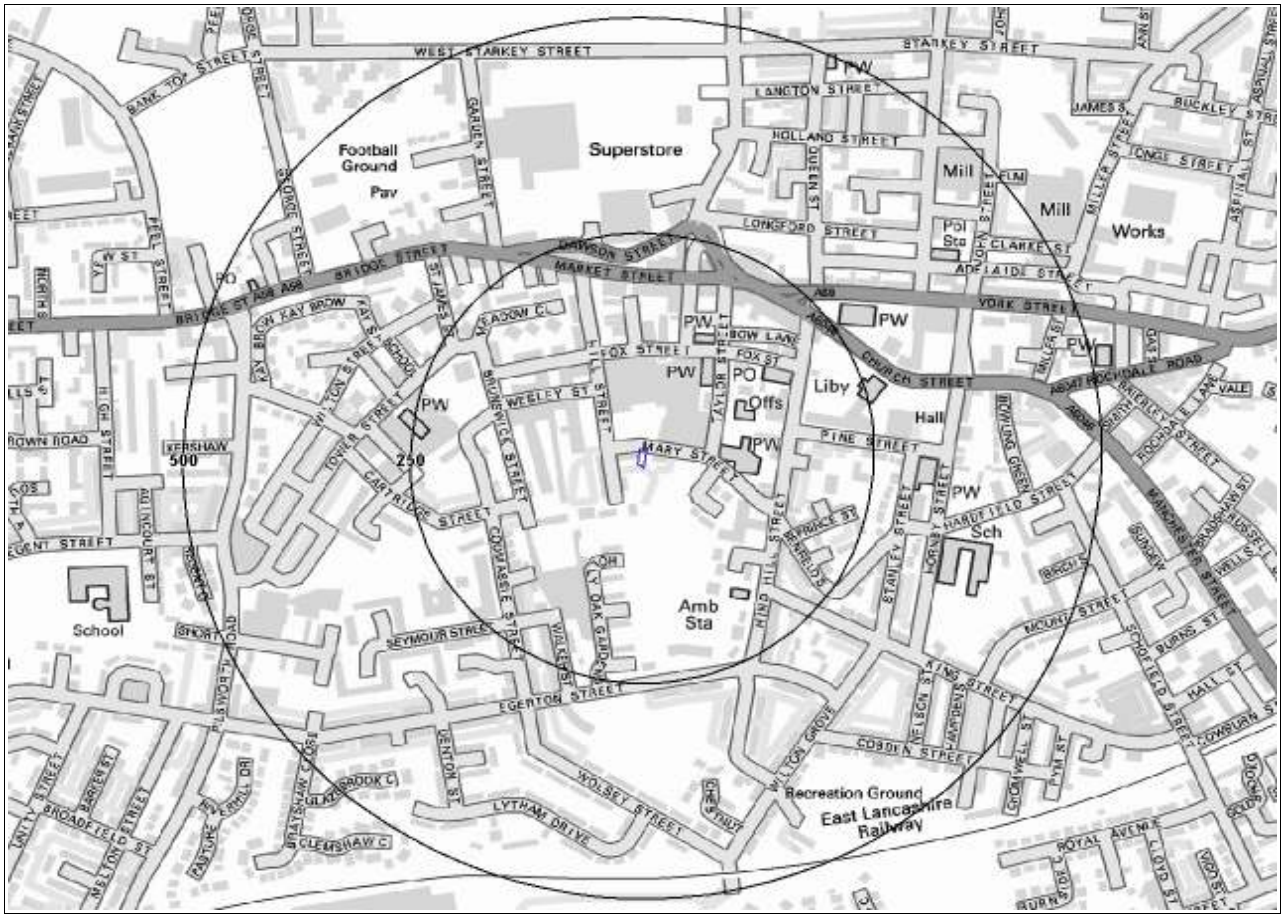


6d. Hydrogeology – Source Protection Zones within confined aquifer

NW N NE

W E

SW S SE



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Source Protection Zone 1 - Inner Catchment

Source Protection Zone 2C - Outer Catchment within Confined Aquifer

Source Protection Zone 3C - Total Catchment within Confined Aquifer

Potable Water Abstraction Licence

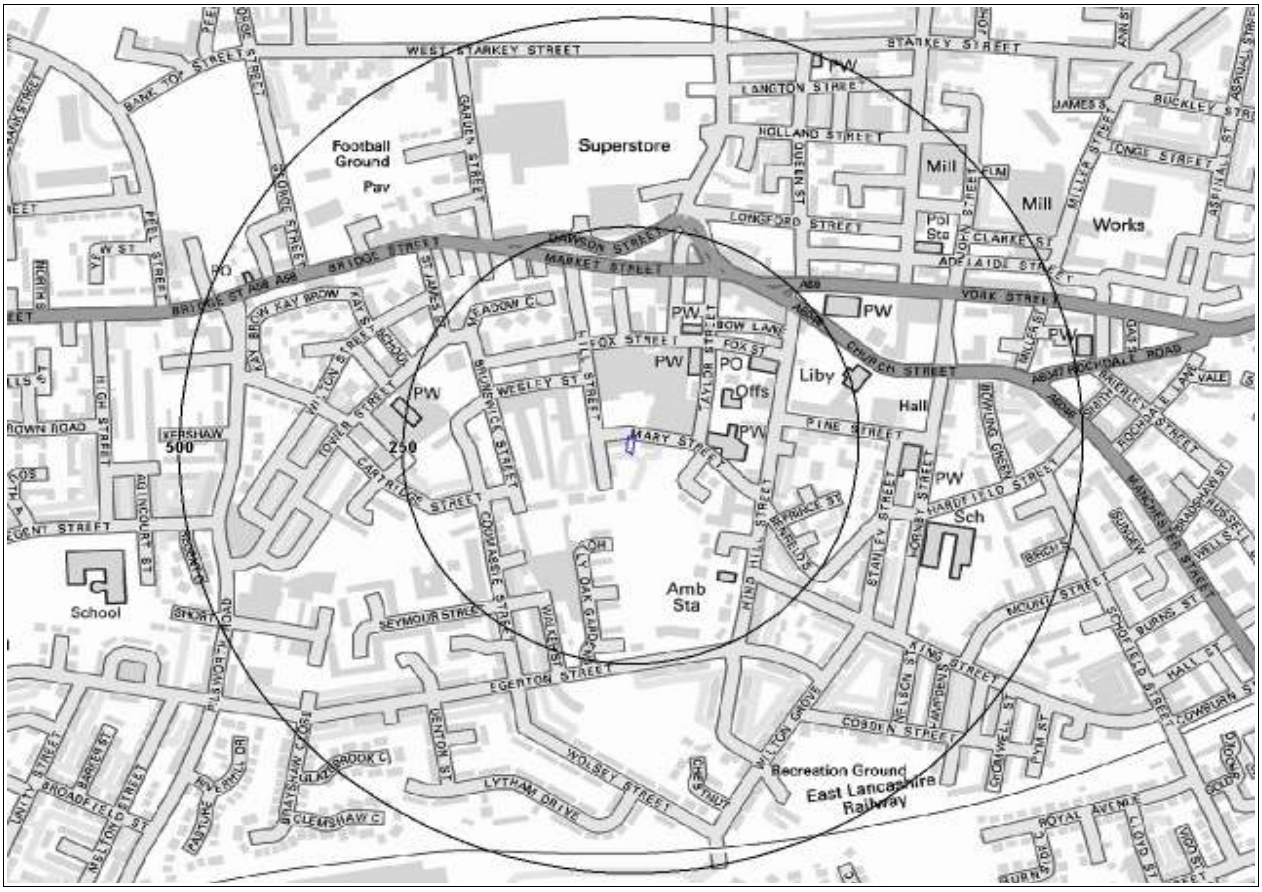
Site Outline

250 500 Search Buffers (m)

6e. Hydrology – Watercourse Network and River Quality

NW N NE

W E



SW S SE

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Site Outline

250 — 500 — Search Buffers (m)

Tidal River

Inland River

Underground or Elevated Tidal River

Underground or Elevated Inland River

Foreshore

General Quality Assessment: Chemistry

Canal

Underground or Elevated Canal

Lock or Flight of Locks

Lake, Reservoir, or Marsh

Drain or Transfer

General Quality Assessment: Biology

6.Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Records of strata classification within the superficial geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distance (m)	Direction	Designation	Description
1	0	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
6	294	S	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
7	340	N	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	398	W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
8	440	NW	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

6.2 Aquifer within Bedrock Deposits

Records of strata classification within the bedrock geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	398	W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

6.3 Groundwater Abstraction Licences

Groundwater Abstraction Licences within 2000m of the study site — Identified

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details	
Not shown	791	E	386200 410600	Status: Historical Licence No: 2569002082 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLES (2) AT PREMISES, ROEACRE TANNERY, HEYWOOD, L97 Data Type: Point Name: G. S. COLD STORAGE AND WAREHOUSING LTD.	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2000 Version End Date:
Not shown	796	E	386200 410700	Status: Historical Licence No: 2569002082 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLES (2) AT PREMISES, ROEACRE TANNERY, HEYWOOD Data Type: Point Name: G. S. COLD STORAGE AND WAREHOUSING LTD.	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2000 Version End Date:
Not shown	1200	SE	386500 410100	Status: Historical Licence No: 2569002029 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, GREEN LANE, HEYWOOD" Data Type: Point Name: OAK BREWING COMPANY LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 15/11/1990 Version End Date:
Not shown	1200	SE	386500 410100	Status: Historical Licence No: 2569002029 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, GREEN LANE, HEYWOOD Data Type: Point Name: OAK BREWING COMPANY LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 15/11/1990 Version End Date:
Not shown	1200	SE	386500 410100	Status: Active Licence No: 2569002029 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, GREEN LANE, HEYWOOD Data Type: Point Name: OAK BREWING COMPANY LTD	Annual Volume (m^3): 79645.9 Max Daily Volume (m^3): 218.208 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 15/11/1990 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	1352	E	386700 410200	Status: Historical Licence No: 2569002257 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT GREEN LANE,HEYWOOD Data Type: Point Name: TARMAC TOPMIX LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 28/06/1993 Expiry Date: - Issue No: 100 Version Start Date: 28/06/1993 Version End Date:
Not shown	1472	NE	386500 411600	Status: Historical Licence No: 2569002037 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, CRIMBLE MILLS,HEYWOOD Data Type: Point Name: K.SHAW & COMPANY LTD.	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/10/2002 Version End Date:
Not shown	1472	NE	386500 411600	Status: Historical Licence No: 2569002037 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, CRIMBLE MILLS,HEYWOOD Data Type: Point Name: K.SHAW & COMPANY LTD.	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/10/2002 Version End Date:
Not shown	1472	NE	386500 411600	Status: Historical Licence No: 2569002037 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, CRIMBLE MILLS,HEYWOOD" Data Type: Point Name: ROE ACRE DYEING & FELTING CO LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/05/1993 Version End Date:
Not shown	1472	NE	386500 411600	Status: Historical Licence No: 2569002037 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, CRIMBLE MILLS,HEYWOOD" Data Type: Point Name: ROE ACRE DYEING & FELTING CO LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/05/1993 Version End Date:
Not shown	1830	N	385800 412400	Status: Historical Licence No: 2569002217 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT BUTTERWORTH FOLD FARM, BAMFORD, ROCHDALE" Data Type: Point Name: JAMES SWALLOW LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 22/09/1980 Expiry Date: - Issue No: 100 Version Start Date: 22/09/1980 Version End Date:
Not shown	1830	N	385800 412400	Status: Historical Licence No: 2569002217 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT BUTTERWORTH FOLD FARM, BAMFORD, ROCHDALE Data Type: Point Name: JAMES SWALLOW LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 22/09/1980 Expiry Date: - Issue No: 100 Version Start Date: 22/09/1980 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not show n	1830	N	385800 412400	Status: Active Licence No: 2569002217 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT BUTTERWORTH FOLD FARM BAMFORD ROCHDALE Data Type: Point Name: JAMES SWALLOW LTD	Annual Volume (m^3): 33185.8 Max Daily Volume (m^3): 90.92 Original Application No: - Original Start Date: 22/09/1980 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date:

6.4 Surface Water Abstraction Licences

Surface Water Abstraction Licences within 2000m of the study site — Identified

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details	
Not shown	1472	NE	386620 411500	Status: Historical Licence No: 2569002270 Details: Process water Direct Source: Surface, Non-Tidal - North West Region Point: RIVER ROCH AT HEYWOOD Data Type: Line Name: ROE ACRE DYEING & FELTING CO LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 17/06/1999 Version End Date:
Not shown	1472	NE	386620 411500	Status: Historical Licence No: 2569002270 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: RIVER ROCH AT HEYWOOD Data Type: Line Name: ROE ACRE DYEING & FELTING CO LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 17/06/1999 Version End Date:
Not shown	1617	N	385360 412230	Status: Historical Licence No: 2569002255 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Surface, Non-Tidal - North West Region Point: NADEN BROOK AT SIMPSON CLOUGH, HEYWOOD 112 Data Type: Point Name: J R CROMPTON LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: - Original Start Date: 12/02/1993 Expiry Date: - Issue No: 101 Version Start Date: 10/10/2000 Version End Date:
Not shown	1617	N	385360 412230	Status: Historical Licence No: 2569002255 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Surface, Non-Tidal - North West Region Point: NADEN BROOK AT SIMPSON CLOUGH, HEYWOOD $112 Data Type: Point Name: J R CROMPTON LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: - Original Start Date: 12/02/1993 Expiry Date: - Issue No: 101 Version Start Date: 10/10/2000 Version End Date:
Not shown	1617	N	385360 412230	Status: Historical Licence No: 2569002255 Details: General use relating to Secondary Category (Medium Loss) Direct Source: "Surface, Non-Tidal - North West	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: - Original Start Date: 12/02/1993 Expiry Date: -

ID	Distance (m)	Direction	NGR	Details	
				Region" Point: "NADEN BROOK AT SIMPSON CLOUGH, HEYWOOD $112" Data Type: Point Name: J R CROMPTON LTD	Issue No: 101 Version Start Date: 10/10/2000 Version End Date:
Not shown	1617	N	385360 412230	Status: Active Licence No: 2569002255 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Surface, Non-Tidal - North West Region Point: NADEN BROOK AT SIMPSON CLOUGH, HEYWOOD Data Type: Point Name: UNION PAPERTECH LIMITED	Annual Volume (m^3): 2.13662e+006 Max Daily Volume (m^3): 6219 Application No: - Original Start Date: 12/02/1993 Expiry Date: - Issue No: 102 Version Start Date: 13/08/2007 Version End Date:
Not shown	1790	N	385300 412400	Status: Historical Licence No: 2569002166 Details: Process water Direct Source: Surface, Non-Tidal - North West Region Point: CHEESDEN BRK AT SIMPSON CLOUGH, HEYWOOD Data Type: Point Name: J R CROMPTON LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: - Original Start Date: 24/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/05/2001 Version End Date:
Not shown	1790	N	385300 412400	Status: Historical Licence No: 2569002166 Details: Boiler Feed Direct Source: "Surface, Non-Tidal - North West Region" Point: "CHEESDEN BRK AT SIMPSON CLOUGH, HEYWOOD" Data Type: Point Name: J R CROMPTON LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: - Original Start Date: 24/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/05/2001 Version End Date:
Not shown	1790	N	385300 412400	Status: Historical Licence No: 2569002166 Details: Process water Direct Source: "Surface, Non-Tidal - North West Region" Point: "CHEESDEN BRK AT SIMPSON CLOUGH, HEYWOOD" Data Type: Point Name: J R CROMPTON LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: - Original Start Date: 24/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/05/2001 Version End Date:
Not shown	1790	N	385300 412400	Status: Historical Licence No: 2569002166 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: CHEESDEN BRK AT SIMPSON CLOUGH, HEYWOOD Data Type: Point Name: J R CROMPTON LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: - Original Start Date: 24/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/05/2001 Version End Date:
Not shown	1790	N	385300 412400	Status: Active Licence No: 2569002166 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: CHEESDEN BROOK AT SIMPSON CLOUGH HEYWOOD Data Type: Point Name: UNION PAPERTECH LIMITED	Annual Volume (m^3): 2.13662e+006 Max Daily Volume (m^3): 12437.9 Application No: - Original Start Date: 24/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 13/08/2007 Version End Date:
Not shown	1790	N	385300 412400	Status: Active Licence No: 2569002166 Details: Process Water Direct Source: Surface, Non-Tidal - North West Region Point: CHEESDEN BROOK AT SIMPSON	Annual Volume (m^3): 2.13662e+006 Max Daily Volume (m^3): 12437.9 Application No: - Original Start Date: 24/01/1966 Expiry Date: - Issue No: 101

ID	Distance (m)	Direction	NGR	Details	
				CLOUGH HEYWOOD Data Type: Point Name: UNION PAPERTECH LIMITED	Version Start Date: 13/08/2007 Version End Date:

6.5 Potable Water Abstraction Licences

Potable Water Abstraction Licences within 2000m of the study site — None identified

Database searched and no data found.

6.6 Source Protection Zones

Source Protection Zones within 500m of the study site — None identified

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Source Protection Zones within the Confined Aquifer within 500m of the study site — None identified

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site Identified

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.

6.9 River Quality

Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site Identified

6.9.1 Biological Quality:

Biological Quality data describes water quality in terms of 83 groups of macroinvertebrates, some of which are pollution sensitive. The results are graded from A ('Very Good') to F ('Bad').

The following Biological Quality records are shown on the Hydrology Map (6e):

ID	Distance (m)	Direction	NGR	River Quality Grade	Biological Quality Grade				
					2005	2006	2007	2008	2009
Not shown	1334	N	385050 411900	River Name: Naden Bk Reach: Cheesden Bk. To Roch End/Start of Stretch: End of Stretch NGR	B	B	B	B	B

6.9.2 Chemical Quality:

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAHI). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

The following Chemical Quality records are shown on the Hydrology Map (6e):

					Chemical Quality Grade				
ID	Distance (m)	Direction	NGR	River Quality Grade	2005	2006	2007	2008	2009
Not shown	1334	N	385050 411900	River Name: Naden Bk. Reach: Cheesden Bk. To Roch End/Start of Stretch: End of Stretch NGR	A	A	A	A	A
Not shown	1376	N	385079 411951	River Name: Naden Bk. Reach: Cheesden Bk. To Roch End/Start of Stretch: Sample Point NGR	A	A	A	A	A
Not shown	1376	N	385079 411951	River Name: Naden Bk. Reach: Qsl At Doctor Dam To Cheesden Bk. End/Start of Stretch: Sample Point NGR	A	A	A	A	A

6.10 Ordnance Survey MasterMap Water Network

Ordnance Survey MasterMap Water Network entries within 500m of the study site

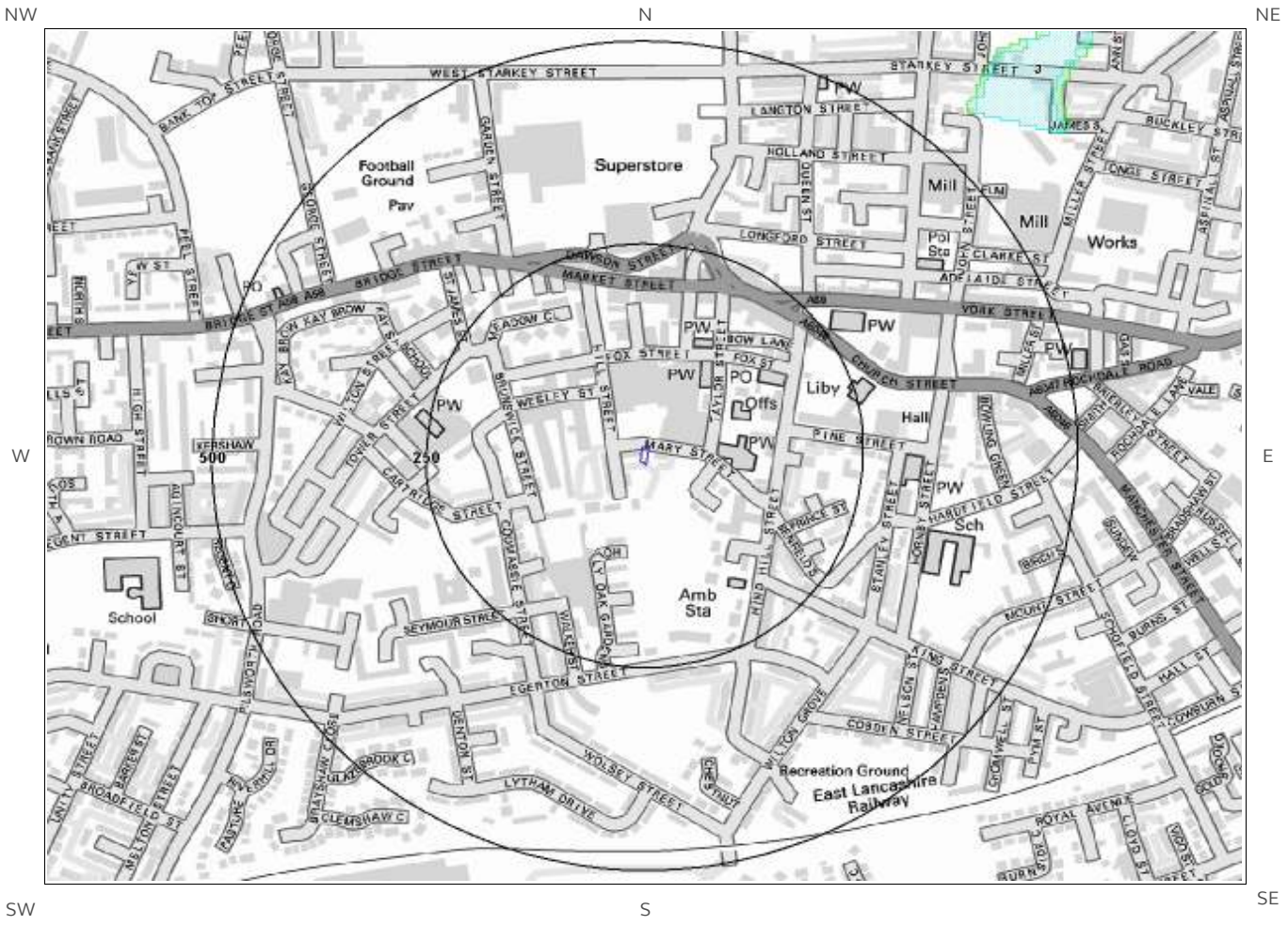
Database searched and no data found.

