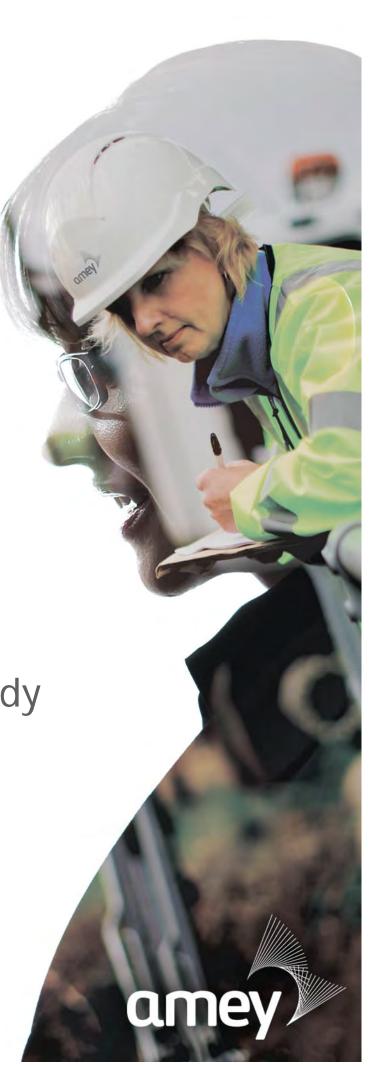


Geotechnical desk study Kingsnorth Strategic Link

CO04300417/GEO01 Rev0 December 2015





Document Control Sheet

Project Name:	Kingsnorth Strategic Link
Project Number:	CO04300417
Report Title:	Geotechnical desk study
Report Number:	GEO01

Issue Status/Amendment	Prepared	Reviewed	Approved
Rev0 Draft	Name:	Name:	Name:
	Sarah Mellers	Derek Barton	Derek Barton
	Signature:	Signature:	Signature:
	S. Mellers.	D.1. Baston	D-1-80star
	Date: 22/12/15	Date: 22/12/15	Date: 22/12/15



Executive Summary

Kent County Council has commissioned Amey to undertake a feasibility study for a proposed link road at Kingsnorth, south of Ashford. The new road will connect Pound Lane with Ashford Road and will support existing and planned development in the area.

There are currently three route options under consideration and these are all likely to include:

- earthworks
- at least one new bridge over the East Stour River
- junctions with existing roads, and
- lighting, signs, drainage and related works.

As part of this commission, Amey's geotechnical team has been asked to undertake a preliminary geotechnical desk study.

The ground conditions are expected to comprise predominantly alluvium over Weald Clay

The principal geotechnical risks are a high water table and flooding, excessive settlement of new embankments and structures, and poor and unexpected ground conditions at the site of structures.

Contamination risks are not addressed in this report. However, the risks are expected to be low as the existing land use is mainly agricultural.

An intrusive ground investigation will be required to assess and manage the geotechnical risks highlighted by the study.



Contents

1	Intro	oduction	. 1
	1.1	Scope and objective of the report	1
	1.2	Description of project	1
2	Desi	c study	. 2
	2.1	Topography	2
	2.2	Geology	2
	2.3	Hydrology, hydrogeology and drainage	3
	2.4	Previous investigations	4
	2.5	Man-made features	5
	2.6	Historical development	5
	2.7	Aerial photos	6
	2.8	Land use	6
	2.9	Contamination	6
	2.10	Mining and ground stability hazards	6
	2.11	Bombing records	6
	2.12	Animal burials	6
3	Site	reconnaissance	. 7
4	Grou	und conditions	. 8
	4.1	General	8
	4.2	Topsoil	8
	4.3	Made Ground	8
	4.4	Alluvium	8
	4.5	3 rd terrace river deposits	8
	4.6	Weald Clay	9
	4.7	Groundwater	9
5	Preli	iminary engineering assessment	10
	5.1	Earthworks - cuttings	10
	5.2	Earthworks - embankments	10
	5.3	Earthworks acceptance criteria	11
	5.4	Drainage	11
	5.5	Subgrade	11
	5.6	Structural foundations	12



	5.7 Contaminated land/ soil chemistry	12
6	Geotechnical risk register	13
7	Ground investigation	16
8	References	17

Appendix A Groundsure report





1 Introduction

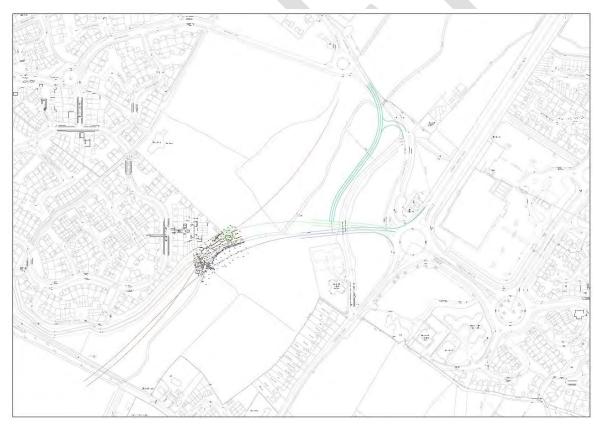
1.1 Scope and objective of the report

Kent County Council has commissioned Amey to undertake a feasibility study for a proposed link road at Kingsnorth, south of Ashford. The new road will connect Pound Lane with Ashford Road and will support existing and planned development in the area.

This report presents the findings of a brief geotechnical desk study and provides preliminary recommendations for the design of earthworks, structures and drainage.

1.2 Description of project

Figure 1.1 shows the various alignments currently under consideration. Each of the routes is in the order of 750m long.



This map is based on Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. 100019238. 2014

Figure 1.1 Plan showing the route options (not to scale)



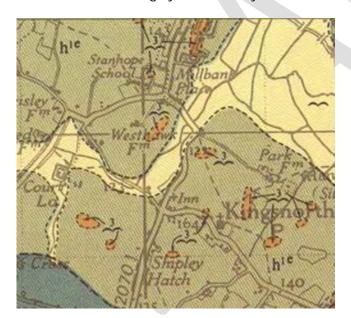
2 Desk study

2.1 Topography

The general topography and elevation has been inferred from the contoured Ordnance Survey 1:25,000 Landranger map covering the area. Generally, the routes occupy the broad floodplain of the East Stour River which flows from the Greensand Ridge northeast towards Ashford. The whole area is fairly flat, around 37mAOD near the river, and rising gently away from the floodplain by two to three metres. A detailed topographic survey has been carried out at a key area along the route and this showed the river was well contained within its banks with the river water level around 35.3mAOD at that time.

2.2 Geology

An extract from the published 1: 50,000 solid and drift geological map of Folkstone and Dover, sheets 305 & 306 (BGS, 1990) is presented in Figure 2.1. These records show the zone of interest is largely underlain by alluvium, which overlies Weald Clay.



 $\hbox{$[\text{C10/014-CSL}]$ British Geological Survey. @NERC. All rights reserved. Not to scale.}\\$

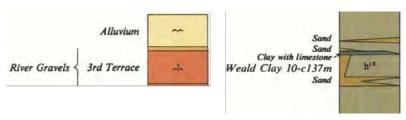


Figure 2.1 – Extract from the solid and drift geological map.



Alluvium is usually soft organic silty clay or organic silt, which may contain layers of gravel and/peat. However, boreholes near the zone of interest show the East Stour alluvium to be mainly silts and gravels, no deeper than about 5m. The depth of the alluvium in the zone of interest is unknown but it is likely to shallow towards the edges of the floodplain. The Weald Clay Formation consists of dark grey thinly bedded mudstones with interbedded siltstones and sandstones. Near the surface, the mudstones are often weathered to a firm clay. Locally, where the Weald Clay emerges from beneath the alluvium, superficial 3rd terrace river deposits may also be present, notably near the roundabout connecting Ashford Road and Romney Marsh Road.

The superficial and solid strata present are summarised in Table 4.1

Table 4.1 Superficial and solid strata in the zone of interest

Superficial deposits (Quaternary)										
Alluvium	Soft, normally-consolidated, compressible silty clay sometimes containing ayers of silt, sand, peat and gravel.									
3 rd terrace river deposits	Sand and gravel, locally with lenses of silt, clay or peat.									
Solid geology (Cretaceous)									
Weald Clay Formation	Dark grey thinly bedded mudstones with interbedded siltstones and fine to medium grained sandstones. Weathered to silty clay.									

Whilst none is shown on the maps, made ground is expected to underlie various areas of the proposed route corridor. This will be associated with existing roads, structures and historic land uses.

There are no recorded faults in the Weald Clay. The regional dip is very low, and to the south.

2.3 Hydrology, hydrogeology and drainage

The Environment Agency's "What's in your backyard?" website shows the zone of interest to lie largely within a floodplain, designated as Flood Zone 3, i.e. land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%). An extract from the on-line records is shown in Figure 2.2.





Figure 2.2 – Extract from EA's on-line flood zone maps (EA, 2015).

In water supply terms, the underlying Weald Clay is 'unproductive strata' and not designated as an aquifer. However the superficial deposits of alluvium and river terrace deposits are both designated by the Environment Agency (EA) as secondary A aquifers, i.e. possibly permeable layers with limited storage, capable of providing water on a local rather than strategic level.

The area of interest does not lie within a source protection zone, indicating no groundwater abstraction wells used for public drinking supply are located near the site.

The most significant surface water feature in the area is the East Stour River. This flows north east before meeting the Great Stour at Ashford. There are a number of small tributaries of the East Stour and Great Stour close to the site.

The groundwater table can be expected to be close to ground level across the floodplain, and rising slightly towards the east and west as the topography rises.

2.4 Previous investigations

No previous ground investigations have been undertaken for this scheme. A number of exploratory holes have been undertaken in the area (BGS, 2015) for other purposes, but unfortunately, the majority of these are confidential. The nearest borehole we have records for is located 300m north east of the scheme and is associated with the development of the local industrial estates.

Project Name Kingsnorth Strategic Link

Document Title Geotechnical desk study



2.5 Man-made features

Besides the existing highway and associated infrastructure, and the fields, we are not aware of any man-made structures affecting the routes. However, the area is archaeologically rich, inspiring many of the local road names.

2.6 Historical development

The history of the site has been determined using historical OS maps provided with a Groundsure report (reproduced in full in Appendix A). The maps date back to 1870.

1872 (1:10,560)

The area is principally agricultural land divided by field boundaries and hedgerows. The river runs through the centre of the area of interest flowing from the south west to the north east. Ashford Road is present running along the eastern extent of the site connecting the towns of Kingsnorth in the south and Ashford to the north.

1931 (1:10,560)

There are no significant changes to the area of interest. The area to the north along Ashford Road has developed with additional housing to form the suburb now known as Stanhope.

1975 (1:10,000)

There are no significant changes to the agricultural land surrounding the East Stour. A widespread increase in housing to the north has led to the growth of Stanhope, with additional public facilities such as schools and an industrial development to the west.

2002 (1:10,000)

There are no significant changes in land use in the zone of interest although drainage appears to have been improved between Ashford Road and the East Stour. The village of Kingsnorth has expanded to the east, and Stanhope has also grown further.

2010 (1:10,000) - Present day

The East Stour shows a split into two towards the south western end of the site. It is unclear why this split in the river has been engineered but it is presumably associated with the new housing development directly west of the site. No other significant changes are apparent.



2.7 Aerial photos

No detailed aerial photographs have been obtained, but images can be viewed on websites such as Google Maps and Bing Maps.

2.8 Land use

The zone of interest crosses principally agricultural and undeveloped common land divided by hedgerows. The common land is lightly vegetated with scattered trees and shrubs; aerial photography shows it to be criss-crossed with footpaths.

2.9 Contamination

Based on the desk study there is little evidence of former or existing contaminative land use in the zone of interest. According to the appended Groundsure report and the EA's website, no former landfill sites are present. Agricultural land may have residues of pesticides and herbicides. Near tie-ins with existing roads, potential sources of contamination are highway spillages and tar-bound materials in the existing pavement construction.

2.10 Mining and ground stability hazards

There is no evidence of mining or mining-related activities taking place in the zone of interest. The Groundsure report suggests that the site may have been subject to non-coal mining; this is probably reported due to the presence of Weald Clay, which, historically, was a source of iron ore and gave rise to some landscapes pocked with bell pits and ponds. As most of the Weald Clay is covered with alluvium, the likelihood of historic mining in the zone of interest is remote.

2.11 Bombing records

The regional unexploded bomb (UXB) risk report for Kent has been viewed on the Zetica website (2015). This indicates that the route corridor falls within a low to moderate bomb risk zone, covering Ashford and to the east of Ashford. The bomb risk map does not provide full coverage. Given the soft ground (alluvium) and the level of risk, it would be prudent to obtain a detailed UXB risk assessment report, meeting the requirements of CIRIA Report C681, in due course.

2.12 Animal burials

At this preliminary stage no enquiries have been made with Defra or animal health offices regarding sites of animal burials.



3 Site reconnaissance

As yet, no walkover has been conducted so comments about the site and land use are based purely on information gleaned from the internet and other resources.



Project Name Kingsnorth Strategic Link

Document Title Geotechnical desk study



4 Ground conditions

4.1 General

As described previously, the bulk of the zone of interest is superficial alluvium overlying Weald Clay, with small outcrops of 3rd terrace river gravel. General information on the Weald Clay, alluvium and terrace gravel can be found in the British Geological Survey memoir which accompanies the Canterbury and Folkestone map. This section summarises relevant data from this memoir and other online resources including the BGS GeoIndex and historic borehole records.

Further route-specific ground investigations will be required to provide information at the detailed design stage.

4.2 Topsoil

Topsoil is expected to be present throughout the entire zone of interest. The topsoil is likely to be thickest in the agricultural areas where the land has been ploughed.

4.3 Made Ground

Made ground may be found near existing roads and housing. This could comprise anything from sands and gravels to clay with inclusions of brick and macadam. No former landfill sites are recorded.

4.4 Alluvium

Alluvium is anticipated beneath the majority of the various route options. The nearest borehole, located approximately 500m north east of the scheme, shows this to comprise variable low strength silty clay to clayey silt, sands and gravels. The alluvium there was found to be around 5.4m deep.

4.5 3rd terrace river deposits

Terrace deposits are likely to be encountered only in one location, at the tie-in with the roundabout connecting Ashford Road and Romney Marsh Road. The deposits are likely to comprise sands and gravels of limited depth.



4.6 Weald Clay

The Weald Clay Formation underlies the entire scheme. Boreholes close to the site show this to comprise a firm to stiff grey fissured silty clay. The Weald Clay is likely to take two forms: an upper weathered firm Weald Clay nearer the surface, and a lower unweathered stiff clay or fissured mudstone. The formation is thick and is expected to continue to a significant depth.

4.7 Groundwater

As stated previously, groundwater level across the floodplain is expected to be high and at shallow depth. It may be close to river level adjacent to the East Stour (approximately 35-37mAOD).





5 Preliminary engineering assessment

5.1 Earthworks - cuttings

As the zone of interest is relatively flat, we do not anticipate any deep cuttings. We can only envisage shallow cuttings at the fringes of the floodplain, approaching the tie-ins. These areas are likely to be either Weald Clay or terrace gravel over Weald Clay. For preliminary design, batter slopes of 1v: 2.5h (22 degrees) can be adopted, if the cuttings are less than 2m deep.

Cuttings in the alluvium are not advisable. Low level underpasses (e.g. cattle underpasses or pedestrian underpasses) would need to be tanked or pumped, due to high groundwater level. Balancing ponds or flood storage compensation areas on the floodplain should be designed with sides no steeper than 1v: 2.5h (22 degrees).

5.2 Earthworks - embankments

As the route will be located in a flood plain, it is likely that the road will be elevated on a low embankment. Clearly there will be a significant loss of flood storage and possible impedance of flow, and the Environment Agency should be involved at the earliest possible stage to identify the mitigation works required.

Construction of the highways embankments should commence with a free-draining starter layer (drainage blanket). The low embankments will settle over the alluvium, but the magnitude and duration of settlement can only be determined following ground investigation. Given the likely depth of alluvium and the probable presence of free-draining gravel horizons, it is unlikely that band drains or other ground treatment will be required to accelerate the consolidation process. However, a delay of a few months before construction of the road and drainage is advisable.

For preliminary design we suggest a design slope of 1v:2h (26 degrees) for embankments formed with granular materials, and 1v: 2.5h (22 degrees) if using cohesive strata. As there is likely to be a significant earthworks deficit, we suggest specifying granular imported fill.

Clearly, if the embankment is very low, the base of the pavement foundation may converge with the top of the drainage blanket.

Document Title Geotechnical desk study



5.3 Earthworks acceptance criteria

Based on the preliminary route designs and the recorded geology, site-won material is likely to be limited to Weald Clay, which will classify as a Class 2 cohesive general fill.

Alluvium dredged from flood storage compensation areas is likely to be unacceptable as general fill, but can be used as landscape fill.

Due to the proximity of the river, it is likely that some material will be too wet on excavation. Most fills can be rendered acceptable by drying out or modification with 1-2% quicklime.

5.4 Drainage

A positive surface water drainage system with kerbs, concrete channels or lined swales is preferred. Presumably, outfall will be to the East Stour and its tributaries.

The ground is unsuitable for infiltration basins or soakaways as all the strata present are of low permeability and the groundwater level is likely to be high.

5.5 Subgrade

Based on the available information, it is anticipated that where the proposed carriageway is in shallow cutting, the subgrade at formation or sub-formation level will be mainly weathered Weald Clay.

Based on our knowledge of the strata present, an equilibrium (design) CBR of 2.5% should be assumed.

Where the road is built up on embankment, the CBR will depend on the general fill material used, but it should be at least 2.5%.

Based on the national design guidance for road pavement foundations (IAN73/06), and assuming a minimum CBR of 2.5% can be achieved throughout the length of the scheme, either of the following restricted designs could be adopted for preliminary design.

- Option 1: 450mm of subbase only
- Option 2: 600 mm total foundation thickness comprising 250mm of capping and 350mm of subbase.

Using the Kent Pavement Design Guide (KCC, 2010), the pavement foundation thickness can be slightly less as follows:

Option 1: 350mm of subbase only



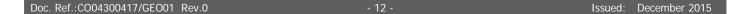
 Option 2: 550 mm total foundation thickness comprising 400mm of capping and 150mm of subbase.

5.6 Structural foundations

Bridges crossing the East Stour will inevitably overlie alluvium over Weald Clay. The alluvium is possibly not that deep, but as the Weald Clay will be weathered and there is a high water table, a piled foundation solution is preferred over a spread foundation. Nearby, the bridges along the approach road to Cheeseman's Green were built on piled foundations. Concrete CFA piles extending into the Weald Clay are likely to be in the order of 15m deep.

5.7 Contaminated land/soil chemistry

At this stage, we do not anticipate that significant land contamination will be found along any of the route options. However, a more detailed geo-environmental investigation should be carried out when the route options have narrowed.





6 Geotechnical risk register

This is the first issue of the geotechnical risk register for the Kingsnorth Strategic Link. It has been prepared broadly in accordance with the requirements of Highways England's HD22/08 *Managing Geotechnical Risk*. It is a working document and is subject to revision as the investigations and design progress. At this stage, the risks apply to all the routes unless stated. The parameters used for the risk rating are as laid out below:

<u>Key</u>

Likelihood						
Very likely	5					
Likely	4					
Probable	3					
Unlikely	2					
Negligible	1					

Impact		Time and cost impa	ct
Very high	5	>10 weeks on completion	>£1M
High	4	>1 week to completion	£100k to £1M
Medium	3	>4 weeks: <1 week on completion	£10k to £100k
Low	2	1 to 4 weeks: None on completion	£1k to £10k
Very low	1	<1 week to activity: None on completion	<£1k

Risk L*I=R	Risk rating	Response
17 to 25	Intolerable	Unacceptable
13 to 16	Intolerable	Unacceptable
9 to 12	Substantial	Early attention
5 to 8	Tolerable	Regular attention
1 to 4	Trivial	Monitor



Geotechnical risk register

				efo onti	-				Afte		
Risk No	CDM Risk	Hazard/Risk	Likelihood	Impact	Risk	Consequence	Control Measure	Likelihood	Impact	Risk	Comment
Geote	Geotechnical - Earthworks										
1		Encountering unexpected ground conditions	3	4	12	Delays, additional costs involved with investigation and redesign	Carry out thorough GI	2	4	8	
3		Greater proportion of unacceptable earthwork materials than expected	2	3	6	Delays to ground works whilst material is conditioned or alternative fills sourced	Undertake appropriate GI and testing	1	3	3	
5		Unacceptable settlement of embankment fills	3	3	9		Adequate investigation of alluvium and appropriate design.	2	3	6	
Geote	chnic	cal – Structures)			
7		Excessive settlements of structural foundations due to poor bearing conditions	3	4	12	Delays for design and construction of remedial works.	Adequate ground investigation and suitable design.	1	4	3	
8		Chemical attack on buried structural elements due to soil-borne contaminants	3	3	9	Premature degradation and failure of buried elements	Ensure adequate laboratory testing and appropriate design of concrete/steel, etc.	1	3	3	
9		Unexpected ground conditions	3	4	12	Foundations need re-designing	Adequate ground investigation and suitable design.	2	4	8	
				Ge	oted	chnical – Groundwater and	surface water				
10		Water ingress into excavations and cuttings due to high groundwater levels	2	2	4		Adequate ground investigation and monitoring of groundwater, establish contingency plan for availability of appropriate plant.	1	2	2	
11		High groundwater levels – effects on earthworks stability and foundation design	3	3	9	Unstable cuttings and reduced bearing capacity	Monitor during ground investigation and implement appropriate groundwater dewatering and control. Ensure full range of groundwater levels catered for.	2	3	6	
	Geotechnical – Contamination/environmental										
13		Encountering unexpected contamination hotspots	3	3	9		Carry out phased environmental risk assessment with review of former site processes, walkover survey and ground investigation. Monitor high risk areas during works. Ensure contamination specialists are available	1	3	3	
14		Unlicensed landfills/ animal burial sites	2	2	4	Delays whilst contamination is being dealt with and cost of disposal	Thorough desk study and site reconnaissance.	1	2	2	



				efo onti				_	Afte Onti	-	
Risk No	CDM Risk	Hazard/Risk	Likelihood	Impact	Risk	Consequence	Control Measure	Likelihood	Impact	Risk	Comment
16		Residual contamination from herbicides, pesticides etc.	2	2	4	Delay and cost of removal.	Adequate inspection, ground investigation and appropriate analysis.	1	2	2	
		Tar-bound materials in existing pavements	3	3		Impact on human health and disposal as hazardous waste	Adequate investigation of existing pavements	1	3	3	
17		Invasive plant species (Japanese knotweed, giant hogweed)	3	2	6	Delays to surveys or construction work	Carry out appropriate surveys at preliminary stage	1	2	3	
					G	eotechnical – Pavement fo	pundation				
18		CBR lower than anticipated or very variable	2	3	6	Thicker subbase required, or ground treatment	Adequate GI for pavement design purposes and manage surface water and trafficking during construction.	1	3	3	
						Geotechnical – Gene	ral				
19		Adverse weather conditions during construction	3	3	9	Delays and additional costs to earthworks operations	Adopt good 'materials husbandry' and control surface water during works	2	3	6	
21		Discovery of unexploded war-time ordnance (UXO, UXB) or home guard caches	2	2	4	Site safety implications. Delays whilst ordnance is made safe/ removed	Determine likelihood of unexploded ordnance being present from wartime records. Undertake survey by appropriate methods. Establish procedures to identify and make safe ordnance.	1	2	2	
22		Restrictions due to unexpected archaeological discoveries	3	3	9	Delays whilst approvals, rescue excavations or mitigation measures are undertaken	Adequate pre-construction surveys and liaison with archaeologist prior to and during construction	1	3	3	

After investigation and mitigation, the main residual geotechnical risks perceived at this stage are:

- encountering unexpected ground conditions,
- · excessive settlements of structural foundations, and
- high groundwater levels affecting earthwork stability and foundation design.



7 Ground investigation

As the route options are developed we recommend preliminary ground investigation to identify and possibly discount some of the perceived geotechnical risks. Considering the geological setting, the ground investigation is likely to comprise a series of cable percussion boreholes (focussing on the structures sites), window sample boreholes, dynamic cone penetrometer tests and trial pits.

Laboratory testing will include classification, strength and consolidation tests. Samples will be recovered for contamination testing.

The cost of ground investigation is likely to be in the order of £50,000.





8 References

British Geological Survey (2015) GeoIndex [online] Accessed 21st December 2015. Available at http://www.bgs. ac.uk/GeoIndex/

British Geological Survey (2015a) borehole scans [online] Accessed 21st December 2015. Available at http://www.bgs.ac.uk/data/boreholescans/

British Geological Survey (1990) Folkstone and Dover, Solid and drift Edition, England and Wales, Sheets 305 & 306, 1:50,000 scale.

Environment Agency (2015). What's in your backyard? [online database]

Highways Agency (2008) HD22/08 *Managing Geotechnical Risk*, in: Design Manual for Roads and Bridges, Volume 4, Section 1, Part 2.

Kent County Council (2010) Surfacing and Structural Maintenance Policy (latest KCC pavement design guidance)

Zetica (2015), *UXB Risk Maps – Kent*, [online database], Accessed 21st December 2015. Available at http://www.zetica.com/



Appendix A Groundsure report





LOCATION INTELLIGENCE

Amey OW Ltd

GRANT THORNTON UK LLP, THE EXPLORER BUILDING, FLEMING WAY, CRAWLEY, RH10 9GT

Groundsure

GS-2646756

Reference:

Your Reference: PO 2000434707

Report Date

11 Dec 2015

Report Delivery Email - pdf

Method:

Groundsure Enviroinsight

Address: Kingsnorth strategic link, Ashford, TN23 3LU

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Enviroinsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director **Groundsure Limited**

Enc.

Groundsure Enviroinsight



Groundsure Enviroinsight

Address: Kingsnorth strategic link, Ashford, TN23 3LU

Date: 11 Dec 2015

Reference: GS-2646756

Client: Amey OW Ltd

NW NE



Aerial Photograph Capture date: 27-May-2012

Grid Reference: 600199,139869

Site Size: 9.93ha

Report Reference: GS-2646756 Client Reference: PO_2000434707

SW

2

SE



Contents Page

Contents Page	3
Overview of Findings	6
Using this report	10
1. Historical Land Use	11
1. Historical Industrial Sites	12
1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping	
1.2 Additional Information – Historical Tank Database	
1.3 Additional Information – Historical Energy Features Database	
1.4 Additional Information – Historical Petrol and Fuel Site Database	14
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	14
1.6 Potentially Infilled Land	14
2. Environmental Permits, Incidents and Registers Map	16
2. Environmental Permits, Incidents and Registers	17
2.1 Industrial Sites Holding Licences and/or Authorisations	
2.1.1 Records of historic IPC Authorisations within 500m of the study site:	
2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:	
2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m study site:	
2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:	
2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:	
2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:	
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:	
2.1.8 Records of Licensed Discharge Consents within 500m of the study site:	
2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of study site:	
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:	
2.2 Dangerous or Hazardous Sites	
2.3 Environment Agency Recorded Pollution Incidents	20
2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:	
2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:	
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	
3. Landfill and Other Waste Sites Map	22
3. Landfill and Other Waste Sites	23
3.1 Landfill Sites	
3.1.1 Records from Environment Agency landfill data within 1000m of the study site:	
3.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:	
3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:	
3.2 Other Waste Sites	
3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:	
3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:	
4. Current Land Use Map	26
4. Current Land Uses	27
4.1 Current Industrial Data	27
4.2 Petrol and Fuel Sites	28
4.3 National Grid High Voltage Underground Electricity Transmission Cables	
4.4 National Grid High Pressure Gas Transmission Pipelines	28
5. Geology	29
5.1 Artificial Ground and Made Ground	29



	CATION INTELLIGENCE
5.2 Superficial Ground and Drift Geology	
5.3 Bedrock and Solid Geology	
6 Hydrogeology and Hydrology	30
6a. Aquifer Within Superficial Geology	30
6b. Aquifer Within Bedrock Geology and Abstraction Licenses	31
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses	32
6d. Hydrogeology – Source Protection Zones within confined aquifer	33
6e. Hydrology – Detailed River Network and River Quality	34
6.Hydrogeology and Hydrology	35
6.1 Aquifer within Superficial Deposits	
6.2 Aquifer within Bedrock Deposits	
6.3 Groundwater Abstraction Licences	36
6.4 Surface Water Abstraction Licences	
6.5 Potable Water Abstraction Licences	37
6.6 Source Protection Zones	
6.7 Source Protection Zones within Confined Aquifer	
6.8 Groundwater Vulnerability and Soil Leaching Potential	
6.9 River Quality	
6.9.2 Chemical Quality:	
6.10 Detailed River Network	
6.11 Surface Water Features	
7a. Environment Agency Flood Map for Planning (from rivers and the sea)	44
7b. Environment Agency Risk of Flooding from Rivers and the Sea (RoFRaS) Map	45
7 Flooding	46
7.1 River and Coastal Zone 2 Flooding	
7.1 River and Coastal Zone 3 Flooding	
7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating	
7.4 Flood Defences	
7.5 Areas benefiting from Flood Defences	48
7.6 Areas benefiting from Flood Storage	48
7.7 Groundwater Flooding Susceptibility Areas	
7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the study site? Yes	48
7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the unc	
conditions?	
7.8 Groundwater Flooding Confidence Areas	
8. Designated Environmentally Sensitive Sites Map	50
8. Designated Environmentally Sensitive Sites	51
8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:	
8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:	
8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:	
8.5 Records of Ramsar sites within 2000m of the study site:	
8.6 Records of Ancient Woodland within 2000m of the study site:	
8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:	
8.8 Records of World Heritage Sites within 2000m of the study site:	
8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:	
8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site	e:53
8.11 Records of National Parks (NP) within 2000m of the study site:	
8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:	
8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:	53



61

	LOCATION INTELLIGENCE
8.14 Records of Green Belt land within 2000m of the study site:	54
9. Natural Hazards Findings	55
9.1 Detailed BGS GeoSure Data	55
9.1.1 Shrink Swell	55
9.1.2 Landslides	55
9.1.3 Soluble Rocks	
9.1.4 Compressible Ground	56
9.1.5 Collapsible Rocks	56
9.1.6 Running Sand	56
9.2 Radon	56
9.2.1 Radon Affected Areas	56
9.2.2 Radon Protection	57
10. Mining	58
10.1 Coal Mining	58
10.2 Non-Coal Mining	58
10.3 Brine Affected Areas	
Contact Details	59

Standard Terms and Conditions



Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	0	0	3	22
1.2 Additional Information – Historical Tank Database	0	0	2	9
1.3 Additional Information – Historical Energy Features Database	0	1	3	17
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	0	0	5
1.6 Potentially Infilled Land	0	3	14	26
Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	2	1
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	1	3	3
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	2	2	0	5
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0



				LOCATION INTE	LLIGENCE
On-site	0-50m	51-250	251-500	501-1000	1000- 1500
0	0	0	0	0	Not searched
0	0	0	0	1	2
0	0	0	0	0	0
0	0	0	0	0	0
0	0	1	3	Not searched	Not searched
0	0	0	1	3	0
On-site	Ž	0-50m	51-25	0 2	51-500
0		2	13	No	t searched
0		0	0		2
0		0	0		0
0	,	0	0		0
		Y	es		
		0-5	00m		
		Υ	es		
		Y	es		
On-site	0-50m	51-250	251-500	501-1000	1000- 2000
0	0	0	0	0	1
0	0	0	0	0	0
	0	0	0	0	•
0	0				0
0	0	0	0	Not searched	
0					Not searched
0	0	0	0	Not searched	Not searched
	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	On-site 0-50m 51-250 251-500 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0



Section 6: Hydrogeology and Hydrology			0-50	00m		
6.9 Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	No	No	No	No
6.10 Detailed River Network entries within 500m of the site	9	3	15	36	Not searched	Not searched
6.11 Surface water features within 250m of the study site	Yes	Yes	Yes	Not searched	Not searched	Not searched
Section 7: Flooding						
7.1 Are there any Enviroment Agency Zone 2 floodplains within 250m of the study site?			Υ	es		
7.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site			Υ	es		
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?			Hi	gh		
7.4 Are there any Flood Defences within 250m of the study site?			٨	lo		
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	Yes					
7.6 Are there any areas used for Flood Storage within 250m of the study site?	No					
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	y Potential at Surface					
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?			Mod	erate		
Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000- 2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	0
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	1	11
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	5
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.8 Records of World Heritage Sites 8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0



Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000- 2000
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	3	0	4	0	1	0
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards	
9.1 What is the maximum risk of natural ground subsidence?	Moderate
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Low
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Very Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Negligible
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Moderate
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Low
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

Section 10: Mining	
10.1 Are there any coal mining areas within 75m of the study site?	No
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	Yes
10.3 Are there any brine affected areas within 75m of the study site?	No



Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

1. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

7. Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

Note: Maps

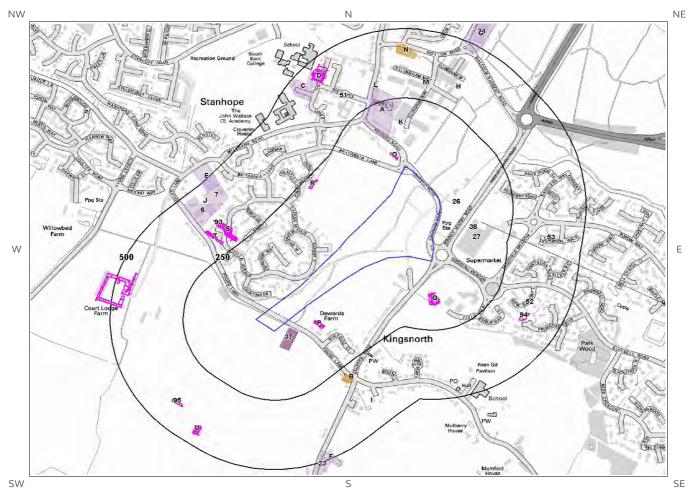
Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

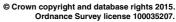
Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.



1. Historical Land Use









1. Historical Industrial Sites

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary:

ID	Distance [m]	Direction	Use	Date
1A	119	NW	Nursery	1906
2A	119	NW	Nursery	1896
3A	124	NW	Nursery	1872
4B	279	SE	Smithy	1896
5B	289	SE	Smithy	1906
6	379	NW	Unspecified Depot	1974
7	396	NW	Unspecified Depot	1993
8C	398	NW	Unspecified Depot	1993
9C	398	NW	Unspecified Depot	1974
10C	398	NW	Unspecified Depot	1987
11D	420	NW	Unspecified Heap	1896
12D	420	NW	Unspecified Heap	1906
13D	420	NW	Unspecified Heap	1938
14D	424	NW	Unspecified Heap	1872
15D	425	NW	Unspecified Heap	1955
16E	453	NW	Unspecified Warehouse	1993
17E	453	NW	Unspecified Warehouse	1987
18E	453	NW	Unspecified Warehouse	1974
19F	462	S	Corn Mill	1872
20F	464	S	Unspecified Mill	1906
21F	465	S	Unspecified Mill	1896
22G	468	NE	Unspecified Depot	1984
23	477	S	Windmill	1906
24	481	NE	Industrial Estate	1993
25G	486	NE	Unspecified Depot	1972

1.2 Additional Information - Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Report Reference: GS-2646756 Client Reference: PO_2000434707

12



Records of historical tanks within 500m of the search boundary:

11

ID	Distance (m)	Direction	Use	Date
26	55	E	Unspecified Tank	1897
27	145	Е	Unspecified Tank	1999
28H	332	NE	Tanks	1992
29H	333	NE	Tanks	1985
30H	333	NE	Tanks	1992
31H	334	NE	Tanks	1994
32H	334	NE	Tanks	1999
331	407	SE	Unspecified Tank	1897
341	407	SE	Unspecified Tank	1907
35J	437	NW	Unspecified Tank	1970
36J	438	NW	Unspecified Tank	1972

1.3 Additional Information - Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary:

21

ID	Distance (m)	Direction	Use	Date
37	21	SE	Gas Pressure Reducing Station	1993
38	124	E	Electricity Substation	1999
39K	155	N	Electricity Substation	1992
40K	156	N	Electricity Substation	1999
41B	273	SE	Electricity Substation	1986
42B	273	SE	Electricity Substation	1986
43L	301	N	Electricity Substation	1972
44L	301	N	Electricity Substation	1971
45L	302	N	Electricity Substation	1992
46L	302	N	Electricity Substation	1985
47L	303	N	Electricity Substation	1999
48M	306	N	Electricity Substation	1992
49M	306	N	Electricity Substation	1985
50M	307	N	Electricity Substation	1999
51	327	NW	Electricity Substation	1999
52	367	SE	Electricity Substation	1999
53	390	Е	Electricity Substation	1999
54D	427	NW	Electricity Substation	1972
55D	427	NW	Electricity Substation	1971



				LOCATION INTELLIGENCE
56D	427	NW	Electricity Substation	1992
57D	427	NW	Electricity Substation	1985

1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary:

0

Database searched and no data found.

1.5 Additional Information - Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary:

5

ID	Distance (m)	Direction	Use	Date
58B	275	SE	Garage 1986	
59B	276	SE	Garage 1986	
60B	276	SE	Garage 1971	
61N	393	N	Plant Service Depot 1970	
62N	394	N	Service Depot 1971	

1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site:

43

The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

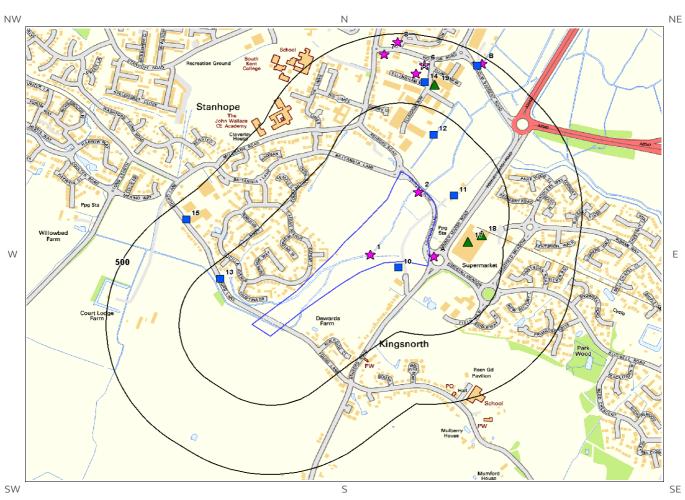
provided by Groun	lasarc.			
ID	Distance(m)	Direction	Use	Date
630	38	NW	Pond	1984
640	38	NW	Pond	1972
650	38	NW	Pond	1955
66P	59	SE	Pond	1974
67P	61	SE	Pond	1906
68P	61	SE	Pond	1896
69P	61	SE	Pond	1938
70Q	116	S	Pond	1938
71Q	116	S	Pond	1906
72Q	116	S	Pond	1896
73Q	116	S	Pond	1931



			EG.	SATION INTELLIGENCE
74Q	117	S	Pond	1872
75Q	119	S	Pond	1974
76Q	119	S	Pond	1955
77R	212	NW	Pond	1906
78R	212	NW	Pond	1938
79R	212	NW	Pond	1896
80S	264	NW	Ponds	1974
81S	266	NW	Ponds	1896
82S	266	NW	Ponds	1938
83S	266	NW	Ponds	1906
84S	268	NW	Ponds	1872
85S	274	NW	Ponds	1931
86S	275	NW	Ponds	1955
87T	285	NW	Pond	1938
88T	285	NW	Pond	1906
89T	285	NW	Pond	1896
90T	314	NW	Pond	1872
91T	317	NW	Pond	1955
92S	325	NW	Pond	1872
93	329	NW	Pond	1955
94	364	SE	Pond	1974
95	398	SW	Pond	1974
96D	420	NW	Unspecified Heap	1896
97D	420	NW	Unspecified Heap	1906
98D	420	NW	Unspecified Heap	1938
99D	424	NW	Unspecified Heap	1872
100D	425	NW	Unspecified Heap	1955
101U	425	SW	Pond	1955
102U	428	SW	Pond	1906
103D	431	NW	Pond	1955
104	441	W	Pond	1871
105D	447	NW	Pond	1872



2. Environmental Permits, Incidents and Registers Map



© Crown copyright and database rights 2015. Ordnance Survey license 100035207.





2. Environmental Permits, **Incidents and Registers**

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the formation:	ollowing
2.1.1 Records of historic IPC Authorisations within 500m of the study site:	
	0
Database searched and no data found.	
2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:	
	0
Database searched and no data found.	
2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters 500m of the study site:	s) within
	0
Database searched and no data found.	
2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:	
	C
Database searched and no data found.	Ü
2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:	
and make an are a construction of the study site.	0
Database searched and no data found.	0



2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

3

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details		
17	131	E	600547 139880	Address: Tesco Stores Limited, Park Farm, Kingsnorth, Ashford, Kent, TN23 3LU Process: trol Vapour Recovery Status: Current Permit Permit Type: Part B	Enforcement: No enforcements notified Date of Enforcement: No enforcements notified Comment: No enforcements notified	
18	168	E	600595 139904	Address: Prim Dry Cleaners, Shop Unit 1, Tesco Store, Moatfield Meadow, Kingsnorth, Ashford, Kent, TN23 3LU Process: Dry Cleaner Status: Current Permit Permit Type: Part B	Enforcement: No enforcements notified Date of Enforcement: No enforcements notified Comment: No enforcements notified	
19	332	N	600433 140448	Address: Mr P Vasallo, V & V Crushings, 93A Ellingham Industrial Estate, Ashford, Kent, TN23 6LZ Process: Concrete Crusher Status: Current Permit Permit Type: Part B	Enforcement: No enforcements notified Date of Enforcement: No enforcements notified Comment: No enforcements notified	

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

7

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details		
10	21	S	600310 139790	Address: NEW DOCTORS SURGERY, NEW DOCTORS SURGERY, KINGSNORTH, ASHFORD, KENT Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: P09037 Permit Version: 1	Receiving Water: Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 10/05/2000 Effective Date: 10-May-2000 Revocation Date: -	



ID	Distance (m)	Direction	NGR	Details			
11	73	NE	600500 140050	Address: KINGSNORTH VETINERY SURGERY, KINGSNORTH VETINERY SURGERY, ASHFORD ROAD, KINGSNORTH, ASHFORD, KENT, TN23 3EA Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: P21342 Permit Version: 1	Receiving Water: Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 05/04/2007 Effective Date: 05-Apr-2007 Revocation Date: -		
12	171	NE	600430 140270	Address: ELLINGHAM IND. ESTATE, ELLINGHAM IND. ESTATE, ELLINGHAM WAY, ASHFORD, KENT Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01061 Permit Version: 1	Receiving Water: Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 23/07/1987 Effective Date: 23-Jul-1987 Revocation Date: 01/04/2005		
13	197	NW	599699 139750	Address: WESTHAWK FARM DEVELOPMENT, WESTHAWK FARM DEVELOPMENT, ASHFORD ROAD, ASHFORD, KENT Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: P07693 Permit Version: 1	Receiving Water: Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 07/10/1999 Effective Date: 07-Oct-1999 Revocation Date: -		
14	335	N	600400 140460	Address: H RIPLEY & CO, TENNYSON ROAD, H RIPLEY & CO, TENNYSON ROAD, ELLINGHAM INDUSTRIAL ESTATE, ASHFORD, KENT, TN23 6LR Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: P21039 Permit Version: 1	Receiving Water: Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 08/08/2006 Effective Date: 08-Aug-2006 Revocation Date: 24/11/2008		
15	437	NW	599583 139964	Address: C P DYNES PLANT HIRE LTD, POUND LAN, C P DYNES PLANT HIRE LTD, POUND LANE, KINGSNORTH, ASHFORD, KENT, TN223 3JE Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: P20453 Permit Version: 1	Receiving Water: Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 25/01/2005 Effective Date: 25-Jan-2005 Revocation Date: -		
16B	462	NE	600580 140520	Address: H RIPLEY & CO, TENNYSON ROAD, ELLINGHAM INDUSTRIAL ESTATE, ASHFORD, KENT, TN23 6LR Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: NPSWQD006056 Permit Version: 1	Receiving Water: Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 14/01/2009 Effective Date: 14-Jan-2009 Revocation Date: -		

2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

Database searched and no data found.



