

Ryder



**PossAbilities
Wuerdle Street
Design and Access Statement**

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Introduction

PossAbilities is a social enterprise that works to support vulnerable adults. Their schemes aim is to support vulnerable people so they can 'Live the life they choose'. Most of those they support have either learning difficulties or dementia and young people leaving care are also supported.

PossAbilities values are to:

- Remain passionate
- Be person centred
- Show integrity
- Apply creativity
- Stay happy

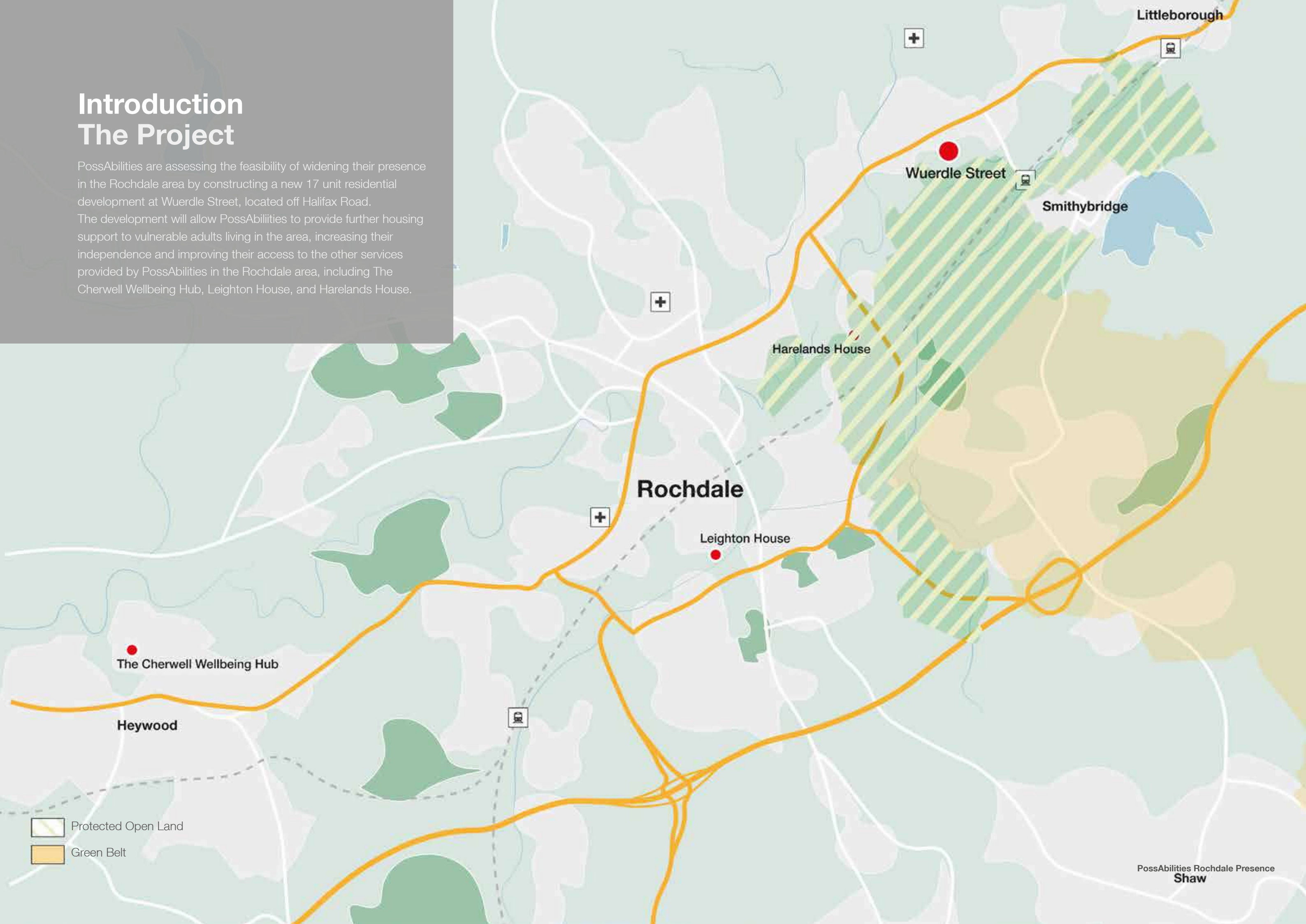
This feasibility study explores the option for a new home containing one bed units for assisted living on a site at Halifax Road, Rochdale.



Introduction

The Project

PossAbilities are assessing the feasibility of widening their presence in the Rochdale area by constructing a new 17 unit residential development at Wuerdle Street, located off Halifax Road. The development will allow PossAbilities to provide further housing support to vulnerable adults living in the area, increasing their independence and improving their access to the other services provided by PossAbilities in the Rochdale area, including The Cherwell Wellbeing Hub, Leighton House, and Harelands House.



Process

Site and Context

Development area: 1687 sqm

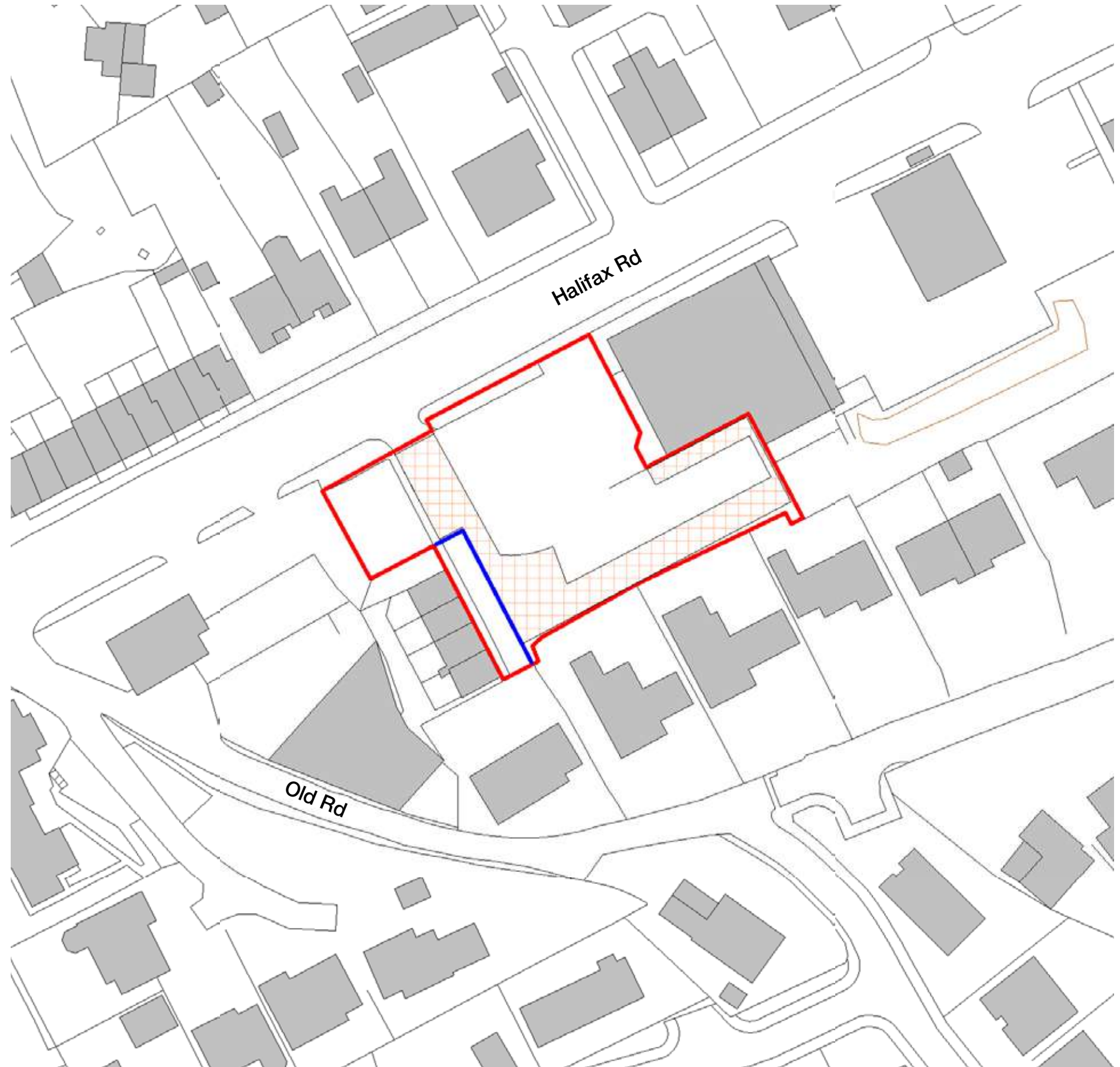
Site address: Halifax Road, Littleborough, OL16 2SQ

Local Authority: Rochdale Borough Council

Current use: Car park and field

Location

- The project is located to the north east of Rochdale on Halifax Road, A58 which links Rochdale to Littleborough and Halifax.
- The surrounding urban development is clustered around the main road with expansive open green space beyond consisting of the Peak District and South Pennines National Park, which can be viewed from the slightly elevated topography of the site.



Legend:
— Site boundary
— Right of way
— Site ownership

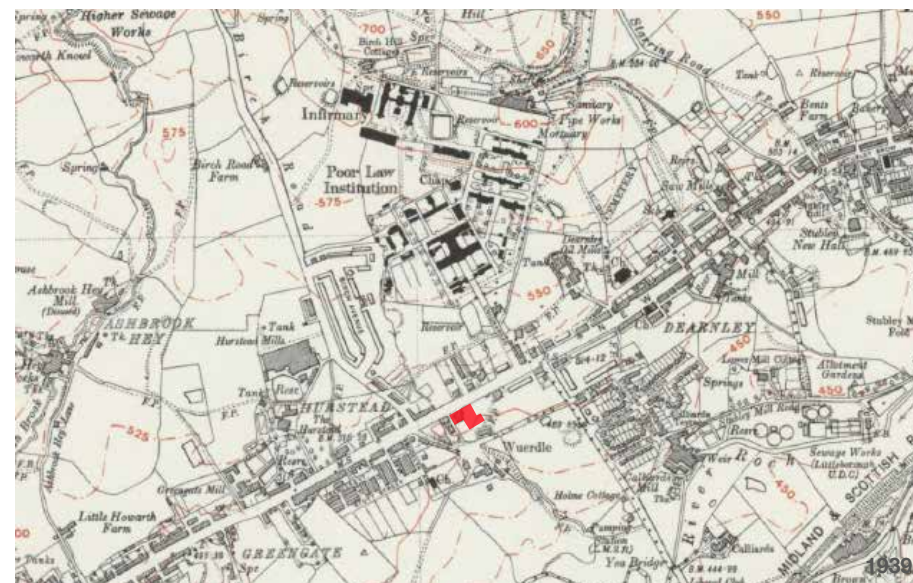
Process

Site History

Rochdale's borough boasts a noteworthy history as the birthplace of the Co operative movement, and is steeped in heritage. Recently, the area has enjoyed an exceptional influx of investment from various sources, including the council, private sector, Heritage Lottery Fund, and Transport for Greater Manchester (TfGM), contributing to the enhancement of multiple locations.

The Rochdale borough is separated into four townships; Rochdale, Heywood, Middleton, and Pennines, which encompasses Littleborough.

Wuerdle Street, located approximately two miles north east of Rochdale, was historically part of a township named Wardle-with-Wuerdle. Wardle has since been incorporated into Lancashire, and Wuerdle into the Rochdale borough. Littleborough, a prominent industrial town, is to the north east of Wuerdle Street.



Wuerdle Street, and surrounding areas, have strong links back to the industrial revolution and heavily influenced the development of townscapes within close proximity. Wuerdle's favourable location by the Scotland-Midlands railway and the Rochdale canal made it the ideal location for mills in order for them to ship their produce.

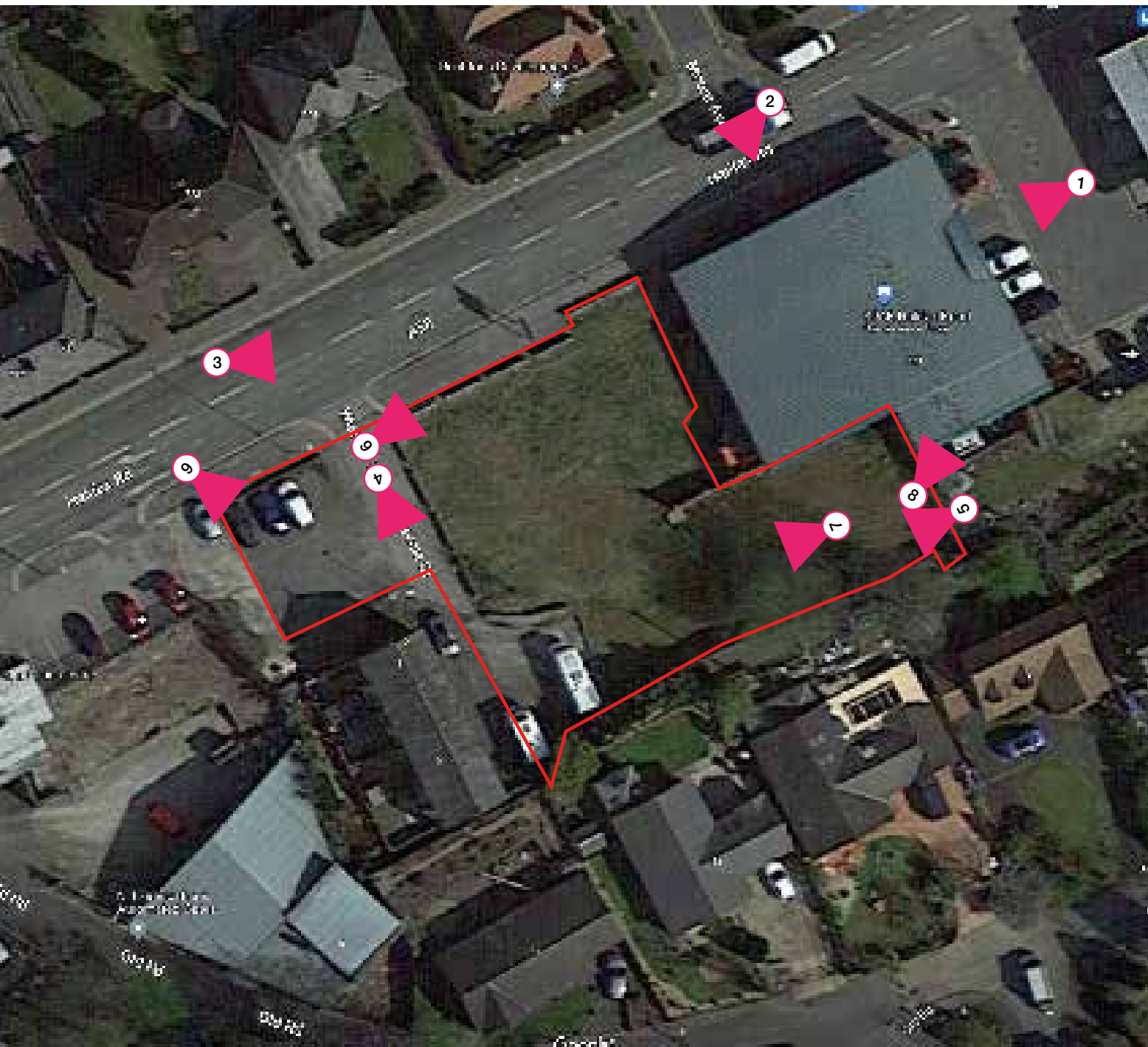
Wuerdle's size has remained modest throughout history, although it appears that during the late industrial revolution, the construction of mills in the Wuerdle area led to a surge in residential properties, likely to provide accommodation for the mill workers.



Process

Site Photographs

- 01 View from the east looking at SPAR adjacent to the site
- 02 View from Halifax Road facing the north east of the site
- 03 View from Halifax Road looking at the north west of the site
- 04 View from Wuerdle Street of terraced houses adjacent to site
- 05 View from south of SPAR facing the terraced houses
- 06 View from the west looking at the existing car park
- 07 View from site looking west at the terraced houses
- 08 View of the retaining wall at the rear of the SPAR
- 09 View of the site from Wuerdle Street
- 10 View of the rear of the SPAR





Process

Planning History

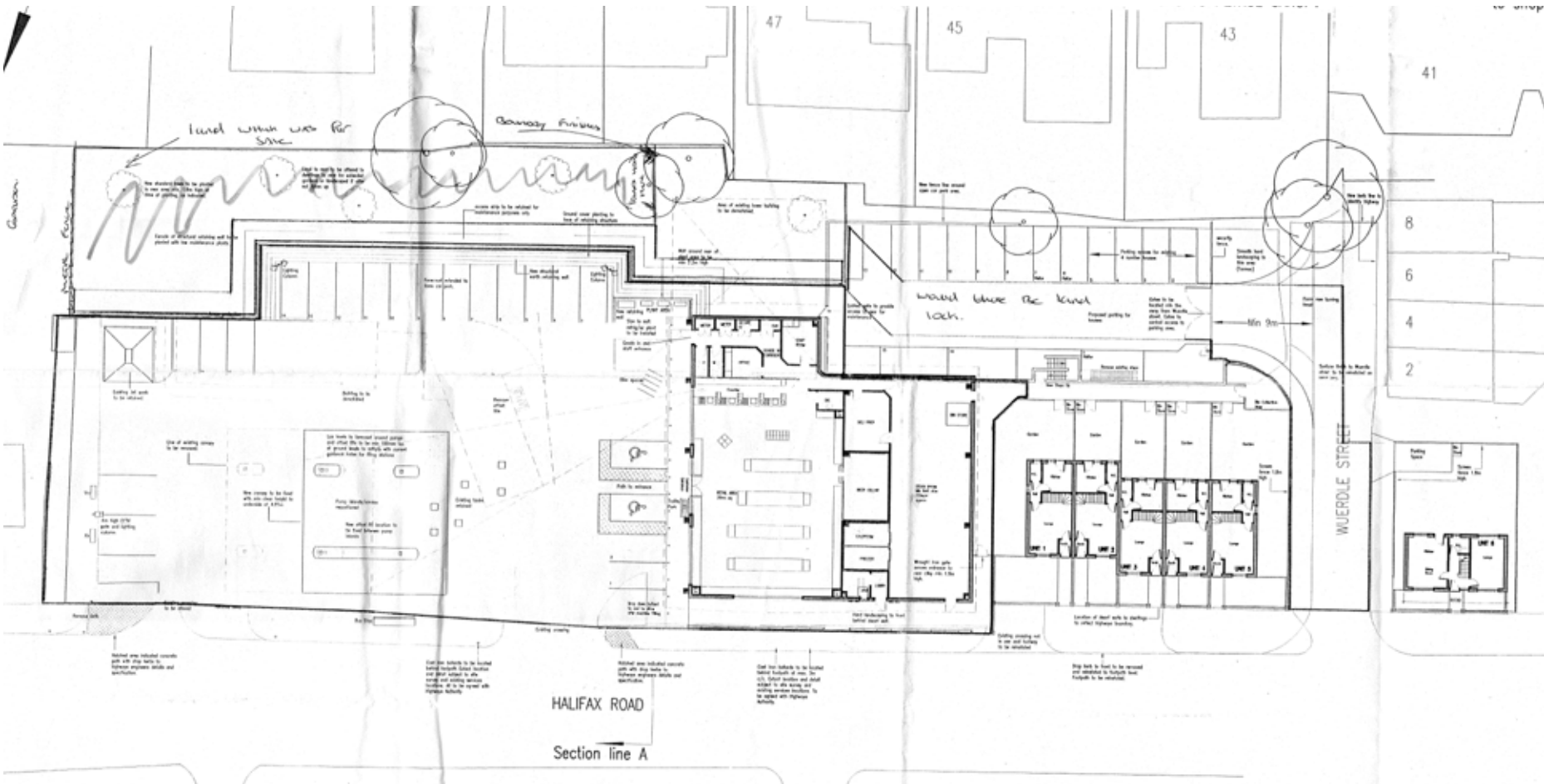
The site has previously been granted planning permission for six residential units on the site, adjacent to the Spar petrol station. These units were similar in appearance to those found in close proximity to the site and utilised a brick facade with a slate pitched roof and pediments in various places.

We have reviewed the previous successful planning submission alongside comments received at a pre application meeting with the council, these have helped inform a refined design that sits comfortably in it's local context.

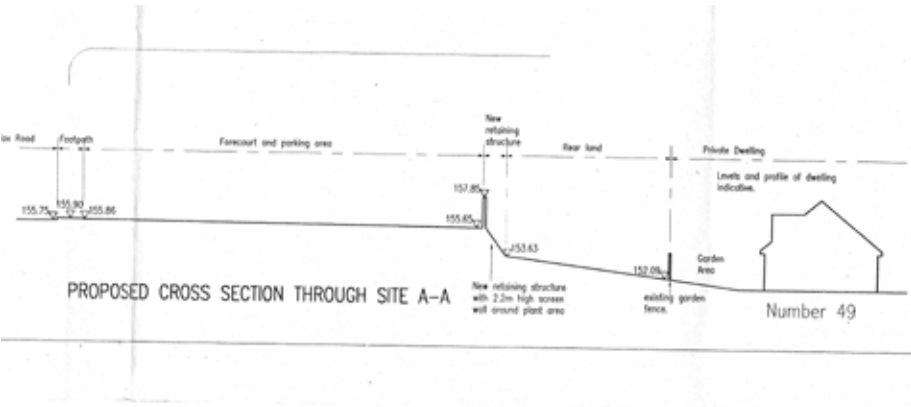
06/D47004: Erection Of 6 Dwellings, Alterations To Existing Petrol Filling Station And Erection Of New Retail Store - Resubmission D46614.
Thu 06 Jul 2006, granted.

97/D34435: Use Of Land For Display And Sale Of Motor Vehicles Including The Provision Of A Customers Car Park.
Fri 22 Aug 1997, granted.

92/D28744: Erection Of Hot Food Takeaway With Self-Contained Flat At First Floor Level.
Thu 20 May 1993, unsuccessful.



Site plan from previous application



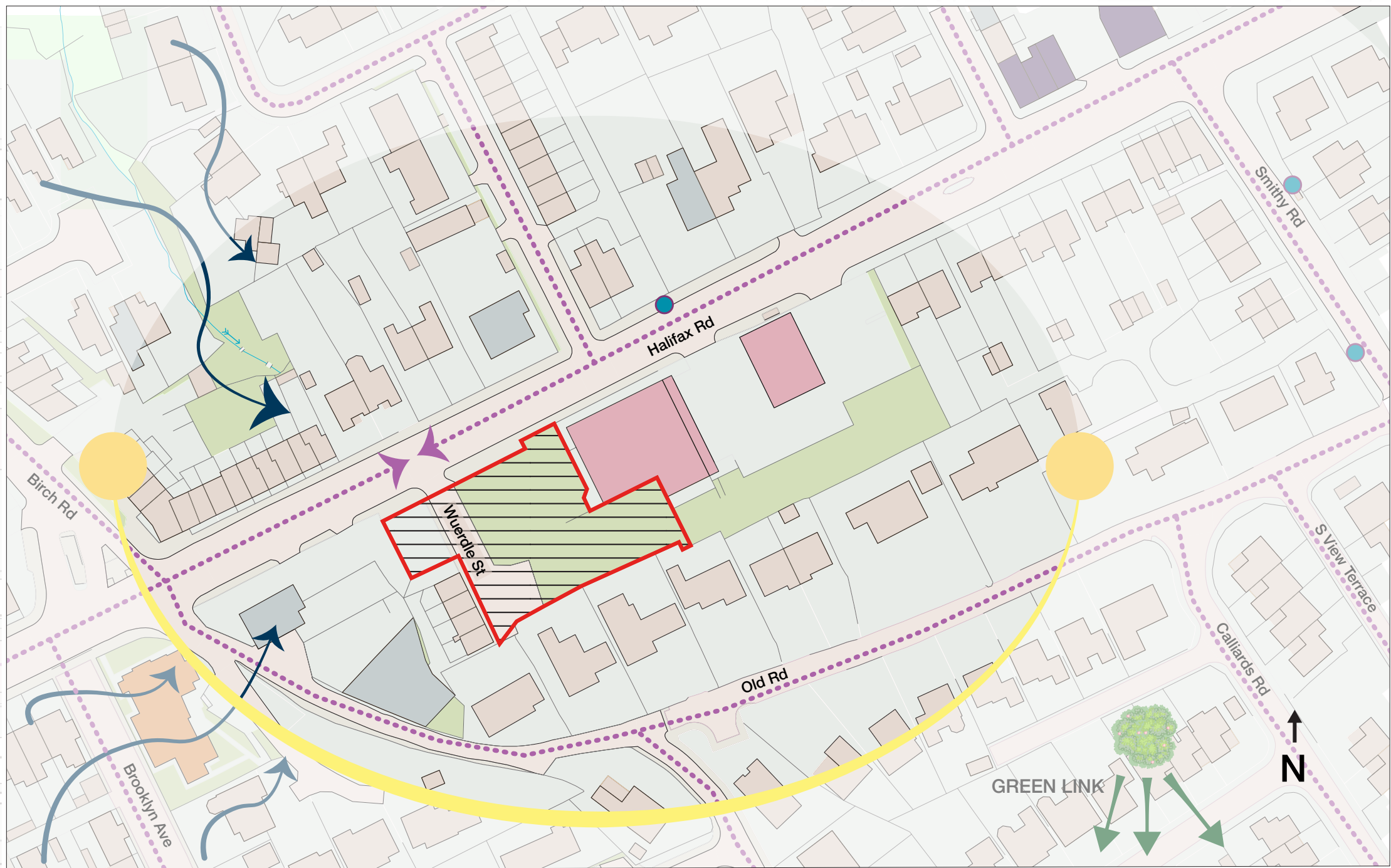
Site section from previous application



Proposed elevations from previous application

Process

Site Analysis



Legend:

- | | | |
|---------------------------|------------------|---------------------------|
| Private housing | Services | Main access roads |
| Assisted living residence | Restaurants/pubs | Bus stops |
| Grocery shops | Site boundary | Prevailing wind direction |

Process

Site Opportunities and Constraint

The proposed site presents several opportunities and constraints that need to be considered, specifically the presence of neighbouring buildings. To ensure privacy and maintain adequate light for the occupants of the neighbouring dwellings, the proposed design has been carefully positioned. The two storey apartments on the east side of the proposal have been set approximately 26 meters away from the terraced houses, while the apartments on the west side have been setback to avoid overlooking.

Another significant constraint is the existing topography of the site. The variations in ground levels necessitate the incorporation of new ramps to facilitate access to the proposed accommodations. Additionally, a ramp leading to the new car park must be constructed. Given the significant level change, a retaining wall will also be required to effectively manage the site's topography. The two storey apartments on the east side of the building have also been positioned at a lower level to accommodate this change in elevation.

Key

Retail

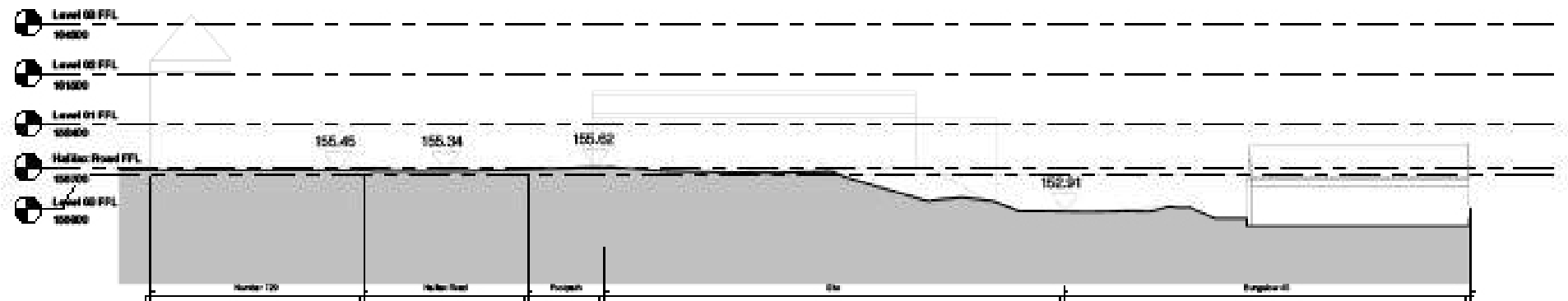
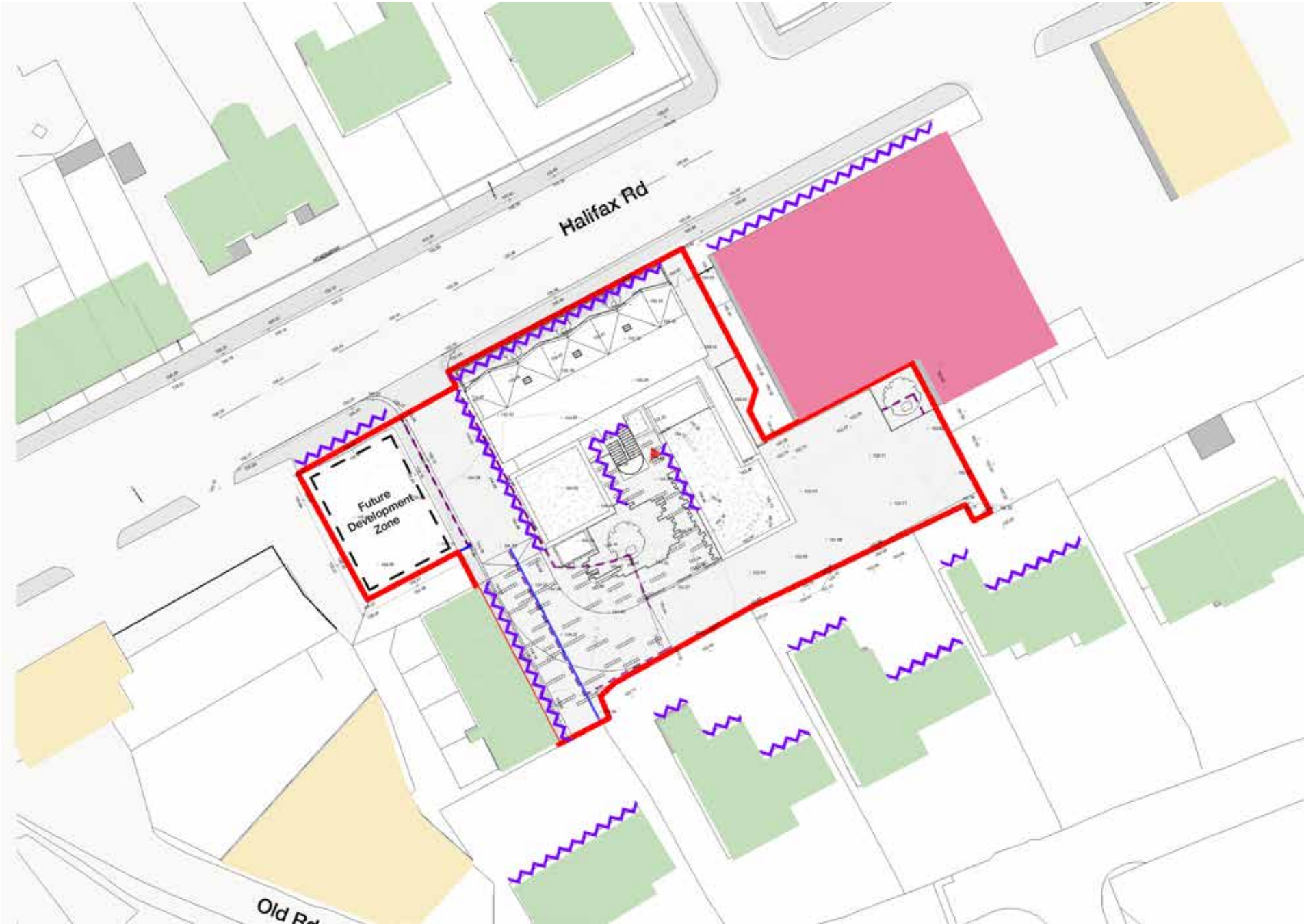
Services and Light Industry

Dwelling Houses

10m between a principal window and any directly facing single storey elevation which does not contain a principal window to a habitable

21m between directly facing principal windows of habitable rooms at an upper floor level

Habitable window locations



Process

Materiality and Typologies

The area is characterised by a tapestry of styles, with stone and brickwork being the prevalent material used. The residential typologies in the area commonly exhibit certain features such as terrace stone houses and red brick residential buildings adorned with pediments. These residential structures are typically two storey, although some have three storeys with dormer windows incorporated in the loft spaces. New commercial buildings constructed in the area tend to be finished in materials similar to those used in the residential buildings, maintaining architectural coherence. Heavily framed windows are a common sight, adding to the overall aesthetic.

Additionally, there are instances where residential properties have undergone conversions, with the ground floors repurposed for commercial use.



Stone terraced houses



Commercial use with flat roof



Residential typology with converted commercial ground floor use



Pitched roofs and bay windows



Pediments and bay windows



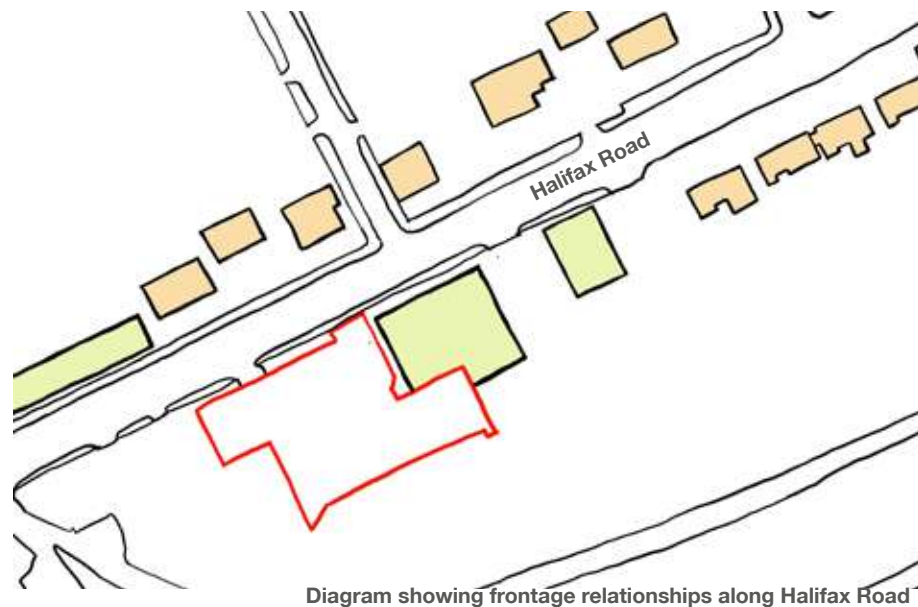
Stone terraced houses



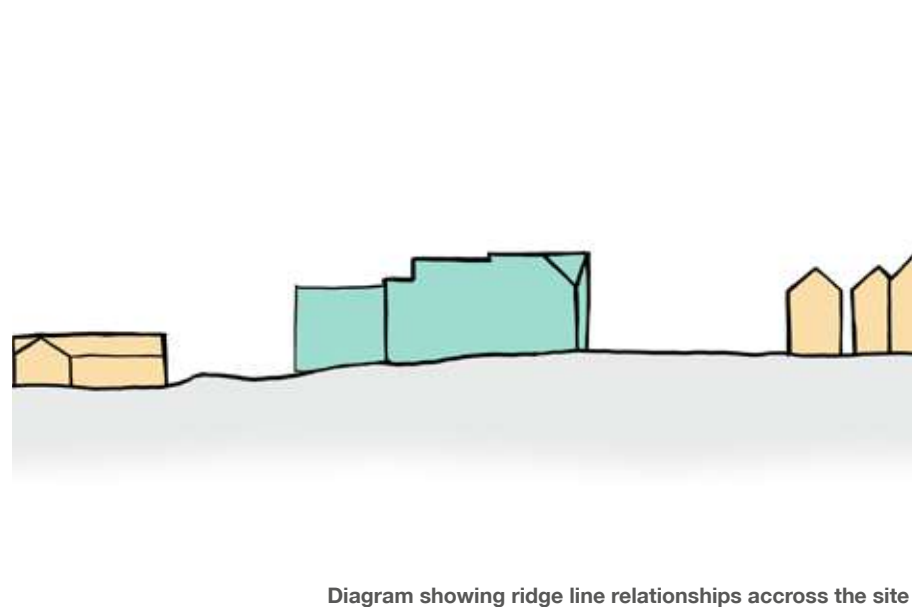
Process

Massing and Placement on Site

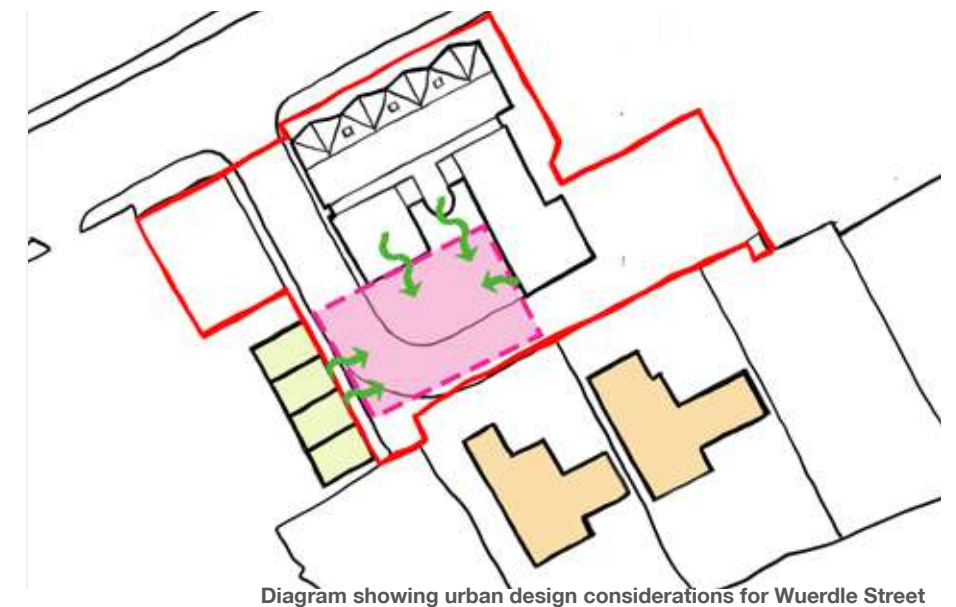
The diagram below shows that semi detached and detached housing have a frontage line away from Halifax Road, whereas terraced housing and commercial units have a frontage close to the paved edge of Halifax Road. The proposed elevation for the site takes queues from the terraced house vernacular and so has lined its frontage to the north of the site to suit.



The building's form adeptly responds to the falling topography by following the contours and reducing the ridge line correspondingly. Along Halifax Road to the north, the building creates a principally two storey elevation with some room within the roofscape, in keeping with the height of the properties opposite. In contrast, the building scales down and removes the pitched roof to the southern blocks, in order to maintain a positive relationship with the low height bungalow houses to the south, fostering a respectful integration with the adjacent properties.



The proposed courtyard has the potential to be a transformative addition to Wuerdle Street. Currently the terraced houses along Wuerdle Street sit at odds with the surrounding urban grain. The revised layout seeks to foster community interaction, enhancing aesthetics, providing green spaces, and offering enhanced views, this courtyard can create a harmonious and appealing environment for all residents.

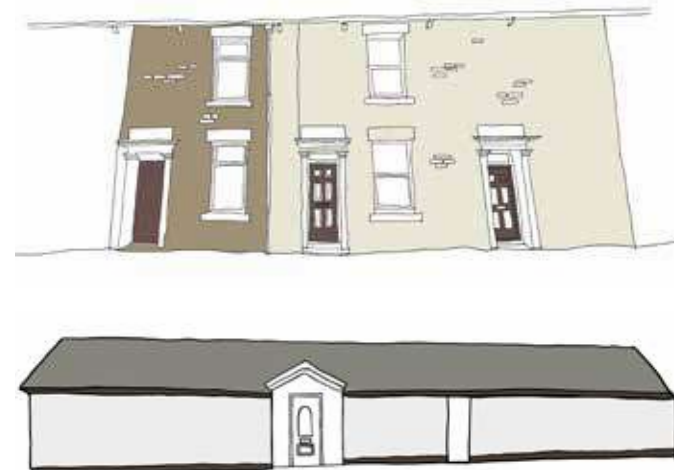
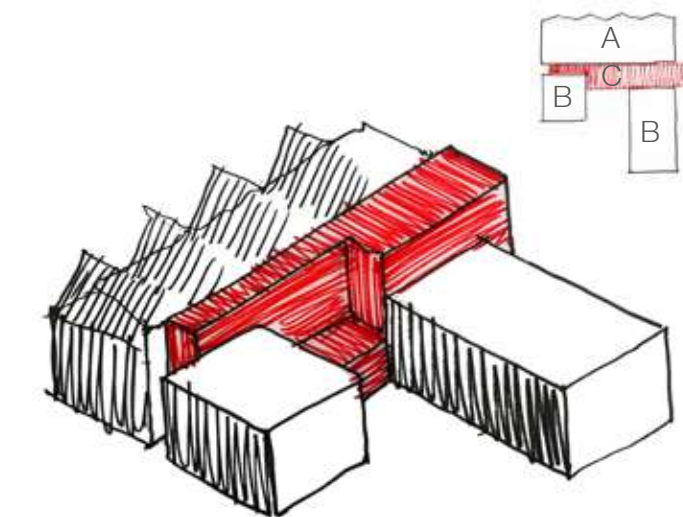


Process

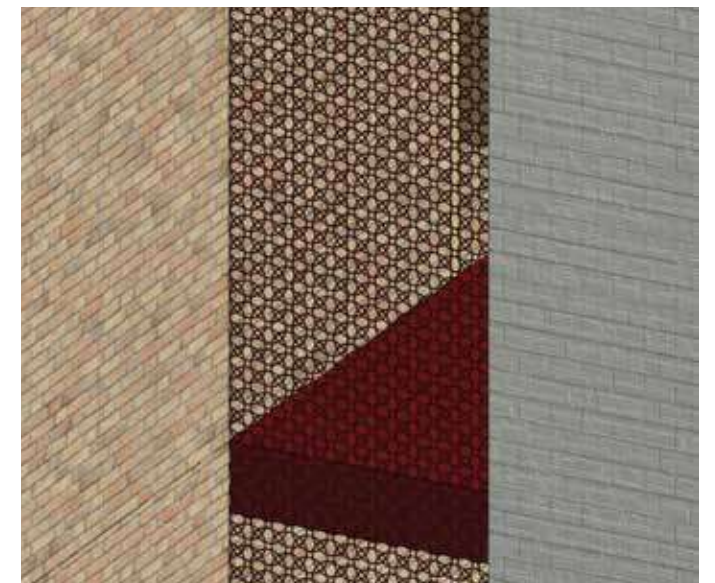
Elevation and Materiality

The building features three distinct elements: a contextual red brick section with a pitched roof facing Halifax Road, (A) contemporary grey brick volume. (B) Vibrant red circulation pathways dividing the spaces. (C) Red brick element pays homage to tradition, seamlessly blending with the neighborhood, while the grey brick portion represents modernity. The red metal panelling and staircase not only physically connect the two sections but also help fuse the historical and contemporary architectural styles, resulting in a harmonious and innovative composition.

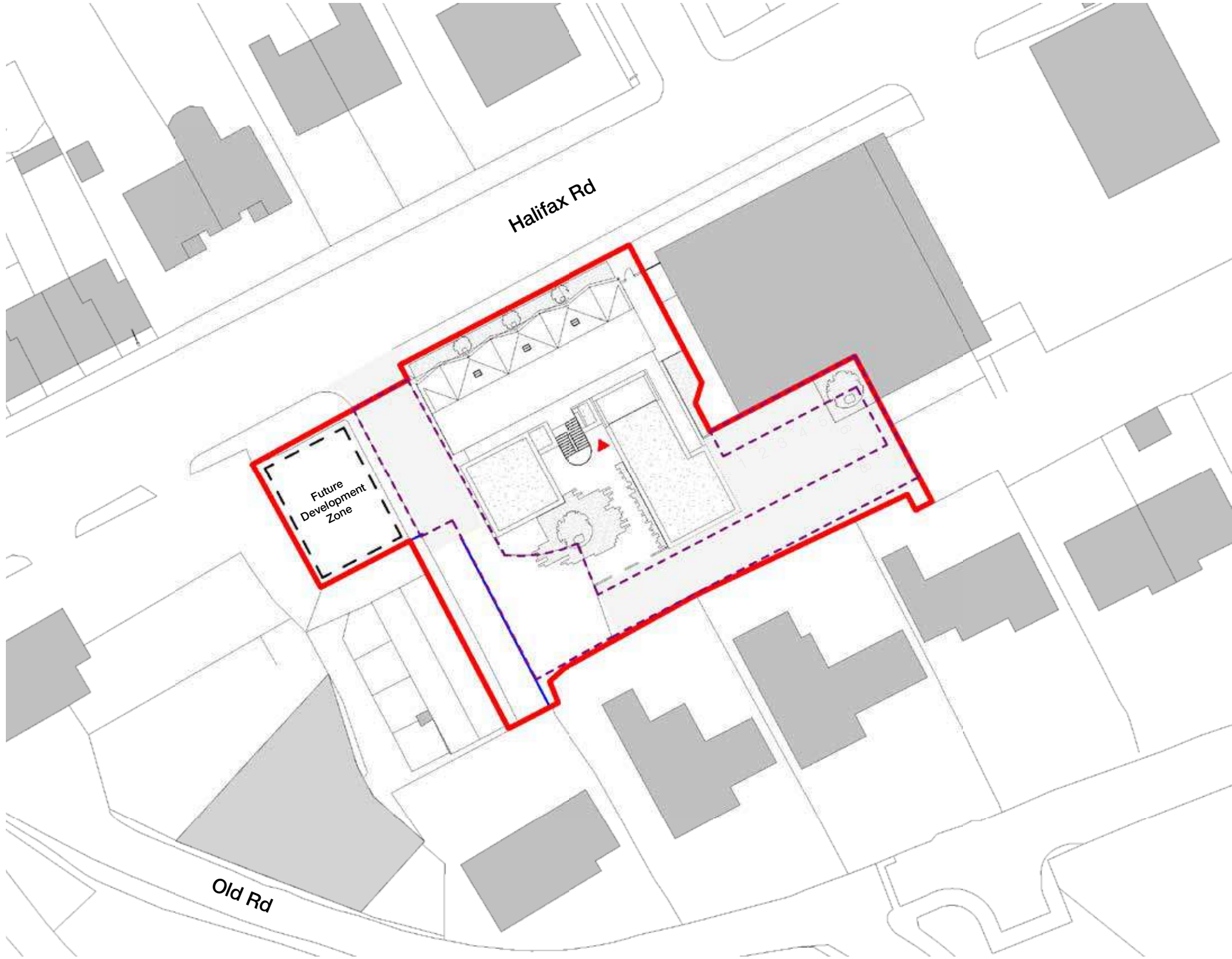
The proposed building along Halifax Road (A) thoughtfully incorporates features of neighboring terraced houses, including gable ends, red brick facades, and slate roofs. These elements establish a seamless visual connection between old and new, enhancing the neighborhood's character. This approach ensures that the new development blends cohesively with the existing neighborhood while adding a well designed, modern intervention along Halifax Road.



The building is connected through a series of external decks and staircase. These provide passive solar shading to windows on the south elevation. The safety and independence of the proposal's residents is paramount so the railings for the walkway have been extended to a full height. Inspiration for the screens has been taken from the historical routes of the surrounding area and look towards the prominent textile industry in the 17th and 18th century. The metal screens that form the walkways are inspired by some of these woven patterns.



Proposed Design Site Plan



- Legend:
- Site boundary
 - Right of way
 - Site ownership

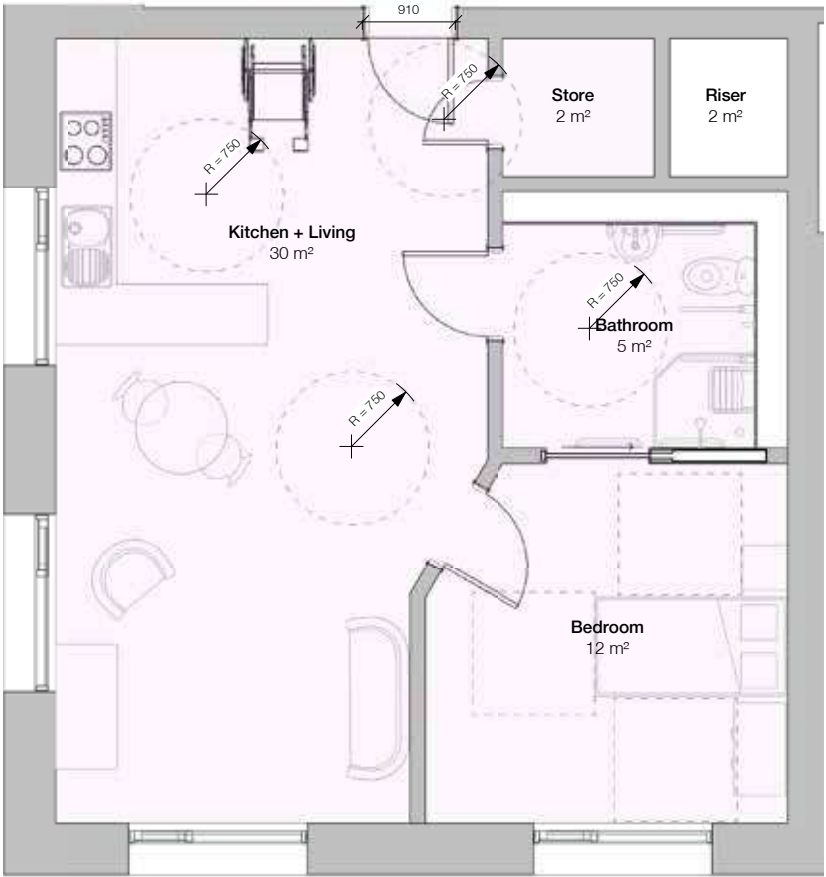
Proposed Design

Unit Types

Type A is for use by permeant PossAbiliteis residents, two layout options are utilised to ensure a number of DDA complaint options are available.

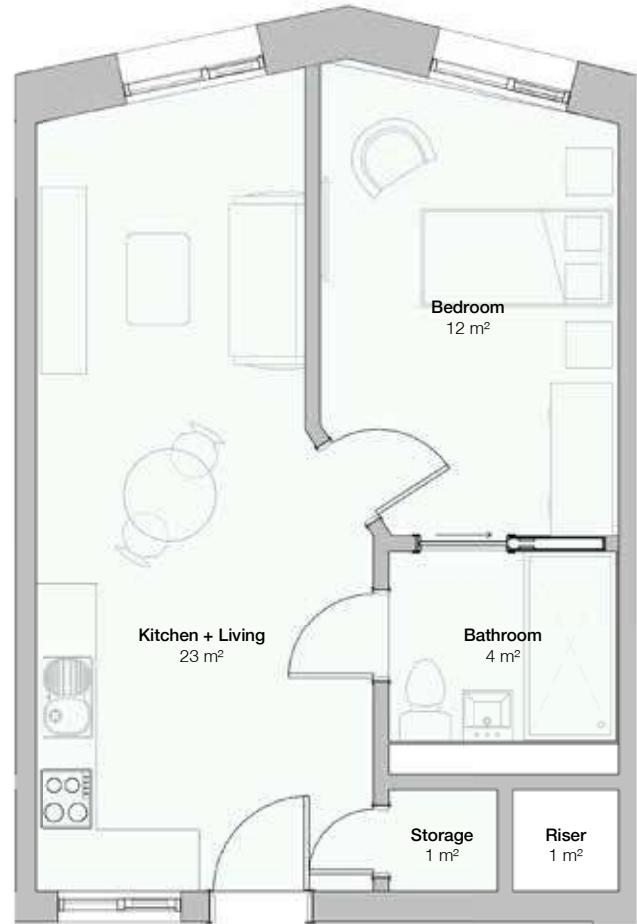
Unit Type
Type A - DDA Compliant

Internal Area
49sqm



Unit Type
Type A - Non DDA Compliant

Internal Area
42sqm



Proposed Design

General Arrangement

The proposed design looks to place two 2/3 storey blocks on the site. Towards the east, the block consists of one bed units off an external corridor connected via a single staircase and lift. The block is three storeys. At ground the site is entered via a soft landscape area off Wuerdle Street which leads to a small internal pavilion containing a reception, small meeting/activity space and sleeping room for a 24hr member of staff. From here residents navigate back outside through external circulation to their front doors.

A new lightweight refuse store is created in the landscape and allowance should be made for a new sub station within the car park area if required.

A retaining wall may required between the front two thirds of the site and the rear access and car park. The height of which is yet to be confirmed but perhaps up to 3.5m. To the south of the site parking is introduced providing nine spaces.

The western block is set over two storeys with its own entrance and vertical circulation. The block contains six studio units with views onto Halifax Road.

Gross Internal Area

Ground floor	Quantity	Total area (sqm)
1 Bed Units (DDA)	2	110
1 Bed Units	5	219
Support Space	-	9
Circulation	-	63
Lobby	-	4
Total		405





Gross Internal Area

First floor	Quantity	Total area (sqm)
1 Bed Units (DDA)	2	110
1 Bed Units	5	219
External Circulation	-	43
Staff Room	1	11
Total		383

Gross Internal Area

Second floor	Quantity	Total area (sqm)
1 Bed Units	3	147
External Circulation	-	33
Total		180

Appearance Precedents



Appearance 3D Views



View of main entrance from Wuerdle Street

Landscaping

Landscape vision

The Landscape vision for Wuerdle Street is to create a semi private courtyard for the use of the residents, together with the functional requirements of parking, access and servicing. It will also encourage biodiversity and tree planting replacing the current sparse grass area.

This vision seeks to:

- Create a welcoming environment for the residents, visitors and staff.
- Provide relaxing and peaceful outdoor spaces, where residents can enjoy they external area.
- Encourage wildlife into the site.
- Integrate to the wider landscape while contributing to the local streetscape.

Landscape concept and design inspiration

Inspiration for the Landscape scheme focusses on the creation of the entrance courtyard which will also provide a respite space to the residents. The courtyard is enclosed on the sides by the new building and will be separated by it from the busy road.

The landscape design seeks to:

- Use materials that have warm tones, creating a welcoming, homely feel to the site, while also reflecting those that proposed for the building.
- Utilise hues and colours that are complementary to both the proposed architecture and the local vernacular.
- Encourage wildlife into the site. Plants and trees are selected for their biodiversity capabilities and amenity value.
- Create a new plaza outside the existing terraced houses

Landscape masterplan

The key landscape principles for the development of the ground floor landscape plan are set out below:

- Wuerdle Street will remain in place to provide access to the existing four terraced houses. It will be extended to provide a parking court of 8nos car parking spaces including 2nos disabled bays.
- The building will be accessed via the courtyard providing a more homely experience for the residents rather than entering directly from the street.
- A low fence and buffer planting will provide defensible space along the road frontage, also contributing to the local streetscape with trees and shrub planting which will also frame the building elements.
- A new bin store of hit and miss timber panelling will also be provided to the side of the new building.



- 1 Resident courtyard
- 2 Entrance plaza
- 3 New parking area (with permeable paving to bays)
- 4 Ornamental planting with feature tree
- 5 Planting with columnar trees along road
- 6 Railing
- 7 Retaining wall with fence
- 8 Bin store
- 9 Native shrub planting
- 10 Bench

Landscaping Materials

Hard Landscape

Hard landscape materials have been selected on the following basis

- Are warm in character and have a sense of domesticity
- Can provide firm, level and fully rigid surfaces with adequate slip resistance in all weather and without overly textured finishes in order to allow a range of ambulant abilities
- Are permeable where possible and appropriate



Courtyard and Entrance Plaza Paving (ref. 1 and 2)



Courtyard and Entrance Plaza Paving Banding (ref. 1 and 2)



Parking bays (ref. 3) in PCC 200x100 permeable block paving in mid-grey



Garden benches (ref. 18) - Timber with backs and armrests



Steel railing fence (ref. 6 and 7) in bronze

Landscaping Planting

Soft Landscape

Soft landscape materials have been selected on the following basis:

- They promote biodiversity and encourage nature onto site
- Within the resident garden, create season interest through foliage and flowering
- Create structure, visual buffering and define space
- Promote sensory interaction through vision, smell and taste



Trees

Species	Height	Specification
Magnolia grandiflora 'Gallissonnieri'	350-425	heavy standard
Betula fastigata	350-425	heavy standard

Native Shrub Planting

Species	Pot size	Density
Cornus sanguinea	3L	3/m2
Viburnum opulus	3L	3/m2
Viburnum Lantana	3L	3/m2
Crataegus monogyna	3L	3/m2
Prunus spinosa	3L	2/m2

Ornamental Shrub and Perennials

Species	Pot size	Density
Alchemilla mollis	2L	3/m2
Veronica prostrata	2L	5/m2
Mentha x piperita	2L	3/m2
Thymus vulgaris	2L	5/m2
Foeniculum vulgare	2L	4/m2
Fragaria vesca	2L	6/m2
Angelica archangelica	2L	4/m2
Santolina chamaecyparissus	2L	4/m2
Achillea 'Moonshine'	2L	4/m2
Echinacea purpurea	2L	5/m2
Borago officinalis	2L	4/m2
Primula vulgaris	1L	5/m2
Centaurea 'John Coutts'	2L	3/m2
Rosa 'Bonica'	3L	3/m2
Rosa 'Kent'	3L	3/m2
Rosa 'Pink Flower Carpet'	3L	3/m2
Rosa 'Nozomi'	2L	4/m2
Lavandula angustifolia	2L	4/m2
Laurus nobilis	4L	3/m2
Rosmarinus officinalis	2L	3/m2
Salvia officinalis	2L	5/m2
Santolina chamaecyparissus	2L	4/m2
Viburnum tinus	3L	3/m2

Sustainability

Landscape Led Design

The land around the proposed scheme has been used efficiently to support a landscape design that introduces a communal square of soft and permeable hard landscaping with zones of ecology planting to encourage wildlife into the site.

Plants and trees have been selected for their biodiversity capabilities alongside their amenity value for residents. Further to this, an ecology appraisal has been submitted as part of the application which sets out mitigation measures to ensure adverse impacts on protected species and habitats will likely be wholly mitigated in line with relevant wildlife legislation and local policies.

The landscape design uses the falling topography to encourage views out over to the Pennines, and seeks to improve the sense of community on Wuerdle Street through the introduction of a semi public square. The design removes a tree from the southern boundary to ease vehicle circulation but seeks to introduce others in more suitable locations across the site.

Permeable block paving has been specified for the new hard landscaped areas, promoting sustainable urban drainages and minimising run off.

Orientation and Form

All studios have been designed with dual aspect to allow for good access to daylight and cross ventilation to help remove summer heat gains. Roof lights have been placed to introduce consistent north daylight into the top floor units which have slightly reduced apertures to the street.

In line with the context, the building's axis and elevations run parallel or perpendicular to Halifax Road. The design responds to orientation by ensuring openings on the south elevation are minimised and the external walkway design has a depth that contributes to shading glazing on parts of the southern facade.

Energy Efficiency and a Fabric First Approach

Embodied energy on the project will be combated through using low impact building materials where possible.

To ensure that the development is inherently low in energy use, the following passive design measures should be implemented:

- Efficient fabric to reduce heating and cooling demand
- Enhanced airtightness that reduces infiltration heat losses
- Energy efficient lighting
- Adequate control of building services systems and lighting systems
- Wall, ground, roof, door and window U-Values will meet or improve the current requirements of Part L2A of the building regulations
- Windows will be specified to ensure g-values meet the Part L2A requiremen

Electrical services will be energy efficient in the proposed extension through the following design parameters:

- LED Luminaries- provided throughout
- Use of Natural daylight- Average daylight factor to be maximised wherever possible
- Daylight pimming provided in all rooms with daylight access
- Lighting efficiencies >80 luminaire lumens per circuit watt
- Power factor >0.95
- Absence and presence detection for lighting controls

Adaptable and Future Proof Design

Each of the studios have been designed to ensure maximum flexibility. This enables them to be future proofed as the design allows for easy access by all abilities.

A flat roof to the shorter rear blocks allows for additional rooms to be added to the second floor, should the demand for further sheltered accommodation in the Rochdale area arise. The layout has also been designed in an efficient manner, allowing the parcel of land to the west of Wuerdle Street to remain vacant should future development be required.

Materials and Finishes

Materials with a low environmental impact will be specified where viable and available. Guidance documents, such as The Green Guide to Specification, and Environmental Product Declarations (EPDs), will guide the design team in the selection and specification of materials making their environmental impact known. The contractor should implement a procurement plan, allowing the team to monitor and track the sourcing of materials used. Materials with a high recycled content, locally sourced, with a low global warming potential, and low or zero VOCs are to be prioritised.

Indoor Air Quality

Natural ventilation will be used to enhance air quality in the proposal. Although some studio windows face Halifax Road, which has a large amount of through traffic, all studios have at least one openable window on a quieter elevation, away from the main road. This will provide good quality air without additional unwanted noise.

Water Management

Water using systems and equipment will be selected to reduce water use where it is feasible to do so without negatively impacting the performance of the building and control of infection.

Surface water run off has also been considered on site and permeable blocks have been specified for parts of the hard landscaping alongside soft landscaping where possible.

Waste Management

Sustainable design standards are integral to the proposal, including its construction and operation, and have been considered at the beginning of the design process. The design of the building is compact, allowing efficient use of materials in its construction. The building has been designed with a robust palette of materials to simplify maintenance and improve the lifespan of the building. Materials have been selected in line with the BRE's Green Guide to Specification with the majority of materials achieving A or A+ ratings. Care will be taken to reduce waste during construction and excess soil will be used in a cut and fill exercise where possible to reduce material taken off site.

The proposal will adopt the borough's waste reduction and recycling strategy. A refuse store is located in the landscape and sized appropriately to allow for segregation of recyclable materials.

Access

A separate travel statement is provide as part of this planning application therefore this section focuses on the design approach to the site.

Site Access

Vehicular entrance to the site is via Wuerdle Street which runs directly off Halifax Road. The site boundary runs to the centreline of Wuerdle Street and therefore we have incorporated a partial resurfacing of the entire road width to softly integrate the proposed access. Once on Wuerdle Street site vehicles either turn left for the rear car park or use the turning head in the centre of the site for refuse, drop off or services.

Parking

The car park has eight bays, two disabled bays, and a shared surface area to the centre of the site suitable for drop off. The policy compliant amount of electrical charging points will be provided to the parking bays. Covered cycle loops are provided for secure bike storage in a convenient location for staff and visitors alike. With convenient access to the main entrance.

Pedestrian Entrance

In addition to the existing pavement along the West of Wuerdle Street a further pavement has been added to the East side, forming safe access for pedestrians entering from Halifax Road. These pavements lead to the existing terraced houses on Wuerdle Street as well as a shared surface area which extends into a landscaped path up to the main entrance of the proposal.

Waste strategy

There is a refuse and recycling store proposed to the right of the building, adjacent to the SPAR refuse storage. We strategically located the bin store in close proximity to Halifax Road, ensuring residents can easily wheel their bins to the roadside. The store will be secure, provide a good level of ventilation, and will include separate spaces for recycling, clinical and non clinical waste.

Key

-  Pedestrian Entry
-  Vehicle Entry
-  Vehicle Route
-  Public Pedestrian Route
-  Private Pedestrian Route
-  Refuse Storage
-  Disabled Parking

Fire Strategy

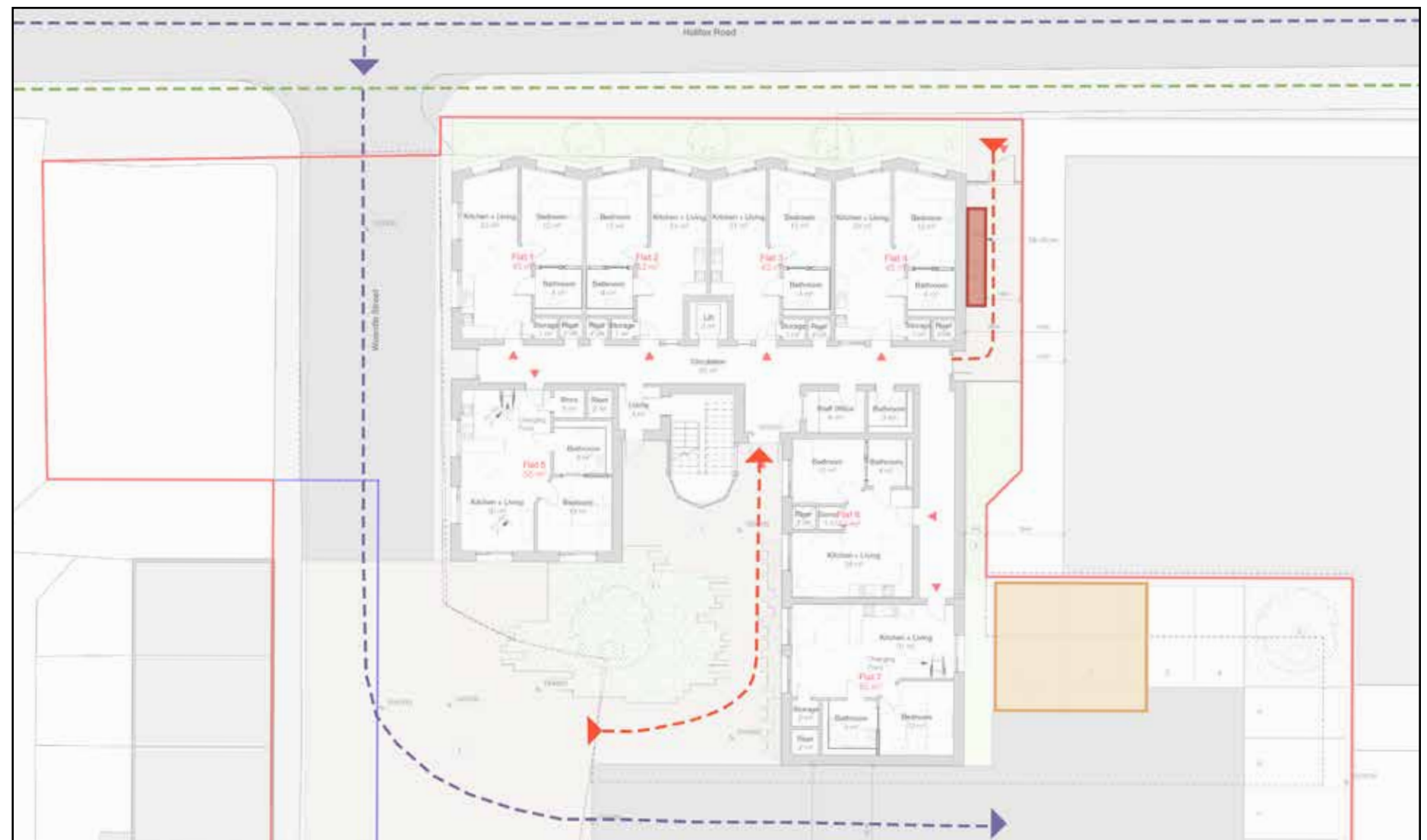
On the upper floors, apartments are accessed via external decks and external vertical circulation. The ground floor horizontal circulation is enclosed with a lobbied entrance to the staircase and additional doors at the end of corridors for fire escape.

A shared surface area has been provided to the centre of the site, allowing for fire tender access to at least 50% of the facade.

Designing for Disability

The design for the proposed units will meet the requirements set out in Building Regulations Part M. Due to the nature of the project, this is particularly important as the building users will have varying degrees of mobility alongside other complex cognitive impairments. Accessibility considerations of the design include;

- General site access is flat with hard surfaces.
- The buildings will have level or ramped access throughout.
- The main entrance to the building has been designed to be easily identified.



