Willingdon Community School
Broad Road
Willingdon
East Sussex

Preliminary Ground Contamination Risk Assessment Report

Report No. R17-12069/ds

May 2017

Report prepared for the benefit of:

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Document Control		
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Revisions			
Reference	**Revised By**	**Approved By**	**Date**

Limitations

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The risk assessment presented in this report follows 'source-pathway-receptor' techniques for the determination of whether a site is contaminated. This is standard practice in the UK, being intrinsic to Part 2A of the Environmental Protection Act 1990 as amended.

The report considers the proposed end users as the most sensitive human health receptors. If significant risks to construction workers are identified by the preliminary assessment attention is drawn to this, although it is noted that no assessment of risk from acute exposure has been undertaken in this connection.

EXECUTIVE SUMMARY

The following presents a summary of the main findings of the preliminary ground contamination risk assessment. It is emphasised that no reliance should be placed on any individual point until the whole of the report has been read as other sections of the report may put into context the information contained herein.

It is proposed to undertake the development at the Willingdon Community School, Broad Road, Willingdon, East Sussex. The development proposals are understood to comprise the construction of a new sports hall at the south western end of the existing hard surfaced playground area, together with a single storey extension to the existing school kitchen.

The existing main school buildings were located in the eastern part of the wider school grounds, comprising one and two storey buildings. An access road was present to the east of the school buildings leading from Broad Road to hard surfaced parking areas located to the east and north east of the buildings. In the north eastern parking area was a bicycle store and shed with storage containers present further to the north. The area between the main school building and Broad Road to the south east comprised a hummocky grassed surfaced area with numerous mature trees and several footpaths. The remainder of the school site mainly comprised open grass surfaced playing fields.

The site comprised part of an open field with a small pond (located centrally) at the time of the earliest historical map referenced in 1875. The construction of the school building is first shown on the 1960 mapping revisions, though it is reported the school was built circa 1954. A number of small extensions are shown to have been added on subsequent mapping revisions.

Reference to geological datasets indicates the expected presence of Head soils over the westernmost part of the site. The underlying solid geology is shown to comprise Gault Formation deposits.

The Head soils are classed as a Secondary Undifferentiated aquifer. The Gault Formation is classed as an Unproductive Stratum. The site does not lie within an Environment Agency Source Protection Zone with regard to the protection of the quality of groundwater that is abstracted for potable supply.

The preliminary contamination risk assessment did not identify any significant potential pollutant linkages with regard to either proposed end users of the site or controlled waters.

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FIGURES AND APPENDICES

1. INTRODUCTION

It is proposed to undertake development at the Willingdon Community School, Broad Road, Willingdon, East Sussex. The development proposals are understood to comprise the construction of a new sports hall at the south western end of the existing hard surface playground area, together with a single storey extension to the existing school kitchen located at the north eastern end of the main school building. A single structure located at the western corner of the school buildings is to be demolished and new areas of hard standing are proposed to the north west of the existing hard surfaced playing court area.

Ashdown Site Investigation Limited was commissioned to carrying out a preliminary ground contamination risk assessment of the site by Mr Justin Champneys of Morgan Sindall, 4th Floor London Gate, 72 Dyke Road Drive, Brighton BN1 6AJ. The scope of the works allowed for and the terms and conditions under which the works were to be undertaken were set out within the offer letter Q17-5776, dated 16th March 2017. The instruction to proceed was received from the client in an email dated 17th March 2017.

The objectives of the works were to:

a) Establish the expected geology, hydrogeology and hydrology at the site;
b) Ascertain the development history and current site use; and
c) Develop a preliminary conceptual model of the site identifying complete potential pollutant linkages relating to end users of the proposed development works, to controlled waters beneath and in the vicinity of the site, or to other off-site sensitive receptors, if identified.

The preliminary conceptual model has been based on the findings of a walkover survey and reference to historical Ordnance Survey maps and published geological and environmental information obtained from various sources; the latter having been obtained from interrogation of database information compiled by GroundSure Limited.

Copies of the historical maps and geo-environmental data referred to in this report are included in a separate volume, entitled Geo-Environmental Data and Historical Maps (Ashdown Site Investigation Limited, Report Number R17-12069/map, dated March 2017).

2. WALKOVER SURVEY

The Willingdon Community School grounds comprise an irregular shaped plot of land located at Broad Road, Willingdon, East Sussex, and are centred on the approximate Ordnance Survey national grid reference TQ 5785 0370. A site location plan is presented as Figure 1. Photographs taken during the walkover survey are included in Appendix A and plans showing the existing site layout are included in Appendix C.

The grounds of the school lie to the north west of Broad Road and are bounded on all sides by residential properties fronting on to Farmlands Avenue to the north east, Millstream Gardens and Glen Close to the west, and Wannock Lane to the south west. Wannock Mill Stream flows along the north western boundary of the site. Numerous mature trees and hedges are present along the boundaries of the school grounds.

The existing main school buildings occupied the eastern part of the wider school grounds and comprised one and two storey buildings. An access road was present to the east of the school buildings leading from Broad Road to hard surfaced parking areas located to the east and north east of the buildings. In the north eastern parking area was a bicycle store and shed with storage containers present further to the north.

The existing kitchen comprised a single storey structure connected to the north eastern part of the main school building. A basement structure was present beneath the existing kitchen housing the new gas supplied generators and old oil tanks which were no longer in use and are understood to be empty. Five oil tanks were present in the northern part of the basement and appeared to be bunded with a lower brickwork wall and brickwork and concrete floor slab.

The area between the main school building and Broad Road comprised a hummocky grassed surfaced soft area with numerous mature trees and several footpaths.

To the north west of the main school buildings was an asphalt surface playground/courts fenced off with metal mesh type fencing. Beyond this hard surfaced playground were modular-built classrooms.

The remainder of the school site mainly comprised open grass surfaced playing fields. The topography of the site slopes slightly down from the south to the north.

3. GEOLOGICAL, HYDROGEOLOGICAL AND HYDROLOGICAL DATA REVIEW

3.1 Geology and Hydrogeology

The stratigraphic succession that may be expected to underlie the site is presented in the following table.

Table 1. Expected Strata, Aquifer Designation and Description

Type	Stratum	Stratum Description	Aquifer Designation
Superficial	Head (Westernmost part of site only)	Head deposits are shown beneath the western most part of the site. The superficial Head is a polymict deposit generally comprising clay and sandy clay with variable amounts of gravel. The lithology of the Head reflects the nature of the parent solid strata. The material is likely to have been disturbed by intense frost action in a periglacial environment. It is usually poorly sorted but may be stratified where it has been subject to solifluction and/or hillwash and soil creep.	Secondary Undifferentiated Aquifer
Bedrock	Gault Formation	The Gault Formation generally consists of fossil rich dark coloured very weak and weak mudstone and siltstone which weathers to a stiff clay. The lower part of the Formation is often dark green and sandy. The Gault has a high plasticity, and can be expected to have a severe seasonal swelling / shrinkage behaviour, the associated changes in strength may cause instability of slopes.	Unproductive Stratum

3.2 Groundwater Source Protection Zones and Abstraction Licences

The closest groundwater abstraction licences, for potable water supply, are recorded to lie 855m west and 860m south west of the site.

