



Park Lane, Knebworth

Preliminary Risk Assessment

Job Number
LKC251040

Report Date
29th April 2025

Client
Burleigh Dell Developments Ltd



www.thelkgroup.com

Ground Investigation | Land Remediation | Project Management



LK CONSULT

DOCUMENT QUALITY ASSURANCE

Site Address	Land Adjacent to Martlets, 66 Park Lane, Knebworth SG3 6PW.
Report Title	Phase 1 Preliminary Risk Assessment
Job Number	LKC 251040
Client	Burleigh Dell Developments Ltd.

Revision	0	Date of Issue	29/04/2025
Document Ref:	LKC251040-A1-PRA-Park Lane, Knebworth R0		
Status	Final.		
Written By	Michaela Sheppard.		
Approved By	Simon Johnson.		

DISCLAIMER

This report has been prepared by LK Consult Ltd (LKC) who have exercised such professional skill, care and diligence as may reasonably be expected of a properly qualified and competent consultant, experienced in preparing reports of a similar scope.

However, to the extent that the report is based or relies upon information contained in records, reports or other materials provided to LKC, which have not been independently produced or verified, LKC gives no warranty, representation, or assurance as to the accuracy or completeness of such information.

This report is prepared solely for the benefit of the client named above. It may not be relied upon by or submitted to a third party for their reliance for the purposes of valuation, mortgage, insurance, and regulatory approval until all invoices have been settled in full.

Those using this information in subsequent assessments or evaluations do so at their own risk.

TABLE OF CONTENTS

1.	Introduction	1
2.	Historical Review	2
3.	Environmental Setting	3
4.	Site Reconnaissance	5
5.	Preliminary Conceptual Model.....	6
5.1.	Introduction.....	6
5.2.	Potential Contaminants.....	6
5.3.	Potential Receptors	6
5.4.	Potential Pathways.....	7
5.5.	Preliminary Contamination Conceptual Model	7
6.	Preliminary Geotechnical Risk Assessment	10
7.	Summary Conclusions and Recommendations	11
7.1.	Summary Conclusions	11
7.2.	Recommendations	12

Figures

Figure 1 – Site Location and Boundary Plan

Figure 2 – Proposed Development Plan

Appendices

Appendix A – Historical Maps

Appendix B – Envirocheck Report

Appendix C – Historical BGS Boreholes

Appendix D – Zetica UXO Unexploded Bomb Risk Map

Appendix E – Risk Evaluation

Appendix F – References

1. Introduction

LK Consult Ltd (LKC) has been commissioned to carry out a Phase 1 Preliminary Risk Assessment (PRA) for Park Lane, Knebworth.

In accordance with current guidance (including LCRM¹ and the National Planning Policy Framework (NPPF)²), the PRA will include a site reconnaissance, site history, geology, hydrogeology, hydrology, mineral search, and a landfill search. Information gathered from the desk study and site reconnaissance will be used to develop a contamination conceptual model for the site.

In addition, the information gathered will be used to identify potential geotechnical constraints associated with the redevelopment of the site.

Based on the findings of this report, an appropriate site investigation can be derived, if required.

A summary of the site details is presented in Table 1-1. Figure 1 indicates the site location and boundary plan. Figure 2 indicates the proposed development.

Location	Land to the north of Park Lane and to the east of the A1, Knebworth. Site is located approximately 0.5km west of Knebworth Train Station. Centred at approximate National Grid Reference 524315E, 220278N.
Area	7,900m ² .
Topography	Shallow slope upwards towards the north of the site between 115mAOD to 120mAOD, at the same topography as adjacent land.
Current Site Use	Soft landscaping associated with adjacent house (66 Park Lane). A hardstanding road is present in the central south of the site.
Proposed Development	9no. residential houses including gardens, soft landscaping, access road and associated infrastructure.

Table 1-1: Summary of site details.

2. Historical Review

In compiling the site history, LKC consulted Envirocheck historical mapping (Appendix A) and aerial photography.

Table 2-1 summarises features on site. Table 2-2 summarises potentially contaminative land uses within approximately 50m and potentially infilled features within approximate 250m.

Site Features	Location on Site	Dates Present		Comments
		From	To	
Vacant Land	Whole site	1881	1899	Site developed by 1923.
Vegetated garden associated with Martlets, 66 Park Lane.	Whole Site	1923	2025	Vegetation covers the majority of the site.
Orchard	NW	1923	1970	Orchard indicated in the north-west of the site from 1923 to 1970. No longer present from 1975 mapping.

Table 2-1: Summary of site features. Dates are based on available historical map editions.

Surrounding Area Features	Distance (m)	Direction	Dates Present		Comments
			From	To	
Gravel Pit	145	E	1881	1899	No longer present by 1923 mapping.
Pond	185	E	1881	1899	No longer present by 1923 mapping.
Pond	220	N	1881	2024	No longer present by 2025 mapping.

Table 2-2: Summary of potentially contaminative features within 50m and potentially infilled features within 250m. Dates are based on available historical map editions.

3. Environmental Setting

A summary of environmental settings is presented in Table 3-1, based on a review of available environmental data.

Categories ^(data sources)			Details
Geology ^{1, 2, 3}	Artificial Ground		No BGS recorded artificial ground.
	Superficial Deposits		Clay with Flints formation (Clay, silt, sand and gravel).
	Bedrock		Lewes Nodular Chalk formation and Seaford Chalk Formation (Chalk).
	BGS Logs (100m)		BH Ref: TL22SW143, 55m W, topsoil to 0.76m, stiff brown sandy clay and gravel with traces of peat to 3.20mbgl, weathered chalk to 11.81m. BH Ref: TL22SW247, 60m SW, topsoil to 0.2m, made ground with bituminous material to 1.60m, firm brown silty sandy clay to 6.65mbgl, weathered chalk to 10.05m. BH Ref: TL22SW255, 74m SW, made ground very sandy silty clay with gravel to 2.36m, white weathered chalk to 20mbgl. BH Ref: TL22SW256, 86m SW, made ground slightly sandy silty gravelly clay to 0.50m, white moderately weathered chalk to 20m.
Hydro-geology ¹	Aquifer Designation	Superficial	Unproductive Strata.
		Bedrock	Principal Aquifer.
	Source Protection Zone (SPZ)		Total Catchment (Zone 3).
	Groundwater Abstractions (100m)		None.
Hydrology ¹	Surface Watercourses (100m)		None.
	Flooding Risk ^{1, 4}		Flood Zone 1.
	Surface Water Abstractions (100m)		None.
	Discharge Consents (onsite)		None.
	Pollution Incidents (onsite)		None.
Minerals & Mining ^{1,5}	Coal Mining		Not within a Coal Reporting Area. Not within a Development High Risk Area.
	Surface Mineral Extractions (250m)		None.
	Non-Coal Mining Area		No hazard.
Ground Stability ¹	Collapsible Ground		Very low hazard.
	Compressible Ground		No hazard.
	Ground Dissolution		Moderate hazard.
	Landslide		Very low hazard.
	Running Sand		No hazard.
	Shrinking / Swelling Clay		Low hazard.

Table 3-1: Summary of the environmental setting.

Notes: Distance in brackets is the distance from site that features are included. Where no distance given, features relate to onsite only.

Data Sources:

1 Envirocheck Report (Appendix A & B).

2 BGS Sheet 221 1:50,000

3 <http://mapapps2.bgs.ac.uk/geoindex/home.html>

4 <https://flood-map-for-planning.service.gov.uk/location>

5 The Mining Remediation Authority Web Mapping Services (WMS) / <http://coal.decc.gov.uk/en/coal/cms/publications/data/map/map.aspx>.

Categories ^(data sources)		Details
Landfill Sites (250m) ¹	Known / Registered	None.
	Potentially Infilled Land (non-water and water), based on Envirocheck Report	No features identified within 250m.
	Potentially Infilled Sites, based on LKC historical review	3no. features: See Table 2-1 and Table 2-2.
Radon Potential ¹		<1% of homes above Action Level. No protective measures are necessary in the construction of new dwellings or extensions.
Designated Sites (50m) ¹		Adopted Green Belt Onsite. Nitrate Vulnerable Zone Onsite.
Contemporary Trade Directory (50m) ¹		None.
Fuel Station Entries (50m) ¹		None.
Unexploded Ordnance Risk (UXO) – Zetica Risk Map	Zetica Risk Map ⁶	Bomb Risk: Low. Strategic Targets: None identified within 100m.

Table 3-2(Continued): Summary of the environmental setting.

Notes: Distance in brackets is the distance from site that features are included. Where no distance given, features relate to onsite only.

Data Sources:

1 Envirocheck Report (Appendix A & B).

6 Zetica UXO Unexploded Bomb Risk Map (Appendix D).

4. Site Reconnaissance

A site reconnaissance was carried out on 02/04/2025.

Relevant features identified on site are summarised below:

The majority of the ground cover on site is vegetation, excluding the hardstanding footpath through the centre of the site, and the driveway into the site. The site features a woodland area in the south of the site, a bonfire/fly tipping point in the northeastern corner of the site, and a partial building in the central northern area of the site. The site slopes up to the north in alignment with the local topography. The site is accessible through a residential driveway off Park Lane. No visual or olfactory evidence of contamination identified.

The surrounding area comprises Park Lane directly south of the site with an additional residential property across the road. The north, east and west of the site are bounded by vacant fields.

Site photographs are provided in Table 4-2.

	
Photograph 1: View of south of the site.	Photograph 2: View of site from NW.
	
Photograph 3: Existing building north of the site.	Photograph 4: View of fly tipping heap/ bonfire heap in the northeastern corner of the site.

Table 4-1: Site photographs.

5. Preliminary Conceptual Model

5.1. Introduction

The aim of the conceptual model is to provide a preliminary assessment of the likelihood of a pollutant linkage for each potential combination of contaminant, pathway, and receptor. A conceptual model can be used to make an informed decision on the contamination risks associated with the site and whether further site investigation work is required.

The sections below are therefore divided into potential contaminant, potential pathway and potential receptor as described in LCRM³, on the premise that, if there is no pollutant linkage, then there will be no risk to the receptor. The final section provides an assessment of the potential pollutant linkages that may still be present on the site if redevelopment were to occur.

5.2. Potential Contaminants

Potential viable contamination sources are detailed in Table 5-1. These are split into onsite sources, offsite sources and underlying geology.

Potential Source	Contaminants
On site	
Shallow made ground below some or all of site (e.g., site levelling)	Assuming predominantly reworked natural soils with possible heavy metals, sulphates, PAHs ⁴ . Not expected to be a significant source of gas given anticipated depth and nature of made ground.
Orchard	Given the age of the orchard, synthetic pesticides are not considered a viable source. Typical heavy metal-based pesticides may have been used. Not anticipated to be a commercial orchard. Only low density / intensity orchard with no significant pesticide use expected.
Surrounding Area	
Offsite potentially infilled features within 250m (ponds, gravel pit)	Given size, distance and age of features, there is not considered to be a source of hazardous gas (principally carbon dioxide and methane).
Underlying Geology	
Underlying Chalk Formation	Chalk only gives rise to small volumes (low production) of carbon dioxide; therefore, is not considered to be a viable source of ground gas ⁵ .
Underlying Peat (identified in local area from BGS mapping and borehole logs)	Ground gas (carbon dioxide and methane).
Radon Affected Area	<1% of homes above Action Level. No protective measures are necessary in the construction of new dwellings or extensions. No further consideration required.
Superficial	Clay with Flints Formation. No significant contamination sources identified.

Table 5-1: Potential contamination sources.

5.3. Potential Receptors

Potential receptors are detailed in Table 5-2.

Receptors	
Human health	Future site users (including residents, visitors, and site workers). Offsite land users.
Controlled waters	Principal Aquifer. No surface water within influencing distance.
Buildings.	
Potable water pipes.	

Table 5-2: Potential receptors.

5.4. Potential Pathways

Potential pathways are detailed in Table 5-3.

Pathways		
Soil	Human health ⁶ (residential land use: houses with private gardens)	Ingestion of soil. Ingestion of soil-derived indoor dust. Ingestion of contaminated home-grown produce. Ingestion of soil attached to home-grown produce. Dermal contact with soil. Dermal contact with soil-derived indoor dust. Inhalation of soil-derived outdoor dust. Inhalation of soil-derived indoor dust. Inhalation of vapours outside. Inhalation of vapours inside.
Soil	Windblown dust and fibres to adjacent receptors.	
Soil	Direct contact with receptors (services).	
Groundwater	Infiltration into the ground, through potentially contaminated material (contamination possibly going into solution).	
Groundwater and gas	Migration through potentially permeable strata and preferential pathways. Superficial (Clay) likely to be low permeability. Bedrock (Chalk) likely to be relatively permeable. No preferential pathways are anticipated.	
Gas	Migration into buildings (e.g., via services) and accumulation of gases in confined spaces (potentially causing explosion if methane is present).	

Table 5-3: Potential pathways.

5.5. Preliminary Contamination Conceptual Model

The Preliminary Contamination Conceptual Model is illustrated in Table 5-4.

Generic potential pollutant linkages are described along with an assessment of the risk based upon guidance on probabilities and consequences outlined in CIRIA C552⁷.

In order to assess the potential risk for each pollutant linkage, an assessment of the magnitude of the potential consequence (severity) of the risk occurring and the magnitude of the probability (likelihood) of the risk occurring has been considered and classified. This is based on the guidance provided in CIRIA C552 and further details including a risk matrix is provided in Appendix E.

The probability is based on the site history, site reconnaissance, environmental setting, pathways, and receptors.

Reasonable worst-case consequence has been assumed at this stage.

Where LKC identified a low to very low risk, targeted or low-density intrusive investigation work, a watching brief (during construction work) or no investigation work will be recommended. This will be dependent on the nature of the site and the proposed development.

Where the risk falls into the moderate/low risk, LKC will undertake an assessment to establish what further work will be required.

Where LKC identifies a moderate or higher risk, intrusive investigation work or precautionary remediation is recommended.

Recommendations are discussed further in Section 7.

Due to the minor consequence associated with the phytotoxic effect to flora (i.e., loss of plants in a landscaping scheme), the overall risk for the majority of sites will be very low to low. Where soils contain significant concentrations of heavy metals, in general there will be other pollutant linkages (i.e., the risk to human health) that will trigger the requirement for remediation (e.g., a clean environmental cover system). As such the risk to flora associated with phytotoxic contaminants will not be considered further.

The risk to buildings associated with elevated sulphate will be considered as part of the geotechnical assessment and will not be included in the contamination risk assessment.

It should be noted that there may be risk from short term exposure from contaminated soil to site workers. The Preliminary Contamination Conceptual Model deals with long term exposure to key receptors. Acute risks can be easily mitigated by good environmental management of the site during site works. Standard health and safety precautions (as per HSE guidance⁸) should be adopted by all workers involved with site enabling and construction works. Therefore, this receptor is not considered in the contamination conceptual model.

PL	Contaminants of Concern (source)	Pathway	Receptor	Probability	Consequence	Risk	Assessment and Recommendations
1	Heavy metals, PAHs, (made ground, orchard)	Dermal contact. Inhalation of soil, fibres, and dust. Ingestion of soils, dust, home-grown produce, soil attached to home-grown produce. Windblown dust.	Future site users. Offsite receptors.	Unlikely	Medium	Low	No significant source of potential contamination identified. Recommendation: Intrusive investigation required to include soil sampling to confirm absence.
	Heavy metals (orchard)			Low Likelihood	Medium	Moderate / Low (localised)	Source of potential contamination in the north-west corner of the site. Given the age of the orchard, likely use of metal-based pesticides. Recommendation: Intrusive investigation required to include soil sampling.
2	PAHs such as naphthalene (made ground)	Inhalation of vapours. Migration via permeable strata and preferential pathways.	Future site users. Offsite receptors.	Unlikely	Medium	Low	Significant volatile contamination not anticipated based on history. Recommendation: Intrusive investigation required to include soil sampling.
3	Hazardous / ground gas: methane, carbon dioxide (Underlying Chalk, Underlying Peat, Pond, Gravel Pit)	Migration via permeable strata and preferential pathways. Inhalation of gas. Explosion in confined spaces.	Future site users. Buildings. Offsite receptors.	Unlikely	Severe	Moderate / Low	Depth of made ground not expected to pose a significant risk. No significant source of gas within 250m of site. Recommendations: Intrusive investigation required. Gas monitoring subject to ground conditions encountered.
4	PAHs, Metals (made ground)	Surface run-off. Migration via permeable strata and preferential pathways. Perched waters migration.	Groundwater	Unlikely	Medium	Low	Groundwater unlikely to be impacted due to unproductive superficial strata. Recommendations: No further assessment required.
5	Naphthalene (made ground)	Ingestion of tainted water supply.	Future site users. Water pipes.	Unlikely	Medium	Low	Made ground possible however significant contamination not expected at possible pipeline depths of 0.75-1.35mbgl. Recommendation: Intrusive investigation to confirm ground conditions. Sampling required if made ground present at pipeline installation depths.

Table 5-4: Preliminary Contamination Conceptual Model.

Notes: PL = Pollutant Linkage. Contaminant of Concern (CoC) - See Table 5-1 for contamination sources. See Section 6 for recommendations.

6. Preliminary Geotechnical Risk Assessment

Table 6-1 summarises the possible geotechnical constraints of the site, based on the site history, environmental settings and site reconnaissance. Investigation work will be required to confirm the risks and provide a detailed geotechnical assessment and foundation design.

Coal Mining	Site is not within a Development High Risk Area. No further assessment required.
Slope Stability	Gradual increase of slope towards the north of the site between 115mAOD to 120mAOD. No risk identified.
Envirocheck Ground Stability Hazards	Moderate Risk identified for Ground Dissolution. Further action required (see below).
Made Ground	Unknown depth and constituent of made ground across the site.
Superficial	Clay anticipated below the site.
Bedrock	Strength and extent of weathering unknown. Unknown depth to bedrock.
Groundwater	Unknown depth and variability of groundwater.
Plasticity	Plasticity of clay deposits should be confirmed, particularly where trees are present or proposed, to identify the shrink / swell risk.
Sulphate	Unknown sulphate content of the made ground and natural.
Road / Pavement Design	Unknown CBR values for footpath and road design.

Table 6-1: Summary of geotechnical constraints.

7. Summary Conclusions and Recommendations

7.1. Summary Conclusions

Table 7-1 summarises the site details, historical review, environmental settings and site reconnaissance.

Current Site Use & Pertinent Features	Soft landscaping associated with 66 Park Lane. A hardstanding road is present in the central south of the site.
Proposed Development	9no. residential houses including gardens, soft landscaping, access road and associated infrastructure.
Main Historical Features	Onsite: Vacant land, orchard, vegetated garden. Surrounding Area: 2no. Ponds, Gravel Pit.
Geology / Hydrogeology	Artificial: No BGS recorded artificial. Superficial: Clay with Flints formation (Clay, silt sand and gravel). Unproductive Aquifer. Bedrock: Lewes Nodular Chalk formation and Seaford Chalk Formation (Chalk). Principal Aquifer.
Site Reconnaissance	Hardstanding path runs through the centre of the site. Hardstood driveway into the property and in the southern central region of the site. The south of the site features a small woodland area. A bonfire/fly tipping area is located in the northeastern corner of the site. The site is accessible through a residential driveway off Park Lane. No visual or olfactory evidence of contamination identified. Park lane and residential housing to the south. The northeast and west of the site are bounded by vacant fields.
Landfills / Infilled ground	No recorded landfills. Potentially infilled ground identified.

Table 7-1: Summary of site details, historical review, environmental settings and site reconnaissance.

A preliminary contamination conceptual model has been produced by LKC, which is summarised in Table 7-2.

Pollutant Linkage	Contaminants	Risk
PL1: Contaminants posing a risk to receptors via dermal contact, ingestion and inhalation (of soil, dust, fibres and home-grown produce).	PAHs, heavy metals.	Low
	Heavy metals (orchard)	Moderate / Low
PL2: Volatile contaminants posing a risk to receptors via the inhalation of vapours.	PAHs	Low
PL3: Gas posing a risk to buildings and receptors via the migration of gas into building causing explosion and asphyxiation.	Hazardous Gas / Ground Gas	Moderate / Low
PL4: Mobile contamination posing a risk to controlled waters via the migration through permeable strata.	PAHs, Metals	Low
PL5: Organic contaminants posing a risk to receptors.	Naphthalene	Low

Table 7-2: Summary risk table.

A preliminary geotechnical assessment has been carried out by LKC. Table 7-3 summarises the geotechnical constraints.

Coal Mining	Site is not within a Development High Risk Area. No further assessment required.
Slope Stability	Gradual increase of slope towards the north of the site between 115mAOD to 120mAOD. No risk identified.
Made Ground	Unknown depth and constituent of made ground across the site.
Superficial	Clay anticipated below the site.
Bedrock	Strength and extent of weathering unknown. Unknown depth to bedrock.
Groundwater	Unknown depth and variability of groundwater.
Plasticity	Plasticity of clay deposits should be confirmed, particularly where trees are present or proposed, to identify the shrink / swell risk.
Sulphate	Unknown sulphate content of the made ground and natural.
Road / Pavement Design	Unknown CBR values for footpath and road design.

Table 7-3: Summary of geotechnical constraints.

Based upon the available information, LKC conclude there is a viable contamination and geotechnical risk and therefore further assessment is recommended.

7.2. Recommendations

Recommendations are provided in Table 7-4.

Contamination Status	There is sufficient information on the potential contaminative status of the site to allow conditional approval of a planning application, based on the proposed end use detailed in the PRA.
Further Assessment Recommendations	Phase 2 intrusive investigation required. Phase 2 investigation to be carried out in line with current guidance, including BS10175 ⁹ , BS5930 ¹⁰ CIRIA C665 ¹¹ , RB17 ¹² and BS8485 ¹³ . Targeting investigation locations in areas of concern (contamination and geotechnical).
Local Authority Approval	Conditional planning approval is likely to require an agreed detailed scope of work.
Type of Investigation Work	Boreholes, with supplementary hand dug pits.
PL 1, 2, 5	Intrusive investigation work recommended to confirm ground conditions across the site. Testing of contaminants of concern based on preliminary conceptual model and field observations (PID tests and visual / olfactory evidence).
PL 3	Intrusive investigation to confirm ground conditions. If significant gas source and pathway identified, gas monitoring required. Gas monitoring: monitoring wells to be installed in boreholes, monitoring frequency and period subject to anticipated risk.
PL 4	No further assessment required.
Reporting	Information from the above can be used to carry out a contamination and geotechnical assessment and provide a remediation strategy for the site.

Table 7-4: Recommendations.

Further considerations are summarised in Table 7-5.

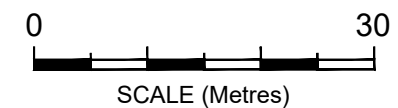
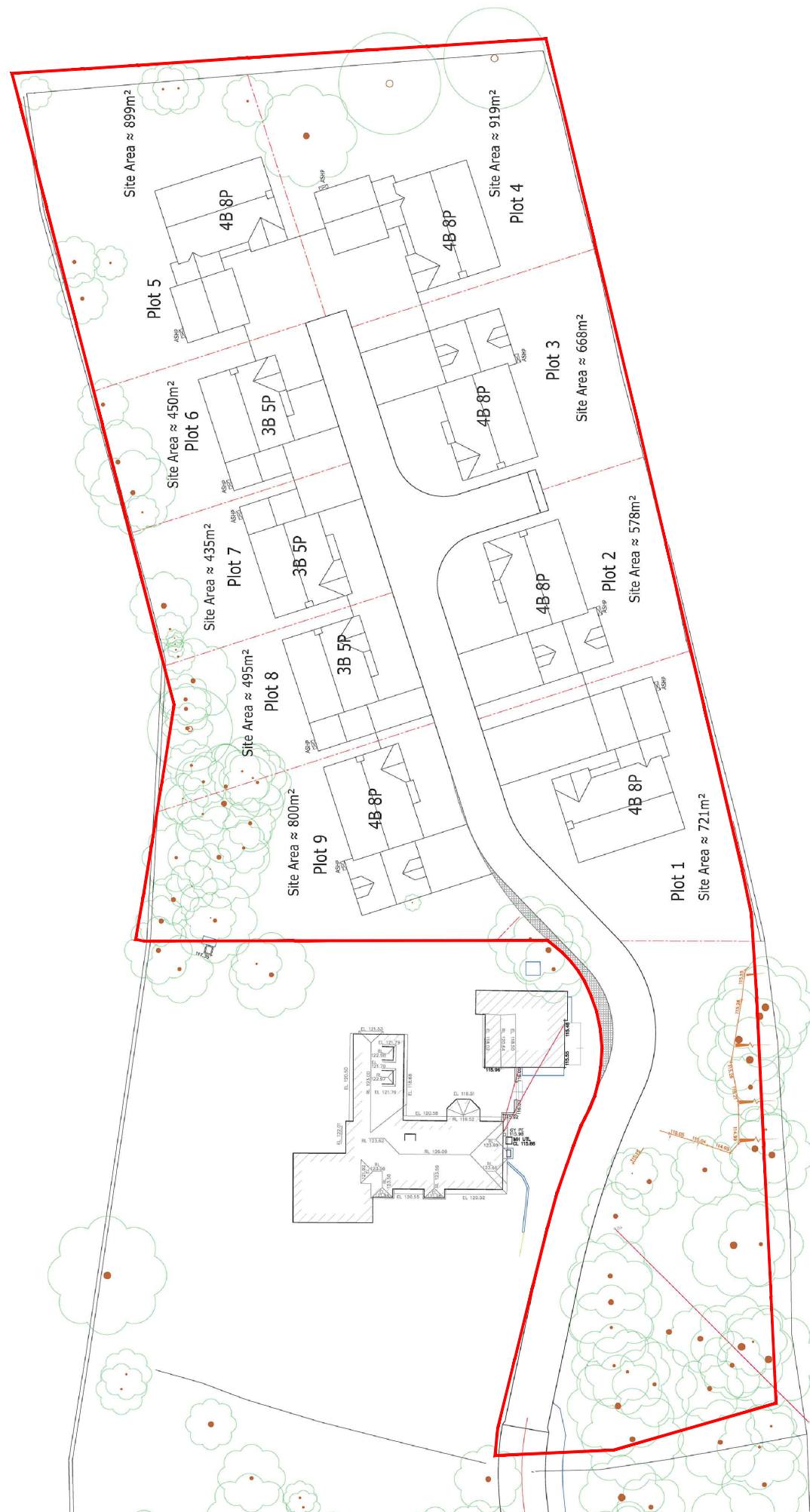
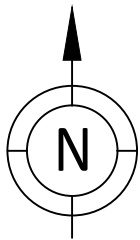
Waste Characterisation	As part of earthworks, the classification of the soils will be required to determine the most appropriate waste disposal route.
-------------------------------	---

Table 7-5: Further considerations.

