ASHDOWN
SITE INVESTIGATION

GEOTECHNICAL AND QUANTITATIVE GROUND CONTAMINATION RISK ASSESSMENT REPORT

77 MARLBOROUGH ROAD
LANCING
WEST SUSSEX

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EXECUTIVE SUMMARY

The following presents a summary of the main findings of the report. 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 demolish the existing single-storey industrial unit at 77 Marlborough Road, Lancing, West Sussex, and to construct a replacement two-storey industrial unit with associated access, car/cycle parking areas and limited areas of soft landscaping.

The site is currently occupied by a single-storey prefabricated concrete industrial unit with surrounding overgrown soft landscaped areas, and areas of concrete and asphalt hard standing. An above ground tank is located to the rear of the unit.

Reference to geological datasets indicates that the site is expected to be underlain by Raised Beach Deposits overlying the Lambeth Group. The ground investigation confirmed the underlying soils to comprise a shallow thickness of made ground, overlying Raised Beach Deposits.

Both the Raised Beach Deposits and the Lambeth Group are classed as Secondary A Aquifers.

The site does not lie within a potable groundwater source protection zone (SPZ).

Whilst no groundwater was recorded during the site works and the initial two monitoring visits, the third monitoring visit recorded groundwater in borehole WS01 at a depth of 1.86m below ground level.

The site is not considered to be in an area where radon protection measures are considered to be required based on detailed analysis of the geological maps and an understanding of how the radon atlas was developed. No risk from ground gases is considered to be present.

The ground investigation did not find any of the potential contaminants identified by the desk study report to be present in soils at concentrations that would be considered to pose an unacceptable risk to either end users of the site or to controlled waters beneath the site. Chrysotile asbestos has been encountered on the surface in the north-eastern part of the site, assumed to originate from damage to a potential asbestos cement roof on the eastern portion of the building; this debris and any asbestos containing materials withing the building fabric should be removed appropriately prior to demolition so as not to be introduced into soils beneath the site. The local water supply company should be consulted as to the selection of water supply pipework. No remedial measures or further contamination risk assessment works are considered to be necessary.

This report should be submitted alongside an application to discharge planning Condition 5. The conclusions drawn within this report should be considered to be provisional until such time as the report has been approved and the condition discharged.

It is recommended that the design of precautions against shrinkage and heave for any new foundation system should assume a low volume change potential for the clay soils of the Raised Beach Deposits.

A net allowable bearing capacity of 150kN/m^2 may be assumed for spread (pad or strip) foundations up to 1.50m across bearing within the Raised Beach Deposits of at least stiff consistency or very dense relative density.

A DS-1 Design Sulfate Class and an AC-1 ACEC classification should be assumed as a minimum for the design of concrete in contact with the ground.

Design equilibrium California bearing ratios and moduli of subgrade reaction are presented in the report. The subgrade is likely to be susceptible to frost heave.

Infiltration testing within the Raised Beach Deposits soils recorded infiltration rates ranging between $1.15x10^{-4}$m/sec and $3.46x10^{-6}$m/sec.

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1. INTRODUCTION

It is proposed to demolish the existing single-storey industrial unit at 77 Marlborough Road, Lancing, West Sussex and to construct a replacement two-storey industrial unit with associated access, car/cycle parking areas and limited areas of soft landscaping. A copy of the proposed development layout is presented in Appendix A.

Adur District Council has granted planning permission for the proposed development (Application Number: AWDM/0525) subject to the fulfilment of a series of conditions. These include Condition 5 which deals with the risk posed by potential contamination at the site. Condition 5 stipulates that a preliminary ground contamination risk assessment (desk study) should be prepared for the site and, if required, an intrusive ground investigation should be carried out to enable a quantitative assessment of any potential sources of contamination identified by the desk study report to be undertaken. Condition 5 also states that, dependent on the findings of the intrusive investigation, a remediation strategy and verification plan for the site may also be required. A copy of the Decision Notice is presented in Appendix B.

A Contaminated Land Risk Assessment - Phase 1 Desk Study Report[1] has previously been issued by STM Environmental Ltd. The report identified several potentially significant pollutant linkages and recommended that an intrusive site investigation be undertaken at the site to determine the presence and extent of any soil contamination at the site.

Ashdown Site Investigation Ltd. was requested to design and carry out an intrusive ground investigation to provide advice to assist with the structural design and to allow discharge of Condition 5 parts (2), (3) and (4).

The scope of the works covered by this report, and the terms and conditions under which they were undertaken, were set out within the offer letter Q16533Rev1, dated 8th July 2026. The instruction to proceed was received from the client, Industrial IT Systems Ltd.

The specific objectives of the works were to:

a) Establish the expected geology and hydrogeology at the site;
b) Investigate the shallow ground and groundwater conditions in the area of the proposed development;
c) Provide advice/parameters to assist others in undertaking design of spread foundations, ground floors and pavements;
d) Test for the presence of contaminants identified by the preliminary conceptual model presented in the desk study report;
e) Develop a quantitative conceptual model of the site, refining the preliminary model to identify any pollutant linkages that may be present; and
f) Provide an indicative assessment of the waste classification of the materials tested.

[1] STM Environmental Ltd Report Ref: PH1-2026-000014, dated 25th December 2026.

2. SITE CONTEXT

2.1 Site Description

The site is located on the southern side of 77 Marlborough Road, Lancing, West Sussex, and is centred on the approximate Ordnance Survey national grid reference 517714, 103621. A site location plan and site plan are presented as Figure 1 and Figure 2, respectively.

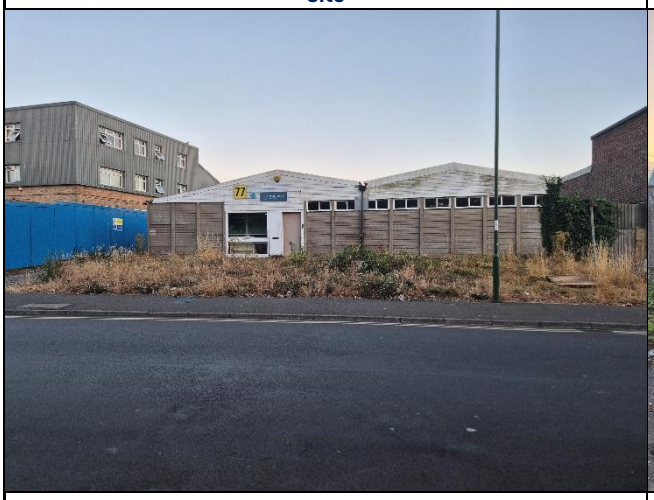
The site is currently occupied by a single-storey prefabricated concrete industrial unit. An area of grassland is located in the north of the site, with a hardstanding accessway forming the eastern part of the site, leading to a hardstanding yard area in the southern part of the site. An above ground tank is located in the yard area adjacent to the south-western corner of the building.