Appendices

Information Issue Register

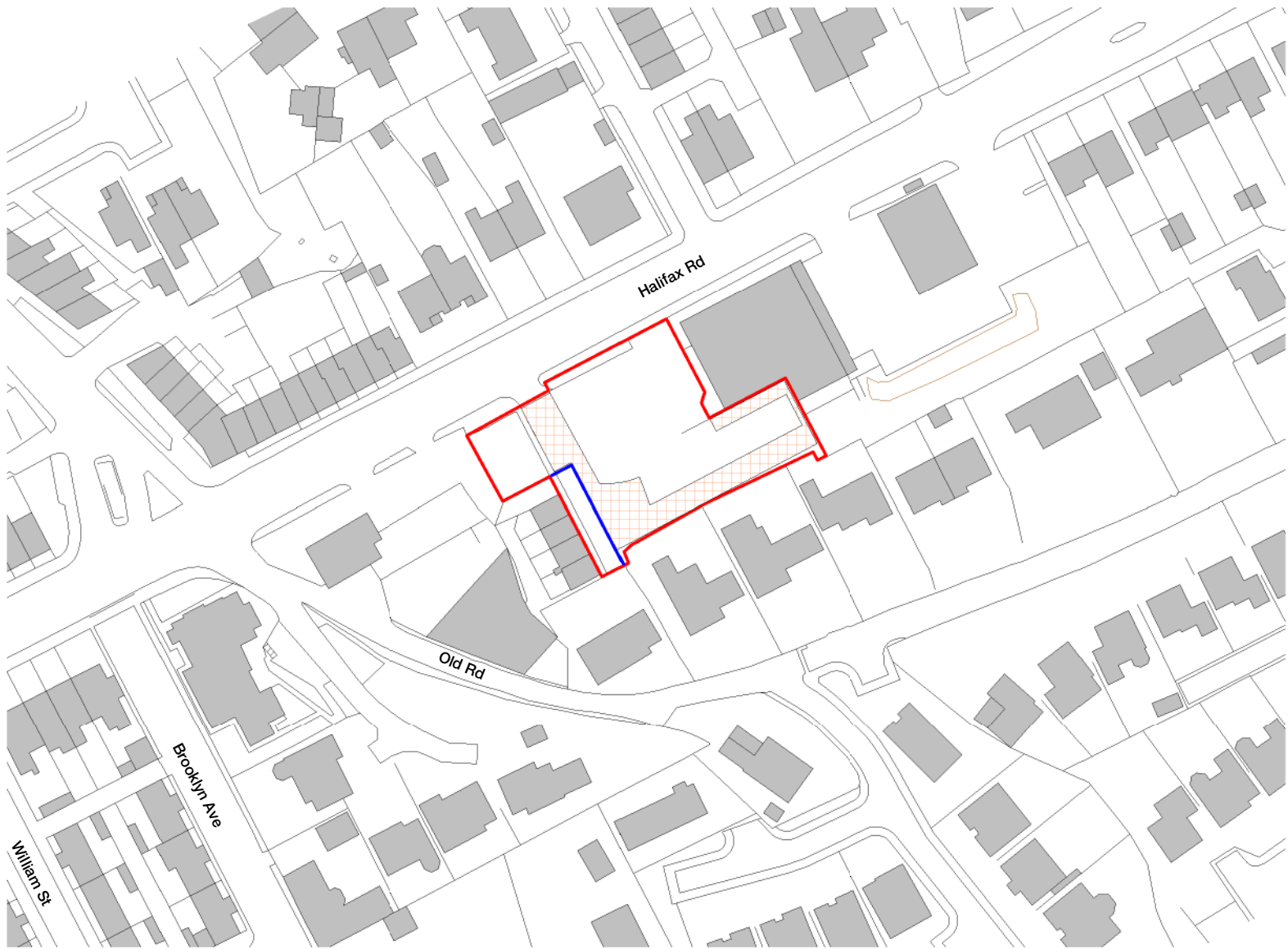
Project Title
Project Number

Wuerdle Street
10745:01

Information Issue Register

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Architectural Drawings



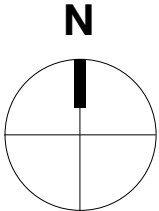
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- Legend:**
- Site boundary
 - Right of way
 - Site ownership

P2	Planning	ALO	FTA	14/09/23
P1	Revised Layout	ALO	HFRU	05/05/23

Rev	Description	Drawn	Checked	Date
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Suitability

Information

Project

PossAbilities
Wuerdle Street
Halifax Road, Rochdale, OL12 9QD

Drawing

Site Location Plan

Drawing Number						
Project ID	Origin.	Zone	Level	Type	Role	Number
POSWD - RYD - ZZ	-00	-DR	-A	-0100		
Project Number		Scale at A4		Status	Revision	
10745:01		1 : 1250		S2	P2	

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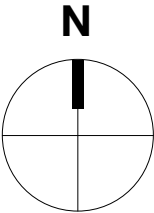
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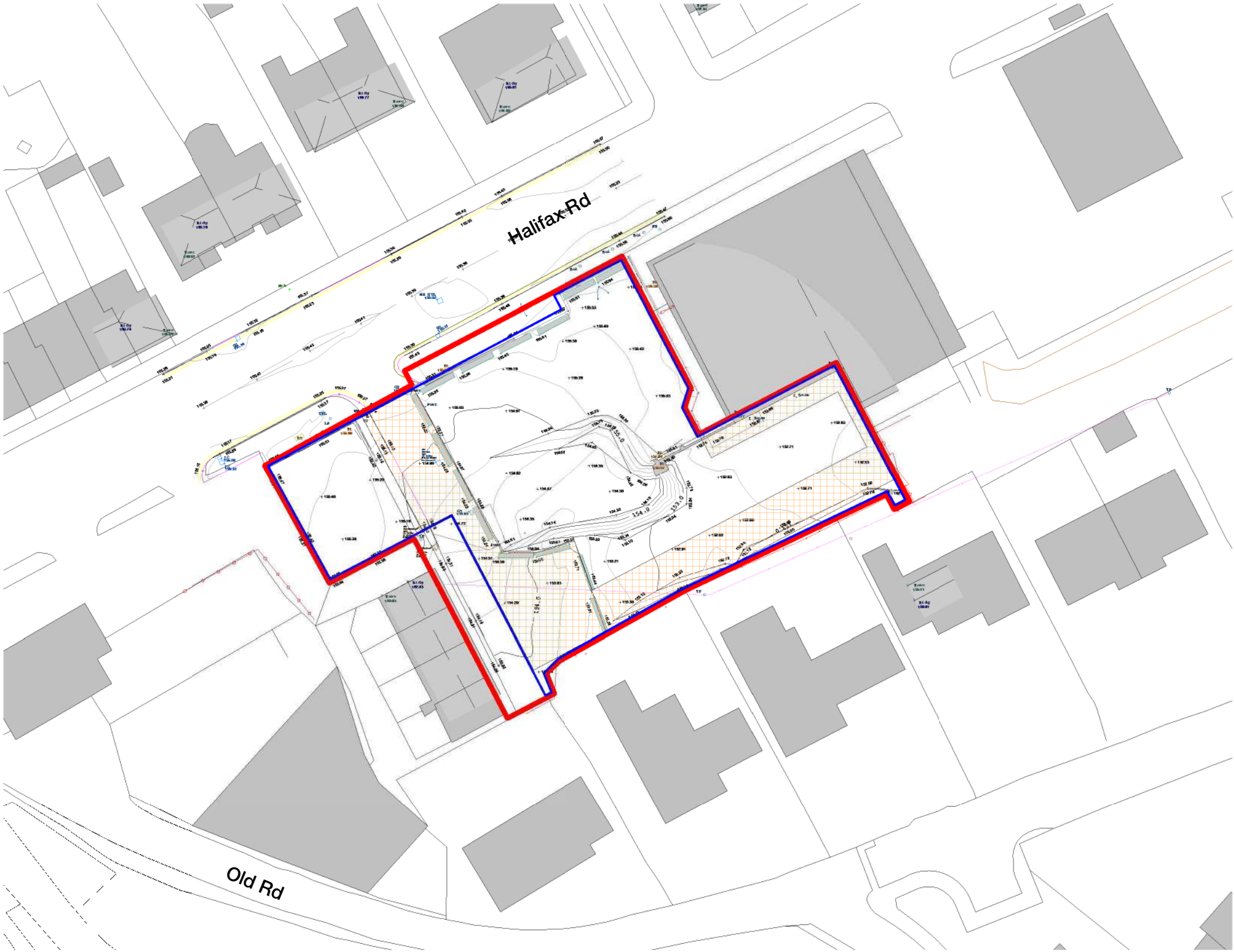
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- Legend:
- Site boundary
 - Right of way
 - Site ownership



P2	Planning	ALO	FTA	14/09/23
P1	First Issue	ALO	HBU	04/06/23

Rev	Description	Drawn	Checked	Date
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Suitability

Information

Project

PossAbilities
Wuerdle Street
Halifax Road, Rochdale, OL12 9QD

Drawing

Existing Site Plan

Drawing Number	Project ID	Origin	Zone	Level	Type	Role	Number
POSWD - RYD- ZZ	- 00	- DR	- A	- 0101			

Project Number	Scale at A3	Status	Revision
10745:01	As	S2	P2

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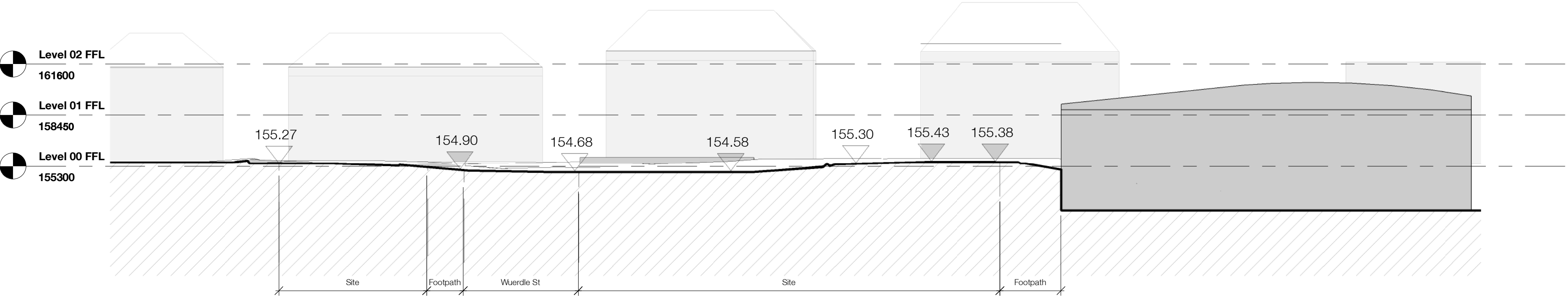
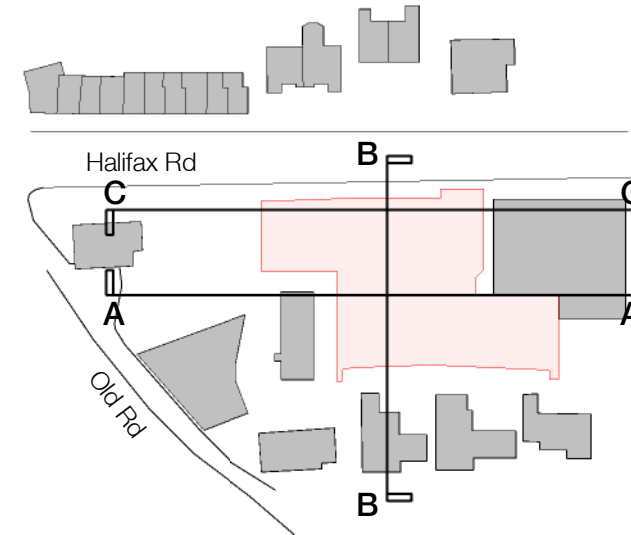
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Scale Bar (m)

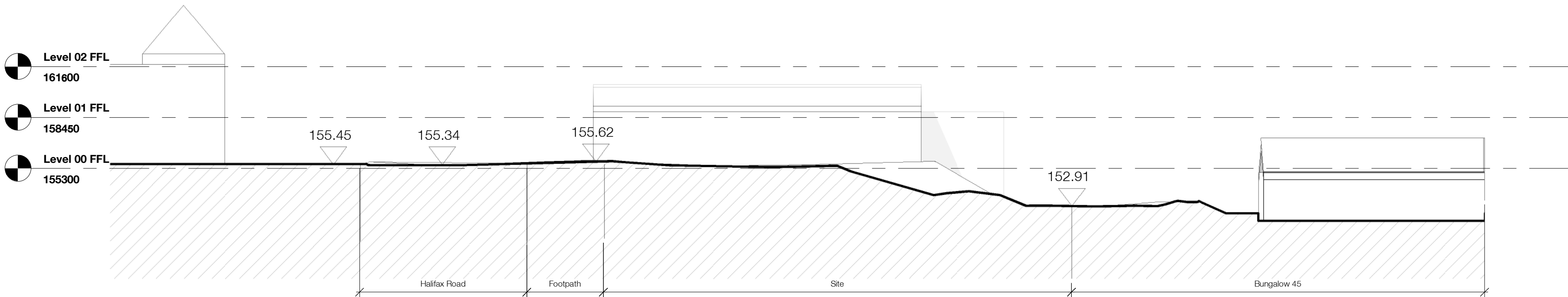


Key Plan:



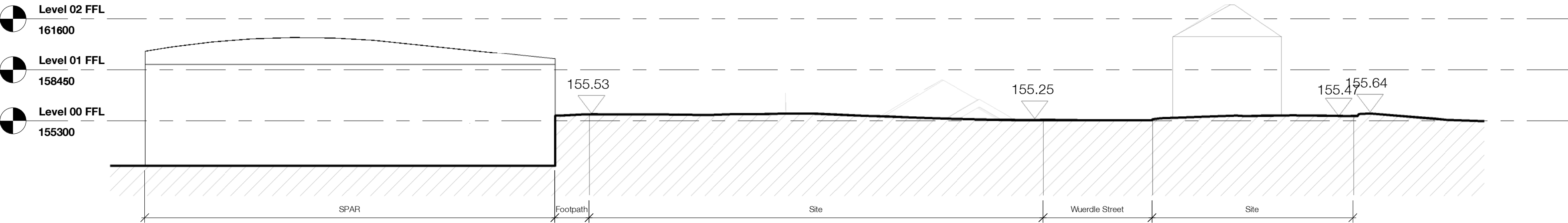
1 Existing Site Section AA

1 : 200



2 Existing Site Section BB

1 : 200



3 Existing Site Section CC

1 : 200

P2	Planning	ALO	FTA	14/09/23
P1	First Issue	ALO	HRU	04/05/23

Rev	Description	Drawn	Checked	Date
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Suitability
Information

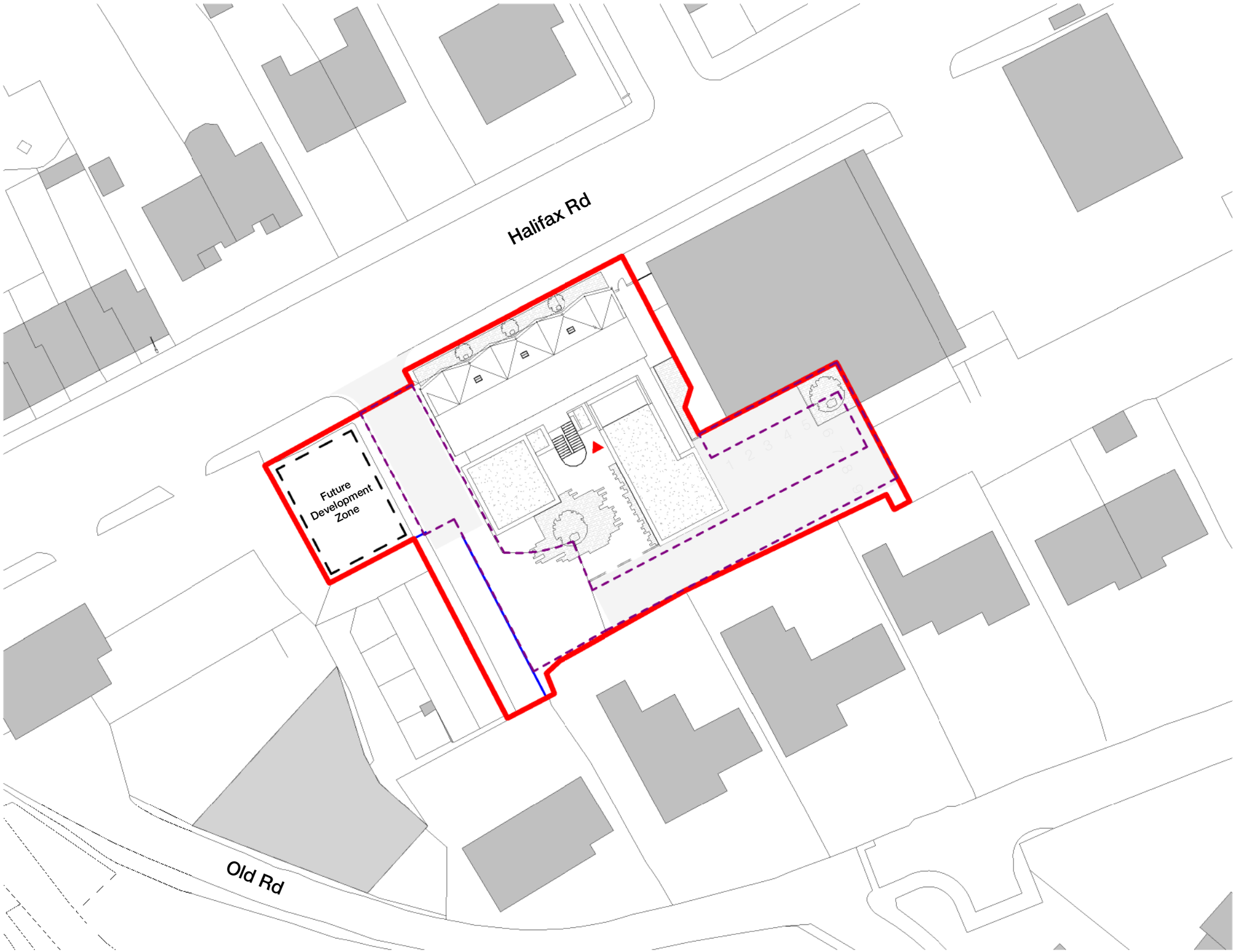
Project
PossAbilities
Wuerdle Street
Halifax Road, Rochdale, OL12 9QD

Drawing
Existing Site Sections

Drawing Number						
Project ID	Originator	Zone	Level	Type	Role	Number
POSWD	- RYD	- ZZ	- ZZ	- DR	- A	- 0102
Project Number		Scale at A2		Status	Revision	
10745-01		As Indicated		S2	P1	

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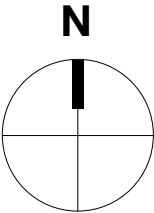
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- Legend:**
- Site boundary
 - Right of way
 - Site ownership

P3	Planning	ALO	FTA	14/09/23
P2	Revised Layout	ALO	HPU	18/07/23
P1	Revised Layout	ALO	HPU	05/06/23

Rev	Description	Drawn	Checked	Date
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Suitability

Information

Project

PossAbilities
Wuerdle Street
Halifax Road, Rochdale, OL12 9QD

Drawing

Proposed Site Plan

Drawing Number

Project ID Origin Zone Level Type Role Number
POSWD - RYD - ZZ - 00 - DR - A - 1000

Project Number	Scale at A3	Status	Revision
10745:01	As	S2	P3



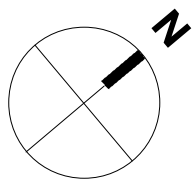
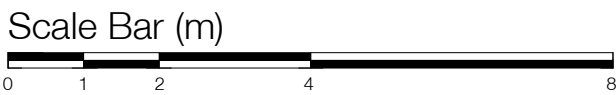
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Legend:
Site boundary
Right of way
Site ownership

Key
1 Planting with columnar trees along road
2 Native Shrub Planting
3 Entrance Plaza
4 Ornamental Planting with Feature Tree
5 Resident Courtyard
6 Native Shrub Planting

P4	Planning	ALO	FTA	14/09/23
P3	Internal draft	LVI	ALO	15/08/23
P2	Revised Layout	ALO	HRU	18/07/23
P1	Revised Layout	ALO	HRU	05/05/23

Rev	Description	Drawn	Checked	Date
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Suitability
Information

Project
PossAbilities
Wuerdle Street
Halifax Road, Rochdale, OL12 9QD

Drawing
Proposed GA Plan Level 00

Drawing Number	Project ID	Originator	Zone	Level	Type	Role	Number
POSWD	- RYD	- ZZ	- 00	- DR	- A	- 3000	
Project Number	Scale at A1	Status	Revision				
10745-01	As Indicated	S2	P4				

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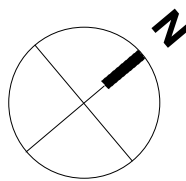
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Scale Bar (m)



Legend:
Site boundary
Right of way
Site ownership



P4	Planning	ALO	FTA	14/09/23
P3	Internal draft	LVI	ALO	15/08/23
P2	Revised Layout	ALO	HRU	18/07/23
P1	Revised Layout	ALO	HRU	05/05/23

Rev	Description	Drawn	Checked	Date
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Suitability
Information

Project
PossAbilities
Wuerdle Street
Halifax Road, Rochdale, OL12 9QD

Drawing
Proposed GA Plan Level 01

Drawing Number	Originator	Zone	Level	Type	Role	Number
Project ID	- RYD	- ZZ	- 01	- DR	- A	- 3001
Project Number	10745-01	As	Status	S2	Revision	P4

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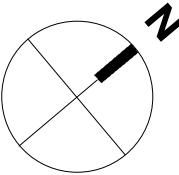
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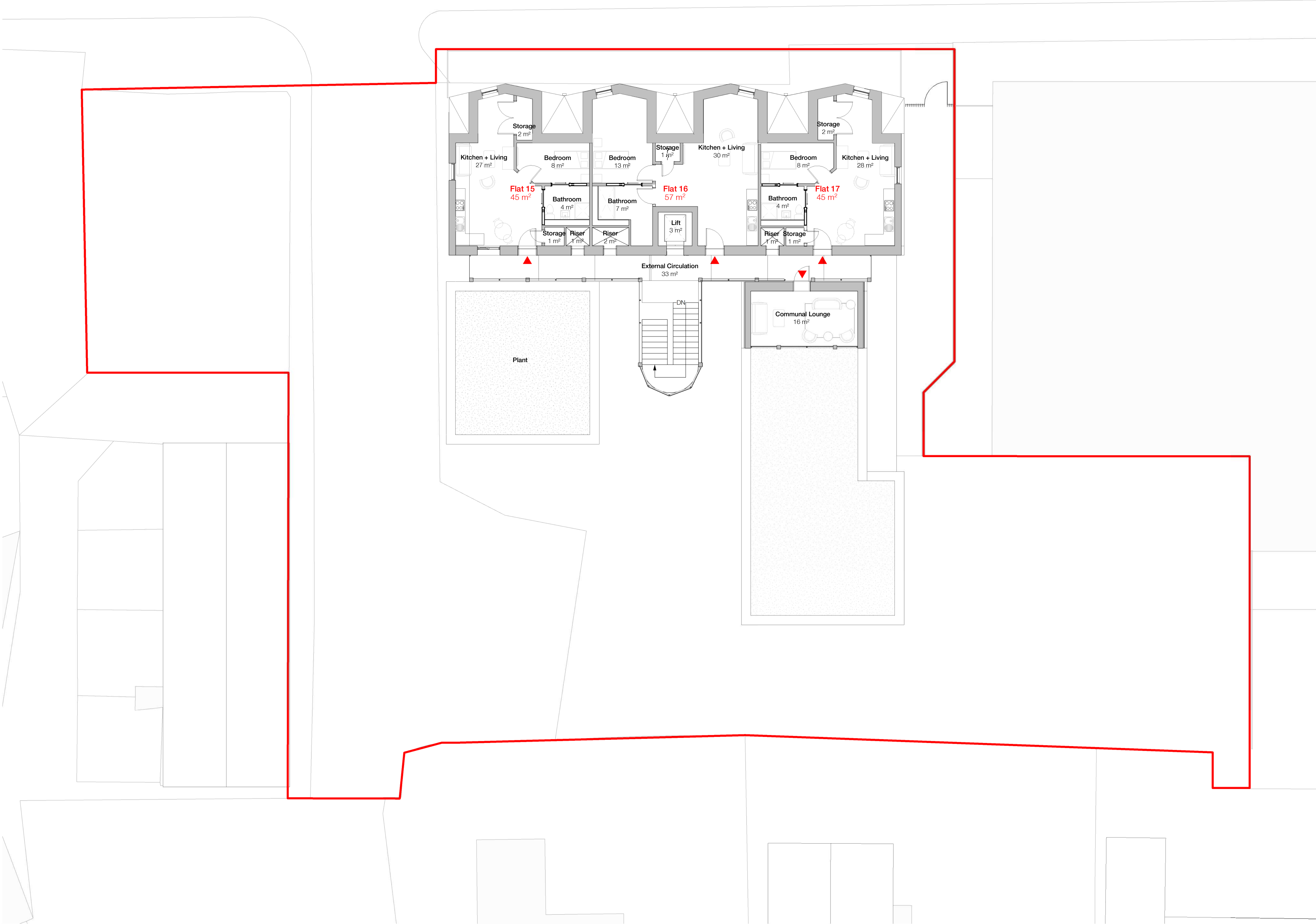
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Scale Bar (m)



Legend:
Site boundary
Right of way
Site ownership



P4	Planning	ALO	FTA	14/09/23
P3	Internal draft	LVI	ALO	15/08/23
P2	Revised Layout	ALO	HRU	18/07/23
P1	Revised Layout	ALO	HRU	05/05/23

Rev	Description	Drawn	Checked	Date
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Suitability
Information

Project
PossAbilities
Wuerdle Street
Halifax Road, Rochdale, OL12 9QD

Drawing
Proposed GA Plan Level 02

Drawing Number	Project ID	Originator	Zone	Level	Type	Role	Number
POSWD	- RYD	- ZZ	- 02	- DR	- A	- 3002	
Project Number	Scale at A1	Status	Revision				
10745-01	As Indicated	S2	P4				

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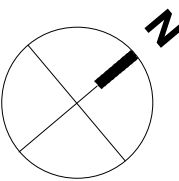
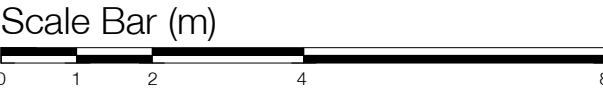
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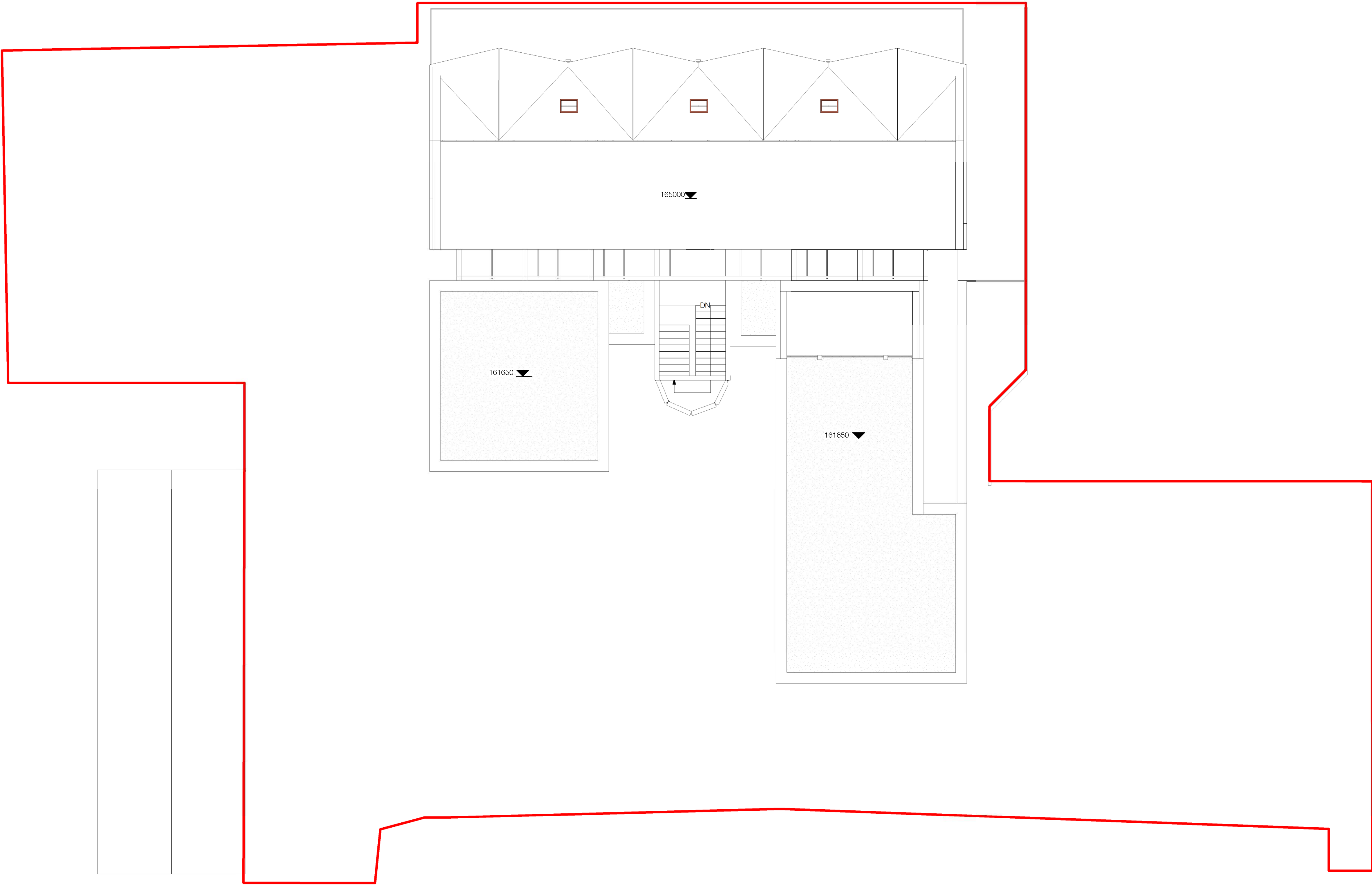
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Legend:

- Site boundary
- Right of way



P2	Planning	ALO	FTA	14/09/23
P1	Revised Layout	ALO	HRU	05/05/23

Rev	Description	Drawn	Checked	Date
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Suitability
Information

Project
PossAbilities
Vuerdle Street
Halifax Road, Rochdale, OL12 9QD

Drawing
Proposed GA Plan Roof Level

Drawing Number	Project ID	Originator	Zone	Level	Type	Role	Number
POSWD	- RYD	- ZZ	- 02	- DR	- A	- 3003	
Project Number	Scale at A1	Status	Revision				
10745-01	1 : 100	S2	P2				

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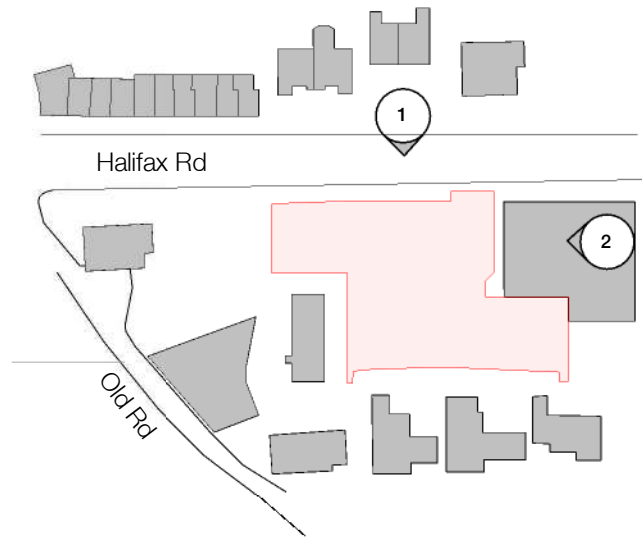
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Key Plan:



Key

- 1 Red Brick
- 2 Dark Grey Roof Slate
- 3 Grey Fixed Window
- 4 Red Metal Downpipe
- 5 Grey Casement Window
- 6 Grey Window with Solid Panel
- 7 Red Metal Circulation
- 8 Perforated Metal Facade
- 9 Grey Brick
- 10 Bronze Casement Window



1 Proposed North Elevation
1:100



2 Proposed East Elevation
1:100

P4	Planning	ALO	FTA	14/09/23
P3	Internal draft	LVI	ALO	15/08/23
P2	Revised Layout	ALO	HRU	18/07/23
P1	First Issue	ALO	HRU	04/05/23

Rev	Description	Drawn	Checked	Date
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Subsidiary Information

Project
PossAbilities
Wuerdle Street
Halifax Road, Rochdale, OL12 9QD

Drawing
Proposed GA Elevations

Drawing Number	Originator	Zone	Level	Type	Role	Number
Project ID	- RYD	- ZZ	- ZZ	- DR	- A	- 3601
Project Number	10745-01	As Indicated	S2	Status	Revision	P4

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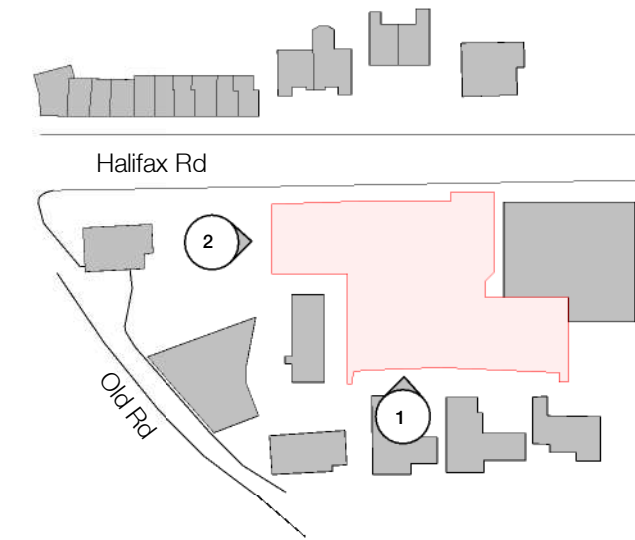
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Key Plan:



- 1 Red Brick
- 2 Dark Grey Roof Slate
- 3 Grey Fixed Window
- 4 Red Metal Downpipe
- 5 Grey Casement Window
- 6 Grey Window with Solid Panel
- 7 Red Metal Circulation
- 8 Perforated Metal Facade
- 9 Grey Brick
- 10 Bronze Casement Window



1 Proposed South Elevation

1 : 100



2 Proposed West Elevation

1 : 100

P4	Planning	ALO	FTA	14/09/23
P3	Internal draft	LVI	ALO	15/08/23
P2	Revised Layout	ALO	HRU	18/07/23
P1	First Issue	ALO	HRU	04/05/23

Rev	Description	Drawn	Checked	Date
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Suitability Information

Project PossAbilities
Wuerdle Street
Halifax Road, Rochdale, OL12 9QD

Drawing Proposed GA Elevations

Drawing Number	Project ID	Originator	Zone	Level	Type	Role	Number
POSWD	- RYD	- ZZ	- ZZ	- DR	- A	-	3602
Project Number	Scale at A1	Status	Revision				
10745-01	As Indicated	S2	P4				

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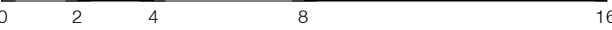
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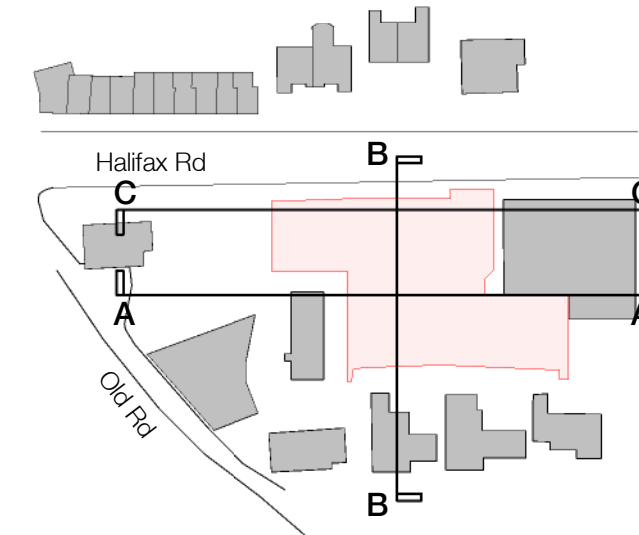
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Scale Bar (m)



Key Plan:



3 Proposed Section C-C

1:200



2 Proposed Section B-B

1:200



1 Proposed Section A-A

1:200

P2	Planning	ALO	FTA	14/09/23
P1	Topography	ALO	HRU	27/04/23

Rev	Description	Drawn	Checked	Date
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Suitability
Information

Project
PossAbilities
Wuerdle Street
Halifax Road, Rochdale, OL12 9QD

Drawing
Proposed GA Sections

Drawing Number						
Project ID	Originator	Zone	Level	Type	Role	Number
POSWD	- RYD	- ZZ	- ZZ	- DR	- A	- 3800
Project Number		Scale at A2		Status	Revision	
10745-01		As indicated		S2	P2	

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Arboricultural Report

**ARBORICULTURAL REPORT
AND
ARBORICULTURAL IMPACT ASSESSMENT
to BS 5837:2012
at
Weurdle Street
Rochdale
Lancashire
OL16 2SQ**

Client:
PossAbilities CIC

Client Address:
Cherwell Wellbeing Hub
Heywood
Lancashire
OL10 4SY

JCA Ref:
21186/AJB

JCA Limited
Arboricultural & Ecological Consultants

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1.2 Terms of Reference	3
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1. Introduction

1.1 Purpose of the Report

- 1.1.1 JCA Limited has been instructed by **PossAbilities CIC** to survey the trees at **Weurdle Street, Rochdale**, and prepare the findings in a report.
- 1.1.2 This report provides detailed, independent, arboricultural advice on the trees in the context of potential development, conducted in accordance with the guidelines contained within BS5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*' (BS5837:2012).
- 1.1.3 This report will categorise the trees in accordance with the British Standard, which will help guide the design of potential development in terms of constraints and opportunities related to trees and provide details of which trees should be retained and which could be removed.
- 1.1.4 The specific design of the proposed development has been considered within the Arboricultural Impact Assessment in **Section 4** and is detailed on the Arboricultural Implications Plan at **Appendix 6**.

1.2 Terms of Reference

- 1.2.1 For this purpose, a topographical survey (**Ref: 23181-23-01-Topographical**) has been supplied, which forms the basis for the Tree Constraints Plan at **Appendix 5**. The topographical survey, along with all other documents supplied to JCA, is assumed to be correct. No checking of such documents will be undertaken and JCA cannot be held responsible for incorrect data supplied by other parties.

1.3 Tree Survey Details and Methodology

- 1.3.1 The survey took place during August 2023 and was conducted by **Andrew Bussey LANTRA Accredited PTI**.
- 1.3.2 During this survey, all trees were inspected from ground level. Further investigations, such as a climbed inspection or a decay detection survey, have not been undertaken.
- 1.3.3 Only those trees within the site boundary with a stem diameter above 75mm have been included. Where applicable, trees outside the site boundary, but close enough to be affected by a proposed development, are also included.
- 1.3.4 Tree data was collected in accordance with **Section 4.4** and **Section 4.5** of BS5837: 2012. Full details of all trees surveyed are recorded in the tables at **Appendix 1** which can be cross referenced with the Tree Constraints Plan at **Appendix 5**. A full explanation of the tables can be found at **Appendix 2**.
- 1.3.5 Measurements were obtained using clinometers, specialist tapes or electronic

distometers. Where this was not possible, due to restricted access or other mitigating circumstances, measurements were estimated to the best ability of the surveyor. Where measurements have been estimated, these are clearly highlighted at **Appendix 1** with a ‘#’ symbol.

2. Status of the Trees

- 2.1 A check was made with **Rochdale Borough Council** in July 2023 to determine whether any of the trees surveyed as part of this report are subject to any statutory controls.
- 2.2 We are informed that no trees within our survey are subject to any Tree Preservation Orders (TPO) and the site is not located within a Conservation Area.
- 2.3 However, prior to any works being undertaken to trees, those instructing and proposing to carry out the work should satisfy themselves that all appropriate consents are in place to prevent potential breach of legislation.

3. Tree Survey Details

3.1 Tree Retention Categories

3.1.1 Below is a summary of the surveyed vegetation with retention categories identified in accordance with BS5837: 2012. For a full explanation of the retention categories, please refer to **Appendix 2 (Section A2.3)**.

Retention Categories of the Surveyed Vegetation					
Retention Category	Trees	Groups	Hedges	Woodlands	Totals
A	0	0	0	0	0
B	1	0	0	0	1
C	3	0	1	0	4
U	0	0	0	0	0
Totals	4	0	1	0	5

3.1.2 As a general rule, those trees listed as retention category ‘A’ or retention category ‘B’ are the most valuable items of vegetation and as such the removal of these is likely to be met with resistance by the Local Planning Authority (LPA).

3.1.3 Those items listed as retention category ‘C’ are of lesser value and the removal of these is generally less likely to be met with resistance by the LPA.

3.1.4 The above information should guide the design in terms of which trees could be removed and which trees should be retained. However, due to changing attitudes with regards to environmental awareness, it should be noted that all trees are considered to have value. As such, it is advised that as many trees as possible be retained, regardless of their BS5837: 2012 retention category status. The retention of trees is further advised to avoid the need to plant replacement specimens, which are usually required to be planted on a 2:1 or 3:1 ratio, and due to their ecological value, which will be assessed as linear habitat units within Biodiversity Metric 3.1.

3.2 Recommended Work for Arboricultural Reasons

3.2.1 No tree works are required under the current context of the site, however, all trees which are to be retained within the proposed development should be inspected on a regular basis in the interests of risk management. They should have a biennial re-inspection regime, ideally with each inspection being undertaken during a different season, in order to observe any defects, pests and diseases that are only evident at certain times of year.

4. Arboricultural Impact Assessment (AIA)

4.1 Proposed Development

- 4.1.1 The proposed development will consist of the construction of a building comprised of 17 one bedroomed apartments.
- 4.1.2 We have been supplied with **Drawing Ref. POSWD-RYD-ZZ-00-DR-L-Landscape Plan**, which details the proposed development. The tree data has been overlaid onto the proposed designs to create the Arboricultural Implications Plan, which can be found at **Appendix 6**. This provides the basis for which this Arboricultural Impact Assessment has been prepared.
- 4.1.3 All tree works required to accommodate the proposals are detailed in *italics* in the recommendation columns of the tables at **Appendix 1**.

4.2 Tree Removals for Development

- 4.2.1 In order to facilitate the proposed development, it will be necessary to remove **T1**, **T3** and **T4**, each of which are considered to be low value trees that fall into retention category 'C'.

4.3 Pruning for Development

- 4.3.1 **T5** requires crown lifting in order to facilitate vehicular access, as detailed in **Appendix 1**.

4.4 Temporary Protection Measures

4.4.1 The Protective Barrier

- 4.4.1 On this occasion, the retained third-party trees (**H2** and **T5**) are located behind an existing fence which affords them adequate protection, as such, tree protection measures are not required on this occasion.

4.5 Implications for Retained Trees

4.5.1 Works within the RPA

- 4.5.1.1 Where the proposals require work to be undertaken within the RPA of a tree which is to be retained, specialist measures must be adopted during the construction phase to avoid ground compaction and minimise root damage.
- 4.5.1.2 Such areas are highlighted in **blue** on the Arboricultural Implications Plan at **Appendix 6** and are addressed in the following sections.

4.5.2 Demolition

- 4.5.2.1 In this case, no significant demolition activities are required adjacent to retained trees and as such, no mitigation measures are considered necessary.

4.5.3 Access/Construction of Hard Surfacing

- 4.5.3.1 The proposed development entails the construction of hard surfacing within the RPA of **T5**, as shown in blue shade on the plan at **Appendix 6**. In order to prevent foreseeable damage to tree roots, a 'no-dig' method of construction will be utilised.
- 4.5.3.2 The chosen system must be fit for purpose and of suitable construction to dissipate compaction damage to tree roots, allow gaseous diffusion to/from the soil and the percolation of water to the soil surface. This may require the use of specialist materials and sensitive edging systems to prevent damage to tree roots. It is recommended that this surfacing be constructed as an initial phase of construction, in order to afford the maximum protection to tree roots throughout the construction phase.
- 4.5.3.3 Design principles must be confirmed by an appropriately qualified engineer and should be included in an Arboricultural Method Statement.

4.5.4 Construction / Foundation Design

- 4.5.4.1 The footprint of the proposed building does not encroach into the RPA of retained trees. As such no specialist construction or foundation methods are considered necessary for the sole purpose of preventing damage to trees.
- 4.5.4.2 Despite this, specialist foundation designs may still be required for other reasons, and advice should always be sought from a suitably qualified structural expert. The water demand of trees can be an important consideration when determining the appropriate foundation design. Because of this, water demands for the trees identified on this site are included at **Appendix 1**, in accordance with **NHBC Chapter 4.2**, for use by the appointed structural expert.

4.5.5 Utilities

- 4.5.5.1 Details on service routes are not available at this time. Where utilities need to be brought onto the site, these should be routed away from the RPAs of retained trees. Where this is not possible, methodologies on the installation of underground services without damage to tree roots should be considered.
- 4.5.5.2 All service providers should be consulted prior to commencement of works with the aim of minimising the number of service runs on the site. Any foreseeable incursions to RPAs should be communicated to the appointed arboricultural consultant and the LPA at the earliest possible time to prevent breach of planning conditions and damage to retained trees.

4.5.6 Site Facilities

- 4.5.6.1 The site facilities, which typically includes the toilets, storage of materials and parking, must be located away from the trees and outside the RPAs.
- 4.5.6.2 Care should also be taken to prevent soil contamination with chemical spillages, including petrol, diesel and oils.

5. Summary

- 5.1 We are informed that no trees within our survey are subject to any Tree Preservation Orders (TPO) and the site is not located within a Conservation Area.
- 5.2 The proposed development will consist of the construction of a building comprised of 17 one bedroomed apartments.
- 5.3 The arboricultural implications of the development have been considered and discussed in **Section 4**.
- 5.4 **T1, T3 and T4** require removal in order to facilitate the proposed development. These are discussed in **Section 4.2** and detailed on the Arboricultural Implications Plan at **Appendix 6**.
- 5.5 All development work carried out in close proximity to trees must be executed in a manner sympathetic to their needs. Otherwise, the condition of the trees may deteriorate in the months and years following development, leading to a loss of amenity and resulting in potentially hazardous trees. Care must therefore be taken to ensure that the retained trees are suitably protected.
- 5.6 In accordance with **Section 6.1** of **BS 5837: 2012**, the next stage on this site should be the preparation of an **Arboricultural Method Statement (AMS)**, to ensure that all the retained trees survive the development process. An **AMS** details which trees are to be removed, which trees are to be retained and any other tree works which are required to facilitate development. The **AMS** will also advise on temporary protective barriers, temporary ground protection, site supervision, location of services and it will detail specialist construction techniques.
- 5.7 The data gained during the survey provides an indication of the health of the trees. However, it does not enable a comprehensive assessment of their condition over time. Trees are living organisms which are affected by many factors including weather conditions, diseases/disorders, light levels and human activities. Due to this, this report is only valid for a period of 1 year from the date of issuing. Should an update or revision of this report be required outside of this time period, JCA may require a further site visit to ensure that the condition of the trees has not significantly changed. It is advised that the trees are inspected regularly, in the interests of risk management.

Appendices

Tree Ref.	Age Common Name <i>Botanical Name</i>	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 1	Semi-mature Sycamore <i>Acer pseudoplatanus</i>	9	1.5	1.5 n/a	15 & 16	3 3 3	Twin-stemmed at ground level with a balanced crown. Poor union at the stem junction.	No action required. <i>Remove to facilitate the proposed development.</i> n/a	GOOD	FAIR	LOW	MOD	10+	C 1
H 2	Semi to early-mature Cypress <i>Cupressus sp.</i>	To 7	0+	0+ n/a	To 25#	See plan	Situated on adjacent land. An unmaintained hedge. Not fully inspected due to limited access.	No action required. n/a	GOOD	GOOD	LOW	HIGH	20+	C 2
T 3	Early-mature Goat Willow <i>Salix caprea</i>	8	1	1.8 n/a	46	5 6 4.5# 6	Twin-stemmed at 1.5m with a balanced crown. No evidence of significant pruning. No major visible defects.	No action required. <i>Remove to facilitate the proposed development.</i> n/a	GOOD	GOOD	LOW	HIGH	20+	C 1
T 4	Semi-mature Wild Cherry <i>Prunus avium</i>	5	0	2 n/a	11	5 3 1.5# 0	Single-stemmed and leaning with an unbalanced crown. Poor form.	No action required. <i>Remove to facilitate the proposed development.</i> n/a	GOOD	FAIR	LOW	MOD	10+	C 1
T 5	Early-mature Silver Birch <i>Betula pendula</i>	17	1	2 W	40#	6# 7# 6# 6#	Situated on adjacent land. Single-stemmed and vertical with a balanced crown. Not fully inspected due to limited access.	No action required. <i>Crown lift the northern/north-western canopy to 5 metres in order to allow for vehicular access by the removal of secondary branches only.</i> n/a	GOOD	GOOD	MOD	LOW	40+	B 1

Appendix 2: Explanation of Tree Descriptions

A2.1 Measurements/ Reference Information

- A2.1.1 *REF NUMBER*. All items surveyed are allocated a reference number preceded with a letter, identifying the type of vegetation surveyed: T = an individual tree, G = a group of trees or an area of vegetation, W = woodland, H = a hedgerow.
- A2.1.2 *SPECIES: COMMON AND BOTANICAL NAME*. The common and botanical names of the species present are noted. If the species is not clear or identifiable, then a general common name and genus will be noted.
- A2.1.3 *AGE CLASS* of the tree is described as young, semi-mature, early-mature, mature, over-mature, veteran or dead.
- A2.1.4 *HEIGHT* of the tree is measured in metres from the stem base to the top of the crown.
- A2.1.5 *CROWN HEIGHT* is an indication of the height above ground level at which the crown begins.
- A2.1.6 *STEM DIAMETER* is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; diameter measurements are taken for each stem. If more than five stems are present, an average stem diameter is taken. If for whatever reason it is not practical to measure multiple-stemmed trees in this way, the diameter is measured close to ground level, just above the root buttress.
- A2.1.7 *CROWN SPREAD* is measured from the centre of the stem base to the tips of the branches to all four cardinal points.
- A2.1.8 *HEIGHT AND DIRECTION OF LOWEST BRANCH*. The height and direction of the lowest significant branch is noted because of potential issues relating to clearances and the need for tree pruning.
- A2.1.9 *NHBC WATER DEMAND*. The water demand of each tree, as listed in NHBC Standards 2010 Chapter 4.2 'Building near trees'. This is included to aid structural engineers, architects and other members of the design team as it determines foundation depth and other considerations with regard to trees.

A2.2 Evaluations

- A2.2.1 *PHYSIOLOGICAL CONDITION* is classed as good, fair, poor, or dead. This is an indication of the health and vitality of the tree and takes into account vigour, presence of disease and dieback.
- A2.2.2 *STRUCTURAL CONDITION* is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.
- A2.2.3 *LIFE EXPECTANCY* is classed as; 0, less than 10 years, 10+ years, 20+ years, or 40 + years. This is an indication of the minimum number of years before removal of the tree is likely to be required.
- A2.2.4 *AMENITY VALUE*. A general indication is given in respect to the amenity/landscape value of the tree/group within the surrounding area.
- A2.2.5 *PRIORITIES*. A priority rating is given concerning the time periods in which the recommended works should be undertaken. LOW priority works should be undertaken within 12 months of the survey, MOD (moderate) priority works should be undertaken within 6 months and HIGH priority works should be completed as soon as practically possible. If no works are recommended, N/A (not applicable) will be used.

A2.3 Retention Categories

- A2.3.1 *A (marked green on the Tree Constraints Plan) = Trees of high quality.*
- These trees are of high quality and value with a good life expectancy (usually with an estimated remaining life expectancy of 40 years).
- A2.3.2 *B (marked in blue on the Tree Constraints Plan) = Trees of moderate quality.*
- These trees are of moderate quality and value with a reasonable life expectancy (usually with an estimated life expectancy of at least 20 years).
- A2.3.3 *C (marked in grey on the Tree Constraints Plan) = Trees of low quality.*
- These trees are of low quality and value but which are in adequate condition to remain or are young trees with a stem diameter below 15cm (usually with an estimated life expectancy of at least 10 years).
- A2.3.4 Trees categorised as retention category 'A', 'B' or 'C' are then justified by being further divided into 3 subcategories:
- 1 = Mainly arboricultural qualities.
 - 2 = Mainly landscape qualities.
 - 3 = Mainly cultural values, including conservation value.

Appendix 3: General Guidelines

- A3.1 All tree work must be undertaken to BS 3998: 2010 '*Recommendations for tree work*' or other recognised industry practice.
- A3.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors. They should be covered by adequate public liability insurance.
- A3.3 This report is based upon a visual inspection. The consultant shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with the guidelines and the terms listed in this report.
- A3.4 Any defects seen by a contractor or the employer that were not apparent to the consultant must be brought to the consultant's attention immediately.
- A3.5 No liability can be accepted by JCA in respect of the trees unless the recommendations of this report are carried out under the supervision of JCA and within JCA's timescale.
- A3.6 It is advisable to have trees inspected by an arboricultural consultant regularly.

Appendix 4: Author Qualifications

Principal Consultant and Managing Director

Jonathan Cocking *F.R.E.S., Tech. Cert. (Arbor.A), PDipArb (RFS) FArborA CBiol MSB. MICFor.* Jonathan is a Registered Consultant and Fellow of the Arboricultural Association and sits on its Professional Committee. He has 31 years' experience in the Arboricultural profession and served for eight years as Senior Arboriculturist with a large local authority before establishing JCA in 1997. Jonathan has since developed JCA's portfolio of services and its extensive client base. He is a Chartered Biologist, a Chartered Arboriculturalist and an Expert Witness with much experience of litigation work.

Technical Director

Toby Thwaites *BSc (Hons), HND (Arboriculture), MArborA.* Toby joined JCA in 1998 after graduating in Ecology at the University of Huddersfield and has since graduated in Arboriculture at the University of Central Lancashire. A former JCA team leader and Consulting Arboriculturist, Toby is now Technical Director and oversees all office and on-site activities at JCA and is on hand to offer technical support and advice.

Operations Director

Charles Cocking *FdSc (Arboriculture), MArborA.* Charles joined JCA in January 2014 having previously worked for the company on a part time basis during 2013. Charles obtained his Foundation Degree in Arboriculture at Askham Bryan College, York, and is a Professional Member of the Arboricultural Association. Charles now oversees all internal operations for the company.

Consulting Staff: Arboriculture

Andrew Bussey. Andrew started working in consultancy at JCA in 2006 having spent 12 years working as an arborist for various private companies before joining a Local Authority forestry team. He has various NPTC qualifications, is QTRA qualified and is a LANTRA Accredited Professional Tree Inspector.

Emily Wilde *FdSc (Arboriculture).* Emily joined JCA having previously worked for various private tree surgery and consultancy companies over the past 8 years. She initially obtained a ND in Forestry & Arboriculture, followed by a FdSc in Arboriculture at Askham Bryan College, York. Emily has various NPTC certificates and is QTRA qualified.

Mick Eltringham *ND (Forestry).* Mick joined JCA after spending 12 years working in the industry for various private companies in the north and south of England. He has also spent the last five years working as a consultant for two canopy research projects in the Amazon Rainforest, working with Oxford University and the University of Arizona. He has various NPTC Qualifications.

Dan Kemp *FdSc (Arboriculture).* Dan joined JCA with nearly 30 years' experience in arboriculture. He worked as a London Tree Officer for 12 years and in several arboricultural and horticultural management posts, specialising particularly in tree risk assessments and tree related subsidence.

Luke Wickham *FdSc (Arboriculture and Urban Forestry).* Luke joined JCA in 2021 after obtaining his Foundation Degree in Arboriculture and Urban Forestry at Askham Bryan College. Having previously worked within the industry for the past 4 years, running his own small business and sub-contracting for local firms, Luke brings a sound knowledge and understanding of the practical and academic sides of the industry.

Andrew McPhaden *BSc (Hons) TechArborA.* Andrew joined JCA in 2022 having spent 5 years working as an Arborist for various private companies in both the UK and Germany. During his time abroad he obtained the European Tree Worker Certification along with a tree inspector certification from the Forschungsgesellschaft Landschaftsentwicklung Landschaftsbau. He brings a strong understanding of the practical sides of the industry and holds various NPTC qualifications.

Consulting Staff: Ecology

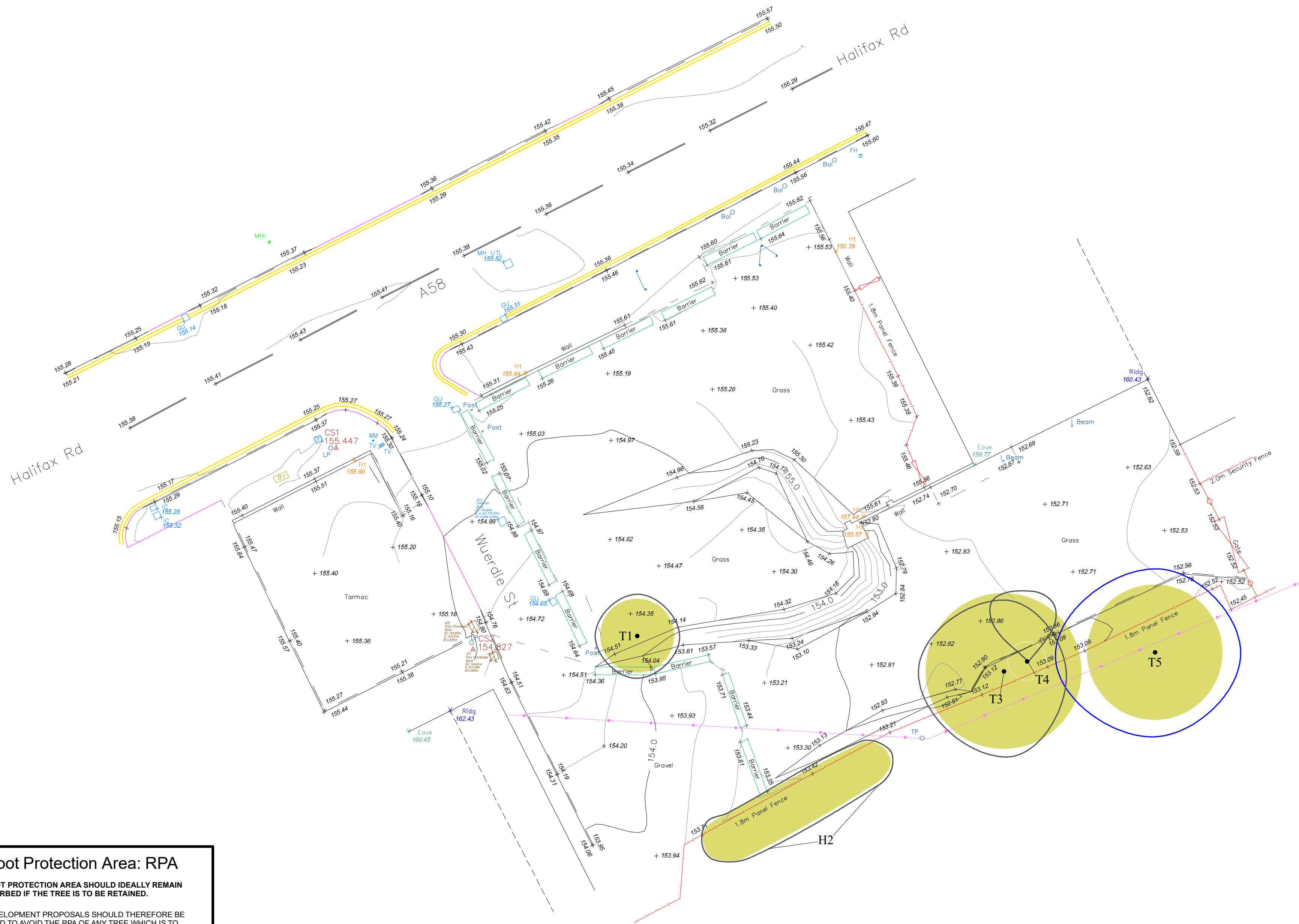
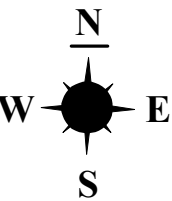
Adam West, Principal Ecologist *BSc (Hons) Animal and Wildlife Management*. Adam joined JCA to lead the expanding ecology department. Having returned to education as a mature student, Adam studied Countryside Management for two years before undertaking a Bachelor's degree, for which he was awarded First Class Honours. Adam has many years' experience in ecological consultancy, working on projects ranging from individual planning applications to national infrastructure projects. Adam holds a Natural England Level 1 great crested newt survey class licence, a Natural England Level 2 bat survey class licence (and the Scottish and Welsh equivalents) and a CSCS card.

James Foster, Assistant Ecologist *BSc (Hons) Biology*. James gained his undergraduate degree in biology in 2012 from University of Leeds. James has plenty of experience in ecology, having worked countless projects of different scales all over the north and midlands. James has 9 years of experience surveying anything from reptiles to hedgerows and holds a Great crested newt licence level 1 and is working towards his bat licence and barn owl licence.

Administrative Staff

Catherine Cocking Accounts Manager.
Kelly Saunders Accounts Assistant.

Lorraine Spink Administrative Assistant.
Lisa Beedham Marketing Manager.



Root Protection Area: RPA

THE ROOT PROTECTION AREA SHOULD IDEALLY REMAIN UNDISTURBED IF THE TREE IS TO BE RETAINED.

THE DEVELOPMENT PROPOSALS SHOULD THEREFORE BE DESIGNED TO AVOID THE RPA OF ANY TREE WHICH IS TO BE RETAINED.

IF IT IS NECESSARY FOR THE DEVELOPMENT TO ENCOACH INTO THE RPA OF A TREE WHICH IS TO BE RETAINED THEN SPECIALIST CONSTRUCTION TECHNIQUES AND MATERIALS MUST BE CONSIDERED.

THIS PLAN IS TO BE PRINTED IN COLOUR
AND READ IN CONJUNCTION WITH THE
JCA ARBORICULTURAL REPORT
(JCA REF: 21186/AJB)

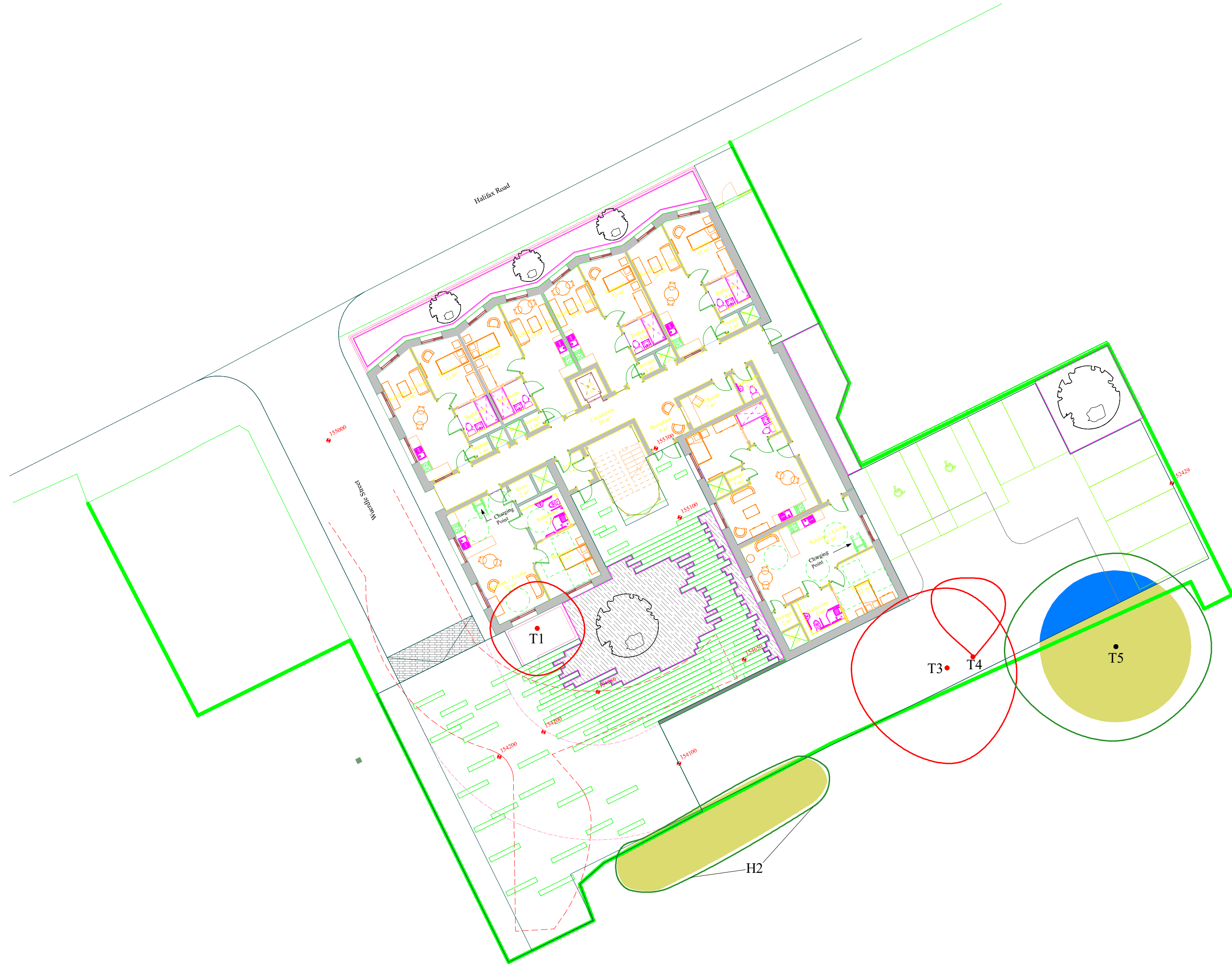
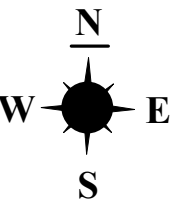
Appendix 5: Tree Constraints Plan

ADDRESS: Weurde Street, Rochdale,
Lancashire, OL16 2SQ.
JCA REF: 21186/AJB

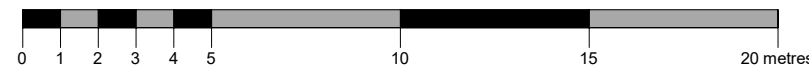
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BRITISH STANDARD 5837:2012: 4.5 RETENTION CATEGORIES	
Detailed definitions of these categories are at Appendix 2 of our report. N.B. These categories do not necessarily represent or correspond to recommendations for action made in this report.	
	CATEGORY A: 'RETENTION MOST DESIRABLE'
	CATEGORY B: 'RETENTION DESIRABLE'
	CATEGORY C: 'TREE WHICH COULD BE RETAINED'
	CATEGORY U: 'TREE FOR REMOVAL'
	STEM OF TREE TO BE RETAINED
	STEM OF TREE TO BE REMOVED
	ROOT PROTECTION AREA

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Appendix 6: Arboricultural Implications Plan

ADDRESS: Weurdle Street, Rochdale,
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JCA REF: 21186/AJB

SCALE : 1:200

PAPER SIZE : A2

	TREE TO BE RETAINED
	TREE TO BE REMOVED
	STEM OF TREE TO BE RETAINED
	STEM OF TREE TO BE REMOVED
	ROOT PROTECTION AREA
	ROOT PROTECTION AREA ENCROACHED BY THE PROPOSED HARD STANDING WHERE THE NO-DIG METHOD OF CONSTRUCTION MUST BE UTILISED

JCA Limited
Arboricultural & Ecological Consultants

I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed



.....

Andrew Bussey *LANTRA Accredited PTI.*

4th September 2023

For and on behalf of **JCA Ltd**

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- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

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- Great Crested Newt eDNA Sampling
- Protected Species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)

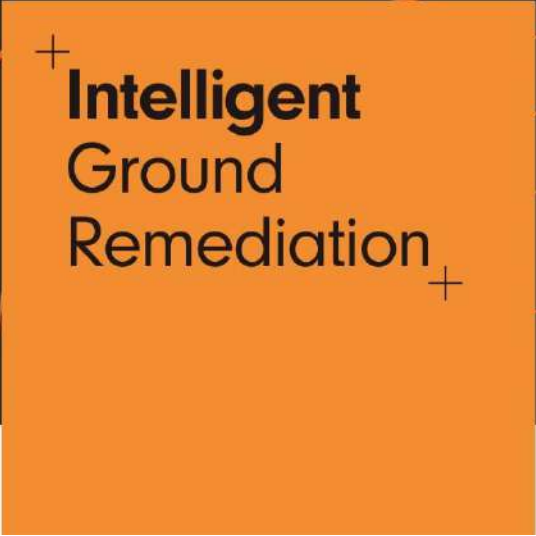
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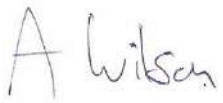
02 May 2023
Report ref. 23/1382.1.1



Report ref. 23/1382.1.1

Revision log

Issue No.	Date	Description
01	02 May 2023	Issue to client for review

Report Prepared By	Signature	Date
Ben Wilson Project Manager		02 May 2023
Report Reviewed By	Signature	Date
Adam Wilson Technical Director		02 May 2023

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- Appendix E – Environmental Testing Results

Appendix F – Risk Assessment Terminology

1.0 Introduction

Geo² Remediation Limited were commissioned by PossAbilities CIC to conduct a Phase I Preliminary Risk Assessment and Phase II Intrusive Investigation of a site known as:

Wuerdle Street,

Rochdale,
OL16 2SQ.