6.11 Surface Water Features

Surface water features within 250m of the study site None identified

Database searched and no data found.

7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)



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Site Outline

100
250
Search Buffers (m)

Zone 2 Floodplain

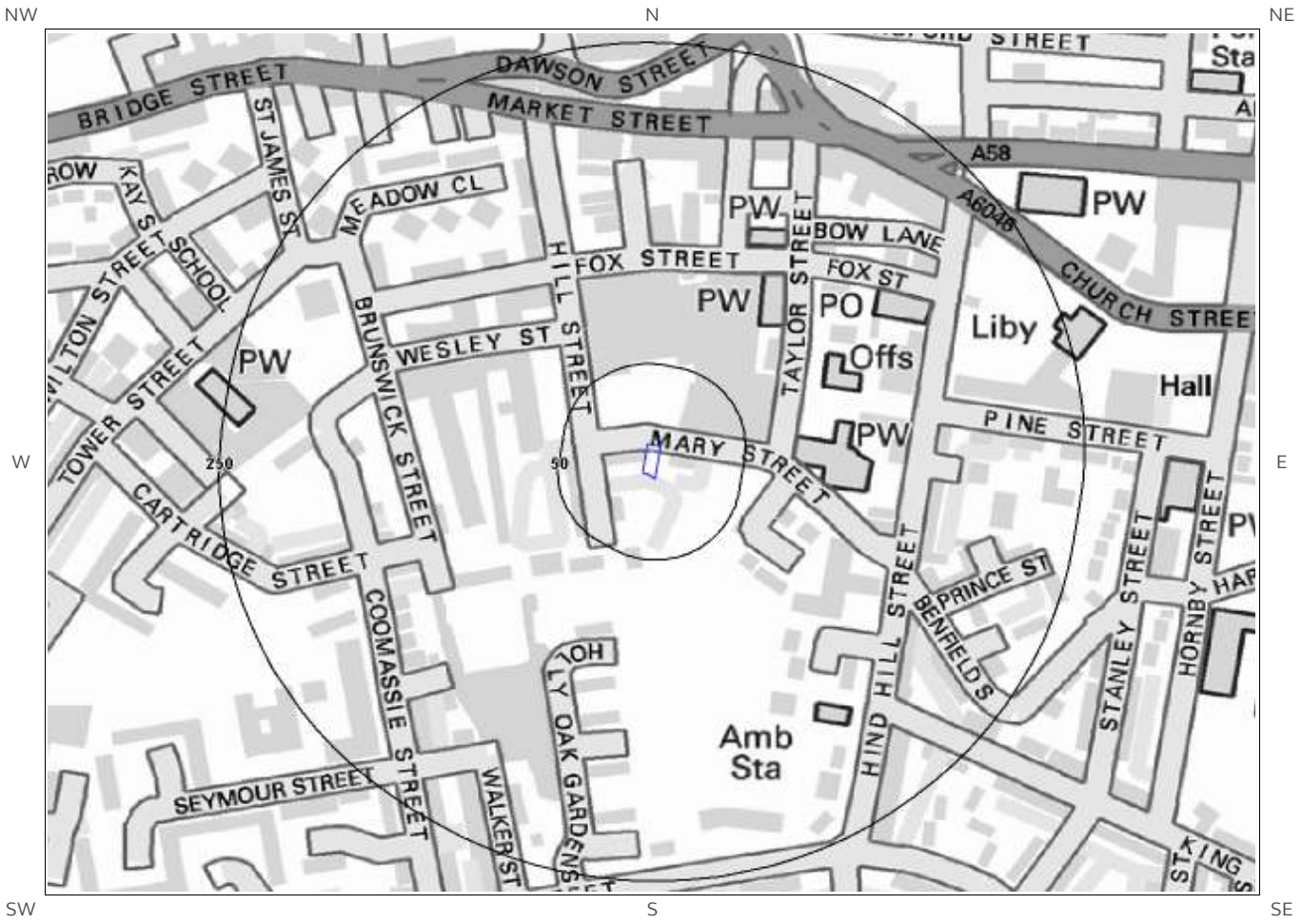
Zone 3 Floodplain

Flood Defences

Area used for Flood Storage

Area Benefiting from Flood Defences

7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map



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Site Outline

100 / 250 Search Buffers (m)

RoFRaS Rating

- Very Low
- Low
- Medium
- High

7 Flooding

7.1 River and Coastal Zone 2 Flooding

Environment Agency/Natural Resources Wales Zone 2 floodplain within 250m — None identified

Environment Agency/Natural Resources Wales Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

Database searched and no data found.

7.2 River and Coastal Zone 3 Flooding

Environment Agency/Natural Resources Wales Zone 3 floodplain within 250m — None identified

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

Database searched and no data found.

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

Highest risk of flooding onsite — Very Low

The Environment Agency/Natural Resources Wales RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Very Low (less than 1 in 1000) chance of flooding in any given year.

7.4 Flood Defences

Flood Defences within 250m of the study site — None identified

Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Areas benefiting from Flood Defences within 250m of the study site — None identified

7.6 Areas benefiting from Flood Storage

Areas used for Flood Storage within 250m of the study site	None identified

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site: Identified

Clearwater Flooding or Superficial Deposits Flooding	Superficial Deposits Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

7.7.2 Highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions

Potential below Surface

Where potential for groundwater flooding of property situated below ground level is indicated, this means that given the geological conditions there may be a groundwater flooding hazard to basements and other below surface infrastructure. Unless other relevant information, e.g. records of previous flooding, suggests groundwater flooding has occurred before in this area you need take no further action in relation to groundwater flooding hazard. If there are records of previous incidences of groundwater flooding, then is recommended that other information e.g. rainfall history, property type, and land drainage information in addition to previous records of flooding be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

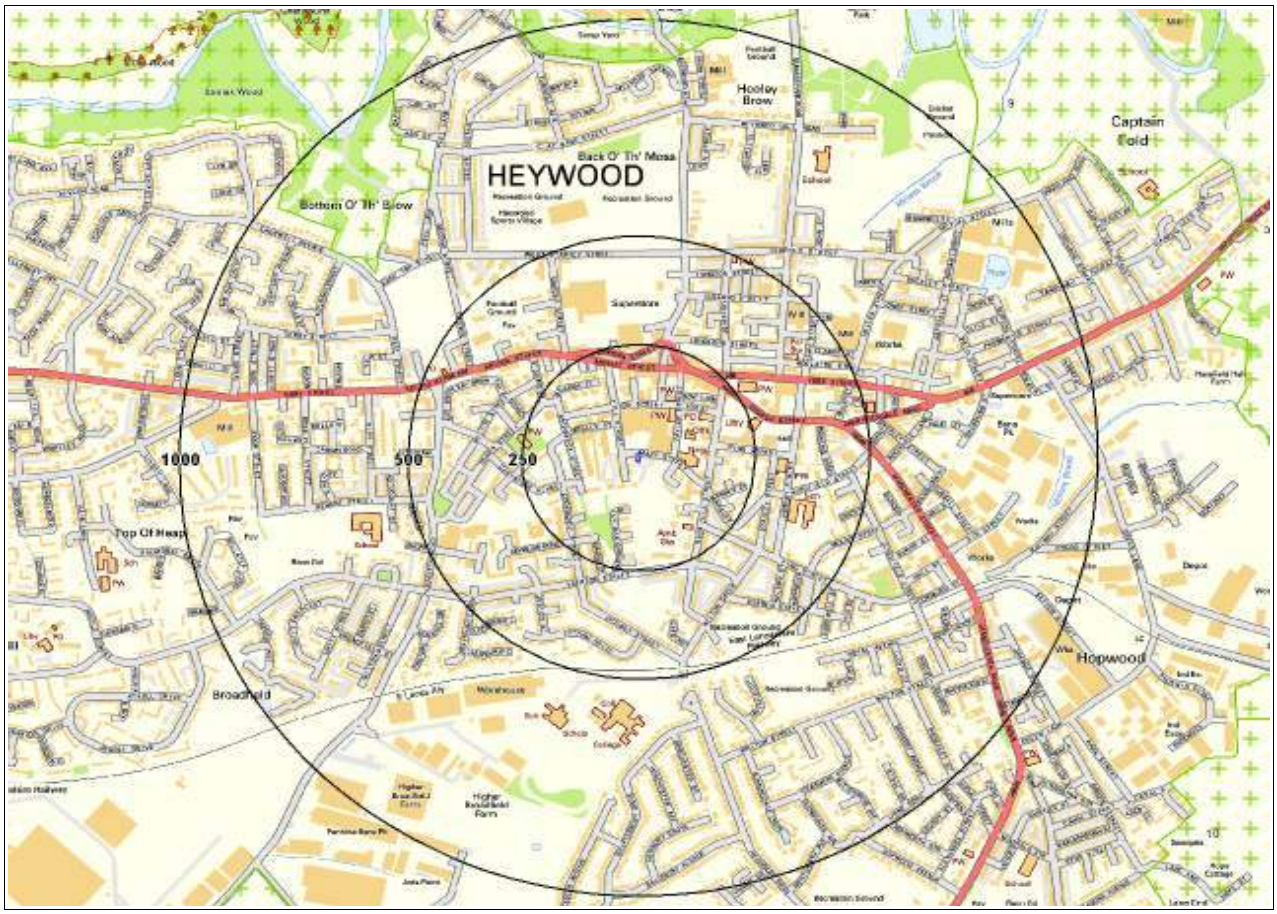
7.8 Groundwater Flooding Confidence Areas

British Geological Survey confidence rating in this result	Low

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

8. Designated Environmentally Sensitive Sites Map



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Site Outline

100
250
Search Buffers (m)

AONB
National Park
SSSI
Special Protection Areas
Nitrate Vulnerable Zones

Green Belt
Environmentally Sensitive Areas
Special Areas of Conservation
World Heritage Sites
Nitrate Sensitive Areas

Ancient Woodland
National Nature Reserve
Local Nature Reserves
Ramsar Sites

8. Designated Environmentally Sensitive Sites

Designated Environmentally Sensitive Sites within 2000m of the study site	Identified

8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

0

Database searched and no data found.

8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

0

Database searched and no data found.

8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

0

Database searched and no data found.

8.5 Records of Ramsar sites within 2000m of the study site:

0

Database searched and no data found.

8.6 Records of Ancient Woodland within 2000m of the study site:

7

The following records of Designated Ancient Woodland provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
2	1155	NW	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1266	NW	UNKNOWN	Ancient and Semi-Natural Woodland
4	1357	NW	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1522	N	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1667	N	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1722	NE	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1933	N	UNKNOWN	Ancient and Semi-Natural Woodland

8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

0

Database searched and no data found.

8.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

8.11 Records of National Parks (NP) within 2000m of the study site:

0

Database searched and no data found.

8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

1

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
Not shown	1934	E	Existing	DEFRA

8.14 Records of Green Belt land within 2000m of the study site:

3

Green Belt data contains Ordnance Survey data © Crown copyright and database right [2015].

ID	Distance	Direction	Green Belt Name	Local Authority Name
9	707	NW	Liverpool, Manchester and West Yorks Greenbelt	Rochdale
10	1140	S	Liverpool, Manchester and West Yorks Greenbelt	Rochdale
Not shown	1754	NW	Liverpool, Manchester and West Yorks Greenbelt	Bury District (B)

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a Groundsure Geo Insight, available from our website. The following information has been found:

9.1.1 Shrink Swell

Maximum Shrink-Swell*[*] hazard rating identified on the study site — Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.

9.1.2 Landslides

Maximum Landslide* hazard rating identified on the study site — Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

9.1.3 Soluble Rocks

Maximum Soluble Rocks* hazard rating identified on the study site — Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

* This indicates an automatically generated 50m buffer and site.

9.1.4 Compressible Ground

Maximum Compressible Ground* hazard rating identified on the study site — Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

9.1.5 Collapsible Rocks

Maximum Collapsible Rocks* hazard rating identified on the study site — Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

9.1.6 Running Sand

Maximum Running Sand** hazard rating identified on the study site — Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

* This indicates an automatically generated 50m buffer and site.

9.2 Radon

9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

9.2.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing
ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

10. Mining

10.1 Coal Mining

Coal mining areas within 75m of the study site — Identified

The following coal mining information provided by the Coal Authority is not represented on Mapping:

Distance (m)	Direction	Details
0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

10.2 Non-Coal Mining

Non-Coal Mining areas within 50m of the study site boundary — None identified

Database searched and no data found.

10.3 Brine Affected Areas

Brine affected areas within 75m of the study site — None identified
Guidance: No Guidance Required.

Contact Details

CENTREMAPS
Telephone: 01886 832972
Groundsure@centremaps.co.uk
Open Space, Upper Interfields, Malvern, Worcester, WR14 1UT

British Geological Survey Enquiries
Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email:
Web:**www.bgs.ac.uk**
BGS Geological Hazards Reports and general geological enquiries:
enquiries@bgs.ac.uk

Environment Agency
National Customer Contact Centre, PO Box 544
Rotherham, S60 1BY
Tel: 03708 506 506
Web: **www.environment-agency.gov.uk**
Email: enquiries@environment-agency.gov.uk

Public Health England
Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
www.gov.uk/phe
Email:**enquiries@phe.gov.uk**
Main switchboard**: 020 7654 8000**

The Coal Authority
200 Lichfield Lane
Mansfield
Notts NG18 4RG
Tel: 0345 7626 848
DX 716176 Mansfield 5
www.coal.gov.uk

Ordnance Survey
Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505

Local Authority
Authority: Rochdale Metropolitan Borough Council
Phone: 01706 647 474
Web: http://www.rochdale.gov.uk/
Address: Number One Riverside, Smith Street, Rochdale, Lancashire,

Gemapping PLC
Virginia Villas, High Street, Hartley Witney,
Hampshire RG27 8NW
Tel: 01252 845444

SMALL SCALE SURVEY PLANS



CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: County Series

Map date: **1851**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1847
Revised N/A
Edition 1851
Copyright N/A
Levelled N/A

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Production date: 07 November 2018

Map legend available at:
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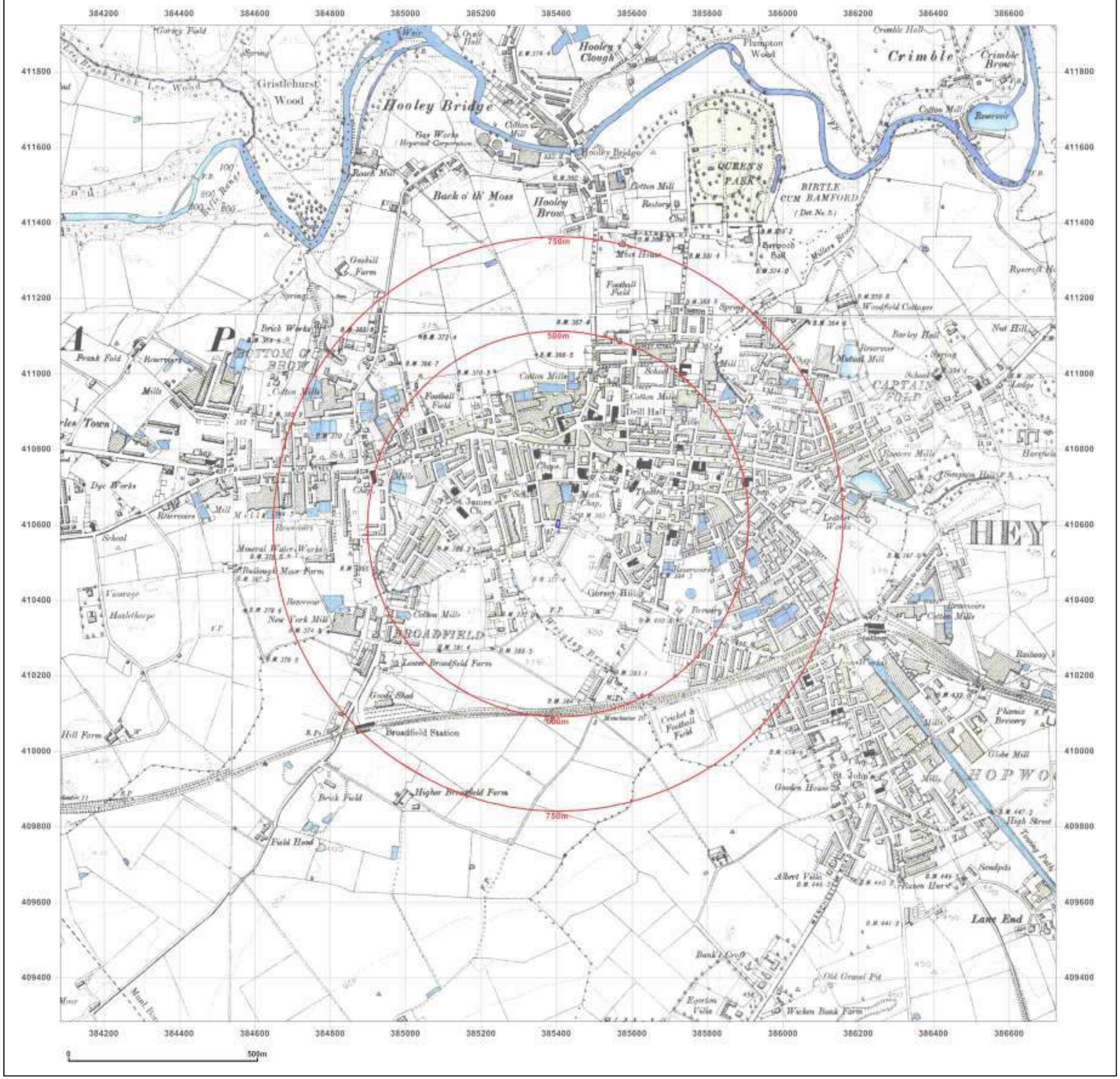

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: County Series

Map date: **1890-1891**

Scale: 1:10,560

Printed at: 1:10,560

N
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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

Surveyed 1891
Revised 1891
Edition N/A
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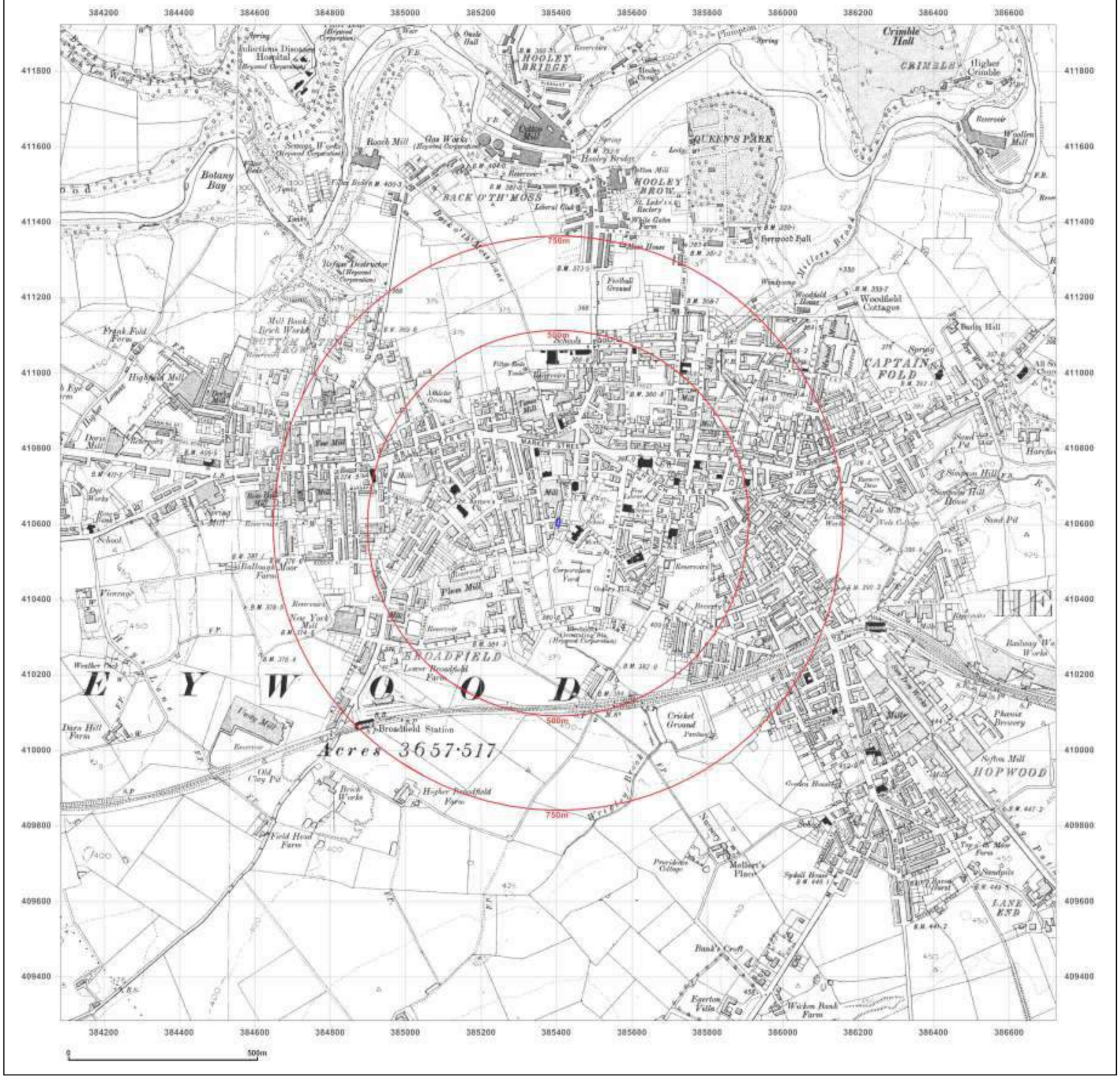