2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:

0

Database searched and no data found.

2.3 Environment Agency Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

9

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details		
1	0	On Site	600212 139837	Incident Date: 11-Mar-2002 Incident Identification: 63099 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)	
2	0	On Site	600377 140063	Incident Date: 14-Mar-2002 Incident Identification: 64131 Pollutant: Contaminated Water Pollutant Description: Urban Run-Off	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)	
3A	14	E	600430 139830	Incident Date: 27-Apr-2002 Incident Identification: 75152 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)	
4A	14	E	600430 139830	Incident Date: 27-Apr-2002 Incident Identification: 75152 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)	
5	360	N	600368 140492	Incident Date: 12-Sep-2002 Incident Identification: 107453 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)	
6	395	N	600398 140522	Incident Date: 15-Jul-2002 Incident Identification: 91495 Pollutant: Contaminated Water Pollutant Description: Firefighting Run- Off	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)	
7	431	N	600260 140562	Incident Date: 17-Oct-2002 Incident Identification: 115409 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)	

Report Reference: GS-2646756 Client Reference: PO_2000434707

20



ID	Distance (m)	Direction	NGR	Det	tails
8	471	N	600305 140606	Incident Date: 11-Jun-2002 Incident Identification: 84263 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
9B	477	NE	600595 140528	Incident Date: 11-Jan-2002 Incident Identification: 51853 Pollutant: Contaminated Water Pollutant Description: Urban Run-Off	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.

2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

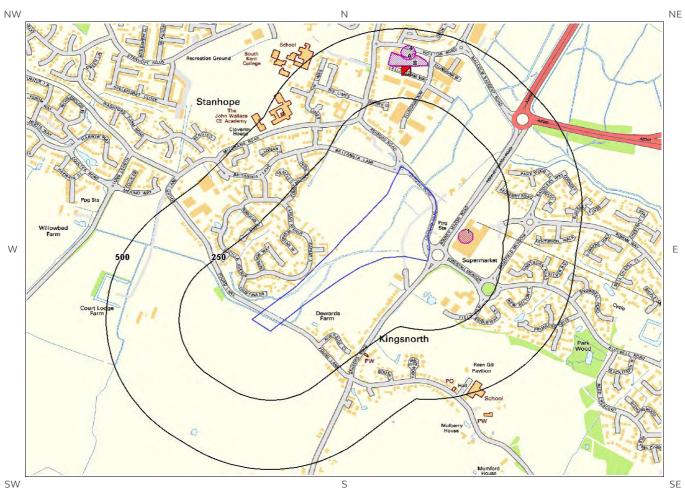
How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site?

0

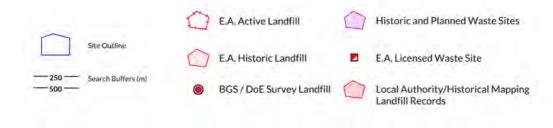
Database searched and no data found.



3. Landfill and Other Waste Sites Map



© Crown copyright and database rights 2015. Ordnance Survey license 100035207.





3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:

3

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details		
Not shown	899	N	600300 141100	Site Address: Court Wurtin, Ashford, Kent Waste Licence: Yes Site Reference: AS26 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 01-Jan-1976 Licence Surrendered: Licence Hold Address: - Operator: Ashford District Council First Recorded: - Last Recorded: -	
Not shown	1066	N	600500 141200	Site Address: Park Plc, Mortimer Close, Ashford, Kent Waste Licence: Yes Site Reference: AS27 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 01-Jan-1976 Licence Surrendered: Licence Hold Address: - Operator: - First Recorded: - Last Recorded: -	
Not shown	1403	N	599900 141600	Site Address: Halstow Way, Ashford Kent Waste Licence: - Site Reference: AS3 Waste Type: Inert, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: Ashford District Council First Recorded: - Last Recorded: 31-Dec-1962	

3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

0

Database searched and no data found.



3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

0

Database searched and no data found.

3.2 Other Waste Sites

3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

4

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR		Details	
1	98	E	600540 139884	Type of Site: Recycling Facility Site Address: Tesco Stores Ltd, Moatfield Meadow, Kingsnorth, ASHFORD, Kent, TN23 3LU	Planning Application Reference: 09/01481/AS Date: 22/02/2011	Further Details: Scheme comprises replacement of recycling facilities with new tomra automated recycling centre in new location. An application (ref: 09/01481/AS) for detailed planning permission was submitted to Ashford B.C. A detailed planning application has been submitted. Data Source: Historic Planning Application Data Type: Point
2A	365	Ν	600342 140524	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1985	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
3A	365	Ν	600342 140525	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1999	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
4	389	N	600343 140548	Type of Site: Waste Transfer Station (Conversion) Site Address: Wotton Road, ASHFORD, Kent, TN23 6LL	Planning Application Reference: 04/00526/AS/OP Date: -	Further Details: Scheme comprises change of use from business to waste transfer station with minor modifications to fenestration doors, site drainage, signage. An application (ref: 04/00526/AS/OP) for detailed planning permission was submitted to Ashford B.C. Data Source: Historic Planning Application Data Type: Point



3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

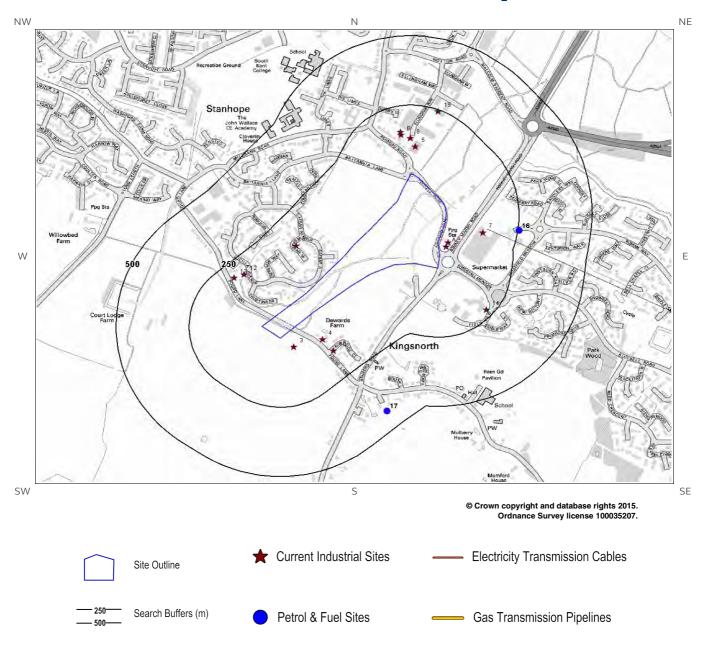
4

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details				
8	349	N 6003: N 1404:		Site Address: H Ripley & Co, Tennyson Road, Ellingham Farm Ind Est, Ashford, Kent, TN23 6LR Type: Metal Recycling Site (mixed MRS's) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: RIP001 EPR reference: EA/EPR/PP3894HC/V007 Operator: Mr Obed Ripley & Obediah Ripley Waste Management licence No: 19550 Annual Tonnage: 74999.0	Issue Date: 16/12/1996 Effective Date: - Modified: 14/09/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: H Ripley & Co Correspondence Address: -, -			
Not shown	814	N	600600 140900	Site Address: Unit D, Austin House, Wooten Road, Kingsnorth Industrial Est, Ashford, Kent, TN23 6LN Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PER001 EPR reference: - Operator: Personnel Hygiene Services Limited Waste Management licence No: 19543 Annual Tonnage: 0.0	Issue Date: 08/03/1993 Effective Date: - Modified: 19/04/2002 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Phs Ashford Correspondence Address: -, Western Industrial Estate, Caerphilly, Mid Glamorgan, CF83 1XH			
Not shown	872	N	600637 140948	Site Address: Unit D, Austin House, Wooton Road, Ashford, Kent, TN23 6LN Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PER001 EPR reference: EA/EPR/QP3698HW/V004 Operator: Personnel Hygiene Services Ltd Waste Management licence No: 19543 Annual Tonnage: 4999.0	Issue Date: 08/03/1993 Effective Date: - Modified: 11/10/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: P H S Ashford Correspondence Address: -, -			
Not shown	904	N	600631 140984	Site Address: Austen House, Unit C, Wooton Rd, Kingsnorth Ind Est, Ashford, Kent, TN23 6LN Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PHS001 EPR reference: EA/EPR/LP3898HV/A001 Operator: P H S Group Plc Waste Management licence No: 10320 Annual Tonnage: 4999.0	Issue Date: 10/10/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Austen House Correspondence Address: -, -			



4. Current Land Use Map





4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site:

15

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
1A	25	Е	Electricity Sub Station	600438 139874	TN23	Electrical Features	Infrastructure and Facilities
2A	32	Е	Pumping Station	600446 139889	TN23	Water Pumping Stations	Industrial Features
3	53	SE	Gas Pressure Reducing Station	599916 139511	TN23	Gas Features	Infrastructure and Facilities
4	94	SE	M Pest Control	600014 139538	Dennard Farm, Pound Lane, Kingsnorth Ashford, TN23 3EJ	Pest and Vermin Control	Contract Services
5	102	N	JDP	600333 140235	65-69 Ellingham Industrial Centre, Ellingham Way, Ashford, TN23 6JU	Pipelines	Industrial Features
6	131	N	Newtown Garage	600316 140265	Ellingham Industrial Centre, Ellingham Way, Ashford, TN23 6NF	Vehicle Repair, Testing and Servicing	Repair and Servicing
7	134	Е	Tank	600565 139925	TN23	Tanks (Generic)	Industrial Features
8	145	NW	Just Plasmas	599925 139877	2, Vespasian Way, Kingsnorth Ashford, TN23 3QX	Electrical Equipment Repair and Servicing	Repair and Servicing
9B	147	N	Brendan Keogh Construction	600283 140278	Ellingham Industrial Centre, Ellingham Way, Ashford, TN23 6NF	Civil Engineers	Engineering Services
10	150	SE	Electricity Sub Station	600053 139498	TN23	Electrical Features	Infrastructure and Facilities
11B	158	N	Electricity Sub Station	600282 140289	TN23	Electrical Features	Infrastructure and Facilities
12	185	NW	Electricity Sub Station	599747 139773	TN23	Electrical Features	Infrastructure and Facilities
13	198	NW	Pumping Station	599712 139761	TN23	Water Pumping Stations	Industrial Features
14	223	SE	Electricity Sub Station	600576 139646	TN23	Electrical Features	Infrastructure and Facilities
15	245	N	Haynes Brothers Ltd	600412 140362	73-74 Ellingham Industrial Centre, Ellingham Way, Ashford, TN23 6JZ	New Vehicles	Motoring



4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site:

2

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance (m)	Directio n	NGR	Company	Address	LPG	Status
16	255	E	600688 139931	Tesco	Tesco Ashford Park Farm, Moat Field Meadow, Moat Field Meadow, Park Farm, Ashford, Kent, TN23 3LU	No	Open
17	435	SE	600236 139279	Obsolete	Kingsnorth Filling Station, Ashford Road, Ashford Road, Pound Lane, Kingsnorth, Ashford, Kent, TN23 3EN	Not Applicable	Obsolete

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site:

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site:

0

 Ω

Database searched and no data found.



5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

5.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
RTD3	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]

5.3 Bedrock and Solid Geology

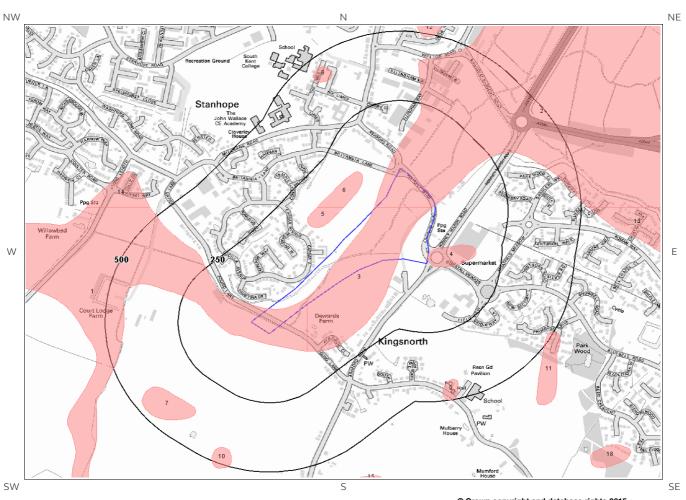
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type		
WC-MDST	WEALD CLAY FORMATION	MUDSTONE		

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)



6 Hydrogeology and Hydrology 6a. Aquifer Within Superficial Geology



© Crown copyright and database rights 2015 Ordnance Survey license 100035207.





6b. Aquifer Within Bedrock Geology and Abstraction Licenses

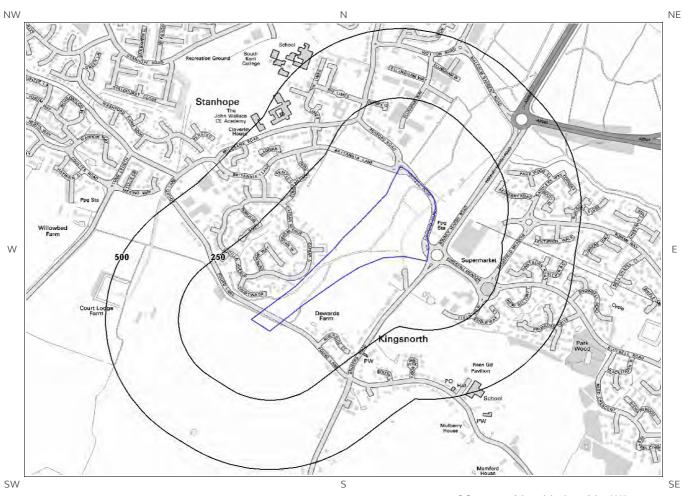


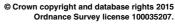
© Crown copyright and database rights 2015 Ordnance Survey license 100035207.

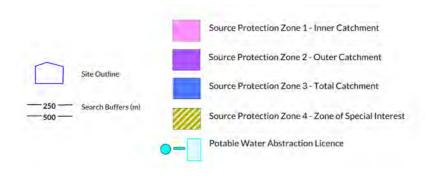




6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses

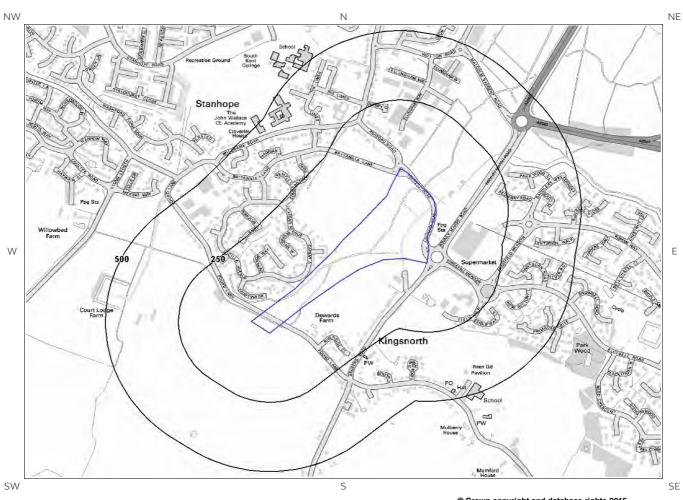


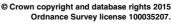


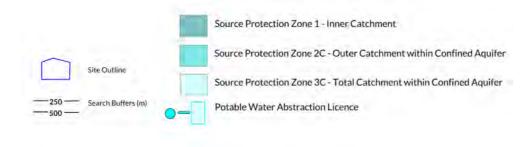




6d. Hydrogeology – Source Protection Zones within confined aquifer

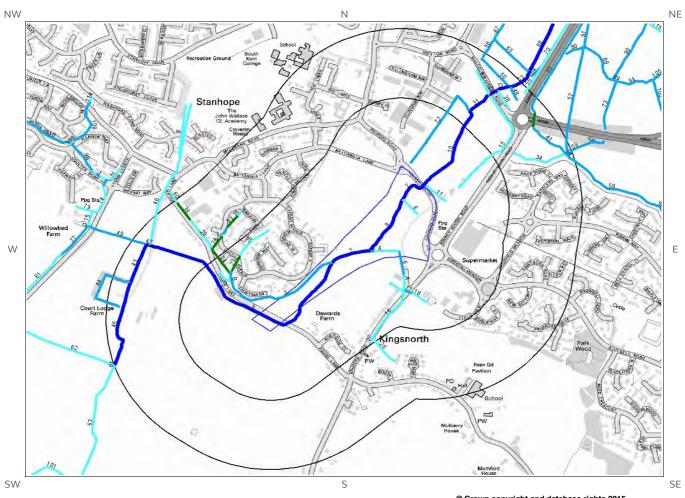


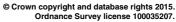


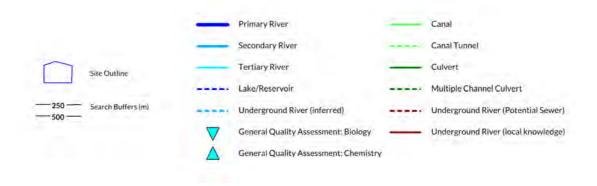




6e. Hydrology – Detailed River Network and River Quality









6. Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property?

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distanc e (m)	Direction	Designation	Description
1	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
3	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
5	80	NW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
6	82	NW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
7	364	SW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
8	406	NW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
9	425	S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
10	441	S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
11	486	SE	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
12	489	N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers



6.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distanc e (m)	Direction Designation		Description				
2	0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow				
3	0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow				
4	0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow				
5	172	NW	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow				

6.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site?

Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distanc e (m)	Direction	NGR	Details					
Not shown	1894	NW	598250 140660	Status: Historical Licence No: 9/40/03/0408/GR Details: General Farming & Domestic Direct Source: Southern Region Groundwater Point: Spring Collecting Chamber At Chilmington Green Fm, Gt. Chart Data Type: Point Name: Pullen Esq	Annual Volume (m³): 8545 Max Daily Volume (m³): 23.4 Original Application No: WR.1747 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/4/2008 Version End Date:				

6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site?

No

Database searched and no data found.



6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site?				
Database searched and no data found.				
6.6 Source Protection Zones	,			
Are there any Source Protection Zones within 500m of the study site?				
Database searched and no data found.				
	•			

6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site?

No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.



6.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency information on groundwater vulnerability and soil leaching potential within 500m of the study site?

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Minor Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.
0	On Site	Minor Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.
0	On Site	Minor Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.
334	W	Minor Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.
435	NW	Minor Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.

6.9 River Quality

Is there any	/ Fnvironment	Agency	/ information o	n river d	/tilaur	/ within	1500m	of the stud	v site?
13 CITCLE GILLY		MGCI IC	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	IIIVCI	4 a a t i t i	y	1300111	or the stad	y Jite.

No

6.9.1 Biological Quality:

Database searched and no data found.

6.9.2 Chemical Quality:

Database searched and no data found.

6.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site?

Yes

The following Detailed River Network records are represented on the Hydrology Map (6e):



ID	Distanc	Direction		Details
	e (m)		River Name: -	
1	0	On Site	Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
2	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
3	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
4	0	On Site	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
5	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
6	0	On Site	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
7	0	On Site	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
8	0	On Site	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
9	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
10	4	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
11	4	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
12	28	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
13A	66	S	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
14A	88	S	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15	91	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
16	117	S	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
17	117	S	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
18	123	S	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
19B	149	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined



ID	Distanc e (m)	Direction		Details
20B	149	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
21B	172	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
22B	172	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
23	179	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
24	181	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
25	205	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
26	235	SE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
27	235	SE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
28	283	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
29	283	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
30C	299	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
31	301	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
32C	303	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
33	314	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
34	317	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
35	321	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
36	390	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
37	390	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
38	405	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined



ID	Distanc e (m)	Direction		Details
39	411	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
40D	421	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
41	422	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
42	422	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
43	436	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
44	436	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
45	436	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
46	441	NW	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
47	441	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
48	446	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
49	452	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
50	459	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
51D	460	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
52	460	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
53	465	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
54	477	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
55	480	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
56	481	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
57	482	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined



ID	Distanc e (m)	Direction		Details
58	482	E	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
59	482	E	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
60	489	NW	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
61	498	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
62	499	W	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
63	499	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined



6.11 Surface Water Features

Are there any surface water features within 250m of the study site?

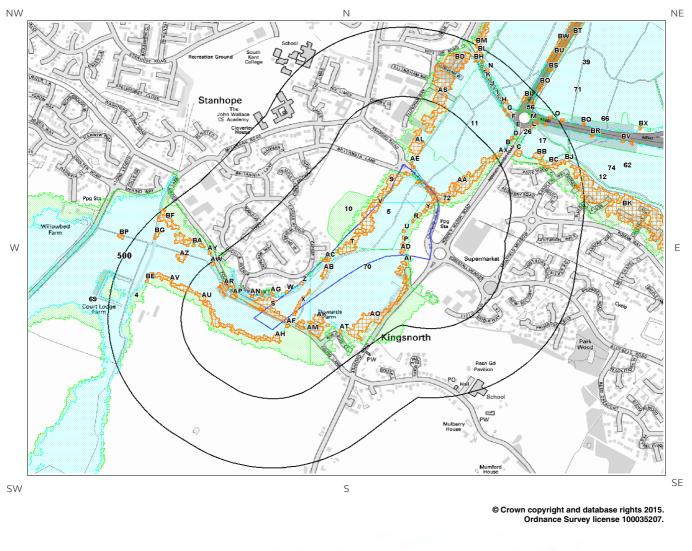
Yes

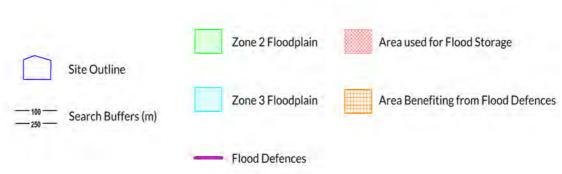
The following surface water records are not represented on mapping:

Distance (m)	Direction
0	On Site
2	NE
5	NE
23	Е
66	S
91	NE
111	S
123	S
162	S
174	NW
205	NW
227	NW
235	SE
235	SE
239	NW



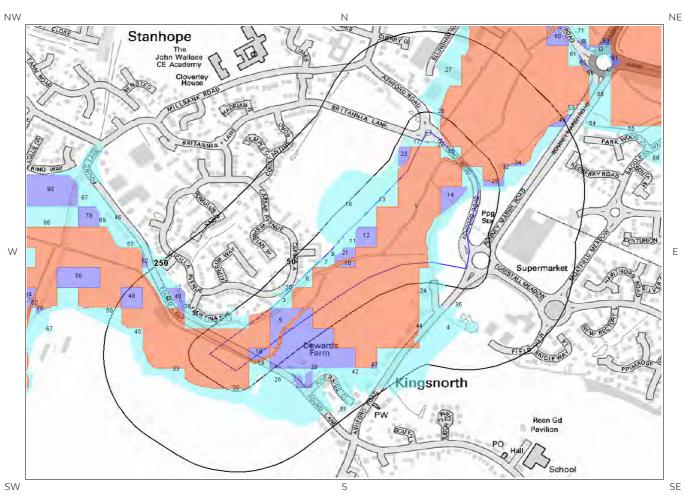
7a. Environment Agency Flood Map for Planning (from rivers and the sea)

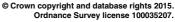


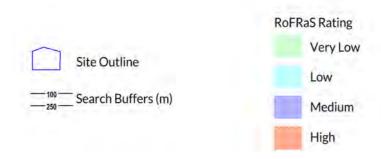




7b. Environment Agency Risk of Flooding from Rivers and the Sea (RoFRaS) Map









7 Flooding

7.1 River and Coastal Zone 2 Flooding

Is the site within 250m of an Environment Agency Zone 2 floodplain?

Yes

Environment Agency Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

ID	Distance (m)	Direction	Update	Туре
1A	0	On Site	18-Nov-2015	Zone 2 - (Fluvial /Tidal Models)
2A	0	On Site	18-Nov-2015	Zone 2 - (Fluvial /Tidal Models)
3A	0	On Site	18-Nov-2015	Zone 2 - (Fluvial /Tidal Models)
4	0	On Site	18-Nov-2015	Zone 2 - (Fluvial /Tidal Models)
5	0	On Site	18-Nov-2015	Zone 2 - (Fluvial /Tidal Models)
6Q	0	On Site	18-Nov-2015	Zone 2 - (Fluvial /Tidal Models)
7A	0	On Site	18-Nov-2015	Zone 2 - (Fluvial /Tidal Models)
8A	0	On Site	18-Nov-2015	Zone 2 - (Fluvial /Tidal Models)
9	0	On Site	18-Nov-2015	Zone 2 - (Fluvial /Tidal Models)
10	3	NW	18-Nov-2015	Zone 2 - (Fluvial /Tidal Models)
11	83	NE	18-Nov-2015	Zone 2 - (Fluvial /Tidal Models)

7.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency Zone 3 floodplain?

Ye

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a - Flood Map for Planning.

ID	Distance (m)	Direction	Update	Туре
1A	0	On Site	18-Nov-2015	Zone 3 - (Fluvial Models)



2A	0	On Site	18-Nov-2015	Zone 3 - (Fluvial Models)
3A	0	On Site	18-Nov-2015	Zone 3 - (Fluvial Models)
4	19	E	18-Nov-2015	Zone 3 - (Fluvial Models)
5	83	SE	18-Nov-2015	Zone 3 - (Fluvial Models)

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

What is the highest risk of flooding onsite?

High

The Environment Agency RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a High (1 in 30 or greater) chance of flooding in any given year.

Any relevant data within 250m is represented on the RoFRaS Flood map. Data to 50m is reported in the table below.

ID	Distance (m)	Direction	RoFRas flood Risk
1	0.0	On Site	High
2	0.0	On Site	Low
3	0.0	On Site	Low
4	0.0	On Site	Low
5	0.0	On Site	Medium
6	0.0	On Site	Low
7	0.0	On Site	Low
8	0.0	On Site	Medium
9	0.0	On Site	Low
10	0.0	On Site	Medium
11	0.0	On Site	Low
12	0.0	On Site	Medium
13	0.0	On Site	Low
14	0.0	On Site	Medium
15	0.0	On Site	Low
16	0.0	On Site	Low
17	0.0	On Site	Low
18	0.0	On Site	Medium
19	0.0	On Site	Low
20	0.0	On Site	Low
21	0.0	On Site	Medium
22	0.0	On Site	High
23	10.0	NW	Medium
24	10.0	S	Low



25	12.0	Е	Medium
26	13.0	SE	Low
27	14.0	NE	Low
28	38.0	NE	Medium
29A	40.0	NW	Low
30	43.0	S	Low
31A	46.0	NW	Low

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site?

Database searched and no data found.

No

7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site?

Yes

7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site?

No

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site?

Does this relate to Clearwater Flooding or Superficial Deposits Flooding? Superficial Deposits Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Potential at Surface

Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.



7.8 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result?

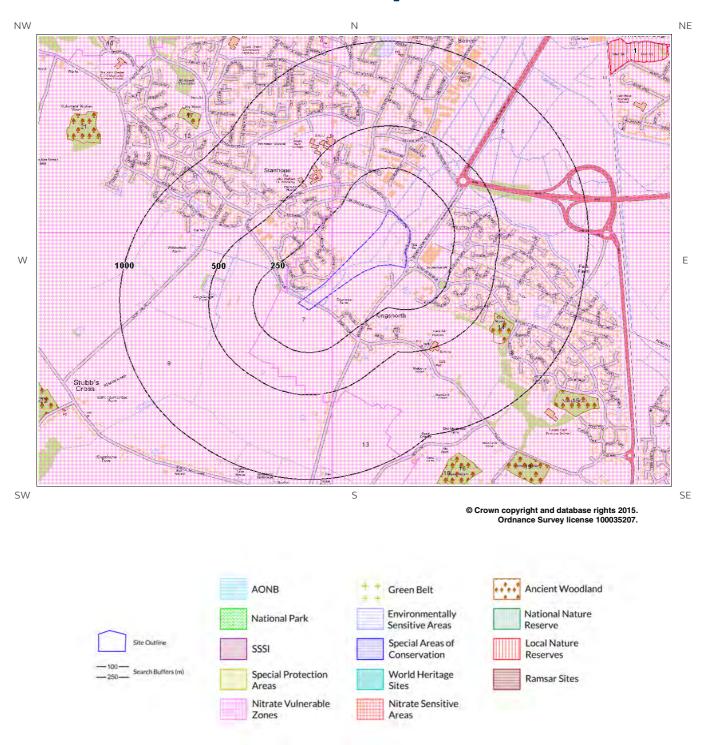
Moderate

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.



8. Designated Environmentally Sensitive Sites Map





8. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site?	Yes
8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:	
Database searched and no data found.	0
8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:	
Database searched and no data found.	0
8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:	
Database searched and no data found.	0
8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:	0
Database searched and no data found.	0
8.5 Records of Ramsar sites within 2000m of the study site:	0
Database searched and no data found.	0



8.6 Records of Ancient Woodland within 2000m of the study site:

12

The following records of Designated Ancient Woodland provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source	
14	567	SE	UNKNOWN	Ancient and Semi-Natural Woodland	
15	1132	SE	UNKNOWN	Ancient and Semi-Natural Woodland	
16	1135	S	UNKNOWN	Ancient and Semi-Natural Woodland	
17	1150	NW	UNKNOWN	Ancient and Semi-Natural Woodland	
18	1158	S	UNKNOWN	Ancient and Semi-Natural Woodland	
19	1254	SE	UNKNOWN	Ancient and Semi-Natural Woodland	
Not shown	1409	SW	UNKNOWN	Ancient Replanted Woodland	
21	1459	NW	UNKNOWN	Ancient and Semi-Natural Woodland	
22	1476	SW	UNKNOWN	Ancient and Semi-Natural Woodland	
Not shown	1620	SE	UNKNOWN	Ancient and Semi-Natural Woodland	
Not shown	1709	SW	UNKNOWN	Ancient and Semi-Natural Woodland	
Not shown	1912	S	UNKNOWN	Ancient and Semi-Natural Woodland	

8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

5

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
1	1453	NE	Ashford Green Corridors	Natural England
Not shown	1756	NE	Ashford Green Corridors	Natural England
Not shown	1860	N	Ashford Green Corridors	Natural England
Not shown	1961	NE	Ashford Green Corridors	Natural England
Not shown	1988	N	Ashford Green Corridors	Natural England



Database searched and no data found.
nmentally Sensitive Areas within 2000m of the study site:
Database searched and no data found.
s of Outstanding Natural Beauty (AONB) within 2000m of the
Database searched and no data found.
onal Parks (NP) within 2000m of the study site:
Database searched and no data found.
te Sensitive Areas within 2000m of the study site:
Database searched and no data found.

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
6	0	On Site	Existing	DEFRA
7	0	On Site	Existing	DEFRA
8	0	On Site	Existing	DEFRA



ID	Distance (m)	Direction	NVZ Name	Data Source
9	86	NW	Existing	DEFRA
10	172	NW	Existing	DEFRA
11	239	NW	Existing	DEFRA
12	242	NW	Existing	DEFRA
13	514	SE	Existing	DEFRA

8.14 Records of Green Belt land within 2000m of the study site:

Database searched and no data found.

0



9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a **Groundsure GeoInsight**, available from **our website**. The following information has been found:

9.1.1 Shrink Swell

What is the maximum Shrink-Swell** hazard rating identified on the study site?

Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.

9.1.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

9.1.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site?

Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

^{*} This indicates an automatically generated 50m buffer and site.



9.1.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site?

Moderate

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build Ö consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property ×°ossible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

9.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

9.1.6 Running Sand

What is the maximum Running Sand** hazard rating identified on the study site?

Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build Ö consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property Ö no significant increase in insurance risk due to running sand problems is likely.

9.2 Radon

9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

Report Reference: GS-2646756 Client Reference: PO_2000434707

56

^{*} This indicates an automatically generated 50m buffer and site.



9.2.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing

ones as described in publication BR211 by the Building Research Establishment?

No radon protective measures are necessary.



10. Mining

10.1 Coal Mining

Are there any coal mining areas within 75m of the study site?

No

Database searched and no data found.

10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary?

Yes

The following non-coal mining information is provided by the BGS:

Distance (m)	Direction	Name	Commodity	Assessment of likelihood
0.0	On Site	Not available	Iron Ore	Rare and localised small scale mining may have occurred.
0.0	On Site	Not available	Iron Ore	Rare and localised small scale mining may have occurred.
0.0	On Site	Not available	Iron Ore	Rare and localised small scale mining may have occurred.

Past underground mine workings may occur. The rock types present in these areas are such that small mineral veins may be present on which it is possible that small scale mining has been undertaken and/or it is possible that limited underground extraction of other materials may have occurred. All such occurrences are likely to be of minor localised extent and infrequent. It should be noted, however, that there is always the possibility of the existence of other sub-surface excavations, such as wells, cess pits, follies, air raid shelters/bunkers and other military structures etc. that could affect surface ground stability but which are outside the scope of this dataset. However, if in a coalfield area you should still consider a Coal Authority mining search for the area of interest.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? Guidance: No Guidance Required.

No



Contact Details

Groundsure Helpline

Telephone: 08444 159 000 info@groundsure.com



Geological Survey

Environment

NATURAL ENVIRONMENT RESEARCH COUNCIL

British Geological Survey Enquiries

Kingsley Dunham Centre Keyworth, Nottingham NG12 5GG Tel: 0115 936 3143. Fax: 0115 936 3276. Email:

Web:www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries:

enquiries@bgs.ac.uk

Environment Agency

National Customer Contact Centre, PO Box 544 Rotherham, S60 1BY Tel: 08708 506 506

Web:www.environment-agency.gov.uk
Email:enquiries@environment-agency.gov.uk

Public Health England

Public information access office Public Health England, Wellington House 133-155 Waterloo Road, London, SE1 8UG www.gov.uk/phe

Email:enquiries@phe.gov.uk
Main switchboard: 020 7654 8000



British

Public Health England

The Coal Authority

200 Lichfield Lane Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5

www.coal.gov.uk



Ordnance Survey

Adanac Drive, Southampton SO16 0AS Tel: 08456 050505



Local Authority

Authority: Ashford Borough Council Phone: 01233 331 111 Web: http://www.ashford.gov.uk/ Address: Civic Centre, Tannery Lane, Ashford, Kent, TN23 1PL

Gemapping PLC

Virginia Villas, High Street, Hartley Witney, Hampshire RG27 8NW Tel: 01252 845444





Acknowledgements: Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, Natural England who retain the Copyright and Intellectual Property Rights for the data.

PointX © Database Right/Copyright, Thomson Directories Limited © Copyright Link Interchange Network Limited © Database Right/Copyright and Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028]. This report has been prepared in accordance with the Groundsure Ltd standard Terms and Conditions of business for work of this nature.

Standard Terms and Conditions

1 Definitions

In these terms and conditions unless the context otherwise requires:

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with Groundsure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

(i) information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by Groundsure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between Groundsure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

"Third Party Data Provider" means any third party providing Third Party Content to Groundsure.

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fees" has the meaning set out in clause 5.1.

"Groundsure" means Groundsure Limited, a company registered in England and Wales under number 03421028.

"Groundsure Materials" means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.

"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 OAS, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

 $\mbox{\bf ``Residential''}$ means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

"Services" means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause 2.6.

"Site" means the area of land in respect of which the Client has requested Groundsure to provide the Services.

"Third Party Content" means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from Groundsure and on the website (www.Groundsure.com) and forming part of this Contract.

2 Scope of Services, terms and conditions, requests for insurance and quotations

- 2.1 Groundsure agrees to provide the Services in accordance with the Contract.
- $2.2\ \mbox{Groundsure}$ shall exercise reasonable skill and care in the provision of the Services.
- 2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of Groundsure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefor. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure. Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

3 The Client's obligations

3.1The Client shall comply with the terms of this Contract and

- (i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and
- (ii) be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to Groundsure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

4 Reliance

4.1The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,

(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),

(iv) the first purchaser or first tenant of the Site, and

(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by Groundsure. Any party considering such Reports and Services does so at their own risk.

5 Fees and Disbursements

5.1Groundsure shall charge and the Client shall pay fees at the rate and

frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

- 5.2 The Client shall pay all outstanding Fees to Groundsure in full without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.
- 5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

6 Intellectual Property and Confidentiality

6.1 Subject to

- (i) full payment of all relevant Fees and
- (ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the Groundsure Materials.
- 6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.
- 6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.
- 6.4 The Client shall, and shall procure that any recipients of the Groundsure Materials shall:
- (i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to Groundsure or any third party from the Services;
- (ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;
- (iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);
- (iv) not combine the Services with or incorporate such Services into any other information data or service;
- (v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);
- (vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and
- (vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,
- 6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.
- 6.6 The Client shall procure that any person to whom the Services are made available shall notify Groundsure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

7.Liability: Particular Attention Should Be Paid To This Clause

- 7.1 This Clause 7 sets out the entire liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:
 - (i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or

subcontractors;

- (ii) any use made of the Reports, Services, Materials or any part of them; and
- (iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.
- 7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.
- 7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.
- 7.4 Groundsure shall not be liable for
 - (i) loss of profits;
 - (ii) loss of business;
 - (iii) depletion of goodwill and/or similar losses;
 - (iv) loss of anticipated savings;
 - (v) loss of goods;
 - (vi) loss of contract;
 - (vii) loss of use;
 - (viii) loss or corruption of data or information;
 - (ix) business interruption;
- (x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;
- (xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;
- (xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;
- $\mbox{(\sc xiii)}$ loss or damage to a computer, software, modem, telephone or other property; and
- (xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.
- 7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.
- 7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

8 Groundsure's right to suspend or terminate

- 8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.
- 8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:
- (i) the Client fails to pay any sum due to Groundsure within 30 days of the Payment Date; or
- (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
- (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
- (iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

9. Client's Right to Terminate and Suspend

- 9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.
- 9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

- (i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon Groundsure's acceptance of the Order; and
- (ii) the Reports and/or Mapping provided under this Contract are
 - (a) supplied to the Client's specification(s) and in any event $% \left(x\right) =\left(x\right) +\left(x\right) +\left($
 - (b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

- 10.1 Upon termination of the Contract:
- (i) Groundsure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and
- (ii) the Client shall pay to Groundsure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

11 Anti-Bribery

- 11.1 The Client warrants that it shall:
- (i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery $Act\ 2010$;
- (ii) comply with such of Groundsure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and
- (iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.
- 11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

12 General

- 12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.
- 12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through Groundsure.
- 12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of Groundsure.
- 12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.
- 12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.
- 12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
- 12.7 Groundsure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:
- (i) the Client or Beneficiary's failure to provide facilities, access or information:
 - (ii) fire, storm, flood, tempest or epidemic;
 - (iii) Acts of God or the public enemy;
 - (iv) riot, civil commotion or war;
 - (v) strikes, labour disputes or industrial action;
 - (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
 - (viii) changes in law; or
 - (ix) any other reason beyond Groundsure's reasonable control.

In the event that Groundsure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.

- 12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.
- 12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.
- 12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.
- 12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.
- 12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.
- 12.13 Groundsure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.
- 12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner. In the event you are not satisfied with Groundsure's complaints handling process or you are unable to resolve the complaint, at your discretion you may refer the complaint to The Property Ombudsman Scheme at the following URL/email: website www.tpos.co.uk or email: admin@tpos.co.uk
- 12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law. © Groundsure Limited June 2013



Amey OW Ltd

GRANT THORNTON UK LLP, THE EXPLORER BUILDING, FLEMING WAY, CRAWLEY, RH10 9GT

Groundsure Reference:

GS-2646757

Your Reference: PO_2000434707

Report Date 11 Dec 2015

Report Delivery Email - pdf

Method:

Groundsure Geoinsight

Address: Kingsnorth strategic link, Ashford, TN23 3LU

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the Groundsure Geoinsight as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director **Groundsure Limited**

Enc.