Figures



Client: Burleigh Dell Developments Ltd				Title: Site Location & Boundary Plan		 LK CONSULT	
Site: Park Lane, Knebworth				Scale (see scale bar): 1:25,000 & 1:2,000 @ A4			
Drawn By: No.: LKC251040		Checked By: MB		Drawn: April 2025			
				Figure: 1		Revision:	



KEY



Sampling Locations and features annotated by LK Consult Ltd are approximate and are based upon observed measurements unless otherwise stated. Do not scale from this drawing and work from marked dimensions only. All dimensions and features should be confirmed on site by the Contractor. Where this drawing includes information provided to LK Consult Ltd by others, LK Consult Ltd gives no warranty, representation or assurance as to the accuracy of such information.



Client:
Burleigh Dell Developments Ltd

Site:
Park Lane, Knebworth

Title:
Proposed Development Plan

Job No.: LKC251040	Scale (See Scale Bar): See Scale Bar	Figure: 2	Revision:
Drawn By: AC	Checked By: MS	Drawn: Mar 2025	

Appendix A – Historical Maps

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 Fenced/Un-Fenced

Minor Roads Fenced/Un-Fenced

Sunken Road

Raised Road

Road over Railway

Railway over River

Railway over Road

Level Crossing

Road over River or Canal

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

Coppice

Bracken

Heath

Rough Grassland

Marsh

Reeds

Saltings

Building

Glasshouse

Sloping Masonry

Pylon

Electricity Transmission Line

Pole

Cutting

Embankment

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
Shown only when not coincident with other boundaries

Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS Boundary Post or Stone

Ch Church

CH Club House

F E Sta Fire Engine Station

FB Foot Bridge

Fn Fountain

GP Guide Post

MP Mile Post

MS Mile Stone

Pol Sta Police Station

PO Post Office

PC Public Convenience

PH Public House

SB Signal Box

Spr Spring

TCB Telephone Call Box

TCP Telephone Call Post

W 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

MHW(S) Mean high water (springs)

MLW(S) 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

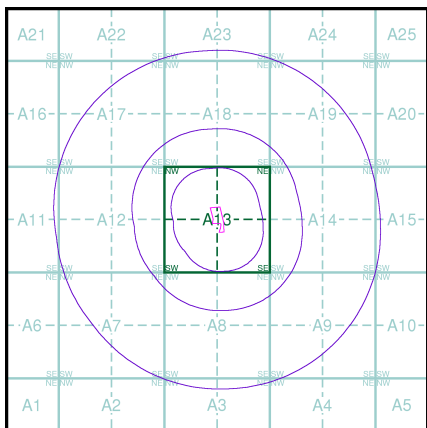


LK CONSULT

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Hertfordshire	1:10,560	1884	2
Hertfordshire	1:10,560	1899	3
Hertfordshire	1:10,560	1925	4
Hertfordshire	1:10,560	1925	5
Hertfordshire	1:10,560	1946 - 1950	6
Hertfordshire	1:10,560	1950	7
Ordnance Survey Plan	1:10,000	1960	8
Ordnance Survey Plan	1:10,000	1964	9
Ordnance Survey Plan	1:10,000	1970 - 1975	10
Ordnance Survey Plan	1:10,000	1975	11
Ordnance Survey Plan	1:10,000	1987 - 1989	12
Ordnance Survey Plan	1:10,000	1993	13
10K Raster Mapping	1:10,000	1999	14
10K Raster Mapping	1:10,000	2006	15
VectorMap Local	1:10,000	2024	16

Historical Map - Slice A



Order Details

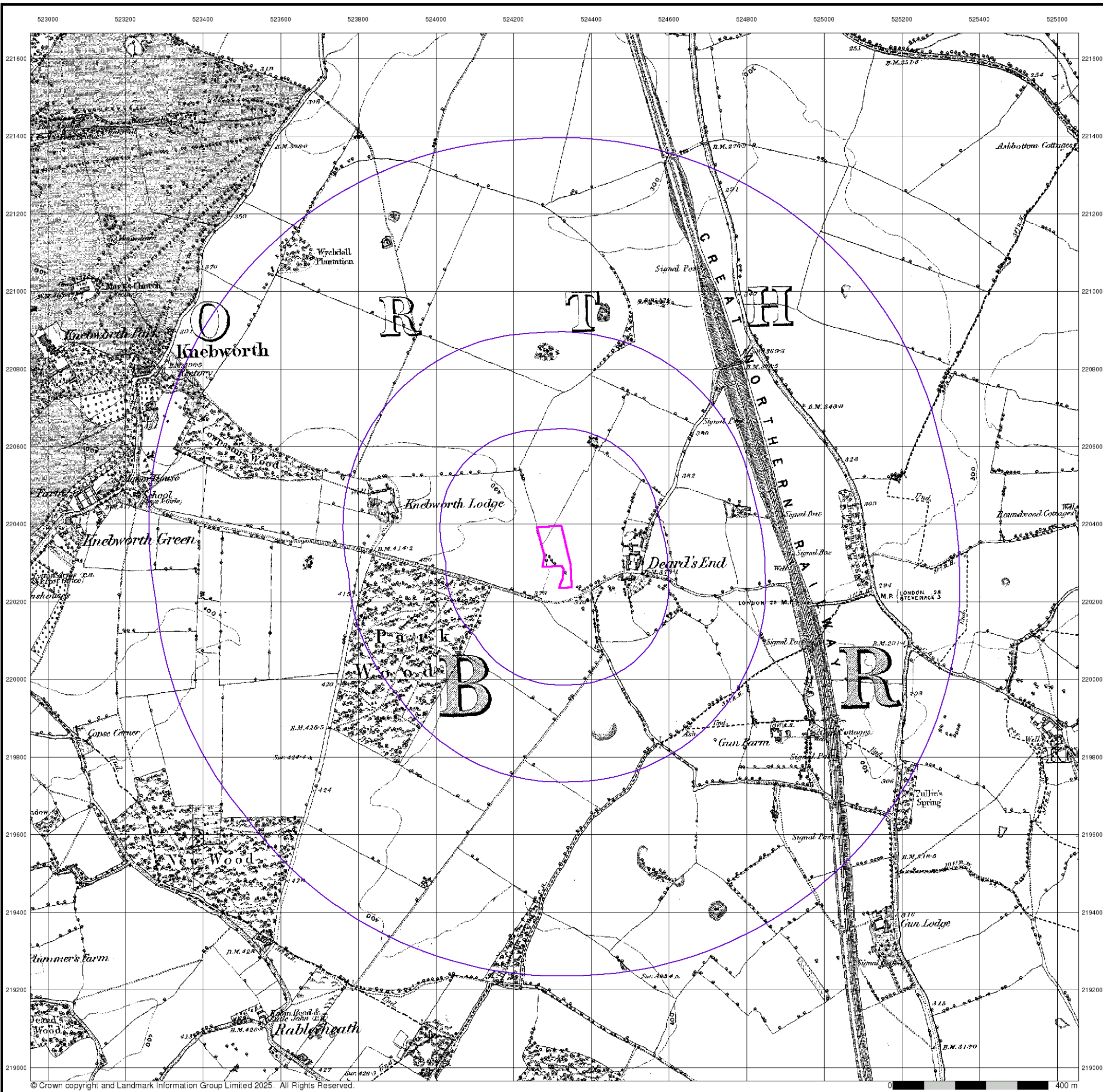
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

Park Lane, Knebworth

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



LK CONSULT

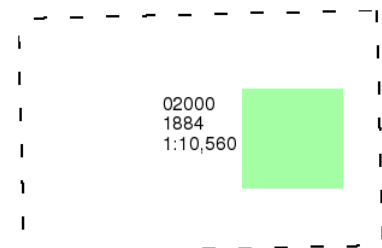
Hertfordshire

Published 1884

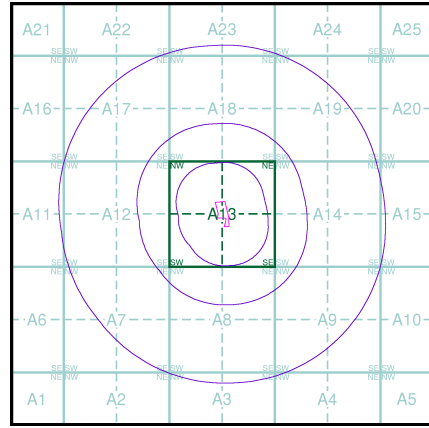
Source map scale - 1:10,560

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: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

Park Lane, Knebworth



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



LK CONSULT

Hertfordshire

Published 1899

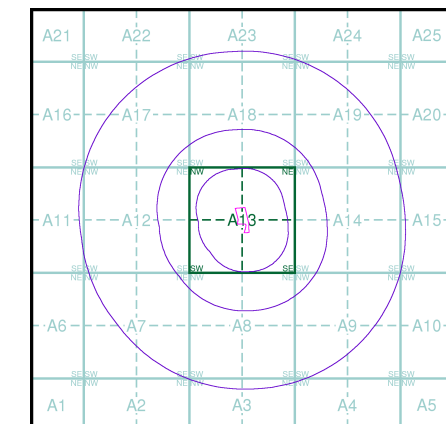
Source map scale - 1:10,560

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)

020NE
1899
1:10,560
020SE
1899
1:10,560

Historical Map - Slice A



Order Details

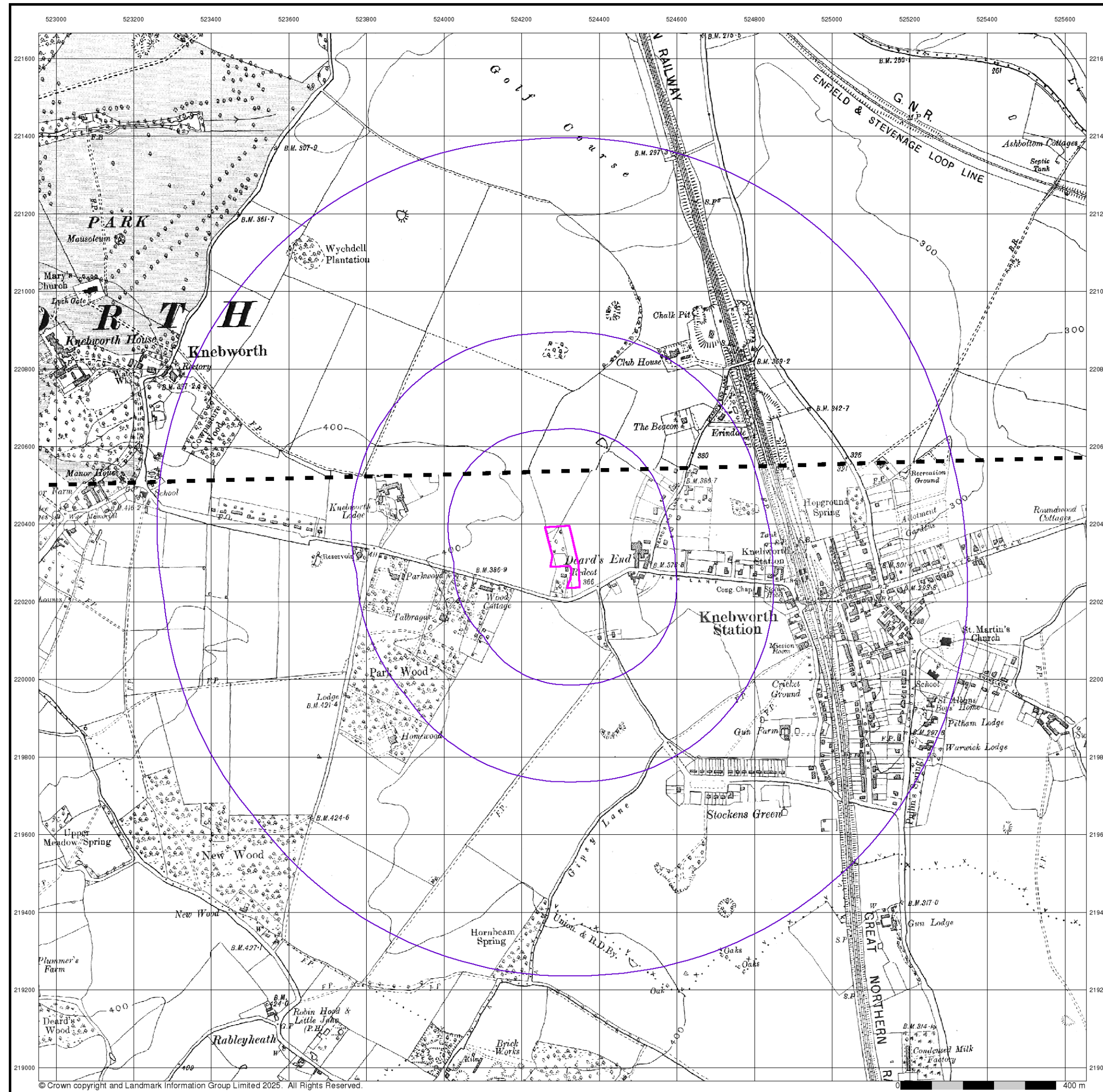
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

Park Lane, Knebworth

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



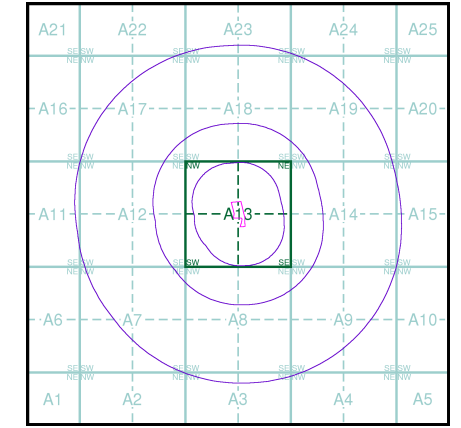
Hertfordshire
Published 1925
Source map scale - 1:10,560

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)

020NE
1925
1:10,560
020SE
1925
1:10,560

Historical Map - Slice A



Order Details

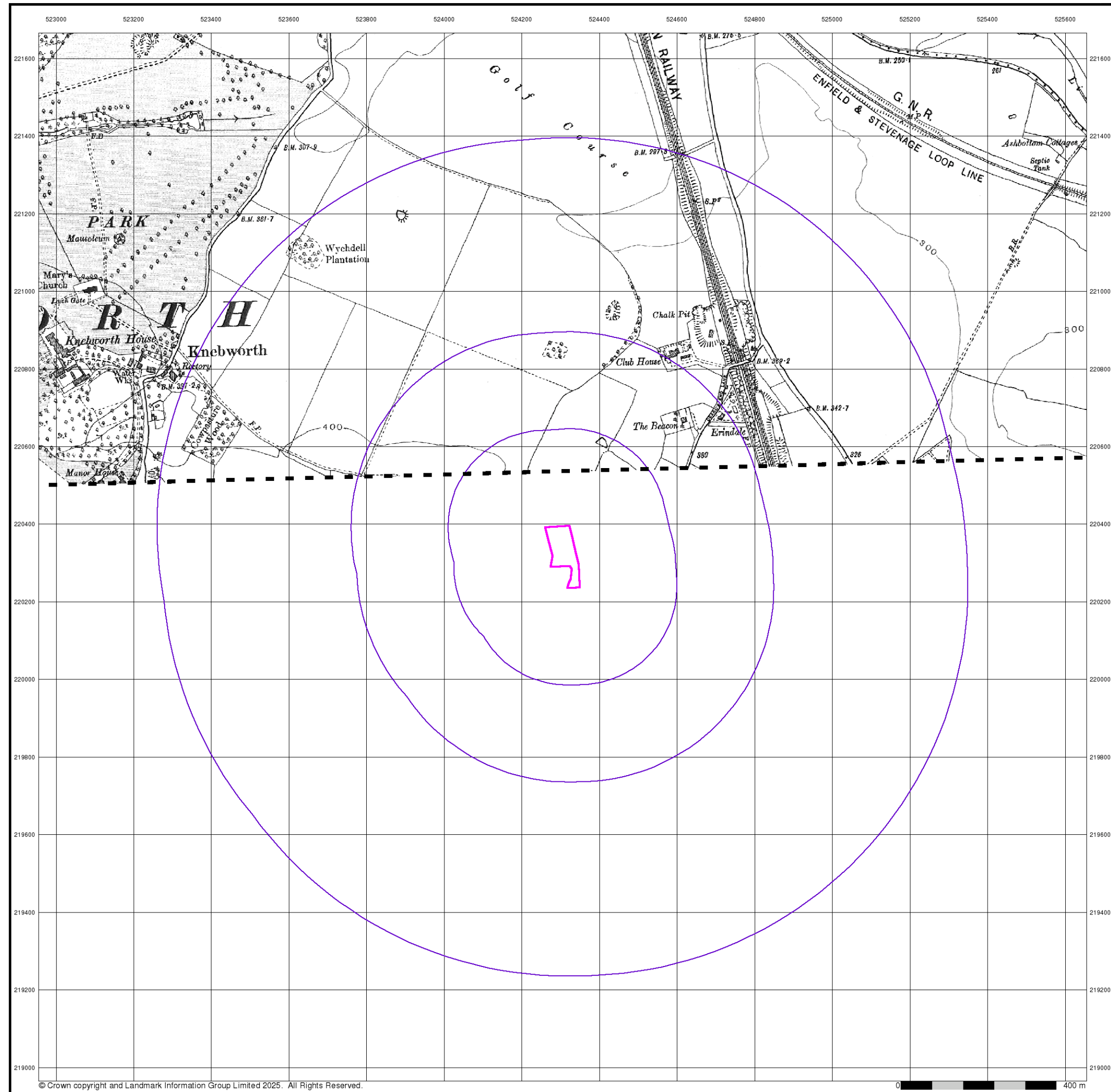
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

Park Lane, Knebworth



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



LK CONSULT

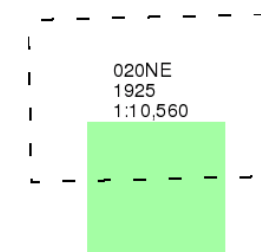
Hertfordshire

Published 1925

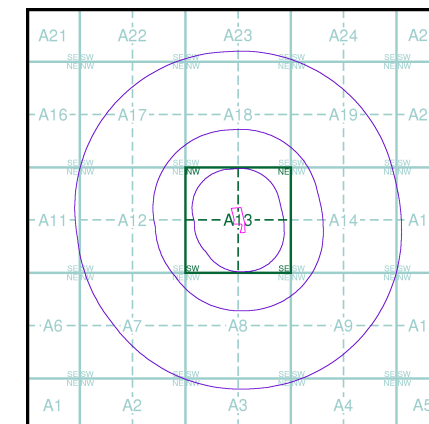
Source map scale - 1:10,560

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

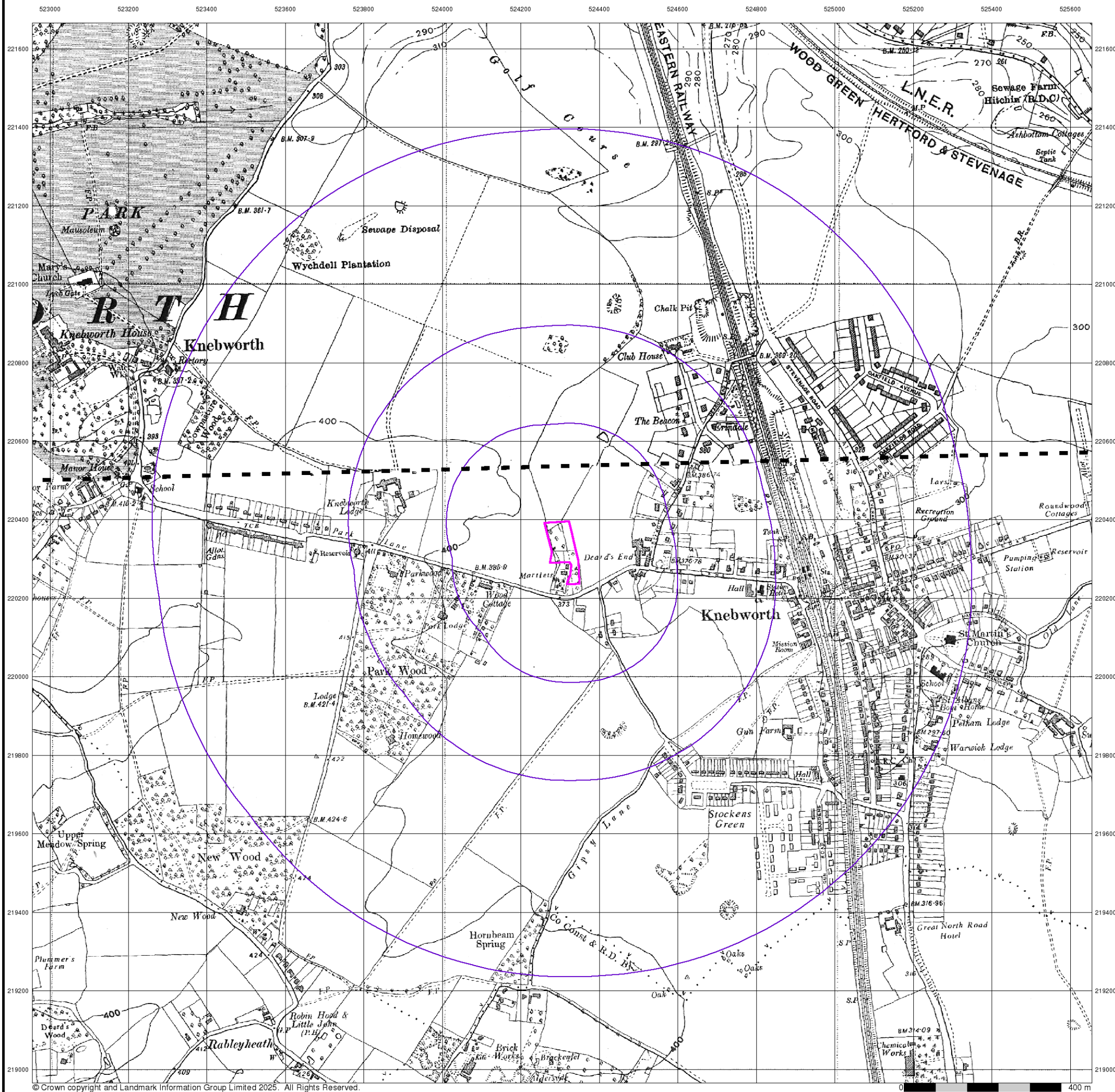
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

Park Lane, Knebworth

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



LK CONSULT

Hertfordshire

Published 1946 - 1950

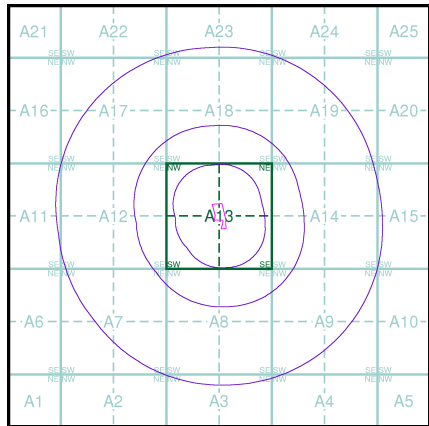
Source map scale - 1:10,560

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)

020NE
1946
1:10,560
020SE
1950
1:10,560

Historical Map - Slice A



Order Details

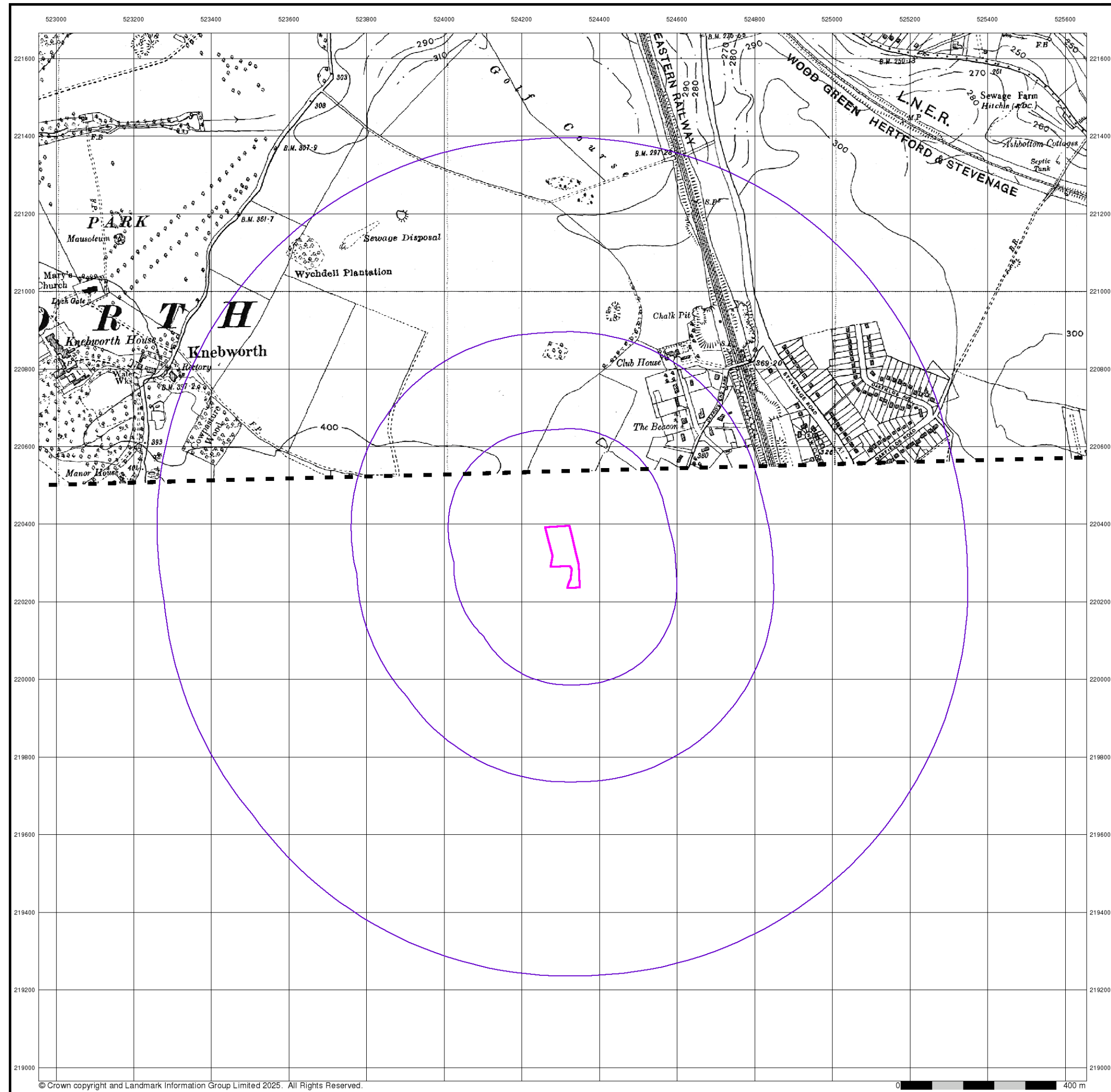
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

