

Phase 1 Site Investigation & Preliminary Risk Assessment

Client: Lidl Great Britain
Ltd

Irlam Drive, Kirkby

Report No: 1373.01.01

February 2025





Executive Summary

Remada Ltd was commissioned by Lidl Great Britain Ltd (hereafter 'the client') to undertake a Phase 1 Geoenvironmental Site Investigation for a proposed store development at Irlam Drive, Kirkby, Merseyside. The objectives of this assessment were to present a preliminary conceptual site model to identify plausible pollutant linkages as a preliminary risk assessment and to provide recommendations for subsequent investigation work.

Site Setting

The site occupies a broadly triangular plot to the south of A506 Hall Lane and to the east and north-east of Telegraph Way. The majority of the site comprises an asphalt surfaced car park (named Hall Lane Car Park), accessed via Telegraph Way along the western boundary. The remainder of the site is occupied by soft landscaping, particularly in the east and north-western corner. No buildings are indicated to be present at the time of writing, although several lamp posts are indicated to be present associated with Hall Lane Car Park.

The site boundary to the north and west is predominantly formed by the pavements of A506 Hall Road and Telegraph Way respectively. The southern and eastern boundary is typically formed by pavements and walkways associated with the adjacent Kirkby Retail Park.

Site History

The earliest available mapping of 1850 indicates the site to comprise a field which extends off-site towards the east and west, with no structures indicated to be present. Development on-site is recorded between the mapping of 1966 and 1977, when the present-day car park appears to have been constructed in the western and central sectors of the site. Telegraph Way is indicated to within the eastern margins of the site, with associated access roads and footpaths. Between 2006 and 2024, the route of Telegraph Way and associated access roads / footpaths in the eastern area of the site are no longer shown. Their positions have been replaced by the existing grassed landscaping and trio of footpaths radiating out from the on-site car park.

Geology / Hydrogeology

Published geological mapping indicates the eastern and southern areas of the site to be underlain by Made Ground deposits. The superficial deposits underlying the site are indicated to comprise Shirdley Hill Sand, designated as a Secondary (A) Aquifer. The underlying bedrock is indicated to comprised Chester Formation sandstone, designated as a Principal Aquifer. The site is located within an Environment Agency-designated Zone III (Total Catchment) Source Protection Zone.

Mining

The site is located within an area which 'might not be' affected by coal mining activity and is not located within a Coal Authority designated Coal Mining Reporting Area. Consequently, no further action is considered necessary at this stage relating to coal mining at and beneath the site.

Radon

The site is located in a Lower Probability Radon Area as less than 1% of properties are above the Action Level, therefore no radon protective measures are necessary.

Recommendations

Environmental

The desk study has identified a number of on-site and off-site potential sources of contamination that would require further investigation. The following is recommended:

- Investigation of the lateral and vertical extent of made ground/fill beneath the proposed store footprint;
- Collection of soil and groundwater samples from the areas identified above for contaminants of concern; and
- Ground gas monitoring.



In accordance with CIRIA C665 the monitoring period should comprise not less than four visits for a proposed commercial development and should cover the "worst case" scenario which would occur during falling atmospheric pressure and, in particular, weather conditions such as rainfall and frost.

Geotechnical

It is recommended that a ground investigation is undertaken to enable preliminary foundation design.



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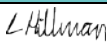
Table 1 Preliminary Conceptual Site Model

FIGURES

Figure 1 Site Location Plan
Figure 2 Existing Site Layout
Figure 3 Proposed Indicative Site Layout

APPENDICES

Appendix A Historical Mapping
Appendix B Envirocheck Mapping
Appendix C Envirocheck Datasheet
Appendix D UXO Risk Mapping

Issue No	Date	Prepared By	Technical Review	Authorised
01	11.02.2025	L Hillman 	P Dickinson 	G Jones 



1. INTRODUCTION

Remada Ltd was commissioned by Lidl Great Britain Ltd (hereafter 'the client') to undertake a Phase 1 Preliminary Risk Assessment for a proposed store development at Irlam Drive, Kirkby, L32 8US at the location indicated in **Figure 1**.

1.1. Objectives

The objectives of this assessment are as follows:

- to develop a preliminary conceptual model of the site to identify plausible pollutant linkages; and
- to provide recommendations for subsequent investigation work.

1.2. Scope of Work

The scope of work comprised a:

- review of local geological, hydrogeological, ground stability, and environmental data and historical mapping pertaining to the site and surrounding area; and
- identification of potential sources, pathways, and receptors, and development of a preliminary conceptual site model.

The scope of work did not include a site reconnaissance visit.

1.3. Previous Reports

It is not known if historic reports are available for review.

1.4. Limitations

The comments given in this report and the opinions expressed are based on the information reviewed and observations during site work. However, there may be conditions pertaining to the site that have not been disclosed by this assessment and therefore could not be taken into account.



2. DESK STUDY

2.1. Description of Site

Site Description The site occupies a broadly triangular plot to the south of A506 Hall Lane and to the east and north-east of Telegraph Way. The majority of the site comprises an asphalt surfaced car park (named Hall Lane Car Park), accessed via Telegraph Way along the western boundary. The remainder of the site is occupied by soft landscaping, particularly in the east and north-western corner. No buildings are indicated to be present at the time of writing, although several lamp posts are indicated to be present associated with Hall Lane Car Park.

The site boundary to the north and west is predominantly formed by the pavements of A506 Hall Road and Telegraph Way respectively. The southern and eastern boundary is typically formed by pavements and walkways associated with the adjacent Kirkby Retail Park.

The existing site layout is presented in **Figure 2**.

Area of Site	5582m ²
Site Elevation	The topographic elevation of the site is approximately 20 – 25m aOD (metres above ordnance datum).
National Grid Co-ordinates	341180, (E), 398910 (N)

2.2. Site Setting

The site is situated in a mixed commercial and residential area.

North:	A506 Hall Lane bounds the site to the north, with Kirkby Church of England Primary School beyond. The area beyond the school is generally occupied by residential housing associated with Milbrook Drive and Milbrook Crescent.
East:	Kirkby Retail Park and the associated car park area is directly east of the site, with Irlam Drive and the A5208 County Road beyond.
South:	Telegraph Way and associated taxi rank forms the southern boundary of the site, with a multi-storey car park beyond.
West:	Telegraph Way, and its respective junctions with Norwich Way and A506 Hall Lane, forms the western boundary of the site. The area beyond is predominantly occupied by grass and deciduous trees.

2.3. Site History

A summary of the historical land use of the site and surrounding area follows.

Map Date	Description of on-site activities
1850	The earliest available mapping of 1850 indicates the site to comprise a field which extends off-site towards the east and west. No structures are indicated to be present.



1891-93	Similar to above.
1894	Similar to above.
1908	Similar to above.
1909	Similar to above.
1927	Similar to above.
1928	Similar to above.
1955-56	Similar to above.
1961	The site remains devoid of any structures but appears to be undeveloped. However, the surrounding area (including the field that once extended away from the site) have been subject to redevelopment.
1962	Similar to above.
1966	Similar to above.
1977	The site has been redeveloped with a car park occupying a similar footprint to the present day in the western and central sectors of the site. Telegraph Way is indicated to within the eastern margins of the site, with associated access roads and footpaths.
1974-78	Similar to above.
1984-89	Similar to above.
1990	Similar to above.
1993	Similar to above.
1994	Similar to above.
1999	Similar to above.
2001	The aerial photography of 2001 concurs with the previous historic mapping.
2006	Similar to above.
2024	The route of Telegraph Way and associated access roads / footpaths in the eastern area of the site are no longer shown. Their positions have been replaced by the existing grassed landscaping and trio of footpaths radiating out from the on-site car park.

Map Date	Description of off-site activities
1850	The earliest available mapping of 1850 shows the surrounding area to be predominantly rural and dominated by fields. A road occupying a similar footprint to the present day A506 Hall Lane is present to the north of the site, whilst a road of similar layout to County Road (A5208) is recorded.



	forming the crossroads approximately 150m east. Kirkby Hall is recorded approximately 100m southwest of site.
1893	Similar to above.
1894	Similar to above.
1908	Similar to above.
1909	Similar to above.
1927	Similar to above.
1928	Similar to above.
1956	Similar to above.
1962	Significant redevelopment of the surrounding environs is recorded. Hall Lane is now named immediately to the north of the site, with residential properties off Milbrook Drive, Hall Drive and Milbrook Crescent being present beyond. Kirkby Hall to the west of the site is now labelled as Council Offices. St Chads Drive has been constructed adjacent to the site's southern and western boundaries, with Kirkby Market from circa 150m south-east and a Bus Station from circa 200m south.
1966	Similar to above.
1977	Further development of the surrounding area of the site is recorded. A multi-storey car park has been established from circa 20m south, a public baths circa 80m west and an electricity substation located from 90m south. The most prominent feature is a large, irregular-shaped, unlabelled building which bounds the site to the east and southern corner. An electricity substation has been installed within this complex circa 60m to the east, with a third labelled 100m to the south-east. Kirkby C of E Primary School has been established to the north of Hall Lane. Kirkby Hall is no longer shown.
1978	Similar to above.
1974-78	Kirkby town centre appears to have developed further.
1984-89	Similar to above.
1990	Similar to above.
1993	Similar to above.
1999	Similar to above.
2006	Similar to above.
2024	The large unnamed building immediately to the east of the site is no longer recorded and appears to have been replaced by Kirkby Retail Park's car park. The public baths are likewise no longer shown, with this area now occupied by parkland / grassed land.



2.4. Proposed Site Use

It is understood that the proposed site use for the site will be a Lidl retail store with soft landscaping. A proposed indicative site layout plan is presented as **Figure 3**, with the site being accessed from the existing Kirkby Retail Park off Irlam Drive and the A5208 to the east. The proposed store footprint is indicated to be in the western areas of the site, with the remaining areas being a combination of HGV access and soft landscaping.

2.5. Environmental Setting

2.5.1. Made Ground and Superficial Geology

Information from the environmental report and the British Geological Survey (BGS) 1:50,000 scale map Sheet 84 (Wigan) indicates Made Ground to be present in the eastern and southern areas of the site, extending off-site towards the east, south and south-west.

Artificial Ground is a term used by the BGS for those areas where the ground surface has been significantly modified by human activity, and includes made ground, worked ground, infilled ground, landscaped ground and disturbed ground. Taking into consideration the site's historic use, satellite imagery and BGS mapping, it is likely that made ground will be encountered underlying the majority of the site.

The superficial deposits underlying the site are indicated to comprise Shirdley Hill Sand Formation. The BGS describe these as typically comprising *'moderately to well-sorted, fine-grained sand with peat layers in the lower part. Sand grains are dominated by rounded to sub-rounded quartz grains. The formation is divisible into an upper "white" sand and a lower "brown" sand that is olive grey and brown'*.

The superficial deposits are designated as Secondary (A) Aquifer (ref Envirocheck **Appendix B**).

2.5.2. Bedrock Geology

The bedrock geology underlying the site is indicated to comprise the Chester Formation. The BGS describes this sandstone bedrock as typically comprising *'conglomerates and reddish brown, cross-bedded, pebbly sandstones with subordinate beds of red-brown mudstone. The conglomerates have a reddish brown sandy matrix and consist mainly of pebbles of brown or purple quartzite, with quartz conglomerate and vein quartz.'*

The bedrock is designated as a Principal Aquifer (ref Envirocheck **Appendix B**).

2.5.3. Historic BGS Borehole Records

There are no pertinent historic BGS borehole records within a relevant distance of the site.

2.5.4. Groundwater Abstractions

There is one (1 No.) groundwater abstraction points within 1km of the study site. This is located 766m to the north at Kirkby Pumping Station and pertains to United Utilities' abstraction from a borehole for potable water supply (ref Envirocheck **Appendix B**).

2.5.5. Source Protection Zones

The site is located within an Environment Agency-designated Zone III (Total Catchment) Source Protection Zone. This is defined by the EA as *'the total area needed to support the discharge from the protected groundwater source'* (ref Envirocheck **Appendix B**).



2.5.6. Surface Water Features and Abstractions

The nearest surface water feature is 329m northwest of the site, appearing to pertain to Kirkby Brook (ref Envirocheck **Appendix B**).

There is one (1 No.) surface water abstraction points within 1km of the study site, located 889m northwest at Mill Dam, Mill Lane, Kirkby pertaining to Metropolitan Borough of Knowsley's abstraction from Bank Bark for general agriculture (ref Envirocheck **Appendix B**).

2.5.7. Flooding Vulnerability

The site is located in an area with the potential for groundwater flooding to occur and the northeast of the site is recorded to be within a low risk surface water flood zone (ref Envirocheck **Appendix B**).

2.5.8. Ground Stability

The Envirocheck Report (**Appendix B**) provides the following information regarding ground stability.

Collapsible Deposits	There is a 'very low' hazard rating from collapsible rocks.
Compressible Ground	There is a 'very low' hazard rating from compressible ground.
Rock Solubility / Dissolution	There is a 'no' hazard rating from rock solubility at the site.
Landslides	There is a 'very low' hazard rating from landslides.
Running Sand	There is a 'low' hazard rating for running sands.
Shrinking / Swelling of Clay	There is a 'no' hazard rating for shrinkage / swelling of clay.

2.5.9. Radon

The site is located in a Lower Probability Radon Area as less than 1% of properties are above the Action Level, therefore no radon protective measures are necessary (ref Envirocheck **Appendix B**).

2.5.10. Environmentally Sensitive Site Designations

The nearest environmentally sensitive zone is within the site boundary pertaining to a nitrate vulnerable zone for surface water (ref Envirocheck **Appendix B**).

2.6. Industrial Land Use

There are twenty (20 No.) contemporary trade directory entries locations within 250m of the site. The nearest is for car breakdown and recovery service 50m northwest of the site and is recorded as inactive (ref Envirocheck **Appendix B**).

