



Report prepared at

Westcombe House
Windsor Street
Uxbridge
UB8 1AB

On behalf of

Howarth Homes

Report reference

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Prepared by

Aviron Associates Limited

Report Quality Management

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1.0 PROJECT AND SITE INFORMATION

1.1 APPOINTMENT

Aviron Associates Limited (Aviron) was retained by Howarth Homes (the “Client”) to prepare a Phase I Geo-Environmental Risk Assessment (GERA) of the following premises:

Westcombe House, Windsor Street, Uxbridge, UB8 1BA (hereafter referred to as the “site”).

The purpose of this Phase I GERA is to present a desk-based study to identify potential areas of contaminative concern associated with the proposed residential re-development of the site in connection with permitted development rights.

Aviron has relied upon information received from the Client and their agents as accurate, unless contradicted by written documentation or site observations.

1.2 THE SITE

Table 1.2 provides a summary of site details and surrounding area.

Table 1.2 : Site Details

Site Location	The site is located on Windsor Street in the centre of Uxbridge at the junction of Cross Street and Grainger’s Yard.
National Grid Ref.	Centred at approximately 505423E 184014N.
Current Land Use	The site currently comprises the vacated Westcombe House, an L-shaped building occupying the majority of the site, with a car park in the north, and an undercroft car park beneath two-thirds of the building. The site was recently in use as offices. Figure 1 is presented as the Existing Site Layout Plan. Figure 2 is presented as Site Photographs.
Surrounding Land Use	The site is directly surrounded by commercial developments including the Pavillions to the north.
Proposed Land Use	The proposed development comprises the change of use from the existing commercial premises into residential apartments. No in-ground construction and works shall be internal retrofit. Externally resurfacing of the existing parking area is proposed along with limited soft landscaping in the form of box hedges. Figure 3 is presented as a Proposed Development Plan.

1.3 SITE RECONNAISSANCE

A site walkover survey was undertaken on 3 September 2019 and included an inspection of the site and surrounding area, where safe and accessible. The purpose of the survey is to identify any potential on-site or nearby contaminative activities or potential sources of land contamination.

Additionally, as part of the survey any features which may affect site re-development in terms of physical site and ground conditions were noted.

Table 1.3 provides a description of site features observed during the walkover survey and also current Ordnance Survey maps made available at the time of report writing.

Table 1.3 : Summary of Walkover Survey

Physical Site Characteristics	
Existing Structures	Brick and block built three and four storey (including roof rooms) office building. Part undercroft car park.
Basements	Single storey basement noted in the south corner of the site beneath the building.
Visual Topography and Site Surfacing	The site is generally level. External block paved hard standing throughout the car park and undercroft.
Retaining Structures and Slopes	Slight down slope to the south and west. Internally retained at basement level.
Drainage Issues	No surface waters were observed.
Trees and Hedges	Small young plantings locally in the centre and outside the western boundary of the site.
Made and Infilled Ground	Made Ground is anticipated beneath the building and hardstanding.
Contaminative Characteristics	
Above or Underground Storage Tanks and Drums	None observed during site inspection.
Fuel Interceptors	None observed during site inspection.
Waste Storage and Disposal	No evidence of waste storage and disposal was observed during the site inspection.

Hazardous Material Storage and Use	No evidence of hazardous materials storage and use was observed.
Asbestos Containing Materials (ACMs)	No suspected ACMs noticed. However, specific asbestos survey not completed.
Boiler Houses	None observed on-site.
Sub-stations	None observed on-site.
Surface Staining	None observed on-site.
Potentially Contaminative Activities	No evidence of potentially contaminative activities at the time of inspection.

1.3.1 Summary of Physical Site Characteristics

Consideration should be made towards the competency of underlying strata and the influence of trees on the proposed development.

1.3.2 Summary of Contaminative Site Characteristics

No evidence of potentially contaminative activities at the time of the site inspection.

2.0 HISTORICAL REVIEW

Historical Ordnance Survey (OS) maps were obtained as part of the Envirocheck database search within report package reference 216397380 dated 31 August 2019. The information contained in these maps is summarised in the following sections and included within **Appendix I**.

2.1 SITE HISTORY

2.1.1 Summary of Site History - Available Historical Mapping

The earliest available Ordnance Survey map edition of **1866, 1:528** indicates that the site was in use at this time as a terrace of Almshouses, with an additional terrace of buildings to the side and rear. An engine house is marked in the east of the site and a pump in the west.