Park Lane, Knebworth

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



LK CONSULT

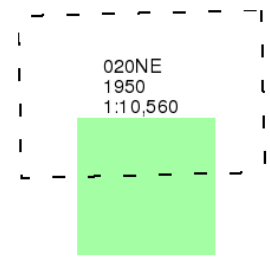
Hertfordshire

Published 1950

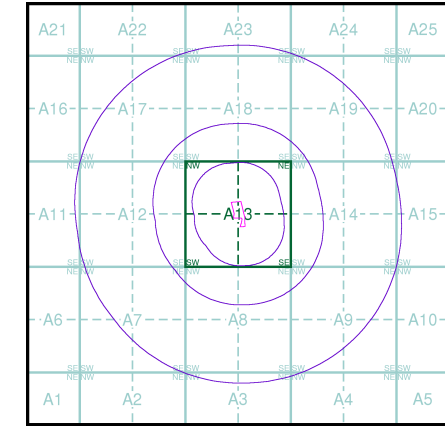
Source map scale - 1:10,560

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: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

Park Lane, Knebworth



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



LK CONSULT

Ordnance Survey Plan

Published 1960

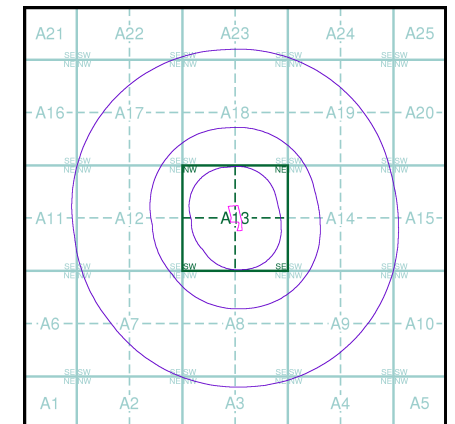
Source map scale - 1:10,000

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)

TL22SW	TL22SE
1960	1960
1:10,560	1:10,560
TL21NW	TL21NE
1960	1960
1:10,560	1:10,560

Historical Map - Slice A



Order Details

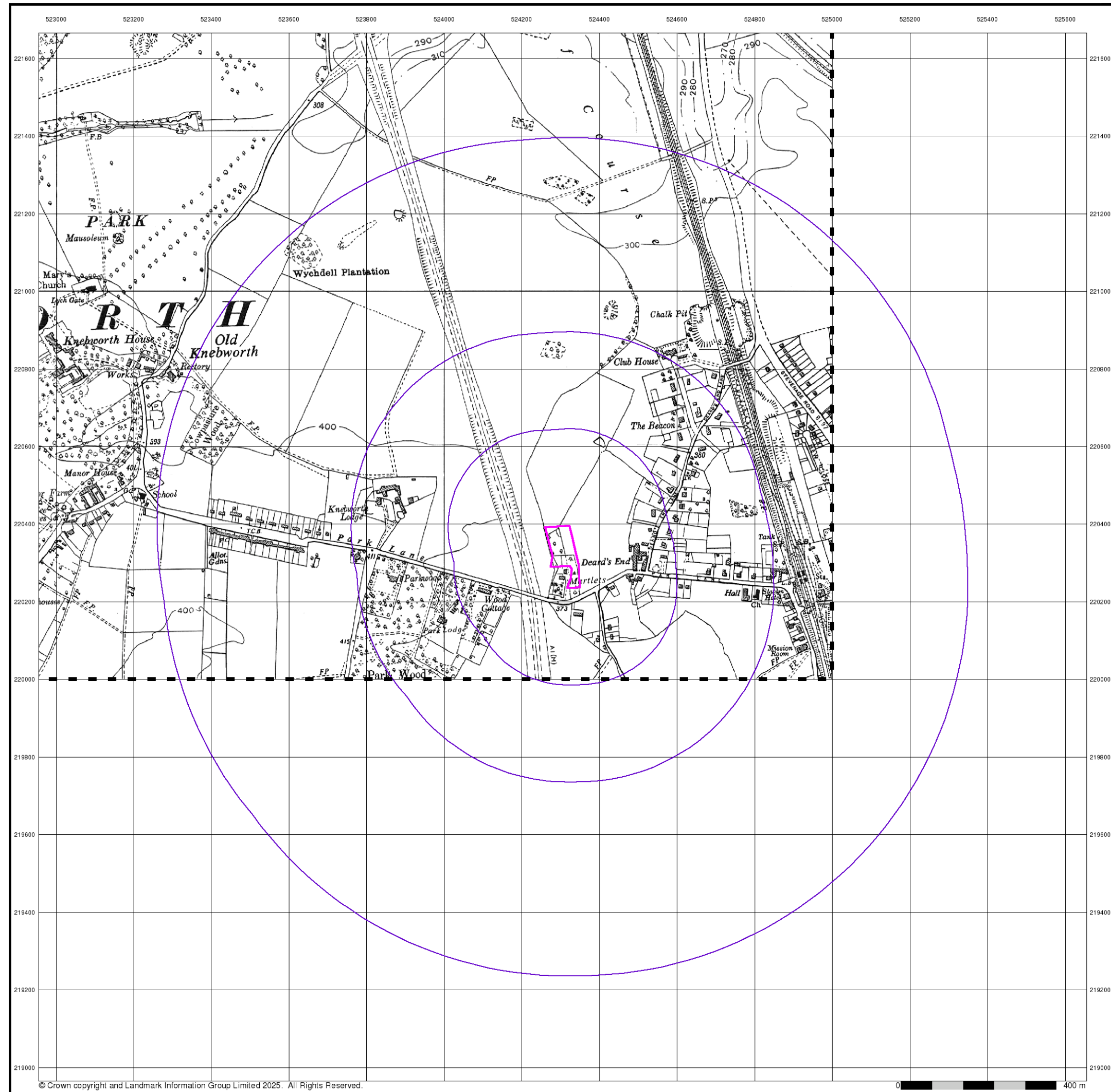
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

Park Lane, Knebworth

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk





LK CONSULT

Ordnance Survey Plan

Published 1964

Source map scale - 1:10,000

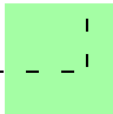
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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)

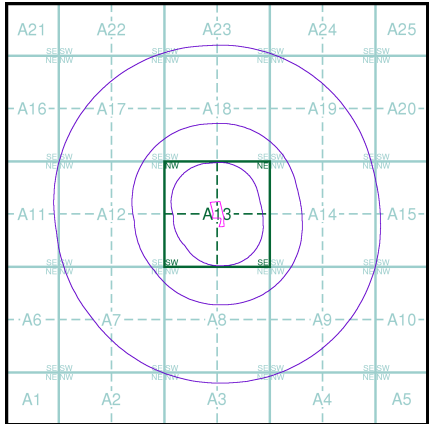
TL22SW

1964

1:10,560



Historical Map - Slice A



Order Details

Order Number:	373093154_1_1
Customer Ref:	LKC251040
National Grid Reference:	524310, 220320
Slice:	A
Site Area (Ha):	0.79
Search Buffer (m):	1000

Site Details

Park Lane, Knebworth

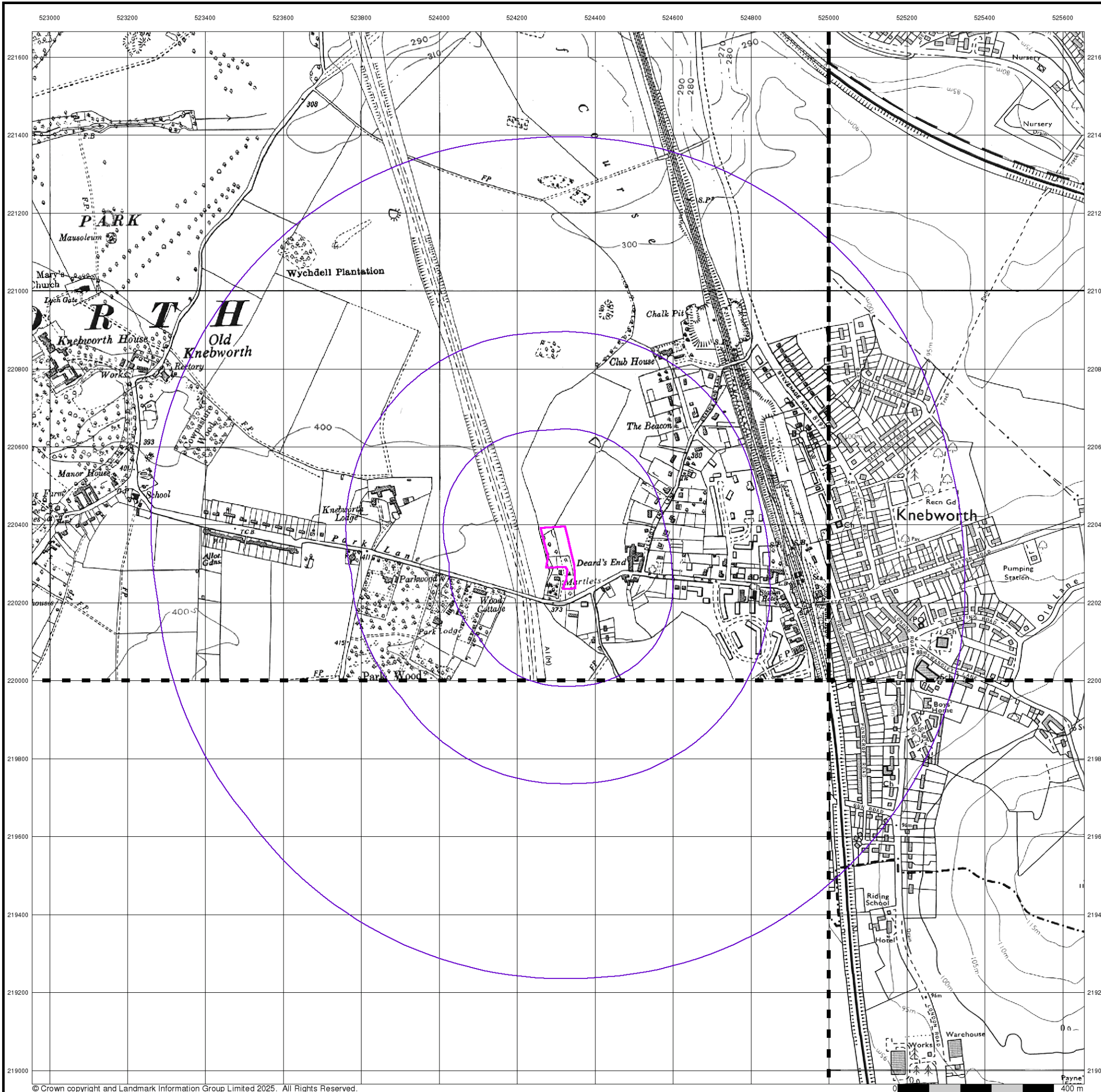


Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.

0 400 m

A Landmark Information Group Service v50.0 26-Mar-2025 Page 9 of 16



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.



LK CONSULT

Ordnance Survey Plan

Published 1970 - 1975

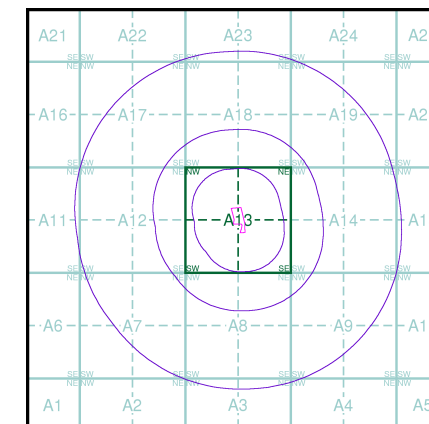
Source map scale - 1:10,000

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)

TL22SW	TL22SE
1970	1975
1:10,560	1:10,000
	TL21NE
	1974
	1:10,000

Historical Map - Slice A



Order Details

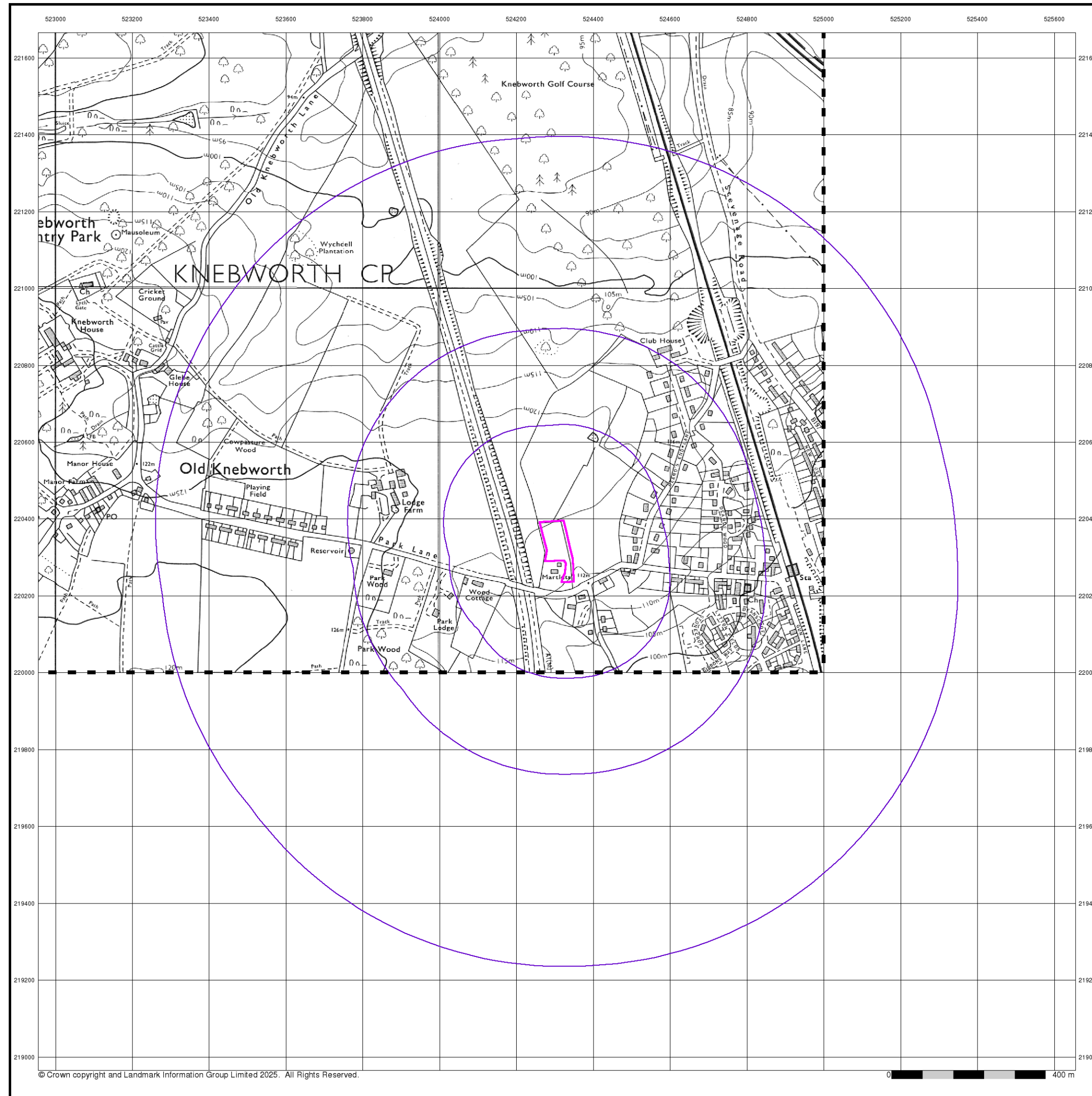
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

Park Lane, Knebworth

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



LK CONSULT

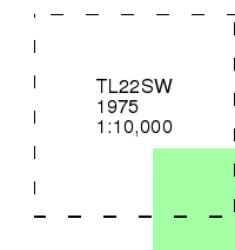
Ordnance Survey Plan

Published 1975

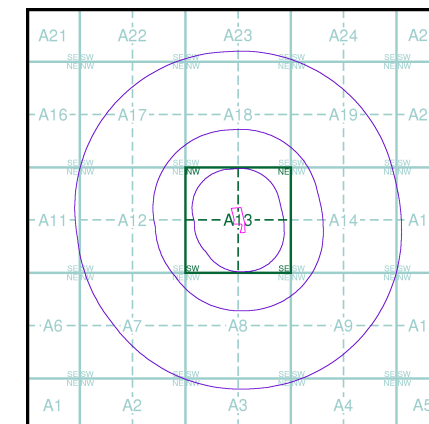
Source map scale - 1:10,000

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

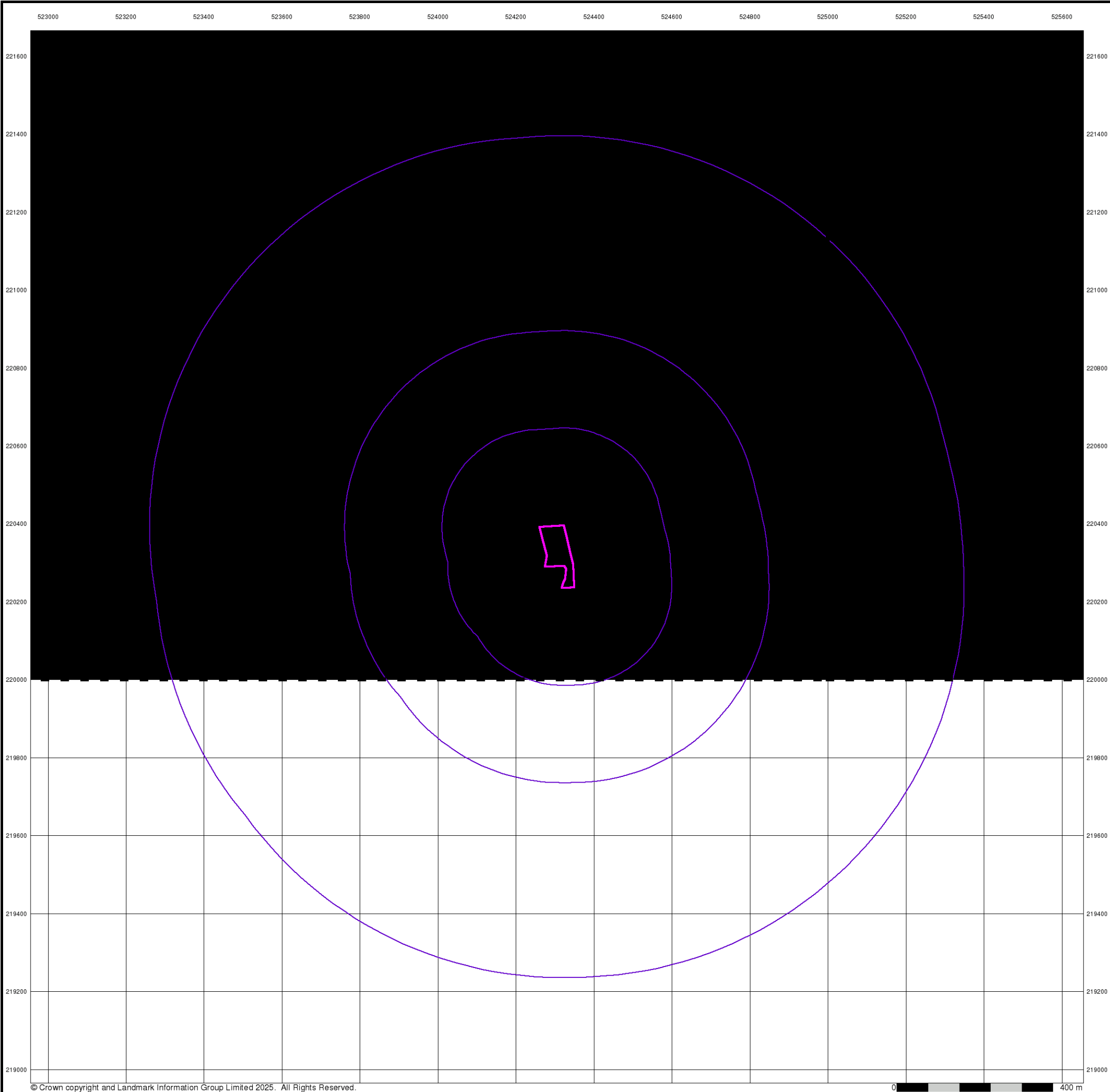
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

Park Lane, Knebworth

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.



LK CONSULT

Ordnance Survey Plan

Published 1987 - 1989

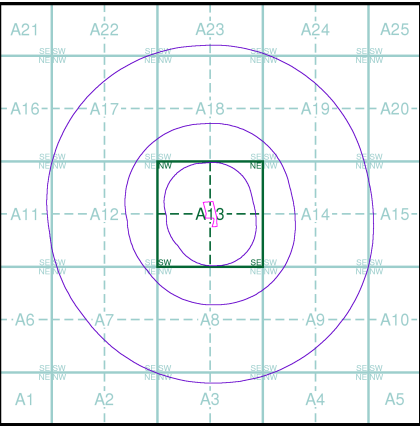
Source map scale - 1:10,000

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)

TL22SW 1987 1:10,000	TL22SE 1989 1:10,000
----------------------------	----------------------------

Historical Map - Slice A



Order Details

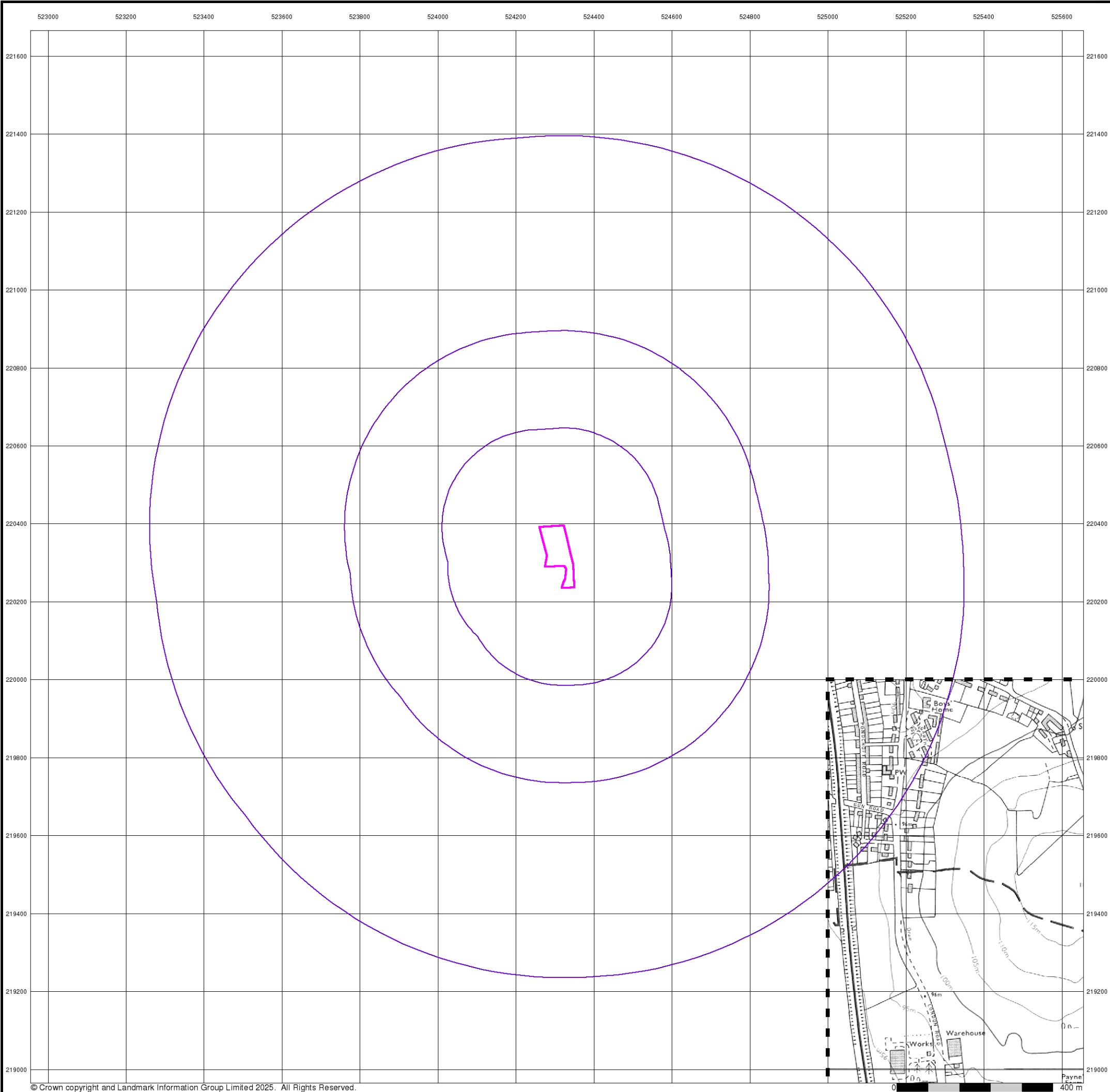
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

Park Lane, Knebworth



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.