Aerial imagery for the site suggests that the roof for the eastern half of the building may comprise asbestos cement, and a piece of suspected asbestos cement was identified at the surface adjacent to the building in the north-east of the site, and at the surface adjacent to the building within the landscaping area in the north of the site.

A distribution building for airbrush parts and paint is located to the west of the site, separated from the site by an overgrown area of land. A construction site is located to the east, with Marlborough Road to the north and residential housing to the south.

Site Photographs

View of building from Marlborough Road to the north of the site



Above ground tank adjacent to south-west corner of the building



Suspected asbestos cement adjacent to north-east of building



Suspected asbestos cement to north of building



2.2 Geological and Hydrogeological Data

A summary of the pertinent geological and hydrogeological data is presented below. Further information in this regard is presented within the Phase 1 Desk Study.

2.2.1 Expected Geology and Aquifer Designation

The stratigraphic succession that may be expected to underlie the site has been established by reference to British Geological Survey (BGS) mapping and the BGS Lexicon of Named Rock Units. The expected stratigraphy is presented in the following table.

Table 1. Expected Strata and Aquifer Designation

Type	Stratum	Aquifer Designation
Superficial	Raised Beach Deposits	Secondary A Aquifer
Bedrock	Lambeth Group	Secondary A Aquifer

The Raised Beach Deposits consist of marine sand, silt, and pebbly sand, with sandy gravel and 'clean' flint shingle. For the most part the deposit is either bedded or chaotic may be in the form of dunes, sheets or banks. These deposits are above the level of the present shoreline because of earth movement or a general fall in sea level.

The Lambeth Group is of Thanetian to Ypresian age (47.8 to 59.2 million years old; Late Palaeocene). The Lambeth Group is typically composed of either dark grey shelly clay, laminated clay and silt or fine-to-coarse grained sand. Sporadic burrows occur throughout but bioturbation is more common in the higher beds, where sparse glauconite has been recorded. Shelly beds, particularly in the basal 2m, are dominated by shells in a dark grey clay matrix. Common plant debris is concentrated locally in thin lignites, especially near the base. Very sparse occurrences of thin degraded ash deposits have been noted in south London and north-west Kent. The formation is recorded by the BGS to range in thickness up to 14.5m.

2.2.2 Radon

The Phase 1 Desk Study reports that:

> "The majority of the site les in an area with less than 1% chance of being affected by naturally occurring Radon gas. However, the eastern boundary of the site overlaps with an area with between 3% and 5% chance of being affected. Therefore, it is possible that it [the site] is in [an] area affected by Radon."

This is discussed further in Section 6.1.

2.2.3 Groundwater Source Protection Zones (SPZ)

The Environment Agency defines SPZs as those areas where groundwater supplies are at risk from potentially polluting activities and accidental releases of pollutants. SPZs are primarily a policy tool used to control activities close to water supplies intended for human consumption.

The site does not lie within a SPZ.

3. SITE WORKS

3.1 Introduction

The intrusive site works comprised the drilling of a series of dynamic sampler boreholes, together with accompanying in-situ geotechnical testing. The intrusive work was carried out on 31st July 2026. The exploratory hole locations are shown on Figure 2.

Descriptions of the strata encountered and comments on groundwater conditions are shown in the exploratory hole records given in Appendix C, which also includes explanatory notes to assist in their interpretation.

3.2 Exploratory Holes

The following table summarises the intrusive works undertaken at the site.

Table 2. Summary of Intrusive Works Undertaken

Designation	Depth (m bgl)	Method
WS01	2.00	Dynamic Sampler
WS02	1.30	Dynamic Sampler
WS03	1.30	Dynamic Sampler
WS04	1.50	Dynamic Sampler
WS05	3.00	Dynamic Sampler

3.3 Sampling

Samples of soil were taken from the exploratory holes at the depths shown in the exploratory hole records. The types of samples taken are indicated on the exploratory hole records. Details on the sample types are provided in the explanatory notes.

In addition, a piece of suspected asbestos cement (denoted "ACM1") was obtained from the concrete area adjacent to the north-east of the building. The location of the sampled ACM is shown on Figure 2.

Where appropriate, samples were stored in cool boxes with cooling blocks to maintain temperatures below 4°C until transferred to refrigerators upon return to the office and subsequently forwarded to the external accredited chemical testing laboratory.

3.4 In Situ Strength Testing

The types and depths of in situ testing, together with the test results, are either given on the exploratory hole records or are summarised separately in Appendix C. Further details on the in situ testing methods are provided in the explanatory notes.

3.5 In Situ Infiltration Testing

Variable (falling) head testing was undertaken in two boreholes in general accordance with BS EN ISO 22282-2:2012[2]. The results of the testing along with the infiltration rate calculations are included in Appendix F.

3.6 Installations

Gas and groundwater monitoring standpipes were installed to a depth of 2.00m in two of the boreholes. Descriptions of the installations are shown on the exploratory hole records.

The concentrations of gases and depths to groundwater were recorded within the standpipes on three occasions between 6th August 2026 and 20th August 2026. The readings are presented in Appendix D.

3.7 Laboratory Testing

Laboratory testing was scheduled by Ashdown Site Investigation Ltd.

Geotechnical testing was undertaken by Ashdown Site Investigation Ltd, with chemical testing being undertaken by a laboratory with recognised (UKAS and MCERTS) accreditation for quality control.

Results from the laboratory tests are provided in Appendix E.

[2] Geotechnical investigation and testing – Geohydraulic testing. Part 2: Water permeability tests in a borehole using open systems.

4. GROUND CONDITIONS

4.1 Stratigraphy

4.1.1 Surface Covering

Boreholes WS01 and WS02 were excavated through an initial surface cover of topsoil, up to 100mm in thickness. Boreholes WS03 and WS04 were excavated through concrete surfacing some 140mm and 80mm in thickness at the respective positions. Within borehole WS05, asphalt some 60mm thick was recorded.

4.1.2 Made Ground

Made ground, generally comprising gravelly sandy clay and gravelly sand was recorded to depths of between 0.25m and 0.60m below ground level. The gravel fraction comprised variable quantities of brick, flint, concrete and clinker-like material, with asphalt and plastic also locally noted.