The site does not lie within an Environment Agency Source Protection Zone with regard to the protection of the quality of groundwater that is abstracted for potable supply.

3.3 Surface Water Features

Wannock Mill Stream flows along the north western boundary of the site. There is no Environment Agency information on river quality within 250m of the site.

3.4 Surface Water Abstraction Licences

No surface water abstraction licences are indicated within 2km of the site.

3.5 Flooding

The site lies within an Environment Agency Flood Zone 1 and the Risk of Flooding from Rivers and Sea (RoFRaS) is reported to be very low.

Environment Agency Flood Zones 2 and 3 are located to the north west of the site, where the RoFRaS Flood Rating is medium.

There are no flood defences, areas benefiting from flood defences or areas used for flood storage within 250m of the site.

The site lies within 50m of an area where the highest susceptibility from groundwater flooding is reported to be a "potential at surface" relating to Superficial Deposits Flooding (flooding associated with shallow sedimentary aquifers overlying unproductive strata).

The British Geological Survey consider the confidence rating of their data in this area to be moderate.

3.6 Radon Gas

The site is reported to be within an area where less than 1% of properties are above the action level requiring radon gas protection measures to be installed in new buildings. No radon protection measures are reported by the British Geological Survey to be necessary in the construction of new dwellings.

3.7 Ground Workings

The only significant features identified by the data are two ponds located 32m to the west and 50m to the north of the site.

3.8 Mining, Extractions and Natural Cavities

The site is not located in an area where mining is identified to have occurred.

No extractions or natural cavities are identified by the data.

3.9 Natural Ground Subsidence

The maximum hazard rating of natural subsidence within the site boundary (including a 50m buffer zone) is moderate. This hazard rating is based on the interrogation of the six British Geological Survey natural ground stability datasets (GeoSure). It should be noted that the assessment provided within the GroundSure report represents a generic assessment only.

4. SITE HISTORY

Historical Ordnance Survey maps covering the area of the site have been reviewed and are summarised in the following table.

It is noted that each map presents information applicable at the time of the survey (or revision date) and is subject to surveying and cartographic errors and/or advances. Revisions to maps are made at irregular intervals and it is possible that significant developments may have taken place on or within the vicinity of the site that are not shown on the maps.

'In the Vicinity of the Site' generally refers to features of relevance within approximately 250m of the site boundary, but may also include more distant features if considered to be pertinent to the assessment of the development history.

Table 2. Summary of Significant Features Identified on Historical Maps

Map Details	On-Site	In the Vicinity of the Site
1875 1:2,500	The site comprises part of an open field; a small pond is located in the central part of the site. A track is shown running part way along the north western boundary of the site and extending through the north western part of the site.	A water feature is shown along the north western boundary of the site linking two ponds approximately 35m to the west and 50m to the north of the site.
1928 1:2,500	The pond is no longer shown.	An area of rough pasture is shown along the south eastern boundary of the site.
1937 1:2,500	No significant changes.	Residential housing bounds the south western part of the site.
1960 1:2,500	A large building is shown in the eastern part of the site and is labelled as "Willingdon County Secondary School", with an area of hardstanding located to the northwest of the building. The other parts of the site are labelled as "playing fields".	The two ponds are no longer shown. Residential development is shown bounding the site along the south eastern and north eastern boundaries. A nursery is shown approximately 75m to the west of the site.
1966 1:1,250	Extensions are shown to the school building.	The nursery has been replaced with residential housing, which bounds the site to the west.
1983 1:2,500	Additional buildings are shown to the south west and north of the main school building.	No significant changes.

5. ENVIRONMENTAL DATA REVIEW

Records of potentially contaminative activities, authorisations, pollution incidents and land uses recorded by the regulatory authorities and compiled by GroundSure in their EnviroInsight Report have been reviewed.

5.1 Historical Industrial Sites

The data provides an analysis from 1:10,560, 1:10,000, 1:2,500 and 1:1,250 mapping to provide data on potential historical industrial sites and these are discussed below.

Section	Remarks
Potentially Contaminative Uses	No potentially contaminative uses are identified within 50m of the site.
Historical Tank Database	No historical tanks are identified within 50m of the site.
Historical Energy Features Database	No historical energy features are identified within 50m of the site.
Historical Petrol and Fuel Site Database	No historical petrol or fuel sites features are identified within 50m of the site.
Historical Garage and Motor Vehicle Repair Database	No historical garage or motor vehicle repair sites are identified within 50m of the site.
Potentially Infilled Land	The data identifies the backfilled ponds 32m to the west and 50m to the north of the site.

5.2 Environmental Permits, Incidents and Registers

Section	Remarks
Records of historic IPC Authorisations	No authorisations within 50m of the site.
Records of Part A(1) and IPPC Authorised Activities	No authorisations within 50m of the site.
Records of Water Industry Referrals (potentially harmful discharges to the public sewers)	No consents within 50m of the site.
Records of Red List Discharge Consents (potentially harmful discharges to controlled waters)	No consents within 50m of the site.
Records of List 1 Dangerous Substances Inventory Sites	No sites within 50m of the site.
Records of List 2 Dangerous Substances Inventory Sites	No sites within 50m of the site.
Records of Part A(2) and Part B Activities and Enforcements	No enforcements within 50m of the site.
Records of Category 3 or 4 Radioactive Substances Licences	No licences within 50m of the site.
Records of Licensed Discharge Consents	No licences within 50m of the site.
Records of Planning Hazardous Substance Consents or Enforcements	No consents or enforcements within 50m of the site.

Records of COMAH and NIHHS sites	No sites within 50m of the site.
Environment Agency Recorded Pollution Incidents – National Incidents Recording System, List 2	No incidents within 50m of the site.
Environment Agency Recorded Pollution Incidents – National Incidents Recording System, List 1	No incidents within 50m of the site.
Sites determined as Contaminated Land under Part 2A EPA 1990	No sites within 50m of the site.

5.3 Landfill and Other Waste Sites

Section	Remarks
Environment Agency Registered Landfill Sites	No sites within 250m of the site.
Environment Agency Historic Landfill Sites	The data identifies an area of land bounding the site to the south as the Wannock Avenue, Polegate, Sussex Landfill.
BGS/DoE Landfill Site Survey	No sites within 250m of the site.
Groundsure Local Authority Landfill Sites Data	No sites within 250m of the site.
Operational Waste Treatment, Transfer and Disposal Sites	No sites within 250m of the site.
Environment Agency Licensed Waste Sites	No sites within 250m of the site.