LK CONSULT

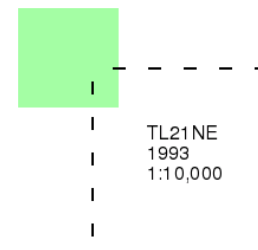
Ordnance Survey Plan

Published 1993

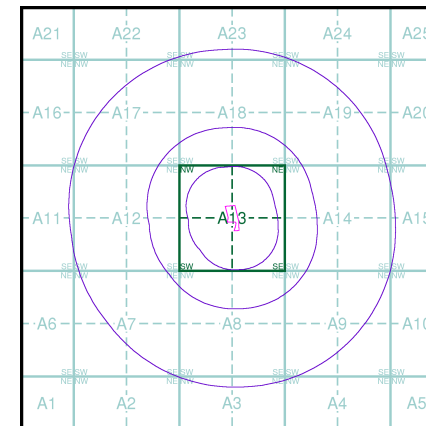
Source map scale - 1:10,000

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

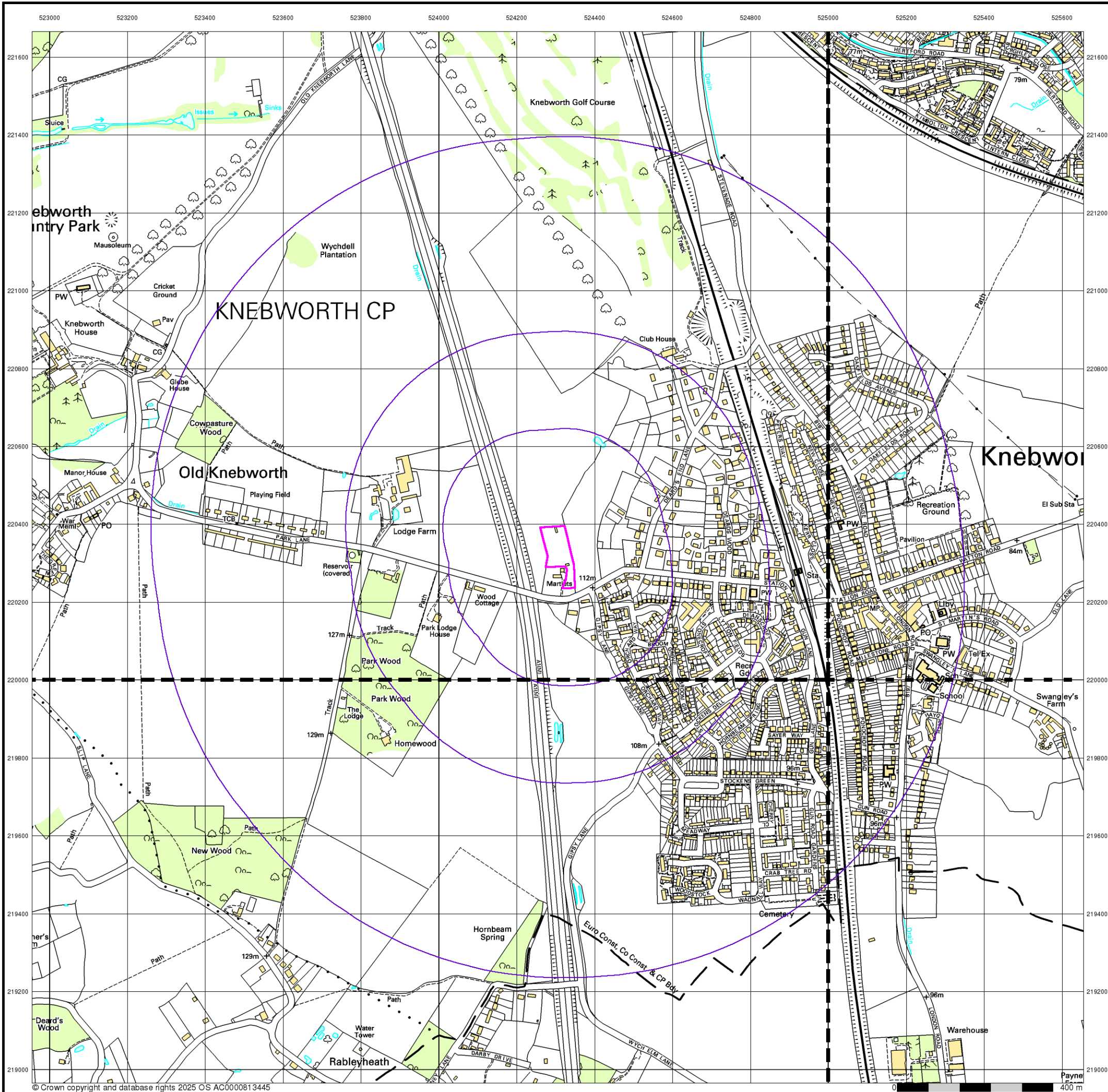
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

Park Lane, Knebworth

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



LK CONSULT

10k Raster Mapping

Published 1999

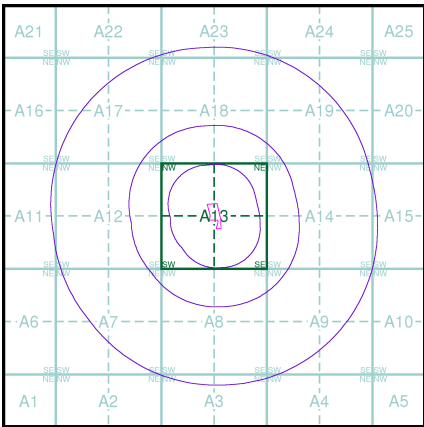
Source map scale - 1:10,000

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)

TL22SW	TL22SE
1999	1999
1:10,000	1:10,000
TL21NW	TL21NE
1999	1999
1:10,000	1:10,000

Historical Map - Slice A



Order Details

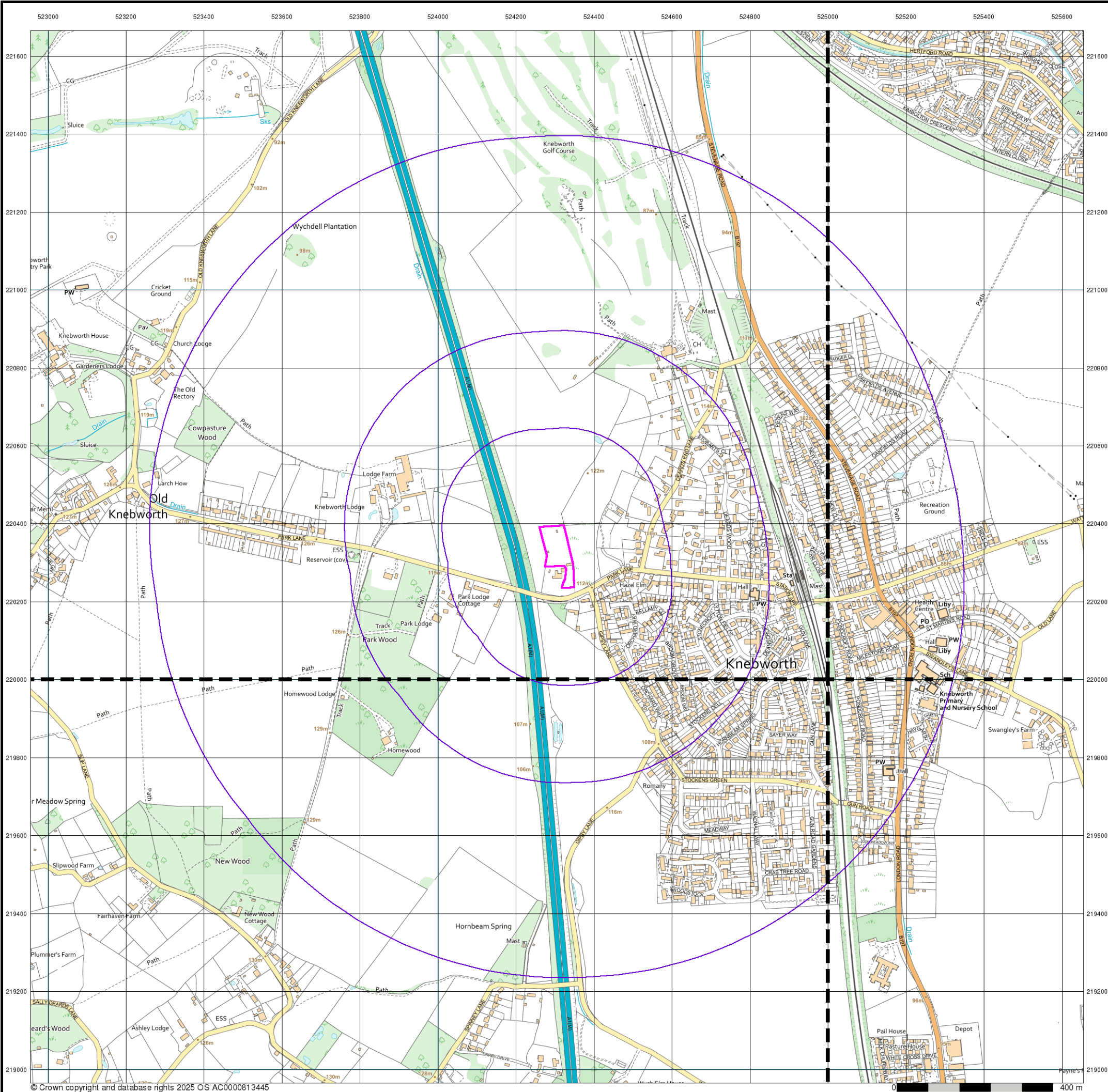
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

Park Lane, Knebworth



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



LK CONSULT

VectorMap Local

Published 2024

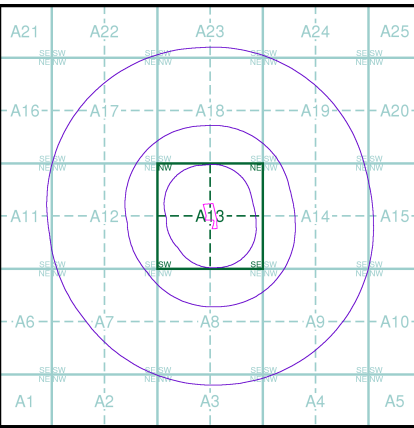
Source map scale - 1:10,000

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)

TL22SW	TL22SE
2024	2024
Variable	Variable
TL21NW	TL21NE
2024	2024
Variable	Variable

Historical Map - Slice A



Order Details

Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 1000

Site Details

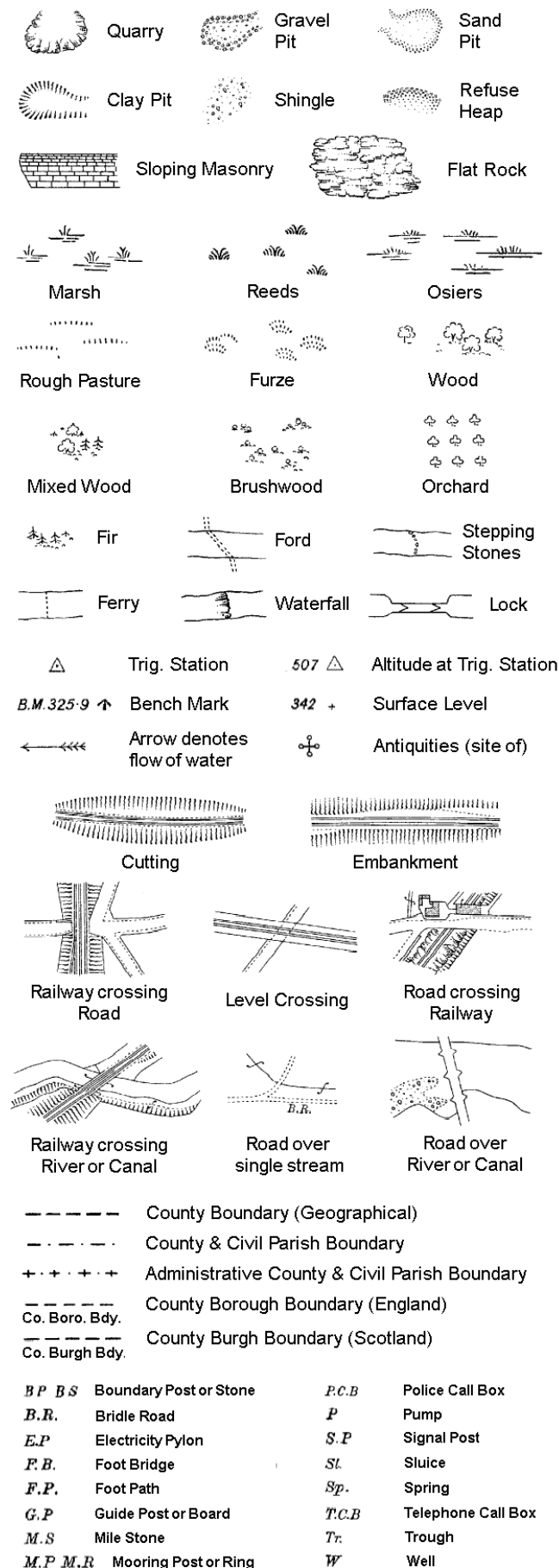
Park Lane, Knebworth

Landmark[®]
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

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

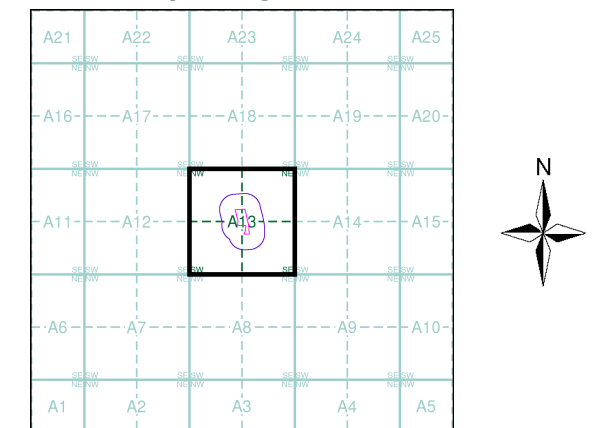


LK CONSULT

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Hertfordshire	1:2,500	1881	2
Hertfordshire	1:2,500	1898	3
Hertfordshire	1:2,500	1923 - 1924	4
Hertfordshire	1:2,500	1937 - 1939	5
Ordnance Survey Plan	1:2,500	1970 - 1972	6
Supply of Unpublished Survey Information	1:2,500	1974	7
Supply of Unpublished Survey Information	1:2,500	1974	8
Additional SIMs	1:2,500	1978 - 1990	9
Ordnance Survey Plan	1:2,500	1983 - 1989	10
Additional SIMs	1:2,500	1986 - 1990	11
Large-Scale National Grid Data	1:2,500	1993	12
Additional SIMs	1:2,500	1993	13
Large-Scale National Grid Data	1:2,500	1996	14
Historical Aerial Photography	1:2,500	1999	15

Historical Map - Segment A13

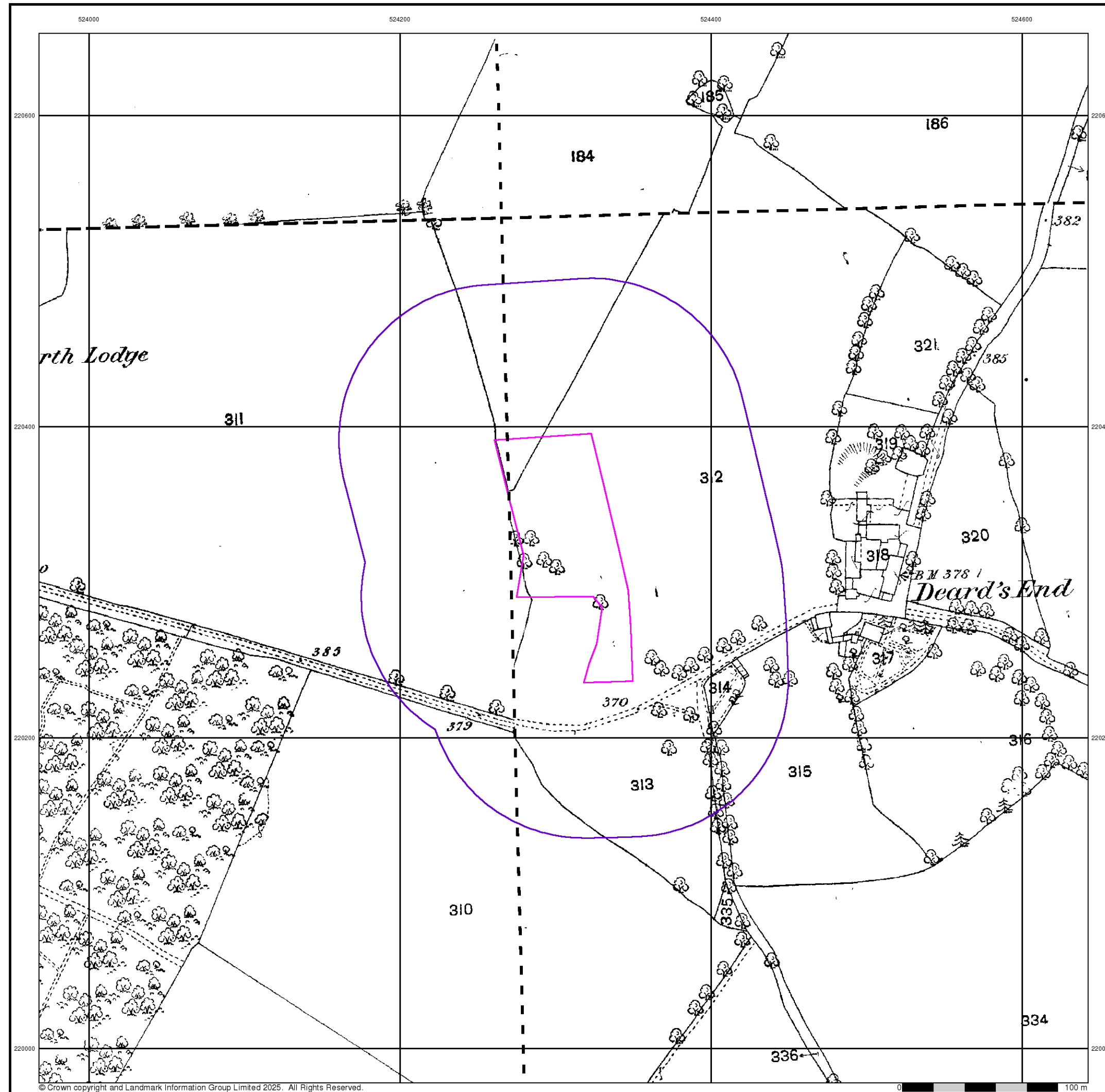


Order Details

Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 100

Site Details

Park Lane, Knebworth



Hertfordshire

Published 1881

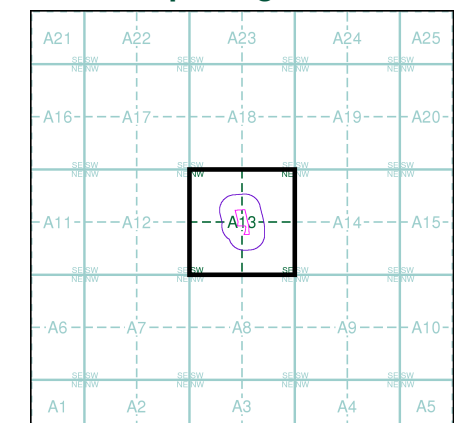
Source map scale - 1:2,500

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)

020_07 1881 1:2,500	020_08 1881 1:2,500
020_11 1881 1:2,500	020_12 1881 1:2,500

Historical Map - Segment A13



Order Details

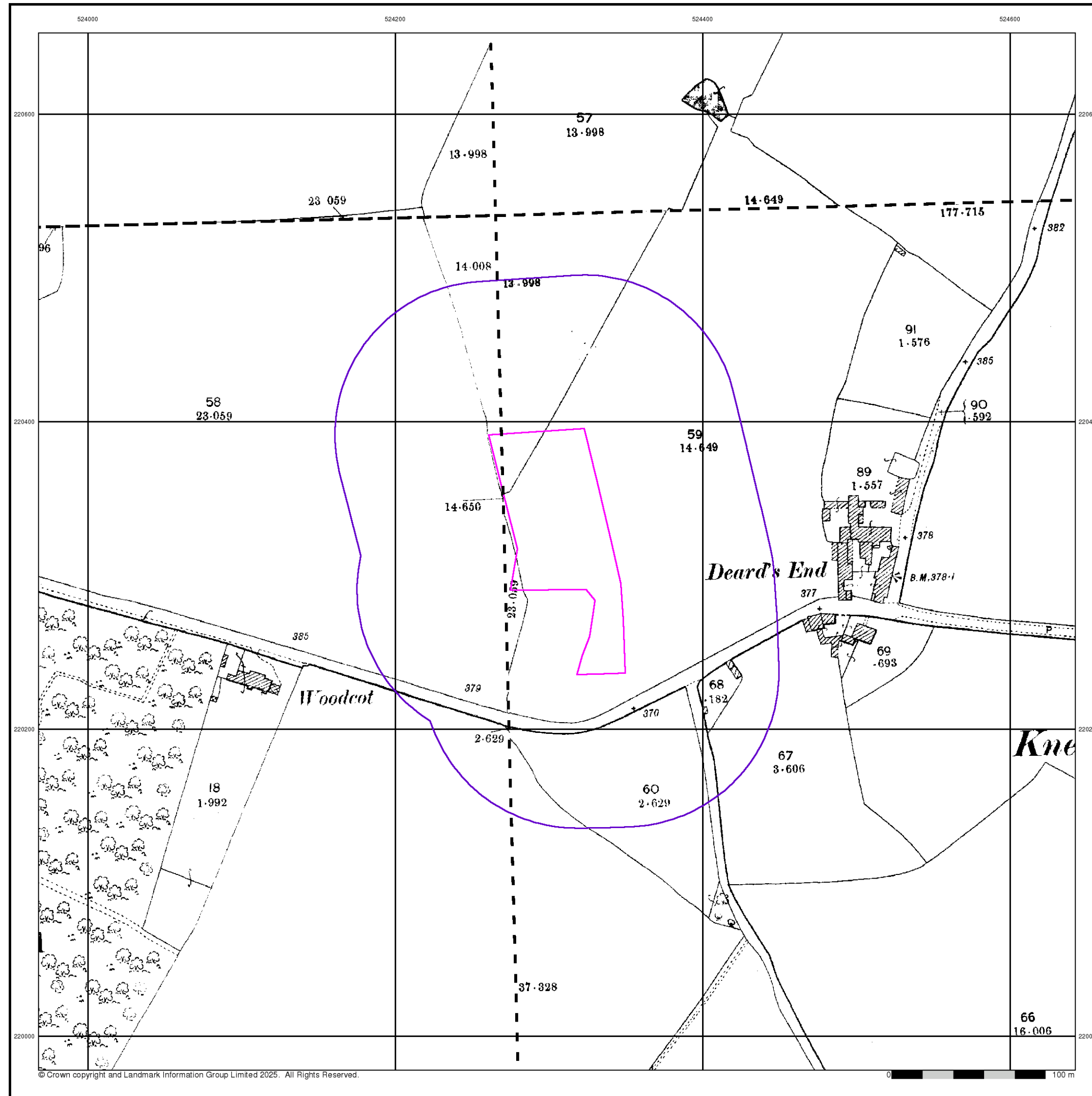
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 100

Site Details

Park Lane, Knebworth



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Hertfordshire

Published 1898

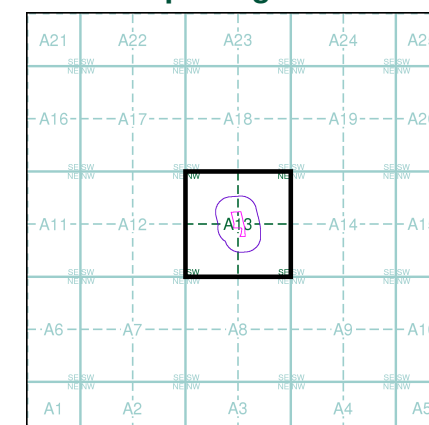
Source map scale - 1:2,500

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)

020_07 1898 1:2,500	020_08 1898 1:2,500
020_11 1898 1:2,500	020_12 1898 1:2,500

Historical Map - Segment A13



Order Details

Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 100

Site Details

Park Lane, Knebworth

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Hertfordshire

Published 1923 - 1924

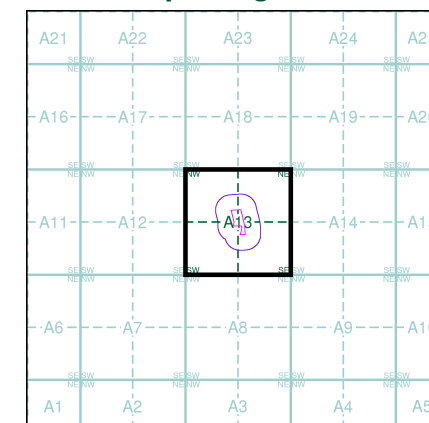
Source map scale - 1:2,500

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)

020_07 1924 1:2,500	020_08 1923 1:2,500
020_11 1924 1:2,500	020_12 1923 1:2,500

Historical Map - Segment A13



Order Details

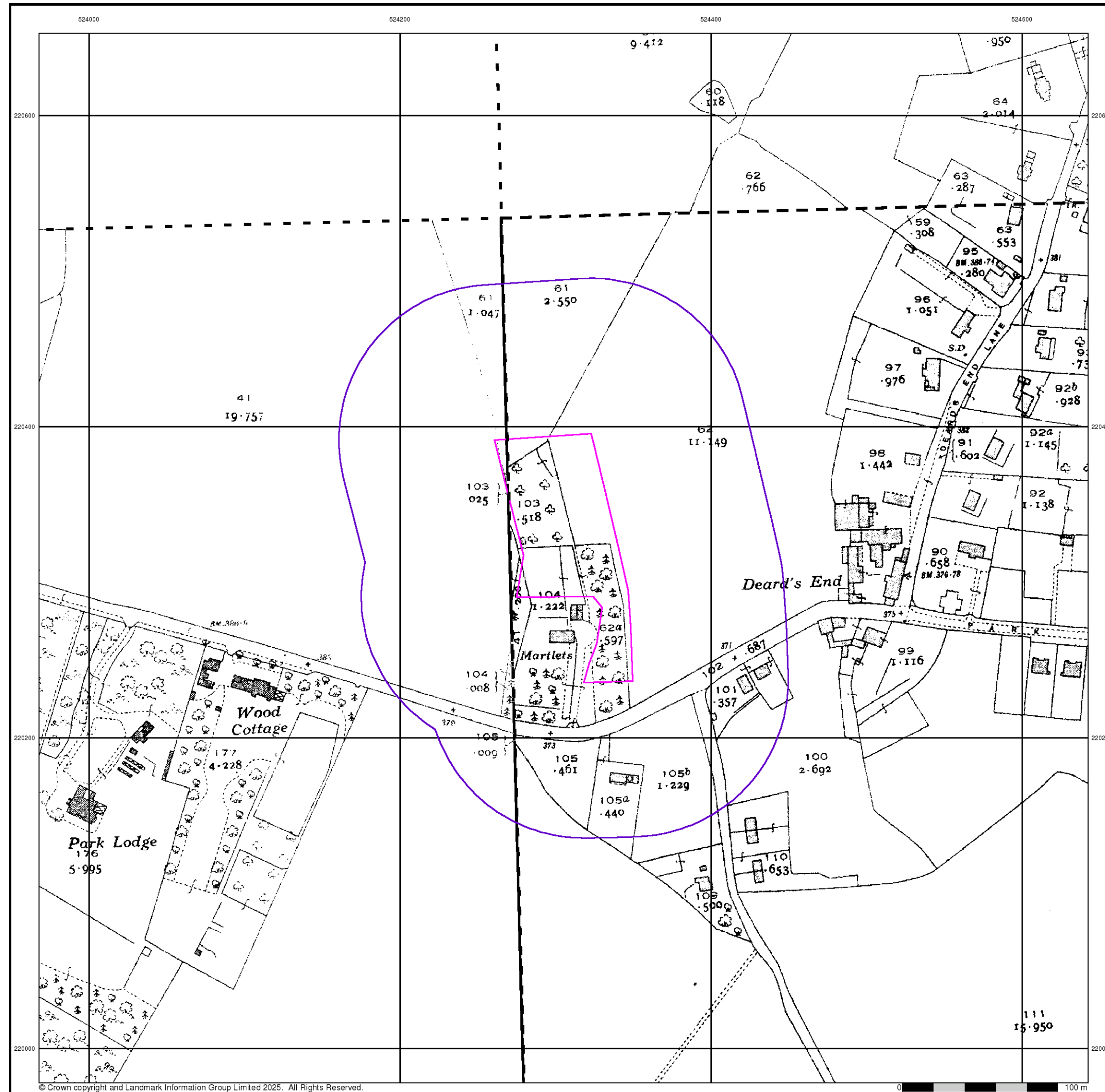
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 100

