

SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on **page 57**

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Residential - Residential development of 500 units or more. Rural residential - Any residential development of 500 or more houses outside existing settlements/urban areas. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500t). Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Discharges - Any discharge of water or liquid waste that is discharged to ground (ie to seep away) or to surface water, such as a beck or stream. Notes: For new residential development in this area financial contributions are required to mitigate increased recreational disturbance on coastal SPAs and Ramsar Sites. Check with Local Planning Authority. Water quality in the Solent. The nutrient contents of all discharges, including those to main sewer, need to be considered in combination for impacts on receiving European sites which are in unfavourable condition for water quality issues.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0
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Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.

11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m

0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.



This data is sourced from English Heritage, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m

0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from English Heritage, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m

0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from English Heritage, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

Records within 250m

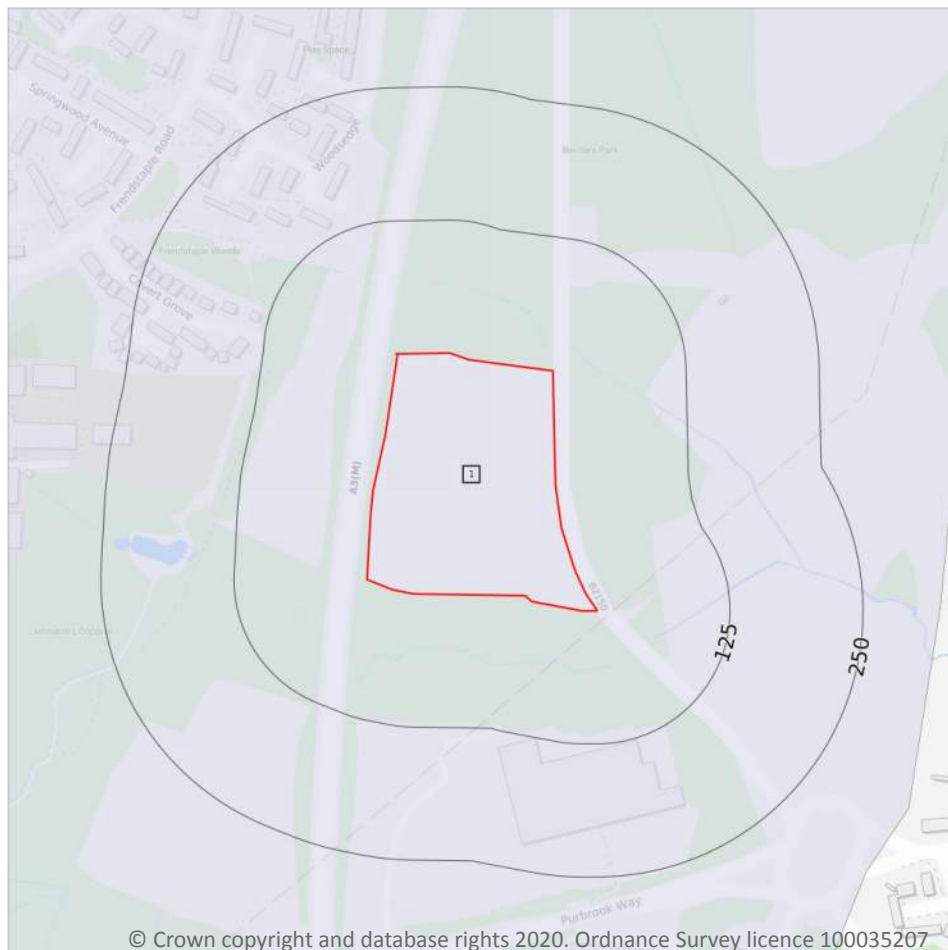
0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from English Heritage, Cadw and Historic Environment Scotland.



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

1

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 61**

ID	Location	Classification	Description
1	On site	Grade 4	Poor quality agricultural land. Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m

0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m

0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

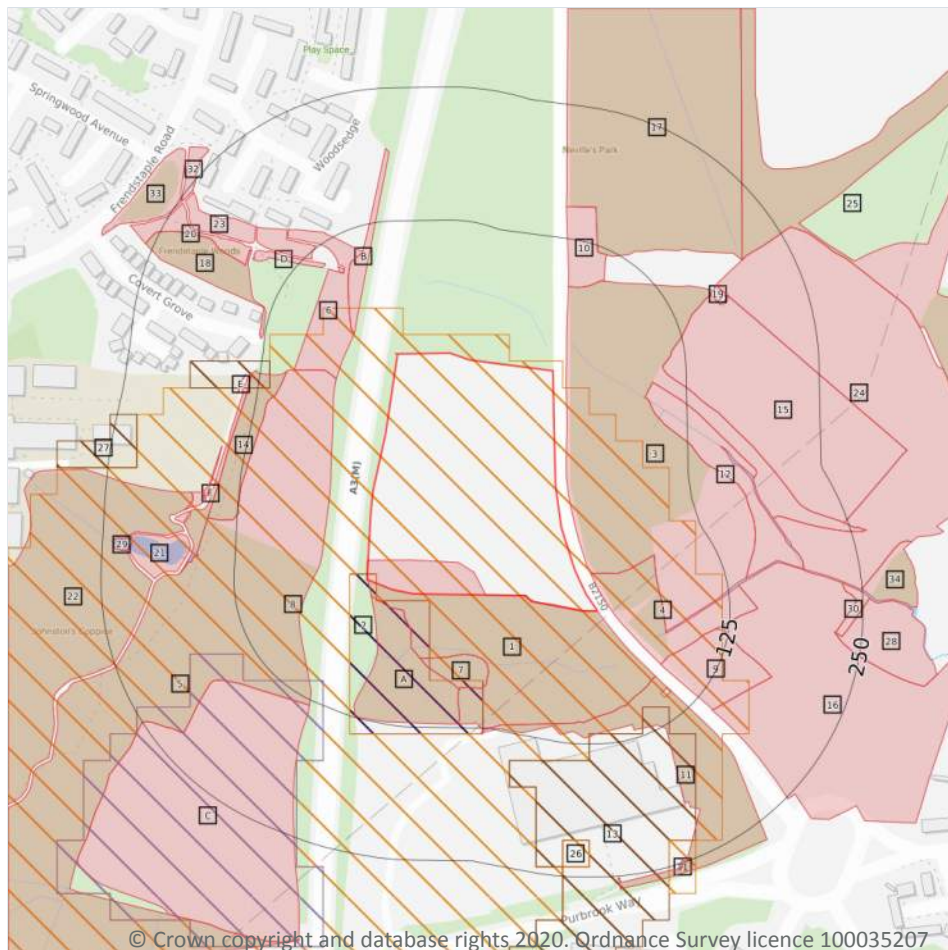
Records within 250m

0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.

13 Habitat designations



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m

40

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on **page 63**

ID	Location	Main Habitat	Other habitats
1	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	10m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	11m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	13m S	Lowland meadows	Main habitat: LMEAD (INV > 50%)



ID	Location	Main Habitat	Other habitats
5	40m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	44m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
B	44m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	56m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%); LMEAD (INV > 50%)
8	73m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
9	78m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
10	81m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
11	83m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
12	86m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
B	91m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
14	100m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
15	104m E	Good quality semi-improved grassland	Main habitat: LMEAD (INV > 50%)
D	107m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
16	113m E	Good quality semi-improved grassland	Main habitat: LMEAD (INV > 50%); Additional: DWOOD (INV 50%)
17	119m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
D	119m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
18	127m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
C	130m SW	Good quality semi-improved grassland	Main habitat: LMEAD (INV > 50%)
F	133m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
E	139m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
F	148m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
F	157m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
19	164m NE	Good quality semi-improved grassland	Main habitat: LMEAD (INV > 50%)
20	165m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
21	168m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
22	168m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
F	170m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
23	171m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)



ID	Location	Main Habitat	Other habitats
24	173m NE	Good quality semi-improved grassland	Main habitat: LMEAD (INV > 50%)
25	206m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
28	224m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
29	225m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
30	225m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%); LMEAD (INV > 50%)
32	245m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
33	247m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
34	249m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

8

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

Features are displayed on the Habitat designations map on **page 63**

ID	Location	Type	Habitat
2	On site	Network Enhancement Zone 1	Not specified
A	On site	Primary Habitat	Lowland meadows
13	100m SE	Network Enhancement Zone 2	Not specified
C	104m SW	Restorable Habitat	Not specified
E	114m W	Network Enhancement Zone 2	Not specified
26	216m S	Network Enhancement Zone 1	Not specified
27	223m W	Network Enhancement Zone 2	Not specified
31	226m S	Network Enhancement Zone 1	Not specified

This data is sourced from Natural England.



13.3 Open Mosaic Habitat

Records within 250m

0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

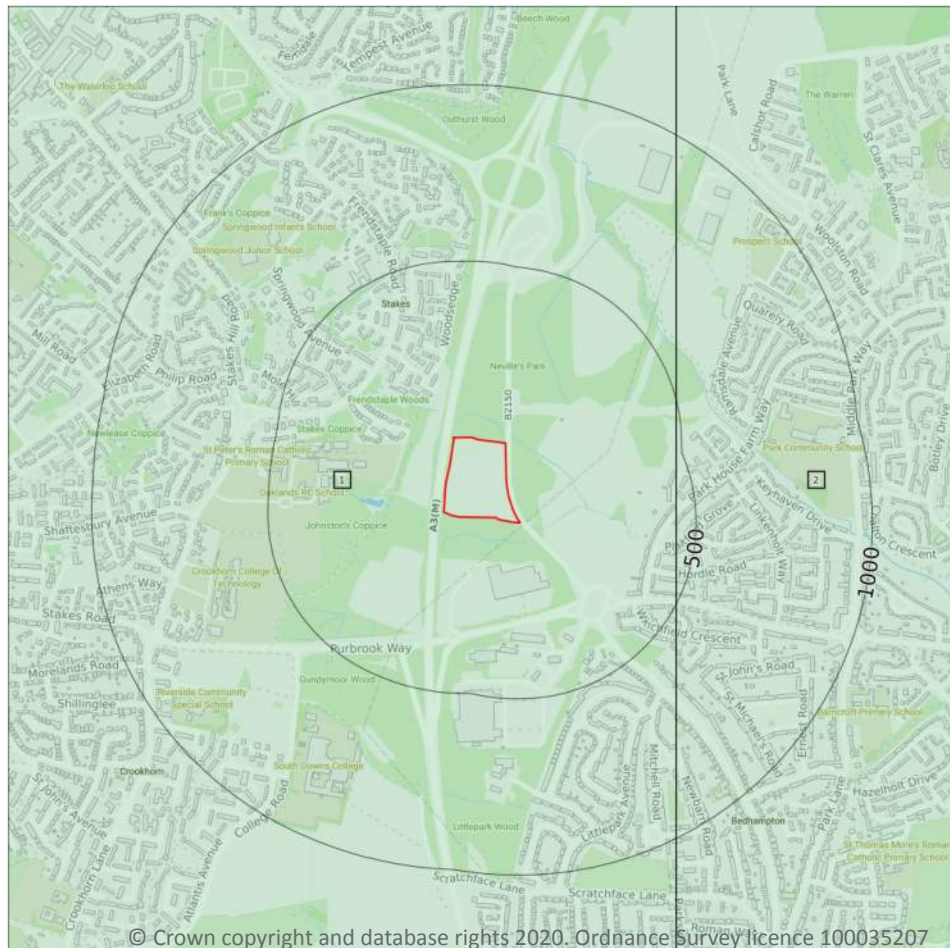
Records within 250m

0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

2

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

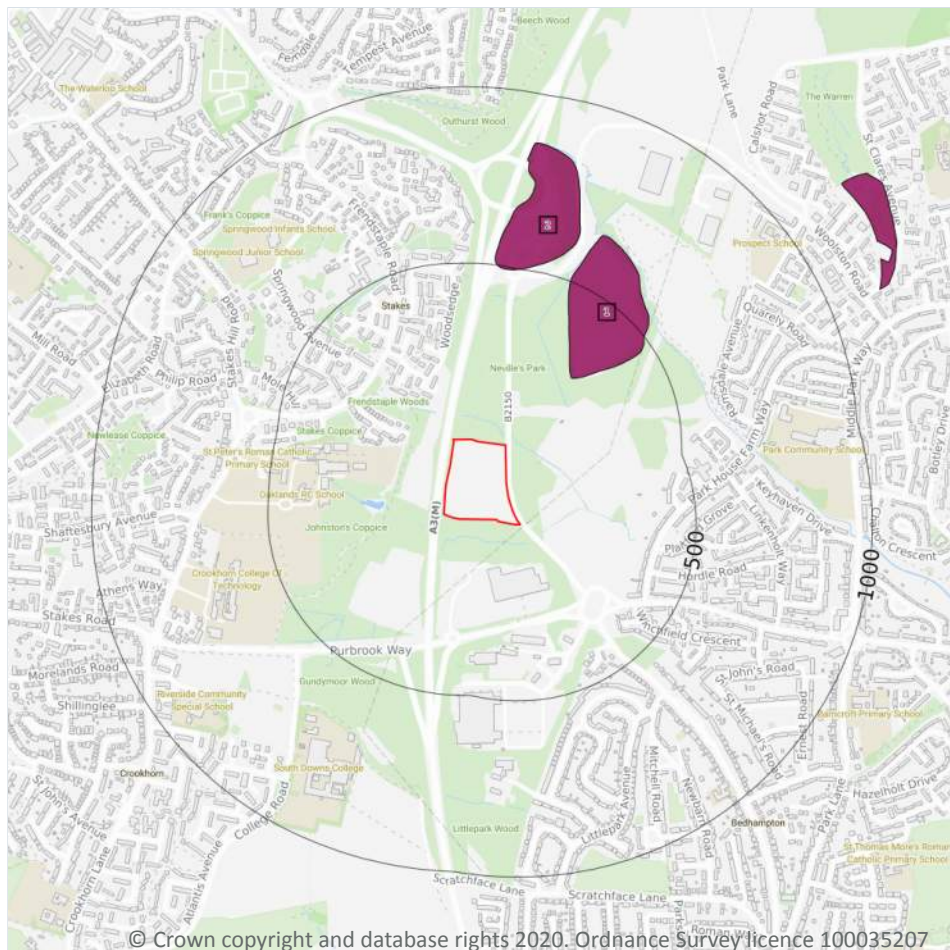
Features are displayed on the Geology 1:10,000 scale - Availability map on **page 67**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	SU60NE
2	443m E	Full	Full	Full	No coverage	SU70NW

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Artificial and made ground



— Site Outline
Search buffers in metres (m)

- Reclaimed ground
- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

2

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

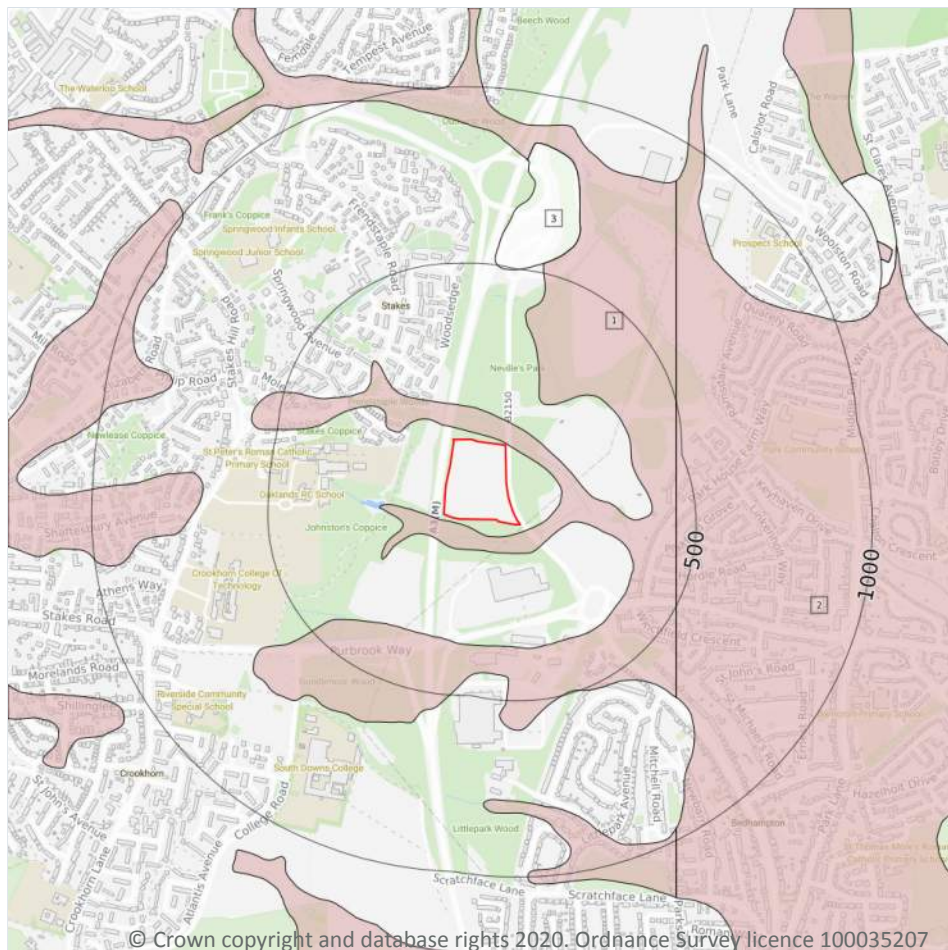
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 68**

ID	Location	LEX Code	Description	Rock description
1	268m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	493m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



— Site Outline

Search buffers in metres (m)

 Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m

3

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 69**

ID	Location	LEX Code	Description	Rock description
1	5m NE	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
2	443m E	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel



ID	Location	LEX Code	Description	Rock description
3	493m N	SUPNM- UNKNOWN	Superficial Theme Not Mapped [for Digital Map Use Only] - Unknown/unclassified Entry	Unknown/unclassified Entry

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

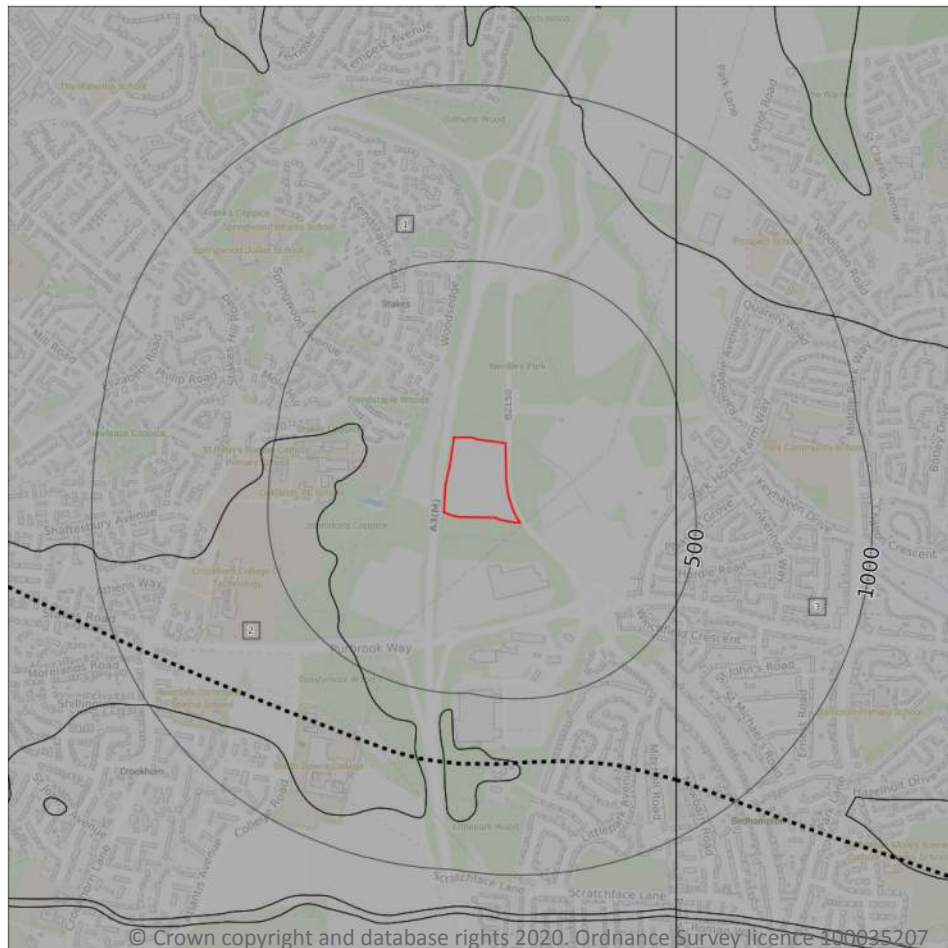
0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

3

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 71**

ID	Location	LEX Code	Description	Rock age
1	On site	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch
2	239m W	WTT-SSCL	Wittering Formation - Sand, Silt And Clay	Lutetian Age - Ypresian Age
3	443m E	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch

This data is sourced from the British Geological Survey.