The site is shown to have remained unchanged up until the time of the **1914, 1:2,500** map edition which indicates that the Almshouses had been replaced with a Post Office. The terrace of buildings to the side and rear are shown to have remained in place.

The **1934, 1:2,500** mapping edition indicates that the site had been entirely redeveloped as a Post Office, and by the time of the **1973, 1:1,250** mapping edition, was in use as a Head Post Office.

The **1980, 1:1,250** mapping edition indicates that the site was in use as a sorting office.

Between the time of the **1992** and **1996, 1:1,250** mapping editions, the site is shown to have been redeveloped as Westcombe House in its current layout at 36-38 Windsor Street.

No further alterations to site use are evident up until the recent mapping edition of **2019, 1:2,500**.

2.1.2 Summary of Site History

The earliest mapping edition of 1866 indicates that the site had been developed as Almshouses and a terrace a buildings, including an engine house. The Almshouses were replaced with a post office by 1914, before the site was entirely developed as a post office by 1934 and subsequently a sorting office. The site was then redeveloped as Westcombe House in its current layout at some point between 1992 and 1996.

2.1.3 Summary of Site History - Anecdotal Evidence

No anecdotal evidence was provided.

2.2 SURROUNDING LAND HISTORY

Table 2.2 provides a summary of historical land uses in the immediate vicinity of the site. This is approximately defined by the search buffer at a radius of approximately 500m on the 1:10,500 and 1:10,000 maps and 250m on the 1:2,500/1:1,250 maps.

Table 2.2 : Historical Surrounding Land Uses

Surrounding Features	Dates from mapping	Approximate distance	Direction
Works	1962	54m	NE
Works	1962	58m	NW
Laundry	1934	60m	N
Timber Yard	1866-1888	87m	NW
Works	1962	125m	NW
Uxbridge Station	1962-2019	164m	NE
Garage	1962	181m	N
Depot	1962-1987	46m	E
Timber Yard	1866-1888	138m	E
Station/Goods Shed	1866-1963	88m	SE
Works	1976-2019	124m	SW
Works/Depot	1963-1992	129m	S
Works	1866-1888	146m	S
Works	1963-1970	163m	SE
Timber Yard/Tyre and Battery Depot	1866-1888/1973	181m	S
Printing Works/Works	1914-1987	215m	SE
Garage	1963	59m	W
No further significant land uses have been observed in the historical data set within the specified vicinity to the site.			

2.2.1 Summary of Surrounding Land History

The site is located within the commercial centre of Uxbridge. Historical land-use within 250m of the site comprised a number of works, a laundry, timber yards, railway stations, a goods shed, garages and depots. The majority of the historical premises have been subsequently redeveloped, with the exception of Uxbridge Station 164m to the north-east and the works building 124m to the south-west of the site.

2.3 ARCHAEOLOGICAL CONSIDERATIONS.

None noted within the historical dataset. The Local Authority archaeological officer has not been contacted as part of our instructions.

3.0 ENVIRONMENTAL SETTING

Unless otherwise stated Geo-Environmental Setting information has been obtained from Landmarks Envirocheck Database and Geology Datasheets within report package reference 216397380 dated 31 August 2019. These are included as **Appendix II**.

3.1 GEOLOGY AND HYDROGEOLOGY

The British Geological Survey (BGS) sheet 256 (1:50,000 edition) of North London was consulted, and presented within table 3.1 is the anticipated geology.

Table 3.1 : Anticipated Geology

Stratum	Age	Possible Thickness (m)	Typical Description	Aquifer Status
Artificial/Made Ground None indicated on site	N/A	N/A	N/A	N/A
Superficial Lynch Hill Gravel Member	Quaternary - Wolstonian	Average 7m, range 1-12m	Sand and gravel, locally with lenses of silt, clay or peat	Principal Aquifer of <i>high vulnerability</i>
Solid London Clay Formation	Palaeogene- Ypresian	Up to 150m	Laminated, blue grey, grey brown, slightly calcareous, silty to very silty clay, clayey silt and silt, with some layers of sandy clay	Unproductive strata

There are no fault lines recorded within 250m of the site, and no significant artificial ground within 250m of the site.