Site Details

Park Lane, Knebworth

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk





LK CONSULT

Hertfordshire

Published 1937 - 1939

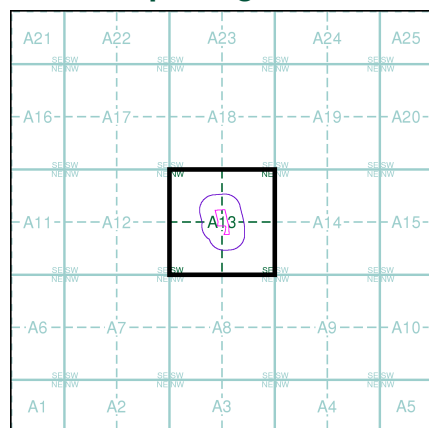
Source map scale - 1:2,500

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)

020_08 1937 1:2,500	020_12 1937 1:2,500
---------------------------	---------------------------

Historical Map - Segment A13



Order Details

Order Number:	373093154_1_1
Customer Ref:	LKC251040
National Grid Reference:	524310, 220320
Slice:	A
Site Area (Ha):	0.79
Search Buffer (m):	100

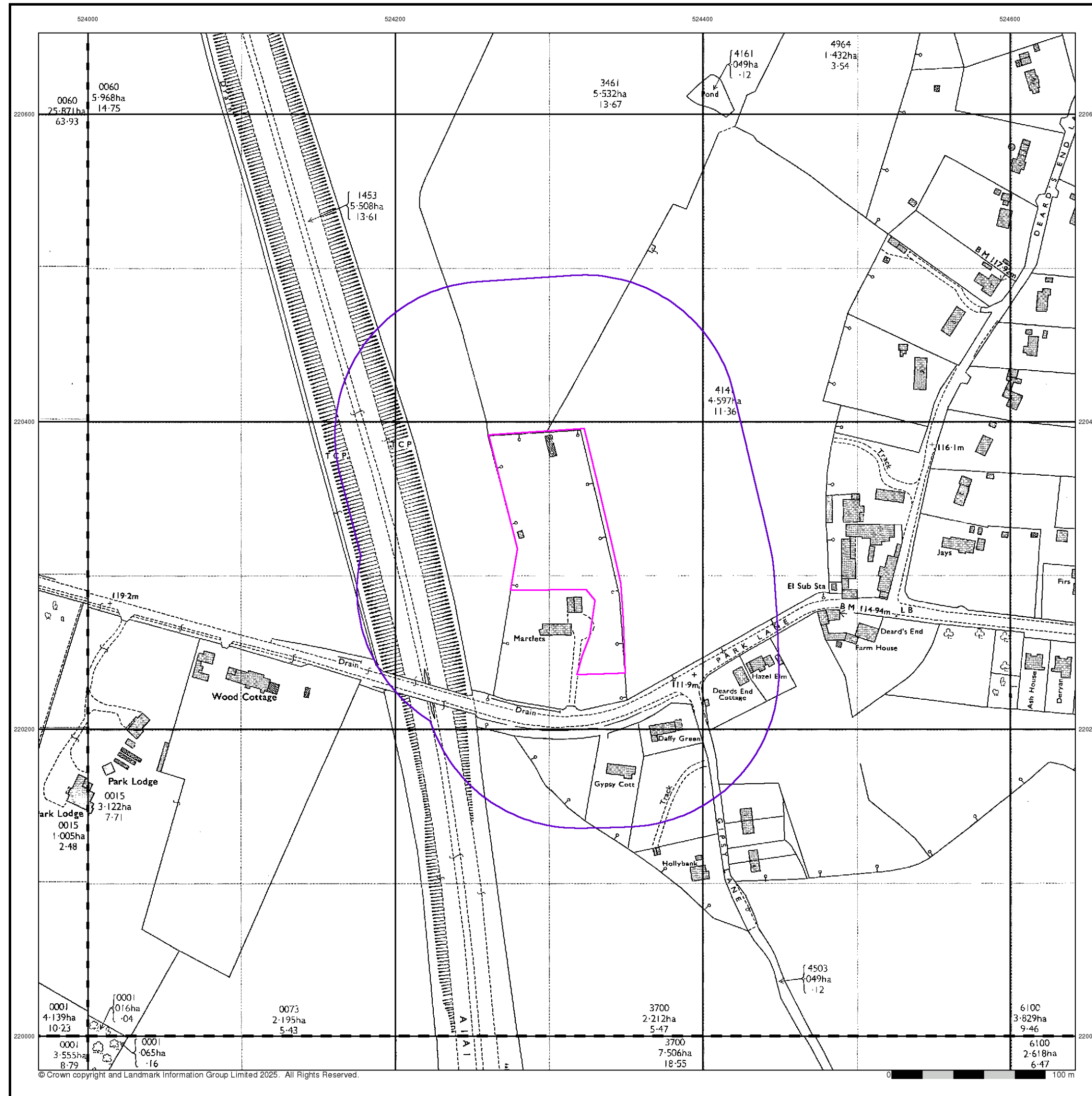
Site Details

Park Lane, Knebworth



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

A Landmark Information Group Service v50.0 26-Mar-2025 Page 5 of 15



Ordnance Survey Plan

Published 1970 - 1972

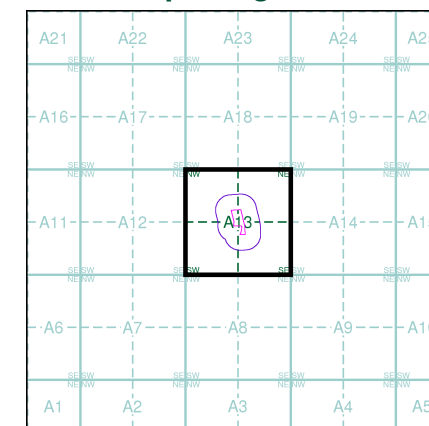
Source map scale - 1:2,500

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)

TL2320 1972 12,500	TL2420 1970 12,500
TL2319 1972 12,500	TL2419 1970 12,500

Historical Map - Segment A13



Order Details

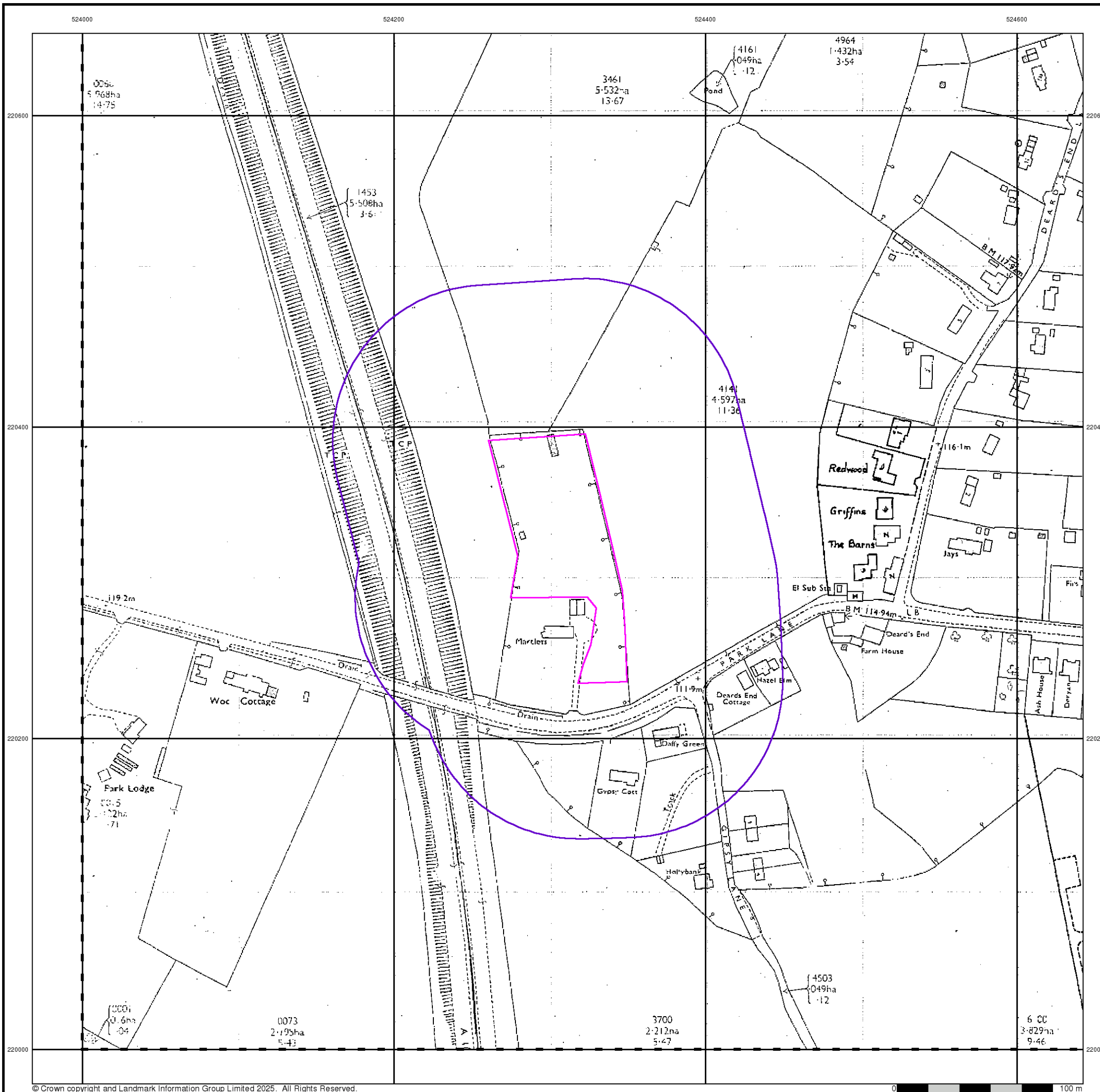
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 100

Site Details

Park Lane, Knebworth



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



LK CONSULT

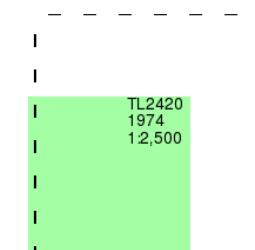
Supply of Unpublished Survey Information

Published 1974

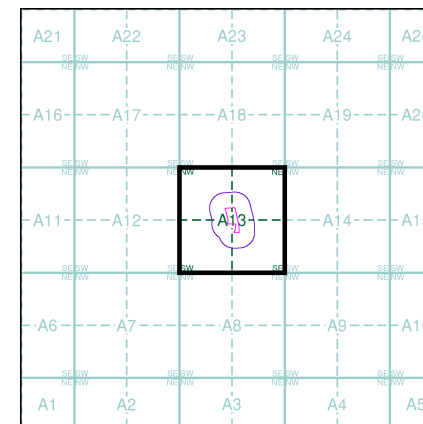
Source map scale - 1:2,500

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

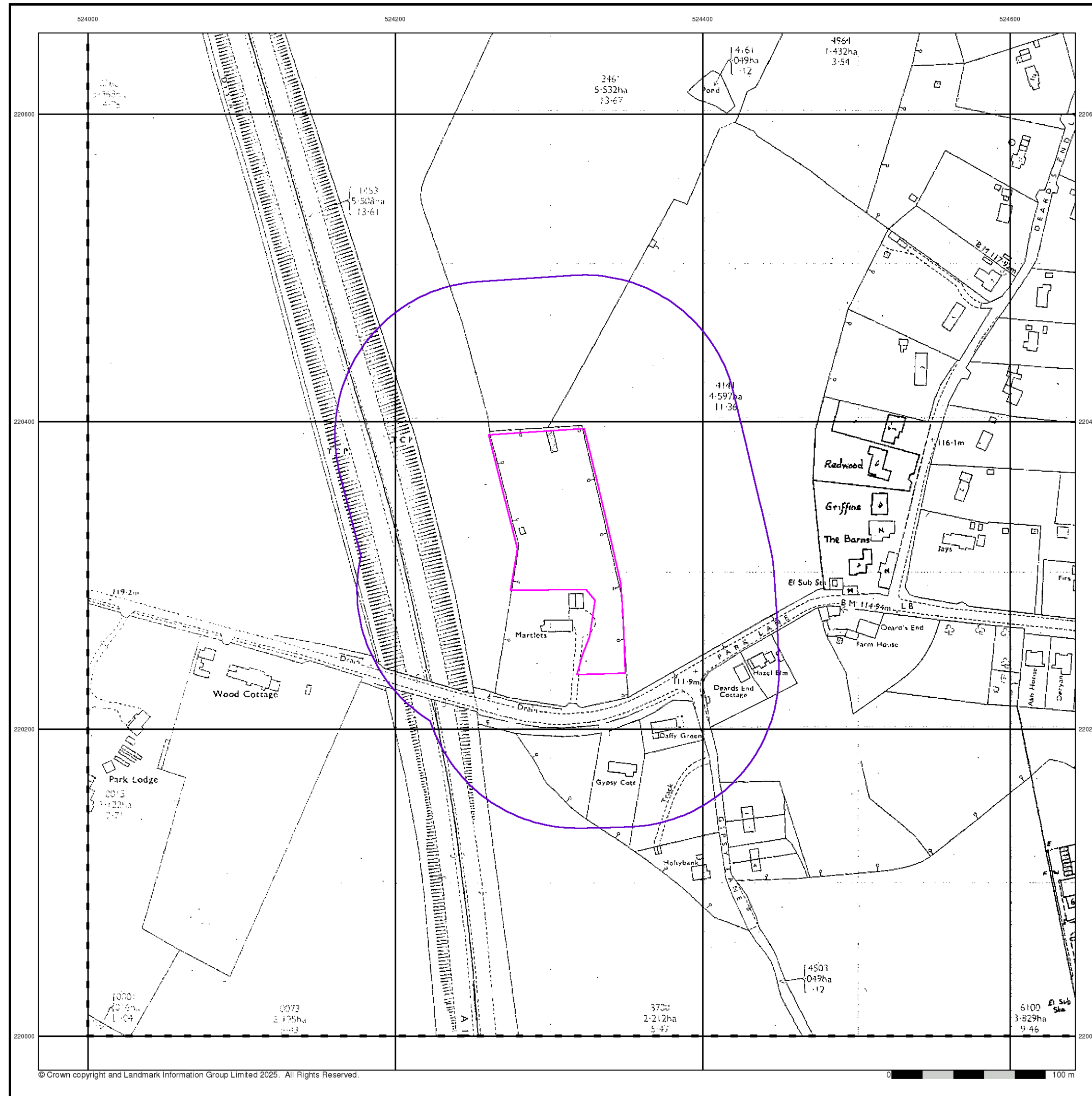
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 100

Site Details

Park Lane, Knebworth



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



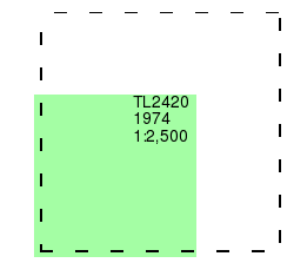
Supply of Unpublished Survey Information

Published 1974

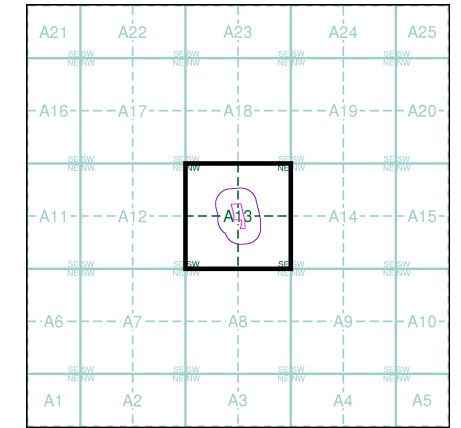
Source map scale - 1:2,500

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

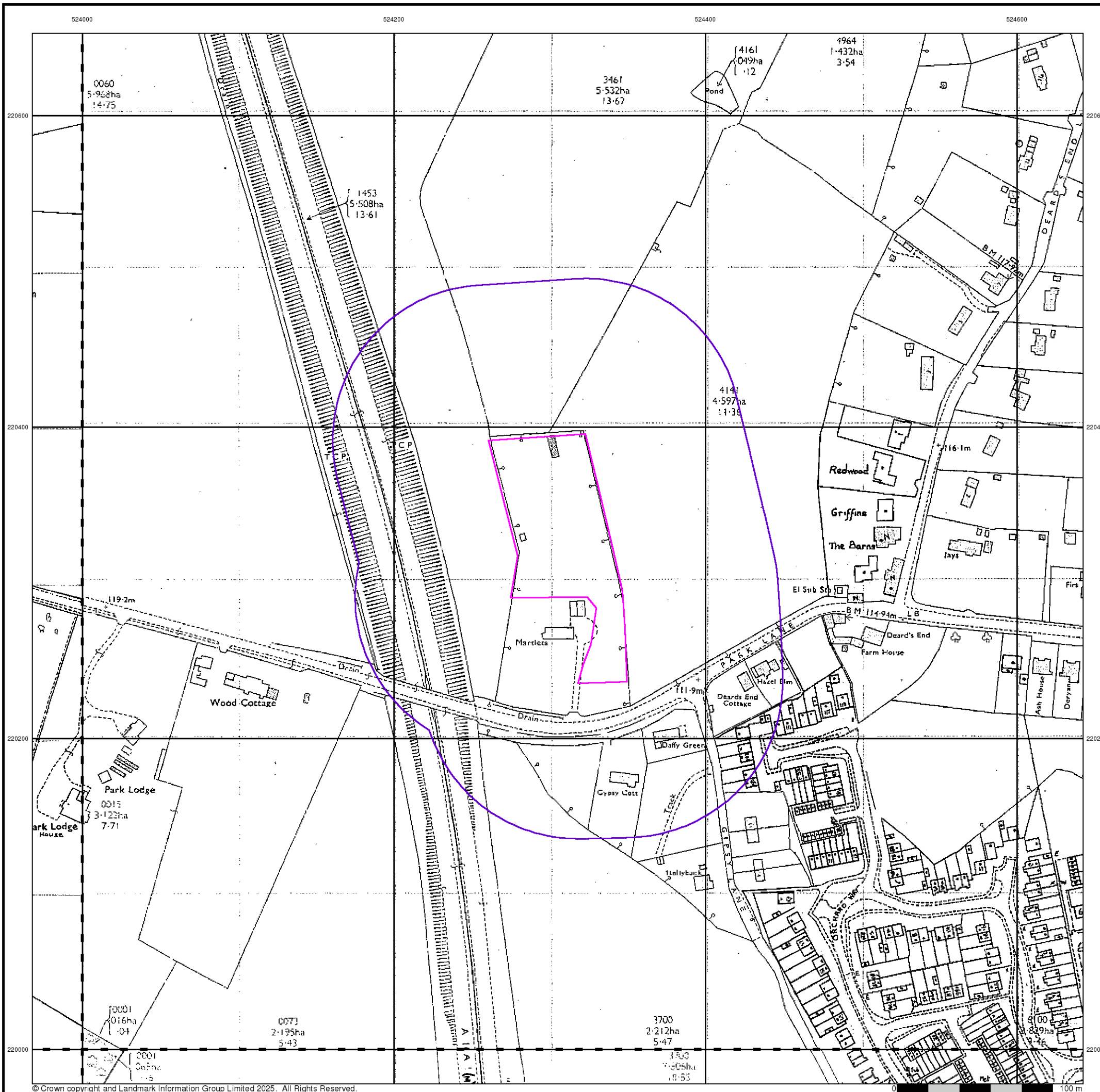
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 100

Site Details

Park Lane, Knebworth



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.



LK CONSULT

Additional SIMs

Published 1978 - 1990

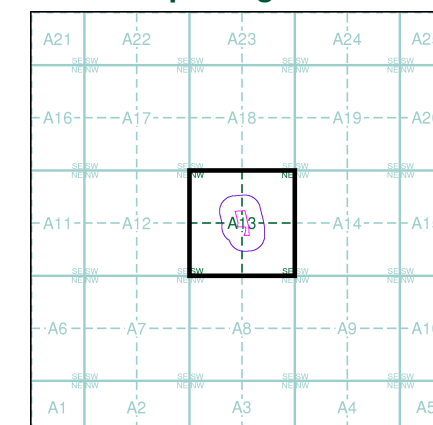
Source map scale - 1:2,500

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)

TL2320 1990 12,500	TL2420 1978 12,500
	TL2419 1978 12,500

Historical Map - Segment A13



Order Details

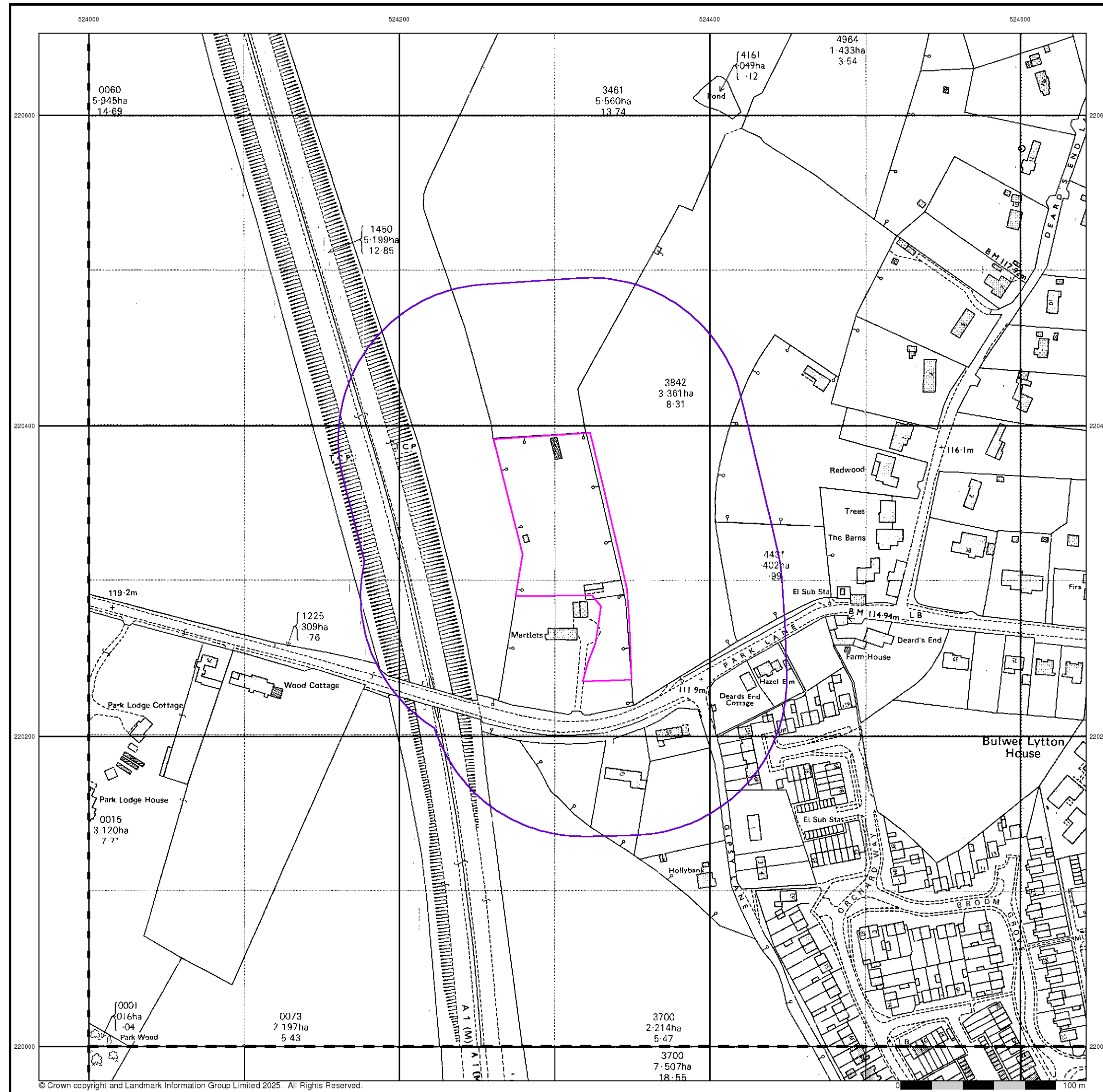
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 100

Site Details

Park Lane, Knebworth

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.