14.6 Bedrock faults and other linear features (10k)

Records within 500m

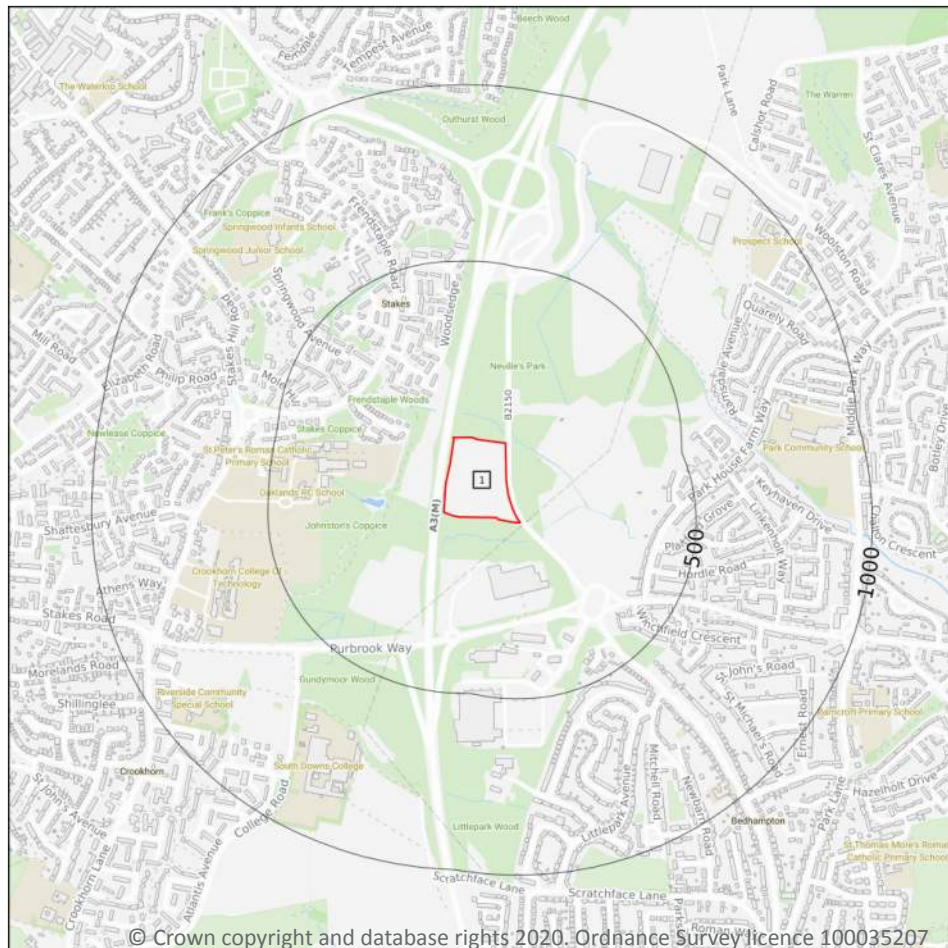
0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline
Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

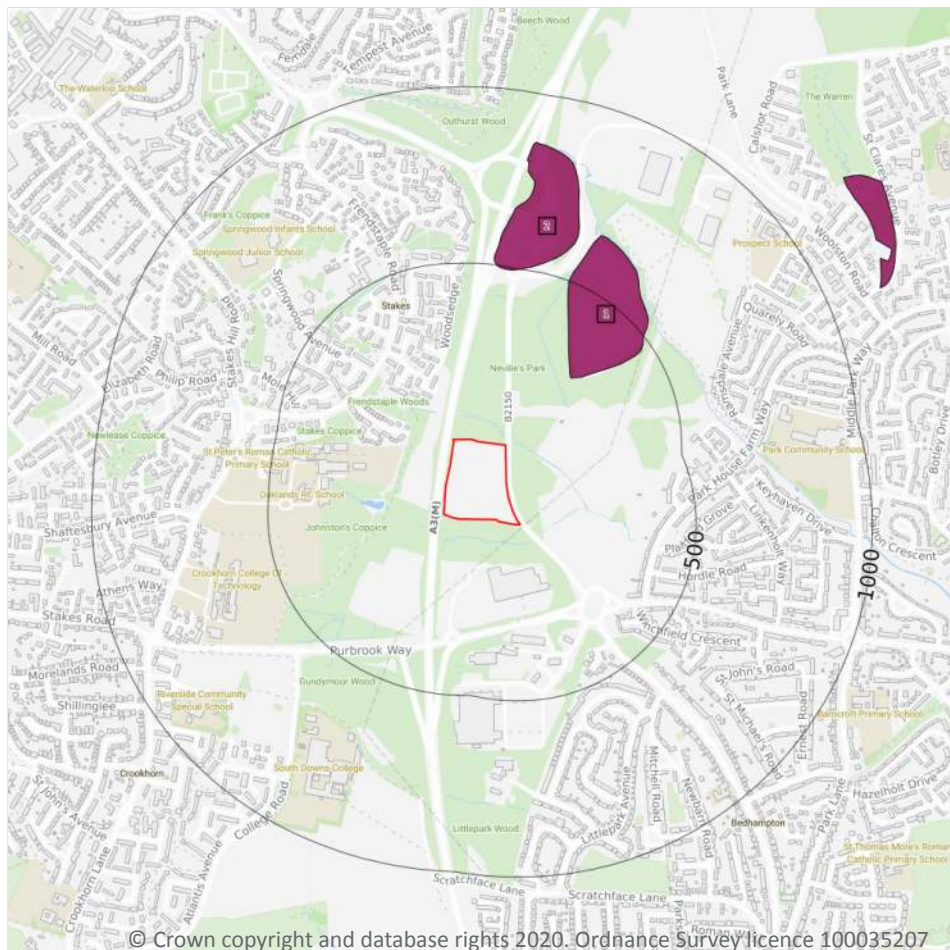
Features are displayed on the Geology 1:50,000 scale - Availability map on **page 73**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW316_fareham_v4

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground



- Site Outline**
- Search buffers in metres (m)
- Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m

2

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 74**

ID	Location	LEX Code	Description	Rock description
1	266m NE	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	493m N	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.



15.3 Artificial ground permeability (50k)

Records within 50m

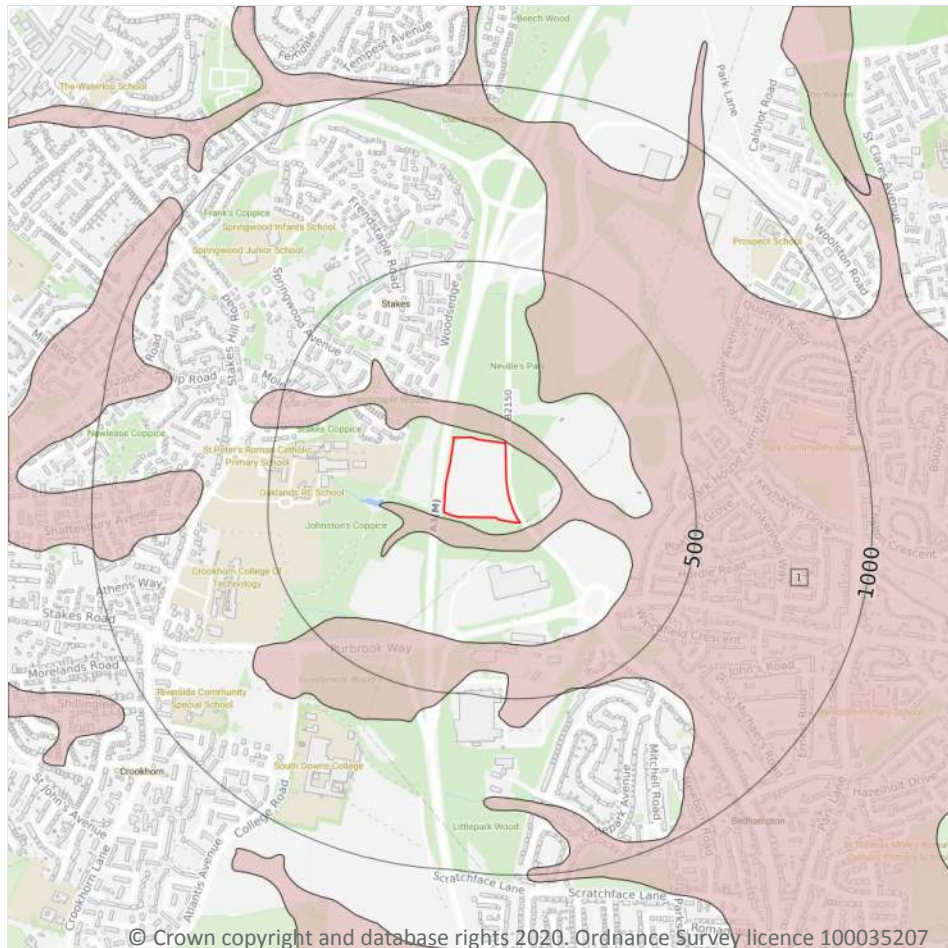
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



— Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m

1

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 76**

ID	Location	LEX Code	Description	Rock description
1	4m NE	HEAD- XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.



15.5 Superficial permeability (50k)

Records within 50m

1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
4m N	Mixed	High	Very Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m

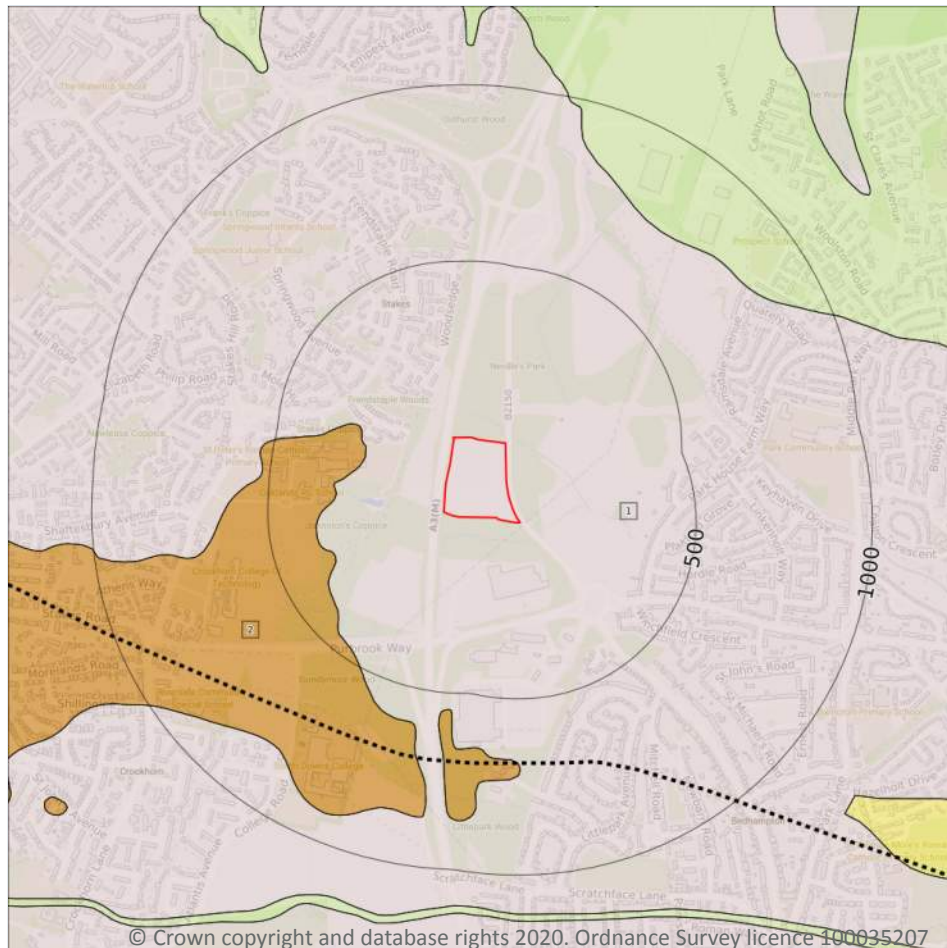
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

2

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 78**

ID	Location	LEX Code	Description	Rock age
1	On site	LC-XCZS	LONDON CLAY FORMATION - CLAY, SILT AND SAND	YPRESIAN
2	239m W	WTT-XSZC	WITTERING FORMATION - SAND, SILT AND CLAY	YPRESIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m

1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	Moderate	Very Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

0

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



16 Boreholes



— Site Outline
Search buffers in metres (m)

- Confidential
- 0 - 10m
- 10 - 30m
- 30m+
- Unknown

16.1 BGS Boreholes

Records within 250m

17

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on **page 80**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	469360 108180	A3 HORNDEAN-BROADMARSH BH175	8.0	N	419968
2	13m W	469330 108080	A3 HORNDEAN-BROADMARSH BH173	4.0	N	419966
3	19m W	469350 108250	A3 HORNDEAN-BROADMARSH BH176	10.0	N	419969

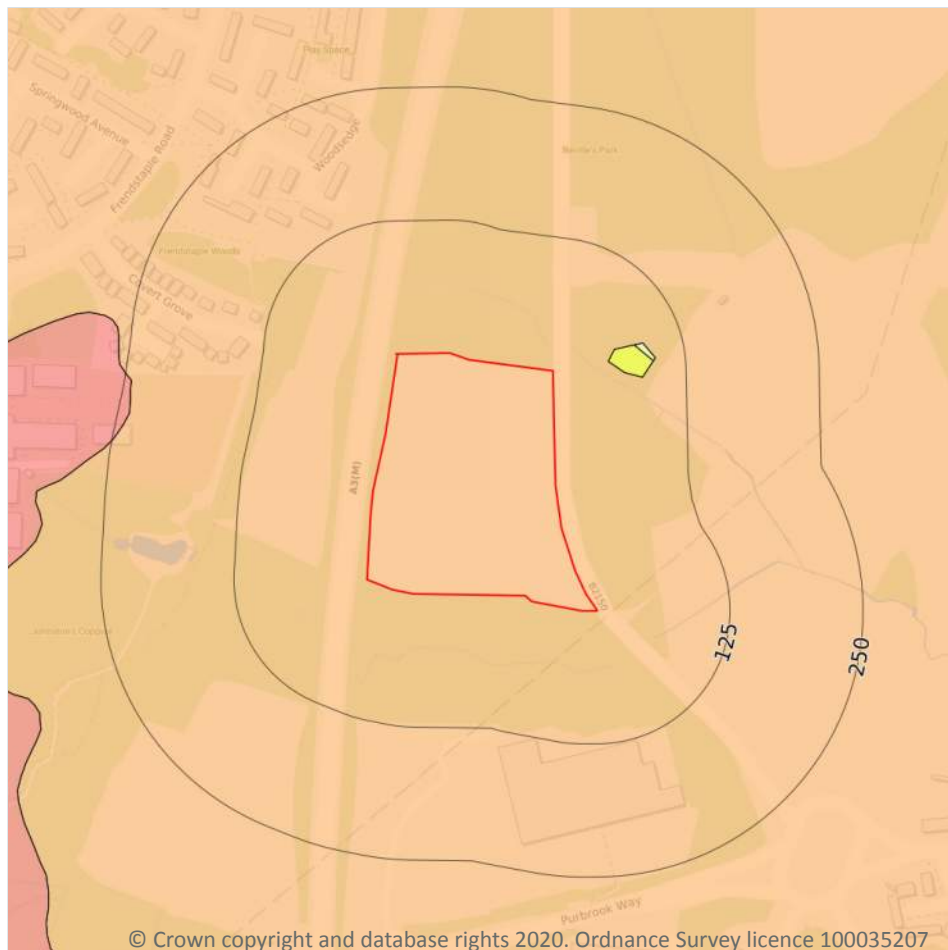


ID	Location	Grid reference	Name	Length	Confidential	Web link
4	21m W	469330 108150	A3 HORNDEAN-BROADMARSH 10	8.0	N	419999
5	37m W	469320 108180	A3 HORNDEAN-BROADMARSH BH174	8.0	N	419967
6	61m SW	469300 108000	A3 HORNDEAN-BROADMARSH BH172	6.0	N	419965
7	73m N	469380 108330	A3 HORNDEAN-BROADMARSH BH177	20.0	N	419970
8	88m NW	469320 108330	STAKES HILL/SOUTHLEIGH RD BH18	3.0	N	420134
9	123m NW	469320 108370	STAKES HILL/SOUTHLEIGH RD BH19	5.0	N	420135
10	137m W	469230 108250	STAKES HILL/SOUTHLEIGH RD BH16	10.0	N	420132
11	150m S	469300 107900	A3 HORNDEAN-BROADMARSH BH171	8.0	N	419964
12	163m S	469360 107870	A3 HORNDEAN-BROADMARSH BH170	8.0	N	419963
13	181m S	469320 107860	A3 HORNDEAN-BROADMARSH BH169	10.0	N	419962
14	202m N	469550 108440	A3 HORNDEAN-BROADMARSH BH183	6.0	N	419976
15	204m S	469280 107850	A3 HORNDEAN-BROADMARSH BH168	8.0	N	419961
16	212m NW	469190 108370	STAKES HILL/SOUTHLEIGH RD BH17	3.0	N	420133
17	243m N	469400 108500	A3 HORNDEAN-BROADMARSH BH178	7.0	N	419971

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.1 Shrink swell clays

Records within 50m

1

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

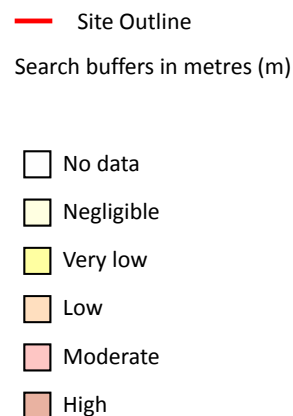
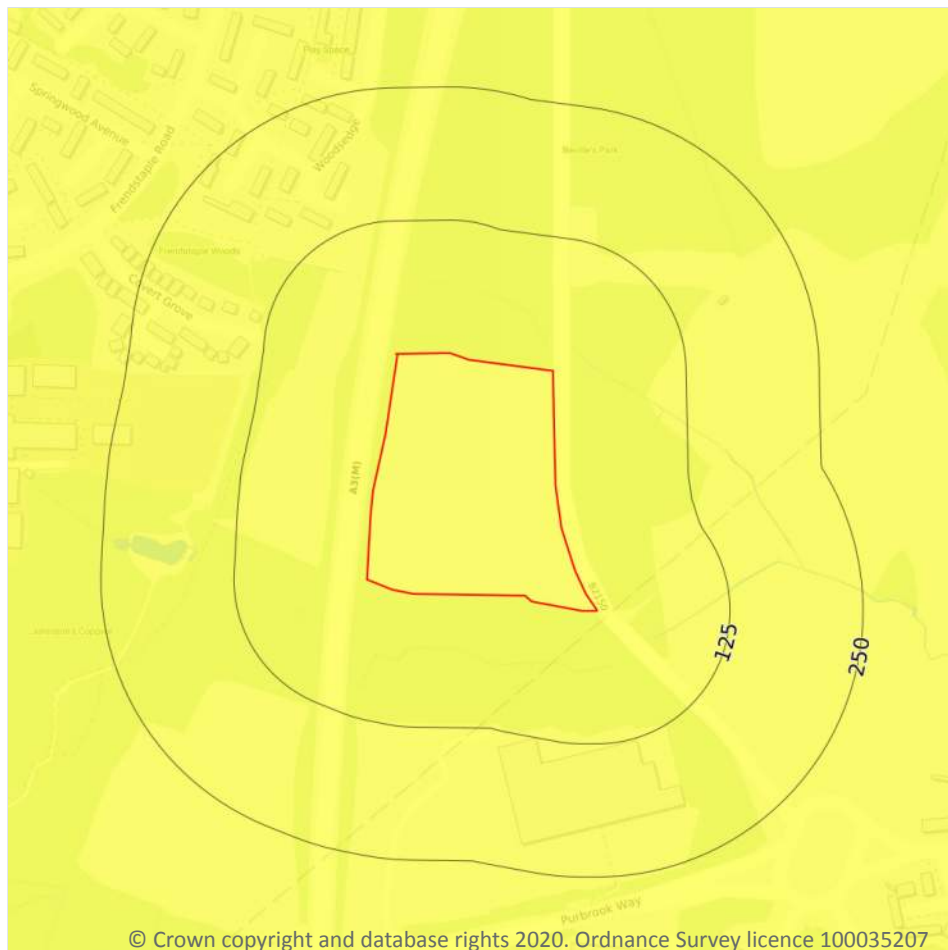
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 82**

Location	Hazard rating	Details
On site	Low	Ground conditions predominantly medium plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



17.2 Running sands

Records within 50m

1

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

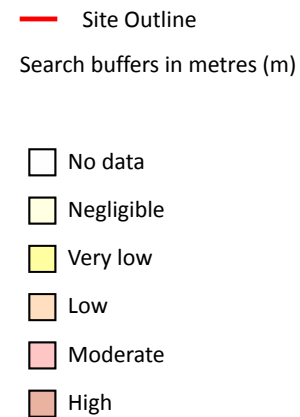
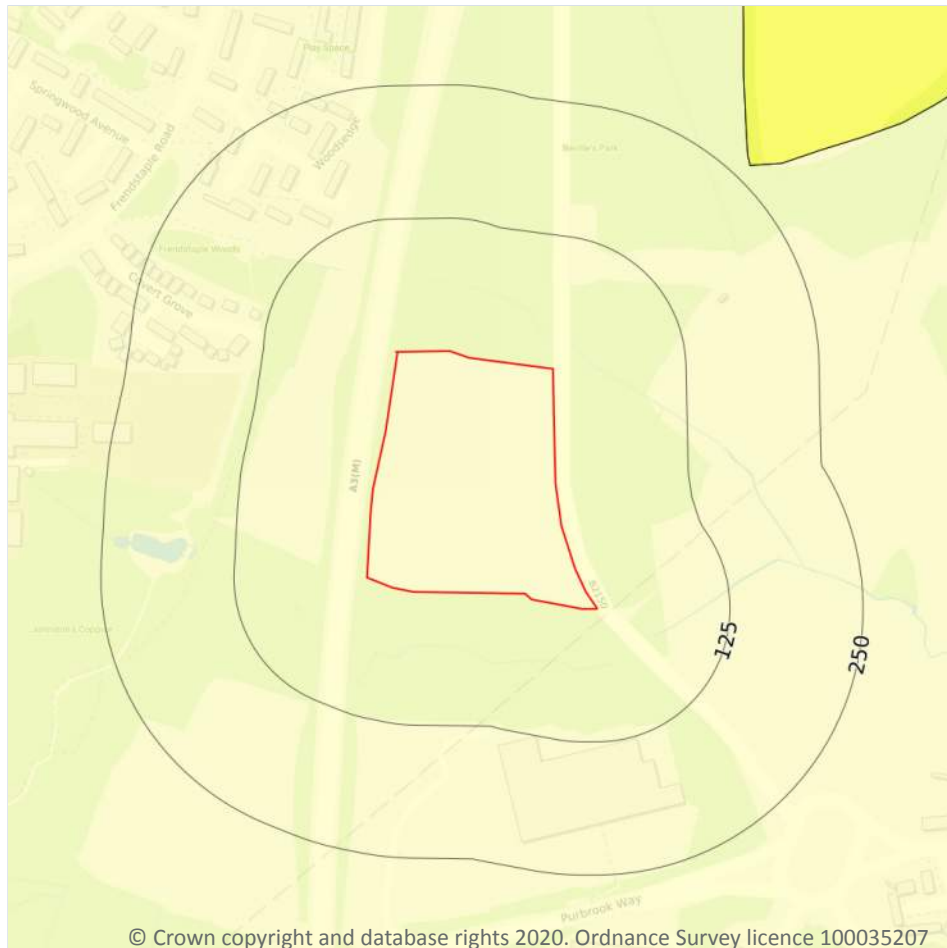
Features are displayed on the Natural ground subsidence - Running sands map on **page 83**

Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m

1

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

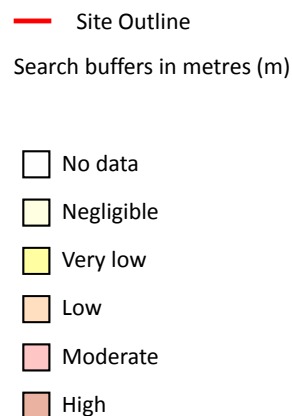
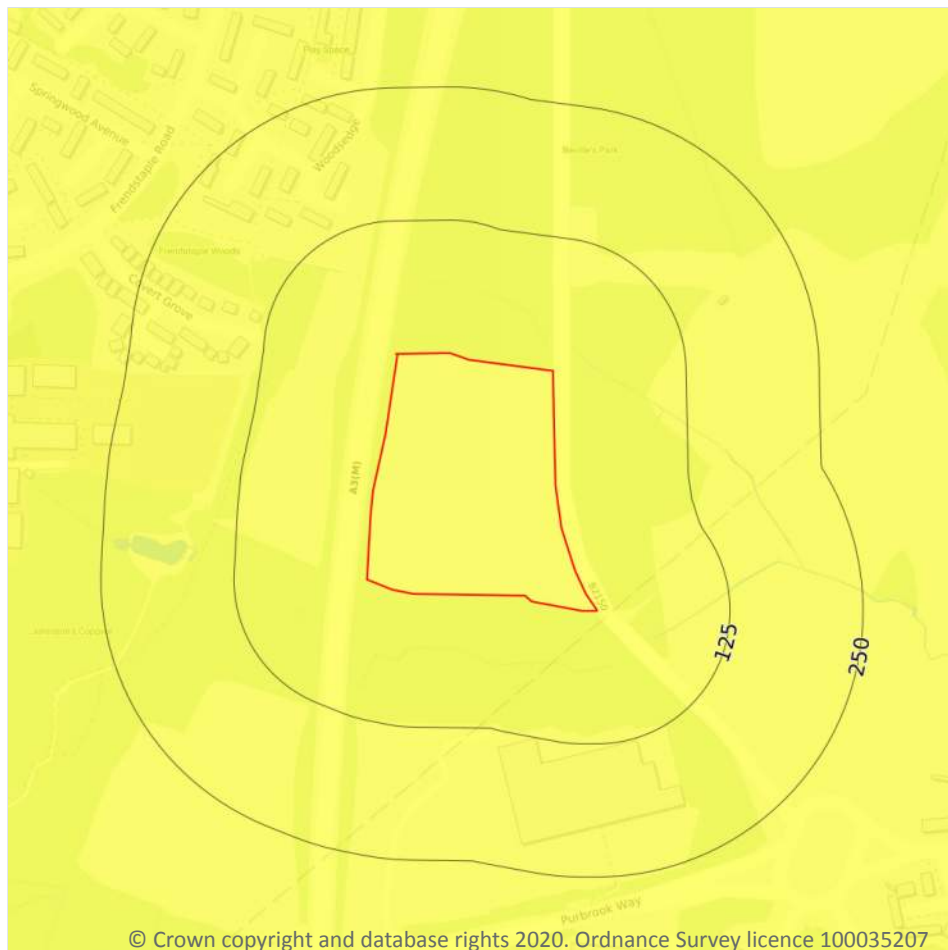
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 84**

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



17.4 Collapsible deposits

Records within 50m

1

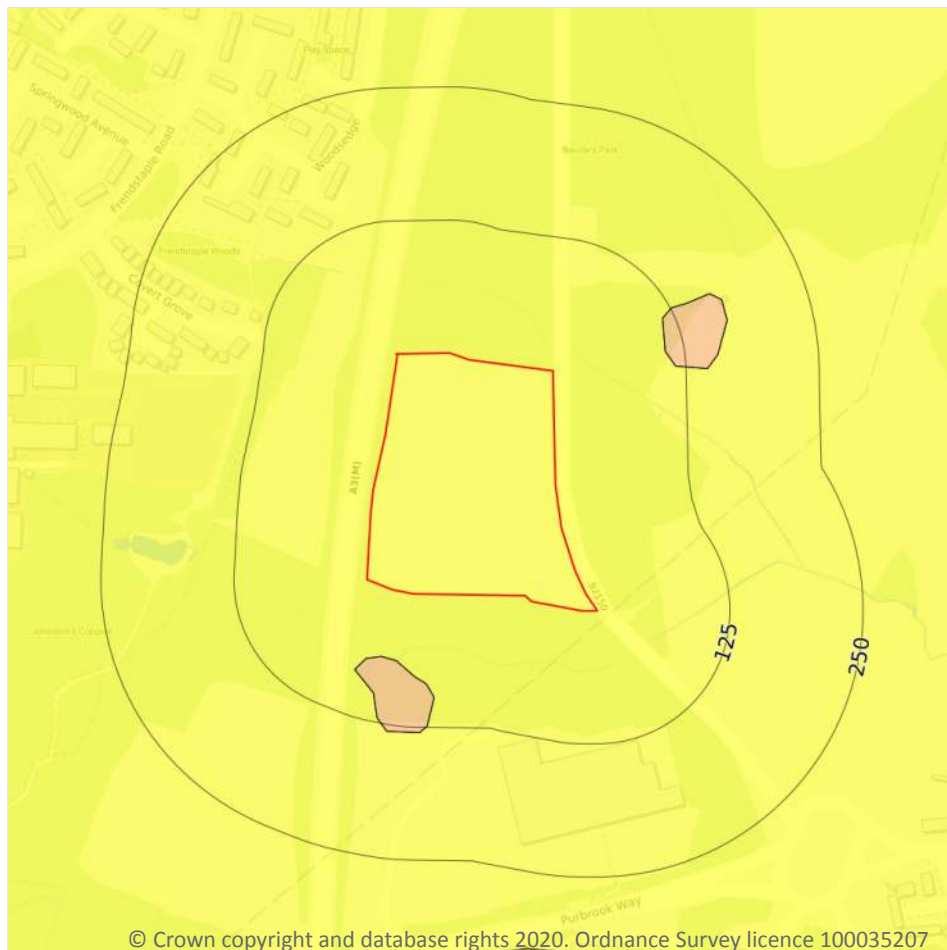
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 85**

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



— Site Outline
Search buffers in metres (m)

- ☐ No data
- ☐ Negligible
- ☐ Very low
- ☐ Low
- ☐ Moderate
- ☐ High

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17.5 Landslides

Records within 50m

1

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

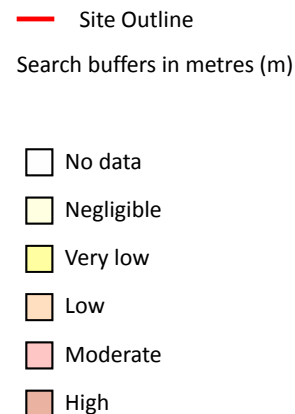
Features are displayed on the Natural ground subsidence - Landslides map on **page 86**

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m

1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

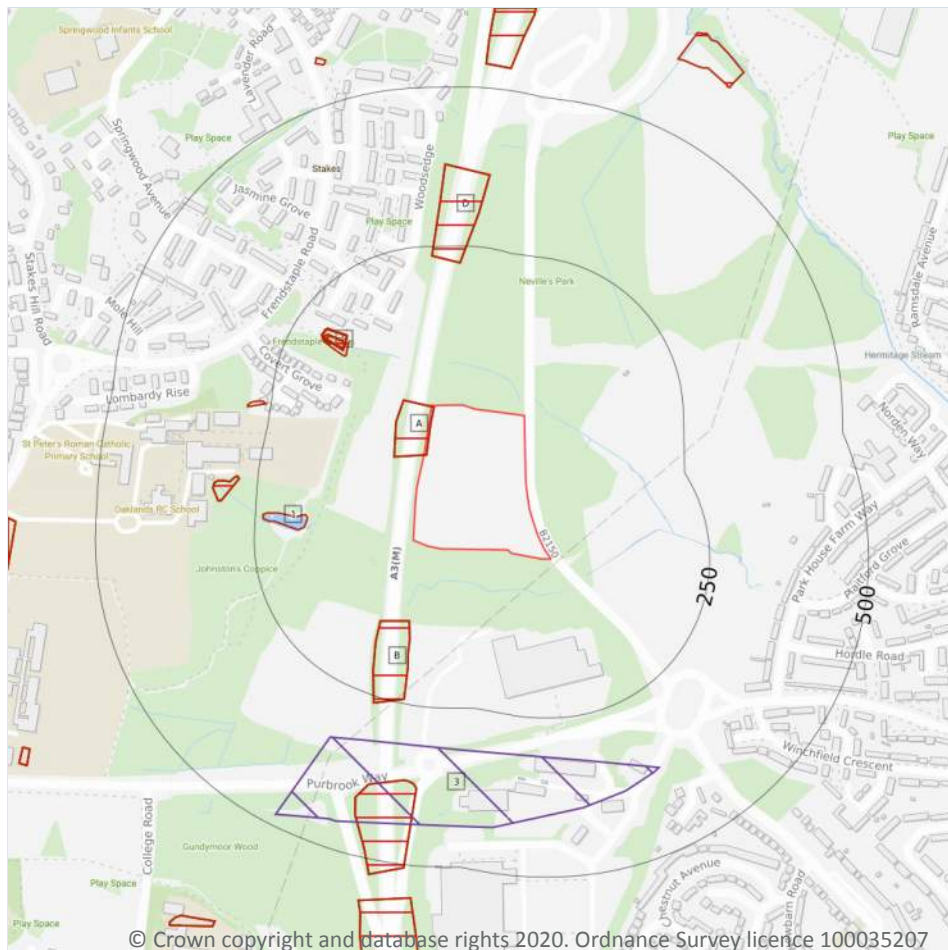
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 87**

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities
- Non Coal Mining
- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Peter Brett Associates (PBA).

18.2 BritPits

Records within 500m

0

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m

16

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining, ground workings and natural cavities map on **page 88**

ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Cuttings	1991	1:10000
A	On site	Cuttings	1980	1:10000
B	121m S	Cuttings	1991	1:10000
B	121m S	Cuttings	1980	1:10000
C	155m NW	Pond	1898	1:10560
C	163m NW	Pond	1963	1:10560
C	164m NW	Pond	1938	1:10560
C	164m NW	Pond	1930	1:10560
C	164m NW	Pond	1907	1:10560
C	164m NW	Pond	1895	1:10560
C	164m NW	Pond	1866	1:10560
C	164m NW	Pond	1991	1:10000
C	164m NW	Pond	1980	1:10000
1	168m W	Ponds	1991	1:10000
D	224m N	Cuttings	1991	1:10000
D	224m N	Cuttings	1980	1:10000

This data is sourced from Ordnance Survey/Groundsure.



18.4 Underground workings

Records within 1000m

0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

1

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

Features are displayed on the Mining, ground workings and natural cavities map on **page 88**

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
3	310m S	Little Park Wood	Clay	Surface mineral working	Refused	17/08/62

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Peter Brett Associates (PBA).



18.8 JPB mining areas

Records on site	0
-----------------	---

Areas which could be affected by former coal mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	0
-----------------	---

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0
-----------------	---

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.11 Gypsum areas

Records on site	0
-----------------	---

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0
-----------------	---

Generalised areas that may be affected by historical tin mining.

This data is sourced from Mining Searches UK.

18.13 Clay mining

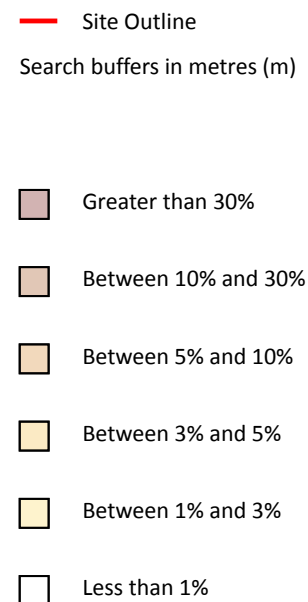
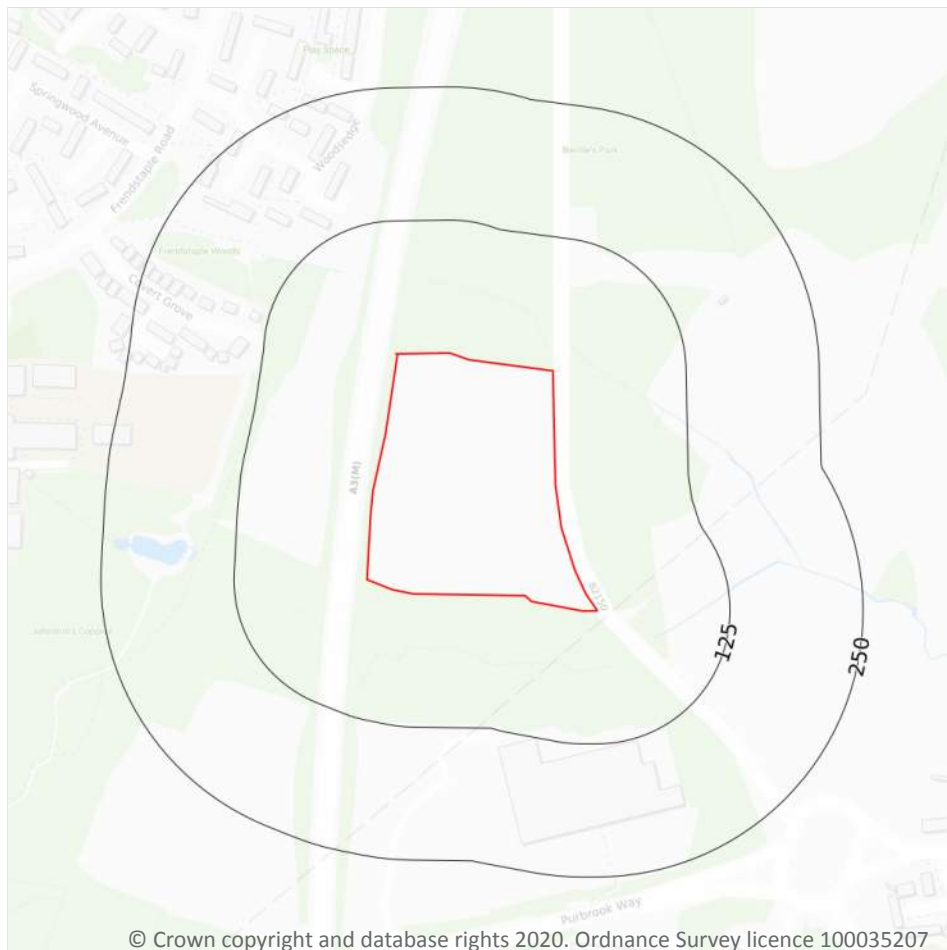
Records on site	0
-----------------	---

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).



19 Radon



19.1 Radon

Records on site

1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 93**

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None**

This data is sourced from the British Geological Survey and Public Health England.



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

13

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
4m E	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
11m NW	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
13m SW	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
16m SE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
16m SE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
21m SE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
23m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
23m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
23m SE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
31m SW	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
31m SW	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.



20.2 BGS Estimated Urban Soil Chemistry

Records within 50m**0**

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m**0**

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects

21.1 Underground railways (London)

Records within 250m**0**

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m**0**

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m**0**

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m**0**

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m**0**

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.



This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m

0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m

0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

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Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: County Series

Map date: 1866

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1866
Revised 1866
Edition N/A
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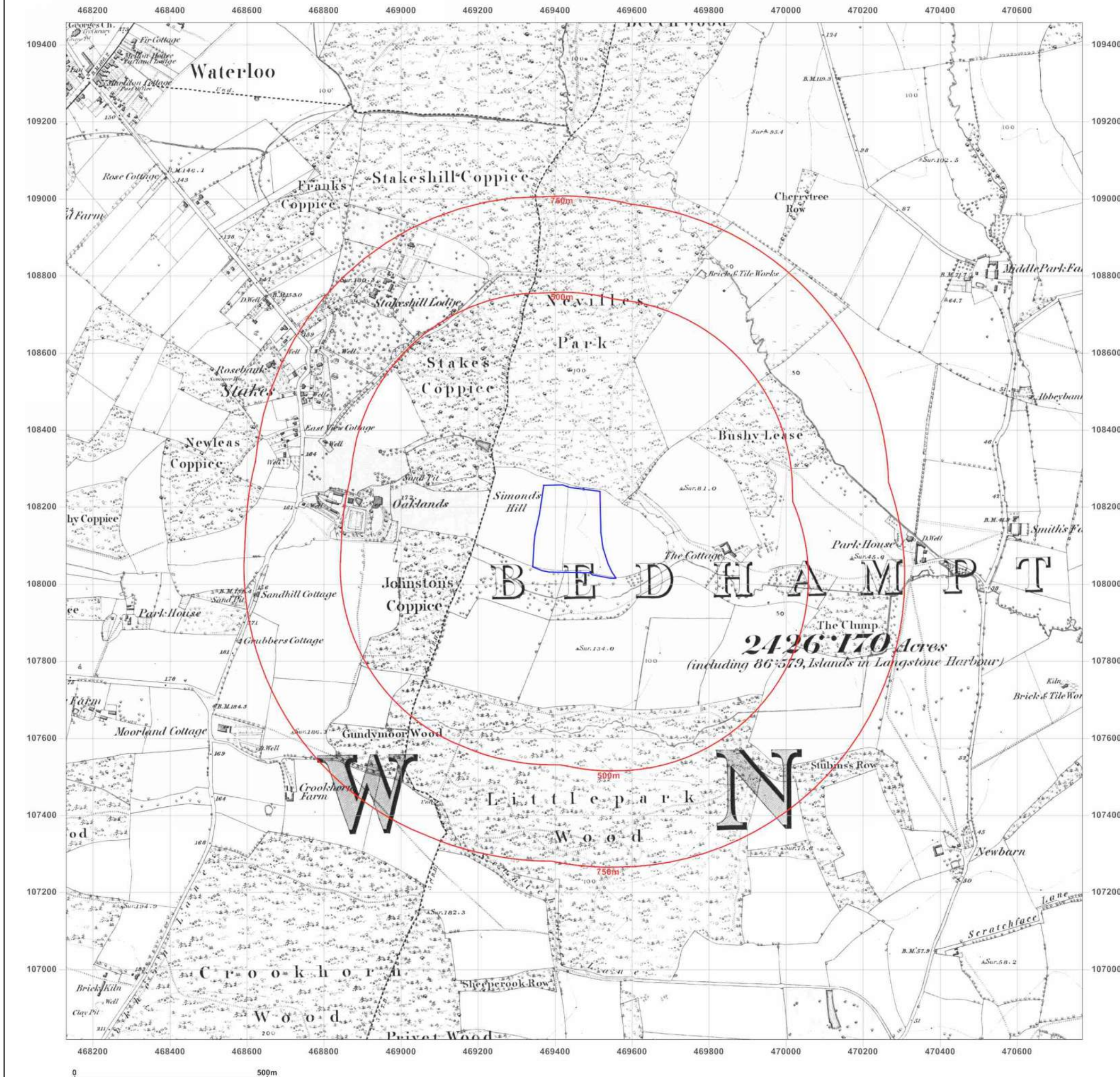


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Map Name: County Series

Map date: 1895

Scale: 1:10,560

Printed at: 1:10,560



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Edition N/A
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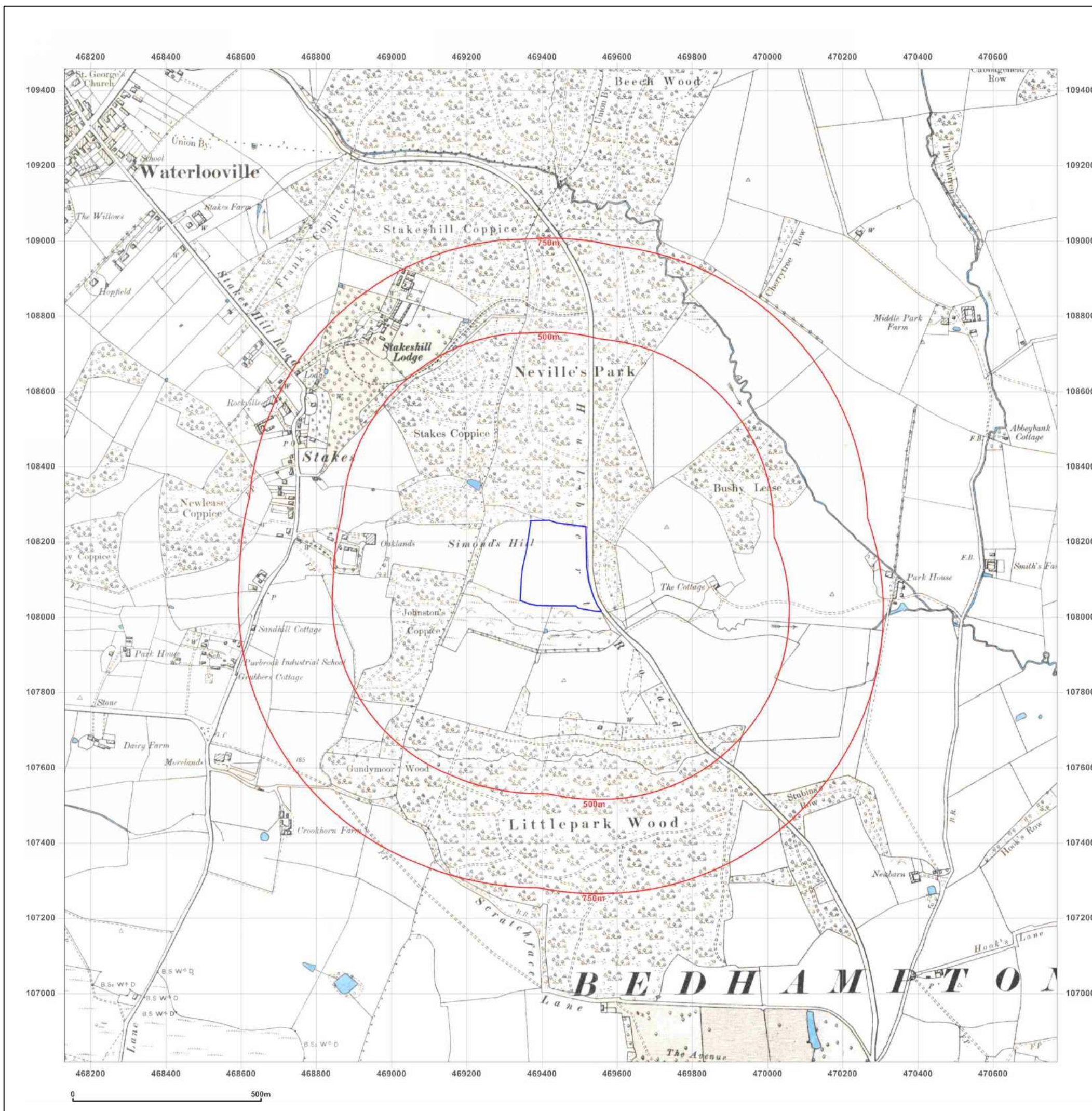