There are a number of historical borehole records held for drilling works undertaken in the relevant strata type within 250m of the site. The nearest drilling location refers to work undertaken 33m to the south where Made Ground was noted to a depth of 2.5m below ground level (bgl), above CLAY (of the London Clay Formation) to a depth of 14.7m bgl. Groundwater seepage was encountered in the Made Ground at a depth of 1.8m bgl. The anticipated Lynch Hill Gravel Member was not encountered at this location.

The nearest BGS borehole record detailing the anticipated Lynch Hill Gravel Member refers to work undertaken at a location 148m to the south-east, where Made Ground was noted to 1.4m bgl, above CLAY to 2.1m bgl, above Gravel (Lynch Hill Gravel Member) to a depth of 6.0m bgl. This overlies the London Clay Formation to the completion depth of the borehole at 13.5m bgl. Groundwater was encountered in the Gravel at a depth of 4.5m bgl.

The hydrogeology of the site has been determined by the superficial and solid geology of the Lynch Hill Gravel Member and the London Clay Formation, which according to the Envirocheck report and the Environment Agency website are classified as a principal aquifer and unproductive strata respectively.

Principal aquifers are layers of rock or drift deposits that have high intergranular and/or fracture permeability which may support water supply and/or river base flow on a strategic scale. Unproductive strata comprise rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

Both the Envirocheck report and the Environment Agency website (September 2019) indicate that the site is not located within a source protection zone.

The Envirocheck report indicates that there are a number of groundwater abstraction licences recorded for premises within 2000m of the site. The nearest records details Thames Region groundwater abstracted at a location 1037m north of the site at Denham for the purposes of 'Other Industrial/Commercial/Public Services: General Washing/Process Washing'. There are no potable groundwater supply abstraction licences noted for premises within 2000m of the site.

3.2 HYDROLOGY AND FLOODING

The Envirocheck report indicates that the nearest surface water feature comprises Fray's River (a main river) located 200m to the west of the site.

There are two records in the Envirocheck report relating to surface water abstraction licenses for premises within 2000m of the site. The nearest record details Thames Region water abstracted at a location 1397m to the west of the site at Iver Heath for the purposes of 'General Agriculture: Spray Irrigation - Direct'. There are no potable surface water supply abstraction licences noted for premises within 2000m of the site.

The Envirocheck report indicates that there are no prosecutions or enforcements noted in connection with premises within 250m of the site.

The Envirocheck report indicates that there are a number of records in connection with pollution incidents to controlled waters within 250m of the site. The nearest record details a 'Category 3 – minor incident' with 'unknown oils' entering unknown receiving water, at a location 151m to the south-west of the site.

The Envirocheck report indicates that there is one record of a Local Authority Pollution Prevention and Control within 250m of the site, at the location of Bromptons of Windsor Street, for dry cleaning, 39m to the north-east.

The Envirocheck report indicates that there are no records detailing discharge consents within 250m of the site.

The Envirocheck report indicates that the site is not at risk of extreme flooding or flooding from rivers or seas without defences. The Environment Agency website (September 2019) indicates that the site is not located within a Zone 2 or a Zone 3 flood zone. There are no flood defences indicated and the site is not located within an area that benefits from flood defences. The site area is not shown to be used for flood storage.

The Envirocheck report indicates that the eastern boundary of the site is located within an area at risk of 'a surface water 1 in 30, 1 in 100 and a 1 in 1000 flood extent'. The centre-north-west of the site is located within an area at risk of 'a surface water 1 in 1000 flood extent'.

The Envirocheck report indicates that the site is located within an area where there is 'potential for groundwater flooding of property situated below ground level.

3.3 WASTE MANAGEMENT, LANDFILLING AND GROUND GAS

Information from the Envirocheck report and the GOV.UK website indicates that there are no historical or current landfill sites located within 500m of the site.

The Health Protection Agency (HPA) records indicate that the property is located within an area where <1% of properties are above the Action Level, and that radon protection measures are not required.

Section 3 of CIRIA C665 'Assessing risks posed by hazardous ground gases to buildings' provides a flow chart to overview the risk potential. There are no potential sources of ground gas generation within 250m of the site. It is therefore not considered that potential ground gas risks exist and gas monitoring is not considered necessary for the proposed residential conversion.

4.0 REGULATORY INFORMATION, CONSULTATIONS AND OTHER

Unless otherwise stated regulatory database information has been obtained from the aforementioned Envirocheck report included as **Appendix II**.