The site is approximately 0.16 hectares in area and located at grid reference 392080, 415260.

The study was undertaken prior to the proposed redevelopment of the site for residential properties, with the existing structures already demolished to ground level.

1.1 Scope of Works

The assessment has been undertaken in accordance with the Environment Agency Guidance, Land Contamination Risk Management, consisting of a desk-study and preliminary risk assessment followed by an intrusive sub-surface ground investigation and generic quantitative risk assessment, conducted in order to establish the presence and extent of sub-surface contaminants, if any, resulting from the site's current and historic land use.

The intrusive investigation was conducted on 22nd March 2023. The investigation was undertaken in accordance with Geo²'s Method Statement SMS SI 1382. The findings of the investigation are presented herein.

An historic investigation of a parcel of land which included this site was undertaken in 2005 by Geo2 (Environmental Site Assessment – Former Filling Station and Citroen Dealership, Wuerdle Street, Rochdale, March 2005, 05/0057). This was followed by validation of fuel infrastructure removal, also undertaken by Geo² in 2007.

A summary of the works undertaken at the site is presented in Section 2.4 of this report.

2.0 Description of the Site and Surroundings

2.1 Site Description

The site is located in the town of Rochdale and is located approximately 2.5km north-east of the town centre. Figures 1 and 2 in Appendix A show the location of the site.

The site is currently soft ground in the centre and east of the site which is 'terraced' with the land dropping steeply to the south. To the west is an area of hard standing currently used to park residents' cars. A hard standing access road is present along the southern boundary which is likely associated with historic site activities. Wuerdle Street dissects the site through the centre in a north-south direction and is not part of the site and will not be discussed further in this report.

The area shown within the site boundary on Figure A below, will be referred to throughout this document as 'the site'.

The site is accessed from Halifax Road to the north.

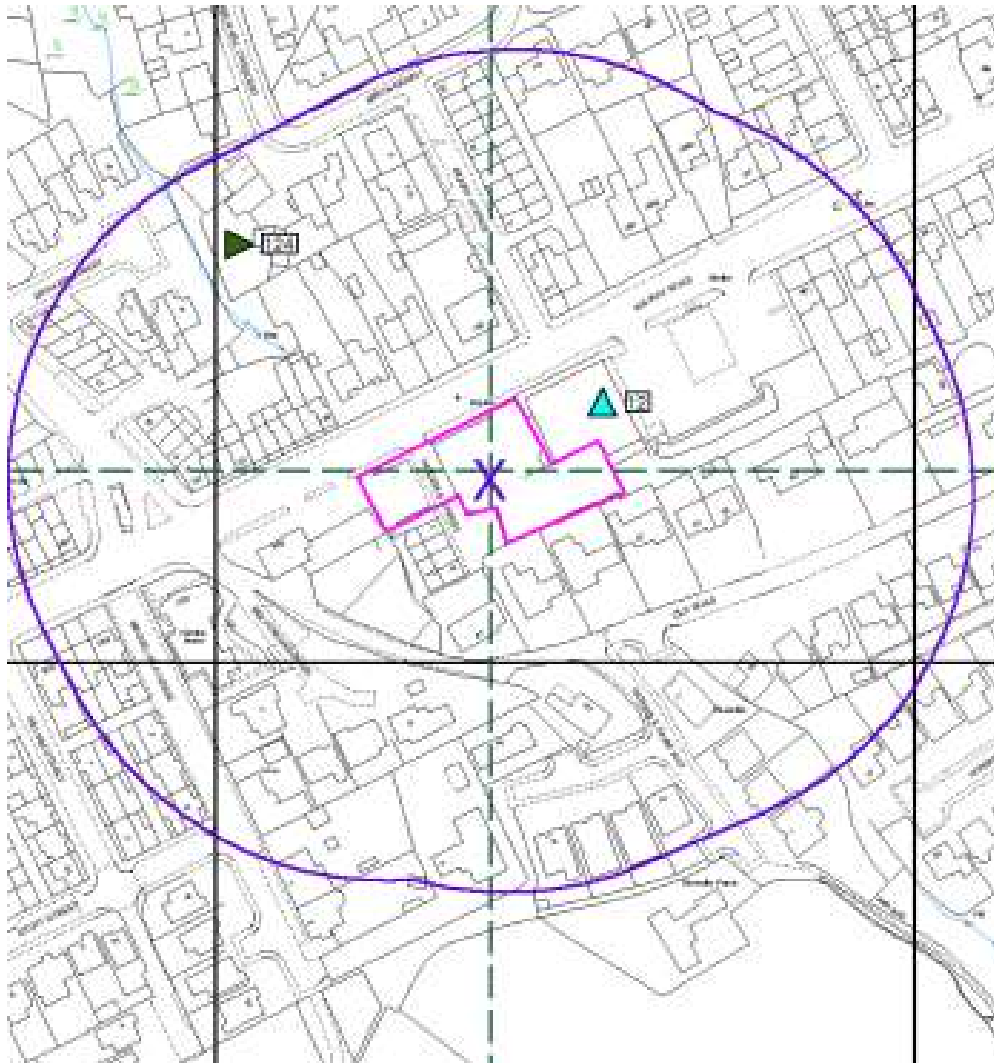


Figure A: Site Location Plan. Pink is approximate site boundary and purple is a 100m buffer.

2.2 Site Surroundings

The site is located in the town of Rochdale, Lancashire. The nearest residential properties are directly south and west of the site. The surrounding land uses of the site are summarised in Table 1 below.

Direction	Land Use
North	Halifax Road with residential properties beyond.
East	Petrol Filling Station (PFS).
South	Residential Properties
West	Residential and commercial properties.

Table 1. Land Uses in the Surrounding Area.

2.3 Site Infrastructure

2.3.1 Surfacing and Drainage.

The central and eastern area is grassed and is also terraced with the land falling to the south of the site. Along the southern boundary is a hardstanding access road likely associated with historic site activities. An area of hardstanding is located in the west of the site.

No drainage infrastructure remains on the site other than that associated with Wuerdle Street.

2.3.2 Fuel Storage Infrastructure

Fuel tanks and associated infrastructure have been removed from site and no existing infrastructure remains, see section 2.4.

2.4 Previous Site Works

A site overview letter report detailing the works undertaken (ref: Mount Green Garage, Halifax Road, Rochdale, OL16 2SQ, Geo² ref: 20.0079.1.1 (undertaken for the current property owners). Geo² considered that the site is Low Risk from the findings of the report and the work that was undertaken. Table 2, overleaf, summarises the reports made available detailing previous environmental investigation and remediation work and is taken from the letter report.

Date	Report	Summary
Dec 2005	Environmental Site Assessment	A Site Investigation was undertaken, prior to purchase of the site. At the time of investigation, the site comprised a car dealership and maintenance garage, with a derelict PFS and parking area. The investigation identified potentially significant contamination around USTs and the former PFS forecourt. It was concluded that no risk was likely to future commercial users of the site, but contamination was at concentrations which may pose a risk to future residential site users.
Aug 2006	Quantitative Risk Assessment (QRA)	A QRA was undertaken, in support of a planning application for redevelopment of the site as mixed Commercial and Residential. Previous investigations had identified hydrocarbon impact beneath the forecourt and surrounding USTs. The QRA indicated that based on Site Specific Target Levels, only the residual contamination around the USTs posed a risk to future residential users of the site. Recommendations were to remove the USTs, chase out gross soil contamination and dewater any impacted groundwater in excavations. It was also recommended that all future buildings on site should be fitted with vapour membranes.
Oct 2006	Remediation Strategy	This document outlined how the recommendations from the QRA should be implemented on site during the proposed redevelopment.
May 2007	Validation Letter	Produced following decommissioning and removal of two tanks farms at the site prior to redevelopment. The tank excavations were validated with samples submitted for laboratory testing. No dewatering was required due to slow ingress of groundwater and vapour membranes were fitted in buildings. This report concluded that no residual risk remains from residual contamination.

Table 2. Summary of works undertaken at the site.

2.5 Proposed Development

The site is proposed to be redeveloped as apartments for assisted living. However, no plans were made available at the time of this report and it is unknown as to whether there will be landscaped areas as part of the redevelopment.

3.0 Desk Study

3.1 Desk Study Data

Information regarding the environmental setting of the site was obtained from the Envirocheck report, which collated information from a variety of sources. A copy of the Envirocheck report is presented in Appendix C.

Where indicated in Tables 3 and 4 the data from the Envirocheck report has been supplemented with additional information obtained from freely available online data.

Site Geology	Superficial deposits are indicated to comprise the Till, Devensian – Diamicton. BGS data indicates bedrock consists of Milnrow Sandstone Formation. There are ten BGS Recorded Mineral Site within 1,000m of the site. The nearest is located 315m north-east and concerned opencast mining of sandstone, however operations are now ceased. The site has no to very low hazard regarding the potential for ground stability hazards including collapsible ground, compressible ground, ground dissolution, landslide, running sand and shrinking and swelling clays.
Coal	The site is within an area which may be affected by coal mining activity. A coal mining report was obtained and is summarised below: - No past mining has been recorded at the site, - There are no mine entries within 100m of the site, - No mine gas has been recorded within 500m of the site, - There has been no damage to properties within 50m of the site with respect to mining activities, - No future mining in the area has been planned. The coal mining report is presented in Appendix C and was obtained as part of the Envirocheck Report.
Radon	The site is in a low probability radon area (less than 1% of homes are estimated to be at or above the Action Level). As such, no radon protective measures are necessary in the construction of new dwellings or extensions.
Site Hydrogeology	The superficial deposits are classed as a Secondary Undifferentiated Aquifer - defined where it is not possible to apply either a Secondary A or B definition because of the variable characteristics of the rock type. The bedrock deposits are classed as a Secondary A Aquifer - permeable layers that can support local water supplies, and may form an important source of base flow to rivers. The site is not located within a Source Protection Zone (SPZ) and there are no groundwater abstraction points within 1km.

Table 3. Environmental Assessment of the Site.

Site Hydrology	The nearest surface water feature is an unnamed drain located 41m north-west, of the site. The nearest discharge consent is located 164m east relating to sewage discharge which enter the River Roch. The nearest pollution incident to the site was 149m west of the site in 1996 and was classified as a Category 3 minor incident. There are no surface water abstraction points within 500m.
Waste and Infilled Land	There is one BGS recorded landfill site located at 757m east of the site, however, no other information is available. There is one historical landfill within 500m, located 436m east of the site. The only data available is that the landfill accepted inert waste. There are no licensed waste management facilities within 500m of the site. There are fourteen records of potentially infilled land (non-water or water) within 500m of the site. The nearest is located 76m north-west of the site.
Unexploded Ordnance	A review of Zetica online risk mapping for the area indicates the site is located in a Low-risk area with respect to unexploded ordnance and no further assessment is considered necessary.

Table 4. Environmental Assessment of the Site.

4.0 Site History

4.1 Review of Historical Mapping

Details regarding the development of the site, its immediate surroundings and potentially contaminative land uses were obtained from a review of historical maps.

Copies of the maps are provided in Appendix C and a brief summary is provided in Table 5 with a more detailed summary provided in Tables 6 and 7.

Key Historical Activities	
On-Site	Earliest mapping shows the site as open land / agricultural land. From 1910 the western part of the site appears to be developed while the central and eastern parts remain undeveloped until the 1930s where a central building is present. The site remains in this configuration until the 1970s. From the 1960s the site is labelled as a 'works'. The site appears to be redeveloped in the late 1970s with a new structure towards the west of the site. This structure is no longer present on maps from the early 1990s as the site appears to have been redeveloped again. Aerial photography from the year 2000 shows the site used as a car sales yard. The previous site investigation by Geo² in 2005 identified that the site was a PFS from approximately 1974. Remedial works involving the removing of fuel infrastructure was completed in 2007, the site was then backfilled with imported stone and the site has remained disused.
Off-Site	Earliest mapping shows the surrounding land as a mix of agricultural land and residential properties. Successive mapping shows the surrounding land becoming more developed to the present day. A summary of works less than 500m away from the site have been identified on historical mapping: - Dearnley oil mills 350m north-east from 1890s to 1930s - Timber works directly south-west of the site in the 1970s - Numerous works and mills approximately 300m north-west 450-500m west and south of the site between 1890s and 1990s

Table 5. Brief Summary of Historical Land Use On-Site and Off-Site.

All distances given in Table 6 and Table 7 below are approximate and are relative to the site, unless otherwise stated.

Date	On-Site	Off-Site	Potential Contamination
1851	The site is part of agricultural / open land.	The surrounding land is a mix of agricultural land, residential properties and industrial works. Mills are located within the surrounding area and the nearest are located approximately 300m north-west 350m west of the site.	N/A
1890 - 1893, 1894	The site remains unchanged.	The surrounding area has become more developed.	N/A

Table 6. Detailed Summary Review of Historical Mapping (1851-1894)

Date	On-Site	Off-Site	Potential Contamination
1910	The site has been developed with structures on the west of the site.	No significant changes.	N/A
1930, 1931 – 1932	The site is now developed with structures in the centre and west of the site.	Dearnley oil mills are now shown on historical maps approximately 300m north-east of the site. The surrounding land has been further developed.	N/A
1937 - 1939	Wuerdle Street can now be seen dissecting the site in a north – south direction. The south-east portion of the site is occupied by a structure that is also shown outside the site boundary.	No significant changes	N/A
1960, 1967 - 1968	The site is shown on maps as a works.	A garage is shown directly east of the site. Dearnley oil mills are no longer shown on maps.	Hydrocarbons associated with the garage east of the site. Potential contamination associated with the works on site.
1973 - 1974, 1978 – 1979	The site layout has changed with the central and south-eastern structures removed.	The surrounding area has become more developed.	Hydrocarbons associated with the PFS on site.
1977 – 1988, 1990	The site has been redeveloped again with a structure in the centre of the site.	No significant changes.	Hydrocarbons associated with the PFS on site.
1992, 1999, 2000, 2006 and 2022	The site has been demolished and no structures exists across the site. Aerial footage from 2000 shows the site was being used as car sales yard.	No significant changes	N/A

Table 7. Detailed Summary Review of Historical Mapping (1910 – Present Day)

5.0 Preliminary Risk Assessment

5.1 Source – Pathway – Receptor

UK legislation and guidance on assessing potentially contaminated land recommends the use of a risk assessment process based on a review of source/pathway/receptor relationships for various environmental media. The first stage of any risk assessment is to identify, using the desk study data and site information, the presence and extent of any hazard at the site, theoretical or demonstrable.

A key component of the overall risk assessment process is identification of “significant contaminant linkages” between contaminants and receptors. This can be accomplished through development of a site-specific conceptual model in which the potential contaminants, pathways and receptors identified on-site are described.

Each element can be defined as follows:

- **Contaminant source:** A substance either on or under the land and which has the potential to cause harm or pollution to human or environmental receptors.
- **Pathway:** A route or means by which a receptor can be exposed to or affected by a source.
- **Receptor:** A living organism or an ecological system, or controlled water, or property including buildings, crops and livestock.

The presence of all three of the above elements identifies a contaminant linkage and a potentially unacceptable risk. To ensure that any risk present to, or, from the site can be appropriately managed each of these contamination linkages will be targeted by the investigation.

5.2 Hazard Identification

Potentially contaminative on-site activities relate to the development of the site by the 1930s and known use of the site as a works from the 1960s and as a PFS from the 1970s.

Imported material to backfill excavations and bring the site back to the necessary levels may contain contaminants that may pose a risk to future site users. Laboratory analysis was not undertaken on the imported material post validation work in 2007 and residual contamination may be present following demolition of the site.

Due to the age of the buildings that were on, there is the potential that asbestos materials were used in the construction of the buildings, leading to a potential for asbestos in shallow Made Ground soils, particularly in the central area where buildings were located.

The adjacent garage and PFS from the 1960s may potentially act as a source of contamination that could migrate to the site.

5.3 Initial Conceptual Site Model

All contamination linkages arising as a result of the interconnection of the contaminant source, contamination pathways and potential receptors are summarised in Table 8 on the following page. These contamination linkages are used to design the site investigation, guiding the type of investigation, location of exploratory boreholes and the required sample analysis.

Linkage No.	Source	Pathway	Receptor
1	Historical site use as a works and PFS from the 1970s to 1990s. No asbestos register has been obtained; the demolition of the site buildings on the site makes it possible that asbestos fibres may be present in shallow soils. Potential contamination associated with the imported material to bring the site back to the necessary levels following infrastructure removal.	Leaching to groundwater, lateral and vertical flow, followed by migration within the aquifer	An unnamed drain 41m north - west of the site.
2			Superficial deposits – Secondary Undifferentiated Aquifer Bedrock – Secondary A Aquifer No SPZ or abstraction points within 1km
3		Exposure to harmful vapours, hazardous ground gas and tainting of water supply	Proposed residential users of the site.
4			Neighbouring site users directly to the west and south of the site.
5		Direct contact, ingestion and inhalation of asbestos fibres	Proposed residential site end users, principally within any landscaped areas.
6	Adjacent PFS to the east of the site may potentially act as a source of significant contamination that could migrate on to site.	Exposure to harmful vapours, hazardous ground gas and tainting of water supply	Proposed residential site end users.

Table 8. Identified Initial Contamination Linkages

6.0 Site Investigation

In order to provide an assessment of each of the identified contamination linkages, an intrusive investigation was specified to obtain further information regarding the geology of the site and the quality of the soils and groundwater.

6.1 Site Investigation

Seven soil bores (WS01 - 07) were constructed on 22nd March 2023 to depths of up to 3.60m below ground level (m bgl) at locations presented in Appendix A. The soil bores were constructed using window sampling techniques. As a result of the drilling techniques, relatively undisturbed soils were able to be obtained for field and laboratory analysis and for logging of ground conditions. Field analysis comprised the examination of each of the samples for visual and olfactory indications of contamination. Analysis was also conducted for volatile hydrocarbons using a photo-ionisation detector (PID).

The site investigation was limited by the existence of buried services and difficult ground conditions. Borehole positions were chosen strategically so to target areas of the site most likely to be contaminated and to get a good spread across the site. Table 9 below, shows the location rationale of boreholes.

Target / Rational for Investigative Locations	Location						
	WS01	WS02A	WS03	WS04	WS05	WS06	WS07
General Site Coverage	✓	✓	✓	✓	✓	✓	✓
Historic PFS	✓	✓	✓	✓		✓	
Historic Interceptor	✓					✓	
Imported Material	✓	✓	✓	✓		✓	

Table 9. Borehole Location Rationale

6.2 Ground Conditions

The logs of the boreholes, which are presented in Appendix D, detail the ground conditions and the sampling depths together with the visual and olfactory characteristics of the soils.

Ground conditions encountered across the site comprised concrete/tarmac hardstanding in the land west of Wuerdle street and to the south of the site over made ground. In the central part of the site where the historical PFS was grass covered land was present above made ground.

Made ground generally comprised a layer of clayey sandy gravels or clayey sand which were underlain by firm grey gravelly clay including brick to a maximum of 2.8m bgl. The layer of gravels occasional obtained cobbles which were identified in WS02 in the north-east corner of the site, WS05 in the south of the site and WS07 to the west of Wuerdle Street.

Superficial deposits comprised firm to stiff grey, brown gravelly clay. This was proven to a maximum depth of 3.6m bgl. Bedrock was not encountered during the site investigation.

6.2.1 Obstructions

WS02 and WS07 were terminated at 0.60m bgl and 1.10m bgl respectively upon cobbles within the made ground.

6.2.2 Observed Potential Contamination

Hydrocarbon (HC) odours were noted in WS06 at 0.9m to 1.5m bgl.

No other evidence of hydrocarbon impacted material was noted during the investigation.

6.3 Groundwater Investigation

Three monitoring well was installed in WS02, WS03 and WS06 only where soils were also described as damp. A well was installed with ø50mm plastic pipe, however, insufficient groundwater prevented a sample from being obtained.

The installation details for WS02, WS03 and WS06 are detailed in Table 10 below.

Monitoring Well	Location on Site	Response Zone (m bgl)	Target Strata
WS02	North-east corner of the site on the old PFS	0.5 – 1.5	Made Ground
WS03	East side of the site on the old PFS	1.0 – 2.0	Made Ground
WS06	Centre of the site close to Wuerdle Street	0.5 – 2.5	Clay

Table 10. Monitoring Well Installation Details

7.0 Laboratory Analysis

7.1 Analysis Rationale

Five soil samples were selected for laboratory analysis following field screening, via visual and olfactory methods.

Samples were analysed for contaminants associated with historical and current use of the site as a PFS, maintenance garage and car wash in line with guidance provided in CIRIA's Contaminated Land Risk Assessment: a guide to good practise (CIRIA C552, 2001).

All samples were placed in laboratory provided containers and stored in cool boxes prior to being transported to the laboratory under the laboratory's chain of custody documentation. The laboratory used for the ground investigation on this occasion was Envirolab, a UKAS and MCERTS accredited laboratory.

7.2 Soils Analysis

Analysis scheduled for seven soil samples is shown below in Table 11. The soil samples were selected from a range of depths and strata and from across the site, to gain an understanding of site-wide ground conditions.

Exploratory Hole	Sample Depth (m bgl)	Target Strata	Suite of Analysis
WS01	2.0	Clay	TPH-CWG
WS02A	1.0	Made Ground	TOC, CLEA Metals, Asbestos ID and Quantification, PAH (USEPA 16), TPH-CWG
WS03	0.5	Made Ground	TOC, CLEA Metals, Asbestos ID and Quantification, PAH (USEPA 16), TPH-CWG
WS04	0.5	Made Ground	CLEA Metals, Asbestos ID and Quantification, PAH (USEPA 16), TPH-CWG
WS06	1.5	Clay	TPH-CWG

Table 11. Soil Sample Selection Strategy

The analysis, conducted by a Gas Chromatography / Flame Ionisation Detector (GC/FID) and Gas Chromatography / Mass Spectrometry (GC / MS) comprised fractionation and speciation of hydrocarbons including analysis for benzene, toluene, ethylbenzene and xylenes (BTEX) and MTBE compounds. Selected samples were analysed for:

- Heavy metals by IRIS emission spectroscopy.
- PAHs, by GC/MS.
- Asbestos Containing Materials (ACMs) by Polarised light microscopy / Gravimetry.

The analytical results were analysed for contaminants associated with use of the site as a PFS and generic industrial land use. The results of soil analysis were compared using the following UK guidance:

- LQM/CIEH's Suitable for Use Levels (S4ULs)
- DEFRA Category 4 Screening Levels (C4SLs);
- EIC Soil Generic Assessment Criteria for Human Health (2010).

7.2.1 Soil Testing Results

The results of laboratory analyses on the soil samples undertaken, detailed in Table 11, are presented in Appendix E.

Due to the site's proposed redevelopment for a residential end use, the soil analysis testing results have been compared against 'Residential with Plant Uptake' end use Generic Assessment Criteria (GACs) thresholds as a worst-case scenario as it is unknown whether the development plans include landscaped areas. GAC concentrations associated with a conservative 1% Soil Organic Matter (SOM) have been utilised.

Two samples, WS01 (2.0m) and WS06 (1.5m), recorded concentrations of TPH Aromatic C8 – C10 above the GAC of 34mg/kg. In addition, there was one exceedance of the GAC for Benzene, 0.087 mg/kg, in the sample obtained at WS01 – 2.0m. Both of these samples were obtained from the clay beneath the made ground.

Asbestos was detected in one of the three samples sent for analysis. WS02A at 1.0m in the made ground recorded amosite fibres, however, the concentration was below the detection limit of 0.001% w/w.

No other soil sample recorded concentrations above the corresponding GAC.

8.0 Risk Estimation

8.1 Discussion of Investigation Findings

Imported material and asbestos from demolition were considered to be the biggest risk from the on site activities. Historical on-site activities as PFS were considered low based on the previous work that been undertaken at the site which involved validation sampling when all underground fuel infrastructure was removed from the site.

Adjacent site activities from the PFS to the east of the site also has the potential to significantly impact the site.

Encountered ground conditions across the site identified made ground to a maximum depth of 2.8m bgl, underlain by superficial deposits firm to stiff brown, gravelly clay. Deeper made ground was identified on the historic PFS forecourt where imported material had been deposited.

Hydrocarbon odours were observed in natural ground and the underlying made ground and clay in WS06 (0.90-1.5m bgl).

Environmental chemical analysis on five soil samples for a range of contaminants identified three exceedances of the 'Residential with plant uptake' GAC. However, these exceedances are considered to marginal and likely to be localised hotspots within the clays that surrounded historic fuel infrastructure and are now at depths greater than 1.5m bgl following the import of material. The lab data from this site investigation generally shows lower concentrations of TPH in comparison to the validation report in 2007 suggesting that there is no ongoing source at the site.

No exceedances of the GAC for residential site use were recorded in the made ground.

It is considered unlikely that there is a risk to groundwater due to presence of low permeability clays beneath the site.

Asbestos was detected at trace concentrations in one sample which is considered low risk. This should be considered by groundworkers during redevelopment works.

Groundwater samples were not obtained from the site due to insufficient groundwater within the monitoring wells.

No evidence of an offsite source impacting upon the site, or offsite migration of any contaminants was identified.

8.2 Limitations and Uncertainty

It is important to note that the investigation was restricted in areas of the site due to building footprints, buried services and underground tanks and associated infrastructure.

8.3 Qualitative Risk Assessment

Each of the identified potential contamination linkages in the preliminary conceptual site model is reviewed based upon the findings of the site investigation which allows a greater understanding of the ground conditions at the site, site observations, soil and groundwater quality and chemical analysis.

The qualitative risk assessment is undertaken, detailed in Table 13 and Table 14 on the following page, in line with guidance provided in CIRIA's Contaminated Land Risk Assessment: a guide to good practice CIRIA C552, 2001. The purpose of this assessment is to determine the relative significance of the identified contamination linkages by assessing the probability of an impact occurring and by assessing the perceived severity of an impact to a receptor.

The perceived risk is based on a consideration of both the likelihood of an event (probability) occurring, and the severity of the potential consequence. Classification of these two factors is detailed in Appendix F.

Those linkages considered of low risk or less on the basis of the available site data will not be considered any further in this assessment. Linkages considered to be more significant are identified as presenting potentially unacceptable risk to the identified receptor. In these instances, further works may be considered necessary.

Source	Pathway	Receptor	Probability	Severity	Risk Classification
Historical site use as a works and PFS from the 1970s to 1970s. No asbestos register has been obtained; The demolition of the site buildings on the site makes it possible that asbestos fibres may be present in shallow soils. Potential contamination associated with the imported material to bring the site back to the necessary levels following infrastructure removal.	Leaching to groundwater, lateral and vertical flow, followed by migration within the aquifer	An unnamed drain 41m north - west of the site.	Low Likelihood Low permeability deposits and insufficient groundwater at the site reduce the likelihood of the receptor being impacted.	Mild	Low
		Superficial deposits – Secondary Undifferentiated Aquifer Bedrock – Secondary A Aquifer No SPZ or abstraction points within 1km	Low Likelihood Taking into account the underlying stiff clay and the lack of SPZ and abstraction points	Mild	Low
	Exposure to harmful vapours, hazardous ground gas and tainting of water supply	Proposed residential users of the site.	Low likelihood All shallow made ground samples were below the GAC for residential use with plant uptake. Asbestos was identified in one of three tests from shallow fill, however, this was below 0.001% w/w. The exceedances of residential with plant uptake GAC are considered to be marginal and were recorded at depths beyond 1.2m bgl.	Mild	Low
		Neighbouring site users directly to the west and south of the site.	Low likelihood All shallow made ground samples were below the GAC for residential use with plant uptake. Asbestos was identified, however, this was below 0.001% w/w. The exceedances of residential with plant uptake GAC are considered to be marginal and were recorded at depths beyond 1.2m bgl. Low permeability deposits beneath the site reduce the risk even further.	Mild	Low

Table 13. Summary of Qualitative Risk Assessment

Adjacent PFS to the east of the site may potentially act as a source of significant contamination that could migrate on to site.	Exposure to harmful vapours, hazardous ground gas and tainting of water supply	Proposed residential site end users.	Unlikely No evidence of onsite migration of contamination from the adjacent PFS was noted. The exceedances identified during the site investigation are considered to be from soils around the historic infrastructure.	Mild	Low
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Table 14. Summary of Qualitative Risk Assessment

9.0 Conclusions and Recommendations

9.1 Conclusions

A Phase II Risk Assessment of the site, located on Wuerdle Street, Rochdale, OL16 2SQ was undertaken, prior to proposed purchase of the site. It is understood that the site's end use will be residential properties. No redevelopment plans were available at the time of writing this report.

The purpose of the assessment was to evaluate the potential for risk to be posed to human health and sensitive environmental receptors from historical and current use of the site. No existing fuel infrastructure remains on the site and previous reports from the site including validation following the removal of fuel infrastructure and contamination hotspots reported the site to be Low Risk.

No further construction or potentially contaminative activities have been undertaken at the site since the writing of the validation report in May 2007. Lab data from this site investigation shows concentrations of TPH less than what was recorded in the validation report in 2007.

The ground investigation encountered made ground up to 2.80m bgl, underlain by firm to stiff clay. Bedrock was not encountered during this site investigation.

Three residential GAC threshold exceedances were recorded in soil samples from 2 locations and analysed for a range of contaminants reflecting the site's historical and current use as a PFS. However, these exceedances are considered to be marginal and were collected from the natural clay at depths of 1.5m and 2.0m bgl reducing the risk to human health. Shallow made ground samples did not record any exceedances of GAC in the three samples obtained and therefore the risk to human health from the made ground is considered to be low.

Asbestos was identified in one of the made ground samples, but this was recorded at less than 0.01% w/w and is considered to be low risk.

Geo² considers the site soils to present a **Low** risk to future residential site end users and **Low** to controlled waters receptors.

9.2 Recommendations

The following measures are recommended to address the identified risks:

- If development works take place on site, any unidentified contaminated material should be considered in the event of a redevelopment as costs for offsite disposal of these materials may be significant.

10.0 Limitations

Geo²'s conclusions, recommendations and opinions are based on information gathered at the time of the investigation from a variety of third-party sources and from observations made during site reconnaissance. Therefore, there may be conditions at the site that have not been taken into account which were not apparent at the time of investigation.

A portion of this report is based solely upon information provided by third parties. The information has not been independently verified by Geo². Whilst this report and the opinions given in it are accurate to the best knowledge of Geo², Geo² cannot guarantee the completeness or accuracy of any descriptions, opinions or conclusions based solely upon information that has not been independently verified.

The recommendations contained within this report represent our professional opinions. These opinions were arrived at in accordance with currently accepted industry practices and hydrological and engineering practices at this time. As such they are not a guarantee that the site is free of hazardous materials or conditions.

Geo² prepared this report for our Client; any third parties using this report do so entirely at their risk. Geo² makes no warranty or representation whatsoever, express or implied, with respect to the use by a third party of any information contained in this report or its suitability for any purpose. Geo² assumes no responsibility for any costs, claims, damages or expenses (including any consequential damages) resulting from the use of this report or any information contained in this report by a third party.

11.0 References

British Standards Institute

BS10175:2011 "Investigation of potentially contaminated land sites – code of practice"

British Geological Society

Geology of Britain Viewer

CIRIA

C552 Contaminated Land Risk Assessment, a guide to good practise, 2001.

C665, Assessing risks posed by hazardous ground gases to buildings, 2007.

CL:AIRE

Good Practice For Risk Assessment For Coal Mine Gas Emissions, October 2021.

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Landmark

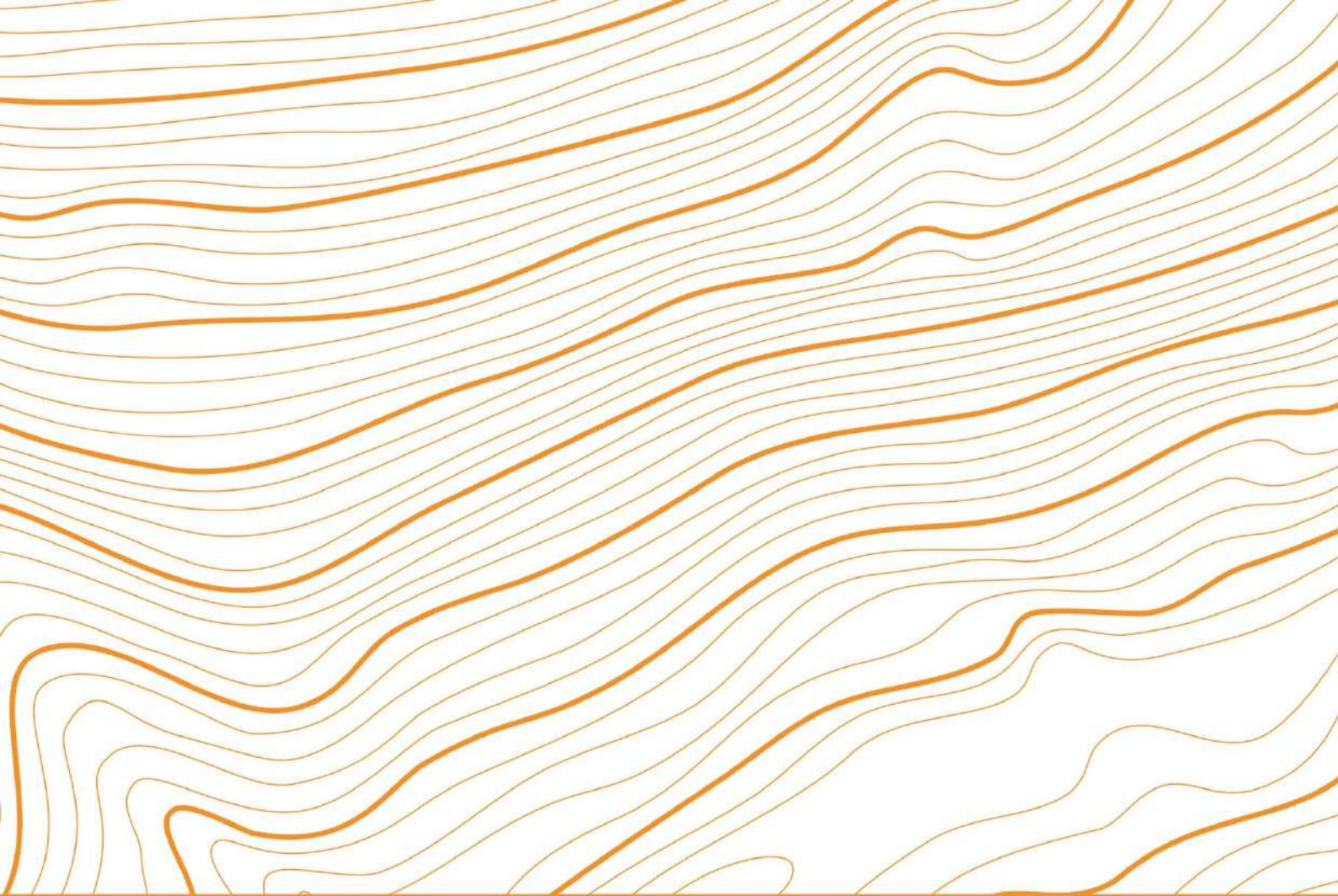
Envirocheck Report, ref. 308758348

The Coal Authority

Coal Authority Interactive Viewer

Zetica UXO

Risk Maps Viewer



Appendix A – Figures

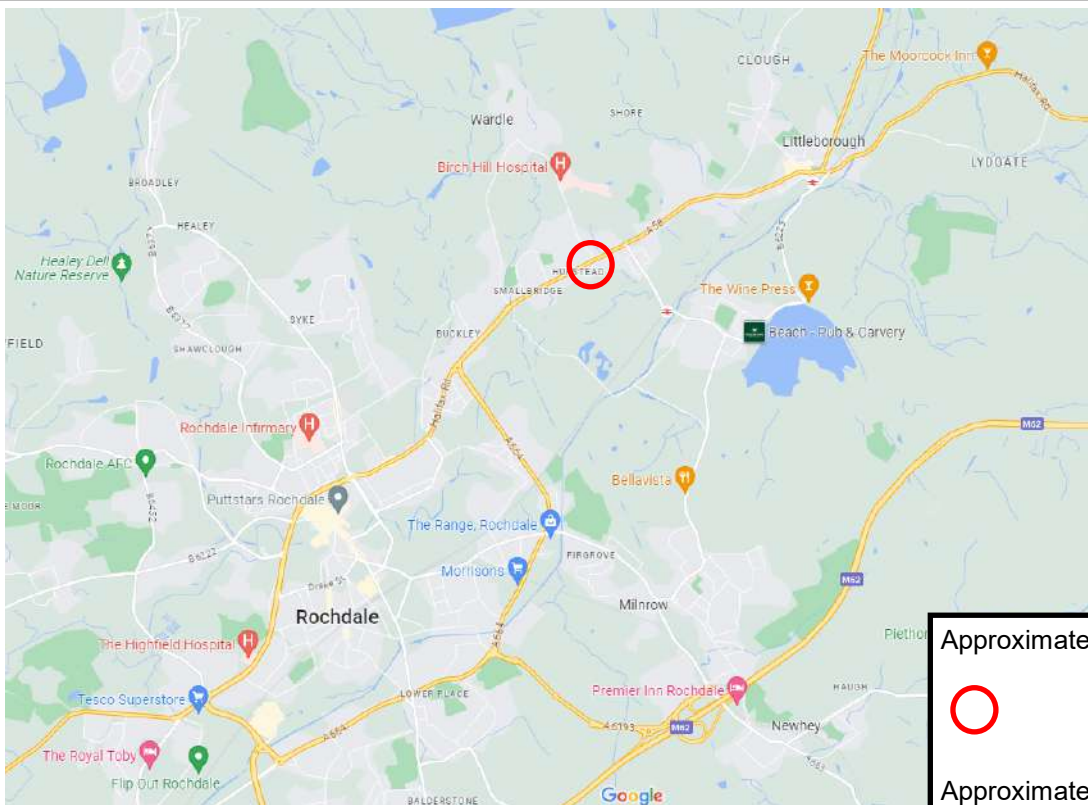


Figure 1 - Site Location

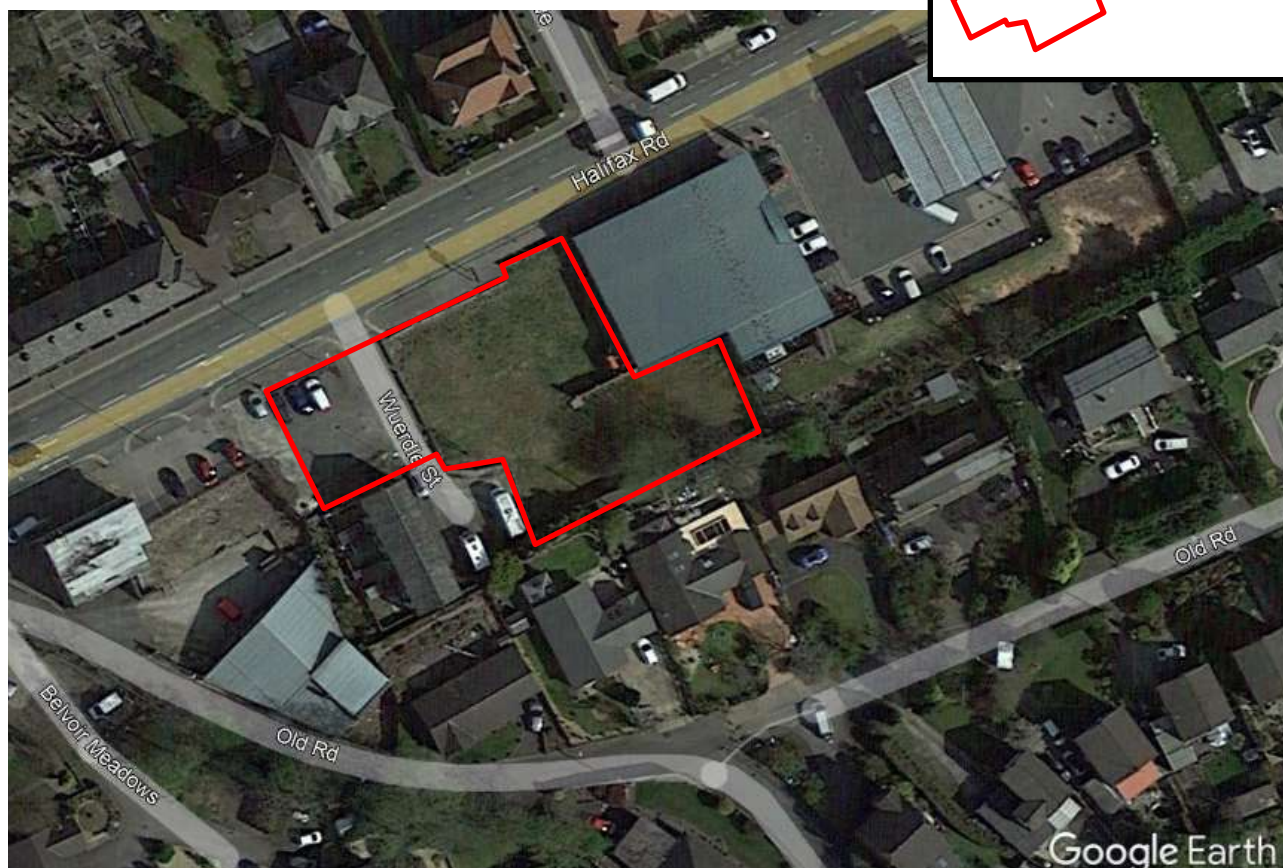


Figure 2 - Site Location



Figures 1 & 2 - Site Location

NOT TO SCALE

Wuerdle Street, OL16 2SQ

Geo² Remediation Limited, The Coniston, Louisa Street, Idle, West Yorkshire, BD10 8NE

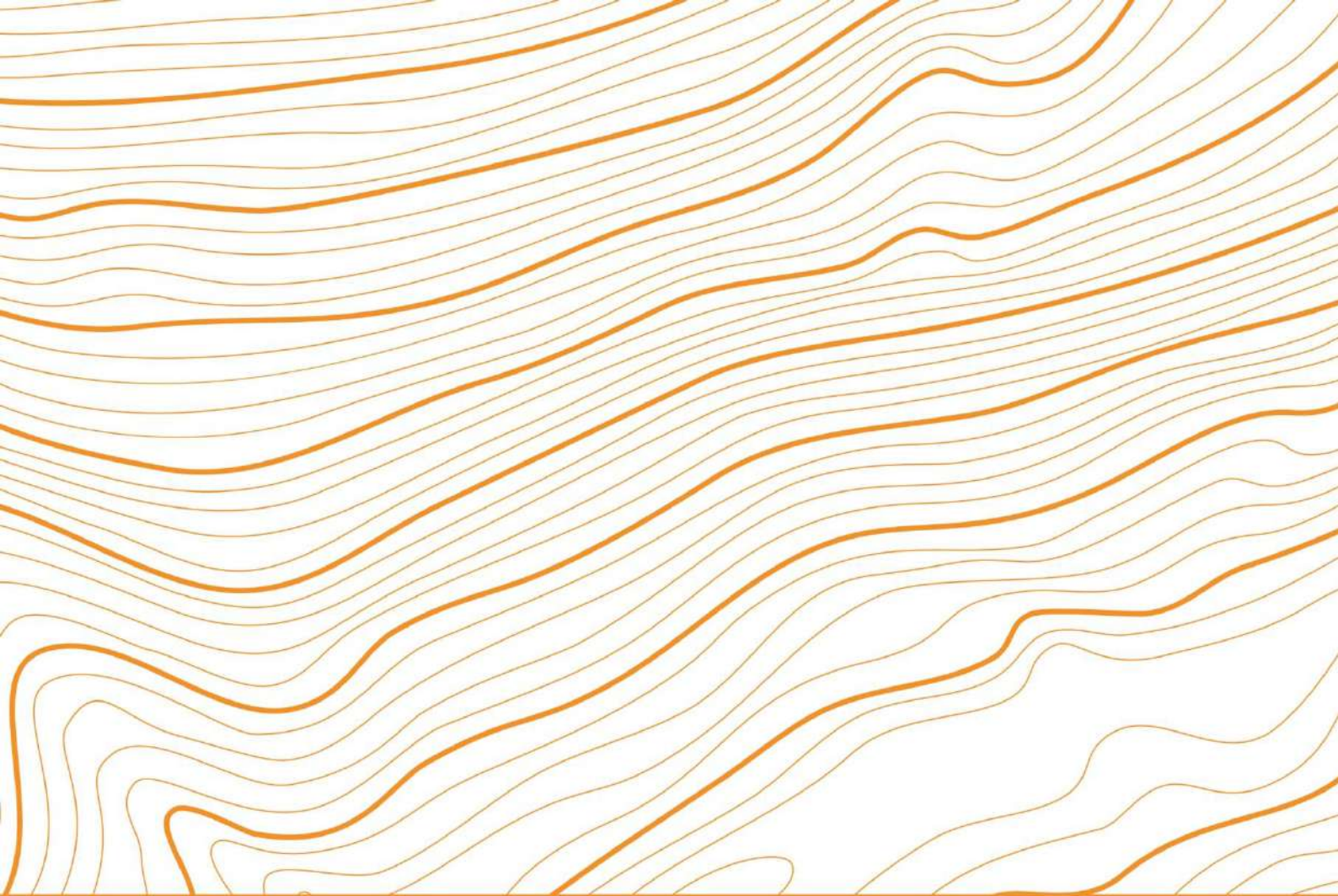
Tel: (0113) 2575397

www.geo2.co.uk



Figure 3—Borehole locations
Wuerdle Street, OL16 2SQ

Geo² Remediation Limited, The Coniston, Louisa Street, Idle, West Yorkshire, BD10 8NE
 Tel: (0113) 2575397 www.geo2.co.uk



Appendix B – Photographs

1382 – Wuerdle Street– Photographic Survey

Image 1: Northeast corner of the site



Image 2: Southeast corner of the site



Image 3: Southeast corner of the site



Image 4: Southwest corner of the site

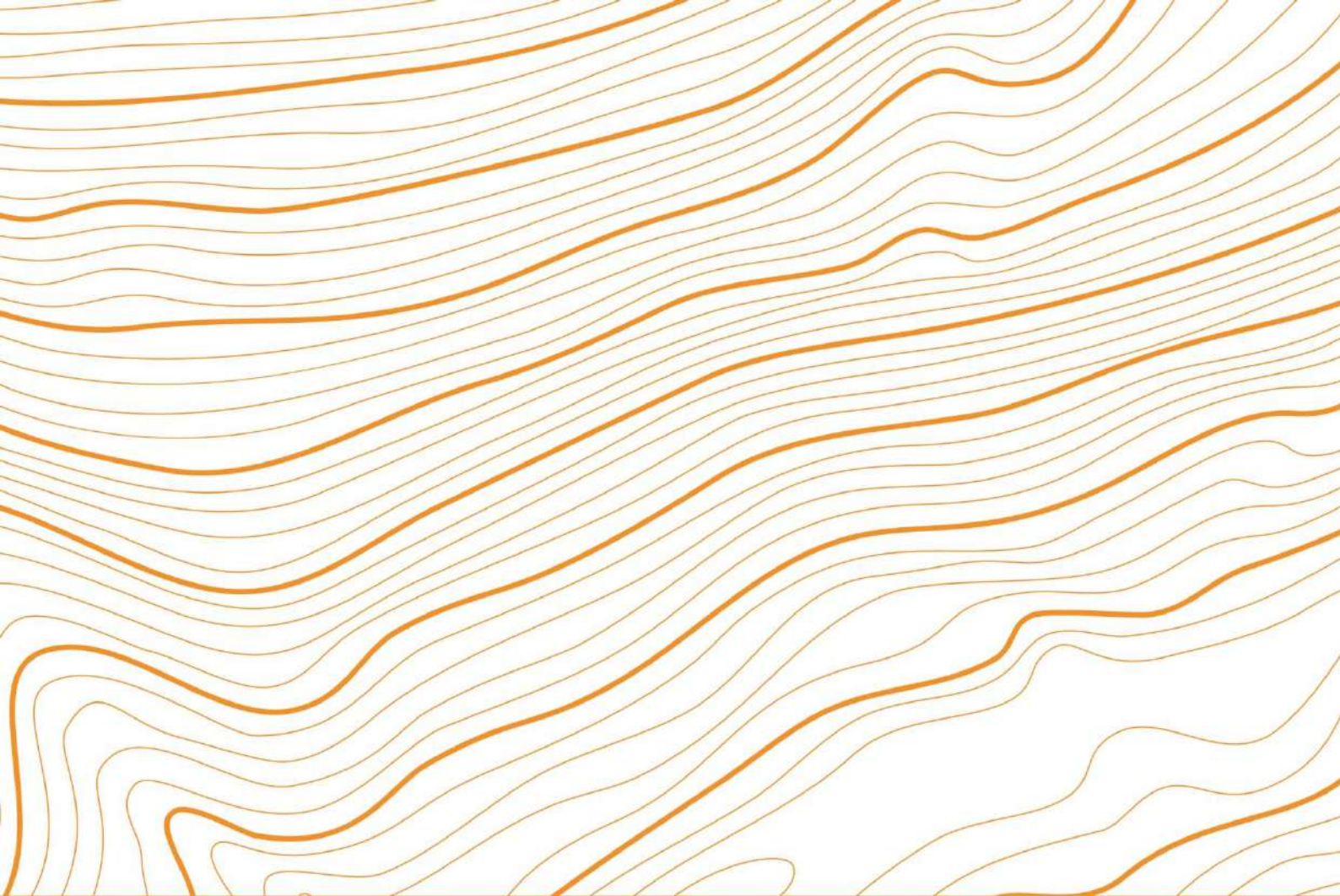


Image 5: Northwest corner of the site



Image 6: Northwest corner of the site





Appendix C – Desk Study Data

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

308758343_1_1

Customer Reference:

1382/BW

National Grid Reference:

392080, 415650

Slice:

A

Site Area (Ha):

0.16

Search Buffer (m):

1000

Site Details:

Spar Stores, 720

Halifax Road

ROCHDALE

OL16 2SQ

Client Details:

Mr M Swindells

Geo2 Remediation Ltd

Coniston House

Louisa Street

Bradford

West Yorkshire

BD10 8NE

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Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 2		1	6	12
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 7		1		1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 7		Yes		
Pollution Incidents to Controlled Waters	pg 7		1	2	16
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances	pg 10			3	
River Quality	pg 11			1	2
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points	pg 12			2	1
Substantiated Pollution Incident Register	pg 14				1
Water Abstractions	pg 15				1 (*24)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 21	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk			n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 21	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 21	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 21	1	3	15	43

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites	pg 29				1
Historical Landfill Sites	pg 29			1	2
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 29				2
Local Authority Landfill Coverage	pg 30	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 30			3	16
Potentially Infilled Land (Water)	pg 31		3	8	13
Registered Landfill Sites	pg 33			1	2
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites	pg 35				1
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 36	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 36	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 43			2	8
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 45	Yes	n/a	n/a	n/a
Mining Instability	pg 45	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 45	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 45	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 46	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 46	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 47		8	5	60
Fuel Station Entries	pg 53		1		
Points of Interest - Commercial Services	pg 53		1		13
Points of Interest - Education and Health	pg 54			1	3
Points of Interest - Manufacturing and Production	pg 54			1	20
Points of Interest - Public Infrastructure	pg 56		2	5	20
Points of Interest - Recreational and Environmental	pg 58			2	1
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland					
Areas of Adopted Green Belt	pg 60				1
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest	pg 60				1
Special Areas of Conservation	pg 60				1
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (E)	0	1	392100 415652
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (E)	0	1	392079 415652
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (S)	185	1	392079 415450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (SE)	240	1	392250 415450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	243	1	391900 415850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (S)	243	1	392000 415400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	258	1	391950 415400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (S)	292	1	392000 415350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (SE)	320	1	392400 415500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	324	1	391900 415350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	341	1	392000 415300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (N)	385	1	392000 416050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (SW)	392	1	391850 415300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A18SW (N)	399	1	391950 416050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	400	1	391950 415250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (NW)	418	1	391900 416050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NW)	421	1	391700 415900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SW (NW)	441	1	391850 416050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (N)	446	1	391950 416100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NW)	453	1	391700 415950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (SW)	461	1	391800 415250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NW)	463	1	391650 415900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	463	1	391900 415200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (N)	464	1	391900 416100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (SW)	481	1	391850 415200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A17SE (NW)	487	1	391700 416000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SW (NW)	493	1	391750 416050
1	Discharge Consents Operator: Mr N.P. Jones Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: 5 Dwellings At Jnc Smithy Bridge Rd, Littleborough, Lancashire Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 016992059 Permit Version: 1 Effective Date: 25th November 1986 Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Roch Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m	A13NE (E)	164	2	392280 415660
2	Discharge Consents Operator: United Utilities Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Smith Bridge Road Cso 35051 Across From Yea Bridge, Smithy Road, Littleborough, Greater Manchester, OL15 8qf Authority: Environment Agency, North West Region Catchment Area: Not Supplied Reference: 016952065 Permit Version: 4 Effective Date: 21st May 2018 Issued Date: 21st May 2018 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Roch Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	398	2	392400 415370
2	Discharge Consents Operator: United Utilities Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Smith Bridge Road Cso 35051 Across From Yea Bridge, Smithy Road, Littleborough, Greater Manchester, OL15 8qf Authority: Environment Agency, North West Region Catchment Area: Not Supplied Reference: 016952065 Permit Version: 3 Effective Date: 1st April 2014 Issued Date: 28th March 2014 Revocation Date: 20th May 2018 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Roch Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	398	2	392400 415370

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Discharge Consents Operator: United Utilities Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Smith Bridge Road Cso 35051 Across From Yea Bridge, Smithy Road, Littleborough, Greater Manchester, OL15 8qf Authority: Environment Agency, North West Region Catchment Area: Not Supplied Reference: 016952065 Permit Version: 2 Effective Date: 31st March 2010 Issued Date: 31st March 2010 Revocation Date: 31st March 2014 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Roch Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	398	2	392400 415370
2	Discharge Consents Operator: United Utilities Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Smith Bridge Road Cso 35051 Across From Yea Bridge, Smithy Road, Littleborough, Greater Manchester, OL15 8qf Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 016952065 Permit Version: 1 Effective Date: 15th December 1986 Issued Date: Not Supplied Revocation Date: 30th March 2010 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Roch Status: Consent revoked or revised: New Consent issued (Section 37(1)) Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	398	2	392400 415370
3	Discharge Consents Operator: Mr Paul Linkman Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: Eafield Barn Eafield Road, Smithy Bridge, Littleborough, Rochdale, Lancashire, OL16 4bb Authority: Environment Agency, North West Region Catchment Area: Roch Reference: 016993854 Permit Version: 2 Effective Date: 30th November 2012 Issued Date: 30th November 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Groundwater Via Soakaway Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A8NE (S)	456	2	392250 415210
3	Discharge Consents Operator: Mr Paul Linkman Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: Eafield Barn Eafield Road, Smithy Bridge, Littleborough, Rochdale, Lancashire, OL16 4bb Authority: Environment Agency, North West Region Catchment Area: Roch Reference: 016993854 Permit Version: 1 Effective Date: 25th July 2006 Issued Date: 25th July 2006 Revocation Date: 29th November 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Groundwater Via Soakaway Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A8NE (S)	456	2	392250 415210

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Discharge Consents Operator: United Utilities Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Oakcliffe Road Cso Oakcliffe Rd And Halifax Rd Jnct, Hurstead, Rochdale, Greater Manchester, OL12 9ap Authority: Environment Agency, North West Region Catchment Area: Not Supplied Reference: 016993527 Permit Version: 2 Effective Date: 4th December 2019 Issued Date: 4th December 2019 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Culverted Trib Of River Roch Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A12SE (SW)	501	2	391595 415426
5	Discharge Consents Operator: Mr Julian Hodges Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: 10 Smithy Bridge Rd, Littleborough, Lancashire, OL15 8qf Authority: Environment Agency, North West Region Catchment Area: Not Supplied Reference: 0166/445 Permit Version: 1 Effective Date: 29th November 1966 Issued Date: 29th November 1966 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Roch Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	505	2	392494 415314
6	Discharge Consents Operator: United Utilities Water Plc (?) Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Oakcliffe Road Cso Oakcliffe Rd And Halifax Rd Jnct, Hurstead, Rochdale, Greater Manchester, OL12 9ap Authority: Environment Agency, North West Region Catchment Area: Not Supplied Reference: 016993527 Permit Version: 1 Effective Date: 31st March 2004 Issued Date: 31st March 2004 Revocation Date: 3rd December 2019 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Roch Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A12SE (SW)	547	2	391590 415340
6	Discharge Consents Operator: United Utilities Water Plc (?) Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Oakcliffe Road, Wardle, Rochdale, Greater Manchester Authority: Environment Agency, North West Region Catchment Area: Not Supplied Reference: 01roc0040 Permit Version: 3 Effective Date: 31st March 2004 Issued Date: 31st March 2004 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Roch Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A12SE (SW)	547	2	391590 415340

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Discharge Consents Operator: Littleborough Urban District Council Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES) Location: Council Offices Sso, Littleborough Council, Littleborough, Greater Manchester Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 0172/1747 Permit Version: 1 Effective Date: 1st November 1996 Issued Date: Not Supplied Revocation Date: 1st November 1996 Discharge Type: Storm sewage overflow discharge Discharge: Freshwater Stream/River Environment: Receiving Water: River Roch Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	638	2	392570 415200
8	Discharge Consents Operator: United Utilities Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Smith Bridge Road Cso 35051 Across From Yea Bridge, Smithy Road, Littleborough, Greater Manchester, OL15 8qf Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 01ROC0122 Permit Version: 2 Effective Date: 1st January 1995 Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Roch Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m	A14SE (E)	676	2	392790 415590
8	Discharge Consents Operator: United Utilities Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Littleborough Sw L5, Rochdale, Greater Manchester Authority: Environment Agency, North West Region Catchment Area: Not Supplied Reference: 01roc0122 Permit Version: 1 Effective Date: 1st April 1991 Issued Date: Not Supplied Revocation Date: 31st December 1994 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Not Supplied Environment: Receiving Water: Not Supplied Status: Authorisation revoked Positional Accuracy: Located by supplier to within 10m	A14SE (E)	676	2	392790 415590
9	Discharge Consents Operator: United Utilities Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Halifax Road, Tameside, Greater Manchester Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 01roc0171 Permit Version: 1 Effective Date: 1st January 1995 Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Unknown Environment: Receiving Water: Not Supplied Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	868	2	391263 415268

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Discharge Consents Operator: United Utilities Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Dyehouse Lane Cso Dye House Lane, Opposite Greengrove Mill, Small Bridge / Rochdale, Greater Manchester, O16 2qn Authority: Environment Agency, North West Region Catchment Area: Not Supplied Reference: 016982937 Permit Version: 3 Effective Date: 11th December 2019 Issued Date: 11th December 2019 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Ash Brook Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	931	2	391309 415074
10	Discharge Consents Operator: United Utilities Water Plc (?) Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Dyehouse Lane Cso Dye House Lane, Opposite Greengrove Mill, Small Bridge / Rochdale, Greater Manchester, O16 2qn Authority: Environment Agency, North West Region Catchment Area: Not Supplied Reference: 016982937 Permit Version: 2 Effective Date: 11th November 2004 Issued Date: 11th November 2004 Revocation Date: 10th December 2019 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Ash Brook Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	938	2	391310 415060
10	Discharge Consents Operator: United Utilities Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Dyehouse Lane Cso Dye House Lane, Opposite Greengrove Mill, Small Bridge / Rochdale, Greater Manchester, O16 2qn Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 016982937 Permit Version: 1 Effective Date: 22nd June 1995 Issued Date: Not Supplied Revocation Date: 10th November 2004 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Ash Brook Status: Revoked: New Consent issued (Water Act 1989, Section 113) Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	938	2	391310 415060
11	Discharge Consents Operator: Armour Hess Chemicals Property Type: MAKING OF CHEMICALS + CHEMICAL PRODUCTS Location: Armour Hess Chemicals Cloughfield Works, Brown Bank, Littleborough, Greater Manchester Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 0168/816 Permit Version: 1 Effective Date: 7th July 1994 Issued Date: Not Supplied Revocation Date: 7th July 1994 Discharge Type: Trade Discharges - Cooling Water Discharge: Canal Environment: Receiving Water: Rochdale Canal Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A19SE (E)	951	2	393000 416000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	Local Authority Pollution Prevention and Controls Name: Gem Rochdale Ltd Mount Green Service Station Location: Halifax Road, Rochdale, OL16 2SN Authority: Rochdale Metropolitan Borough Council, Environmental Health Department Permit Reference: 107/11 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Application Not Yet Authorised Positional Accuracy: Manually positioned to the address or location	A13NE (NE)	10	3	392111 415673
13	Local Authority Pollution Prevention and Controls Name: Mount Green Garage Location: Halifax Road, Littleborough, ROCHDALE, Lancashire, OL16 2SN Authority: Rochdale Metropolitan Borough Council, Environmental Health Department Permit Reference: Not Given Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Manually positioned to the road within the address or location	A12SE (SW)	626	3	391478 415379
	Nearest Surface Water Feature	A13NW (NW)	41	-	392022 415688
14	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Greater Manchester Authority: Environment Agency, North West Region Pollutant: Unknown Note: None Pollution Found Incident Date: 13th March 1996 Incident Reference: 96620477 Catchment Area: Roch Receiving Water: Not Given Cause of Incident: Other Incident/Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NW (W)	149	2	391900 415700
15	Pollution Incidents to Controlled Waters Property Type: Domestic/Residential Location: Septic Tank Effluent In Stream, LITTLEBOROUGH Authority: Environment Agency, North West Region Pollutant: Sewage - Septic Tank Effluent Note: Roch; Septic Tank Effluent Incident Date: 18th June 1997 Incident Reference: 97621094 Catchment Area: Roch Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	309	2	392300 415400
16	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Greater Manchester Authority: Environment Agency, North West Region Pollutant: Not Given Note: No Pollution Found Incident Date: 4th November 1993 Incident Reference: 93622064 Catchment Area: Roch Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SE (N)	425	2	392100 416100
17	Pollution Incidents to Controlled Waters Property Type: Private Sewage (Non-PLC): Sewerage Systems Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Crude Sewage Note: Syke Brook Incident Date: 7th November 1995 Incident Reference: 95622726 Catchment Area: Roch Receiving Water: Not Given Cause of Incident: Blocked Sewer Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SE (SW)	508	2	391600 415400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Greater Manchester Authority: Environment Agency, North West Region Pollutant: Unknown Note: River Roch Incident Date: 14th August 1995 Incident Reference: 95622080 Catchment Area: Roch Receiving Water: Not Given Cause of Incident: Miscellaneous/Other Pollution Type Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	560	2	391700 415200
19	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Greater Manchester Authority: Environment Agency, North West Region Pollutant: Not Given Note: None Pollution Found Incident Date: 29th October 1993 Incident Reference: 93622029 Catchment Area: Roch Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	590	2	392500 415200
20	Pollution Incidents to Controlled Waters Property Type: Boats/Ships Location: Greater Manchester Authority: Environment Agency, North West Region Pollutant: Unknown Note: None Seen Incident Date: 20th October 1994 Incident Reference: 94622322 Catchment Area: Rochdale Canal Receiving Water: Groundwater Cause of Incident: Other Incident/Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	680	2	392700 415300
21	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Oils - Unknown Note: Wardle Brook Incident Date: 4th September 1995 Incident Reference: 95622241 Catchment Area: Roch Receiving Water: Not Given Cause of Incident: Other Incident/Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SW (W)	743	2	391300 415600
22	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Dyehouse Lane, ROCHDALE Authority: Environment Agency, North West Region Pollutant: Natural Foam Note: Roch; Foam Incident Date: 22nd May 1997 Incident Reference: 97620914 Catchment Area: Roch Receiving Water: Freshwater Stream/River Cause of Incident: Other Cause Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	779	2	391601 415001
23	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Rubble/Litter Or Solids Note: Ash Brook Incident Date: 22nd March 1995 Incident Reference: 95620588 Catchment Area: Roch Receiving Water: Not Given Cause of Incident: Miscellaneous/Other Pollution Type Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	821	2	391300 415300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Greater Manchester Authority: Environment Agency, North West Region Pollutant: Miscellaneous - Inert Suspended Solids Note: River Roch; Silt Incident Date: 23rd February 1996 Incident Reference: 96620352 Catchment Area: Roch Receiving Water: Not Given Cause of Incident: Natural Causes Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	840	2	391501 415001
25	Pollution Incidents to Controlled Waters Property Type: Transport, Storage, Communications: Road & Rail Location: River Roch, Near Stubby Mill Lane, Lancashire Authority: Environment Agency, North West Region Pollutant: General Biodegradable : Vegetable Oils Note: Not Supplied Incident Date: 31st August 1999 Incident Reference: 31939 Catchment Area: Roch Receiving Water: River Stretch (Freshwater) Cause of Incident: Other Cause Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	896	2	393000 415795
25	Pollution Incidents to Controlled Waters Property Type: Boats/Ships Location: Greater Manchester Authority: Environment Agency, North West Region Pollutant: Unknown Note: None Found Incident Date: 5th October 1994 Incident Reference: 94622216 Catchment Area: Roch Receiving Water: Groundwater Cause of Incident: Other Incident/Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	897	2	393000 415800
26	Pollution Incidents to Controlled Waters Property Type: Construction Location: Dyehouse Lane , ROCHDALE Authority: Environment Agency, North West Region Pollutant: Oils - Gas Oil Note: Gas Oil; Ash Brook; Gas Oil Incident Date: 19th April 1997 Incident Reference: 97620676 Catchment Area: Roch Receiving Water: Freshwater Stream/River Cause of Incident: Vandalism Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	909	2	391401 415001
27	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Greater Manchester Authority: Environment Agency, North West Region Pollutant: Unknown Note: River Roch; No Pollution Found Incident Date: 18th October 1995 Incident Reference: 95622566 Catchment Area: Roch Receiving Water: Not Given Cause of Incident: Other Incident/Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	920	2	391500 414900
28	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Greater Manchester Authority: Environment Agency, North West Region Pollutant: Unknown Note: Tributary River Roch; No Pollution Found Incident Date: 18th July 1995 Incident Reference: 95621807 Catchment Area: Roch Receiving Water: Not Given Cause of Incident: Other Incident/Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	922	2	391300 415100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	Pollution Incidents to Controlled Waters Property Type: Connection To Surface Drains Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Crude Sewage Note: Featherstall Brook Incident Date: 1st June 1994 Incident Reference: 94621179 Catchment Area: Roch Receiving Water: Not Given Cause of Incident: Wrong Connection Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	939	2	392800 416300
30	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Greater Manchester Authority: Environment Agency, North West Region Pollutant: Not Given Note: None Pollution Found Incident Date: 27th October 1993 Incident Reference: 93622014 Catchment Area: Roch Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	956	2	392900 416200
31	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Greater Manchester Authority: Environment Agency, North West Region Pollutant: Unknown Note: None Pollution Found Incident Date: 13th March 1995 Incident Reference: 95620512 Catchment Area: Roch Receiving Water: Not Given Cause of Incident: Other Incident/Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A15NW (E)	995	2	393100 415800
32	Registered Radioactive Substances Name: Rochdale Health Authority Location: Birch Hill Hospital, Union Road, ROCHDALE, Lancashire, OL12 9QB Authority: Environment Agency, North West Region Permit Reference: AB9577 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Unknown	A13NE (N)	280	2	392092 415955
32	Registered Radioactive Substances Name: Rochdale Healthcare Nhs Trust Location: Birch Hill Hospital, Union Road, ROCHDALE, Lancashire, OL12 9QB Authority: Environment Agency, North West Region Permit Reference: AM0309 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA dated pre April 1991 Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A13NW (N)	299	2	392076 415974
32	Registered Radioactive Substances Name: Rochdale Healthcare Nhs Trust Location: Birch Hill Hospital, Union Road, ROCHDALE, Lancashire, OL12 9QB Authority: Environment Agency, North West Region Permit Reference: AL8738 Dated: 23rd May 1994 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Substantial variation to authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Automatically positioned to the address	A13NW (N)	305	2	392071 415979