There is one fuel station entry within 250m of the study site. This is located 175m to the east on Irlam Drive, pertaining to Morrisons Kirkby and is recorded as being open (ref Envirocheck **Appendix B**).

2.7. Environmental Permits, Incidents & Registers

There are two (2 No.) permitted process entry within 250m of the study site. They are both Local Authority Pollution Prevention and Control permits, with the nearest located 157m south pertaining to Johnsons Dry Cleaners at 11 St Chad's Parade, Kirkby for dry cleaning and became effective in October 2007.

There are five (5 No.) recorded pollution incident entries within 500m of the site. The nearest was located 334m to the east and pertains to a 'not given' pollutant impacting the Kirkby Brook is August 1993. The incident was recorded as being a Category 3 (Minor Incident) (ref Envirocheck **Appendix B**).



2.8. Landfill & Waste Sites

The Envirocheck search has included a check on the Local Authority's landfill coverage at the site. Knowsley Metropolitan Borough Council and Merseyside Waste Disposal Authority have both supplied data.

There are two (2 No) local authority landfill sites and one (1 No.) historical landfill site within the search area. The nearest is a historical landfill located 442 – 448m south-west of the site at Cherryfield Drive, with the deposited waste included household waste (ref Envirocheck **Appendix B**).

2.9. Mining

The site is located within an area which 'might not' be affected by coal mining activity (ref Envirocheck **Appendix B**).

2.10. Unexploded Ordnance (UXO) Risk

A non-specialist UXO screening exercise was initially carried out for the site by considering (a) any evidence of UK defence activities on or near the site evident from the gathered desk study information and (b) the unexploded aerial-delivered ordnance (UXO) regional risk mapping produced by Zetica.

There is no indication of former military use from the desk study.

Furthermore, the freely available Zetica UXO risk mapping (presented in **Appendix D**) indicates the site to be located within an area where the bomb risk is 'Low'. This is defined by Zetica as an area having an indicated bombing density of 15 bombs per 1000 acres or less.



3. PRELIMINARY RISK ASSESSMENT

3.1. Introduction

A Preliminary Risk Assessment (PRA) has been completed for the site. This PRA identifies the potential sources, pathways, and receptors for the site, in order to assess the potential risks posed by identified potential sources to human health and / or controlled waters receptors. When required, the viability of the Source-Pathway-Receptor pollutant linkage must be evaluated further to determine whether an actual risk is present.

3.2. Potential Sources

On-site Historical

- Made Ground recorded from BGS mapping
- Made Ground associated with former access road

On-site Current

- Operational car park

Off-site Historical

- Development of Kirkby Town Centre
- Demolition of former structures including public baths

Off-site Current

- Operational retail park and associated car park
- Residential housing
- Electrical sub-stations
- Bus Station

3.3. Potential Contaminants of Concern (PCOCs)

- Metals
- Asbestos (associated with demolition and redevelopment of the existing site).
- Total petroleum hydrocarbons (TPH)
- Polycyclic aromatic hydrocarbons (PAH).
- Ground gases (carbon dioxide and methane)
- Polychlorinated Biphenyls (PCBs)

3.4. Potential Receptors

Human Health

- On-site Lidl store staff.
- Construction workers.
- On-site general public and visiting staff (such as contractors, including those conducting excavation works).
- Neighbouring residents

Controlled Waters

- Secondary (A) Aquifer in Superficial Deposits



- Principal Aquifer in bedrock;
- Kirkby Brook

3.5. Preliminary Conceptual Model

The Preliminary Conceptual Site Model of the site has been prepared and illustrates the potentially active pollutant linkages. A pollutant linkage is present only when a source, pathway and receptor exist together.

- A **source** is a substance that has potential to cause harm or adversely affect human health, water resources or the wider environment.
- A **pathway** is the route or means by which a source of contamination can migrate resulting in exposure to a receptor.
- A **receptor** is something that could be adversely affected by a contaminant such as human health, an ecological system, animals or crops, buildings or controlled waters.

The Preliminary Conceptual Site Model is presented in **Table 1**.



Potential Source Areas	Potential Contaminant of Concern	Pathways	Potential Receptor	Exposure Route (Human unless otherwise stated)	Potential Identified Linkage (unmitigated)	Findings of Ground investigation	Risk (Un-mitigated)	Proposed Remediation (Mitigation) Measures	Residual Risk Estimation
<u>On-site Sources</u>	Asbestos / Metals As, Be, Cd, Cu, Cr (VI), Cr (III) Hg, Ni, Se, Va, Zn, Boron, TPH /PAH, PCBs	Disturbance due to construction plant causing direct contact, dusts, vapours.	Occupants of the development / building fabric	Direct Soil Ingestion	N/A	N/A	N/A	N/A	N/A
Operational car park				Indoor Dust ingestion	Yes	As above	Potential risk	TBA	TBA
Made Ground associated with former access road				Skin Contact with Soils	Yes	As above	Potential risk	TBA	TBA
<u>Off-site Sources</u>				Skin Contact with Dust	Yes	As above	Potential risk	TBA	TBA
Residential housing		Direct Contact with occupants of the proposed development	Adjacent residents during construction	Inhalation of Outdoor Dust	Yes	As above	Potential risk	TBA	TBA
Operational retail park		Inhalation of fibres / vapours / gases by occupants of proposed development		Ingestion of home grown produce	N/A	N/A	N/A	N/A	N/A
Electrical sub stations				Inhalation of Outdoor Vapours	Yes	As above	Potential risk	TBA	TBA
Bus station				Inhalation of Indoor Vapours	Yes	As above	Potential risk	TBA	TBA
Development of Kirkby town centre		Permeation of water supply pipework	Kirkby Brook	Inhalation of ground gas	No	Lower Probability Area	Negligible	None	Negligible
				Ingestion via permeated water supply pipework	Yes	As above	Potential risk	TBA	TBA
			Leachate	Secondary Aquifer & Principal Aquifer	Direct contact with Secondary (A) Aquifer in Superficial Deposits	Yes	As above	Potential risk	TBA
		In-direct contact with Principal Aquifer in bedrock			Yes	As above	Potential risk	TBA	TBA

Table 1: Preliminary Conceptual Site Model

Direct contact with subsurface soil and/or groundwater during redevelopment works are not assessed as part of the CSM. It is considered that risks to workers will be managed as part of any the redevelopment works at the site through the application of health and safety procedures, where required.



4. CONCLUSIONS & RECOMMENDATIONS

4.1. Conclusions

The site occupies a broadly triangular plot to the south of A506 Hall Lane and to the east and north-east of Telegraph Way. The majority of the site comprises an asphalt surfaced car park (named Hall Lane Car Park), accessed via Telegraph Way along the western boundary. The remainder of the site is occupied by soft landscaping, particularly in the east and north-western corner. No buildings are indicated to be present at the time of writing, although several lamp posts are indicated to be present associated with Hall Lane Car Park.

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The site is located within an area which 'might not be' affected by coal mining activity and is not located within a Coal Authority designated Coal Mining Reporting Area. Consequently, no further action is considered necessary at this stage relating to coal mining at and beneath the site.

The site is located in a Lower Probability Radon Area as less than 1% of properties are above the Action Level, therefore no radon protective measures are necessary.

4.2. Recommendations

Environmental

The desk study has identified a number of on-site and off-site potential sources of contamination that would require further investigation. The following is recommended:

- Investigation of the lateral and vertical extent of made ground beneath the proposed store footprint.
- Collection of soil and groundwater samples from the areas identified above for contaminants of concern; and
- Ground gas monitoring.



In accordance with CIRIA C665 the monitoring period should comprise not less than four visits for a proposed commercial development and should cover the "worst case" scenario which would occur during falling atmospheric pressure and, in particular, weather conditions such as rainfall and frost.

Geotechnical

It is recommended that a ground investigation is undertaken to enable preliminary foundation design.



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STUDY LIMITATIONS

IMPORTANT. This section should be read before reliance is placed on any of the information, opinions, advice, recommendations or conclusions contained in this report.

1. This report has been prepared by Remada, Ltd with all reasonable skill, care and diligence within the terms of the Appointment and with the resources and manpower agreed with (the 'Client'). Remada does not accept responsibility for any matters outside the agreed scope.

2. This report has been prepared for the sole benefit of the Client unless agreed otherwise in writing.

3. Unless stated otherwise, no consultations with authorities or funders or other interested third parties have been carried out. Remada is unable to give categorical assurance that the findings will be accepted by these third parties as such bodies may have published, more stringent objectives. Further work may be required by these parties.

4. All work carried out in preparing this report has used, and is based on, Remada's professional knowledge and understanding of current relevant legislation. Changes in legislation or regulatory guidance may cause the opinion or advice contained in this report to become inappropriate or incorrect. In giving opinions and advice pending changes in legislation, of which Remada is aware, have been considered. Following delivery of the report Remada has no obligation to advise the Client or any other party of such changes or their repercussions.

5. This report is only valid when used in its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report.

6. Whilst this report and the opinions made are to the best of Remada's belief, Remada cannot guarantee the accuracy or completeness of any information provided by third parties.

7. This report has been prepared based on the information reasonably available during the project programme. All information relevant to the scope may not have received.

8. This report refers, within the limitations stated, to the condition of the site at the time of the inspections. No warranty is given as to the possibility of changes in the condition of the site since the time of the investigation.

9. The content of this report represents the professional opinion of experienced environmental consultants. Remada does not provide specialist legal or other professional advice. The advice of other professionals may be required.

10. Where intrusive investigation techniques have been employed they have been designed to provide a reasonable level of assurance on the conditions. Given the discrete nature of sampling, no investigation technique is capable of identifying all conditions present in all areas. In some cases the investigation is further limited by site operations, underground obstructions and above ground structures. Unless otherwise stated, areas beyond the boundary of the site have not been investigated.

11. If below ground intrusive investigations have been conducted as part of the scope, service tracing for safe location of exploratory holes has been carried out. The location of underground services shown on any drawing in this report has been determined by visual observations and electromagnetic techniques. No guarantee can be given that all services have been identified. Additional services, structures or other below ground obstructions, not indicated on the drawing, may be present on site.

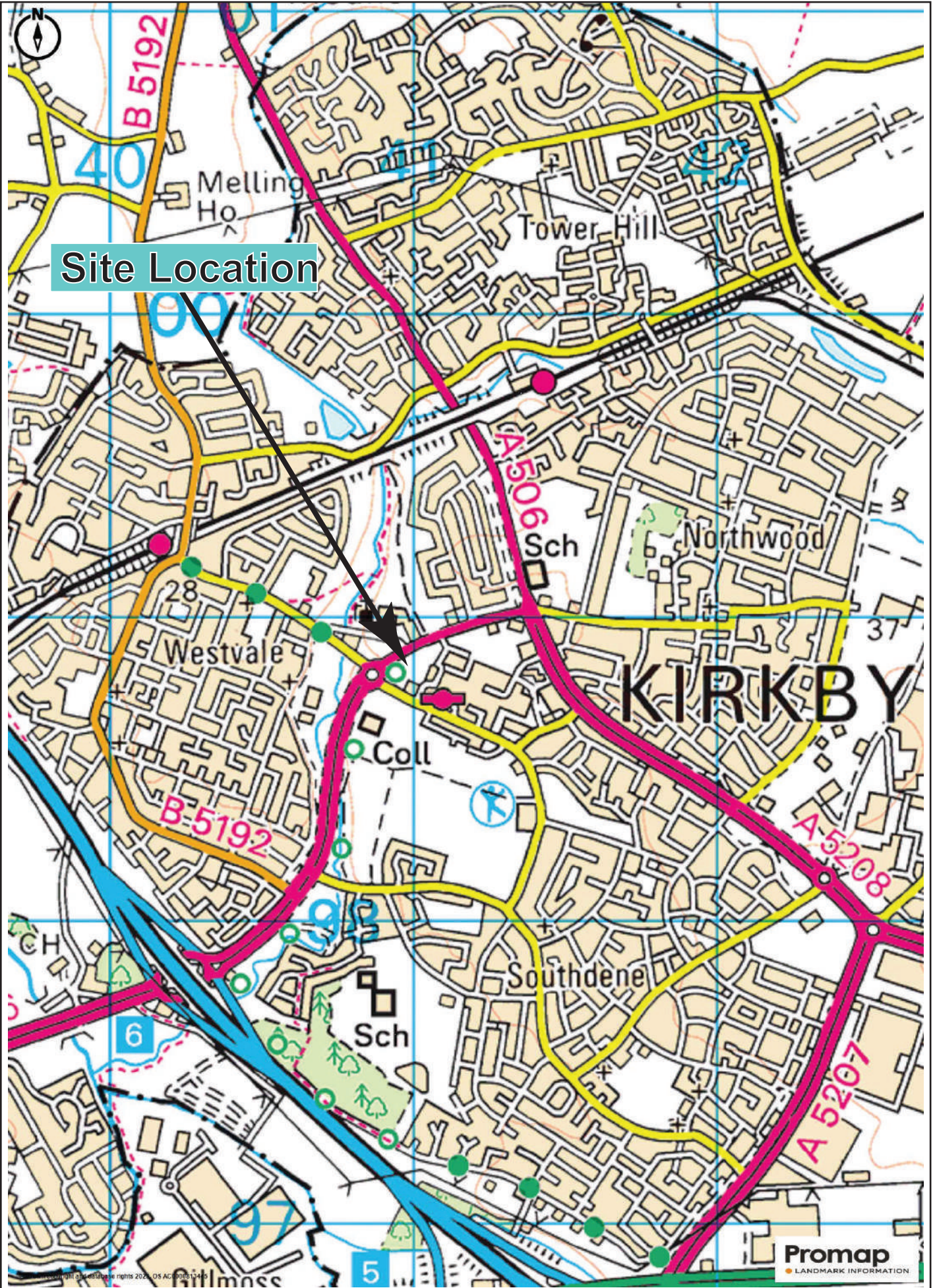
12. Unless otherwise stated the report provides no comment on the nature of building materials, operational integrity of the facility or on any regulatory compliance issues.