4.1 STATUTORY REGISTERS AND AUTHORISATIONS

Table 4.1 includes the statutory registers and authorisations that relate to the site and surrounding area.

Table 4.1 : Statutory Registers and Authorisations

Item	0 – 250m	251 – 500m
Contaminated Land Register Entries and Notices	0	0
Records of Licensed Discharge Consents	0	3
Prosecutions Relating to Controlled Waters	0	0
Enforcements and Prohibition Notices	0	0
Integrated Pollution Controls	0	0
Integrated Pollution Prevention and Control	0	0
Local Authority Integrated Pollution Prevention and Control	0	0
Local Authority Pollution Prevention and Controls	1 39m north-east at Bromptons of Windsor Street – dry cleaning	2
Local Authority Pollution Prevention and Control Enforcements	0	0
Pollution Incidents to Controlled Waters	11 Nearest 151m north-west – unknown oils – minor incident	23
Substantiated Pollution Incident Register	1 248m south-west - Category 2 -	0

Table 4.1 : Statutory Registers and Authorisations

	Significant Incident in connection with Oils And Fuel: Gas And Fuel Oils	
Prosecutions Relating to Authorised Processes	0	2
Records of Radioactive Substances	0	0
Records of Water Industry Act Referrals	0	0
Explosive Sites	0	0
Planning Hazardous Substance Consents/Planning Hazardous Substance Enforcements	0	0
Notification of Installations Handling Hazardous Substances (NIHHS) Facilities and Control of Major Accident Hazards Facilities (COMAH)	0	0
Fuel Stations	0	0
Industrial Land Use	Contemporary Trade Directory Entries noted for premises within 100m of the site: 0m SE: Toys, Games & Sporting Goods – Manufacturers – inactive 3m E: Electrolysis – active 40m NE: Dry Cleaners – active 44m NE: Freight Forwarders – inactive 75m N: Disability Equipment - Manufacturers & Suppliers – inactive 76m N: Hardware – inactive 81m NE: T-Shirts – inactive 99m E: Soft Drinks – Manufacturers – inactive 99m E: Oil Companies – inactive	
National Grid High Voltage Underground Electricity Transmission Cables	0	0
National Grid High Pressure Gas Transmission Pipelines	0	0

4.2 CONSULTEES

4.2.1 Local Authority - Contaminated Land Officer

The Local Authority Contaminated Land Officer has not been contacted as part of our project instruction.

4.2.2 Local Authority - Building Control Officer

The Local Planning Authority Building Control Officer has not been contacted as part of our project instruction.

4.2.3 Local Authority - Petroleum Officer

The Local Planning Authority Petroleum Officer has not been contacted as part of our project instruction.

4.2.4 Environment Agency - Contaminated Land and Groundwater

The Contaminated Land and Groundwater Team of Environment Agency has not been contacted as part of our project instruction.

4.2.5 Coal Authority and Mining Searches UK

The Coal Authority and Mining Searches UK have not been contacted as part of our project instruction.

4.2.6 Sensitive Land Uses

There are no sensitive land uses noted within 500m of the site.

The site is located in a Nitrate Vulnerable Zone.

5.0 PRELIMINARY ENVIRONMENTAL RISK ASSESSMENT

5.1 METHODOLOGY

A Preliminary Risk Assessment (PRA) and Conceptual Site Model (CSM) have been prepared in accordance with CLR11 based on the information obtained as part of this desk study and site inspection. Possible risks associated with potential source of contamination and sensitive receptors identified have been assessed via a source-pathway-receptor (SPR) model in accordance with current UK protocols.

A risk may only exist where a plausible SPR linkage is presented and where the quantity or concentration of a contaminant is sufficient to pose harm. Under the statutory definition "Contamination" may only exist where contaminants pose a risk of harm to a receptor. Risk may be defined as a function of the likelihood and severity of any adverse effects resulting from a contamination event. This risk classification has been assessed in accordance with CIRIA C552. A summary of how risk is derived and the associated definition is presented in tables 5.1.1 and 5.1.2.