Groundsure Geoinsight



Groundsure Geoinsight

Address: Kingsnorth strategic link, Ashford, TN23 3LU

Date: 11 Dec 2015

Reference: GS-2646757

Client: Amey OW Ltd

NW NE



SW SE

Aerial Photograph Capture date: 27-May-2012 Grid Reference: 600199,139869

Site Size: 9.93ha



Contents Page

Overview of Findings	5
1 Geology	8
1.1 Artificial Ground Map	8
1 Geology	9
1.1 Artificial Ground	
1.1.1Artificial/ Made Ground	
1.1.2 Permeability of Artificial Ground	
1.2 Superficial Deposits and Landslips Map	
1.2 Superficial Deposits and Landslips	
1.2.1 Superficial Deposits/ Drift Geology	
1.2.3 Landslip	
1.2.4 Landslip Permeability	
1.3 Bedrock and Faults Map	
1.3 Bedrock, Solid Geology & Faults	14
1.3.1 Bedrock/ Solid Geology	
1.3.2 Permeability of Bedrock Ground	
1.4 Radon Data	
1.4.1 Radon Affected Areas	
1.4.2 Radon Protection	
2 Ground Workings Map	16
2 Ground Workings	17
2.1 Historical Surface Ground Working Features derived from Historical Mapping	17
2.2 Historical Underground Working Features derived from Historical Mapping	18
2.3 Current Ground Workings	18
3 Mining, Extraction & Natural Cavities Map	19
3 Mining, Extraction & Natural Cavities	20
3.1 Historical Mining	
3.2 Coal Mining	
3.3 Johnson Poole and Bloomer	
3.4 Non-Coal Mining	
3.5 Non-Coal Mining Cavities	
3.6 Natural Cavities	
3.7 Brine Extraction	21
3.8 Gypsum Extraction	21
3.9 Tin Mining	21
3.10 Clay Mining	22
4 Natural Ground Subsidence	23
4.1 Shrink-Swell Clay Map	
4.2 Landslides Map	
4.3 Ground Dissolution Soluble Rocks Map	
4.4 Compressible Deposits Map	
4.5 Collapsible Deposits Map	27
4.6 Running Sand Map	
4 Natural Ground Subsidence	
4.1 Shrink-Swell Clays	
4.2 Landslides	
4.3 Ground Dissolution of Soluble Rocks	



4.4 Compressible Deposits	30
4.5 Collapsible Deposits	31
4.6 Running Sands	
5 Borehole Records Map	34
5 Borehole Records	35
6 Estimated Background Soil Chemistry	36
7 Railways and Tunnels Map	37
7 Railways and Tunnels	38
7.1 Tunnels	38
7.2 Historical Railway and Tunnel Features	38
7.3 Historical Railways	39
7.4 Active Railways	39
7.5 Railway Projects	



Overview of Findings

The Groundsure Geoinsight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1:Geology						
1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made beneath the study site?	.1.1 Is there any Artificial Ground/ Made Ground present eneath the study site?				
	1.1.2 Are there any records relating to per ground within the study site* boundary?	rmeability of	artificial	No		
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift beneath the study site?	t Geology pre	esent	Yes		
Landslips	1.2.2 Are there any records relating to per superficial geology within the study site b	,		Yes		
	1.2.3 Are there any records of landslip wit site boundary?	thin 500m of	the study	No		
	1.2.4 Are there any records relating to per within the study site boundary?	rmeability of	landslips	No		
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Ge study site* see the detailed findings section		th the			
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?			Yes		
	1.3.3 Are there any records of faults withi site boundary?	n 500m of th	e study	No		
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?			The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level		
	1.4.2 Is the property in an area where Rad Measures are required for new properties existing ones as described in publication E Research Establishment?	or extension	s to	No radon prot necessary	tective measu	res are
Section 2: Ground \	Vorkings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping		0	3	13	Not Searched	Not Searched
2.2 Historical Undergro	ound Workings from Small Scale Mapping	0	0	0	0	0
2.3 Current Ground Wo	orkings	0	0	0	0	0

Report Reference: GS-2646757

PO 2000434707



Section 3:Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	0	0
3.2 Coal Mining	0	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	3	0	1	0	0
3.5 Non-Coal Mining Cavities	0	0	0	0	0
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0
Section 4:Natural Ground Subsidence On-site					
4.1 Shrink Swell Clay	Low				
4.2 Landslides	Very Low				
4.3 Ground Dissolution of Soluble Rocks	Neglig	ible			
4.4 Compressible Deposits	Moder	ate			
4.5 Collapsible Deposits	Very L	OW			
4.6 Running Sand	Low	1	,		
Section 5:Borehole Records	On-site 0-50m		51-250		
5 BGS Recorded Boreholes	0	0	2		
Section 6:Estimated Background Soil Chemistry	On-site	0-50m	51-250		
6 Records of Background Soil Chemistry	10	5	13		
Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500	
7.1 Tunnels	0	0	0	Not Searched	
7.2 Historical Railway and Tunnel Features	0	0	0	Not Searched	
7.2 Historical Dailways		0	0	Not Searched	
7.3 Historical Railways	0	0	O	Not searched	



Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500	
7.5 Railway Projects	0	0	0	0	



1 Geology

1.1 Artificial Ground Map





1 Geology1.1 Artificial Ground

1.1.1Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:305

Are there any records of Artificial/Made Ground within 500m of the study site boundary?

No

Database searched and no data found.

1.1.2 Permeability of Artificial Ground

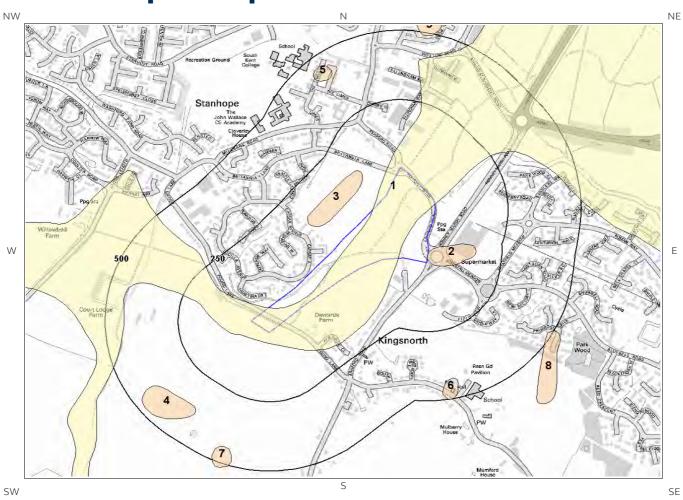
Are there any records relating to permeability of artificial ground within the study site boundary?

No

Database searched and no data found.



1.2 Superficial Deposits and Landslips Map



Superficial Deposits and Landslips Legend © Crown copyright and database rights 2015. Ordnance Survey license 100035207.

Site Outline

______ Search Buffers (m)



1.2 Superficial Deposits and Landslips

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
2	0.0	On Site	RTD3	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
3	80.0	NW	RTD3	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
4	364.0	SW	RTD3	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
5	406.0	NW	RTD3	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
6	425.0	S	RTD3	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
7	441.0	S	RTD3	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
8	486.0	SE	RTD3	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
9	489.0	N	RTD3	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]

1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	High	Very Low
0.0	On Site	Intergranular	High	Very Low
0.0	On Site	Intergranular	High	Very Low
0.0	On Site	Intergranular	Very High	High



1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary?

No

Database searched and no data found.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site** boundary?

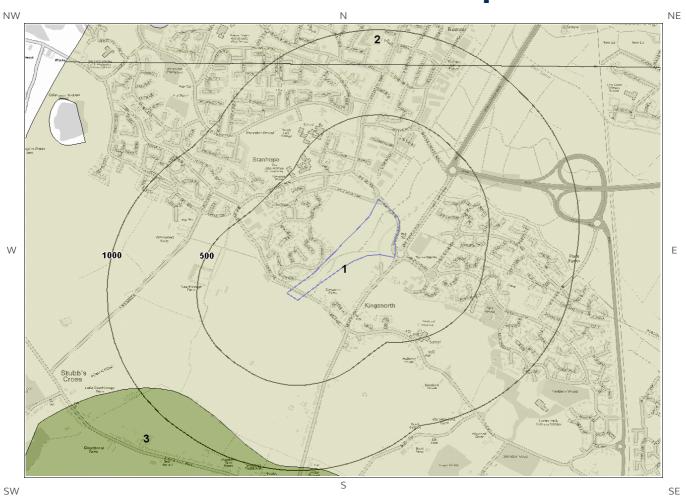
No

Database searched and no data found.

^{*} This includes an automatically generated 50m buffer zone around the site



1.3 Bedrock and Faults Map



Bedrock and Faults Legend

© Crown copyright and database rights 2015. Ordnance Survey license 100035207.





1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:305

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/ Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	WC-MDST	Weald Clay Formation - Mudstone	Barremian / Hauterivian

1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site* boundary?

Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	Low	Very Low
0.0	On Site	Fracture	Low	Very Low
0.0	On Site	Fracture	Low	Very Low

1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary?

No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

Report Reference: GS-2646757 Client Reference: PO_2000434707

14

 $^{^{\}star}$ $\,\,$ This includes an automatically generated 50m buffer zone around the site



1.4 Radon Data

1.4.1 Radon Affected Areas

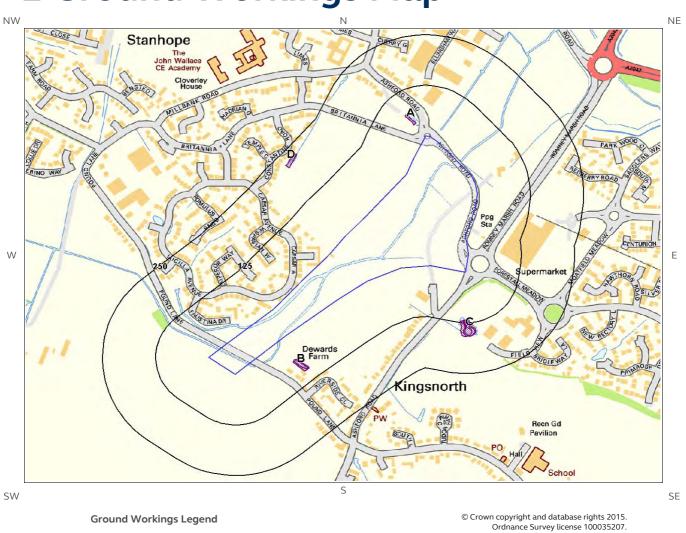
Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level

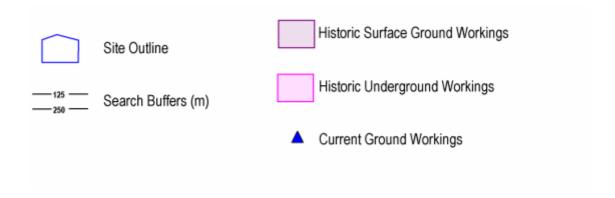
1.4.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary



2 Ground Workings Map







2 Ground Workings

2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

Are there any Historical Surface Ground Working Features within 250m of the study site boundary?

The following Historical Surface Ground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
1A	38.0	NW	600282 140173	Pond	1984
2A	38.0	NW	600282 140173	Pond	1972
3A	38.0	NW	600282 140173	Pond	1955
4B	59.0	SE	600024 139566	Pond	1974
5B	61.0	SE	600027 139569	Pond	1938
6B	61.0	SE	600027 139569	Pond	1906
7В	61.0	SE	600027 139569	Pond	1896
8C	116.0	S	600423 139660	Pond	1938
9C	116.0	S	600423 139660	Pond	1906
10C	116.0	S	600423 139660	Pond	1896
11C	117.0	S	600420 139658	Pond	1872
12C	119.0	S	600413 139657	Pond	1974
13C	119.0	S	600413 139657	Pond	1955
14D	212.0	NW	600002 140072	Pond	1896
15D	212.0	NW	600002 140072	Pond	1938
16D	212.0	NW	600002 140072	Pond	1906



2.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the Groundsure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary?

No

Database searched and no data found.

2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

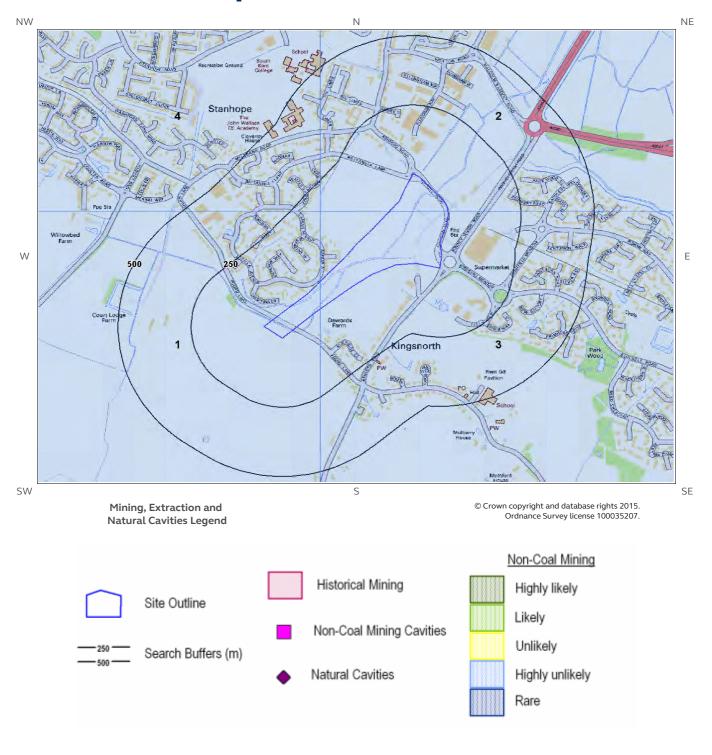
Are there any BGS Current Ground Workings within 1000m of the study site boundary?

No

Database searched and no data found.



3 Mining, Extraction & Natural Cavities Map





3 Mining, Extraction & Natural Cavities

3.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary?

No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

3.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary?

Yes

The following non-coal mining information is provided by the BGS:

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	0.0	On Site	Not available	Iron Ore	Rare and localised small scale mining may have occurred.
2	0.0	On Site	Not available	Iron Ore	Rare and localised small scale mining may have occurred.
3	0.0	On Site	Not available	Iron Ore	Rare and localised small scale mining may have occurred.
4	172.0	NW	Not available	Iron Ore	Rare and localised small scale mining may have occurred.



3.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled "Review of mining instability in Great Britain, 1990" PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary?

Nο

Database searched and no data found.

3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary?

Nο

Database searched and no data found.

3.7 Brine Extraction

This data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary?

No

Database searched and no data found.

3.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary?

No

Database searched and no data found.

3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level.

Are there any Tin Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.



3.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

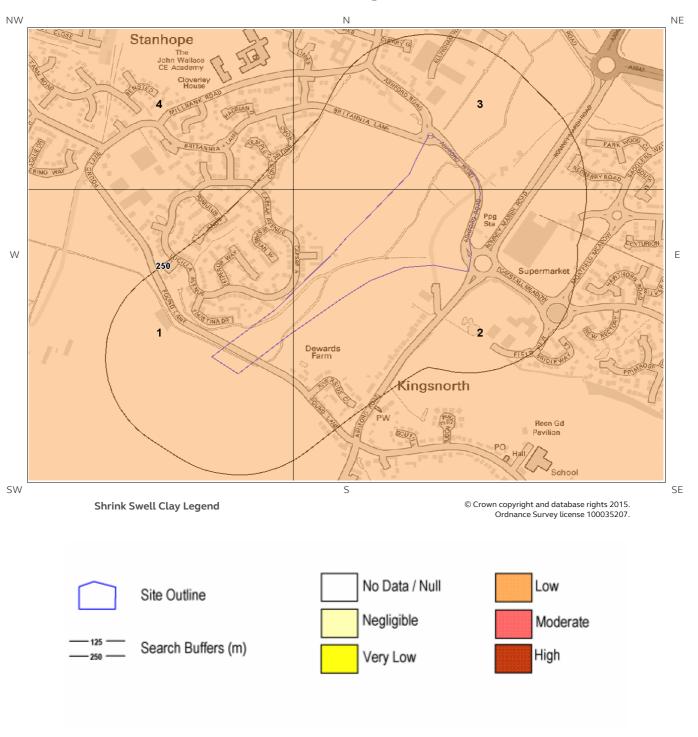
Are there any Clay Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

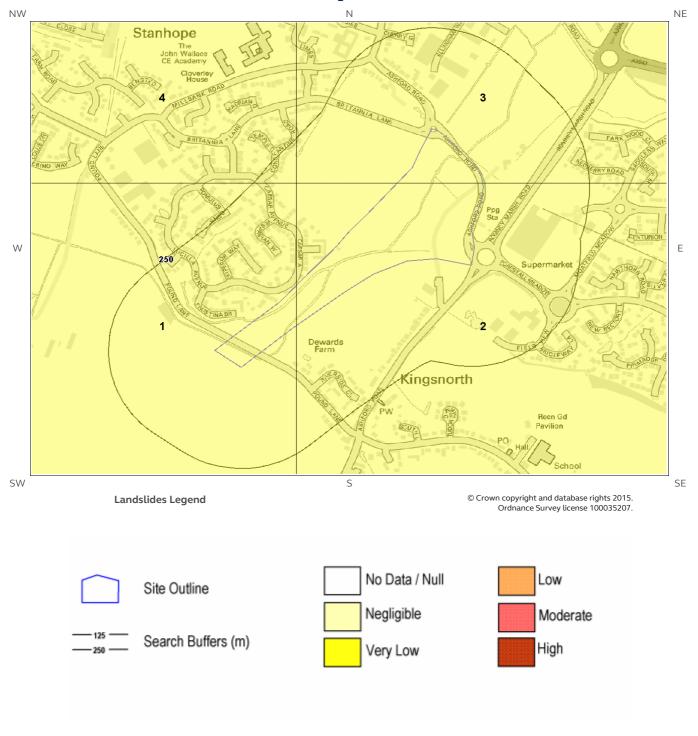


4 Natural Ground Subsidence 4.1 Shrink-Swell Clay Map



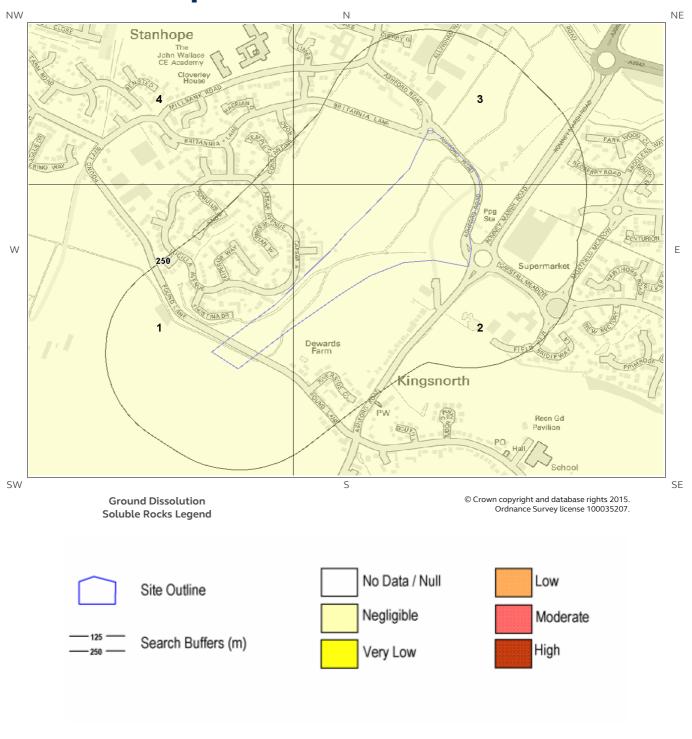


4.2 Landslides Map



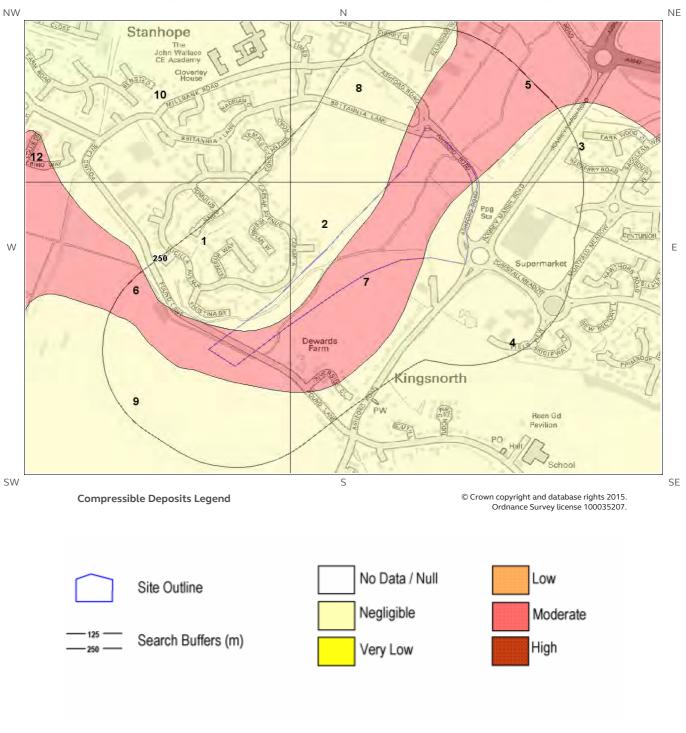


4.3 Ground Dissolution Soluble Rocks Map



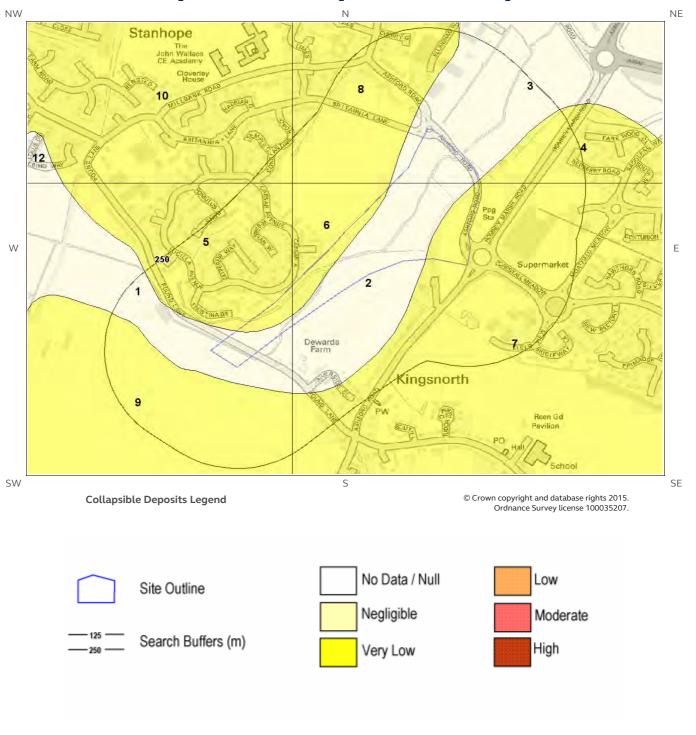


4.4 Compressible Deposits Map



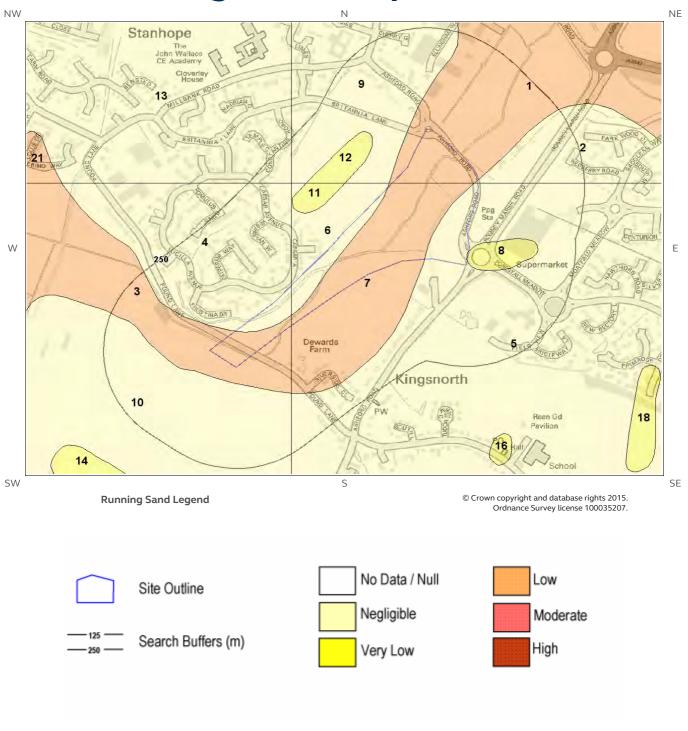


4.5 Collapsible Deposits Map





4.6 Running Sand Map





4 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site** boundary? Moderate

4.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details				
1	0.0	On Site	Low	Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.				
2	0.0	On Site	Low	Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.				
3	0.0	On Site	Low	Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.				

4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

^{*} This includes an automatically generated 50m buffer zone around the site



ID	Distance (m)	Direction	Hazard Rating	Details				
2	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.				
3	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.				

4.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details					
1	0.0	0.0 On Site Negligible		Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due t soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.					
2	0.0	On Site	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.					
3	0.0	On Site	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.					

4.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details					
1	0.0	On Site	No indicators for compressible ground identified. No special avoid problems due to compressible ground. No special grorequired, and increased construction costs or increased finance due to potential problems with compressible ground identified. No special avoid problems due to compressible ground identified. No special avoid problems due to compressible ground identified. No special avoid problems due to compressible ground identified. No special avoid problems due to compressible ground identified. No special avoid problems due to compressible ground identified. No special avoid problems due to compressible ground identified. No special avoid problems due to compressible ground identified. No special avoid problems due to compressible ground. No special ground identified avoid problems due to compressible ground. No special ground identified avoid problems due to compressible ground identified avoid problems due to compressible ground identified avoid problems due to potential problems with compressible ground identified avoid problems due to potential problems with compressible ground identified avoid problems with compressible ground identified avoid problems with a problems with a problems avoid problems with a problem avoid problems with a problem avoid problems avoid problems with a problem avoid problems avoid						
2	0.0	On Site	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.					
3	0.0	On Site	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.					
4	0.0	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.							



ID	Distance (m)	Direction	Hazard Rating	Details
5	0.0	On Site	Moderate	Significant potential for compressibility problems. Do not drain, load or de-water ground near the property without technical advice. For new build, consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property, possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.
6	0.0	On Site	Moderate	Significant potential for compressibility problems. Do not drain, load or de-water ground near the property without technical advice. For new build, consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property, possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.
7	0.0	On Site	Moderate	Significant potential for compressibility problems. Do not drain, load or de-water ground near the property without technical advice. For new build, consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property, possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.
8	6.0	NW	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.
9	38.0	S	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.

4.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

ID	Distance (m)	e Direction	Hazard Rating	Details				
1	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.				
2	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to a problems due to collapsible deposits. No special ground investigation requireceased construction costs or increased financial risk due to potential promits with collapsible deposits.				
3	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.				
4	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.				
5	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.				
6	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.				



ID	Distance (m)	Direction	Hazard Rating	Details
7	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
8	6.0	NW	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
9	38.0	S	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

4.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

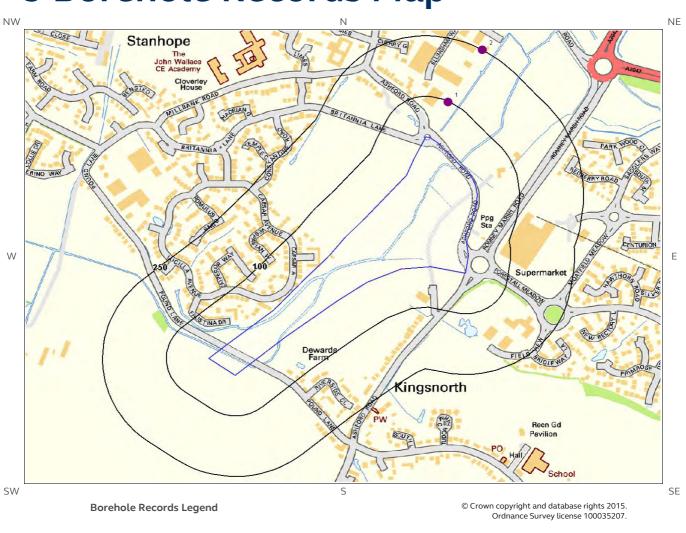
ID	Distance (m)	Direction	Hazard Rating	Details				
1	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build, consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property, no significant increase in insurance risk due to running sand problems is likely.				
2	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to a problems due to running sand. No special ground investigation required increased construction costs or increased financial risks are unlikely due potential problems with running sand.				
3	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build, consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property, no significant increase in insurance risk due to running sand problems is likely.				
4	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.				
5	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.				
6	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.				
7	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build, consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property, no significant increase in insurance risk due to running sand problems is likely.				



ID	Distance (m)	Direction	Hazard Rating	Details					
8	8 0.0 On Site		Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.					
9	6.0	NW	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.					
10	38.0	S	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.					



5 Borehole Records Map







5 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

2

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	97.0	NE	600370 140220	TR04SW648	-1.0	ELLINGHAM FARM INDUSTRIAL ESTATE 3
2	249.0	NE	600450 140350	TR04SW647	-1.0	ELLINGHAM FARM INDUSTRIAL ESTATE 2

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.



6 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

28

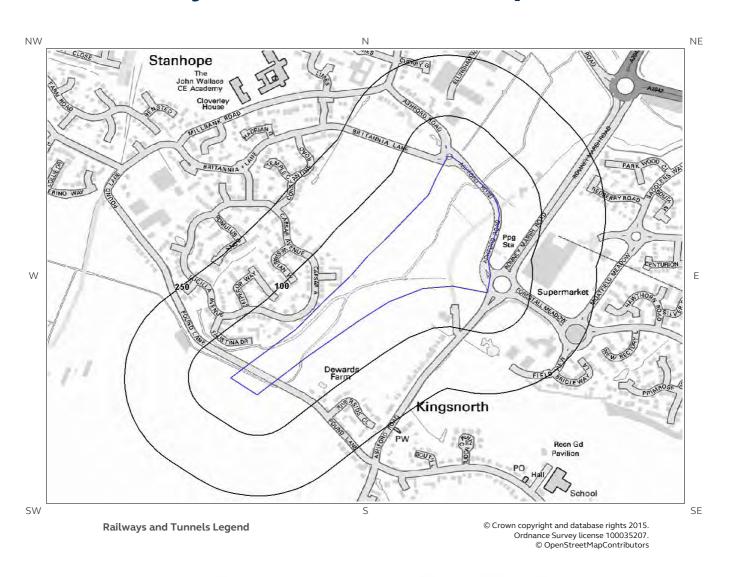
For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geoinsight User Guide, available on request.

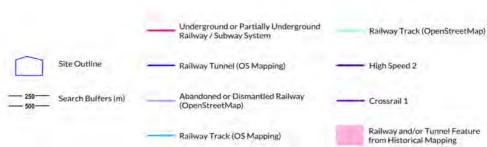
Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
6.0	NW	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
6.0	NW	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
38.0	S	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
43.0	S	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
46.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
61.0	Е	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
62.0	Е	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
62.0	Е	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
80.0	NW	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
81.0	NE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
82.0	NW	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
82.0	NW	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
82.0	Е	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
115.0	SE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
130.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
147.0	NW	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
172.0	NW	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
172.0	NW	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg

^{*}As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.



7 Railways and Tunnels Map







7 Railways and Tunnels

7.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary?

Have any underground railway lines been identified within 250m of the study site boundary?

Nο

No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary?

No

Have any other railway tunnels been identified within 250m of the site boundary?

Nο

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

7.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary?

No

Have any historical railway or tunnel features been identified within 250m of the study site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.



7.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary?

No

Have any historical railway lines been identified within 250m of the study site boundary?

Nο

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

Any records that have been identified are represented on the Railways and Tunnels Map.

7.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary?

No

Have any active railway lines been identified within 250m of the study site boundary?

No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above Any records that have been identified are represented on the Railways and Tunnels Map.

7.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1.

Is the study site within 5km of the route of the High Speed 2 rail project?

No

Is the study site within 500m of the route of the Crossrail 1 rail project?

No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a **Groundsure HS2** and **Crossrail 1 Report**.

The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

Report Reference: GS-2646757 Client Reference: PO_2000434707

39

Contact Details



Groundsure Helpline
Telephone: 08444 159 000
info@groundsure.com



LOCATION INTELLIGENCE

Geological Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

British

British Geological Survey Enquiries

Kingsley Dunham Centre Keyworth, Nottingham NG12 5GG Tel: 0115 936 3143. Fax: 0115 936 3276.

Email:enquiries@bgs.ac.uk Web:www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries

British Gypsum

British Gypsum Ltd East Leake Loughborough Leicestershire LE12 6HX



The Coal Authority

200 Lichfield Lane Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5 www.coal.gov.uk



Public Health England

Public information access office Public Health England, Wellington House 133-155 Waterloo Road, London, SE1 8UG

https://www.gov.uk/government/organisations/public-healthengland

Email: enquiries@phe.gov.uk
Main switchboard: 020 7654 8000



Johnson Poole & Bloomer Limited

Harris and Pearson Building, Brettel Lane Brierley Hill, West Midlands DY5 3LH Tel: +44 (0) 1384 262 000 Email:enquiries.gs@jpb.co.uk

Website: www.jpb.co.uk



Ordnance Survey

Adanac Drive, Southampton SO16 0AS

Tel: 08456 050505

Website: http://www.ordnancesurvey.co.uk/



Getmapping PLC

Virginia Villas, High Street, Hartley Witney, Hampshire RG27 8NW Tel: 01252 845444

Website: http://www1.getmapping.com/



Contact Details



Peter Brett Associates

Caversham Bridge House
Waterman Place
Reading
Berkshire RG1 8DN
Tel: +44 (0)118 950 0761 E-mail:reading@pba.co.uk
Website:http://www.peterbrett.com/home



Acknowledgements: Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028]. This report has been prepared in accordance with the Groundsure Ltd standard Terms and Conditions of business for work of this nature.

Standard Terms and Conditions

1 Definitions

In these terms and conditions unless the context otherwise requires:

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

- "Client" means the party or parties entering into a Contract with Groundsure.
- "Commercial" means any building or property which is not Residential.
- **"Confidential Information"** means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than
- (i) information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure and
- (ii) any information which is in the public domain (other than by virtue of a breach of this Contract). $\,$

"Support Services" means Support Services provided by Groundsure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between Groundsure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

"Third Party Data Provider" means any third party providing Third Party Content to Groundsure.

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fees" has the meaning set out in clause 5.1.

"Groundsure" means Groundsure Limited, a company registered in England and Wales under number 03421028.

"Groundsure Materials" means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.

"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 OAS, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

"Services" means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause

"Site" means the area of land in respect of which the Client has requested Groundsure to provide the Services.

"Third Party Content" means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from Groundsure and on the website (www.Groundsure.com) and forming part of this Contract.

2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 Groundsure agrees to provide the Services in accordance with the Contract.
2.2 Groundsure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of Groundsure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law. 2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefor. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure.

Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website

3 The Client's obligations

3.1The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to Groundsure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

4 Reliance

4.1The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,

(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate), $\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \left(\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \left(\frac{1}{$

(iv) the first purchaser or first tenant of the Site, and

(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by Groundsure. Any party considering such Reports and Services does so at their own risk.

5 Fees and Disbursements

5.1Groundsure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

5.2 The Client shall pay all outstanding Fees to Groundsure in full without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

6 Intellectual Property and Confidentiality

6.1 Subject to

i) full payment of all relevant Fees and

(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the Groundsure Materials.

6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure

acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

 $6.4\ \mbox{The Client shall,}$ and shall procure that any recipients of the Groundsure Materials shall:

- (i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to Groundsure or any third party from the Services:
- (ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;
- (iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);
- (iv) not combine the Services with or incorporate such Services into any other information data or service;
- (v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);
- (vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and
- (vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,
- 6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.
- 6.6 The Client shall procure that any person to whom the Services are made available shall notify Groundsure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

7. Liability: Particular Attention Should Be Paid To This Clause

- 7.1 This Clause 7 sets out the entire liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:
 - (i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or subcontractors;
 - (ii) any use made of the Reports, Services, Materials or any part of them; and
- (iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.
- 7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.
- 7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.
- 7.4 Groundsure shall not be liable for
 - (i) loss of profits;
 - (ii) loss of business;
 - (iii) depletion of goodwill and/or similar losses;
 - (iv) loss of anticipated savings;
 - (v) loss of goods;
 - (vi) loss of contract;
 - (vii) loss of use;
 - (viii) loss or corruption of data or information;
 - (ix) business interruption;
- (x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;
- (xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;
- (xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;
- (xiii) loss or damage to a computer, software, modem, telephone or other property; and
- (xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.
- 7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.
- 7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

8 Groundsure's right to suspend or terminate

- 8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.
- 8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:
- (i) the Client fails to pay any sum due to Groundsure within 30 days of the Payment Date; or $\,$
- (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
- (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
- (iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

9. Client's Right to Terminate and Suspend

- 9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.
- 9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:
- (i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon Groundsure's acceptance of the Order; and
 - (ii) the Reports and/or Mapping provided under this Contract
 - (a) supplied to the Client's specification(s) and in any event

(b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension 10.1 Upon termination of the Contract:

- (i) Groundsure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and
- (ii) the Client shall pay to Groundsure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

11 Anti-Bribery

- 11.1 The Client warrants that it shall:
- (i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;
- (ii) comply with such of Groundsure's anti-bribery and anticorruption policies as are notified to the Client from time to time; and
- (iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.
- 11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

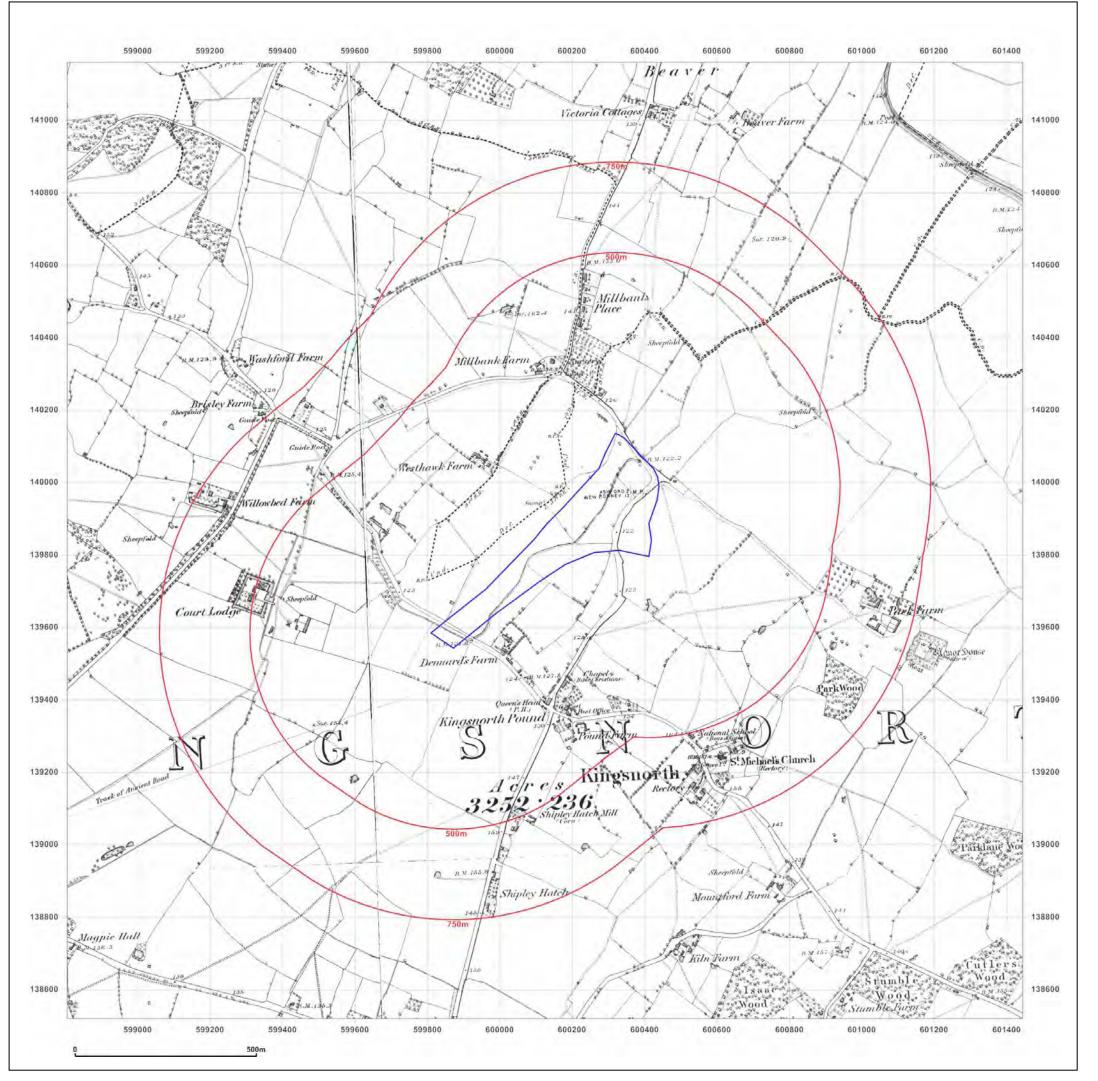
12 General

- 12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.
- 12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through Groundsure.
- 12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of Groundsure.
- 12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.
- 12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.
- 12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
- 12.7 Groundsure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