4.1.3 Raised Beach Deposits

Underlying the made ground, the investigation progressed into undisturbed stiff, varying very stiff, gravelly sandy clay deposits to depths of between 0.80m and 1.50m below ground level. Underlying the gravelly sandy clay the investigation then progressed into subangular to subrounded fine to coarse gravel of flint. These coarse-grained soils were very dense in relative density.

These deposits continued within the deepest borehole to the final drilling depth of 3.00m below ground level and are considered to represent the Raised Beach Deposits indicated to underlie the site on BGS geological maps.

4.2 Stability

Instability was recorded locally within the coarse-grained soils.

4.3 Groundwater Conditions

No groundwater was encountered during the drilling works or during the initial two monitoring visits. The only trace of groundwater was recorded during the third monitoring visit within borehole WS01; the bottom 20mm of the dip meter was noted to be wet once the standpipe had been dipped suggesting groundwater at circa 1.86m below ground level.

5. GEOTECHNICAL ASSESSMENT

The geotechnical assessment has been prepared in connection with the development proposals shown on the drawings included in Appendix A.

In summary, the proposed development is to comprise the construction of a replacement two-storey commercial unit with associated access, car/cycle parking areas and limited areas of soft landscaping.

At the time of writing, no details were available concerning the specific loads likely to be applied to the foundations.

5.1 Foundations

5.1.1 Soil Shrinkage/Heave Potential

The fine-grained soils of the Raised Beach Deposits have been classified as clays, and with plasticity indices in the range of 14% to 16%, and modified plasticity indices in the range 4% to 15%, the clay soils may be expected to exhibit a low volume change potential. The underlying coarse-grained gravels may be assumed to be non-plastic, and hence, non-shrinkable.

It is recommended that the design of precautions against shrinkage and heave for any new foundation system (spread footings and ground beams etc.) should assume a low volume change potential for the fine-grained Raised Beach Deposits soils and take into account current guidance such as that given by the Building Research Establishment (BRE)[3] or the National House Builders Council (NHBC)[4].

Whilst this report has been prepared to provide advice to assist designers in undertaking detailed design, the report itself does not represent a detailed design statement. Detailed foundation design, including assessment of foundation type, minimum founding depths for spread foundations, and requirements for placement of void formers et cetera, should take into account the findings of this report and the presence of trees (previous, present and proposed). In connection with the latter an arboricultural survey of the site that identifies the species and maturity of any existing or recently felled trees in the area of the proposed new building should be provided to engineers responsible for the foundation design. Information on proposed planting schemes that may affect foundation design should also be provided.

5.1.2 Spread Foundations

5.1.2.1 Foundation Depths for Spread Foundations

Foundations should be constructed to bear below soils that are likely to be affected by significant soil volume changes caused by seasonal changes in moisture content to avoid damage to foundations that could otherwise arise. In addition, all made ground and any soils disturbed by the construction or removal of any previously existing foundations or services should be regarded as being variable in nature and state of compaction and, as such, unsuitable as a founding medium for shallow footings. New footings should be constructed to bear below made ground/disturbed natural soils and soil subject to seasonal soil volume changes, whichever is the deeper, and onto undisturbed, competent, natural deposits.

[3] www.bre.co.uk : BRE Digests 240, 241 and 242, Low rise buildings on shrinkable clay soils, parts 1, 2 and 3; and BRE Digest 298, The influence of trees on house foundations in clay soils and BRE Digest 412, Desiccation in clay soils.
[4] http://www.nhbc.co.uk/ : NHBC Standards, Chapter 4.2.

Summary guidance on suitable minimum foundation depths to protect against the effects of seasonal soil volume changes is presented in the table below but designers undertaking detailed design of foundations should follow the detailed guidance such as that provided within Chapter 4.2 of the NHBC Standards.

Table 3. Indicative Minimum Foundation Depths

Tree Type	Water Demand of Tree	Tree Distance to Tree Height Ratio (D/H)									
		0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.80	1.00	1.25
		Minimum Foundation Depth Required in Low Volume Change Potential Soils (m)									
Broad Leaf	High	2.50	2.40	2.25	2.10	1.95	1.80	1.70	1.40	1.10	0.75
	Moderate	1.60	1.50	1.40	1.30	1.15	1.05	0.95	0.75*	0.75*	0.75*
	Low	1.20	1.10	1.05	0.95	0.85	0.75*	0.75*	0.75*	0.75*	0.75*
Coniferous	High	2.50	2.20	1.90	1.65	1.35	1.05	0.75*	0.75*	0.75*	0.75*
	Moderate	1.60	1.35	1.15	0.90	0.75*	0.75*	0.75*	0.75*	0.75*	0.75*

* Minimum foundation depth required to protect against soil volume changes.

It should be noted that the depths provided in Table 3 relate only to foundations within clay soils. Gravel soils were encountered below depths of between 0.8m and 1.5m at the borehole. Foundations constructed directly onto the gravel soils would not be subject to movement induced by soil volume changes.

Details on the water demand and mature height of common trees is given within Table 3 of Chapter 4.2 of the NHBC standards which should be referred to when assessing minimum foundation depths required for the proposed development. A summary is provided in the table below.

Table 4. Indicative Summary of Water Demand and Mature Height of Common Trees

Tree Type	High Water Demand		Moderate Water Demand		Low Water Demand	
	Tree	Height (m)	Tree	Height (m)	Tree	Height (m)
Broad Leaf	Elm	18 – 24*	Acacia	18	Birch	14
	Oak	16 – 24*	Alder	18	Elder	10
	Poplar	15 – 28*	Apple	10	Fig	8
	Willow	16 – 24*	Ash	11 – 23*	Hazel	8
	Eucalyptus	18	Laurel	10	Holly	12
	Hawthorn	10	Beech	20	Honey Locust	14
			Blackthorn	8	Hornbeam	17
			Cherry	8 – 17*	Laburnum	12
			Chestnut	20 – 24*	Magnolia	9
			Lime	22	Mulberry	9
			Maple	8 – 18*	Tulip Tree	20
			Pear	12		
			Plane	26		

Tree Type	High Water Demand		Moderate Water Demand		Low Water Demand
			Plum	10	
			Sycamore	22	
			Tree of Heaven	20	
			Walnut	18	
			Whitebeam	12	
Coniferous	Cypress	18 – 20*	Cedar	20	
			Douglas Fir	20	
			Larch	20	
			Monkey Puzzle	18	
			Pine	20	
			Spruce	18	
			Wellingtonia	30	
			Yew	12	

* Dependent on particular species.