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality Name: Roch GQA Grade: River Quality B Reach: Akzo Chemie To Beal Estimated Distance (km): 2.5 Flow Rate: Flow less than 1.25 cumecs Flow Type: River Year: 2000	A13SE (SE)	341	2	392281 415348
	River Quality Name: Ash Bk GQA Grade: River Quality B Reach: Wardle To Roch Estimated Distance (km): 2 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A12NE (NW)	624	2	391505 415971
	River Quality Name: Rochdale Canal GQA Grade: River Quality B Reach: Qsl At Summit To Empress Processing Estimated Distance (km): 27.6 Flow Rate: Flow greater than 80 cumecs Flow Type: Canal Year: 2000	A9NW (SE)	817	2	392729 415108

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	River Quality Chemistry Sampling Points Name: Roch Reach: Akzo Chemie To Beal Estimated Distance: 2.50 Objective: Not Supplied Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 1993 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 1994 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1995 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1996 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1997 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1998 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1999 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2000 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2001 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2002 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2003 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2004 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2005 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2006 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2007 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2008 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2009 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied	A14SW (SE)	446	2	392480 415390

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	River Quality Chemistry Sampling Points Name: Roch Reach: Summit To Akzo Chemie Estimated Distance: 3.30 Objective: Not Supplied Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 1993 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 1994 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1995 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1996 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1997 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1998 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1999 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2000 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2001 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2002 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2003 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2004 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2005 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2006 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2007 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2008 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2009 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied	A14SW (SE)	446	2	392480 415390

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
34	River Quality Chemistry Sampling Points Name: Ash Brook Reach: Wardle To Roch Estimated Distance: 2.00 Objective: Not Supplied Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: Not Supplied Compliance: Not Supplied Year: 1993 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 1994 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1995 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1996 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1997 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1998 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1999 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2000 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2001 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2002 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2003 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2004 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2005 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2006 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2007 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2008 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2009 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied	A7NW (SW)	932	2	391296 415089
35	Substantiated Pollution Incident Register Authority: Environment Agency - North West Region, South Area Incident Date: 6th April 2020 Incident Reference: 1795706 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Pollutant Not Identified: Not Identified	A19SE (NE)	992	2	392889 416276

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	Water Abstractions Operator: Boro Candlewick Textiles Ltd. Licence Number: 2569002034 Permit Version: Not Supplied Location: Albion Mill, LITTLEBOROUGH Authority: Environment Agency, North West Region Abstraction: Boiler Feed & Manufacturing Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 68 Yearly Rate (m3): 17275 Details: Additional Purpose - Boiler Feed. Featherstall Brook Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	992	2	393000 416100
	Water Abstractions Operator: Falcon Trunking Systems Ltd Licence Number: 2569002262 Permit Version: Not Supplied Location: Featherstall Brook At , LITTLEBOROUGH, Lancashire Authority: Environment Agency, North West Region Abstraction: Cooling Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 48 Yearly Rate (m3): 10000 Details: Featherstall Brook Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A20SW (E)	1045	2	393100 416000
	Water Abstractions Operator: Jack Travis Licence Number: 2569002261 Permit Version: 100 Location: Ash Brook At Smallbridge, Rochdale Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: General Cooling (Existing Licences Only) (Low Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 12 Yearly Rate (m3): 4380 Details: Land At Roche Mill, Smallbridge Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 11th September 1996 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A7SW (SW)	1060	2	391400 414800
	Water Abstractions Operator: George Eaton Limited Licence Number: 2569002099 Permit Version: Not Supplied Location: Reservoir Fed By Spring At, Howarth Cross Mill, SMALLBRIDGE Authority: Environment Agency, North West Region Abstraction: Boiler Feed & Slaughtering Abstraction Type: Not Supplied Source: Spring Daily Rate (m3): 1 Yearly Rate (m3): 236 Details: Additional Purpose: Slaughtering; Licence Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A7SW (SW)	1265	2	391200 414700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Cook Street Pallets Ltd Licence Number: 2569002146 Permit Version: 100 Location: Borehole At Premises, Wardle, Rochdale Authority: Environment Agency, North West Region Abstraction: Food And Drink: Water Bottling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 76 Yearly Rate (m3): 25458 Details: Premises At Wardle, Rochdale Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 19th October 1990 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A22SW (NW)	1314	2	391400 416800
	Water Abstractions Operator: Wardle Spring Water Co Ltd Licence Number: 2569002146 Permit Version: 102 Location: Borehole At Premises At Wardle, Rochdale Authority: Environment Agency, North West Region Abstraction: Food And Drink: Water Bottling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Premises At Wardle, Rochdale Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A22SW (NW)	1347	2	391370 416820
	Water Abstractions Operator: Cook Street Pallets Ltd Licence Number: 2569002146 Permit Version: 101 Location: Borehole At Premises At Wardle, Rochdale Authority: Environment Agency, North West Region Abstraction: Food And Drink: Water Bottling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Premises At Wardle, Rochdale Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 25th March 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A22SW (NW)	1347	2	391370 416820
	Water Abstractions Operator: Akzo Nobel Chemicals Ltd Licence Number: 2569002008 Permit Version: 100 Location: Rochdale Canal At Premises Littleborough Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: Boiler Feed Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 4546 Yearly Rate (m3): 1654780 Details: Premises At Littleborough Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 11th November 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15NE (E)	1350	2	393450 415860

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Akzo Nobel Chemicals Ltd Licence Number: 2569002008 Permit Version: 100 Location: Rochdale Canal At Premises Littleborough Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 0 Yearly Rate (m3): 0 Details: Premises At Littleborough Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 11th November 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15NE (E)	1350	2	393450 415860
	Water Abstractions Operator: Akzo Nobel Chemicals Ltd Licence Number: 2569002008 Permit Version: 100 Location: Rochdale Canal At Premises Littleborough Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: General Cooling (Existing Licences Only) (Low Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Premises At Littleborough Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 11th November 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15NE (E)	1350	2	393450 415860
	Water Abstractions Operator: John Sandiford & Sons Limited Licence Number: 2569002145 Permit Version: Not Supplied Location: Wardle Brook At Premises, Wardle, ROCHDALE, Lancashire Authority: Environment Agency, North West Region Abstraction: Boiler Feed & Manufacturing & Cooling Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 691 Yearly Rate (m3): 186386 Details: Additional Purposes: Boiler feed; Cooling; Licence Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A22SW (NW)	1403	2	391400 416900
	Water Abstractions Operator: Nwwa Eastern Division Licence Number: 2569002111 Permit Version: Not Supplied Location: Borehole, Python Mill, Church Street, LITTLEBOROUGH Authority: Environment Agency, North West Region Abstraction: Public Water Supply Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 2728 Yearly Rate (m3): 1000120 Details: Licence Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A20SW (NE)	1439	2	393400 416300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Vita Thermoplastic Compounds Ltd Licence Number: 2569002250 Permit Version: 101 Location: Borehole At Stockton Street Littleborough Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: General Cooling (Existing Licences Only) (Low Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Land & Premises, Stockton St, L'Boro Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 24th October 2005 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A20SE (NE)	1529	2	393500 416300
	Water Abstractions Operator: Jackdaw Polymers Licence Number: 2569002250 Permit Version: 100 Location: Borehole At Stockton Street Littleborough Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: General Cooling (Existing Licences Only) (Low Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 331 Yearly Rate (m3): 72730 Details: Land & Premises, Stockton St, L'Boro Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 10th May 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A20SE (NE)	1529	2	393500 416300
	Water Abstractions Operator: Park Yarns Rochdale Ltd Licence Number: 2569002012 Permit Version: 100 Location: Reservoir Fed By Buckley Brk At Rochdale Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: Boiler Feed Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 39 Yearly Rate (m3): 3384 Details: Premises, Park Mill, Rochdale Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st May 1981 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A6SW (SW)	1538	2	390700 414900
	Water Abstractions Operator: Akzo Nobel Chemicals Ltd Licence Number: 2569002008 Permit Version: 100 Location: Rochdale Canal At Premises Littleborough Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: Boiler Feed Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Premises At Littleborough Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 11th November 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A20SE (E)	1580	2	393630 416100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Akzo Nobel Chemicals Ltd Licence Number: 2569002008 Permit Version: 100 Location: Rochdale Canal At Premises Littleborough Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: General Cooling (Existing Licences Only) (Low Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Premises At Littleborough Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 11th November 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A20SE (E)	1580	2	393630 416100
	Water Abstractions Operator: Akzo Nobel Chemicals Ltd Licence Number: 2569002008 Permit Version: 100 Location: Rochdale Canal At Premises Littleborough Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Premises At Littleborough Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 11th November 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A20SE (E)	1580	2	393630 416100
	Water Abstractions Operator: Quartgain Ltd Licence Number: 2569002087 Permit Version: Not Supplied Location: Premises, Shore, LITTLEBOROUGH Authority: Environment Agency, North West Region Abstraction: Boiler Feed Abstraction Type: Not Supplied Source: River Daily Rate (m3): 5 Yearly Rate (m3): 1818 Details: Reservoir Fed By Surface Drainage Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A24NE (NE)	1594	2	392800 417100
	Water Abstractions Operator: Joseph Travis Limited Licence Number: 2569002041 Permit Version: Not Supplied Location: Hey Brook, Red Lane, ROCHDALE, Lancashire Authority: Environment Agency, North West Region Abstraction: Agricultural Spray Irrigation (Summer) Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 105 Yearly Rate (m3): 11592 Details: Additional Purpose: Boiler feed; Licence Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A6SW (SW)	1674	2	390600 414800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Strong International Ltd Licence Number: 2569002114 Permit Version: 101 Location: Reservoir On Trib Of R Roch At Wardle, Near Rochdale Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Premises At Wardle Mill, Wardle Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 15th November 1996 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A22NW (NW)	1726	2	391100 417100
	Water Abstractions Operator: Strong International Ltd Licence Number: 2569002114 Permit Version: 100 Location: Reservoir On Trib Of R Roch At Wardle, Near Rochdale Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 909 Yearly Rate (m3): 122742 Details: Premises At Wardle Mill, Wardle Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 7th October 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A22NW (NW)	1726	2	391100 417100
	Water Abstractions Operator: Heginbottoms Farm Ltd Licence Number: 2569002216 Permit Version: 100 Location: Spring Fed Tank At Premises, Milnrow Authority: Environment Agency, North West Region Abstraction: General Agriculture; General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 5 Yearly Rate (m3): 114 Details: Plumb House Farm, Milnrow Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 25th November 1975 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1748	2	392300 413900
	Water Abstractions Operator: Joseph Travis Ltd. Licence Number: 2569002041 Permit Version: Not Supplied Location: Hey Brook, Red Lane, ROCHDALE, Lancashire Authority: Environment Agency, North West Region Abstraction: Agricultural Spray Irrigation (Summer) & Boiler Feed Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 105 Yearly Rate (m3): 11592 Details: Additional Purpose: Boiler feed; Licence Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A1NW (SW)	1783	2	390600 414600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: United Utilities Water Ltd Licence Number: 2569002193 Permit Version: 100 Location: Watergrove, Brown House Wham, Hamer Pasture And Buckley[12] Authority: Environment Agency, North West Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 0 Yearly Rate (m3): 0 Details: Watergrove Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 22nd March 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(W)	1859	2	390200 415400
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - Low Vulnerability Combined Vulnerability: Low Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: <40% Superficial Patchiness: >90% Superficial Thickness: >10m Superficial Recharge: Low	A13SE (E)	0	4	392079 415652
	Groundwater Vulnerability - Soluble Rock Risk None				
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SE (E)	0	4	392079 415652
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13SE (E)	0	4	392079 415652
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 236.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A13SW (SW)	0	5	392073 415645
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 284.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A13NW (NW)	41	5	392022 415688

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 81.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A13SE (SE)	143	5	392202 415535
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 51.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A13SE (SE)	222	5	392255 415475
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A13SE (SE)	271	5	392300 415450
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A13SE (SE)	288	5	392311 415436
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 227.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A13SE (SE)	292	5	392328 415448
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 44.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A13SE (SE)	295	5	392260 415391
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1232.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Roch Catchment Name: Mersey Primacy: 1	A13SE (SE)	303	5	392214 415361
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 443.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Roch Catchment Name: Mersey Primacy: 1	A13SE (SE)	312	5	392233 415359
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 142.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Roch Catchment Name: Mersey Primacy: 1	A14SW (E)	406	5	392501 415519

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14SW (E)	409	5	392518 415573
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 464.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Roch Catchment Name: Mersey Primacy: 1	A14SW (E)	423	5	392534 415579
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14SW (SE)	423	5	392488 415447
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14SW (E)	436	5	392523 415492
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14SW (SE)	440	5	392510 415453
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 50.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14SW (SE)	445	5	392515 415452
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 34.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14SW (E)	471	5	392555 415477
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14NW (NE)	483	5	392548 415865
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14NW (NE)	522	5	392583 415883

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14NW (NE)	529	5	392587 415889
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 156.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14NW (NE)	531	5	392591 415888
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 137.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A12SE (SW)	546	5	391593 415339
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 208.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14NW (E)	611	5	392709 415794
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 330.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ash Brook Catchment Name: Mersey Primacy: 1	A12NE (NW)	617	5	391500 415950
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A12NE (W)	623	5	391463 415885
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 38.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ash Brook Catchment Name: Mersey Primacy: 1	A12NE (W)	626	5	391461 415886
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ash Brook Catchment Name: Mersey Primacy: 1	A12NE (W)	648	5	391429 415865
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 108.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ash Brook Catchment Name: Mersey Primacy: 1	A12NE (W)	665	5	391409 415860

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 2255.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Rochdale Canal Catchment Name: Mersey Primacy: 1	A9NW (SE)	685	5	392695 415280
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 51.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A7NE (SW)	686	5	391555 415162
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 52.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14SE (E)	729	5	392826 415479
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 74.2 Watercourse Level: Underground Permanent: True Watercourse Name: Ash Brook Catchment Name: Mersey Primacy: 1	A12NW (W)	733	5	391316 415760
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ash Brook Catchment Name: Mersey Primacy: 1	A12NW (W)	734	5	391312 415735
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 428.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ash Brook Catchment Name: Mersey Primacy: 1	A12NW (W)	735	5	391308 415700
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 502.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ash Brook Catchment Name: Mersey Primacy: 1	A17SE (NW)	760	5	391463 416146
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 31.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A17SE (NW)	767	5	391432 416120
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14NE (E)	800	5	392911 415741

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 70.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A12NW (W)	801	5	391256 415812
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A14NE (E)	815	5	392928 415717
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 169.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Roch Catchment Name: Mersey Primacy: 1	A14NE (E)	824	5	392939 415701
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 81.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ash Brook Catchment Name: Mersey Primacy: 1	A7NW (W)	861	5	391251 415314
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 61.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ash Brook Catchment Name: Mersey Primacy: 1	A7NW (W)	861	5	391251 415314
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A8SW (S)	877	5	391781 414803
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.1 Watercourse Level: Underground Permanent: True Watercourse Name: Ash Brook Catchment Name: Mersey Primacy: 1	A7NW (SW)	878	5	391257 415257
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A8SW (S)	883	5	391772 414800
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A8SW (S)	883	5	391772 414800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 53.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A8SW (S)	888	5	391749 414802
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A7SE (SW)	890	5	391699 414820
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 373.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ash Brook Catchment Name: Mersey Primacy: 1	A7NW (SW)	890	5	391266 415215
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A7SE (SW)	893	5	391689 414821
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 244.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A7SE (SW)	894	5	391686 414821
89	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 156.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Rochdale Canal Catchment Name: Mersey Primacy: 1	A9SW (SE)	920	5	392472 414800
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A9SW (SE)	920	5	392472 414800
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 105.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A9SW (SE)	930	5	392573 414838
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 124.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A9SW (SE)	930	5	392573 414838

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 238.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Roch Catchment Name: Mersey Primacy: 1	A14NE (E)	944	5	393047 415809
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 212.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A8SE (S)	971	5	392368 414706
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Mersey Primacy: 1	A9SW (SE)	972	5	392694 414867
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 158.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Featherstall Brook Catchment Name: Mersey Primacy: 1	A19SE (NE)	990	5	392893 416268
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 128.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Featherstall Brook Catchment Name: Mersey Primacy: 1	A19SE (NE)	990	5	392893 416268
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 227.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Featherstall Brook Catchment Name: Mersey Primacy: 1	A19SE (NE)	998	5	392993 416128

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
99	BGS Recorded Landfill Sites Site Name: Para Wales Location: Smithy Bridge, LITTLEBOROUGH, Lancs Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Positioned by the supplier Boundary Accuracy: Moderate	A14SE (E)	757	-	392850 415462
100	Historical Landfill Sites Licence Holder: Rochdale Borough Planning and Estates Officer Location: Off Littleborough, Rochdale, Greater Manchester Name: New Street/Land At Stubley Mill Road Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD15680 First Input Date: 31st March 1988 Last Input Date: 31st December 1990 Specified Waste Type: Deposited Waste included Inert Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 4200/9238 BGS Ref: Not Supplied Other Ref: D033, RD/LIC/490/87	A14NW (E)	436	2	392551 415686
101	Historical Landfill Sites Licence Holder: K Rutherford Location: Off Wardle Road, Rochdale, Greater Manchester Name: Land Behind Halfway Public House Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD15675 First Input Date: 31st December 1985 Last Input Date: 31st December 1986 Specified Waste Type: Deposited Waste included Inert Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 4200/9010 BGS Ref: Not Supplied Other Ref: D010, RD/LIC/356/84	A12NE (NW)	671	2	391439 415949
102	Historical Landfill Sites Licence Holder: MPB Auto Painters Location: Off Brown Lodge Drive, Smithy Bridge, Littleborough, Greater Manchester Name: Paragon Industrial Works Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD15683 First Input Date: 1st May 1984 Last Input Date: 31st December 1984 Specified Waste Type: Deposited Waste included Inert and Industrial Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 4200/9126 BGS Ref: 500 Other Ref: RD/LIC/321/83, D052	A14SE (E)	740	2	392832 415460
103	Licensed Waste Management Facilities (Locations) Licence Number: 404232 Location: Unit 4 Dobwheel Mill, Dyehouse Lane, Rochdale, Lancashire, OL16 2QS Operator Name: Siddique Wasim Operator Location: Not Supplied Authority: Environment Agency - North West Region, South Area Site Category: Vehicle depollution facility Licence Status: Modified Issued: 16th May 2018 Last Modified: 12th November 2021 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	790	2	391543 415031

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
104	Licensed Waste Management Facilities (Locations) Licence Number: 50401 Location: Mayer Bros Industriail Park, Dyehouse Lane, Smallbridge, Rochdale, Lancashire, OL16 2PF Operator Name: Mayer Bros Excavation Ltd Operator Location: Not Supplied Authority: Environment Agency - North West Region, South Area Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Revoked Issued: 11th October 2005 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7SW (SW)	973	2	391395 414918
	Local Authority Landfill Coverage Name: Rochdale Metropolitan Borough Council - Has no landfill data to supply		0	3	392079 415652
105	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A13NE (NE)	326	-	392281 415941
106	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A13NE (NE)	343	-	392377 415877
107	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A18SE (NE)	466	-	392403 416025
108	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A12NE (W)	524	-	391552 415845
109	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A18SE (N)	621	-	392233 416278
110	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A18NE (N)	744	-	392166 416415
111	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A18NE (N)	776	-	392329 416412
112	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A12SW (W)	796	-	391291 415386
113	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A18NE (N)	801	-	392287 416451
114	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A18NW (N)	815	-	391818 416445
115	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A17NE (NW)	841	-	391665 416405
116	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A12NW (W)	879	-	391207 415928

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
117	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A17NE (NW)	891	-	391717 416486
118	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A18NE (N)	892	-	392158 416564
119	Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A7NW (SW)	932	-	391381 414988
120	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A18NW (N)	958	-	391754 416574
121	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A14SE (E)	968	-	393075 415513
122	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A12NW (W)	971	-	391102 415899
123	Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A7NW (SW)	988	-	391226 415093
124	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A13NW (NW)	76	-	392006 415719
125	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1932	A13SE (E)	126	-	392242 415644
126	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A13NE (N)	167	-	392099 415841
127	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A13NE (E)	289	-	392403 415679
128	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A13NW (W)	293	-	391753 415709
129	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A13SW (W)	312	-	391745 415557
130	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A14SW (E)	386	-	392500 415606
131	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A14SW (E)	391	-	392486 415520
132	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A12NE (W)	465	-	391579 415700
133	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A14SW (E)	466	-	392553 415485
134	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A12SE (W)	472	-	391573 415592
135	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A18SW (N)	526	-	392050 416200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
136	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A14SW (E)	532	-	392632 415516
137	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A7NE (SW)	666	-	391728 415054
138	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A14SE (E)	695	-	392811 415629
139	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A19SW (NE)	706	-	392531 416229
140	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A7NE (SW)	732	-	391568 415086
141	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1851	A12SW (W)	800	-	391253 415514
142	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A7NW (SW)	845	-	391385 415115
143	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A19SW (NE)	848	-	392673 416296
144	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A12NW (W)	943	-	391129 415889
145	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A19SE (NE)	949	-	392840 416270
146	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1911	A7SW (SW)	975	-	391339 414970
147	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1932	A7NW (SW)	990	-	391296 414995

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
148	Registered Landfill Sites Licence Holder: Rochdale M.B.C. Licence Reference: 00490/87/M1 Site Location: New Street / Stubley Mill Road, Littleborough, Lancashire Licence Easting: 392600 Licence Northing: 415720 Operator Location: Municipal Offices, Smith Street, ROCHDALE, Lancashire, OL16 1JH Authority: Environment Agency - North West Region, South Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st March 1988 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Ceramic Materials Constr'N Ind. Wastes Containing Only Fibreglass Glass Metals Plastics Similar Non Leachate Forming Materials Soil,Clay,Sand, Stone,Brick,Concrete,Slate Wood Prohibited Waste: Animal Flesh Chemical Waste Of Any Nature Foodstuffs Paper/Cardboard Plasterboard Sawdust Textiles Vegetable Matter Waste Forming Polluting Leachate Waste In Liquid Or Sludge Form	A14NW (E)	489	2	392600 415720

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
149	Registered Landfill Sites Licence Holder: M.P.B. Auto Painters Licence Reference: 00321/831 Site Location: Unit 1 Paragon Industrial Works, Smithy Bridge, Littleborough, Lancashire Licence Easting: 392870 Licence Northing: 415460 Operator Location: As Site Address Authority: Environment Agency - North West Region, South Area Site Category: Landfill Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 3rd April 1984 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Ceramic Waste Constr'N/Demol. Inert/Non-Haz/Non-Tox Glass/Cullet Ind. Non-Haz. Inert, Non-Flammable Ind. Non-Haz. Potentially Combustible Metal Scrap Non Leachate Forming Waste Other Resins And Polymeric Materials Plastic/Polythene (Including Sacks) Soil, Clay, Sand Stone, Brick, Concrete, Slate Wood Waste/Timber Prohibited Waste: Carcasses And Flesh Chemical Wastes Food Waste Liquid Wastes Paper/Cardboard Waste Plasterboard/Plaster Sawdust/Bark Sludge Wastes Textiles, Rag, Wool, Cloth, Hessian Etc Vegetable/Processing Waste Waste Forming Polluting Leachate	A14SE (E)	777	2	392870 415460

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
150	Registered Landfill Sites Licence Holder: Wardle Football & Cricket Club Licence Reference: 00356/84 Site Location: Rear Of Halfway Public House, Wardle Road, Rochdale, Lancashire Licence Easting: 391200 Licence Northing: 415950 Operator Location: 594 Halifax Road, Hurstead, ROCHDALE, Lancashire, OL16 2RZ Authority: Environment Agency - North West Region, South Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 5th February 1985 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste Ceramic Waste Constr'N/Demol. Inert/Non-Haz/Non-Tox Fibreglass Glass/Cullet Metal Scrap Non Leachate Forming Waste Plastic/Polythene (Including Sacks) Soil,Clay,Sand Stone,Brick,Concrete,Slate Wood Waste/Timber Prohibited Waste Carcasses And Flesh Chemical Wastes Food Waste Liquid Wastes Paper/Cardboard Waste Plasterboard Plastic/Polythene (Including Sacks) Sawdust/Bark Sludge Wastes Textiles, Rag,Wool,Cloth,Hessian Etc Vegetable/Processing Waste Waste Forming Polluting Leachate	A12NW (W)	892	2	391200 415950
151	Registered Waste Treatment or Disposal Sites Licence Holder: Rochdale Health Care Nhs Trust Licence Reference: 00566 Site Location: Birch Hill Hospital Incinerator, ROCHDALE, Lancashire, OL12 9QB Operator Location: Estates Dept, Birch Hill Hosp, Rochdale, Lancashire Authority: Environment Agency - North West Region, South Area Site Category: Incineration - with transfer Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st June 1992 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste Clinical - As In Coll/Disp.Reg. Of '88 Commercial Waste Ex Rochdale Health Au Laboratory Chemicals Max.Waste Permitted By Licence-States Pharmaceutical Waste Prohibited Waste Explosive Waste Malodorous Waste Pressurised Waste Pretreated Waste Not Permit.By Lic. Radioactive Wastes Violently Reactive Wastes Waste In Drums Waste N.O.S.	A18SE (N)	525	2	392100 416200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Pennine Lower Coal Measures Formation And South Wales Lower Coal Measures Formation (Undifferentiated)	A13SE (E)	0	1	392079 415652
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A13SE (E)	0	1	392079 415652
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 1.8 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A13SW (W)	41	1	392000 415652
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SW (SW)	44	1	392012 415615
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 1.8 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SW (W)	44	1	392000 415637
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 1.8 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A13SW (SW)	70	1	392000 415589
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SE (E)	204	1	392320 415633

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13NE (NE)	206	1	392190 415853
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13NW (N)	240	1	392000 415900
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 90 - 120 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SE (S)	326	1	392195 415328
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A14SW (E)	367	1	392456 415509
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13NE (NE)	379	1	392336 415968
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A8NE (SE)	397	1	392250 415273

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (E)	439	1	392554 415684
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SW (E)	446	1	392525 415471
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium 1.8 - 2.2 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8NW (S)	464	1	392000 415177
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A19SW (NE)	516	1	392500 416000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A12SE (W)	541	1	391500 415652
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (W)	552	1	391500 415763

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A14NW (E)	589	1	392683 415811
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A8NW (S)	595	1	392035 415042
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 1.8 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A8NW (S)	596	1	392000 415044
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 90 - 120 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A14NW (E)	603	1	392701 415798
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 1.8 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A17SE (NW)	643	1	391500 416000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A19SW (NE)	655	1	392671 416000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium 1.8 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A8NE (SE)	689	1	392352 415000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (E)	741	1	392842 415798
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A19NW (NE)	774	1	392456 416355
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SW (W)	791	1	391259 415536
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SE (E)	799	1	392894 415462
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SE (E)	799	1	392894 415465

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 2.2 - 3.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A7NE (SW)	801	1	391500 415055
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A18NW (N)	803	1	391834 416438
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 1.8 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A7SE (SW)	819	1	391593 414958
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 600 - 1200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A18NE (N)	825	1	392079 416500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 300 - 600 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A18NW (N)	829	1	392000 416500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 300 - 600 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A18NW (N)	852	1	391872 416500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 600 - 1200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A18NE (N)	856	1	392316 416500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 600 - 1200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A18NE (N)	876	1	392381 416500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 1.8 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A8SW (S)	908	1	392022 414729
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 300 - 600 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A17NE (NW)	911	1	391699 416500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 1.8 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A7NW (SW)	916	1	391392 415000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A19SE (E)	936	1	392984 416000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 600 - 1200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A18NE (N)	937	1	392330 416580
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A14SE (E)	972	1	393088 415625
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 mg/kg Concentration: Cadmium: 1.8 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A17SW (NW)	981	1	391264 416252
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A19SE (NE)	994	1	393012 416079
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A19SE (NE)	995	1	393010 416088
152	BGS Recorded Mineral Sites Site Name: Newroad Location: Littleborough, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 96209 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Milnrow Sandstone Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A13NE (NE)	315	1	392270 415934

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
153	BGS Recorded Mineral Sites Site Name: Green Gate Brick Works Location: Green Gate, Rochdale, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 96258 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Till, Devensian Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A12SE (W)	469	1	391573 415629
154	BGS Recorded Mineral Sites Site Name: Starring Stoneware Works Location: Wardle, Rochdale, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 15036 Type: Underground And Opencast Status: Ceased Operator: Individual'S Name Withheld Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Fireclay Positional Accuracy: Located by supplier to within 10m	A18SE (N)	586	1	392200 416250
155	BGS Recorded Mineral Sites Site Name: Starring Sanitary Pipe Works Location: Wardle, Rochdale, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 96265 Type: Opencast Status: Ceased Operator: Individual'S Name Withheld Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18SE (N)	639	1	392167 416309
156	BGS Recorded Mineral Sites Site Name: Green Gate Clay Pit Location: Green Gate, Rochdale, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 96257 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Till, Devensian Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A12SW (W)	800	1	391285 415392
157	BGS Recorded Mineral Sites Site Name: Bench Carr Location: Wardle, Rochdale, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 96247 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18NW (N)	808	1	391813 416436
158	BGS Recorded Mineral Sites Site Name: Starring Wood Location: Littleborough, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 96197 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18NW (N)	906	1	392076 416581

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
159	BGS Recorded Mineral Sites Site Name: Bench Carr Location: Wardle, Rochdale, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 96266 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A17NE (NW)	933	1	391662 416506
160	BGS Recorded Mineral Sites Site Name: Birchen Head Brick Field Location: Buckley, Rochdale, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 96210 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A12NW (W)	956	1	391138 415966
161	BGS Recorded Mineral Sites Site Name: Brown Brow Hill Location: Littleborough, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 96208 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Milnrow Sandstone Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14SE (E)	964	1	393072 415521
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13SE (E)	0	6	392079 415652
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13SE (E)	0	-	392079 415652
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	1	392079 415652
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	1	392079 415652
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	1	392079 415652
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	1	392079 415652
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	246	1	392192 415413

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	1	392079 415652
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	225	1	392190 415874
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	1	392079 415652
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	225	1	392190 415874
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	1	392079 415652
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	1	392079 415652

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
162	Contemporary Trade Directory Entries Name: Cooke Petroleum Ltd Location: Mount Green Garage, Halifax Road, Rochdale, Lancashire, OL16 2SN Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (E)	2	-	392113 415660
163	Contemporary Trade Directory Entries Name: N H Fabrications Location: Old Road, Rochdale, Lancashire, OL16 2SJ Classification: Wrought Ironwork Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	22	-	392049 415616
163	Contemporary Trade Directory Entries Name: Inspired Fires Location: 634, Halifax Road, Rochdale, Lancashire, OL16 2SQ Classification: Fireplaces & Mantelpieces Status: Inactive Positional Accuracy: Manually positioned to the address or location	A13SW (W)	29	-	392019 415633
164	Contemporary Trade Directory Entries Name: Rebel Gadgets Location: 667, Halifax Road, Rochdale, OL12 9QZ Classification: Computer Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (W)	161	-	391888 415603
165	Contemporary Trade Directory Entries Name: David Wetton Location: 17, Union Road, Rochdale, Lancashire, OL12 9QA Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (N)	178	-	392123 415849
165	Contemporary Trade Directory Entries Name: Wetton D Service Engineer Location: 17, UNION ROAD, WARDLE, ROCHDALE, OL12 9QA Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Active Positional Accuracy: Automatically positioned to the address	A13NE (N)	178	-	392123 415849
165	Contemporary Trade Directory Entries Name: David Wetton Location: 17, Union Road, Rochdale, Lancashire, OL12 9QA Classification: Washing Machines - Servicing & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (N)	178	-	392123 415849
166	Contemporary Trade Directory Entries Name: W Pickersgill & Sons Location: Stott St, Hurstead, Rochdale, Lancashire, OL16 2SB Classification: Car Dealers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A13SW (SW)	233	-	391866 415494
167	Contemporary Trade Directory Entries Name: Auto Recovery Location: 124, New Road, Littleborough, OL15 8NL Classification: Car Breakers & Dismantlers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	299	-	392350 415841
168	Contemporary Trade Directory Entries Name: Birch Hill Hospital Location: Birch Hill Hospital, Union Road, Rochdale, Lancashire, OL12 9QB Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	305	-	392071 415979
169	Contemporary Trade Directory Entries Name: Thimble Cleaning Services Location: 57, Thimble Close, Rochdale, Lancashire, OL12 9QP Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address	A12NE (W)	353	-	391690 415688
170	Contemporary Trade Directory Entries Name: Prestige Carpet Cleaning Location: 39, Ralph Sherwin Court, Rochdale, Lancashire, OL12 9AU Classification: Carpet & Fabric Proofing Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (W)	452	-	391595 415723

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
171	Contemporary Trade Directory Entries Name: Elite Kleen Location: 98, BIRCH ROAD, WARDLE, ROCHDALE, OL12 9QN Classification: Carpet, Curtain & Upholstery Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A18SW (NW)	478	-	391780 416053
172	Contemporary Trade Directory Entries Name: Goodliff Location: Eafield Road, Littleborough, Lancashire, OL15 8HS Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (SE)	514	-	392398 415218
173	Contemporary Trade Directory Entries Name: Paragon Car Sales Location: 14, Smithy Bridge Road, Littleborough, Lancashire, OL15 8QF Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	519	-	392502 415301
174	Contemporary Trade Directory Entries Name: Aromatic Variety Candles Location: 2, Birch Hey Close, Rochdale, Lancashire, OL12 9UN Classification: Candle Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (W)	586	-	391466 415766
175	Contemporary Trade Directory Entries Name: Sutcliffe'S Motor Bodies Location: 4, Barke Street, Littleborough, Lancashire, OL15 8QN Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	599	-	392529 415215
175	Contemporary Trade Directory Entries Name: Al-Ex Services Location: 24, Smithy Bridge Road, Littleborough, Lancashire, OL15 8QF Classification: Air Conditioning Equipment & Systems Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	616	-	392558 415219
175	Contemporary Trade Directory Entries Name: Extrusion Press Services Uk Ltd Location: 30-32, Smithy Bridge Road, Littleborough, Lancashire, OL15 8QF Classification: Mechanical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	638	-	392577 415208
175	Contemporary Trade Directory Entries Name: Decorative Leaded Windows Location: 30-32, Smithy Bridge Road, Littleborough, Lancashire, OL15 8QF Classification: Leaded Lights & Windows Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	638	-	392577 415208
175	Contemporary Trade Directory Entries Name: E P S Control Technology Ltd Location: 30-32, Smithy Bridge Road, Littleborough, Lancashire, OL15 8QF Classification: Electrical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	638	-	392577 415208
175	Contemporary Trade Directory Entries Name: Roche-Man Projects Location: 30-32, Smithy Bridge Road, Littleborough, Lancashire, OL15 8QF Classification: Children & Babywear - Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	638	-	392577 415208
175	Contemporary Trade Directory Entries Name: Develop Sales Location: 30-32, Smithy Bridge Road, Littleborough, Lancashire, OL15 8QF Classification: Photocopiers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	638	-	392577 415208
176	Contemporary Trade Directory Entries Name: Fr Joinery & Construction Services Location: New Rd, Littleborough, Lancashire, OL15 8LX Classification: Joinery Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A19SW (NE)	615	-	392620 416006

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
177	Contemporary Trade Directory Entries Name: The Sherpley Motor Co Location: James Street, Littleborough, Lancashire, OL15 8LT Classification: Car Kit Assemblers Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A19SW (NE)	625	-	392597 416054
178	Contemporary Trade Directory Entries Name: Gale Motors Location: Harwood Street Garage, Harwood Street, Littleborough, OL15 8NA Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SW (NE)	652	-	392584 416110
179	Contemporary Trade Directory Entries Name: Ranger Motor Homes Location: Ashbrook Hey, Rochdale, Lancashire, OL12 9AH Classification: Caravan Dealers & Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	666	-	391396 415817
180	Contemporary Trade Directory Entries Name: Jo'S Textiles Location: Unit 1, Drydock Mill, New Road, Littleborough, Lancashire, OL15 8LX Classification: Textile Manufacturing Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SW (NE)	700	-	392671 416081
180	Contemporary Trade Directory Entries Name: Sphinx Bathroom Ltd Location: Drydock Mill, New Road, Littleborough, Lancashire, OL15 8LX Classification: Bathroom Fixtures - Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A19SW (NE)	700	-	392671 416081
180	Contemporary Trade Directory Entries Name: Starwood Mouldings Ltd Location: Unit 1, Drydock Mill, New Road, Littleborough, Lancashire, OL15 8LX Classification: Wood Products, Except Furniture - Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A19SW (NE)	700	-	392671 416081
180	Contemporary Trade Directory Entries Name: Brookfield Engineering Co Location: 13 James Street, Littleborough, Lancashire, OL15 8LT Classification: Engineers - General Status: Active Positional Accuracy: Manually positioned to the address or location	A19SW (NE)	706	-	392676 416084
181	Contemporary Trade Directory Entries Name: Birch Hill Hospital Location: Birch Hill Hospital, Birch Road, Rochdale, Lancashire, OL12 9QB Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (NW)	703	-	391745 416291
182	Contemporary Trade Directory Entries Name: Mpb Location: Paragon Industrial Estate, Smithy Bridge Road, Littleborough, Lancashire, OL15 8QF Classification: Commercial Vehicle Bodybuilders & Repairers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	716	-	392783 415387
182	Contemporary Trade Directory Entries Name: E K Motors Location: Paragon Ind Est, Smithy Bridge Rd, Littleborough, Lancashire, OL15 8QF Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A14SE (E)	716	-	392782 415386
182	Contemporary Trade Directory Entries Name: E K Motors Location: Unit 2, Paragon Industrial Estate, Smithy Bridge Road, Littleborough, OL15 8QF Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (E)	716	-	392783 415387

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
182	Contemporary Trade Directory Entries Name: Bu-Val Buses Ltd Location: Paragon Industrial Estate, Smithy Bridge Road, Littleborough, Lancashire, OL15 8QF Classification: Bus & Coach Operators & Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	717	-	392783 415387
182	Contemporary Trade Directory Entries Name: Abbie Comp (Uk) Location: Paragon Industrial Estate, Smithy Bridge Road, Littleborough, Lancashire, OL15 8QF Classification: Screen Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	717	-	392783 415387
183	Contemporary Trade Directory Entries Name: R T T Location: Ashbrook Hey Works, Ashbrook Hey Lane, Rochdale, Lancashire, OL12 9AH Classification: Agricultural Machinery - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	734	-	391314 415758
184	Contemporary Trade Directory Entries Name: Calderbrook Woodworking Machinery Ltd Location: 6, Tarnside Close, Rochdale, Lancashire, OL16 2QD Classification: Woodworking Machinery Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	736	-	391475 415177
185	Contemporary Trade Directory Entries Name: Tuf Towers Location: 15, Broadfield Drive, Littleborough, Lancashire, OL15 0EU Classification: Scaffolding & Work Platforms Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	755	-	392582 415054
186	Contemporary Trade Directory Entries Name: Allfords Rochdale Ford Breakers Parts Location: Unit 6 Dobwheel Mill, Dyehouse Lane, Rochdale, Lancashire, OL16 2QN Classification: Car Breakers & Dismantlers Status: Active Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	784	-	391553 415031
186	Contemporary Trade Directory Entries Name: Penbrook Plastics Location: Dob Wheel Mill, Dyehouse Lane, Rochdale, OL16 2QS Classification: Recycling Centres Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	784	-	391553 415031
186	Contemporary Trade Directory Entries Name: Just Fords Location: Unit 4, Dobwheel Mill, Dyehouse Lane, Rochdale, Lancashire, OL16 2AD Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	801	-	391530 415029
186	Contemporary Trade Directory Entries Name: Northwest Joinery Location: Unit 1, Dobwheel Mill, Dyehouse Lane, Rochdale, Lancashire, OL16 2AD Classification: Joinery Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	801	-	391530 415029
187	Contemporary Trade Directory Entries Name: David Royds Location: 2, Farm Walk, Littleborough, Lancashire, OL15 8LJ Classification: Plastics - Raw Materials Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SW (NE)	790	-	392614 416271
188	Contemporary Trade Directory Entries Name: Vogue Recovery Location: The Barn, Bents Farm, Starring Way, Littleborough, Lancashire, OL15 8RE Classification: Breakdown and Recovery Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SW (NE)	820	-	392708 416223

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
189	Contemporary Trade Directory Entries Name: Mobilmech Location: 71, Brown Lodge Drive, Littleborough, Lancashire, OL15 0ET Classification: Car Engine Tuning & Diagnostic Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	832	-	392885 415331
190	Contemporary Trade Directory Entries Name: Sureheat Location: 25, Garden Way, Littleborough, Lancashire, OL15 0ED Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A9SW (SE)	846	-	392558 414927
191	Contemporary Trade Directory Entries Name: Mabyrn Rubber Co Ltd Location: Dyehouse Lane, Rochdale, Lancashire, OL16 2QN Classification: Chemical Plant & Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	847	-	391551 414953
192	Contemporary Trade Directory Entries Name: Pressing Matters Location: 1, Edward Avenue, Littleborough, Lancashire, OL15 8QW Classification: Ironing & Home Laundry Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NE (SE)	848	-	392821 415178
193	Contemporary Trade Directory Entries Name: Rotational Mouldings Green Grove Mill Location: Green Grove Mill, Dyehouse Lane, Rochdale, OL16 2QN Classification: Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	851	-	391361 415138
193	Contemporary Trade Directory Entries Name: Haywood Rotomoulding Ltd Location: Green Grove Mill, Dyehouse La, Rochdale, Lancashire, OL16 2QN Classification: Mould Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7NW (SW)	851	-	391361 415138
193	Contemporary Trade Directory Entries Name: Haywood Rotomoulding Ltd Location: Green Grove Mill, Dyehouse La, Rochdale, Lancashire, OL16 2QN Classification: Plastics - Injection Moulding Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7NW (SW)	851	-	391361 415138
194	Contemporary Trade Directory Entries Name: Rochdale Ironing Service Location: 52, Little Clegg Road, Littleborough, Lancashire, OL15 0EF Classification: Ironing & Home Laundry Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A9SW (SE)	859	-	392630 414960
195	Contemporary Trade Directory Entries Name: Madcap Designs Location: 1, Bridge Street, Rochdale, Lancashire, OL12 9AA Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	866	-	391261 415277
196	Contemporary Trade Directory Entries Name: G W Damproofing Location: 1, Starring Way, Littleborough, Lancashire, OL15 8LP Classification: Damp & Dry Rot Control Status: Active Positional Accuracy: Automatically positioned to the address	A19NW (NE)	871	-	392529 416427
197	Contemporary Trade Directory Entries Name: Cjc Fabrications Location: 2B Clegg Hall Rd, Rochdale, Lancashire, OL16 2QR Classification: Engineers - General Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A8SW (S)	875	-	391754 414814
198	Contemporary Trade Directory Entries Name: Littleborough Removals Location: 3, Beaumont Close, Littleborough, Lancashire, OL15 8NR Classification: Boxes & Cartons Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SE (NE)	887	-	392797 416223

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
199	Contemporary Trade Directory Entries Name: Smallbridge Joinery Location: 9, Dyehouse Lane, Rochdale, Lancashire, OL16 2QN Classification: Joinery Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	904	-	391282 415159
199	Contemporary Trade Directory Entries Name: Perfect Paint Motor Bodies Location: Dyehouse La, Rochdale, Lancashire, OL16 2QN Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7NW (SW)	926	-	391280 415122
200	Contemporary Trade Directory Entries Name: Dyehouse Lane Garage Location: Dyehouse Lane, Rochdale, Lancashire, OL16 2QN Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A7NW (SW)	910	-	391394 415007
200	Contemporary Trade Directory Entries Name: Haywood Rotomouldings Ltd Location: Green Grove Industrial Park, Dyehouse Lane, Rochdale, Lancashire, OL16 2QN Classification: Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A7NW (SW)	910	-	391394 415007
201	Contemporary Trade Directory Entries Name: Bury Pallet Services Ltd Location: Unit 1 Dyehouse Lane, Rochdale, OL16 2QN Classification: Recycling Services Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A7NW (SW)	914	-	391344 415057
201	Contemporary Trade Directory Entries Name: Budget Tyre & Exhaust Centre Location: Dyehouse Lane, Rochdale, Lancashire, OL16 2QN Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7NW (SW)	919	-	391323 415075
202	Contemporary Trade Directory Entries Name: Auto Leisure Homes Location: Unit 2, Dyehouse Lane, Clegg Hall Rd, Rochdale, Lancashire, OL16 2QR Classification: Car Customisation & Conversion Specialists Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7SE (SW)	930	-	391476 414906
202	Contemporary Trade Directory Entries Name: R Pickering Location: New Mill Cottage, Clegg Hall Road, Rochdale, OL16 2QR Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	936	-	391441 414927
203	Contemporary Trade Directory Entries Name: Scratchworks Location: 7, Mill Fold Gardens, Littleborough, Lancashire, OL15 8SA Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	933	-	393023 415871
204	Contemporary Trade Directory Entries Name: Harris Associates Ltd Location: 22, Laurels Drive, Littleborough, OL15 0DU Classification: Electrical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NE (SE)	958	-	392843 415024
205	Contemporary Trade Directory Entries Name: Broadfield Plastics Ltd Location: Foxcroft Street, Littleborough, Lancashire, OL15 8LB Classification: Glass Fibre Moulding, Materials & Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SE (NE)	962	-	392878 416242

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
206	Contemporary Trade Directory Entries Name: Freelance Electronic Solutions Location: 53, Wordsworth Crescent, Littleborough, OL15 0RB Classification: Electronic Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9SE (SE)	968	-	392799 414962
206	Contemporary Trade Directory Entries Name: Littleborough Location: 53, Wordsworth Crescent, Littleborough, Lancashire, OL15 0RB Classification: Furniture - Repairing & Restoring Status: Inactive Positional Accuracy: Automatically positioned to the address	A9SE (SE)	968	-	392799 414962
207	Contemporary Trade Directory Entries Name: Active Stairlift Ltd Location: 60, Bridge Bank Road, Littleborough, Lancashire, OL15 8QU Classification: Stairlifts - Manufacturers & Installers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NE (E)	992	-	393034 415272
208	Contemporary Trade Directory Entries Name: Immaculate Ovens Location: 72, Louise Gardens, ROCHDALE, Lancashire, OL12 9RZ Classification: Oven cleaning Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (W)	995	-	391113 415294
209	Fuel Station Entries Name: Gem Rochdale Location: Halifax Road , Wardle , Rochdale, Greater Manchester, OL16 2SQ Brand: Texaco Premises Type: Petrol Station Status: Open Positional Accuracy: Manually positioned to the address or location	A13NE (NE)	11	-	392105 415673
210	Points of Interest - Commercial Services Name: E K Motors Location: Flat 2 Stafford Court, Smithy Bridge Road, Littleborough, OL15 8QF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NE (E)	148	7	392254 415703
211	Points of Interest - Commercial Services Name: Sutcliffe's Motor Bodies Location: 4 Barke Street, Littleborough, OL15 8QN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	599	7	392529 415215
211	Points of Interest - Commercial Services Name: Sutcliffe's Motor Bodies Location: 4 Barke Street, Littleborough, OL15 8QN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	599	7	392529 415215
212	Points of Interest - Commercial Services Name: Aspect Valeting Manchester Ltd Location: 9 Carrington Close, Rochdale, OL16 2QE Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A7NE (SW)	644	7	391586 415191
213	Points of Interest - Commercial Services Name: Gale Motors Location: Harwood Street Garage, Harwood Street, Littleborough, OL15 8NA Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19SW (NE)	651	7	392584 416110
213	Points of Interest - Commercial Services Name: Gale Motors Location: Harwood Street Garage, Harwood Street, Littleborough, OL15 8NA Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19SW (NE)	652	7	392584 416110
214	Points of Interest - Commercial Services Name: E K Motors Location: Paragon Industrial Estate, Smithy Bridge Road, Littleborough, OL15 8QF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SE (E)	717	7	392783 415387

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
215	Points of Interest - Commercial Services Name: Allfords Rochdale Ford Breakers Parts Location: Unit 6 Dobwheel Mill, Dyehouse Lane, Rochdale, OL16 2QN Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A7NE (SW)	784	7	391553 415031
216	Points of Interest - Commercial Services Name: Stephen Heywood Location: Green Grove Mill, Dyehouse Lane, Rochdale, OL16 2QN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NW (SW)	850	7	391361 415138
216	Points of Interest - Commercial Services Name: S Heywood Location: Green Grove Mill, Dyehouse Lane, Rochdale, OL16 2QN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NW (SW)	850	7	391361 415138
216	Points of Interest - Commercial Services Name: Perfect Paint Motor Bodys Location: Unit C Green Grove Mill, Dye House Lane, Rochdale, Lancashire, OL16 2QN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NW (SW)	851	7	391361 415138
217	Points of Interest - Commercial Services Name: Scratchworks Location: 7 Mill Fold Gardens, Littleborough, OL15 8SA Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NE (E)	933	7	393023 415871
217	Points of Interest - Commercial Services Name: Scratchworks Location: 7 Mill Fold Gardens, Littleborough, OL15 8SA Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NE (E)	933	7	393023 415871
218	Points of Interest - Commercial Services Name: Ansari Motors Location: 1 James Street, Great Howarth, Rochdale, OL12 9HU Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	958	7	391114 415893
219	Points of Interest - Education and Health Name: Birch Hill Hospital Location: Birch Hill Hospital, Birch Road, Rochdale, OL12 9QB Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A13NW (N)	305	7	392071 415979
220	Points of Interest - Education and Health Name: Birch Hill Hospital Location: Birch Hill Hospital, Birch Road, Rochdale, OL12 9QB Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18SW (NW)	703	7	391745 416291
220	Points of Interest - Education and Health Name: Birch Hill Hospital Location: Birch Hill Hospital, Birch Road, Rochdale, OL12 9QB Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18SW (NW)	703	7	391745 416291
220	Points of Interest - Education and Health Name: Birch Hill Hospital Location: Birch Hill Hospital, Birch Road, Wardle, Rochdale, OL12 9QB Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18SW (NW)	709	7	391750 416300
221	Points of Interest - Manufacturing and Production Name: Tanks Location: OL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	335	7	391990 415996

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
222	Points of Interest - Manufacturing and Production Name: Works Location: OL15 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	530	7	392456 415242
222	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	530	7	392456 415242
222	Points of Interest - Manufacturing and Production Name: Works Location: OL15 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A9NW (SE)	536	7	392456 415234
222	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	555	7	392510 415258
222	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	590	7	392520 415219
222	Points of Interest - Manufacturing and Production Name: Works Location: OL15 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	590	7	392520 415219
223	Points of Interest - Manufacturing and Production Name: Works Location: OL15 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	638	7	392601 416069
223	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	641	7	392576 416103
223	Points of Interest - Manufacturing and Production Name: Works Location: OL15 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	642	7	392576 416104
224	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	730	7	391320 415767
224	Points of Interest - Manufacturing and Production Name: Works Location: OL12 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	730	7	391320 415767
225	Points of Interest - Manufacturing and Production Name: Industrial Estate Location: OL15 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	741	7	392819 415414

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
226	Points of Interest - Manufacturing and Production Name: Tank Location: OL15 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	870	7	392753 416249
227	Points of Interest - Manufacturing and Production Name: Works Location: OL16 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	870	7	391546 414928
227	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	871	7	391546 414927
228	Points of Interest - Manufacturing and Production Name: Old Shaft Location: OL15 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	896	7	392166 416567
229	Points of Interest - Manufacturing and Production Name: Works Location: OL15 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A19SE (NE)	969	7	392901 416222
229	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	970	7	392905 416218
230	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SW (SW)	995	7	391371 414910
230	Points of Interest - Manufacturing and Production Name: Works Location: OL16 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SW (SW)	995	7	391371 414910
231	Points of Interest - Public Infrastructure Name: Texaco Location: Halifax Road, Rochdale, OL16 2SQ Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13NE (NE)	11	7	392105 415673
231	Points of Interest - Public Infrastructure Name: Gem Rochdale Location: Halifax Road, Wardle, Rochdale, OL16 Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13NE (NE)	11	7	392105 415673
232	Points of Interest - Public Infrastructure Name: Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A18SE (NE)	422	7	392371 415994
232	Points of Interest - Public Infrastructure Name: Cemetery Location: OL15 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A18SE (NE)	422	7	392371 415994

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
232	Points of Interest - Public Infrastructure Name: Cemetery Location: OL15 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A18SE (NE)	501	7	392389 416079
233	Points of Interest - Public Infrastructure Name: Weir Location: OL15 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	431	7	392541 415572
233	Points of Interest - Public Infrastructure Name: Sluice Location: OL15 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	433	7	392544 415578
233	Points of Interest - Public Infrastructure Name: Sluice Location: OL15 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	438	7	392549 415578
234	Points of Interest - Public Infrastructure Name: Ash Brook Weir Location: OL12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12NE (NW)	626	7	391508 415980
234	Points of Interest - Public Infrastructure Name: Weir Location: OL12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12NE (NW)	629	7	391503 415978
235	Points of Interest - Public Infrastructure Name: Smithy Bridge Rail Station Location: Excelsior Terrace, OL15 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A9NW (SE)	645	7	392565 415186
235	Points of Interest - Public Infrastructure Name: Smithy Bridge Station Location: Excelsior Terrace, OL15 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A9NW (SE)	645	7	392565 415186
236	Points of Interest - Public Infrastructure Name: Bu-Val Buses Ltd Location: Paragon Industrial Estate, Smithy Bridge Road, Littleborough, OL15 8QF Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to address or location	A14SE (E)	717	7	392783 415387
236	Points of Interest - Public Infrastructure Name: Bu Val Location: Paragon Industrial Estate, Smithy Bridge Road, Littleborough, OL15 8QF Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to address or location	A14SE (E)	717	7	392783 415387
237	Points of Interest - Public Infrastructure Name: Weir Location: OL16 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	751	7	391618 415023
237	Points of Interest - Public Infrastructure Name: Weir Location: OL16 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	751	7	391617 415024

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
238	Points of Interest - Public Infrastructure Name: Weir Location: OL12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	867	7	391205 415424
238	Points of Interest - Public Infrastructure Name: Weir Location: OL12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	885	7	391239 415279
238	Points of Interest - Public Infrastructure Name: Weir Location: OL12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	886	7	391238 415278
238	Points of Interest - Public Infrastructure Name: Weir Location: OL12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	895	7	391193 415366
238	Points of Interest - Public Infrastructure Name: Weir Location: OL12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	896	7	391193 415365
239	Points of Interest - Public Infrastructure Name: Weir Location: OL16 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	883	7	391516 414934
239	Points of Interest - Public Infrastructure Name: Weir Location: OL16 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	884	7	391515 414934
240	Points of Interest - Public Infrastructure Name: Weir Location: OL16 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	885	7	391273 415212
240	Points of Interest - Public Infrastructure Name: Weir Location: OL16 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	887	7	391272 415211
241	Points of Interest - Public Infrastructure Name: Weir Location: OL15 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	943	7	393045 415813
241	Points of Interest - Public Infrastructure Name: Weir Location: OL15 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	945	7	393047 415812
242	Points of Interest - Recreational and Environmental Name: Play Area Location: OL12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	382	7	392024 416052

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
243	Points of Interest - Recreational and Environmental Name: Play Area Location: OL12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12NE (NW)	489	7	391608 415880
244	Points of Interest - Recreational and Environmental Name: Play Area Location: OL12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	788	7	391262 415536

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
245	Areas of Adopted Green Belt Authority: Rochdale Metropolitan Borough Council Plan Name: Rochdale Unitary Development Plan Status: Adopted Plan Date: 30th June 2006	A17SE (NW)	527	9	391651 416007
246	Sites of Special Scientific Interest Name: Rochdale Canal Multiple Areas: Y Total Area (m2): 263678.3 Source: Natural England Reference: 2000430 Designation Details: Special Area Of Conservation Designation Date: 16th August 2000 Date Type: Notified Designation Details: Site Of Special Scientific Interest Designation Date: 16th August 2000 Date Type: Notified Designation Details: Water Framework Directive (WFD) Designation Date: 16th August 2000 Date Type: Notified	A9NW (SE)	678	8	392691 415289
247	Special Areas of Conservation Name: Rochdale Canal Multiple Areas: Y Total Area (m2): 261103.36 Source: Natural England Reference: UK0030266 Status: Designated	A9NW (SE)	678	8	392691 415289

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Environment Agency - Head Office Calderdale Metropolitan Borough Council - Environmental Health Oldham Metropolitan Borough Council - Environmental Health Department Rossendale Borough Council - Environmental Health Department Rochdale Metropolitan Borough Council - Environmental Health Department	June 2020 October 2017 October 2017 October 2017 October 2017	Annually Annual Rolling Update Annual Rolling Update Annual Rolling Update Annually
Discharge Consents Environment Agency - North East Region Environment Agency - North West Region	January 2023 January 2023	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - North East Region Environment Agency - North West Region	March 2013 March 2013	
Integrated Pollution Controls Environment Agency - North East Region Environment Agency - North West Region	January 2009 January 2009	
Integrated Pollution Prevention And Control Environment Agency - North East Region Environment Agency - North West Region	January 2023 January 2023	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Rochdale Metropolitan Borough Council - Environmental Health Department Oldham Metropolitan Borough Council - Environmental Health Department Rossendale Borough Council - Environmental Health Department Calderdale Metropolitan Borough Council - Environmental Health	July 2014 March 2015 May 2016 October 2014	Variable Variable Variable Variable
Local Authority Pollution Prevention and Controls Rochdale Metropolitan Borough Council - Environmental Health Department Oldham Metropolitan Borough Council - Environmental Health Department Rossendale Borough Council - Environmental Health Department Calderdale Metropolitan Borough Council - Environmental Health	July 2014 March 2015 May 2016 October 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Rochdale Metropolitan Borough Council - Environmental Health Department Oldham Metropolitan Borough Council - Environmental Health Department Rossendale Borough Council - Environmental Health Department Calderdale Metropolitan Borough Council - Environmental Health	July 2014 March 2015 May 2016 October 2014	Variable Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	January 2023	
Pollution Incidents to Controlled Waters Environment Agency - North East Region Environment Agency - North West Region	December 1998 January 2000	
Prosecutions Relating to Authorised Processes Environment Agency - North East Region Environment Agency - North West Region	July 2015 July 2015	
Prosecutions Relating to Controlled Waters Environment Agency - North East Region Environment Agency - North West Region	March 2013 March 2013	
Registered Radioactive Substances Environment Agency - North East Region Environment Agency - North West Region	June 2016 June 2016	As notified As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	April 2012	
River Quality Chemistry Sampling Points Environment Agency - Head Office	April 2012	

Agency & Hydrological	Version	Update Cycle
Substantiated Pollution Incident Register Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area Environment Agency - North West Region - South Area	January 2023 January 2023 January 2023 January 2023 January 2023	Quarterly Quarterly Quarterly Quarterly Quarterly
Water Abstractions Environment Agency - North East Region Environment Agency - North West Region	January 2023 January 2023	Quarterly Quarterly
Water Industry Act Referrals Environment Agency - North East Region Environment Agency - North West Region	October 2017 October 2017	
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	As notified
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Source Protection Zones Environment Agency - Head Office	September 2022	Bi-Annually
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2023	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2023	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2023	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	February 2023	Quarterly
Flood Defences Environment Agency - Head Office	August 2022	Quarterly
OS Water Network Lines Ordnance Survey	January 2023	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water Suitability Environment Agency - Head Office	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Environment Agency - Head Office	November 2022	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - North East Region Environment Agency - North West Region	January 2009 January 2009	Not Applicable Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area Environment Agency - North West Region - South Area	January 2023 January 2023 January 2023 January 2023 January 2023	Quarterly Quarterly Quarterly Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area Environment Agency - North West Region - South Area	January 2023 January 2023 January 2023 January 2023 January 2023	Quarterly Quarterly Quarterly Quarterly Quarterly
Local Authority Landfill Coverage Calderdale Metropolitan Borough Council - Environmental Health Lancashire County Council - Waste Management Group Oldham Metropolitan Borough Council Rochdale Metropolitan Borough Council - Environmental Health Department Rossendale Borough Council - Environmental Health Department	February 2003 February 2003 February 2003 February 2003 February 2003	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Calderdale Metropolitan Borough Council - Environmental Health Lancashire County Council - Waste Management Group Oldham Metropolitan Borough Council Rochdale Metropolitan Borough Council - Environmental Health Department Rossendale Borough Council - Environmental Health Department	October 2018 October 2018 October 2018 October 2018 October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area Environment Agency - North West Region - South Area	March 2006 March 2006 March 2006 March 2006 March 2006	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Registered Waste Transfer Sites Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area Environment Agency - North West Region - South Area	April 2018 April 2018 April 2018 April 2018 April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area Environment Agency - North West Region - South Area	June 2015 June 2015 June 2015 June 2015 June 2015	

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	March 2023	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements Calderdale Metropolitan Borough Council Lancashire County Council Oldham Metropolitan Borough Council Rochdale Metropolitan Borough Council Rossendale Borough Council - Planning Department	February 2016 February 2016 February 2016 February 2016 February 2016	Variable Variable Variable Variable Variable
Planning Hazardous Substance Consents Calderdale Metropolitan Borough Council Lancashire County Council Oldham Metropolitan Borough Council Rochdale Metropolitan Borough Council Rossendale Borough Council - Planning Department	February 2016 February 2016 February 2016 February 2016 February 2016	Variable Variable Variable Variable Variable
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2022	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	September 2022	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	September 2022	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	January 2023	Quarterly
Fuel Station Entries Catalist Ltd - Experian	February 2023	Quarterly
Gas Pipelines National Grid	October 2021	Bi-Annually
Points of Interest - Commercial Services PointX	March 2023	Quarterly
Points of Interest - Education and Health PointX	March 2023	Quarterly
Points of Interest - Manufacturing and Production PointX	March 2023	Quarterly
Points of Interest - Public Infrastructure PointX	March 2023	Quarterly
Points of Interest - Recreational and Environmental PointX	March 2023	Quarterly
Underground Electrical Cables National Grid	February 2023	Bi-Annually

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	February 2021	Bi-Annually
Areas of Adopted Green Belt Calderdale Metropolitan Borough Council Oldham Metropolitan Borough Council Rochdale Metropolitan Borough Council Rossendale Borough Council - Planning Department	July 2022 July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly Quarterly
Areas of Unadopted Green Belt Calderdale Metropolitan Borough Council Oldham Metropolitan Borough Council Rochdale Metropolitan Borough Council Rossendale Borough Council - Planning Department	July 2022 July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural England	August 2022	Bi-Annually
Environmentally Sensitive Areas Natural England	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	February 2021	Bi-Annually
Marine Nature Reserves Natural England	July 2019	Bi-Annually
National Nature Reserves Natural England	February 2023	Bi-Annually
National Parks Natural England	February 2018	Bi-Annually
Nitrate Sensitive Areas Natural England	April 2016	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Environment Agency - Head Office	April 2016 March 2023	Bi-Annually
Ramsar Sites Natural England	August 2020	Bi-Annually
Sites of Special Scientific Interest Natural England	February 2021	Bi-Annually
Special Areas of Conservation Natural England	July 2020	Bi-Annually
Special Protection Areas Natural England	February 2021	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	Rochdale Metropolitan Borough Council - Environmental Health Department P O Box 32, Telegraph House, Ballie Street, Rochdale, Greater Manchester, OL16 1JH	Telephone: 01706 864139 Fax: 01706 864185 Website: www.rochdale.gov.uk
4	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
7	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
8	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
9	Rochdale Metropolitan Borough Council PO Box 15, Town Hall, Rochdale, Greater Manchester, OL16 1AB	Telephone: 01706 647474 Fax: 01706 59475 Website: www.rochdale.gov.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.