13. Unless otherwise stated, samples from the site (soil, groundwater, building fabric or other samples) have NOT been analysed or assessed for waste classification purposes.

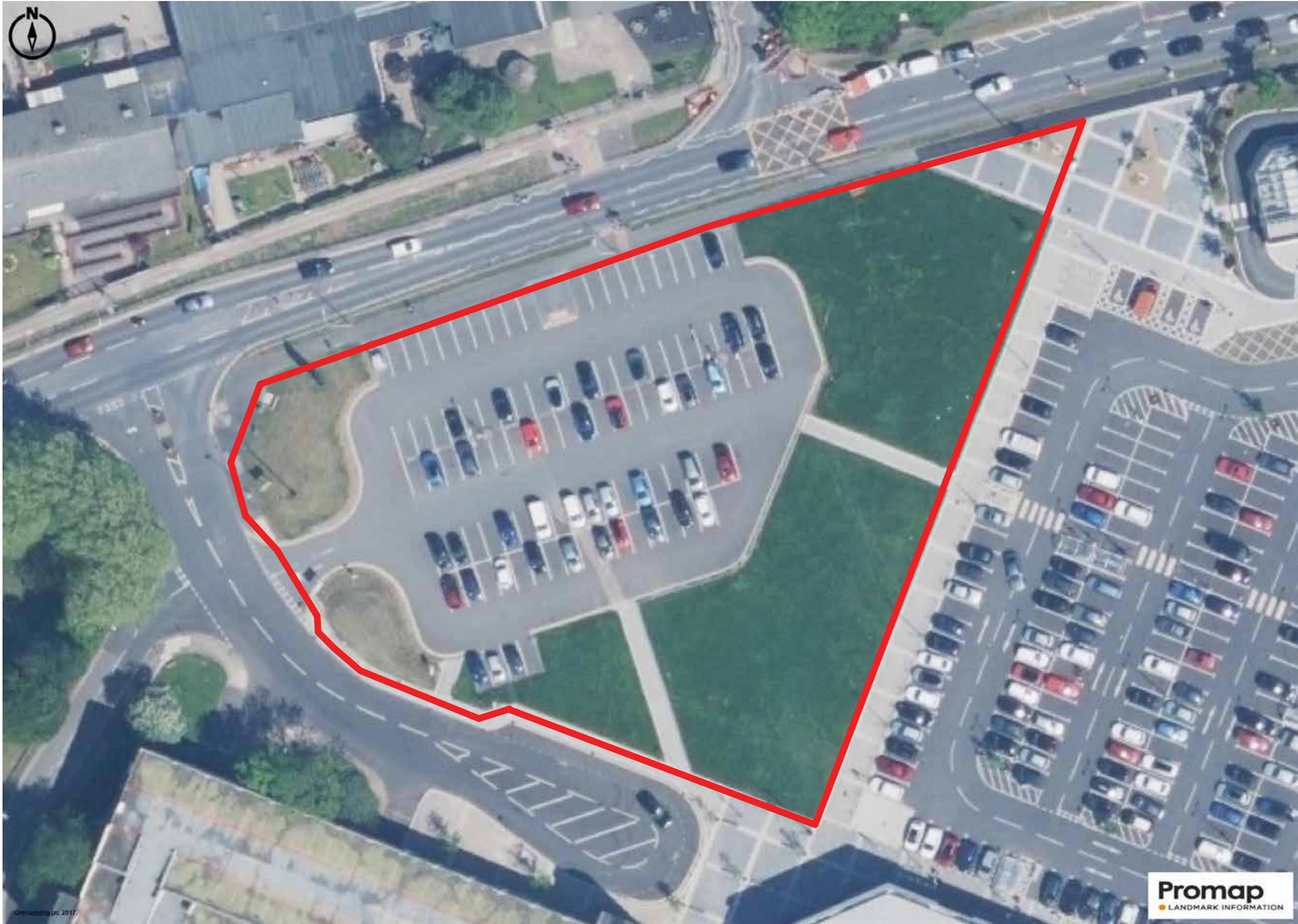


FIGURES

- | | |
|----------|---------------------------------|
| Figure 1 | Site Location Plan |
| Figure 2 | Existing Site Layout |
| Figure 3 | Proposed Indicative Site Layout |



Notes	Revision	Approved	Date	Project Title	Scale	Drawn	Size
				Irlam Drive, Kirkby	as shown	LH	A4
				Drawing Title	Date	Job No.	Figure No.
				Site Location Plan	10.02.25	1373.01	01
				Client	 		
				Lidl Great Britain Ltd			



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Legend

Notes:

Red line boundary shown within Figure 2- Existing Site Layout is for illustrative purposes only.

Revision	Approved	Date

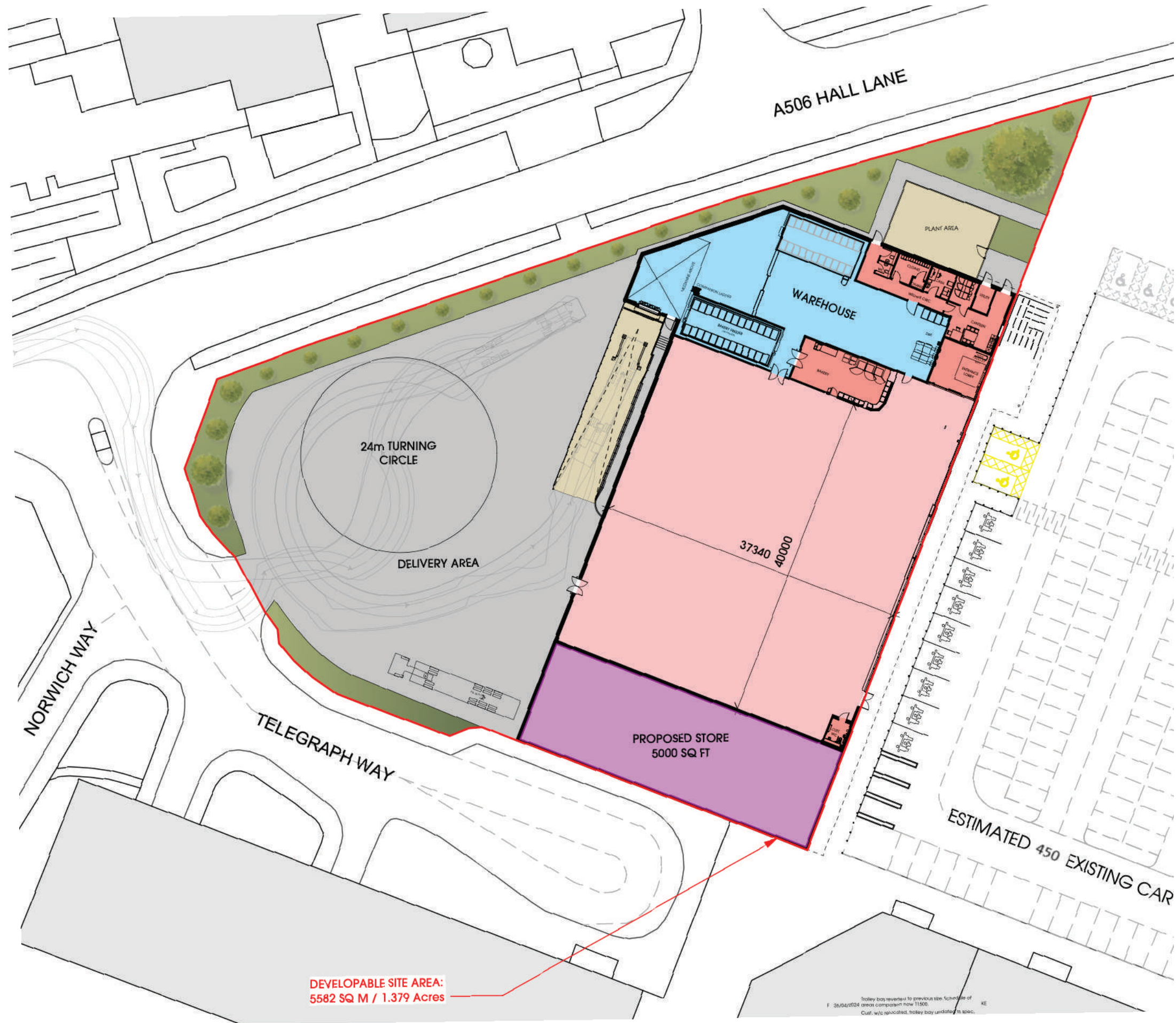
Project Title
Irlam Drive, Kirkby

Drawing Title
Existing Site Layout

Client
Lidl Great Britain Ltd 

Scale	Drawn	Size
as shown	LH	A4
Date	Job No.	Figure No.
10.02.25	1373	02





Legend

Notes:

Proposed Layout reproduced from HTC Architects Ltd's Proposed Site Plan (Option 14), drawing ref: 3288_F414 Rev F, dated January 24.

The proposed site layout plan presented here is indicative only and may be subject to change following publication of Remada's Phase 1 report.

Revision	Approved	Date

Project Title
Irlam Drive, Kirkby

Drawing Title
Proposed Indicative Site Layout Plan

Client
Lidl Great Britain Ltd

Scale	Drawn	Size
as shown	LH	A4
Date	Job No.	Figure No.
10.02.25	1373	03



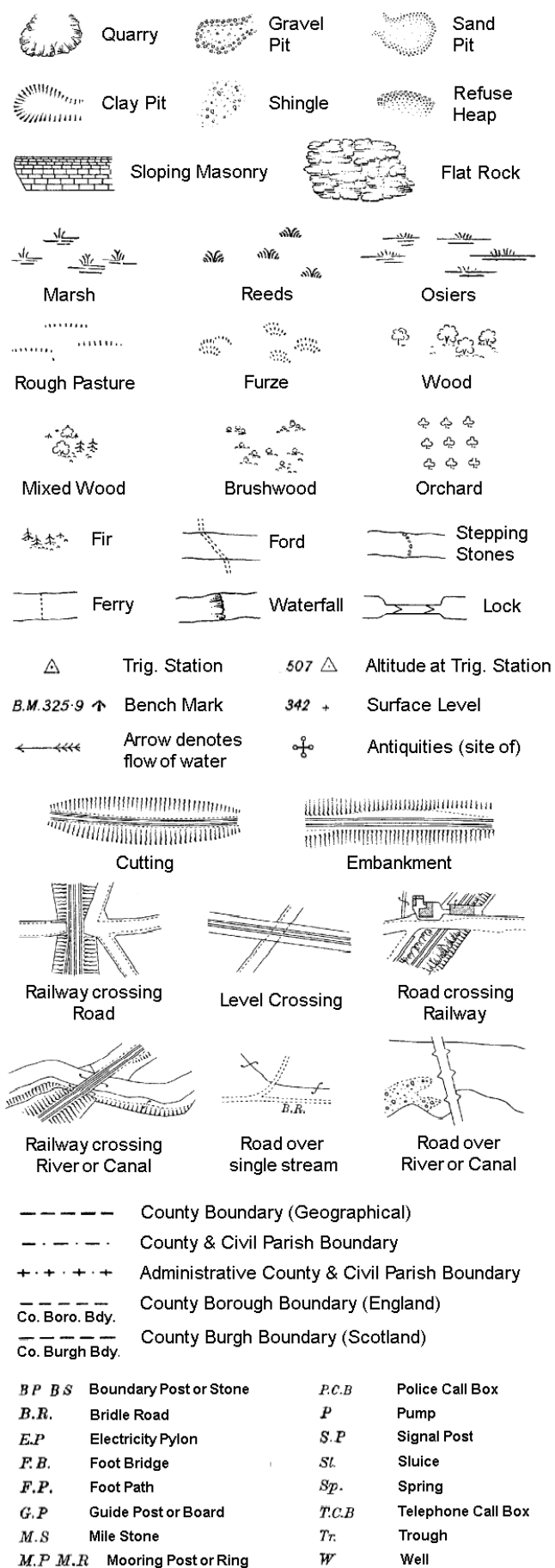


APPENDIX A

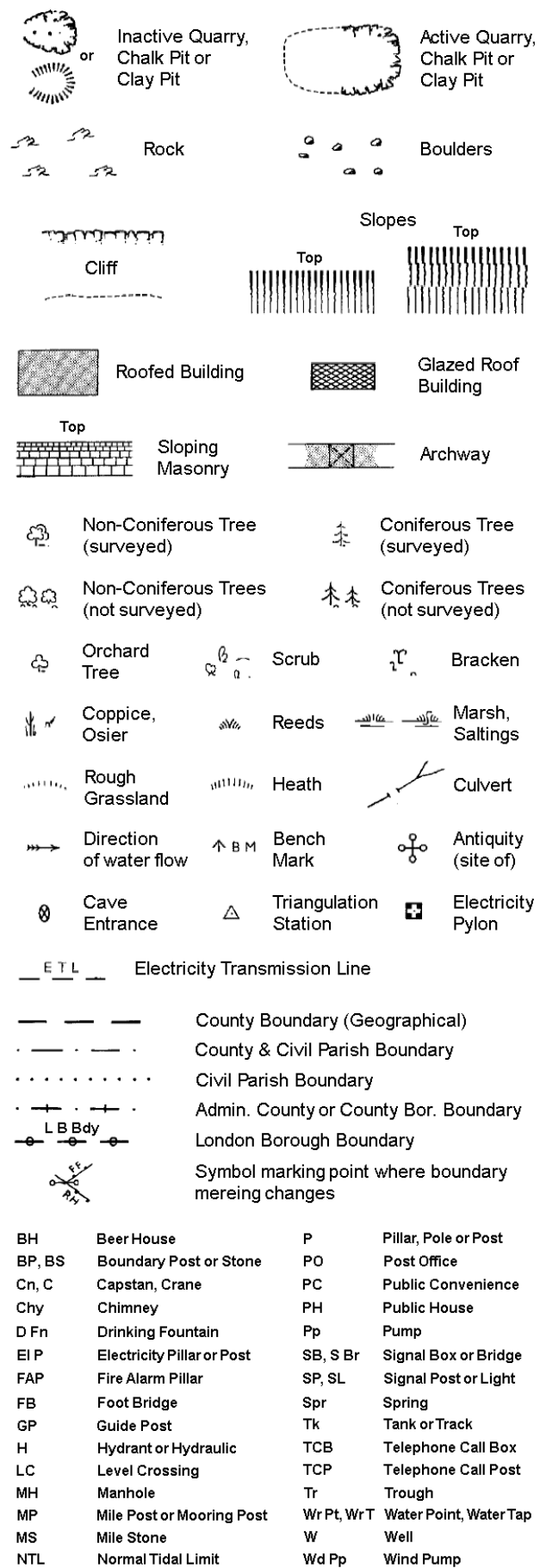
1:2500 & 1:10000 Scale Historical Mapping