5.1.2.2 Bearing Capacity for Spread Foundations

For design purposes, a net allowable bearing capacity of 150kN/m^2 may be assumed for spread (pad or strip) foundations up to 1.50m across bearing within the Raised Beach Deposits of at least stiff consistency or very dense relative density. The quoted bearing capacity is expected to limit settlement to less than 25mm.

Attention is drawn to the presence of interbedded fine-grained soils and coarse-grained soils beneath the site within the Raised Beach Deposits. As there is the potential for mixed soil conditions to be present beneath footings, designers should consider the need for foundations to be reinforced due to the potential for differential cracking to develop as a result of coarse-grained and fine-grained soils settling at different rates under loading. Alternatively foundations could be extended to bear solely within the granular deposits (beneath the clay deposits).

5.2 Ground Floors

Ground bearing floor slabs may be considered provided made ground soils are removed and replaced with an engineered fill and the depth of foundations required to protect against seasonal soil volume changes close to trees is less than 1.5m. The depth of any fill should be limited to a maximum of 600mm unless placed to an engineering specification designed to limit internal settlement of the fill materials to a tolerance to be advised by the designer. Where clay soils are to remain beneath the floor, further works should be undertaken close to the time of construction to demonstrate that no significant soil desiccation is present. If ground bearing floors are adopted it is recommended that the potential for differential movement, both between the floor slab and walls and across the floor slab itself, should be anticipated. Such floors should be fully debonded from walls. Formations should be adequately proof rolled and any excessively soft materials excavated and replaced with a suitable, well graded granular fill.

Guidance on CBR values and moduli of subgrade reaction are given in Section 5.6 of this report.

The detailing of services through, or under, ground-bearing floors should incorporate flexible connections and, where appropriate, enhanced falls.

5.3 Groundwater

Whilst no groundwater was recorded during the site works or the initial two monitoring visits, the third monitoring visit recorded groundwater in borehole WS01 at a depth of 1.86m below ground level.

It should be noted that water levels within the exploratory holes may not have equilibrated with the groundwater table at the time the observations were made. The works were undertaken during an exceptionally dry summer period; groundwater levels should be expected to fluctuate seasonally, and higher groundwater should be anticipated during wetter seasons.

Where excavations are proposed to extend below the groundwater table, particularly within coarse-grained soils, groundwater control will be required to maintain adequately dry working conditions and excavation stability. It is expected that pumping from sumps would be sufficient to control groundwater in excavations extending a shallow depth beneath the groundwater table.

The potential for perched groundwater to be present above the groundwater table, for example within the made ground etc, should not be overlooked. It is also possible that heavy precipitation during construction could lead to the ingress of perched groundwater or surface water run-off into excavations. In such circumstances it would be expected that water entering excavations would also be adequately managed by pumping from sumps or natural drainage.

5.4 Stability of Excavations

All made ground or coarse-grained natural soils exposed in excavations should be assumed to be unstable, even in the short term. Whilst excavations wholly within fine-grained natural soils may remain stable for a short period of time if not subjected to surcharge loads (such as may be imposed by existing foundations, traffic or storage of materials), the stability of these deposits if left unsupported should be assumed to have the potential to deteriorate. All excavations should be suitably supported.

All excavations requiring human entry must be shored as necessary to conform to current best practice, as accepted by the Health and Safety Executive (HSE)[5]. Current legislation requires that where personnel access is required into any excavation a competent person must inspect excavation supports or battering of slopes at the start of the working shift and at other specified times. No work should take place until the excavation is safe. Excavations should also be inspected after any event that may have affected their stability, such as a significant weather event, changes in surcharge loadings imposed by temporary storage of materials or changes in site traffic plans or alteration of support systems. Inspections should be formally recorded and any faults that are found should be corrected immediately.

Particular attention must be paid to ensuring the stability of nearby structures, services and neighbouring sites as well as the road frontage.

[5] Relevant guidance is given on the HSE website, www.hse.gov.uk

5.5 Aggressivity to Concrete

The aggressivity of the soils to concrete has been assessed in accordance with guidance published by the BRE[6]. The results of the chemical laboratory testing together with a summary of the characteristic values is included in Appendix F.

In consideration of the soils encountered beneath the site it is considered that that 'natural ground conditions' may be assumed for the purpose of assessing the aggressivity of the chemical environment for concrete classification (ACEC class). Given the noted occurrence of groundwater, 'mobile groundwater' conditions should be assumed.

The following table summarises the characteristic values indicated from the chemical analysis of the soils present beneath the site.

Table 5. Assessment of the Chemical Analysis of the Soil

	Characteristic Value	Design Sulfate Class	ACEC Classification
pH	7.7	-	-
Water Soluble Sulphate (mg/l as SO4) *	<100	DS-1	AC-1

Notes: * Characteristic value rounded to nearest 100.

In accordance with the guidance, a DS-1 Design Sulfate Class and an AC-1 ACEC classification should be assumed as a minimum for the design of concrete in contact with the ground.

5.6 Pavement Design

Current guidance[7] suggests that pavement design should be based on the design subgrade surface modulus, determined as being equal to the lower of the short-term subgrade modulus and the long-term subgrade modulus. The subgrade surface modulus can be related to California bearing ratio using the formula, $E = 17.6(CBR)^{0.64}$, where E is the subgrade modulus expressed in MPa.

Cone penetrometer tests were undertaken to establish the California bearing ratio (CBR) of the in situ soils at the time of the investigation. The range of values determined is presented on the test result records within Appendix C, and the table and graphs contained within Appendix F. A summary of the in situ test data is presented below. It is noted that in situ CBR values are, in part, dependent on the moisture content of the tested soils and are consequently subject to seasonal variation.

[6] BRE Special Digest 1:2005 Concrete in Aggressive Ground.
[7] National Highways CD 225; Design for new pavement foundations.

Table 6. In Situ CBR Values (At Time of Ground Investigation Works)

	CBR (%)	Modulus of Subgrade Reaction E (MPa)
Minimum	3.4	38.4
Average	27.2	136.5
Maximum	155.4	444.7
10%ile	9.0	71.7
20%ile	12.7	89.7
50%ile (Median)	20.1	120.0

Equilibrium CBR values can be derived from knowledge of soil classification data (plasticity index for soils exhibiting cohesion (clay type) and particle size distribution for granular soils) and pavement thickness. Historical guidance[8] suggests the following design equilibrium CBR values would be applicable to the Raised Beach Deposits soils for the construction of pavement. The subgrade moduli calculated from these design equilibrium CBR values can be reasonably considered to be representative of long-term subgrade modulus using the formula given above.