Groundwater Vulnerability

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Bedrock Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

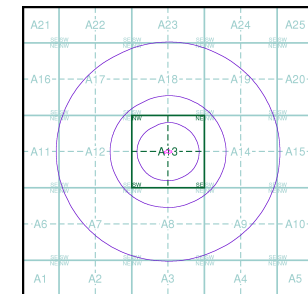
Superficial Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A

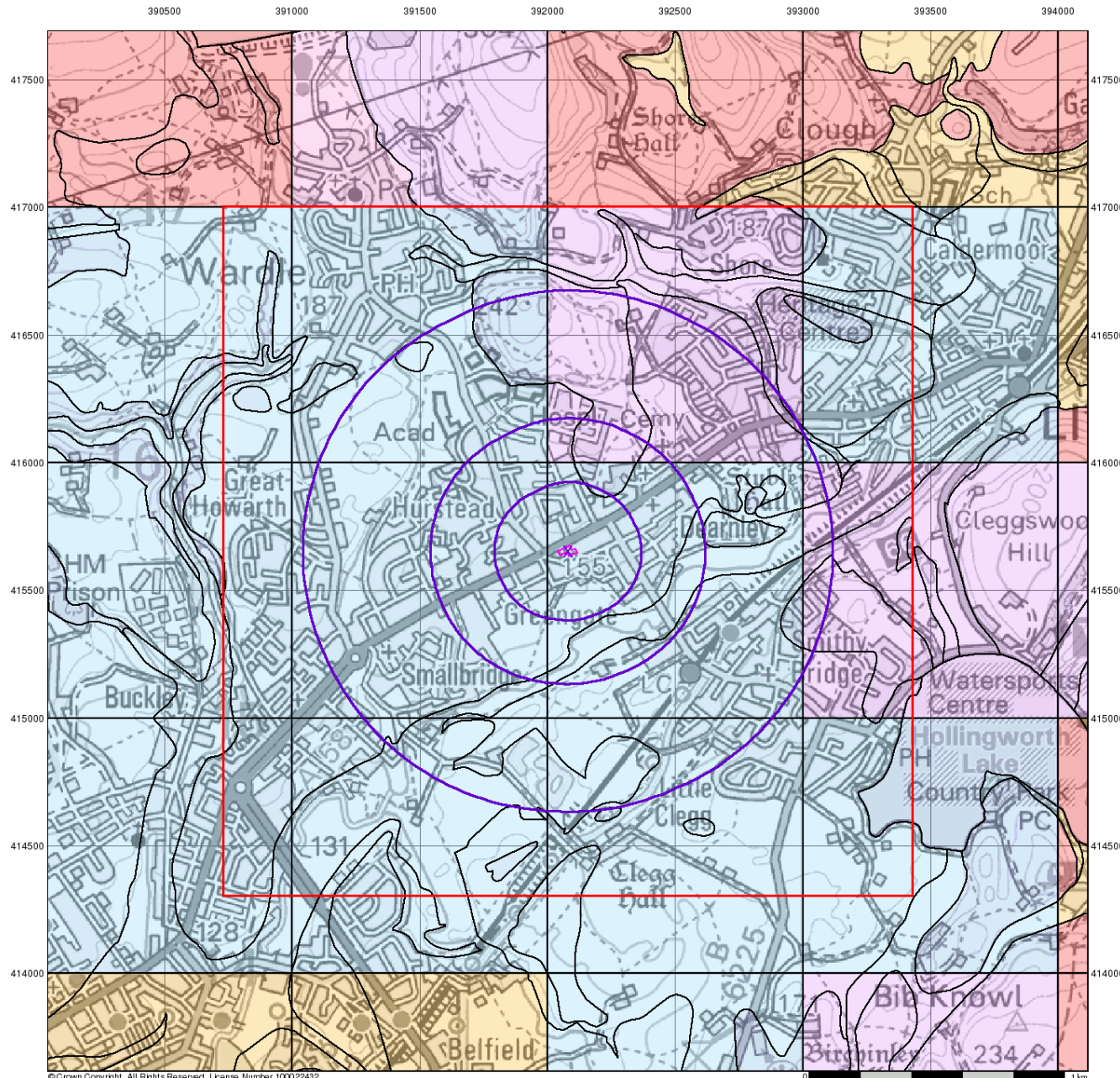


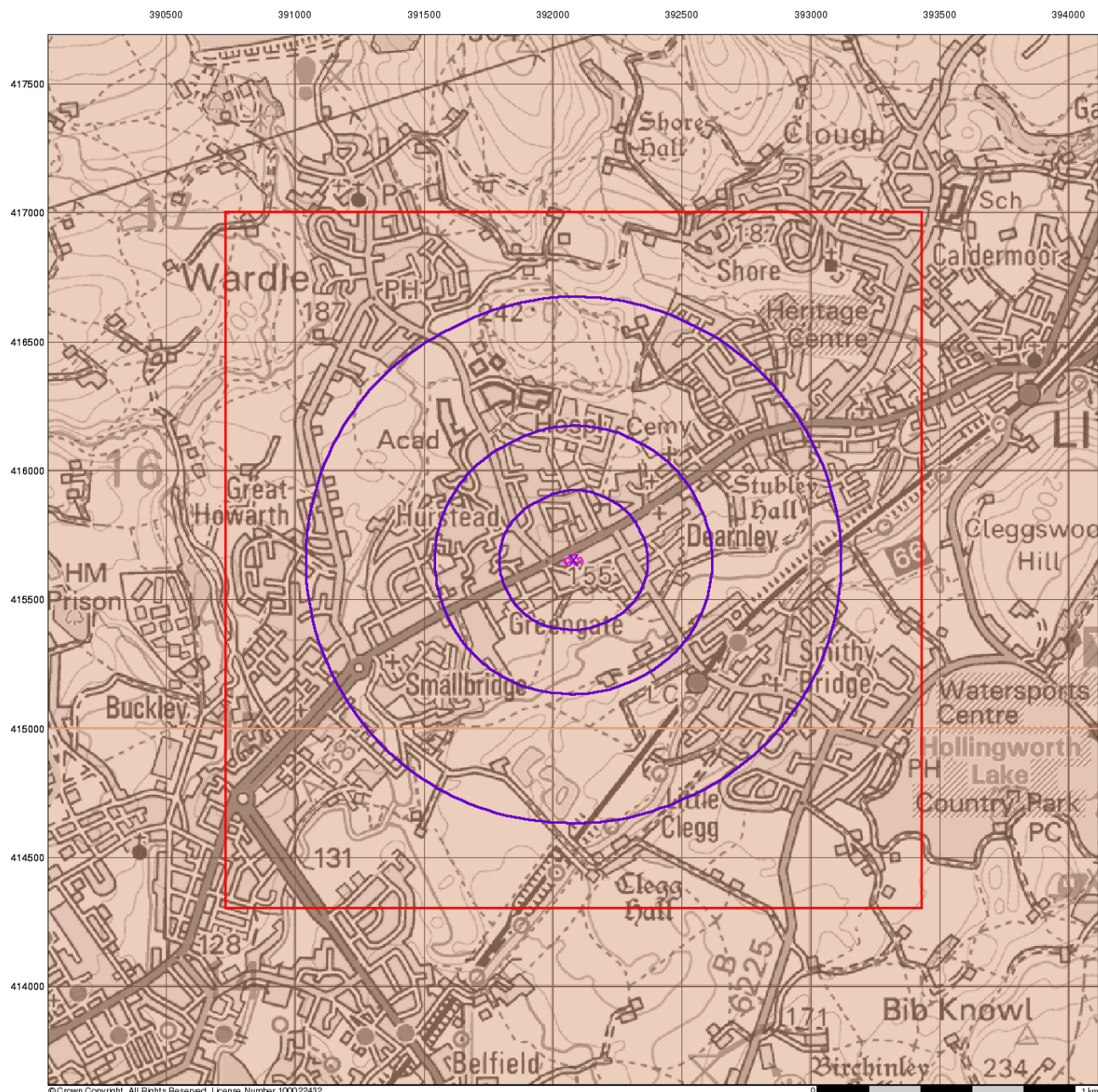
Order Details

Order Number: 308758343_1_1
 Customer Ref: 1382/BW
 National Grid Reference: 392080, 415650
 Slice: A
 Site Area (Ha): 0.16
 Search Buffer (m): 1000

Site Details

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Bedrock Aquifer Designation

General

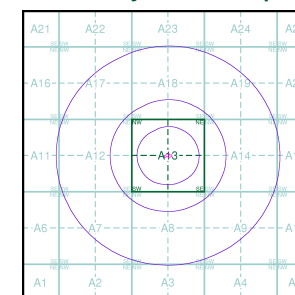
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

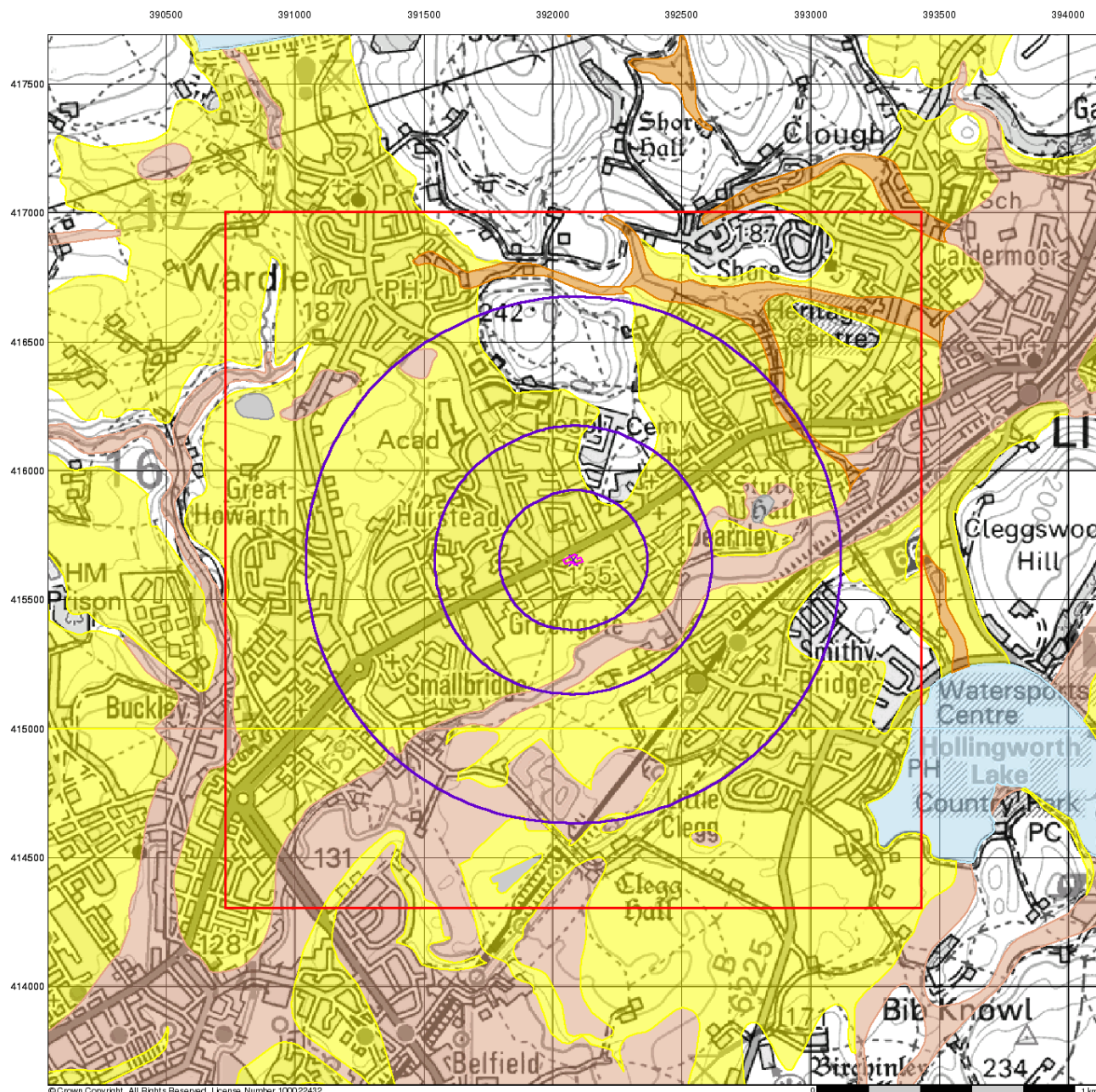
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 National Grid Reference: 392080, 415650
 Slice: A
 Site Area (Ha): 0.16
 Search Buffer (m): 1000

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Superficial Aquifer Designation

General

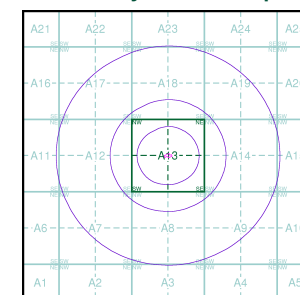
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

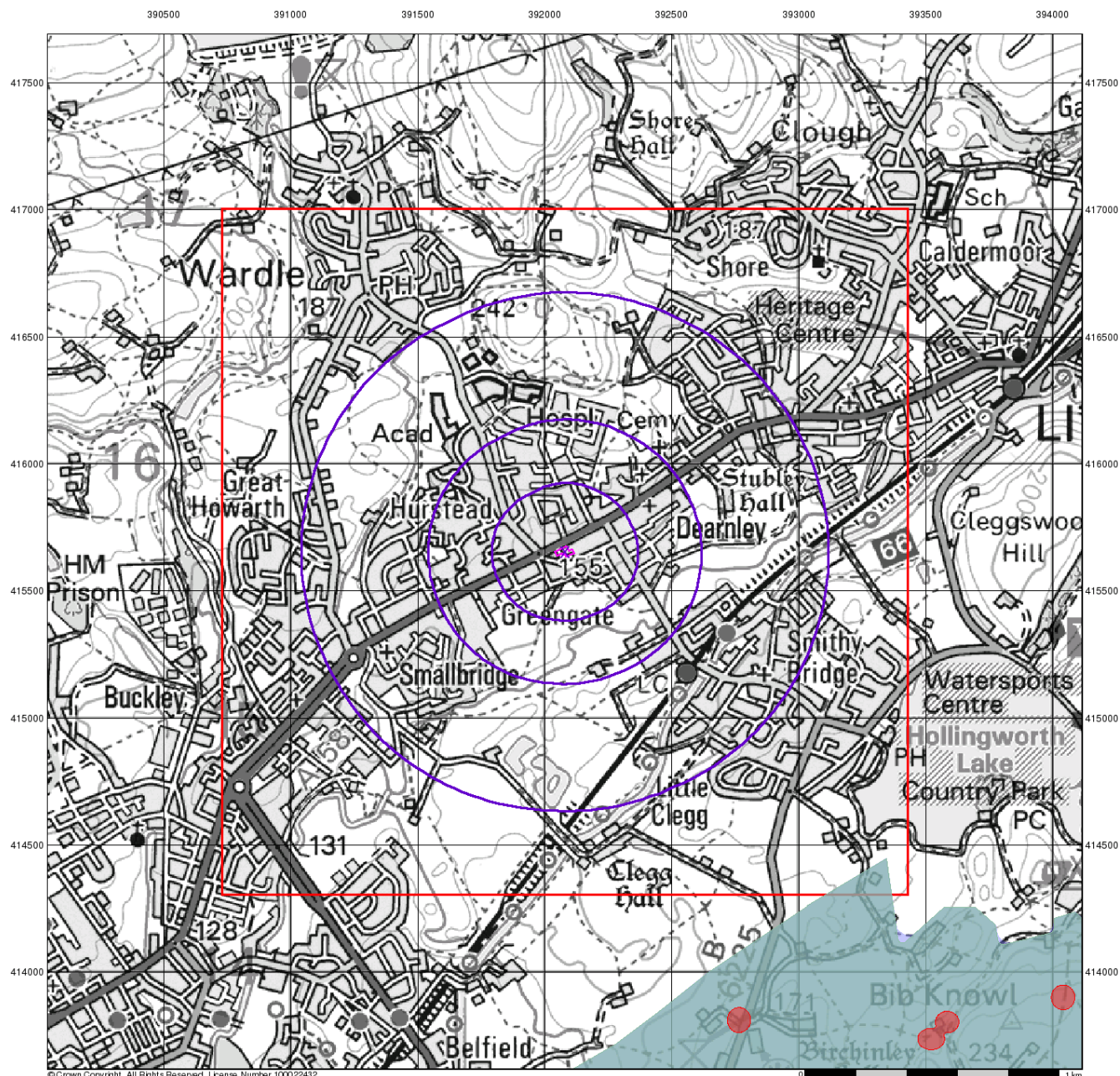
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 Customer Ref: 1382/BW
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 Slice: A
 Site Area (Ha): 0.16
 Search Buffer (m): 1000

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Source Protection Zones

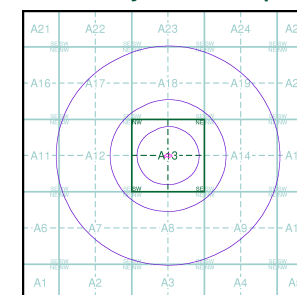
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



Order Details

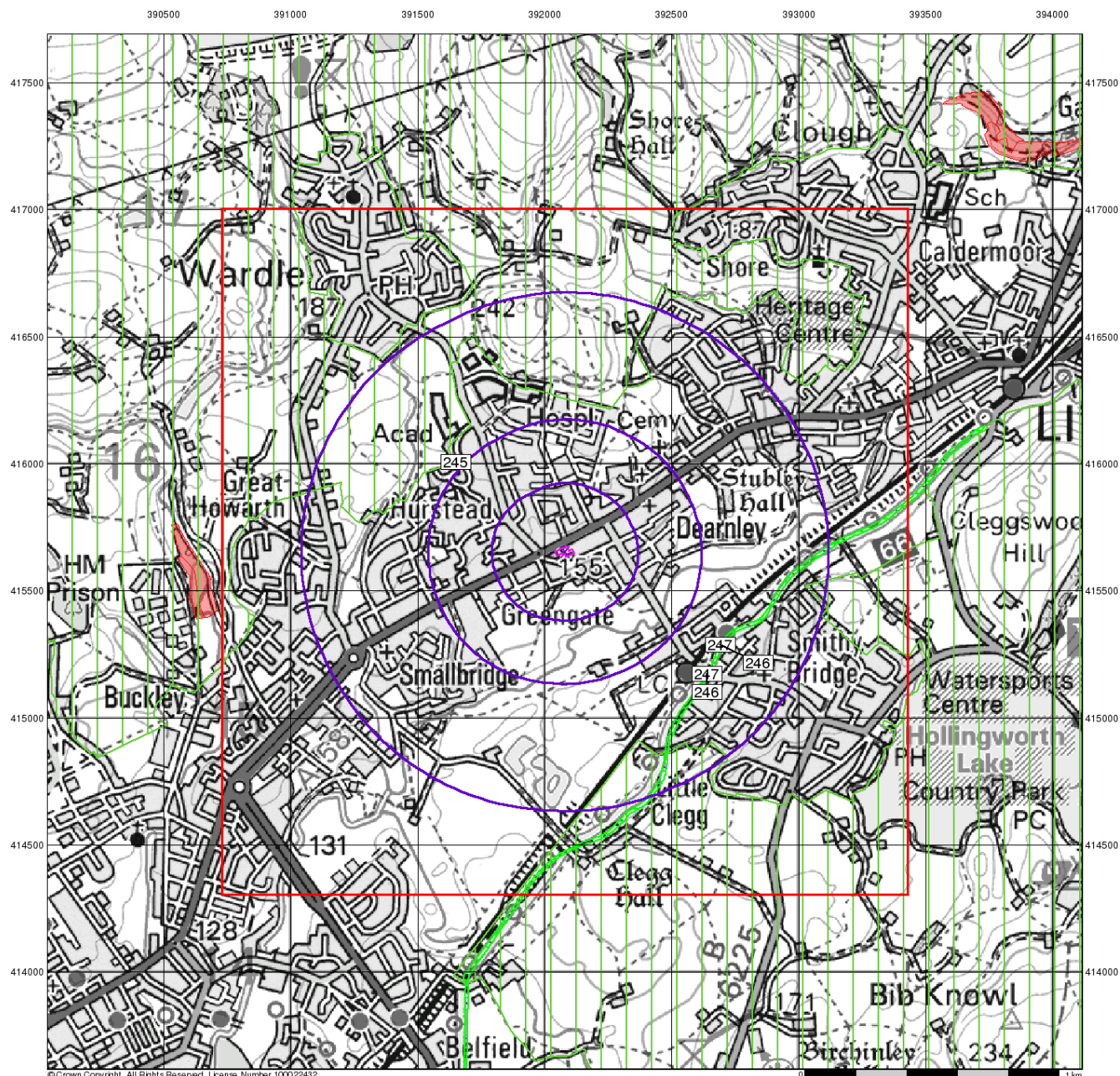
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 Search Buffer (m): 1000

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Sensitive Land Uses

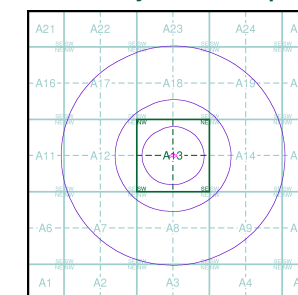
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A



Order Details

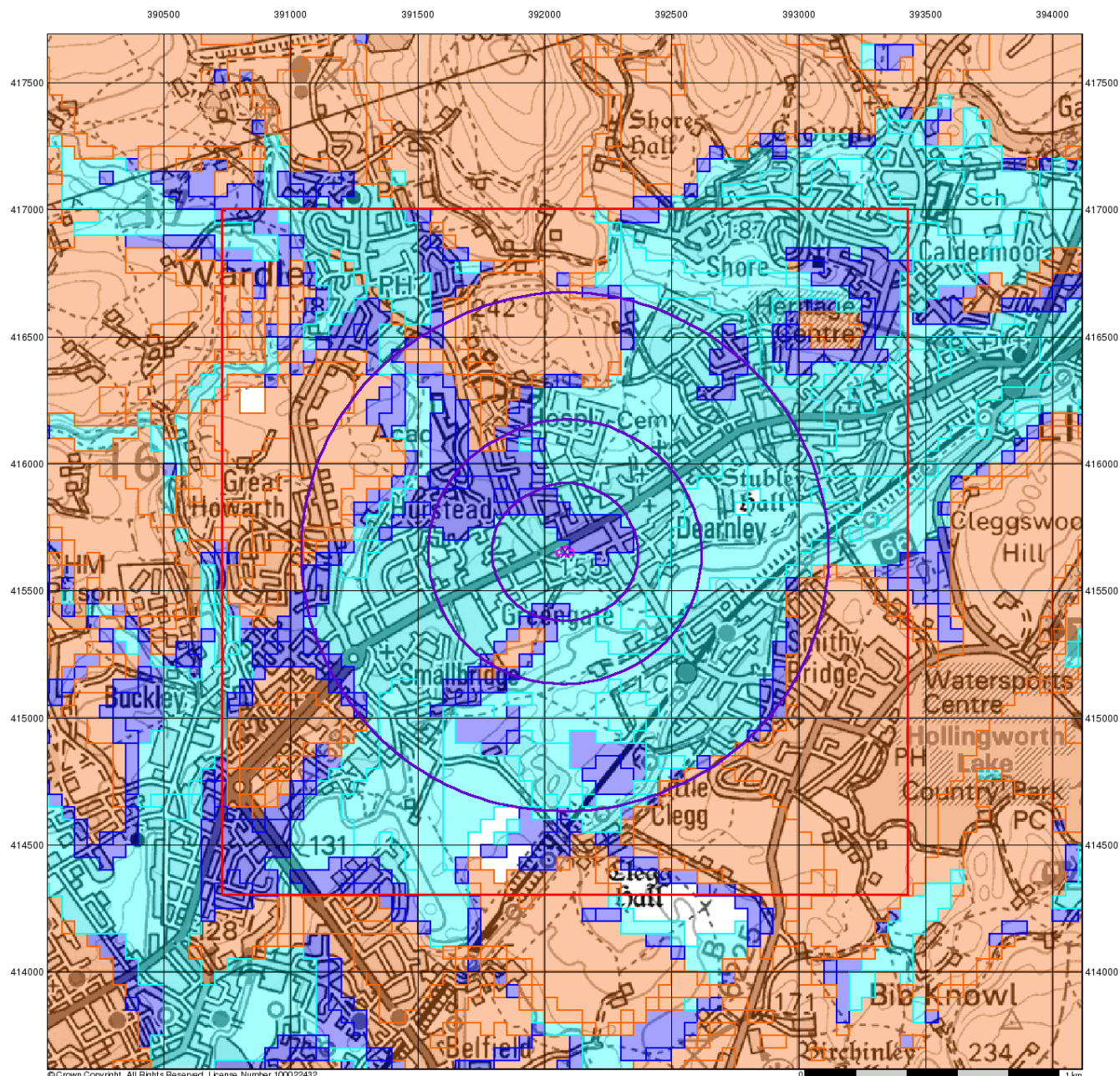
Order Number: 308758343_1_1
 Customer Ref: 1382/BW
 National Grid Reference: 392080, 415650
 Slice: A
 Site Area (Ha): 0.16
 Search Buffer (m): 1000

Site Details

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BGS Flood GFS Data

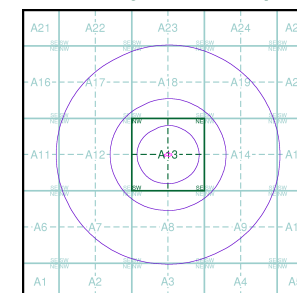
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

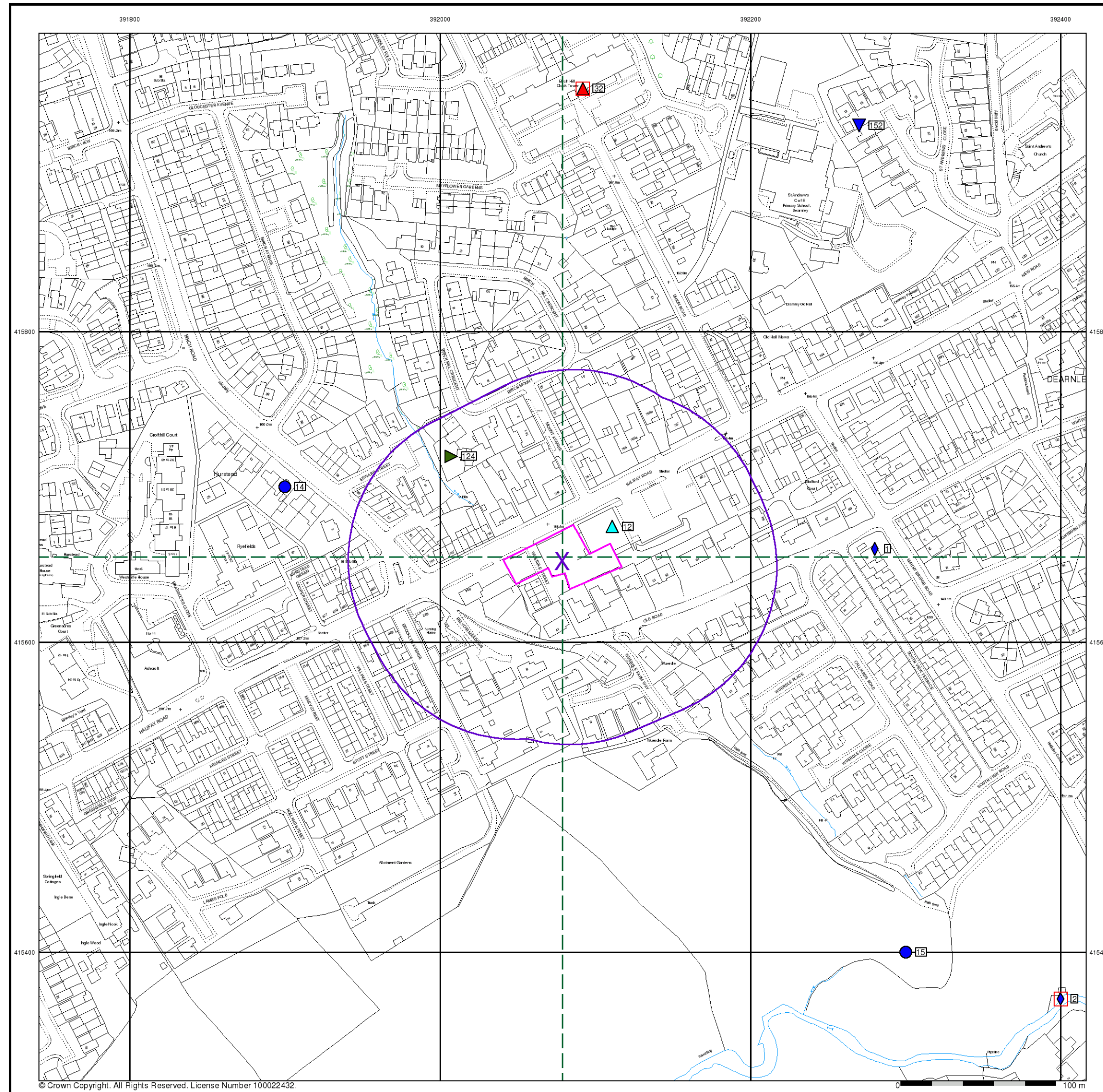
Order Number: 308758343_1_1
 Customer Ref: 1382/BW
 National Grid Reference: 392080, 415650
 Slice: A
 Site Area (Ha): 0.16
 Search Buffer (m): 1000

Site Details

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- ### General

 - Specified Site
 - Specified Buffer(s)
 - Several of Types at Location
 - Contaminated Land Register Entry or Notice (Location)
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- ### Agency and Hydrological

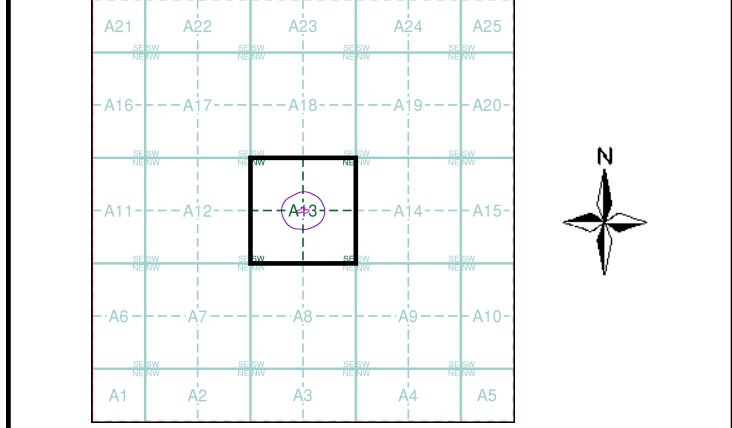
 - Bearing Reference Point
 - Map ID
 - Overhead Transmission Line
 - Contaminated Land Register Entry or Notice (Location)
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- ### Waste

 - BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- ### Hazardous Substances

 - COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
- ### Geological

 - BGS Recorded Mineral Site

Site Sensitivity Map - Segment A13



Order Details

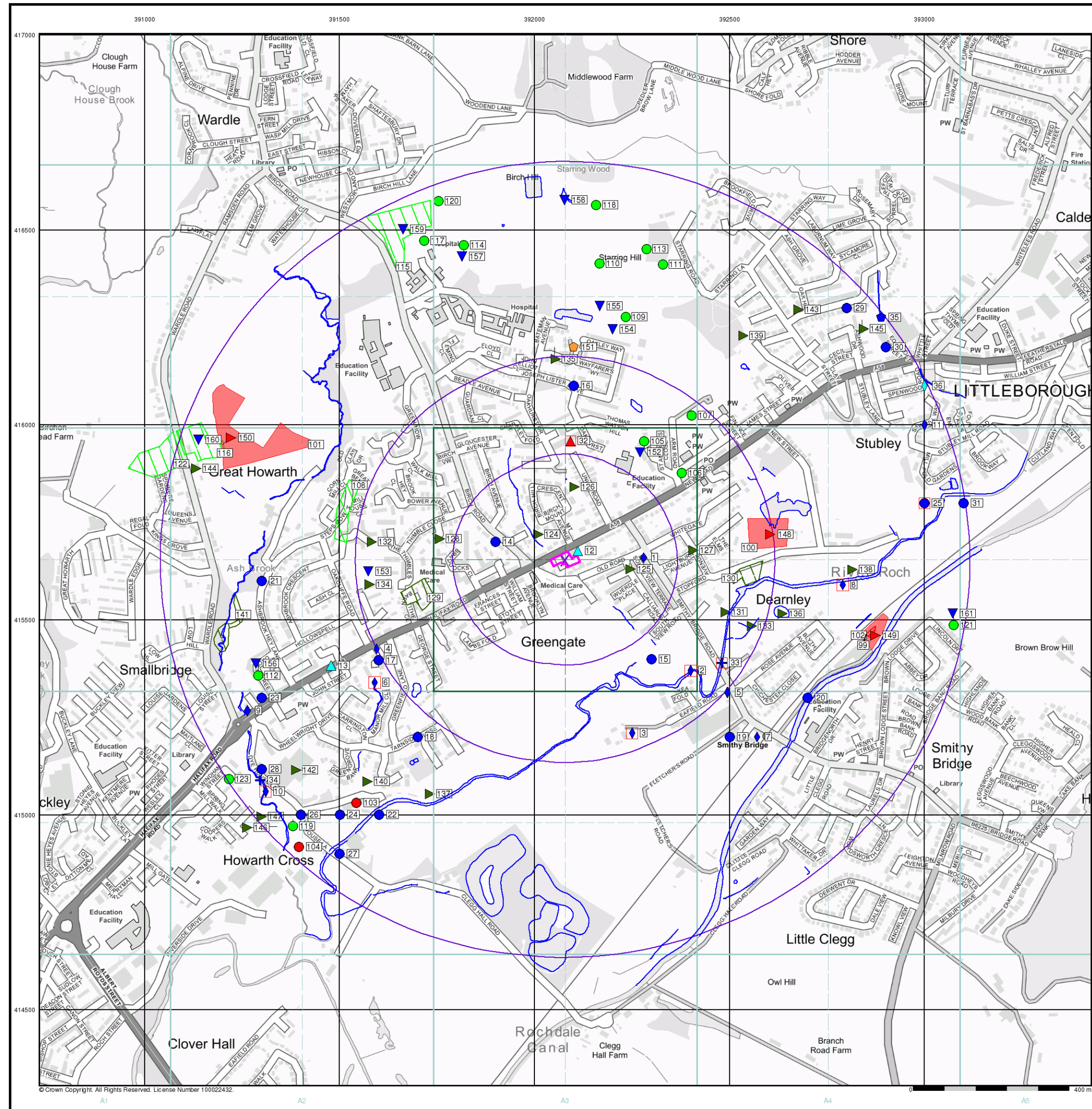
Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Plot Buffer (m): 100

Site Details

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- General**

 - Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**

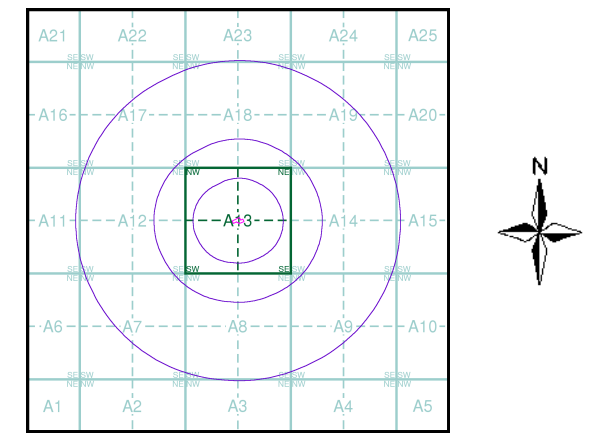
 - Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Waste**

 - BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**

 - COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
 - BGS Recorded Mineral Site
- Geological**

 - BGS Recorded Mineral Site

Site Sensitivity Map - Slice A



Order Details

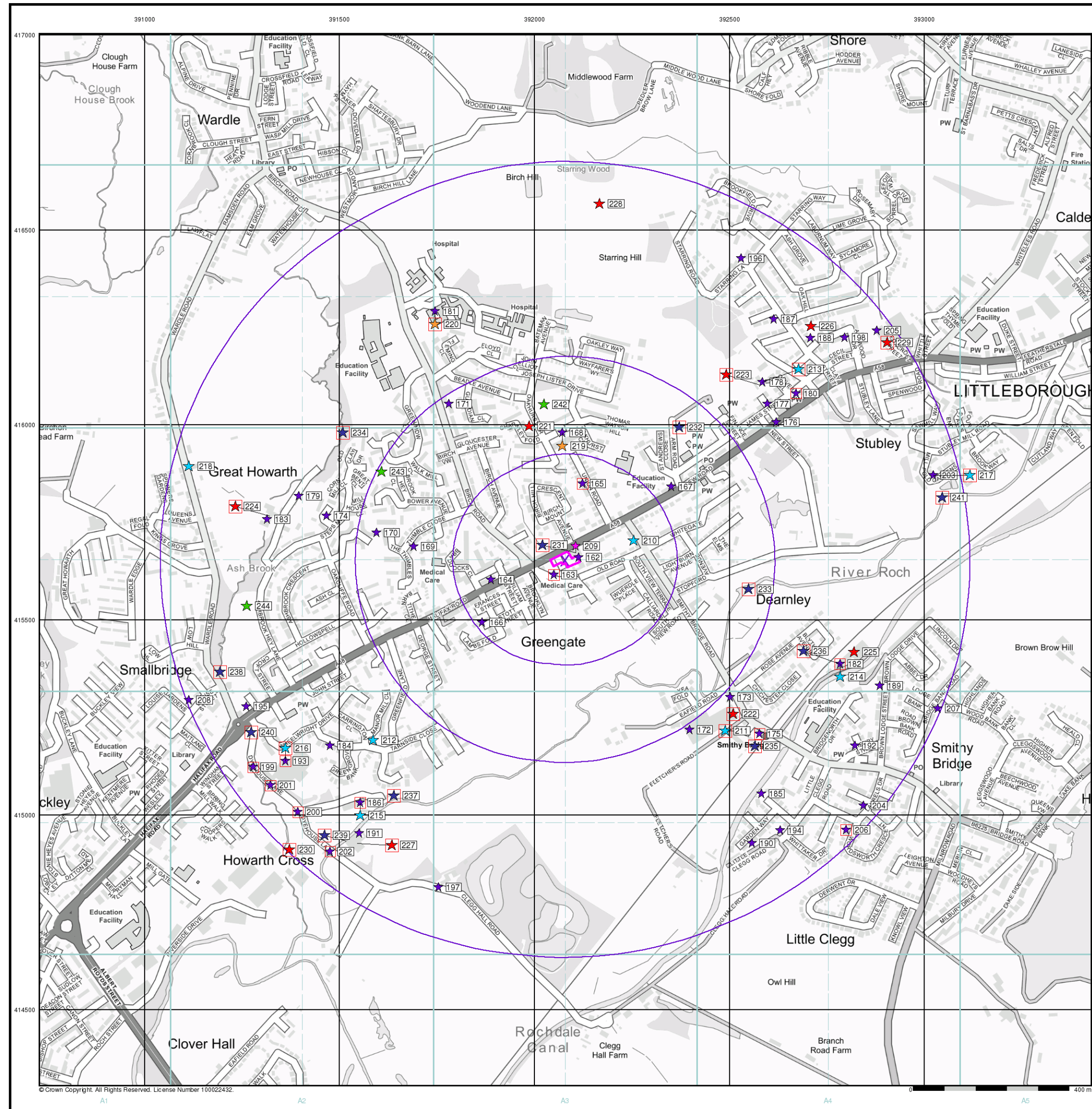
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Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 1000

Site Details

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Industrial Land Use Map

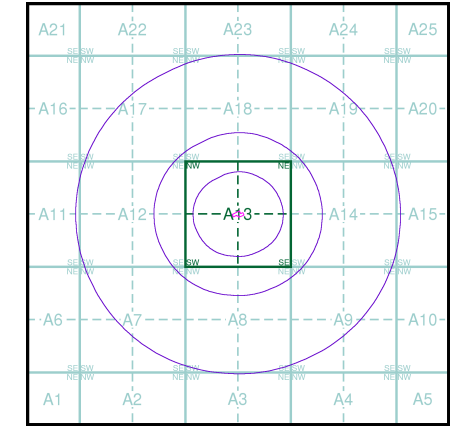
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

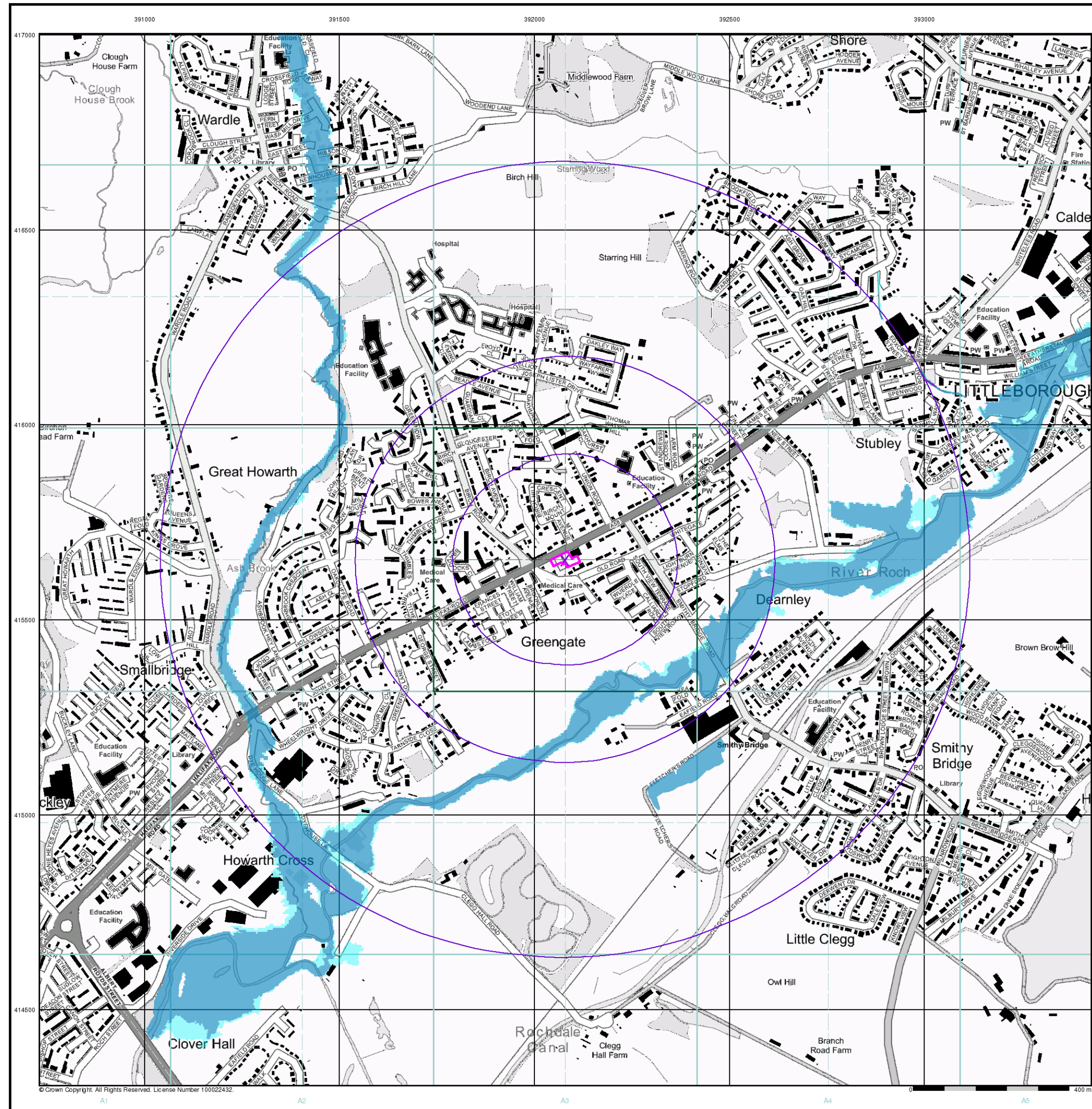
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Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 1000

Site Details

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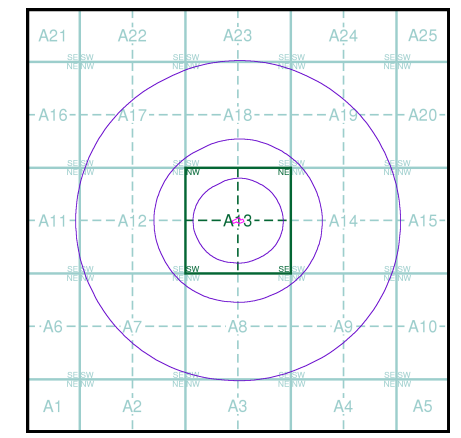
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A

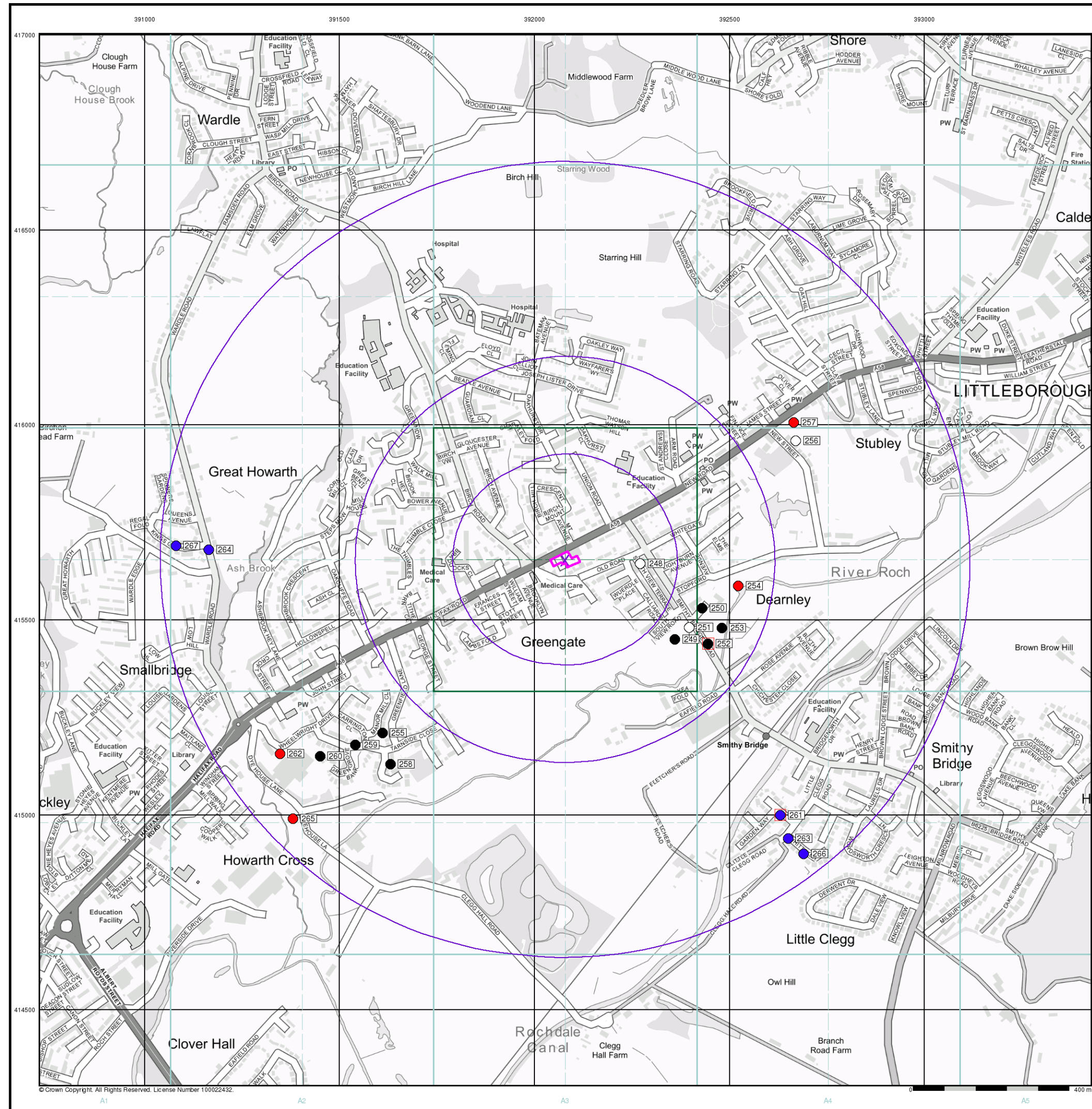


Order Details

Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 1000

Site Details

Spar Stores, 720, Halifax Road, ROCHDALE, OL16 2SQ



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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A

Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	1000

Site Details

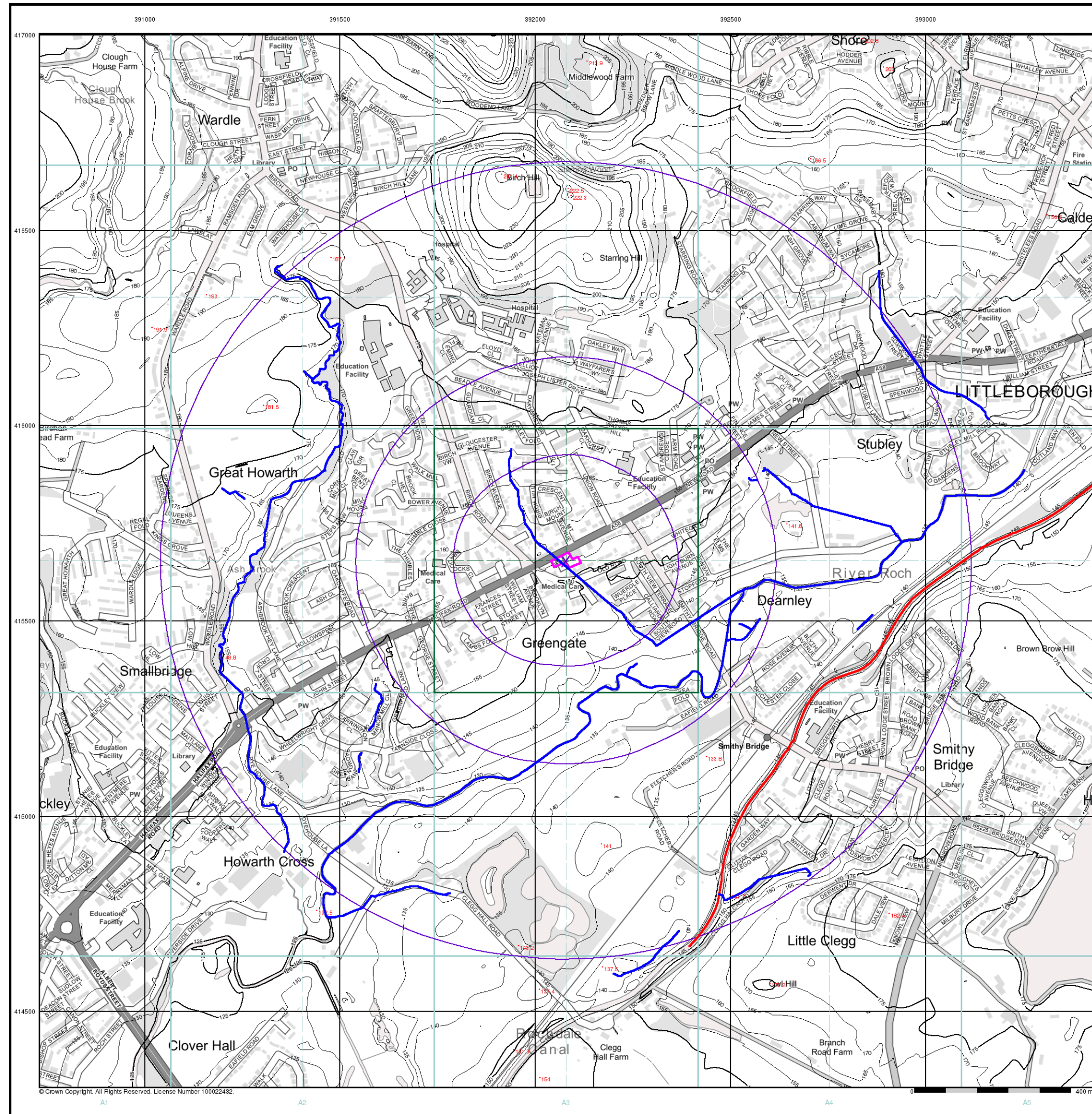
Spar Stores, 720, Halifax Road, ROCHDALE, OL16 2SQ

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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

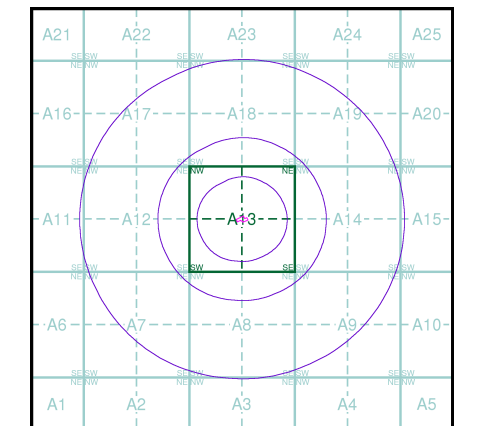
OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

Contours (height in meters)

- | | | | |
|------------------|-------|-----|-----------------|
| Standard Contour | 105 | MLW | Mean Low Water |
| Master Contour | 100 | MHW | Mean High Water |
| Spot Height | 167.3 | | |

OS Water Network Map - Slice A



Order Details

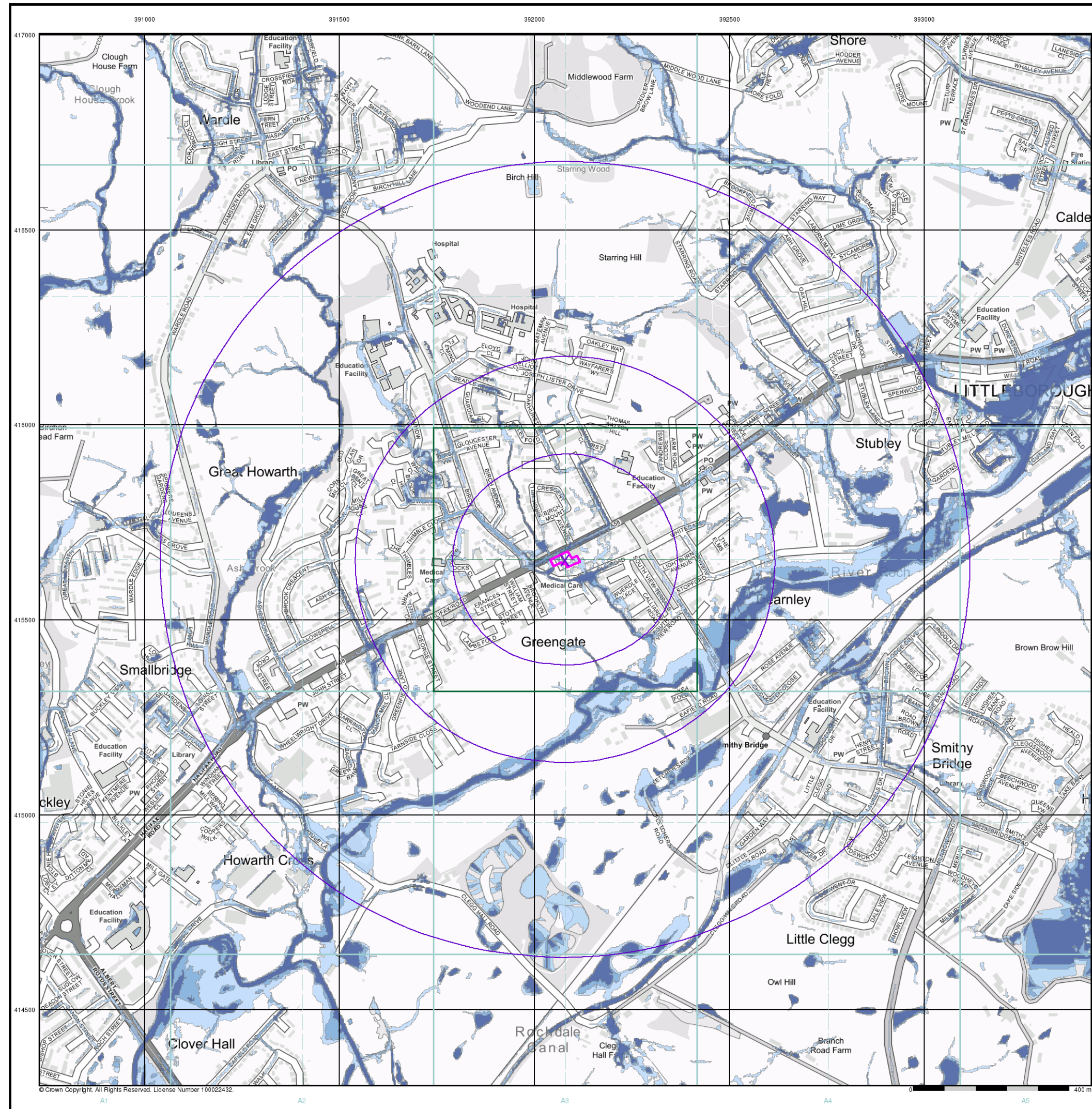
Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

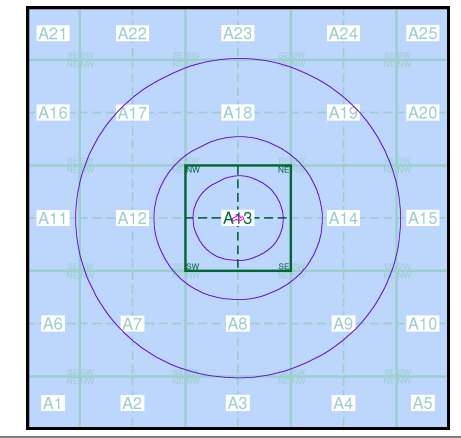
Risk of Flooding from Surface Water

- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

- See the suitability map below
- National to county
 - County to town
 - Town to street
 - Street to parcels of land
 - Property

E/NRW Suitability Map - Slice A



Order Details

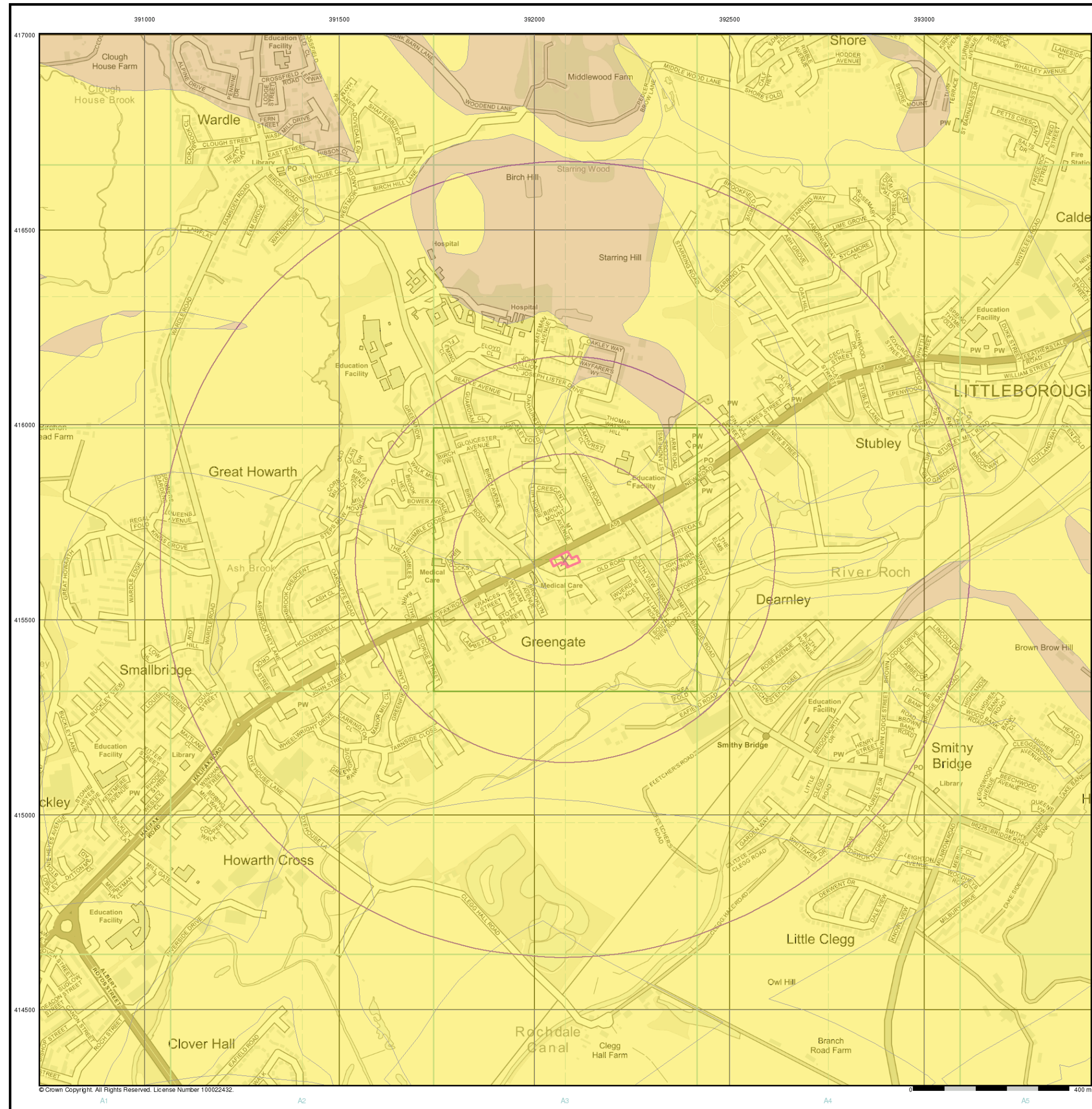
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General

📍 Specified Site 🌀 Specified Buffer(s) ✕ Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg

	< 15
	15 - 25
	25 - 35
	35 - 45
	45 - 60
	60 - 120
	> 120

Estimated Soil Chemistry Arsenic - Slice A

Order Details

Order Details:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	1000

Site Details

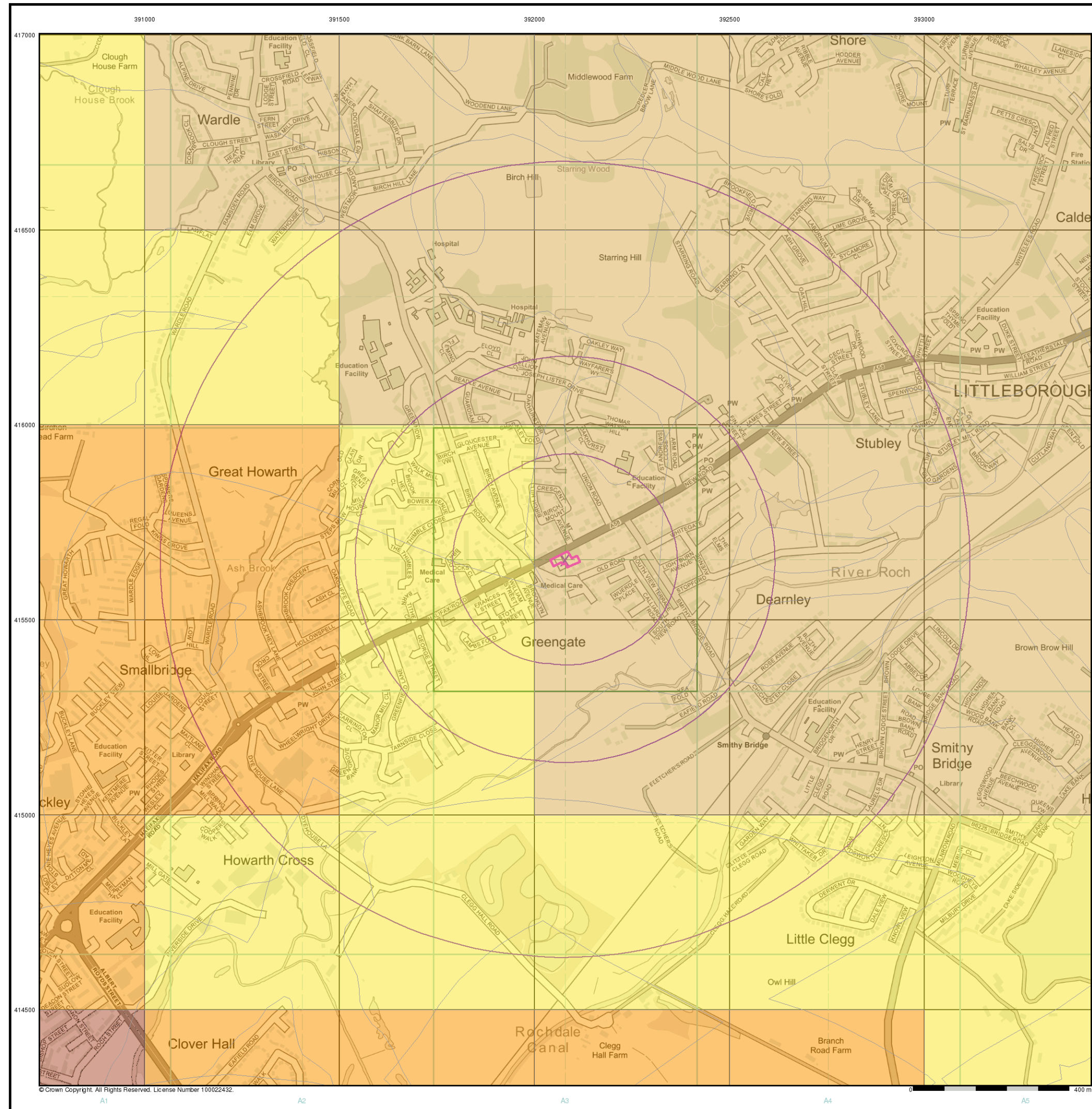
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General

● Specified Site ● Specified Buffer(s) X Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg

< 1.8
1.8 - 2.2
2.2 - 3.0
> 3.0

Estimated Soil Chemistry Cadmium - Slice A

Order Details

Order Details:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	1000

Site Details

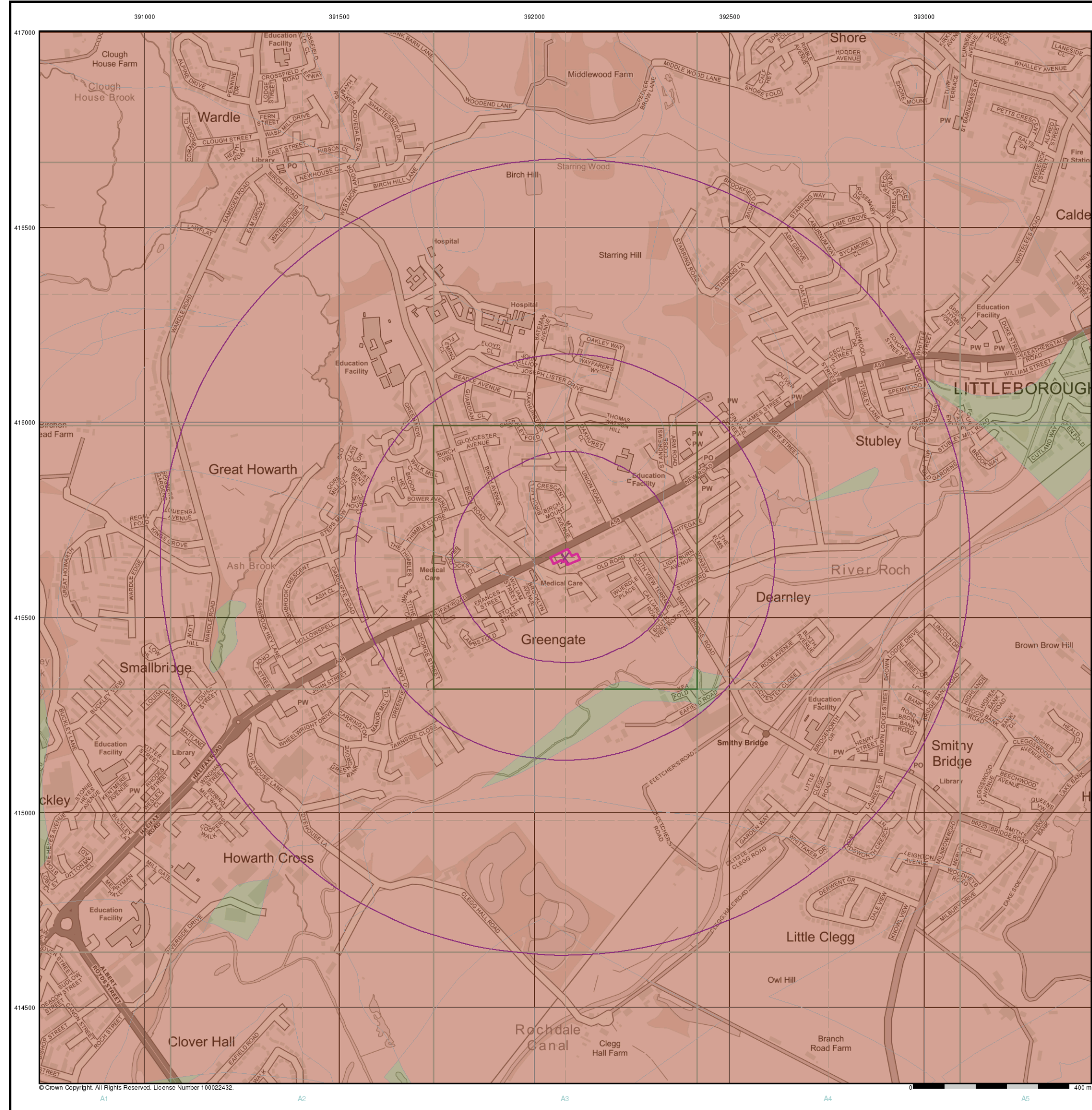
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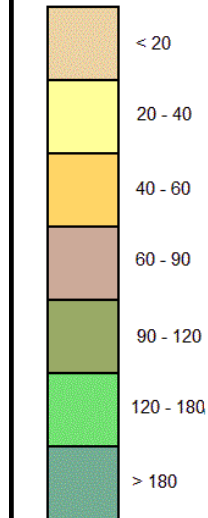
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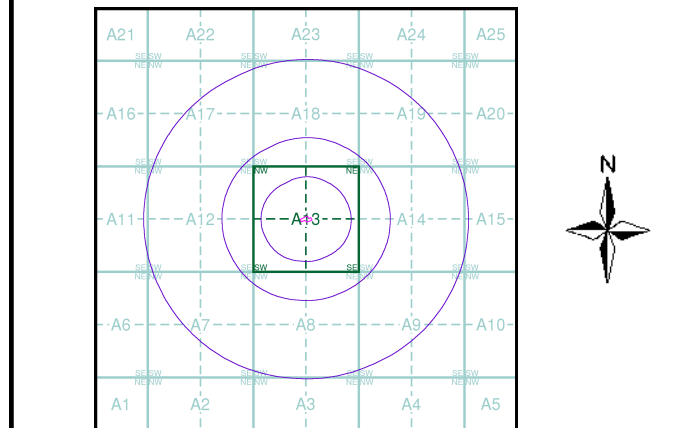
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

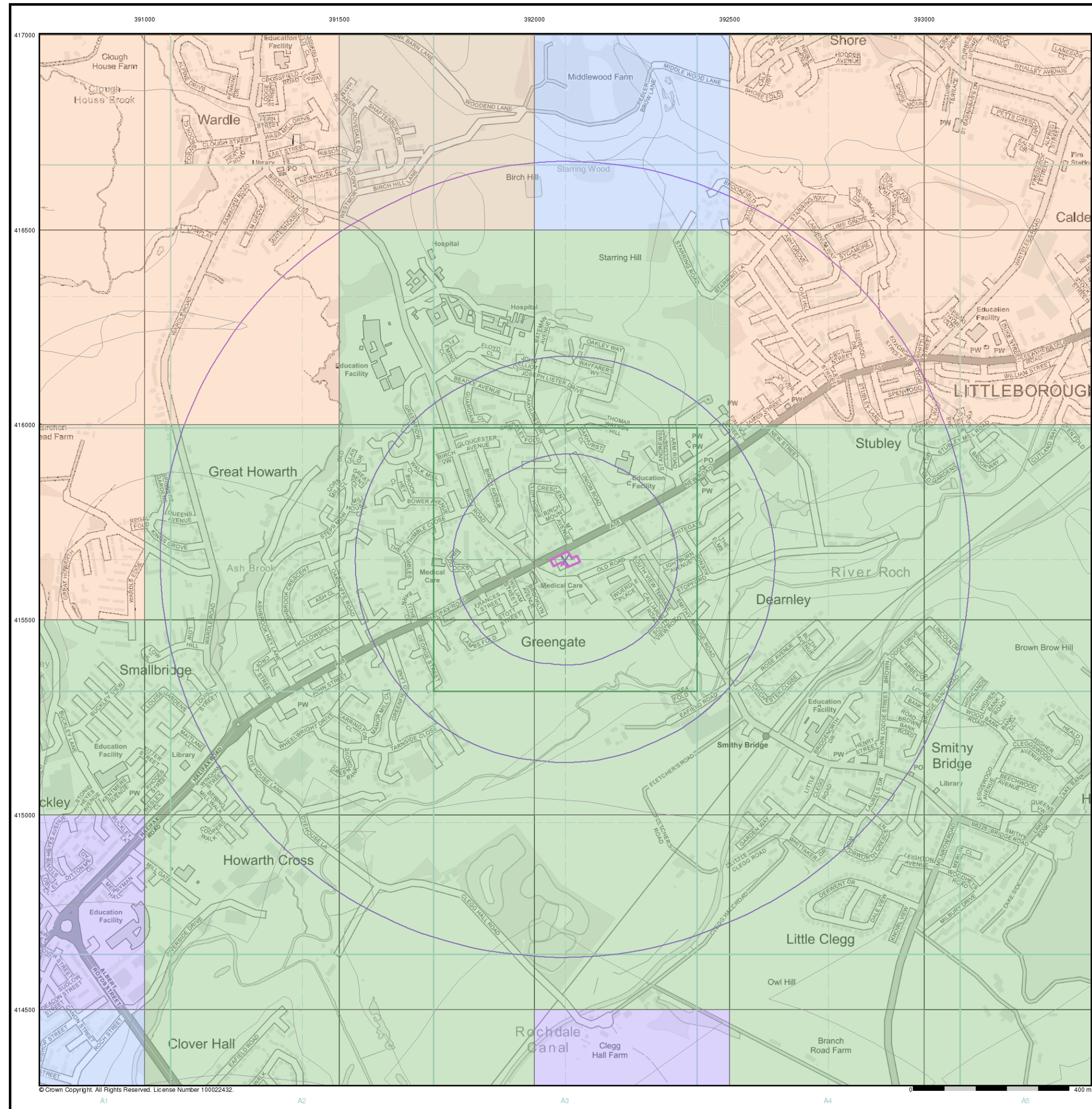
Order Details: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 1000

