



constructiveevaluation
Building & Material Test Consultants

Stage 1: Desktop Study & Walkover Survey

**Parliament Hill School,
Highgate Road,
London,
NW5 1RL**

For



Job No. 08. 5292
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TRADING TERMS

Unless specifically stated within the tender/quotation or unless identified within the introduction to this report it is confirmed that this report has been compiled wholly in accord with Constructive Evaluation Limited's terms of engagement.

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The following notes should be read in conjunction with the report. Any variation to the general procedures outlined below are indicated in the text.

Foreword

The recommendations made and opinions expressed in the report are based on the conditions revealed by the site works as indicated on the site record sheets, together with an assessment of the data from the insitu and laboratory testing or in respect of the desktop reports. No responsibility can be accepted for conditions that have not been revealed by the research, for example, due to inaccuracies in the data. While the report may offer opinions, these comments are for guidance only and no liability can be accepted for their accuracy.

Routine Sampling

During the site investigation, soil, water and leachate samples have been taken in accordance with recommendations within BS.5930: 1990, & BS.10175: 2001. All samples have been marked accordingly, and stored under suitable conditions to prevent any deterioration of the specimen (e.g. volatilisation of hydrocarbons). All samples have been placed in suitably labelled sealed plastic containers and sampling equipment cleaned between sample locations to prevent possible cross contamination.

During the compilation of desktop studies a number of sources have been contacted in order to provide any relevant information regarding the site in question. The sources contacted provide their own Terms & Conditions with regard to the data provided. As such, each source, e.g. Sitescope, Council Websites, etc. must be considered only in relation to these individual Terms & Conditions. All research has been carried out in accordance with recommendations within BS.10175: 2001.

The method of construction employed to form trial pits is entered on their records. In general, it is not possible to extend machine excavated trial pits to depths significantly below the local water table, especially in predominantly granular soils. Except for manually excavated pits, and unless otherwise stated, the trial pits have not been provided with temporary side support during their construction, hence personnel have not entered them and examined the strata or any construction details so exposed.

Laboratory Testing

Unless stated otherwise within the text, all laboratory tests have been performed in accordance with the requirements detailed in British Standards 1881:1990 or other standards or specifications that may be appropriate.

Regulatory Bodies

After the compilation of desktop study and walkover survey or site investigation works all parties must communicate with regulatory bodies including the Local Authority (both Planning & Environmental Health) and the Environment Agency. It must be accepted that further requirements may develop. It is possible that aspects of desktop study may need to be altered to conform to the requirements of the regulatory bodies.

Definitions

Reference to the word "contamination" in this report does not relate to the statutory definition of contaminated land under 1990 Environmental Protection Act unless otherwise stated. The definition used in this report is: "Land that contains substances that, when present in sufficient quantities or concentrations, are likely to cause harm, directly or indirectly, to man, to the environment, or on occasion to other targets" (NATO CCMS, 1985).

Walkover Survey

It should be noted that a walkover survey is designed as a brief inspection of the site in question, however every reasonable effort has been made to access all areas of the site, areas where this has not proved possible will be referenced in the text. The site reconnaissance is undertaken with permission of the client after the document search is completed with the aim of recording any further aspects of the site not revealed by the desktop study however this does not in itself guarantee that every possible risk has been seen.

Conceptual Model/Risk Assessment/ Sampling Regime

The conceptual model, Risk assessment and sampling regime has been formulated in accordance with BS10175:2001 and CLR 8 based upon the relevant information gained from the desktop and walkover survey. While the model and assessment offer opinions and interpretations of these guidelines, the comments made are for guidance only and no liability can be accepted for their accuracy.

Restrictions

In some instances a site investigation must be separated into two stages, depending on the access to the sub soils at the time of the initial site attendance. It must also be noted that in many instances the access afforded is restricted due to continuing activity on the site. In such instances all reasonable effort were to achieve maximum sampling coverage. This does not imply a guarantee that inaccessible areas are similar.

SUMMARY

<i>Context and purpose</i>	This assessment is part of an evaluation of environmental liability associated with contamination issues at the site.
<i>Current site use</i>	The site is currently occupied by a secondary school. The school has been constructed in phases from Victorian, 1940-1950's and a new build, which is approximately 5-10 years old. To the western part of the site is a grassed area. To the eastern side are two macadam surfaced football pitches/tennis courts. To the southern section of the site there are two areas of car parking and the site managers lodge. Also to the south are the gym/sports hall and some temporary classrooms.
<i>Surrounding Area</i>	The site is surrounded to the east by residential dwellings and to the west by playing fields and open space. To the north is William Ellis School for boys.
<i>Physical setting</i>	<p>The site is underlain by London Clay.</p> <p>The site is located on a non aquifer, which has unclassified soils.</p> <p>The nearest surface water feature is manmade, namely the school swimming pool. There are also natural water bodies (Highgate Pond and Hampstead Pond) near to the site, located in the 1000m periphery.</p>
<i>Environmental sensitivity</i>	<p>Due to the nature of the underlying geology, the site is not located in a source protection zone.</p> <p>Kentish Town Sports Centre has three groundwater abstraction licences to remove water for several public uses. This is situated 1408m south of the site.</p> <p>There are two recycling centres located 963m to the southeast and 982m to the southeast of the site. These accept acid and lead batteries and fluorescent lamps and household wastes respectively.</p>
<i>Site history</i>	The site was formerly occupied by Grove Farm and open space. The site overlapped the site of an infilled reservoir. Over time this area was developed so that further dwellings existed on it. Eventually, the area was given over to a school site, which remains the existing land use today.
<i>Surrounding History</i>	There has been considerable urban expansion in the surrounding environs which has resulted in a relatively complex and potentially contaminating industry profile.
<i>Previous investigations</i>	We have no knowledge of any previous site investigations being undertaken at this site.
<i>Conceptual Model</i>	<p>The conceptual site model has identified that the major sources, pathways and receptors of contamination in accordance with BS10175:2001 are as follow:</p> <p><u>Source</u></p> <ul style="list-style-type: none"> • Unknown contaminants potentially filled into the reservoir on site. • Hydrocarbons of varying forms and heavy metals from industries such as petrol filling stations and dry cleaners plus from the potential location of above ground storage tanks. • Poly chlorinated biphenols from on site sub station. • Potential asbestos containing materials due to the age of the building <p><u>Pathway</u></p> <ul style="list-style-type: none"> • Inhalation, ingestion & dermal contact.

	<ul style="list-style-type: none"> • Migration via groundwater. • Services and or drain runs. <p><i>Receptor</i></p> <ul style="list-style-type: none"> • Site end users. • Site workers. • Buildings/foundations. • Services (Potable water). • Soils.
<p><i>Recommendations</i></p>	<p>The site and its surrounding environs are considered to have a low to negligible risk with respect to both current and historical land uses with regards to contamination to the wider environment. In areas of hard standing the risk of contamination linkages will be broken, however, in areas proposed for soft landscaping exposure to potential contaminants may still be possible.</p> <p>As part of any future site investigation we would recommend that some precautionary contamination testing including a general screen of contaminants including heavy metals, pH, poly aromatic hydrocarbons, poly chlorinated biphenols and total petroleum hydrocarbons is completed.</p> <p>This would be implemented as a precautionary measure to ensure that there was no contamination present on site.</p> <p>Any site investigation would be dependant upon the exact nature of the redevelopment works at the site and would need to be structured accordingly.</p> <p>If during the excavation and construction phases any visual or olfactory signs of contamination are noted we would recommend that a suitable geo-environmental consultant be contacted.</p> <p>If any landscaping materials are to be imported on site they should be tested to check that they are suitable for the intended use.</p> <p>We would expect site workers to be made aware of any risks during site inductions. We would recommend as part of good practice that all site workers wear appropriate PPE and have access to adequate wash mess facilities.</p> <p>We would strongly recommend that this report be forwarded to the relevant authorities including local authority planning and environmental health departments as well as the Environment Agency prior to commencing with any site works for their subsequent comments and acceptance.</p>

Note: This assessment relates solely to contamination issues.

1.0 INTRODUCTION

Constructive Evaluation (CE) Limited was instructed by Robert West Consulting (EQ4455, dated October 16th 2007) to carry out a Phase 1: Desktop study and walkover survey at Parliament Hill School, Highgate Road, London, NW5 1RL. This work has been undertaken in relation to the redevelopment of the school. The site manager advised that the main hall to the northern/central section of the site is one of the areas proposed for redevelopment, however we cannot comment on how accurate this may be.

The client has instructed CE to undertake an environmental risk assessment to enable determination to the potential source – pathway – receptor (S.P.R) linkages associated with the site and surrounding environs historical and current context. This would help to formulate in the future a suitable targeted site investigation (SI) should areas of the school be redeveloped.

The purpose of the desktop study was to provide information on:

- The expected geology & hydrogeology.
- The development history and most recent use.
- Potential sources of contamination.
- Potential for on site migration of contamination and nearby sensitive receptors that may be at risk from any potential contamination from the site.
- To enable the development of a site conceptual model (SCM) and risk assessment.

This report presents results of the assessment, including historical Ordnance Survey maps and published geological & hydrogeological maps, as well as information from various other sources including Landmark Information Group Limited. Reference has also been made to information received from the client, the Environment Agency (EA) and the local authority (LA).

The report has been formulated in accordance with BS10175:2001 [*Investigations into Potentially Contaminated Sites – Code of Practice*] and CLR11 – [*Model Procedures for the Management of Land Contamination*] and from [*Planning Policy Statement 23 – Planning & Pollution Control*].

2.0 SITE CONDITIONS

2.1 *Site Description*

On Site

The site is located to the south east of the Parliament Hill, on National Grid Reference 528300, 186020. The area of the proposed development occupies a plot which formerly comprised farm buildings and open land. The land was then turned over to school buildings and playing fields. The site is on a predominantly square plot.

The site is accessed from Highgate Road which runs north to south to the east of the site. There are two access routes from the road. One to the north-eastern and another to the southeast.

The site currently comprises one large rectangular Victorian brick faced block with a pitched roof structure to the central part of the site. This block is three to four storeys high, including several small basement areas. At either end of this block are two adjoining buildings. One presumed 1950-60s construction, which looks like an elevator shaft and chimney construction. The other adjoining building is of later construction consisting of concrete, brick and glass. Extending from the older part of the school is the main hall, which is approximately 50-60 years old and is constructed predominantly from glass, plus brick and steel. Adjoining the main hall is a semi hexagonal building of brick faced construction.

Also adjoining the main hall is a three storey 1950-1960s building. This block is attached via a veranda to the Victorian part of the school. The building is single storey, part timber clad and brick construction. The roof was noted to have several timber clad vents/chimneys on it. The roof appeared to be a “green” roof. It seems from the walkover survey that the new veranda and classrooms dissecting the southern/central part of the site has created two raised areas either side of the building (to the east and west). These two areas are grassed with several concrete paved pathways through them. It is unknown whether these areas were raised as part of the construction process or from importation of material to form several small grassed mounds. If imported, we cannot comment upon its composition and suitability for its current purpose.

Access was not gained to all internal parts of the school buildings, therefore we cannot fully comment upon the likely contents and layout. However, we can assume that these consist of traditional school facilities. Access was afforded to the four boiler houses located within the school buildings. Two were located within the older part of the school within the basement; the other two were located within the gyms to the southern section of the site on the ground floor. It is noted that the school is supplied by gas, however it has not been confirmed whether the school may have at an earlier date been supplied, via above ground storage tanks (AST's) with heating fuel. However during the walkover a steel door was noted as a filling point and/or fire evacuation exit. This was noted to the western elevation of the Victorian building enabling access to the basement.

Within the basement area, storage of unknown chemicals presumed to be cleaning products noted.