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Map Name: County Series

Map date: 1898

Scale: 1:10,560

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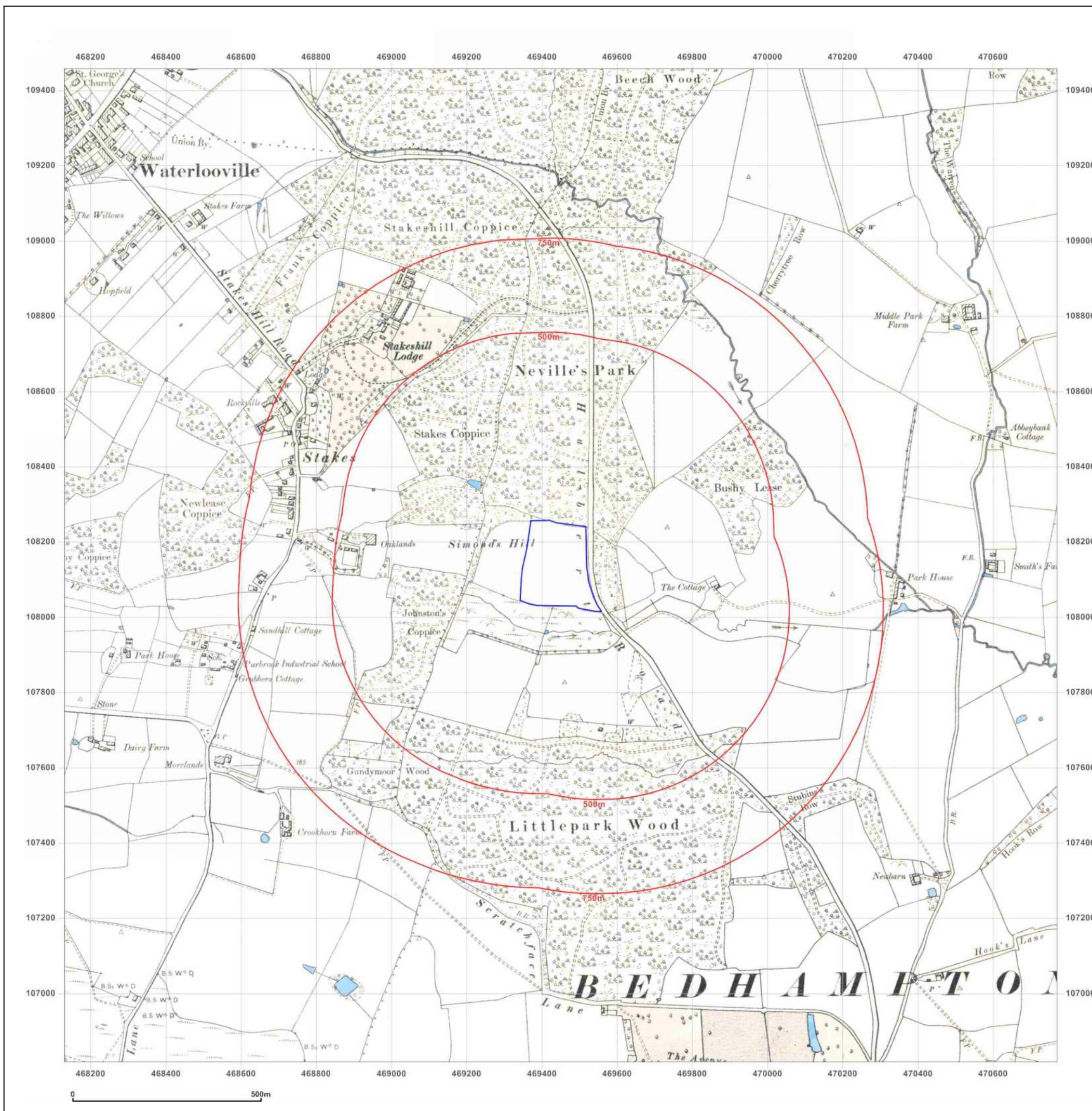


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Grid Ref: 469449, 108137

Map Name: County Series

Map date: 1907

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1859
Revised 1907
Edition N/A
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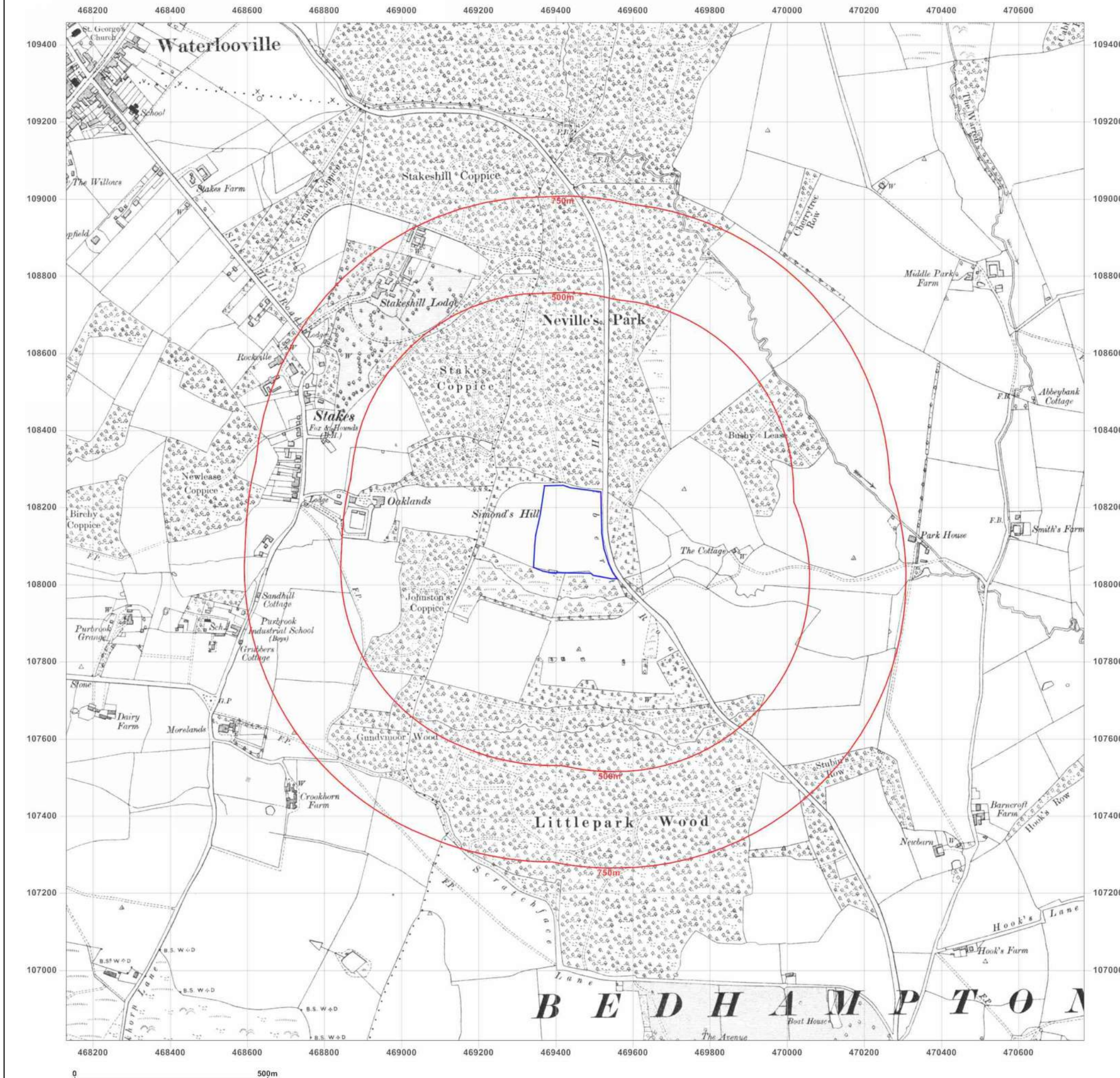


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Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: County Series

Map date: 1930

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1859
Revised 1930
Edition N/A
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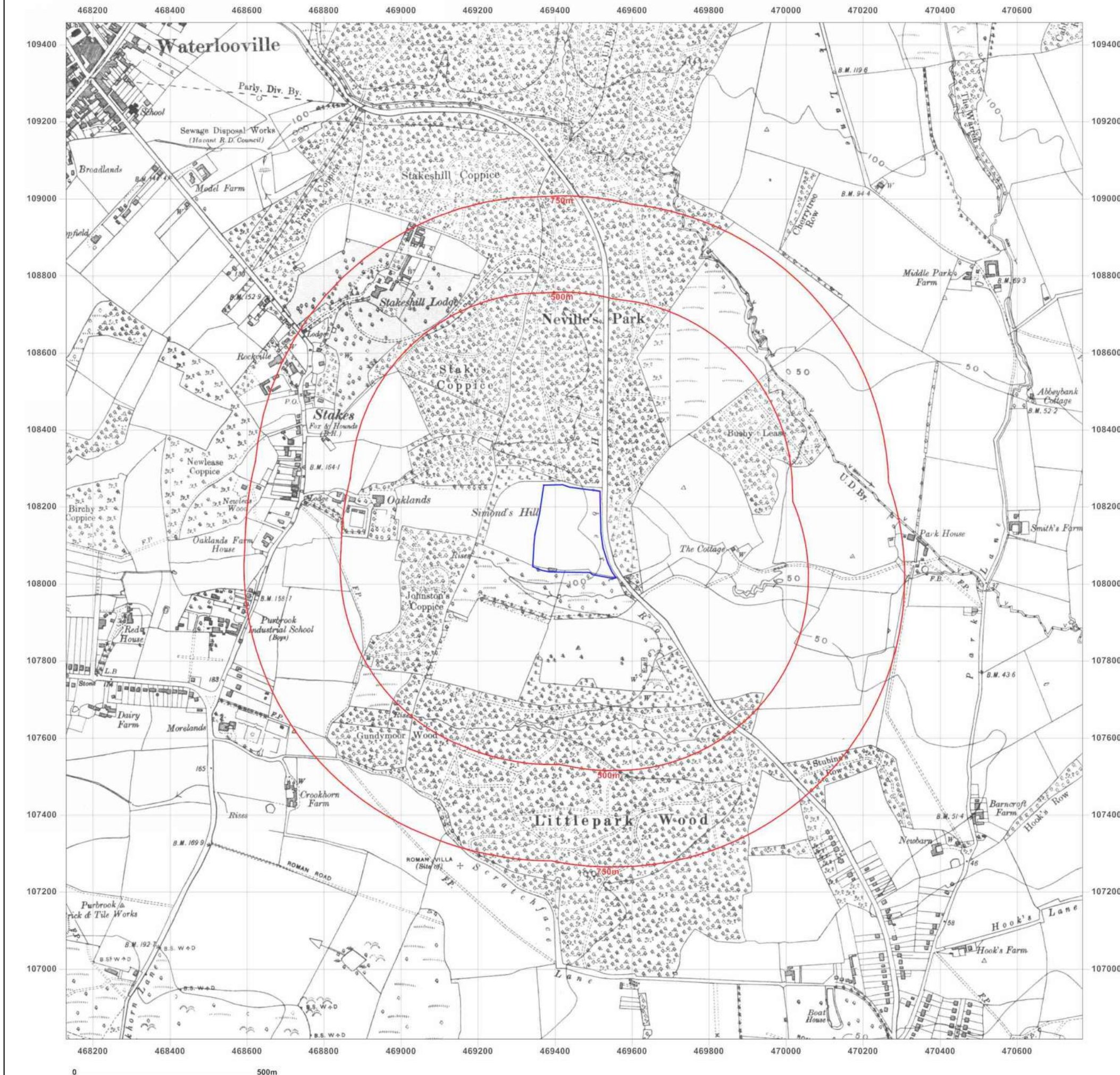


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Map Name: County Series

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Printed at: 1:10,560



Surveyed 1859
Revised 1930
Edition N/A
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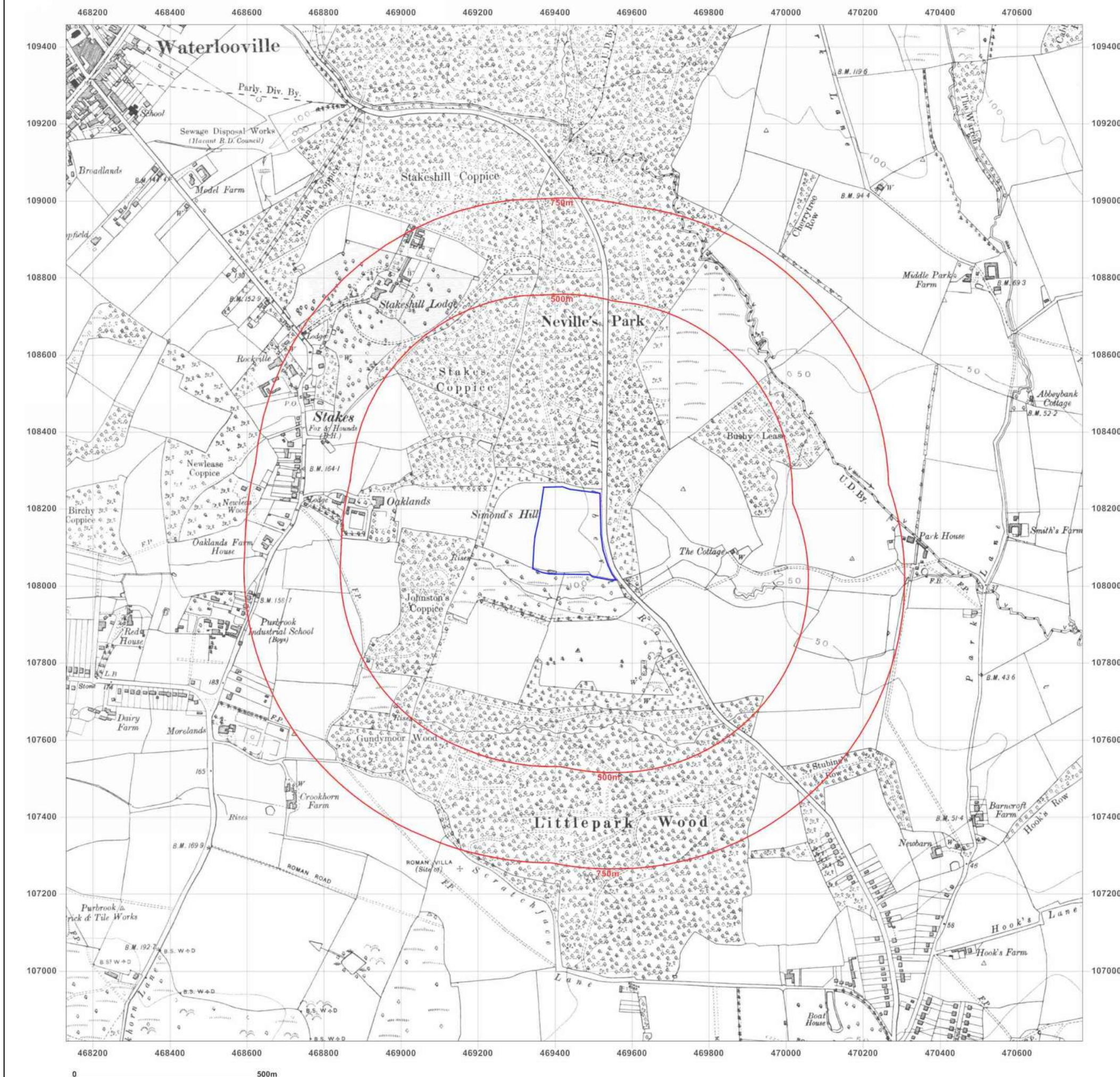


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Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1859
Revised 1938
Edition N/A
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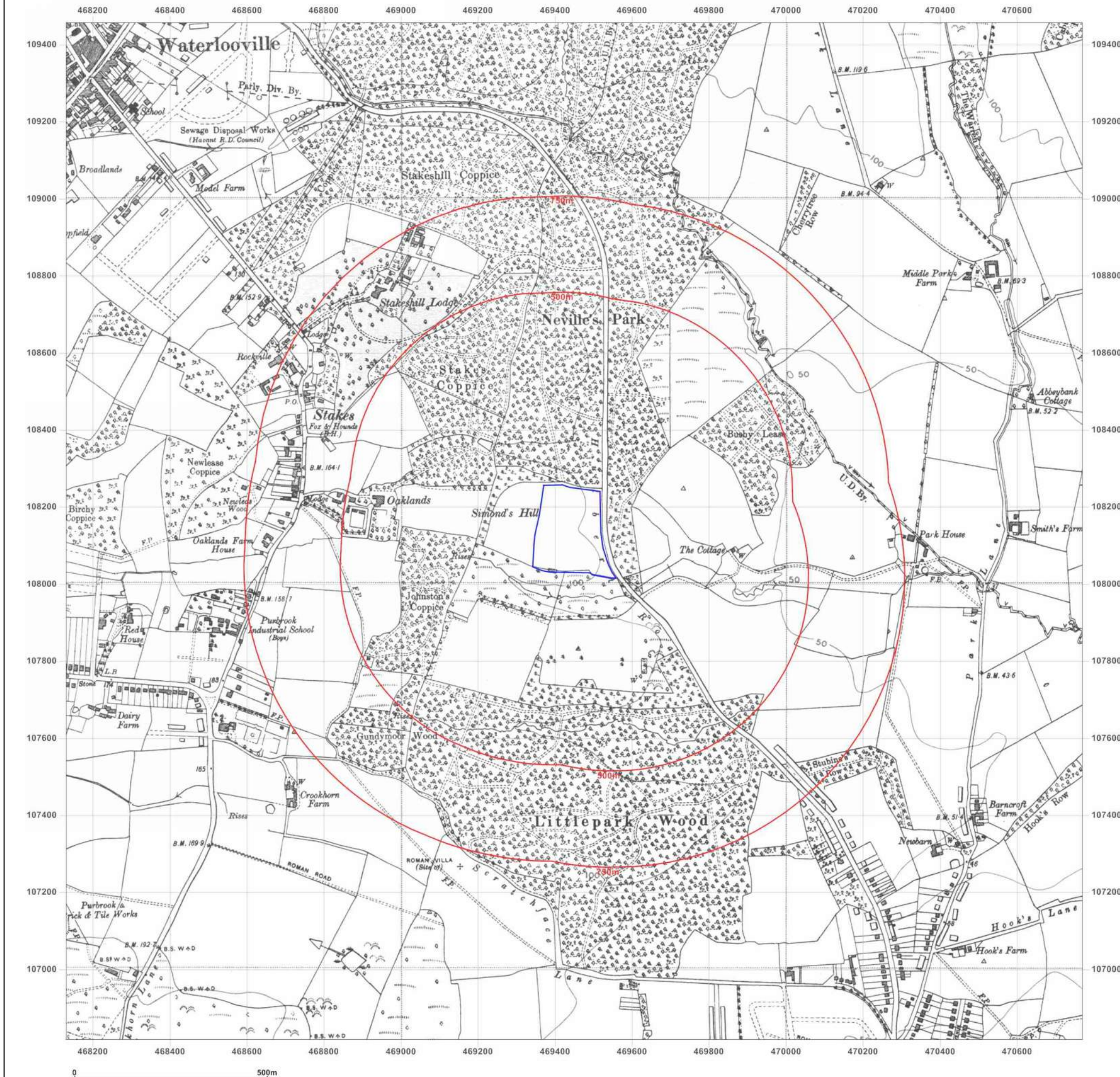


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Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: Provisional

Map date: 1963

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1873
Revised 1957
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Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: Provisional

Map date: 1963-1966

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1865
Revised 1957
Edition N/A
Copyright 1963
Levelled N/A

Surveyed 1873
Revised 1966
Edition N/A
Copyright 1963
Levelled N/A

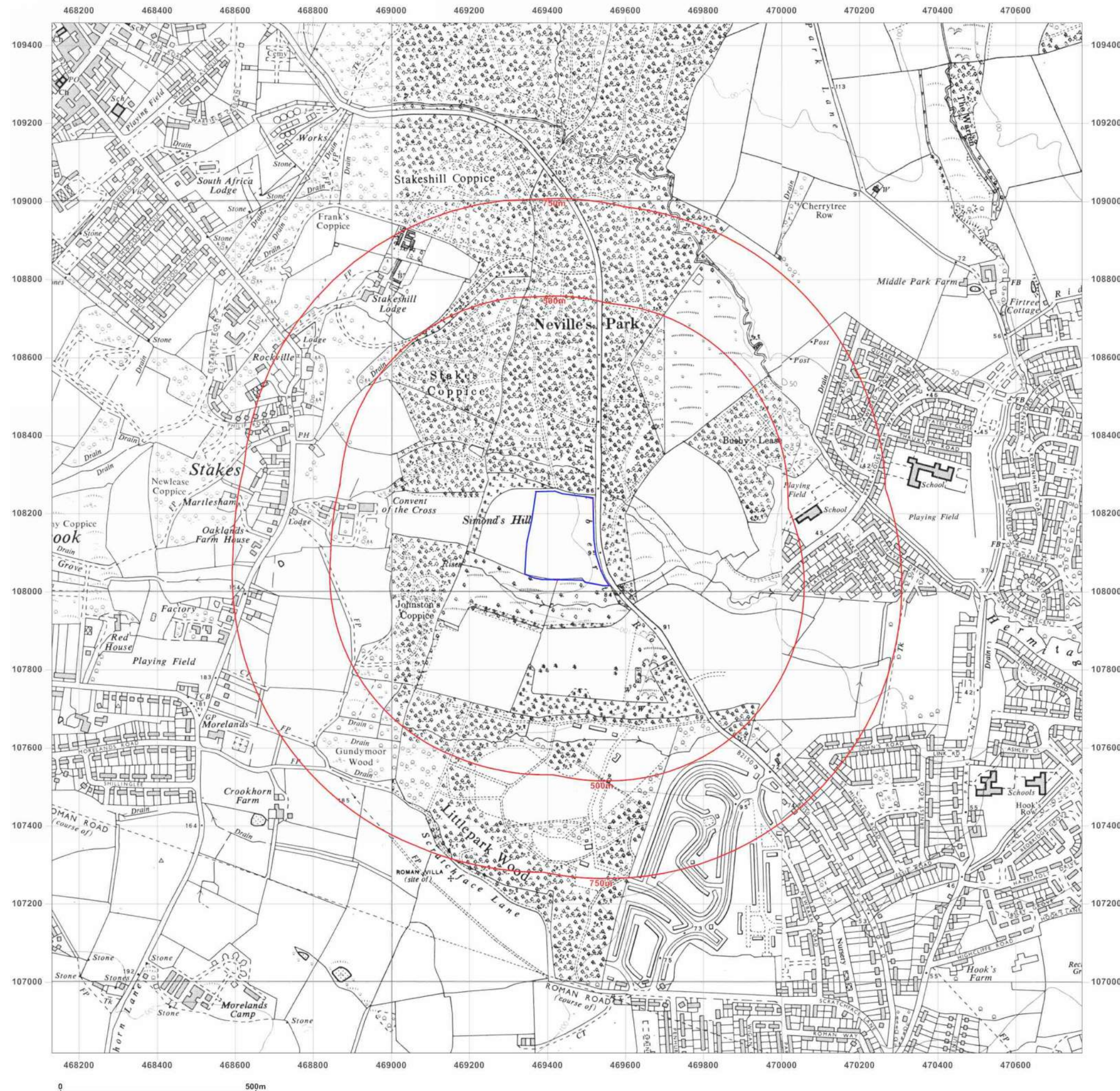


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Site Details:

HULBERT ROAD, HAVANT,
PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: National Grid

Map date: 1975-1980

Scale: 1:10,000

Printed at: 1:10,000



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

Surveyed 1973
Revised 1975
Edition N/A
Copyright 1975
Levelled 1962



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Production date: 22 June 2020

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Site Details:

HULBERT ROAD, HAVANT,
PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: National Grid

Map date: 1991

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1988
Revised 1991
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1989
Revised 1991
Edition N/A
Copyright N/A
Levelled N/A

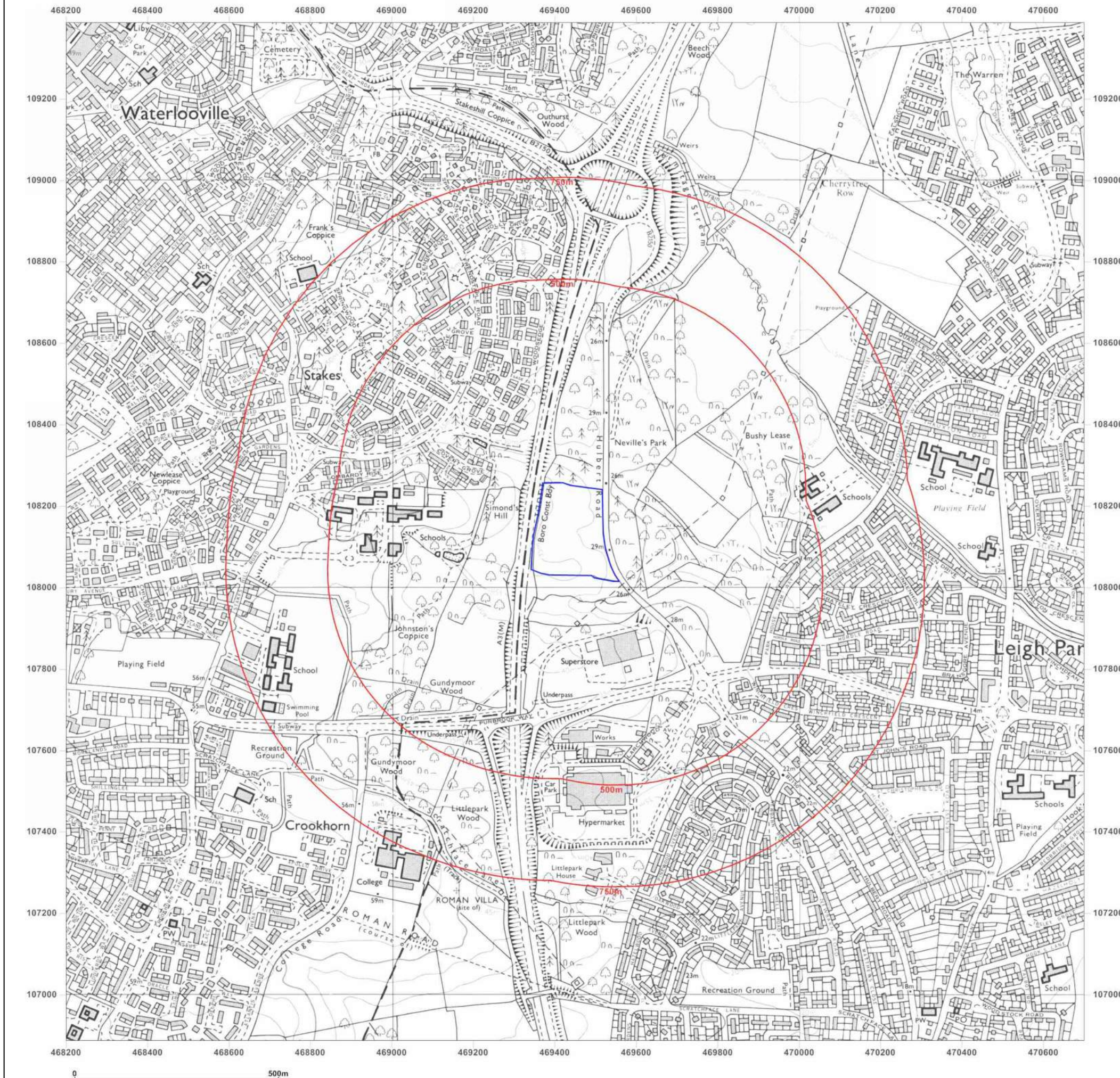


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Site Details:

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PO9 3QJ

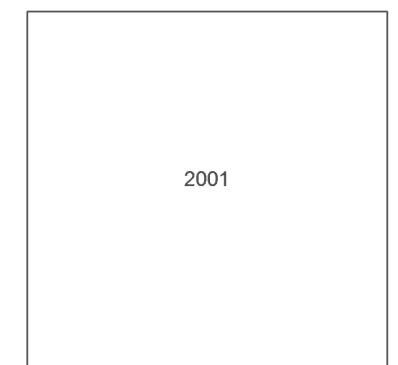
Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000

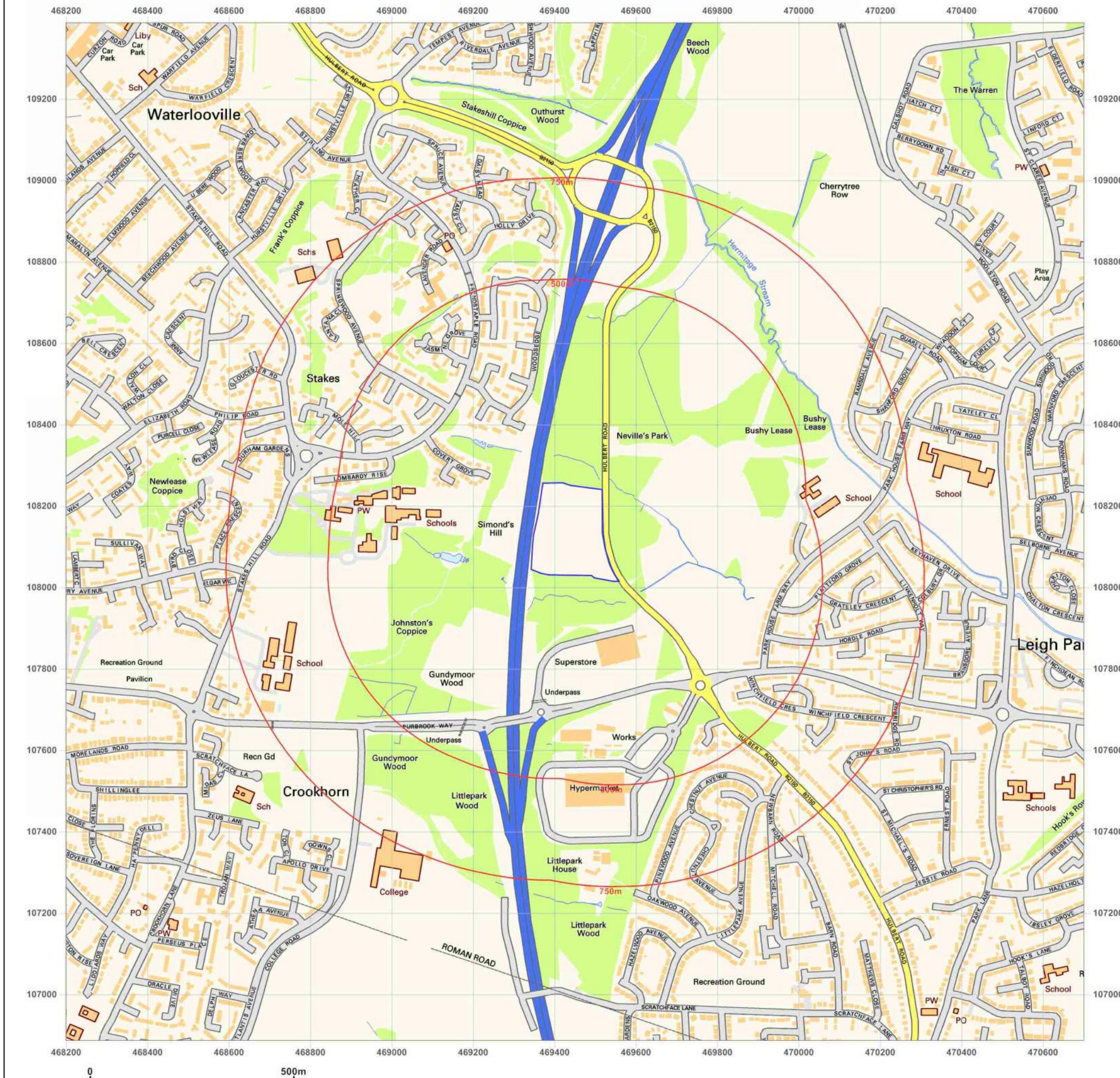


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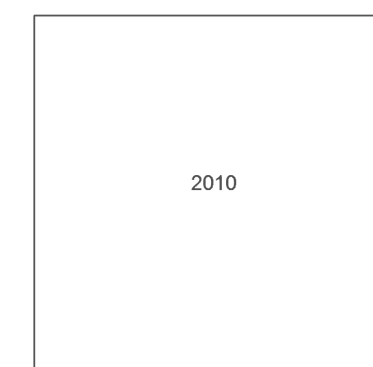
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Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000

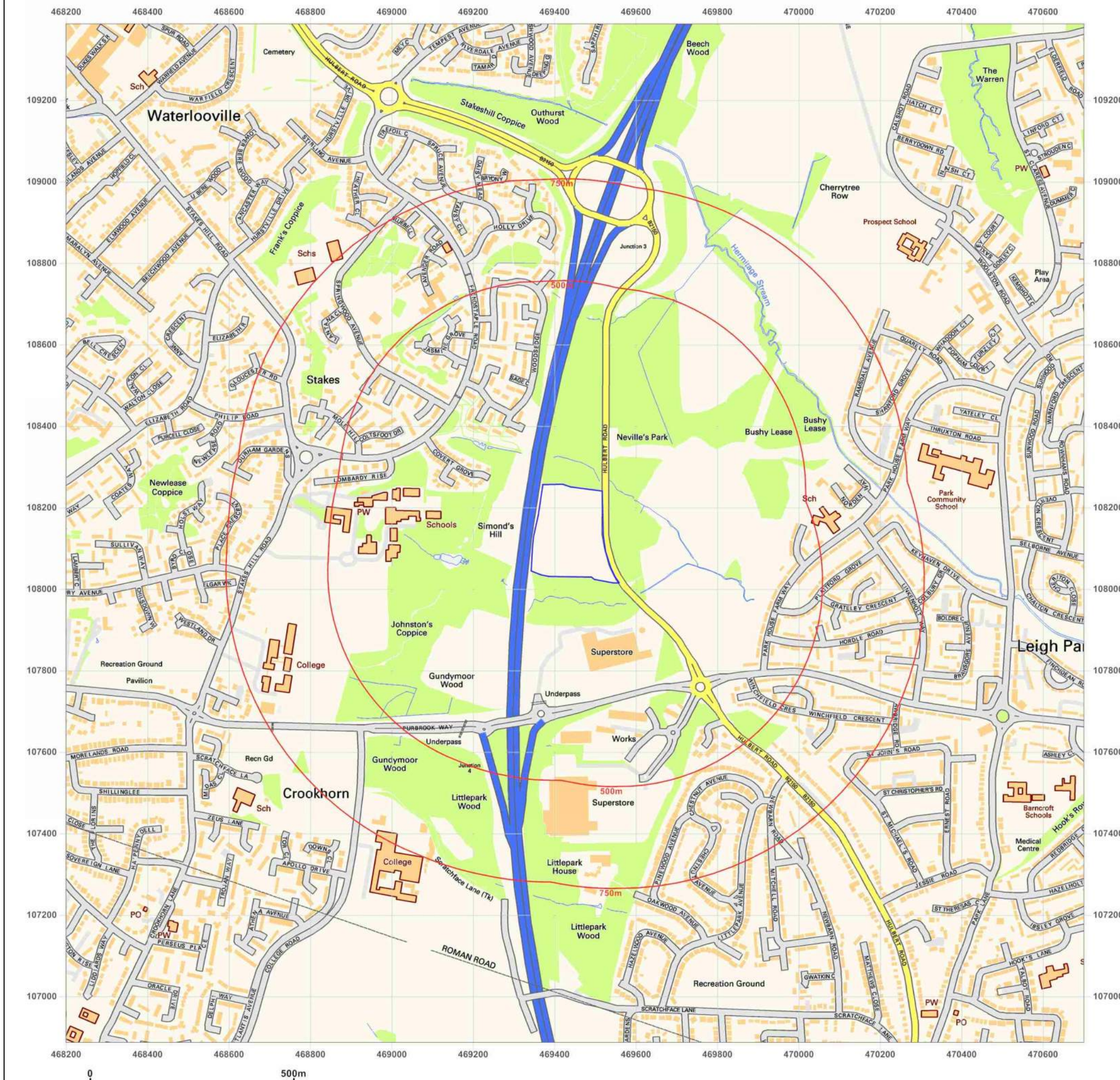


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Site Details:

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PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: National Grid

Map date: 2020

Scale: 1:10,000

Printed at: 1:10,000



2020

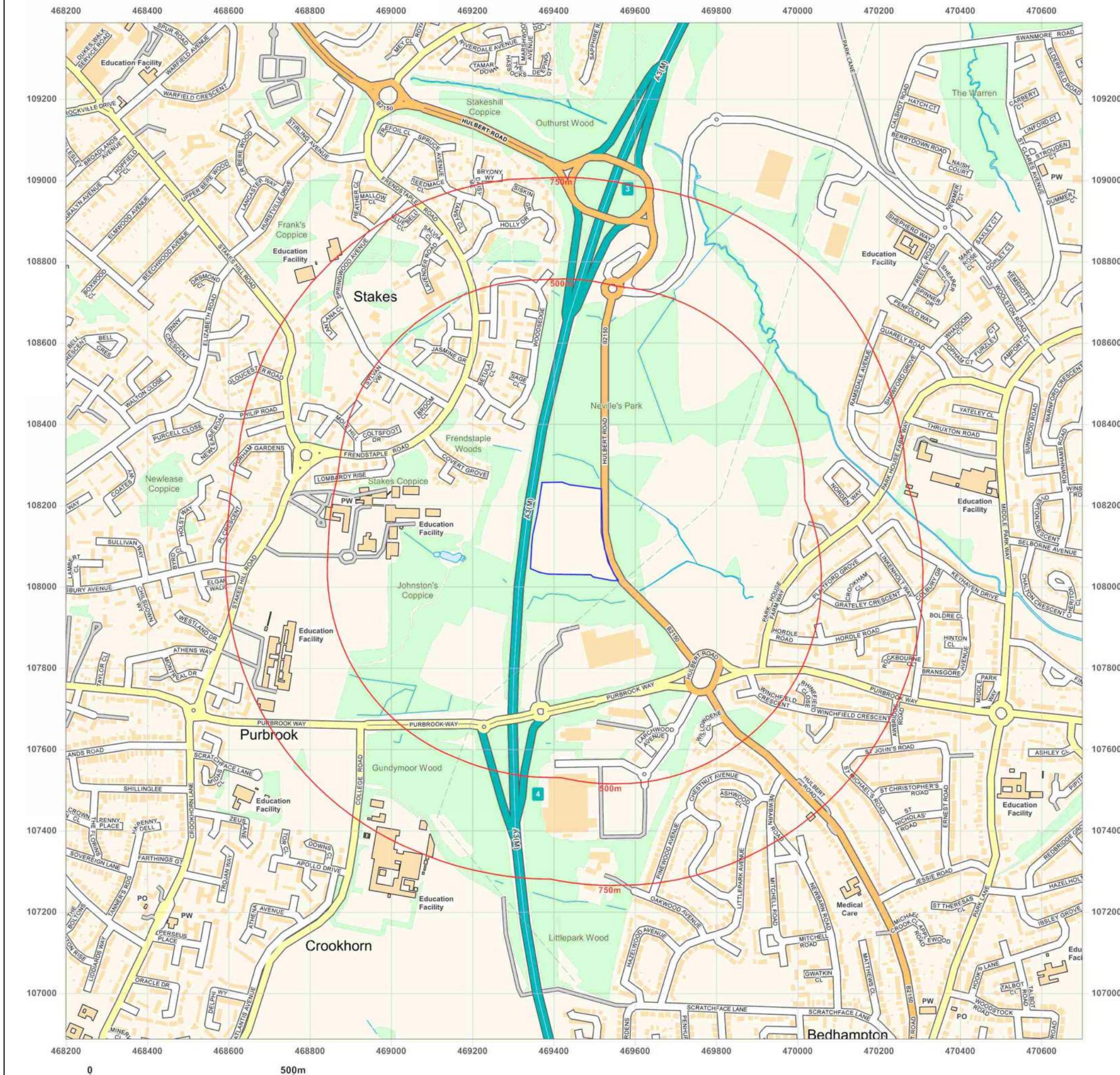


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Site Details:

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PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: County Series

Map date: 1859

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1859
Revised 1859
Edition N/A
Copyright N/A
Levelled N/A

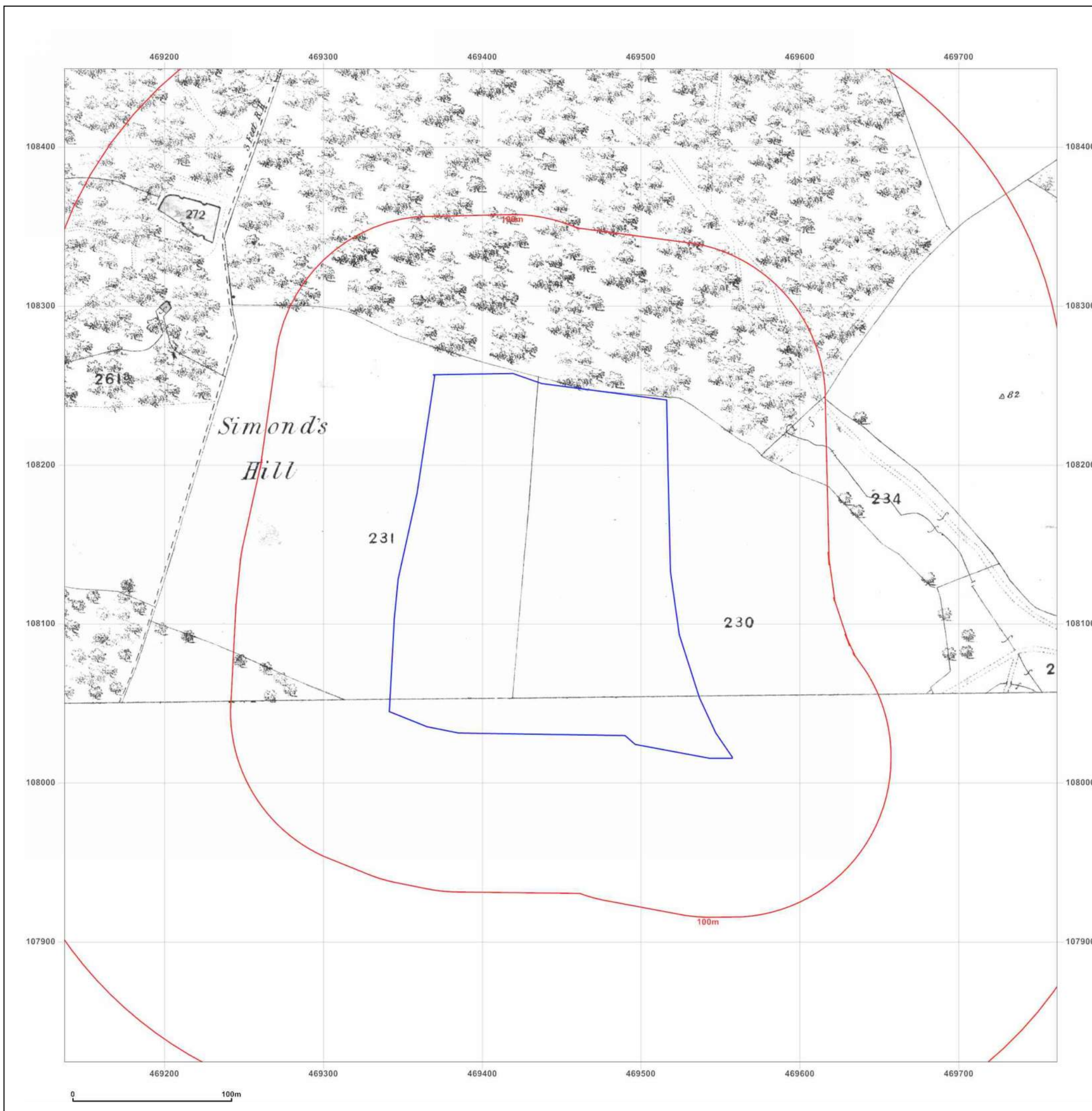


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Production date: 22 June 2020

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Site Details:

HULBERT ROAD, HAVANT,
PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: County Series

Map date: 1868

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1868
Revised 1868
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1868
Revised 1868
Edition N/A
Copyright N/A
Levelled N/A