5.4 Current Land Uses

Section	Remarks
Current Industrial Data	No potentially contaminative current land uses are identified within 50m of the site.
Records of Petrol and Fuel Sites	No petrol or fuel sites are recorded within 50m of the site.
Underground Electricity Transmission Cables	No cables are recorded within 50m of the site.
Underground High Pressure Oil and Gas Pipelines	No pipelines are recorded within 50m of the site.

5.5 Designated Environmentally Sensitive Sites

No recorded environmentally sensitive sites have been identified in the vicinity of the site.

6. PRELIMINARY CONTAMINATION RISK ASSESSMENT

6.1 Introduction

A preliminary risk assessment considers the potential sources of contamination identified, the receptors that may be present in view of the development proposals and the contaminant pathways by which these may be linked. A complete pollutant linkage is only deemed to exist where all three are present and a site is considered suitable for use where no complete pollutant linkages are identified.

Where a complete pollutant linkage is deemed to be present, an assessment of the level of risk associated with the pollutant linkage has been carried out in line with guidance published within "Contaminated Land Risk Assessment: A guide to good practice" published by CIRIA (C552, 2001).

The level of risk is determined using the risk matrix presented in the following table. Classifications of probability, consequence and risk are presented in Appendix B.

Table 3. Risk Assessment Matrix

		Probability			
		Very Low	**Low**	**Moderate**	**High**
Consequence	**Very Minor**	Negligible	Very Low	Low	Low/Moderate
	Minor	Very Low	Low	Low/Moderate	Moderate
	Moderate	Low	Low/Moderate	Moderate	High
	Severe	Low/Moderate	Moderate	High	Very High

6.2 Basis of Assessment

The assessment of risk has been undertaken on the basis of the continuing use of the site as a school, with areas of soft landscaping where direct soil contact could occur.

It is noted that an asbestos survey of existing structures and infrastructure (as defined under Section 5(a) of the Control of Asbestos Regulations 2012) was beyond the brief of this report. The risk assessment has been undertaken on the basis that should asbestos be identified within buildings or infrastructure, it will be managed in accordance with the management plan for the site.

6.3 Potential Contamination Sources Identified by the walkover and data review

The following potential sources of contamination have been identified by the preliminary contamination risk assessment:

- Underground fuel tanks within the basement beneath the kitchen;
- Historically backfilled pond in the centre of the site;
- Historically backfilled ponds to the north and west of the site; and
- Historical landfill bounding the site to the south.

6.4 Assessment of Potential Contamination Sources

6.4.1 Underground fuel tanks within the basement beneath the kitchen

The historical tanks (at basement level) are redundant and are bunded, located on a brick and a concrete floor slab. No visual or olfactory evidence of contamination was observed in the bund Given the above and the impermeable nature of the Gault formation expected beneath the site, there is not considered to be a significant risk posed by the tanks to proposed development.

6.4.2 Historically backfilled pond in the centre of the site

A small pond is shown centrally on the site in the earliest mapping (1875), but is no longer shown by the time of the 1928 mapping revision. Given the size of the pond, and the date of the backfilling, it is not considered to pose a significant risk to the development site.

6.4.3 Historically backfilled pond to the north and west of the site

The data identifies two ponds 32m to the west and 50m to the north of the site connected by the Wannock Mill Stream. These ponds are shown as backfilled by the time of the 1960 mapping revision. The pond to the north of the site is shown as having been developed for housing at this time, with the pond to the west of the site shown as housing by the time of the 1966 mapping revision.

Given the relatively small size of the ponds, there would be considered to be limited potential for generation of ground gases which could affect the site.

Given the impermeable nature of the Gault Formation geology underlying the site, it is considered unlikely that any ground gases could migrate onto the site, even if they were being produced within the ponds.

6.4.4 Historical landfill bounding the site to the south

A review of historical mapping has identified that the landfill is shown by the mapping to be in the location of a residential property known historically as either "High Reach" or "Freshfield" to the south west of the school playing fields, both of which were constructed and are shown on all historical mapping from 1937 to the present day on their original footprints.

No excavations are shown to have occurred on the site during the landfilling period on the historical mapping.

If landfilling activities were to have occurred on the plots the extent of any such activities would have been very limited in extent. This feature is not considered to pose a significant risk either via migration of contaminants onto the site or from the migration of ground gases.

6.5 Preliminary Conceptual Model

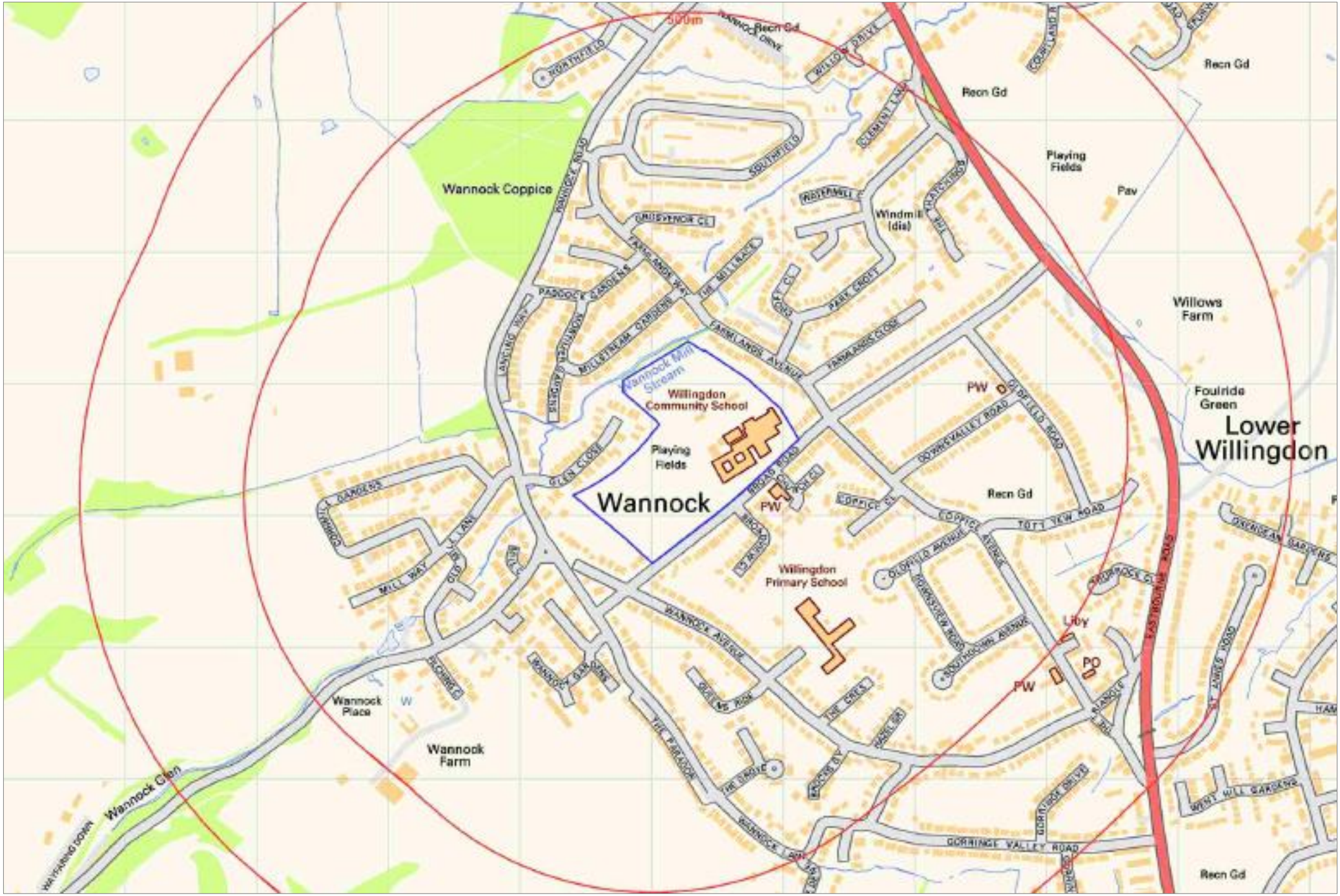
The preliminary conceptual model for the proposed development is presented in the following table, identifying any potential complete pollutant linkages.