Near to the new build, adjoining the old Victorian part to the north of the site is a small electrical sub-station. This seems to be a recent construction, however, further clarification to its age would be considered beneficial, as old electrical sub-stations can be a source of PCB's (Poly Chlorinated Biphenols). Near the sub-station was a large metal chimney, which we assume to be associated with the canteen. We have not ruled out, the possibility that this may be a service chimney for heating.

To the east and west of the site are two recreational areas. The east comprises two separate macadam football pitches, which are surrounded by wire mesh fencing. The west is laid to grass, with a small overgrown area to the northwest. Additionally, another small mounded area is noted to the western perimeter of the 1950-60s build,

The site is bounded to all perimeters, bar the north, by brick walls and wire meshed fencing.

Surrounding area

There are tennis courts to the northeast and residential dwellings to the southeast of the site. The site has playing fields to the west and to the north. Northwest of the site is another school, namely William Ellis School.

2.2 *Potential Sources of Contamination (Walkover Survey)*

The following potential sources of contamination have been identified by the site walkover survey:

- Potential for PCB's from on site electrical sub-station dependant upon its age.

- Potential from on site AST's if present before the gas boilers were installed. Based on the age of the buildings and evidence of old hatches that may have been present in the older part of the school.
- Unknown chemicals stored in store rooms.
- Imported material to mounds etc depending on whether it was certified etc.
- Potential risks from asbestos containing materials (ACMs) from building materials due to the age of the buildings identified on site.
- Vehicular spillages in car park areas.

Off Site

- Potential risks from off site AST's within other schools.

2.3 Site History

The following observations are made based on the available historic map extracts, presented in Appendix B.

<i>Date</i>	<i>Scale</i>	<i>On Site</i>	<i>Surrounding Area</i>	<i>Potential Risks</i>
1873	1:2,500	The site is noted to contain a residential dwelling and a formal garden.	<p>The surrounding environs largely comprise fields.</p> <p>A main road is noted approximately 60m to the east and runs from the southeast to the northeast. The road is flanked by fields and dwellings.</p> <p>There is also a railway line approximately 400m to the southwest running east to west.</p> <p>The most notable feature is the disused reservoir as it may have subsequently been infilled with unknown material.</p> <p>To the east of the reservoir. Approximately 60m from the site is a well.</p> <p>Beyond the road to the northeast approximately 120m away is La Sainte Union.</p> <p>To the immediate north is Grove Farm.</p>	<p>Potential off site risks from the infilled reservoir. This may create ground stability as well as contamination issues.</p> <p>Potential off site risks from the railway land.</p>

<i>Date</i>	<i>Scale</i>	<i>On Site</i>	<i>Surrounding Area</i>	<i>Potential Risks</i>
1873-1882	1:10,560	The site remains unchanged.	<p>The surrounding environs have been developed significantly especially to the north and northwest, where there are significantly more dwellings, for example Croft Lodge.</p> <p>A number of water features can be observed from this map. For example, Highgate Pond (450m) Hampstead Pond (980m) to the west and reservoirs to the east at approximately 800m from site.</p> <p>There are two brickfields to the northeast (approximately 1300m).</p>	Potential contamination risks may arise if these brickfields are later infilled.
1896	1:2,500	Some vegetation has been cleared from the fields, perhaps if it has been turned over to pasture or crop land. The site is now known as the Gothic and the formal gardens have been removed.	<p>The surrounding environs have been developed with residential and commercial dwellings, especially to the east.</p> <p>There is a fire station (145m north), a nursery (290m southeast) and a fountain (150m southeast) in proximity to the site.</p> <p>The well to the east is no longer noted and the reservoir is now unnamed.</p> <p>The La Sainte Union is now known as a Convent and has further expanded.</p> <p>The road to the east is now noted to have a tramway upon it.</p>	<p>Potential on site risks depending on the activities on the farm.</p> <p>Potential off site risks from the fire station and nurseries.</p> <p>Potential risk if well has been infilled/decommissioned.</p> <p>Potential risk from off site tramway.</p>

<i>Date</i>	<i>Scale</i>	<i>On Site</i>	<i>Surrounding Area</i>	<i>Potential Risks</i>
1896	1:10,560	The site remains unchanged.	<p>There has been significant development to the surrounding environs. The infrastructure appears much more complex, which is a result of an increase in urban dwellings. For example, there are many more railway lines and stations (Highgate Road Station- 250m southeast).</p> <p>A number of other schools and additional amenities have been constructed in the area, including a Small Pox Hospital approximately 1200m away from the site to the north east.</p> <p>There is also an additional brick works which is located 600m from site to the south.</p>	Potential off site risks from the railway land, the infilled reservoir and also the brick works.
1915	1:2,500	The Gothic has been removed and replaced with a rectangular school building.	<p>There appears to be little change to the surrounding environs, however, a nursery is noted to the north approximately 330m away.</p> <p>The reservoir is now seen as partial marshland and the size has since reduced.</p> <p>To the south of the site beyond the school building the residential and road infrastructure has taken on a more formal layout and has expanded further.</p> <p>Grove Farm has been demolished and the site is now vacant apart from some small outbuildings.</p> <p>A refreshment room is noted to the northwest approximately 140m away.</p>	Potential off site risks identified from the nursery.

<i>Date</i>	<i>Scale</i>	<i>On Site</i>	<i>Surrounding Area</i>	<i>Potential Risks</i>
1920	1:10,560	The site remains largely unchanged, with the exception of some new pathways.	There appears to be little change to the surrounding environs, however, the map is incomplete so it is unclear whether the surroundings to the south of the site have changed. Reservoirs are noted 750m to the northeast of the site.	No new risks identified.
1936	1:2,500	To the northeast corner of the site is a small square plot presumed to be a tennis court. In addition a small pavilion and copse is noted to the western elevation.	The area to the east of the site is now developed to capacity and to the north there are tennis courts and a bowling green. The reservoir has turned from marshland to a small copse, it maybe that this has been infilled or changed through natural succession. To the immediate west of the site is a sports ground. The residential area to the south has expanded further.	Potential off site risks from the tramway.
1946	1:10,560	The site remains predominantly unchanged apart from the pavilion and copse have now been removed.	There has been some redevelopment to the surrounding areas, however, the map is incomplete. The brickworks that was previously noted, 600m to the south, no longer appears to be present. To the north the residential layout has changed and forms a more formal layout. To the immediate north is now a triangular building, which we can presume is the construction of William Ellis School.	Potential risks from unknown fill of the brickworks.

<i>Date</i>	<i>Scale</i>	<i>On Site</i>	<i>Surrounding Area</i>	<i>Potential Risks</i>
1951	1:2,500	A few small outbuildings have been constructed to the western elevation in the location of the former copse and pavilion.	<p>There have been some changes in industry in the surrounding areas.</p> <p>There are two allotment gardens at 250m and 300m to the southeast.</p> <p>There is also a coal depot and a tram depot on the 1000m periphery to the south, southeast.</p> <p>The tramway is no longer noted to the east along Highgate Road.</p> <p>The building to the immediate north is now noted as a school and indicates a slight expansion.</p>	Off site risk from the depots.
1952-1954	1:1,250	<p>The site appears to have undergone some soft landscaping to incorporate playing fields in the school design. In addition the square plot to the northeast has expanded.</p> <p>Parliament Hill School is marked on the maps for the first time.</p> <p>Also the school house is noted to the southern elevation.</p> <p>The pavilion and copse are also noted on this map again to the western elevation.</p>	<p>There has been some significant development in the surrounding environs, especially to the south and south east.</p> <p>An open air swimming pool has been constructed approximately 90m to the southwest. There is also a wallpaper factory and a vacuum flask factory located 110m southeast and 130m southeast. There are also some garages, with the closest being located approximately 120m to the southeast.</p> <p>An electricity sub-station is also noted 60m southeast of the site.</p> <p>To the northeast the former Covent has been renamed as La Sainte Union Des Sacres Coeurs.</p> <p>The former reservoir is no longer noted to the north.</p>	Possible off site risks from factories, garages, pool and electricity sub-station.

<i>Date</i>	<i>Scale</i>	<i>On Site</i>	<i>Surrounding Area</i>	<i>Potential Risks</i>
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1953-1954	1:2,500	The site remains unchanged.	There is no change to the surrounding environs.	No new risks identified.
1957-1958	1:10,560	The site remains unchanged.	There has been some development to the rail infrastructure in the area. More lines have been added especially towards the Kentish Town station in the southeast. The former brickworks site to the south has been developed over by Gospel Oak.	Potential off site risks from the increase in railway land. Potential off site risks from brickworks infill.
1962-1979	1:1,250	The site has undergone significant development, the layout is similar as to what is on site today. To the northern and western flanks of the site over the former pavilion and copse are now two buildings. To the west of the building is now a playing field which encroaches onto part of the former sports ground. Several additional out buildings are noted within the central part of the site which forms a small courtyard. The two square plots to the north are now known as tennis courts. A further tennis court is noted to the southern elevation with another small square building also evident.	There is little change to the surrounding environment. The flask factory that was noted previously has now been converted to a garage (110m south). The School to the north has developed further with several outbuildings and to the east of this are several lodges.	Off site risks from the garage.
1968	1:10,560	The site remains unchanged	The surrounding environs have been developed so that the urban areas appear to be at capacity. Parliament Hill has remained as open space and landscaped with footpaths. There are a number of depots which are likely to have been associated with the increase in rail infrastructure. There are two depots at 1100m (south southwest) and two more at 550m (south) and 400m (south southwest). The latter is understood to have been used for dismantling railway.	Off site risks from depots.

Parliament Hill School

<i>Date</i>	<i>Scale</i>	<i>On Site</i>	<i>Surrounding Area</i>	<i>Potential Risks</i>
1970	1:2,500	The site remains unchanged.	There are no apparent changes to the surrounding environs.	No new risks identified.
1974-1976	1:10,000	The site remains unchanged.	The surrounding environs have changed slightly, in that the arrangement of the depots has altered. There is no longer a small depot at 400m (south southwest); there is now a very large one at 550m south of the site. A works was observed 1200m to the south of the site. The reservoirs to the north east have been infilled.	Off site risks from the new depot and works and unknown fill in the reservoir.
1991	1:1,250	A new extension is noted on site within the courtyard area to the northeast corner forming a semi hexagonal building. In addition a small embankment is noted to the western flank of the tennis courts.	There is little change to the surroundings except that the wall paper factory and the garage, to the southeast, no longer appear to be present. La Sainte School has expanded considerably to the north.	No new risks identified.
1991 - 1996	1:2,500	The site remains unchanged.	There are no apparent changes to the surrounding environs.	No new risks identified.
1992 - 1995	1:2,500	The site remains unchanged.	The industrial area to the southeast of the site, comprising factories and garages, appears to have been redeveloped into residential properties.	No new risks identified.
1999	1: 10,000	The site remains unchanged.	The surrounding environs remain unchanged.	No new risks identified
2007	1: 10,000	The map indicates a new rectangular building to the southwest corner.	There have been no significant changes to the surrounding environs.	No new risks identified.

2.4 *Potential Contamination Sources (Historical)*

On Site

- Infilled reservoir.
- Potential risk from historical ASTs.

Surroundings

- Railway Land and Depots.
- Works/ factories.
- Brickfields and Reservoirs (depending on fill).
- Garages.

Please note that most of the off site sources are unlikely to have a significant effect on the site due to the underlying geology and hydrogeology and owing to the distances from the site.

2.5 *Physical setting*

The following observations are taken from published maps.

Geology – The 1:625,000 BGS Solid Geology map indicates the site to be underlain by London Clay.

London Clay – This formation generally consists of blueish clay that weathers to brown and orange brown. It is relatively impermeable.