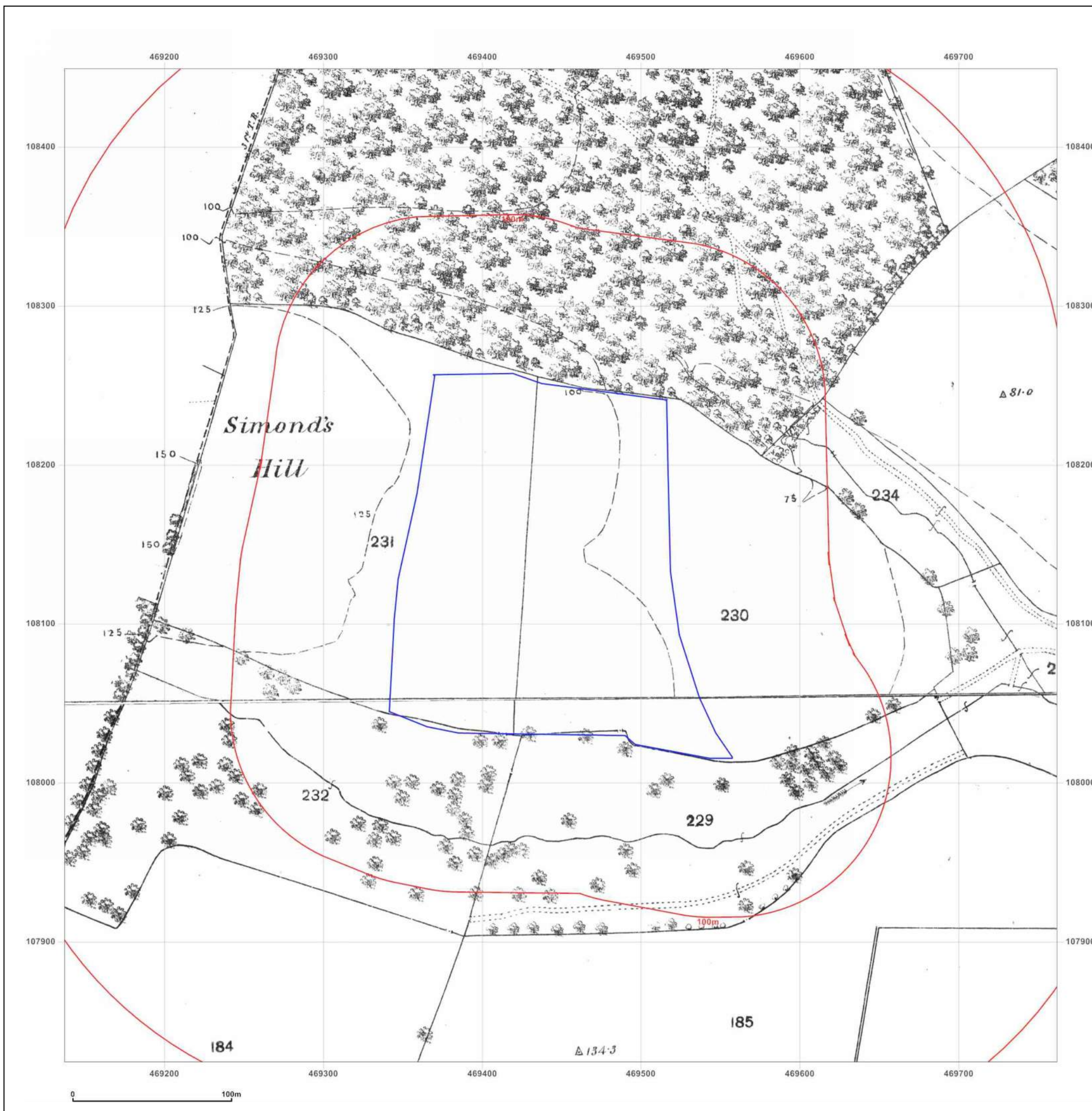


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Site Details:

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PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: County Series

Map date: 1868

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1868
Revised 1868
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1868
Revised 1868
Edition N/A
Copyright N/A
Levelled N/A

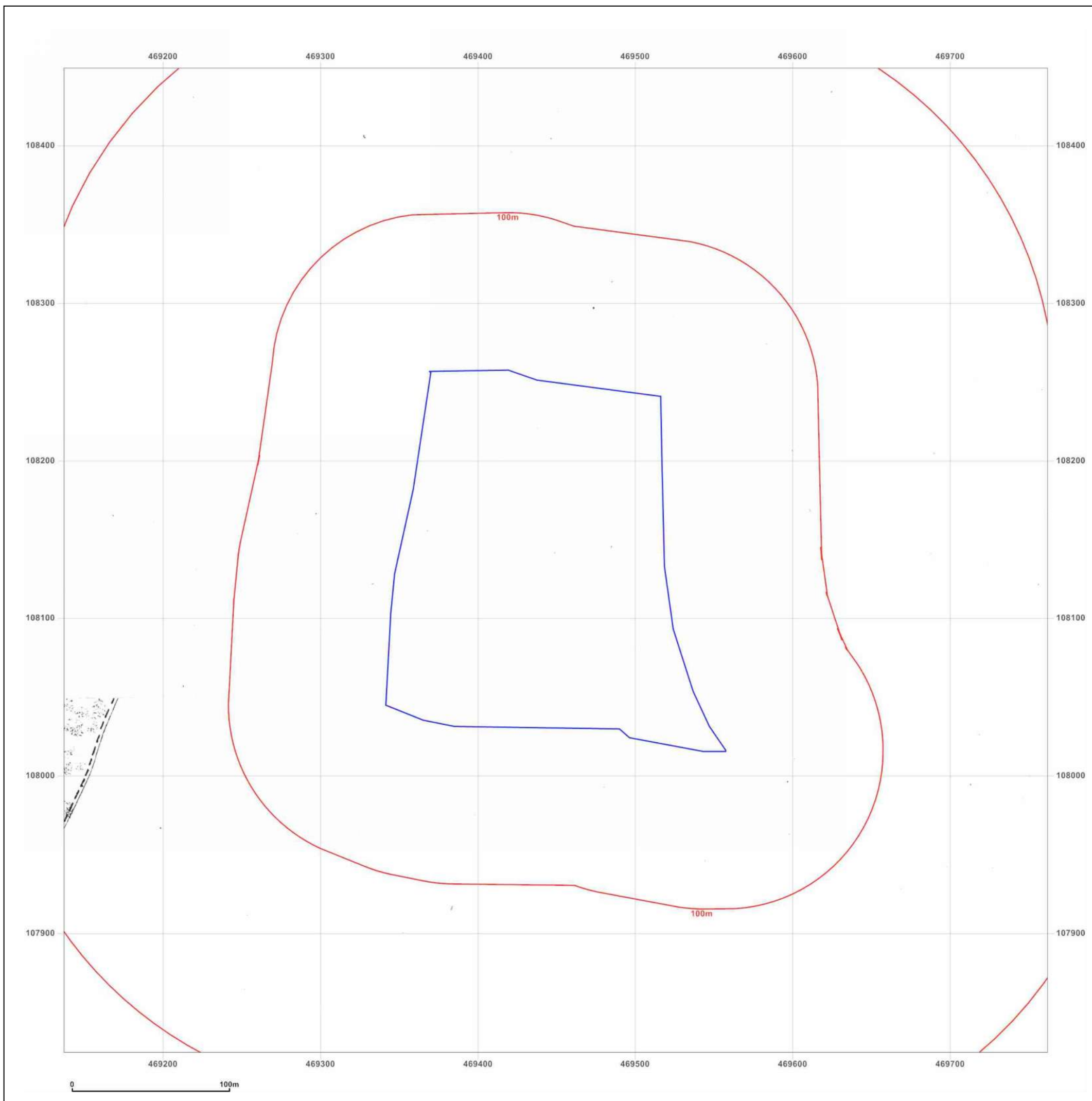


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Production date: 22 June 2020

Map legend available at:
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Site Details:

HULBERT ROAD, HAVANT,
PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: County Series

Map date: 1868-1869

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1868
Revised 1868
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1869
Revised 1869
Edition N/A
Copyright N/A
Levelled N/A

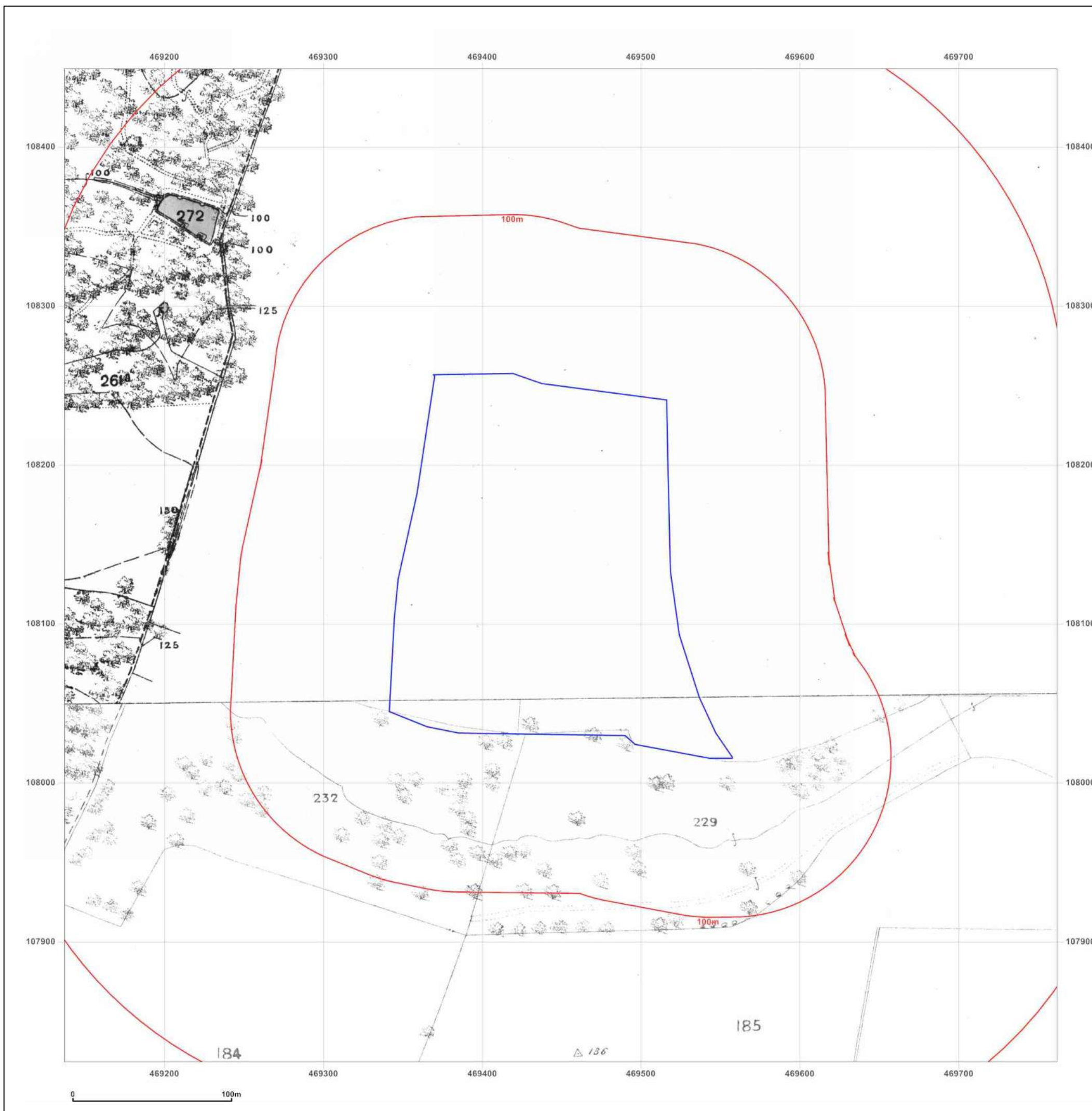


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Site Details:

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PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: County Series

Map date: 1897

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1897
Revised 1897
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1897
Revised 1897
Edition N/A
Copyright N/A
Levelled N/A

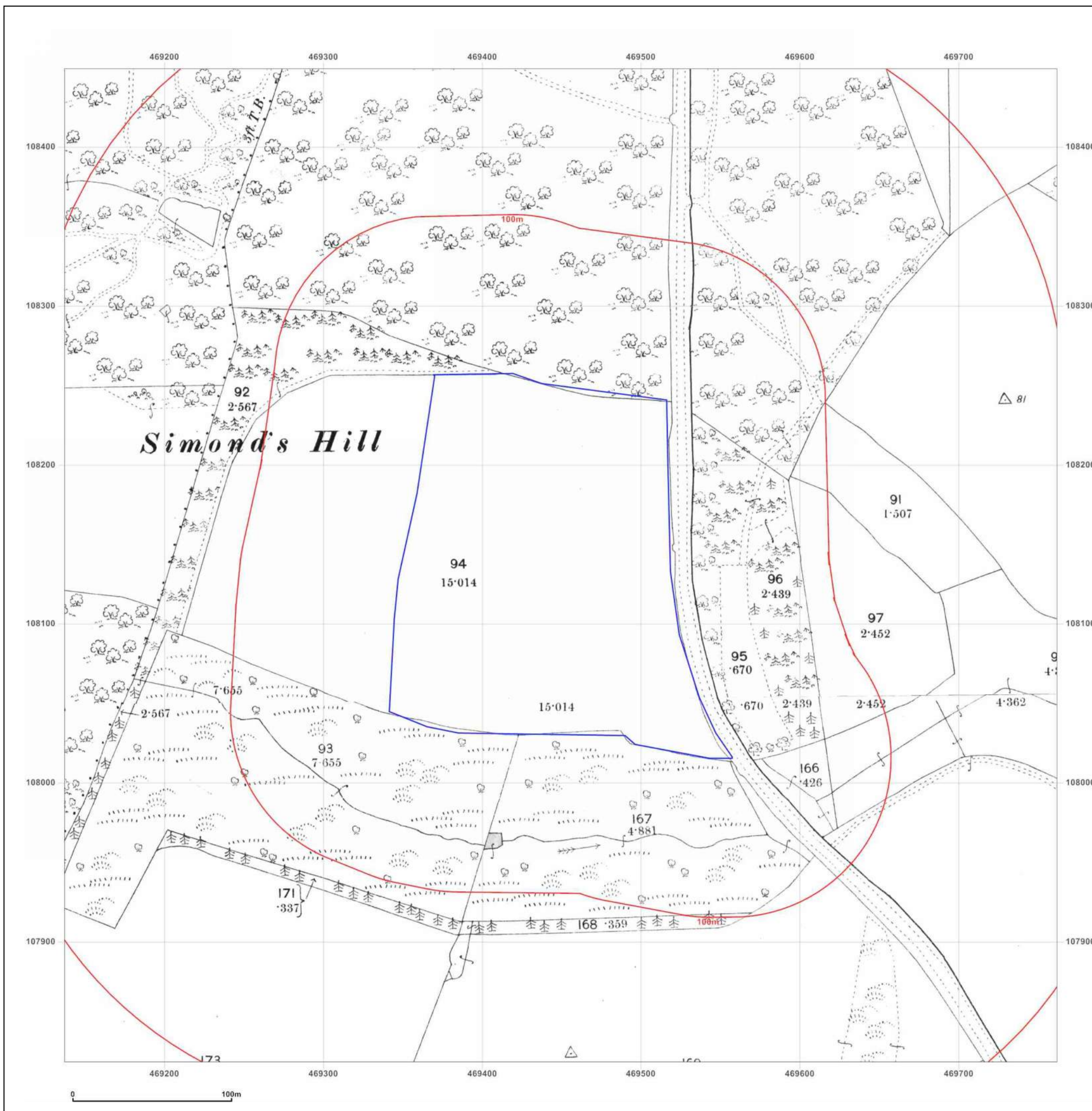


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Site Details:

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PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: County Series

Map date: 1908-1909

Scale: 1:2,500

Printed at: 1:2,500



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

Surveyed 1909
Revised 1909
Edition N/A
Copyright N/A
Levelled N/A

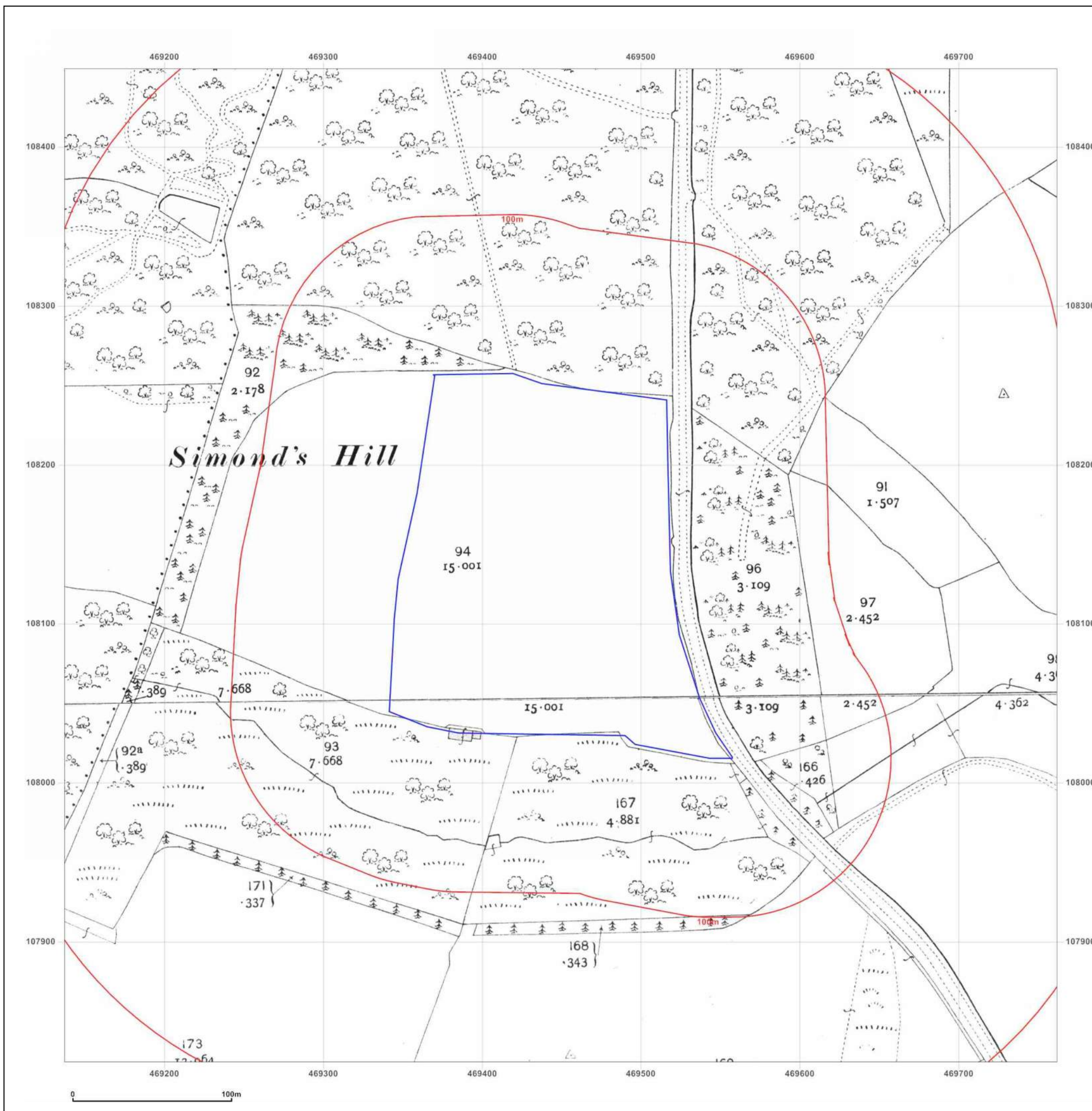


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Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: County Series

Map date: 1932

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1932
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1932
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A

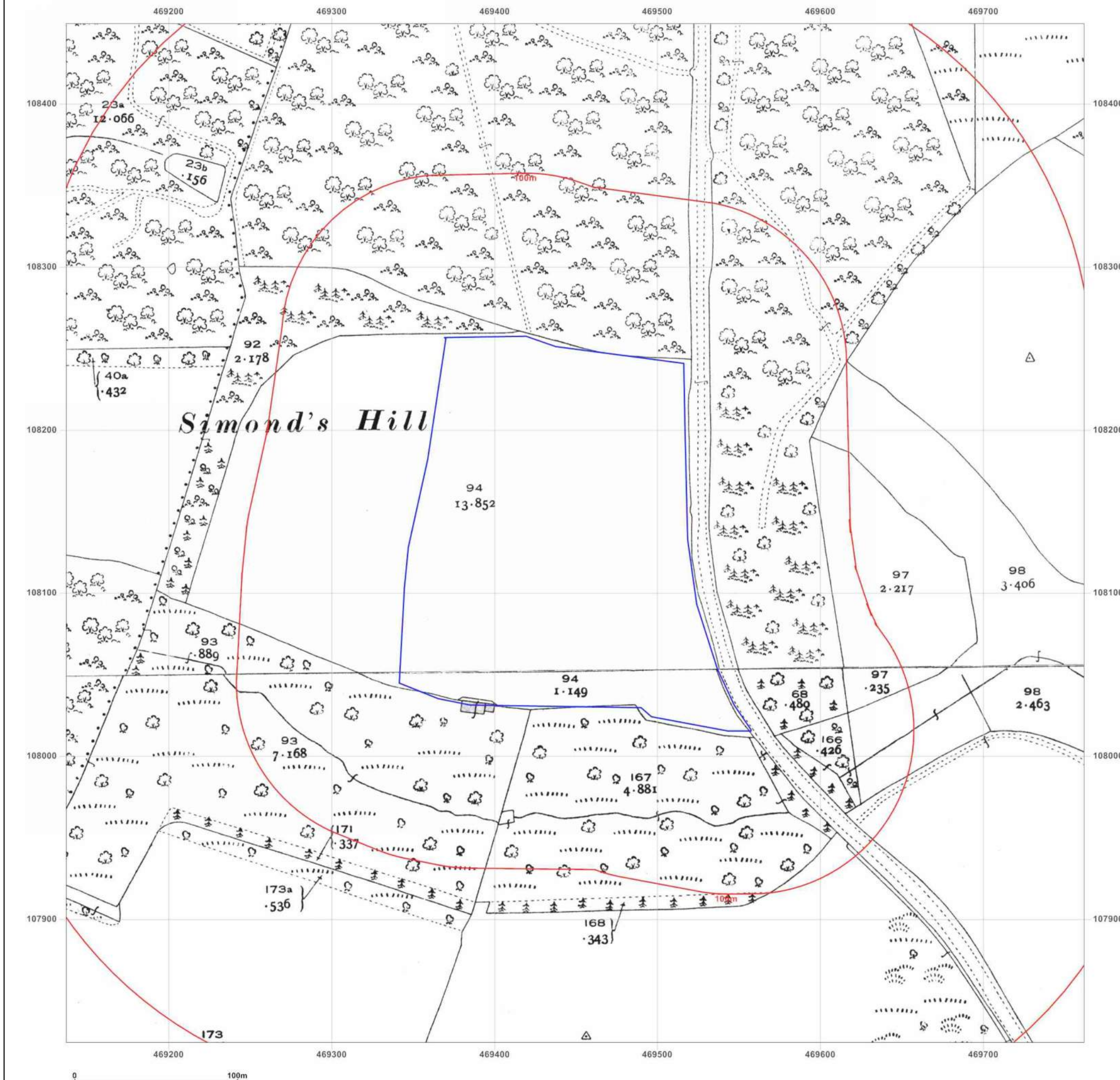


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Site Details:

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PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: County Series

Map date: 1937-1939

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1939
Revised 1939
Edition N/A
Copyright N/A
Levelled N/A