Table 4. Preliminary Conceptual Model

Potential Source Identified	Potential Contaminant	Receptor	Potential Pathways	Pathway Present?	Probability	Consequence	Overall Assessment of Risk	Pollutant Linkage Present?
None Identified.	Not Applicable	Human Health (End Users)	Dermal contact with soil and dust (indoor & outdoor)	No	Not Applicable			No
			Ingestion of soil and indoor dust	No				No
			Consumption of home-grown produce and attached soil	No				No
			Inhalation of soil dust (indoor and outdoor)	No				No
			Contamination of incoming services	No				No
			Inhalation of soil vapours	No				No
			Inhalation of soil gases/Risk of explosion	No				No
		Groundwater	Migration to groundwater	No				No

Ashdown Site Investigation Ltd.
May 2017

FIGURES



ASHDOWN SITE INVESTIGATION LIMITED	Site: Willingdon Community School, Broad Road, Willingdon, East Sussex	Site Location Plan. Not To Scale	Figure 1 R17-12069/ds

APPENDIX A

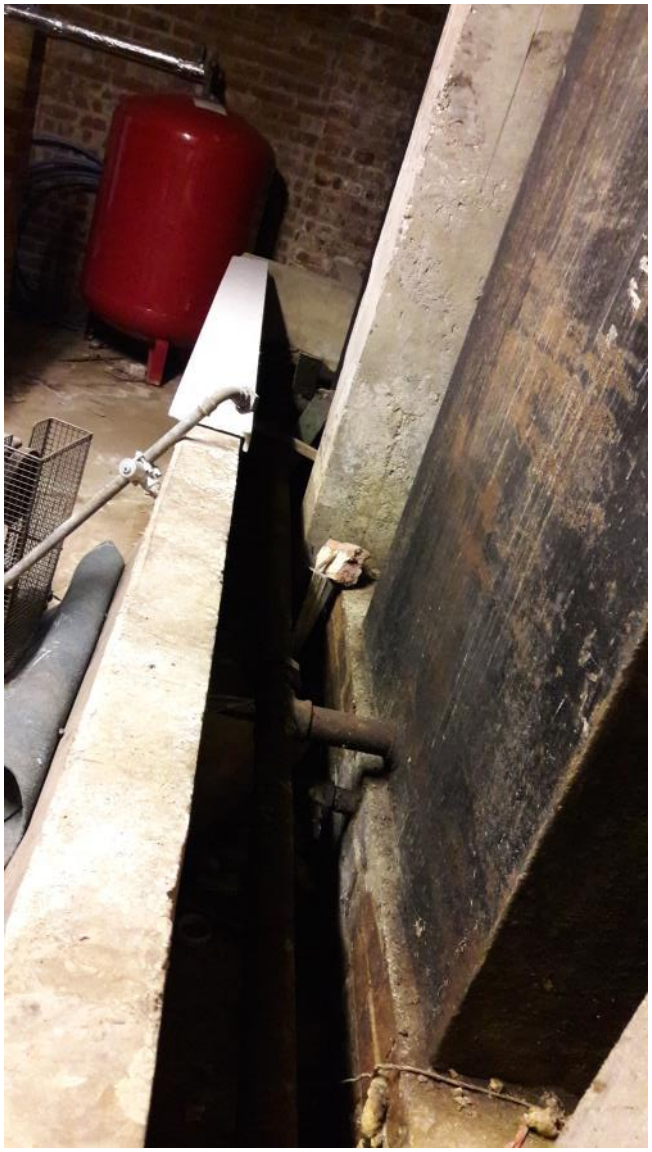
Site Walkover Photographs

Existing School Buildings

Existing School Buildings

Playing fields in the north west of the site

Playing fields in the south of the site



Underground tanks in basement below kitchen

APPENDIX B

Classification of Probability, Consequence and Risk

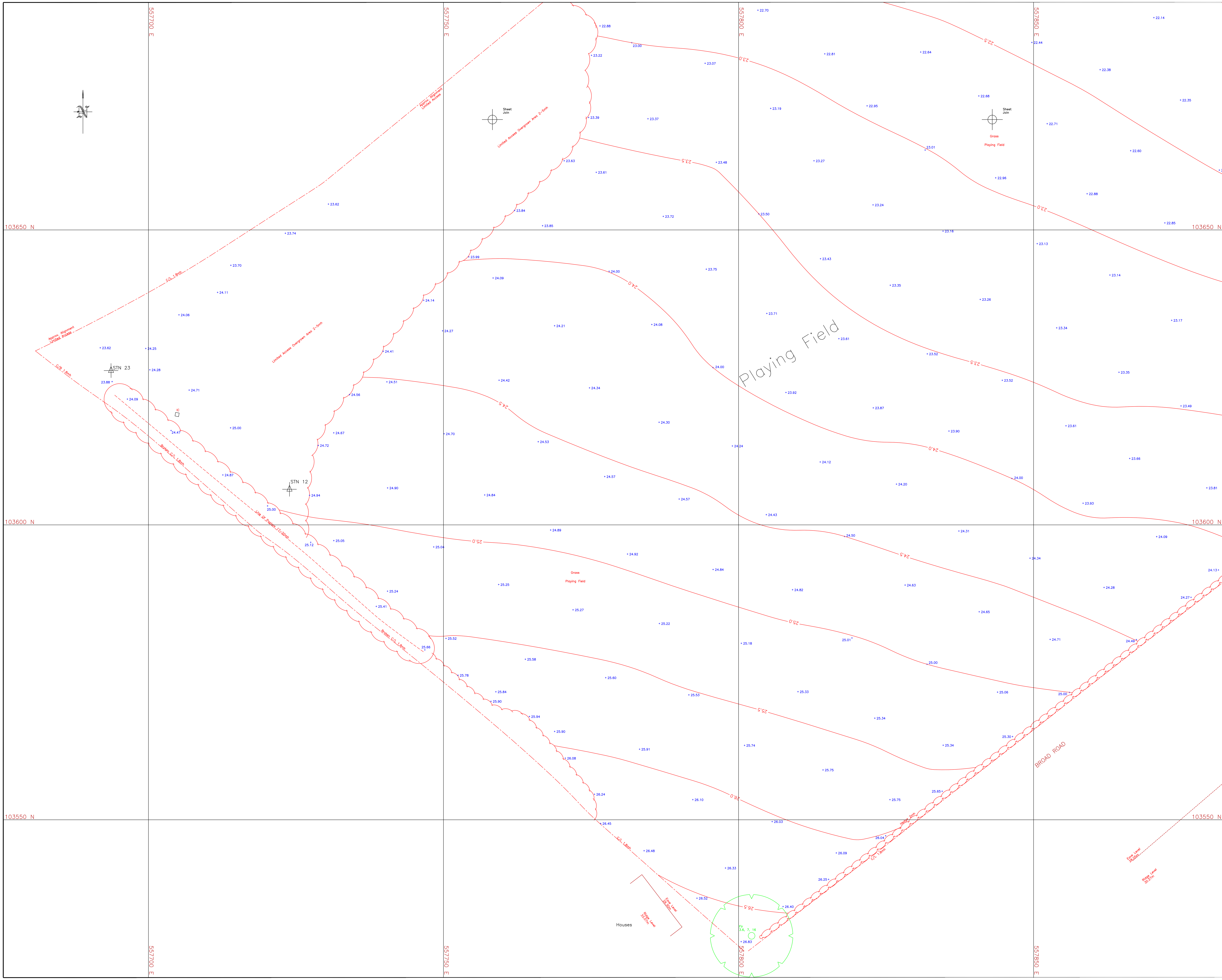
Probability of risk being realised	
Classification	Definition
High	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution.
Moderate	There is a pollution linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.
Low	There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term.
Very Low	There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

Consequence of risk being realised		
Classification	Category	Definition
Severe	Human Health	Short term (acute) risk to human health likely to result in "significant harm" as defined by the Environment Protection Act 1990, Part IIA.
	Controlled Waters	Short term risk of pollution (note: Water Resources Act contains no scope for considering significance of pollution) of sensitive water resource.
	Property	Catastrophic damage to buildings/property.
	Ecological Systems	A short term risk to a particular ecosystem or organisation forming part of such ecosystem.
Moderate	Human Health	Chronic damage to Human Health.
	Controlled Waters	Pollution of sensitive water resources (note: Water Resources Act contains no scope for considering significance of pollution).
	Ecological System	A significant change in a particular ecosystem or organism forming part of such ecosystem.
Minor	Controlled Waters	Pollution of non-sensitive water resources.
	Property	Significant damage to crops, buildings, structures and services.
	Ecological Systems	Damage to sensitive buildings/structures/services or the environment.
Very Minor	Human Health	Non-permanent health effects to human health (easily prevented by means such as personal protective clothing, etc).
	Property	Easily repairable effects of damage to buildings, structures and services.