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FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: County Series

Map date: **1908-1909**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1848
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1848
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1848
Revised 1909
Edition N/A
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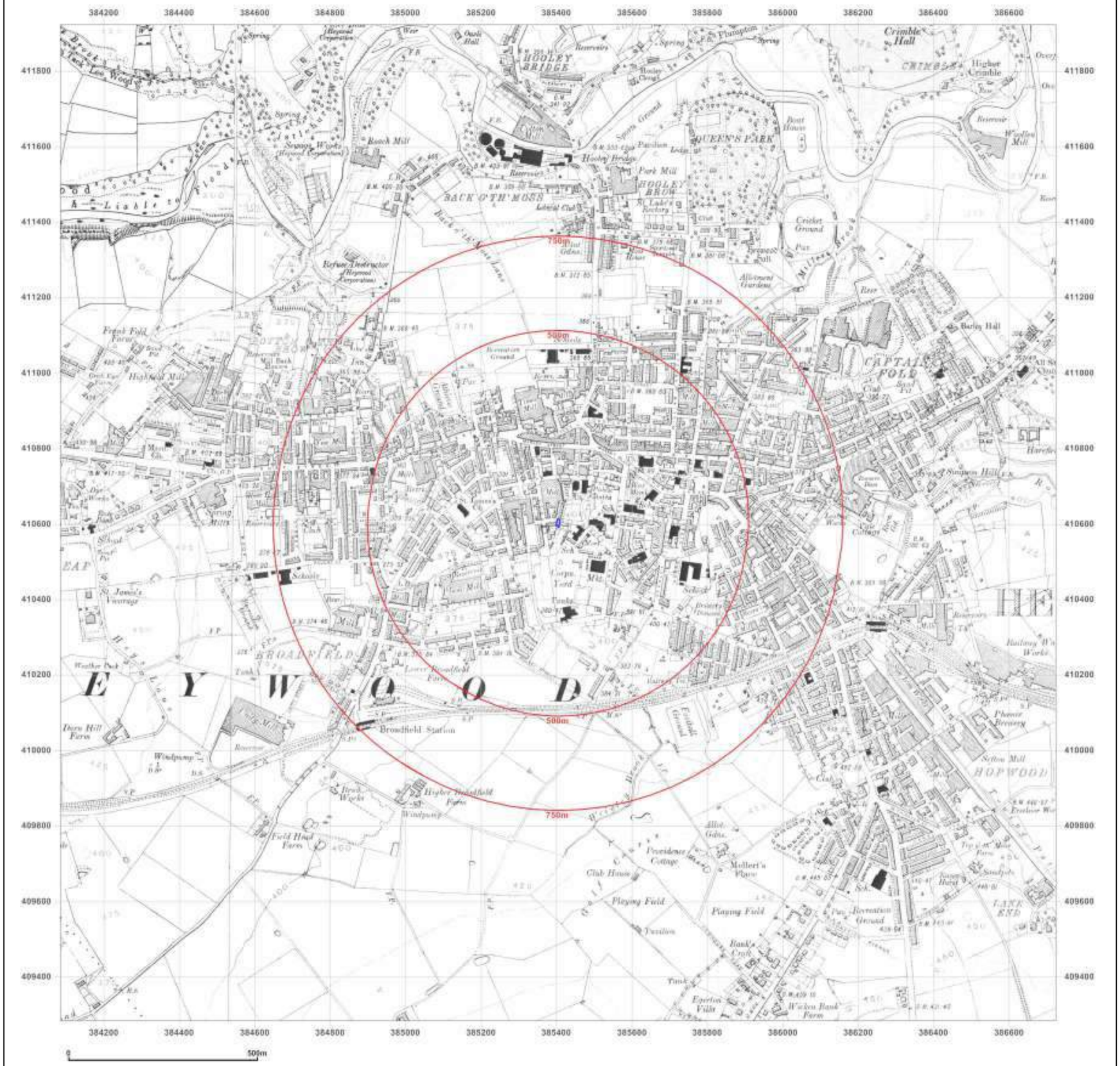

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Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: County Series

Map date: **1928**

Scale: 1:10,560

Printed at: 1:10,560

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

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

Surveyed 1844
Revised 1928
Edition N/A
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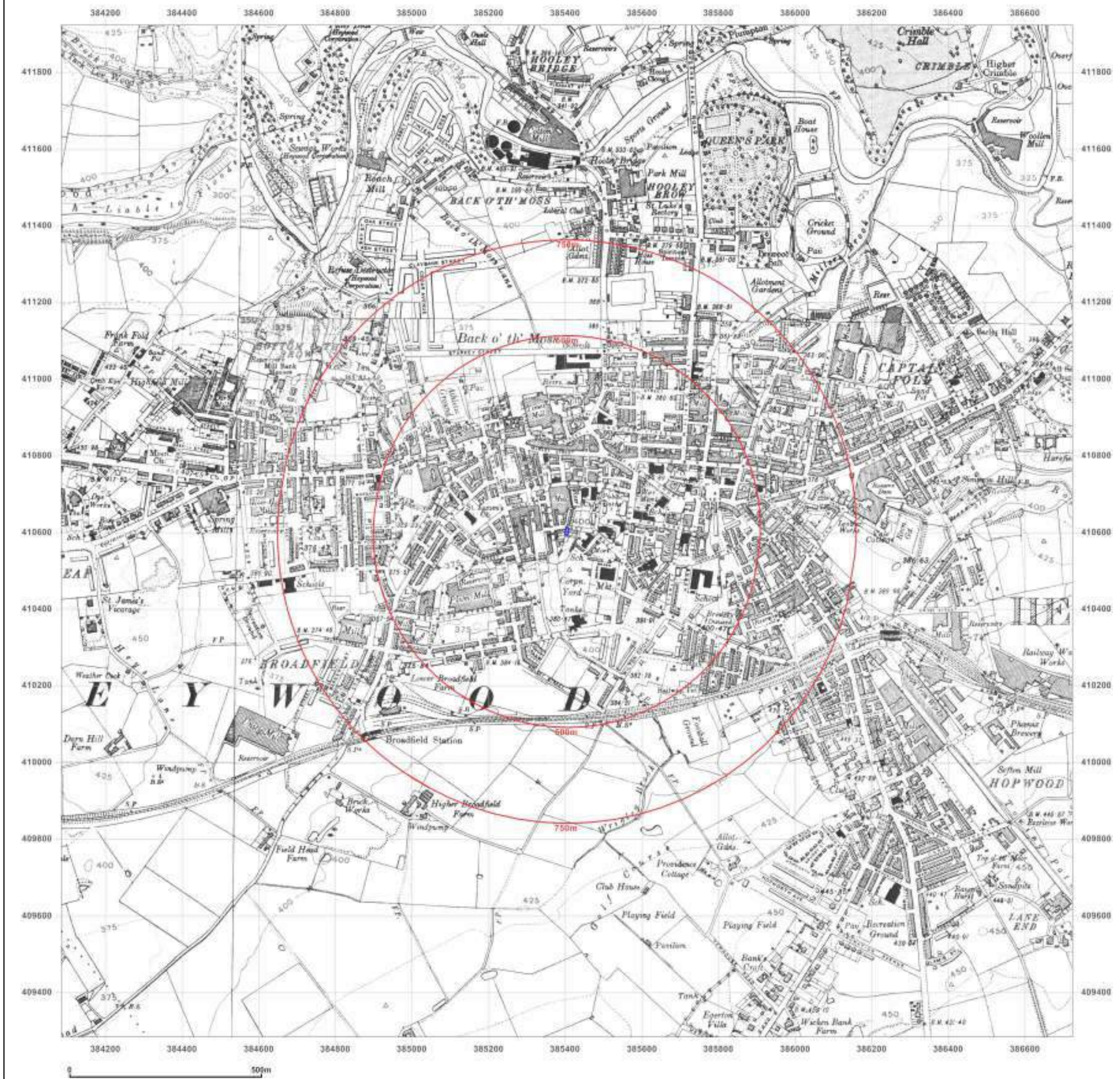

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Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

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

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

Surveyed 1844
Revised 1938
Edition N/A
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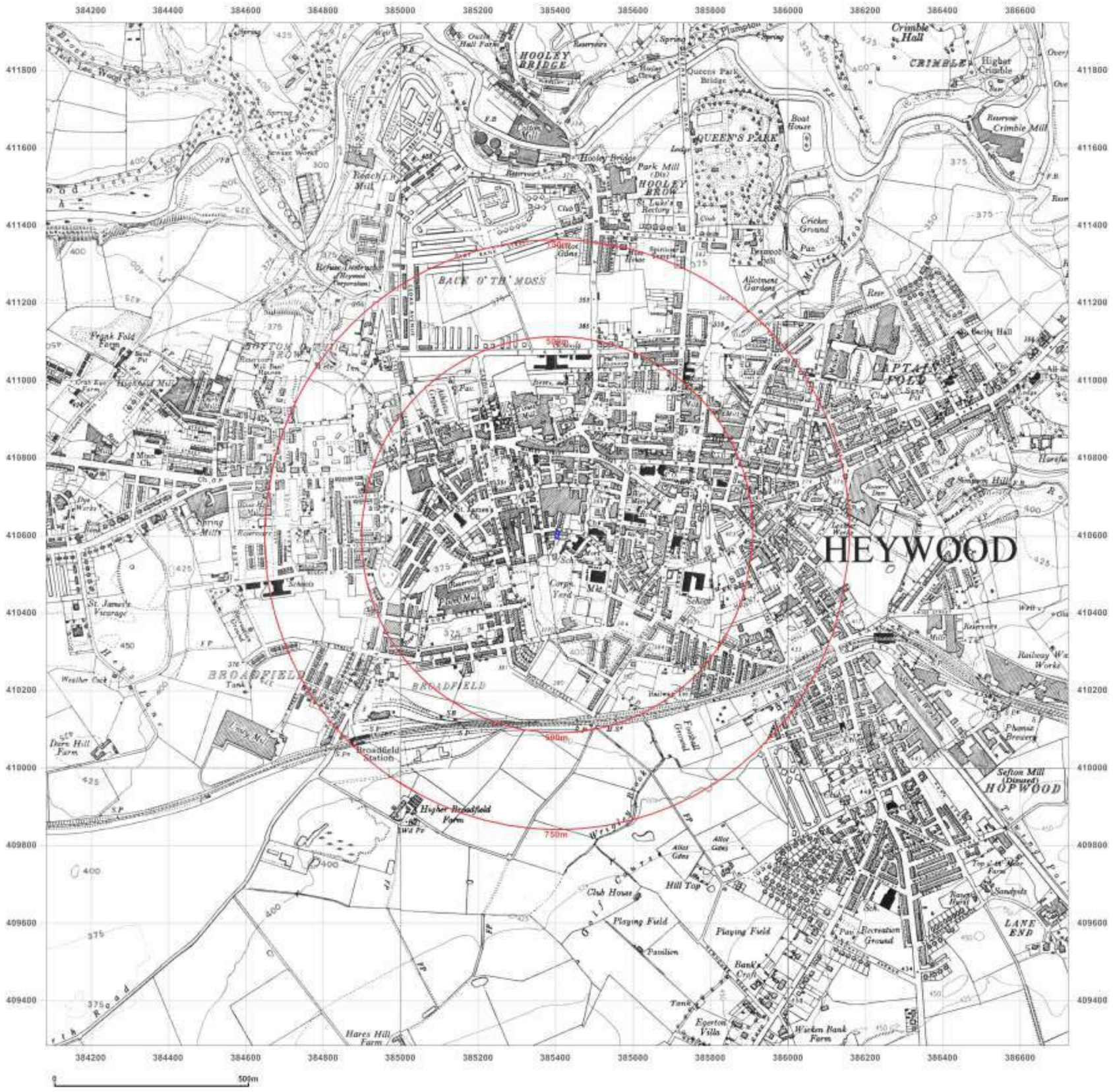

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FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: Provisional
Map date: **1955-1956**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
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Surveyed 1949
Revised 1949
Edition N/A
Copyright 1956
Levelled N/A

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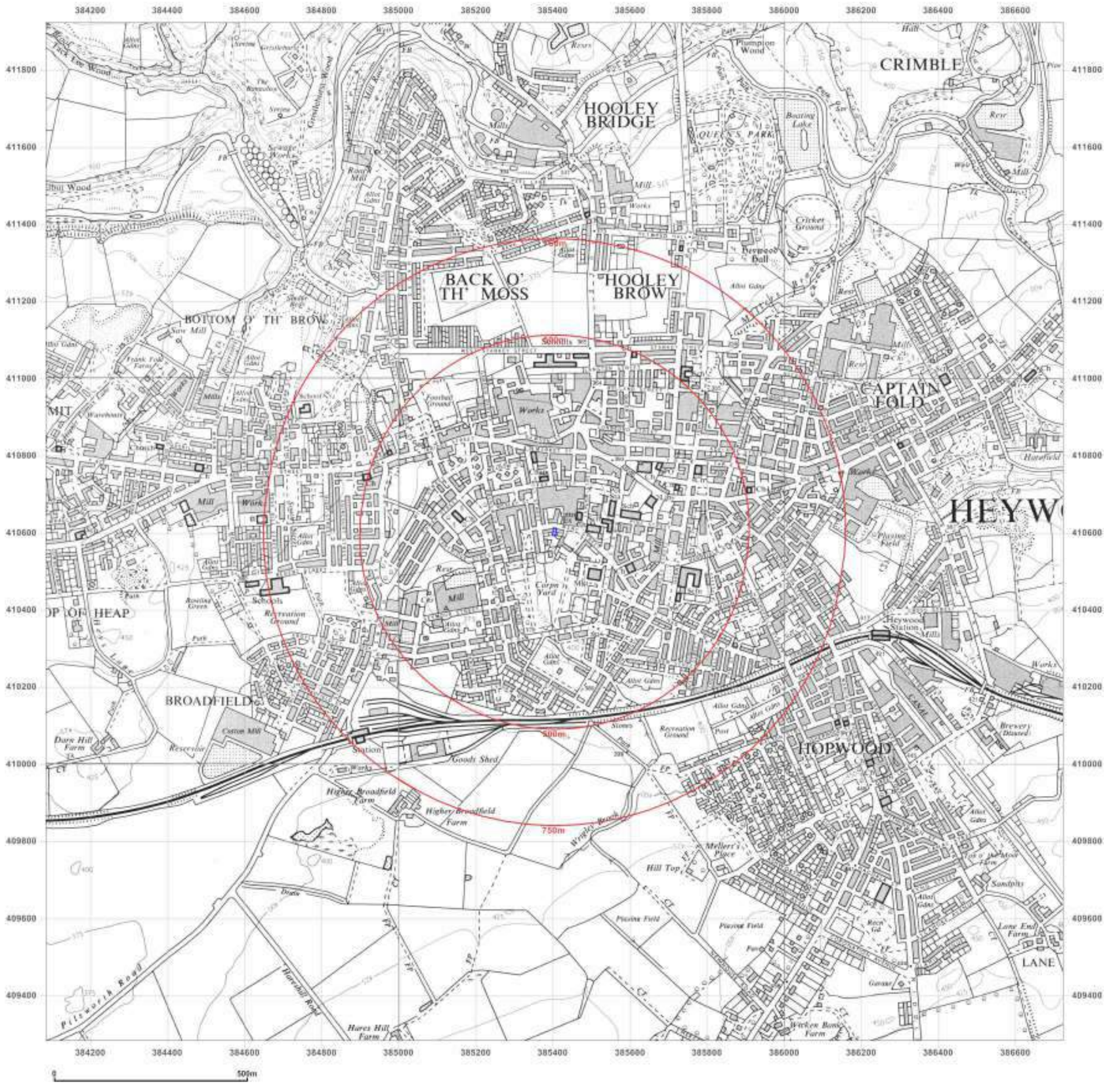

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: Provisional
Map date: **1965-1968**
Scale: 1:10,560
Printed at: 1:10,560

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

Surveyed 1968
Revised 1968
Edition N/A
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Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1974-1975**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1974
Revised 1975
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1974
Revised 1974
Edition N/A
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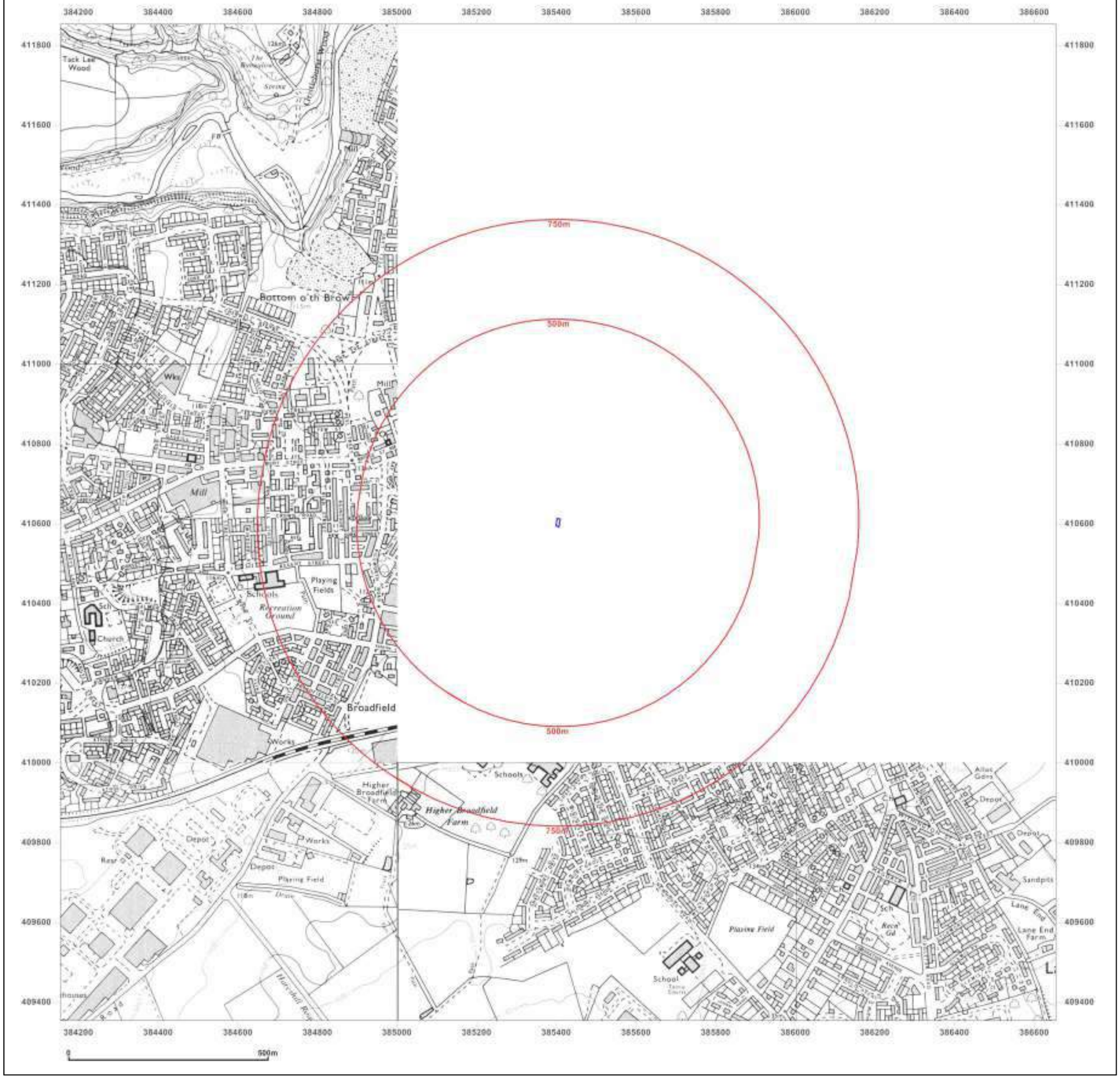

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Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1981-1983**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1977
Revised 1983
Edition N/A
Copyright N/A
Levelled N/A