LK CONSULT

Ordnance Survey Plan

Published 1983 - 1989

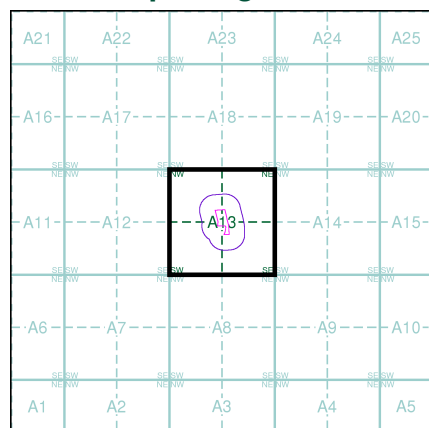
Source map scale - 1:2,500

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)

TL2420	1983	1:2,500
TL2419	1989	1:2,500

Historical Map - Segment A13



Order Details

Order Number:	373093154_1_1
Customer Ref:	LKC251040
National Grid Reference:	524310, 220320
Slice:	A
Site Area (Ha):	0.79
Search Buffer (m):	100

Site Details

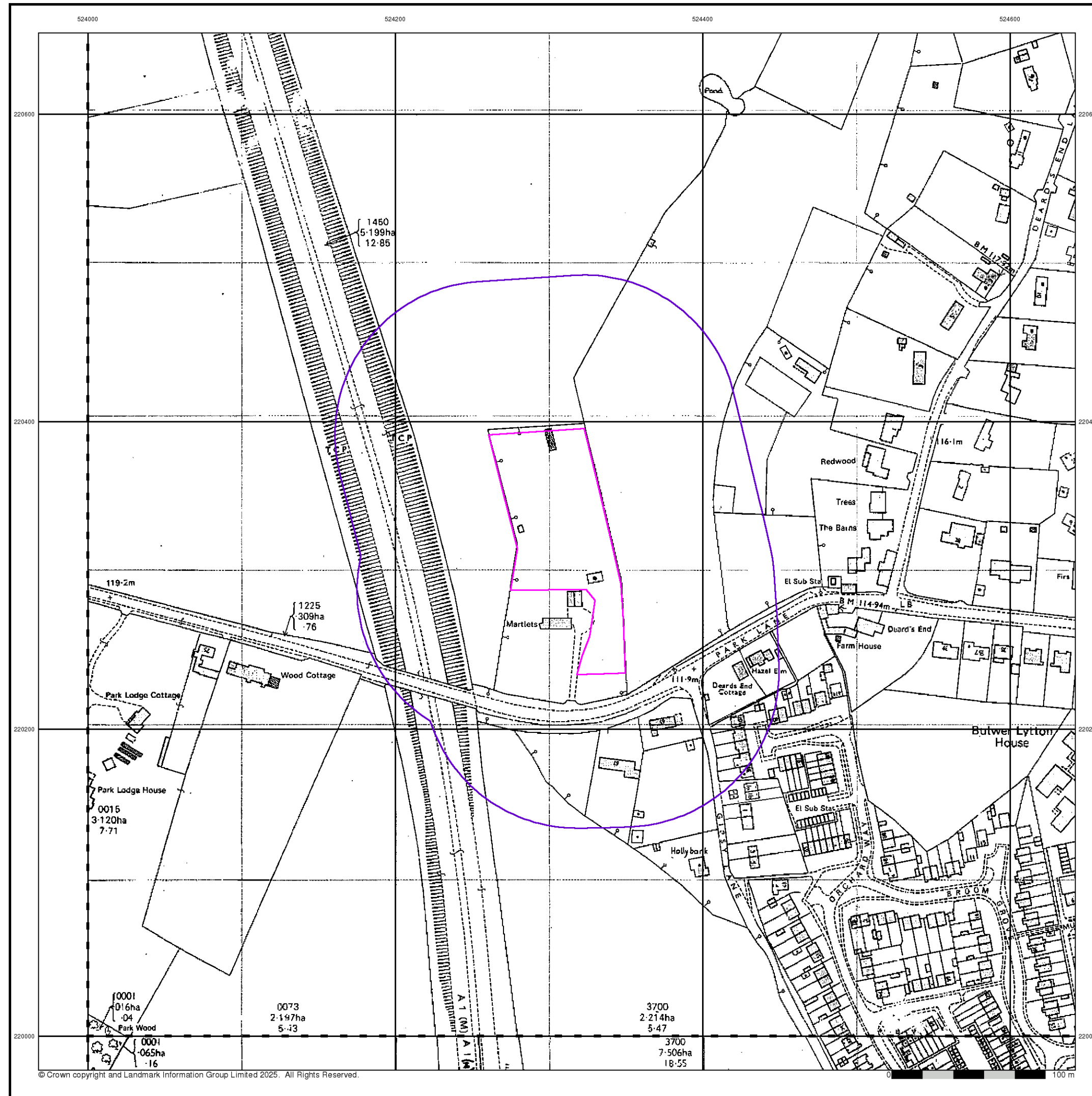
Park Lane, Knebworth



Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

A Landmark Information Group Service v50.0 26-Mar-2025 Page 10 of 15





LK CONSULT

Additional SIMs

Published 1986 - 1990

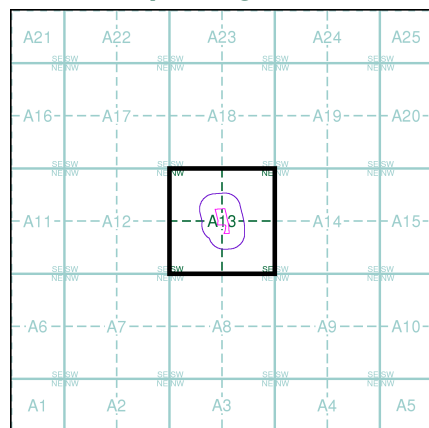
Source map scale - 1:2,500

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)

TL2420	1990	1:2,500
TL2419	1986	1:2,500

Historical Map - Segment A13



Order Details

Order Number:	373093154_1_1
Customer Ref:	LKC251040
National Grid Reference:	524310, 220320
Slice:	A
Site Area (Ha):	0.79
Search Buffer (m):	100

Site Details

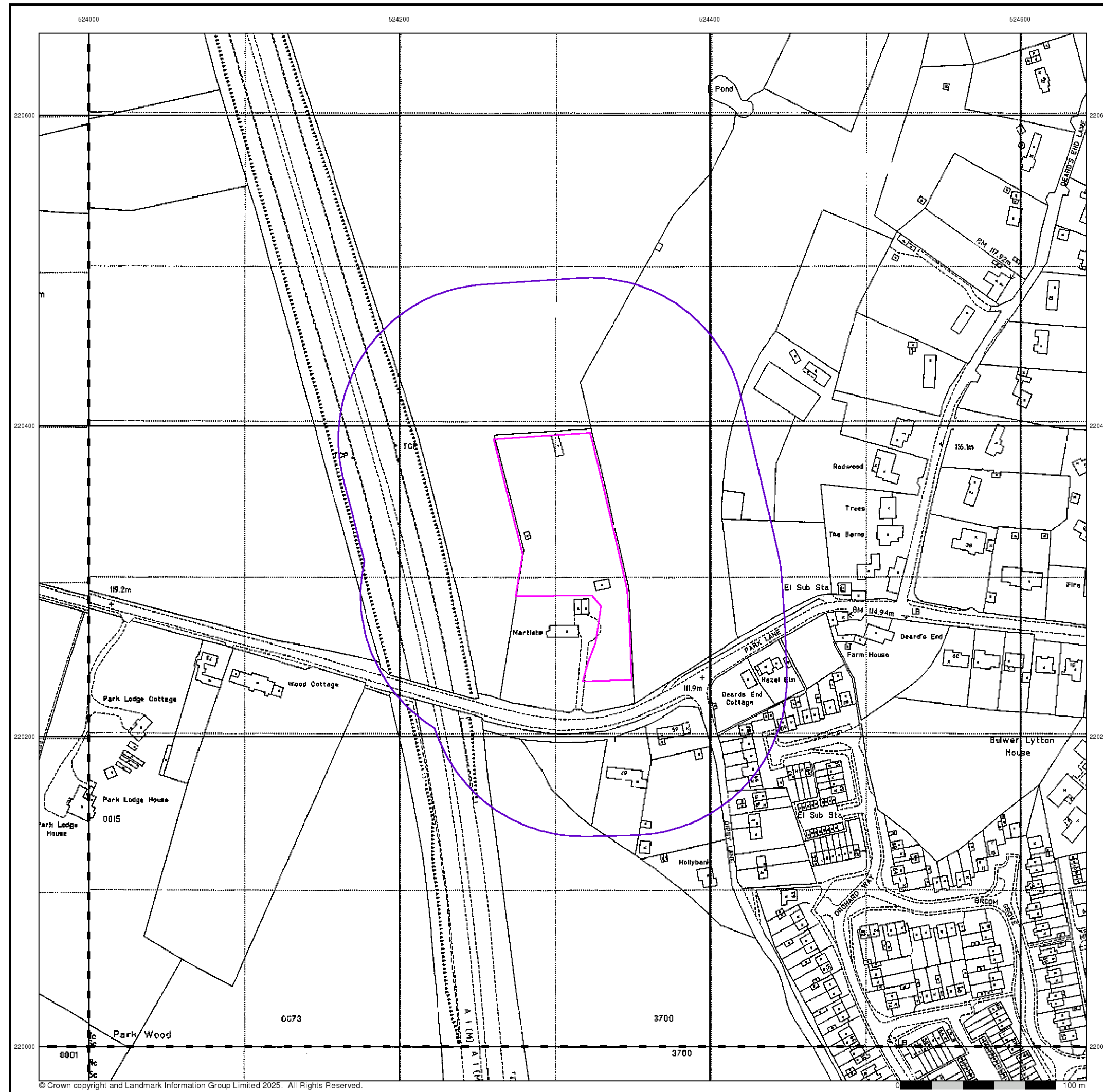
Park Lane, Knebworth



Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

A Landmark Information Group Service v50.0 26-Mar-2025 Page 11 of 15





LK CONSULT

Large-Scale National Grid Data

Published 1993

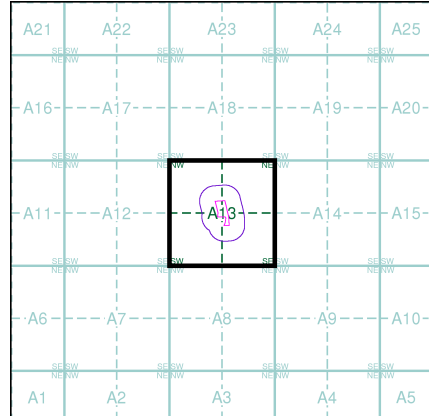
Source map scale - 1:2,500

'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)

TL2320 1993 12,500	TL2420 1993 12,500
TL2319 1993 12,500	TL2419 1993 12,500

Historical Map - Segment A13



Order Details

Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 100

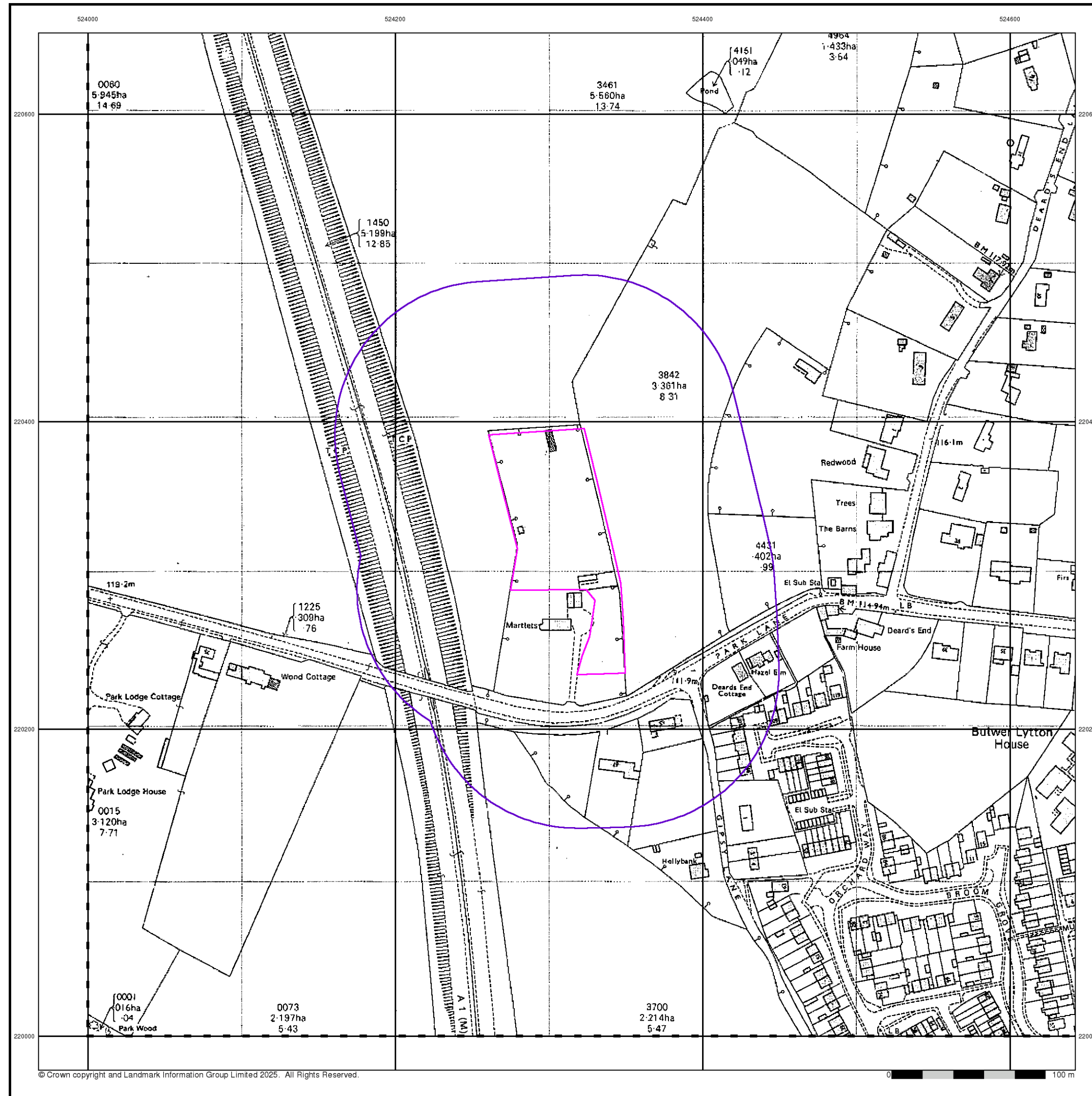
Site Details

Park Lane, Knebworth



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

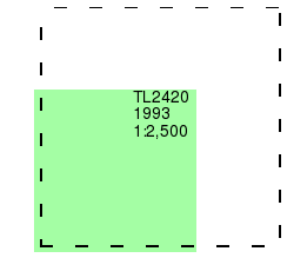
A Landmark Information Group Service v50.0 26-Mar-2025 Page 12 of 15



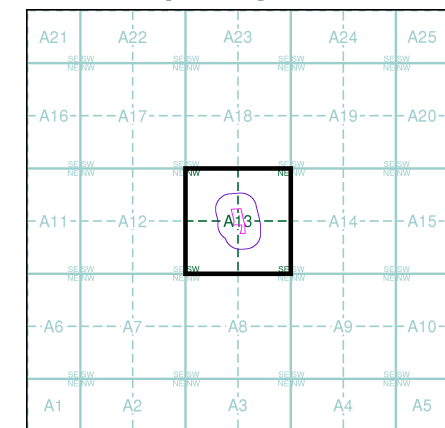
Additional SIMs
Published 1993
Source map scale - 1:2,500

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
Order Number: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 100

Site Details
Park Lane, Knebworth



© Copyright Getmapping plc

0 100 m



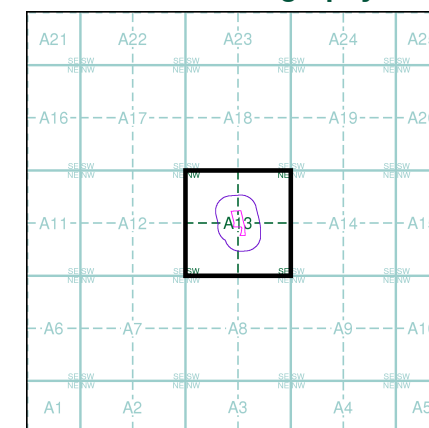
LK CONSULT

Historical Aerial Photography

Published 1999

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: 373093154_1_1
Customer Ref: LKC251040
National Grid Reference: 524310, 220320
Slice: A
Site Area (Ha): 0.79
Search Buffer (m): 100

Site Details

Park Lane, Knebworth

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Appendix B – Envirocheck Report

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

373093154_1_1

Customer Reference:

LKC251040

National Grid Reference:

524310, 220320

Slice:

A

Site Area (Ha):

0.79

Search Buffer (m):

1000

Site Details:

Park Lane, Knebworth

Client Details:

L Consult
LK Consult Ltd
Unit 29 Eton Business Park
Eton Hill Road
Radcliffe
Greater Manchester
M26 2ZS

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	6
Hazardous Substances	-
Geological	7
Industrial Land Use	12
Sensitive Land Use	17
Data Currency	18
Data Suppliers	24
Useful Contacts	25

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.

Copyright Notice

© Landmark Information Group Limited 2025. The Copyright on the information and data and its format as contained in this Envirocheck® Report ("Report") is the property of Landmark Information Group Limited ("Landmark") and several other Data Providers, including (but not limited to) Ordnance Survey, British Geological Survey, the Environment Agency/Natural Resources Wales and Natural England, and must not be reproduced in whole or in part by photocopying or any other method. The Report is supplied under Landmark's Terms and Conditions accepted by the Customer. A copy of Landmark's Terms and Conditions can be found with the Index Map for this report. Additional copies of the Report may be obtained from Landmark, subject to Landmark's charges in force from time to time. The Copyright, design rights and any other intellectual rights shall remain the exclusive property of Landmark and /or other Data providers, whose Copyright material has been included in this Report. © Environment Agency & United Kingdom Research and Innovation 2025. © Natural Resources Wales & United Kingdom Research and Innovation 2025.

Natural England Copyright Notice

Site of Special Scientific Interest, National Nature Reserve, Ramsar, Special Protection Area, Special Conservation Area, Marine Nature Reserve data (derived from Ordnance Survey 1:10000 raster) is provided by, and used with the permission of, Natural England who retain the copyright and Intellectual Property Rights for the data.

Scottish Natural Heritage Copyright

Contains SNH information licensed under the Open Government Licence v3.0.

Ove Arup Copyright Notice

The Mining Instability data was obtained on licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The supplied Mining Instability data is derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

Stantec Copyright Notice

The cavity data presented has been extracted from the PBA (now Stantec UK Ltd) enhanced version of the original DEFRA national cavity databases. Stantec UK Ltd retain the copyright & intellectual property rights in the data. Whilst all reasonable efforts are made to check that the information contained in the cavity databases is accurate we do not warrant that the data is complete or error free. The information is based upon our own researches and those collated from a number of external sources and is continually being augmented and updated by Stantec UK Ltd. In no event shall Stantec UK Ltd or Landmark be liable for any loss or damage including, without limitation, indirect or consequential loss or damage arising from the use of this data.

Radon Potential dataset Copyright Notice

Information supplied from a joint dataset compiled by The British Geological Survey and Public Health England. The probability result is only valid for properties above ground. All basement and cellar areas are considered to be at additional risk from high radon levels. If an underground room such as a cellar or basement makes up part of the living or working accommodation, the property should be tested regardless of Radon Affected Area status.

Natural Resources Wales Copyright Notice

Contains Natural Resources Wales information © Natural Resources Wales and Database Right. All rights Reserved. Contains Ordnance Survey Data. Ordnance Survey Licence number 100019741. Crown Copyright and Database Right. Contains Natural Resources Wales information © Natural Resources Wales and Database Right. All rights Reserved. Some features of this information are based on digital spatial data licensed from the Centre for Ecology & Hydrology © NERC (CEH). Defra, Met Office and DARD Rivers Agency © Crown copyright. © Cranfield University. © James Hutton Institute. Contains OS data © Crown copyright and database right 2025. Land & Property Services © Crown copyright and database right.

Report Version v53.0

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		n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1				4
Prosecutions					
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 2				1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 2		Yes		
Pollution Incidents to Controlled Waters					
Historical Prosecutions					
Registered Radioactive Substances					
Substantiated Pollution Incident Register					
Water Abstractions	pg 2				(*6)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 3	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk	pg 3	1	n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 3	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 3	Yes	n/a	n/a	n/a
Source Protection Zones	pg 4	1	1		1
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 4				4
Water Framework Directive - Catchment	pg 4	Yes		Yes	
Water Framework Directive - Groundwater	pg 5	Yes			
Water Framework Directive - Surface Waters					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 6	2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 6				2
Potentially Infilled Land (Non-Water)	pg 6			2	4
Potentially Infilled Land (Water)	pg 6				1
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
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 7	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 7	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 8			2	8
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities	pg 10				1
Non Coal Mining Areas of Great Britain	pg 10	Yes	Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 10	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 10	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 11	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards				n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 11	Yes	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 12		2	3	28
Fuel Station Entries					
Points of Interest - Commercial Services	pg 14			2	10
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production					
Points of Interest - Public Infrastructure	pg 15				4
Points of Interest - Recreational and Environmental	pg 16				4
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	pg 17			1	1
Areas of Adopted Green Belt	pg 17	1			1
Areas of Unadopted Green Belt	pg 17		1		1
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	pg 17	1			
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
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: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	0	1	524309 220319
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (S)	236	1	524309 220000
1	Discharge Consents Operator: Mr. R. Hammond Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: 20a Deards End Lane, , Knebworth , Hertfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctlu.0701 Permit Version: 2 Effective Date: 21st December 2012 Issued Date: 21st December 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Groundwater Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	511	2	524700 220740
1	Discharge Consents Operator: Mr. R. Hammond Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: 20a Deards End Lane, , Knebworth , Hertfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTLU.0701 Permit Version: 1 Effective Date: 18th February 1981 Issued Date: 18th February 1981 Revocation Date: 20th December 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Groundwater Status: Transferred from Water Resources Act 1963 Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	511	2	524700 220740
1	Discharge Consents Operator: Mr. S.J. Elms Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: 20 Deards End Laneknebworthherts Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctlu.0702 Permit Version: 2 Effective Date: 21st December 2012 Issued Date: 21st December 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Groundwater Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	525	2	524700 220760
1	Discharge Consents Operator: Mr. S.J. Elms Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: 20 Deards End Laneknebworthherts Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTLU.0702 Permit Version: 1 Effective Date: 18th February 1981 Issued Date: 18th February 1981 Revocation Date: 20th December 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Groundwater Status: Transferred from Water Resources Act 1963 Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	525	2	524700 220760

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Local Authority Pollution Prevention and Controls Name: Rainbow Dry Cleaners Location: 135b London Road, Knebworth, Sg3 Authority: North Hertfordshire District Council, Environmental Health Department Permit Reference: EPA/16807/06/P2 Dated: 17th June 2009 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Manually positioned to the address or location	A14SE (E)	818	3	525166 220189
	Nearest Surface Water Feature	A13NE (N)	230	-	524414 220607
	Water Abstractions Operator: Affinity Water Limited Licence Number: 29/38/03/0001 Permit Version: 102 Location: Watton Pumping Station Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 14th November 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A15SW (E)	1153	2	525500 220300
	Water Abstractions Operator: Veolia Water Central Limited Licence Number: 29/38/03/0001 Permit Version: 101 Location: Watton Pumping Station Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A15SW (E)	1153	2	525500 220300
	Water Abstractions Operator: Three Valleys Water Plc Licence Number: 29/38/03/0001 Permit Version: 100 Location: Watton Pumping Station Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 5682 Yearly Rate (m3): 1659290 Details: Chalk (Undifferentiated) Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 25th November 1965 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A15SW (E)	1153	2	525500 220300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Affinity Water Limited Licence Number: 29/38/03/0001 Permit Version: 103 Location: Borehole At Watton Road Pumping Station - 'B' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st April 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15SW (E)	1179	2	525526 220310
	Water Abstractions Operator: Affinity Water Limited Licence Number: 29/38/03/0001 Permit Version: 103 Location: Watton Road Pumping Station 'A' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st April 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15SW (E)	1182	2	525529 220304
	Water Abstractions Operator: Mr P V Day Licence Number: 29/38/02/0017 Permit Version: 100 Location: Old Welwyn Nurseries, Welwyn - Borehole Authority: Environment Agency, Thames Region Abstraction: Agriculture: Horticultural Watering Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 34 Yearly Rate (m3): 1300 Details: Old Welwyn Nurseries, Rabley Heath Road, Welwyn, Herts Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 13th October 1967 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A1SE (SW)	1883	2	523100 218800
	Groundwater Vulnerability Map Combined Classification: Principle Bedrock Aquifer - Low Vulnerability Combined Vulnerability: Low Combined Aquifer: Productive Bedrock Aquifer, Unproductive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: 40-70% Superficial Patchiness: >90% Superficial Thickness: 3-10m Superficial Recharge: High	A13NE (N)	0	2	524309 220319
	Groundwater Vulnerability - Soluble Rock Risk Classification: Very Significant Risk - Moderate Possibility	A13NE (N)	0	2	524309 220319
	Bedrock Aquifer Designations Aquifer Designation: Principal Aquifer	A13NE (N)	0	4	524309 220319
	Superficial Aquifer Designations Aquifer Designation: Unproductive Strata	A13NE (N)	0	4	524309 220319

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Source Protection Zones Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.	A13NE (N)	0	2	524309 220319
4	Source Protection Zones Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater.	A13NE (N)	7	2	524336 220397
5	Source Protection Zones Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone I (Inner Protection Zone): Travel time of 50 days or less to the groundwater source.	A14NW (E)	607	2	524951 220346
	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				
6	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 99.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18NW (NW)	677	5	523975 221005
7	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18NW (N)	731	5	524005 221075
8	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 53.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8SE (S)	760	5	524345 219476
9	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 136.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12NW (W)	877	5	523384 220422
	Water Framework Directive - Catchment Class Code: River Catchment WaterBody Name: Stevenage Brook WaterBody ID: GB106038033410 Operational: Lee Upper Catchment: Lee Upper Management: Lee Upper Catchment: Lee Upper Catchment Name: Upper and Middle Lea	A13NE (N)	0	2	524309 220319

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Framework Directive - Catchment Class Code: River Catchment WaterBody Name: Mimram (Codicote Bottom to Lee) WaterBody ID: GB106038033270 Operational: Lee Upper Catchment: Lee Upper Management: Lee Upper Catchment: Lee Upper Catchment Name: Upper and Middle Lea	A12SE (W)	433	2	523860 220170
	Water Framework Directive - Groundwater Waterbody Name: Upper Lee Chalk Waterbody ID: GB40601G602900 URL Address: https://environment.data.gov.uk/catchment-planning/WaterBody/GB40601G602900 Overall Rating: Poor Chemical Rating: Poor Quantitative Measure: Poor Year: 2019	A13NE (N)	0	2	524309 220319

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Hertfordshire County Council - Has supplied landfill data		0	6	524309 220319
	Local Authority Landfill Coverage Name: North Hertfordshire District Council - Has supplied landfill data		0	3	524309 220319
	Local Authority Landfill Coverage Name: Welwyn Hatfield Council - Has no landfill data to supply		835	7	524268 219403
10	Local Authority Recorded Landfill Sites Location: Deards End Farm, Knebworth Reference: 215 Authority: Hertfordshire County Council, Spatial Planning and Economy Unit Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A9SW (SE)	714	6	524675 219602
11	Local Authority Recorded Landfill Sites Location: North Of Knebworth Reference: 214 Authority: Hertfordshire County Council, Spatial Planning and Economy Unit Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Applicable	A19SE (NE)	917	6	525049 220955
12	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A8NE (S)	392	-	524439 219855
13	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1987	A14NW (E)	437	-	524761 220439
14	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1987	A18SE (N)	563	-	524432 220947
15	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1987	A14NW (NE)	582	-	524872 220587
16	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A8SE (S)	693	-	524540 219570
17	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A19NE (NE)	958	-	525060 221006
18	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1960	A12SE (W)	596	-	523673 220299

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: White Chalk Subgroup	A13NE (N)	0	1	524309 220319
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (N)	0	1	524309 220319
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SW (W)	51	1	524221 220295
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (W)	93	1	524181 220296
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SW (E)	397	1	524748 220187
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A9NW (SE)	438	1	524697 219971
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NW (E)	558	1	524878 220478

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: Rural Soil Arsenic: 25 - 35 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:	A9SW (SE)	749	1	524796 219636
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil 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:	A17SE (NW)	783	1	523727 220964
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 25 - 35 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:	A18NE (N)	787	1	524387 221179
19	BGS Recorded Mineral Sites Site Name: Gun Farm Chalk Pit Location: Knebworth, Stevenage, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 166814 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A8NE (S)	391	1	524441 219857
20	BGS Recorded Mineral Sites Site Name: Knebworth Station Pit Location: Knebworth, Stevenage, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 166813 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A14NW (E)	448	1	524773 220437
21	BGS Recorded Mineral Sites Site Name: Knebworth Chalk Pit Location: Knebworth, Stevenage, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 166883 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	601	1	524837 220706

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	BGS Recorded Mineral Sites Site Name: Knebworth Chalk Pit Location: Knebworth, Stevenage, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 166884 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	639	1	524708 220905
23	BGS Recorded Mineral Sites Site Name: Knebworth Chalk Pit Location: Knebworth, Stevenage, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 166887 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	641	1	524657 220942
24	BGS Recorded Mineral Sites Site Name: Knebworth Chalk Pit Location: Knebworth, Stevenage, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 166886 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	660	1	524894 220725
25	BGS Recorded Mineral Sites Site Name: Knebworth Chalk Pit Location: Knebworth, Stevenage, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 166885 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	687	1	524780 220907
26	BGS Recorded Mineral Sites Site Name: Gun Farm Chalk Pit Location: Knebworth, Stevenage, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 166824 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A8SE (S)	763	1	524562 219504
27	BGS Recorded Mineral Sites Site Name: Gun Farm Chalk Pit Location: Knebworth, Stevenage, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 166823 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A8SE (S)	803	1	524617 219480