The BGS borehole (NGR 2834, 8602) located on the Parliament Hill School site indicates the geological succession on site to be as follows. A copy can be reviewed within Appendix C:

Strata	Depth
Topsoil and fill	0.69m
Soft brown-blue mottled, friable, silty clay	1.60m
Firm brown clay	1.82m

Hydrogeology – The Environment Agency 1:100,000 scale Groundwater Vulnerability Map (Sheet 39, West London) indicates that the site is situated on a non aquifer, due to the presence of the London Clay. There may be lateral flow of water though so this should be considered in assessing risk associated with persistent pollutants.

The map also indicates that the Parliament Hill area is situated over a, minor aquifer of variable permeability with intermediate soil classes. There is also an area to the northwest of Dartmouth Park which is also situated on the minor aquifer but with the soils classed (H). These areas both exist within the 1000m periphery.

Hydrology – The nearest surface water feature is 196m to the southwest which is noted to be the school swimming pool. There are also natural surface water features which are noted to be Hampstead Pond and Highgate Ponds.

Topography – The site is situated at approximately 54mAOD, on a slight incline towards the northeast.

2.6 Information on Public Record

The following information has been obtained from public archive via the data supplier Landmark or by direct application. The full Envirocheck report is presented in Appendix D.

Discharge Consent – There was one discharge consent which has since been revoked, 771m to the northeast, for the disposal of trade effluent to a freshwater stream/river.

Local Authority Pollution and Prevention Controls – There are thirteen authorised controls in the area local to the site. The closest of these are a dry cleaner situated 368m to the southeast and a petrol filling station located 393m to the southeast. There are also permits for the re-spraying of road vehicles.

Pollution Incidents to Controlled Waters – There was one event that was recorded as a Category 3 or minor incident at approximately 929m to the northeast of the site. The event involved oils as the pollutant.

Substantiated Pollution Incident Register – There was one major incident at 699m from the site to the northwest. The incident involved general biodegradable materials and waste algae. The event was recorded to have no impact to land or air but was considered a significant incident to the water environment.

Abstractions – There is one registered establishment permitted to abstract groundwater. The Kentish Town Sports Centre, at 1408m (south) from the site, has three abstraction licences to abstract water for laundry use, drinking, cooking, and washing uses and as process water.

Source Protection Zones (SPZ) – Due the site being positioned over a non aquifer, it is not within a SPZ.

Licensed Waste Management Facilities – There is a recycling centre 963m to the southeast of the site, which accepts a variety of wastes acid and lead batteries and fluorescent lamps. There is also a recycling centre located 982m to the southeast which accepts household waste.

Registered Waste Transfer Site There is one 370m to the south which has since lapsed for the disposal of construction/demolition and commercial wastes.

Geological Hazards – The BGS records indicate that there is a very low potential on site for landslide ground stability hazards. There is a moderate ground stability risk from shrinking or swelling of clay as a result of the underlying geology. The presence of tunnels has not been discounted and as such must be considered as a material hazard.

Radon Affected Areas – This site is not in a radon affected area, therefore, no radon protective measures are necessary in the construction of new dwellings or extensions.

Contemporary Trade Directory Entries – There are a number of trade directory entries recorded in the area which have the potential for contaminating effects. There are several dry cleaners in the area with the closest being 368m southeast of the site. There are also several motor repair garages local to the site; the closest is 392m to the southeast.

There are several manufacturers in the area, which produce a number of goods including food, clothing and cosmetics. The latter has two factories in close proximity to the site, that is, 288m (southeast) and 959m (south). There are also two printers in the area which are located 575m (southeast) and 865m (east) away from the site.

Fuel Station Entries – There are two petrol stations which have closed down in the area, however, there is one active petrol station located 392m southeast of the site.

Sensitive Land Use – The site does not fall into any sensitive land use areas. There is a site of special scientific interest (SSSI) to the northwest of the area and also a local nature reserve to the northeast. However, these protected areas are at considerable distance from the site and will not affect or be affected by any development plans.

Floodplains – The site is not located on a floodplain based upon information received from the attached Envirocheck report.

3.0 CONCEPTUAL MODEL & RISK ASSESSMENT

The site conceptual model has been formulated in accordance with BS10175:2001 to provide information regarding the possible sources of contamination on site, the pathway in which the contamination can migrate and a vulnerable receptor to the contamination, all of which need to be present for there to be a risk. This is in relation to the proposed redevelopment of the school site. The following S.P.R relationships have been identified:

<i>Source</i>	<i>Pathway</i>	<i>Receptor</i>	<i>Potential Risk</i>
Unknown contaminants possibly coal, glass or asbestos infilled in the reservoir and brickfields.	Ingestion or dermal contact via groundwater contamination.	End users.	Negligible owing to the nature of the underlying geology
	Ingestion, inhalation or dermal contact via soil contamination.	Site workers.	Low risk as the infilled reservoir only borders the site and may not be disturbed.
Landfill gases (carbon dioxide, methane, oxygen and hydrogen sulphide) potential from infill of former brick works and reservoirs.	Migration of gases through the soils and groundwater.	End user/properties and site workers.	Negligible to low risk owing to the underlying strata and distances from these types of sources.
Heavy metals, poly aromatic hydrocarbons, and PCBs from the railway land and associated depots and dry cleaning industry.	Inhalation, ingestion and dermal contact.	End users.	Negligible risk to site owing to the distance of it from the depot (nearest 400m) and railway land.
Poly aromatic hydrocarbons from solvent use in dry cleaning processes.	Ingestion or dermal contact via groundwater and soil contamination.	End users.	Negligible owing to the nature of the underlying geology.
PAHs and acetone use at cosmetic manufacturers.	Inhalation, ingestion & dermal contact.	End users.	Although the manufacturer is in close proximity to the school the risk is negligible as factory contaminants are likely to be contained and disposed off site.

<i>Source</i>	<i>Pathway</i>	<i>Receptor</i>	<i>Potential Risk</i>
Unknown contaminants contained within the chemicals store that was identified on the walkover survey. And potential from imported soil in mounded areas, unless certified. Of course this would also be dependant on whether it was imported.	Pathways dependant on what is contained.	End users. Site workers.	Moderate to low risk depending on what and how the chemicals are stored.
PCBs associated with the electrical sub-station on site.	Dissolution to groundwater.	End users.	Negligible owing to the nature of the underlying geology.
	Impacted soils beneath the sub station.	Endusers/site workers	Negligible to low depending upon the age of the on site electrical sub station.
Asbestos potential from building materials, particularly within older buildings.	Inhalation.	End users.	Low potential risk, this should be further determined by undertaking an asbestos survey.
	Inhalation.	Site workers.	Low potential risk, this should be further determined by undertaking an asbestos survey.
Inorganic contaminants including sulphates within made ground and potentially the embankments/mounds.	Leaching of contaminants through the soil.	Buildings and foundations.	Low risk.

<i>Source</i>	<i>Pathway</i>	<i>Receptor</i>	<i>Potential Risk</i>
Heavy metals TPH and PAH from potential location (historically) from on site AST's and vehicular spillages in car park areas.	Surface soil particulate inhalation, ingestion and/ or dermal contact.	Site workers.	Low to moderate risk, slightly greater risk during construction works.
	Migration of dissolved phase compounds to the groundwater.	End users/ services	Low risk owing to the local geology and non aquifer status. Greater risk in areas where soils have been impacted i.e. beneath buildings or where proposed landscaped areas are located.
	Leaching of contaminants through the soil.	Non aquifer.	Negligible owing to the site's geological and hydrogeological setting. Likely to be minimal risk since potable water supplies are some distance from the site and most likely at some depth beneath the clay.
	Impacted soils.	Non Aquifer.	Negligible to low owing to the underlying geology and hydrogeology.
	Volatilisation from impacted soils and groundwater.	Properties, end user, site workers.	Low owing to the underlying geology but dependant on whether the soils have been affected. Also dependant upon the hydrocarbon fraction identified if impacted.
Negligible Risk	Surface soil particulate inhalation, ingestion and/ or dermal contact.		
Low Risk	Defined as the site should be considered suitable for the present or future use and environmental setting. Contaminants may be present but unlikely to have unacceptable impact on key targets.		
Moderate Risk	Defined as the site may not be suitable for the present or future use and environmental setting. Contaminants are probably present and might have unacceptable impact on key targets.		
High Risk	Defined as the site is probably or certainly not suitable for the present or future use and environmental setting. Contaminants are probably or certainly present and likely to have unacceptable impact on key targets.		

3.1 *Potential Source – Pathway – Receptor Linkages*

A S.P.R risk assessment, in accordance with Part IIA of the Environmental Protection Act 1990, has shown the following potential pollution links at the site:

- Potential exposure from contaminants in the infilled reservoir or brickfields depending on their content.
- Potential exposure to hydrocarbons of varying forms from dry cleaning industry and heavy metals and TPH from petrol filling stations, potential AST's and vehicular spillages.
- Potential exposure to PCBs from the electrical sub station, dependant on its age.
- Potential exposure to contaminants that could be stored in the chemical room observed on the walkover survey.
- Although there are a number of potentially contaminating industries (past and present) in the areas surrounding the site, it is unlikely that these will affect the end users at the site.
- The proximity of the site from these potentially contaminating sources means that possible pathways are negligible as they are unlikely to affect receptors on the site in question. Therefore, there is no significant S-P-R linkage.
- The distance of potential sources of airborne contaminants from the site means that inhalation pathways to the site users is negligible.
- Exposure to hydrocarbon vapours from soils to workers, occupants and off-site receptors via inhalation of indoor and/or outdoor air, thought to be possible if the soils have been impacted. A greater risk to the build up of hydrocarbon vapours in the buildings would be expected, dependant upon the hydrocarbon fractions identified. If soils are impacted outside the area of the proposed build natural dilution will occur in outside air.

- Exposure to ACM's from the sites historical construction. Further information regarding the potential risks would be recommended from building materials. Due to the change in land use there maybe a significant thickness of Made Ground across the site therefore asbestos, heavy metals and hydrocarbons maybe possible, due its varying nature.

Generally, the site is considered to present a **NEGLIGIBLE** risk to groundwater and a **LOW** risk to human health from the sites past and current use. The level of risk presented by sources examined in the conceptual model will vary according to the nature of works that are intended for the school site. In areas proposed for hard standing, the source-pathway-receptor linkage will be broken and so contamination risks are negligible. However, if site works should break the surface and create a linkage, then levels of contamination risk may be heightened. In areas of soft landscaping, it may be precautionary for a general screening of contamination to be carried out to ensure that there is no contamination legacy from the site, and its surrounding areas, past land uses.

4.0 CONCLUSIONS

Records show from the earliest map in 1873, that the site comprised farm buildings and land. The surrounding land largely comprised other smaller dwellings and undeveloped, open land. There were small industries also situated in the surrounding environs, including brickfields. Over time the surrounding area became more developed and the industry profile began to appear more complex, especially as the rail infrastructure expanded.

The site itself became more developed with a number of other dwellings appearing on site. In 1915, the first school was developed and in 1946 more school buildings were built. The surrounding area was developed to capacity, however, it is clear that there have been alterations to the commercial and residential developments. Parliament Hill School was first identified on maps from 1954.

The site is currently used as a school forming a predominantly square plot of land, with associated football pitches and landscaped areas. The school comprises several buildings from Victorian era to present day construction. The schools are single to four storey's including basements.

The site is noted to be underlain by the London Clay and as a result the site is situated on a non aquifer with un-classified soils. The site lies outside of any SPZs.

There are three abstraction licences in the area, however, these are for one establishment - Kentish Town Sports Centre located 1408m south of the site. The licence permits the sports centre to abstract ground water for commercial and public use.

There is a registered waste recycling centre 963m to the southeast of the site and another located 982m to the southeast which accepts household waste.

The site is not located within a sensitive land use area, however, there is a SSSI to the northwest and also a LNR to the northeast of the area. These areas should not affect any development plans at the school site.