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

Surveyed 1980
Revised 1982
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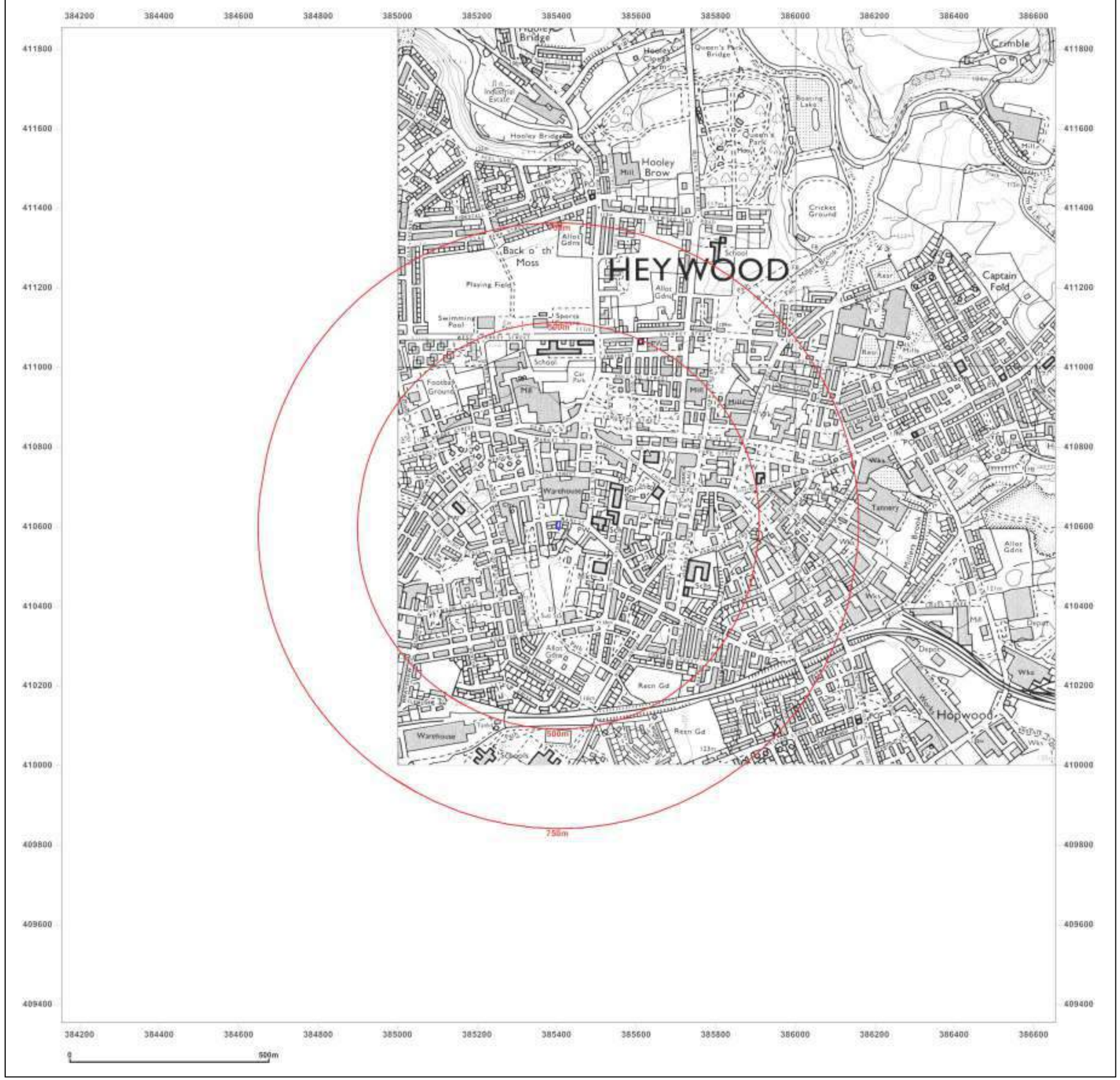

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1987**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1984
Revised 1987
Edition N/A
Copyright N/A
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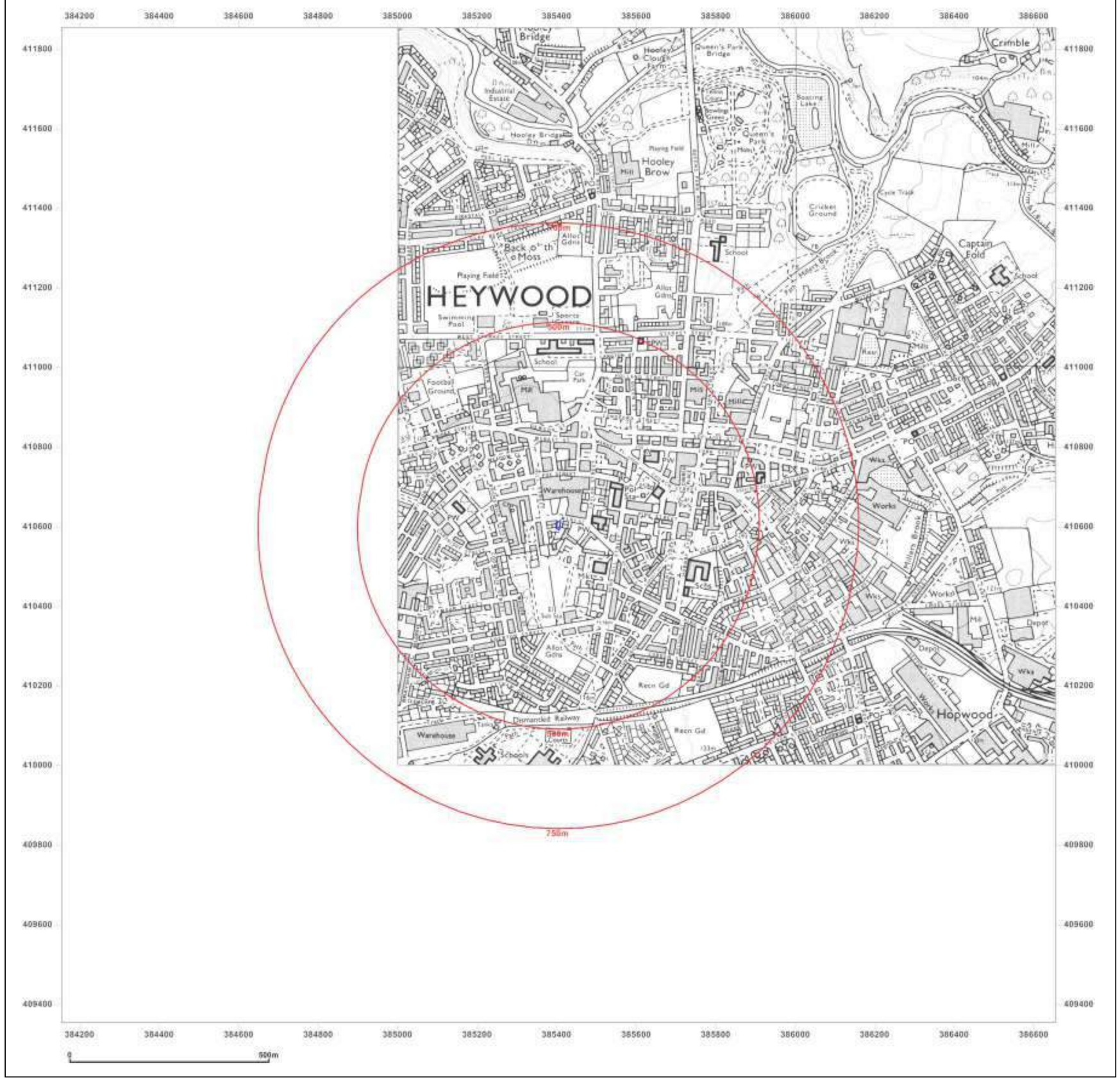

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1992**

Scale: 1:10,000

Printed at: 1:10,000

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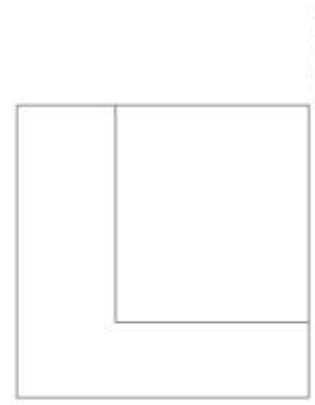

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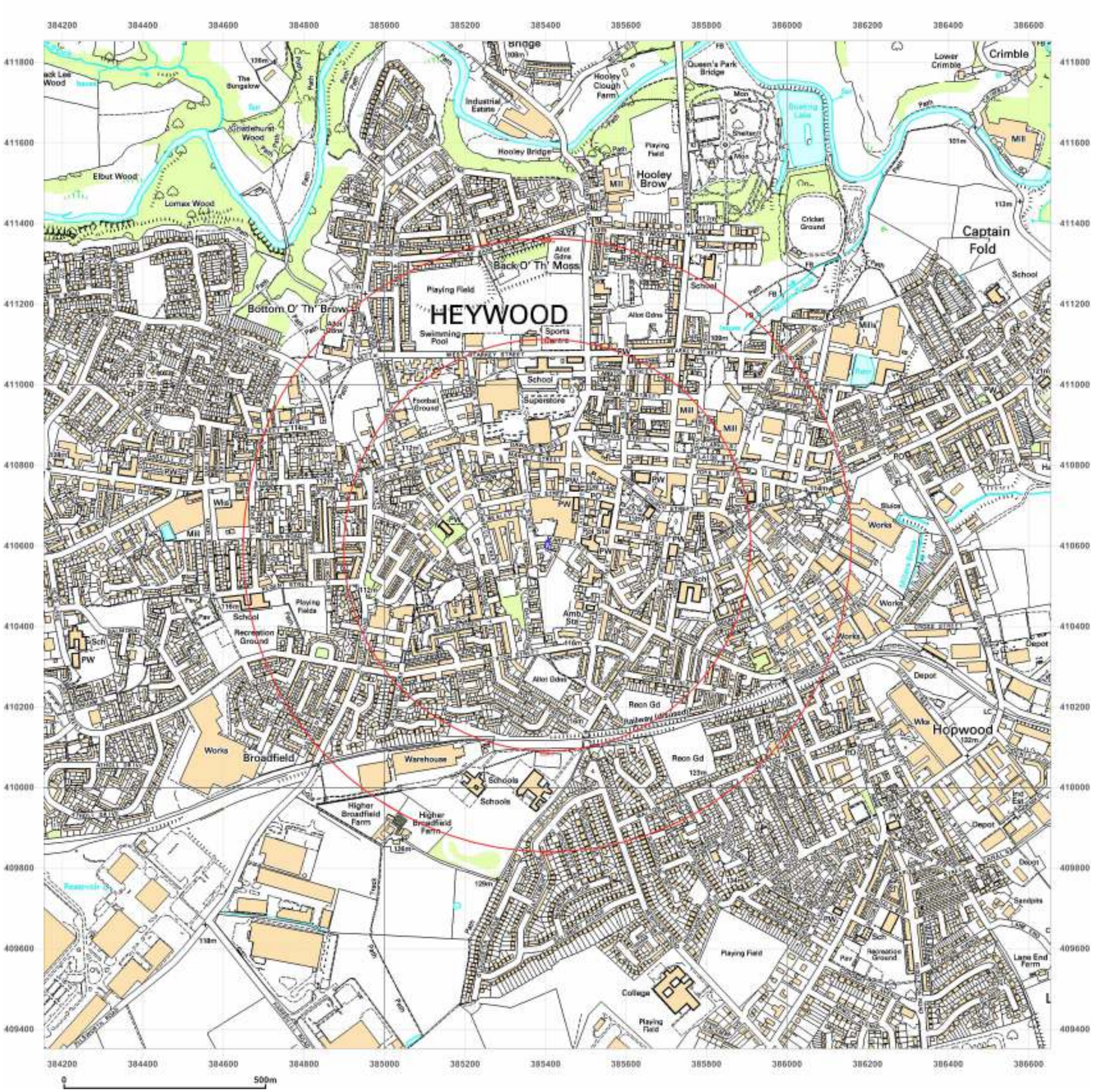

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: 1:10,000 Raster

Map date: **2002**

Scale: 1:10,000

Printed at: 1:10,000

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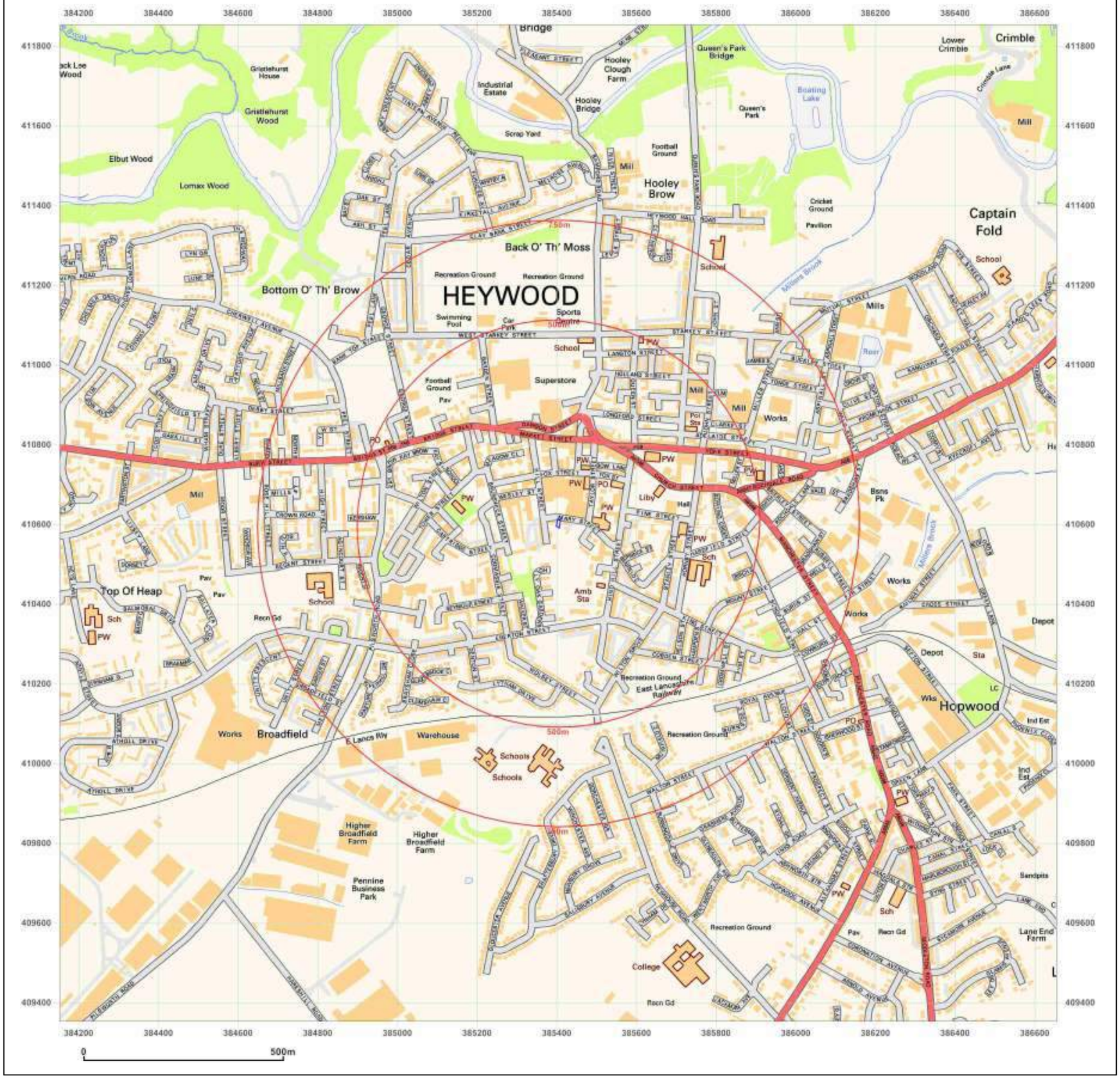

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

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2010

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Production date: 07 November 2018

Map legend available at:
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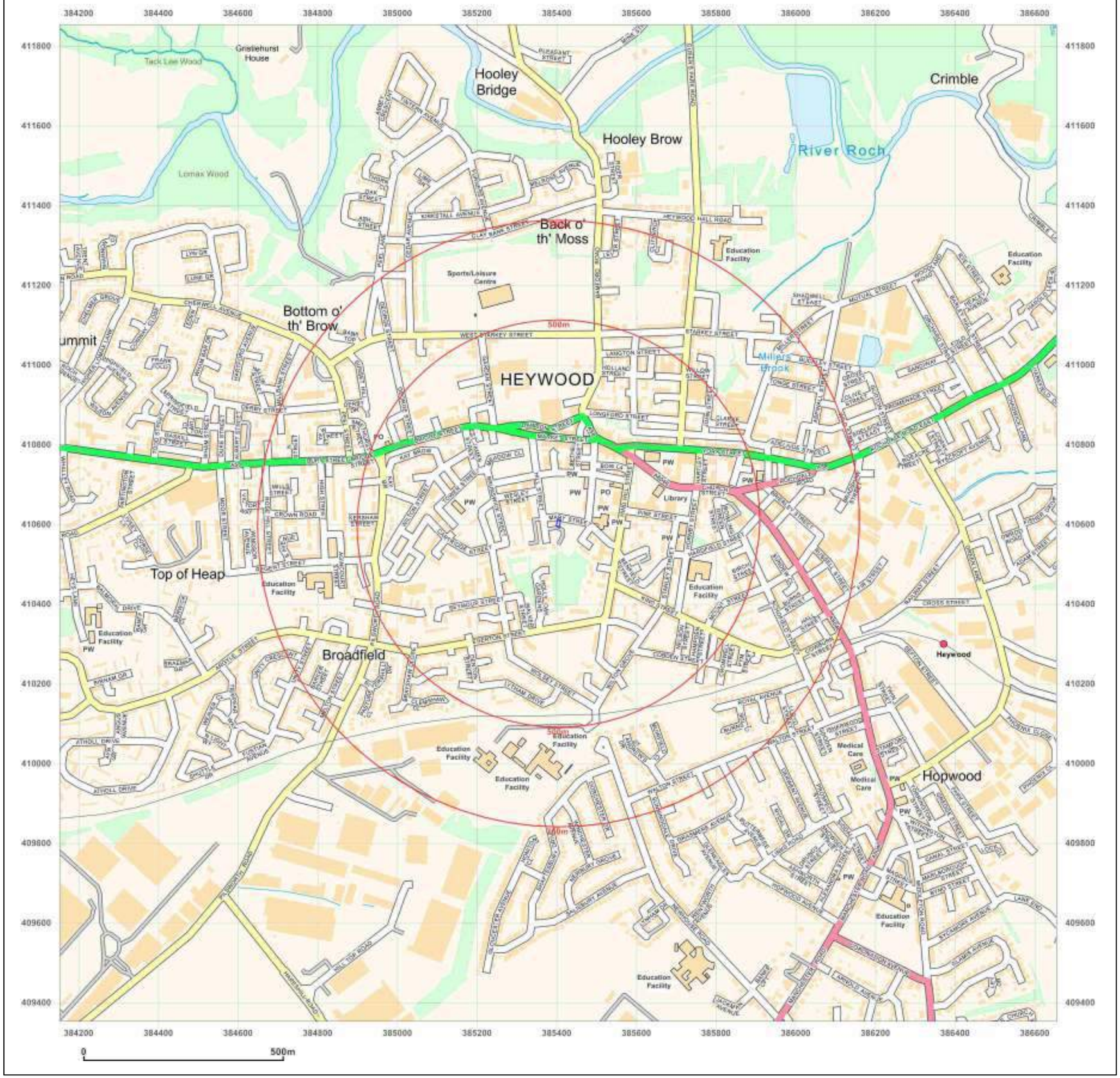

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid
Map date: **2014**
Scale: 1:10,000
Printed at: 1:10,000

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2014

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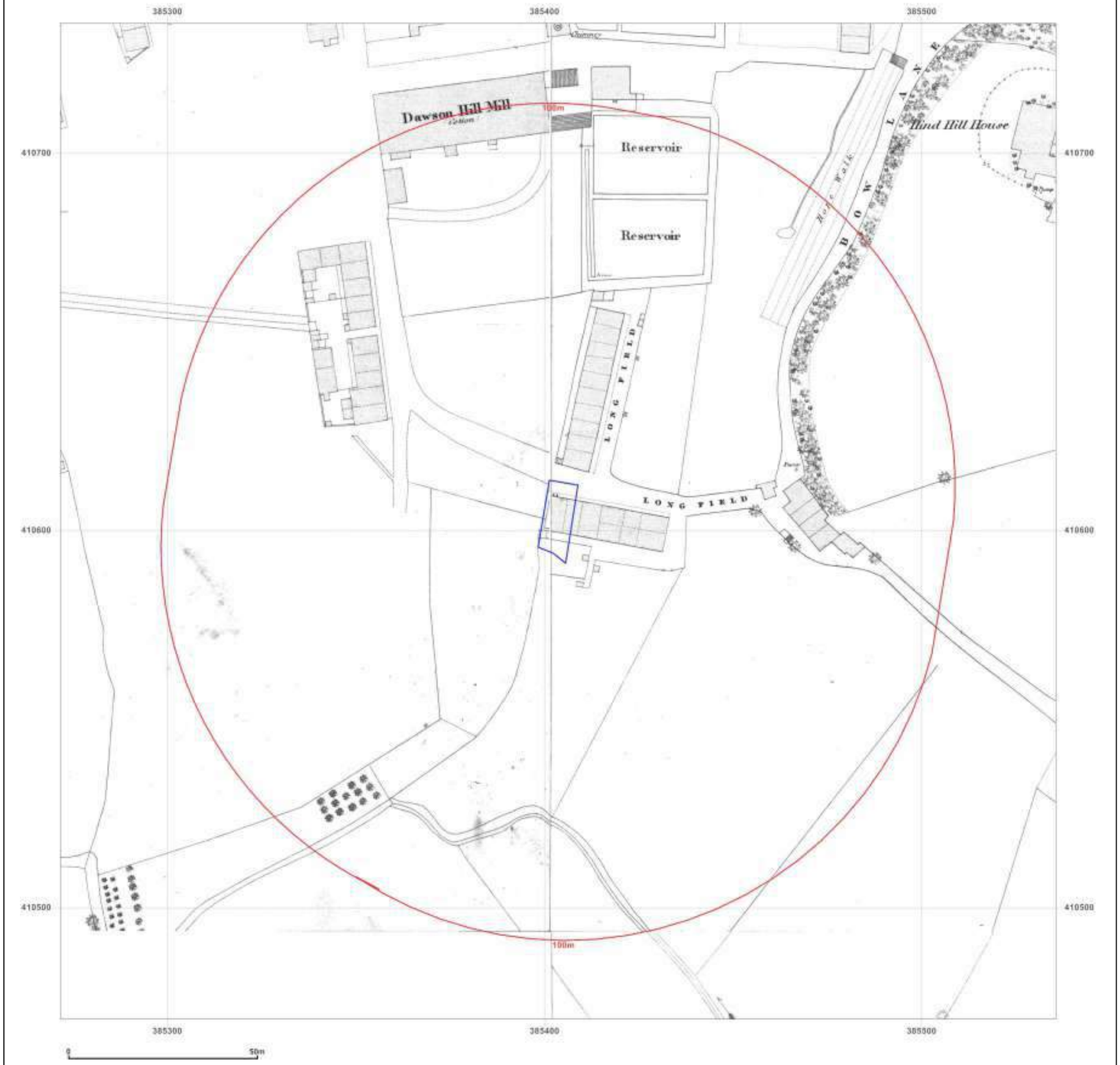
LARGE SCALE SURVEY PLANS



CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

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

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Map legend available at:
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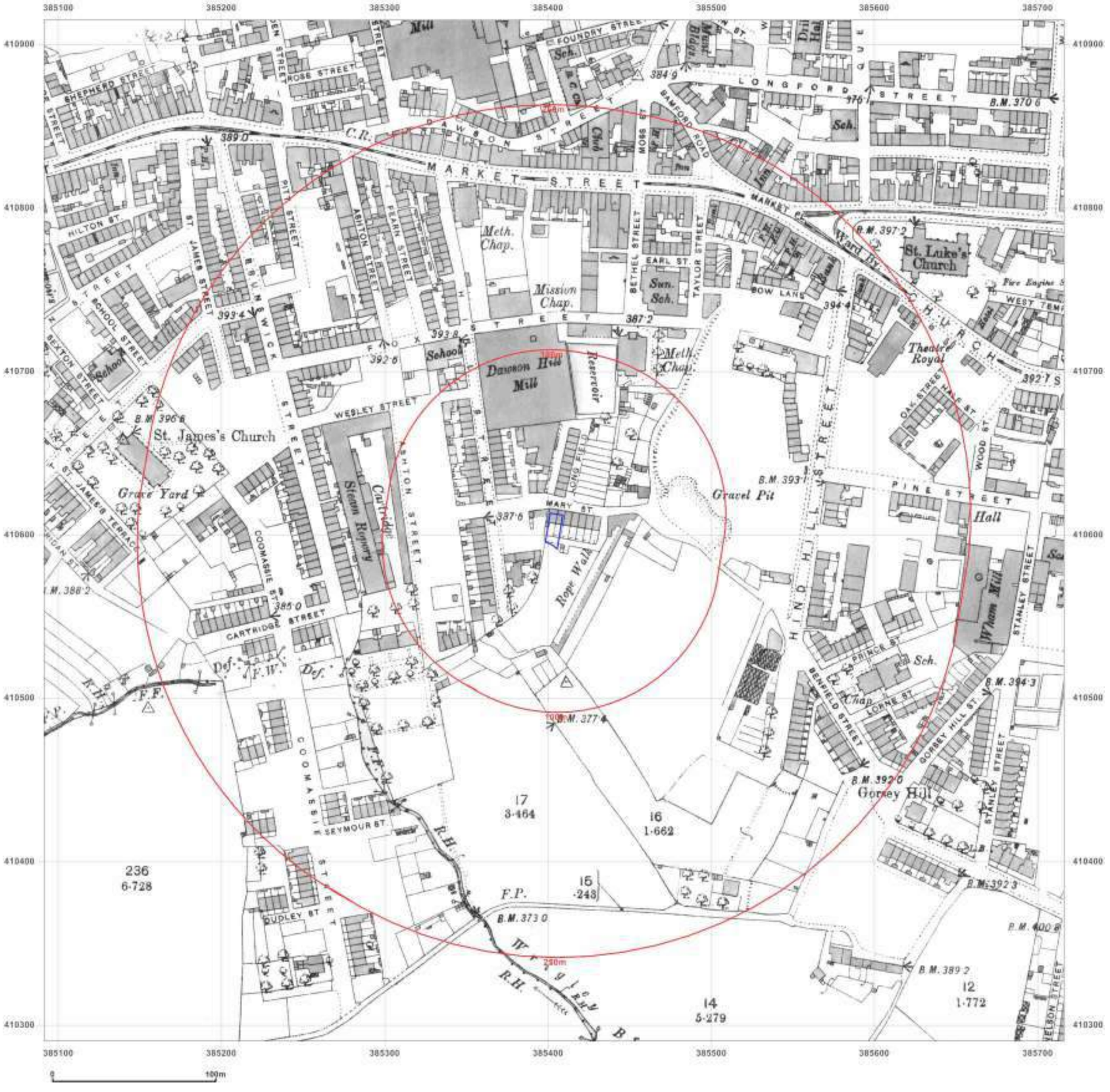

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: County Series
Map date: **1890**
Scale: 1:2,500
Printed at: 1:2,500

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

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Production date: 07 November 2018

Map legend available at:
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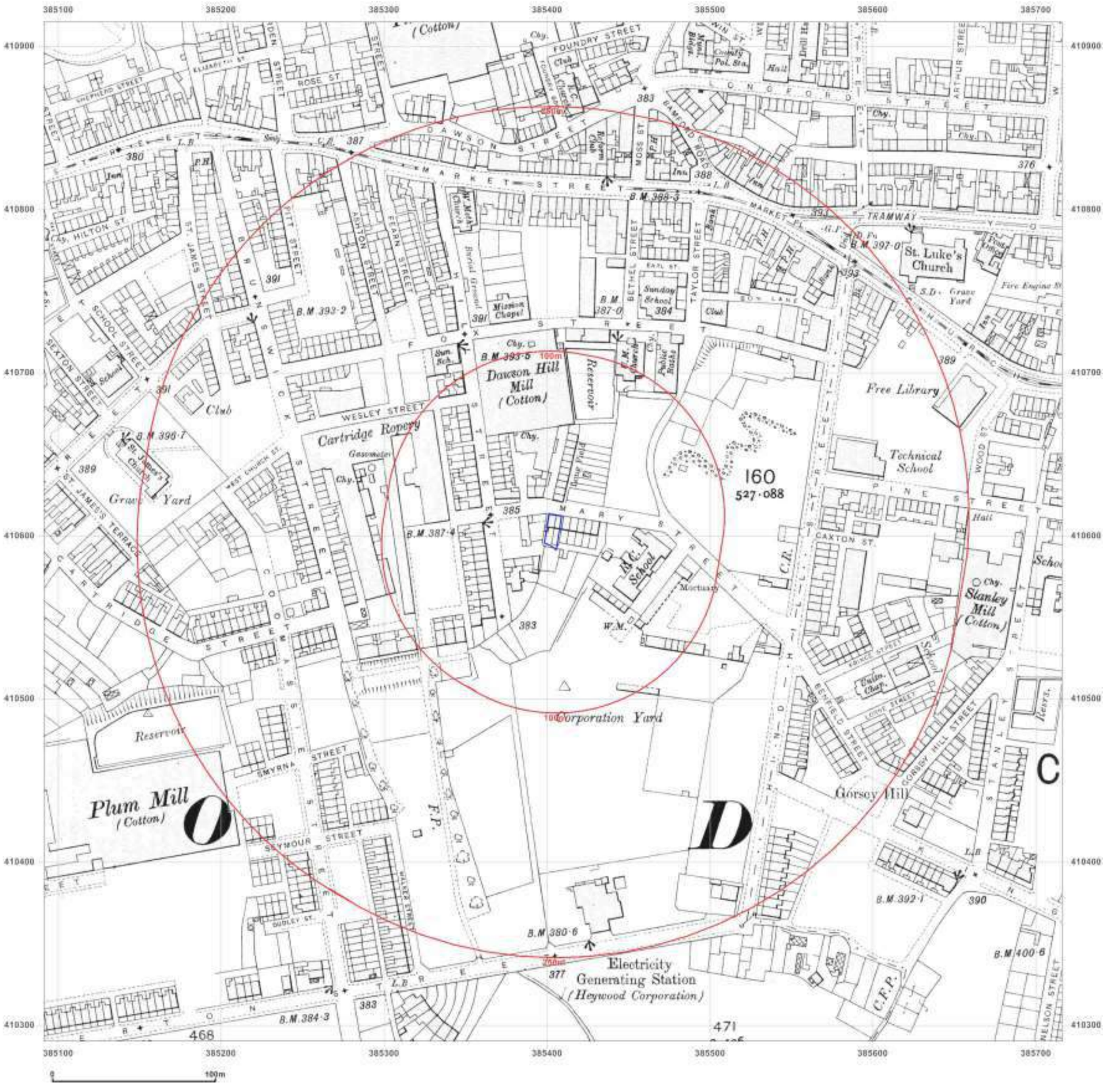

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: County Series

Map date: **1910**

Scale: 1:2,500

Printed at: 1:2,500

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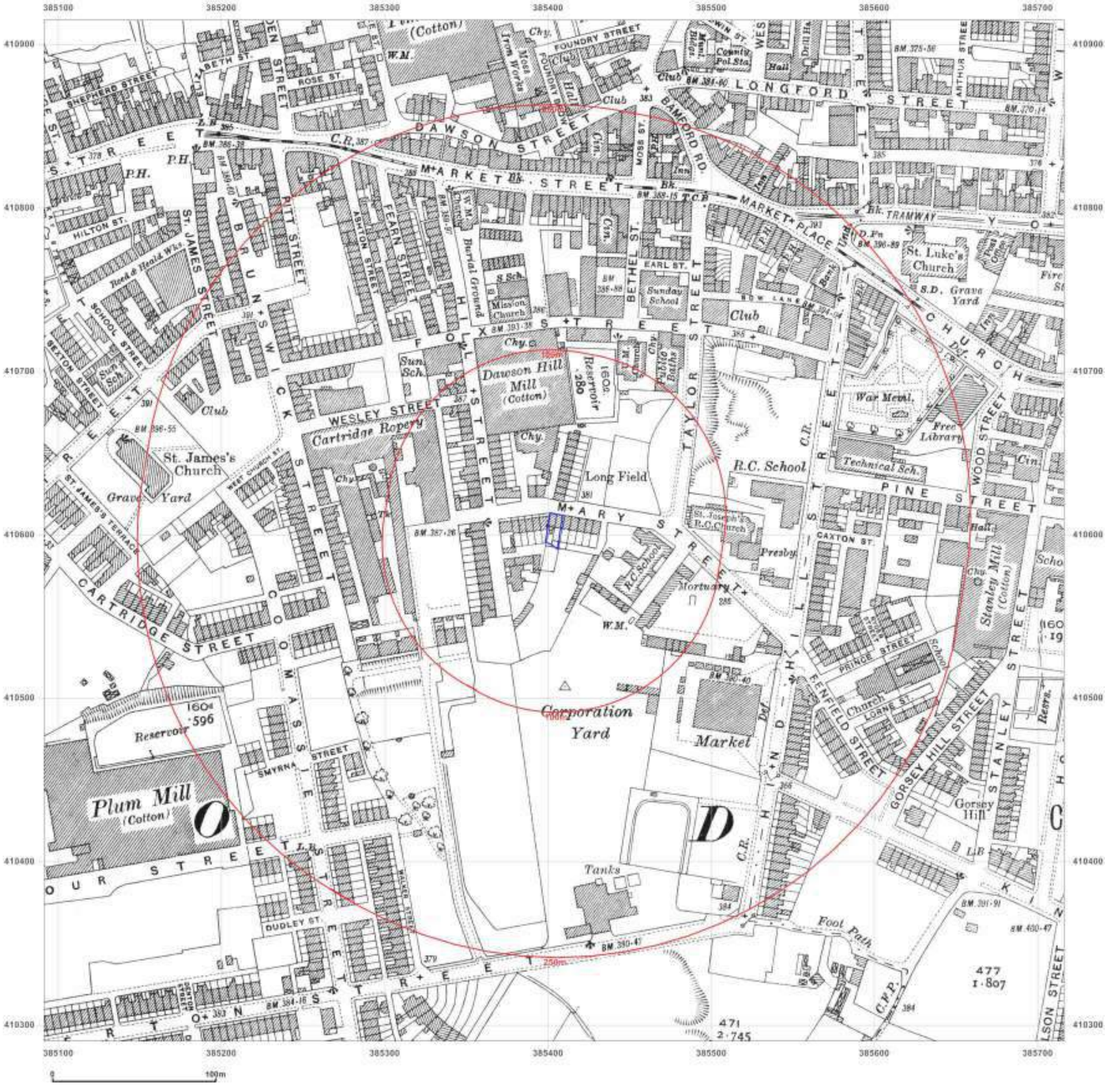

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: County Series

Map date: **1929**

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1929
Revised 1929
Edition N/A
Copyright N/A
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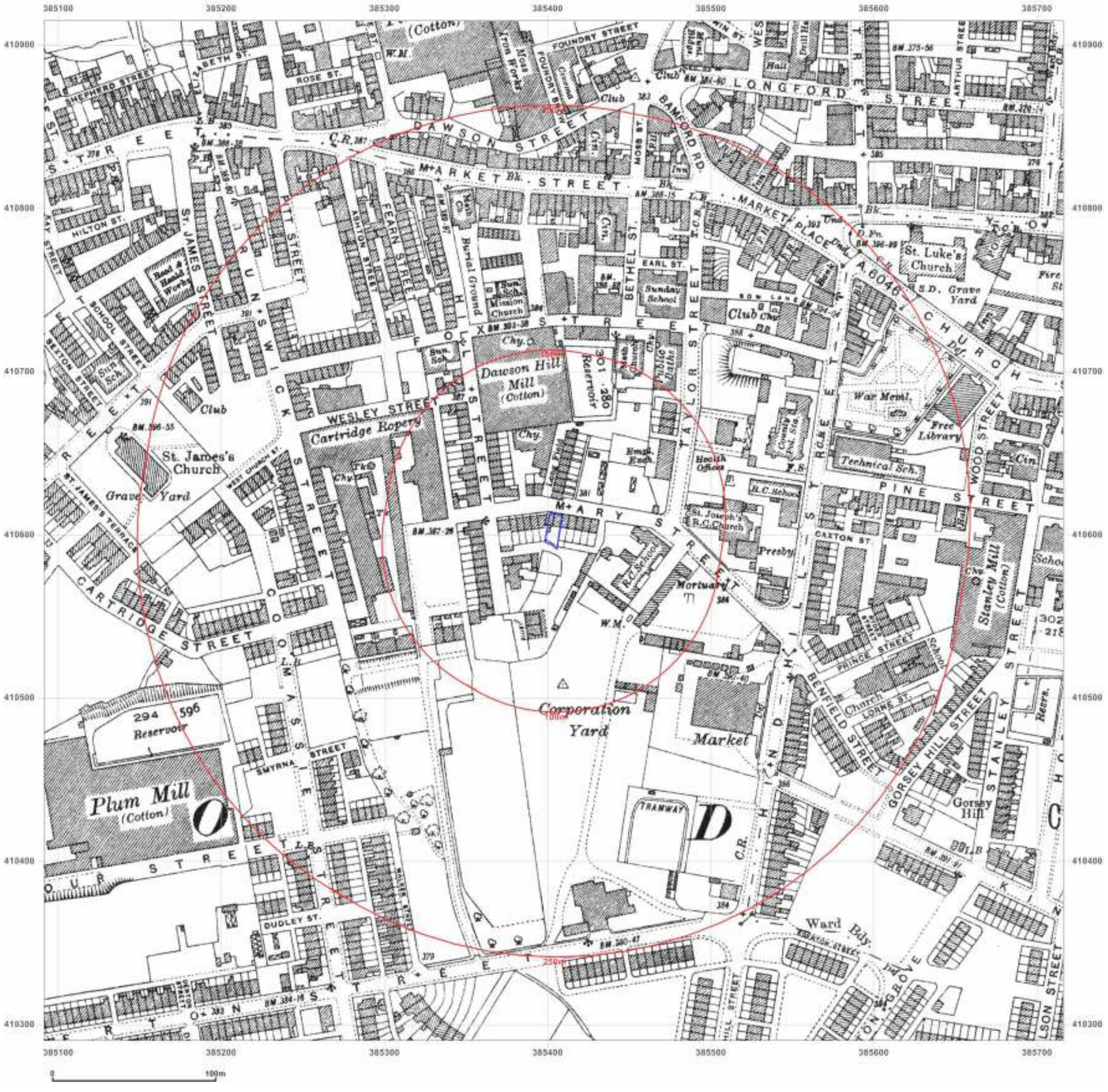

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FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: County Series

Map date: **1937**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
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Surveyed 1937
Revised 1937
Edition N/A
Copyright N/A
Levelled N/A

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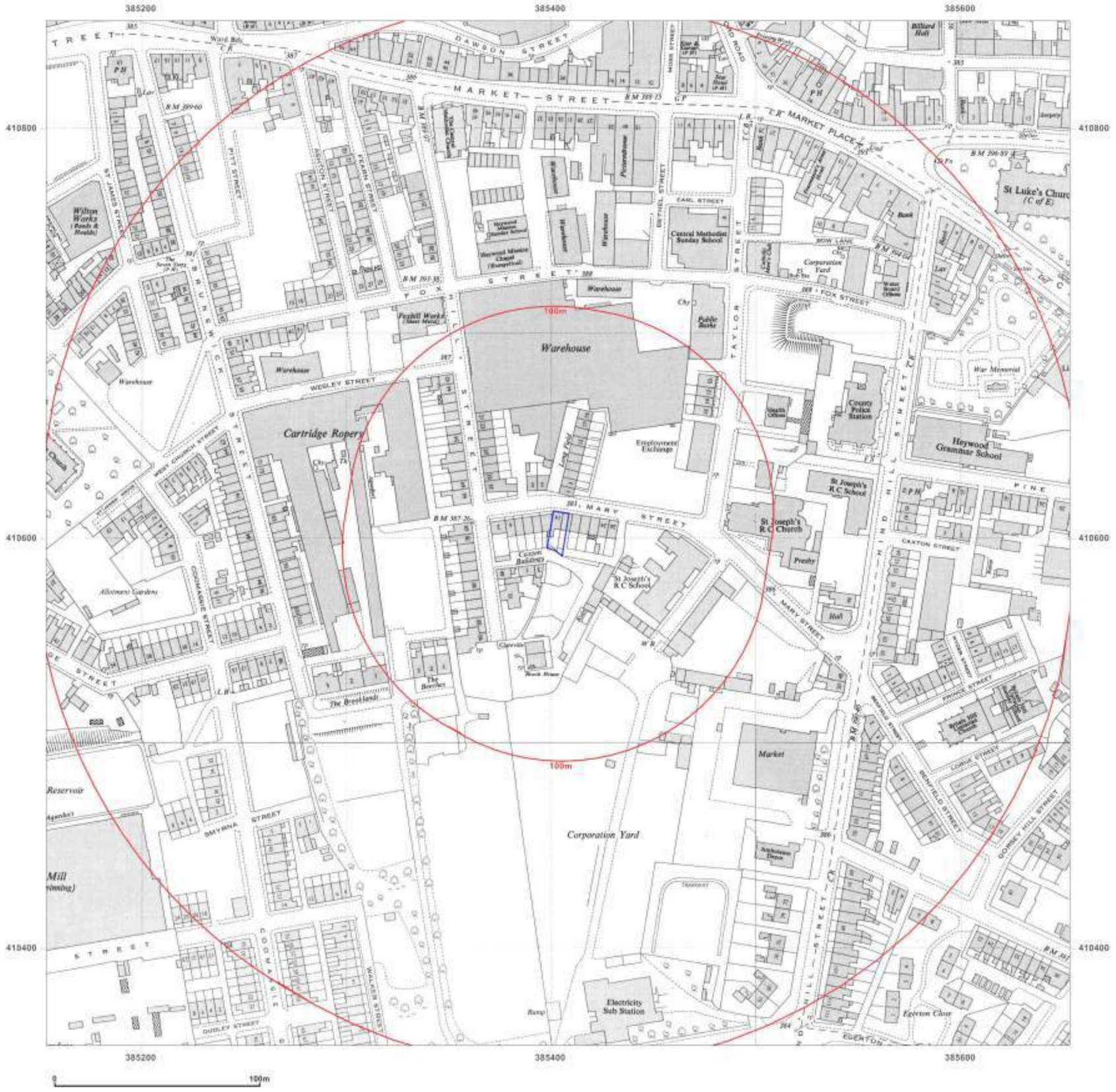