Site Details

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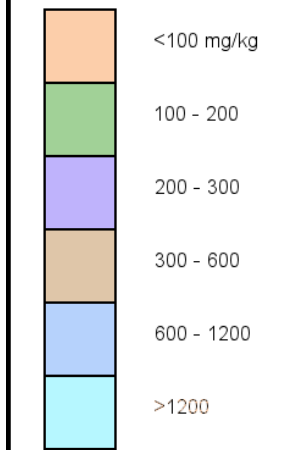
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General

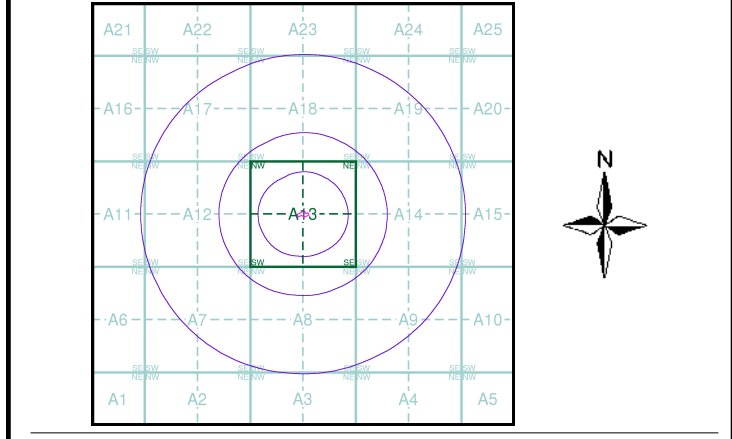
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

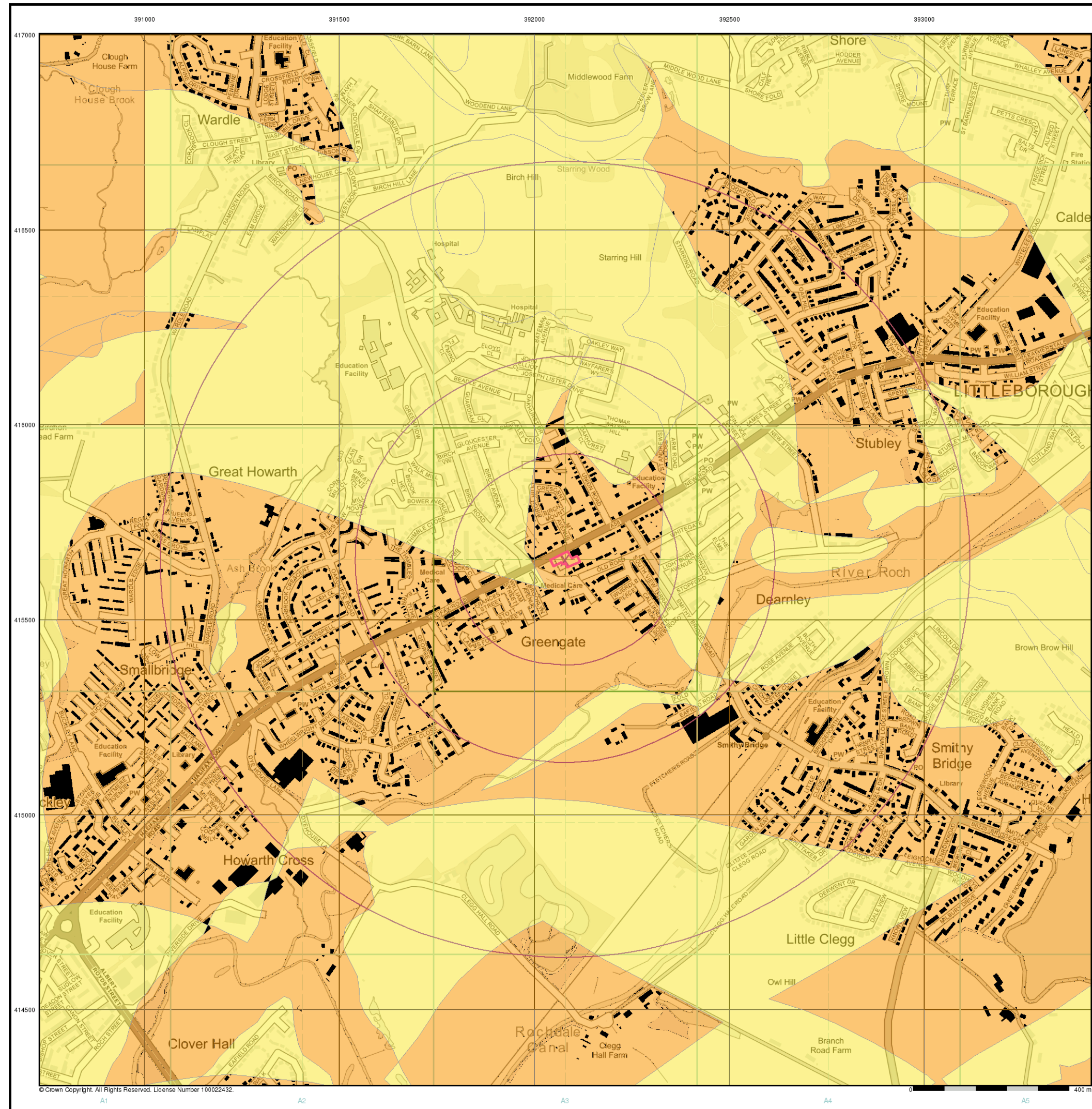
Order Details: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 1000

Site Details

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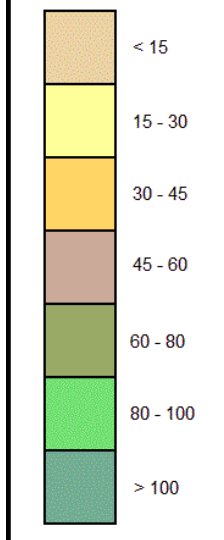
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General

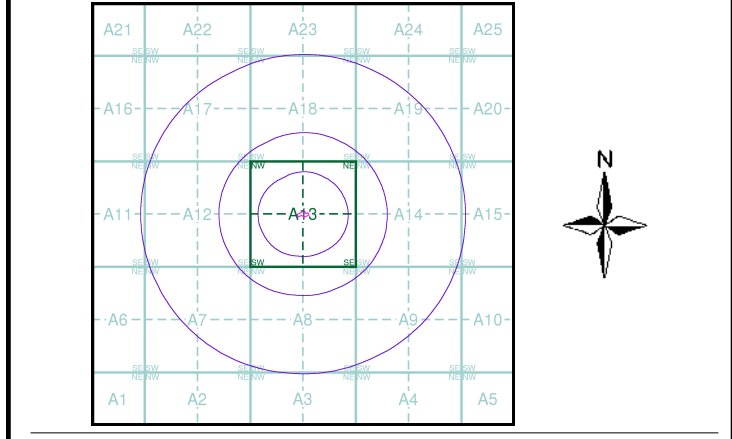
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

Order Details: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 1000

Site Details

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Historical Mapping Legends

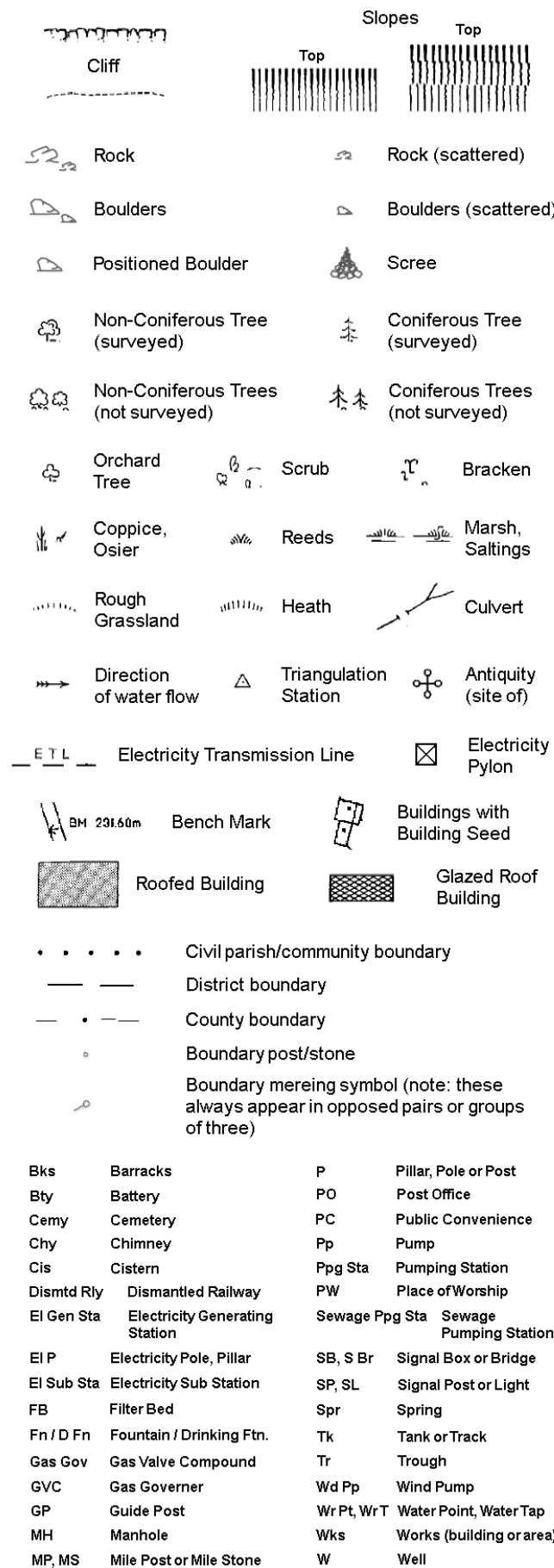
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



Large-Scale National Grid Data 1:2,500 and 1:1,250



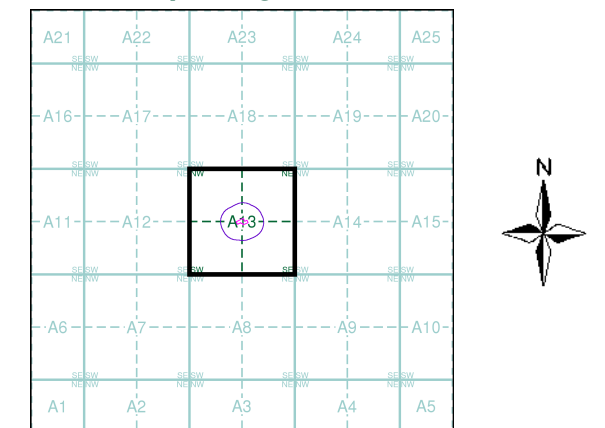
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:2,500	1890 - 1893	2
Lancashire And Furness	1:2,500	1910	3
Lancashire And Furness	1:2,500	1930	4
Lancashire And Furness	1:2,500	1937 - 1939	5
Ordnance Survey Plan	1:1,250	1960	6
Ordnance Survey Plan	1:2,500	1961	7
Ordnance Survey Plan	1:1,250	1973 - 1974	8
Supply of Unpublished Survey Information	1:1,250	1974 - 1976	9
Supply of Unpublished Survey Information	1:1,250	1976	10
Additional SIMs	1:1,250	1977 - 1988	11
Ordnance Survey Plan	1:1,250	1983	12
Additional SIMs	1:1,250	1988	13
Large-Scale National Grid Data	1:1,250	1992	14
Large-Scale National Grid Data	1:1,250	1994 - 1995	15
Historical Aerial Photography	1:2,500	2000	16

Historical Map - Segment A13



Order Details

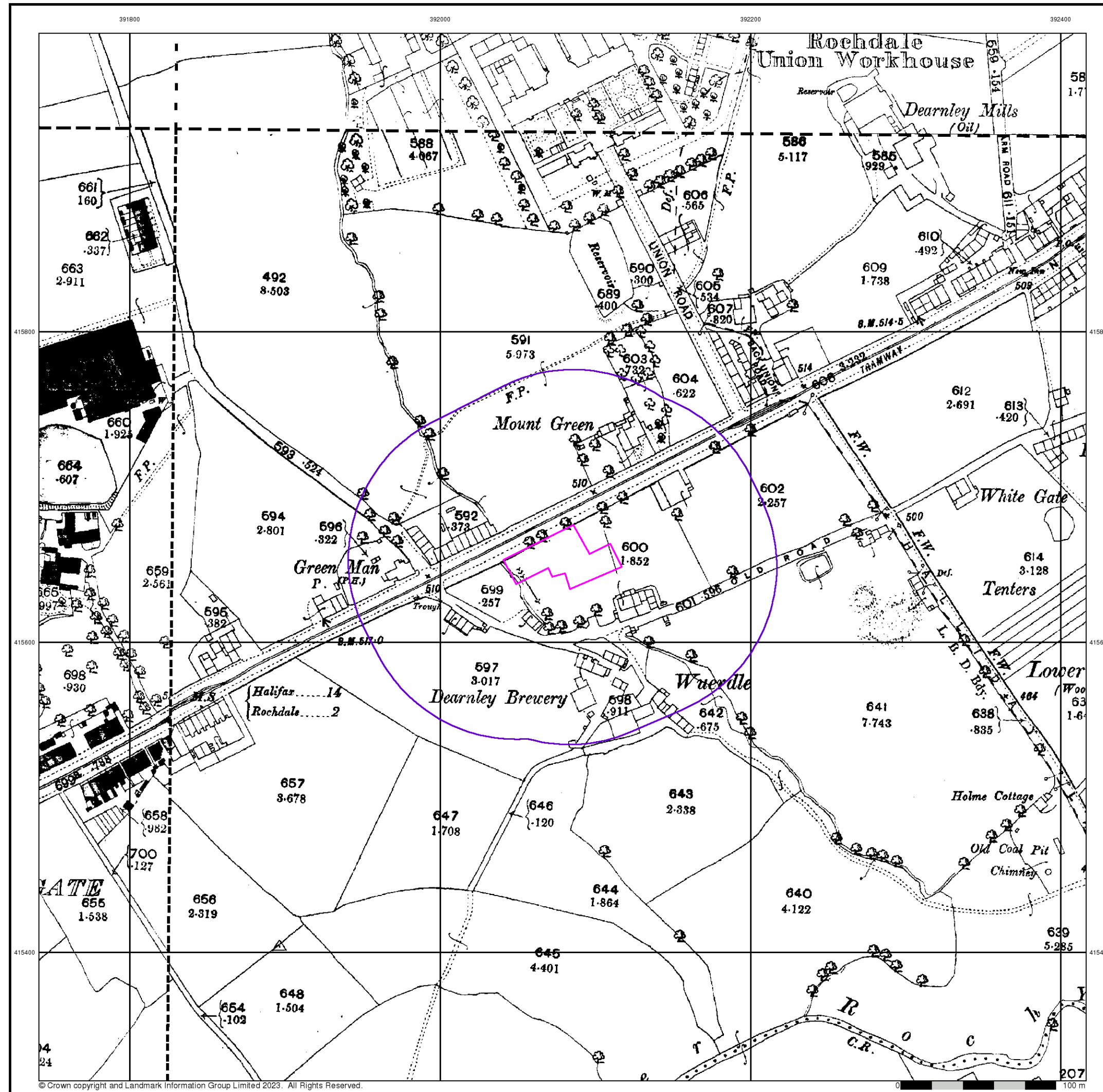
Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 100

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Lancashire And Furness

Published 1890 - 1893

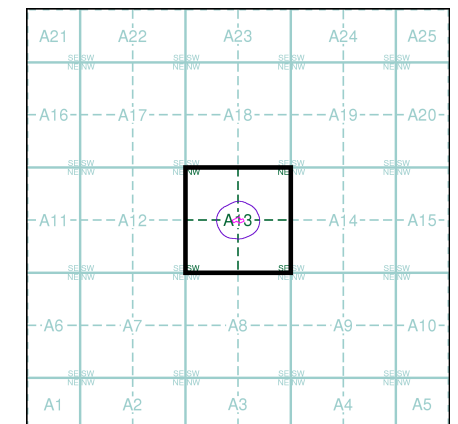
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

081_09 1890 1:2,500	081_10 1893 1:2,500
081_13 1893 1:2,500	081_14 1893 1:2,500

Historical Map - Segment A13



Order Details

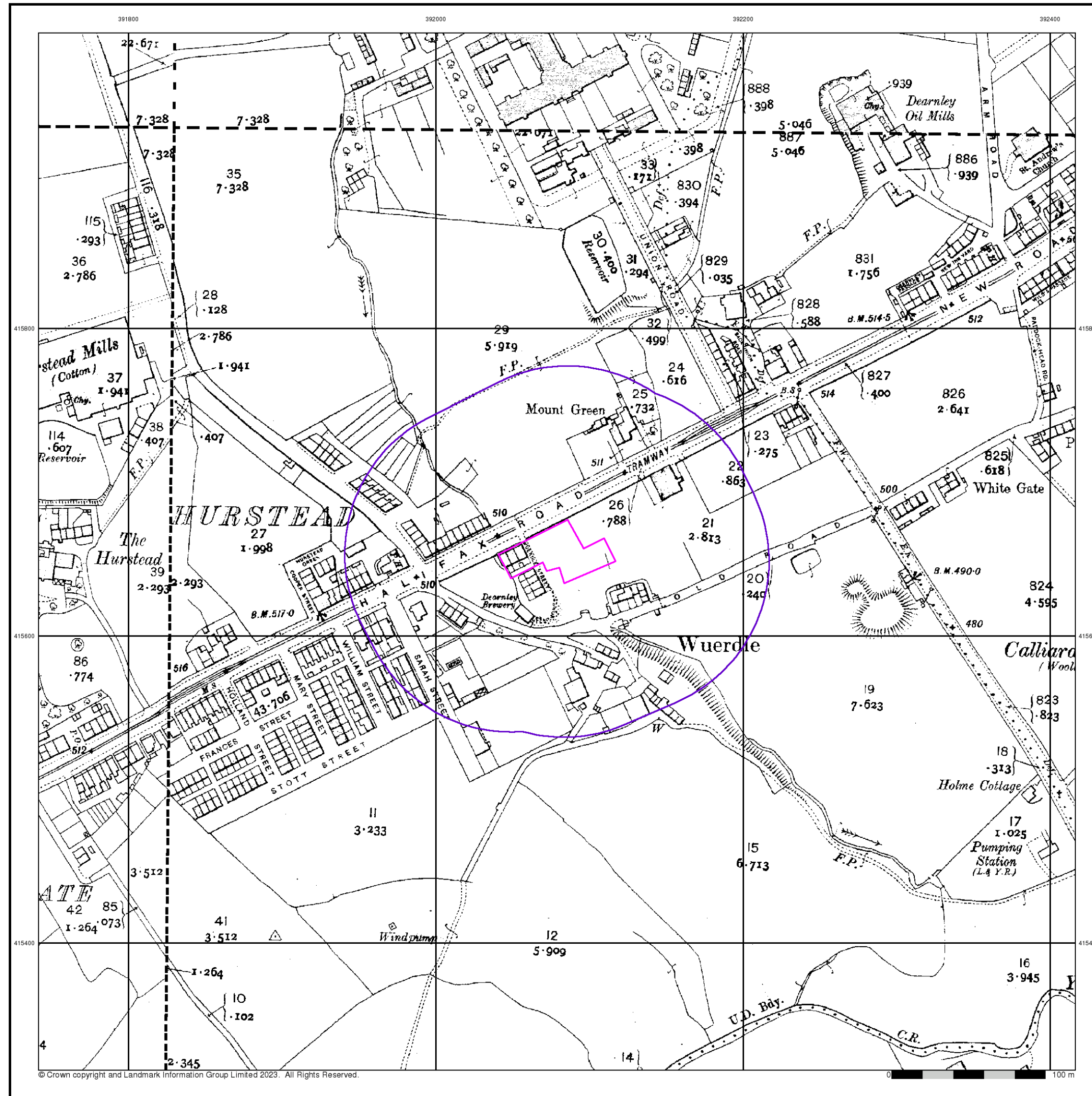
Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 100

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Lancashire And Furness

Published 1910

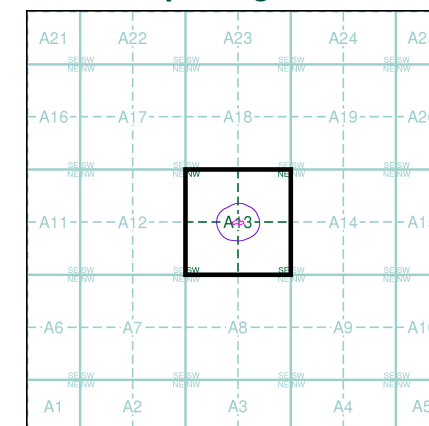
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

081_09 1910 1:2,500	081_10 1910 1:2,500
081_13 1910 1:2,500	081_14 1910 1:2,500

Historical Map - Segment A13



Order Details

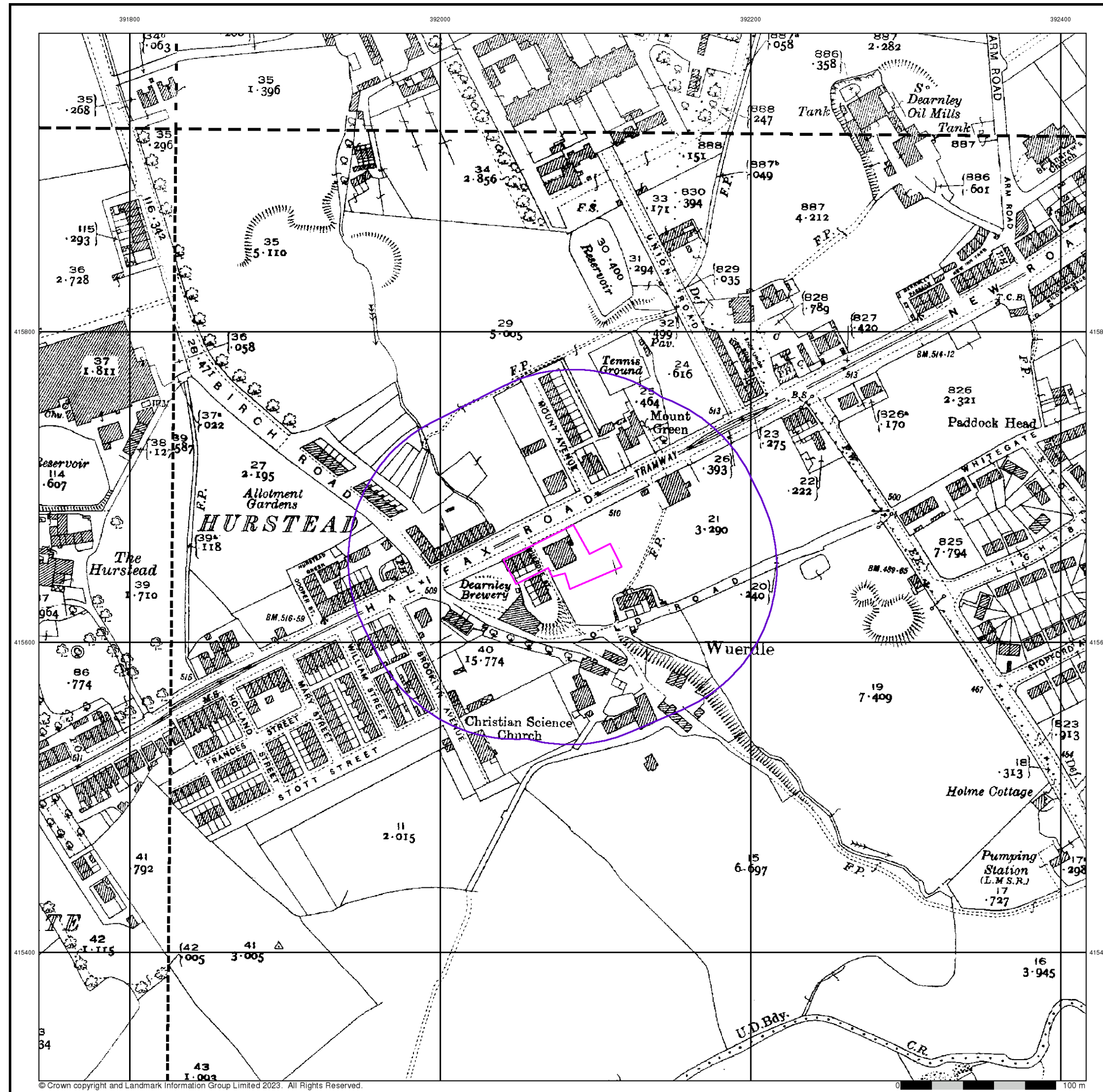
Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 100

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Lancashire And Furness

Published 1930

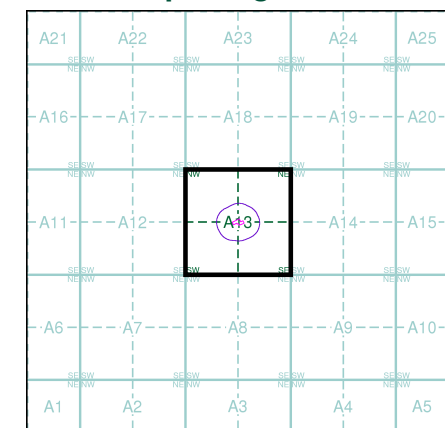
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

081_09 1930 1:2,500	081_10 1930 1:2,500
081_13 1930 1:2,500	081_14 1930 1:2,500

Historical Map - Segment A13



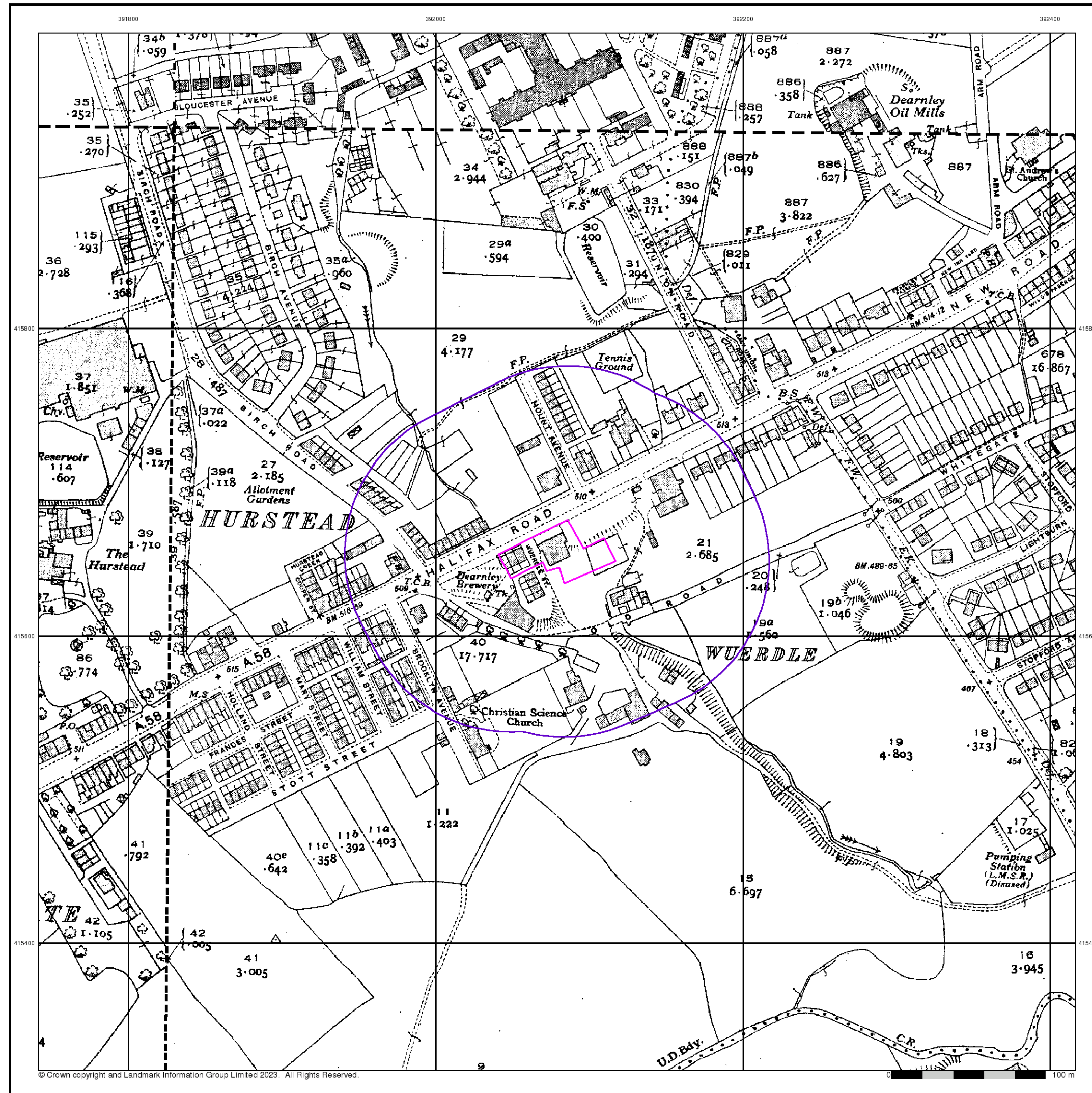
Order Details

Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 100

Site Details

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Lancashire And Furness

Published 1937 - 1939

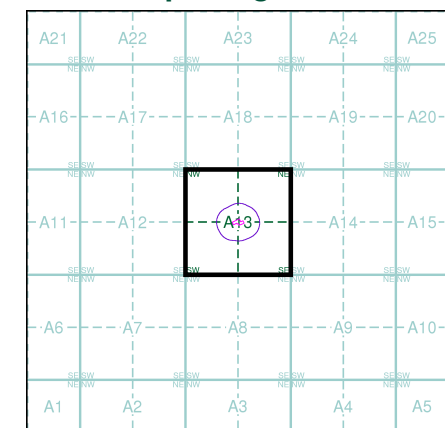
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

081_09 1937 1:2,500	081_10 1937 1:2,500
081_13 1939 1:2,500	081_14 1938 1:2,500

Historical Map - Segment A13



Order Details

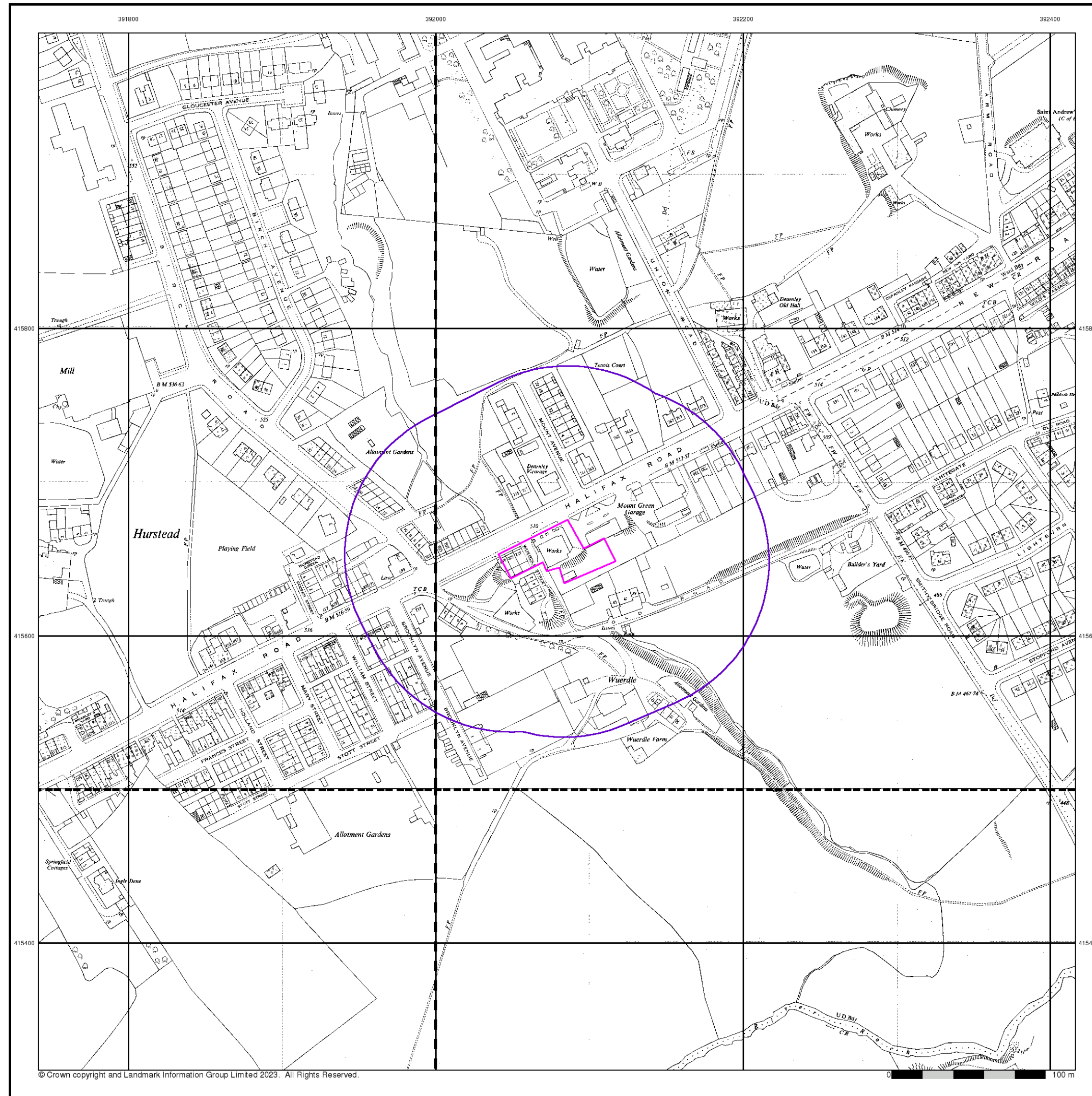
Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 100

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Ordnance Survey Plan

Published 1960

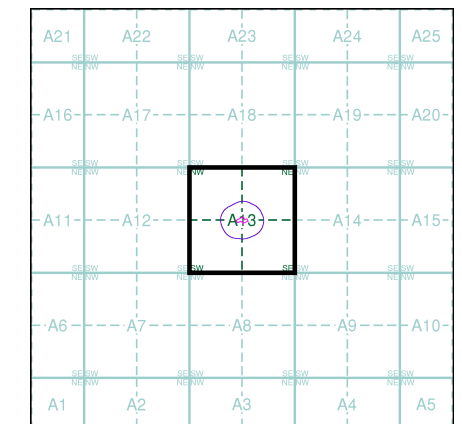
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SD9115NE 1960 1:1,250	SD9215NW 1960 1:1,250
SD9115SE 1960 1:1,250	SD9215SW 1960 1:1,250

Historical Map - Segment A13

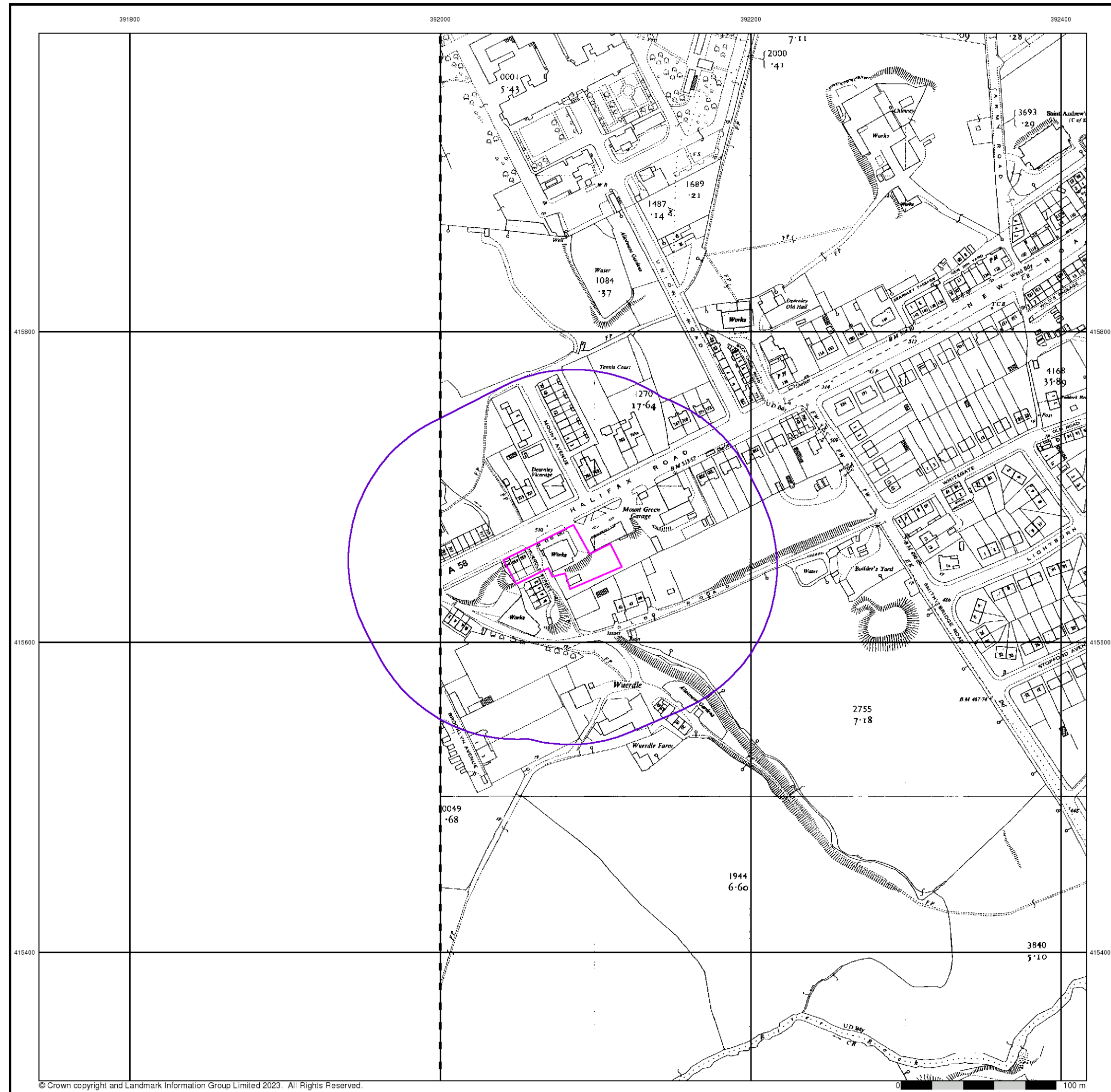


Order Details

Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1961

Source map scale - 1:2,500

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Map Name(s) and Date(s)

SD9215
1961
1:2,500

Historical Map - Segment A13

A21A22A23A24A25

A16A17A18A19A20

A11A12A13A14A15

A6A7A8A9A10

A1A2A3A4A5

Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	100

Site Details

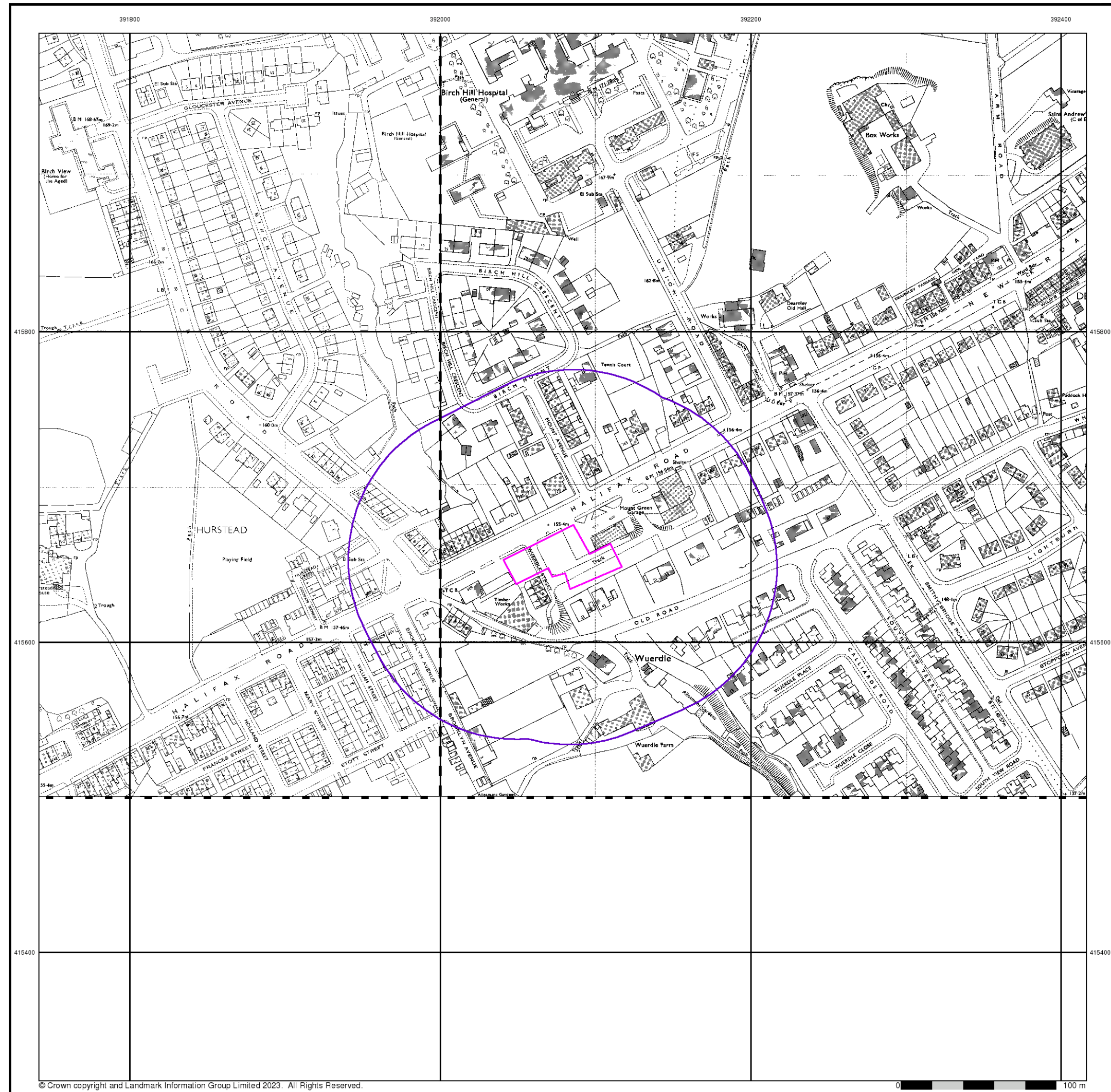
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Ordnance Survey Plan

Published 1973 - 1974

Source map scale - 1:1,250

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Map Name(s) and Date(s)

SD9115NE 1973 1:1,250	SD9215NW 1974 1:1,250
-----------------------------	-----------------------------

Historical Map - Segment A13

Order Details

Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 100

Site Details

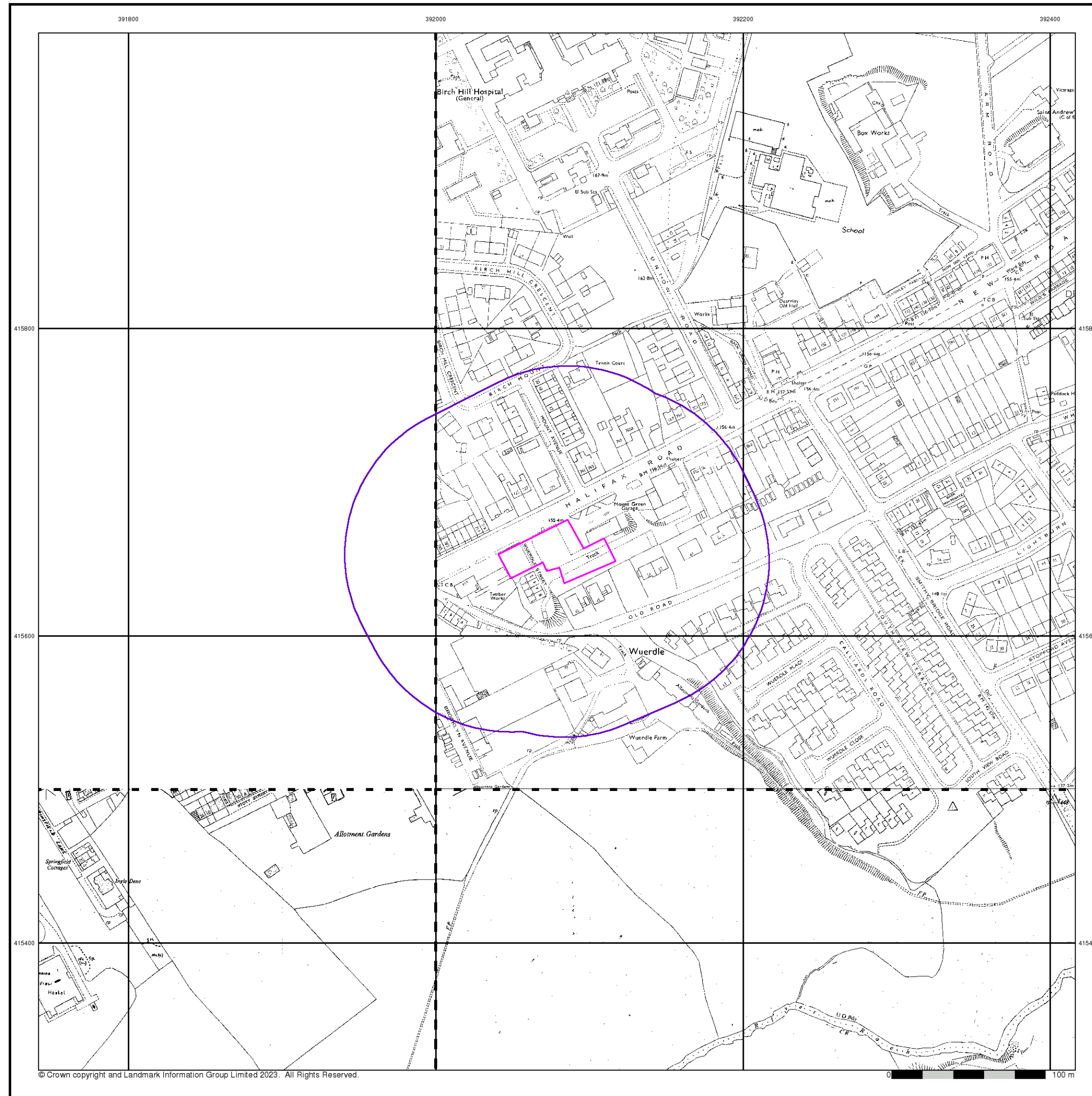
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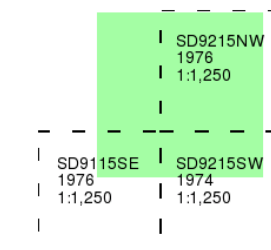
Supply of Unpublished Survey Information

Published 1974 - 1976

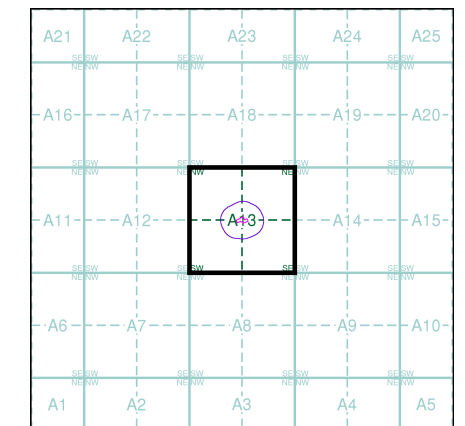
Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

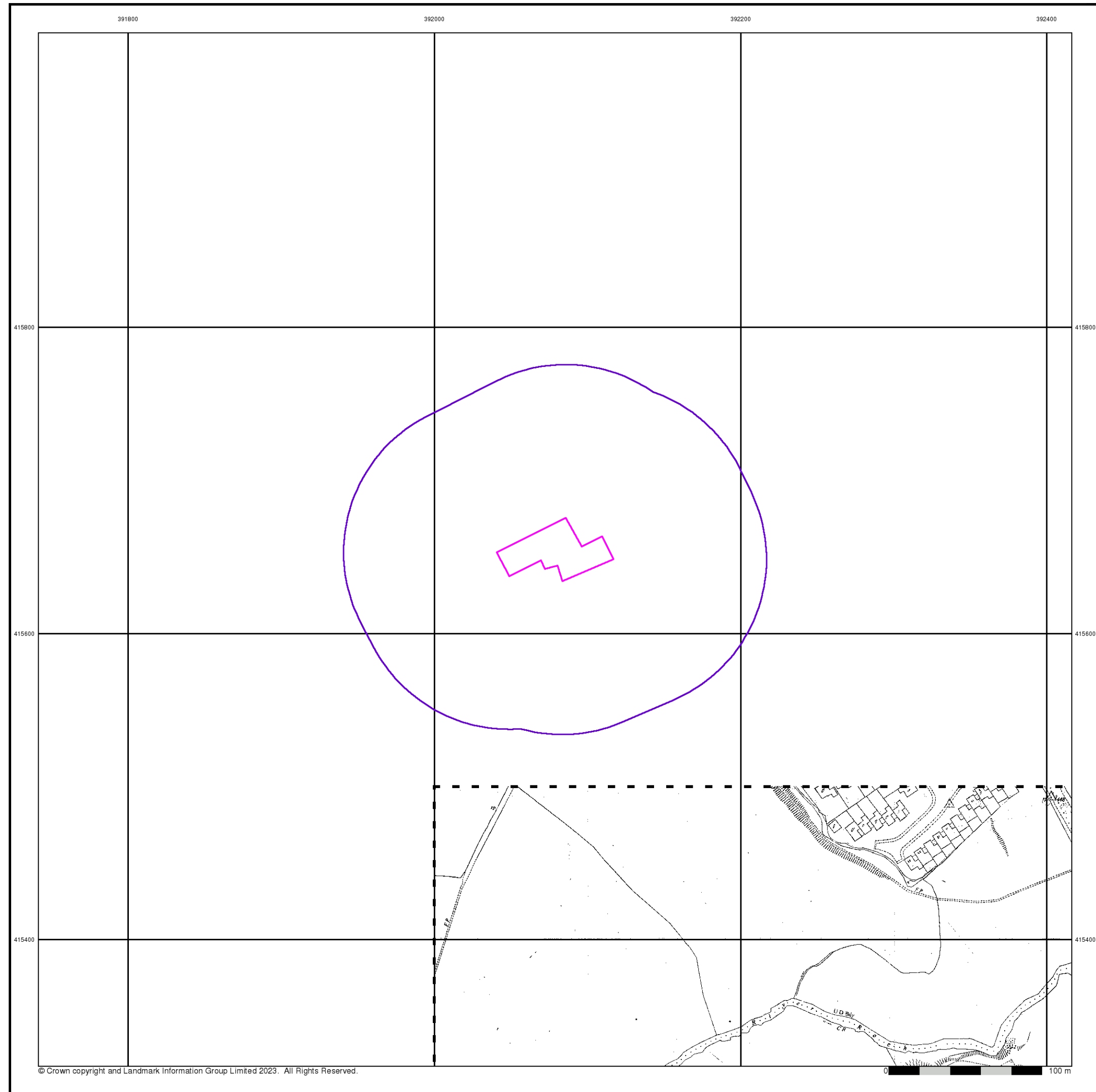
Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 100

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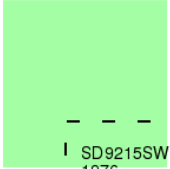
Supply of Unpublished Survey Information

Published 1976

Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

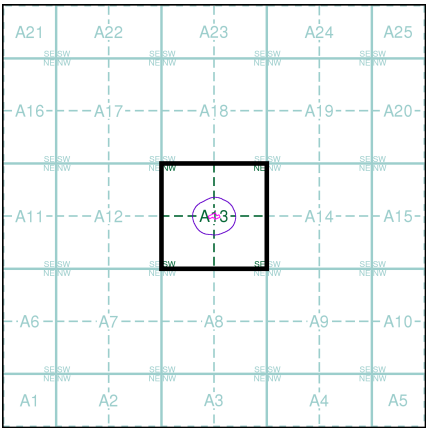


SD9215SW

1976

1:1,250

Historical Map - Segment A13



Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	100

Site Details

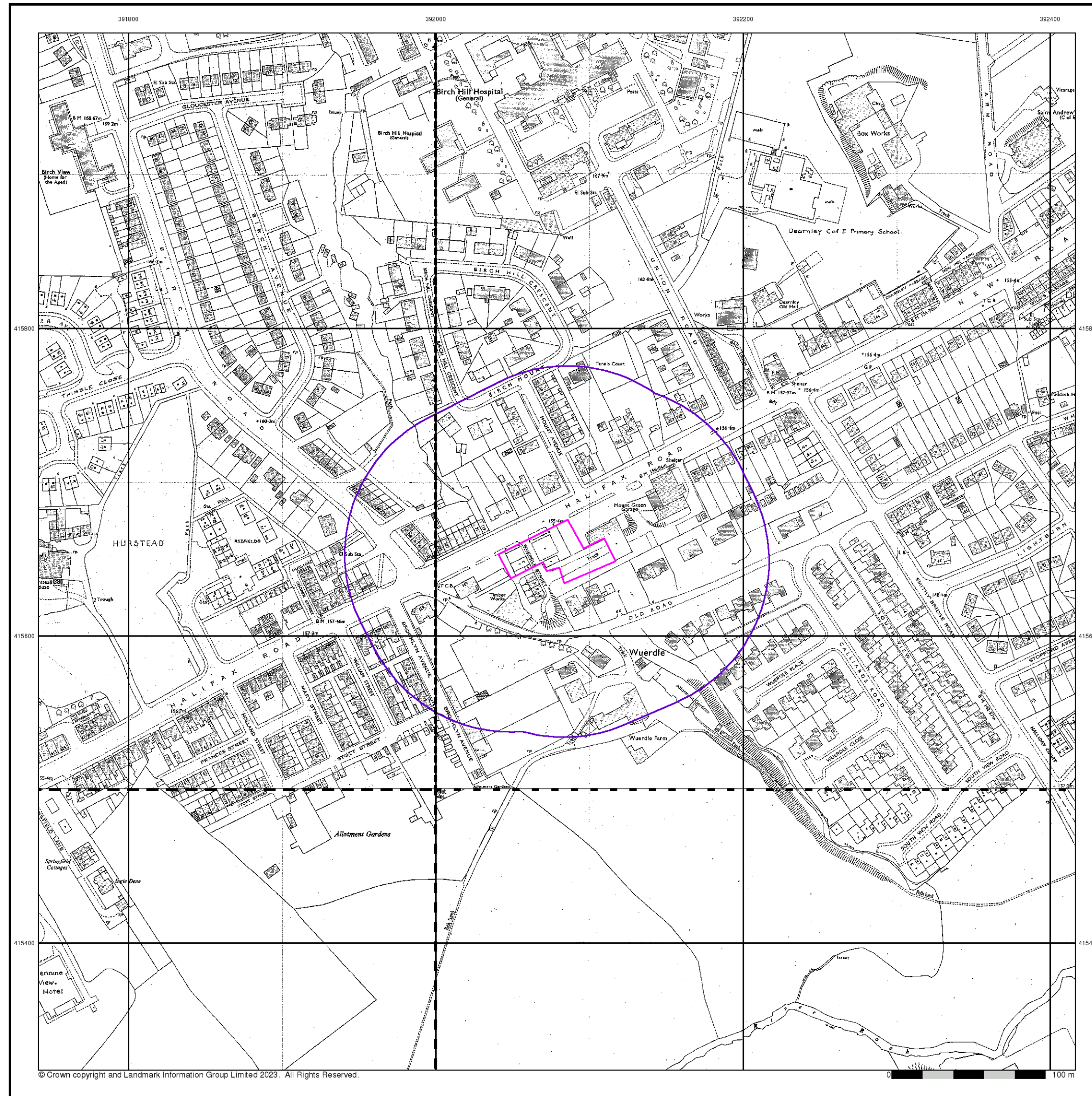
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Additional SIMs

Published 1977 - 1988

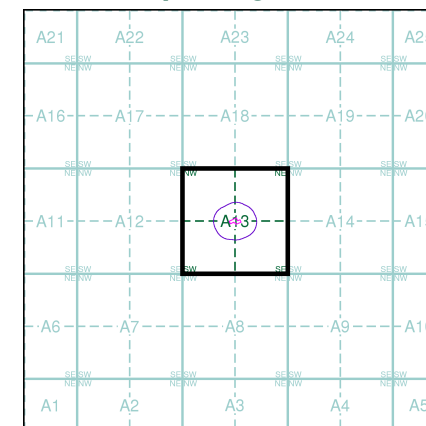
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SD9115NE 1977 1:1,250	SD9215NW 1979 1:1,250
SD9115SE 1985 1:1,250	SD9215SW 1988 1:1,250

Historical Map - Segment A13



Order Details

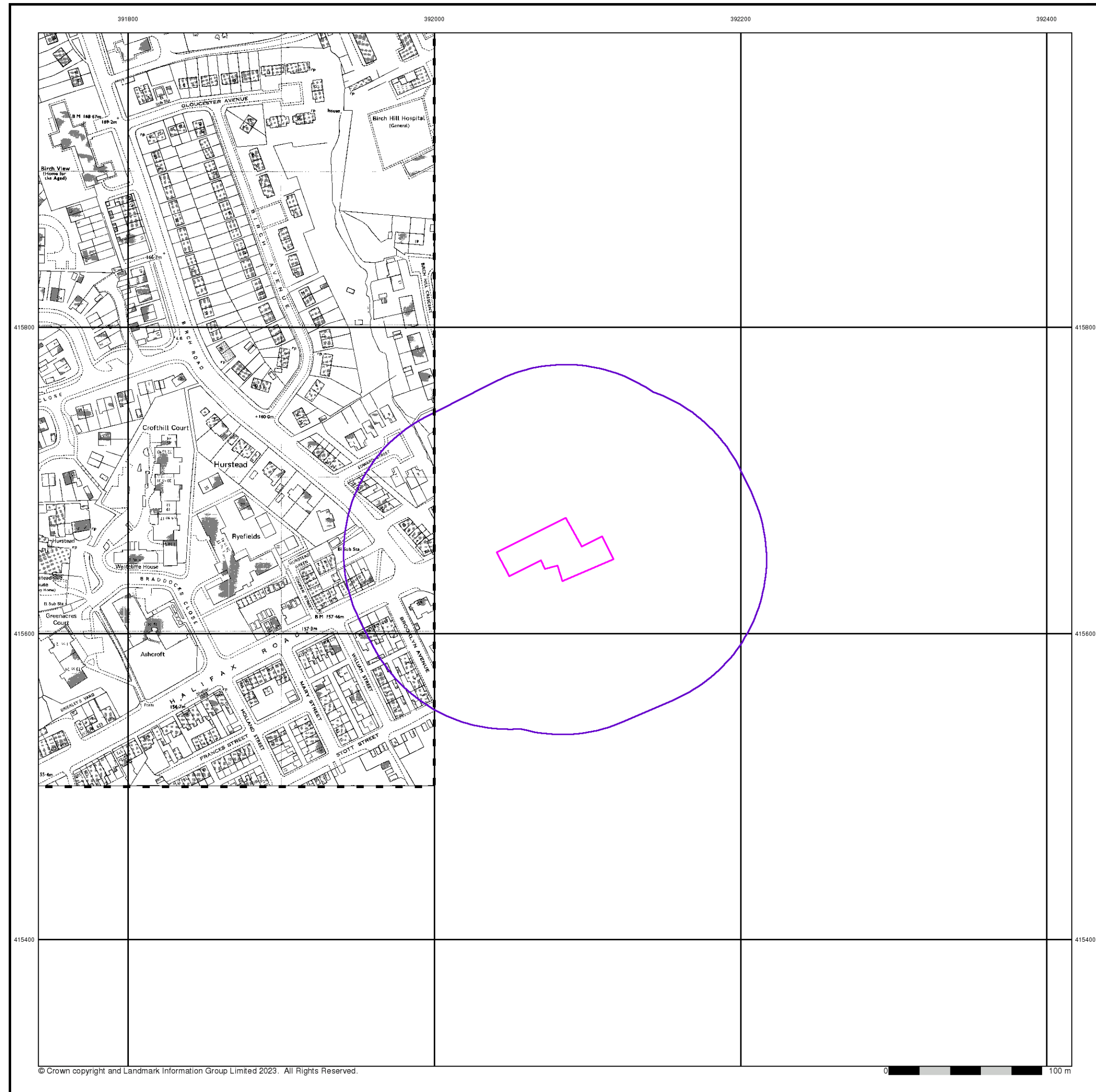
Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 100

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Ordnance Survey Plan

Published 1983

Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SD9115NE

1983

1:1,250

Historical Map - Segment A13

A21

A22

A23

A24

A25

A16

A17

A18

A19

A20

A11

A12

A13

A14

A15

A6

A7

A8

A9

A10

A1

A2

A3

A4

A5

N

Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	100

Site Details

Spar Stores, 720, Halifax Road, ROCHDALE, OL16 2SQ

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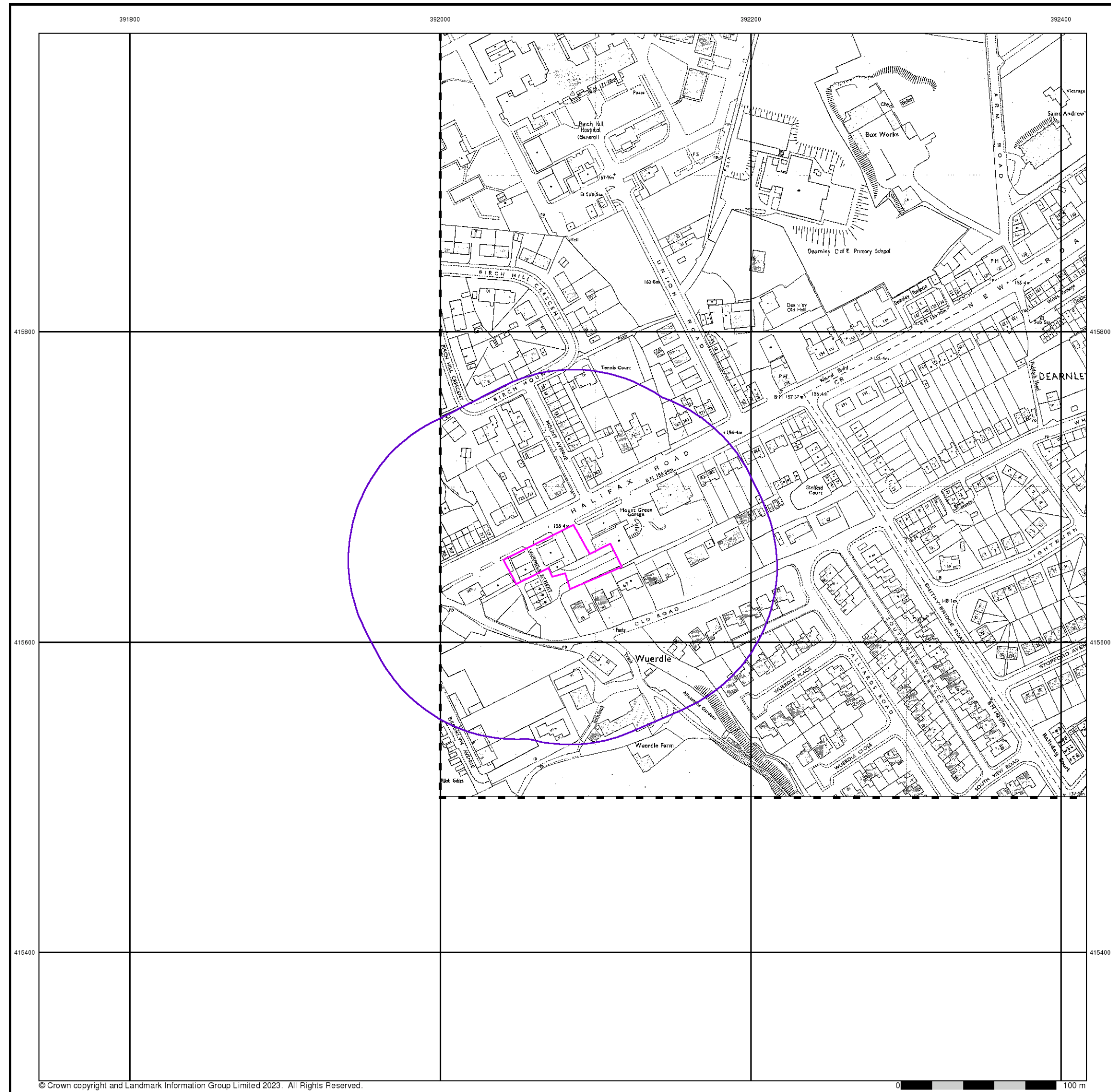
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Additional SIMs

Published 1988

Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SD9215NW
1988
1:1,250

Historical Map - Segment A13

A21

A22

A23

A24

A25

A16

A17

A18

A19

A20

A11

A12

A13

A14

A15

A6

A7

A8

A9

A10

A1

A2

A3

A4

A5

N

Order Details

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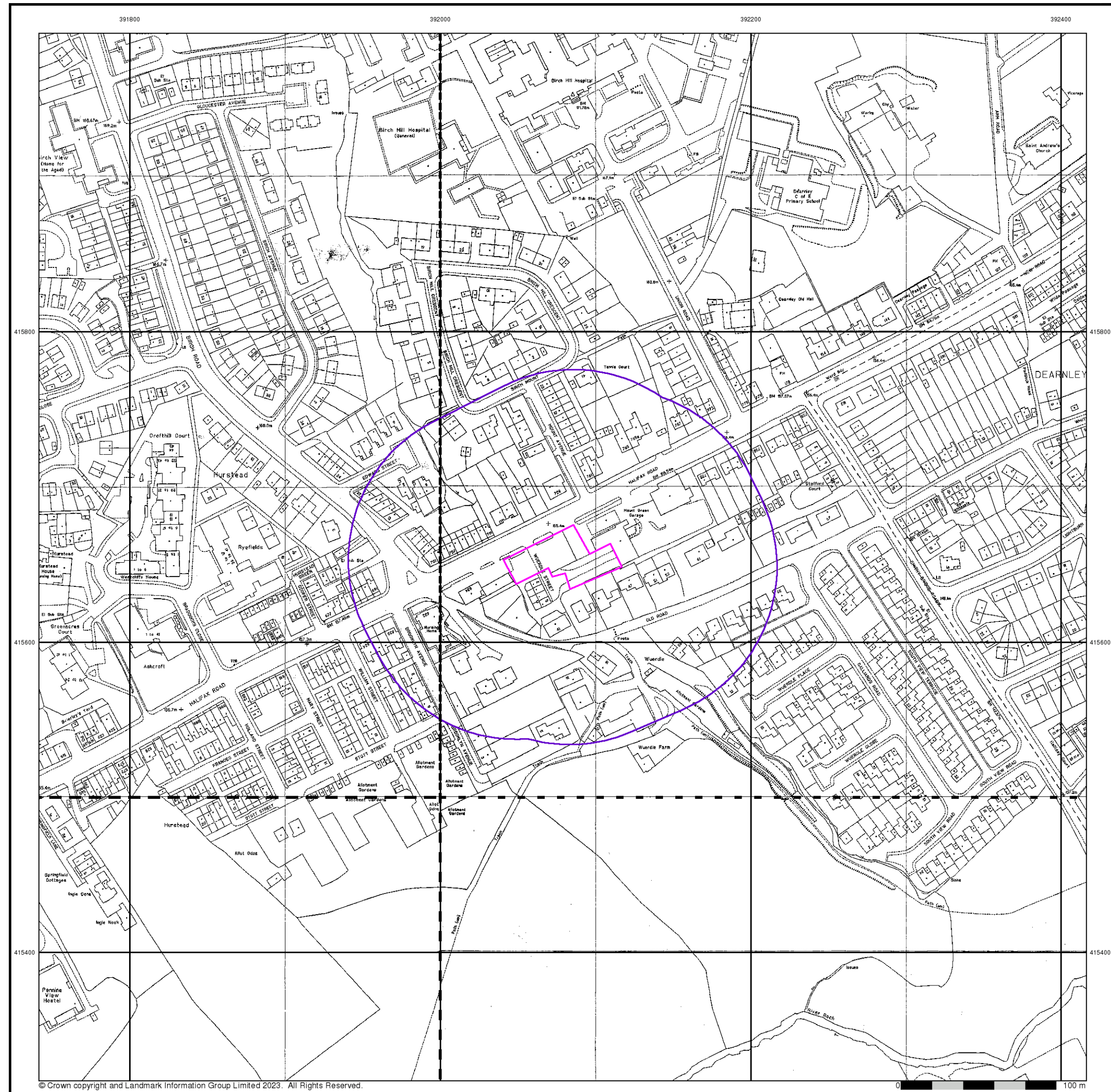
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Large-Scale National Grid Data