Due to the proposed end use of the site and the fact that it will predominantly be covered in hardstanding the potential dermal, inhalation and ingestion pathways to the end user will be broken. If the infilled reservoir site is disturbed during redevelopment, then a greater risk to site workers may be present. Areas proposed for playing fields or soft landscaping may be at greater risk to the end user, which is why analysis is necessary to ensure that the soil is fit for this purpose.

5.0 RECOMMENDATIONS

From the information contained within this report the following recommendations have been formulated:

5.1 Statutory Consultees

We would recommend that this report together be forwarded to the relevant environmental consultees including the Environment Agency (EA) and local council's environmental health and planning department prior to any future site works commencing to seek their comments and subsequent approval. If you are requiring NHBC approval the reports will also need to be sent to them for consideration.

The statutory consultees should review this information prior to commencement of the SI works.

We would recommend that liaisons are held with the local Environment Agency office to determine the potential threats to the aquifer beneath. We believe the risk to be negligible, however local EA offices have further information about the underlying groundwater. This would enable determination to whether any bores should be installed for gas and/or groundwater analysis.

5.2 Testing Regime

As a precautionary principle we would recommend that a screen of testing be completed due to the significant changes in landuse on the site and the potential for on site AST's for heating the school before it was switched to mains gas. The testing should include heavy metals, Total Petroleum Hydrocarbons (TPH), Poly Aromatic Hydrocarbons (PAH), pH, sulphates and PCB's.

Any future SI proposals should be put in writing to the relevant statutory consultees to enable approval to be sought.

5.3 Site Works

During construction works visual and olfactory appraisal of the underlying soils should be made. If during construction works any material is noted to show visual and/or olfactory sign of contamination a suitable geo-environmental consultant should be contacted to supervise/ guide further works. This material should be stockpiled separately and tested prior to its appropriate removal of site or re-use as necessary.

If any landscaping materials are to be imported on site they should be tested to check that they are suitable for the intended use. Clean, uncontaminated rock, subsoil, brick rubble, crushed concrete, ceramics and topsoil only shall be permitted as infill material.

All construction workers should be made aware of the risks during a site induction. All site workers would be expected to be protected as part of the standard protocol, by use of the appropriate PPE e.g. gloves, overalls and wash facilities.

5.4 Services

Soakaways are for the disposal of clean uncontaminated surface water only and must not be constructed in contaminated land.

If the soils have been impacted by hydrocarbons existing and/or new water supply pipework may need to be made of suitable materials.

5.5 Further Research

Further research in to the following pertinent items would be recommended before any future SI works are completed:

Due to a significant number of ordnance landings in the London area during the Second World War, it may be in the client's interest to carry out a supplementary desk top, in order to identify any unexploded ordnance that may be present on site.

It may be in the client's interest to undertake an archaeological desk study in order to identify any additional risks or sensitive areas that may affect the site. This should be undertaken if it is a planning condition for the site.

Due to the historical nature of London and the location of several underground tunnels and London Underground tunnels we would recommend that a search is undertaken to determine the location of any below ground networks including tunnels and basements etc.

In addition we would recommend that a full utility search is completed for the site prior to any SI due to the number of boiler houses, schools and sub station.

Since the site was historically covered in houses it might be expected that during any SI old footings, basements etc might be found.

We would recommend that further research is obtained with regards to the location of any former AST's associated with the former school buildings as a source of heating. In addition information re regarding age of the electrical sub station would also be beneficial, as this might be able to be eliminated as a potential source of contamination depending upon its age.

It may be beneficial to check if the reservoir noted to the northeast was ever infilled or whether it changed through natural succession. If it has been infilled the potential risk may be considered greater depending on the fill material.

5.6 Asbestos Survey

We would recommend, based on the findings of two walkover survey and the age of the existing buildings on site that a Type 2 or a Type 3 survey is completed for the site/schools.

It is a legal pre-requisite to complete a Type 3 asbestos survey prior to commencing major refurbishment or demolition works.

6.0 LIMITATIONS

Should the currently proposed layout of the development change, or additional areas of soft landscaping be subsequently included, then the risks will need to be re-assessed and additional investigations, remedial works and/or building design modifications may be required.

Advice and recommendations given in this report are provided for information purposes; they are not conclusive and do not constitute a specification for further investigation / remediation or other works.

The advice given in this report with respect to contaminated land, groundwater and gas is based on current guidelines available at the time of writing.

The client is advised that the conditions observed on site by Constructive Evaluation Limited at the time of the investigation are subject to change. Certain indicators of the presence of hazardous substances may have been latent at the time of the most recent site reconnaissance or investigation and they may subsequently have become noticeable.

Comments made relating to soil gas or groundwater conditions are based on observations made at the time of an investigation unless otherwise stated. Soil gas or groundwater conditions may vary as a result of seasonal fluctuations or other effects.

Ground contamination often exists as small discrete areas of contamination and there can be no certainty that any or all such areas have been located, sampled and/or identified. This is particularly significant for an investigation by window sampler as a relatively small sample of soil is extracted, which may not be entirely representative of the surrounding ground conditions.

This assessment is preliminary in its nature and may be subject to amendment in light of additional information becoming available or statutory consultee review, including the Environment Agency, local council and NHBC etc.

The findings and opinions conveyed in this report are based on information obtained from a variety of sources, including that from previous Site Investigations and chemical testing laboratories Constructive Evaluation Limited has assumed that such information is correct. Nevertheless, Constructive Evaluation Limited cannot and does not guarantee the authenticity or reliability of the information it has relied upon. Constructive Evaluation Limited can accept no responsibility for inaccuracies within the data supplied by other parties.

This report is written in the context of an agreed scope of work between Constructive Evaluation Limited and the client and should not be used in a different context. In light of additional information becoming available, improved practices and changes in legislation amendment or re-interpretation of the assessment or report in whole or part may be necessary after its original submission.

This report is provided for sole use by the client and is confidential to them. No responsibility whatsoever for the contents of the report will be accepted to anyone other than the client.

Constructive Evaluation Limited believes that providing information about limitations is essential to help the client identify and thereby manage risks.

The copyright of written materials supplied shall remain the property of Constructive Evaluation Limited but with a royalty-free perpetual licence, granted to the client on payment in full of any outstanding monies.

Constructive Evaluation Limited does not provide legal advice and the advice of the client's legal advisors may also be required.

An ecological, topographical or asbestos survey was outside the scope of this report.

APPENDICES

Their contents are listed below:

Appendix A – Site Plan & Photographs

Appendix B – Historical Maps

Appendix C – BGS Borehole Records

Appendix D – Envirocheck (Dataset)

APPENDIX A

Site Plan & Photographs

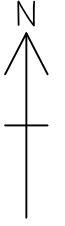


AERIAL PHOTO



PHOTO 91: STEEL DOOR TO BASEMENT

- NOTES
1. Do not scale from this drawing except for planning purposes. Use figured dimensions only.
 2. All dimensions must be checked on site prior to commencement of work.
 3. Where applicable this drawing is to be read in conjunction with other consultants drawings.
 4. This drawing is the copyright of Constructive Evaluation Ltd.



KEY

- = PHOTO ID
- = SLOPE
- = SITE BOUNDARY
- = ELECTRICAL SUB STATION
- = BOILER HOUSE
- = APPROXIMATE LOCATION OF LIFT
- = POND

rev	date	amendment	check

constructiveevaluation
 Building & Material Test Consultants
 TEL-01243-533499 FAX-01243-531070
 email-info@theconstructivegroup.com

Client: ROBERT WEST CONSULTING

Project: PARLIAMENT HILL SCHOOL

Drawing: PHOTO ID PLAN scale: NT5

date APR 08	drawn D.Y	checked
drawing number 08.5292	revision	



PHOTO 27: VIEW OF POTENTIAL LIFT SHAFT



PHOTO 120: ELECTRICAL SUB STATION



PHOTO 35: BOILER HOUSE



122. Canteen to the north



1. Parliament Hill School



2. View of school to the north



3. View of portakabins (site hut)



4. View of car park



5. View to north



6. View to southwest



7. View of gym



8. View of victorian building



9. View of victorian building and verrainder



10. Site Managers Lodge



11. View to the north



12. view of park



13. View to north along Highgate Road



14. View to the south along Highgate Road



15. View of victorian block



16. View of residential properties to the south



17. View of park



18. View of residential properties



19. View of school from Highgate Road



20. View of new build from Highgate Road



21. View of residential properties to the southeast



22. View to gym



23. View to southern section



24. View of maun school building



25. View to the eastern elevation



26. View of site managers lodge



27. View of potential lift shaft



28. Garden to site managers lodge



29. Gym



30. View of entrance



31. Main school elevation



32. Car park



33. Boiler House 1



34. Boiler House 1



35. Boiler House 1



36. Boiler House 2



37. General view towards western elevation



38. Boiler House 3



39. Boiler House 3



40. Main school elevation (new build)



41. View to southern elevation



42. Boiler House 4



43. Boiler House 4



44. Boiler house 4



45. Boiler House 4



46. Boiler House 4



47. Boiler house 4 entrance point



48. View to southern section



49. View of pitches



50. View of pitches and mound



51. View of William Ellis School to the north



52. View of caretakers lodge William Ellis



53. New build to north



54. Main entrance



55. View to the north



56. Pitches



57. View to the north



58. View to the south



59. Football Pitches



60. View along eastern flank



61. Main building



62. Landscaped area to the east



63. Main access road



64. View of car park to the south



65. View to north



66. View of main build



67. View of new build (verrainder)



68. View to west



69. View of verrainder



70. View to east



71. View to west



72. View of slope



73. View to south



74. View of verrainders roof



75. View across site



76. View of mound to south



77. View to north



78. View of main hall



79. View to south



80. View along western flank



81. Pond



82. View of main hall



83. View of victorian building



84. View to east



85. View to south



86. View to east



87. View to northwest



88. View of main hall



89. View to northwest



90. View of semi hexagon building



91. Steel door to basement



92. Old filling point for AST's



93. View to north



94. View of basement



95. View to south



96. View of verrainders roof



97. View to south



98. View to north



99. View of new build to the north



100. View to south



101. Refuse bins



102. Verrainder



103. Main hall



104. View looking from the north



105. Main hall from the north



106. Looking northwest



107. Chimney



108. Chimney



109. View to northwest



110. Playing field



111. View looking southwest



112. View looking west



113. Raised area



114. Rough area



115. Southern elevation



116. View of playing field to west



117. View to east



118. view to southeast



119. View towards William Ellis



120. Electrica sub station



121. Chimney

APPENDIX B

Historical Maps

Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Boundary Post or Stone **Police Call Box**
B.R. Bridle Road **Pump**
E.P. Electricity Pylon **S.P. Signal Post**
F.B. Foot Bridge **Sl. Sluice**
F.P. Foot Path **Sp. Spring**
G.P. Guide Post or Board **T.C.B. Telephone Call Box**
M.S. Mile Stone **Tr. Trough**
M.P. M.R. Mooring Post or Ring **W. Well**

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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P Pillar, Pole or Post**
BP, BS Boundary Post or Stone **PO Post Office**
Cn, C Capstan, Crane **PC Public Convenience**
Chy Chimney **PH Public House**
D Fn Drinking Fountain **Pp Pump**
EI P Electricity Pillar or Post **SB, S Br Signal Box or Bridge**
FAP Fire Alarm Pillar **SP, SL Signal Post or Light**
FB Foot Bridge **Spr Spring**
GP Guide Post **Tk Tank or Track**
H Hydrant or Hydraulic **TCB Telephone Call Box**
LC Level Crossing **TCP Telephone Call Post**
MH Manhole **Tr Trough**
MP Mile Post or Mooring Post **Wr Pt, Wr T Water Point, Water Tap**
MS Mile Stone **W Well**
NTL Normal Tidal Limit **Wd Pp Wind Pump**