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1956**

Scale: 1:1,250

Printed at: 1:2,000

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

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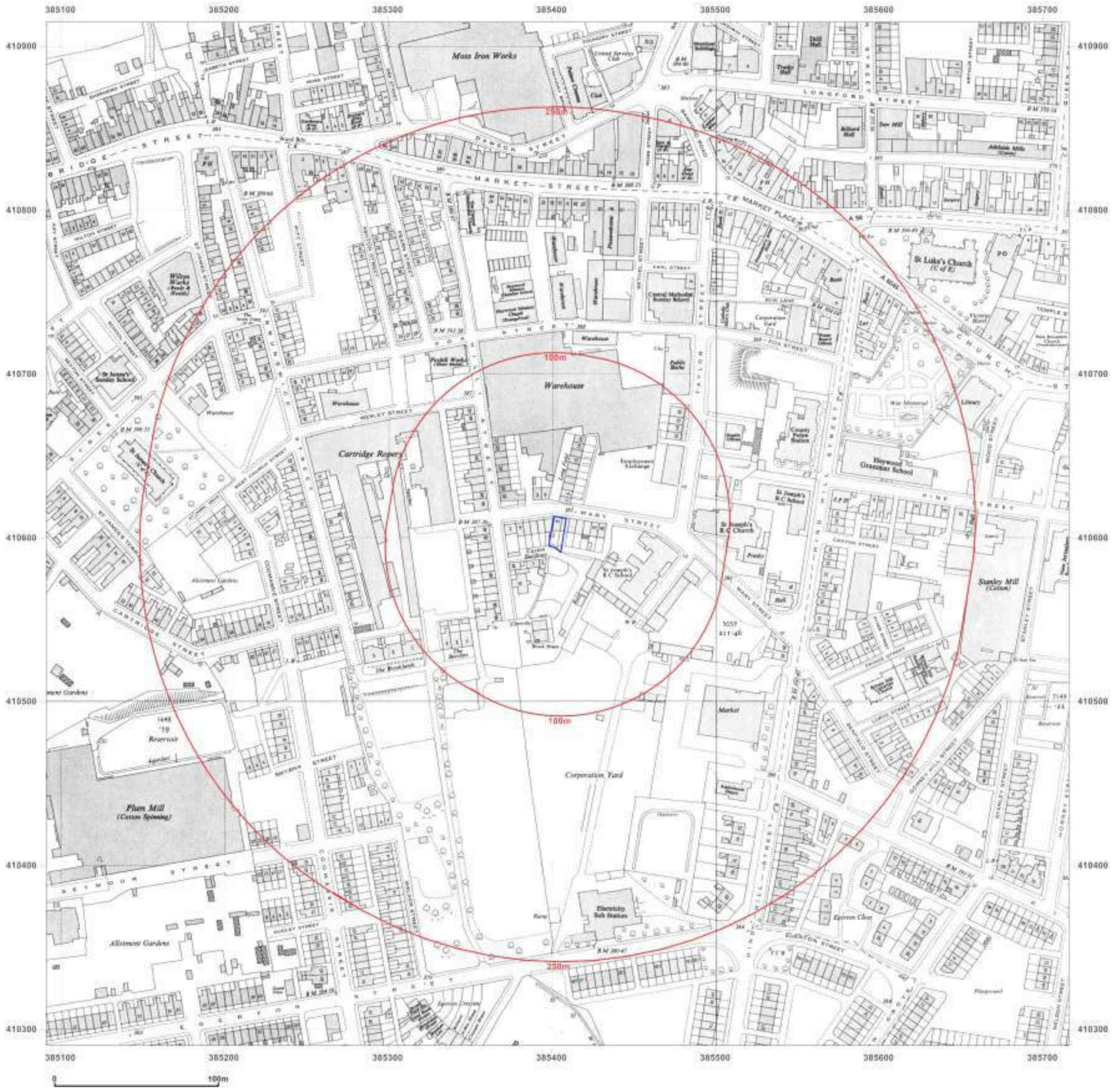

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1957**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1956
Revised 1956
Edition 1957
Copyright N/A
Levelled 1928

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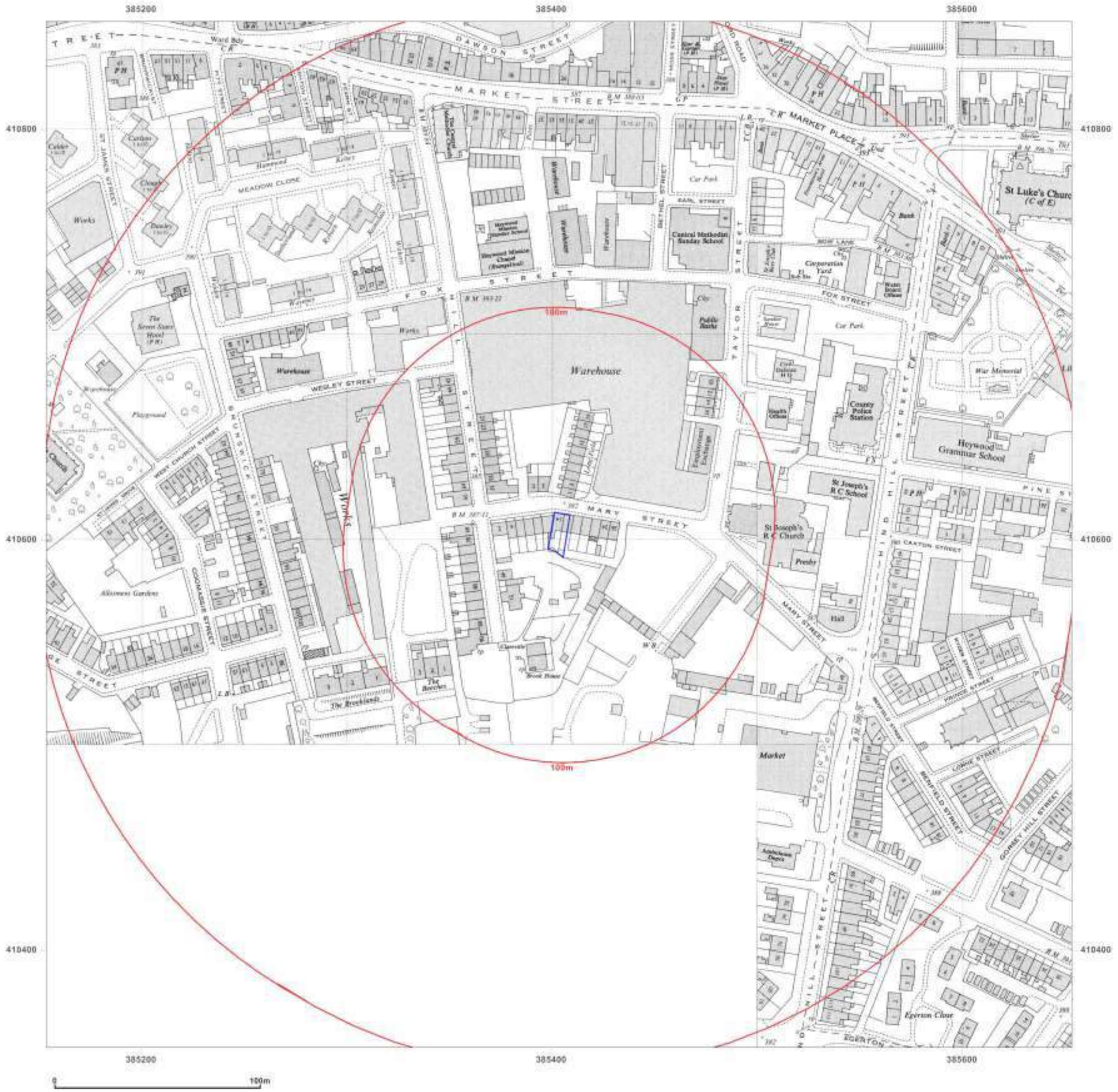

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1964-1968**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed 1963 Revised 1963 Edition N/A Copyright 1964 Levelled 1956	Surveyed 1956 Revised 1967 Edition N/A Copyright 1968 Levelled 1962
	Surveyed 1956 Revised 1964 Edition N/A Copyright 1965 Levelled 1962

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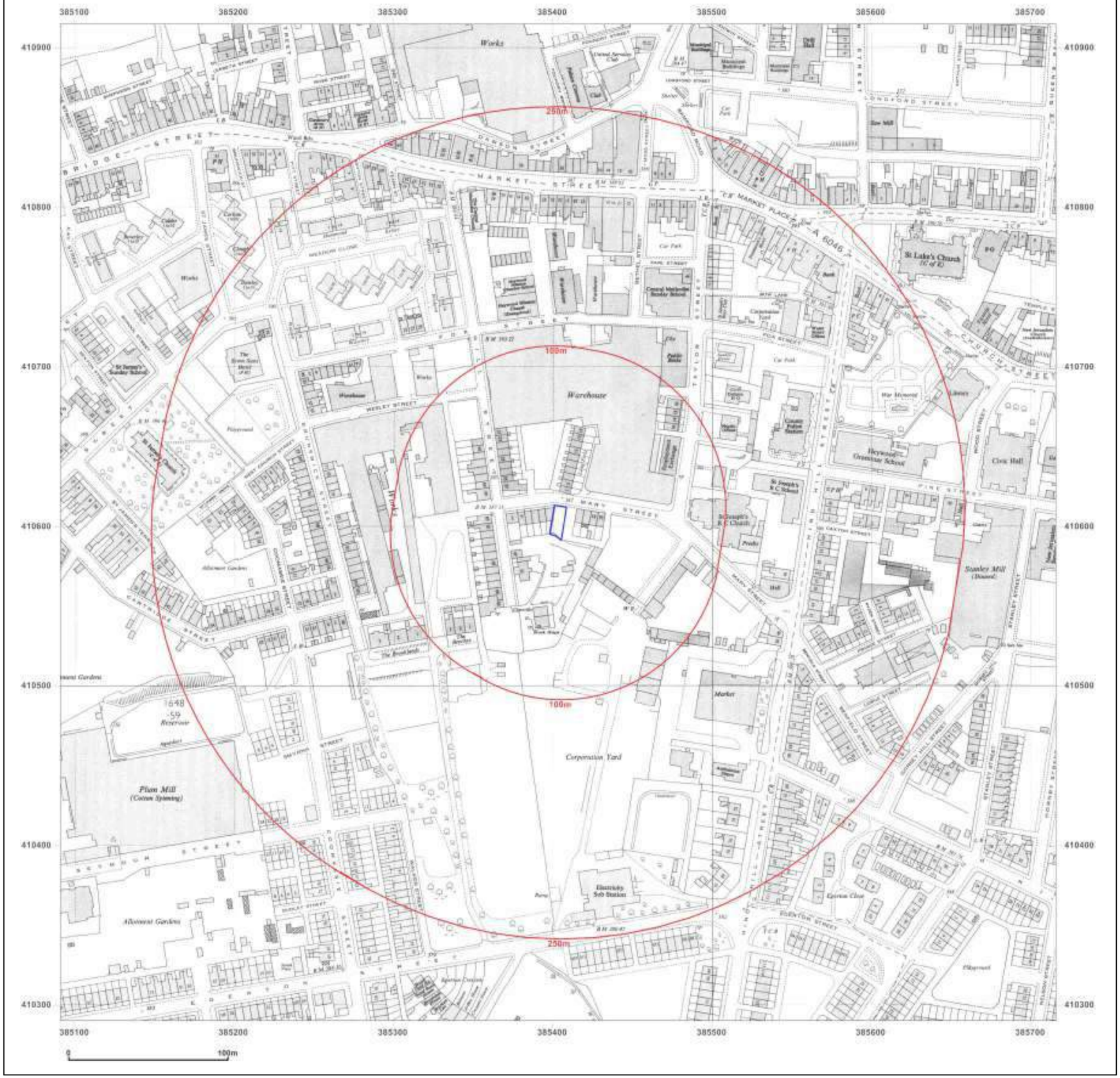

CENTRE MAPS LIVE.
FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1969**

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1967
Revised 1967
Edition N/A
Copyright 1969
Levelled 1962

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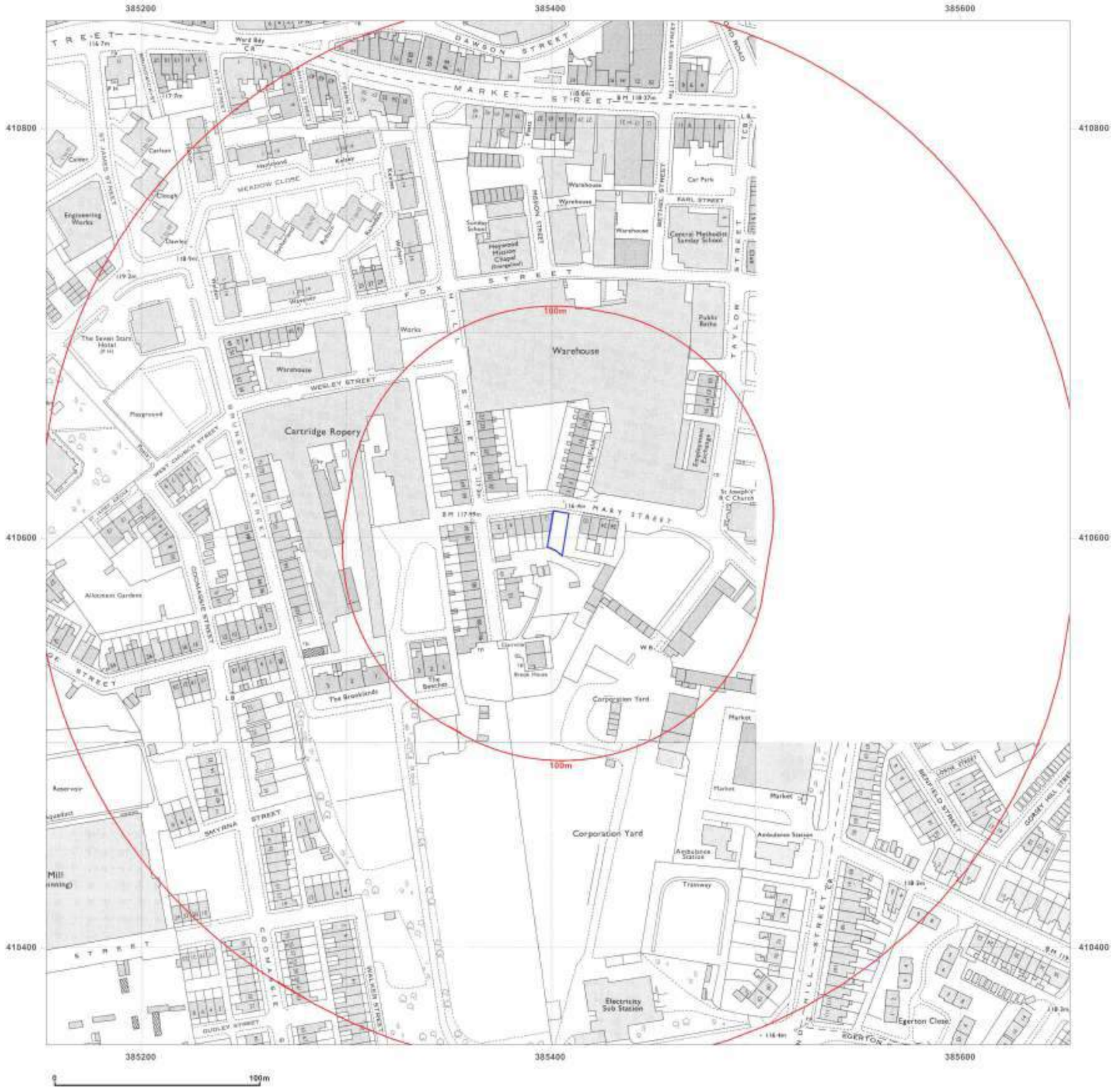

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FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid
Map date: **1971-1974**
Scale: 1:1,250
Printed at: 1:2,000

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Surveyed 1956
Revised 1972
Edition N/A
Copyright 1973
Levelled 1956

Surveyed 1956
Revised 1970
Edition N/A
Copyright 1971
Levelled 1962

Surveyed 1956
Revised 1973
Edition N/A
Copyright 1974
Levelled 1962

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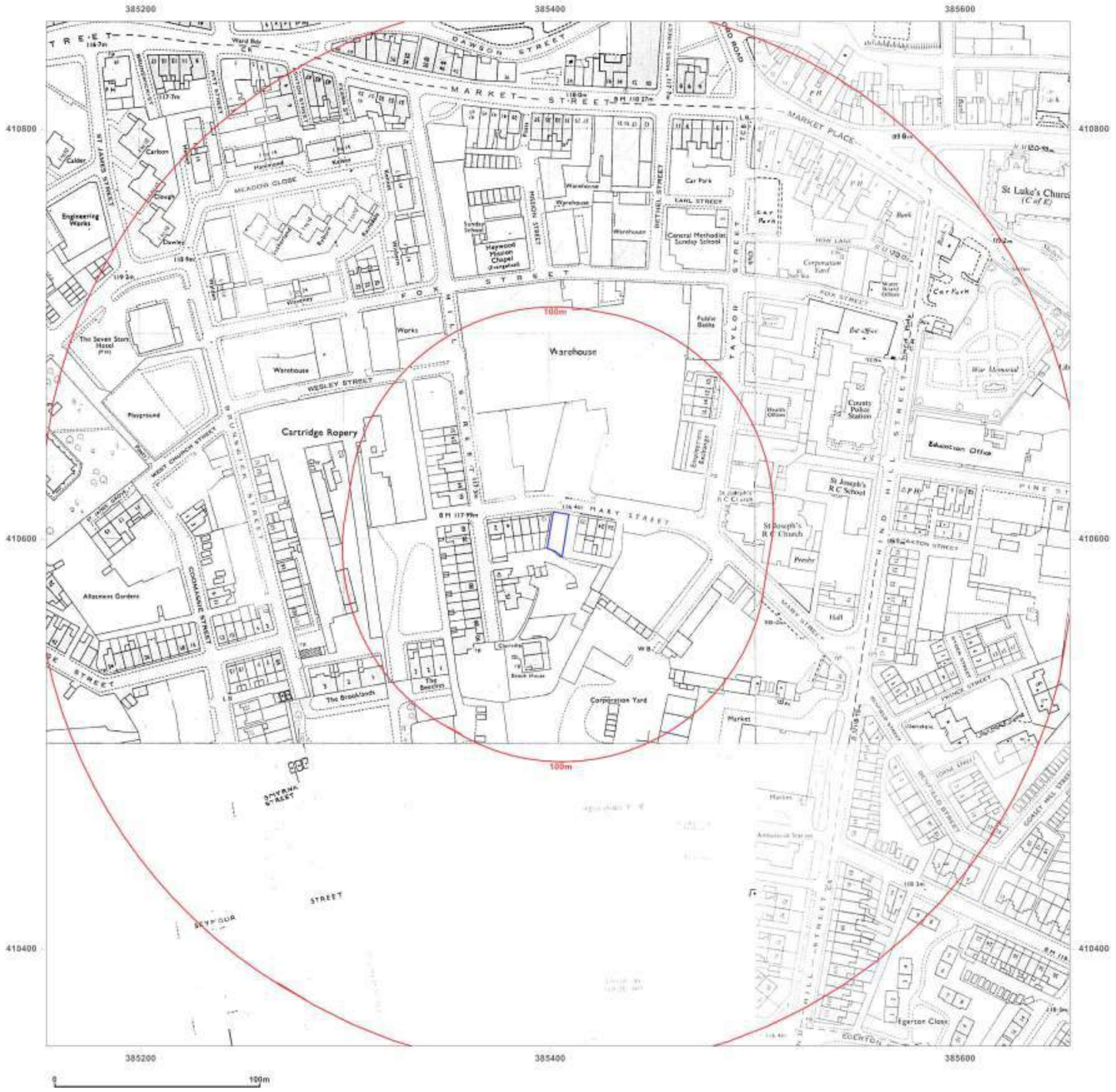

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FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid
Map date: **1978-1984**
Scale: 1:1,250
Printed at: 1:2,000

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Surveyed 1962 Revised 1984 Edition N/A Copyright 1984 Levelled 1962	Surveyed N/A Revised N/A Edition N/A Copyright 1981 Levelled 1962
Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled 1962	Surveyed N/A Revised N/A Edition N/A Copyright 1978 Levelled 1962

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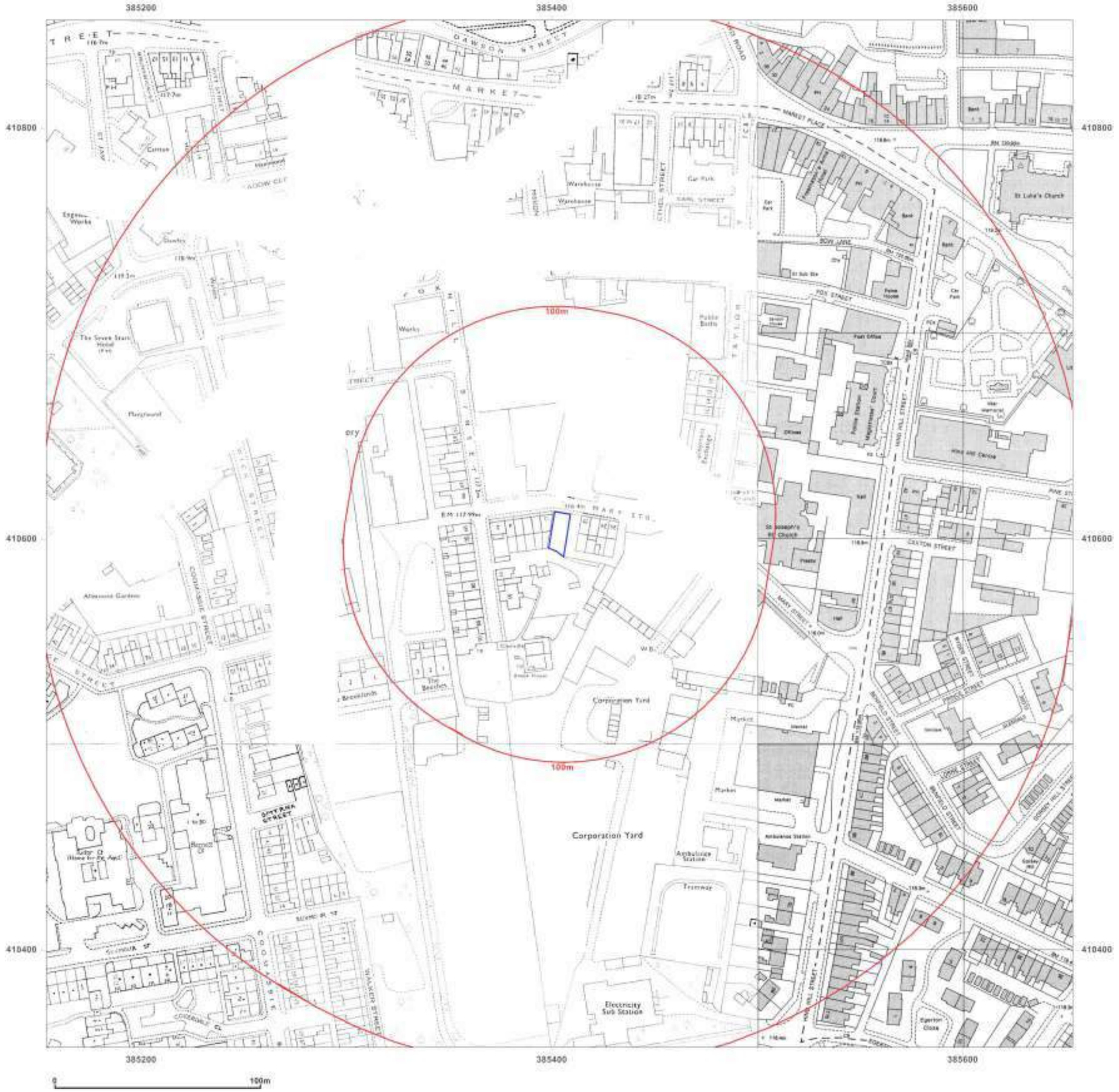