Published 1992

Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SD9115NE	SD9215NW
1992	1992
1:1,250	1:1,250

SD9115SE	SD9215SW
1992	1992
1:1,250	1:1,250

Historical Map - Segment A13

A21	A22	A23	A24	A25
A16	A17	A18	A19	A20
A11	A12	A13	A14	A15
A6	A7	A8	A9	A10
A1	A2	A3	A4	A5

Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
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Search Buffer (m):	100

Site Details

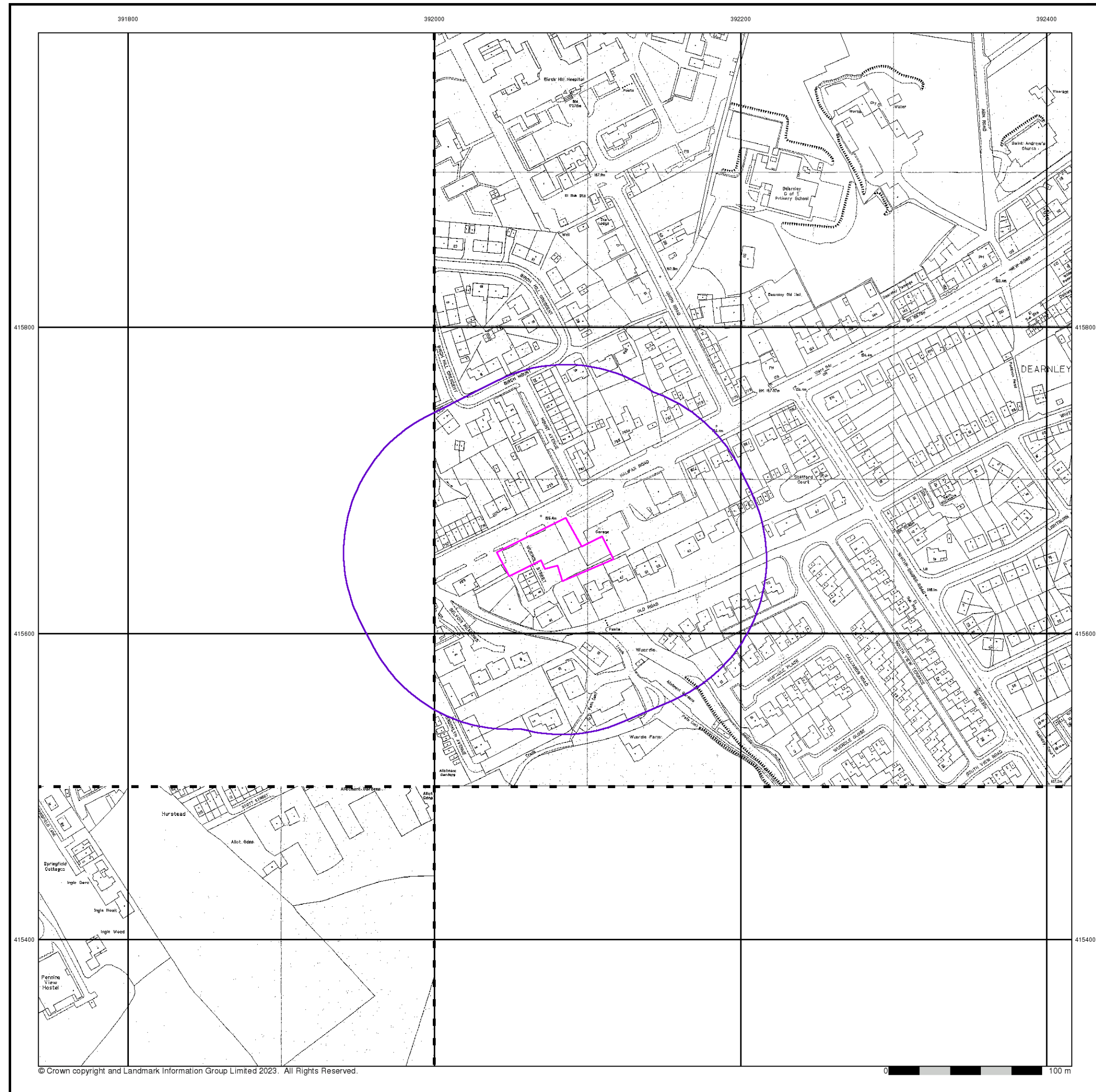
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Large-Scale National Grid Data

Published 1994 - 1995

Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SD9215NW
1994
1:1,250

SD9115SE
1995
1:1,250

Historical Map - Segment A13

A21A22A23A24A25

A16A17A18A19A20

A11A12A13A14A15

A6A7A8A9A10

A1A2A3A4A5

Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	100

Site Details

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415800

415800

415600

415600

415400

415400

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0 100 m

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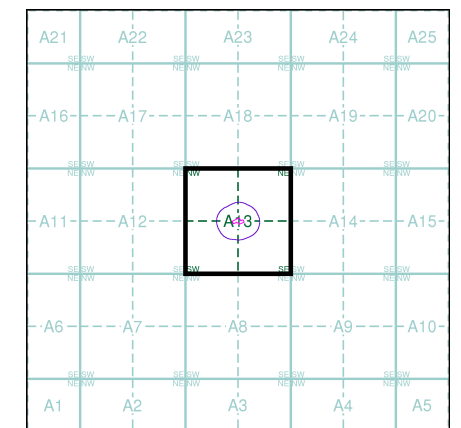
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Historical Aerial Photography

Published 2000

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details

Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 100

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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	•285 Surface Level				
	Sketched Contour		Instrumental Contour		
	Main Roads		Minor Roads		
	Sunken Road		Raised Road		
	Road over Railway		Railway over River		
	Railway over Road		Level Crossing		
	Road over River or Canal		Road over Stream		
	Road over Stream				
	County Boundary (Geographical)				
	County & Civil Parish Boundary				
	Administrative County & Civil Parish Boundary				
	County Borough Boundary (England)				
	County Burgh Boundary (Scotland)				
	Rural District Boundary				
	Civil Parish Boundary				

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Bracken		Heath
	Marsh		Reeds
	Building		Glasshouse
	Sloping Masonry		Pylon
	Cutting		Embankment
	Road Under		Road Over
	Level Crossing		Foot Bridge
	Standard Gauge Multiple Track		Standard Gauge Single Track
	Siding, Tramway or Mineral Line		Narrow Gauge
	Geographical County		Administrative County, County Borough or County of City
	Municipal Borough, Urban or Rural District, Burgh or District Council		Borough, Burgh or County Constituency
	Civil Parish		
	BP, BS Boundary Post or Stone		Police Station
	Church		Post Office
	Club House		Public Convenience
	Fire Engine Station		Public House
	Foot Bridge		Signal Box
	Fountain		Spring
	Guide Post		Telephone Call Box
	Mile Post		Telephone Call Post
	Mile Stone		Well

1:10,000 Raster Mapping

	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
	Area of wooded vegetation		Non-coniferous trees
	Non-coniferous trees (scattered)		Coniferous trees
	Coniferous trees (scattered)		Positioned tree
	Orchard		Coppice or Osiers
	Rough Grassland		Heath
	Scrub		Marsh, Salt Marsh or Reeds
	Water feature		Flow arrows
	Mean high water (springs)		Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
	Bench mark (where shown)		Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)		Pylon, flare stack or lighting tower
	Site of (antiquity)		Glasshouse
	General Building		Important Building

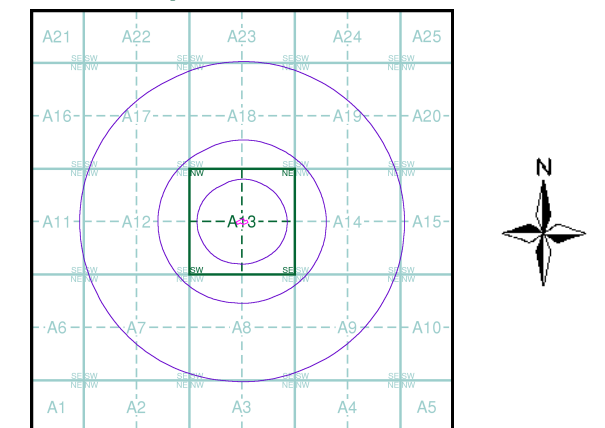
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:10,560	1851	3
Yorkshire	1:10,560	1854	4
Lancashire And Furness	1:10,560	1894	5
Lancashire And Furness	1:10,560	1910 - 1911	6
Lancashire And Furness	1:10,560	1931 - 1932	7
Lancashire And Furness	1:10,560	1938	8
Ordnance Survey Plan	1:10,000	1956	9
Ordnance Survey Plan	1:10,000	1967 - 1968	10
Manchester	1:25,000	1975	11
Ordnance Survey Plan	1:10,000	1978 - 1979	12
Ordnance Survey Plan	1:10,000	1990	13
10K Raster Mapping	1:10,000	1999	14
10K Raster Mapping	1:10,000	2006	15
VectorMap Local	1:10,000	2022	16

Historical Map - Slice A



Order Details

Order Number: 308758343_1_1
 Customer Ref: 1382/BW
 National Grid Reference: 392080, 415650
 Slice: A
 Site Area (Ha): 0.16
 Search Buffer (m): 1000

Site Details

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Russian Military Mapping Legends

1:5,000 and 1:10,000 mapping

a. Not drawn to scale b. Drawn to scale

Government and Administrative Buildings

Military and Industrial Buildings

Military and Communication Areas

Subway Entrance

Fireproof Building

Prominent Fireproof Building

Non-fireproof Building

Non-fireproof Building (non-dwelling)

Factory, mill, and flour mill, with chimneys

Factory, mill, and flour mill, without chimneys

Power Station, drawn to scale

Hydroelectric Power Station

Radio Station, drawn to scale

Telephone Station, drawn to scale

Abandoned Open-pit Mine or Quarry

Open-pit Salt Mine

Pit

Oil Deposit or Well

Oil Seepage

Tailings Pile

Fuel Storage Tanks

Natural Gas Tank

Bench Mark

Drill Hole

Burial Mound

Triangulation Point on Burial Mound

Single-track Railroad

Double-track Railroad

Railroad and Station Building

Coniferous Forest

Deciduous Forest

Mixed Forest

Lawns

Citrus Orchard

Wet Ground

Scattered Vegetation

243.8 Values for prominent elevations
186.0 Numbers for spot elevations, depth soundings, contour lines, etc.
0.2 Velocity of the current, width of river bed, depth of river
180/12 Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

Russian Alphabet (For reference and phonetic interpretation of map text)

А а (A)	З з (Z)	П п (P)	Ч ч (CH)
Б б (B)	И и (I)	Р р (R)	Ш ш (SH)
В в (V)	Й й (Y)	С с (S)	Щ щ (SHCH)
Г г (G)	К к (K)	Т т (T)	Ъ (-)
Д д (D)	Л л (L)	У у (U)	Ы (Y)
Е е (E)	М м (M)	Ф ф (F)	Ь (')
Ё ё (YO)	Н н (N)	Х х (KH)	Э э (E)
Ж ж (ZH)	О о (O)	Ц ц (TS)	Ю ю (YU or IU)
			Я я (YA or IA)

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale

Government and Administrative Buildings

Military and Industrial Buildings

Military and Communication Areas

Subway Entrance

Partly Demolished Buildings

Demolished Buildings

Built-Up Area with Fireproof Buildings Predominant

Built-Up Area with Non-Fireproof Buildings Predominant

Individual Fireproof Building

Prominent Industrial Building

Individual Dwelling, Fireproof

Ruins of an Individual Dwelling

Factory or Mill Chimney

Factory or Mill with Chimney

Factory or Mill without Chimney

Mine or Open Pit Mine

Operating Shaft or Mine

Non-Operating Shaft or Mine

Salt Mine

Tailings Pile

Pit

Stone Quarry

Gas Pump or Service Station

Fuel Storage or Natural Gas Tank

Oil or Natural Gas Derrick

Small Hydroelectric Power Station

Power Station

Transformer Station

Cemetery

Burial Mound (height in metres)

Triangulation Point on Burial Mound

Triangulation Point

Bench Mark

Bench Mark (monumented)

Telegraph Office

Telephone Station

Radio Station

Radio Tower

Airfield or Seaplane Base

Landing Strip

Cut, Fill, Km Post, Plantings

Telegraph/Telephone Lines

Main Highway

Highway under Construction

Improved Dirt Road (former truck road)

Small Bridge, Pipe (Culvert), Tunnel

Double-track Railroad with First Class Station

Railroad Under Construction

Shore Embankment

River or Ditch with Embankment

Direction and velocity of current

Water Gauge

Water Level Mark

Well

Water Reservoir or Rain Water Pit

Spring

Isobath with value

Heavy (Index) Contour Line

Contour Line and Value

Half Contour Line

Spot Elevation Value

Coniferous

Deciduous

Mixed

Scrub

Key to Numbers on Mapping

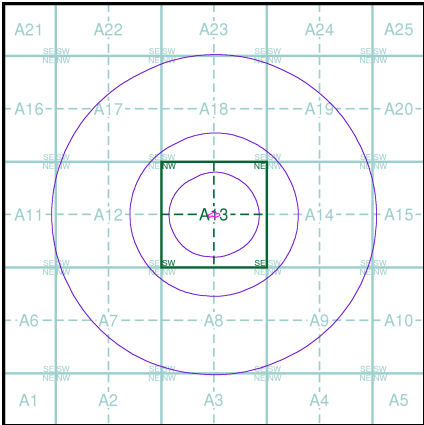
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:10,560	1851	3
Yorkshire	1:10,560	1854	4
Lancashire And Furness	1:10,560	1894	5
Lancashire And Furness	1:10,560	1910 - 1911	6
Lancashire And Furness	1:10,560	1931 - 1932	7
Lancashire And Furness	1:10,560	1938	8
Ordnance Survey Plan	1:10,000	1956	9
Ordnance Survey Plan	1:10,000	1967 - 1968	10
Manchester	1:25,000	1975	11
Ordnance Survey Plan	1:10,000	1978 - 1979	12
Ordnance Survey Plan	1:10,000	1990	13
10K Raster Mapping	1:10,000	1999	14
10K Raster Mapping	1:10,000	2006	15
VectorMap Local	1:10,000	2022	16

Russian Map - Slice A



Order Details

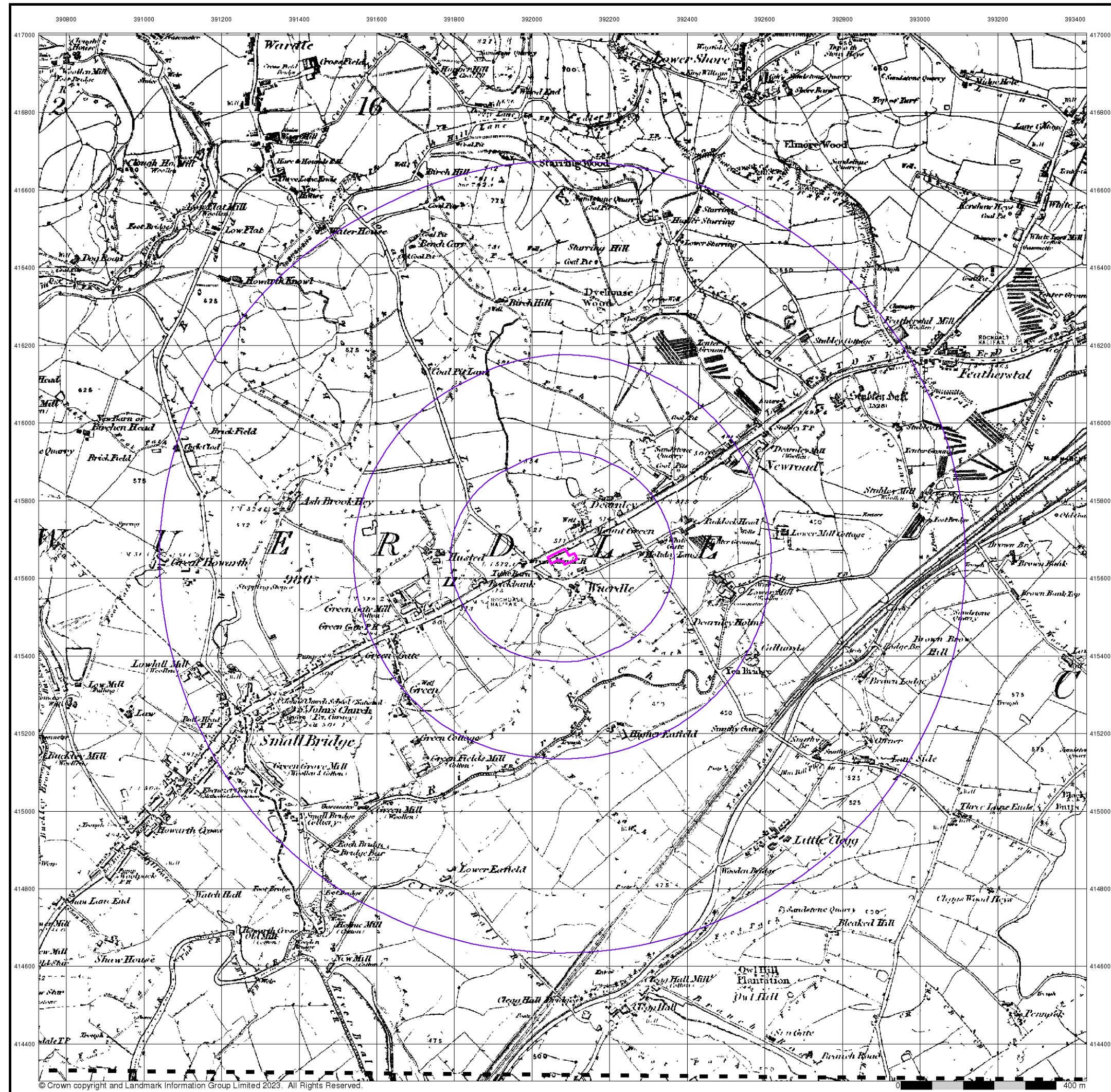
Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 1000

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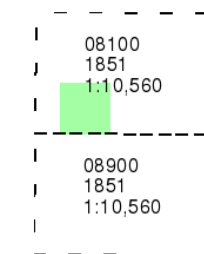
Lancashire And Furness

Published 1851

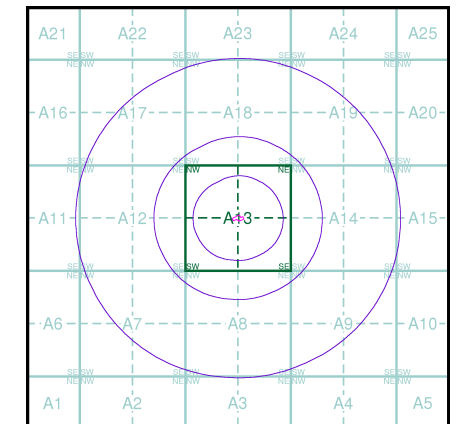
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
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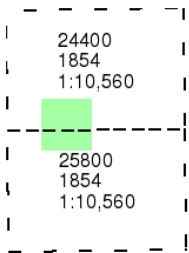
Yorkshire

Published 1854

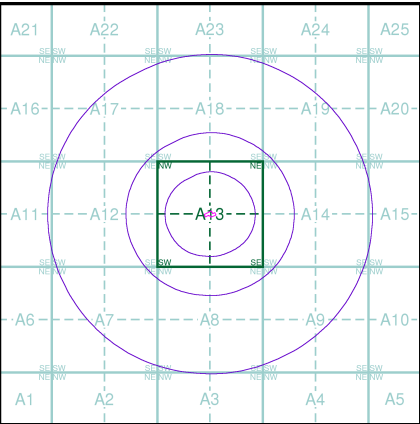
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:

308758343_1_1

Customer Ref:

1382/BW

National Grid Reference:

392080, 415650

Slice:

A

Site Area (Ha):

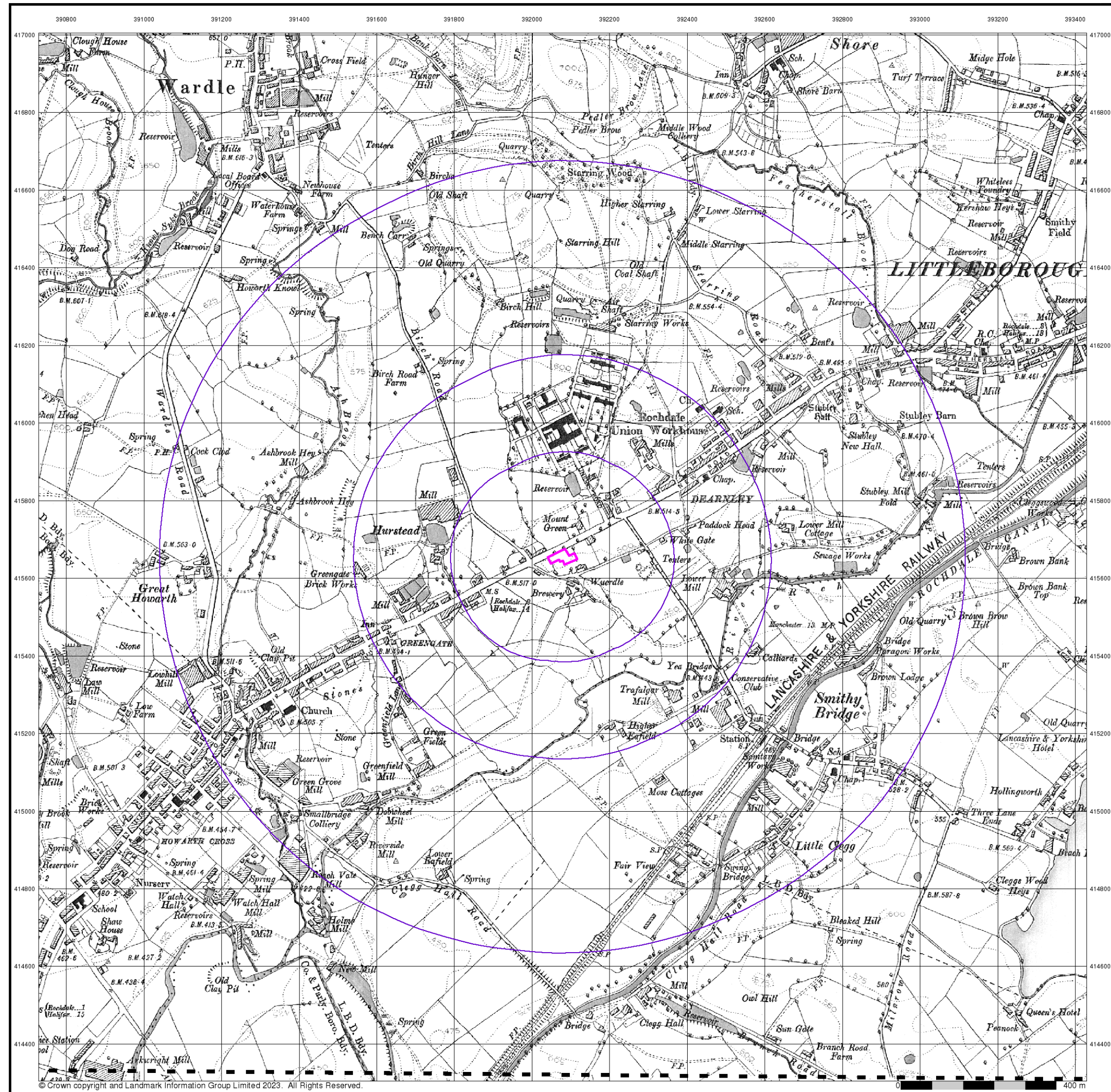
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Search Buffer (m):

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Lancashire And Furness

Published 1894

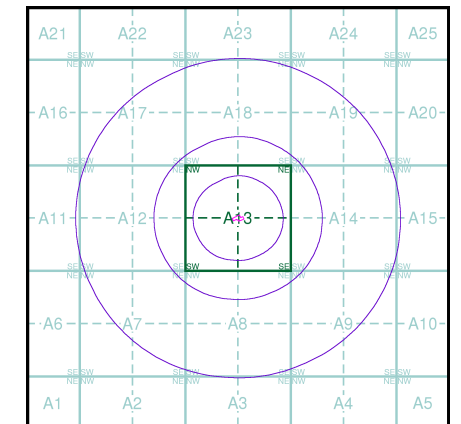
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

081SW
1894
1:10,560
089NW
1894
1:10,560

Historical Map - Slice A



Order Details

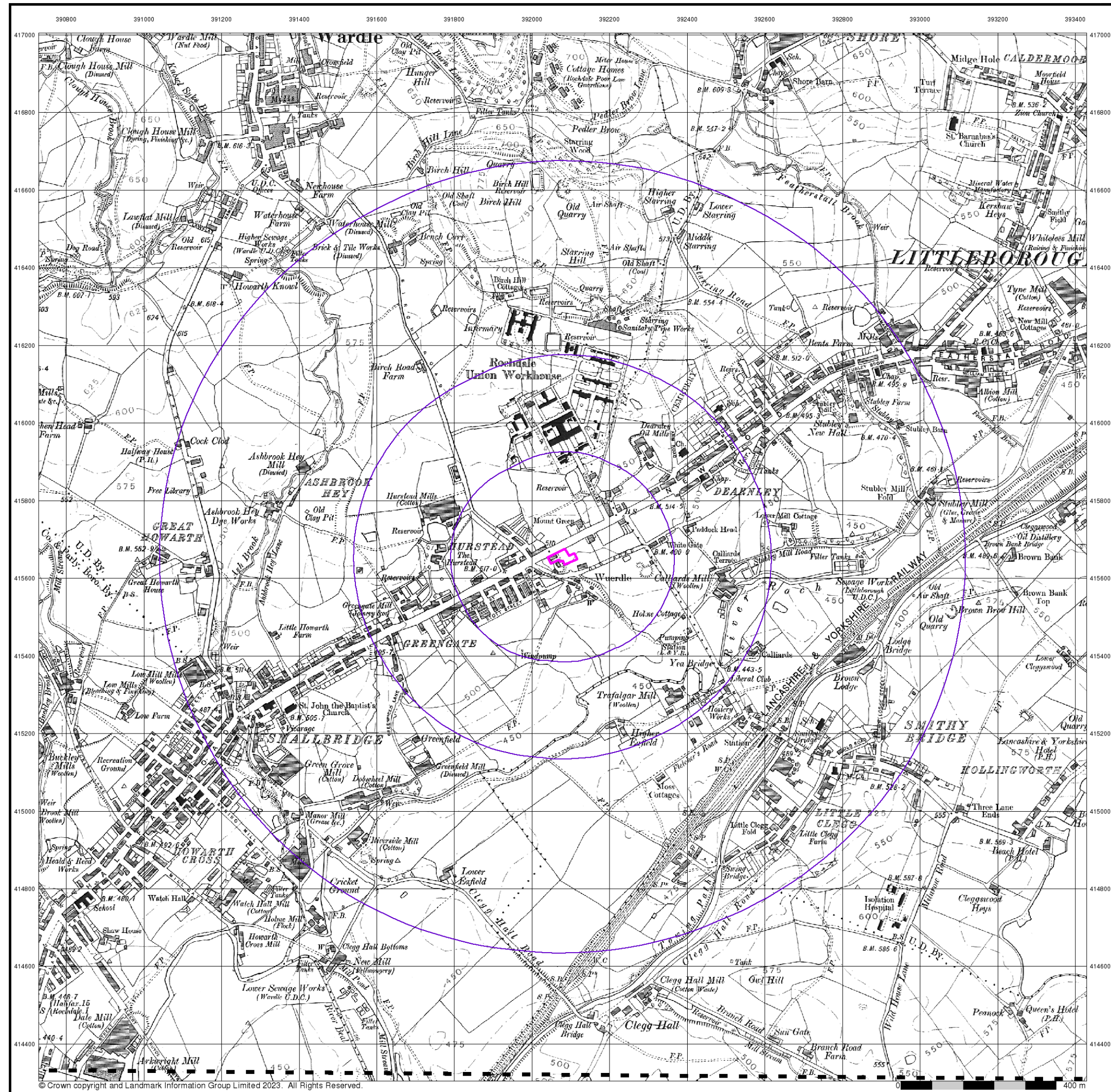
Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 1000

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Lancashire And Furness

Published 1910 - 1911

Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

081SW	1911	1:10,560
089NW	1910	1:10,560

Historical Map - Slice A

Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
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Site Area (Ha):	0.16
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Site Details

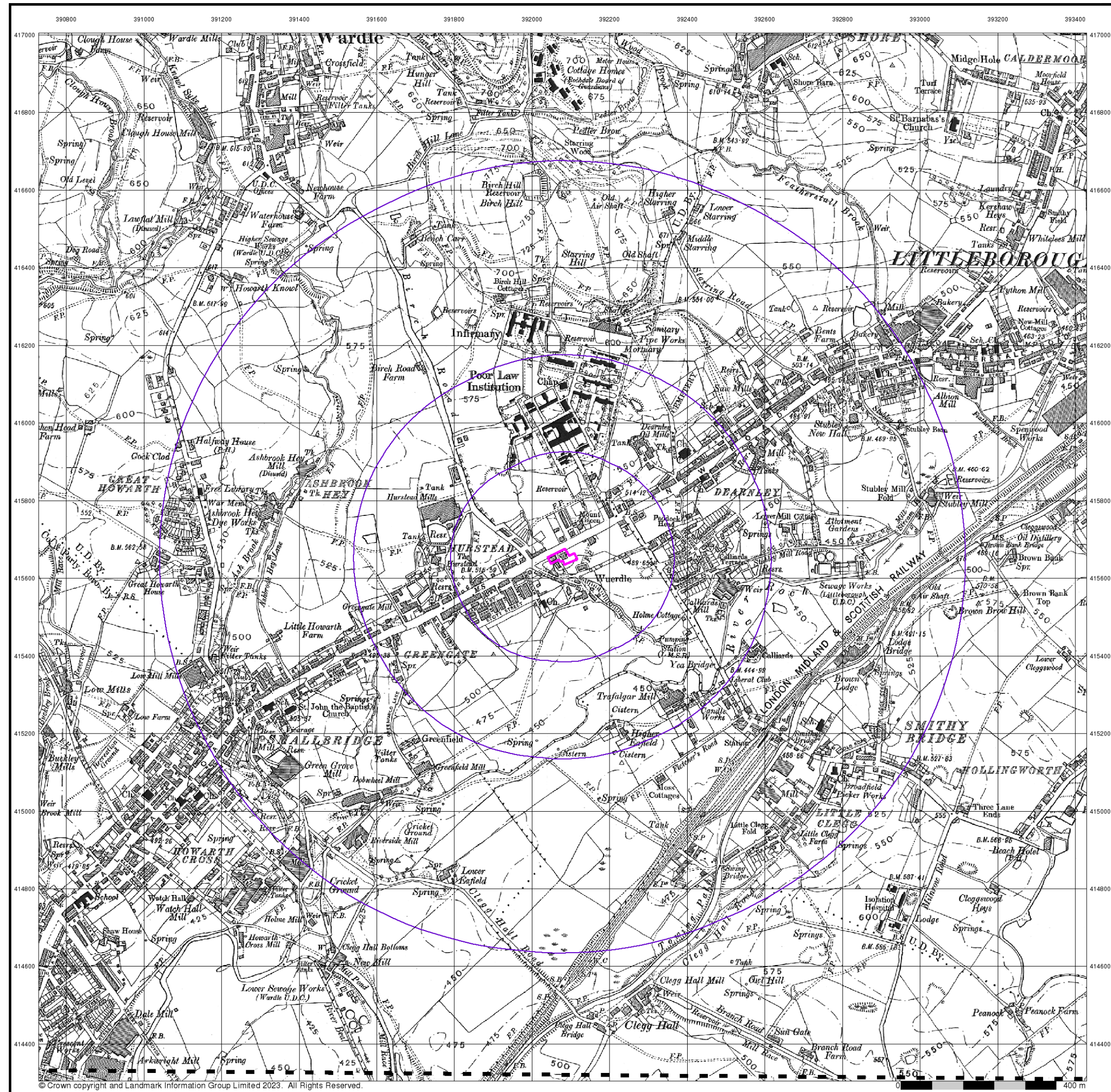
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Lancashire And Furness

Published 1931 - 1932

Source map scale - 1:10,560

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Map Name(s) and Date(s)

081SW	1932	1:10,560
089NW	1931	1:10,560

Historical Map - Slice A

Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	1000

Site Details

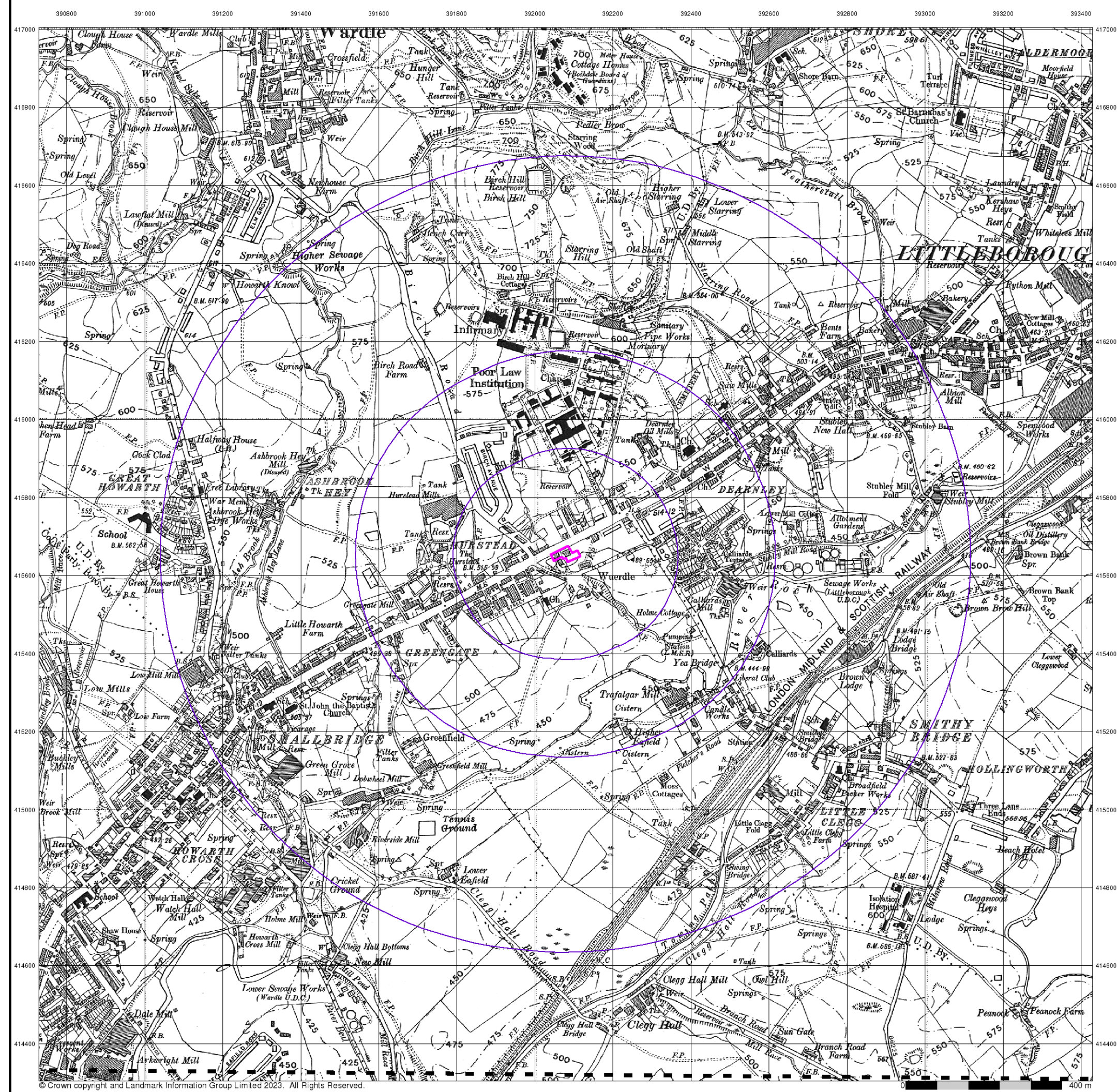
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Lancashire And Furness

Published 1938

Source map scale - 1:10,560

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Map Name(s) and Date(s)

081SW	1938	1:10,560
089NW	1938	1:10,560

Historical Map - Slice A

Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	1000

Site Details

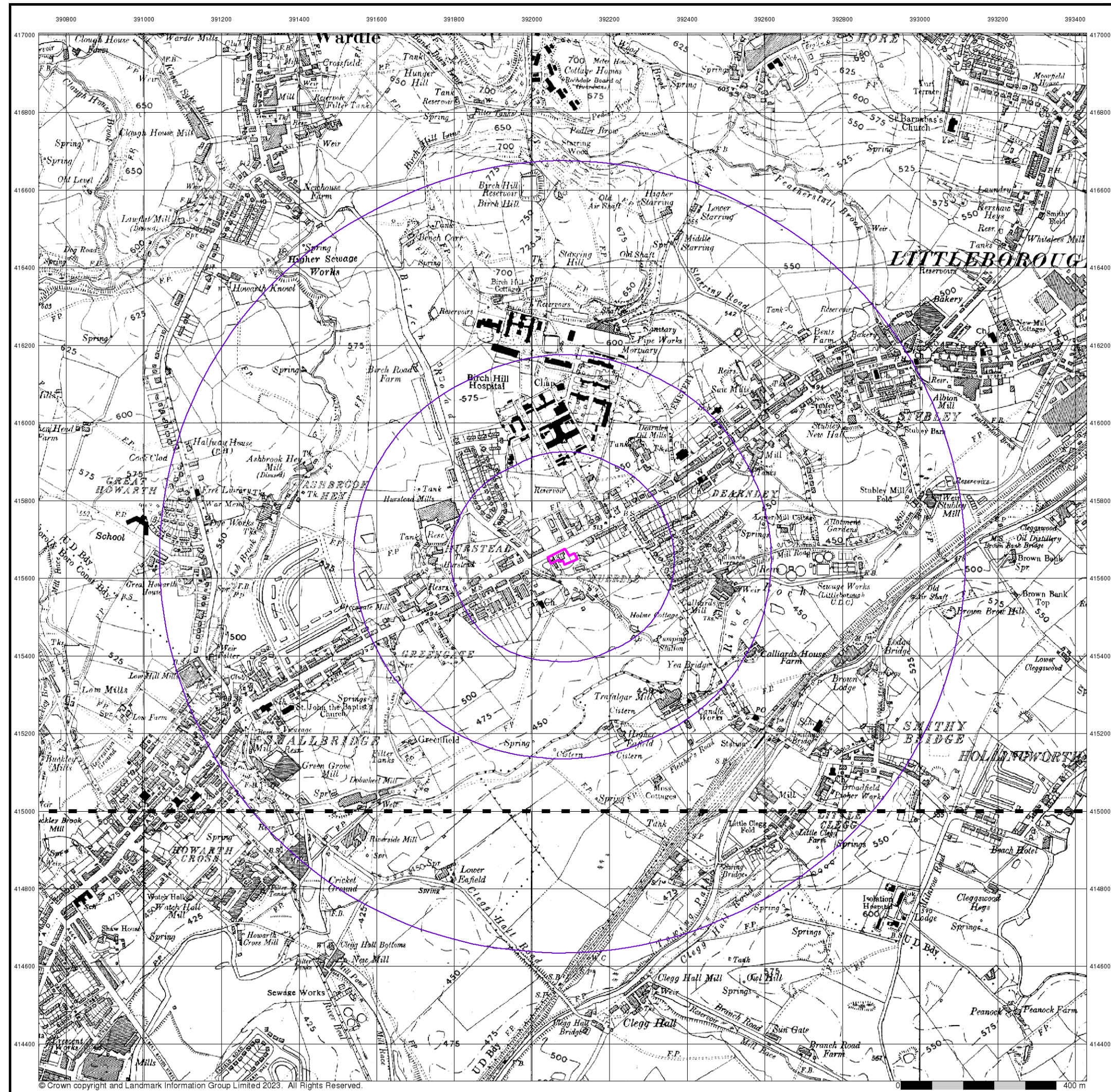
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Ordnance Survey Plan

Published 1956

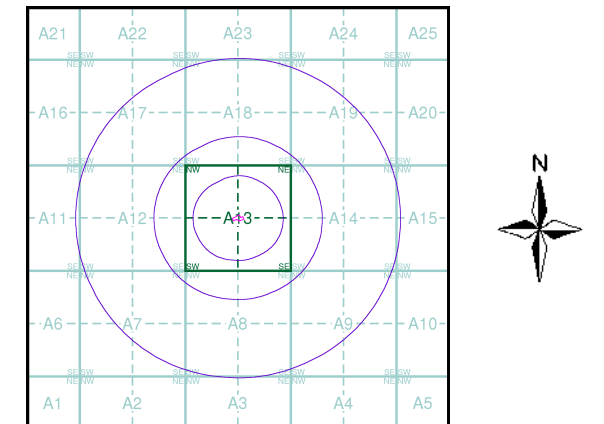
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SD91NW	1956
SD91SW	1956

Historical Map - Slice A



Order Details

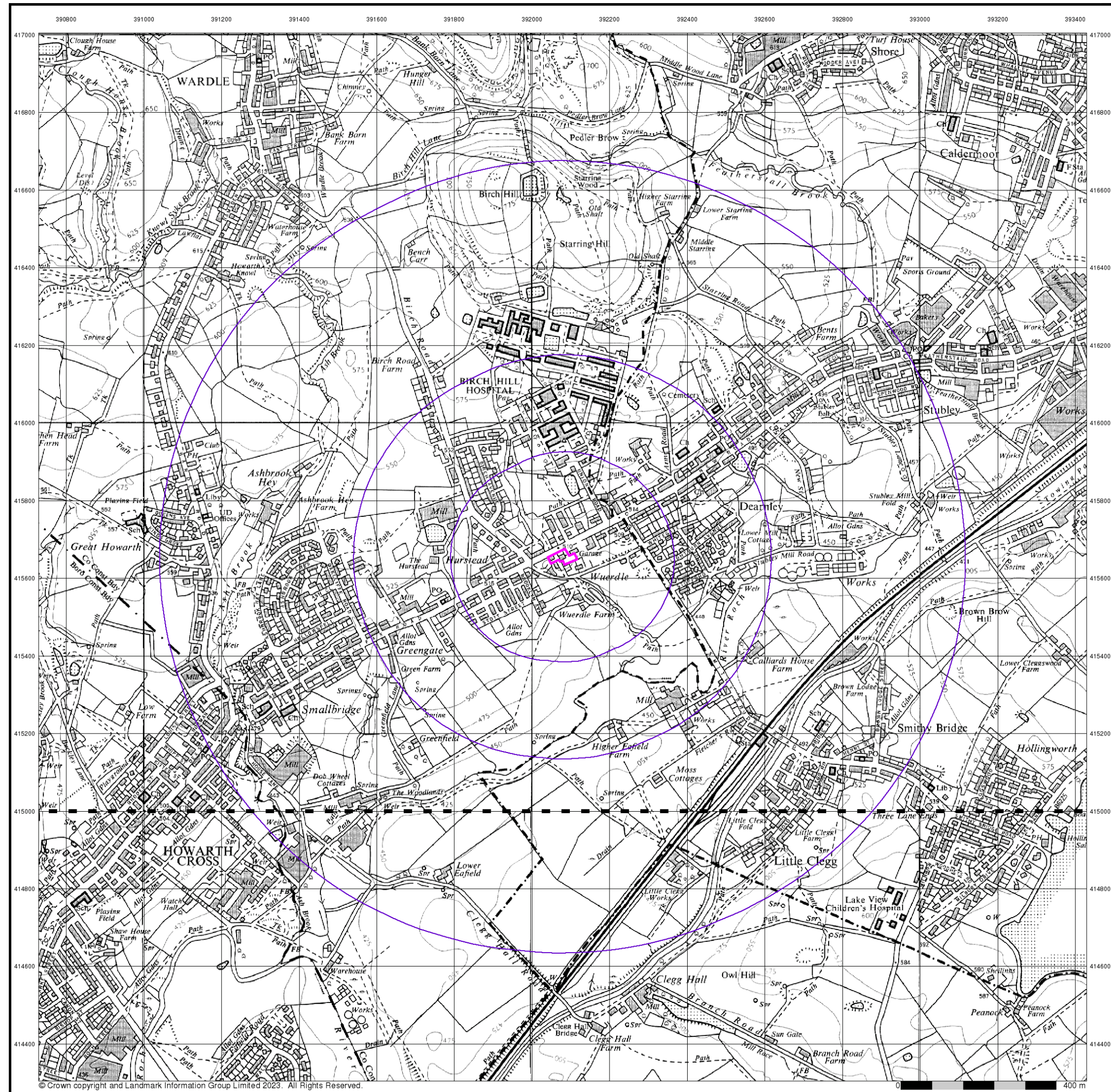
Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 1000

Site Details

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Ordnance Survey Plan

Published 1967 - 1968

Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SD91NW	1968
1:10,560	
SD91SW	1967
1:10,560	

Historical Map - Slice A

Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	1000

Site Details

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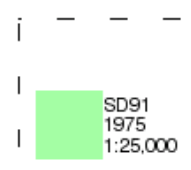
Manchester

Published 1975

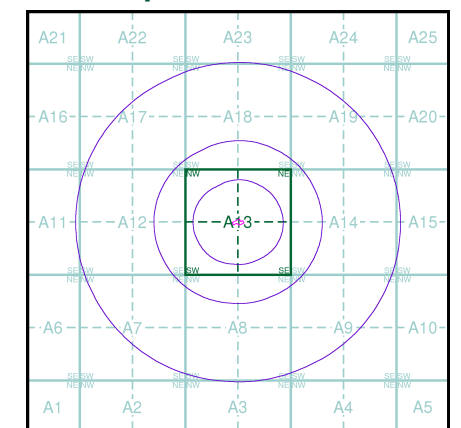
Source map scale - 1:25,000

These maps were produced by the Russian military during the Cold War between 1950 and 1997, and cover 103 towns and cities throughout the U.K. The maps are produced at 1:25,000, 1:10,000 and 1:5,000 scale, and show detailed land use, with colour-coded areas for development, green areas, and non-developed areas. Buildings are coloured black and important building uses (such as hospitals, post offices, factories etc.) are numbered, with a numbered key describing their use. They were produced by the Russians for the benefit of navigation, as well as strategic military sites and transport hubs, for use if they were to have invaded the U.K. The detailed information provided indicates that the areas were surveyed using land-based personnel, on the ground, in the cities that are mapped.

Map Name(s) and Date(s)



Russian Map - Slice A



Order Details

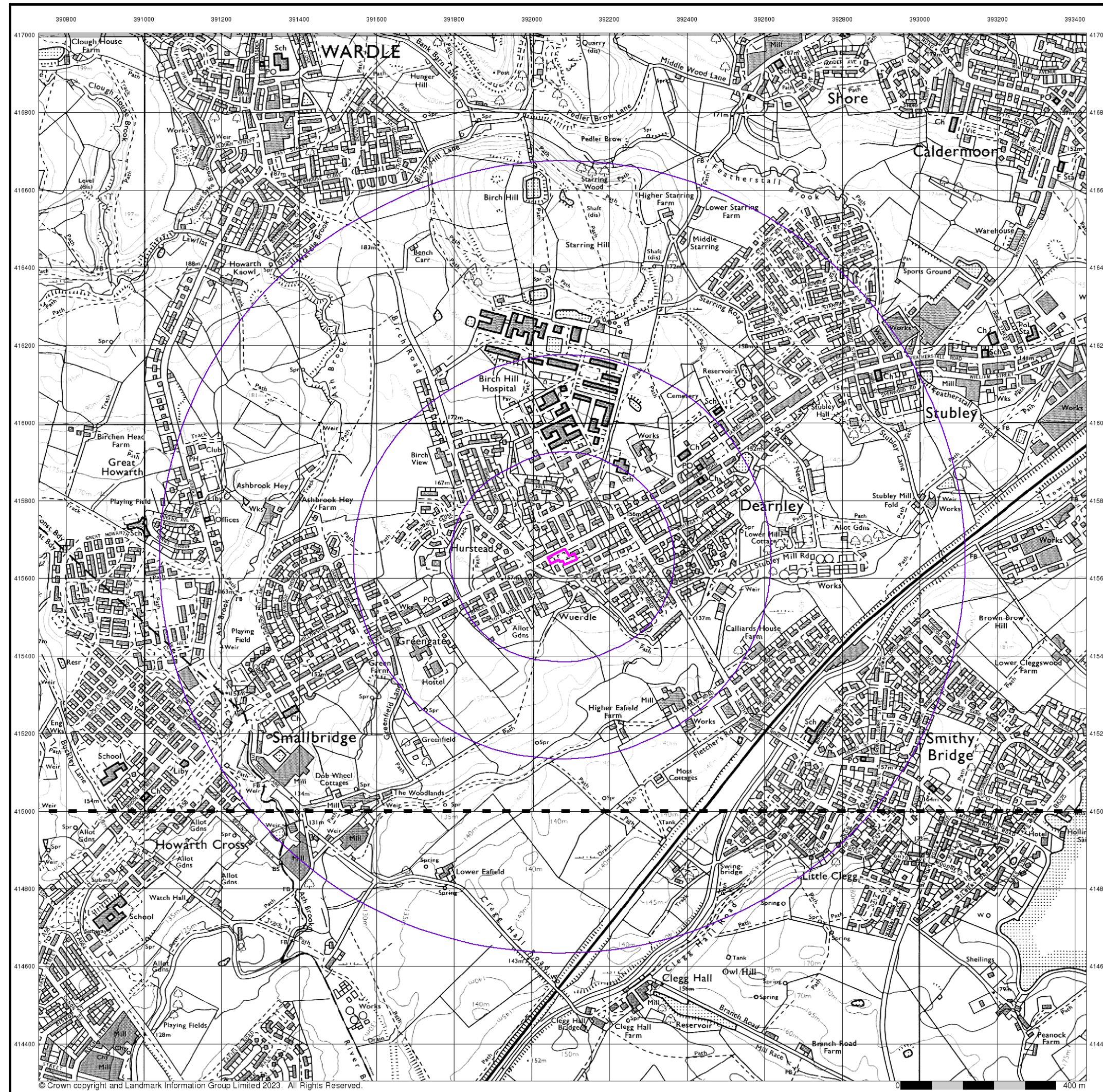
Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Slice: A
Site Area (Ha): 0.16
Search Buffer (m): 1000

Site Details

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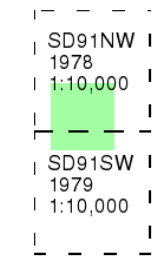
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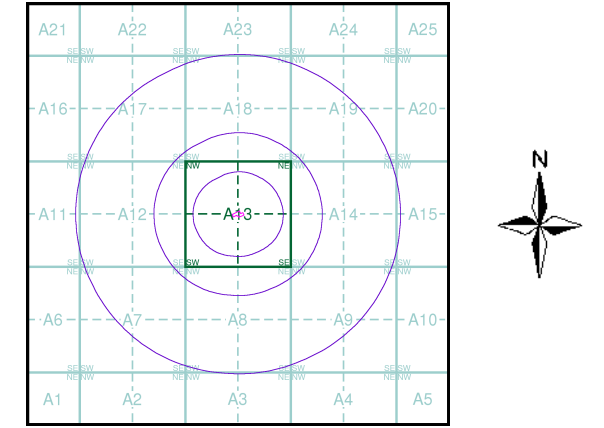
Ordnance Survey Plan Published 1978 - 1979 Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



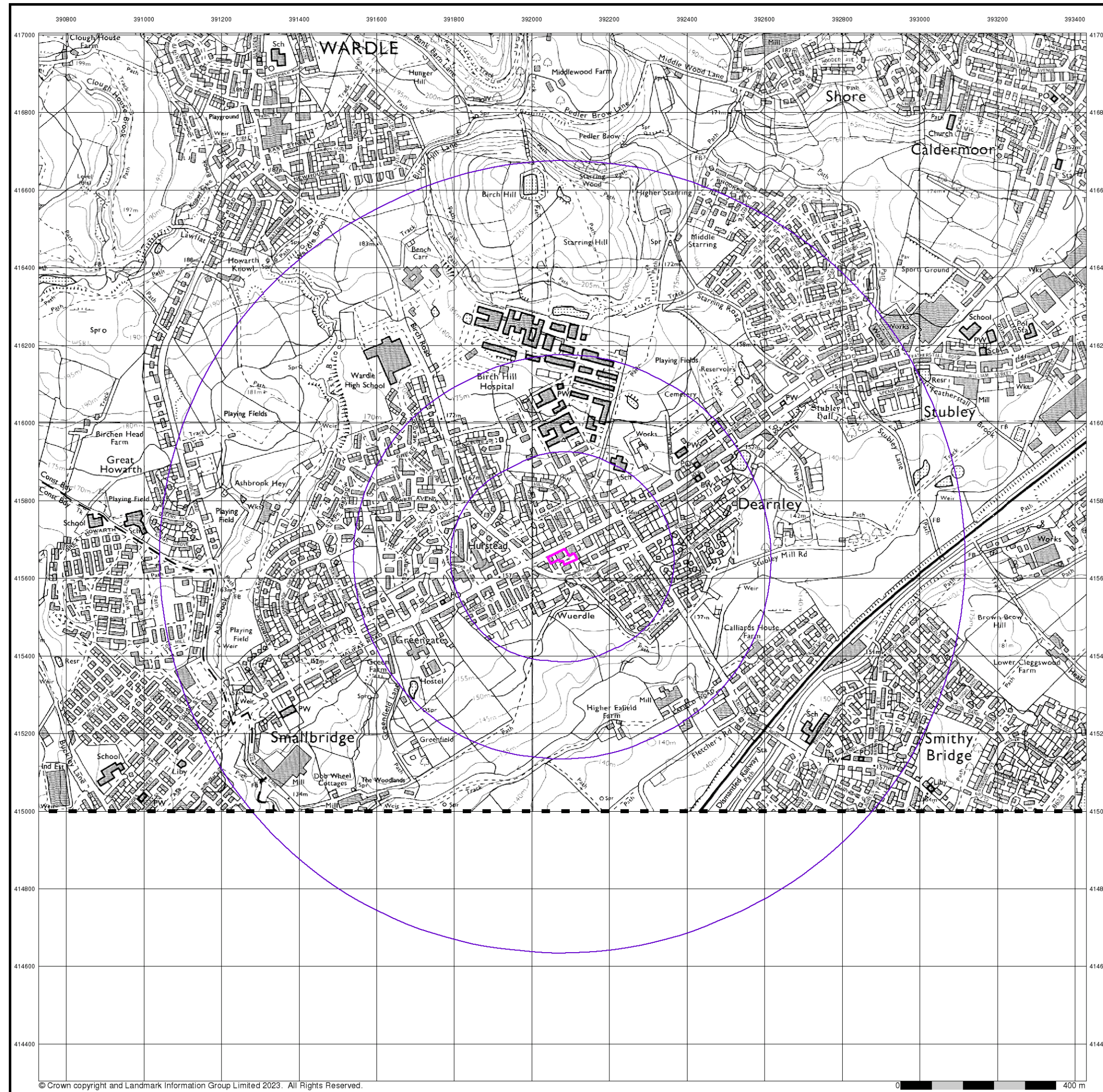
Historical Map - Slice A



Order Details	
Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	1000

Site Details

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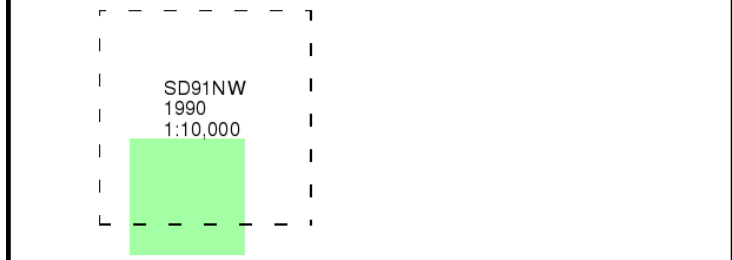
Ordnance Survey Plan

Published 1990

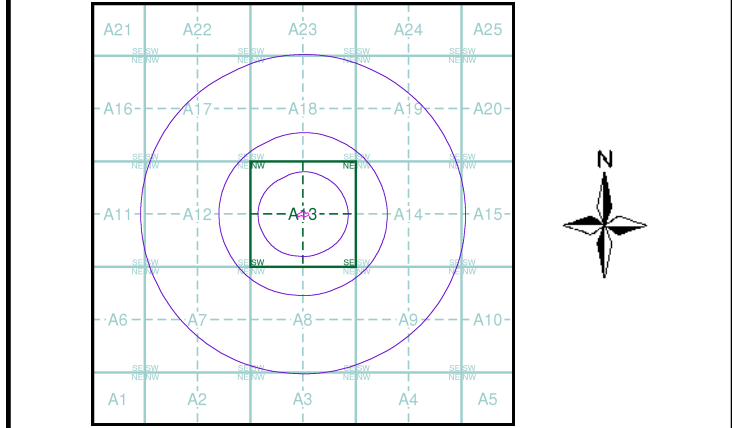
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A

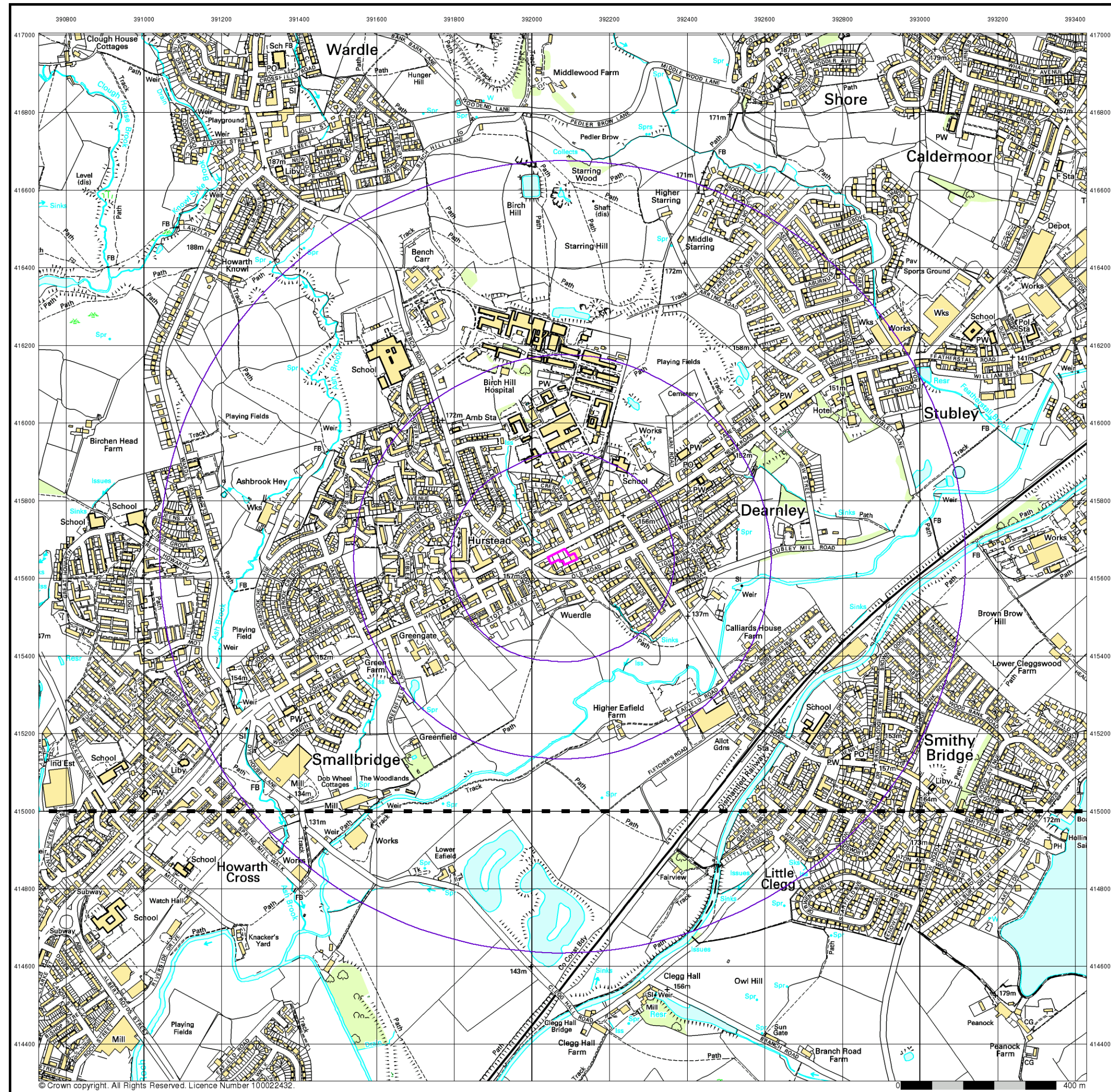


Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	1000

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10k Raster Mapping

Published 1999

Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SD91NW	1999	1:10,000
SD91SW	1999	1:10,000

Historical Map - Slice A

Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	1000

Site Details

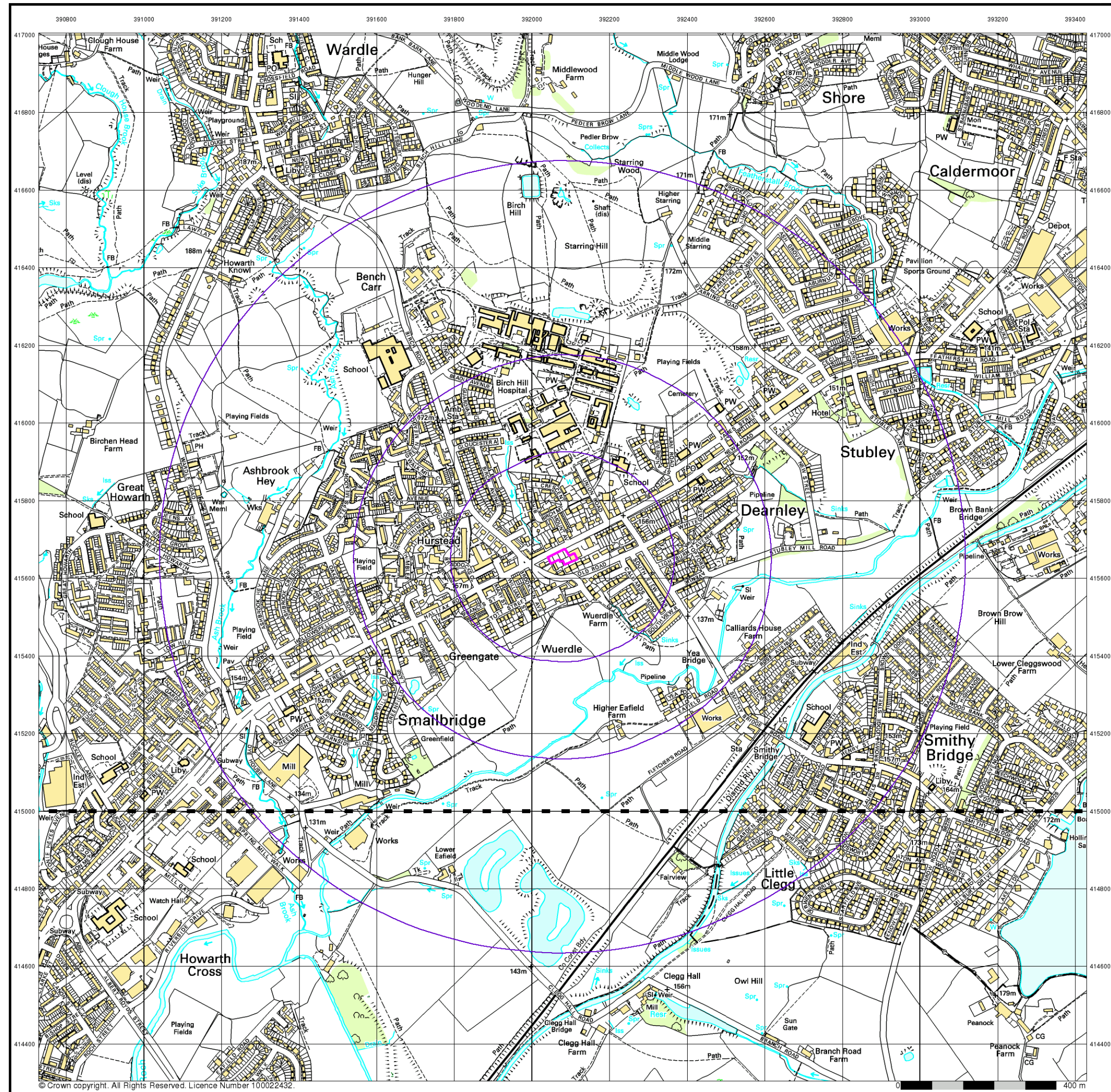
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10k Raster Mapping

Published 2006

Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SD91NW	2006	1:10,000
SD91SW	2006	1:10,000

Historical Map - Slice A

Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	1000

Site Details

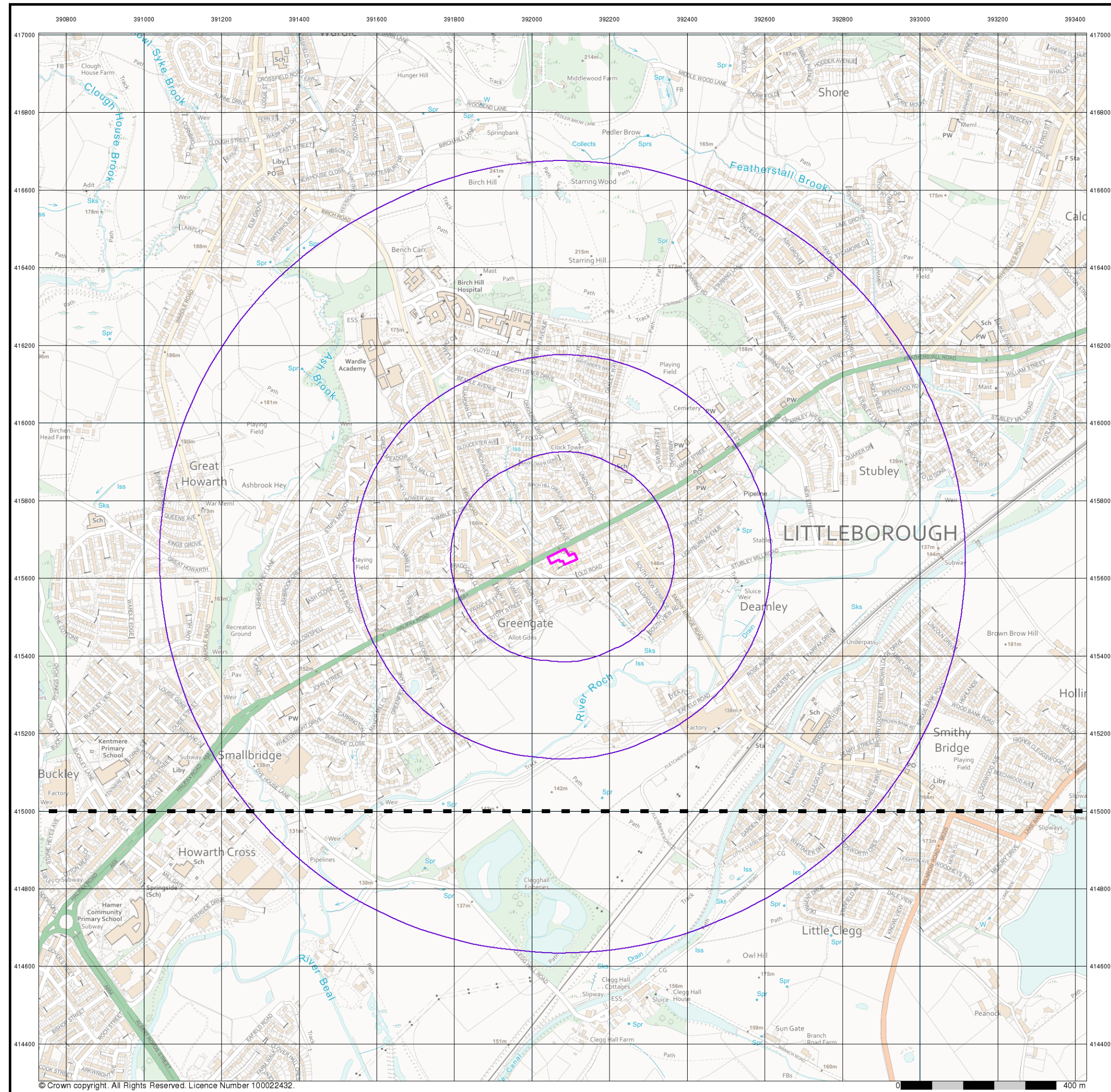
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VectorMap Local

Published 2022

Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

SD91NW	2022	Variable
SD91SW	2022	Variable

Historical Map - Slice A

Order Details

Order Number:	308758343_1_1
Customer Ref:	1382/BW
National Grid Reference:	392080, 415650
Slice:	A
Site Area (Ha):	0.16
Search Buffer (m):	1000

Site Details

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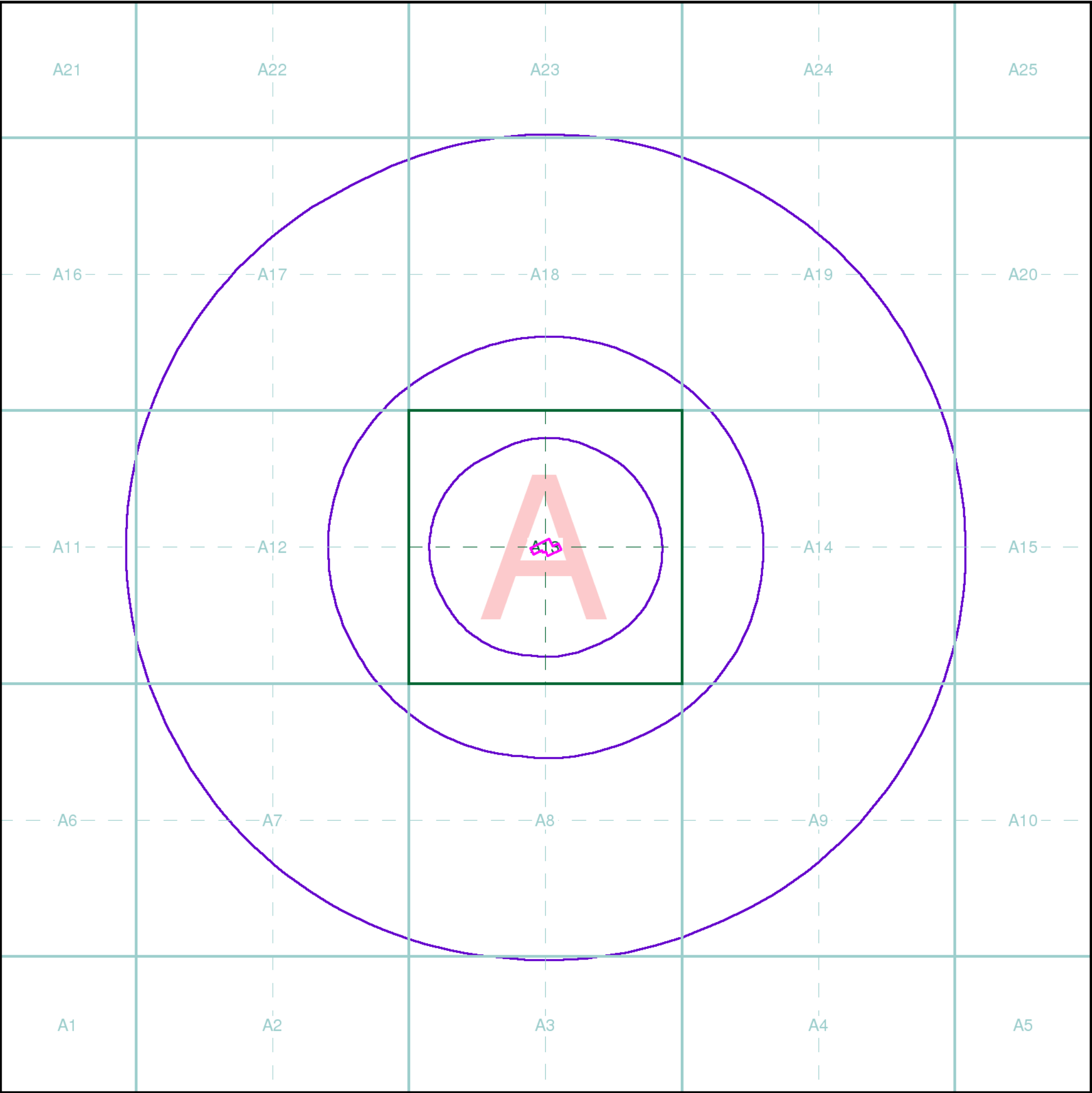
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Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

Mr M Swindells, Geo2 Remediation Ltd, Coniston House, Louisa Street, Bradford, West Yorkshire, BD10 8NE

Order Details

Order Number: 308758343_1_1
Customer Ref: 1382/BW
National Grid Reference: 392080, 415650
Site Area (Ha): 0.16
Search Buffer (m): 1000

Site Details

Spar Stores, 720, Halifax Road, ROCHDALE, OL16 2SQ

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<http://www.landmarkinfo.co.uk/Terms/Show/515>



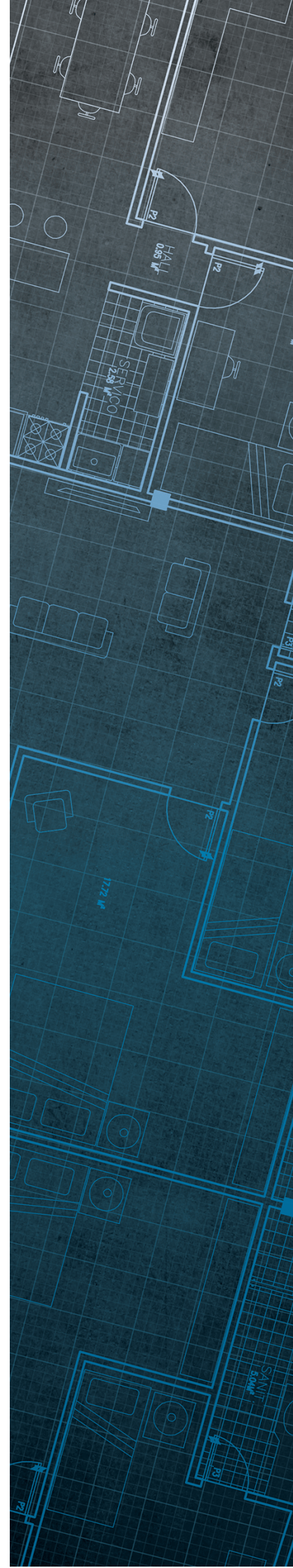
The Coal
Authority

Consultants Coal Mining Report

Spar Stores, 720
Halifax Road
Rochdale
Lancashire
OL16 2SQ

Date of enquiry:	20 March 2023
Date enquiry received:	20 March 2023
Issue date:	20 March 2023

Our reference:	51003345026001
Your reference:	308758343_2



Consultants

Coal Mining Report

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

Client name

NLIS Hub

Enquiry address

Spar Stores, 720
Halifax Road
Rochdale
Lancashire
OL16 2SQ

How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

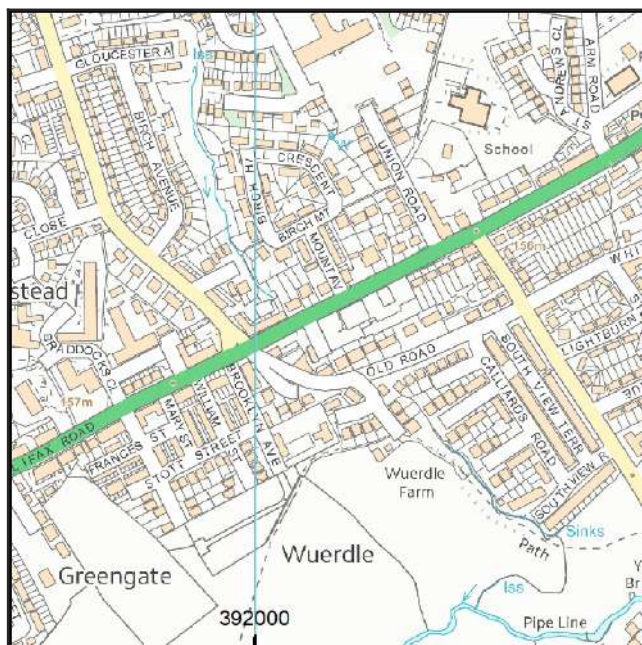
www.groundstability.com

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

No past mining recorded.