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

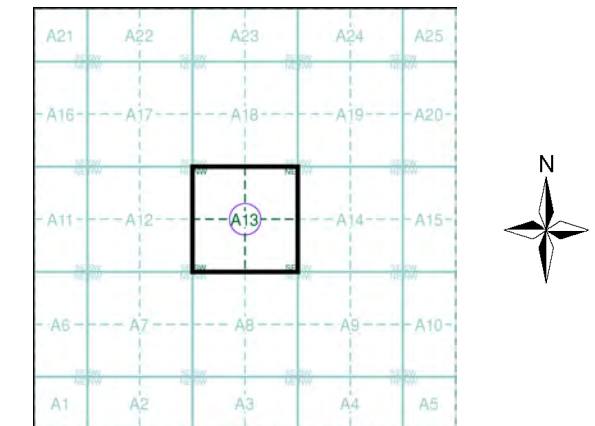
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P Pillar, Pole or Post**
Bty Battery **PO Post Office**
Cemy Cemetery **PC Public Convenience**
Chy Chimney **Pp Pump**
Cis Cistern **Ppg Sta Pumping Station**
Dismtd Rly Dismantled Railway **PW Place of Worship**
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta Sewage Pumping Station**
EI P Electricity Pole, Pillar **SB, S Br Signal Box or Bridge**
EI Sub Sta Electricity Sub Station **SP, SL Signal Post or Light**
FB Filter Bed **Spr Spring**
Fn / D Fn Fountain / Drinking Ftn. **Tk Tank or Track**
Gas Gov Gas Valve Compound **Tr Trough**
GVC Gas Governor **Wd Pp Wind Pump**
GP Guide Post **Wr Pt, Wr T Water Point, Water Tap**
MH Manhole **Wks Works (building or area)**
MP, MS Mile Post or Mile Stone **W Well**



Ordnance Survey mapping included:

Mapping Type	Scale	Date	Pg
London	1:2,500	1873	2
London	1:2,500	1896	3
London	1:2,500	1915	4
London	1:2,500	1936	5
Ordnance Survey Plan	1:1,250	1952 - 1954	6
Additional SIMs	1:1,250	1952 - 1988	7
Ordnance Survey Plan	1:2,500	1953 - 1954	8
Ordnance Survey Plan	1:1,250	1962 - 1979	9
Ordnance Survey Plan	1:2,500	1970	10
Ordnance Survey Plan	1:1,250	1973 - 1980	11
Supply of Unpublished Survey Information	1:1,250	1974	12
Large-Scale National Grid Data	1:1,250	1991	13
Large-Scale National Grid Data	1:1,250	1992 - 1995	14

Historical Map - Segment A13



Order Details

Order Number: 24397698_1_1
 Customer Ref: 08.5292
 National Grid Reference: 528300, 186020
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Parliament Hill School, Highgate Road, LONDON, NW5 1RL



Tel: 0870 850 6670
 Fax: 0870 850 6671
 Web: www.envirocheck.co.uk

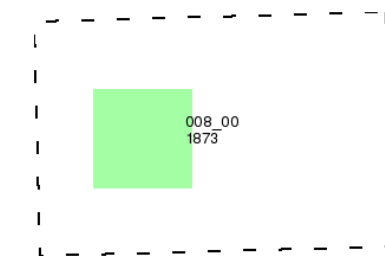
London

Published 1873

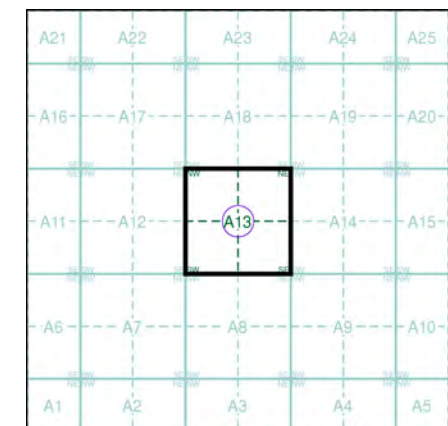
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13

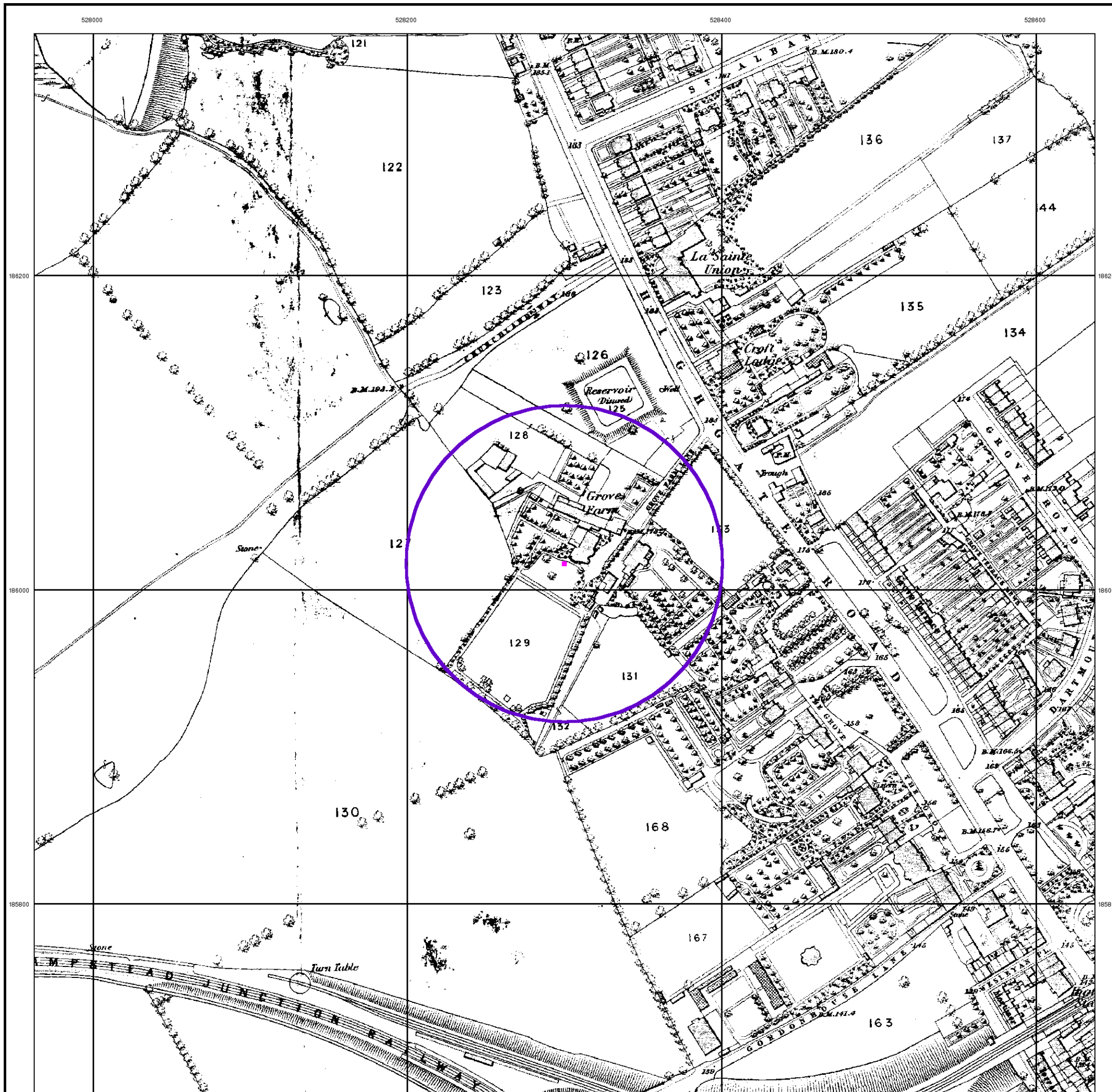


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Site Details

Parliament Hill School, Highgate Road, LONDON, NW5 1RL



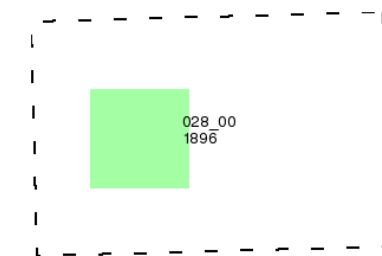
London

Published 1896

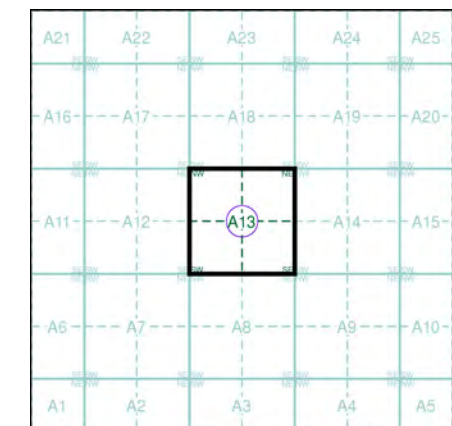
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13

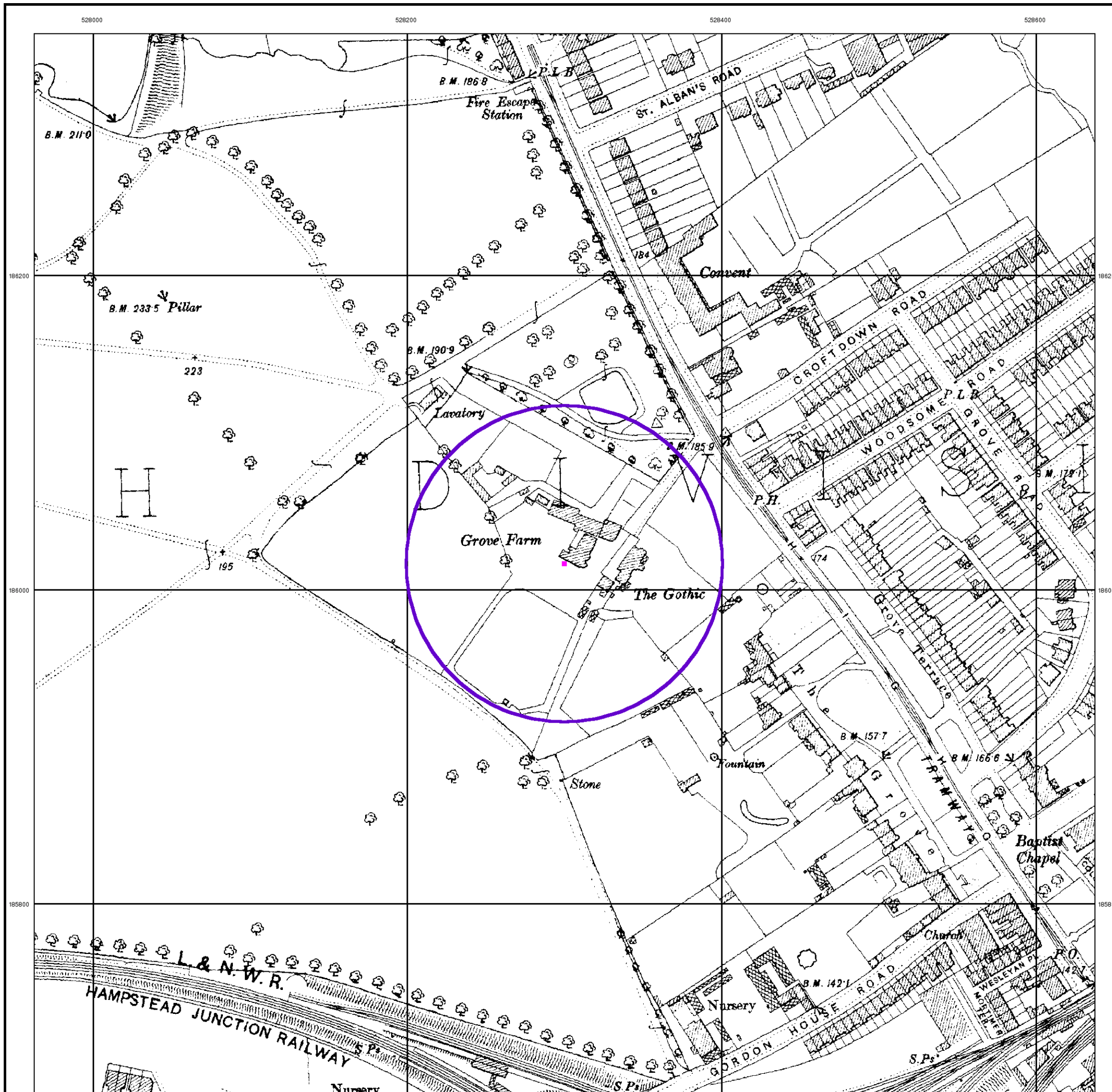


Order Details

Order Number: 24397698_1_1
 Customer Ref: 08.5292
 National Grid Reference: 528300, 186020
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 Search Buffer (m): 100