	Project	Harm, although not necessarily significant harm, which may result in a financial loss or expenditure to resolve.

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

APPENDIX C

Site Plans



CONTROL DATA

Survey stations — STN

Boundary posts — BP

LEVEL DATA

Spot levels +43.62

Contours — 43 —

Steep slopes

FEATURES

Fences shown thus

Walls shown thus

Hedges shown thus

Undefined Boundary

Gates

TREES

1,4,7 Girth (Circumference) , spread (radius), height
Cmp Clump
Trees shown on this drawing have been identified to the best of the surveyors' ability. Where guaranteed identification of tree species may become important in the project design we would strongly recommend that the services of a specialist arboriculturist be employed. It should be noted that Randall Surveys LLP are not specialists in the field of tree identification.

Datum used : Newlyn. All units are metric.

OVERHEAD CABLES

British Telecom

Electric

FENCE TYPES

B/W	Barbed wire	I/R	Iron railing
C/B	Close boarded	P/F	Picket fence
C/I	Corrugated iron	P/R	Post and rail
C/L	Chain link	P/W	Post and wire
C/P	Chestnut paling	W/F	Wooden fence
C/W	Chicken Wire		

ABBREVIATIONS

AV Air valve	ER Earth rod	Ret. Retaining
BB Beleisha beacon	FB Flower bed	RS Road sign
BD Back drop	FE Final effluent	RWP Rain water pipe
BH Borehole	FH Fire hydrant	SC Stop cock
Bol Bollard	FL Floodlight	SL Sump level
BT British Telecom cover	G Gulley	SP Sign post
BTJB BT junction box	GV Gas valve	ST Stand pipe
CATV Cable TV cover	IC Inspection cover	SV Stop valve
CDP Cable draw pit	IL Invert level	SVP Soil vent pipe
CL Cover level	JB Junction box	TCB Telephone call box
CM Cable marker	KO Kerb outlet	TCP Tactile paving
CNF Could not find	LP Lamp post	TL Traffic light
CNL Could not lift	MH Manhole	TP Telegraph pole
CNT Could not trace	Mkr Marker	TPL Top of pipe level
CPL Coping level	NB Name board	TS Traffic signal
DC Drainage Channel	OF Outfall	VP Vent pipe
DK Drop kerb	PB Post box	WL Weir level
EJB Elec. junction box	PM Parking meter	WO Washout
EOR End of record	PS Paving slabs	WM Water meter
EOT End of trace	RC Rising cable	WSC Water stop cock
EP Electricity pole	RE Rodding eye	

IMPORTANT NOTES

The details and information shown hereon relating to underground drains, cables etc, are as obtained by normal field survey observations subject to the restrictions listed in the NJHSC guidelines. Service Co. and sewer records will only have been consulted on specific request and, although all reasonable effort will have been made, no guarantee of accuracy of these records can be given.

Sewer and manhole details shown on this drawing have been obtained by observation and measurement from the surface and as such cannot be guaranteed. Where precise sewer details will be critical to the project design we would recommend that entry into the chamber be undertaken using a specialist team, appropriately qualified for confined space entry. These teams can be supplied upon request.