Table 5.1.1 : Risk Ratings Matrix

	Consequence			
Probability	Severe	Medium	Mild	Minor
High Likelihood	Very high risk	High risk	Moderate Risk	Moderate/low risk
Likely	High risk	Moderate Risk	Moderate/low risk	Low risk
Low Likelihood	Moderate Risk	Moderate/low risk	Low risk	Very low risk
Unlikely	Moderate/low risk	Low risk	Very low risk	Very low risk

Table 5.1.2 : Risk Ratings Definition

Risk Rationale	Definition
Very high risk	A high probability that severe harm could occur to determined receptor from identified contaminant - OR - evidence exists that severe harm to receptor is currently occurring. Urgent investigation and remediation should be considered. If demonstrated this risk is likely to result in substantial liability.
High risk	Harm is likely to occur to determined receptor from identified contaminant. Urgent investigation and short-term risk minimisation remediation followed by longer term fit for purpose remediation should be considered. If demonstrated this risk is likely to result in substantial liability.
Moderate Risk	It is possible that harm could occur to a determined receptor from identified contaminant. It is relatively unlikely that any harm would be severe or should harm occur it is likely to be relatively mild.
Moderate/low risk	It is possible that harm could occur to a determined receptor from identified contaminant. It is unlikely that any harm would be severe or should harm occur it is probable to be relatively mild.
Low risk	It is possible that harm could occur to a determined receptor from identified contaminant. It is unlikely that such harm, if indeed present, would at worst be mild.
Very low risk	There is a low possibility that harm could occur to a receptor. In such event the harm would not be severe.

5.2 POTENTIAL SOURCES OF CONTAMINATION

Based on the desk study and site inspection completed table 5.2 presents a summary of the potential sources identified.

Table 5.2 : Potential Sources

Source	Description	Comments	On/off-site
1. Made Ground within the site	Made Ground beneath the building and hardstanding and former buildings. Common contaminants such as metals (lead from surface run-off) and PAH (ashy deposits)	Prior to 1914 the site was developed as Almshouses. The site was subsequently redeveloped as a post office and sorting office, before being redeveloped between 1992 and 1996 as offices. The site has been in use since the 1990's as offices with a hardstand covering showing no sign of surface staining. Thus, given the limited site re-development and the hardstand surfacing it is unlikely that significantly contaminated Made Ground exists beneath the site.	On

5.3 PATHWAYS

A pathway is one or more routes or means that a receptor can be exposed to, or affected by, a contaminant.

Table 5.3 : Plausible Pathways

On-Site and Locally
Direct contact; By humans and infrastructure
Underlying geology/hydrogeology; principal aquifer over unproductive strata.
Inhalation and ingestion
Surface run-off/drainage

5.4 RECEPTORS

A receptor is either a living organism, a group of organisms, an ecological system, controlled waters or property that could be harmed or polluted by a contaminant. Table 5.4 examines the potential receptors.

Table 5.4 : Potential Receptors

Receptor	Description	Comments	Plausible
Construction workers	Groundworkers and general construction works	Construction works are internal retro-fitting. However, small soft landscaping box hedges proposed to provide green screening.	Yes
End users	Occupants of the proposed development	Site shall be covered in permanent hardstanding breaking pollutant linkage pathway. Box hedges to be planted within contained raised planters.	No
Adjacent land users	Sensitive land uses identified in the immediate vicinity	Site shall be covered in permanent hardstanding breaking pollutant linkage pathway with small area of box hedge within contained raised planters.	No
Soft landscaping	Areas of new planting including lawns	Box hedges to be planted within contained raised planters.	No
Water supply pipes	Plastic pipework for potable water supply to new apartments may be effected if laid in contaminated soils	Existing mains supply shall be retained.	No
Buildings & infrastructure	Buried concrete for new foundations may be in contact with aggressive ground (sulphur attack)	Construction works are internal retro-fitting only. No new foundations or in-ground infrastructure shall be constructed.	No
Groundwater	Controlled waters (aquifers) beneath the site	Principal aquifer above unproductive strata. No drinking water abstraction within 2000m of the site. Limited leaching effect from Made Ground given hardstanding covering.	Yes
Surface waters	Controlled water such as lakes, streams, rivers or coastal waters	Fray's River 200m to the west of the site. Limited leaching effect from Made Ground given hardstanding covering.	Yes
Ecological receptors	Sensitive areas of ecological significance defined under Part 2A of EPA 1990	No such areas area within immediate vicinity	No

5.5 SUMMARY OF POLLUTANT LINKAGES FOR PROPOSED LAND USE - INITIAL CSM

The initial CSM is based upon the proposed site end use and the information currently consulted relating to various risk sources and plausible pollutant linkages and is presented within table 5.5.