Historical Mapping Legends

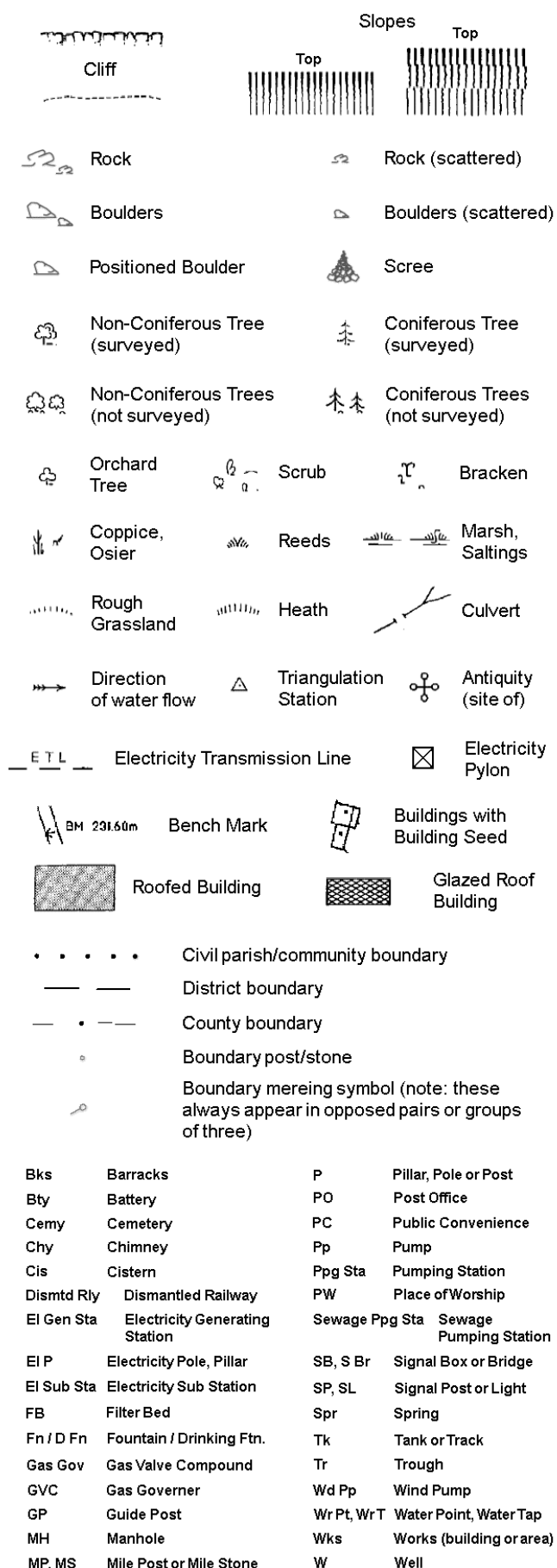
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



Ordinance 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



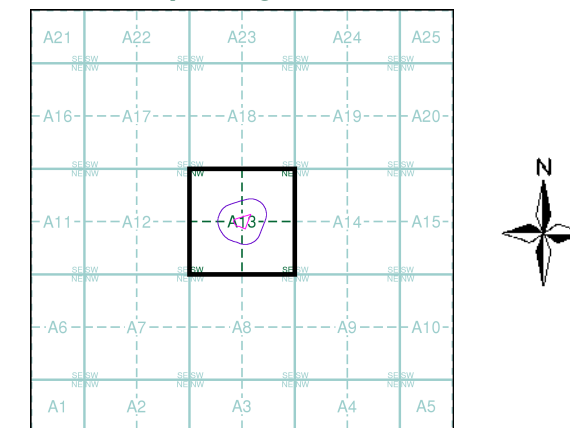
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:2,500	1891 - 1893	2
Lancashire And Furness	1:2,500	1908	3
Lancashire And Furness	1:2,500	1927	4
Lancashire And Furness	1:2,500	1937 - 1939	5
Ordnance Survey Plan	1:1,250	1961 - 1962	6
Ordnance Survey Plan	1:2,500	1962	7
Ordnance Survey Plan	1:1,250	1966 - 1977	8
Additional SIMs	1:1,250	1984 - 1989	9
Additional SIMs	1:1,250	1986 - 1991	10
Large-Scale National Grid Data	1:1,250	1993	11
Large-Scale National Grid Data	1:1,250	1994 - 1995	12
Large-Scale National Grid Data	1:1,250	1994 - 1995	13
Large-Scale National Grid Data	1:1,250	1995	14
Large-Scale National Grid Data	1:1,250	1996	15
Historical Aerial Photography	1:2,500	2001	16

Historical Map - Segment A13



Order Details

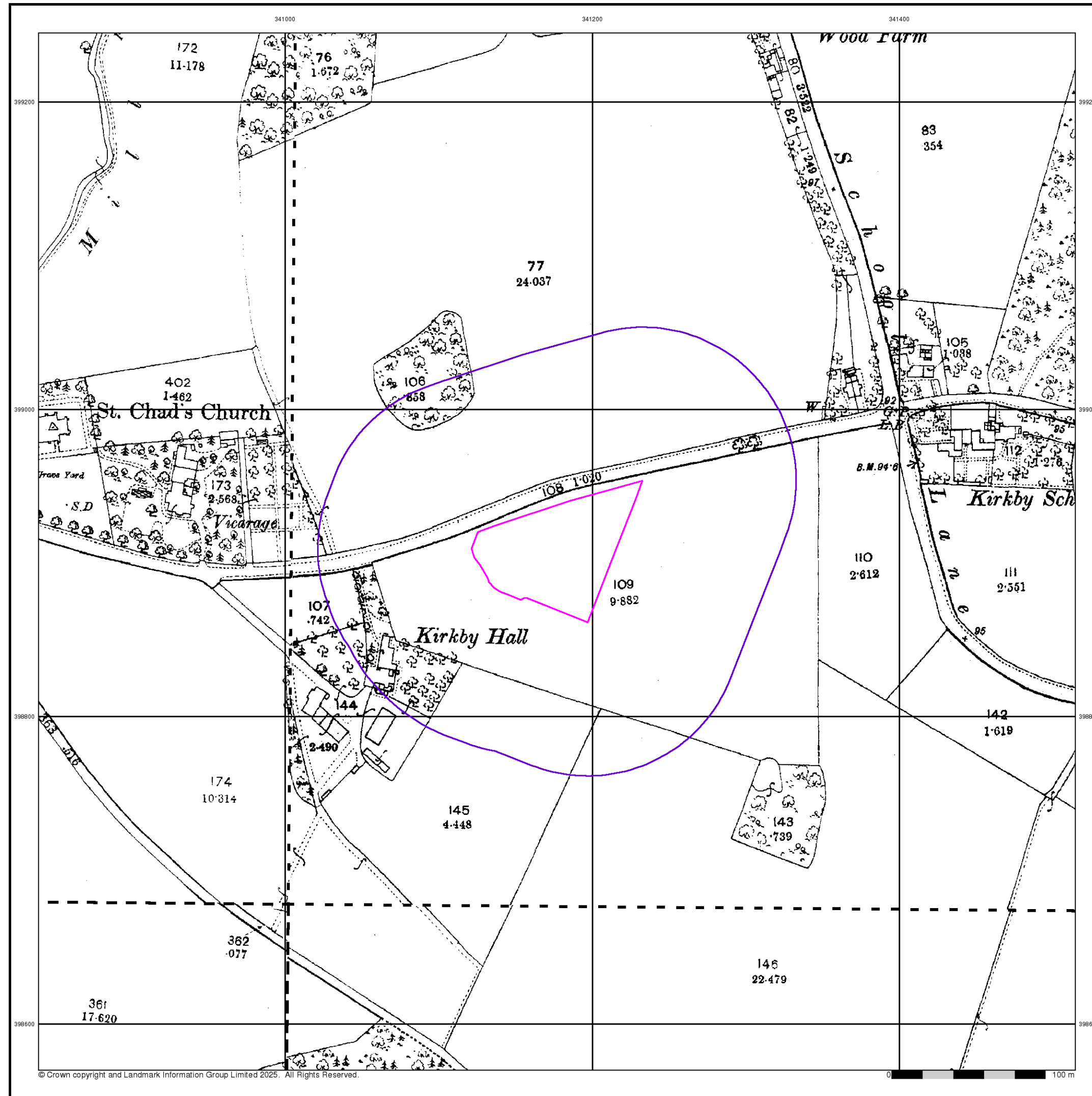
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Customer Ref:	1373.01
National Grid Reference:	341180, 398910
Slice:	A
Site Area (Ha):	0.56
Search Buffer (m):	100

Site Details

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Lancashire And Furness

Published 1891 - 1893

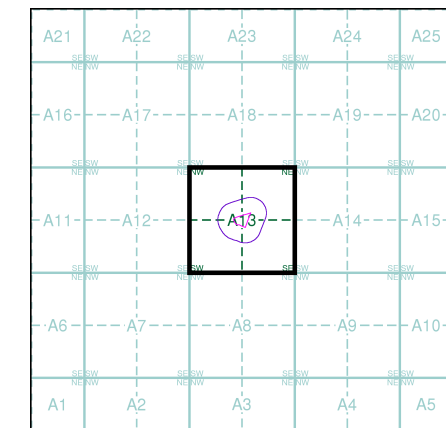
Source map scale - 1:2,500

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)

099_08 1893 1:2,500	100_05 1893 1:2,500
099_12 1891 1:2,500	100_09 1893 1:2,500

Historical Map - Segment A13

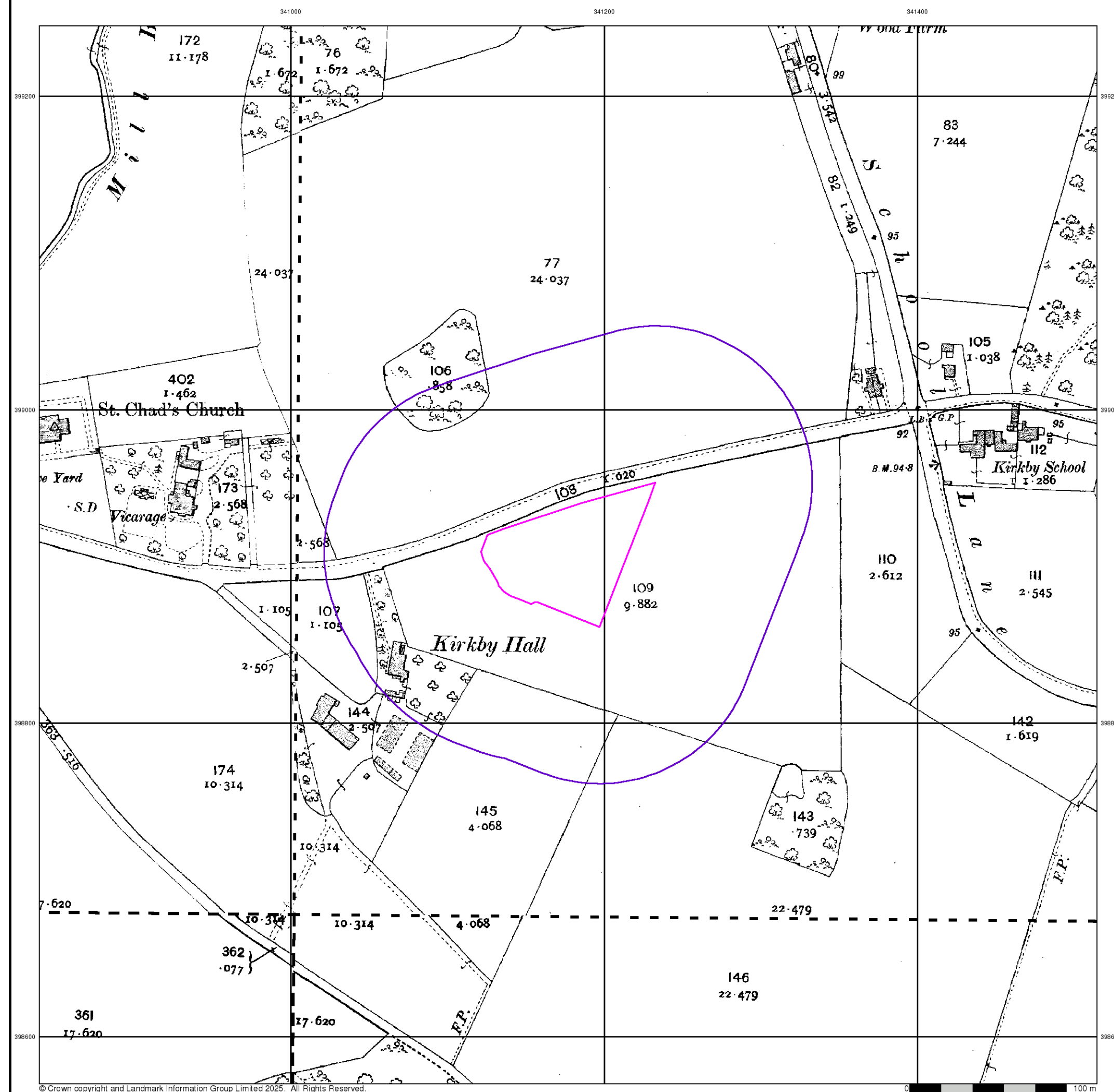


Order Details

Order Number: 369327796_1_1
Customer Ref: 1373.01
National Grid Reference: 341180, 398910
Slice: A
Site Area (Ha): 0.56
Search Buffer (m): 100