The pipe and cable routes shown on this drawing have been located using electronic surface detection equipment and/or ground penetrating radar, no trial holes have been dug in order to confirm their presence and position. Whilst the information presented is believed to be correct at the time of the survey due care must be taken when any excavation is undertaken on the site. Trace depths are quoted in metres.

The portrayal of a service on this drawing may indicate the presence of multiple cables/pipes. The exact number will only be indicated where this could be accurately determined.

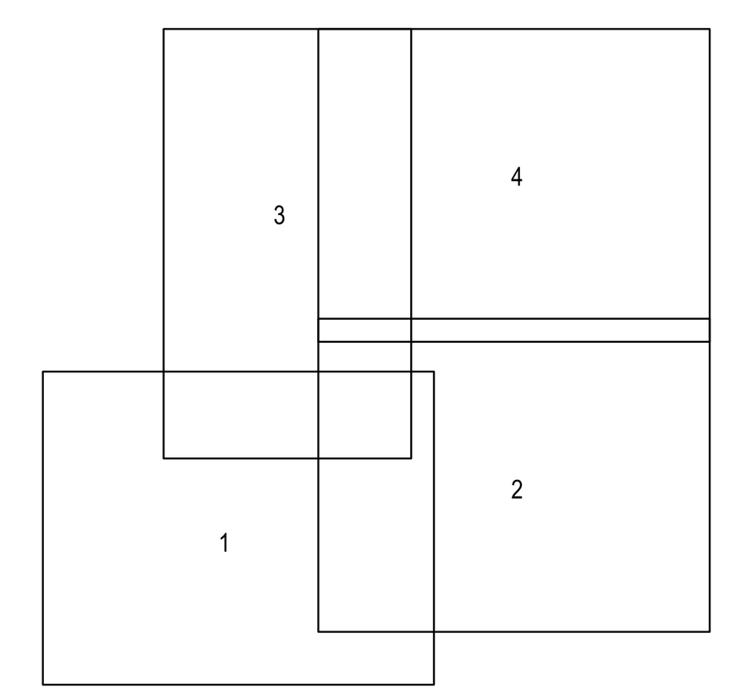
Hatching denotes an area containing possible services which could not be traced electronically or by GPR, where used, but have been abstracted from service drawings.

The plan position and depth of any service portrayed on this drawing is accurate to +/- 10% of the depth of that service.

Where the precise location and/or depth of a service is critical to design and/or construction, trial holes are recommended to confirm the details provided on this drawing.

This drawing should be read in conjunction with any record drawings available from the statutory authorities.

SHEET LAYOUT



NOTES

1. Station 10 has O.S. National Grid co-ordinates based on the National GPS network using static GPS observations. All other stations are based on a plane grid with an origin at Station 1 and preserving the O.S. National Grid rotation but with O.S. scale factor removed.
2. Levels are related to the O.S. National GPS network.

PLAN PRODUCTION BY

RANDALL SURVEYS LLP

SURVEY & DESIGN CENTRE
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Land and Hydrographic Surveyors
Architectural Building Surveyors
Underground Services Location

PROJECT NAME

WILLINGDON SECONDARY SCHOOL

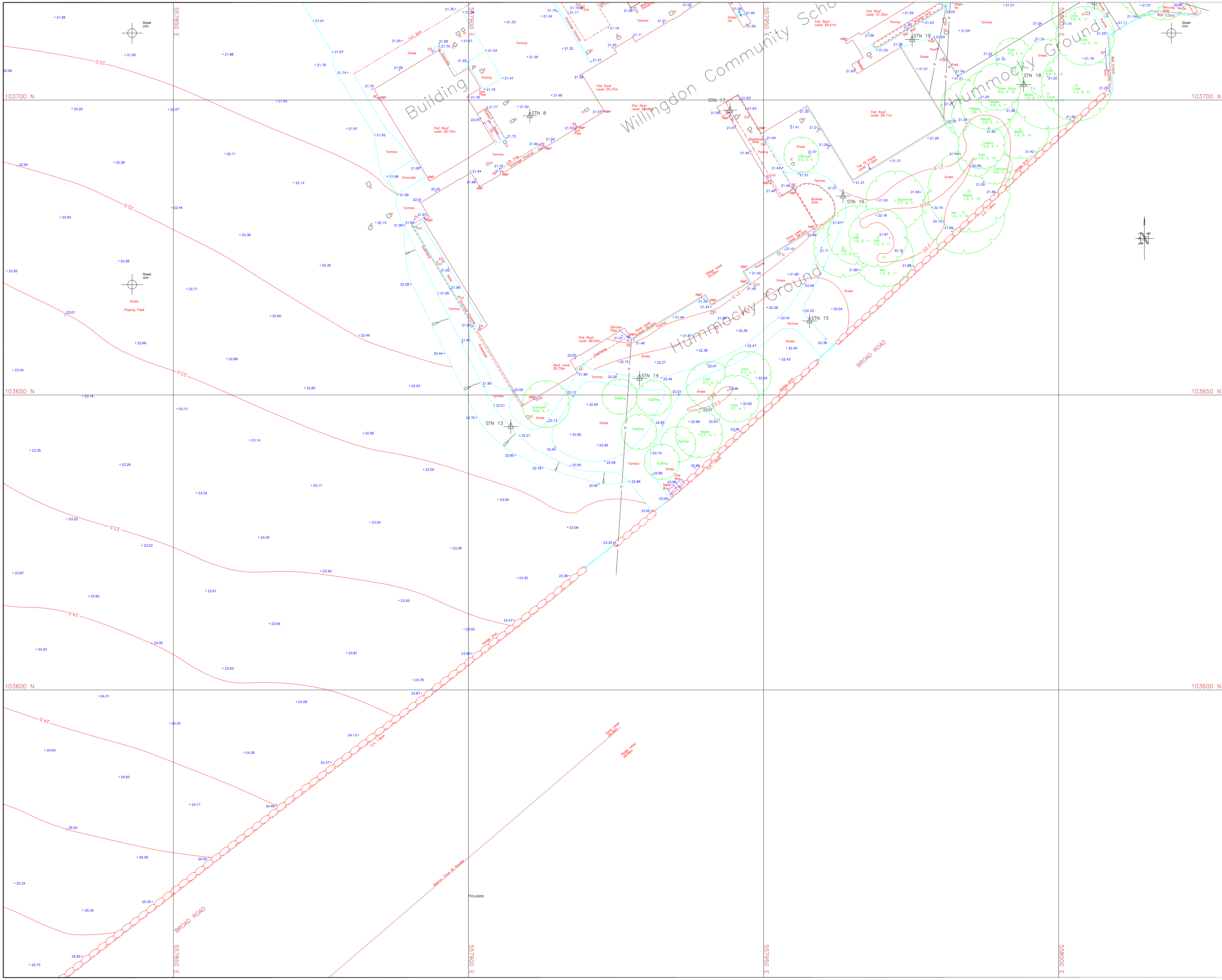
BROAD ROAD, EASTBOURNE

DRAWING TITLE

EXISTING SITE LAYOUT

SCALE	1/200	DRAWN	SJP	PAPER SIZE	A0
DATE	October 2016	CHECKED	DRD	REVISION	

Dwg No. 14210/SP/1



CONTROL DATA

Survey stations — STN
Boundary posts — BP

LEVEL DATA

Spot levels +43.62
Contours — 43 —
Steep slopes

TREES

1,4,7 Girth (Circumference) , spread (radius), height
Cmp Clump
Trees shown on this drawing have been identified to the best of the surveyors' ability. Where guaranteed identification of tree species may become important in the project design we would strongly recommend that the services of a specialist arboriculturist be employed. It should be noted that Randall Surveys LLP are not specialists in the field of tree identification.