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

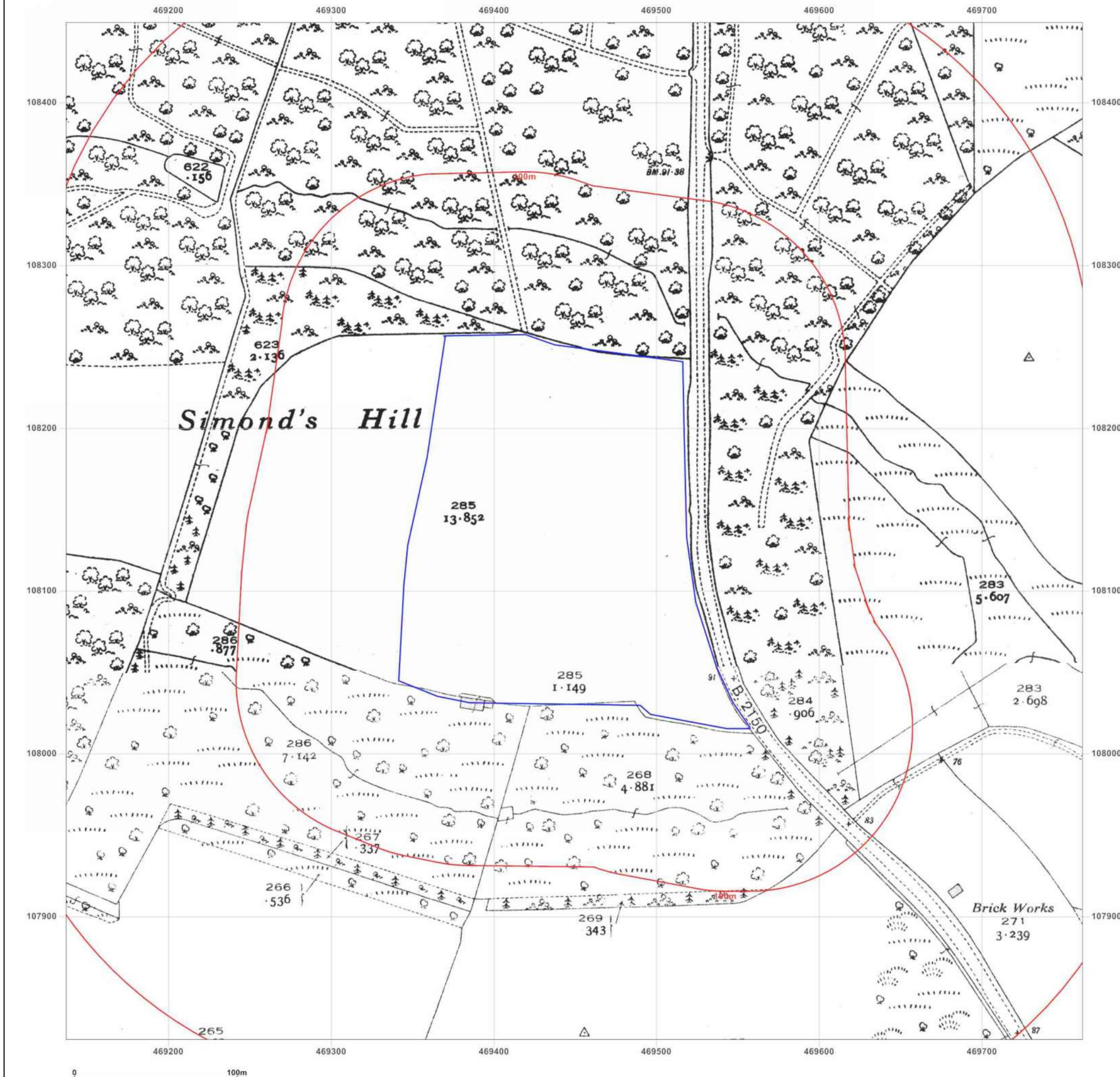


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Site Details:

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PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: National Grid

Map date: 1965-1966

Scale: 1:2,500

Printed at: 1:2,500



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

Surveyed 1965
Revised 1965
Edition N/A
Copyright 1966
Levelled 1958

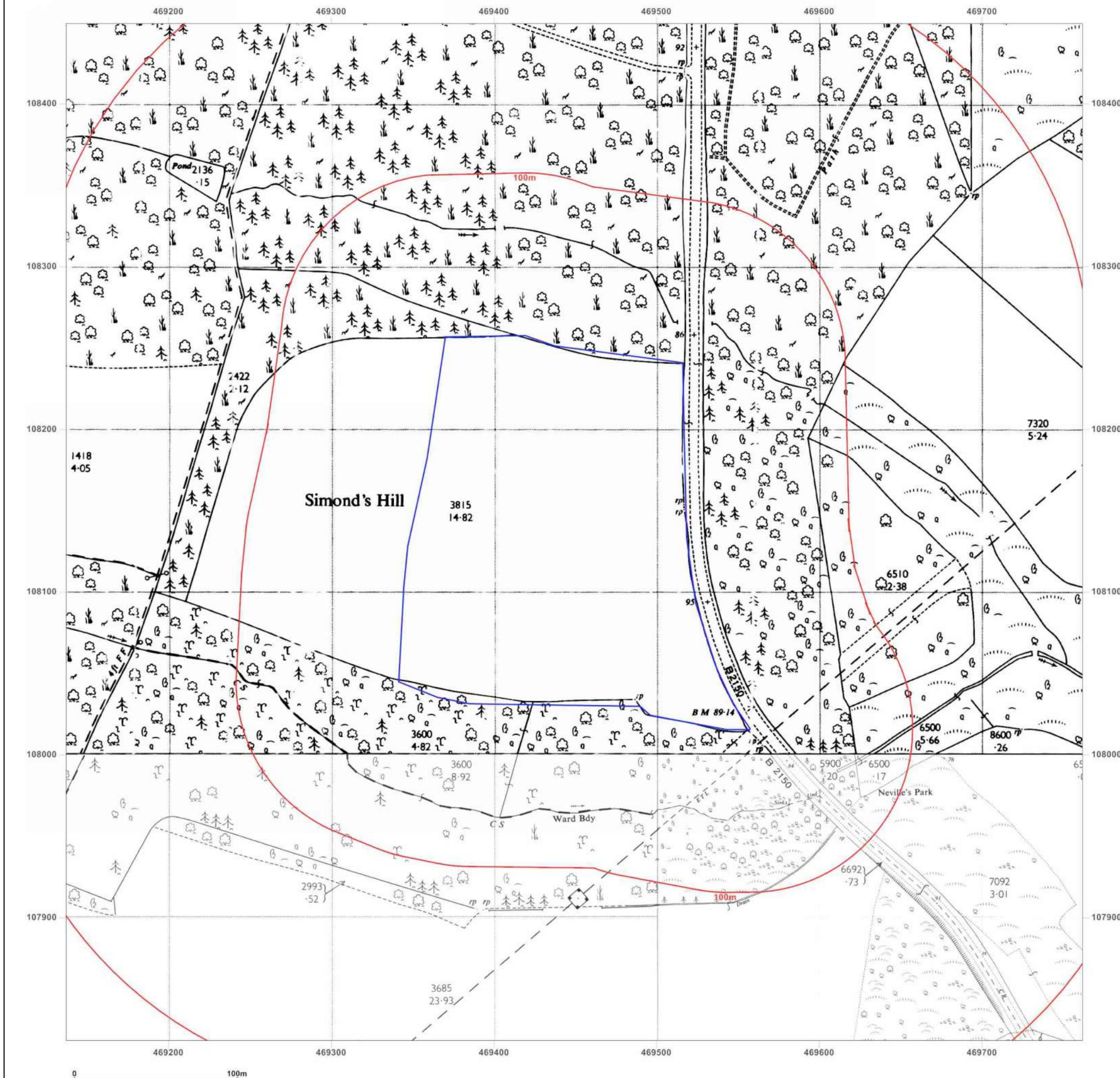


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Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: National Grid

Map date: 1965-1967

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1965
Revised 1965
Edition N/A
Copyright 1966
Levelled 1958

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

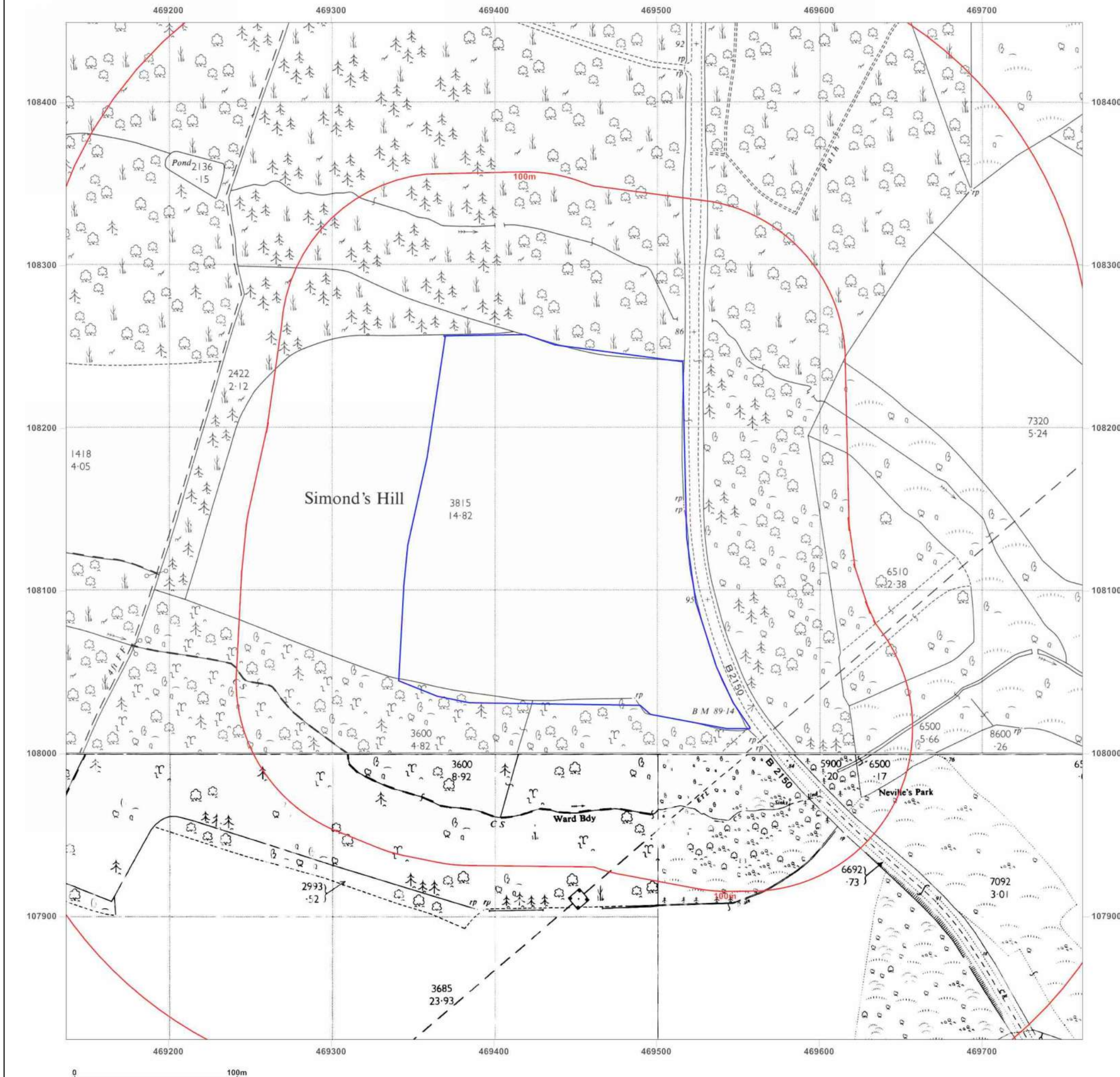


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PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: National Grid

Map date: 1973-1975

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1973
Revised 1973
Edition N/A
Copyright 1974
Levelled 1958

Surveyed 1973
Revised 1973
Edition N/A
Copyright 1974
Levelled 1958

Surveyed 1973
Revised 1973
Edition N/A
Copyright 1973
Levelled 1958

Surveyed 1957
Revised 1974
Edition N/A
Copyright 1975
Levelled 1958

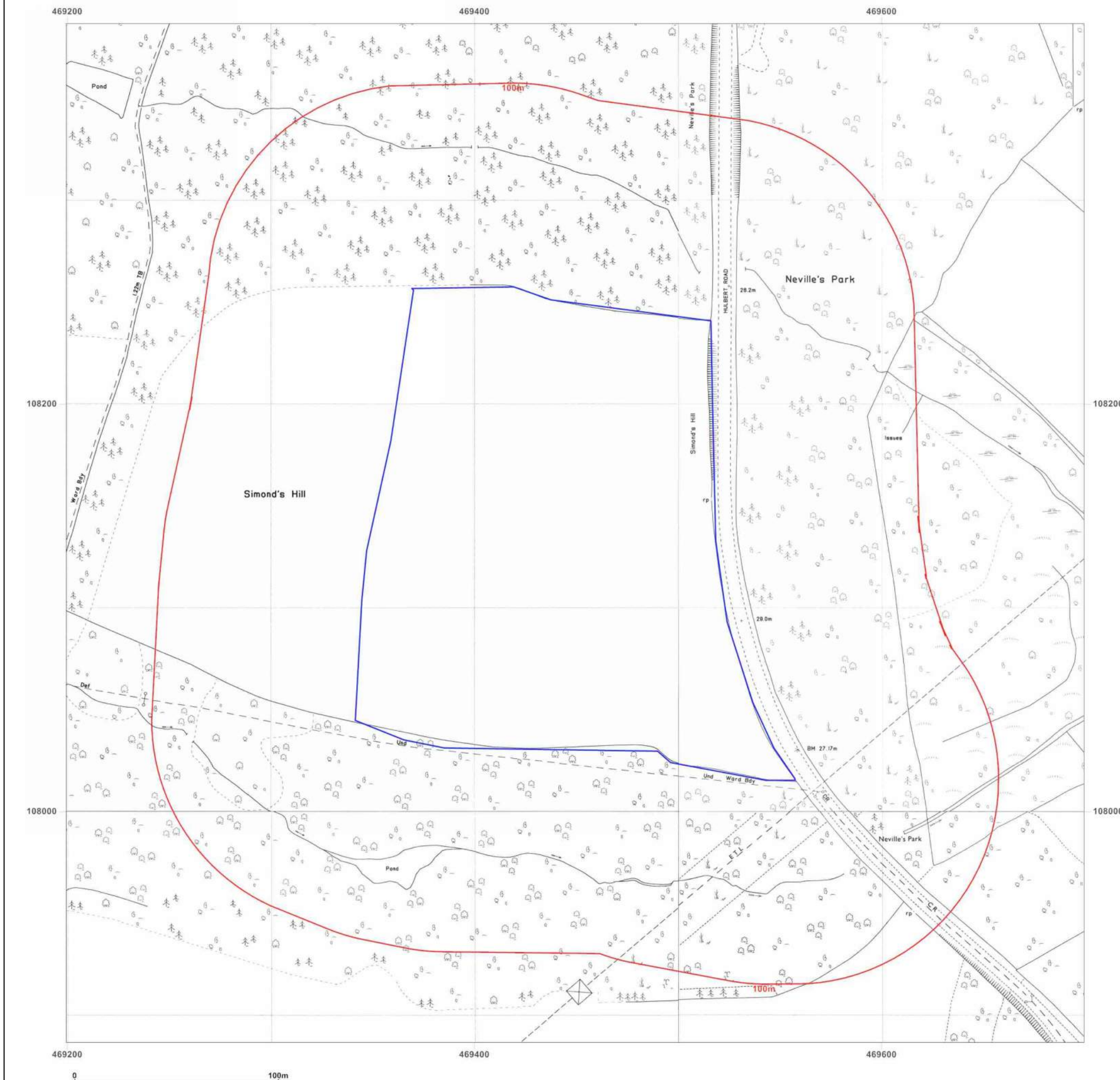


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PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: National Grid

Map date: 1974-1979

Scale: 1:1,250

Printed at: 1:2,000



	Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled N/A
	Surveyed 1957 Revised 1978 Edition N/A Copyright 1979 Levelled 1958

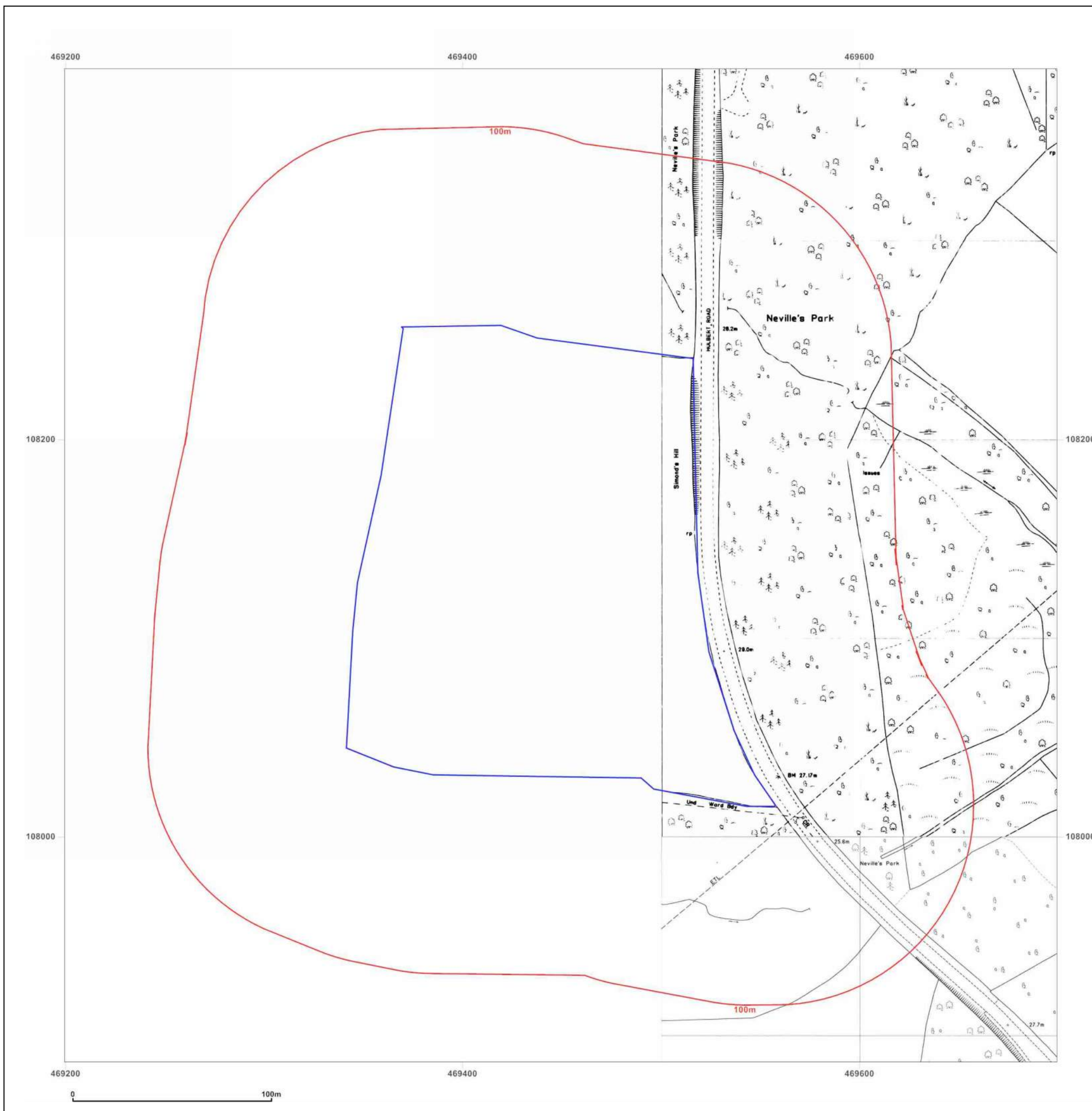


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PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: National Grid

Map date: 1984-1985

Scale: 1:1,250

Printed at: 1:2,000



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1984
Levelled 1958

Surveyed 1958
Revised 1985
Edition N/A
Copyright 1985
Levelled 1958

Surveyed 1958
Revised 1985
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Site Details:

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PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: National Grid

Map date: 1987-1990

Scale: 1:1,250

Printed at: 1:2,000



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

Surveyed 1958
Revised 1990
Edition N/A
Copyright 1990
Levelled 1958

Surveyed 1973
Revised 1988
Edition N/A
Copyright 1989
Levelled N/A

Surveyed 1958
Revised 1987
Edition N/A
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Site Details:

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PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: National Grid

Map date: 1990-1993

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1993
Revised 1993
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1958
Revised 1990
Edition N/A
Copyright 1990
Levelled 1958

Surveyed 1993
Revised 1993
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1993
Revised 1993
Edition N/A
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Site Details:

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PO9 3QJ

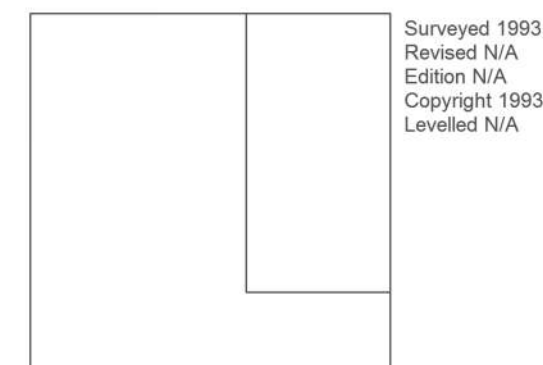
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Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: National Grid

Map date: 1993

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1993
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