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	BGS Recorded Mineral Sites Site Name: Gun Farm Chalk Pit Location: Knebworth, Stevenage, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 166850 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	910	1	524729 219410
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Natural Cavities Easting: 524821 Northing: 220511 Distance: 507 Quadrant Reference: A14 Quadrant Reference: NW Bearing Ref: E Cavity Type: Solution Pipe x 10 Solid Geology Detail: Chalk Group Superficial Geology: Brickearth/head Detail:	A14NW (E)	507	8	524821 220511
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	524309 220319
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	236	1	524309 220000
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	524309 220319
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	236	1	524309 220000
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	524309 220319
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	236	1	524309 220000
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	524309 220319
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	29	1	524377 220374
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	51	1	524221 220295
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	93	1	524181 220296
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	193	1	524082 220464
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	235	1	524042 220257

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	236	1	524309 220000
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	524309 220319
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	51	1	524221 220295
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	95	1	524188 220254
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	236	1	524309 220000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	524309 220319
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	236	1	524309 220000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	524309 220319
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	51	1	524221 220295
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	93	1	524181 220296
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	236	1	524309 220000
	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	A13NE (N)	0	1	524309 220319
	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	A13NE (N)	0	1	524309 220319

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	Contemporary Trade Directory Entries Name: Vehicle Solutions Location: 101, Orchard Way, Knebworth, Hertfordshire, SG3 6BT Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	98	-	524427 220177
30	Contemporary Trade Directory Entries Name: Nobilla Machine Tools Ltd Location: DEARDS END LANE, KNEBWORTH, SG3 6NL Classification: Machinery - Industrial & Commercial Status: Active Positional Accuracy: Automatically positioned to the address	A13SE (E)	156	-	524502 220306
31	Contemporary Trade Directory Entries Name: A M T Fastener Co Location: 31, Park Lane, Knebworth, Hertfordshire, SG3 6PH Classification: Fasteners & Fixing Devices Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (E)	286	-	524635 220241
32	Contemporary Trade Directory Entries Name: Elite Vehicle Recovery Location: Gipsy La, Knebworth, Hertfordshire, SG3 6PL Classification: Breakdown and Recovery Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A8NE (SE)	341	-	524506 219934
33	Contemporary Trade Directory Entries Name: David Smith Location: 20, Stockens Dell, Knebworth, Hertfordshire, SG3 6BG Classification: Farriers Status: Active Positional Accuracy: Automatically positioned to the address	A9NW (SE)	496	-	524726 219914
33	Contemporary Trade Directory Entries Name: Kevin Jarvis Location: 44, Hornbeam Spring, Knebworth, Hertfordshire, SG3 6BE Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	533	-	524739 219874
34	Contemporary Trade Directory Entries Name: City Joinery Ltd Location: Builders Yard, Station Approach, Knebworth, SG3 6AT Classification: Joinery Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	526	-	524874 220272
35	Contemporary Trade Directory Entries Name: The Fire Protection Co Location: 12, Deanscroft, Knebworth, Hertfordshire, SG3 6BB Classification: Firefighting Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (SE)	536	-	524852 220051
36	Contemporary Trade Directory Entries Name: Tom Luther Location: 38, Kerr Close, Knebworth, SG3 6AB Classification: Car Engine Tuning & Diagnostic Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NW (E)	623	-	524958 220411
37	Contemporary Trade Directory Entries Name: Rna Autos Location: 157, Park Lane, Old Knebworth, Knebworth, Hertfordshire, SG3 6PR Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (W)	629	-	523634 220333
38	Contemporary Trade Directory Entries Name: A O G Support Structures (Uk) Ltd Location: 8, Sayer Way, Knebworth, Hertfordshire, SG3 6BN Classification: Distribution Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	653	-	524893 219876
38	Contemporary Trade Directory Entries Name: T-Fast Location: 44, Gun Lane, Knebworth, Hertfordshire, SG3 6BH Classification: Fasteners & Fixing Devices Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	687	-	524940 219886

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	Contemporary Trade Directory Entries Name: Fuel Savers International Location: 2, Pondcroft Road, Knebworth, Hertfordshire, SG3 6DB Classification: Fuel Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	675	-	525017 220139
40	Contemporary Trade Directory Entries Name: Phillips Electrical Location: 1, Station Road, Knebworth, Hertfordshire, SG3 6AP Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	679	-	525026 220187
40	Contemporary Trade Directory Entries Name: A M Print & Signs Location: 2, Station Road, Knebworth, SG3 6AP Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	684	-	525033 220220
40	Contemporary Trade Directory Entries Name: Pot Stop Location: 11c, Station Road, Knebworth, Hertfordshire, SG3 6AP Classification: Ceramic Manufacturers, Supplies & Services Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (E)	708	-	525056 220195
40	Contemporary Trade Directory Entries Name: Woodpecker Blinds Location: C, 7, Station Road, Knebworth, Hertfordshire, SG3 6AP Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	708	-	525056 220195
40	Contemporary Trade Directory Entries Name: The Artful Potter Ltd Location: 11c, Station Road, Knebworth, Hertfordshire, SG3 6AP Classification: Ceramic Manufacturers, Supplies & Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	708	-	525056 220195
40	Contemporary Trade Directory Entries Name: Paragon Euro Imports Ltd Location: 9, Station Road, Knebworth, Hertfordshire, SG3 6AP Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	718	-	525066 220196
40	Contemporary Trade Directory Entries Name: Printhub Location: 15b Station Road, Knebworth, Hertfordshire, SG3 6AP Classification: Printers Status: Active Positional Accuracy: Manually positioned to the address or location	A14SE (E)	733	-	525081 220200
40	Contemporary Trade Directory Entries Name: M D M Blinds Location: 15, Station Road, Knebworth, Hertfordshire, SG3 6AP Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	734	-	525082 220202
40	Contemporary Trade Directory Entries Name: M D M Blinds Ltd Location: 15, Station Road, Knebworth, Hertfordshire, SG3 6AP Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Manually positioned to the address or location	A14SE (E)	734	-	525082 220202
41	Contemporary Trade Directory Entries Name: Laser Active Ltd Location: 50, New Close, Knebworth, Hertfordshire, SG3 6NU Classification: Electrolysis Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	689	-	524988 220573
42	Contemporary Trade Directory Entries Name: 1st Class Domestics Location: 23 Meadway, Knebworth, Hertfordshire, SG3 6DN Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Manually positioned to the address or location	A9SW (SE)	726	-	524681 219591

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
43	Contemporary Trade Directory Entries Name: Dor 2 Dor Location: Pondcroft Rd, Knebworth, Hertfordshire, SG3 6DB Classification: Distribution Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A14SE (E)	746	-	525064 220025
44	Contemporary Trade Directory Entries Name: A L F Cleaning Services Location: 21, Station Road, Knebworth, Hertfordshire, SG3 6AP Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	766	-	525114 220215
45	Contemporary Trade Directory Entries Name: Chas Lowe & Son Builders Merchants Ltd Location: 156, London Road, Knebworth, Hertfordshire, SG3 6HA Classification: Builders' Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	803	-	525150 220173
45	Contemporary Trade Directory Entries Name: Rainbow Dry Cleaners Knebworth Ltd Location: 135b, London Road, KNEBWORTH, Hertfordshire, SG3 6EX Classification: Dry Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (E)	819	-	525167 220195
45	Contemporary Trade Directory Entries Name: Triographics Printers Ltd Location: 121, London Road, Knebworth, SG3 6EX Classification: Printers Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (E)	847	-	525193 220162
46	Contemporary Trade Directory Entries Name: First Call Location: 37, Cherry Close, Knebworth, Hertfordshire, SG3 6DS Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A9SW (SE)	811	-	524890 219633
47	Contemporary Trade Directory Entries Name: J Jackson & Partner Location: 124, London Road, Knebworth, Hertfordshire, SG3 6EY Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (E)	848	-	525187 220103
48	Contemporary Trade Directory Entries Name: Ranscombe Cars Ltd Location: 116, London Road, Knebworth, SG3 6HB Classification: Car Dealers - Used Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (E)	864	-	525183 220010
48	Contemporary Trade Directory Entries Name: A C S Environmental (UK) Ltd Location: Glacier House, London Rd, Knebworth, Hertfordshire, SG3 6EX Classification: Air Conditioning & Refrigeration Contractors Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A14SE (E)	884	-	525208 220027
49	Points of Interest - Commercial Services Name: David Smith Location: 20 Stockens Dell, Knebworth, SG3 6BG Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A9NW (SE)	494	9	524724 219915
49	Points of Interest - Commercial Services Name: David Smith Location: 20 Stockens Dell, Knebworth, SG3 6BG Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A9NW (SE)	496	9	524726 219914
50	Points of Interest - Commercial Services Name: Tom Luther Location: 26 Sayer Way, Knebworth, SG3 6BN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	609	9	524818 219848

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	Points of Interest - Commercial Services Name: Tom Luther Location: 26 Sayer Way, Knebworth, SG3 6BN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	611	9	524820 219848
50	Points of Interest - Commercial Services Name: Tom Luther Autos Location: 26 Sayer Way, Knebworth, SG3 6BN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	612	9	524820 219846
50	Points of Interest - Commercial Services Name: A O G Support Structures UK Ltd Location: 8 Sayer Way, Knebworth, SG3 6BN Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A9NW (SE)	655	9	524894 219873
51	Points of Interest - Commercial Services Name: Tom Luther Location: 38 Kerr Close, Knebworth, SG3 6AB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NW (E)	625	9	524960 220409
52	Points of Interest - Commercial Services Name: Dor 2 Dor Location: 10 Pondcroft Road, Knebworth, SG3 6DB Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A14SE (E)	691	9	525027 220107
53	Points of Interest - Commercial Services Name: Tom Luther Location: 1 Sayer Way, Knebworth, SG3 6BN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	709	9	524936 219839
54	Points of Interest - Commercial Services Name: J Jackson & Partner Location: 124 London Road, Knebworth, SG3 6EY Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SE (E)	848	9	525187 220103
54	Points of Interest - Commercial Services Name: J Jackson & Partner Location: 124 London Road, Knebworth, SG3 6EY Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SE (E)	853	9	525192 220105
55	Points of Interest - Commercial Services Name: Scuff Off Location: 17 Haygarth, Knebworth, SG3 6HE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NE (SE)	978	9	525258 219875
56	Points of Interest - Public Infrastructure Name: Knebworth Rail Station Location: SG3 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A14SW (E)	559	9	524908 220247
56	Points of Interest - Public Infrastructure Name: Knebworth Station Location: Station Approach, SG3 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A14SW (E)	571	9	524920 220258
57	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	A9SW (SE)	966	9	524891 219437

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
57	Points of Interest - Public Infrastructure Name: Cemetery Location: SG3 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A9SW (SE)	969	9	524897 219438
58	Points of Interest - Recreational and Environmental Name: Play Area Location: SG3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SW (SE)	504	9	524811 220035
59	Points of Interest - Recreational and Environmental Name: Play Area Location: SG3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9SW (SE)	835	9	524902 219611
60	Points of Interest - Recreational and Environmental Name: Play Area Location: SG3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	855	9	523411 220487
61	Points of Interest - Recreational and Environmental Name: Play Area Location: SG3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	962	9	525268 220576

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
62	Ancient Woodland Name: Park Wood Reference: 1116103 Area(m ²): 83221.69 Type: Ancient and Semi-Natural Woodland	A13SW (W)	279	10	523997 220281
63	Ancient Woodland Name: Not Supplied Reference: 1414233 Area(m ²): 65902.49 Type: Ancient and Semi-Natural Woodland	A7NE (SW)	884	10	523659 219647
64	Areas of Adopted Green Belt Authority: North Hertfordshire District Council Plan Name: North Hertfordshire District Local Plan Status: Adopted Plan Date: 30th April 1996	A13NE (N)	0	11	524309 220319
65	Areas of Adopted Green Belt Authority: Welwyn Hatfield District Council Plan Name: Welwyn Hatfield Local Plan Status: Adopted Plan Date: 15th April 2005	A8SW (S)	834	12	524272 219403
66	Areas of Unadopted Green Belt Authority: North Hertfordshire District Council Plan Name: North Hertfordshire Local Plan Status: Submission Draft Plan Date: 11th April 2017	A13NW (W)	3	11	524274 220324
67	Areas of Unadopted Green Belt Authority: Welwyn Hatfield District Council Plan Name: Welwyn Hatfield Local Plan Status: Submission Draft Plan Date: 15th May 2017	A8SW (S)	834	12	524272 219403
68	Nitrate Vulnerable Zones Name: Lee Nvz Description: Surface Water Source: Environment Agency, Head Office	A13NE (N)	0	2	524309 220319

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices East Hertfordshire District Council - Environmental Health Department Environment Agency - Head Office North Hertfordshire District Council - Environmental Health Department Stevenage Borough Council - Environmental Health Department Welwyn Hatfield District Council - Environmental Health Department	January 2013 November 2023 October 2017 October 2017 October 2017	Annual Rolling Update Annually Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Anglian Region Environment Agency - Thames Region	October 2024 October 2024	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Thames Region	March 2013	
Integrated Pollution Controls Environment Agency - Thames Region	January 2009	
Integrated Pollution Prevention And Control Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region	October 2024 October 2024	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Stevenage Borough Council - Environmental Health Department Welwyn Hatfield District Council - Environmental Health Department East Hertfordshire District Council - Environmental Health Department North Hertfordshire District Council - Environmental Health Department	April 2015 February 2024 January 2014 September 2014	Variable Variable Variable Variable
Local Authority Pollution Prevention and Controls Stevenage Borough Council - Environmental Health Department North Hertfordshire District Council - Environmental Health Department Welwyn Hatfield District Council - Environmental Health Department East Hertfordshire District Council - Environmental Health Department	April 2015 December 2020 February 2024 January 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Stevenage Borough Council - Environmental Health Department Welwyn Hatfield District Council - Environmental Health Department East Hertfordshire District Council - Environmental Health Department North Hertfordshire District Council - Environmental Health Department	April 2015 February 2024 January 2014 September 2014	Variable Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	January 2025	
Pollution Incidents to Controlled Waters Environment Agency - Anglian Region Environment Agency - Thames Region	September 1999 September 1999	
Historical Prosecutions Environment Agency, Thames Region	March 2013	Not Applicable
Registered Radioactive Substances Environment Agency - Head Office Environment Agency - Thames Region	May 2023 May 2023	
Substantiated Pollution Incident Register Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	October 2024 October 2024	Quarterly Quarterly
Water Abstractions Environment Agency - Anglian Region Environment Agency - Thames Region	October 2024 October 2024	Quarterly Quarterly
Water Industry Act Referrals Environment Agency - Thames Region	October 2017	
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	As notified
Groundwater Vulnerability - Soluble Rock Risk Environment Agency - Head Office	June 2018	As notified

Agency & Hydrological	Version	Update Cycle
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	As notified
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	As notified
Source Protection Zones Environment Agency - Head Office	September 2022	Bi-Annually
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	December 2023	As notified
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	December 2023	As notified
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2023	
Flood Water Storage Areas Environment Agency - Head Office	January 2024	Quarterly
Flood Defences Environment Agency - Head Office	August 2022	
OS Water Network Lines Ordnance Survey	January 2025	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
Water Framework Directive - Catchment Environment Agency - Head Office	July 2024	Annually
Water Framework Directive - Groundwater Environment Agency - Head Office	July 2024	Annually

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	October 2024	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Thames Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	November 2024 November 2024	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	October 2024 October 2024	Quarterly Quarterly
Local Authority Landfill Coverage East Hertfordshire District Council - Environmental Health Department Hertfordshire County Council - Spatial Planning and Economy Unit North Hertfordshire District Council - Environmental Health Department Stevenage Borough Council - Environmental Health Department Welwyn Hatfield District 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 East Hertfordshire District Council - Environmental Health Department Hertfordshire County Council - Spatial Planning and Economy Unit North Hertfordshire District Council - Environmental Health Department Stevenage Borough Council - Environmental Health Department Welwyn Hatfield District 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 - Thames Region - North East Area	March 2006	Not Applicable
Registered Waste Transfer Sites Environment Agency - Thames Region - North East Area	April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency - Thames Region - North East Area	June 2015	

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	September 2024	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements Hertfordshire County Council - Spatial Planning and Economy Unit North Hertfordshire District Council Stevenage Borough Council Welwyn Hatfield District Council East Hertfordshire District Council	February 2016 February 2016 June 2023 June 2023 May 2023	Variable Variable Variable Variable Variable
Planning Hazardous Substance Consents East Hertfordshire District Council Hertfordshire County Council - Spatial Planning and Economy Unit North Hertfordshire District Council Stevenage Borough Council Welwyn Hatfield District Council	April 2015 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	March 2024	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	November 2024	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	November 2024	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	December 2024	Quarterly
Fuel Station Entries Green Street Advisor (UK) Ltd	December 2024	Quarterly
Points of Interest - Commercial Services PointX	March 2025	Quarterly
Points of Interest - Education and Health PointX	March 2025	Quarterly
Points of Interest - Manufacturing and Production PointX	March 2025	Quarterly
Points of Interest - Public Infrastructure PointX	March 2025	Quarterly
Points of Interest - Recreational and Environmental PointX	March 2025	Quarterly
Underground Electrical Cables National Grid	January 2024	

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	November 2024	Bi-Annually
Areas of Adopted Green Belt East Hertfordshire District Council North Hertfordshire District Council Stevenage Borough Council Welwyn Hatfield District Council	July 2024 July 2024 July 2024 July 2024	Quarterly Quarterly Quarterly Quarterly
Areas of Unadopted Green Belt East Hertfordshire District Council North Hertfordshire District Council Stevenage Borough Council Welwyn Hatfield District Council	July 2024 July 2024 July 2024 July 2024	Quarterly Quarterly Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural England	November 2024	Bi-Annually
Environmentally Sensitive Areas Natural England	August 2023	
Forest Parks Forestry Commission	May 2023	Not Applicable
Local Nature Reserves Natural England	February 2025	Bi-Annually
Marine Nature Reserves Natural England	February 2025	Bi-Annually
National Nature Reserves Natural England	January 2025	Bi-Annually
National Parks Natural England	September 2024	Bi-Annually
Nitrate Sensitive Areas Natural England	April 2023	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Environment Agency - Head Office	April 2016 November 2024	Annually
Ramsar Sites Natural England	February 2025	Bi-Annually
Sites of Special Scientific Interest Natural England	November 2024	Bi-Annually
Special Areas of Conservation Natural England	January 2025	Bi-Annually
Special Protection Areas Natural England	November 2024	Bi-Annually

A selection of organisations who provide data within this report

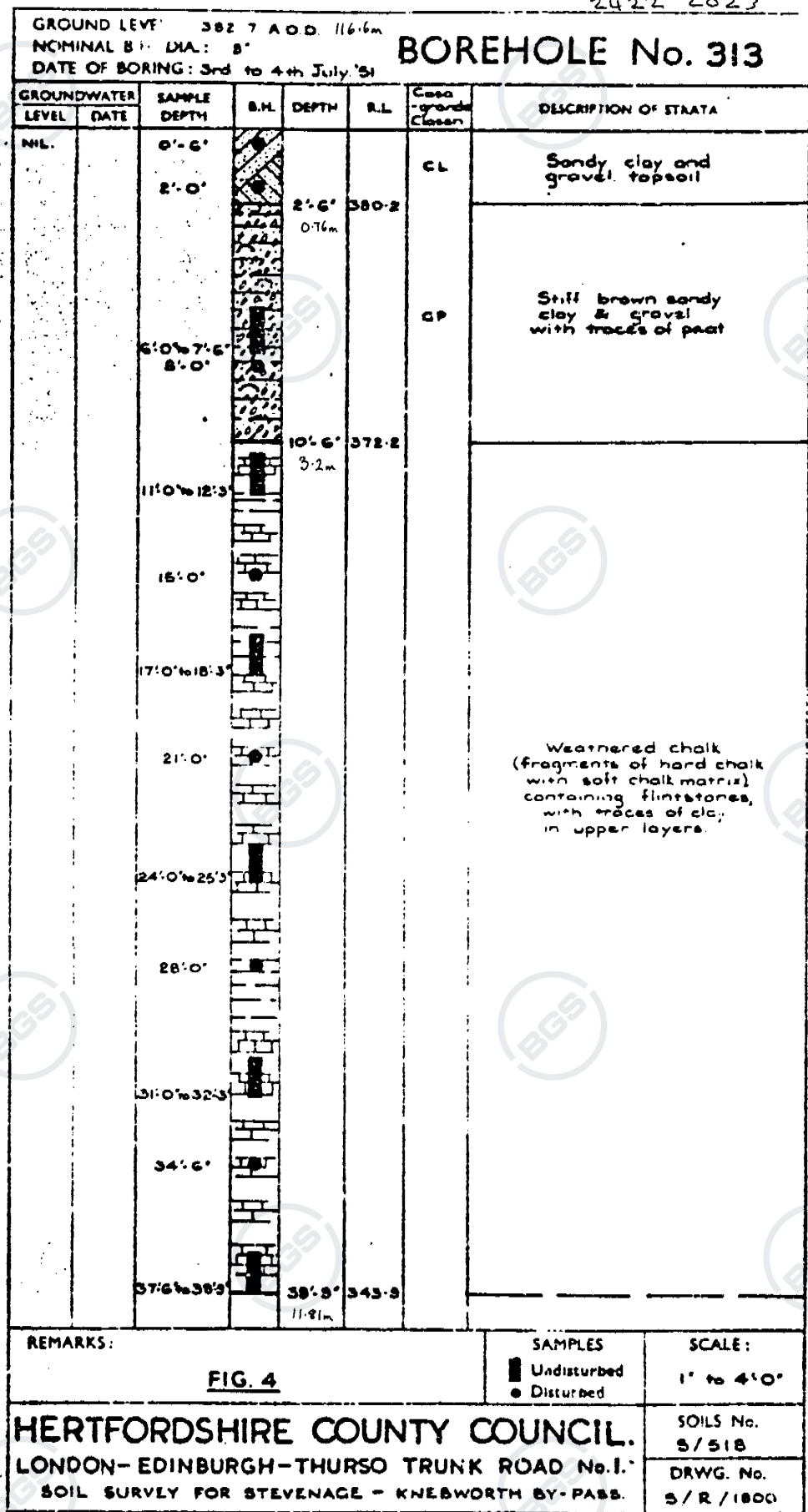
Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT 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	North Hertfordshire District Council - Environmental Health Department Council Offices, Gernon Road, Letchworth, Hertfordshire, SG6 3JF	Telephone: 01462 474000 Fax: 01462 474559 Website: www.north-herts.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.co.uk
6	Hertfordshire County Council - Spatial Planning and Economy Unit County Hall, Hertford, Hertfordshire, SG13 8DN	Telephone: 01992 556266 Fax: 01992 556015 Email: spatialplanning@hertfordshire.gov.uk Website: www.hertsdirect.org
7	Welwyn Hatfield District Council - Environmental Health Department Council Offices, Campus East, Welwyn Garden City, Hertfordshire, AL8 6AE	Telephone: 01707 357000 Fax: 01707 375490 Website: www.welhat.gov.uk
8	Stantec UK Ltd Caversham Bridge House, Waterman Place, Reading, RG1 8DN	Telephone: 0118 950 0761 Email: pba.reading@stantec.com Website: www.stantec.com
9	PointX 5-6 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
10	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
11	North Hertfordshire District Council Council Offices, Gernon Road, Letchworth, Hertfordshire, SG6 3JF	Telephone: 01462 474000 Fax: 01462 474558 Website: www.north-herts.gov.uk
12	Welwyn Hatfield District Council Council Offices, Campus East, Welwyn Garden City, Hertfordshire, AL8 6AE	Telephone: 01707 357000 Fax: 01707 375490 Website: www.welhat.gov.uk
13	Stevenage Borough Council Daneshill House, Danestrete, Stevenage, Hertfordshire, SG1 1HN	Telephone: 01438 242242 Fax: 01438 740296 Website: www.stevenage.gov.uk
14	East Hertfordshire District Council Wallfields, Pegs Lane, Hertford, Hertfordshire, SG13 8EQ	Telephone: 01279 655261 Fax: 01992 552280 Website: www.eastherts.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

Contact	Name and Address	Contact Details
-	Landmark Information Group Limited Landmark Information Group, Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0330 036 6618 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk

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

Appendix C – Historical BGS Boreholes



Travers Morgan One Ltd

TRIVERS
MORGAN

DRAWN	CHECKED	PASSED	DATE	SCALE 1:10,000	DRAWING NUMBER 20524/ a	REV
-------	---------	--------	------	-------------------	-----------------------------------	-----

Contact BGS: ngdc@bgs.ac.uk



Norwest Holst Soil Engineering Ltd.						BOREHOLE LOG		Borehole No. S39	
Contract No. F9443		Method Cable Percussion		Sheet 1 of 3 TL 22 SW 256		Coords E 9,201.5 N 40,258.0			
Location A1(M) Junctions 6 - 8		Borehole Diam (mm)200/150		24198 20253		Ground Level 113.30 m.A.O.D.			
Client The Department of Transport		Date 10/04/92							
Engineer Travers Morgan Limited									
Description of Strata	Legend	Depth Below G.L.(m)	O.D. Level (m)	Sampling & Insitu Testing		Ground Water	Piezometer/ Standpipe		
MADE GROUND: Orangish brown mottled black silty slightly sandy clay with some fine to coarse subangular gravel of mixed lithology.				Depth(m)	TCR	SCR	RQD		
White moderately weathered CHALK, very weak to weak, very low to low density. Bedding fractures extremely closely to very closely spaced 15/30/50mm, closed and occasionally open (<5mm) with infill of brown silty clay. Joints (2 sets) subvertical to 70 deg, planar, closed and occasionally stained brown and orange brown. (Grade IV)		0.50	112.80	J 0.50					
				B 1.00					
				J 1.50					
				U 2.00	2.45	(35)			
				J 2.50					
				BS 3.00	3.45	"10"			
				J 3.50					
--- 4.00-4.45m weak, low density. Bedding fractures generally closed, occasionally open (<2mm) 1 joint set 45 deg, closed. Joints generally stained light yellowish brown and speckled black				JU 4.00	4.45	(40)			
				J 4.50					
				BS 5.00	5.45	"8"			
				JU 6.00	6.45	(60)			
				J 6.50					
				BS 7.00	7.45	"21"			
				JU 8.00	8.45	(100)NR			
				B 8.50					
				BS 9.00	9.45	"15"			
(Upper Chalk)									
Daily Progress		Hard Strata		Comments		Logged by:			
Date	Final Depth (m) of:		Depth(m)						
	Borehole	Water	Casing						
10/4/92	20.00	Dry	1.50	8.50-8.70		30mins			
				Inspection pit to 1.20m depth. Borehole grouted on completion. Casing 200mm to 1.60m then 150mm to 20.00m.					
				Casing maintained just above base of borehole unless stated					
Sample and Test Key	J Small Disturbed Sample	S Standard Penetration Test	S.P.T. or C.P.T.	Rotary Core Run		Ground Water			
	B Bulk Disturbed Sample	C Cone Penetration Test	For given penetration	T.C.R. Total Core Recovery (%)		1 -> First Water Strike			
	U Undisturbed U100 Sample	V In situ Vane Test	For given penetration	S.C.R. Solid Core Recovery (%)		2 -> Subsequent Water Strike			
	W Water Sample	PR Permeability Test	Sealing blow only	R.Q.D. Rock Quality Designation (%)		3 -> Level 20mins after strike			
	N.R. No Recovery	Q Blow to drive U100	N.P. No Penetration			4 -> Casing Depth			
						Piezometer			
						Upper Seal			
						Sand Cell			
						Piezometer Tip			
						Lower Seal			
						Grout			