Site Details

Parliament Hill School, Highgate Road, LONDON, NW5 1RL



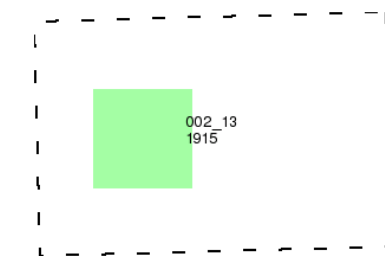
London

Published 1915

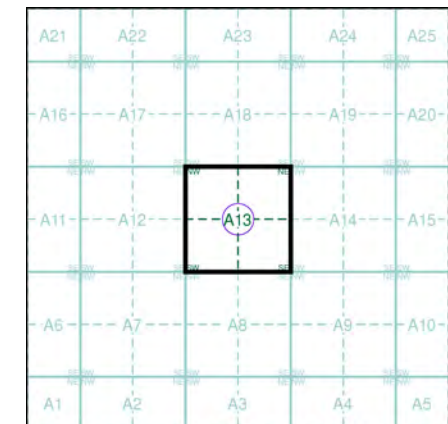
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered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

Map Name(s) and Date(s)



Historical Map - Segment A13

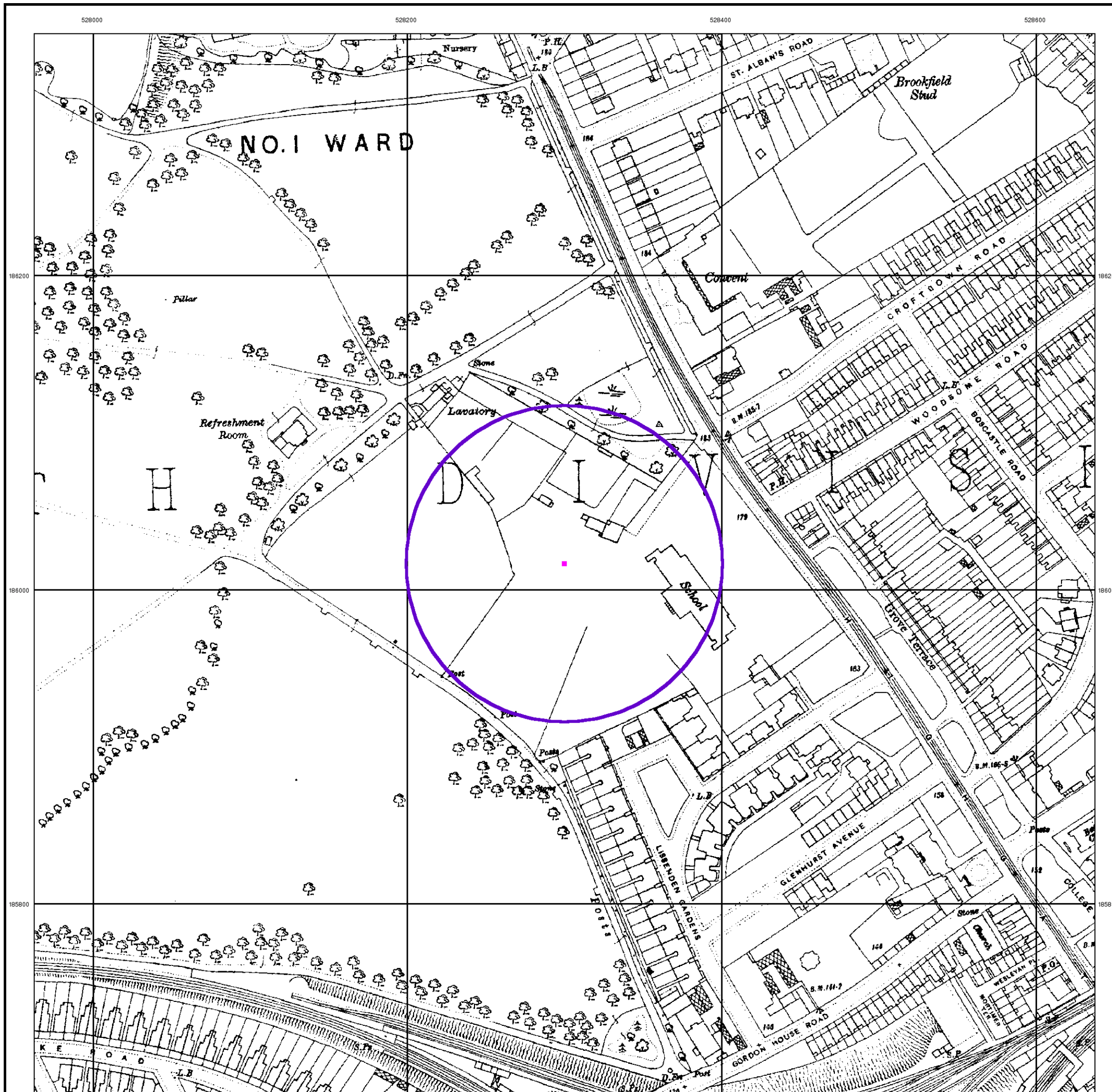


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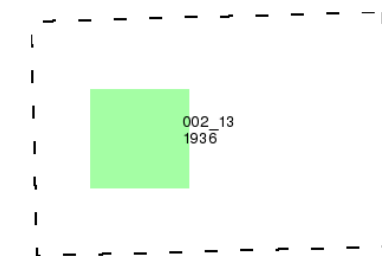
London

Published 1936

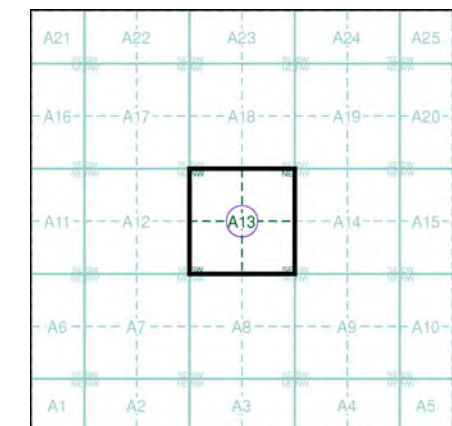
Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment A13