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FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1985-1990**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1962 Revised 1985 Edition N/A Copyright 1985 Levelled 1962	Surveyed 1956 Revised 1989 Edition N/A Copyright 1989 Levelled N/A
Surveyed 1962 Revised 1985 Edition N/A Copyright 1985 Levelled 1962	Surveyed 1956 Revised 1989 Edition N/A Copyright 1990 Levelled N/A

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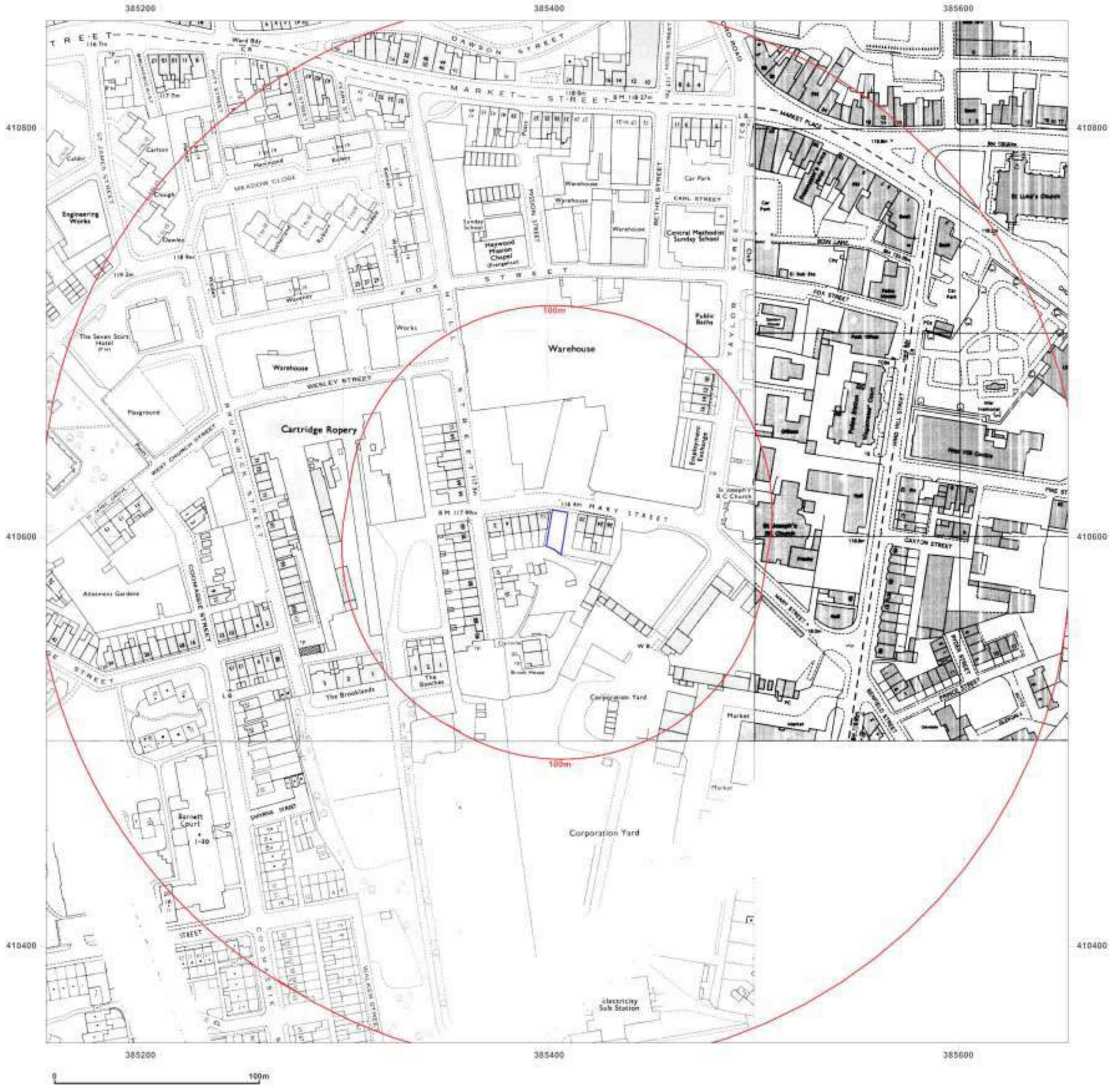

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FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1986-1990**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1962 Revised 1988 Edition N/A Copyright 1988 Levelled 1962	

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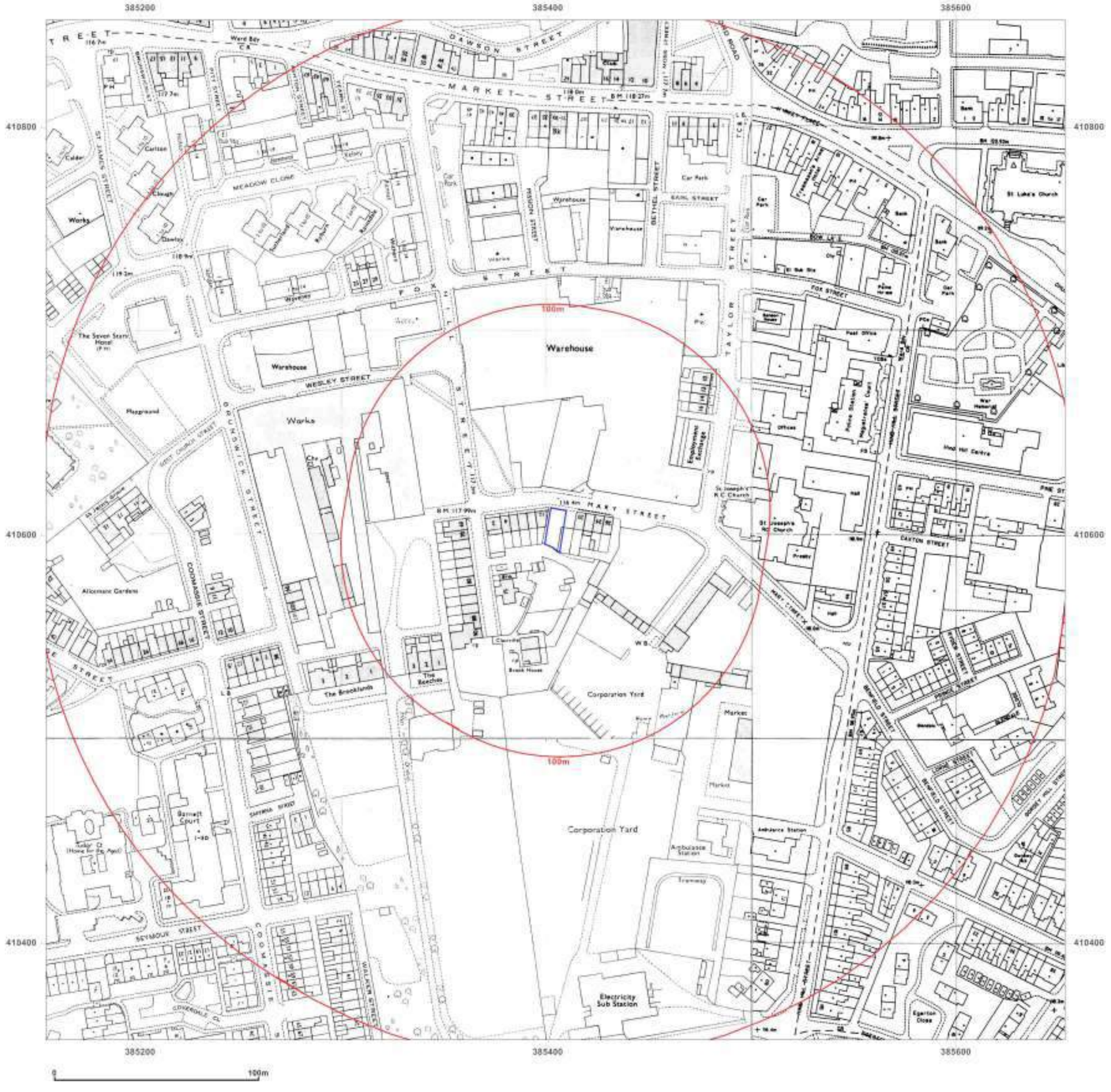

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FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1988-1992**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed 1962		Surveyed 1992
Revised 1990 Edition N/A Copyright 1990 Levelled 1962		Revised N/A Edition N/A Copyright 1992 Levelled N/A
Surveyed 1962 Revised 1988 Edition N/A Copyright 1988 Levelled 1962		Surveyed 1992 Revised N/A Edition N/A Copyright 1992 Levelled N/A

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Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1991-1992**

Scale: 1:1,250

Printed at: 1:2,000

N
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Edition N/A
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Levelled N/A

Surveyed 1991
Revised 1991
Edition N/A
Copyright 1991
Levelled N/A

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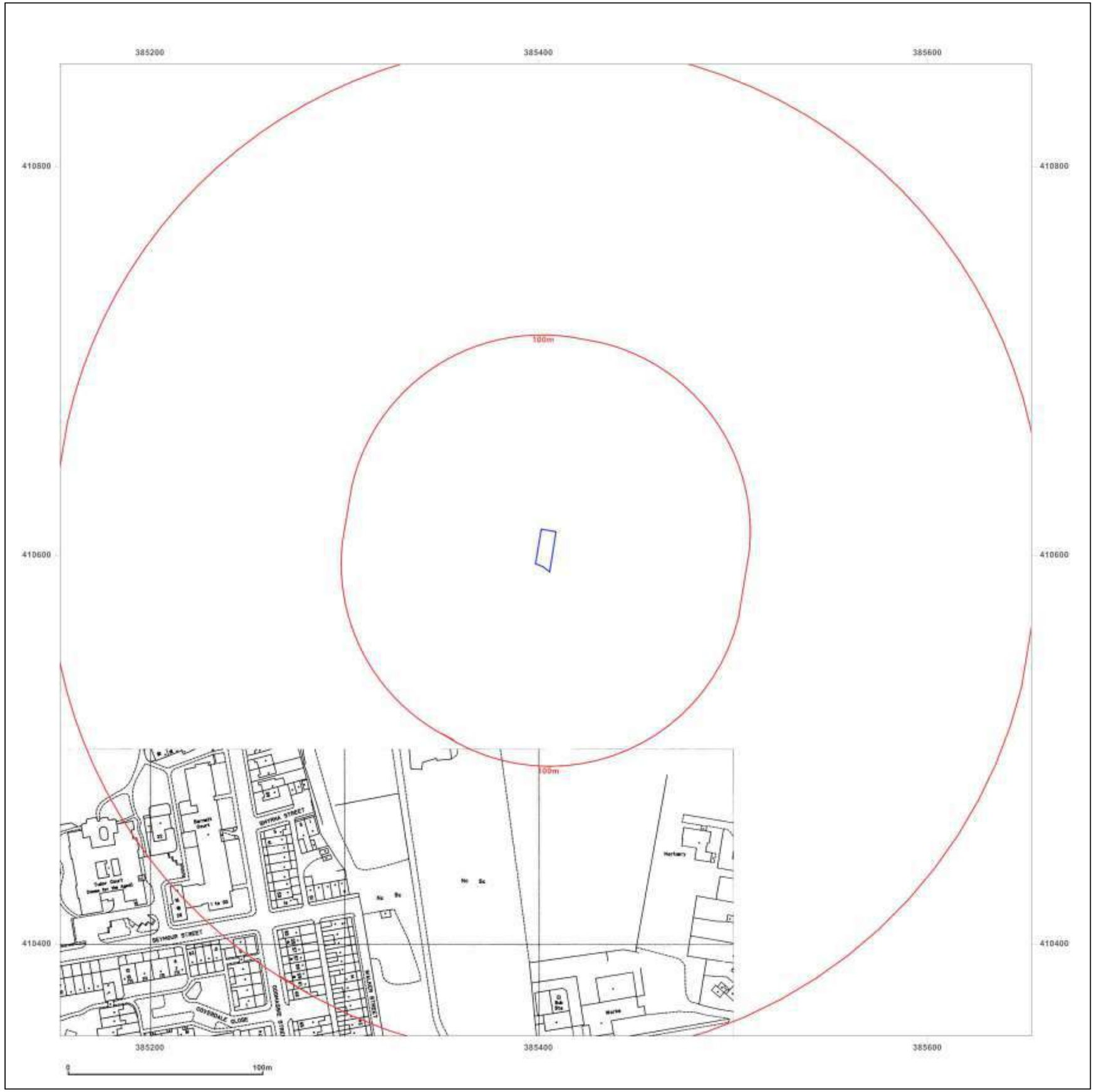

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FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid
Map date: **1994**
Scale: 1:1,250
Printed at: 1:2,000

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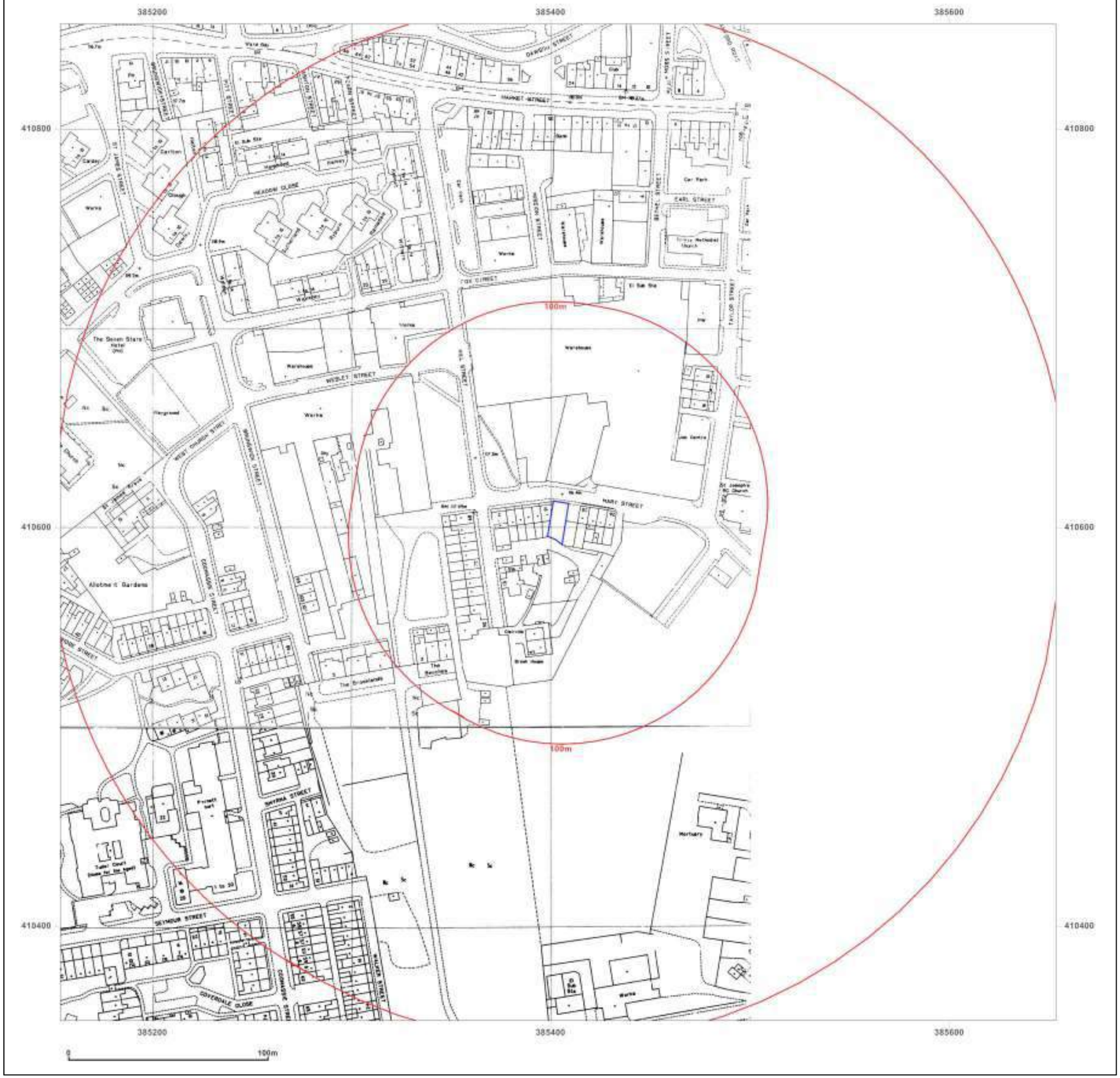

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FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1992-1995**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
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Edition N/A
Copyright 1995
Levelled N/A

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

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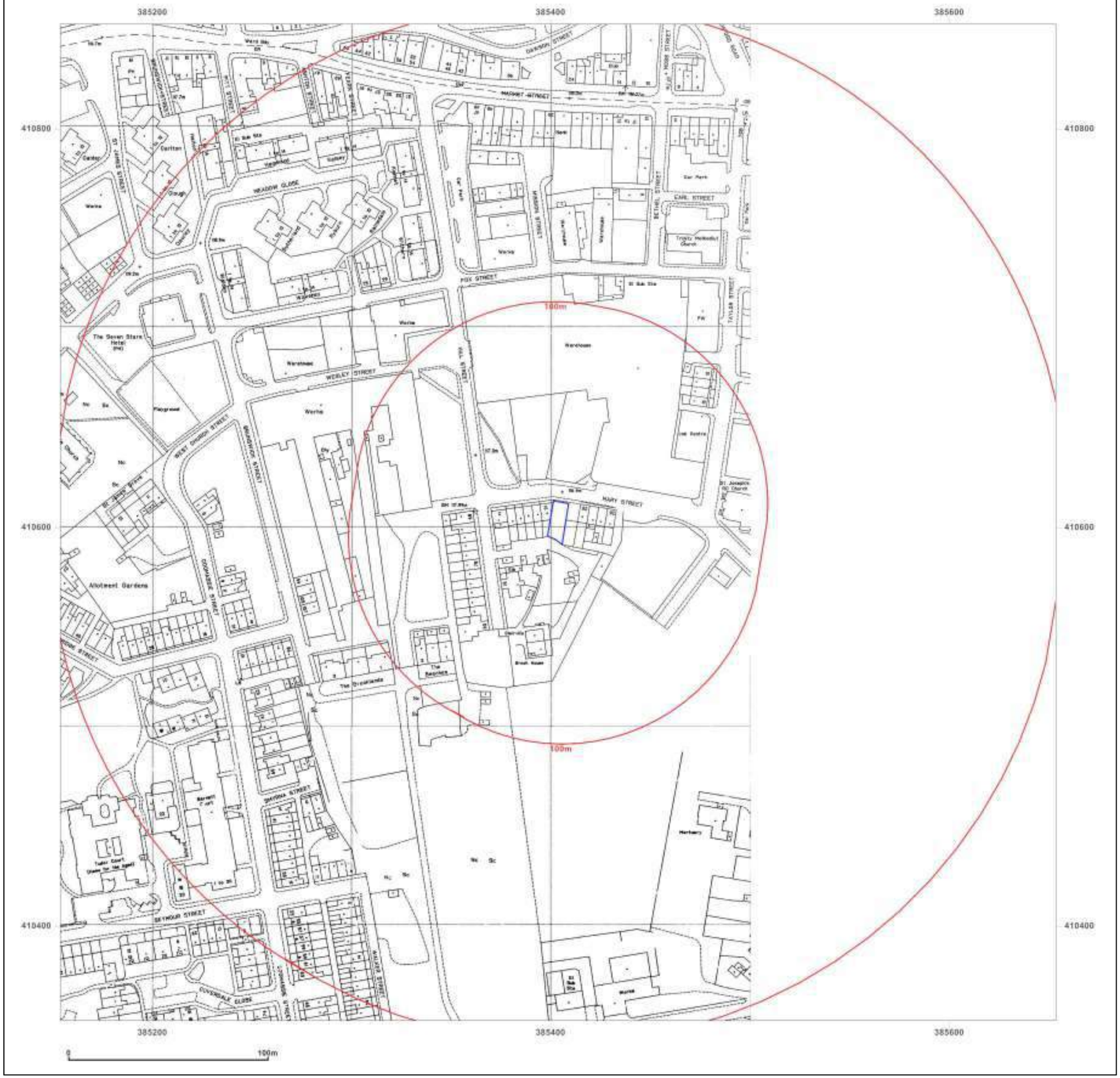

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FOR A BETTER POINT OF VIEW

Site Details:

Mary Street, Heywood

Client Ref: 4199
Report Ref: CMAPS-CM-754706-4199-071118HIS
Grid Ref: 385403, 410602