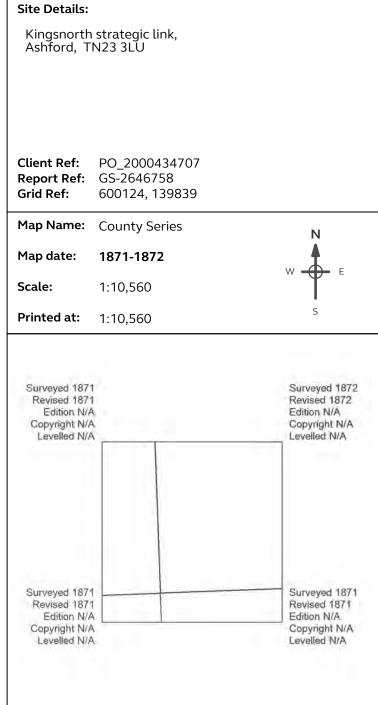
- (i) the Client or Beneficiary's failure to provide facilities, access or information:
 - (ii) fire, storm, flood, tempest or epidemic;
 - (iii) Acts of God or the public enemy;
 - (iv) riot, civil commotion or war;
 - (v) strikes, labour disputes or industrial action;
 - (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
 - (viii) changes in law; or
- (ix) any other reason beyond Groundsure's reasonable control. In the event that Groundsure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.
- 12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.
- 12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.
- 12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.
- 12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.
- 12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.
- 12.13 Groundsure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.
- 12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner. In the event you are not satisfied with Groundsure's complaints handling process or you are unable to resolve the complaint, at your discretion you may refer the complaint to The Property Ombudsman Scheme at the following URL/email: website www.tpos.co.uk or email: admin@tpos.co.uk
- 12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent

required by law

© Groundsure Limited June 2013



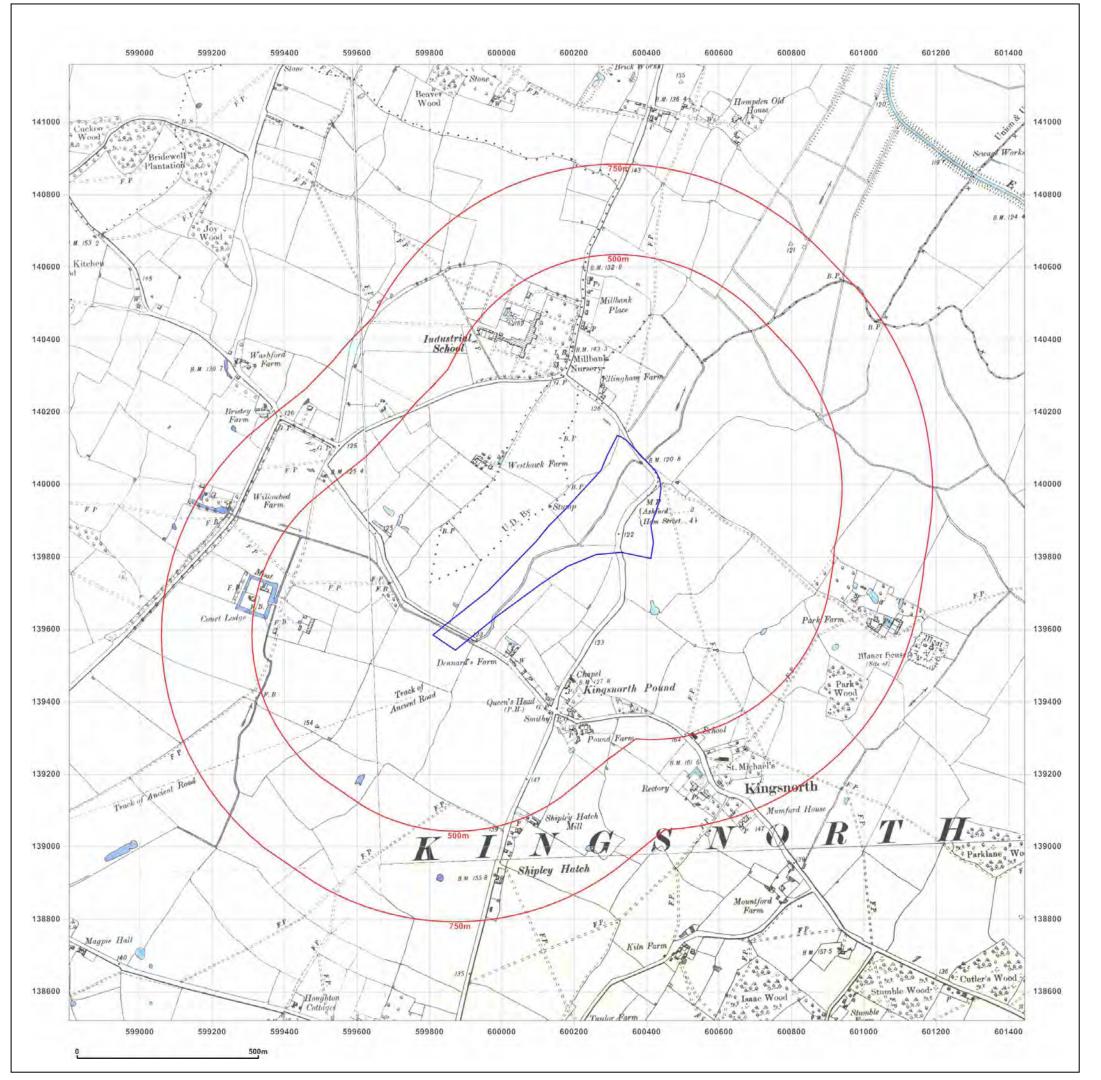




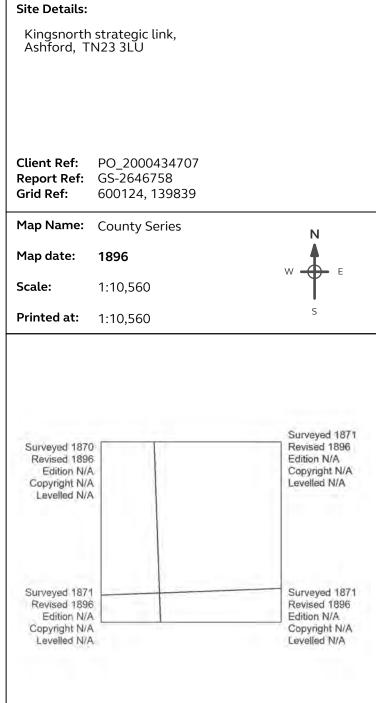


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



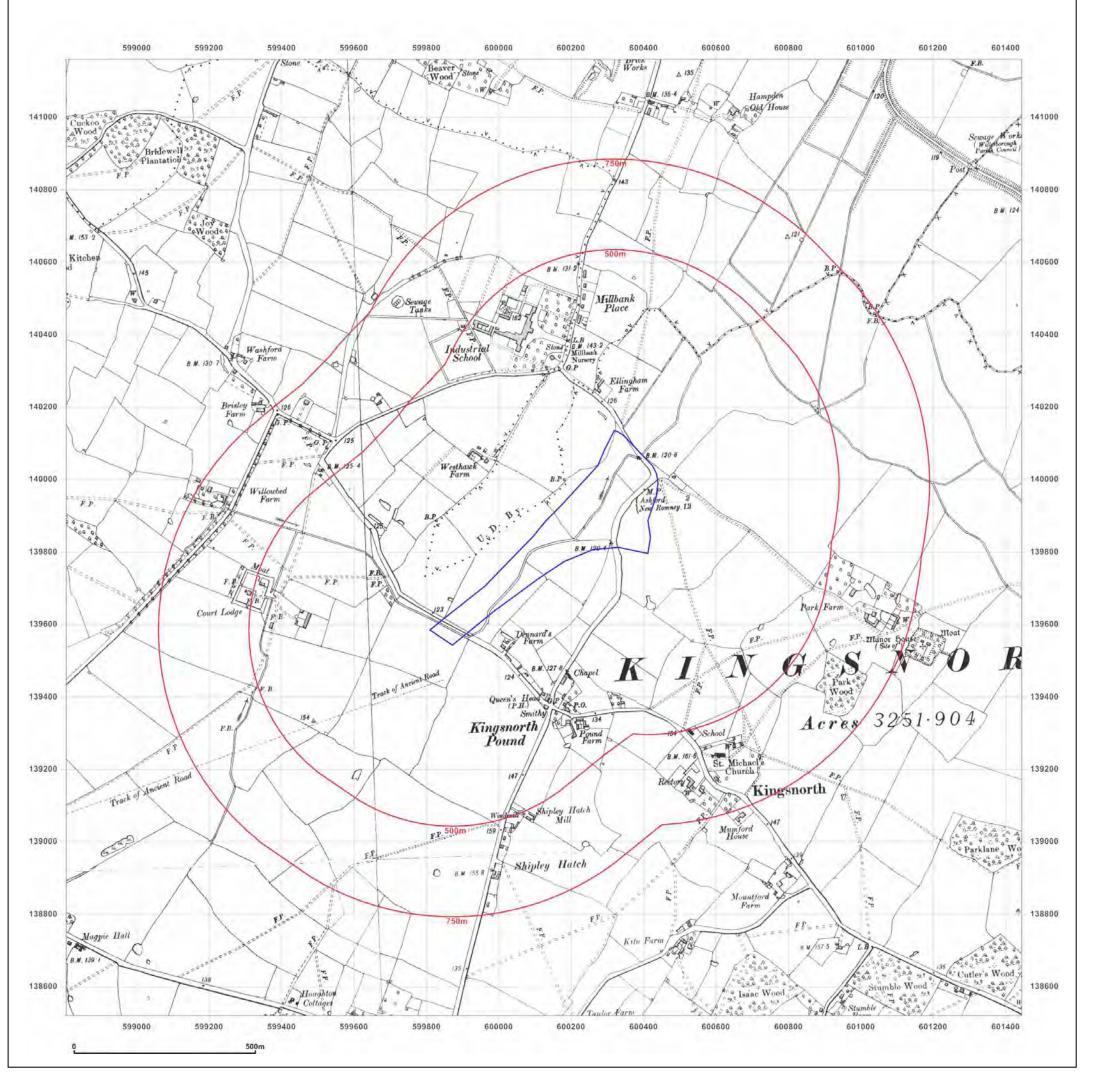




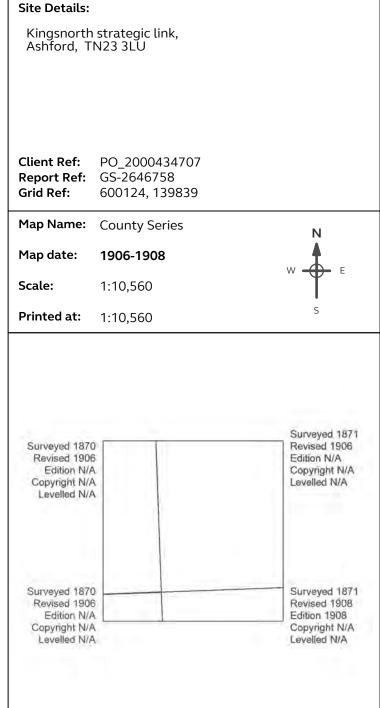


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



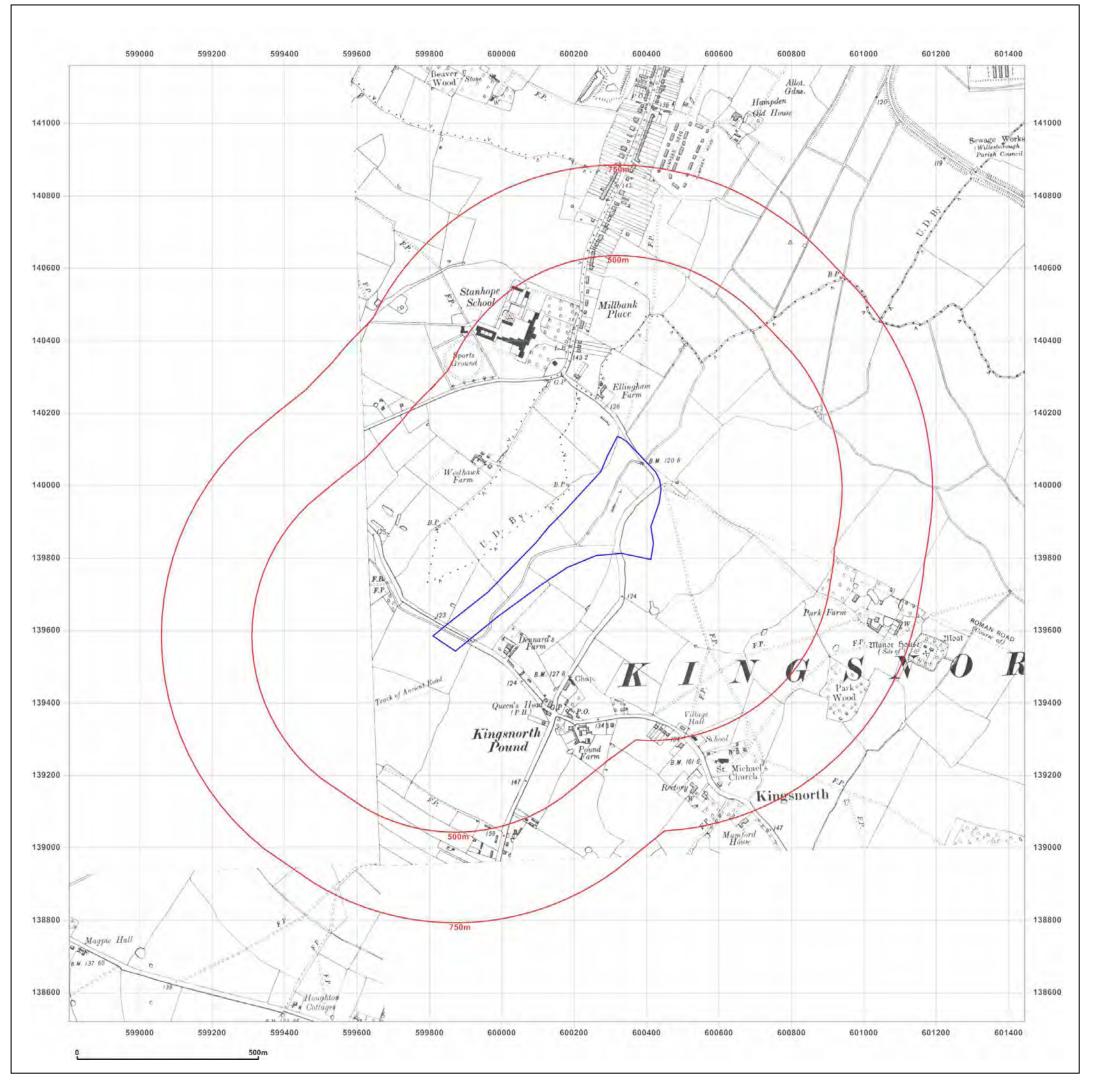




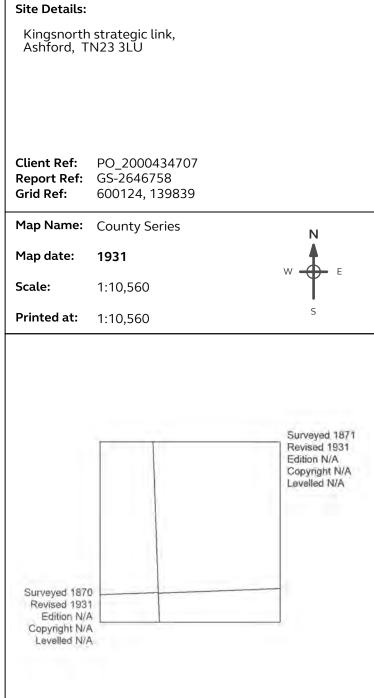


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



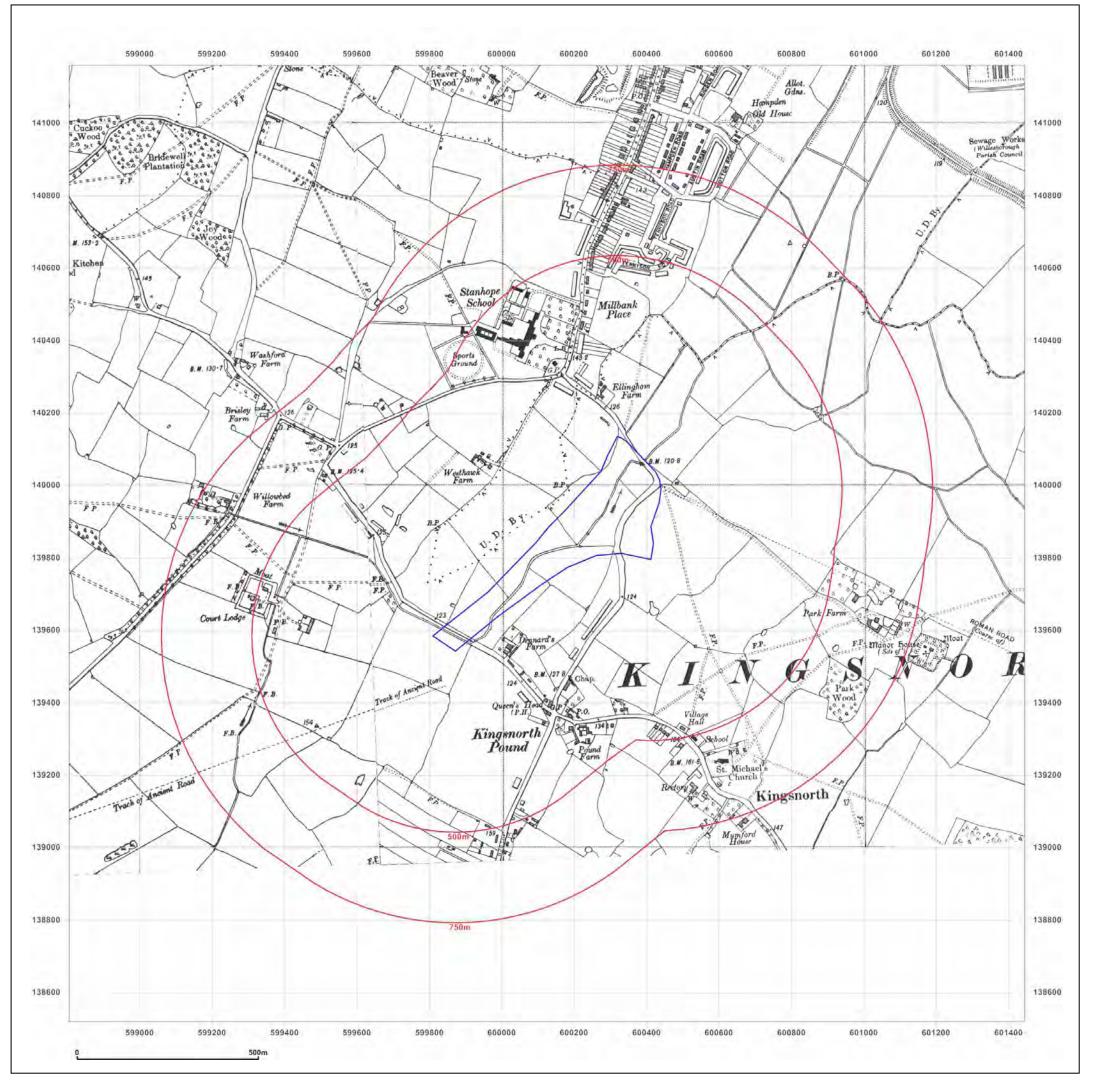




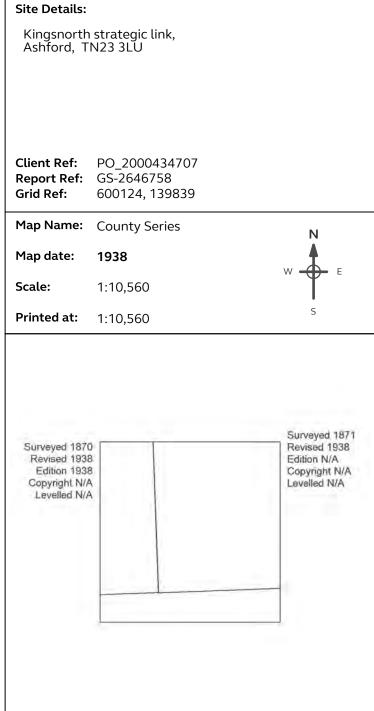


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



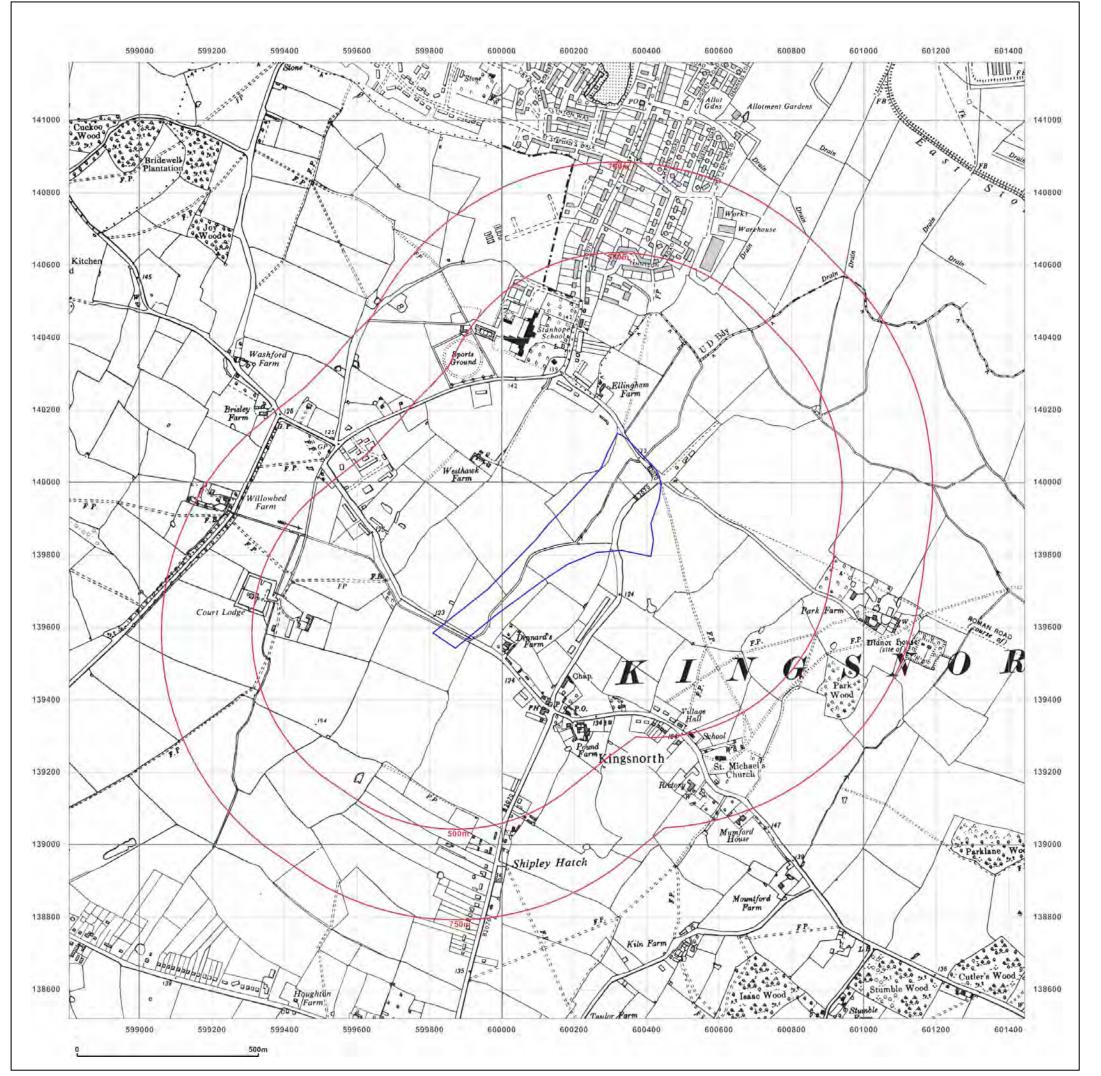




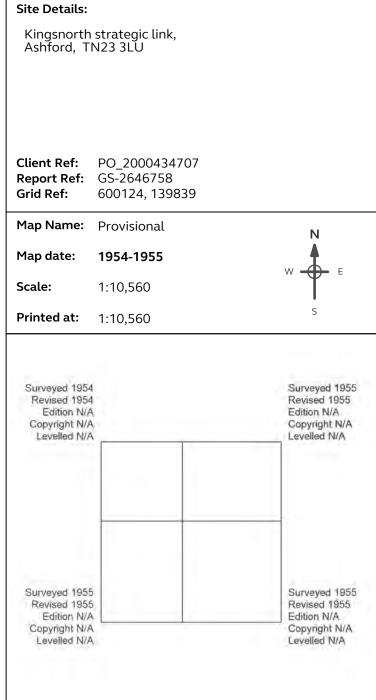


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



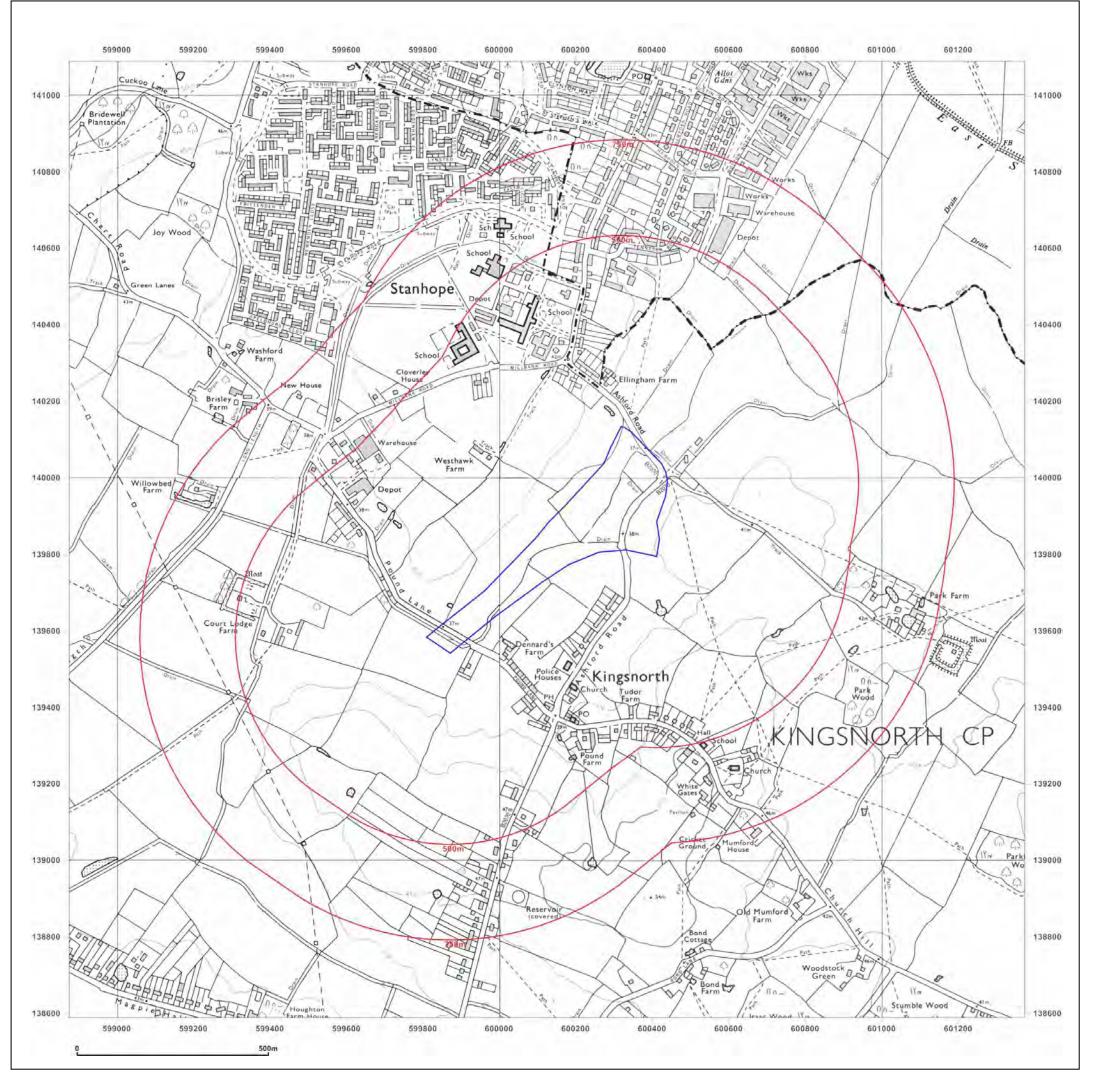




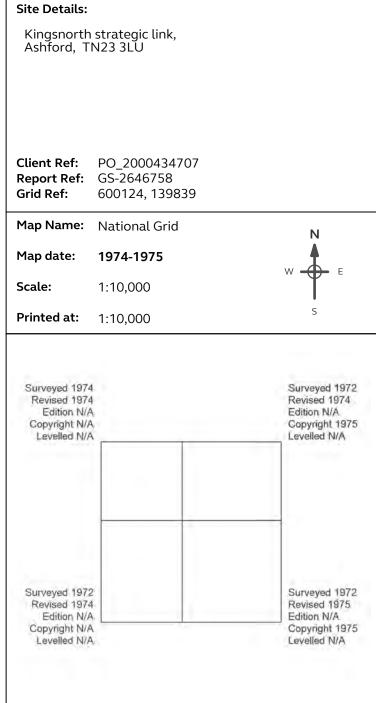


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



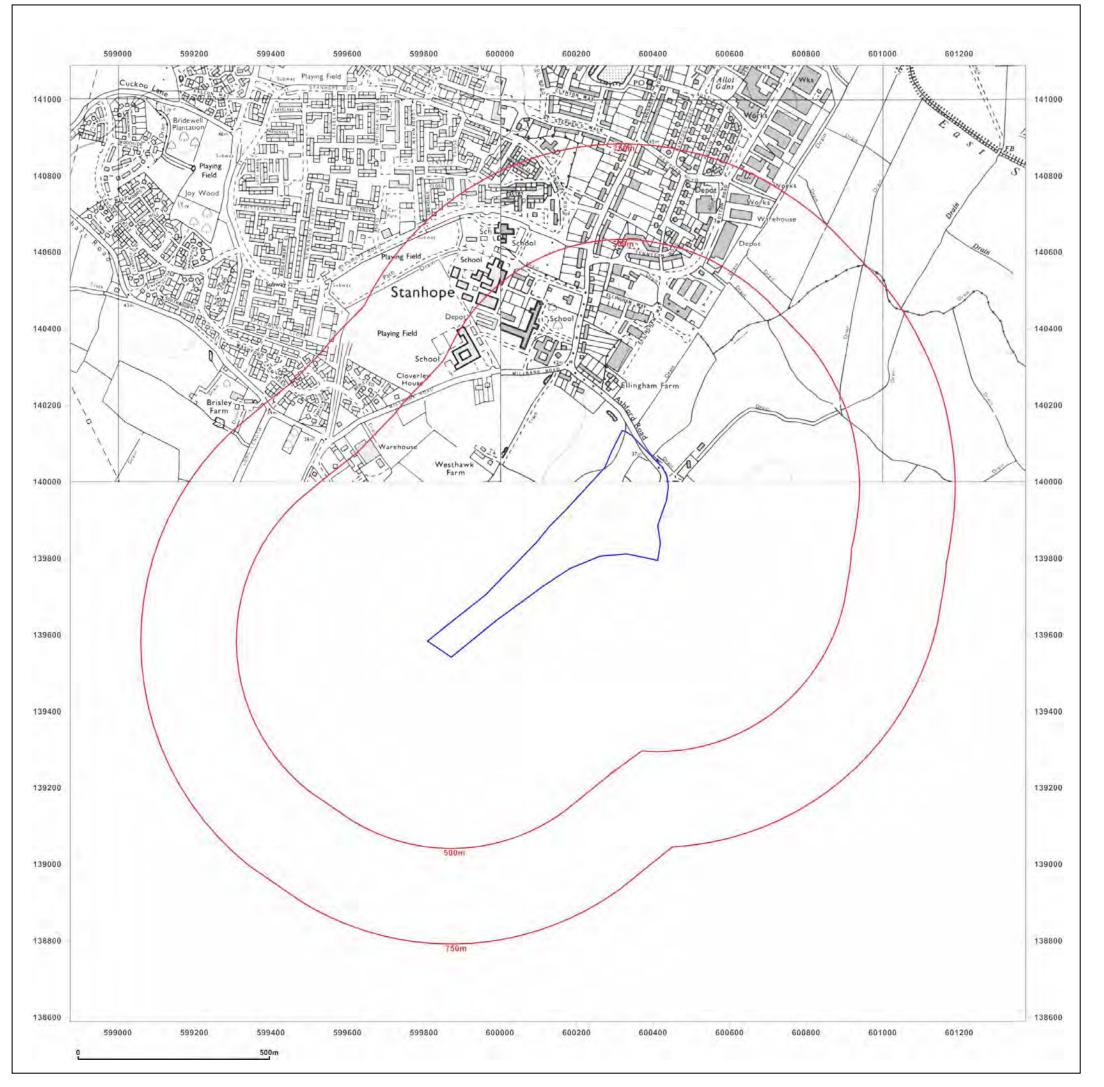




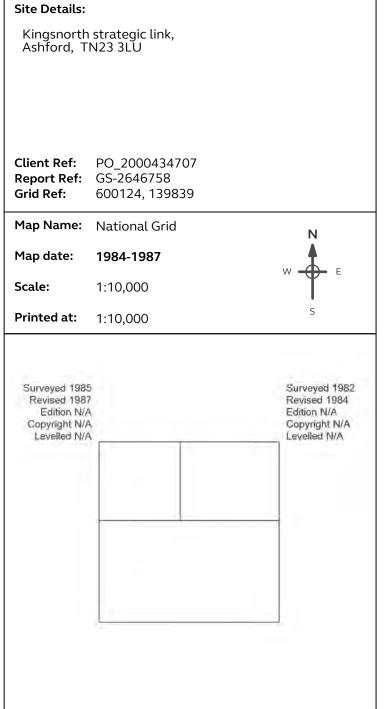


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



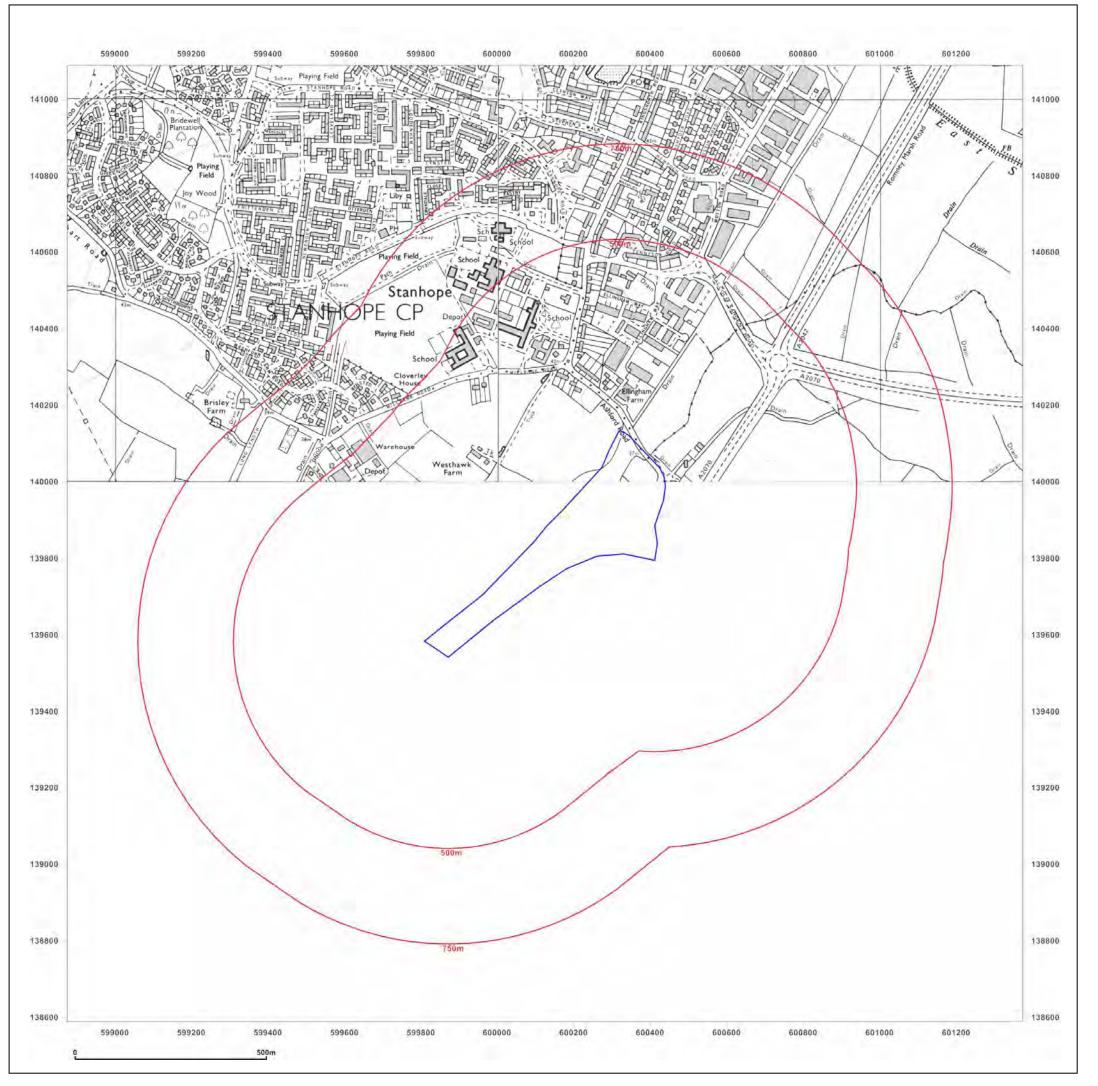




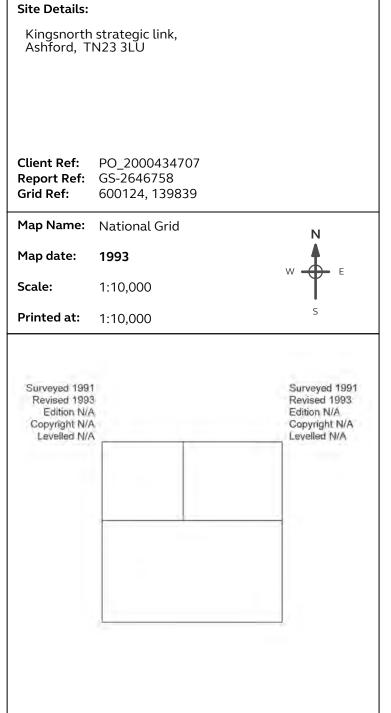


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



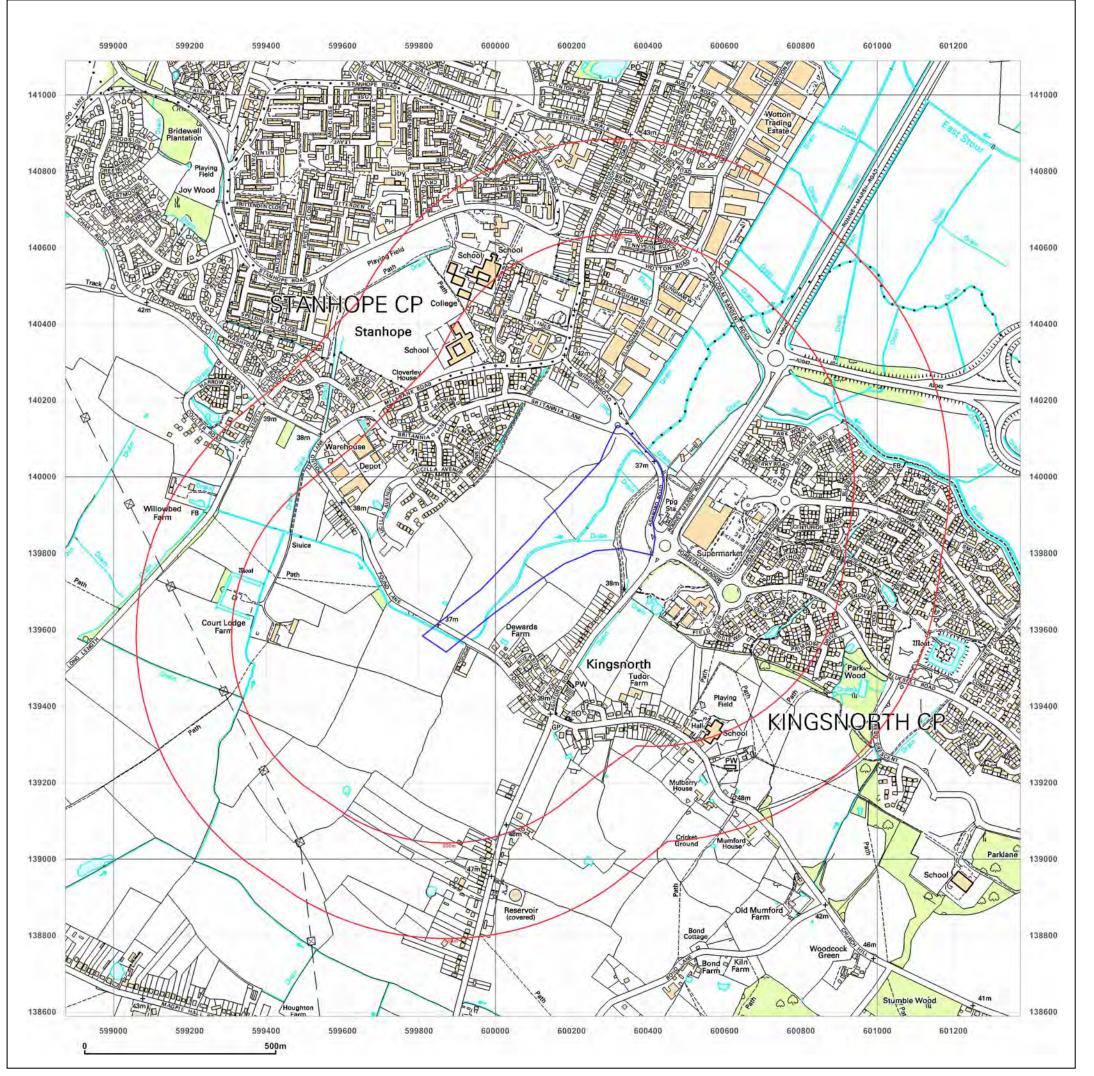




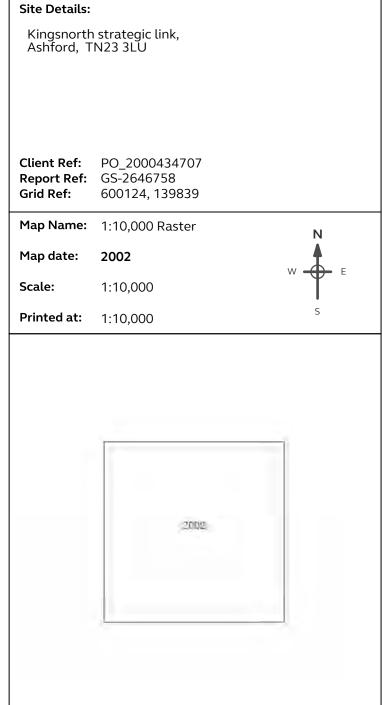


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



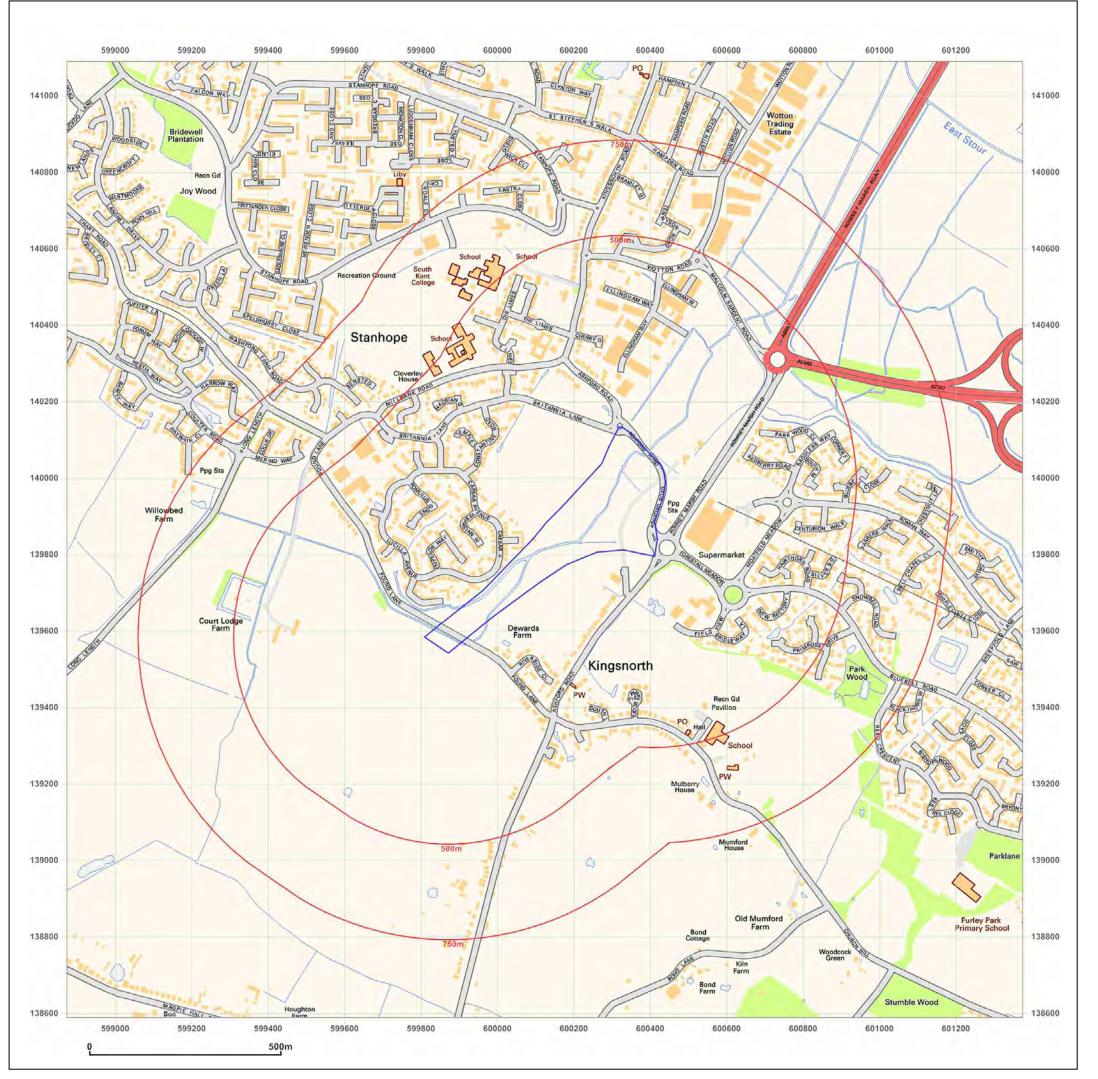




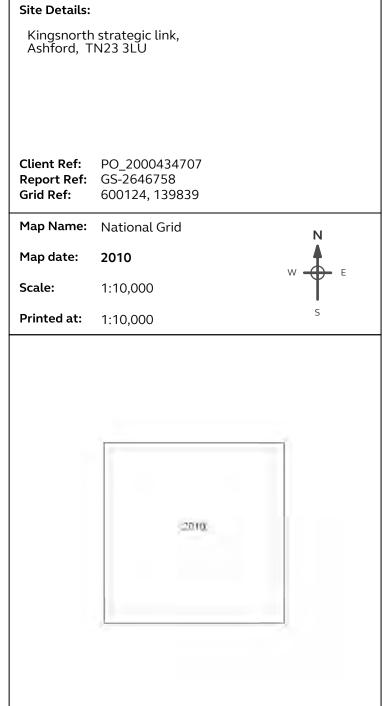


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



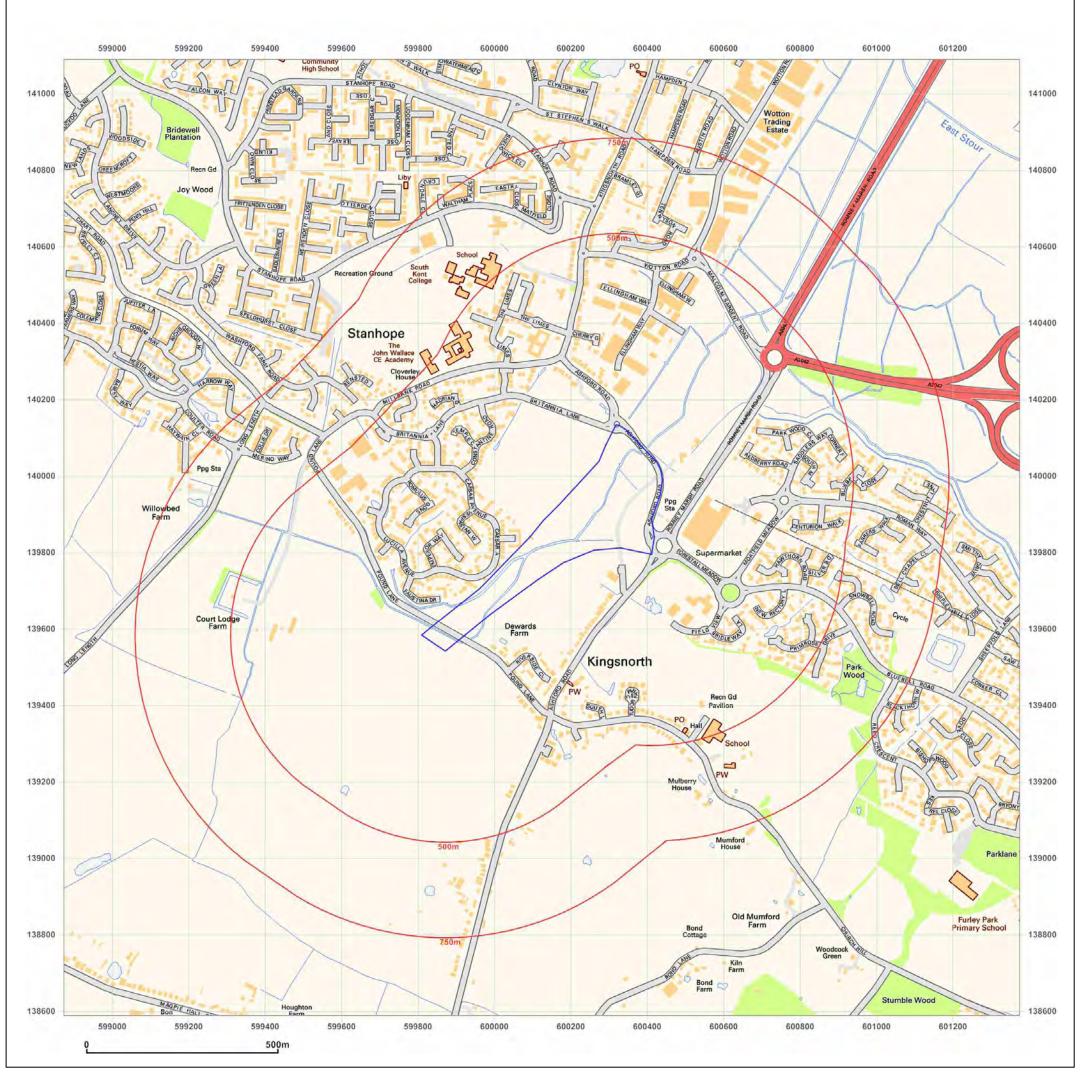




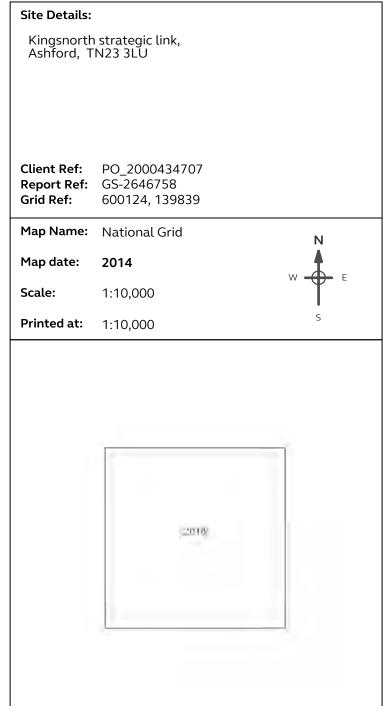


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015









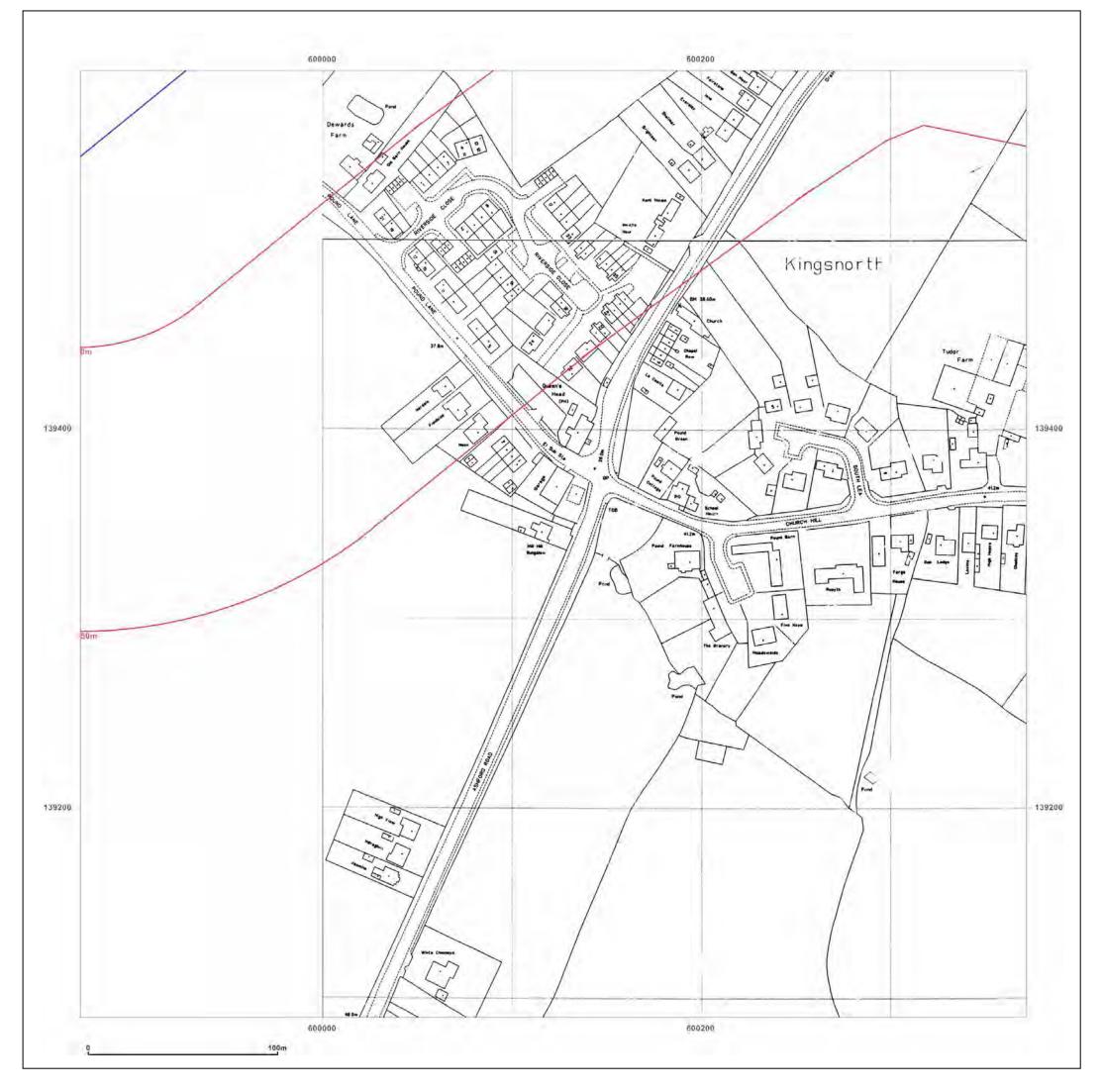
© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015

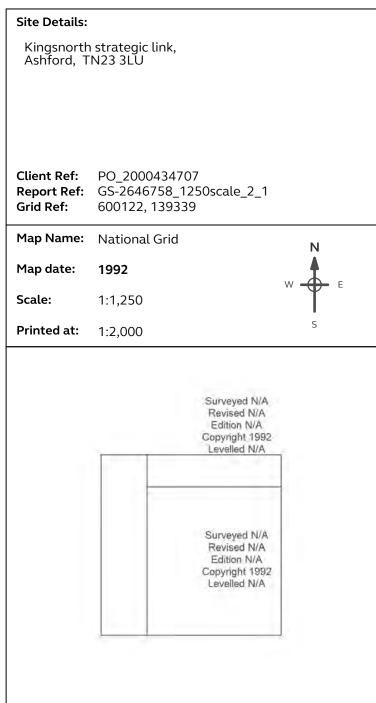




1:1250 Scale Grid Index



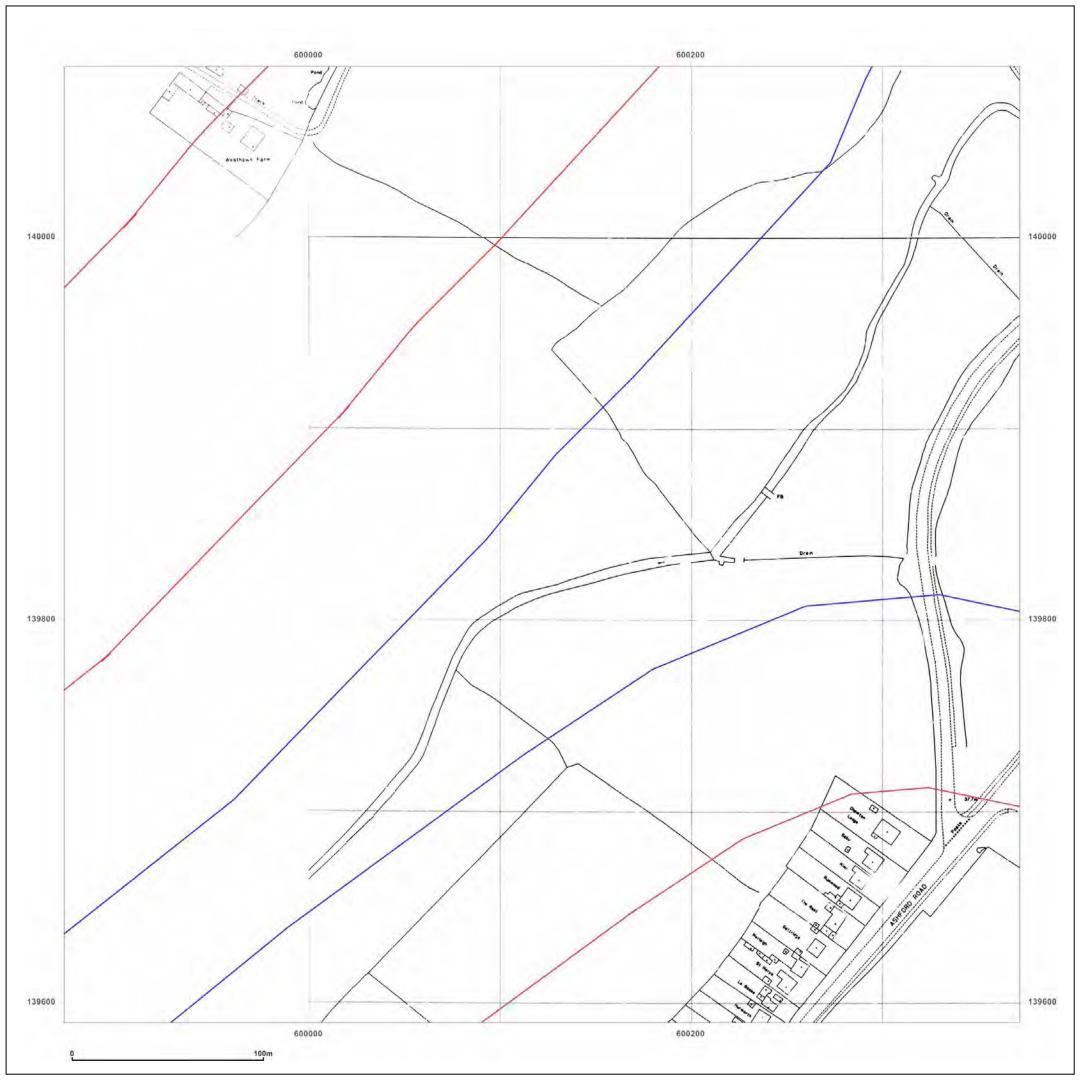




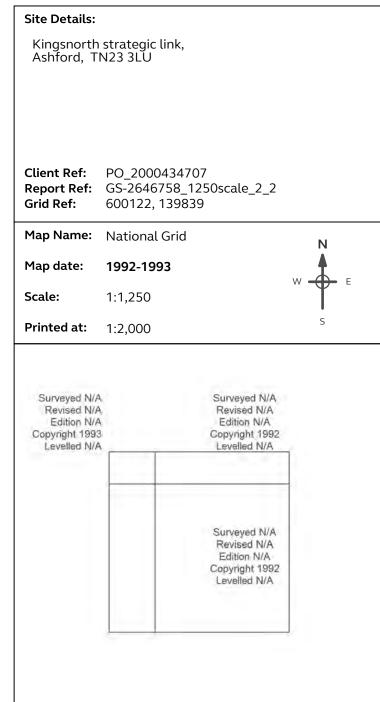


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015









© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015





Site Details:

Kingsnorth strategic link, Ashford, TN23 3LU

 Client Ref:
 PO_2000434707

 Report Ref:
 GS-2646758_1250scale_2_3

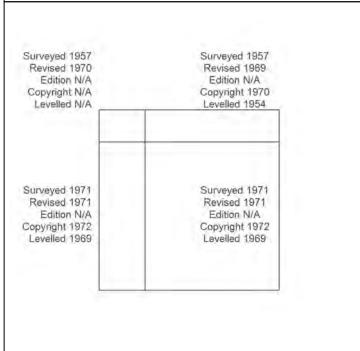
 Grid Ref:
 600122, 140339

Map Name: National Grid

1970-1972 Map date:

1:1,250 Scale:

Printed at: 1:2,000

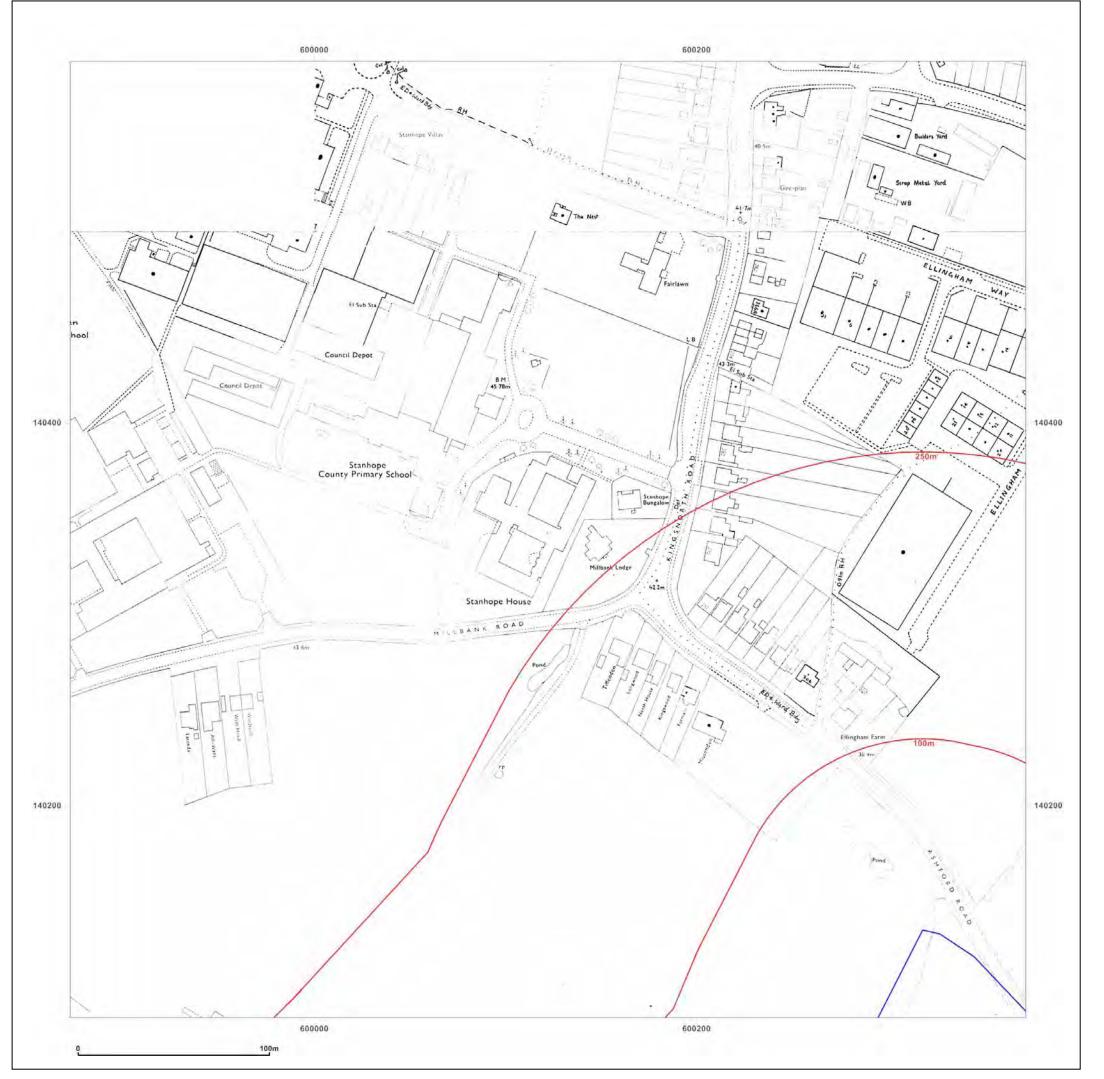




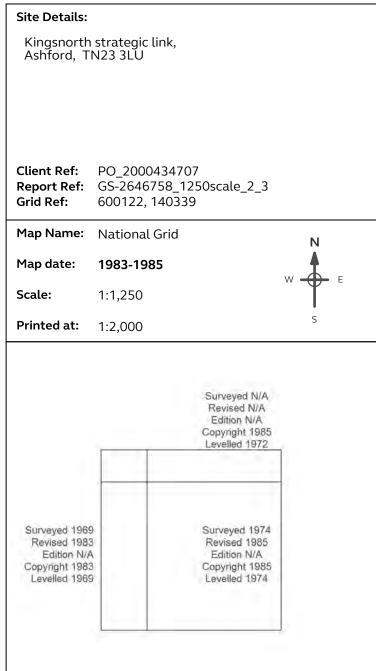
Produced by **Groundsure Insights** T: 08444 159000 E: info@groundsure.com W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015







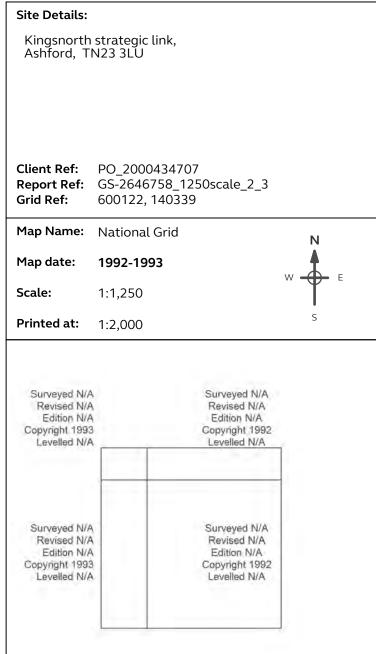


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



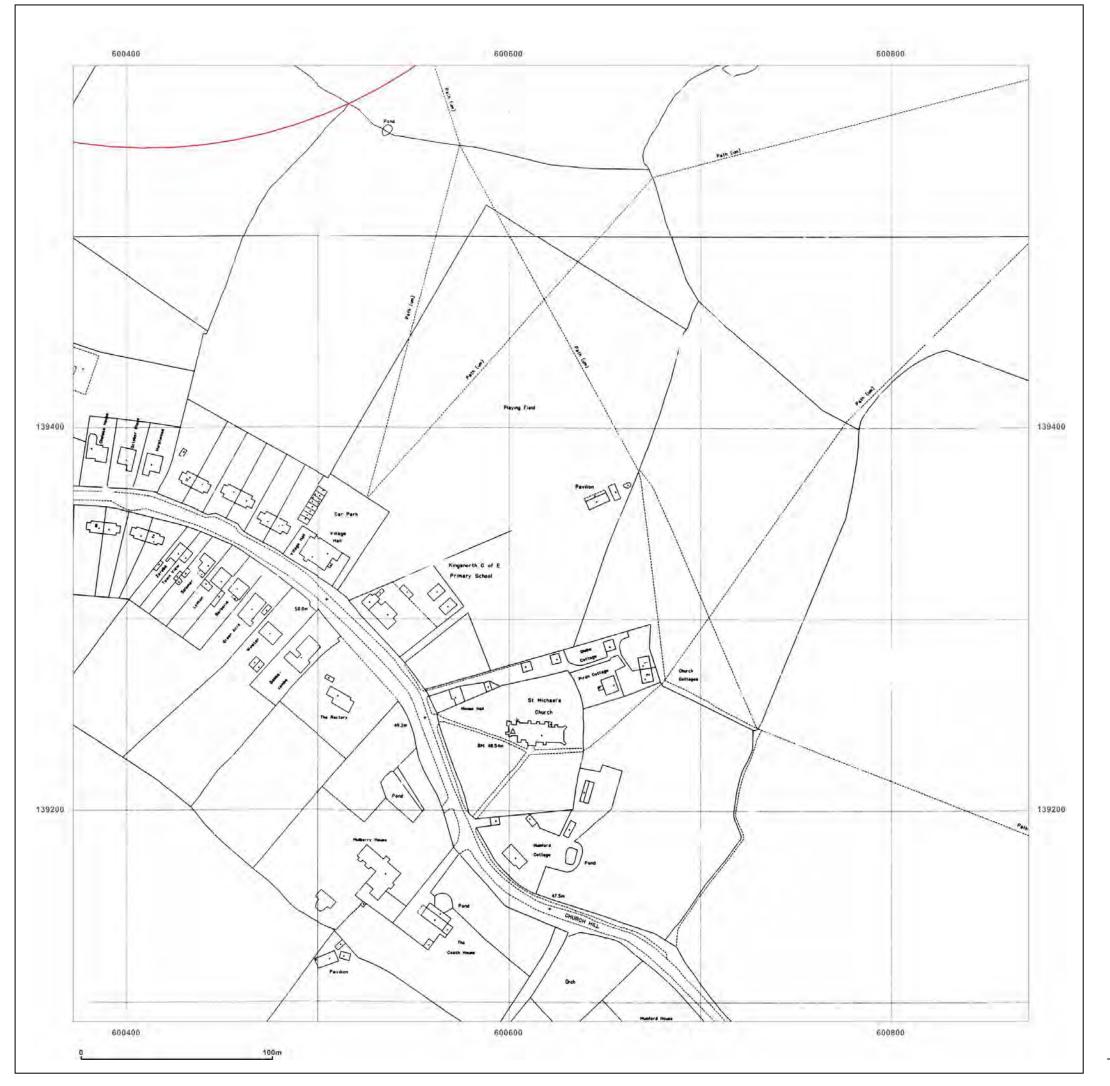




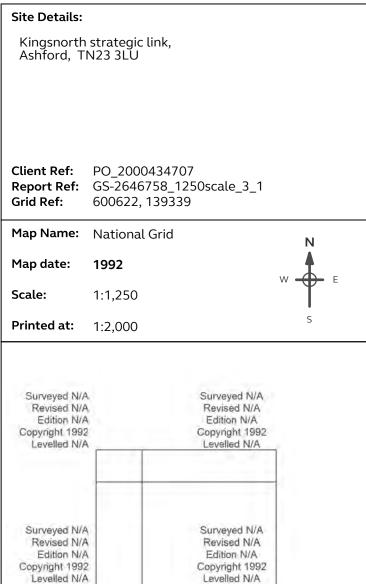


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



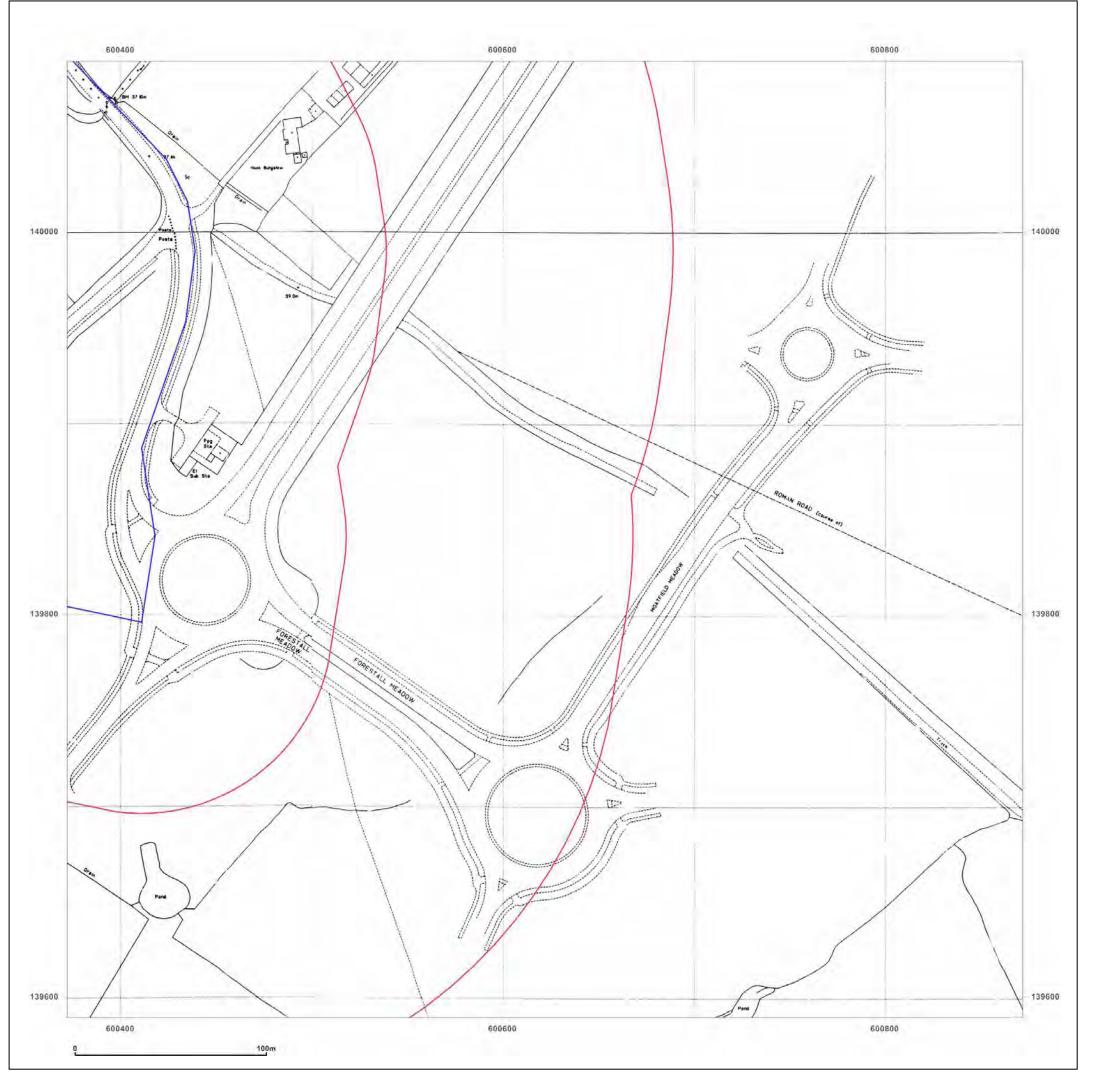




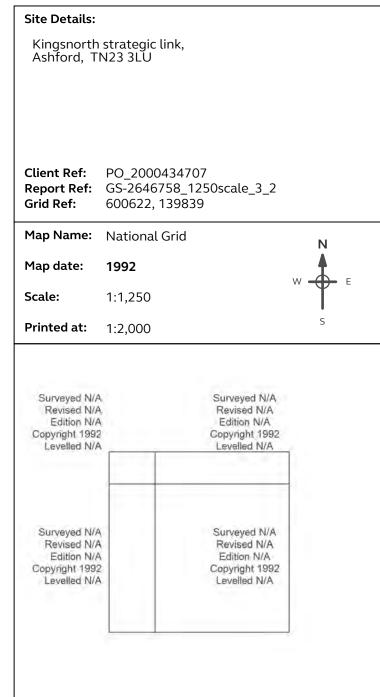


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



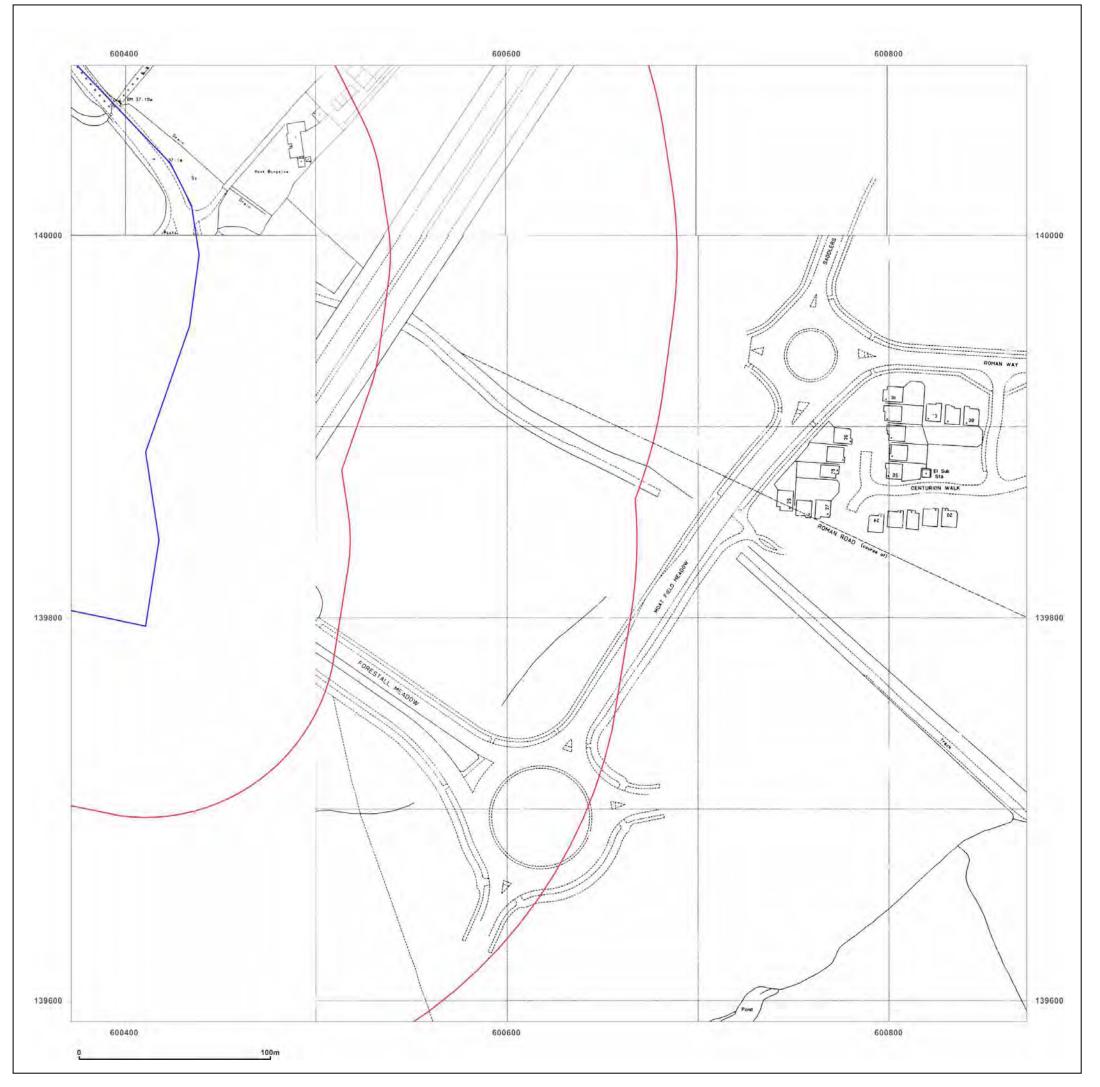




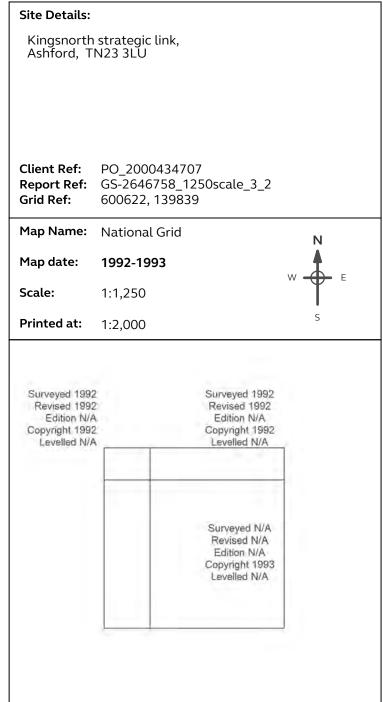


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



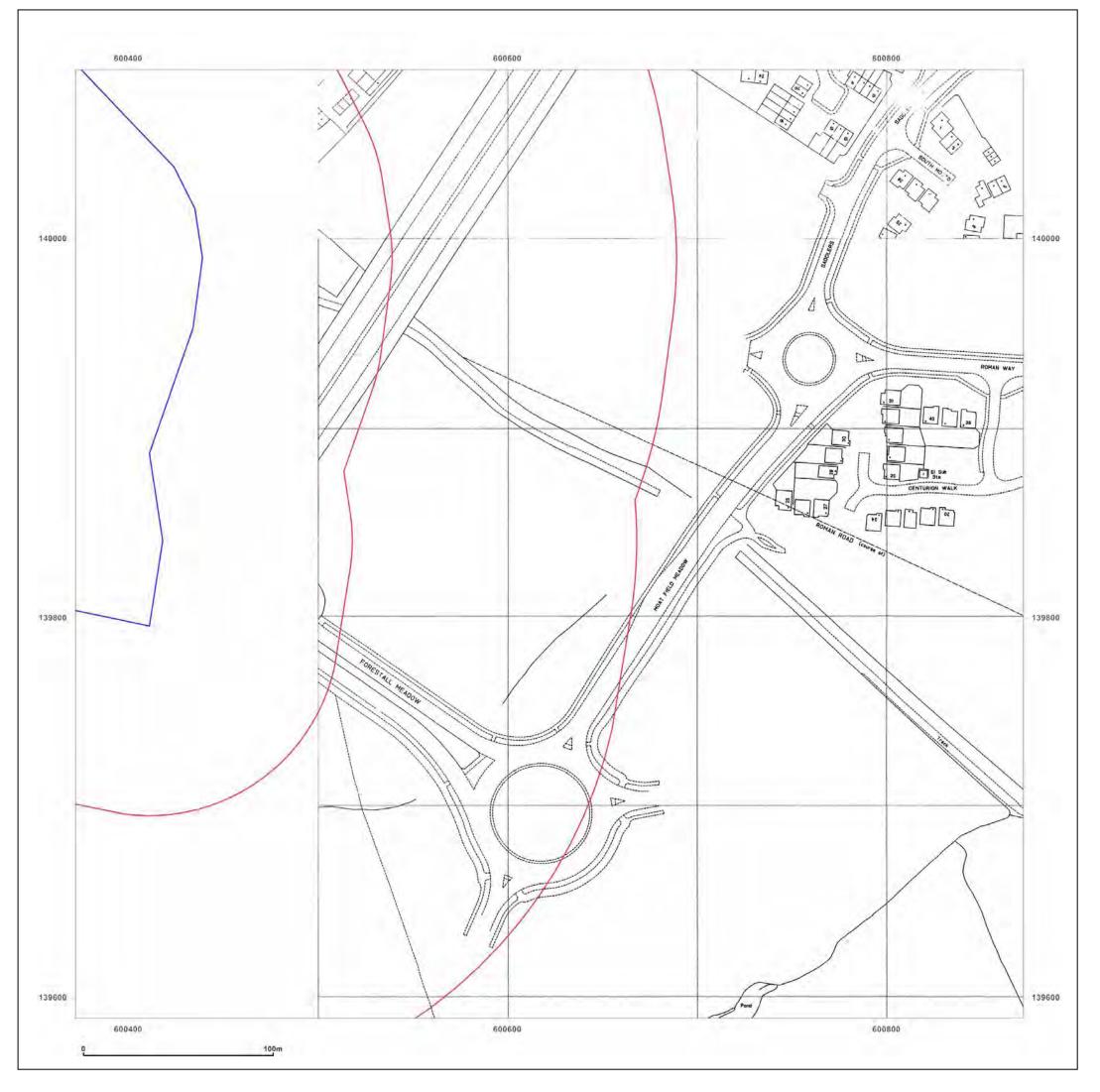




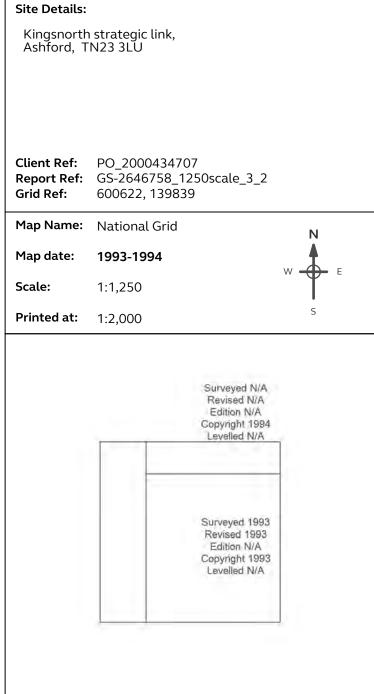


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



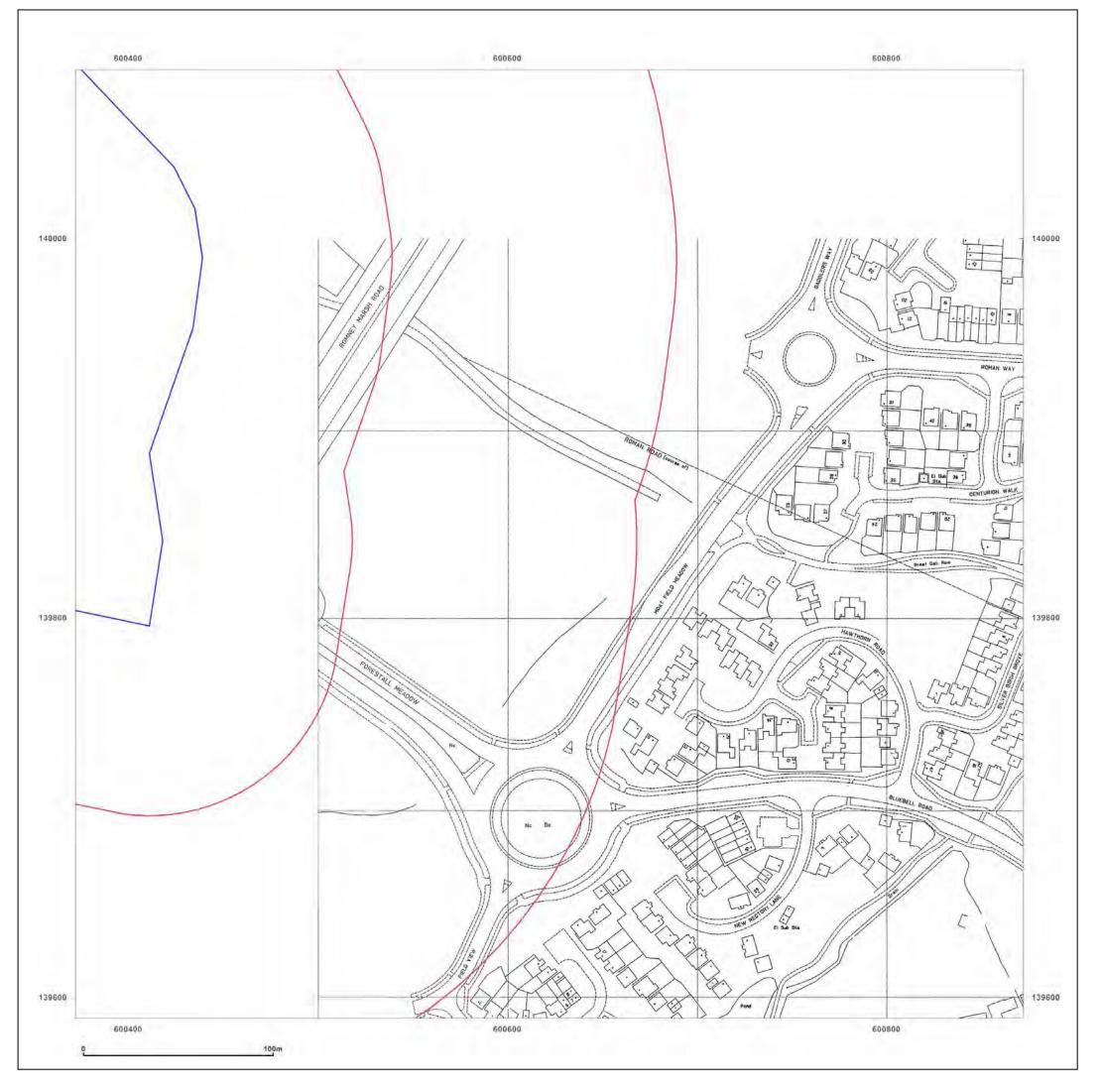




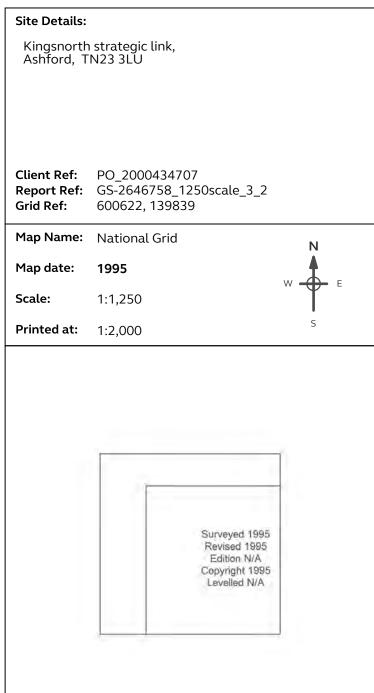


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015







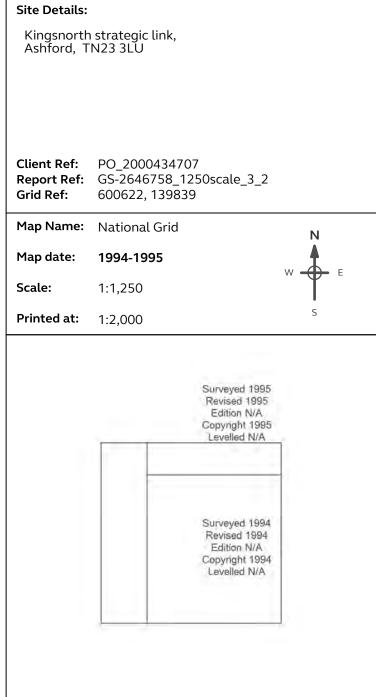


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



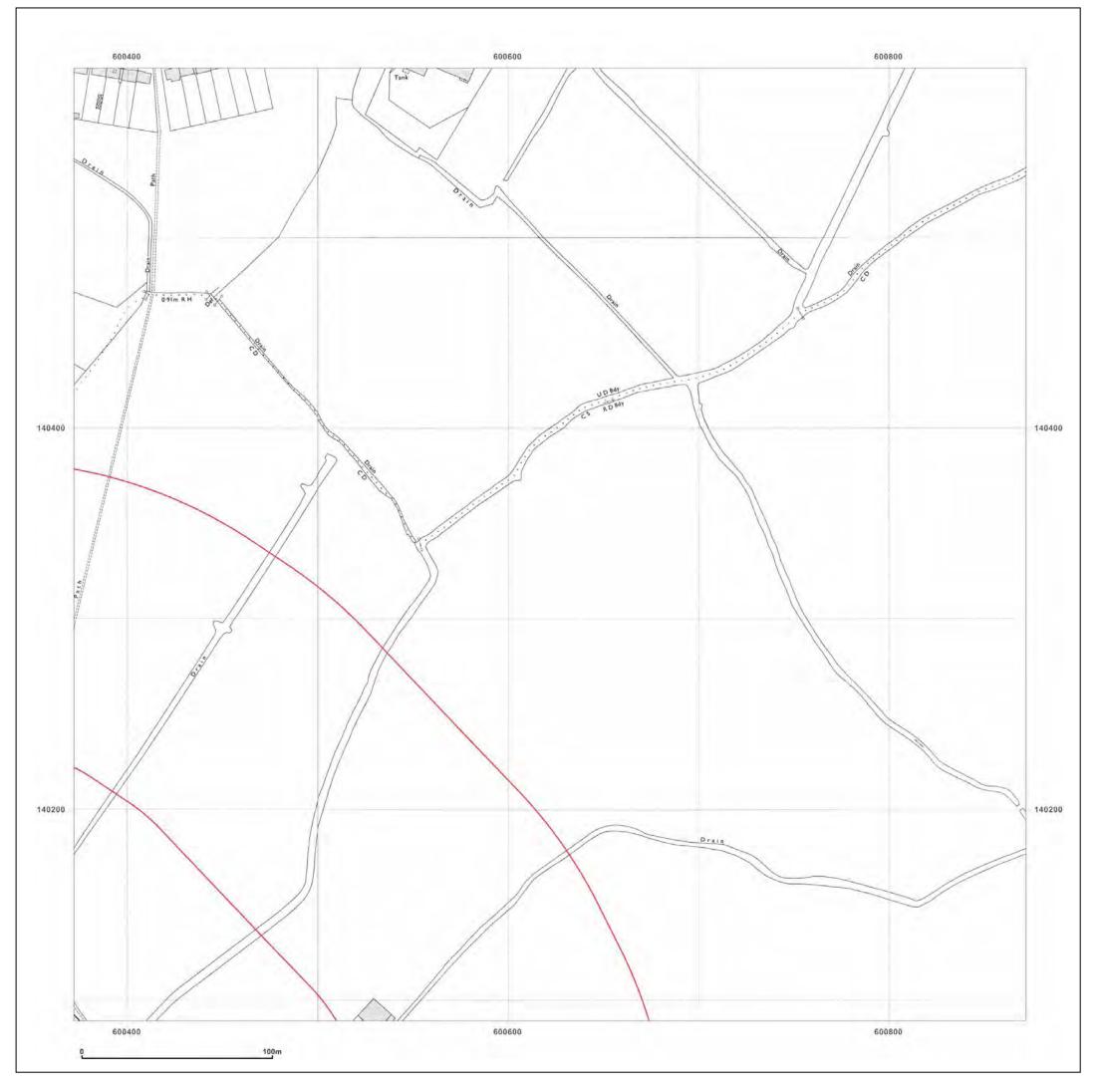






© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015





Site Details:

Kingsnorth strategic link, Ashford, TN23 3LU

 Client Ref:
 PO_2000434707

 Report Ref:
 GS-2646758_1250scale_3_3

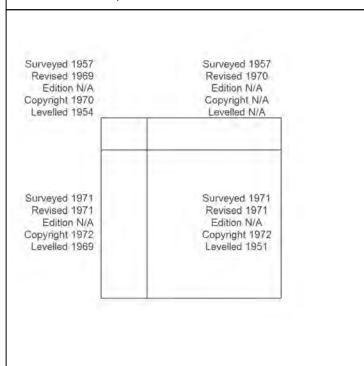
 Grid Ref:
 600622, 140339

Map Name: National Grid

Map date: 1970-1972

Scale: 1:1,250

Printed at: 1:2,000

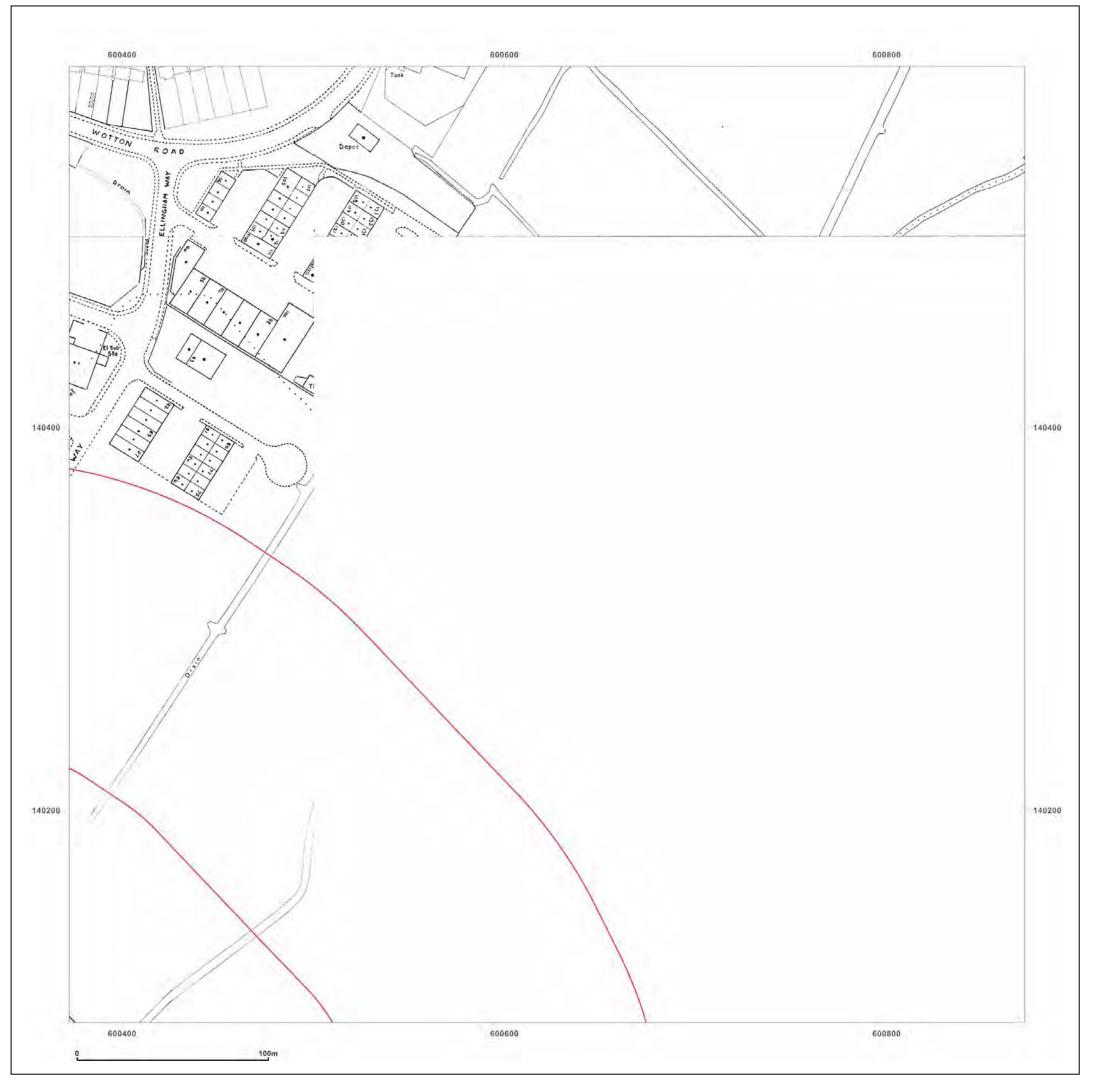




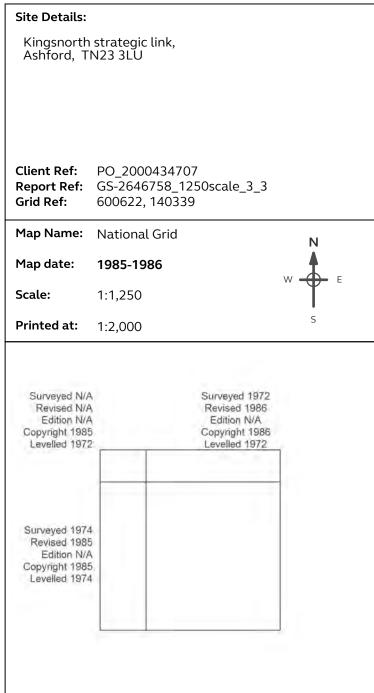
Produced by Groundsure Insights T: 08444 159000 E: info@groundsure.com W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015









© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015





Site Details:

Kingsnorth strategic link, Ashford, TN23 3LU

 Client Ref:
 PO_2000434707

 Report Ref:
 GS-2646758_1250scale_3_3

 Grid Ref:
 600622, 140339

Map Name: National Grid

Map date: 1992

1:1,250 Scale:

Printed at: 1:2,000

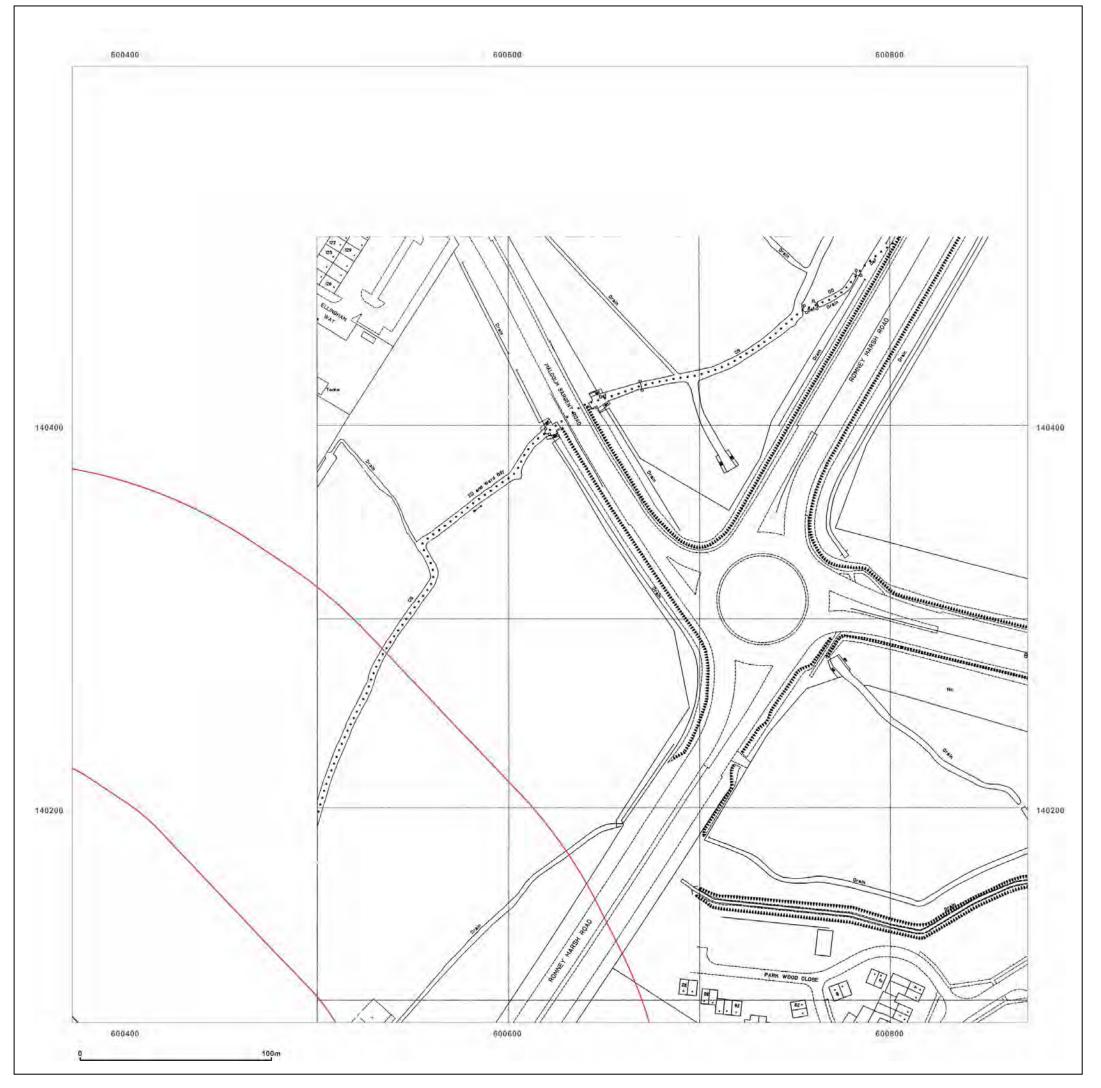
Surveyed N/A Revised N/A Edition N/A Copyright 1992 Levelled N/A Surveyed N/A Revised N/A Edition N/A Copyright 1992 Levelled N/A Surveyed N/A Revised N/A Surveyed N/A Revised N/A Edition N/A Edition N/A Copyright 1992 Levelled N/A Copyright 1992 Levelled N/A



Produced by Groundsure Insights T: 08444 159000 E: info@groundsure.com W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015





Site Details:

Kingsnorth strategic link, Ashford, TN23 3LU

 Client Ref:
 PO_2000434707

 Report Ref:
 GS-2646758_1250scale_3_3

 Grid Ref:
 600622, 140339

Map Name: National Grid

Map date: 1994

Scale: 1:1,250

Printed at: 1:2,000

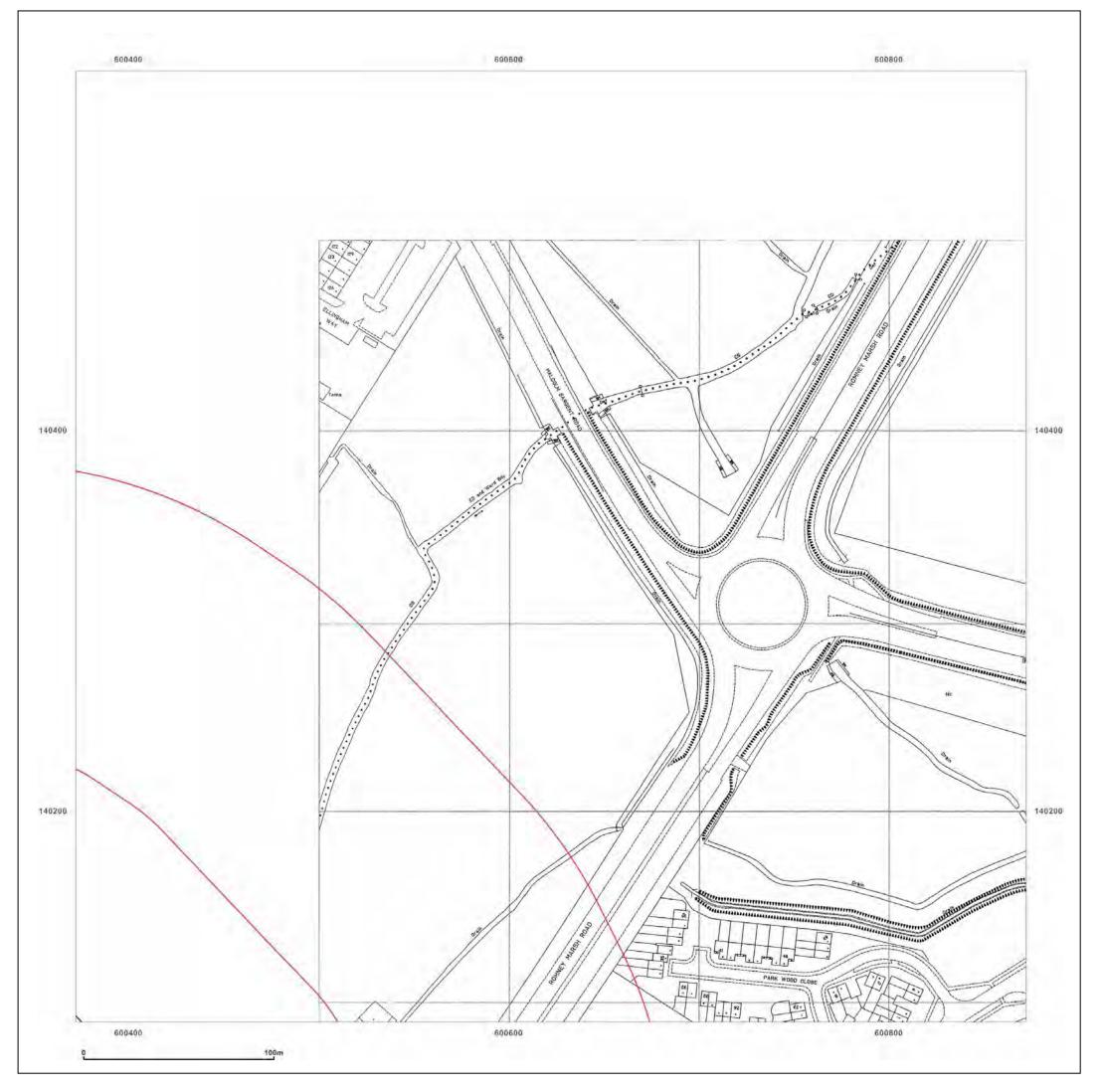




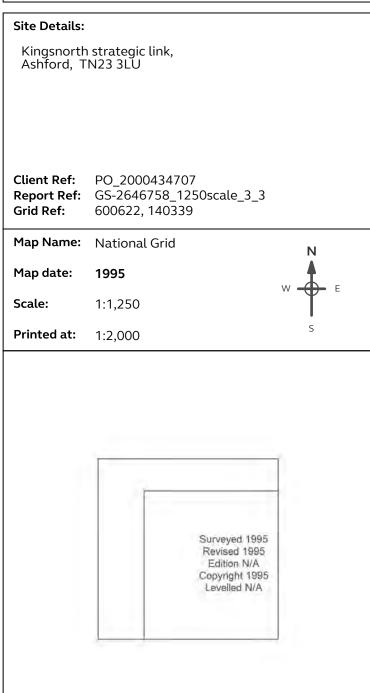
Produced by Groundsure Insights T: 08444 159000 E: info@groundsure.com W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015









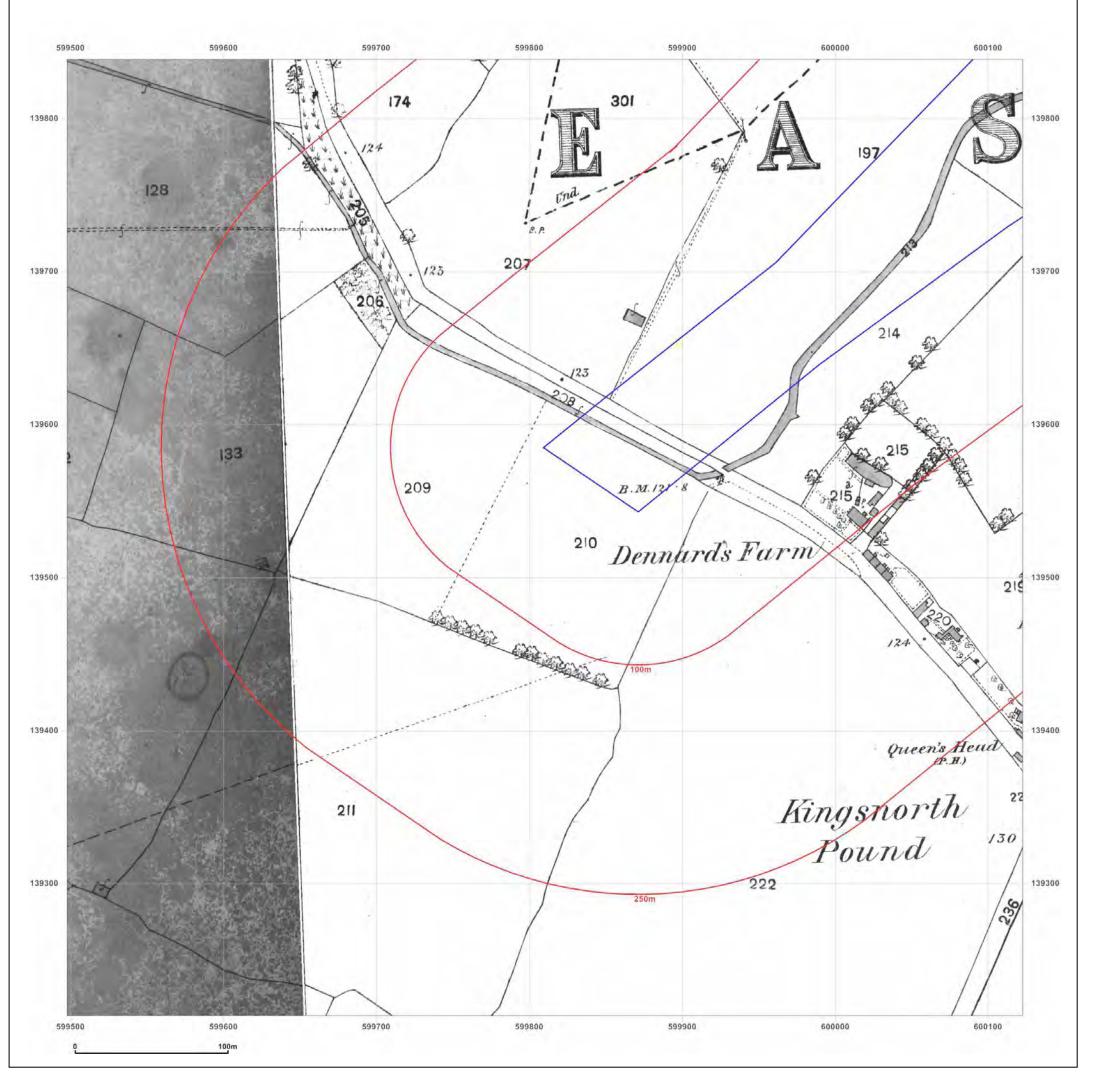
© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015