The initial CSM shall only consider risks where pollutant pathways exist. Thus, where the pathway is shown to be broken, for example by covering the site in permanent hardstanding, the pollutant linkage shall not be examined.

Table 5.5 : Initial Conceptual Site Model (for plausible pollutant linkage pathways)

Source	Receptor	Pathway	Probability	Consequence	Risk & Justification
Source 1 <i>Potentially contaminated Made Ground</i>	Construction workers	Direct contact	Low likelihood	Mild	Low Short term risk to adults not expected to be significant. Limited breaking of ground. Wear PPE.
	Groundwater and surface waters	Via underlying hydrogeology	Low likelihood	Mild	Low It is not considered that significantly contaminated Made Ground overlies the site beneath the hardstanding. The site history, including Almshouses, a post office, and latterly as offices indicate historical benign land uses. The presence of an engine house in the late 19 th Century is not considered sufficient to present a land contamination risk at the present day due to the re-development of the site and natural attenuation. The overlying hardstand surfacing shows no evidence of staining and will also limit the migration of surface water into soils beneath, the mechanism for creating leachate into the underlying aquifer. Furthermore, given the limited development of the site it is unlikely a significant thickness of Made Ground will exist which may rest within the underlying aquifer, typically 2-4m below ground level in the local area.

In the context of the proposed development the overall environmental risk classification for the site is **LOW** principally due to retaining a site wide permanent hardstand covering.

It would be prudent to completed precautionary sampling and testing of the anticipated Made Ground within the site to confirm the accuracy of the risk assessment and omit the risk of potentially abnormal ground conditions.

6.0 GEOTECHNICAL CONSIDERATIONS

6.1 GEOLOGICAL AND SUBSIDENCE RISK

Table 6.1 indicates potential mining and subsidence potential hazards identified within the Envirocheck report for the site. These should be considered in terms of the proposed re-development.

Table 6.1 : Mining and Subsidence

Item	Potential Hazard
Shrink-Swell Clay	No Hazard
Landslides	Very Low
Ground Dissolution of Soluble Rocks	No Hazard
Compressible Deposits	No Hazard
Collapsible Deposits	Very Low
Running Sands	Very Low
Potentially Infilled Land	Pond

Information from the Envirocheck report indicates that there are no significant references to infilled land within 250m of the site.

The site is not located in an area affected by coal mining or natural cavities, nor is it located in a brine compensation area. The likelihood of 'non-coal mining' having occurred on the site is indicated to be 'unlikely'.

There are no fault lines recorded within influencing distance of the site.

6.2 NEW FOUNDATIONS AND DRAINAGE SUMMARY

No new 'in-ground' construction proposed. Development shall be entirely internal retro-fit with external re-surfacing of existing hardstanding.

7.0 CONCLUSIONS AND RECOMMENDATIONS

This Phase I Geo-Environmental Risk Assessment has reviewed a number of desk-based sources of information along with a site inspection to determine any potential environmental and geotechnical risks which may impact the site.

7.1 ENVIRONMENTAL

The site is located within the town centre of Uxbridge and is directly surrounded by commercial property.

The recent site inspection revealed the site to comprise an L-shaped building located along the south-western and south-eastern boundary and a small area of car parking in the north. The building includes a part undercroft car park. The site is entirely overlain with hardstanding and no surface staining was observed.

The site is shown to have been developed as Almshouses by 1866, prior to redevelopment as a post office by 1914 and subsequently a sorting office, before being redeveloped as offices between 1992 and 1996 in its current form.

Given the limited historical site development and the competent and unstained hardstand surfacing it is unlikely significantly contaminated Made Ground exists beneath the site. The overlying hardstanding is protective of the underlying soils and groundwater.

Following review of 'potentially unacceptable' ground gas risks in accordance with the flow chart presented within CIRIA C665 no evidence of risk to the proposed occupancy of new homes (apartments) has been established.

The proposed development shall comprise a change of use to residential. All external areas shall remain covered in permanent hardstanding, thus pollutant linkages to any residual Made Ground beneath the site will not exist. In small areas of proposed soft landscaping a risk is not considered since new planting will be completed in raised and contained box planters. Thus, any anticipated and potentially contaminated Made Ground will not be exposed to site end users or new plantings.