Table 7. Long-term CBR Values

Stratum		Design Equilibrium CBR Value (%)		†Modulus of Subgrade Reaction E (MPa)
		Thin Road* Pavement	Thick Road* Pavement	
Fine grained Raised Beach Deposit	Minimum	3.4	5.4	38.5
	Average	3.5	5.5	39.5
	Maximum	3.6	5.6	40.0
Coarse Grained Raised Beach Deposits Soils		20	20	119.7

* Thin pavement being 300mm sub-base, thick pavement being 1200mm sub-base. †Modulus based on average of all calculated moduli based on CBR values for thin sub-base

Designers will need to select an appropriate design equilibrium CBR value / modulus of subgrade reaction taking account of proposed pavement thickness, expected winter groundwater conditions, the standard to which pavement is to be designed and any local authority or other regulatory/warrantor requirements together with construction conditions likely to prevail at the time of construction.

The subgrade should be assumed to be susceptible to frost heave.

[8] Highways England Design Manual for Roads and Bridges Interim Advice Note 73/09 Rev1; now withdrawn.

5.7 Stormwater Infiltration Systems

Variable (falling) head testing[9] was undertaken in boreholes WS02 and WS04. From the test results, calculations were made to estimate the infiltration rate that could be expected for soakaways constructed to discharge into the underlying soils within the test zone.

The infiltration rates derived from the tests are summarised in the following table.

Table 8. Calculated Infiltration Rates

Exploratory Hole	Top of Response Zone (m bgl)	Bottom of Response Zone (m bgl)	Stratum	Infiltration Rate (f) (m/sec)	Driving Head of Water (m)
WS02	1.00	1.30	Raised Beach Deposits	3.46×10^{-6}	1.0
WS04 Test 1	1.00	1.50	Raised Beach Deposits	1.13×10^{-4}	0.8
				3.94×10^{-5}	0.4
WS04 Test 2	1.00	1.50	Raised Beach Deposits	1.15×10^{-4}	0.9
				3.58×10^{-5}	0.5
WS04 Test 3	1.00	1.50	Raised Beach Deposits	9.65×10^{-5}	1.0
				4.03×10^{-5}	0.5

The value 'f' is equivalent to the soil infiltration coefficient 'q' quoted in the Construction Industry Research and Information Association (CIRIA) Report 156.

The results from the infiltration tests should be provided to engineers responsible for the design of the drainage system.

To comply with building regulations[10], point discharging infiltration systems (conventional ring or trench soakaways) are required to be constructed a minimum of 5.0m away from proposed or existing buildings.

The infiltration testing conducted in the boreholes is intended to provide calculated soil infiltration rates to assist in the preliminary design of infiltration systems at the site. However, it should be noted that Regulators/Local Authorities may require further testing to be undertaken at a later stage in accordance with the BRE365 guidance. This guidance states the testing should be carried out at the locations and depths of the proposed soakaways, which will not be known until preliminary drainage design has been undertaken. The guidance also states that "designers should note that the results of tests may be affected by seasonal factors. In the winter and spring, the soil moisture and groundwater level will be higher than in the summer. Testing under a worst-case basis should be undertaken"; often local authorities may insist that soakage testing to support detailed design of the drainage system is undertaken within defined periods of the year which can vary from authority to authority.

Monitoring of groundwater levels during the worst annual case (winter period) is often a requirement of Local Authorities and the BRE365 guidance suggests this should be undertaken prior to finalising design of infiltration systems.

[9] Conducted in general accordance with the test procedure outline in BS EN ISO 22282-2:2012.
[10] The Building Regulations 2010; Part H; Drainage and Waste Disposal

6. QUANTITATIVE CONTAMINATION ASSESSMENT

The Phase 1 Desk Study identified that the site, and the surrounding area, had been subject to potentially contaminative land uses, with the site itself identified as having been previously occupied by a paper manufacturer. The presence of an above ground tank was also identified. Potentially contaminative land uses were identified off-site in relation to carriage works, factories, a warehouse and an infilled quarry. Risks were identified associated with future occupiers of the site, groundwater and damage to building and services. An intrusive ground investigation was recommended.

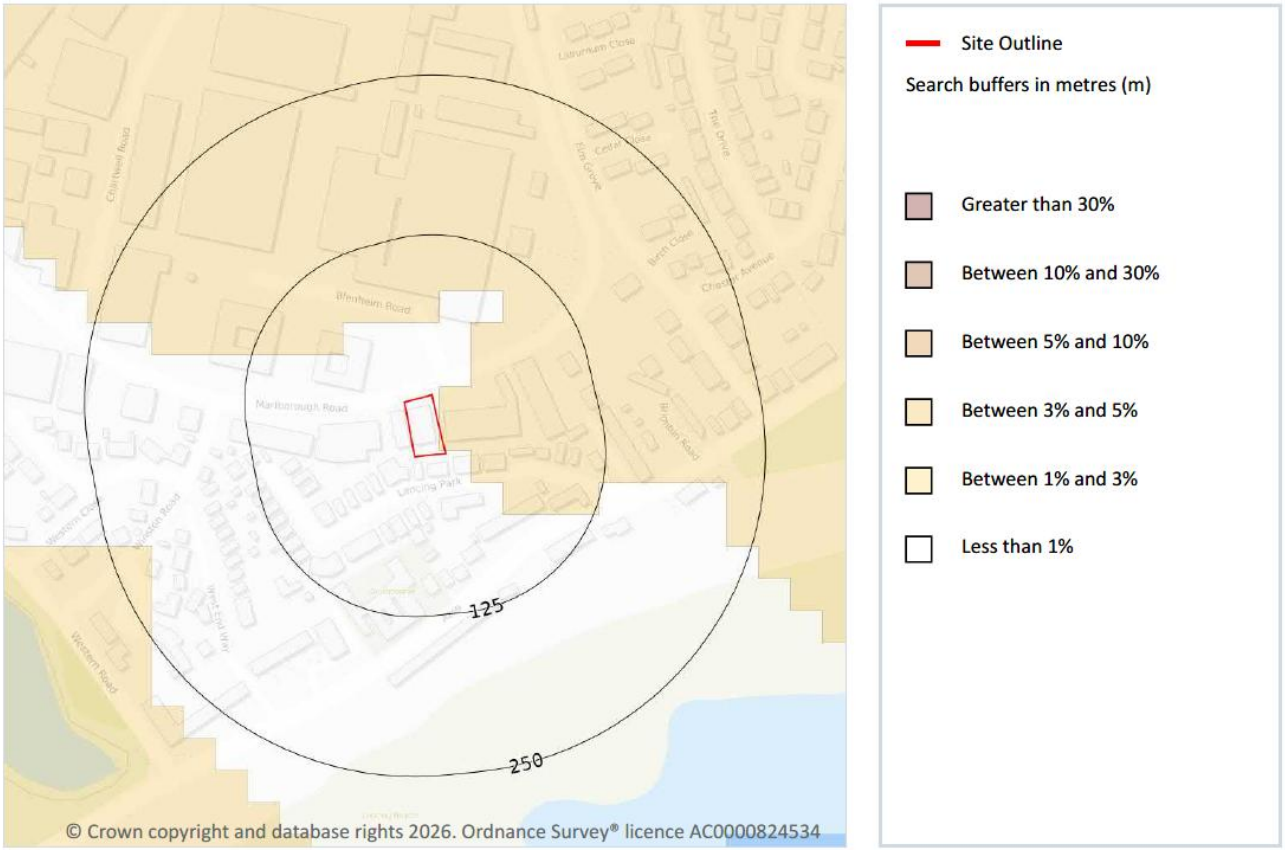
In addition, and though not clear from the preliminary Conceptual Site Risk Model (included as Appendix G of this report), the Phase 1 Desk Study report identifies the risk from radon, and this is discussed further in Section 6.1 below.