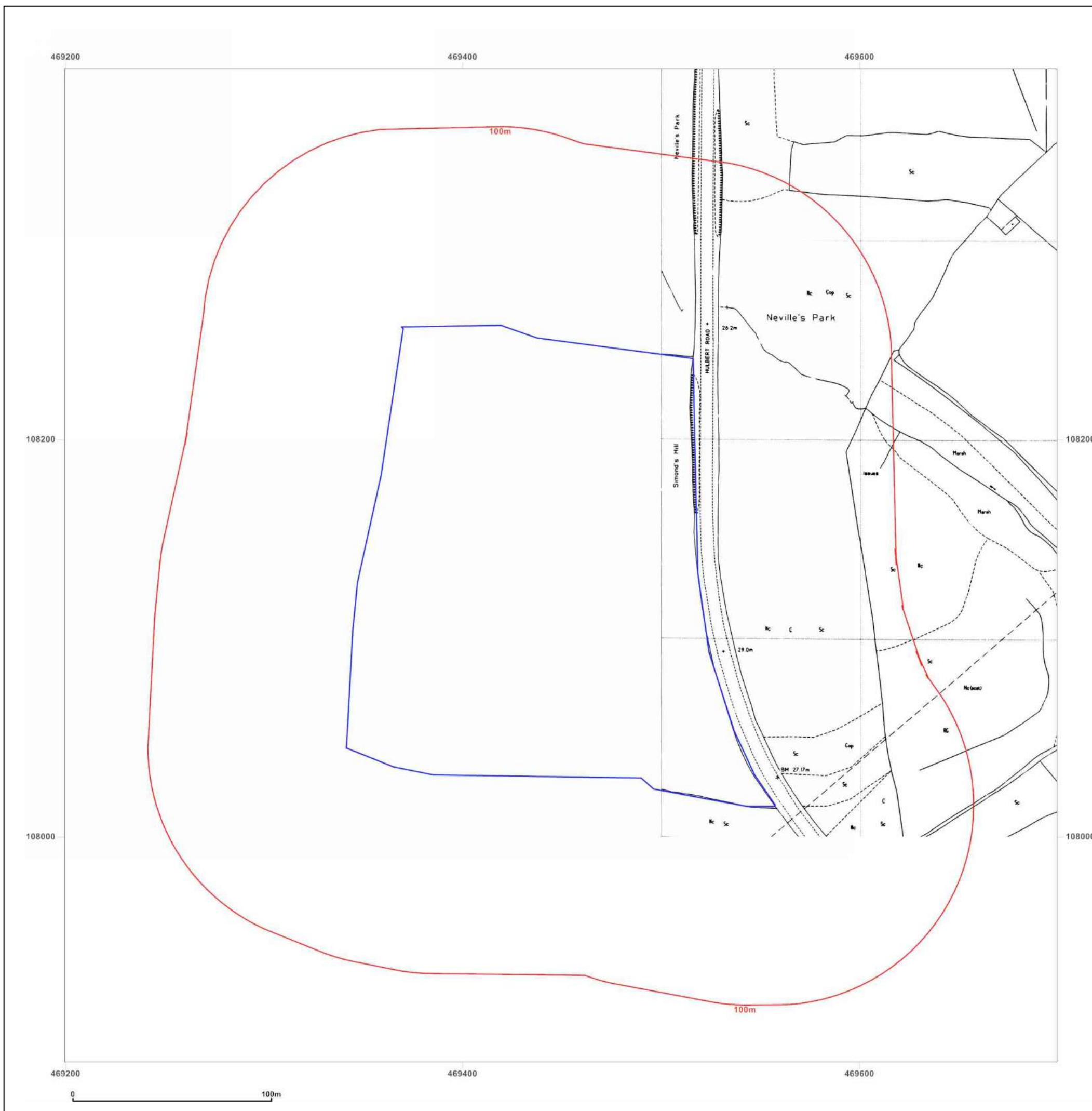


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Site Details:

HULBERT ROAD, HAVANT,
PO9 3QJ

Client Ref: C20-363
Report Ref: GS-6807381
Grid Ref: 469449, 108137

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



2003

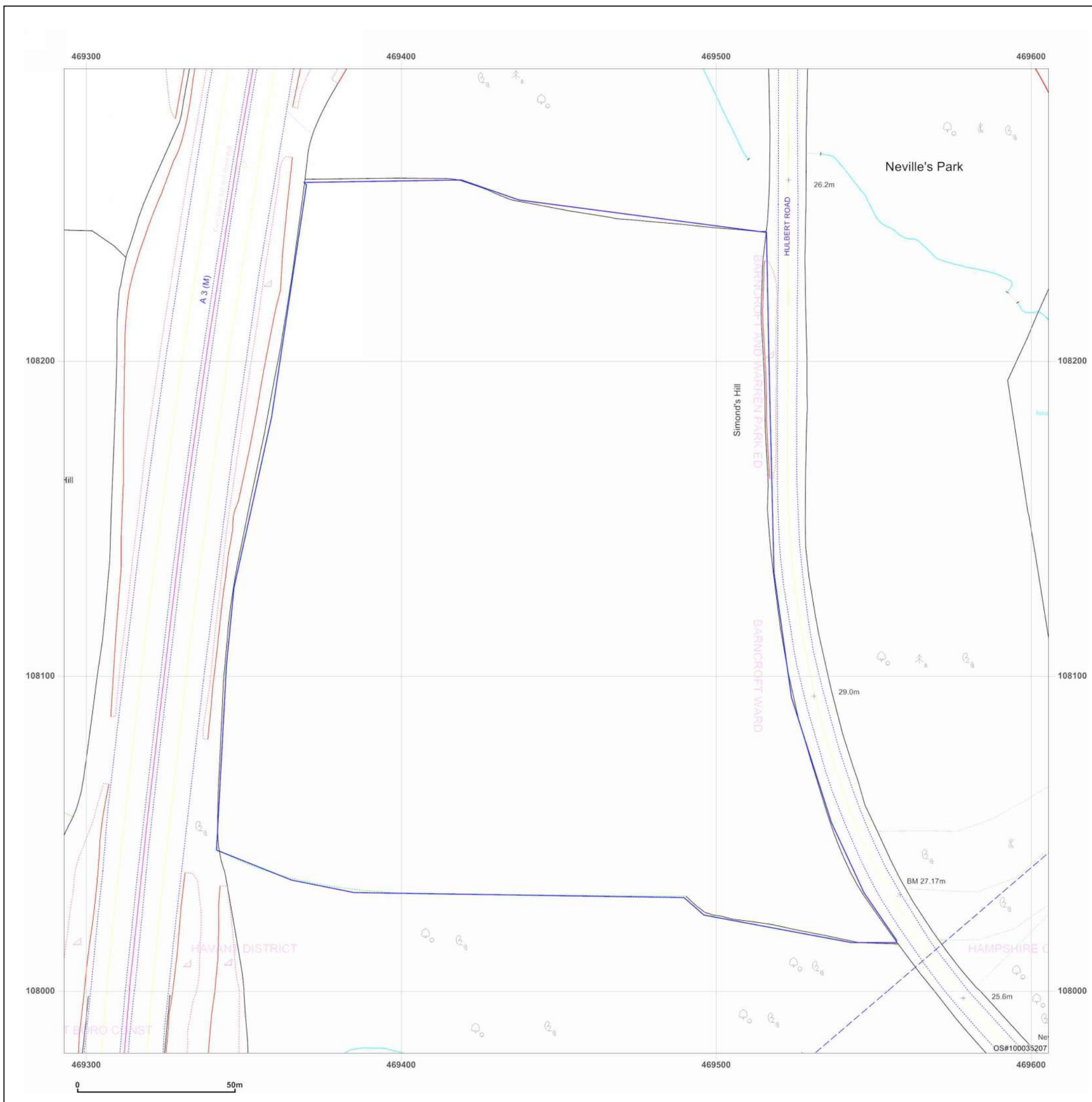


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Production date: 22 June 2020

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APPENDIX E – HISTORICAL BOREHOLE LOGS

ND ENGINEERING LIMITED
Way, Borehamwood,
Herts. SG6 1JH
Tel: 01-953-5661

1" : 316

SU 60 N.E/24
NGR 693.080

GROUND LEVEL 29.11

DATE STARTED 20.12.71

DATE FINISHED 21.12.71

NO. OF BOREHOLE No. 172 sheet 1 of 1

Water Levels (m)	Depth of Casing (m)	Sample / Core Recovery				Leg- end	Depth (Level) (m)	Thickness (m)	Description of Strata
		From (m)	To (m)	Type or Test	No. of Blows % Rec- overy				
		0.00	0.15	D			(29.11)	0.15	Brown silty TOPSOIL
		0.15	0.60	U	23		(29.96)		
		0.60		D					Brown, grey, black firm silty sand; CLAY with a few flint stones and chalk pebbles
		1.60		D			2.15 (26.96)	2.00	
		2.15	2.40	U					
		2.40		D					Grey stiff fissured silty CLAY with sandy patches
		3.60		D					
	4.00	4.15	4.60	U	46			3.75	
	4.00	4.60		D					
		5.55	6.00	U	55		6.00 (28.11)		
	4.00	6.00		D					B.H. completed

HEAD

LOW
CLAY

U	disturbed sample	D	water sample	W	bulk sample	A	penetration test	SPT (C.P.T)	TYPE OF BORING Shell & Auger
NOTE: N = number of blows per ft penetration in standard penetration test Overflowing on morning of 21.12.71 Standpipe inserted at 3.00m Type A on 21.12.71 Highest reading 0.28 observed on 21.12.71									
DIAMETER 204mm → 6.00m CASING 204mm → 4.00m									
ROAD A3. HORNDEN - BROADMARSH							REPORT No. F3P4796	BOREHOLE No. 172	

ENGINEERING LIMITED
 Day, Borehamwood,
 Tel 01-953-5661

1: 316

SU 60 N.E / 25
 NGR 6933.0808
 GROUND LEVEL 37.22
 DATE STARTED 17.12.71
 DATE FINISHED 17.12.71

OF BOREHOLE No. 173, sheet 1 of 1

Water levels (m)	Depth of Casing (m)	Sample / Core Recovery				Leg- end	Depth (Level) (m)	Thickness (m)	Description of Strata
		Depth		Type or Test	No. of Blows % Rec- overy				
		From (m)	to (m)						
		0.00	0.30	D			37.22 33.0(36.92)	0.30	TOPSOIL
		0.30	0.75	U	25				Brown some grey firm to soft becoming firm very sandy, silty CLAY
		0.75		D					
		1.75		D				34.0	
		2.75	3.20	U	39				
		3.20		D			3.70 (3.52)		
		3.55	4.00	U					Brownish grey firm silty sandy CL
		4.00		D					
		4.20	4.70	U	46			1.00	
	NIL	4.70		D			4.70 (4.52)		
									B.H. completed

Low/row
CLAY

U	disturbed sample	D	water sample	W	bulk sample	B	penetration test	SPT CPT	TYPE OF BORING Shell & Auger
NOTE: N = number of blows per ft penetration in standard penetration test Standpipe inserted at 3.00m Type A on 17/12/71 Highest reading 0.42m observed on 21/2/72									
DIAMETER 204mm → 4.70m CASING NIL									
ROAD A3 HORNDEAN - BROADMARSH							REPORT No. F3P4796		BOREHOLE No 173

ENGINEERING LIMITED
 (Way, Borehamwood,
 Hshire 01-953-5661

1:316

SU 60 N.E/26
 NGR 6932.0818
 GROUND LEVEL 39.20
 DATE STARTED 17.12.71
 DATE FINISHED 18.12.71

ROAD OF BOREHOLE No. 174 sheet 1 of 1

Water Levels (m)	Depth of Casing (m)	Sample / Core Recovery		Type or Test	No. of Blows % Recovery	Leg- end	Depth (Level) (m)	Thickness (m)	Description of Soil
		From (m)	To (m)						
		0.30	0.45	D			39.75 39.75	0.15	TOPSOIL
		0.55	1.00	U	23				Brown firm silty and sandy CLAY
		1.00		D					
		2.00	2.15	D					
		3.00	3.00	D				4.05	
	NIL	2.55	3.00	U	30				Dark grey becoming brownish firm friable silty sandy CLAY
	NIL								
		4.00	4.15	D			4.20 35.55		
		4.55	5.00	U	45				
		5.00		D					
		6.00	6.15	D				5.80	
		6.55	7.00	U	36				
		7.00		D					
	NIL	7.55	8.00	U	41		8.00 31.75		B.H. completed
		8.00		D					

U	disturbed sample	D	water sample	W	bulk sample	B	penetration test	SPT CPT	TYPE OF BORING Shell & Auger
---	------------------	---	--------------	---	-------------	---	------------------	------------	---------------------------------

NOTE: N = number of blows per ft: penetration in standard penetration test

DIAMETER
204mm → 8.00m

CASING
NIL

ROAD A3 HORNDEN - BROADMARSH

REPORT No.
F3P4796

BOREHOLE No.
174

1" = 316

NQR 6936:0818

GROUND LEVEL 36.11

DATE STARTED: 17.12.71

DATE FINISHED 17.12.71

NO. OF BOREHOLE No. 175 sheet. 1 of. 1

LOWPOW
CLAY

U	disturbed sample	D	water sample	W	bulk sample	R	penetration test	SPT LPT	TYPE OF BORING Shell & Auger
NOTE: N = number of blows per ft penetration in standard penetration test									DIAMETER 204mm — 8.00 in. CASING NIL
K ROAD A3 HORNDEAN — BROADMARSH							REPORT No. F3P4796	BOREHOLE No. 175	

BGS ID: 419969 : BGS Reference:
SU60NE28
British National Grid (27700) :
469350,108250

[Report an issue with this borehole](#)

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Page 1 of 1 ▾

Next >

>>

ND ENGINEERING LIMITED
Way, Bournemouth,
Dorset BH1 1JH
Tel: 01202 5661

1.316

SU 60 NE 122
NGR 80 6935 0825

GROUND LEVEL 36.32

DATE STARTED 16.12.71

DATE FINISHED 16.12.71

RD OF BOREHOLE No. 176 sheet 1 of 1

Water Levels (m)	Depth of Casing (m)	Sample / Core Recovery		Type or Test	No. of Blows or % Recovery	Leg-end	Depth (Level) (m)	Thickness (m)	Description of Strata
		From (m)	To (m)						
		0.20	0.30	D			36.32 0.50 (35.82)	0.50	Brown firm sandy CLAY
		0.55	1.00	U D	19				Light brown firm slightly sandy CLAY
		2.00	2.15	D			2.50 (33.82)	2.00	
		2.55	3.00	U D	25				Brown becoming brownish grey mottled firm fissured slightly sandy and silty CLAY with sandy
		4.00	4.15	D				3.30	
		4.55	5.00	U D	31				
		6.00	6.15	D			5.80 (32.52)		Grey, some brownish grey becoming dark grey firm to friable fissured silty sandy CLAY
		6.55	7.00	U D	53				
		8.00	8.15	D				4.20	
		8.55	9.00	U D	46				
MLY	NIL	9.55	10.00	U D	40		10.00 (31.32)		
									B.H. completed

London
CLAY

U	disturbed sample	D	water sample	W	bulk sample	B	penetration test	SPT LPT	TYPE OF BORING Shell & Auger
NOTE: N = number of blows per ft penetration in standard penetration test Inserted piezometer at 3.00m Type B on 16.12.72 Highest reading 1.10m observed on 2.2.72.									
DIAMETER 204mm → 10.00m CASING NIL									
ROAD A3 HORNDEAN - BROADMARSH							REPORT No. F3P4796	BOREHOLE No. 176	

ND ENGINEERING LIMITED
Way, Borehamwood,
shire 01-953-5661

1": 316

SU 60 NZ 124
NGR 6938.0833
GROUND LEVEL 25.80
DATE STARTED 17.11.71
DATE FINISHED 22.11.71

RD OF BOREHOLE No. 177, sheet 1 of 2

Water levels	Depth of Casing (m)	Sample / Core Recovery				Leg- end	Depth (Level) (m)	Thickness (m)	Description of Strata
		Depth		Type or Test	No. of Blows % Rec- overy				
		From (m)	To (m)						
(m)	(m)	(m)	(m)						
Water struck 25.79		0.35		D			(25.80) 0.25 (25.75) 0.45 (25.70)	0.25 0.20	Top Soil Brown mottled soft silty CLAY with roots
		0.50	0.95	U	11				Dark Grey mottled soft to firm very silty CLAY with roots
		1.00		W				1.50	
		1.50		D					
Casing Sealing Water DRY 6.45	1.80 2.00	2.00	2.45	U	27		1.95 (25.65)		Grey mottled friable, becoming fissured with depth silty CLAY
		3.00		D					
		4.00	4.45	U	27				
								5.85	
		5.00		D					
Casing Sealing Water DRY G.L.	5.30 5.30	6.00	6.45	U	36				
		7.00		D					
		8.00	8.45	U	41		7.80 (25.00)		Grey becoming Dark Grey friable fissured slightly silty CLAY, with fossils and light silt veins at depth
		9.00		D					
		10.00	10.45	U	46			6.20	
		11.00							
		12.00	12.45	U	40		12.50 (13.30)		

HEAD

LONDON
CLAY

Continued on Sheet 2.

U	disturbed sample	D	water sample	W	bulk sample	B	penetration test	SPT CPT	TYPE OF BORING Shell Auger
NOTE: N = number of blows per ft penetration in standard penetration test									
Installed Standpipe Type A at 3.00 m on 21.11.71									DIAMETER 204mm 16.00m 177mm 20.0m
Check reading 0.00									CASING 204mm 8.25m
ROAD A3 HORNDEN - BROADMARSH							REPORT No. F3P4796	BOREHOLE No. 177	

AND ENGINEERING LIMITED
Way, Borehamwood,
shire 01-953-5661

1" : 316

SU 60 N.E/29
NGR 6938.0833
GROUND LEVEL 25.80

ORD OF BOREHOLE No. 177, sheet 2 of 2

DATE STARTED 17-11-71

DATE FINISHED 22-11-71

Water Levels (m)	Depth of Casing (m)	Sample / Core Recovery				Leg- end	Depth (Level) (m)	Thickness (m)	Description of Strata
		From (m)	To (m)	Type or Test	No. of Blows % Rec- overy				
Casing Sealing							12.50 (13.50)		Continued from Sheet 1
Water								6.20	As Above
DRY	8.25	13.00		D					
7.20	8.25						14.00 (11.80)		
		14.00	14.45	U	37				
		15.00		D					Dark Grey friable fissured CLAY with small fossils, becoming silty with depth
		16.00	16.45	U	39			6.00	
		17.00		D					
		18.00	18.46	U	40				
		19.00							
18.35	8.25	19.55	20.00	U	47		20.00 (5.80)		
0.00									B.H. Completed
2-11am									

U	disturbed sample	D	water sample	W	bulk sample	B	penetration test	SPT CPT	TYPE OF BORING
NOTE: N = number of blows per ft penetration in standard penetration test									
DIAMETER									
CASING									
ROAD A3 HORNDEAN - BROADMARSH							REPORT No. F3P4796	BOREHOLE No. 177	

316

RECORD OF BOREHOLE 10

SU 60 NE/58
N4R 6933.0815

38.60m above O.D.

Dia. of boring: 0.20m

Shell and Auger

Lining tubes: Not used

Samples		Change of Strata			Description of Strata
Depth	Type	Legend	Depth	O.D. Level	
0.50 - 0.93	U(4) D		0.20	38.40	TOP SOIL
0.93					
1.50	D		1.50	37.10	
2.00 - 2.43	U(4) D				
2.43					
2.50	BD				
3.00	D				
			4.30	35.60	
4.00 - 4.43	U(4) D				
4.43					
5.00	D				
6.00	D				
7.00	D				
7.50 - 7.93	U(4) D		8.00	30.60	
7.93					

LONDON
CLAY

Size of sample:
 1. 122mm (4in.) dia. undisturbed sample
 2. 122mm (4in.) dia. disturbed sample
 3. 122mm (4in.) dia. disturbed sample
 4. 122mm (4in.) dia. disturbed sample
 5. 122mm (4in.) dia. disturbed sample
 6. 122mm (4in.) dia. disturbed sample
 7. 122mm (4in.) dia. disturbed sample
 8. 122mm (4in.) dia. disturbed sample
 9. 122mm (4in.) dia. disturbed sample
 10. 122mm (4in.) dia. disturbed sample

Remarks: (Observations on ground-water, etc.)

A seepage of ground-water was observed at 2.00m below ground level. A standpipe was inserted to 3.00m. Type A on 30/6/71.
 Highest reading 1.25 observed on 12/7/71.

AC/11 HANDEAN BROADBURN

P. 10

GROUND EXPLORATIONS Ltd. 68/76 Alpha Street, Slough, Bucks., SL1 1QX										Borehole No 18			
Contract		Waterlooville		SU 60 NE / 193		Started		29.5.74.		Completed		29.5.74.	
Location		Stakes Hill Lodge		NGR 6932 0833		Diameter		150 mm		Ground Level		28.000 m O.D.	
Report No		6290/DRW-C/IAB											
Description	Legend	Thickness m	Depth m	Level m	Sample Type	Sample No	Depth m	C/O (N)	M/C (G/Sa/Si)	Water			
(1)		0.3	0.3	27.7	W	673	0.2						
Soft brown silty PEAT		0.4	0.7	27.3	D	665	0.5						
(2)		0.2	0.9	27.1	D	666	0.8						
Soft organic clayey SILT with traces of peat, some rootlets and stones		1.5			U	668	0.9	10/0	HEAD	WS 0.8 m an 2.9 m SWL. G.L.			
			2.4	25.6	D	669	2.0						
					D	670	2.4						
(3)		0.6	3.0	25.0	U	671	2.5	98/0	LONDON CLAY				
					D	672	2.9						
(1) Very soft black PEAT with rootlets.													
(2) Black silty PEAT.													
(3) Stiff grey-blue silty CLAY to clayey SILT with peat near top.													
							HAND AUGER (too soft ground to support Wayfarer Rig)						
							Date	Depth	Casing				
							29.5.74.	3.0 m	3.0 m of 150				



APPENDIX F – UXO PRE DESK STUDY ASSESSMENT

Pre-Desk Study Assessment

Site:	Hulbert Road, Havant, Hampshire
Client:	WYG
Contact:	Emily Holcroft
Date:	29 th June 2020
Pre-WWI Military Activity on or Affecting the Site	None identified.
WWI Military Activity on or Affecting the Site	None identified.
WWI Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Transport infrastructure and public utilities. ■ Anti-Aircraft (AA) guns.
WWI Bombing	None identified on the Site.
Interwar Military Activity on or Affecting the Site	None identified.
WWII Military Activity on or Affecting the Site	Records indicate that during preparations for D-Day in 1944, British and American troops were stationed at Staker's Hill, in the immediate vicinity of the Site.
WWII Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Transport infrastructure and public utilities. ■ Military barracks, camps and training areas. ■ AA and anti-invasion defences.
WWII Bombing Decoys (within 5km of Site)	7No. The nearest was located approximately 3.4km south of the Site.
WWII Bombing	During WWII the Site was located in the Urban District (RD) of Havant & Waterlooville, which officially recorded 423No. High Explosive (HE) bombs with a bombing density of 35 bombs per 405 hectares (ha). Readily available records have been found to indicate that several HE bombs fell in close proximity of the Site.
Post-WWII Military Activity on or Affecting the Site	None identified.
Recommendation	It is recommended that a detailed desk study is commissioned to assess, and potentially zone, the Unexploded Ordnance (UXO) hazard level on the Site.

This summary is based on a cursory review of readily available records. Caution is advised if you plan to action work based on this summary.

It should be noted that where a potentially significant source of UXO hazard has been identified on the Site, the requirement for a detailed desk study and risk assessment has been confirmed and no further research will be undertaken at this stage. It is possible that further in-depth research as part of a detailed UXO desk study and risk assessment may identify other potential sources of UXO hazard on the Site.



APPENDIX G – CIRIA C552 RISK METHODOLOGY

The following tables are derived from CIRIA C552 and have been used to define the risk rating presented in the Qualitative Risk Assessment matrix.

Classification of consequence

Classification	Definition
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 significant pollution) of sensitive water resource. Catastrophic damage to building/property. A short-term risk to a particular ecosystem, or organism forming part of such ecosystem. (Note the definitions of ecological systems within the Draft Circular on Contaminated Land DETR, 2000).
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 significant pollution). A significant change in a particular ecosystem, or an organism forming part of such an ecosystem. (Note the definitions of ecological systems within the Draft Circular on Contaminated Land DETR, 2000).
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.
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 effects of damage to buildings, structures and services.

Classification of probability

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

Matrix of consequence against probability to gain a risk classification

		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