Site Details

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Lancashire And Furness

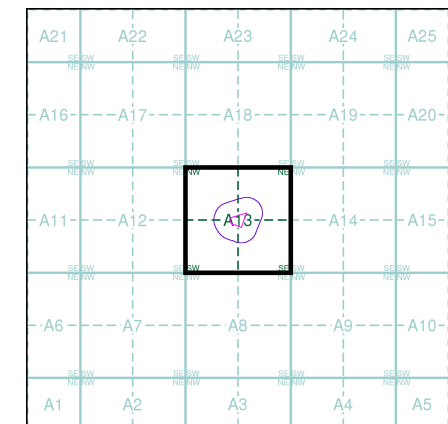
Published 1908

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)

Historical Map - Segment A13



Order Details

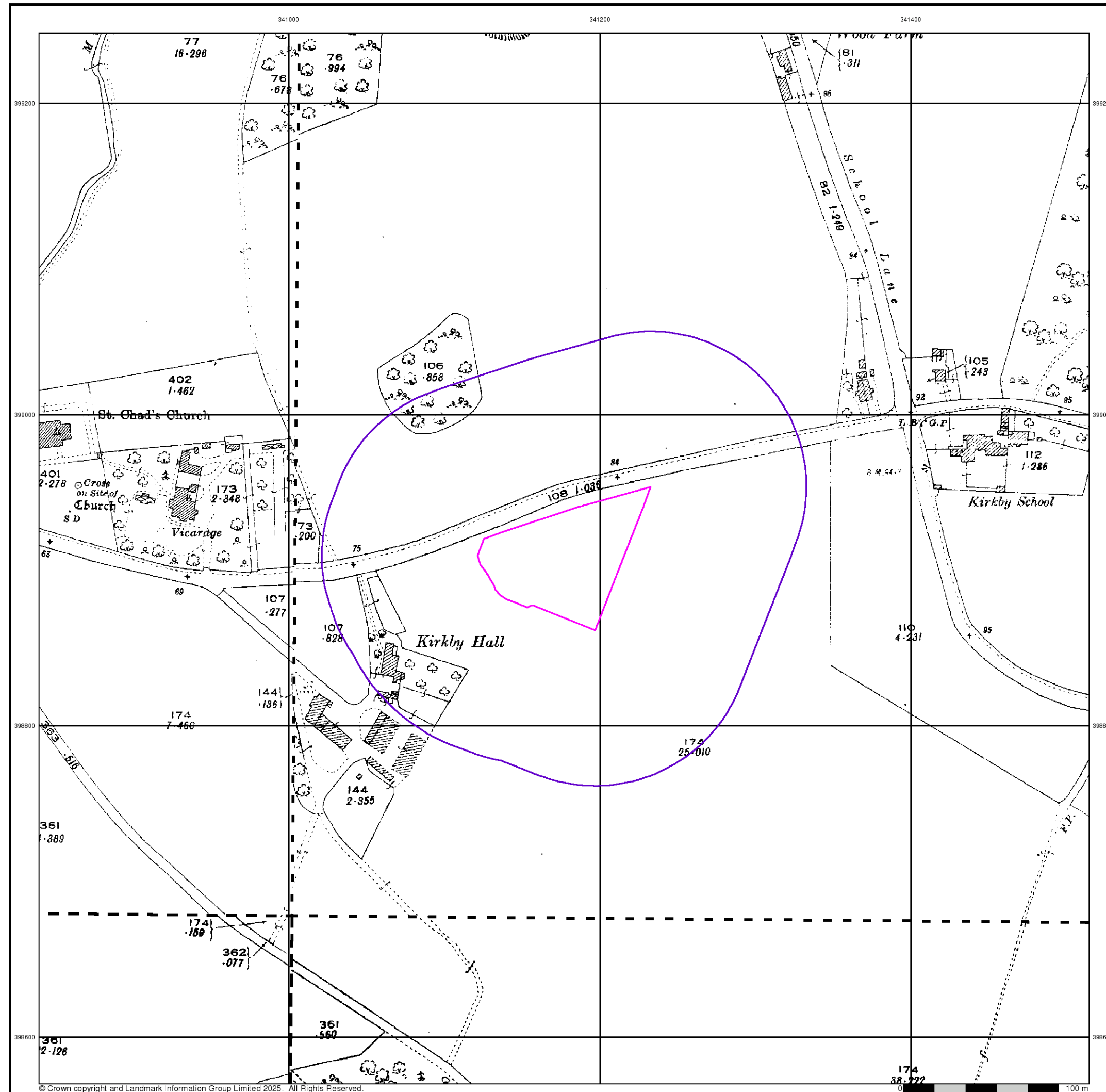
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Customer Ref: 1373.01
National Grid Reference: 341180, 398910
Slice: A
Site Area (Ha): 0.56
Search Buffer (m): 100

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Lancashire And Furness

Source map scale - 1:2,500

Map Name(s) and Date(s)

Historical Map - Segment A13

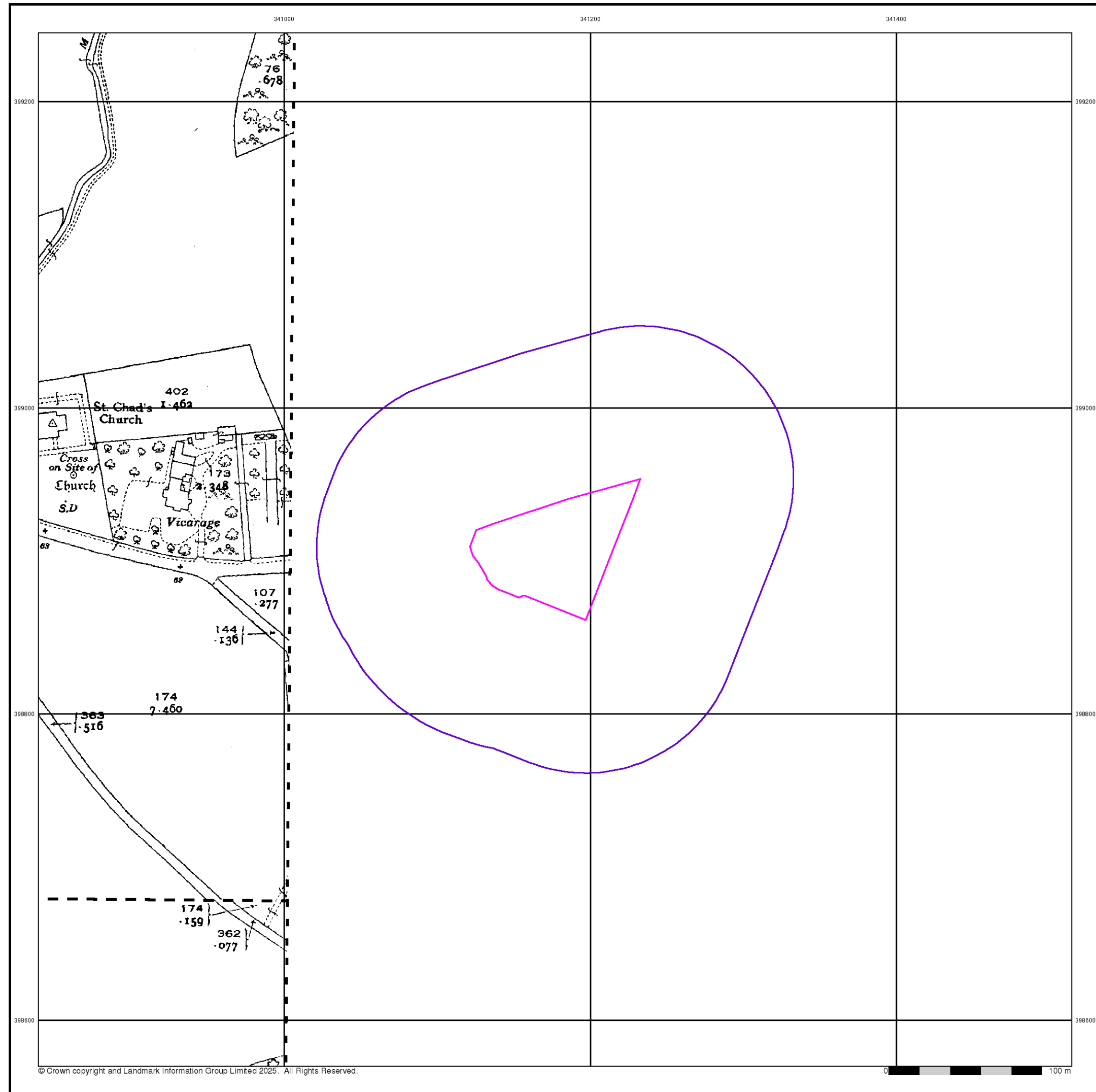


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Lancashire And Furness

Published 1937 - 1939

Source map scale - 1:2,500

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Map Name(s) and Date(s)

099_08 1939 12,500	
099_12 1937 12,500	

Historical Map - Segment A13

Order Details

Order Number:	369327796_1_1
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Search Buffer (m):	100

Site Details

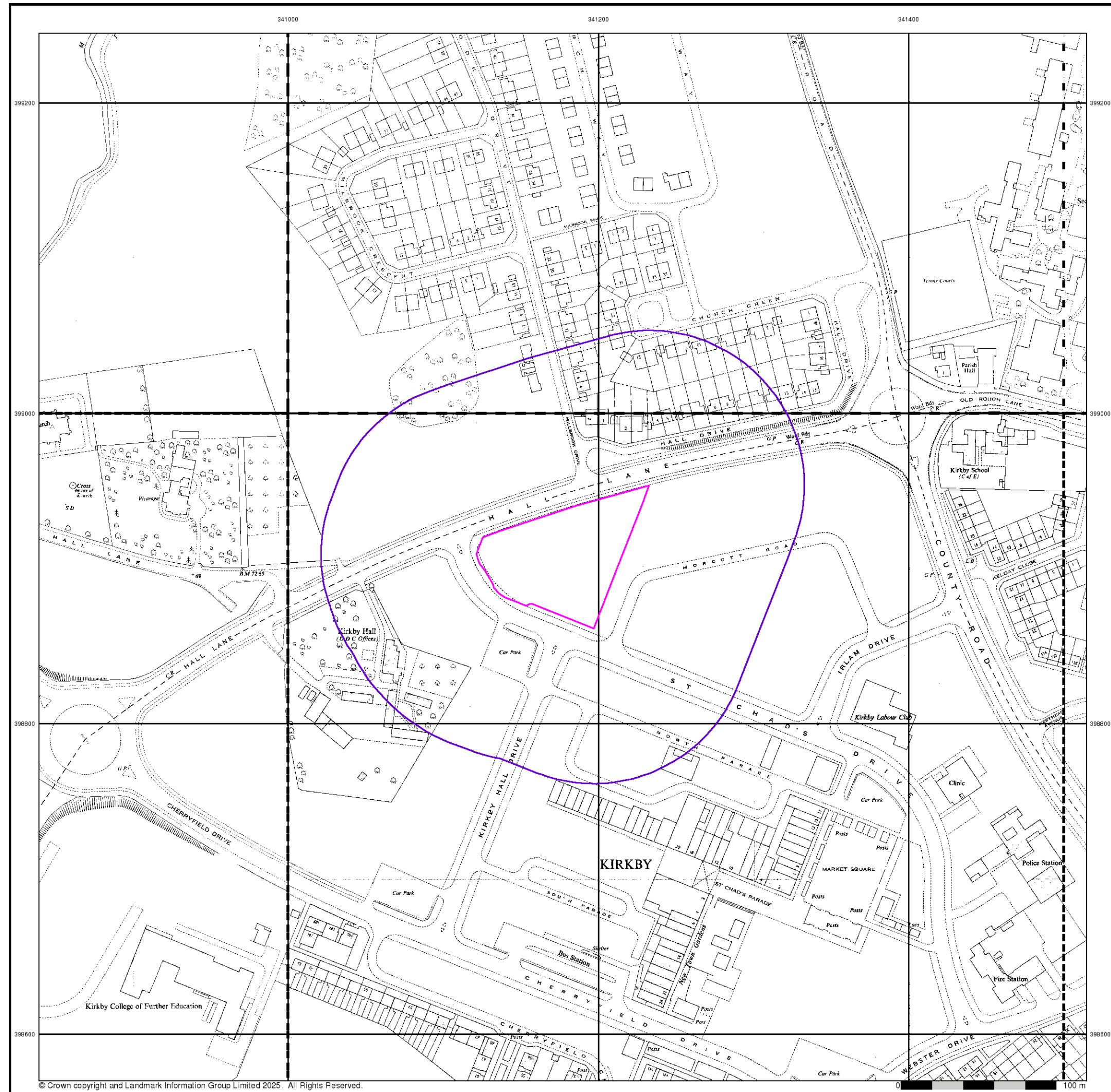
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Ordnance Survey Plan