6.1 Risk from Radon

The radon data from the Groundsure report included within the Phase 1 Desk Study is presented below:

Radon Data from Groundsure Report included within Phase 1 Desk Study

20 Radon



A review has been undertaken of the UK Health Security Agency and British Geological Survey paper on the methodology behind preparing the recent radon maps[11].

The radon maps are based on a 25m resolution, with a 25m buffer and 25m x 25m pixelization applied. The maps are based on indoor radon measurements and simplifications of the BGS 1:50,000 geological mapping.

The area around the site, where the Raised Beach Deposits overly the Lambeth Group are shown to be in an area where less than 1% of properties are above the Action Level. The Raised Beach Deposits have been proven on site and the Lambeth Group shown in nearby BGS borehole logs. Therefore, the radon potential on site should be that as for Raised Beach Deposits overlying the Lambeth Group i.e. an area where less than 1% of properties are above the Action Level.

The higher risk area relates to situations where the River Terrace Deposits overlie the Lambeth Group and where the site is shown within 25m of this geology, as is shown in the diagram below:

BGS Superficial Geology Map overlain with Site and 25m Buffer



Therefore, there is not considered to be an unacceptable risk from elevated radon levels that would impact the site, and radon protection measures are not considered to be warranted.

[11] Daraktchieva, Z., Ferreira, A., Rees, D., and Lawley, R. (2026) Making the Radon Potential Map of Great Britain – Insight Into the Methodology. *Indoor Air*, 2026:1075725 https://doi.org/10.1155/ina/1075725

6.2 Assessment Strategy

Borehole WS05 was targeted at the location of the above ground tank, with samples of soils tested for concentrations of petroleum hydrocarbons. In addition, shallow samples from borehole WS05 and around the site (WS01, WS03 and WS04) were tested for the other contaminants of concern, with deeper samples also tested for concentrations of petroleum hydrocarbons. A sample of the Raised Beach Deposits from borehole WS01 was also tested for a range of similar contaminants.

The sample of suspected asbestos cement (ACM1) was also analysed to confirm if it contained asbestos.

6.3 Analysis of Contamination Test Results

6.3.1 Method of Assessment

For the assessment of risk to end users, comparison of the results of the laboratory testing has been made against published soil screening values (SSV) comprising the 'Suitable For Use Levels' (S4UL)[12] or, in lieu of an S4UL being developed for lead, the Category 4 Screening Level (C4SL)[13].

In view of the development proposal, the SSV utilised in this assessment are those calculated for the generic "Commercial" land use.

For the assessment of risk to controlled waters a qualitative assessment has been undertaken based upon the concentrations of contaminants recorded within the soil samples and the information obtained about the sensitivity of the underlying strata or nearby surface water receptors.

6.3.2 Heavy Metals & Polycyclic Aromatic Hydrocarbon (PAH) Compounds

The following table summarises the SSV for heavy metals and PAH compounds, along with the maximum and minimum concentrations recorded.

Table 9. Summary of Test Results – Heavy Metals and PAH Compounds

Contaminant	SSV (mg/kg)	No. of Samples	Minimum Concentration (mg/kg)	Maximum concentration (mg/kg)	Limit of Detection (mg/kg)	No of exceedances
Water Soluble Boron	240000	4	<LOD	0.65	< 0.50	0
Arsenic	640	4	2.5	17.3	< 2.3	0
Cadmium	190	4	<LOD	<LOD	< 1.1	0
Chromium	8600	4	10.2	15.4	< 1.3	0
Copper	68000	4	7.4	65	< 1.2	0
Lead	2330	4	8.5	214	< 2.4	0
Mercury	1100	4	<LOD	<LOD	< 0.6	0
Nickel	980	4	7.9	17.7	< 1.6	0

[12] Nathanail, C.P, et al., The LQM/CIEH S4ULs for Human Health Risk Assessment, 2015, Land Quality Press, Nottingham. Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3071.
[13] SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination. Final Project Report, published by DEFRA, 2014.

Contaminant	SSV (mg/kg)	No. of Samples	Minimum Concentration (mg/kg)	Maximum concentration (mg/kg)	Limit of Detection (mg/kg)	No of exceedances
Selenium	12000	4	<LOD	<LOD	< 3	0
Zinc	730000	4	21.9	132	< 2.4	0
Hexavalent Chromium	33	4	<LOD	0.3	< 0.040	0
Naphthalene	190	4	0.036	0.252	< 0.016	0
Acenaphthylene	83000	4	<LOD	0.774	< 0.015	0
Acenaphthene	84000	4	<LOD	0.361	< 0.013	0
Fluorene	63000	4	<LOD	0.386	< 0.013	0
Phenanthrene	22000	4	0.099	11.4	< 0.014	0
Anthracene	520000	4	<LOD	3.17	< 0.017	0
Fluoranthene	23000	4	0.024	28.5	< 0.017	0
Pyrene	54000	4	0.029	25.1	< 0.016	0
Benz(a)anthracene	170	4	0.021	11.5	< 0.012	0
Chrysene	350	4	<LOD	11.8	< 0.028	0
Benzo(b)fluoranthene	44	4	<LOD	14.9	< 0.020	0
Benzo(k)fluoranthene	1200	4	<LOD	6.07	< 0.025	0
Benzo(a)pyrene	35	4	<LOD	11.9	< 0.019	0
Indeno(123-cd)pyrene	500	4	<LOD	10.9	< 0.019	0
Dibenz(ah)anthracene	3.5	4	<LOD	2.24	< 0.017	0
Benzo(ghi)perylene	3900	4	<LOD	9.05	< 0.019	0

None of the samples of made ground tested recorded concentrations of heavy metals or PAH compounds above their respective SSV. The concentrations of heavy metals and PAH compounds present within the made ground soils are not considered to pose an unacceptable risk to end users of the site. Very low concentrations of heavy metals and PAH compounds were recorded in the sample of the undisturbed Raised Beach Deposits, significantly below the respective SSV.