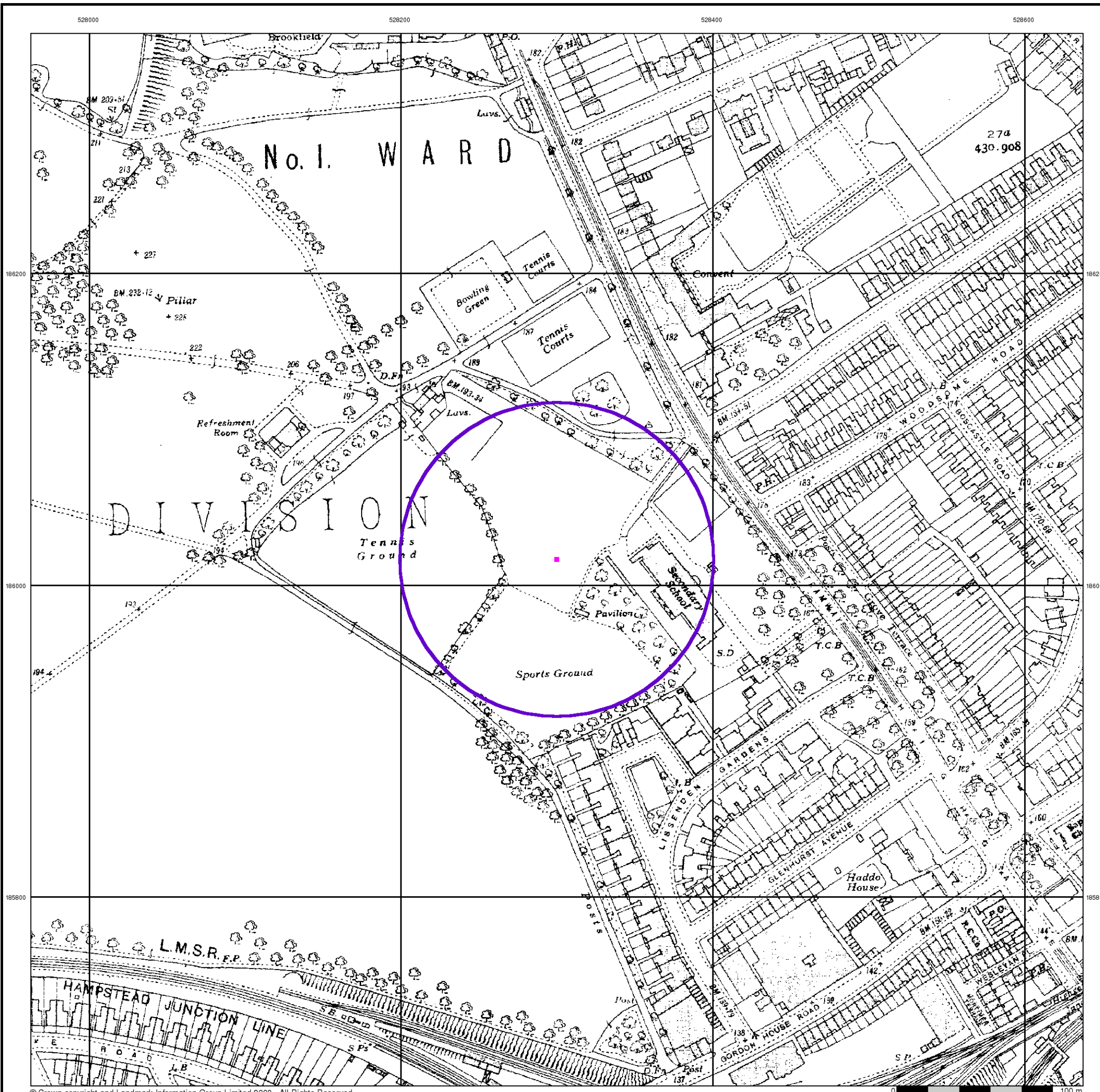


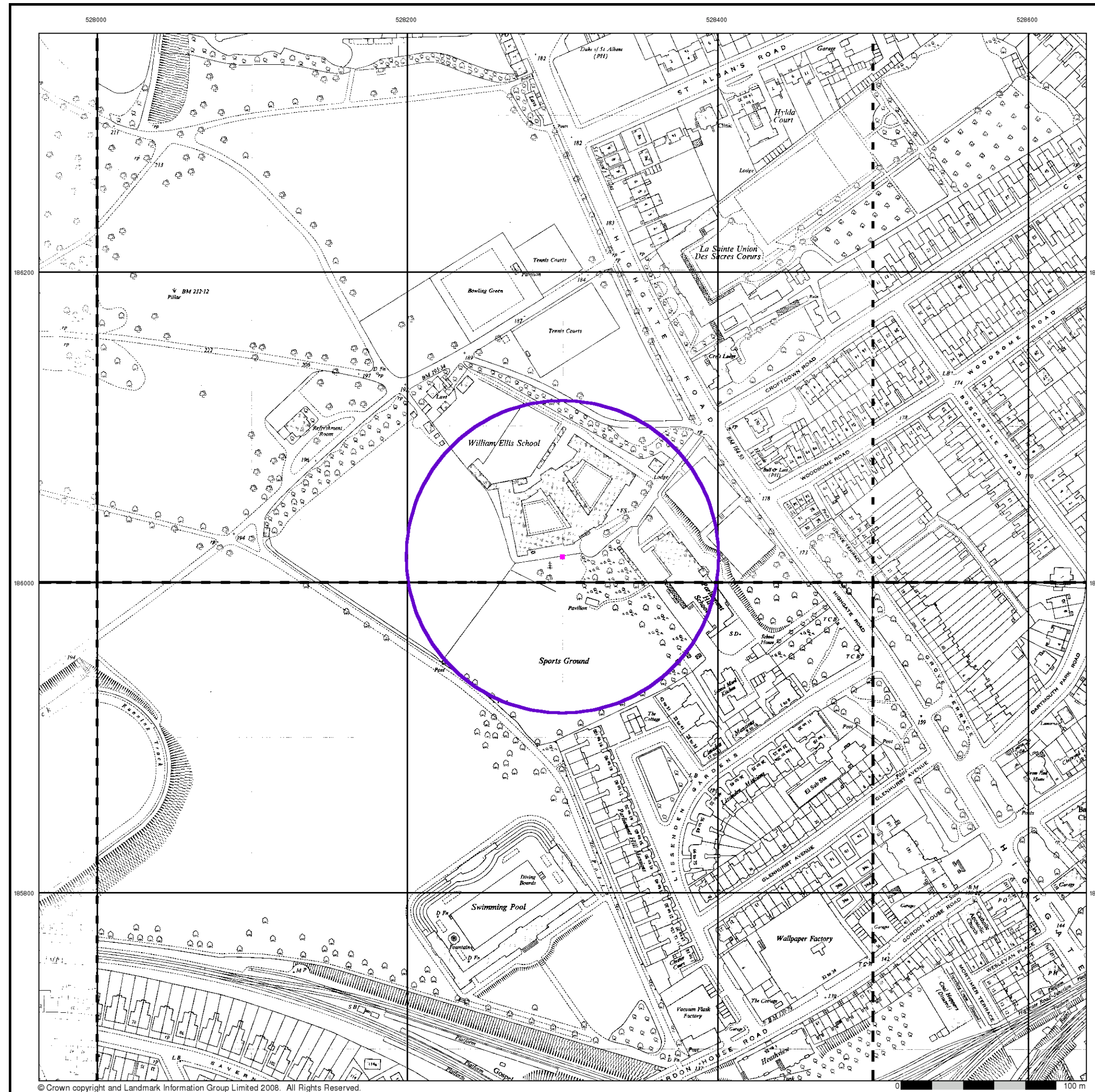
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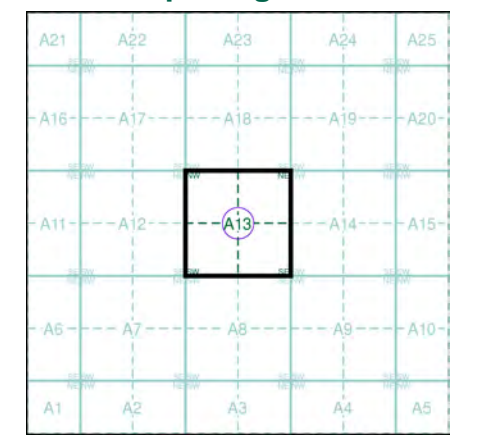
Ordnance Survey Plan
Published 1952 - 1954
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

TQ2786SE 1952	TQ2886SW 1952	TQ2886SE 1952
TQ2785NE 1954	TQ2885NW 1953	TQ2885NE 1954

Historical Map - Segment A13



Order Details
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Site Details
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Additional SIMs

Published 1952 - 1988

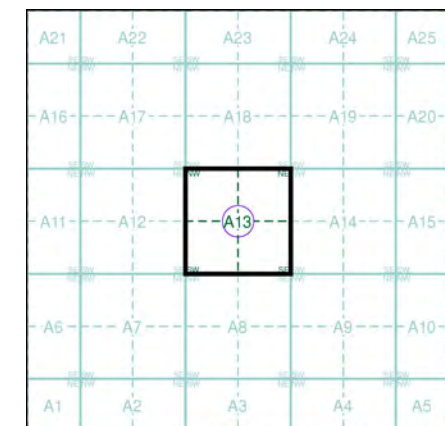
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

TQ2786SE 1952	TQ2886SW 1963
TQ2785NE 1988	TQ2885NE 1981

Historical Map - Segment A13

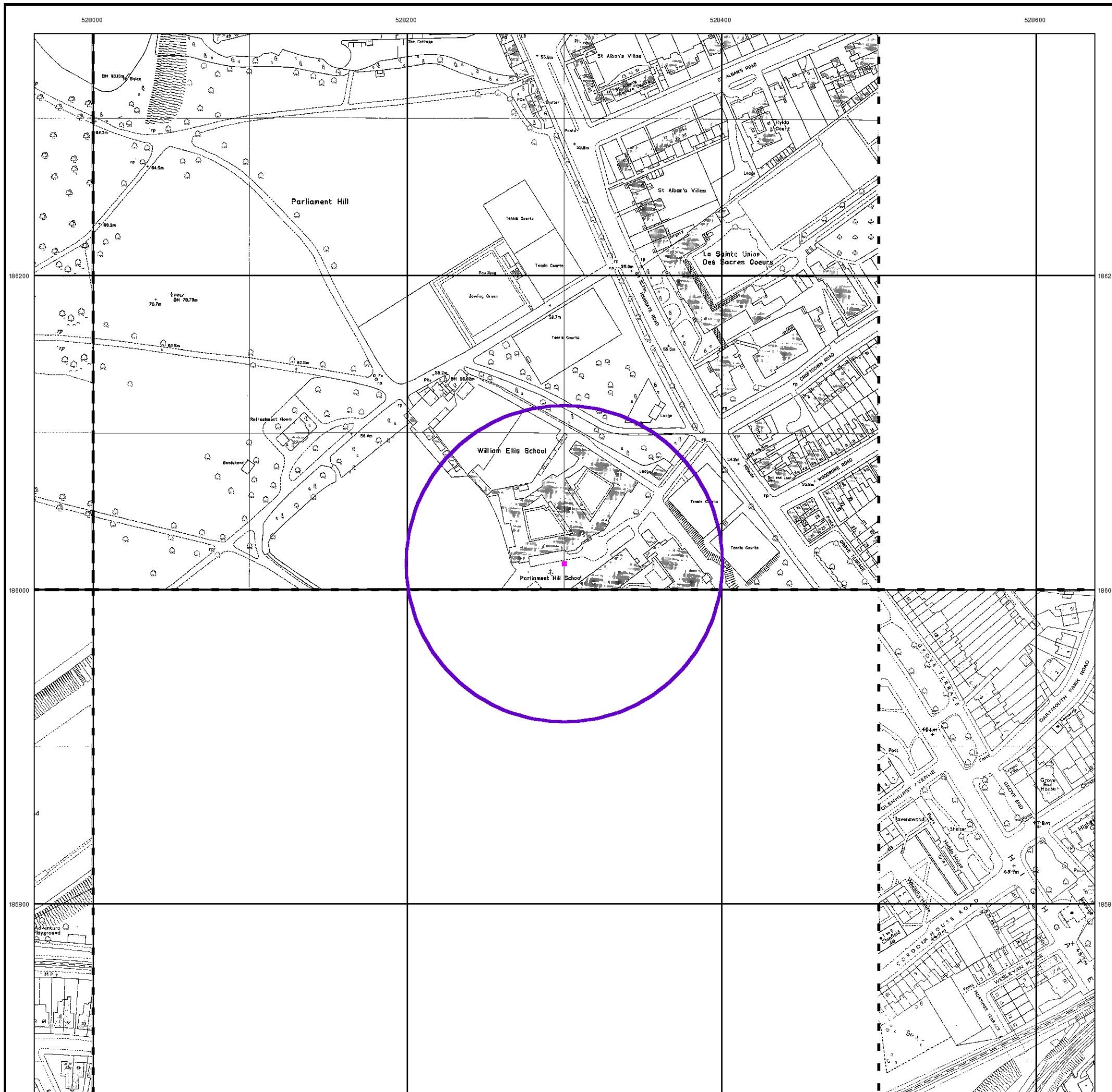


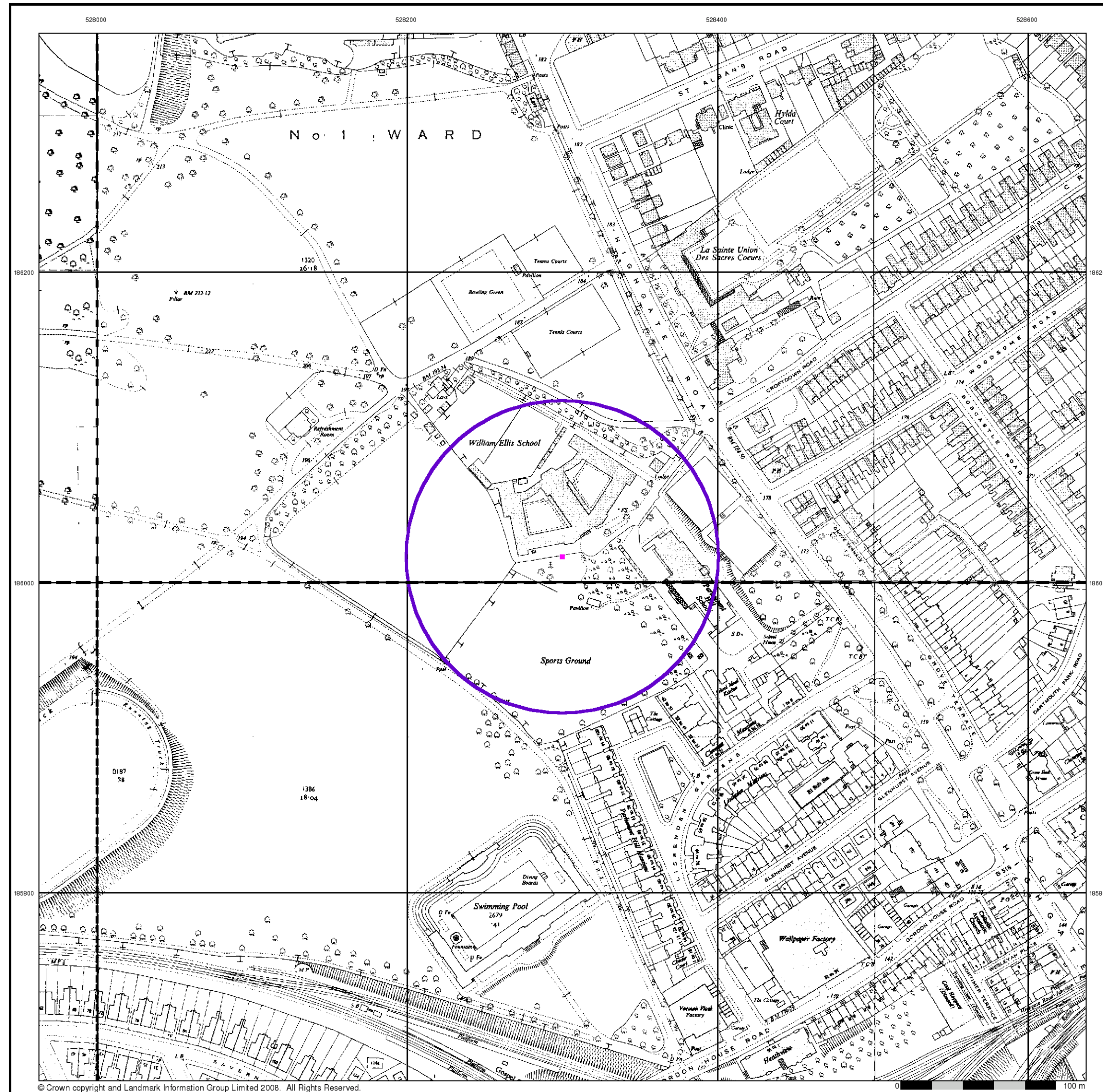
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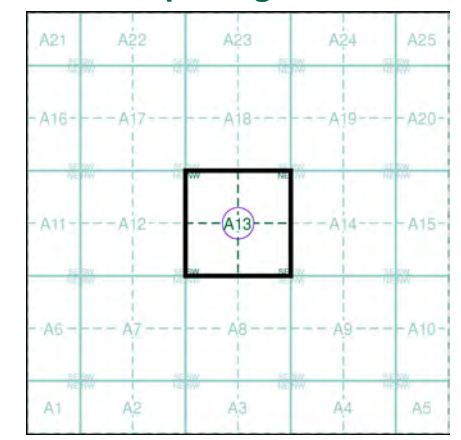
Ordnance Survey Plan
Published 1953 - 1954
Source map scale - 1:2,500