Map Name: National Grid

Map date: **1994-1995**

Scale: 1:1,250

Printed at: 1:2,000

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

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

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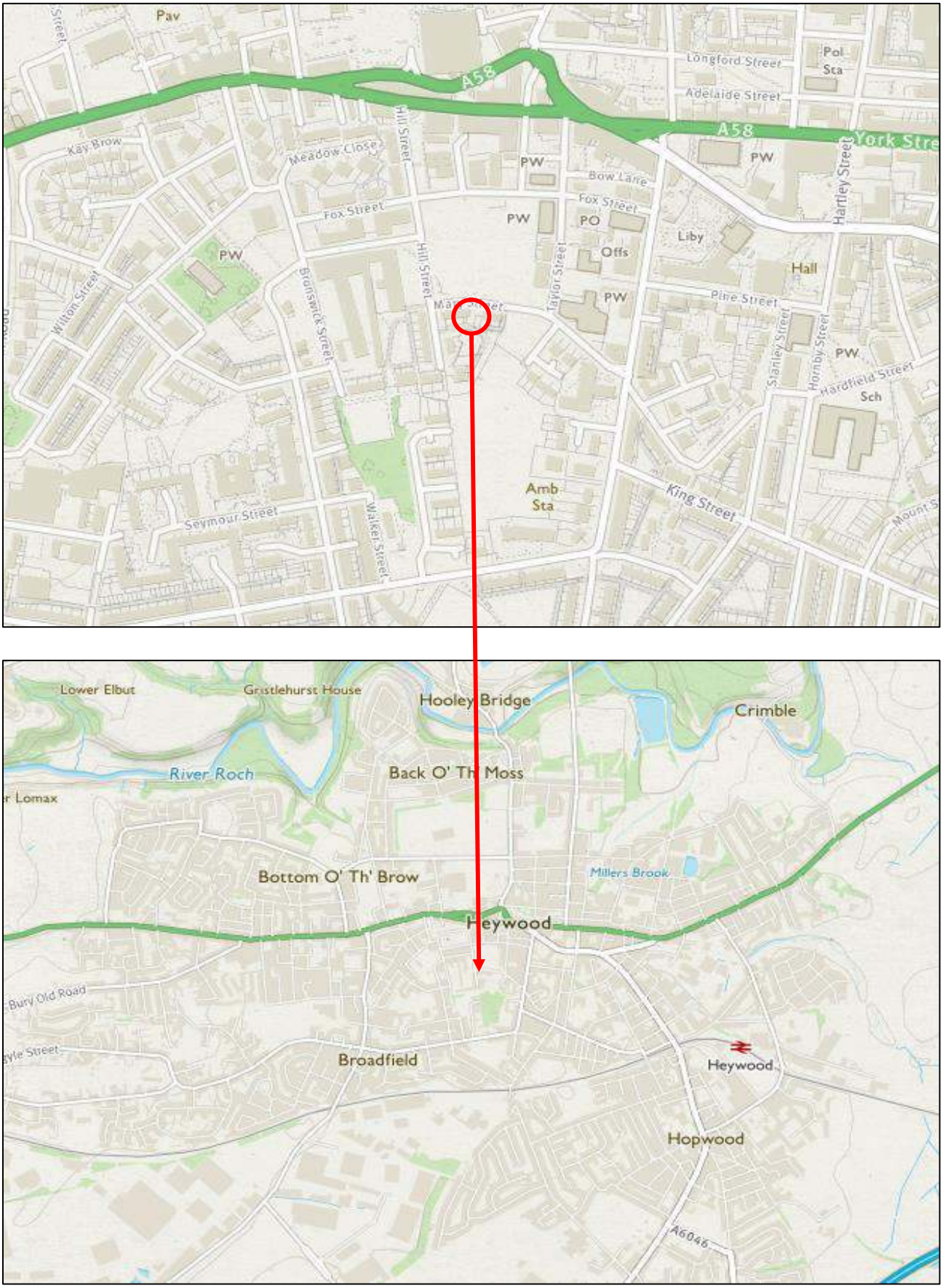
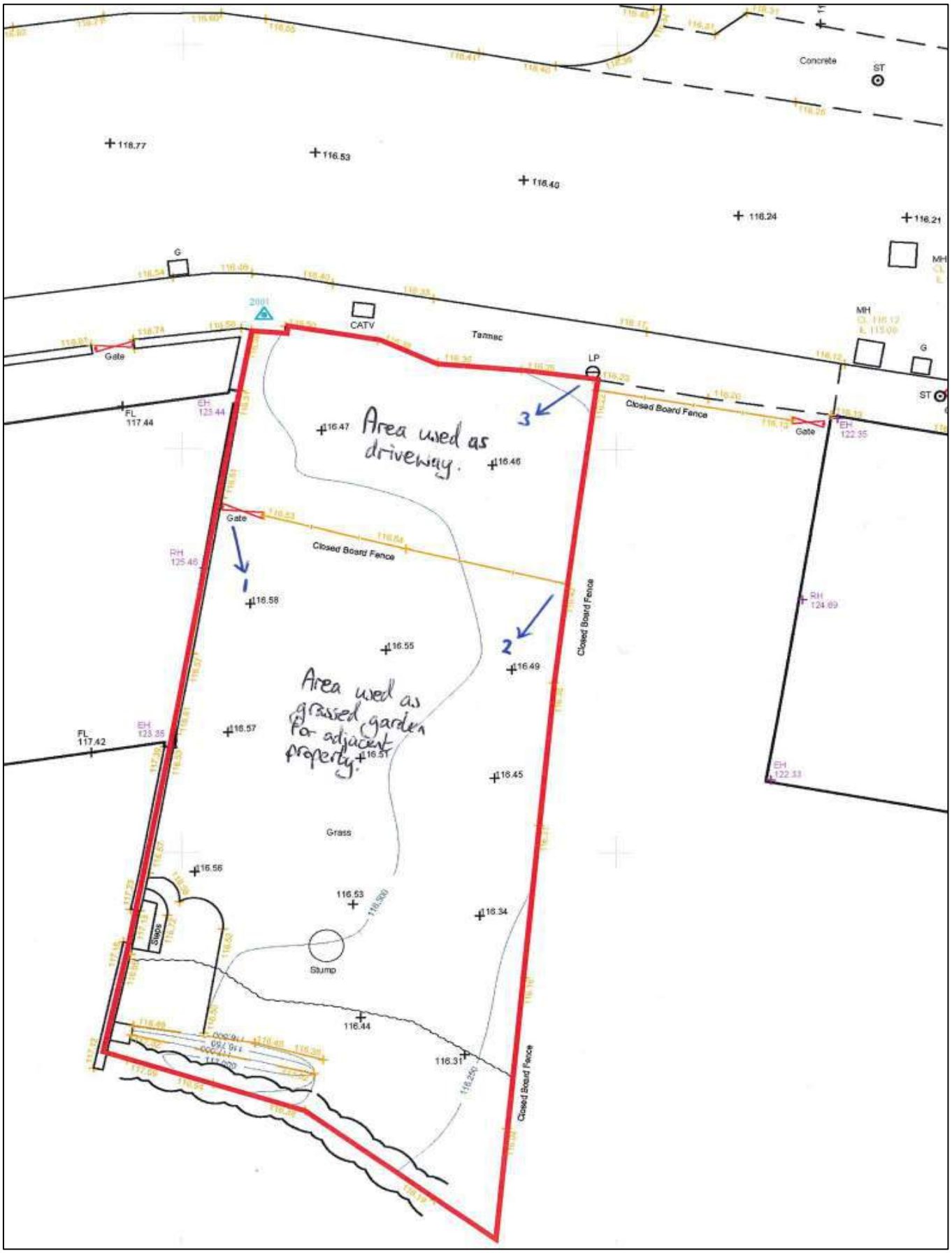
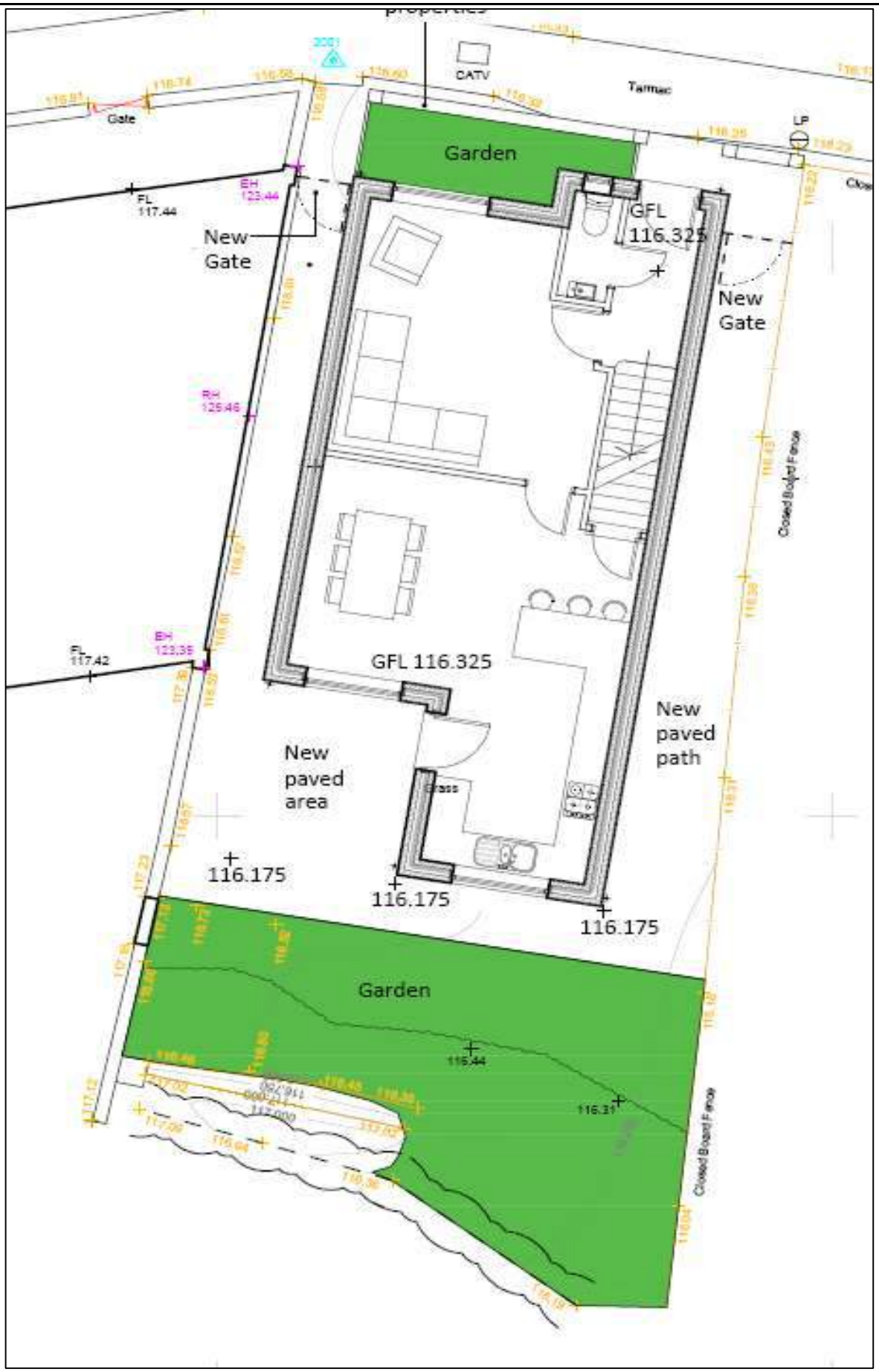
FIGURES



SUB SURFACE SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS 3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907	General Site Location			
Site MARY STREET, HEYWOOD, GREATER MANCHESTER	Date Drawn 27-Nov-18	Date Checked	Orientation N	Job No. 6628
Client MR M LENNON	Drawn By MSB	Checked By	Scale	Figure No. 1



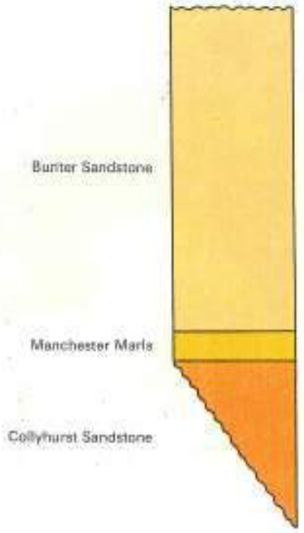
SUB SURFACE SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS 3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907	Site Plan / Walkover Photo Locations			
Site MARY STREET, HEYWOOD, GREATER MANCHESTER	Date Drawn 27-Nov-18	Date Checked	Orientation N	Job No. 6628
Client MR M LENNON	Drawn By MSB	Checked By	Scale _	Figure No. 2

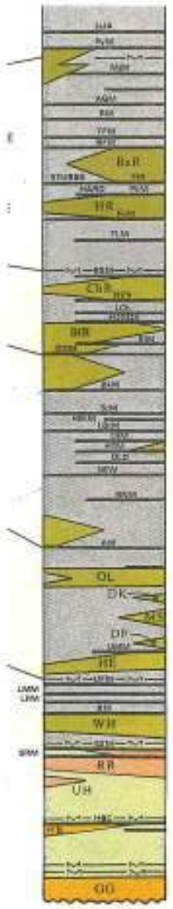


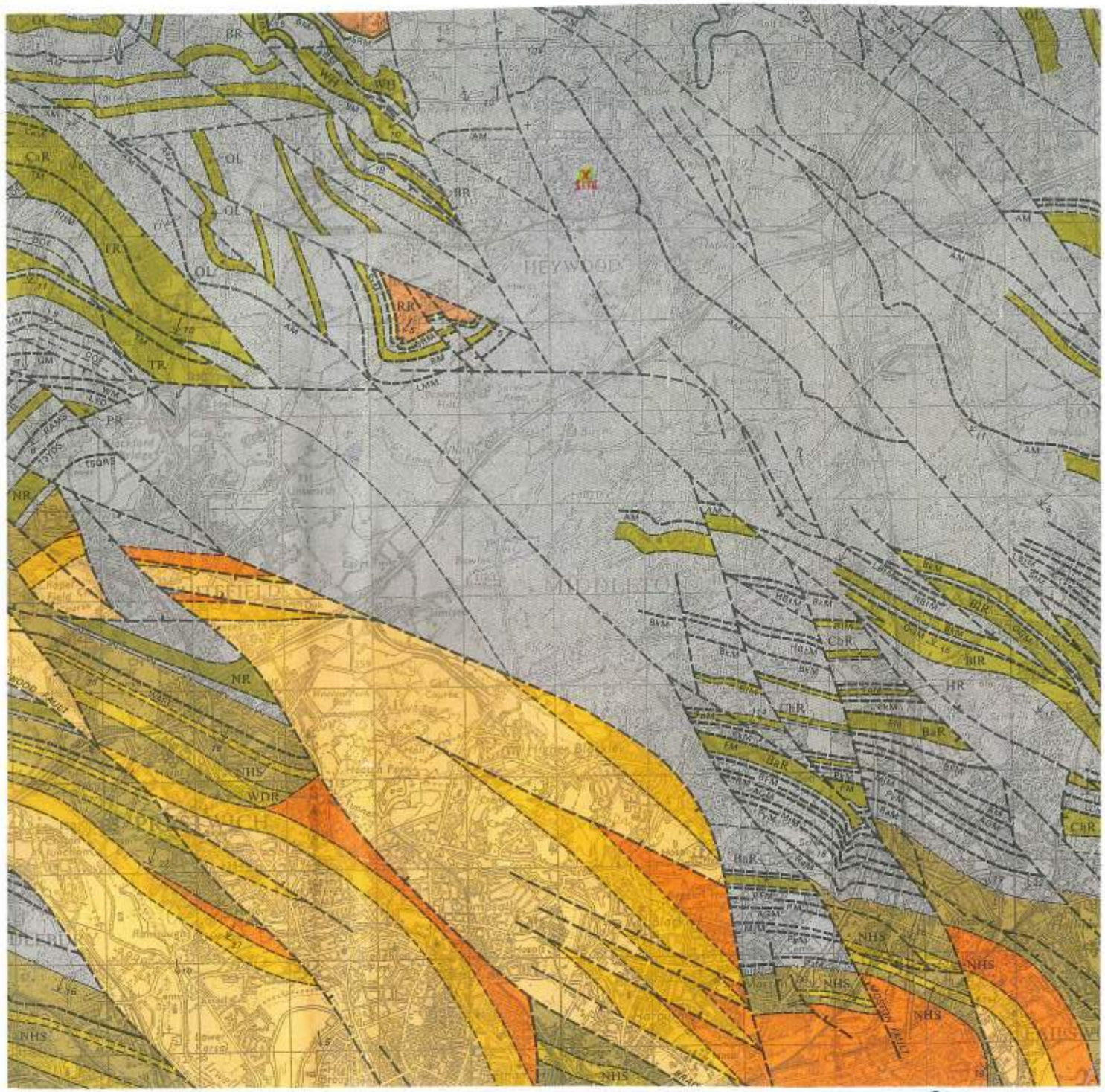
SUB SURFACE SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS 3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907	Proposed Development			
Site MARY STREET, HEYWOOD, GREATER MANCHESTER	Date Drawn 27-Nov-18	Date Checked	Orientation N	Job No. 6628
Client MR M LENNON	Drawn By MSB	Checked By	Scale _	Figure No. 3

GENERALIZED VERTICAL SECTIONS and KEY TO GEOLOGICAL COLOURS

Scale 1:10 000







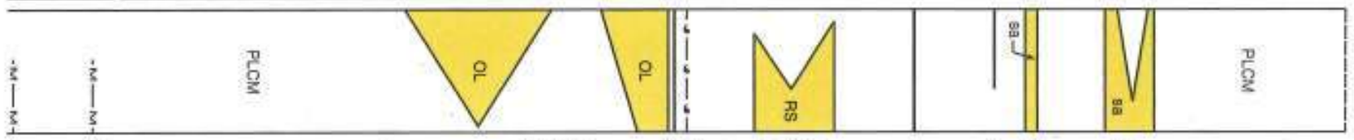
Scale 1:50,000

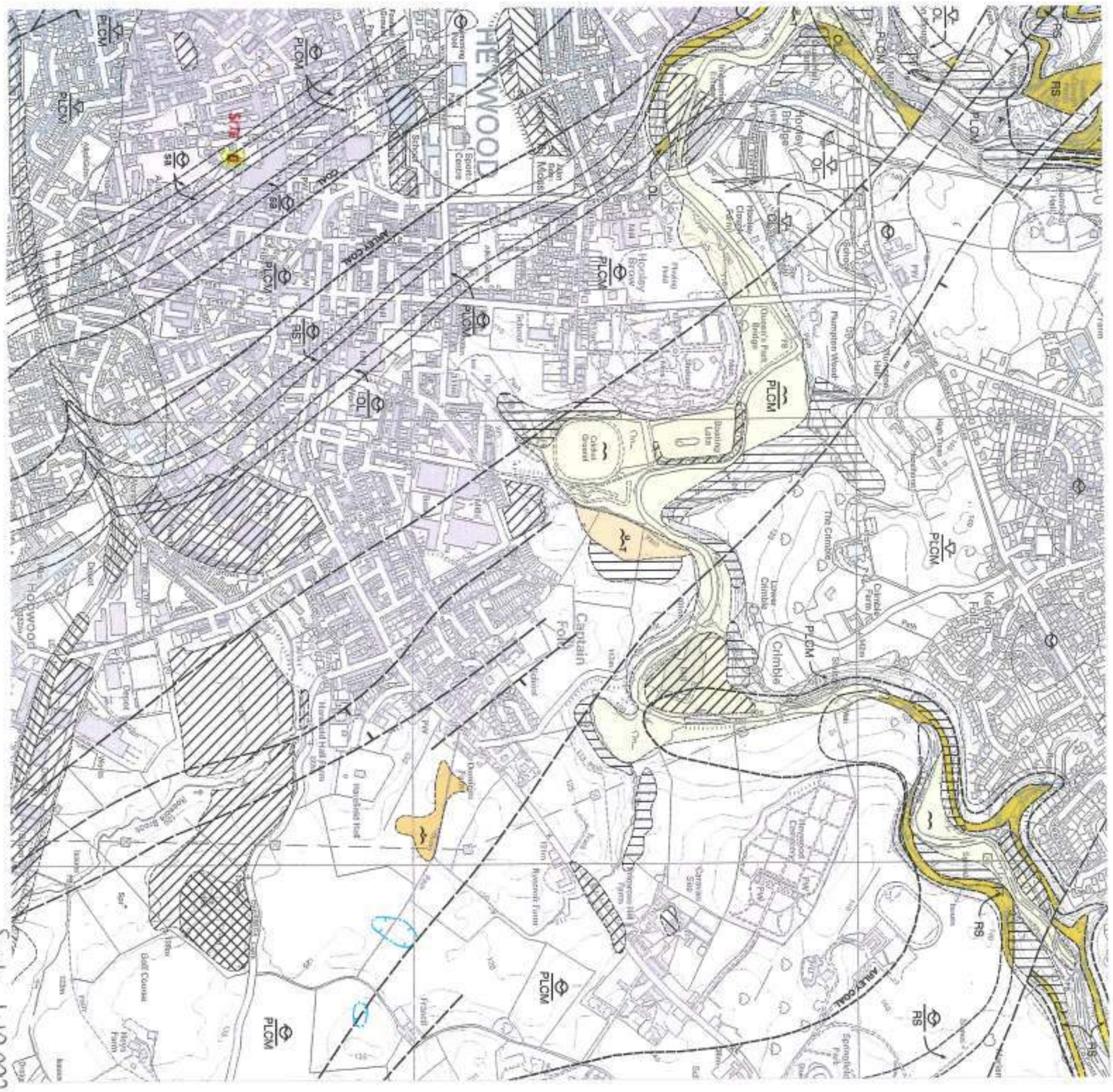
SUB SURFACE SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS 3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907	Extract from British Geological Survey Sheet 85		
Site: MARY STREET, HEYWOOD, GREATER MANCHESTER	Date Drawn: 19-Nov-18	Date Checked:	Orientation: 4Z
	Drawn By: MSB	Checked By:	Scale:
Client: MR M LENNON			Job No.: 6628
			Figure No.: 4

GENERALIZED VERTICAL SECTION

Scale 1:1000 (1 cm to 10 m)

Thicknesses are in metres





SUB SURFACE SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS 3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907	Extract from British Geological Survey Sheet SD81SE			
Site MARY STREET, HEYWOOD, GREATER MANCHESTER	Date Drawn 07-Dec-18	Date Checked	Orientation N	Job No. 6628
Client MR M LENNON	Drawn By MSB	Checked By	Scale	Figure No. 5