Published 1961 - 1962

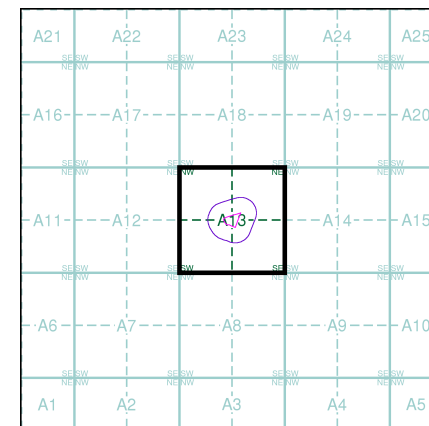
Source map scale - 1:1,250

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)

SJ4099SE 1962 1:1,250	SJ4199SW 1962 1:1,250	SJ4199SE 1962 1:1,250
SJ4098NE 1961 1:1,250	SJ4198NW 1961 1:1,250	SJ4198NE 1961 1:1,250

Historical Map - Segment A13



Order Details

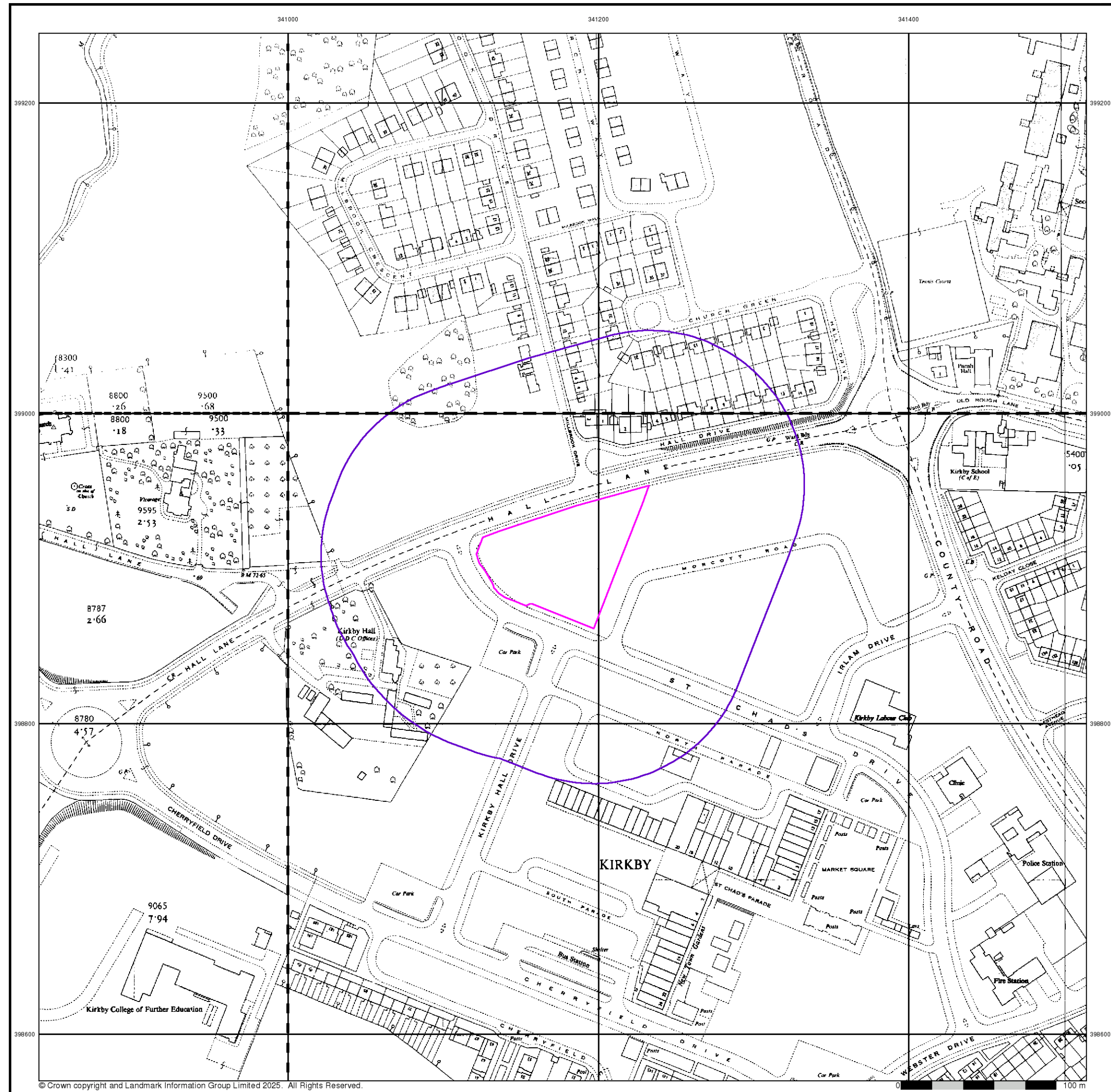
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Site Area (Ha): 0.56
Search Buffer (m): 100

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Ordnance Survey Plan

Published 1962

Source map scale - 1:2,500

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Map Name(s) and Date(s)

SJ4099 1962 12,500	SJ4199 1962 12,500
SJ4098 1962 12,500	SJ4198 1962 12,500

Historical Map - Segment A13

Order Details

Order Number: 369327796_1_1
Customer Ref: 1373.01
National Grid Reference: 341180, 398910
Slice: A
Site Area (Ha): 0.56
Search Buffer (m): 100

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Ordnance Survey Plan

Published 1966 - 1977

Source map scale - 1:1,250

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Map Name(s) and Date(s)

SJ4099SE 1968 1:1,250	SJ4199SW 1966 1:1,250	SJ4199SE 1968 1:1,250
SJ4098NE 1971 1:1,250	SJ4198NW 1977 1:1,250	SJ4198NE 1973 1:1,250

Historical Map - Segment A13

Order Details

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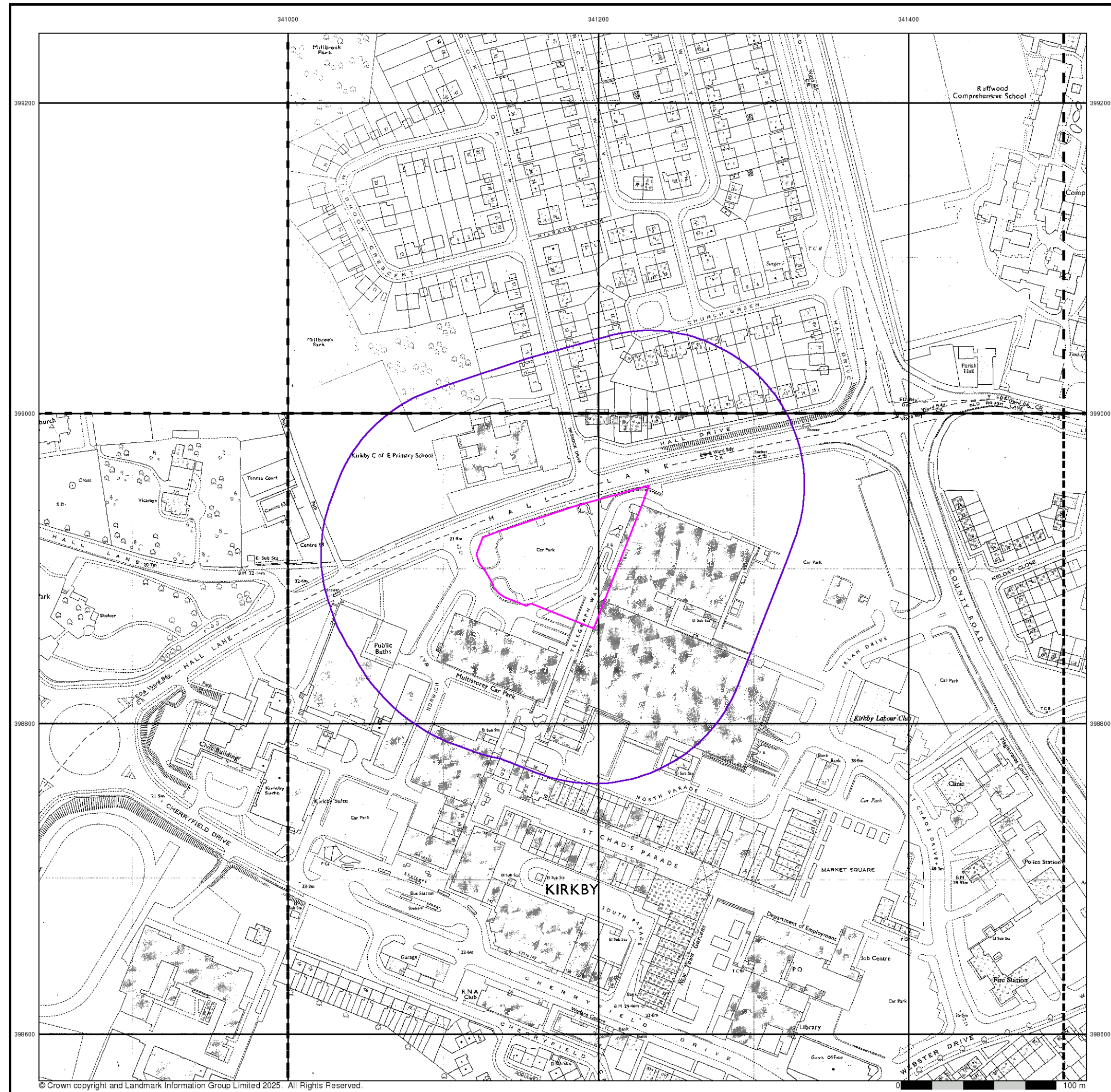
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Additional SIMs

Published 1984 - 1989

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)

	SJ4199SW 1984 1:1,250	SJ4199SE 1984 1:1,250
SJ4098NE 1984 1:1,250	SJ4198NW 1989 1:1,250	SJ4198NE 1984 1:1,250

Historical Map - Segment A13

Order Details

Order Number: 369327796_1_1
Customer Ref: 1373.01
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Slice: A
Site Area (Ha): 0.56
Search Buffer (m): 100

Site Details

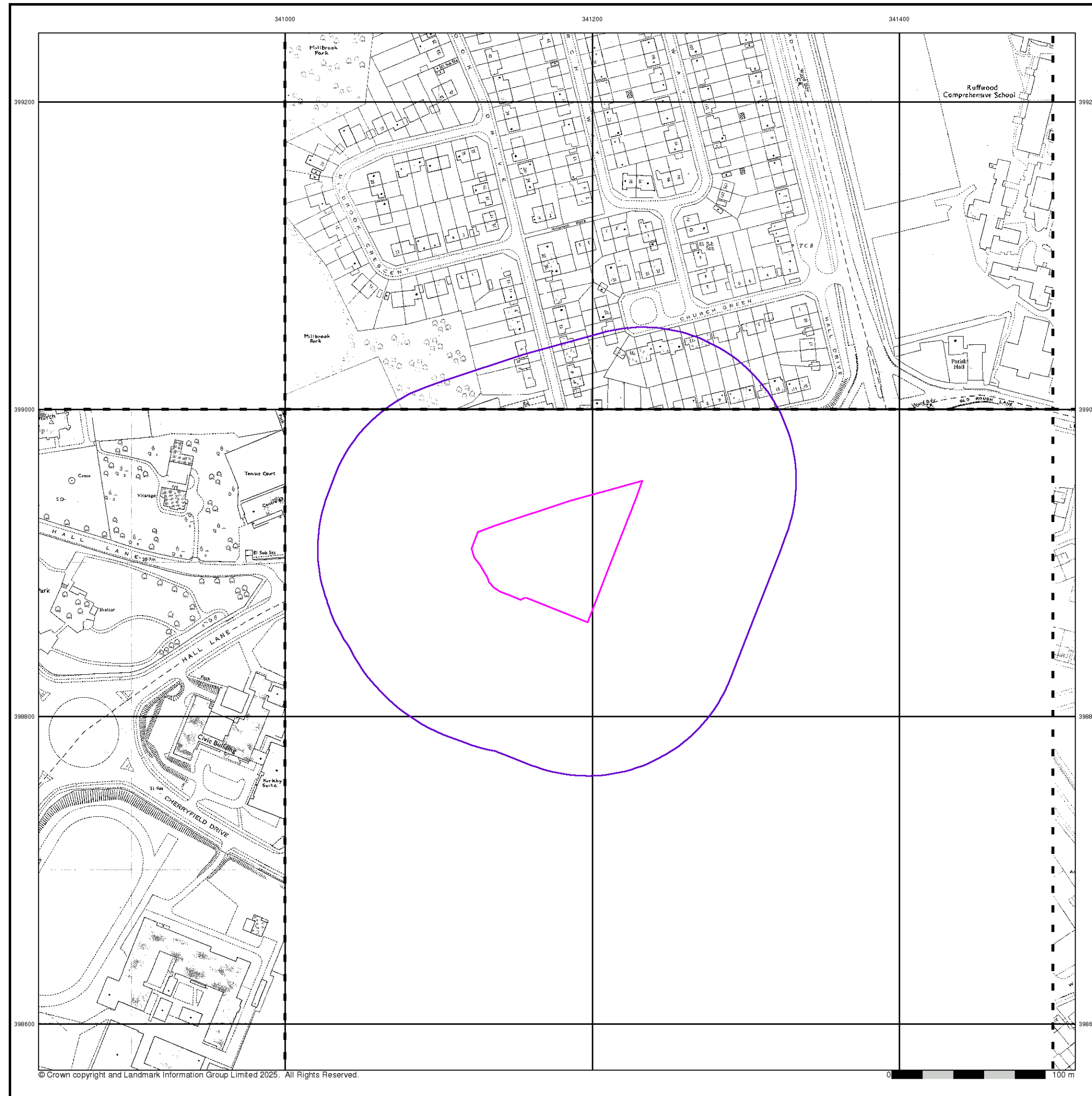
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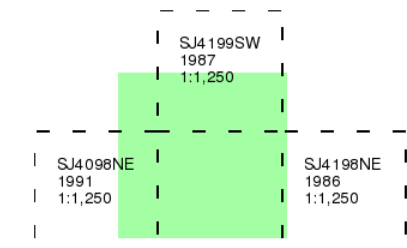
Additional SIMs