At the concentrations recorded, none of the heavy metals or PAH compounds would be expected to exhibit significant mobility within the soils and are therefore not considered to pose an unacceptable risk to controlled waters beneath the site.

6.3.3 Asbestos

The piece of suspected asbestos cement obtained at ground level adjacent to the north-east of the building was confirmed to be chrysotile asbestos, and it is assumed the other similar material on the surface of the landscaped area to the north also contain chrysotile asbestos.

The four samples of the made ground screened for the presence of asbestos, did not record the presence of any asbestos materials.

It is likely that the surface level chrysotile asbestos cement is derived from the infrastructure on site (the roof on the eastern side of the building) and is not within the matrix of the shallow made ground soils. An asbestos survey of existing structures and infrastructure[14] was beyond the brief of this report.

The risk assessment assumes that, should asbestos be identified within buildings or infrastructure (with particular reference to the roofing on the eastern side of the building), any such materials will be managed in accordance with current legislation and guidance. So long as this is undertaken, along with removal of asbestos at ground level (prior to demolition) this will ensure that the materials do not represent an ongoing risk to end users by introducing asbestos into the shallow soils.

It is further noted that the areas where asbestos has been encountered at the surface are to be hard landscaped, thereby preventing exposure of end users to soil or soil derived dust even if potentially containing asbestos.

Whilst there is not considered to be an unacceptable risk to end users from asbestos materials within the existing made ground soils, due to their heterogeneity, there will always remain the potential for localised asbestos materials to be encountered during construction works, though the likelihood of this is considered to be very low. All workers at the site should be made aware of what actions to take in the event that suspected asbestos materials are identified at any time during the development works.

6.3.4 Petroleum Hydrocarbons and Volatile Organic Compounds (VOC)

The following table lists the SSV for petroleum hydrocarbon equivalent carbon weight fractions and BTEX compounds calculated for 1% organic content.

Table 10. SSV for petroleum hydrocarbon equivalent carbon weight fractions

Petroleum Hydrocarbon Fraction	SSV (mg/kg)	Petroleum Hydrocarbon Fraction	SSV (mg/kg)
Aliphatic EC 5-6	3200	**Aromatic EC 5-7**	26000
Aliphatic EC >6-8	7800	**Aromatic EC >7-8**	56000
Aliphatic EC >8-10	2000	**Aromatic EC >8-10**	3500
Aliphatic EC >10-12	9700	**Aromatic EC >10-12**	16000
Aliphatic EC >12-16	59000	**Aromatic EC >12-16**	36000
Aliphatic EC >16-35	1600000	**Aromatic EC >16-21**	28000
Aliphatic EC >35-44	1600000	**Aromatic EC >21-35**	28000
		Aromatic EC >35-44	28000

Whilst full speciation of the concentrations of petroleum hydrocarbons by aromatic and aliphatic fractions was not undertaken, the results of the testing undertaken can still be compared with the more stringent of the screening values for the respective equivalent carbon weight fraction and, where the concentration recorded is found to be lower, it can be reasonably concluded that no significant risk is present.

[14] As defined under Section 5(a) of the Control of Asbestos Regulations, 2012.

Only the shallow samples of made ground from boreholes WS01 and WS05 (the latter adjacent to the above ground tank), recorded any significant concentrations of petroleum hydrocarbons. No detectable concentrations of VOC were recorded in any of the samples tested, though the sample of made ground from borehole WS05 did record a very low concentration of toluene (tested for as part of the WAC test).

The concentrations of petroleum hydrocarbons in boreholes WS01 and WS05 were significantly below the more conservative SSV for each equivalent carbon weight and deeper samples of the undisturbed Raised Beach Deposits, taken from depths of 0.65m and 0.60m, did not record any detectable concentrations of petroleum hydrocarbons.

The concentrations of petroleum hydrocarbons in borehole WS05 may have been caused by a surface spill during filling of the above ground tank and particular attention should be paid to the discovery strategy for excavations in this area of the site following removal of the tank and its associated pipework. The concentrations within the made ground in borehole WS01 may represent clinker or asphalt material in the made ground at this location.

Given the results of the testing no unacceptable risks are considered to be present to end users of the site or controlled waters beneath the site from petroleum hydrocarbons or VOC at the site.

Comparison of the test results for petroleum hydrocarbons and VOC have been undertaken with the threshold value for PE water supply pipework[15]. The concentrations in the made ground exceed the threshold value. However, at depth within the undisturbed undisturbed Raised Beach Deposits, where the water supply pipework is likely to be laid the concentrations do not exceed the threshold value.

It is strongly recommended that designers consult with the local water supply company to determine the specific water supply pipe material required to be used, or whether they require further laboratory testing and assessment specific to proposed routes of services.

6.3.5 PCB Compounds

As part of the WAC test, two samples, one of the undisturbed Raised Beach Deposits and one from the shallow made ground soils, were tested for a range of PCB compounds. No detectable concentrations were recorded in either sample.

6.4 Analysis of Ground Gas Monitoring Results

The potential source of ground gas identified by the Phase 1 Desk Study was an infilled quarry 50m south-west of the site. However, the preliminary Conceptual Site Risk Model did not consider the potential pollutant linkage to be significant, as the area was backfilled over 80 years ago and the risk posed was considered to be low.

Nonetheless, at the request of the client, standpipes were installed in boreholes WS01 and WS05 and monitored on three occasions between 6th August 2026 and 20th August 2026. The standpipes were constructed with the response zone (slotted section) sealed within the undisturbed Raised Beach Deposits, below any shallow made ground soils (in accordance with Section 9.23 of BS8576).

[15] Set out within Table 3.1 of the Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites, UK Water Industry Research, 2010.