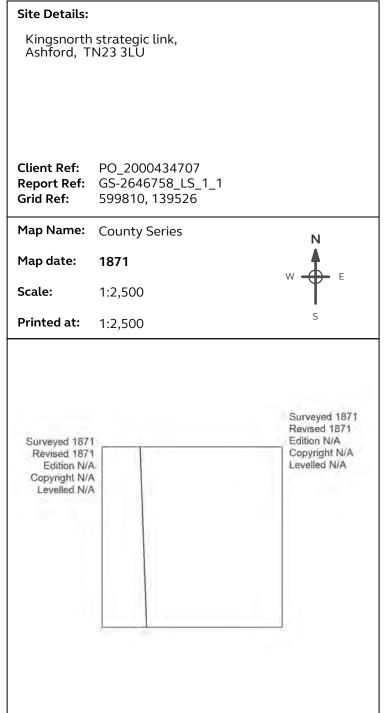




1:2500 Scale Grid Index



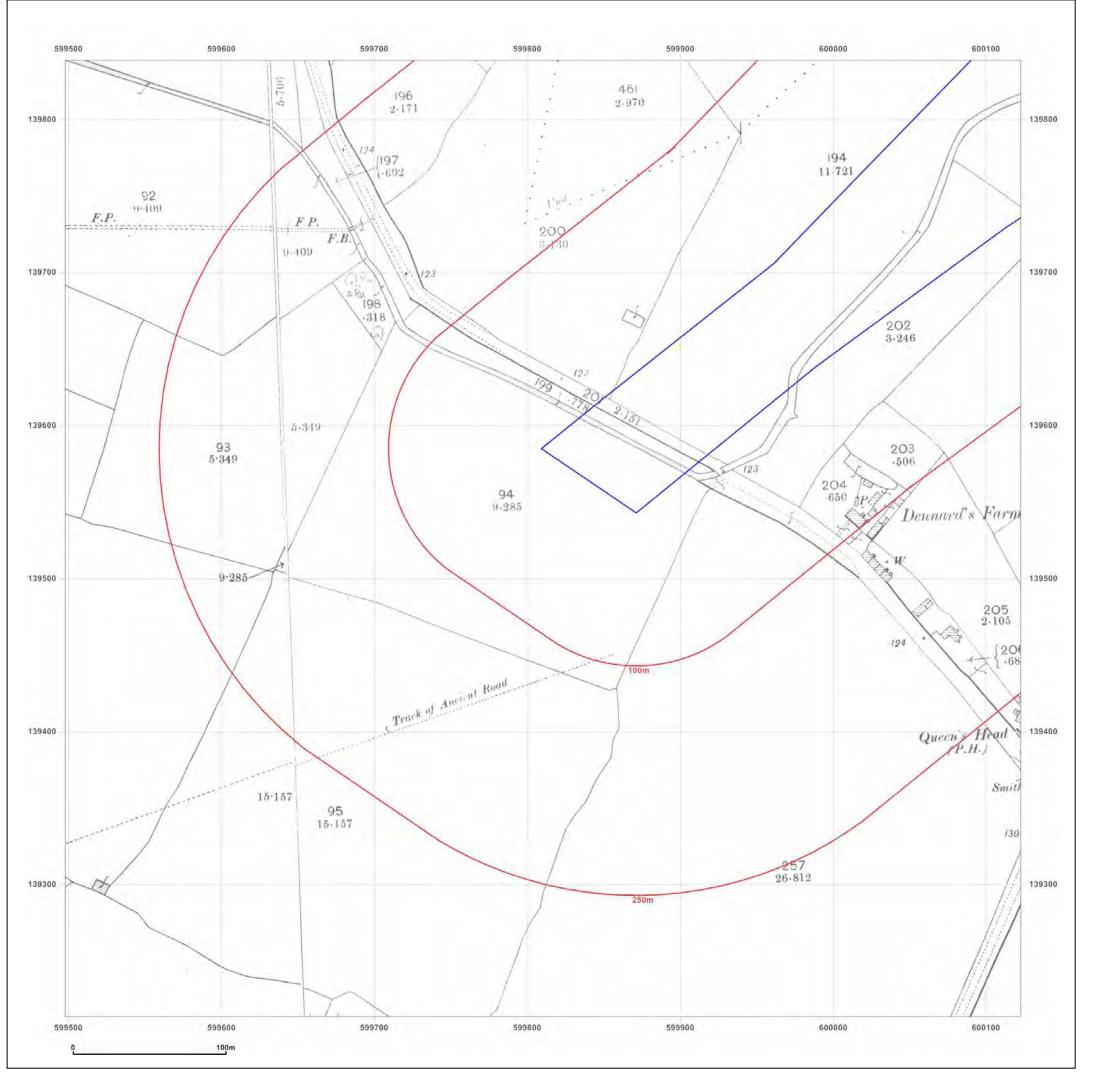




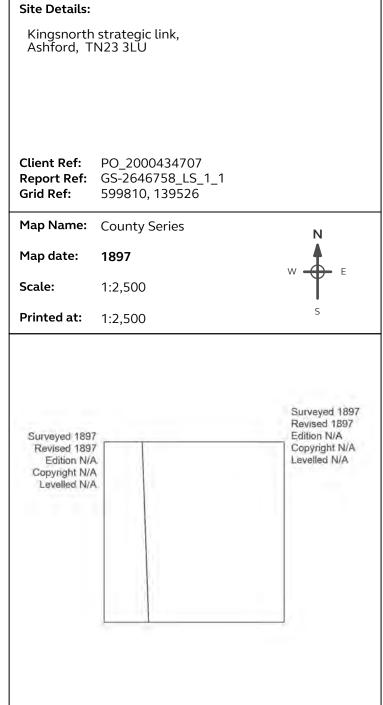


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



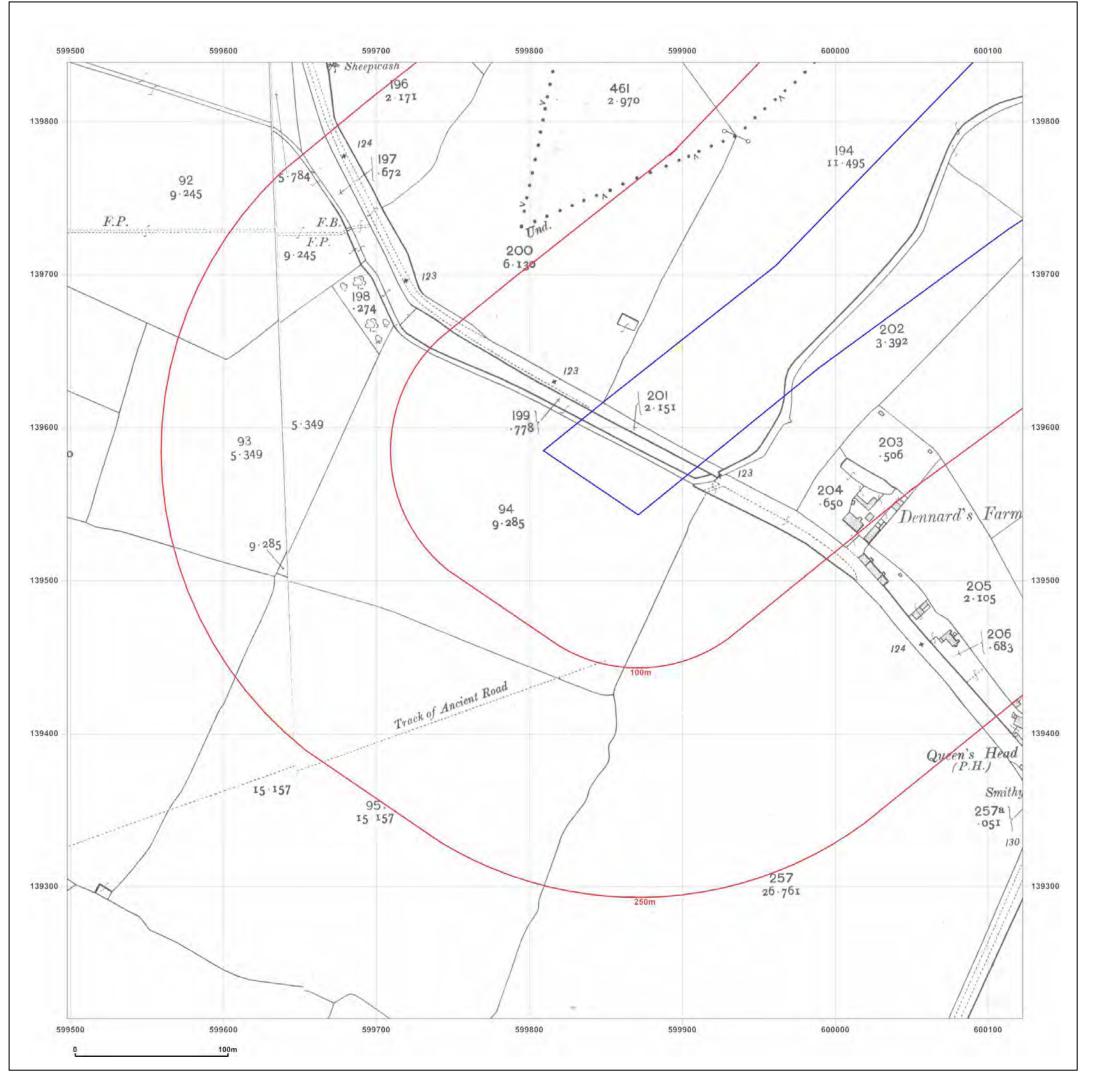




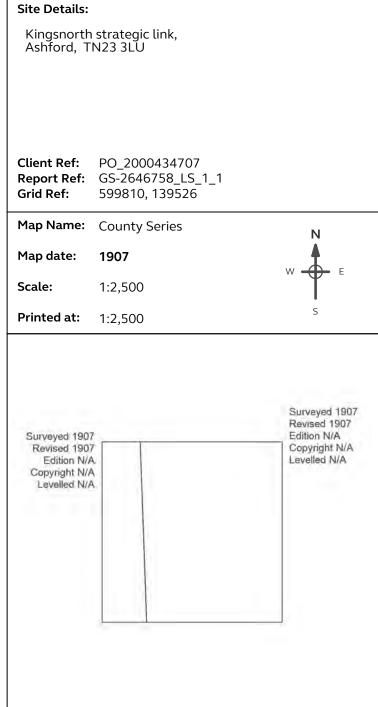


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



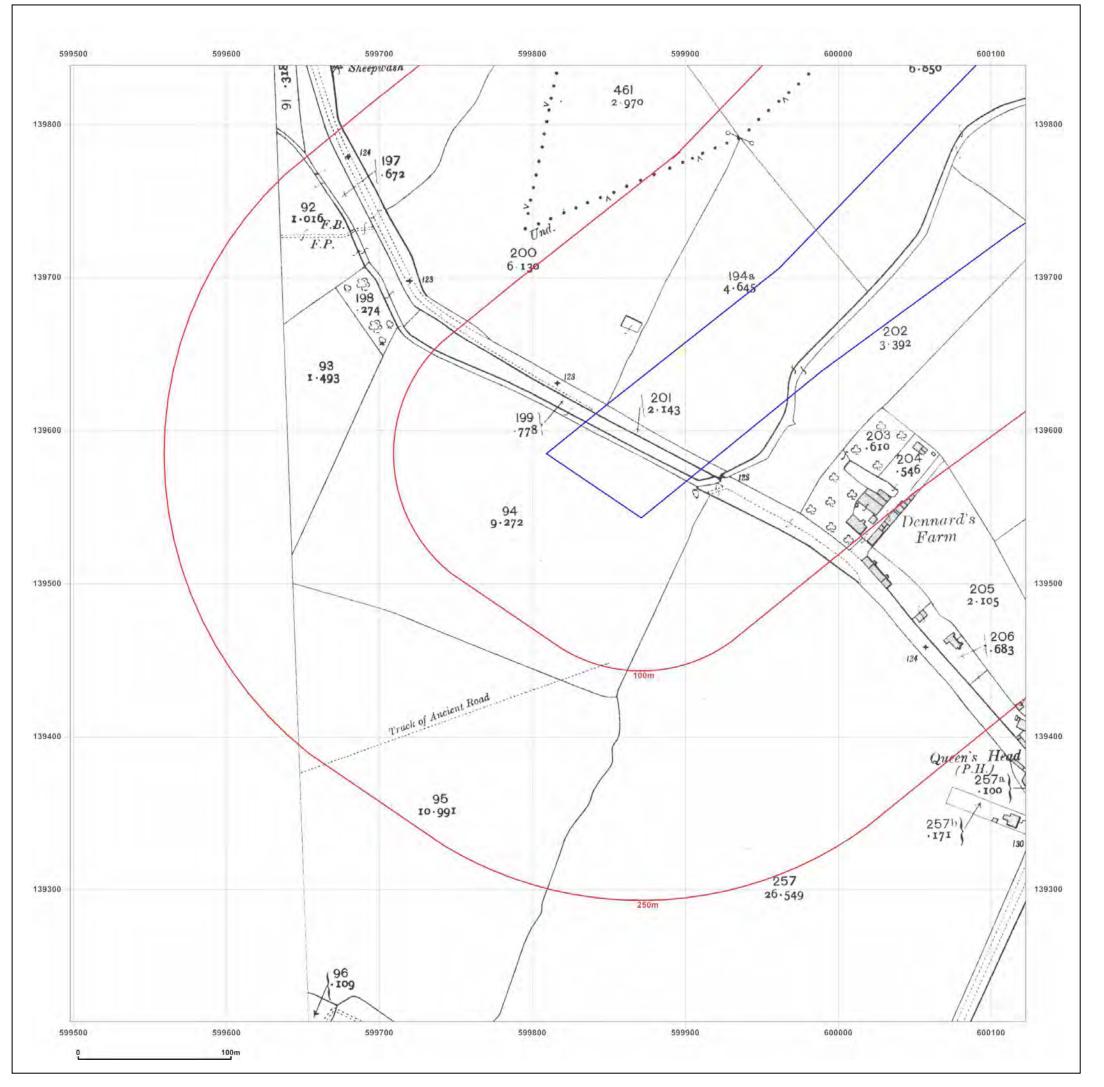




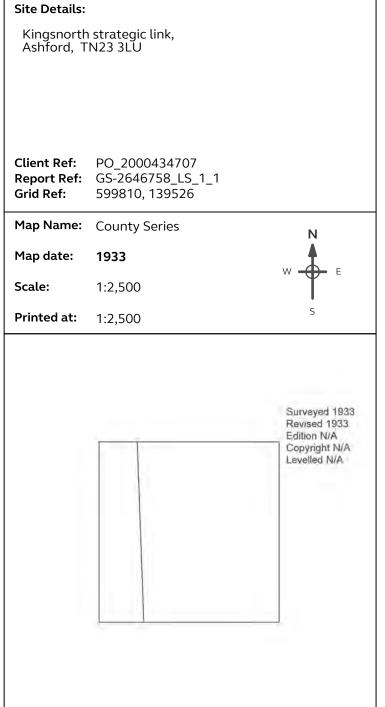


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



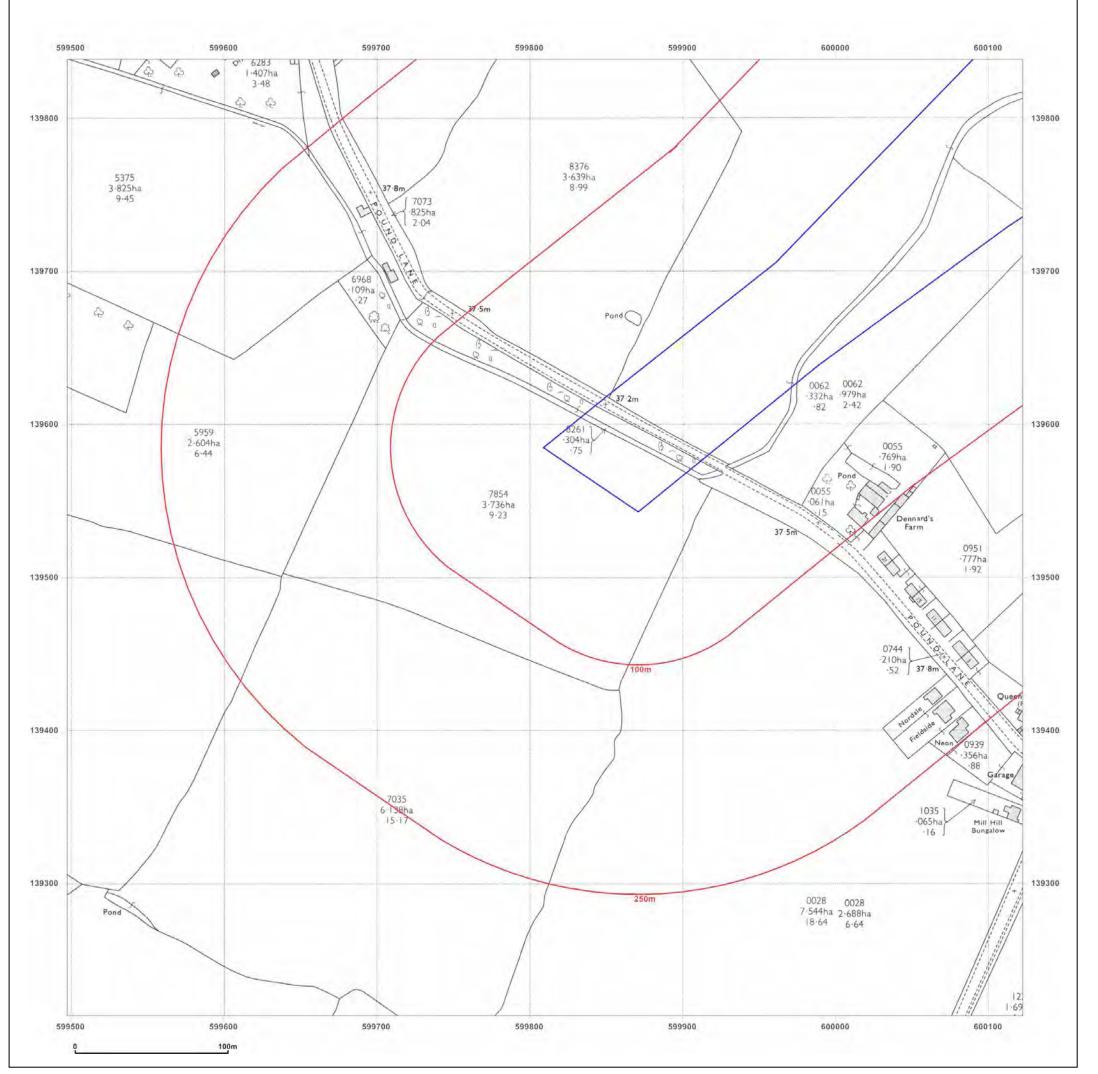




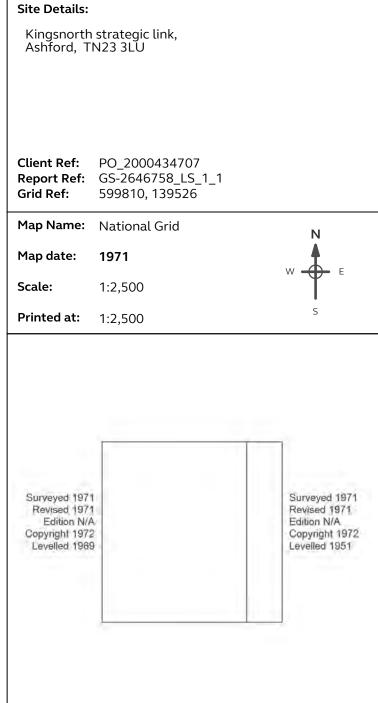


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



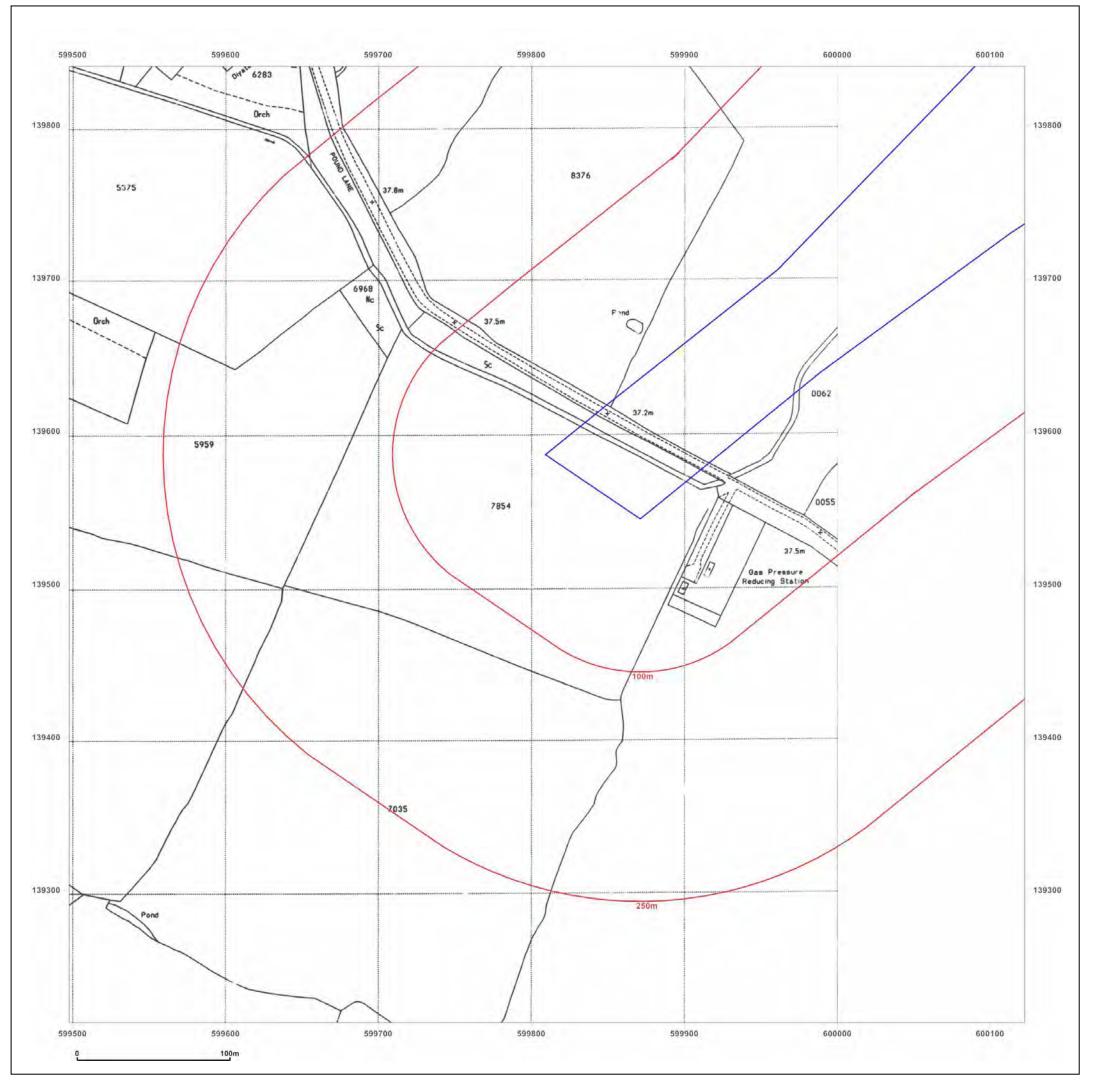




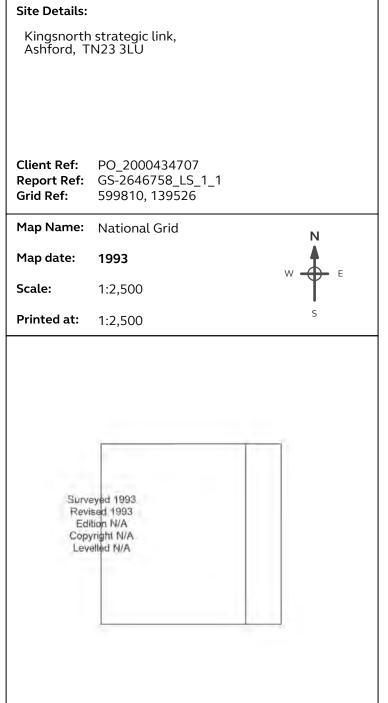


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



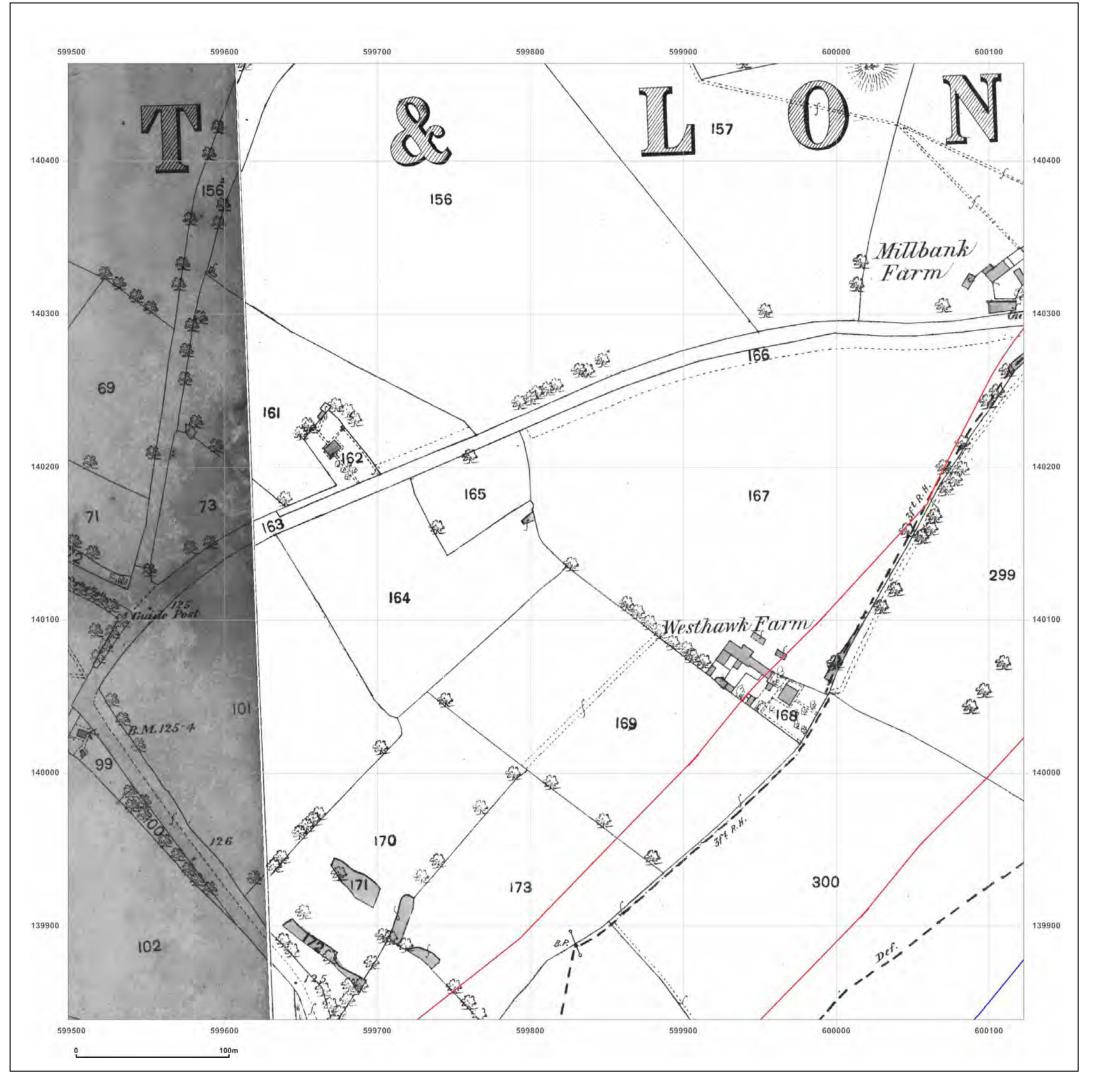




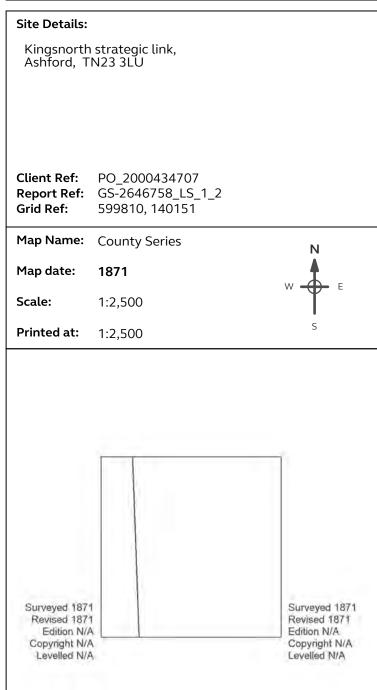


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



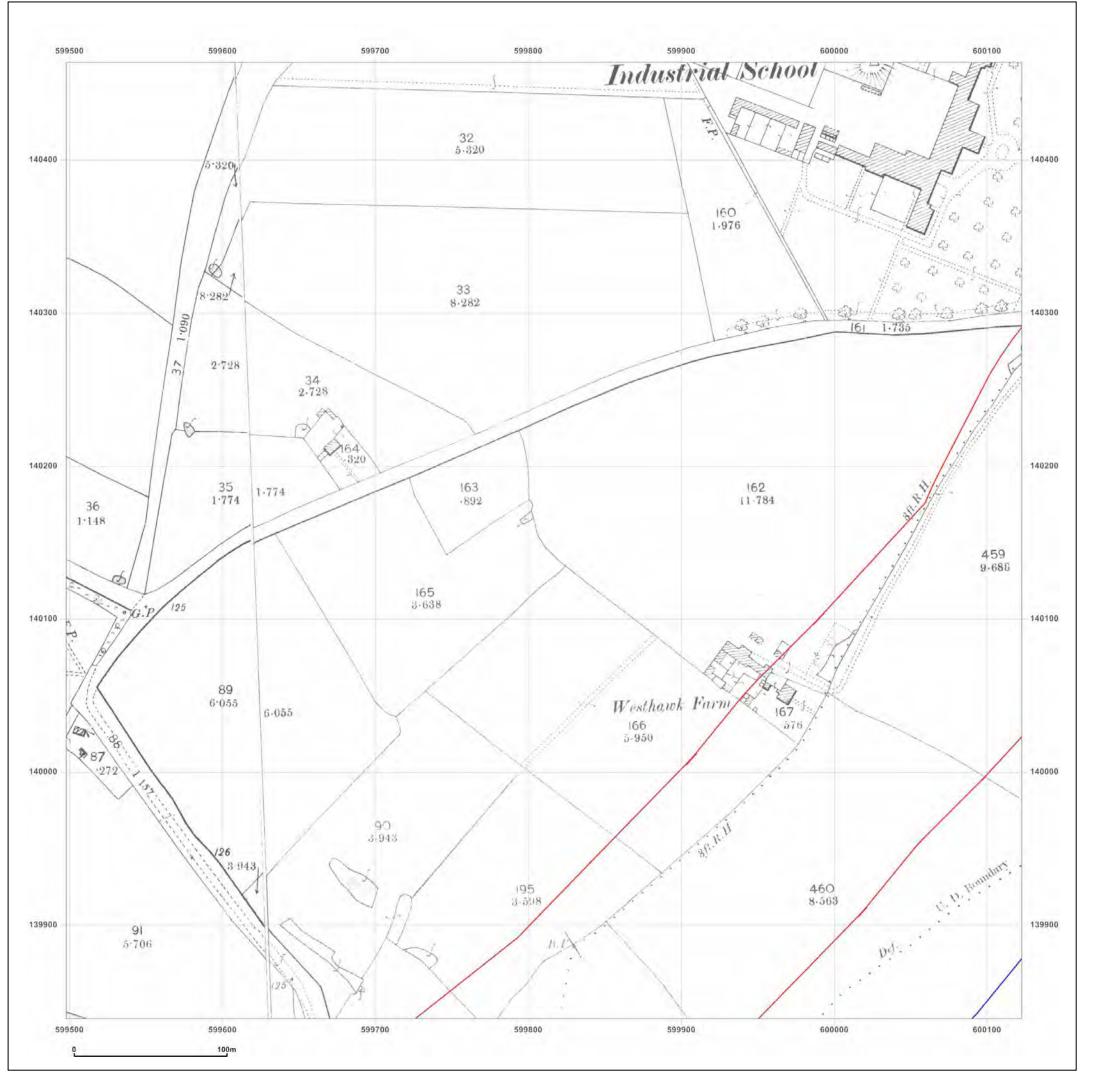




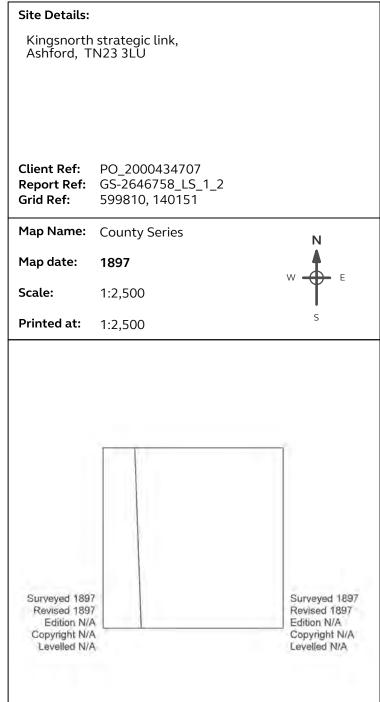


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



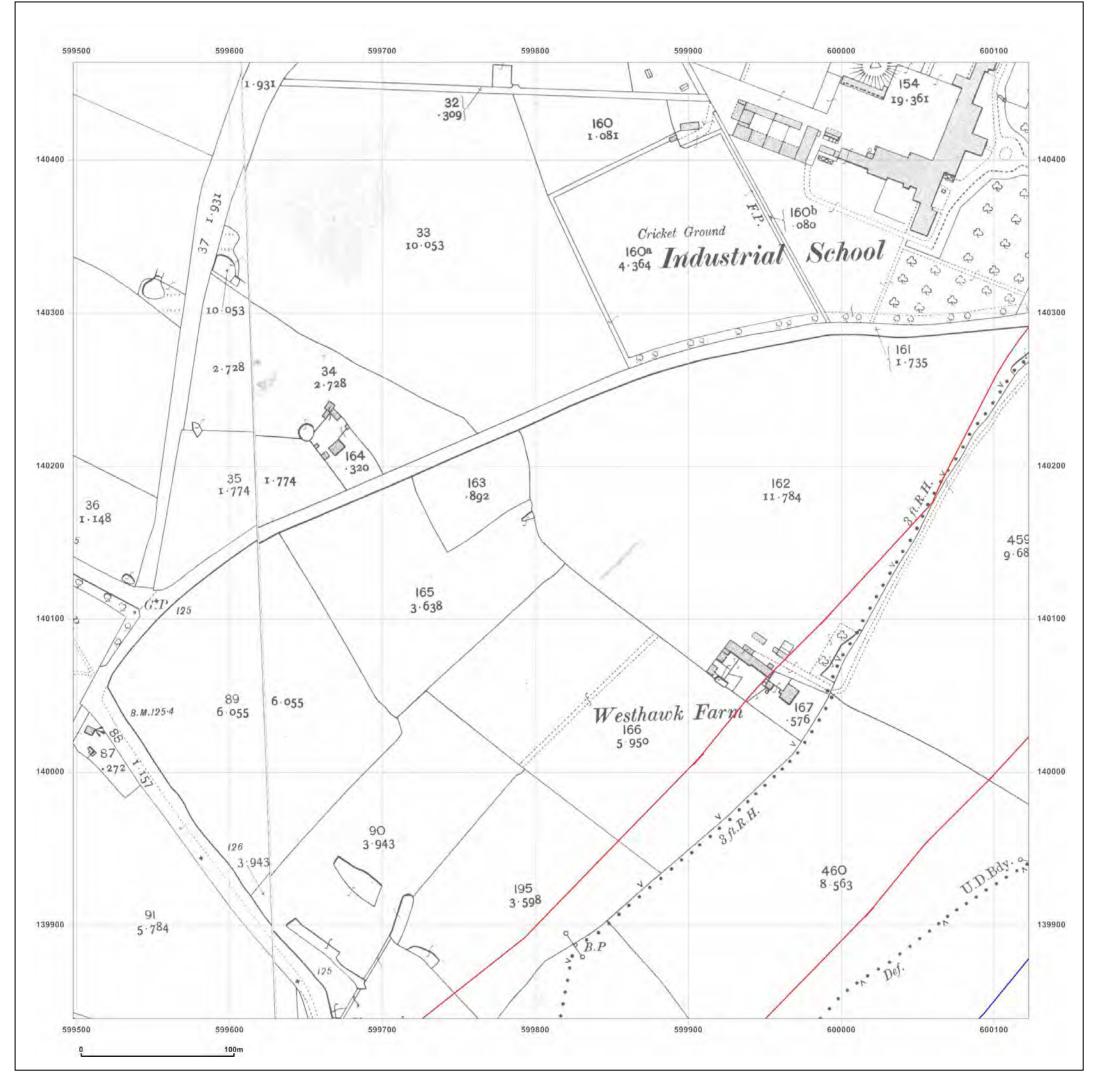




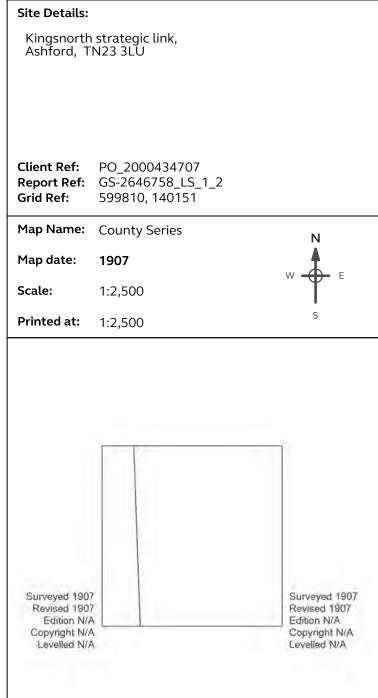


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



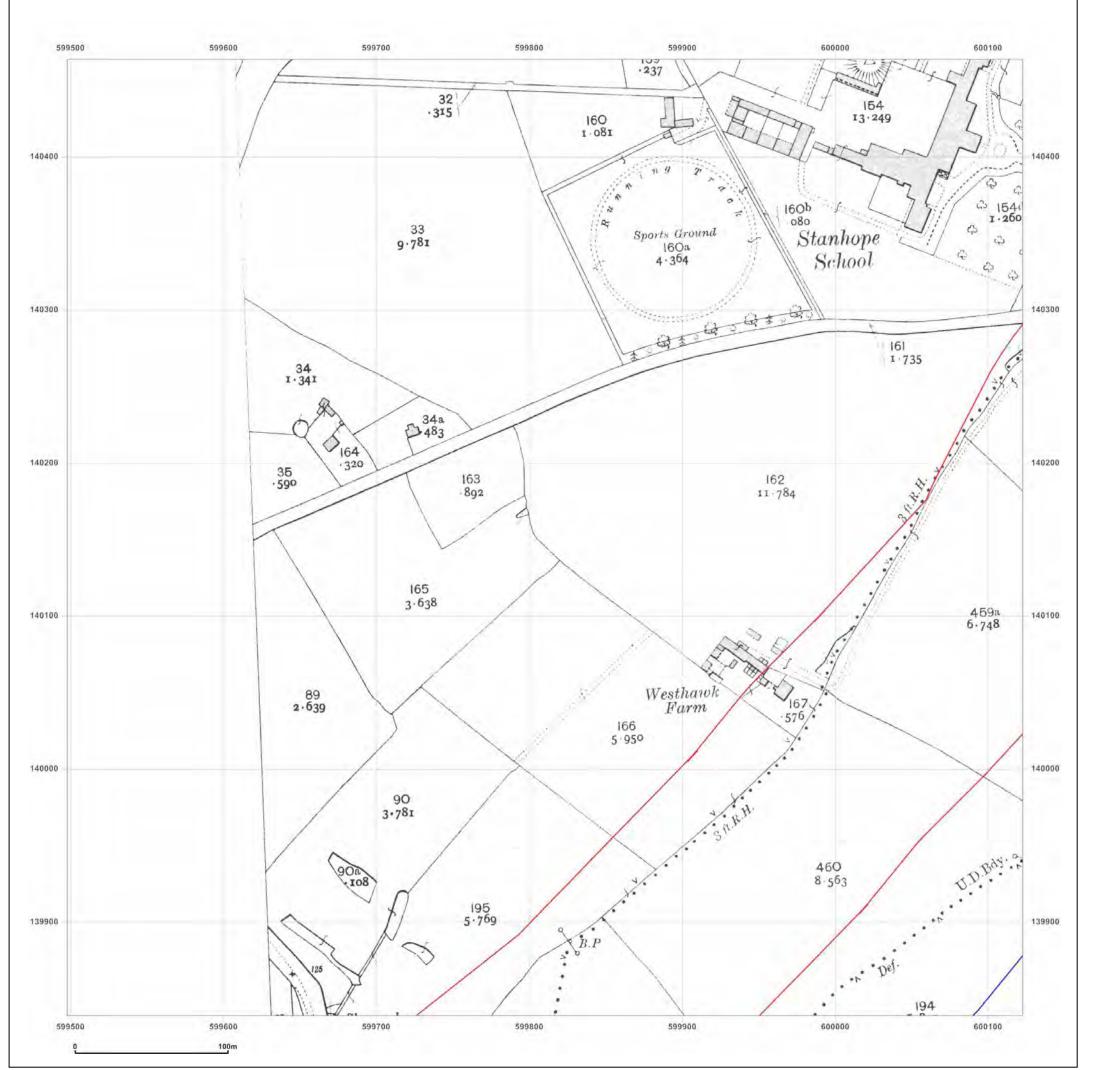




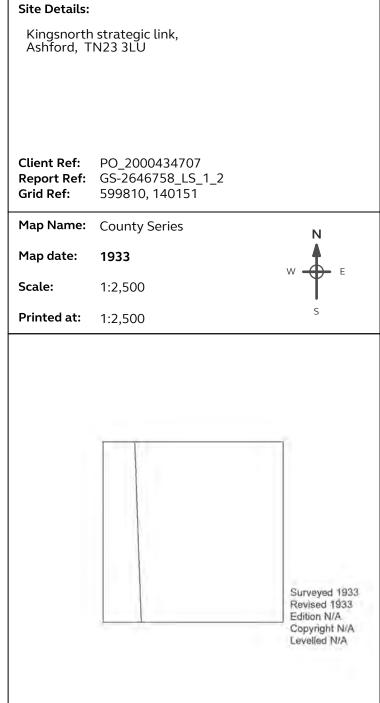


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015







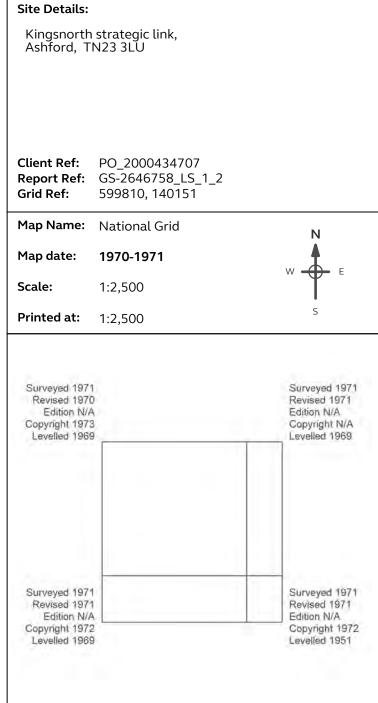


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



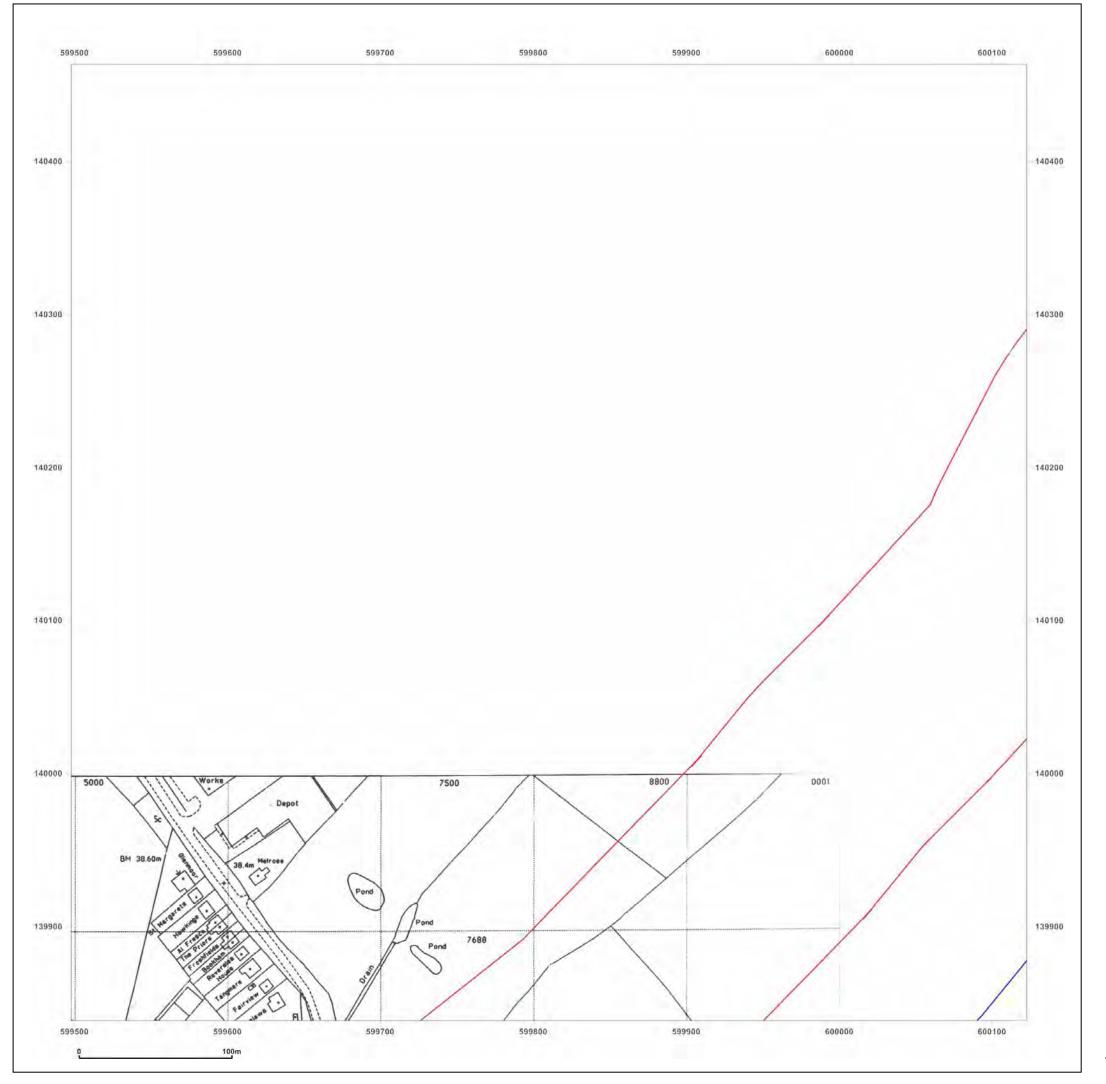




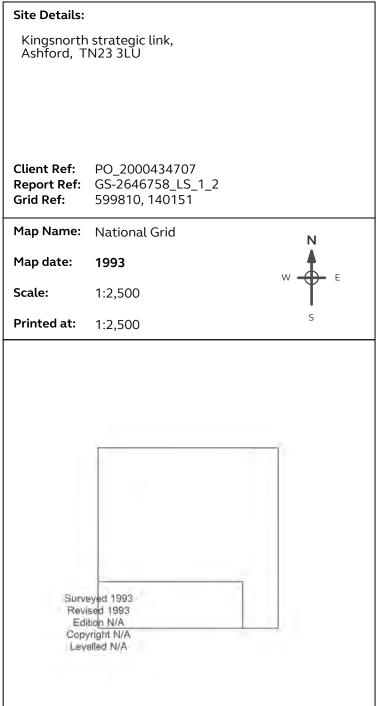


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



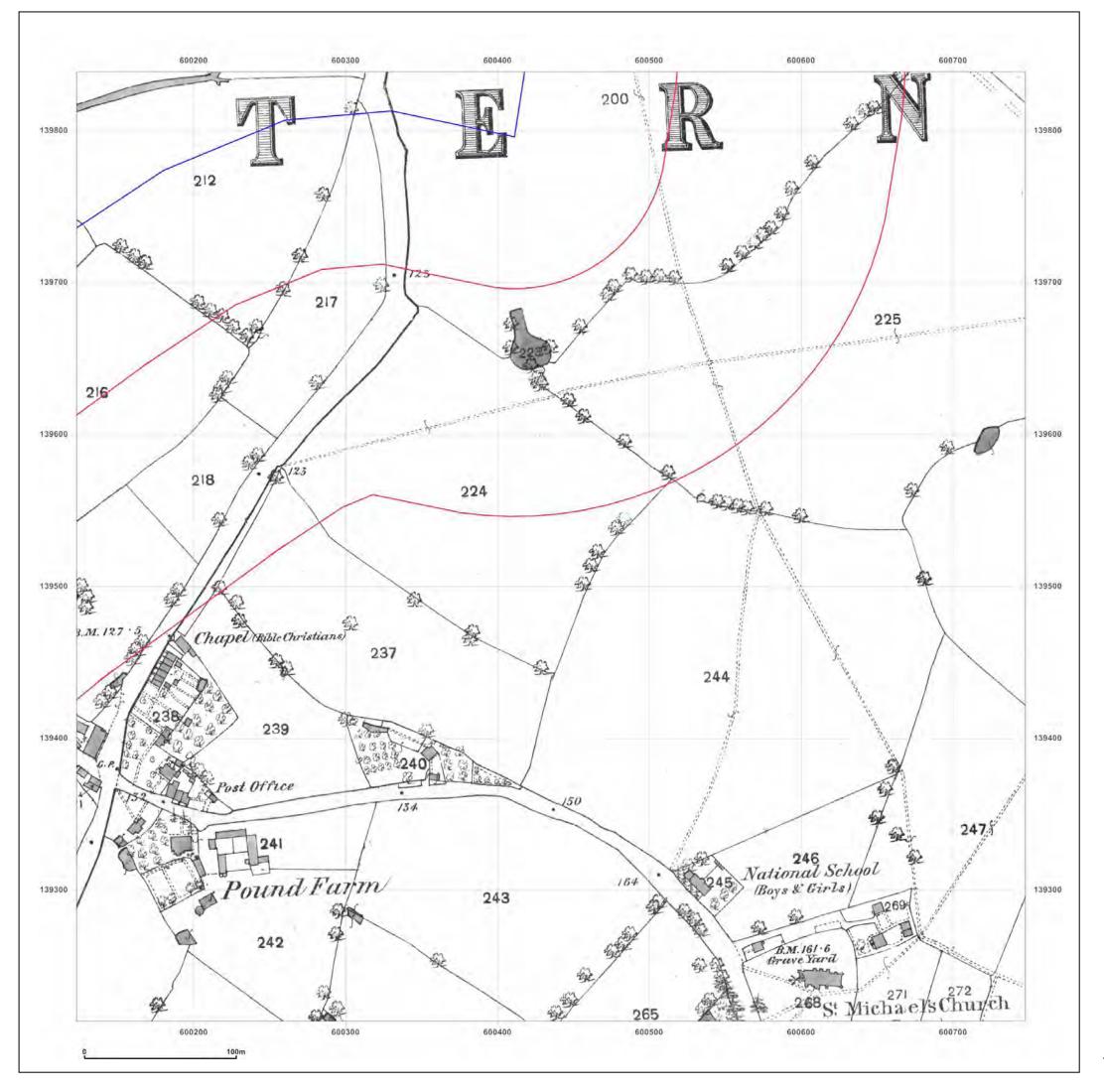




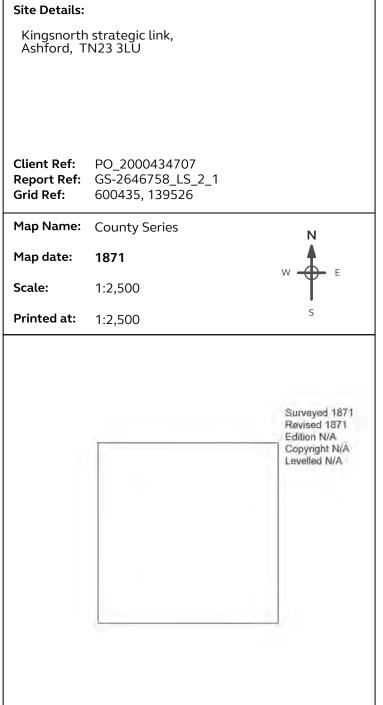