Published 1986 - 1991

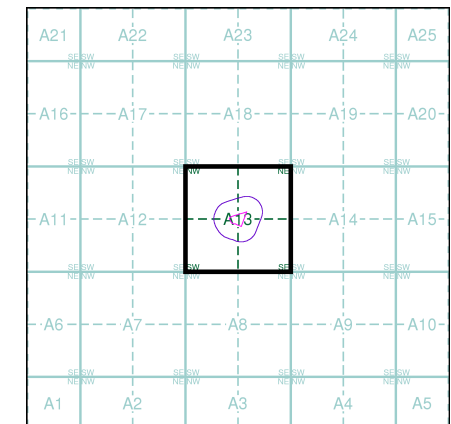
Source map scale - 1:1,250

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)



Historical Map - Segment A13



Order Details

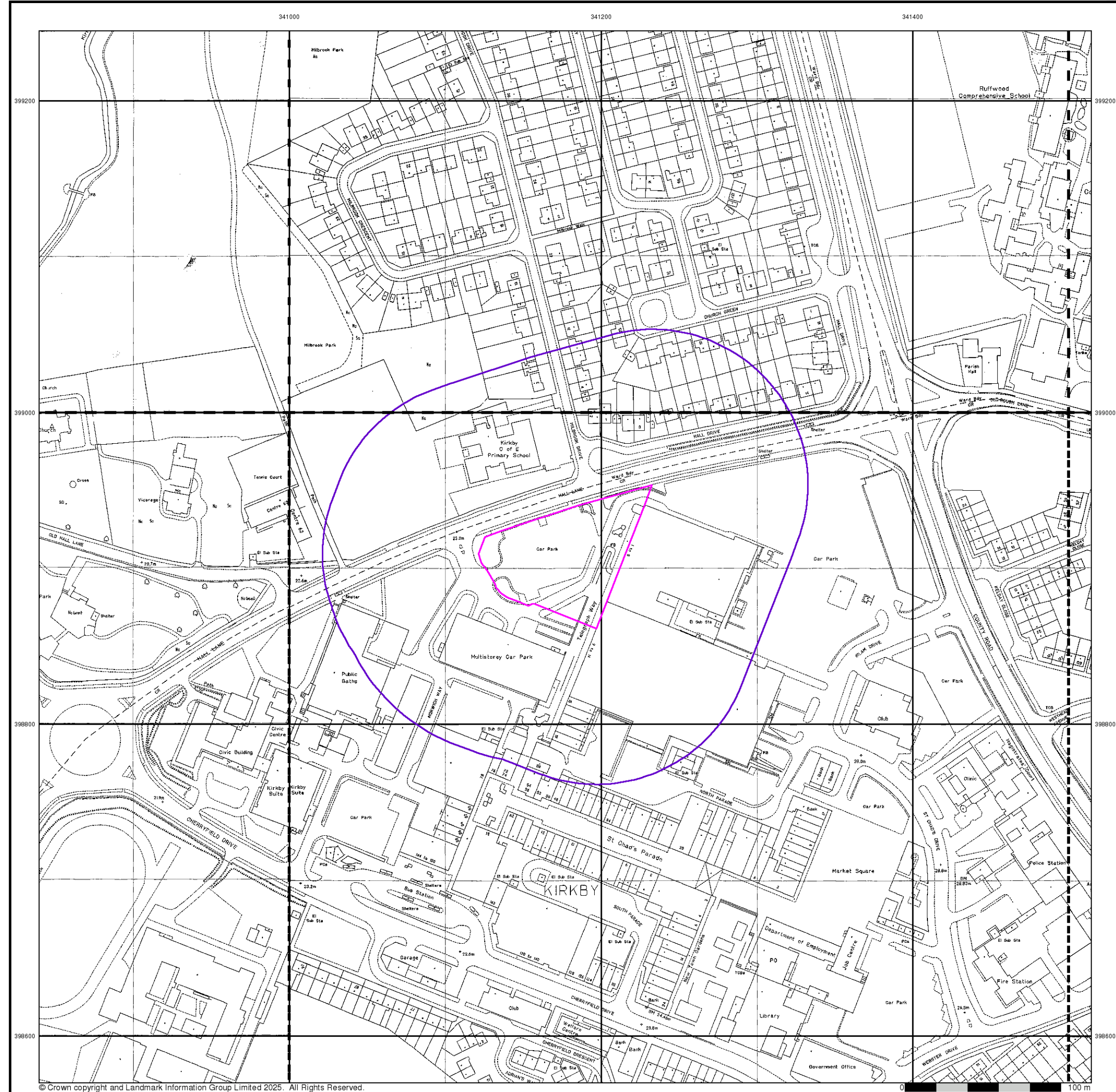
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Slice: A
Site Area (Ha): 0.56
Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1993

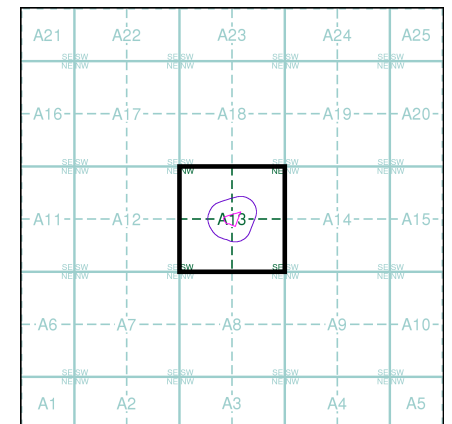
Source map scale - 1:1,250

'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)

SJ4099SE 1993 1:1,250	SJ4199SW 1993 1:1,250	SJ4199SE 1993 1:1,250
SJ4098NE 1993 1:1,250	SJ4198NW 1993 1:1,250	SJ4198NE 1993 1:1,250

Historical Map - Segment A13



Order Details

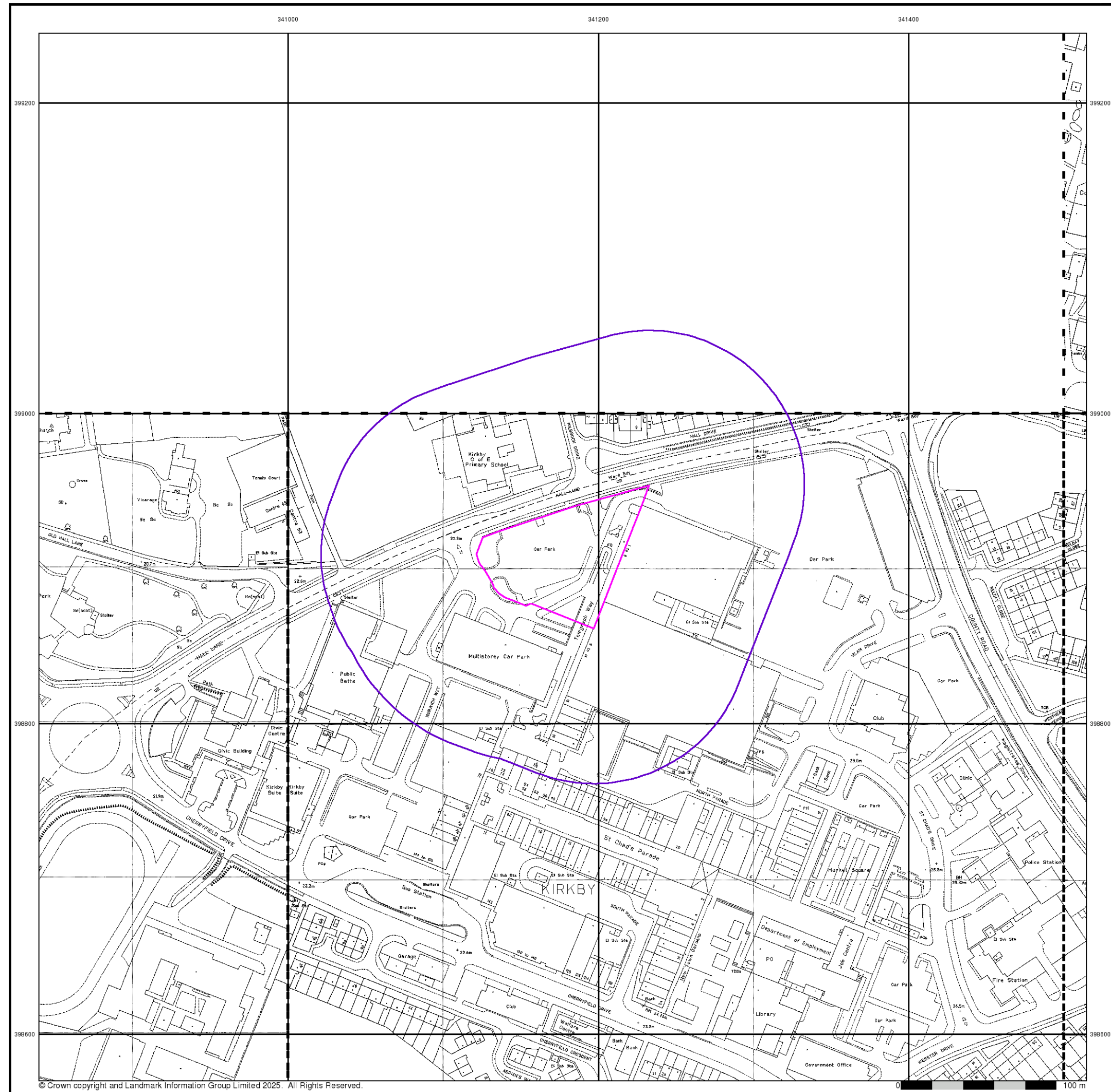
Order Number: 369327796_1_1
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Slice: A
Site Area (Ha): 0.56
Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1994 - 1995

Source map scale - 1:1,250

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Map Name(s) and Date(s)

		SJ4199SE
		1994
		1:1,250
SJ4098NE	SJ4198NW	SJ4198NE
1995	1994	1994
1:1,250	1:1,250	1:1,250

Historical Map - Segment A13

Order Details

Order Number: 369327796_1_1
Customer Ref: 1373.01
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Site Area (Ha): 0.56
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Site Details

Telegraph Way, KIRKBY TOWN CENTRE, L32 8US

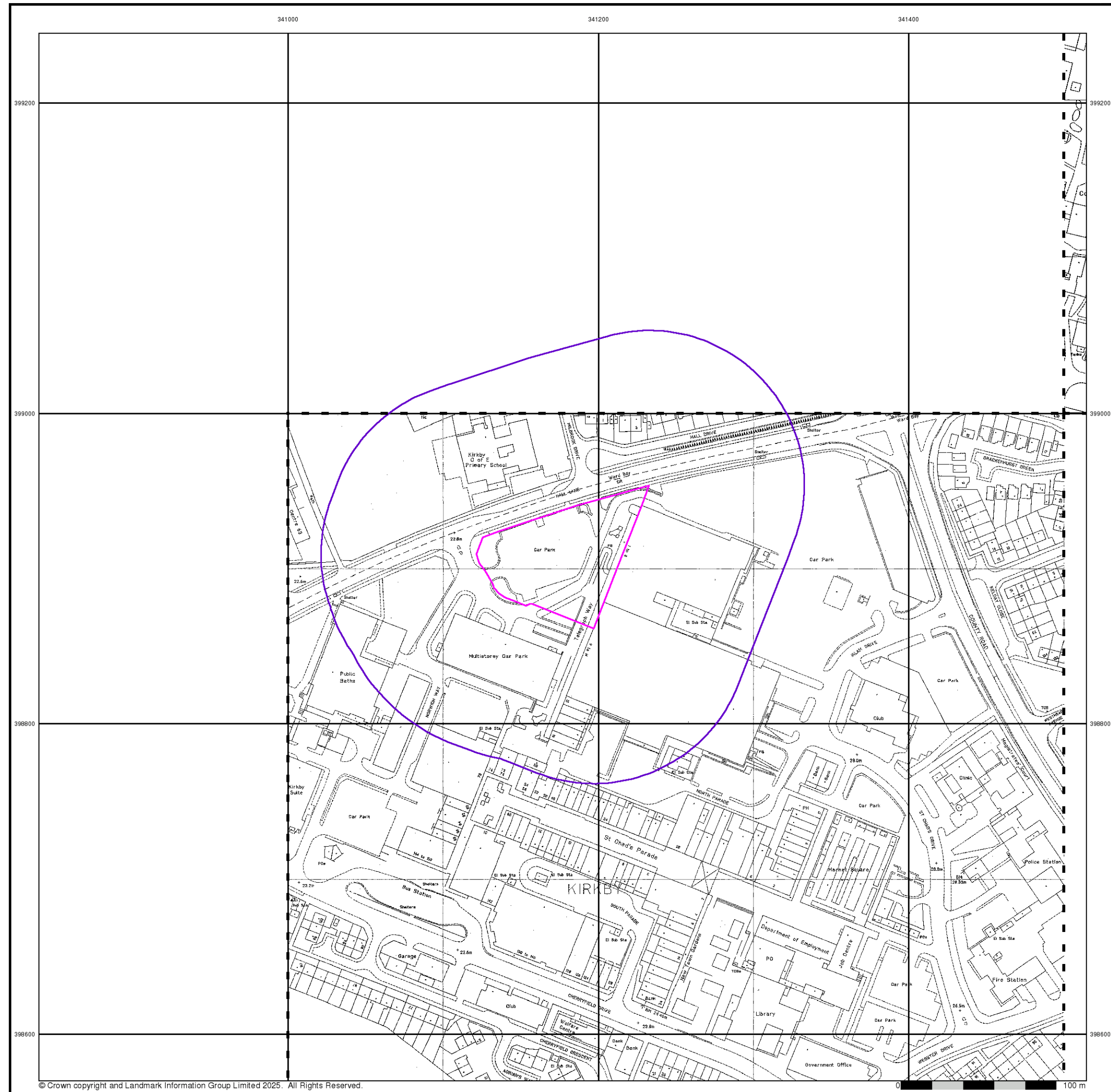
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Large-Scale National Grid Data