The permanent hardstand covering shall limit and largely prevent any leachable effect to the underlying principal aquifer.

In the context of the proposed development the overall environmental risk classification for the site is **LOW** principally due to retaining a site wide permanent hardstand covering. It would however be prudent to

complete precautionary sampling and testing of the overlying Made Ground to ensure the general absence of risk and abnormal ground conditions.

7.2 GEOTECHNICAL

No new 'in-ground' construction proposed. Development shall be entirely internal retro-fit with external re-surfacing of hardstanding.

8.0 PROJECT INSTRUCTION AND LIMITATIONS

8.1 SCOPE OF WORKS

The following scope of work was undertaken to an agreed brief set out in Aviron's proposal and involves the following;

- 📍 Site reconnaissance survey, to include inspection of the infrastructure and potential discussions with the owner regarding site activities.
- 📍 Procurement of available historical map editions, geo-environmental sensitivity data and British Geological Survey (BGS) borehole records.
- 📍 Identification of potential areas of environmental concern relating to current and/or historic site use and surroundings to prepare a refined Conceptual Site Model (CSM).
- 📍 Preparation of suitable conclusions and recommendations with regard to the site's suitability for use or the requirement for further assessment and site investigation on the basis of the CSM.

Aviron has relied upon information received from the Client and their agents as accurate, unless contradicted by written documentation or site observations.

8.2 PUBLISHED GUIDANCE

This report follows the technical approach presented in Contaminated Land Report 11 (CLR11) "Model Procedures for the Management of Land Contamination" prepared by the Environment Agency in 2004. CLR11 provides guidance on the application of management processes when assessing potentially contaminated land.

This project and report have been designed to fulfil the information requirements set out in the Environment Agency Guidance on Requirements for Land Contamination Reports prepared by the Environment Agency in 2005.

Notwithstanding the above this report is additionally prepared in accordance with current guidance notes, standards and practices as set out by the Environment Agency and statutory organisations in order to establish potential and significant pollutant linkages as defined in Part IIA of the Environmental Protection Act 1990.

8.3 LIMITATIONS

Should changes in legislation, statutory requirements or industry practices occurred following issue of this report, this report should be viewed in light of these changes.

Should a notable time period elapse between the date issue of this report and the date of application of this report changes to site dynamics may occur and in particular the site inspection notes may no longer be applicable should any change of use occur to the site in the interim.

9.0 REFERENCES AND OTHER SOURCES OF INFORMATION

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DEFRA and Environment Agency, 2004. Model Procedures for the Management of Land Contamination, Contaminated Land Report 11.

British Geological Survey. Solid and drift edition sheet BGS map 256.