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

1882	16820	
------	-------	--

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

Outcrops

No outcrops recorded.

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

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

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

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

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

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

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

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

Withdrawal of support notices

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

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

Payments to owners of former copyhold land

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

Section 4 – Further information

Based on the responses in this report, no further information has been highlighted.

Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Section 5 – Data definitions

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

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

Opencast mines

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

Mine water treatment schemes

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining

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

Coal mining licensing

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices

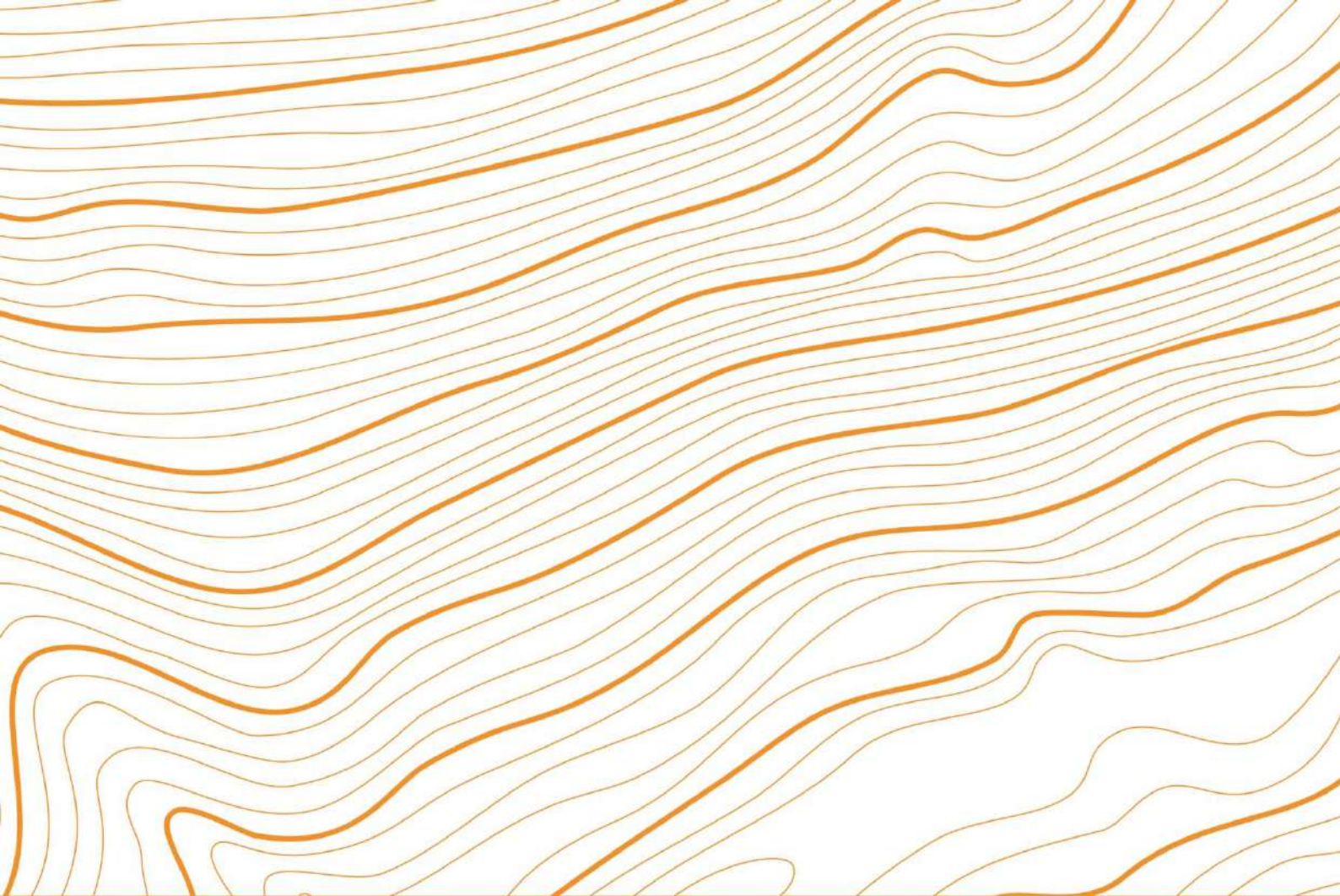
Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices

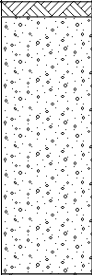
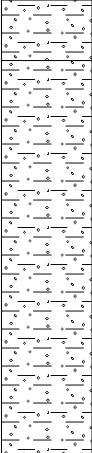
Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

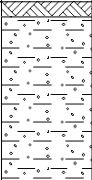
Payment to owners of former copyhold land

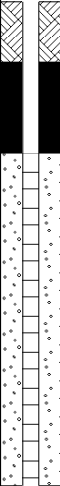
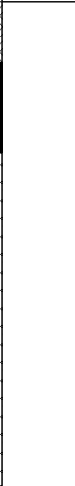
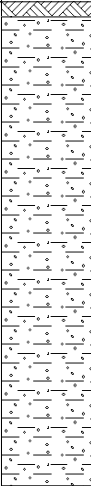
Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

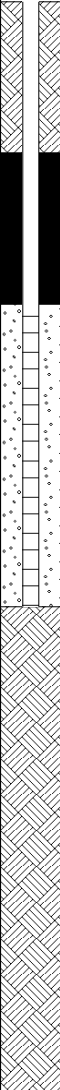
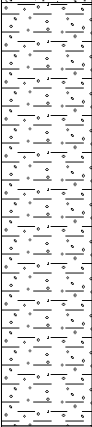


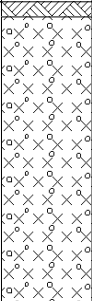
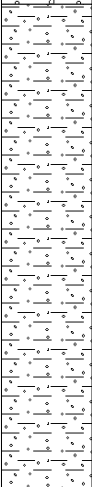
Appendix D – Exploratory Hole Logs

		Geo2, Coniston House, Louisa St. Idle, Bradford. BSD10 8NE		Borehole Log																																											
Project Name: Wuerdle Street				Client: Malcolm McClean				Date: 22/03/2023																																							
Location: 2 Wuerdle street, Rochdale, OL16 2SQ				Contractor: Cape site services																																											
Project No. : 1382				Crew Name:				Drilling Equipment: Dando Terrier																																							
Borehole Number WS01		Hole Type WS		Level		Logged By Thanks Wokoma		Scale 1:25		Page Number Sheet 1 of 1																																					
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description																																							
		Depth (m)	Type	Results																																											
		0.50	PID	PID=0.0	0.05			TOPSOIL: Very soft to soft dark brown gravelly SILT. Gravels are fine to coarse sub angular and sub rounded mixed with fibrous roots and grass. MADE GROUND: Greyish-brown very sandy fine to coarse sub angular GRAVEL. Sand is fine to coarse with mixed lithology including red bricks.		1																																					
		1.00	PID	PID=222.4	0.90																																										
		1.50	PID	PID=44.4	1.10			MADE GROUND: Firm grey gravelly CLAY. Gravels are fine to coarse sub round and sub angular with mixed lithology including bricks. CLAY: Firm to stiff grey to brown (more brown than grey from 2.1m to 2.4) gravelly CLAY. Gravels are fine to medium sub rounded and sub angular. Wet at 2.1m.																																							
		2.00	ES	PID=998.6	2.40																																										
		2.00	PID																																												
2.40	PID	PID=374.2			End of Borehole at 2.400m		5																																								
<table><tr><td colspan="2">Hole Diameter</td><td colspan="2">Casing Diameter</td><td colspan="4">Chiselling</td><td colspan="4">Inclination and Orientation</td></tr><tr><td>Depth Base</td><td>Diameter</td><td>Depth Base</td><td>Diameter</td><td>Depth Top</td><td>Depth Base</td><td>Duration</td><td>Tool</td><td>Depth Top</td><td>Depth Base</td><td>Inclination</td><td>Orientation</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>												Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation												
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation																																							
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation																																				
Remarks																																															
Terminated due to stiff clay at 2.4m																																															

		Geo2, Coniston House, Louisa St. Idle, Bradford. BD10 8NE		Borehole Log							
Project Name: Wuerdle Street				Client: Malcolm McClean				Date: 22/03/2023			
Location: 2 Wuerdle street, Rochdale, OL16 2SQ				Contractor: Cape site services							
Project No. : 1382				Crew Name:				Drilling Equipment: Dando Terrier			
Borehole Number WS02		Hole Type WS		Level		Logged By Thanks Wokoma		Scale 1:25		Page Number Sheet 1 of 1	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
					0.05			TOPSOIL: Very soft to soft dark brown gravelly SILT. Gravels are fine to coarse sub angular and sub rounded mixed with fibrous roots and grass. MADE GROUND: Firm to stiff grey-reddish brown gravelly-CLAY. Gravels are fine to medium sub angular and sub rounded with mixed lithology including red bricks and occasional sub angular cobbles and concrete. End of Borehole at 0.600m			
					0.60						
											1
											2
											3
											4
											5
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation
Remarks											
Refusal due to concrete and terminated at 0.6m											

		Geo2, Coniston House, Louisa St. Idle, Bradford. BSD10 8NE		Borehole Log								
Project Name: Wuerdle Street				Client: Malcolm McClean				Date: 22/03/2023				
Location: 2 Wuerdle street, Rochdale, OL16 2SQ				Contractor: Cape site services								
Project No. : 1382				Crew Name:				Drilling Equipment: Dando Terrier				
Borehole Number WS02A		Hole Type WS		Level		Logged By Thanks Wokoma		Scale 1:25		Page Number Sheet 1 of 1		
		Sample and In Situ Testing			Depth (m)	Level (m)		Stratum Description				
		Depth (m)	Type	Results								
		0.05							TOPSOIL: Very soft to soft dark brown gravelly SILT. Gravels are fine to coarse sub angular and sub rounded mixed with fibrous roots and grass. MADE GROUND: Firm to stiff grey-reddish brown gravelly CLAY. Gravels are fine to medium sub angular and sub rounded with mixed lithology including red bricks and occasional sub angular cobbles and concrete. Becomes less gravelly from 1.2m.			
		0.50	PID	PID=3.5								
1.00 1.00	ES PID	PID=17.3										
1.50	PID	PID=17.7	End of Borehole at 1.600m									
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	
Remarks												
Terminated due to stiff clay at 1.6m												

		Geo2, Coniston House, Louisa St. Idle, Bradford. BSD10 8NE		Borehole Log							
Project Name: Wuerdle Street				Client: Malcolm McClean				Date: 22/03/2023			
Location: 2 Wuerdle street, Rochdale, OL16 2SQ				Contractor: Cape site services							
Project No. : 1382				Crew Name:				Drilling Equipment: Dando Terrier			
Borehole Number WS03		Hole Type WS		Level		Logged By Thanks Wokoma		Scale 1:25		Page Number Sheet 1 of 1	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
					0.05			TOPSOIL: Very soft to soft dark brown gravelly SILT. Gravels are fine to coarse sub angular and sub rounded mixed with fibrous roots and grass. MADE GROUND: Light to dark brown gravelly fine to medium SAND. Gravels are fine to medium sub angular and sub rounded with mixed lithology including red bricks and sub angular cobbles. MADE GROUND: Firm to stiff grey-reddish brown gravelly-CLAY. Gravels are fine to coarse sub angular and sub rounded with mixed lithology including red bricks and occasional sub angular cobbles and concrete.			
				0.30							
	0.50	ES									
	0.50	PID	PID=0.8								
	1.00	PID	PID=0.3								
	1.50	PID	PID=1.4								
	1.70										
	2.00	PID	PID=13.4	2.00							
	2.10			2.10							
	2.50	PID	PID=0.4								
3.50	PID	PID=0.1					CLAY: Firm to stiff greyish brown gravelly CLAY. Gravels are fine to medium sub angular and sub rounded.				
				3.60			CLAY: Firm to stiff light to dark grey CLAY.				
							CLAY: Firm to stiff Brown CLAY.				
							End of Borehole at 3.600m				
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation
Remarks											
Terminated due to stiff clay at 3.6m											

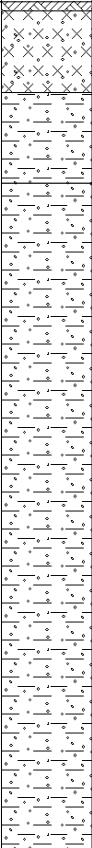
		Geo2, Coniston House, Louisa St. Idle, Bradford. BSD10 8NE		Borehole Log							
Project Name: Wuerdle Street				Client: Malcolm McClean				Date: 22/03/2023			
Location: 2 Wuerdle street, Rochdale, OL16 2SQ				Contractor: Cape site services							
Project No. : 1382				Crew Name:				Drilling Equipment: Dando Terrier			
Borehole Number WS04		Hole Type WS		Level		Logged By Thanks Wokoma		Scale 1:25		Page Number Sheet 1 of 1	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		0.50	ES PID	PID=7.3	0.05			TOPSOIL: Very soft to soft dark brown gravelly SILT. Gravel are fine to coarse sub angular and sub rounded mixed with fibrous roots and grass. MADE GROUND: Very soft dark brown SILT with cobbles of red bricks at 0.07m to 0.9m.		1	
		0.50									
		1.00	PID	PID=0.6	1.00				CLAY: Soft to firm brown gravelly CLAY. Gravels are fine to medium sub rounded and sub angular.		
		1.50	PID	PID=0.1							
2.50	PID	PID=0.0	2.60	End of Borehole at 2.600m		3					
										4	
										5	
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation
Remarks											
Terminated due to stiff clay at 2.6m											



Geo2, Coniston
 House, Louisa St. Idle,
 Bradford. BD10 8NE

Borehole Log

Project Name: Wuerdle Street				Client: Malcolm McClean				Date: 22/03/2023			
Location: 2 Wuerdle street, Rochdale, OL16 2SQ				Contractor: Cape site services							
Project No. : 1382				Crew Name:				Drilling Equipment: Dando Terrier			
Borehole Number WS05		Hole Type WS		Level		Logged By Thanks Wokoma		Scale 1:25		Page Number Sheet 1 of 1	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.03			TOPSOIL: Very soft to soft dark brown gravelly SILT. Gravel are fine to coarse sub angular and sub rounded mixed with fibrous roots and grass. MADE GROUND: Very soft to soft dark brown gravelly SILT. Gravels are fine to coarse sub angular and sub rounded with mixed lithology including sub angular cobbles of bricks and fragments of plastics. MADE GROUND: Soft to firm grey to dark brown gravelly CLAY. Gravels are fine to medium sub angular and sub rounded with mixed lithology of bricks. CLAY: Soft to firm light to reddish brown gravelly CLAY. Gravel are fine to medium sub angular and sub rounded. Wet.	
					0.30				
		0.50	PID	PID=0.2	0.60				
		1.00	PID	PID=0.0					
		1.50	PID	PID=0.0					
		2.50	PID	PID=0.0					
					2.80			End of Borehole at 2.800m	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks

Terminated due to stiff clay at 2.8m



Geo2, Coniston
House, Louisa St. Idle,
Bradford. BSD10 8NE

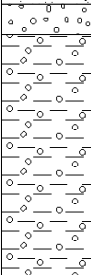
Borehole Log

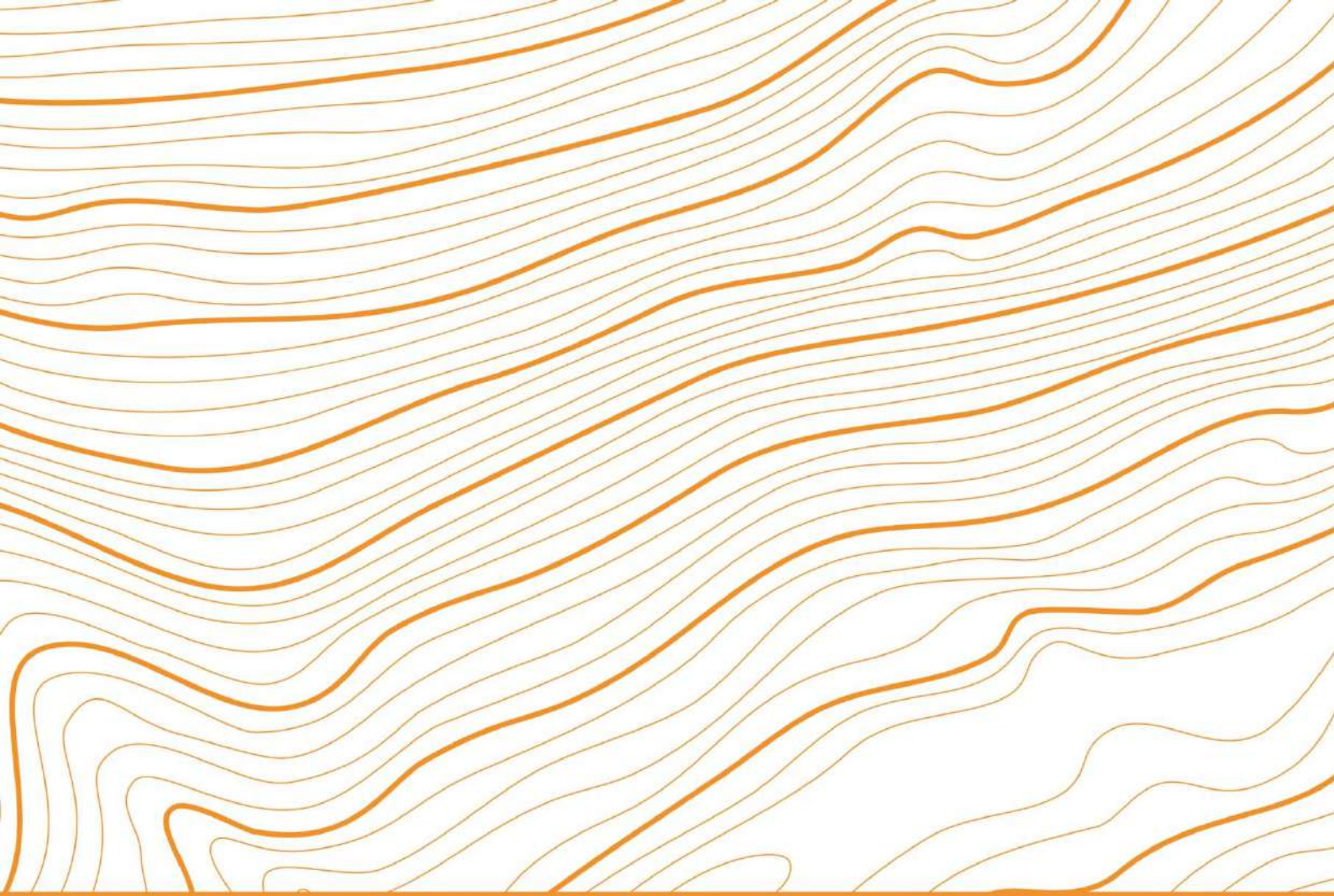
Project Name: Wuerdle Street		Client: Malcolm McClean		Date: 22/03/2023	
Location: 2 Wuerdle street, Rochdale, OL16 2SQ		Contractor: Cape site services			
Project No. : 1382		Crew Name:		Drilling Equipment: Dando Terrier	
Borehole Number WS06	Hole Type WS	Level	Logged By Thanks Wokoma	Scale 1:25	Page Number Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
					0.04			TOPSOIL: Very soft to soft dark brown gravelly SILT. Gravels are fine to coarse sub angular and sub rounded mixed with fibrous roots and grass. MADE GROUND: Soft to firm dark brown gravelly CLAY. Gravels are fine to coarse sub angular and sub rounded with mixed lithology including red bricks. CLAY: Firm to stiff dark grey gravelly CLAY. Gravels are fine to medium sub angular and sub rounded with mixed lithology. Becomes brownish grey from 1.0m bgl to 2.7m. Hydrocarbon odour at 0.9m to 1.5m		
		0.50	PID	PID=4.6	0.40					
		1.00	PID	PID=372.0						1
		1.50 1.50	ES PID	PID=542.0						2
		2.50	PID	PID=11.0	2.70					
End of Borehole at 2.700m									3	
									4	
									5	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks Terminated due to stiff clay at 2.7m	
---	--

		Geo2, Coniston House, Louisa St. Idle, Bradford. BSD10 8NE		Borehole Log							
Project Name: Wuerdle Street				Client: Malcolm McClean				Date: 22/03/2023			
Location: 2 Wuerdle street, Rochdale, OL16 2SQ				Contractor: Cape site services							
Project No. : 1382				Crew Name:				Drilling Equipment: Dando Terrier			
Borehole Number WS07		Hole Type WS		Level		Logged By Thanks Wokoma		Scale 1:25		Page Number Sheet 1 of 1	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		0.30	PID	PID=0.0	0.04			TARMAC CONCRETE		1	
					0.20			MADE GROUND: Light grey COBBLES of sandstone			
					0.30			MADE GROUND: Soft to firm dark brown CLAY. Occasional cobbles of red bricks.			
					1.10			End of Borehole at 1.100m		5	
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation
Remarks											
Terminated due to firm clay at 1.1m											



Appendix E – Environmental Testing Results

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 23/02917
Issue Number: 1

Date: 03 April, 2023

Client: Geo2 Remediation Ltd
Coniston House,
Louisa Street
Bradford
BD10 8NE

Project Manager: Adam Wilson/Ben Wilson/Thanks Wokoma
Project Name: Wuerdle
Project Ref: Not specified
Order No: 1382/BW
Date Samples Received: 24/03/23
Date Instructions Received: 27/03/23
Date Analysis Completed: 03/04/23

Approved by:



Gemma Berrisford
Client Manager

Envirolab Job Number: 23/02917

Client Project Name: Wuerdle

Client Project Ref: Not specified

Lab Sample ID	23/02917/1	23/02917/2	23/02917/3	23/02917/4	23/02917/5			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS02A	WS03	WS04	WS06					
Depth to Top	2.00	1.00	0.50	0.50	1.50					
Depth To Bottom										
Date Sampled	22-Mar-23	22-Mar-23	22-Mar-23	22-Mar-23	22-Mar-23					
Sample Type	Soil	Soil	Soil	Soil	Soil					
Sample Matrix Code	6A	4ABE	4A	6AE	6A					
% Stones >10mm _A	<0.1	<0.1	23.8	14.5	10.7			% w/w	0.1	A-T-044
Total Organic Carbon _D ^{M#}	-	1.35	0.92	-	-			% w/w	0.03	A-T-032s
Arsenic _D ^{M#}	-	4	2	5	-			mg/kg	1	A-T-024s
Barium _D	-	121	59	119	-			mg/kg	1	A-T-024s
Beryllium _D	-	0.6	<0.5	1.0	-			mg/kg	0.5	A-T-024s
Boron (water soluble) _D ^{M#}	-	<1.0	<1.0	<1.0	-			mg/kg	1	A-T-027s
Cadmium _D ^{M#}	-	0.7	<0.5	0.8	-			mg/kg	0.5	A-T-024s
Copper _D ^{M#}	-	90	14	21	-			mg/kg	1	A-T-024s
Chromium _D ^{M#}	-	18	9	19	-			mg/kg	1	A-T-024s
Chromium (hexavalent) _D	-	<1	<1	<1	-			mg/kg	1	A-T-040s
Chromium (trivalent)	-	18	9	19	-			mg/kg	1	Calc
Lead _D ^{M#}	-	84	32	37	-			mg/kg	1	A-T-024s
Mercury _D	-	0.50	0.64	<0.17	-			mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	-	15	8	19	-			mg/kg	1	A-T-024s
Selenium _D ^{M#}	-	<1	<1	<1	-			mg/kg	1	A-T-024s
Vanadium _D ^{M#}	-	19	12	26	-			mg/kg	1	A-T-024s
Zinc _D ^{M#}	-	69	39	44	-			mg/kg	5	A-T-024s

Envirolab Job Number: 23/02917

Client Project Name: Wuerdle

Client Project Ref: Not specified

Lab Sample ID	23/02917/1	23/02917/2	23/02917/3	23/02917/4	23/02917/5			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS02A	WS03	WS04	WS06					
Depth to Top	2.00	1.00	0.50	0.50	1.50					
Depth To Bottom										
Date Sampled	22-Mar-23	22-Mar-23	22-Mar-23	22-Mar-23	22-Mar-23					
Sample Type	Soil	Soil	Soil	Soil	Soil					
Sample Matrix Code	6A	4ABE	4A	6AE	6A					
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil _D #	-	Amosite	NAD	NAD	-					A-T-045
Asbestos Matrix (visual) _D	-	-	-	-	-					A-T-045
Asbestos Matrix (microscope) _D	-	Loose Fibres	-	-	-					A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	-	N/A	N/A	N/A	-					A-T-045
Asbestos in Soil Quantification % (Hand Picking & Weighing)										
Asbestos in soil % composition (hand picking and weighing) _D	-	<0.001	-	-	-			% w/w	0.001	A-T-054

Envirolab Job Number: 23/02917

Client Project Name: Wuerdle

Client Project Ref: Not specified

Lab Sample ID	23/02917/1	23/02917/2	23/02917/3	23/02917/4	23/02917/5			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS02A	WS03	WS04	WS06					
Depth to Top	2.00	1.00	0.50	0.50	1.50					
Depth To Bottom										
Date Sampled	22-Mar-23	22-Mar-23	22-Mar-23	22-Mar-23	22-Mar-23					
Sample Type	Soil	Soil	Soil	Soil	Soil					
Sample Matrix Code	6A	4ABE	4A	6AE	6A					
PAH-16MS										
Acenaphthene _A ^{M#}	-	0.38	0.06	0.01	-			mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	-	0.02	<0.01	<0.01	-			mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	-	0.57	0.10	<0.02	-			mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	-	1.89	0.37	0.04	-			mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	-	1.58	0.37	<0.04	-			mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	-	2.05	0.46	0.05	-			mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	-	0.84	0.23	<0.05	-			mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	-	0.67	0.16	<0.07	-			mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	-	2.08	0.43	<0.06	-			mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	-	0.20	0.05	<0.04	-			mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	-	4.29	0.76	0.10	-			mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	-	0.23	0.04	<0.01	-			mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	-	0.93	0.24	<0.03	-			mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	-	0.17	<0.03	<0.03	-			mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	-	2.44	0.44	0.06	-			mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	-	3.69	0.66	0.08	-			mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	-	22	4.37	0.34	-			mg/kg	0.01	A-T-019s

Envirolab Job Number: 23/02917

Client Project Name: Wuerdle

Client Project Ref: Not specified

Lab Sample ID	23/02917/1	23/02917/2	23/02917/3	23/02917/4	23/02917/5			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS02A	WS03	WS04	WS06					
Depth to Top	2.00	1.00	0.50	0.50	1.50					
Depth To Bottom										
Date Sampled	22-Mar-23	22-Mar-23	22-Mar-23	22-Mar-23	22-Mar-23					
Sample Type	Soil	Soil	Soil	Soil	Soil					
Sample Matrix Code	6A	4ABE	4A	6AE	6A					
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	2.02	0.03	<0.01	<0.01	2.23			mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	2.31	0.23	<0.01	<0.01	5.23			mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	6	2	<1	2	13			mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	2	<1	3	2			mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	2	<1	8	<1			mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	2	2	4	<1			mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	1	43	62	6	1			mg/kg	1	A-T-055s
Total Aliphatics _A	12	52	64	24	24			mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	1.99	<0.01	0.02	0.04	0.02			mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	14.8	0.02	0.04	0.03	0.02			mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	275	5	3	2	140			mg/kg	1	A-T-055s
Aro >C10-C12 _A	36	5	<1	4	51			mg/kg	1	A-T-055s
Aro >C12-C16 _A	2	5	6	8	6			mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	12	20	4	2			mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	32	52	2	<1			mg/kg	1	A-T-055s
Total Aromatics _A	330	58	82	20	199			mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	341	110	146	44	223			mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	1.99	<0.01	0.02	0.04	0.02			mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	14.8	0.02	0.04	0.03	0.02			mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	3.61	<0.01	0.03	<0.01	1.00			mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	14.3	0.02	0.04	0.02	4.27			mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	6.01	0.01	<0.01	<0.01	0.02			mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Subscript ""^" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client:	Geo2 Remediation Ltd, Coniston House,, Louisa Street, Bradford, BD10 8NE	Project No:	23/02917
Project:	Wuerdle	Date Received:	27/03/2023 (am)
Clients Project No:		Cool Box Temperatures (°C):	7.9

NO DEVIATIONS IDENTIFIED

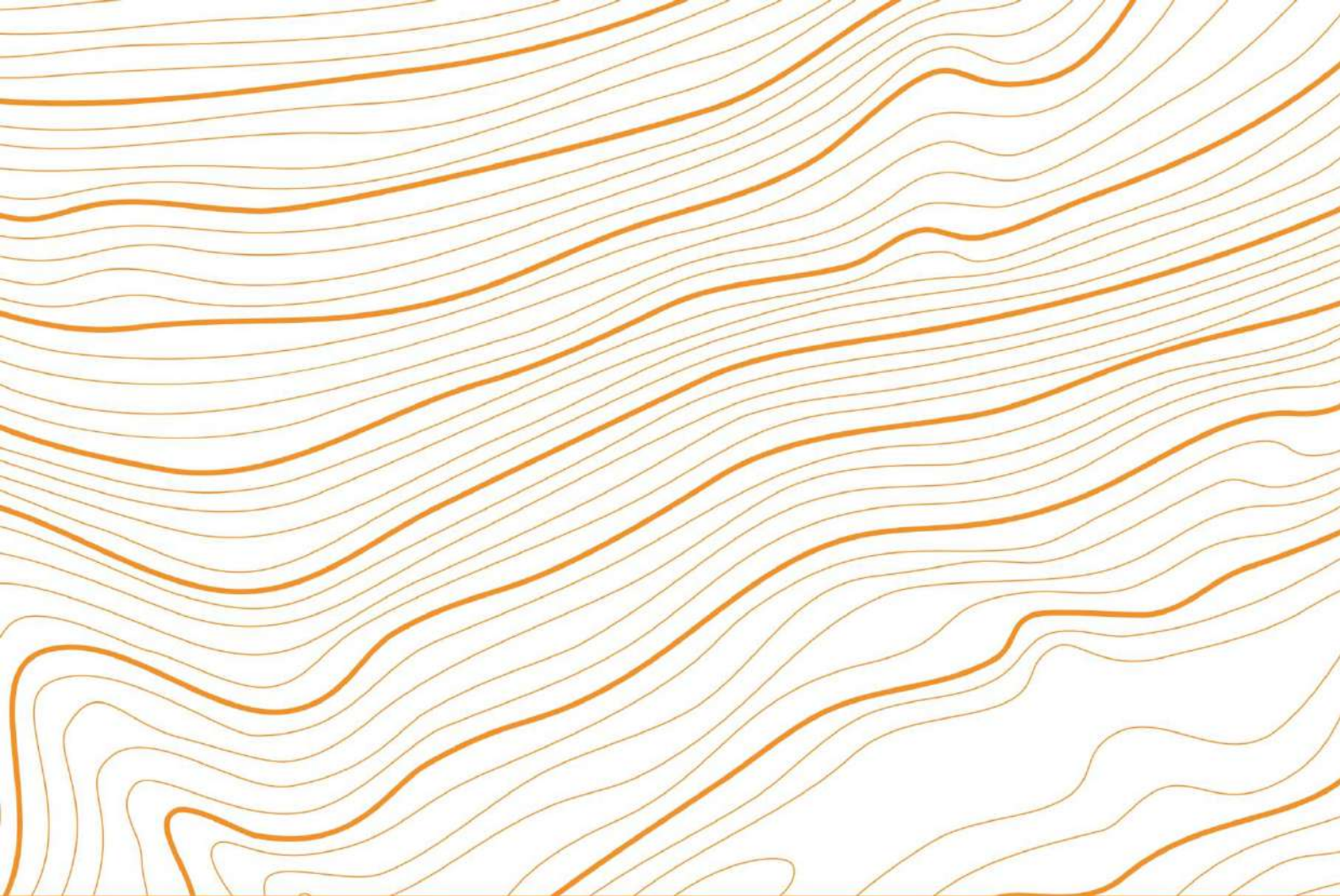
If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	23/02917/1	23/02917/2	23/02917/3	23/02917/4	23/02917/5
Client Sample No					
Client Sample ID/Depth	WS01 2.00m	WS02A 1.00m	WS03 0.50m	WS04 0.50m	WS06 1.50m
Date Sampled	22/03/23	22/03/23	22/03/23	22/03/23	22/03/23
A-T-019s		31/03/2023	31/03/2023	31/03/2023	
A-T-022s	30/03/2023	30/03/2023	30/03/2023	30/03/2023	30/03/2023
A-T-024s		30/03/2023	30/03/2023	30/03/2023	
A-T-027s		30/03/2023	30/03/2023	30/03/2023	
A-T-032s		30/03/2023	30/03/2023		
A-T-040s		31/03/2023	31/03/2023	31/03/2023	
A-T-044	30/03/2023	30/03/2023	30/03/2023	30/03/2023	30/03/2023
A-T-045		29/03/2023	29/03/2023	29/03/2023	
A-T-054		30/03/2023			
A-T-055s	03/04/2023	03/04/2023	03/04/2023	03/04/2023	03/04/2023
Calc		31/03/2023	31/03/2023	31/03/2023	
Calc-As Recd	03/04/2023	03/04/2023	03/04/2023	03/04/2023	03/04/2023

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report



Appendix F – Risk Assessment Terminology

Definitions and Classifications of Risk Assessment Terminology.

Probability

Probability can be defined as the chance of a particular event occurring in a given period of time.

Descriptions of each of the four qualitative terms to be used in this report to describe the perceived probability of any identified pollutant linkage becoming realised are shown below in Table W.

Term	Description
High Likelihood	There is pollutant linkage and an event would appear very likely in the short-term and almost inevitable over the long-term, or there is evidence at the receptor of harm or pollution.
Likely	There is pollutant linkage and all the elements are present and in the right place which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short-term and likely over the long-term.
Low Likelihood	There is pollutant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a long period such an event would take place, and is less likely in the shorter term.
Unlikely	There is pollutant linkage but circumstances are such that it is improbable that an event would occur even in the very long-term.

Table W. Description of Probability Classifications

Severity

Severity (consequence) can be defined as the adverse effects (or harm) arising from a defined hazard, which impairs the quality of human health or the environment in the short or longer term.

Descriptions of each of the four qualitative terms to be use in this report to describe the perceived potential severity of any identified pollutant linkage becoming realised are shown below in Table X.

Term	Description
Severe	Highly elevated concentrations likely to result in “significant harm” to human health as defined by the EPA 1990, Part 2A, if exposure occurs. Equivalent to EA Category 1 pollution incident including persistent and/or extensive effects on water quality; leading to closure of a potable abstraction point; major impact on amenity value or major damage to agriculture or commerce. Major damage to aquatic or other ecosystems, which is likely to result in a substantial adverse change in its functioning or harm to a species of special interest that endangers the long-term maintenance of the population. Catastrophic damage to crops, buildings or property.
Medium	Elevated concentrations which could result in “significant harm” to human health as defined by the EPA 1990, Part 2A if exposure occurs. Equivalent to EA Category 2 pollution incident including significant effect on water quality; notification required to abstractors; reduction in amenity value or significant damage to agriculture or commerce. Significant damage to aquatic or other ecosystems, which may result in a substantial adverse change in its functioning or harm to a species of special interest that may endanger the long-term maintenance of the population. Significant damage to crops, buildings or property.
Mild	Exposure to human health unlikely to lead to “significant harm”. Equivalent to EA Category 3 pollution incident including minimal or short-lived effect on water quality; marginal effect on amenity value, agriculture or commerce. Minor or short-lived damage to aquatic or other ecosystems, which is unlikely to result in a substantial adverse change in its functioning or harm to a species of special interest that would endanger the long-term maintenance of the population. Minor damage to crops, buildings or property.
Minor	No measurable effect on humans. Equivalent to insubstantial pollution incident with no observed effect on water quality or ecosystems. Repairable effects of damage to buildings, structures and services.

Table X. Description of Severity Classifications

Once the severity and probability of a pollutant linkage has been determined the risk can be assessed using the risk matrix shown overleaf on Table Y.

Risk Matrix

By cross referencing the derived severity and probability in Table Y, below the perceived potential risk can be determined.

		Severity			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate / Low Risk
	Likely	High Risk	Moderate Risk	Moderate / Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate / Low Risk	Low Risk	Very Low Risk
	Unlikely	Moderate / Low Risk	Low Risk	Very Low Risk	Very Low Risk

Table Y. Risk Assessment Matrix

The risk categories detailed above are defined below in the following Table Z.

Term	Description
Very High Risk	There is a high probability that significant harm could arise to a designated receptor from an identified hazard at the site without appropriate remedial action.
High Risk	Significant harm is likely to arise to a designated receptor from an identified hazard at the site without appropriate remedial action.
Moderate Risk	It is possible that without appropriate remedial action, harm could arise to a designated receptor but it is relatively unlikely that any such harm would be severe and if any harm were to occur, it is likely that such harm would be relatively mild.
Low Risk	It is possible that significant harm could arise to a designated receptor from an identified hazard but it is likely that at worst this harm if realised would normally be mild.
Very Low Risk	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised, it is not likely to be severe.

Table Z. Definition of Risk

Transport



DB32 Fire Appliance

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- Key**
- 1 Planting with columnar trees along road
 - 2 Native Shrub Planting
 - 3 Entrance Plaza
 - 4 Ornamental Planting with Feature Tree
 - 5 Resident Courtyard
 - 6 Native Shrub Planting

PH	Planning	ALO	HRU	11/08/23
PS	Internal draft	LVI	ALO	15/08/23
P2	Revised Layout	ALO	HRU	18/07/23
P1	Revised Layout	ALO	HRU	05/05/23

Rev	Description	Drawn	Checked	Date
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Suitability
Work in Progress

Project
Possibilities
Wurdle Street
Halifax Road, Rochdale, OL12 9QD

Drawing
GA Plan Level 00

Drawing Number	Project ID	Originator	Zone	Level	Type	Role	Number
POSWD	- RYD	- ZZ	- 00	- DR	- A	- 3000	
Project Number	Scale at A1	Status	Revision				
10745-01	As indicated	S0	P4				

info@ryderarchitecture.com
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Ryder

Ecological Assessment

Living Ecosystems

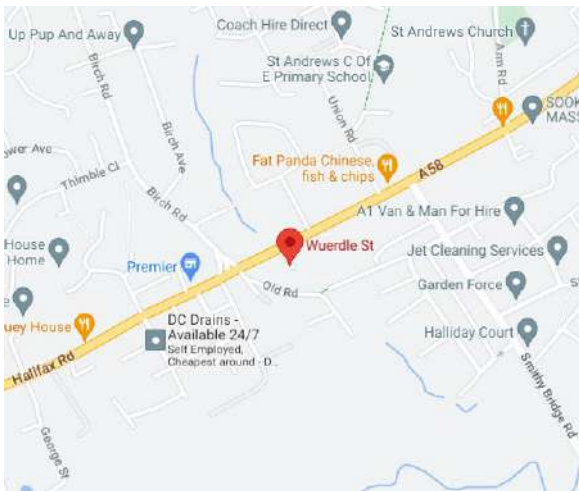
'Working Towards Sustainable Development and Providing Ecological Education...'



Initial ecological assessment & biodiversity net gain statement – Wuerdle Street, Littleborough

1.0 Introduction

Living Ecosystems was commissioned by PossAbilities CIC in August 2023 to produce an initial ecological assessment and biodiversity net-gain statement for a plot of land at Wuerdle Street in Littleborough. The site is located at grid reference SD 92055 15670.



Location of proposed development and it's surroundings

The site is on Wuerdle Street in Littleborough. The site is approximately 35 metres wide (north west to south east) by 25 metres long (north east to southwest) or approximately 1,000 square metres (0.1 hectare) in extent. The site is bounded by Wuerdle Street to the west, Halifax Road to the north, a Spar shop and garage to the east, and sub-urban gardens to the south. Currently the site is occupied by grassland dominated by rye grass with a wide range of flowering herb species including white clover, red clover, black medick, common bird's foot trefoil and orange hawkbit. The grassland is an mg6 type meso-trophic grassland under the British National Vegetation Classification.



The site as it was in 2000 and 2017



The site as it was in 2008

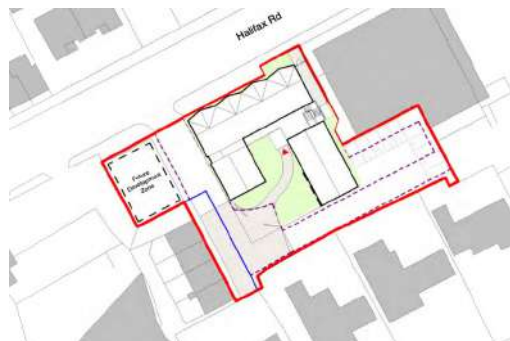
The development site as it is currently.

2.0 Development Proposal

The proposed development and its associated works include a residential scheme of 16 apartments, with related landscaping and infrastructure.

Proposed Design General Arrangement

The proposed design looks to place two 2/3 storey blocks on the site. Towards the east, the block consists of one bed units off an external corridor connected via a single staircase and lift. The block is three storeys. At ground the site is entered via a soft landscape area off Wuerdle Street which leads to a small internal pavilion containing a reception, small meeting/activity space and sleeping room for a 24hr member of staff. From here residents navigate back outside through external circulation to their front doors.



The proposal is for the construction of 16 apartments on a plot off waste-land on Wuerdle Street.

3.0 Pre-existing information about protected species at the site

Desktop Study and Data Search

The following sources of information and ecological records were consulted:

- A. MAGiC Maps: A web-based interactive map which brings together geographical, landscape and environmental information from Government sources at all levels.
- B. The NBN Atlas: which is the UK's largest repository of publicly available biodiversity data.
- C. All measurements within this report are approximate only, and have been estimated whilst on site or calculated using mapping software (QGIS) or internet-based mapping services such as MAGiC Maps and Google Earth.

Evaluation methods of the data search

The habitats, vegetation and animal life were evaluated with reference to standard nature conservation criteria as described in A Nature Conservation Review (Ratcliffe, 1977) and Guidelines for the Selection of Biological SSSIs (Bainbridge, et al., 2013). These are size (extent), diversity, naturalness, rarity, fragility, typicality, recorded history, position in an ecological or geographical unit, potential value and intrinsic

appeal.

Habitats have been assessed to determine whether they meet those described in UK Biodiversity Action Plan: Priority Habitat Descriptions (Maddock, A (ed), 2008); these lists are used to help draw up the statutory lists of Priority Habitats, as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Where suitable, the ecological value of the habitats present has been assessed using the terms outlined in Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine (CIEEM, 2018).

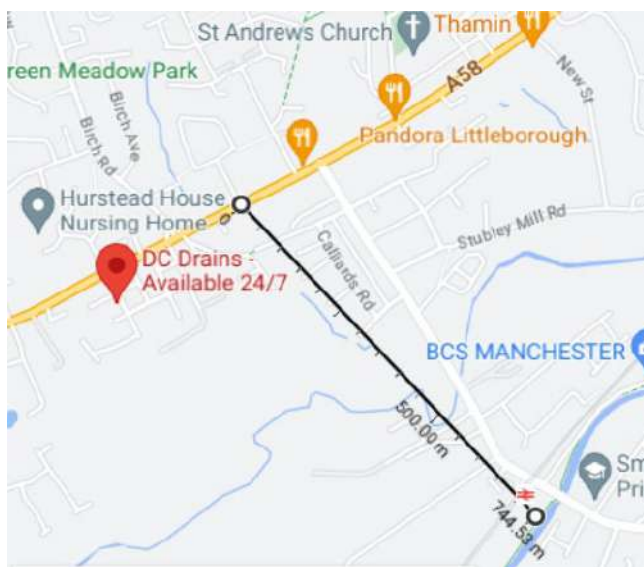
Government advice on wildlife, as set out in the National Planning Policy Framework (Ministry of Housing, Communities and Local Government, 2021) and associated government circulars has been taken into consideration. Legislation relating to protected species, such as those listed under Schedules 1, 5, 6 and 8 of the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017, is referenced where applicable, and any impacts to protected species are evaluated in accordance with current guidance.

The presence of any Priority Species, as listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 is noted, and habitats are assessed in terms of their suitability and value for these species. The presence of habitats and/or species listed by the Greater Manchester Biodiversity Action Plans has been taken into account in the evaluation of the site environmental schemes and designations, including details of statutory nature conservation sites;

- A. Greater Manchester Local Record Centre (GMLRC);
- B. Greater Manchester Biodiversity Action Plan (BAP);

3.1 Desktop Study and Data Search Results

The site is not designated as a statutory designated site for nature conservation, and no statutory designated sites for nature conservation lie within a 0.5 kilometre radius of the site. The site is within 744 metres of the Rochdale Canal Site of Special Scientific Interest and Special Area of Conservation. However the proposed development is not within the impact zone of this statutory site, nor would the proposals have any effect on the Rochdale Canal.



The site has no non-statutory designations for nature conservation, and no non-statutory designated sites for nature conservation lie within a 0.5 kilometre radius of the site.

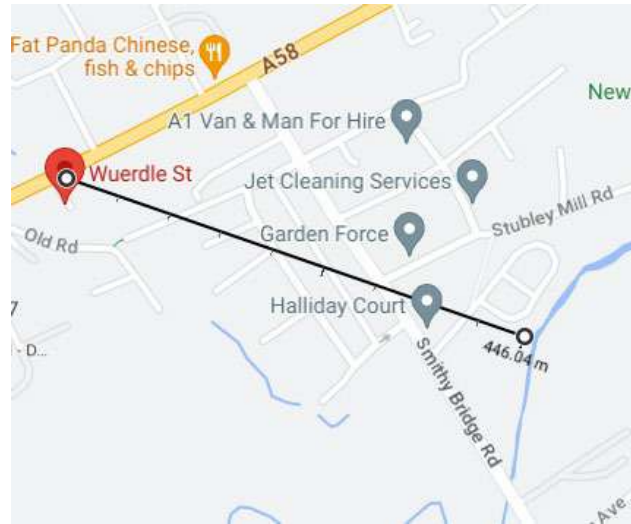
No records of any protected species were found within a 500 metre radius of the proposed development at Wuerdle Street during the ecological data search. Hedgehogs (*Erinaceus europaeus*) have been recorded within a radius of 500 metres of the site twice within the last 20 years. Hedgehogs are partially protected under the Wildlife & Countryside Act and are classified as 'vulnerable' as a result of recent significant declines in numbers (by 30%-70% in England).

Species: *Erinaceus europaeus* | West European Hedgehog Year: 2005 England OSGR: SD9215

Data Resource: Hedgehog Records 2005-2006: Hogwatch And Rural Landowner Surveys Basis Of Record: Human Observation [View record](#)

Species: *Erinaceus europaeus* | West European Hedgehog Year: 2005 England OSGR: SD9215

Data Resource: Hedgehog Records 2005-2006: Hogwatch And Rural Landowner Surveys Basis Of Record: Human Observation [View record](#)



Hedgehogs have been recorded 446 metres south east of the proposed development

4.0 Summary of existing habitats at the Wuerdle Street site;



In this instance the site will be treated as a single contiguous compartment

MG6 meso-trophic grassland

A detailed habitat survey of the site was undertaken on the morning of 2nd August 2023. The survey followed the Phase 1 Habitat Survey Methodology (JNCC, 2010). This involves walking over the site, mapping and target noting any semi-natural habitats. The survey area includes the footprint of the proposed development. The weather was slightly overcast, mild (17 degrees C) with a light rain and wind. The survey is considered optimal and was carried out by Richard Parkinson a very experienced Principal Ecologist with over 30 years of appropriate experience. The initial survey was carried out at an optimal time and I am entirely confident that the survey has identified and addressed all the relevant ecological issues at the site.



The site is occupied by short grassland dominated by rye grass with a wide range of flowering herb species



The mg6 meso-trophic grassland at the site



There was a single immature sycamore tree



A single semi-mature grey willow was present at the site

Currently the site is occupied by short grassland dominated by rye grass with a wide range of flowering herb species including white

clover, red clover, black medick, common bird's foot trefoil and orange hawkbit. This grassland can be classified as an mg6 type meso-trophic grassland under the British National Vegetation Classification. A single immature sycamore tree and a single semi-mature grey willow tree were present at the site. All the other tree species recorded at the site were either seedlings or saplings.

The following is a record of the species recorded within the site boundary during the survey.

Native and naturalised species

A single semi-mature grey willow (*Salix cinerea*) R
Grey willow seedlings (*Salix cinerea*) O
Aspen seedlings (*Populus tremulus*) O
Cotoneaster (*Cotoneaster* sp) R
Perennial ryegrass (*Lolium perenne*) D
Yorkshire fog grass (*Holcus mollis*) F
Annual meadow-grass (*Poa annua*) O
Cock's-foot *Dactylis glomerata*) A
Broad leaved dock (*Rumex obtusifolius*) O
Common dandelion (*Taraxacum officinale*) O
Common ragwort (*Senecio jacobaea*) O
Meadow buttercup (*Ranunculus acris*) O
White clover (*Trifolium repens*) F
Red clover (*trifolium pratense*) O
Black medick (*Medicago lupulina*) F
Self heal (*Prunella vulgaris*) O
Tufted vetch (*Vicia cracca*) O
Bird's foot trefoil (*Lotus corniculatus*) O
Ladies mantle (*Alchemilla* sp) F
Smooth sowthistle (*Sonchus oleraceus*) R
Rosebay willowherb (*Chamaenerion angustifolium*) R
Oxeye daisy (*Leucanthemum vulgare*) O
Colts foot (*Tussilago farfara*) R
Field horsetail (*Equisetum arvense*) O
Creeping jenny (*Lysimachia nummularia*) R
Herb robert (*Geranium robertianum*) R
Stinging nettle (*Urtica dioica*) O
Orange hawkbit (*Pilosella aurantiaca*) F
A total of 28 species

Alien species

A single semi-mature sycamore tree (*Acer pseudoplatanus*) R
Sycamore seedlings (*Acer pseudoplatanus*) O
Buddleia (*Buddleja* sp) R
A total of 2 species

5. Enhancement and management of habitats

Suggested Habitat enhancements

Any landscaping scheme should employ good horticultural practices to ensure minimal, use of pesticides and herbicides. Where possible landscape planting within the proposed development area should aspire to consist of at least 50% of native or otherwise beneficial species preferably of UK provenance. A beneficial species is one which though not native is not invasive or harmful; and also provides significant ecological resources to native species, such as nectar, fruit, berries, nesting opportunities or cover amongst others. This will contribute to local Biodiversity Action Plan goals. Beneficial species include non native species which are not invasive and provide significant wildlife opportunities such as nectar berries, cover or nesting opportunities.

Enhancements for birds

Under the National Planning Policy Framework (2012) there is a requirement to provide features in proposed developments that promote biodiversity and habitat enhancements. **Consideration could be given to** the incorporation of some of the following nest boxes into the development. All of the boxes are reasonably priced long lasting, durable, maintenance free Schwegler bird box designs which can be easily attached to the outside of buildings. Other brands are also available with similar specifications which will also be suitable. House martin bricks and sparrow terraces are designed to be attached beneath the eaves of existing buildings. The boxes are all designed for species which are under stress and have undergone considerable declines in recent years. Installing bird boxes is cheap, and would be good for local biodiversity whilst reducing potential maintenance issues arising from blocked gutters.

Given that House Sparrows are known to be present in the vicinity of the site, it is recommended that new nesting opportunities for these UK BAP species be provided at the site.

House sparrows are listed as a Species of Principal Importance in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006), they are UK BAP Priority Species. House Sparrow is listed upon the RSPB's Red List of 'Birds of

Conservation Concern 3' (2009).

In order to provide new nesting opportunities for House Sparrow at the site, it is recommended that a single House Sparrow Terrace be fitted to one of the buildings. The sparrow Terrace should ideally be positioned close to the eaves of the chosen building on the northern or eastern aspect to keep them out of strong sunlight and prevailing winds. The above enhancement would facilitate the aims and objectives of the UK BAP Species Action Plan for House Sparrows.



1 X 3 bay sparrow terrace Schwegler 1SP Sparrow Terrace

Swifts spend just four months in Europe over the summer and during this time they use urban areas around our homes and buildings to provide nesting sites. Renovation and rebuilding of older houses means that many of these preferred spaces, such as under roofs, attics or tiles, are often blocked so that they cannot find sufficient nest sites. These Swift Nest Boxes from Schwegler can help this species by providing valuable nesting locations and the installation of several units is an ideal way to support a swift colony. These boxes have been used across Europe with great success for many decades.

The Swift Box No. 17A is made from a special mixture of compressed plant fibres and concrete which enables it to provide good insulation and an extremely long life. This is an extended version of the No. 17 Standard Swift Box and can accommodate three pairs of swifts in parallel. This assists in the rapid formation of swift colonies. The box is supplied in a natural grey colour but can be painted to match the background using an air-permeable paint.

In order to provide new nesting opportunities for swifts at the site, it is recommended that a single 3 bay swift box be fitted to one of the buildings. The box should ideally be positioned close to the eaves of the chosen building on the northern or eastern aspect to keep them out of strong sunlight and prevailing winds.

The box should be installed at least six to seven metres above the ground, ensuring that there is unobstructed access for birds entering and leaving. If possible, boxes should be sites under the shelter of eaves or overhanging roofs.



1 X Schwegler three bay swift brick

Other generic wooden bird nest boxes can be located within the neighbouring woodland areas.

Note on breeding birds and vegetation clearance

It is strictly illegal in the UK to take, damage or destroy the nest of any wild bird while it is being built or in use. Therefore prior to any vegetation clearance or tree felling operation during the nesting bird season [March to August inclusive] trees and dense brush should be carefully inspected for any active nests. If an active nest is identified this area should be left undisturbed until nesting activity has finished. It is an offence to disturb any nesting bird or its nest. It is recommended that if vegetation clearance operations are scheduled to take place during the nesting bird season then a breeding bird survey should first be undertaken by a suitably qualified person in order to assess any potential impacts and inform future action. If active nests are found an exclusion area should be established around the nest in order to ensure that birds are not disturbed until nesting activity has ceased.

Enhancements for hedgehogs and other small mammals

The State of Britain's Hedgehogs 2022 report reveals hedgehogs have declined by between 30% – 75% across different areas of the countryside since 2000.

Grace Johnson, Hedgehog Officer, Hedgehog Street (a joint campaign by BHPS and PTES) says:

“Hedgehogs can travel around one mile every night through gardens and parks in search of food and mates. It's clear from our report that gardens can be havens for hedgehogs, but only if they are connected via gaps in or under garden boundaries to let hedgehogs in and out. A 'Hedgehog Highway' (a 13cm or CD case sized square gap) will enable hedgehogs to roam between neighbouring

gardens and green spaces, which is vital to their survival.”

Hedgehog passes should be incorporated into fence lines of the development (an (approximately 10x10cm gap at the bases of fences). Although no evidence for hedgehogs was found during the survey, they could be present at the site. The site is certainly suitable for hedgehogs and given the current alarming declines in hedgehog numbers consideration should be given to implementing the following guidelines designed to protect hedgehogs during development projects.

+ All fencing erected between residential properties should contain at least one gap at ground level (approximately 10x10cm) in order to allow movement of mammals, such as hedgehogs and amphibians, such as common frogs, to move freely between gardens.

+ Several boards or planks should be used to provide an escape routes out of any excavations at the end of each working day to facilitate a means of escape for mammals such as hedgehogs.

+ As the habitat has been identified as offering possible foraging potential and shelter for hedgehogs, it is recommended that if hedgerows and other dense herbaceous vegetation are to be removed. This should be done in a careful manner to check for the presence of hedgehogs; additionally it is recommended that if hedgehogs are discovered during their most vulnerable time, i.e. during hibernation/breeding then they are to be left in situ, and the habitat retained around them. If they are in danger of being harmed then they should be

6.0 Defra Biodiversity Metric calculations for the proposed development at Wuerdle Street in Littleborough with required habitat improvements and planting instructions.

The Defra Biodiversity Metric is designed to provide a means of assessing changes in biodiversity value (losses or gains) brought about by development or changes in land management. The metric is a habitat based approach to determining a proxy biodiversity value. Baseline conditions at the Site were measured with areas (hectares - ha) calculated for each of the existing habitat parcels present. Proposed habitats to be ‘created’ were measured in the same way.

These measurements were input into the Biodiversity Metric 3.1 calculation tool along with the habitat type and a number of other variables including habitat condition and connectivity. Based on these multipliers the calculator provides a total number of biodiversity ‘habitat units’ for each habitat and an overall ‘net unit’ and ‘net percentage’ change for the whole site. Use of the tool therefore characterises the overall biodiversity interest of the existing and proposed habitats at the Site quantitatively and provides an indication of the overall loss or gain in biodiversity value at the Site.

Results from Biodiversity Metric 3

Phase 1 habitat type	UK habs/broad habitat types	UK habs/habitat types	Area ha	Distinctiveness	Condition	Ecological connectivity	Strategic significance	Habitat units
mg6 grass	Modified grassland	Improved grassland	0.1	Low	Moderate	Low	Not within area formally identified in local strategy	0.4
Post-	development	habitat	creation			Existing biodiversity value = 0.4 biodiversity habitat units Currently the development would cause a loss of 0.4 biodiversity habitat units	The proposed development must provide at least a 10% biodiversity gain.	0.4 +10% =0.44 biodiversity habitat units
Green roof	Urban habitats	Sedum green roof	0.012	High	Good	Low	Not within area formally identified in local strategy	0.07

Garden	Urban habitat	Landscaped and planted garden	0.0134	Low	Good	Low	Not within area formally identified in local strategy	0.03
								Post development this gives a total of 0.1 habitat units with an additional 0.34 habitat units required to meet the required 0.44 habitat units required.

In order to achieve the required minimum 10% uplift in biodiversity units post development it is suggested that off site habitat creation be considered. A total of 0.44 habitat trading units need to be delivered in order to meet the legally required 10% increase in biodiversity post development. The provision of an area of 134 square metres of landscaped garden (0.03 habitat units) and 120 metres of green roof (0.07 habitat units), gives a total of 0.1 habitat units post development. A further 0.34 habitat units of off site habitat will therefore be required.

Examples of new habitats which would over time with the correct management (up to 30 years) provide the required 0.34 habitat units if located in suitable designated sites would include;

- A) A 165 square metre pond.
- B) 165 square metres of reedbed.
- C) 170 square metres of herb rich grassland.
- D) 165 square metres of lowland mixed deciduous woodland.

The required site or combination of sites for off-site habitat creation and enhancement could be secured by one or more of the following means:

- a) Offering a commuted sum to an existing landowner such as a local authority or wildlife charity which they would use to create the required habitat on their own land.
- b) entering into a conservation covenant with the existing landowner (such as a local authority or wildlife charity) under which they will create, monitor and manage the habitats for an extended period (to meet the specification and condition criteria set out in the Defra 3.1 Metric Technical Supplement and in the Specifications for Off-Site BNG Delivery);
- c) purchasing or leasing the land to create, monitor and manage the habitats; or,
- d) purchasing biodiversity units from a trusted provider.

7.0 CONCLUSION

A total of 0.1 habitat units will be provided by onsite landscaping post-development. This will take the form of an area of 134 square metres of landscaped garden (0.03 habitat units) and 120 metres of green roof (0.07 habitat units). In order to achieve the required minimum 10% uplift in biodiversity units post development it is suggested that off site habitat creation be considered. A total of 0.34 habitat trading units need to be delivered in order to meet the legally required 10% increase in biodiversity post development. Examples of new habitats which would over time with the correct management (up to 30 years) provide the required 0.34 habitat units if located in suitable designated sites would include;

- A) 0.24 hectares of lowland mixed deciduous woodland.
- B) 0.12 hectares of reedbeds.
- C) 0.18 hectares of herb rich lowland meadow.

This would give the required 10% increase in biodiversity at the site post-development. The addition a sparrow nesting terrace, and a swift nesting terrace will further improve biodiversity. Taken together the measures will benefit all the protected species at the site and improve the overall biodiversity on the site.

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