Published 1994 - 1995

Source map scale - 1:1,250

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Map Name(s) and Date(s)

SJ4198NW
1995
1:1,250

SJ4199SE
1994
1:1,250

Historical Map - Segment A13

Order Details

Order Number:	369327796_1_1
Customer Ref:	1373.01
National Grid Reference:	341180, 398910
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Site Details

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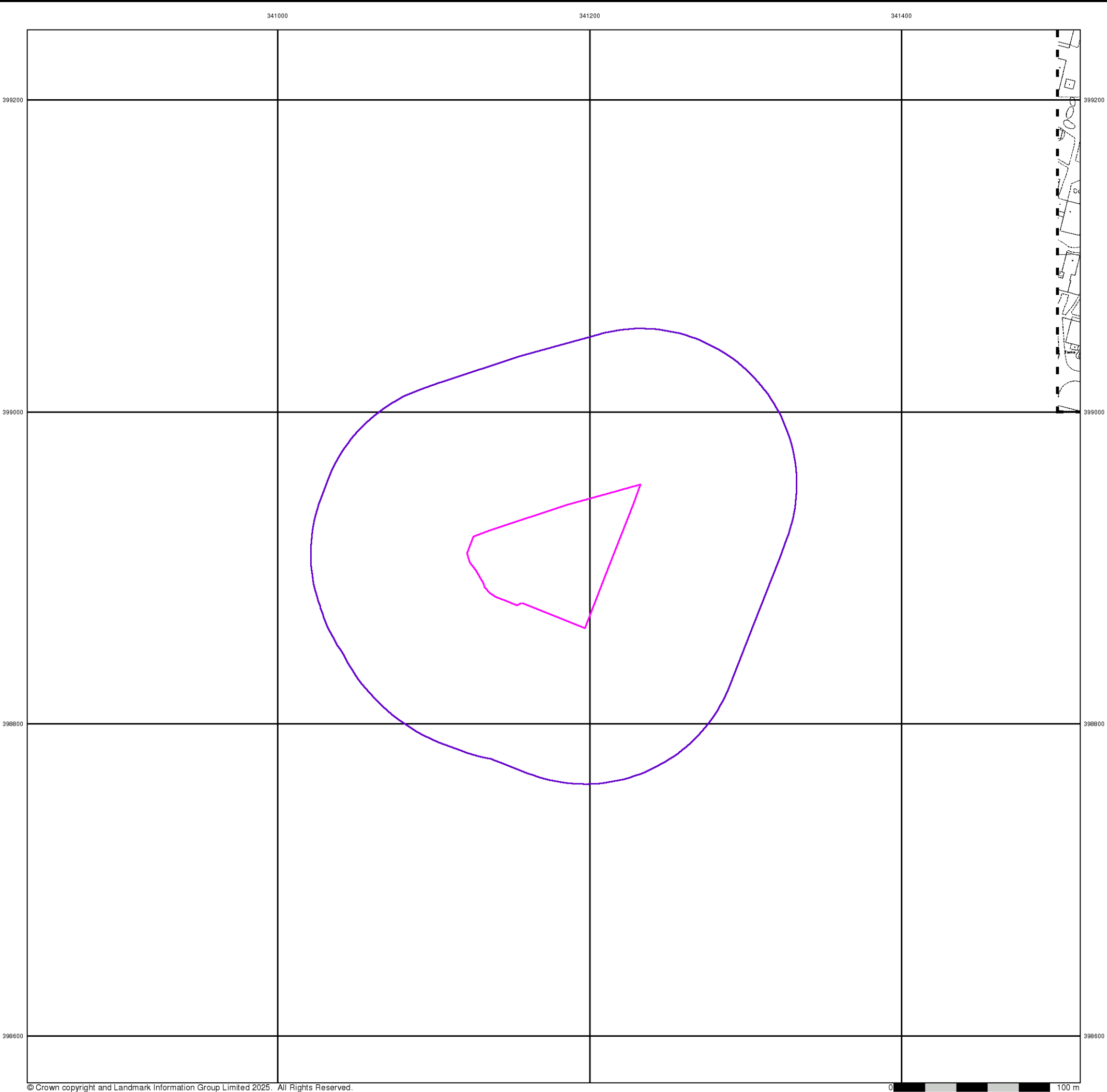
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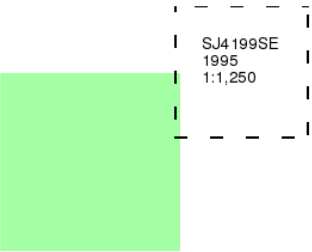
Large-Scale National Grid Data

Published 1995

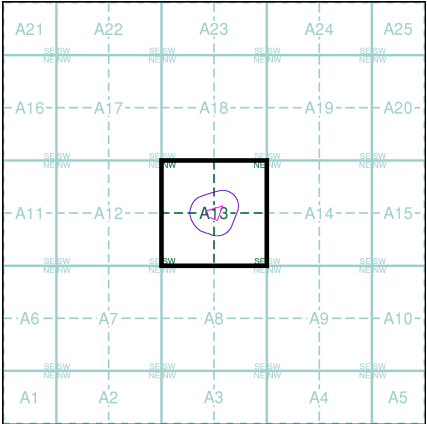
Source map scale - 1:1,250

'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)



Historical Map - Segment A13

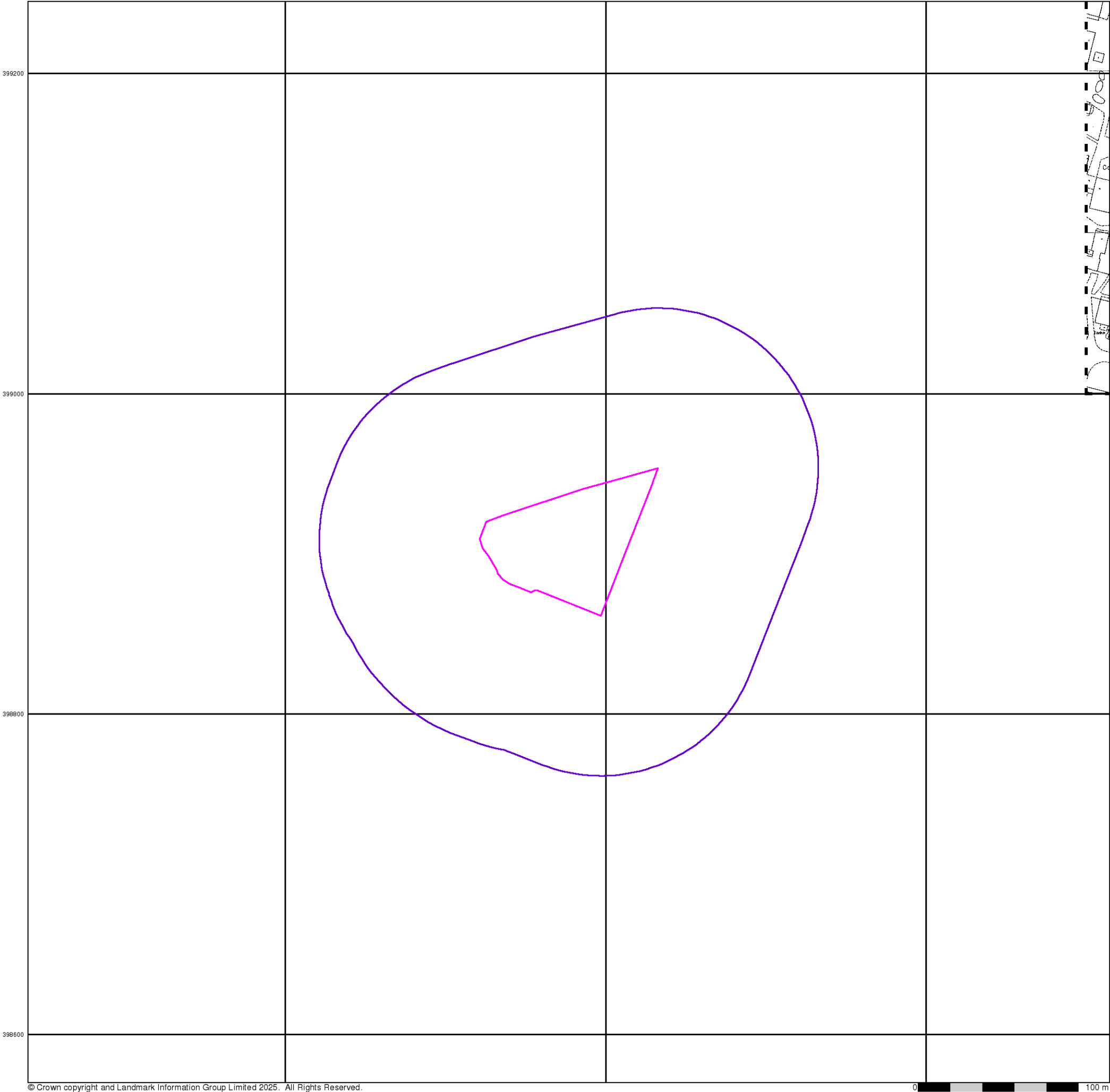


Order Details

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Customer Ref: 1373.01
National Grid Reference: 341180, 398910
Slice: A
Site Area (Ha): 0.56
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Site Details

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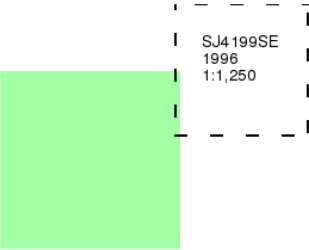
Large-Scale National Grid Data

Published 1996

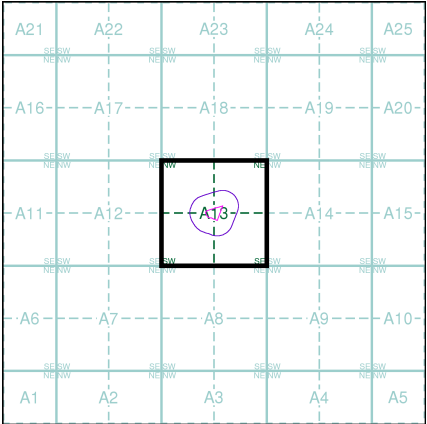
Source map scale - 1:1,250

'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)



Historical Map - Segment A13



Order Details

Order Number: 369327796_1_1
Customer Ref: 1373.01
National Grid Reference: 341180, 398910
Slice: A
Site Area (Ha): 0.56
Search Buffer (m): 100

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Telegraph Way, KIRKBY TOWN CENTRE, L32 8US



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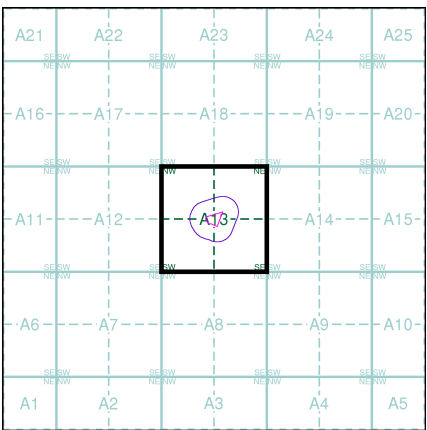
LANDMARK INFORMATION GROUP®

Historical Aerial Photography

Published 2001

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: 369327796_1_1
Customer Ref: 1373.01
National Grid Reference: 341180, 398910
Slice: A
Site Area (Ha): 0.56
Search Buffer (m): 100

Site Details

Telegraph Way, KIRKBY TOWN CENTRE, L32 8US

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Tel: 0844 844 9952
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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

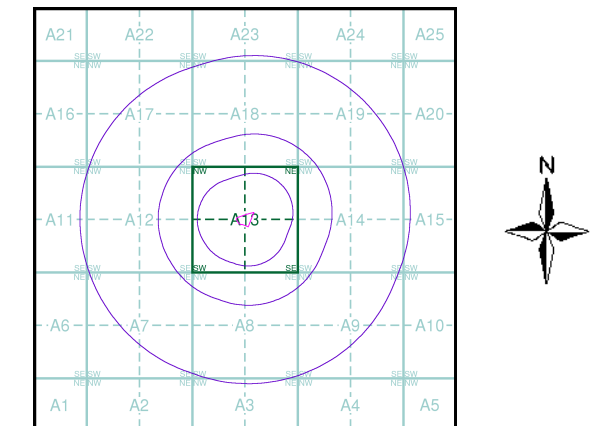
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:10,560	1850	3
Lancashire And Furness	1:10,560	1894	4
Lancashire And Furness	1:10,560	1909	5
Lancashire And Furness	1:10,560	1928	6
Lancashire And Furness	1:10,560	1928	7
Lancashire And Furness	1:10,560	1928	8
Lancashire And Furness	1:10,560	1938	9
Lancashire And Furness	1:10,560	1939	10
Ordnance Survey Plan	1:10,000	1955 - 1956	11
Ordnance Survey Plan	1:10,000	1956	12
Ordnance Survey Plan	1:10,000	1966 - 1968	13
Ordnance Survey Plan	1:10,000	1974 - 1978	14
Liverpool	1:10,000	1974	15
Ordnance Survey Plan	1:10,000	1986 - 1989	16
Ordnance Survey Plan	1:10,000	1990	17
10K Raster Mapping	1:10,000	1999	18
10K Raster Mapping	1:10,000	2006	19
VectorMap Local	1:10,000	2024	20

Historical Map - Slice A



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