British Geological Survey Website. www.bgs.ac.uk

Environment Agency Website: www.environment-agency.gov.uk

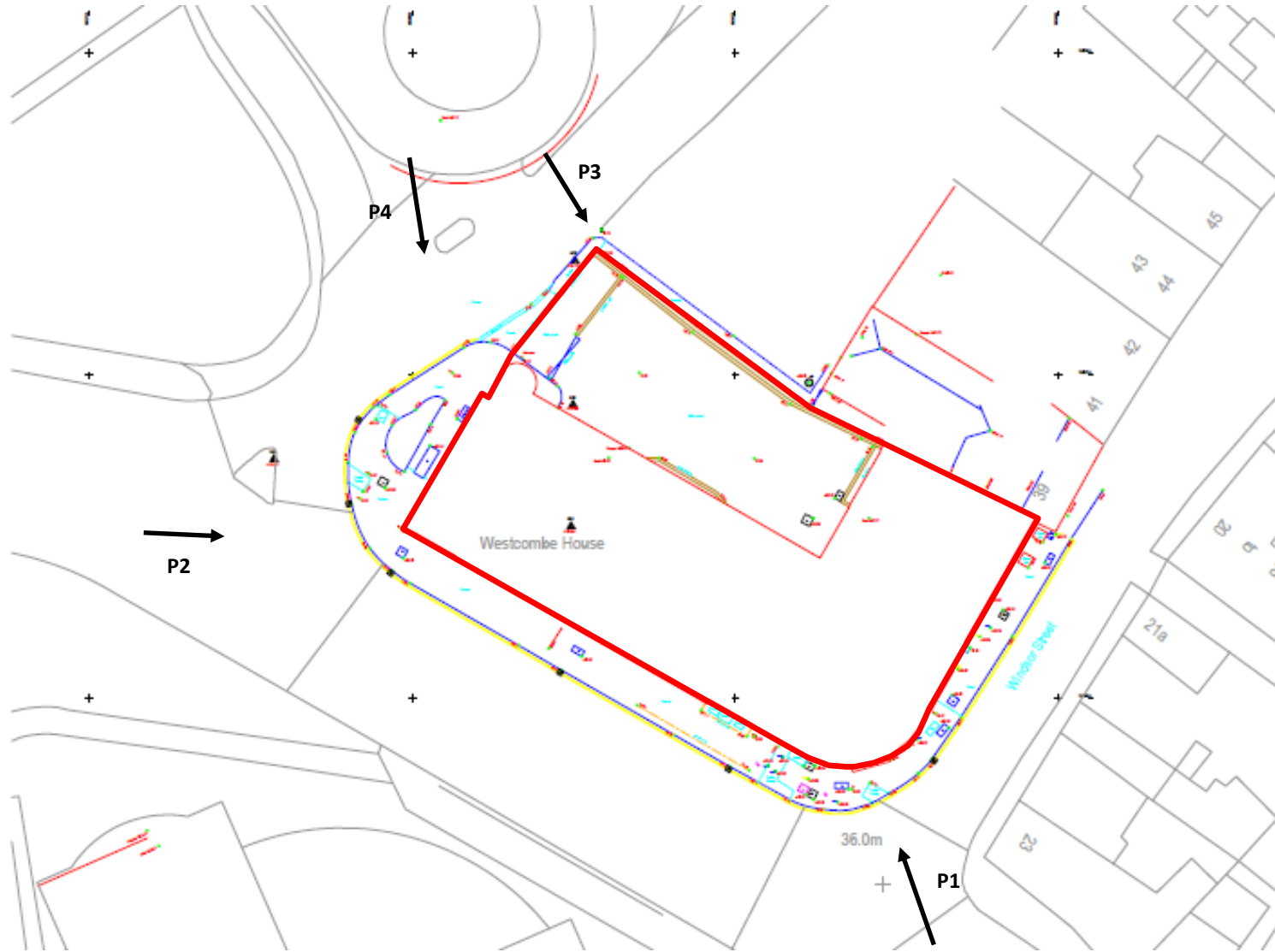
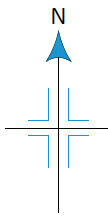
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Environment Agency. July 2005. Guidance on Requirements for Land Contamination Reports.

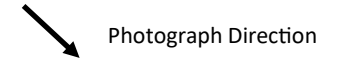
CIRIA. C552. Contaminated Land Risk Assessment. A Guide to Good Practice. January 2001.

Figures

- 1 Existing Site Layout Plan
- 2 Site Photographs
- 3 Proposed Development Plan



Legend



Notes

Plan provided by client

Figure 1

Drawing Title

Existing Site Layout Plan

Project Number 19-230.01

Project Title

Westcombe House, Windsor Street, Ux-
bridge, UB8 1AB

Drawn by OB

Checked by JB

Scale NTS





Photo 1



Photo 2



Photo 3



Photo 4

Legend

Notes

Figure 2

Drawing Title

Site Photographs

Project Number 19-230.01

Project Title

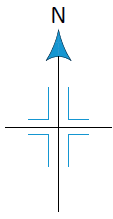
Westcombe House, Windsor Street, Ux-
bridge, UB8 1AB

Drawn by OB

Checked by JB

Scale NTS





Legend

Notes

Plan provided by client

Figure 3

Drawing Title
Proposed Development Plan

Project Number 19-230.01

Project Title
Westcombe House, Windsor Street, Ux-
bridge, UB8 1AB

Drawn by OB

Checked by JB

Scale NTS



Appendices

- I Historical Maps
- II Envirocheck Report

Appendix

I Historical Maps

Appendix

II Envirocheck Report

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AVIRON ASSOCIATES LIMITED

is a dynamic company of Chartered Environmental Surveyors and Geotechnical Engineers.

We continuously work hard to ensure our services are the most technically competent, efficient and viable in our market place. Our years of experience of vastly varied sites and projects compliment our ability to deliver assured and effective Ground Investigations and Risk Assessments of both Brownfield, Greenfield and Currently Developed Land.

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