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



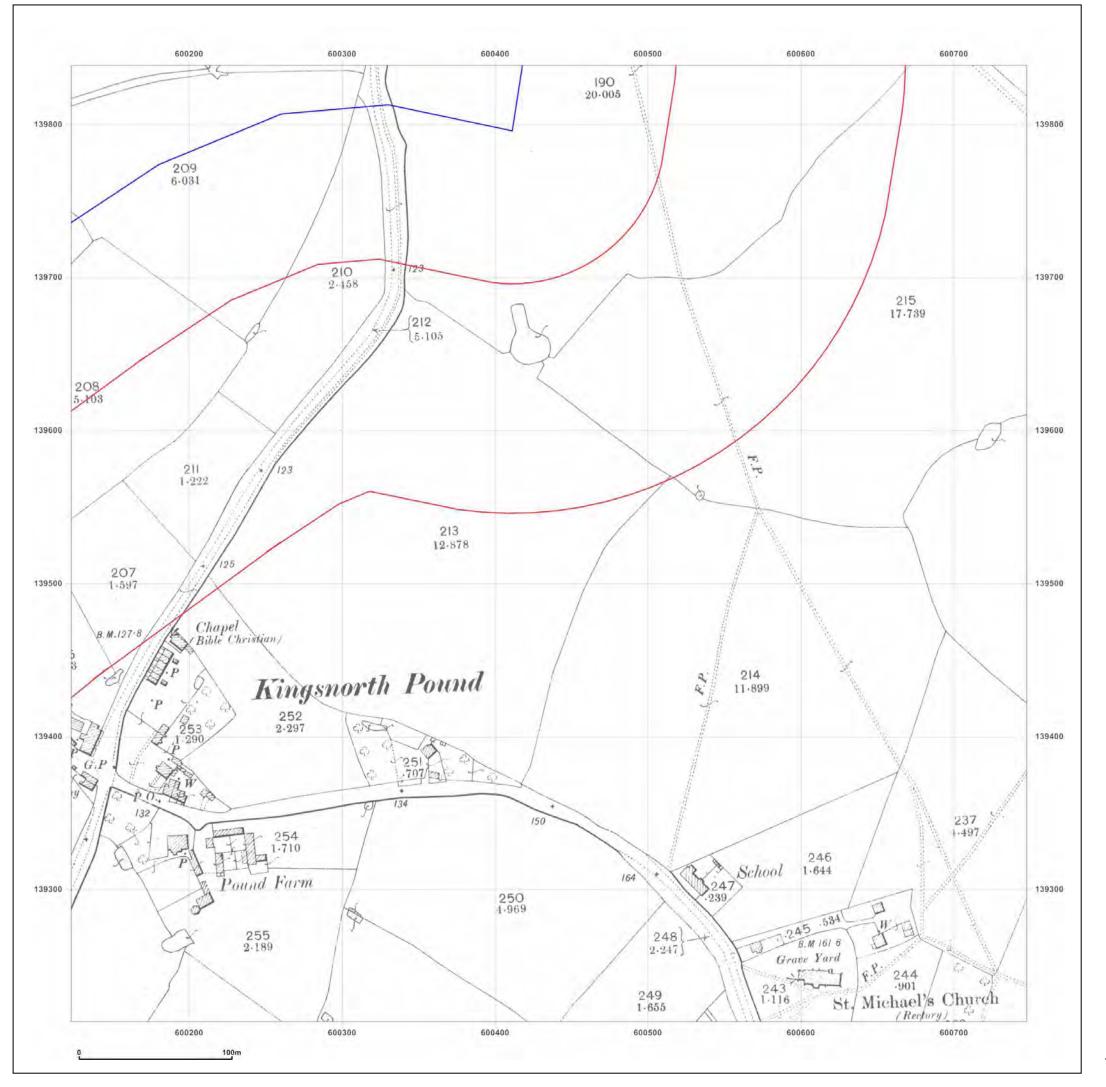




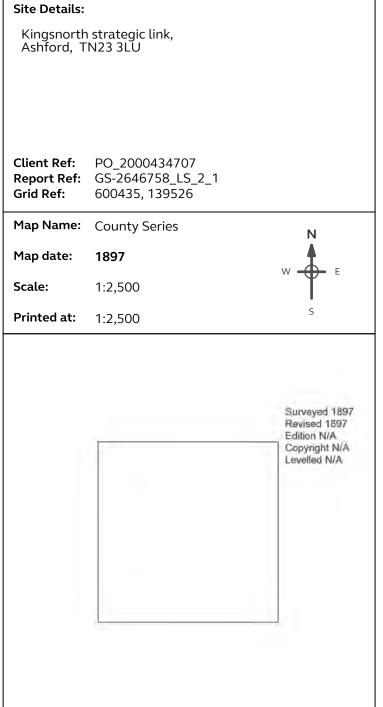


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



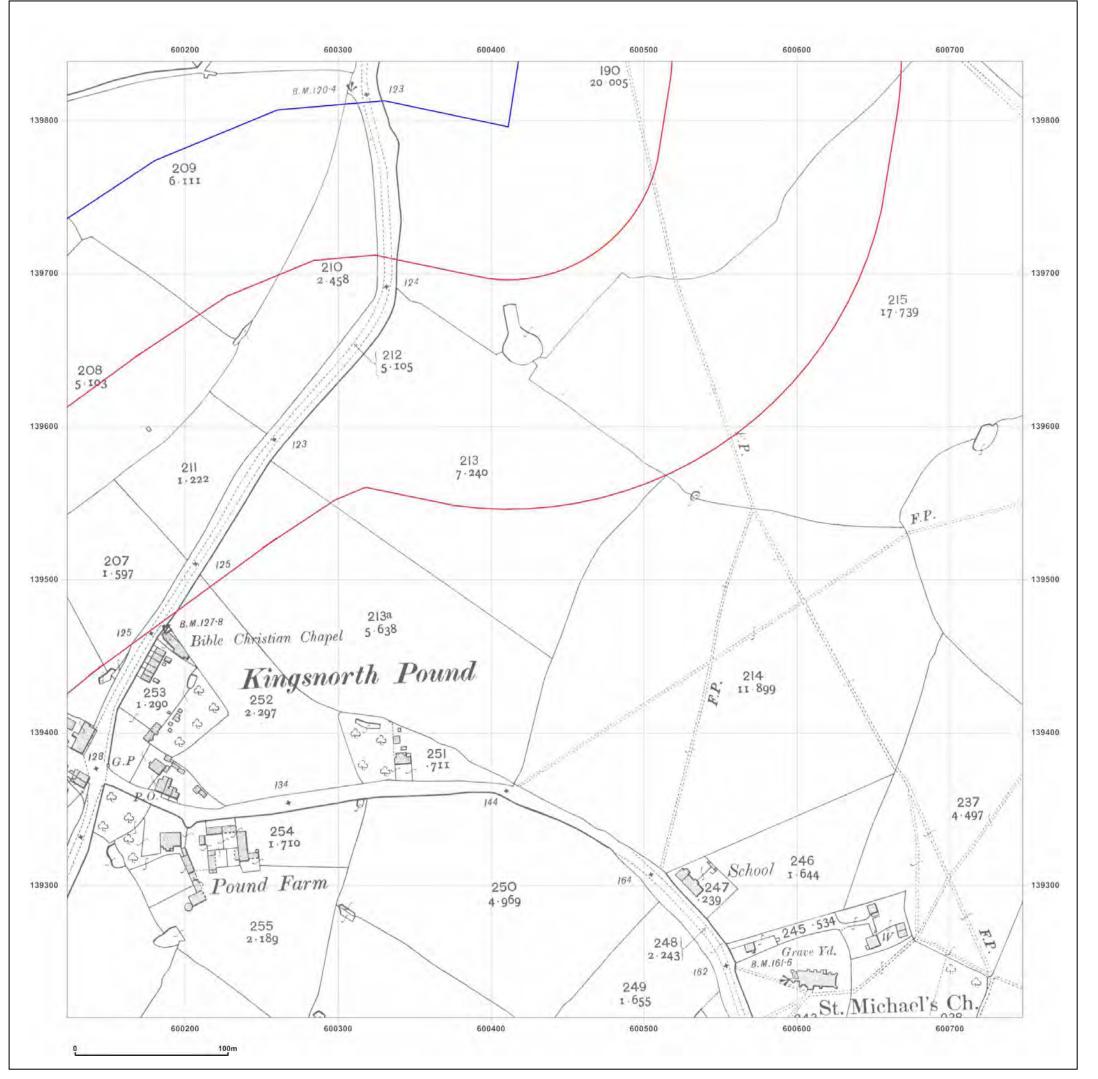




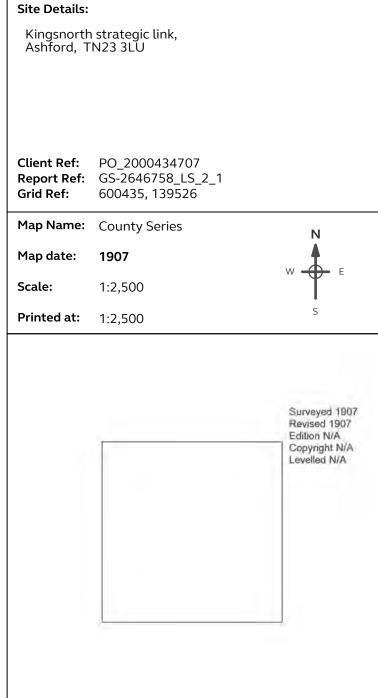


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



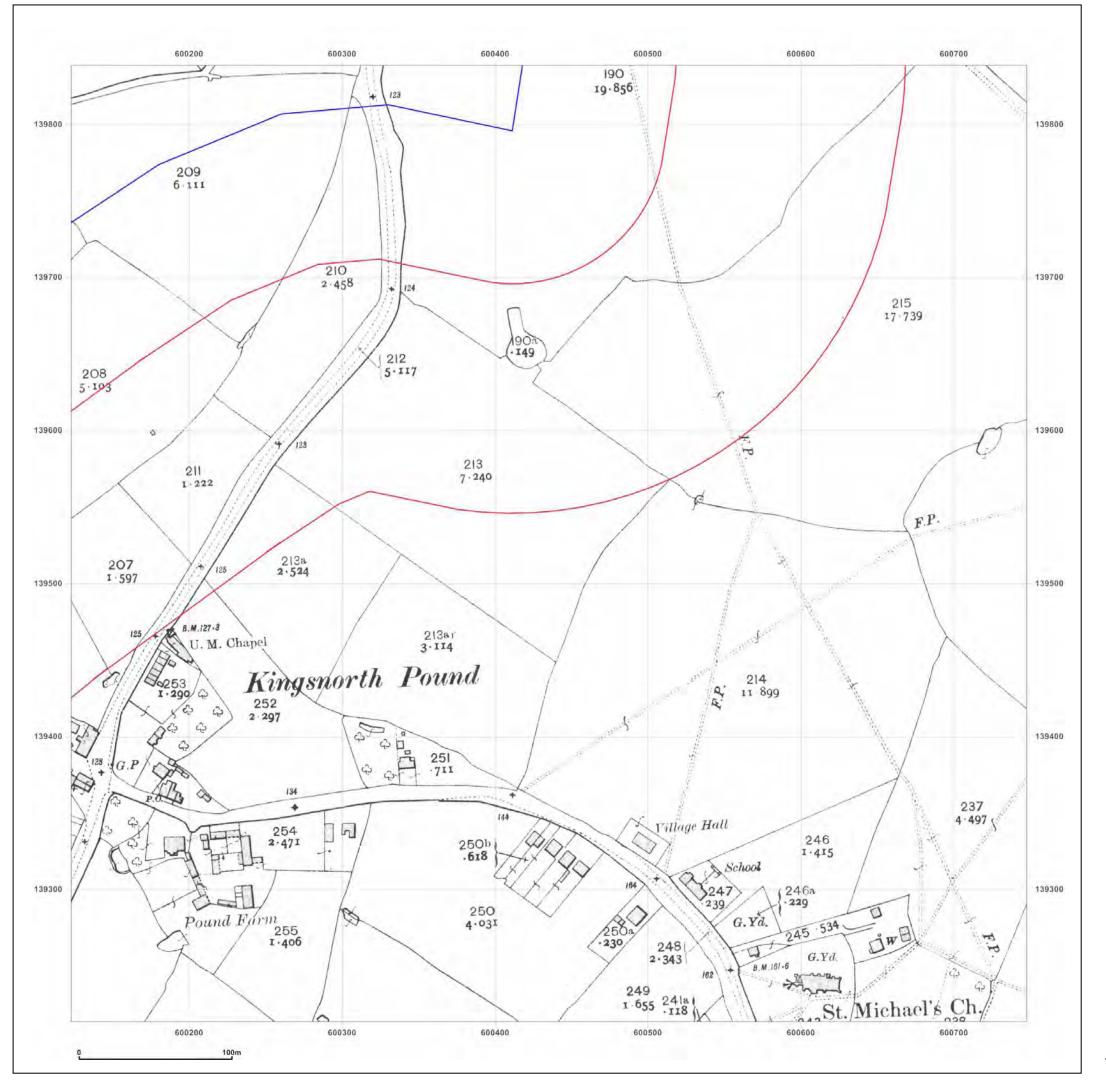




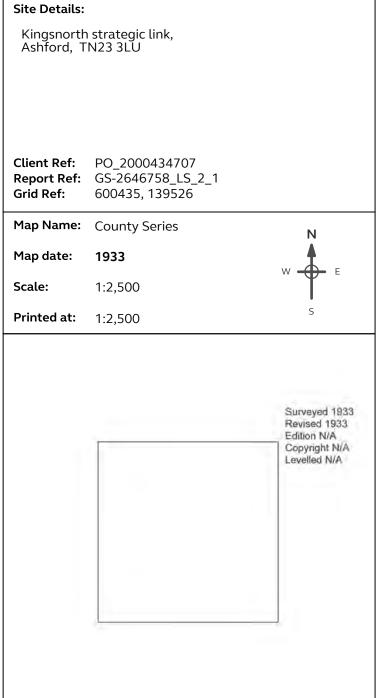


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



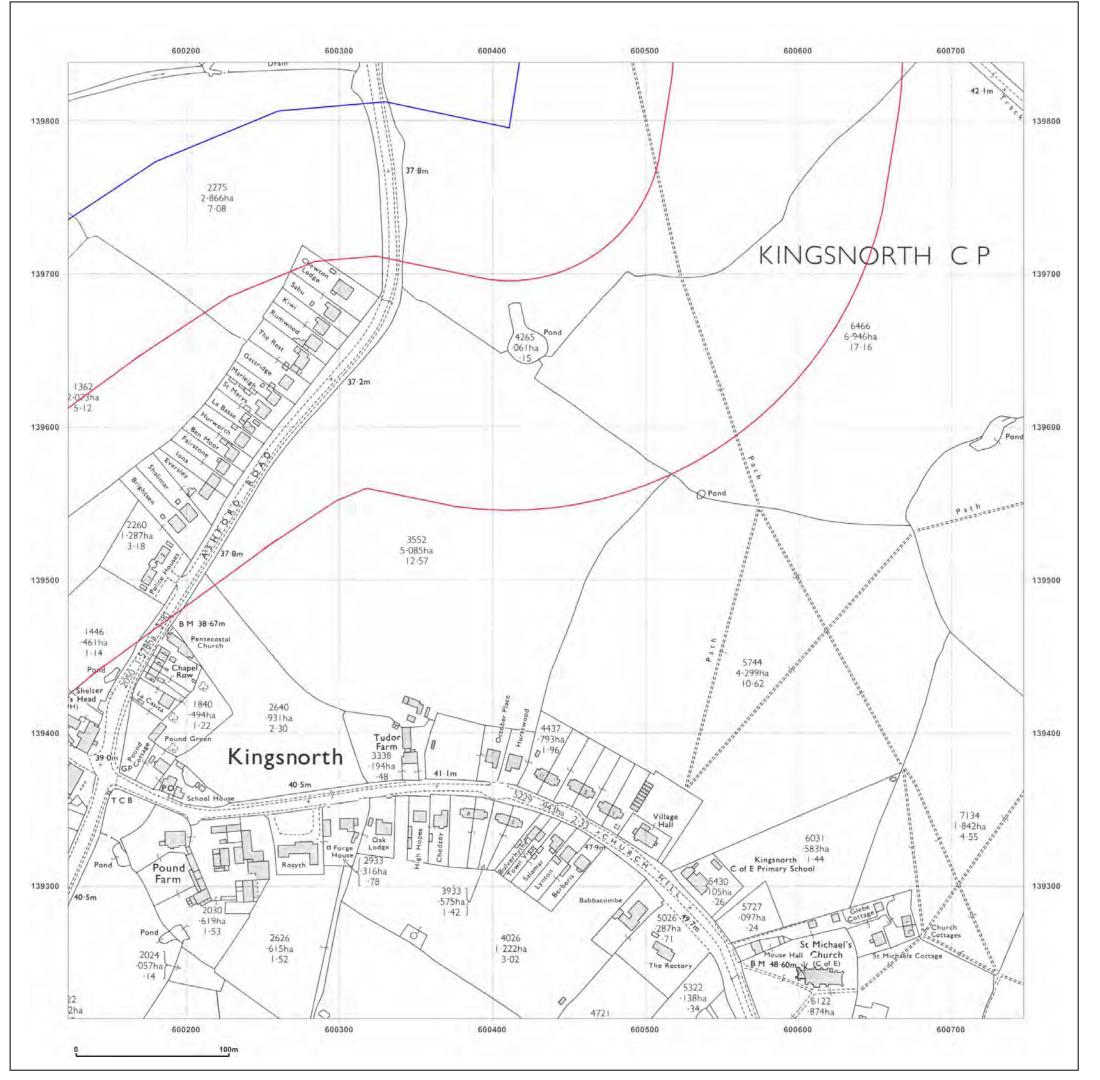




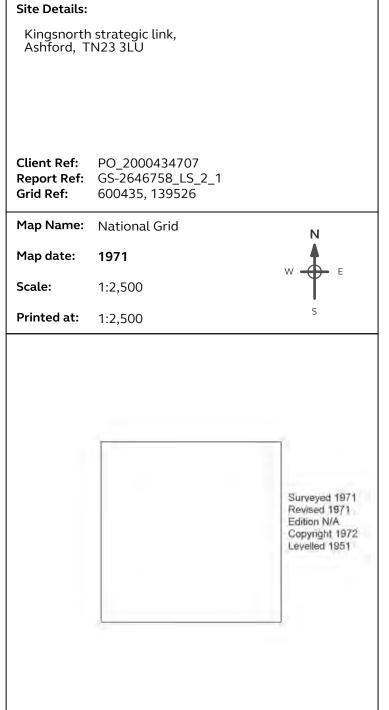


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



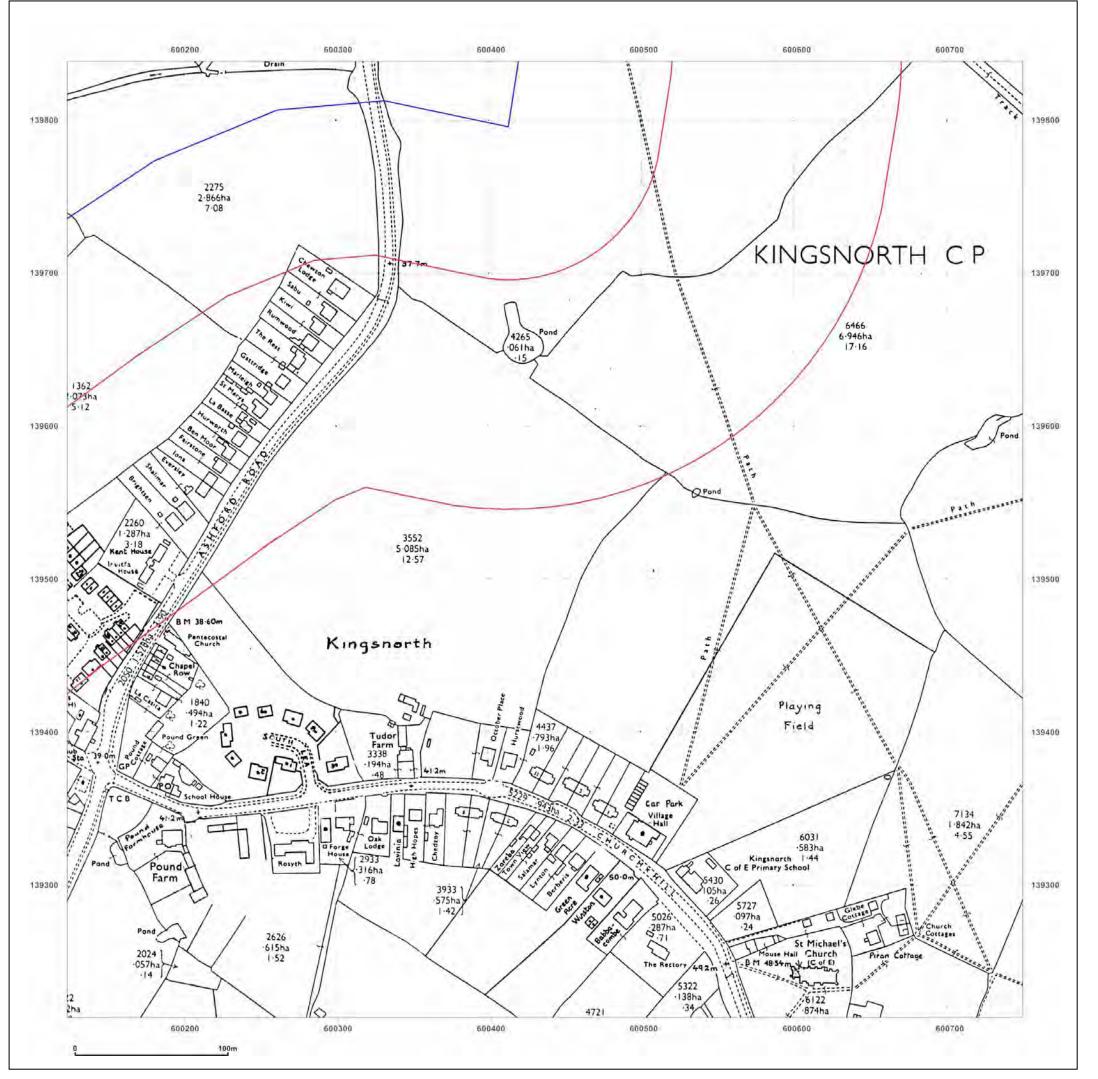




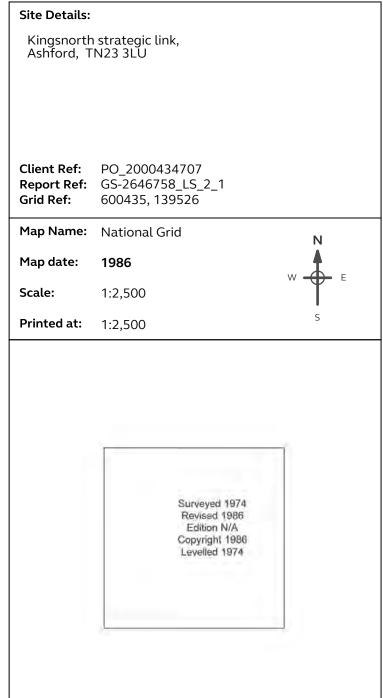


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



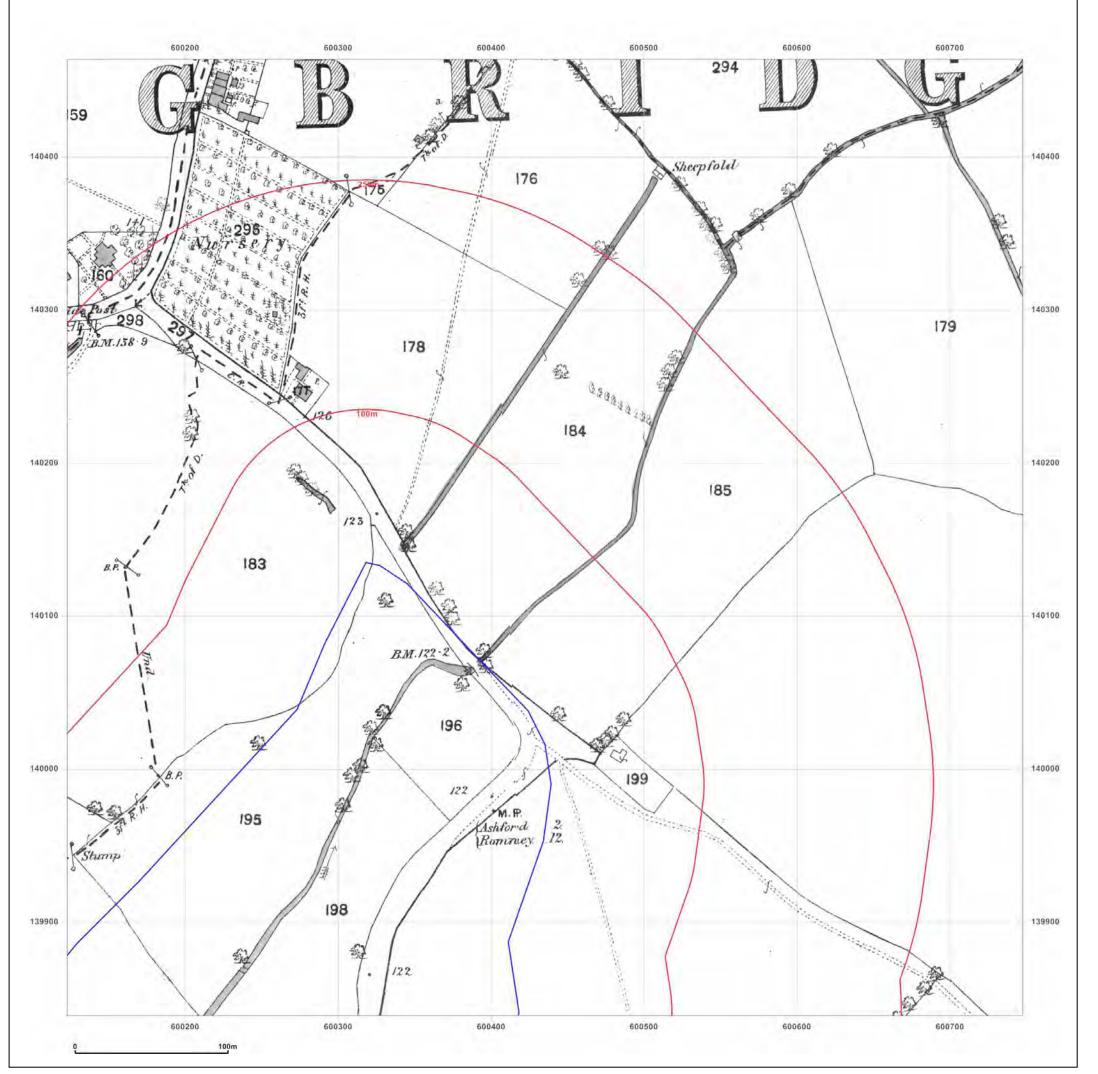




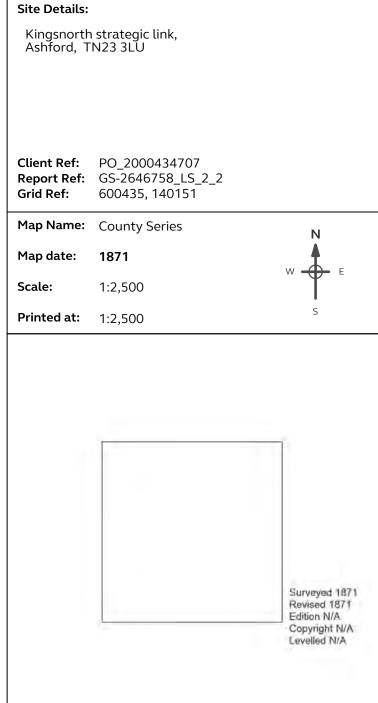


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



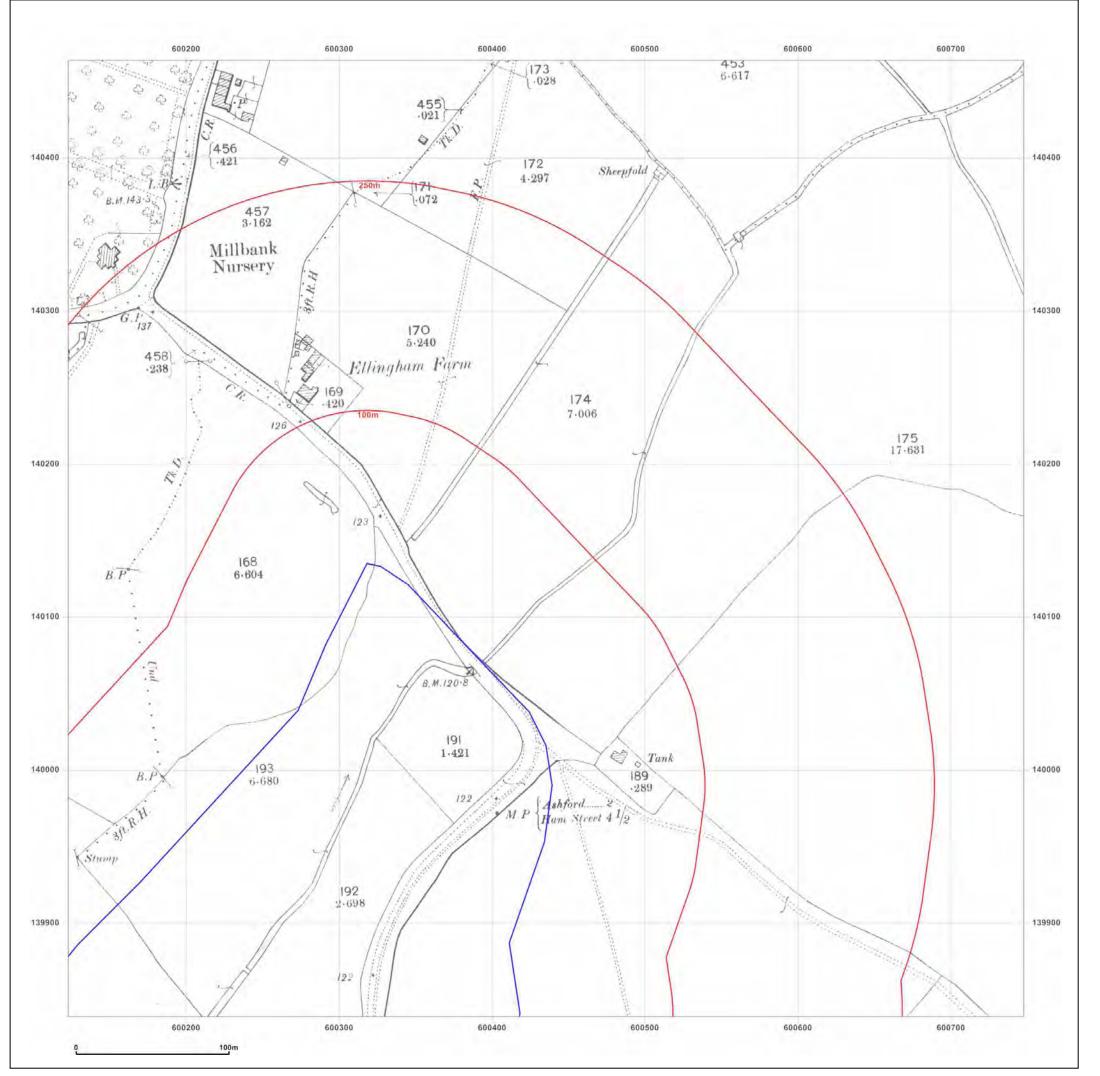




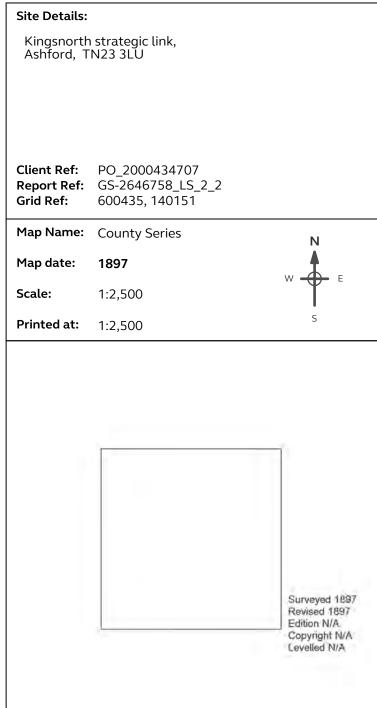


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



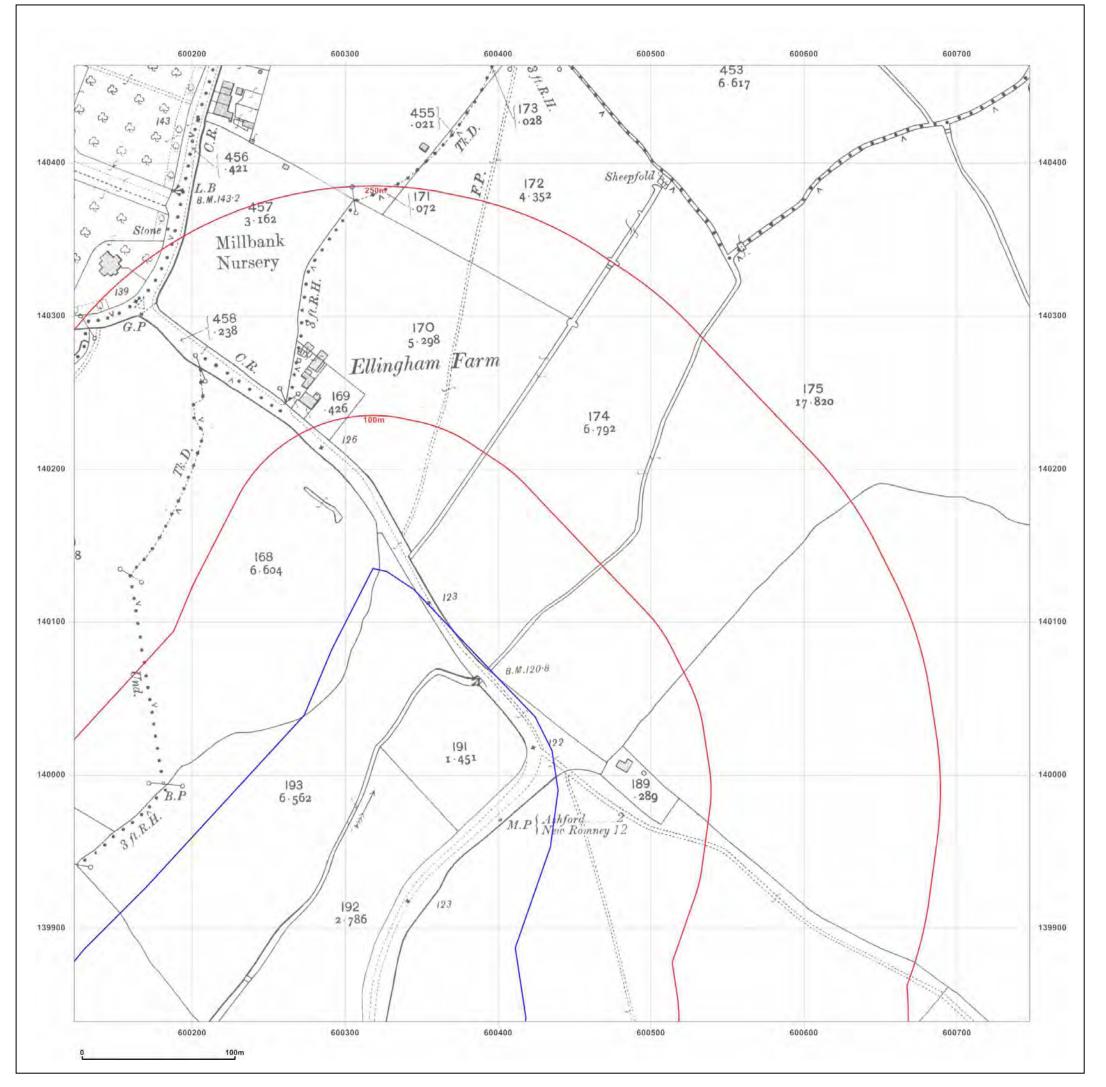




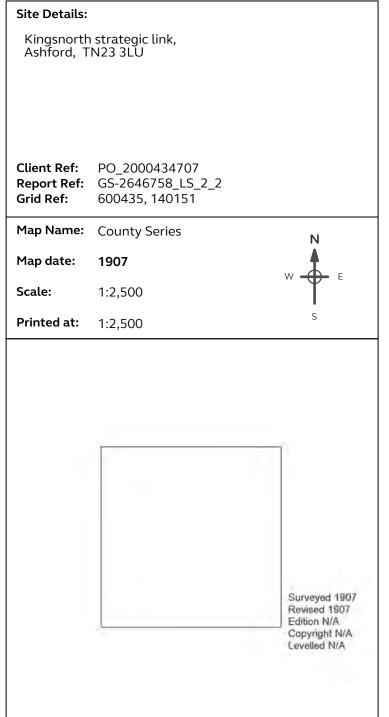


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



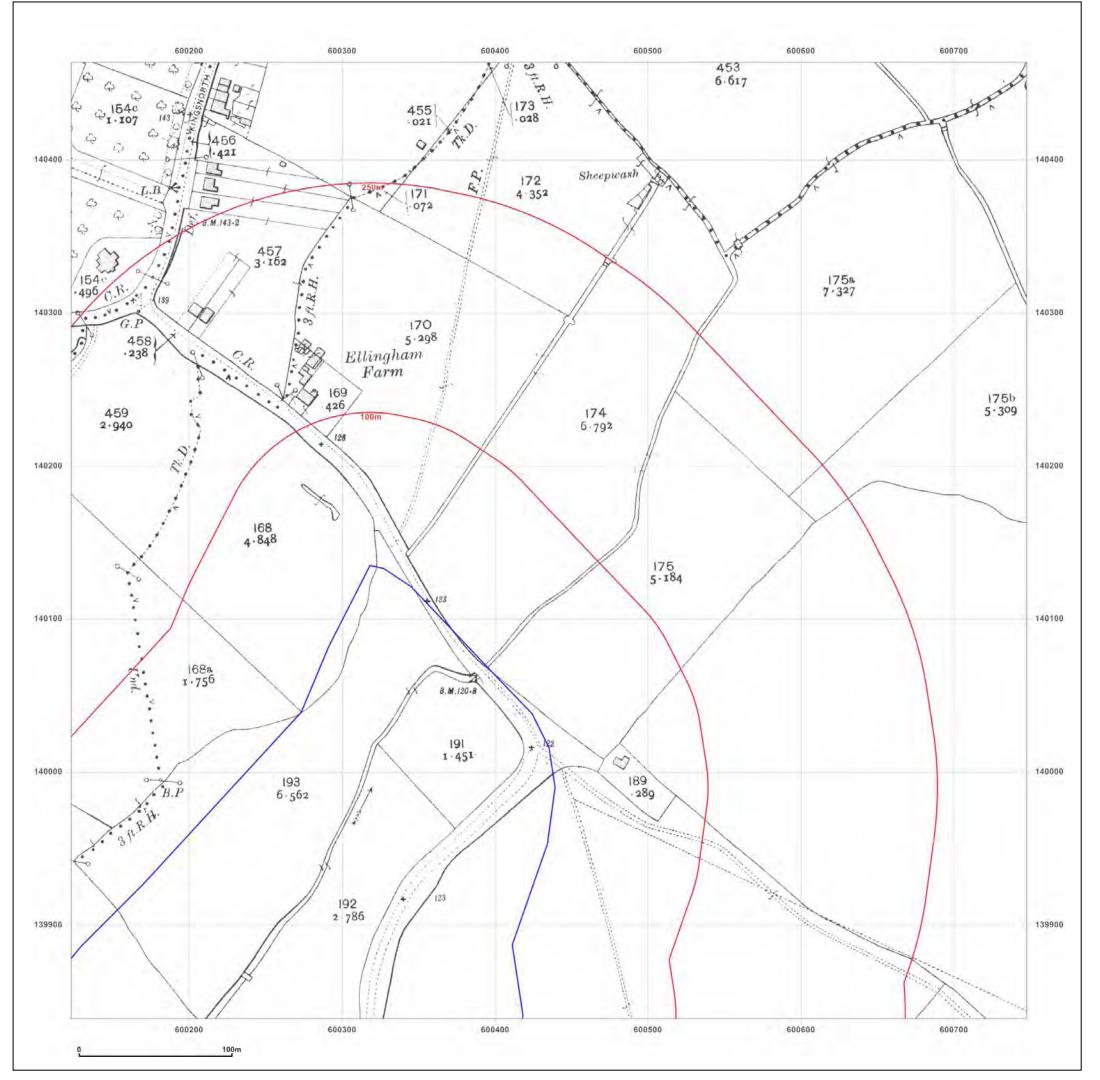




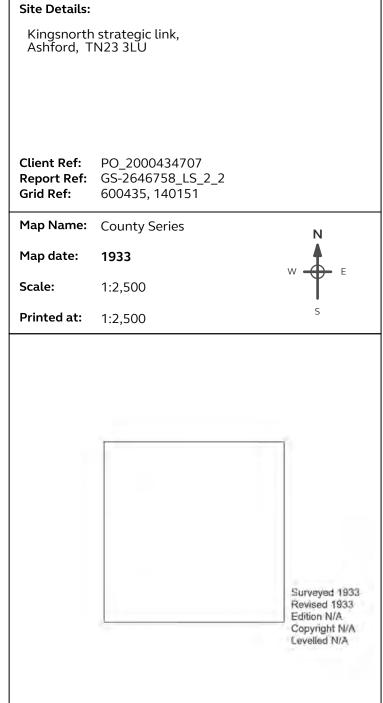


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



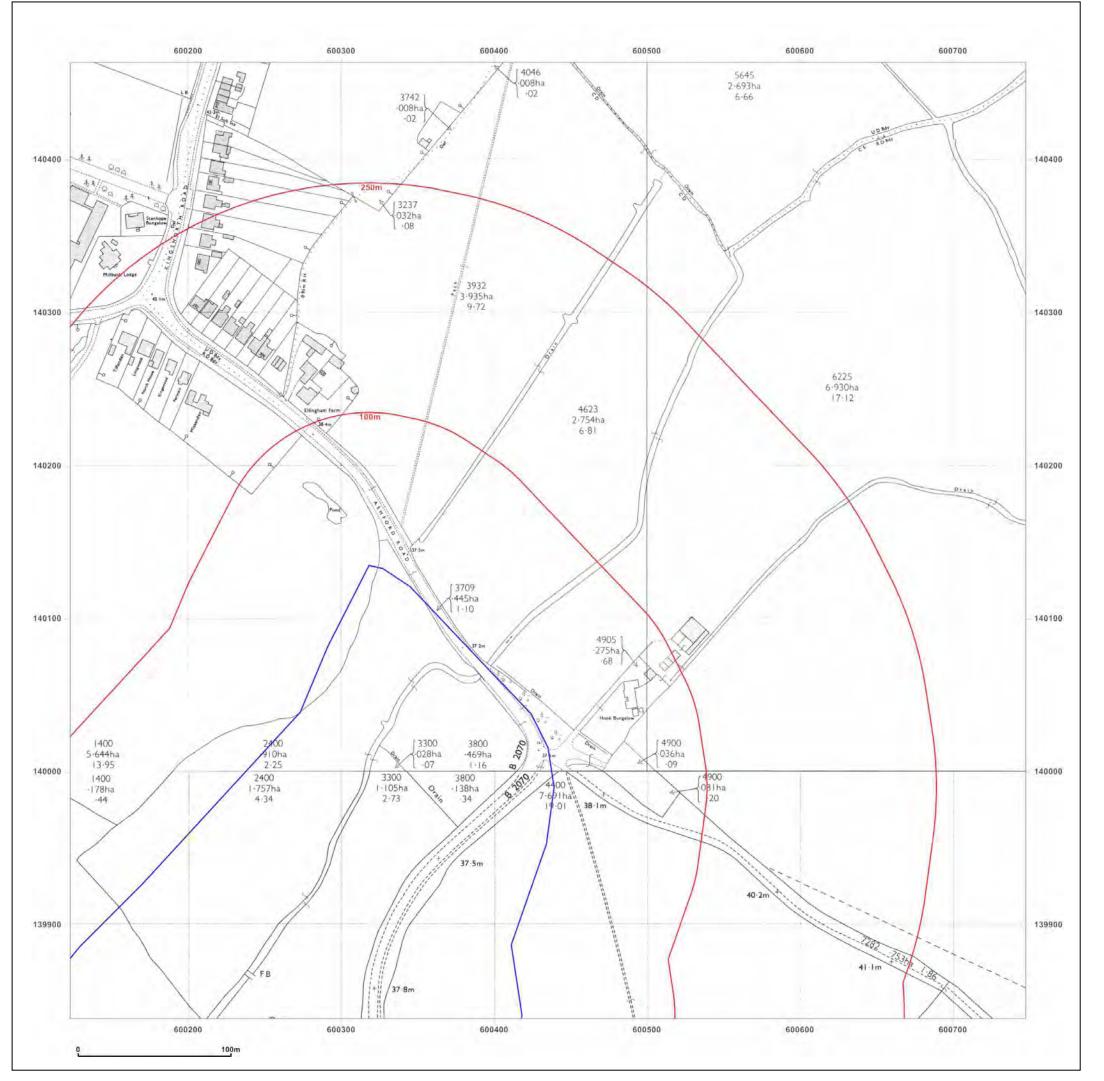




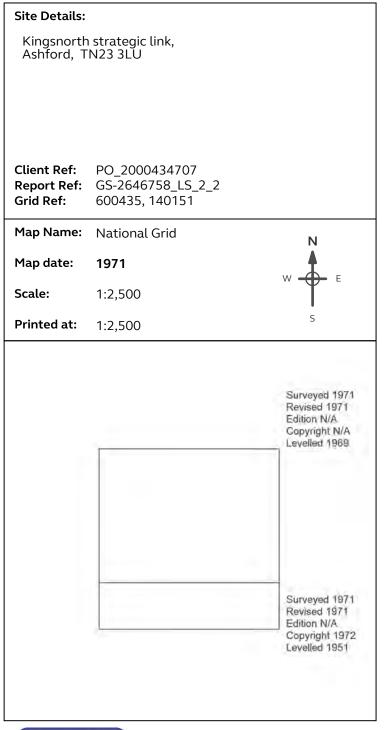


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015



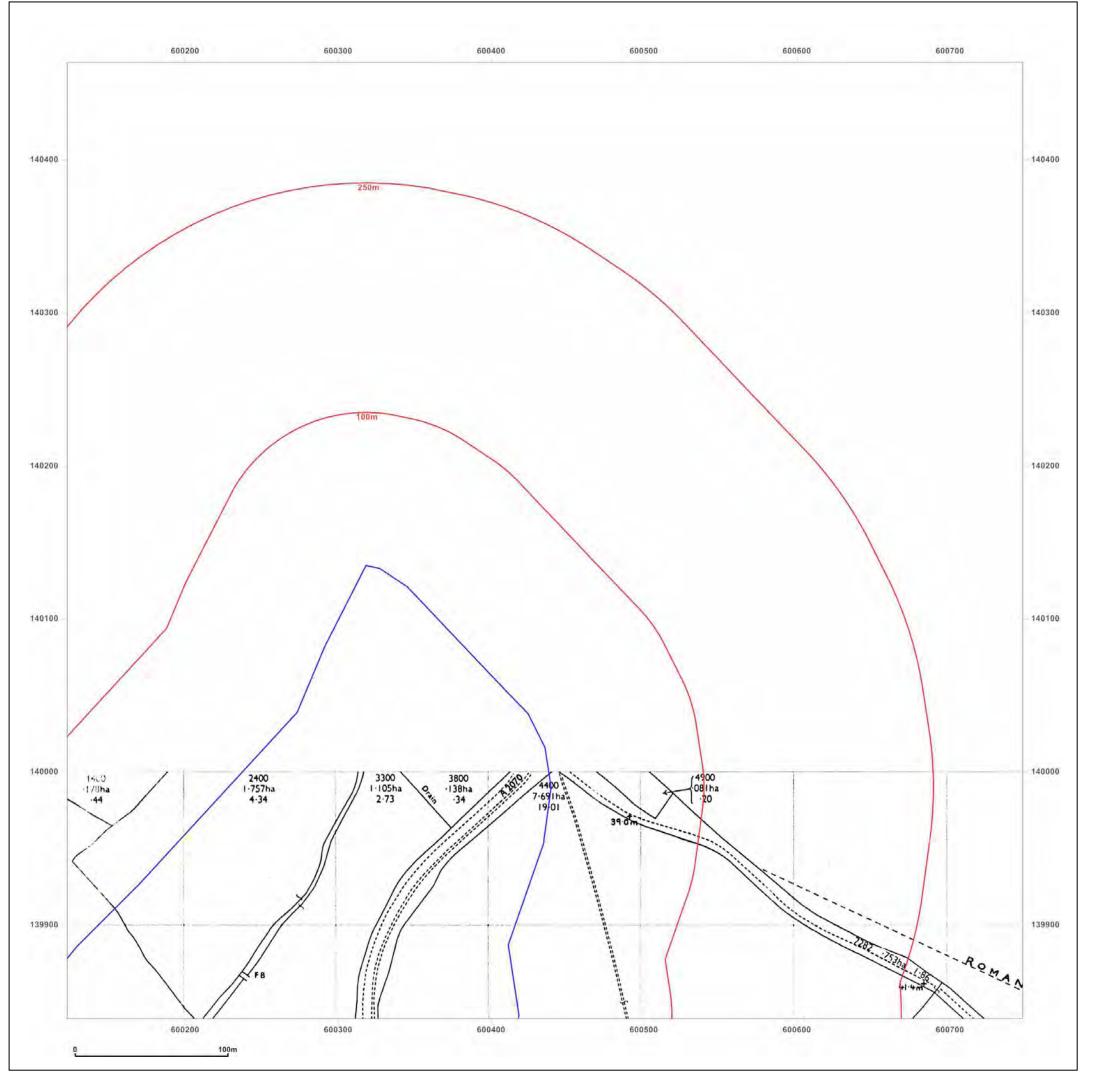




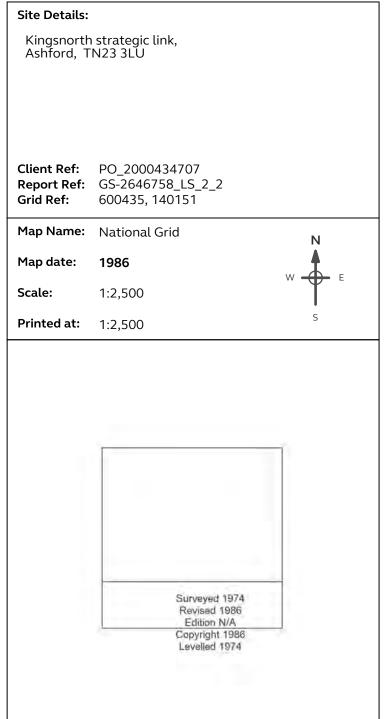


© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015









© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 11 December 2015