Datum used : Newlyn. All units are metric.

FEATURES

Fences shown thus
Walls shown thus
Hedges shown thus
Undefined Boundary
Gates

OVERHEAD CABLES

British Telecom
Electric

FENCE TYPES

B/W	Barbed wire	I/R	Iron railing
C/B	Close boarded	P/F	Picket fence
C/I	Corrugated iron	P/R	Post and rail
C/L	Chain link	P/W	Post and wire
C/P	Chestnut paling	W/F	Wooden fence
C/W	Chicken Wire		

ABBREVIATIONS

AV Air valve	ER Earth rod	Ret. Retaining
BB Beleisha beacon	FB Flower bed	RS Road sign
BD Back drop	FE Final effluent	RWP Rain water pipe
BH Borehole	FH Fire hydrant	SC Stop cock
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EOR End of record	PS Paving slabs	WM Water meter
EOT End of trace	RC Rising cable	WSC Water stop cock
EP Electricity pole	RE Rodding eye	

IMPORTANT NOTES

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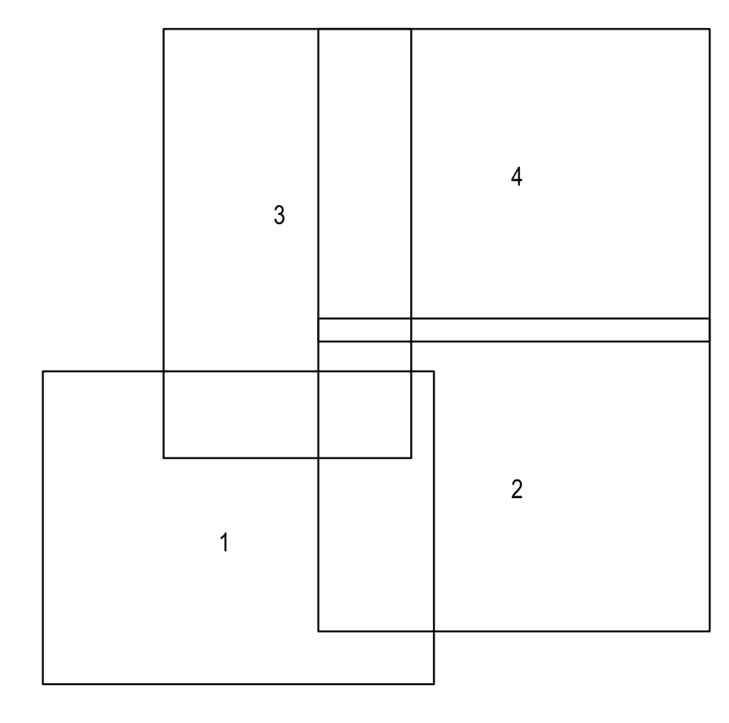
SHEET LAYOUT



NOTES

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2. Levels are related to the O.S. National GPS network.

PLAN PRODUCTION BY

RANDALL SURVEYS LLP

SURVEY & DESIGN CENTRE
HIGH STREET, BURES, SUFFOLK CO8 5HZ
Tel: 01787 227580 Fax: 01787 228329
WWW.RANDALLSURVEYS.CO.UK

Land and Hydrographic Surveyors
Architectural Building Surveyors
Underground Services Location

PROJECT NAME

WILLINGDON SECONDARY SCHOOL

BROAD ROAD, EASTBOURNE

DRAWING TITLE

EXISTING SITE LAYOUT

SCALE	1/200	DRAWN	SJP	PAPER SIZE	A0
DATE	October 2016	CHECKED	DRD	REVISION	

Dwg No. 14210/SP/2

CONTROL DATA

Survey stations STN

Boundary posts BP

LEVEL DATA

Spot levels +43.62

Contours 43

Steep slopes

TREES

1,4,7 Girth (Circumference) , spread (radius), height

Cmp Clump

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Datum used : Newlyn. All units are metric.

FEATURES

Fences shown thus

Walls shown thus

Hedges shown thus

Undefined Boundary

Gates

OVERHEAD CABLES

British Telecom

Electric

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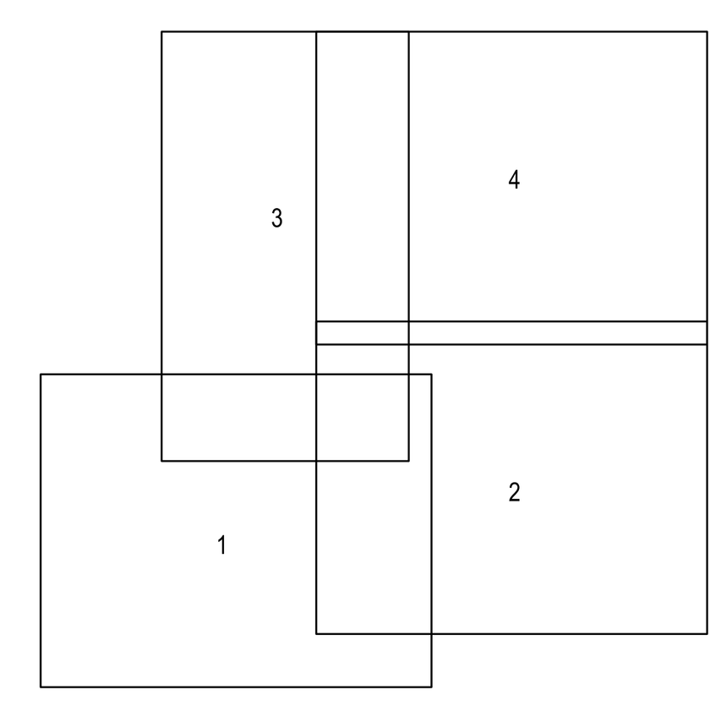