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)

TQ2786 1953	TQ2886 1953
TQ2785 1954	TQ2885 1954

Historical Map - Segment A13



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Site Details
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Ordnance Survey Plan

Published 1962 - 1979

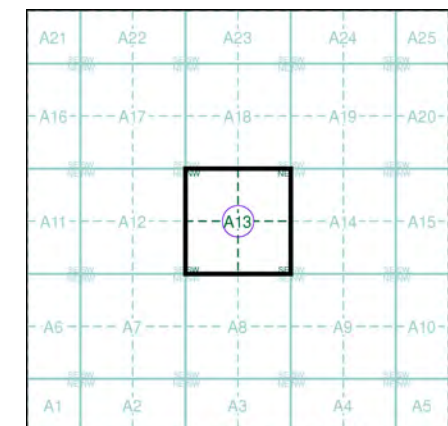
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

TQ2786SE 1979	TQ2886SW 1963	TQ2886SE 1962
TQ2785NE 1974	TQ2885NW 1966	TQ2885NE 1966

Historical Map - Segment A13

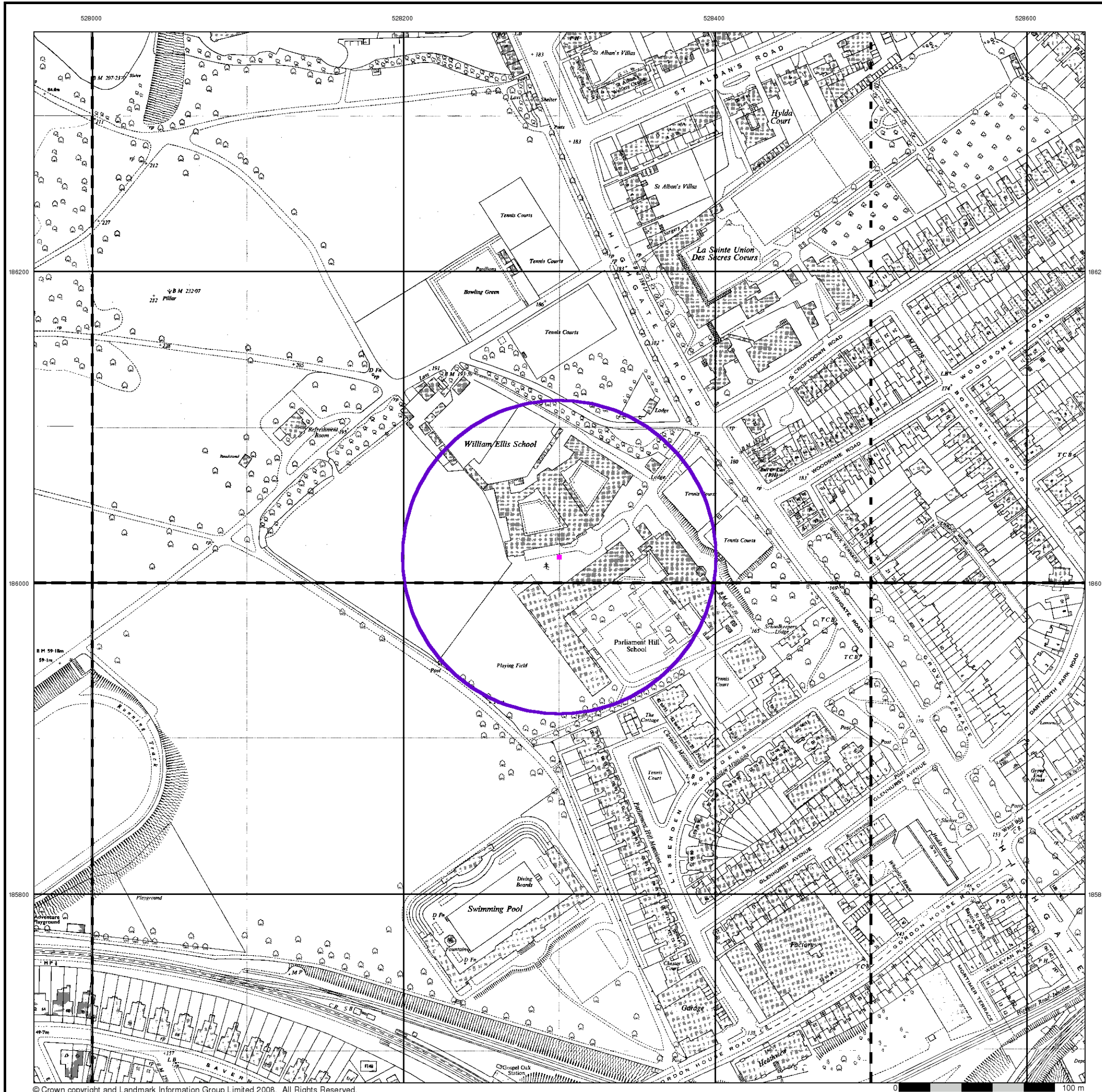


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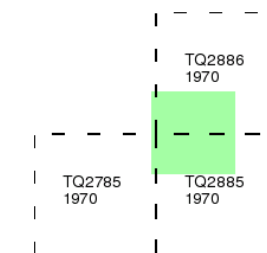
Ordnance Survey Plan

Published 1970

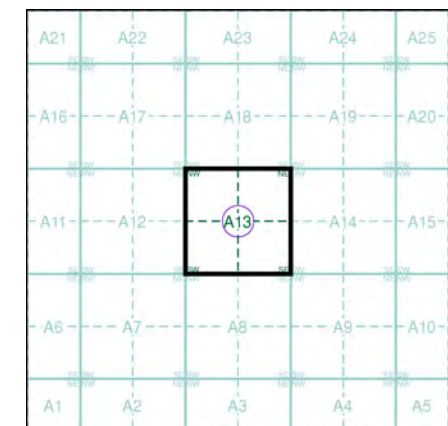
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13

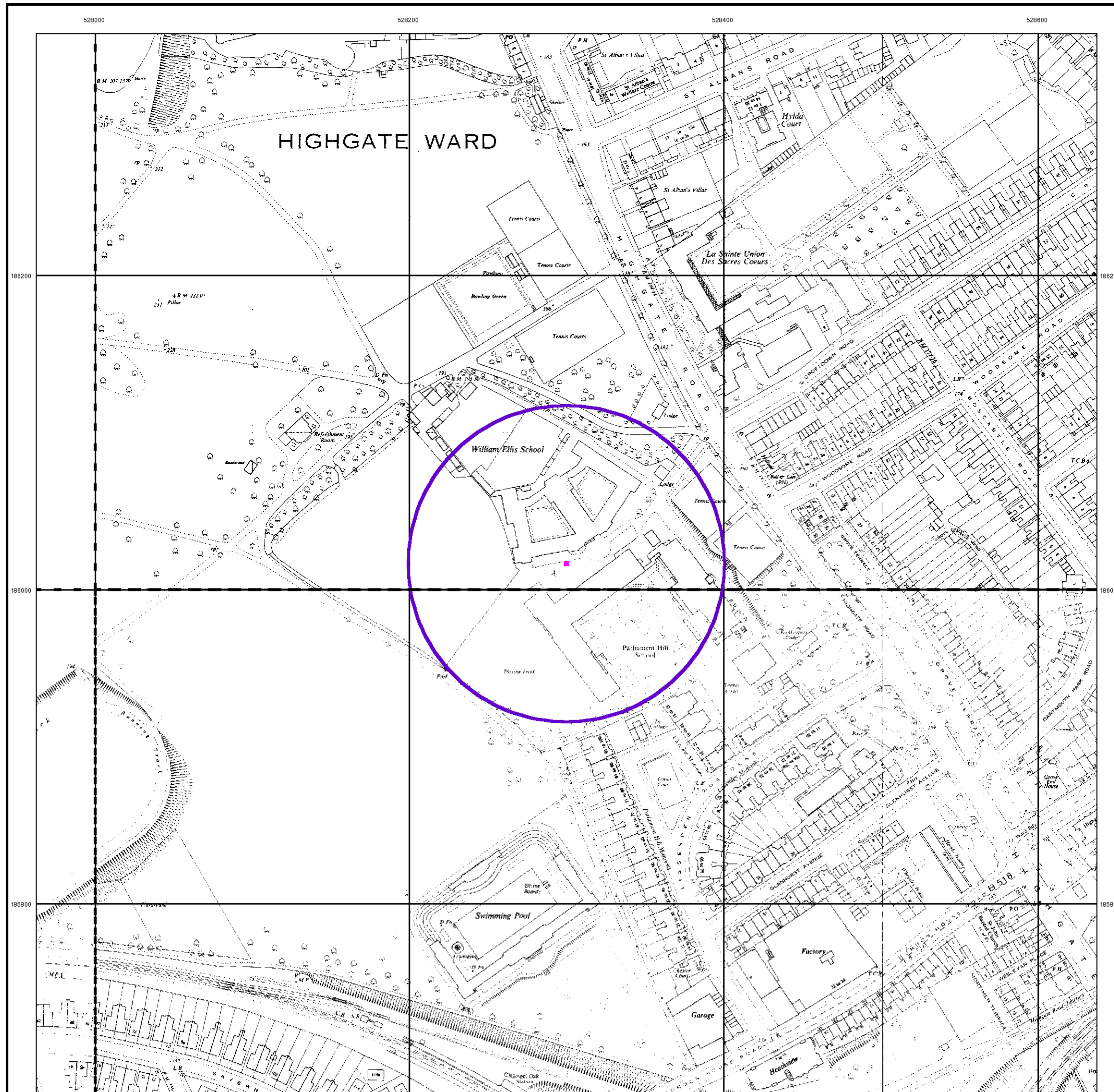


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528000

528200

528400

528600

186200

186000

185800



Ordnance Survey Plan

Published 1973 - 1980

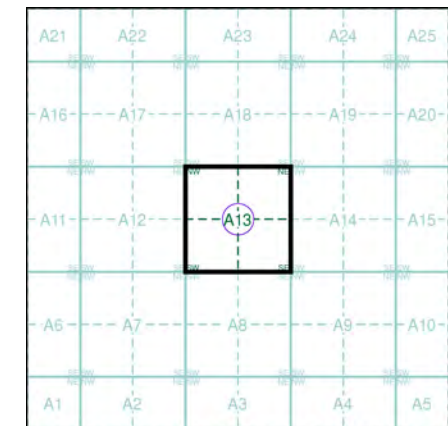
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

TQ2886SE	1975
TQ2885NW	1980
TQ2885NE	1973

Historical Map - Segment A13



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