 Norwest Holst Soil Engineering Ltd.		BOREHOLE LOG		Borehole No. S39			
Contract No. F9443		Method Cable Percussion		Sheet 2 of 3 TL 22 SW 256			
Location A1(M) Junctions 6 - 8		Borehole Diam (mm) 200/150		Coords E 9,201.5 N 40,258.0			
Client The Department of Transport		Date 10/04/92		Ground Level 113.30 m.A.O.D.			
Engineer Travers Morgan Limited							
Description of Strata		Legend	Depth Below G.L.(m)	O.D. Level (m)	Sampling & Insitu Testing Depth(m) TCR () & N SCR RQD	Ground Water	Piezometer Standpipe
White moderately weathered CHALK, very weak to weak, very low to low density. Bedding fractures extremely closely to very closely spaced 15/30/50mm, closed and occasionally open (<5mm) with infill of brown silty clay. Joints (2 sets) subvertical to 70 deg, planar, closed and occasionally stained brown and orange brown. (Grade V) --- 10.00-10.45m bedding fractures 10/30/40mm					JU 10.00 10.45 (60)		
					J 10.50		
					BS 11.00 11.45 "18"		
					JU 12.00 12.45 (45)		
					J 12.50		
					BS 13.00 13.45 "18"		
					JU 14.00 14.45 (50)		
					BS 15.00 15.45 "21"		
					JU 16.00 16.45 (55)		
					J 16.50		
--- at 16.20m with 1 No cobble sized 'rinded' flint					S 17.00 17.45 "26"		
					JU 18.00 18.45 (50)		
					J 18.50		
					BS 19.00 19.45 "23"		
					JU 20.00 20.00 (50)		
					J 20.50		
					BS 21.00 21.00 "23"		
					JU 22.00 22.00 (50)		
					J 22.50		
					BS 23.00 23.00 "23"		
--- at 18.10m with 1 No fine gravel size 'rinded' flint					JU 24.00 24.00 (50)		
					J 24.50		
					BS 25.00 25.00 "23"		
					JU 26.00 26.00 (50)		
					J 26.50		
					BS 27.00 27.00 "23"		
					JU 28.00 28.00 (50)		
					J 28.50		
					BS 29.00 29.00 "23"		
					JU 30.00 30.00 (50)		
(Upper Chalk)				JU 31.00 31.00 (50)			
				J 31.50			
				BS 32.00 32.00 "23"			
				JU 33.00 33.00 (50)			
				J 33.50			
				BS 34.00 34.00 "23"			
				JU 35.00 35.00 (50)			
				J 35.50			
				BS 36.00 36.00 "23"			
				JU 37.00 37.00 (50)			
				J 37.50			
				BS 38.00 38.00 "23"			
				JU 39.00 39.00 (50)			
				J 39.50			
				BS 40.00 40.00 "23"			
				JU 41.00 41.00 (50)			
				J 41.50			
				BS 42.00 42.00 "23"			
				JU 43.00 43.00 (50)			
				J 43.50			
				BS 44.00 44.00 "23"			
				JU 45.00 45.00 (50)			
				J 45.50			
				BS 46.00 46.00 "23"			
				JU 47.00 47.00 (50)			

 Norwest Holst Soil Engineering Ltd.		BOREHOLE LOG		Borehole No. S39				
Contract No. F9443 Location A1(M) Junctions 6 - 8		Method Cable Percussion Borehole Diam (mm) 200/150		Sheet 3 of 3 TL 22 SW 256 Coords E 9,201.5 N 40,258.0				
Client The Department of Transport Engineer Travers Morgan Limited		Date 10/04/92		Ground Level 113.30 m.A.O.D.				
Description of Strata		Legend	Depth Below G.L.(m)	O.D. Level (m)	Sampling & Insitu Testing Depth(m) TCR SCR RQD () & N SCR RQD	Ground Water	Piezometer / Standpipe	
Borehole complete at 20.00m					J 20.00			
Daily Progress		Hard Strata		Comments		Logged by:		
Date	Final Depth (m) of: Borehole Water Casing			Depth(m)	Time	Inspection pit to 1.20m depth. Borehole grouted on completion. Casing 200mm to 1.50m then 150mm to 20.00m.		
10/4/92	20.00	Dry	1.60	8.50-8.70	30mins	Casing maintained just above base of borehole unless stated		
Sample and Test Key	J Small Disturbed Sample B Bulk Disturbed Sample U Undisturbed U100 Sample W Water Sample N.R. No Recovery		S Standard Penetration Test C Cone Penetration Test V Vane Shear Test PM Piezometer Test K Permeability Test G Blows to drive U100		S.P.T. 1" N for full C.P.T. 300mm penetration .../200 For given penetration .../25" Seating blows only N.P. No Penetration		Ground Water 1 → First Water Strike 2 → Subsequent Water Strike — 500mm Standing Level — Level 20mins after strike □ Casing Depth	
					Piezometer Upper Seal Sand Cell Piezometer Tip Lower Seal Grout			



Norwest Holst Soil Engineering Ltd.						BOREHOLE LOG		Borehole No. E76	
Contract No. F9443		Method Cable Percussion		Sheet 1 of 2 TL 22 SW 247		Coords E 9,261.5 N 40,227.0			
Location A1(M) Junctions 6 - 8		Borehole Diam (mm)150		24260 20222		Ground Level 116.80 m.A.O.D.			
Client The Department of Transport		Date 08/04/92							
Engineer Travers Morgan Limited									
Description of Strata	Legend	Depth Below G.L.(m)	O.D. Level (m)	Sampling & Insitu Testing		Ground Water	Piezometer/ Standpipe		
TOPSOIL		0.20	116.80	Depth(m)	TCR	() & N			
MADE GROUND: Brown silty sandy clay with some to much subangular and angular gravel of flint and accumulations of bitumen.				B 0.50	1.00				
—below 1.40m with bituminous coated aggregate				BS 1.20	1.85	*50" for 20mmNR			
Firm brown silty sandy CLAY with much fine to coarse subangular gravel of flint.		1.80	115.20	BS 2.00	2.45	*14"			
				J 2.80					
				BS 3.00	3.45	*22"			
(Plateau Deposits/Clay with flints)		4.00	112.80	J 3.80					
Firm brown silty slightly sandy CLAY with some fine to coarse angular to subrounded gravel and occasional cobbles of flint.				BS 4.00	4.45	*8"			
(Plateau Deposits/Clay with flints)		4.45	112.35	J 4.80					
Firm brown silty sandy CLAY with much fine to coarse subangular to subrounded gravel of flint.				BS 5.00	5.45	*29"			
—4.50-5.50m with occasional cobbles				B 5.80	6.30				
—5.00-5.50m becoming sandy to very sandy				U 6.50	6.95	(18)			
(Plateau Deposits/Clay with flints)		6.65	110.15	J 7.10					
White highly weathered CHALK very weak extremely low density composed of 70% fine to coarse subangular gravel size fragments set in a 30% silty clay matrix. (Grade VI)				J 7.30					
—at 7.50m with flint				BS 7.50	7.95	*8"			
				J 8.30					
				U 8.50	8.95	(46)			
				J 9.10					
				J 9.30					
				S 9.60	10.05	*15"			
(Upper Chalk)									
Daily Progress		Hard Strata		Comments		Logged by:			
Date	Final Depth (m) of:		Depth(m)	Time		Inspection pit to 1.20m. Borehole grouted on completion.			
8/4/92	Borehole	Water	Casing	1.40-1.60	1hr30min				
Casing maintained just above base of borehole unless stated									
Sample and Test Key	J Small Disturbed Sample	S Standard Penetration Test	S.P.T. "N" for fall	Rotary Core Run		Ground Water		Piezometer	
	B Bulk Disturbed Sample	C Cone Penetration Test	C.P.T. 300mm penetration	T.C.R. Total Core Recovery (%)		1 → First Water Strike		Upper Seal	
	U Undisturbed U100 Sample	V Insitu Vane Test	.../200 For given penetration	S.C.R. Solid Core Recovery (%)		2 → Subsequent Water Strike		Sand Cell	
	W Water Sample	PR Pressuremeter Test	.../25" Seating blows only	R.O.D. Rock Quality Designation (%)		— sn/ps Standing Level		Piezometer Tip	
	N.R. No Recovery	K Permeability Test	N.P. No Penetration			Level 20mins after strike		Lower Seal	
		O Blows to drive U100				Casing Depth		Grout	

[illegible]



Norwest Holst Soil Engineering Ltd.				BOREHOLE LOG		Borehole No. S38	
Contract No. F9443		Method Cable Percussion		Sheet 1 of 3 TL 22 SW 255			
Location A1(M) Junctions 6 - 8		Borehole Diam (mm)150		Coords E 9,251.5 N 40,212.5			
Client The Department of Transport		Date 04/04/92 05/04/92		24250 20208			
Engineer Travers Morgan Limited				Ground Level 115.60 m.A.O.D.			
Description of Strata	Legend	Depth Below G.L.(m)	O.D. Level (m)	Sampling & Insitu Testing		Ground Water	Piezometer / Standpipe
				Depth(m)	() & N TCR SCR RQD		
MADE GROUND: Brown silty very sandy clay with much fine to coarse subangular to subrounded gravel of flint and chalk.							
---between 0.60-0.75m concrete				BAJ 0.50	0.60 NR		
---below 1.00m a little gravel				JU 1.00	1.45 (75)		
---between 1.50-2.00m becoming reddish brown				J 1.50			
---2.00-2.35m stiff orange brown mottled black silty CLAY. Occasional rootlets				JU 2.00	2.45 (35)		
White moderately weathered CHALK very weak, extremely low to very low density. Bedding fractures extremely closely to very closely spaced 5/20/30mm, tight. Joints (2 sets) subvertical, tight with some brown oxidation staining and black speckling. (Grade IV)		2.35	113.25	BS 2.50	2.95 "8"		
--- 2.25-2.45m 1 No coarse gravel 'rinded' flint				J 3.00			
--- 3.80-3.95m some stiff orange brown silty clay.				JU 3.50	3.95 (60)		
				J 4.00			
(Upper Chalk)		4.70	110.90	BS 4.50	4.95 "12"		
(Gradational Boundary)				J 5.00			
White slightly weathered CHALK, very weak to weak, very low to low density. Bedding fractures extremely closely to very closely spaced 15/25/40mm, closed. Joints (2 sets) subvertical to 80deg, closed with occasional orange brown oxidation staining. (Grade IV)				U 5.50	5.95 (35)		
				J 6.00			
				BS 6.50	6.95 "15"		
				J 7.00			
				U 7.50	7.95 (44)		
				J 8.00			
(Upper Chalk)		8.50	107.10	BS 8.50	8.95 "23"		
(Gradational Boundary)				J 9.00			
White fresh to slightly weathered CHALK, very weak to weak, very low to low density. Bedding fractures extremely closely to very closely spaced 5/20/35, closed. Joints (2 sets) subvertical, closed and tight. (Grade IV)				U 9.50	9.95 (110)		
(Upper Chalk)							
Daily Progress		Hard Strata		Comments		Logged by:	
Date	Final Depth (m) of:		Depth(m)	Time	Piezometer installed to 18.50m depth.		
	Borehole	Water	Casing				
4/4/92	13.00	Dry	1.60	0.60-0.75	30mins		
Casing maintained just above base of borehole unless stated							
Sample and Test Key	J Small Disturbed Sample	S Standard Penetration Test	S.P.T. 10	" N for full	Rotary Core Run		Ground Water
	B Bulk Disturbed Sample	C Core Penetration Test	C.P.T.	300mm penetration	T.C.R. Total Core Recovery (%)		1 → First Water Strike
U Undisturbed U100 Sample	V Insitu Vane Test	PR Permeability Test	.../200	For given penetration	S.C.R. Solid Core Recovery (%)		2 → Subsequent Water Strike
W Water Sample	K Permeability Test	.../25"	Sealing blow only		R.Q.D. Rock Quality Designation (%)		— cm/yr Standing Level
N.R. No Recovery	Q Blow to drive U100	N.P.	No Penetration				Level 20mins after strike
							Casing Depth
							Piezometer
							Upper Seal
							Sand Cell
							Piezometer Tip
							Lower Seal
							Grout



Norwest Holst Soil Engineering Ltd.						BOREHOLE LOG		Borehole No. S38	
Contract No. F9443		Method Cable Percussion		Sheet 2 of 3 TL 22SW 255		Coords E 9,251.5 N 40,212.5			
Location A1(M) Junctions 6 - 8		Borehole Diam (mm)150		Ground Level 115.60 m.A.O.D.					
Client The Department of Transport		Date 04/04/92 05/04/92							
Engineer Travers Morgan Limited									
Description of Strata	Legend	Depth Below G.L.(m)	O.D. Level (m)	Sampling & Insitu Testing		Ground Water	Piezometer/ Standpipe		
				Depth(m)	TCR	SCR	AGD		
White fresh to slightly weathered CHALK very weak to weak, very low to low density. Bedding fractures extremely closely to very closely spaced 5/20/35mm, closed. Joints (2 sets) subvertical, closed and tight. (Grade IV) --- at 11.70m one cobble 'rinded' flint --- 13.50-13.95m Stiff dark brown mottled light brown, in parts laminated, silty CLAY with much fine to coarse angular gravel size fragments of chalk and with occasional coarse gravel size 'rinded' flint. (Solution Feature) --- at 15.60m coarse gravel sized 'rinded' flint --- 17.50-17.95m occasional light brown staining on vertical joints --- 19.50-19.95m becoming weak low density. Bedding fractures 20/35/60mm, vertical joint set very closely spaced (23mm) in parts. --- at 19.90m 1 No coarse gravel 'rinded' flint (Upper Chalk)									
		J	10.00						
		JS	10.50	10.95	"26"				
		J	11.00						
		U	11.50	11.95	(80)				
		J	12.00						
		BS	12.50	12.95	"28"				
		J	13.00						
		U	13.50	13.95	(65)				
		J	14.00						
		BS	14.50	14.95	"25"				
		J	15.00						
		JU	15.50	15.95	(60)				
		J	16.00						
		BS	16.50	16.95	"22"				
		J	17.00						
		U	17.50	17.95	(65)				
		J	18.00						
BS	18.50	18.95	"23"						
J	19.00								
U	19.50	19.95	(66)						
20.00		95.60							
Daily Progress			Hard Strata		Comments		Logged by:		
Date	Final Depth (m) of:			Depth(m)	Time				
	Borehole	Water	Casing						
4/4/92	13.00	Dry	1.50	0.60-0.75	30mins	Piezometer installed to 18.50m depth.			
Casing maintained just above base of borehole unless stated									
Sample and Test Key	J Small Disturbed Sample	S Standard Penetration Test	S.P.T. at C.P.T.	"N for full 300mm penetration	Rotary Core Run	Ground Water		Piezometer	
	B Bulk Disturbed Sample	C Cone Penetration Test	"N for full 300mm penetration	For given penetration	T.C.R. Total Core Recovery (%)	1 - First Water Strike		Upper Seal	
	V In situ Vane Test	PR Piezometer Test	"N for full 300mm penetration	Sealing sleeve only	S.C.R. Solid Core Recovery (%)	2 - Subsequent Water Strike		Sand Cell	
	W Water Sample	K Permeability Test	"N for full 300mm penetration	Sealing sleeve only	R.Q.D. Rock Quality Designation (%)	--- sn/psm Standing Level		Piezometer Tip	
	M.R. No Recovery	D Bore to drive U100	N.P. No Penetration			Level 20mins after strike		Lower Seal	
						Casing Depth		Grout	

[illegible]

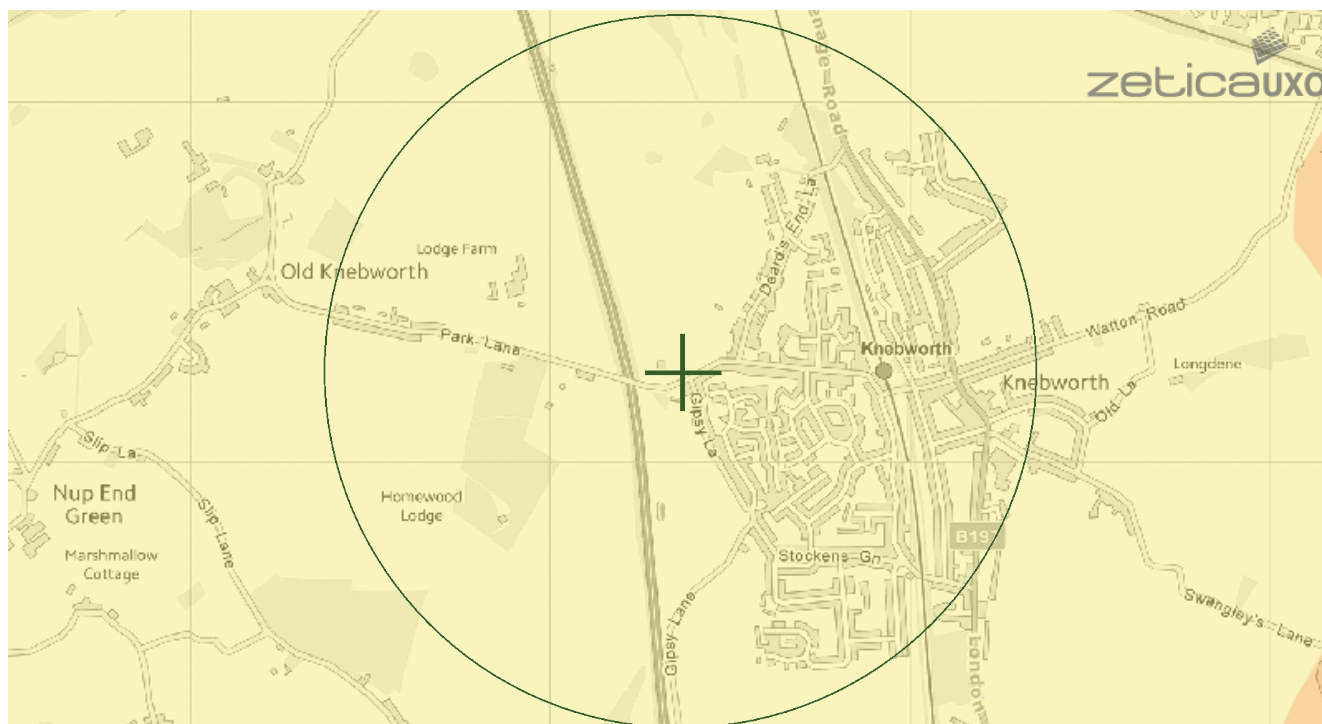
Appendix D – Zetica UXO Unexploded Bomb Risk Map

UNEXPLODED BOMB RISK MAP



SITE LOCATION

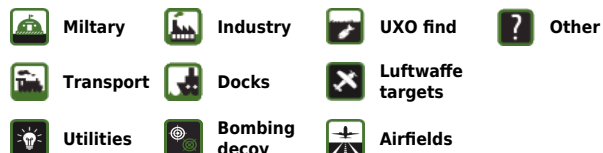
Map Centre: 524332,220258



This map principally indicates a hazard from Unexploded Bombs (UXB) due to WWII bombardment. Other sources of Unexploded Ordnance (UXO) may be present. It should be noted that this map does not represent UXO risk and should not be reported as such when reproduced.

LEGEND

- High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- Low:** Areas indicated as having 15 bombs per 1000acre or less.



How to use your Unexploded Bomb (UXB) risk map?

This map indicates the potential for UXBs to be present because of World War Two (WWII) bombing. It can be incorporated into a technical report, such as a Phase 1 Desk Study, or similar document as an indication of the potential for UXO encounter on a Site. Other sources of UXO may also be indicated, although note that these are not comprehensive and more detailed research is required to confirm their presence.

What if my Site is in a moderate or high density area?

We typically recommend that a detailed UXO desk study and risk assessment is undertaken for sites in an area with a moderate or high bombing density. Additionally, if your site is in close proximity to a strategic target, military establishment, airfield or bombing decoy, then [additional detailed research](#) is recommended.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirm that there is a low potential for UXO to be present on your site, then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

If you are unsure whether other sources of UXO may be present, you can request one of our [pre-desk study assessments \(PDSA\)](#) by emailing a site boundary and location to pdsa@zetica.com.

You should never plan site work or undertake a risk assessment using these maps alone. More detail is required, to include an assessment of the likelihood of a source of UXO hazard from other military activity not reflected on these maps.

If I have any questions, who do I contact?

tel: +44 (0) 1993 886682 email: uxo@zetica.com web: www.zeticauxo.com

The information in this UXB risk map is derived from a range of sources and should be used with the [accompanying notes on our website](#).

Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgement. The copyright remains with Zetica Ltd.

Appendix E – Risk Evaluation

RISK EVALUATION

The method for risk evaluation is a qualitative method of interpreting the output from the risk estimation stage of the assessment, based on CIRIA 552¹⁵. It involves the classification of the:

- Magnitude of the potential consequence (severity) of the risk occurring (Table A).
- Magnitude of the probability (likelihood) of the risk occurring (Table B).

Consequence (Severity)		
Classification	Definition	Example
Severe	Short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short term risk of pollution (note: water Resources Act contains no scope for considering significance of pollution) of sensitive water resource. Catastrophic damage to buildings/properties. A short-term risk to a particular ecosystem, or organism forming part of such ecosystem (note: the definition of ecological systems within the Draft Circular on Contaminated Land, DETR, 2000).	High Concentrations of cyanide on the surface of an informal recreation area. Major spillage of contaminants from site into controlled waters. Explosion, causing building collapse (can also equate to short term human health risk if buildings are occupied).
Medium	Chronic damage to Human Health ('significant harm' as defined in DETR, 2000). Pollution of sensitive water resources (note Water Resources Act contains no scope for considering significance of pollution). A significant change in a particular ecosystem, or organism forming part of such ecosystem.	Concentrations of a contaminant from site exceed generic, or site-specific assessment criteria. Leaching of contaminants from a site to a major or minor aquifer (Principal and Secondary). Death of a species within a designated nature reserve.
Mild	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures, and services ('significant harm' as defined in DETR, 2000). Damage to sensitive buildings/structures/services or the environment.	Pollution of non-classified groundwater. Damage to building rendering it unsafe to occupy (e.g., foundation damage resulting in instability).
Minor	Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc). Easily repairable damage to buildings, structures, and services.	The presence of contaminants at such concentrations that protective equipment is required during site works. The loss of plants in a landscaping scheme. Discoloration of concrete.

Table A. Classification of Consequence

Probability (Likelihood)	
Classification	Definition
High Likelihood	There is a pollutant linkage and an event that either appears 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 a 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 a pollutant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place and is less likely in the shorter term.
Unlikely	There is a pollutant linkage, but circumstances are such that it is improbable that an event would occur in the very long term.

Table B. Classification of Probability.

These classifications are then compared to indicate the risk presented by each pollutant linkage (Table C). It is important that this classification is only applied where there is a possibility (which can range from high likelihood to unlikely) of a pollutant linkage existing.

		Consequence			
		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 C. Comparison of Consequence against Probability

Once the risk has been determined the corresponding action can be assessed (Table D).

Risk	Action Required
Very High Risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not already undertaken) and remediation are likely to be required.
High Risk	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.
Moderate Risk	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.
Low Risk	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst 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 D. Description of the Classification and Likely Action Required.

Where a very low risk is identified no specific remediation is required.

Where a low risk is identified, some form of remediation may be required depending on the pollutant linkage, the type and concentration of contaminants present and the proposed development.

Where there is a moderate/low risk identified, an assessment will be undertaken to establish what category the pollutant linkage will fall into.

Where LKC identifies a moderate or higher risk, remediation or further investigation work is recommended.

Appendix F - References

- ¹ Environment Agency, October 2020, "Land contamination risk management (LCRM). How to assess and manage the risks from land contamination".
- ² Ministry of Housing, Communities and Local Government, December 2024, "National Planning Policy Framework".
- ³ Environment Agency, October 2020, "Land contamination risk management (LCRM). How to assess and manage the risks from land contamination".
- ⁴ DEFRA & Environment Agency, March 2002, "Potential Contaminants for the Assessment of Land", R&D Publication CLR 8.
- ⁵ CL:AIRE, November 2012, "A Pragmatic approach to Ground Gas Risk Assessment", RB 17.
- ⁶ Environment Agency, January 2009, "Updated technical background to the CLEA model", Science Report SC050021/SR3.
- ⁷ CIRIA, January 2001, "Contaminated land risk assessment. A guide to good practice", C552.
- ⁸ Health & Safety Executive, 1991, "Protection of Workers and the General Public during the Development of Contaminated Land", HSG66.
- ⁹ The British Standards Institution (BSI), December 2017, "Investigation of potentially contaminated sites. Code of practice - Code of practice", BS 10175:2011+A2:2017.
- ¹⁰ The British Standards Institution (BSI), May 2020, "Code of practice for ground investigations", BS 5930:2015+A1:2020.
- ¹¹ CIRIA, December 2007, "Assessing risks posed by hazardous ground gases to buildings", C665.
- ¹² CL:AIRE, November 2012, "A Pragmatic Approach to Ground Gas Risk Assessment", RB 17.
- ¹³ The British Standards Institution (BSI), January 2019, "Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings", BS 8485:2015+A1:2019.
- ¹⁵ CIRIA, January 2001, "Contaminated land risk assessment. A guide to good practice", C552.

Based across the UK with
offices in Manchester, Liverpool,
Swindon and Glasgow.

Manchester (Head Office)

Unit 29
Eton Business Park
Eton Hill Rd, Radcliffe
M26 2ZS

0161 763 7200
info@thelkgroup.com

Manchester (Ancoats Office)

84 Silk Street
Ancoats
Manchester
M4 6BJ

0161 763 7200
info@thelkgroup.com

Glasgow

Wright Business Centre
1 Lonmay Road
Glasgow
G33 4EL

0141 773 6269
info@thelkgroup.com

Swindon

39 Bowman House Business Centre
Bowman Court
Whitehill Lane
Royal Wootton Bassett
Swindon
SN4 7DB

01793 987390
info@thelkgroup.com



LK GROUP