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THE SURVEY ASSOCIATION

ISO 9001 REGISTERED FIRM

RICS

PROJECT NAME

WILLINGDON SECONDARY SCHOOL

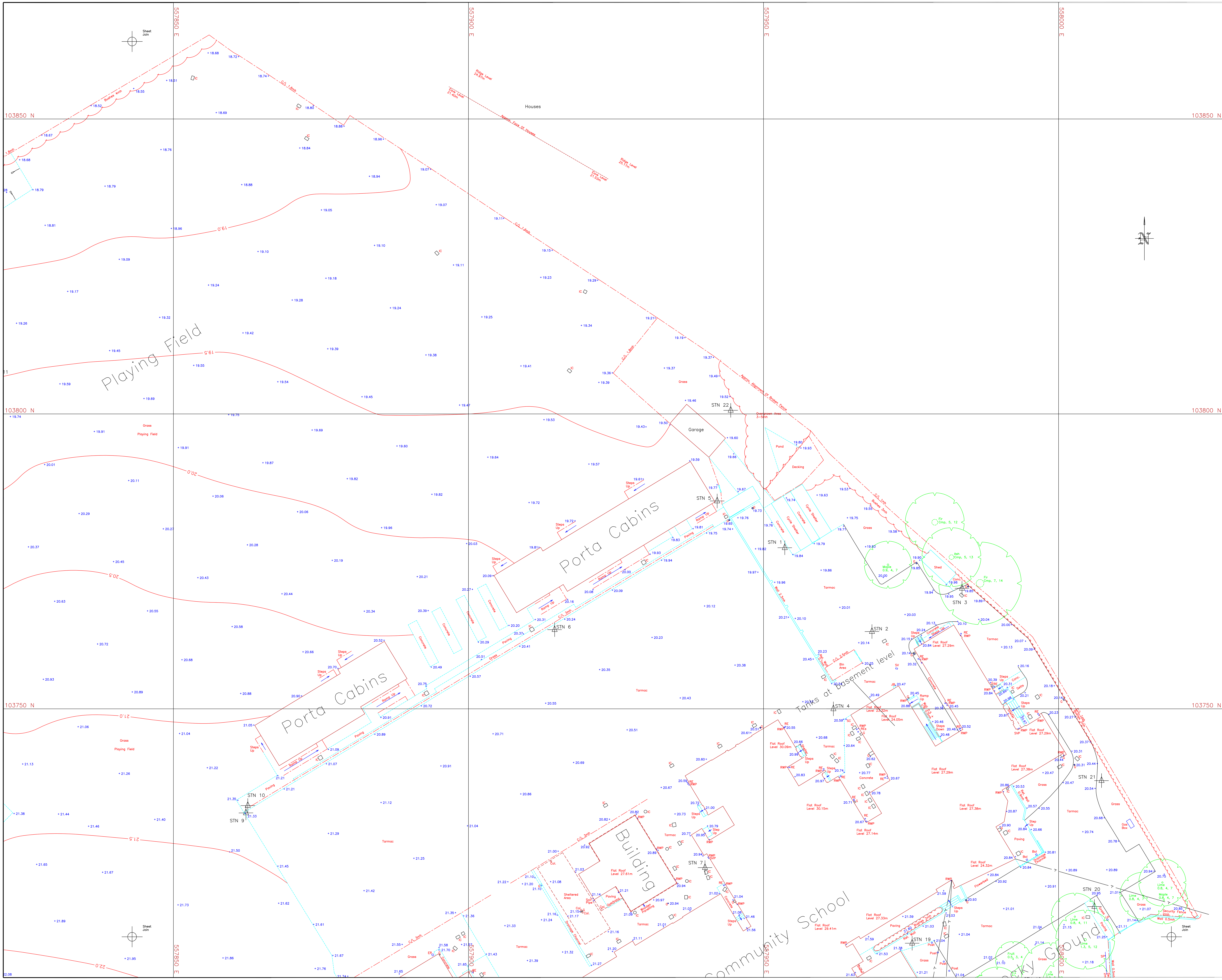
BROAD ROAD, EASTBOURNE

DRAWING TITLE

EXISTING SITE LAYOUT

SCALE	1/200	DRAWN	SJP	PAPER SIZE	A0
DATE	October 2016	CHECKED	DRD	REVISION	

Dwg No. 14210/SP/3



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Boundary posts — BP

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Electric

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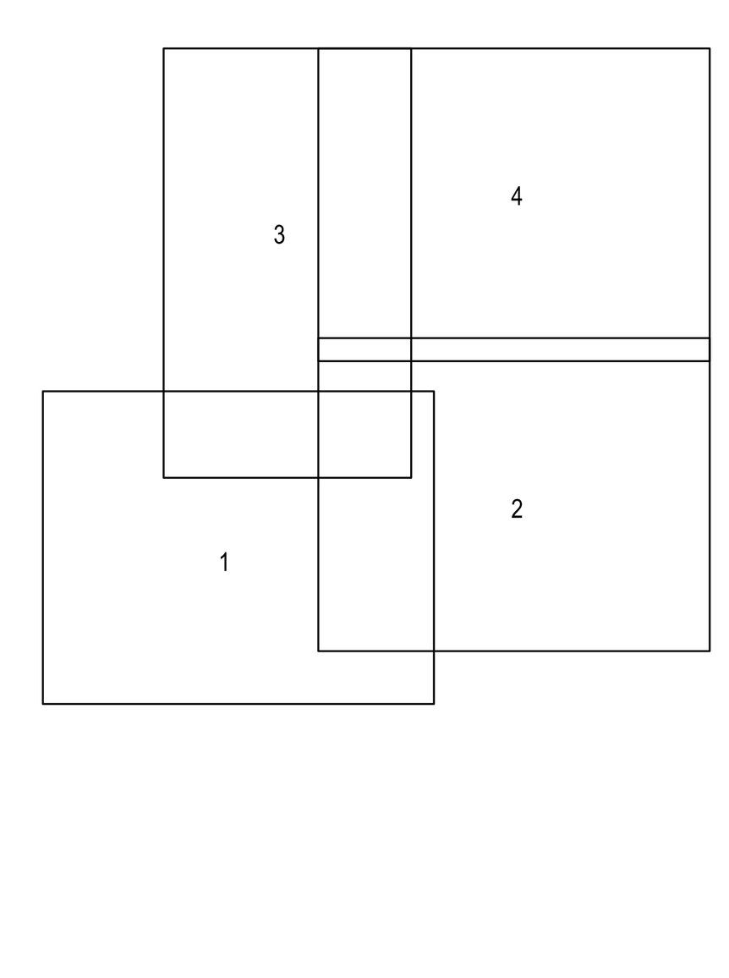

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BROAD ROAD, EASTBOURNE

DRAWING TITLE

EXISTING SITE LAYOUT

SCALE	1/200	DRAWN	SJP	PAPER SIZE	A0
DATE	October 2016	CHECKED	DRD	REVISION	

Dwg No. 14210/SP/4