An assessment of the risk from ground gases has been undertaken generally following the guidance presented within BS8576[16] and BS8485[17]. Reference has also been made to good practice guidance provided within NF94[18].

6.4.1 Summary of Monitoring Results

Atmospheric pressures varied between 1003 and 1020 during the monitoring period. Monitoring was carried out during periods of both rising and falling atmospheric pressure.

The peak concentration of carbon dioxide recorded during the monitoring period was just 1% by volume. No detectable concentrations of methane or gas flow rates were recorded during the monitoring period.

The monitoring readings are presented in Appendix D.

6.4.2 Assessment of Monitoring Results

Section 6.3 of BS8485 recommends that the gas monitoring data should be used to calculate the "borehole hazardous gas flow rate" (Q_{hg}) for each monitoring location and event for both carbon dioxide and methane. The Q_{hg} is calculated by multiplying the gas flow rate (l/hr) by gas concentration (percentage/100).

Where no detectable gas flow rates or gas concentrations are recorded, gas concentrations or the Q_{hg} are calculated assuming values equal to the limit of detection (LOD) of the instrument are present (0.1l/hr or 0.1%).

The following table summarises the calculated Q_{hg} for carbon dioxide and methane, along with the maximum gas flow rates and gas concentrations for standpipes for each monitoring visit.

Table 11. Summary of Monitoring Results and Calculated Q_{hg}

Standpipe	Date	Maximum Flow Rate (L/hr)	Maximum Methane Concentration (%)	Maximum Carbon Dioxide Concentration (%)	Q_{hg} Methane (L/hr)	Q_{hg} Carbon Dioxide (L/hr)
WS01	06/08/2026	0.1	0.1	1.0	0.0001	**0.0010**
WS05	06/08/2026	0.1	0.1	0.1	0.0001	0.0001
WS01	14/08/2026	0.1	0.1	0.1	0.0001	0.0001
WS05	14/08/2026	0.1	0.1	0.1	0.0001	0.0001
WS01	20/08/2026	0.1	0.1	0.1	0.0001	0.0001
WS05	20/08/2026	0.1	0.1	1.0	0.0001	**0.0010**

The guidance requires that a gas screening value (GSV) is derived for the site, taking into account the Q_{hg} and, where necessary, undertaking a worst-case check. The plausible worst-case condition is obtained by

[16] BS8576:2013 Guidance on investigation for ground gas – Permanent gases and Volatile Organic Compounds (VOCs), BSI, April 2013,
[17] BS8485:2019+A1:2019 Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings, BSI, January 2019
[18] NF94 Hazardous ground gas – an essential guidance for housebuilders, NHBC Foundation, April 2023

multiplying the maximum recorded flow rate in a standpipe with the maximum gas concentration within the same strata.

Because no detectable gas flow was recorded in any standpipe during the monitoring period, the Q_{hg} for WS01 on the 6th August 2026 and WS05 on 20th august 2026 (highlighted within the table above) are already the "worst-case" condition and can be used as the GSV for the site.

6.4.3 Assessment of Risk from Ground Gases

The calculated GSV for the site is then compared to the characteristic gas situations (CS) provided in Table 2 of BS8485, which is partially reproduced below:

Table 12. Reproduction of elements of Table 2 of BS8485 – CS by Site characteristic GSV

CS	Hazard potential	Site characteristics GSV (L/h)	Additional factors
CS1	Very Low	<0.07	Typically <1% methane concentration and <5% carbon dioxide concentration (otherwise consider an increase to CS2)
CS2	Low	0.07 to 0.7	Typical measured flow rate<70 L/h (otherwise consider an increase to CS3)
CS3	Moderate	0.7 to 3.5	-

The worst case GSV for the site of 0.0010L/hr would put the site in CS1.

6.4.4 Assessment of Gas Protection Measures Required

Before assessing the gas protection measures that may be required, BS8485 requires that buildings be categorised in accordance with Table 3, in relation to ownership structure of the building and room size, together with control of the future structural changes to the building. The site has been assessed as (conservatively) falling into Type B building types in accordance with Table 3.

Table 4 of BS8485 then identifies the gas protection score required by different characteristic situations for different "building types". A partial reproduction of elements of this table is shown below:

Table 13. Reproduction of elements of Table 4 of BS8485 – Gas Protection Score by CS and type of building

Characteristic Situation	Minimum Gas Protection Score (Points)			
	High Risk		Medium Risk	Low Risk
	Type A	Type B	Type C	Type D
1	0	0	0	0
2	3.5	3.5	2.5	1.5

For CS1, the gas protection score is zero, and therefore no specific gas protection measures are necessary.

6.5 Quantitative Contamination Risk Assessment

6.5.1 Introduction

The risk assessment for the site considers the 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 considered to be present, an assessment of the level of risk associated with the pollutant linkage has been carried out in line with published guidance[19].

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 H.

Table 14. 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

6.5.2 Contaminant Pathways Identified

The development is to comprise the provision of new industrial units together with some limited areas of soft landscaping.

Pathways associated with gas and vapour intrusion into new buildings are considered to be valid, along with direct contact and dust related pathways. Pathways associated with the consumption of home-grown produce are not considered to be valid.

The site is underlain by the Raised Beach Deposits which is classed as a Secondary A Aquifer. Although the site is not located within a SPZ, and is located within an urban area, pathways relating to controlled waters may be reasonably considered to be present.

Should the proposed development plans be altered, a revised risk assessment may be required.

6.5.3 Contamination Sources Identified

No sources of contamination have been identified by the quantitative contamination risk assessment:

[19] Contaminated Land Risk Assessment: A guide to good practice, CIRIA C552, 2001.

6.5.4 Quantitative Conceptual Model

The quantitative conceptual model for the proposed development is presented in Appendix I.

In the absence of any complete pollutant linkages being identified, no remedial measures or further contamination risk assessment works are considered to be necessary.

6.6 Risks to Other Potential Receptors

All construction workers must undertake their own risk assessment, based upon the works to be carried out and the proposed method by which this will be achieved, in accordance with current health and safety legislation. Their assessment should take into account all available information about the site, including that present within this report.

Appropriate working procedures and PPE should be adopted to ensure the health and safety of the site operatives. Instruction should be given in the recognition of potentially hazardous materials. All site personnel should be appropriately briefed on the discovery strategy, presented below, and what actions they must take in the event that further evidence of contamination is identified or suspected.

6.7 Recommendations

The local water supply company should be consulted as to the selection of water supply pipe materials.

If not already undertaken, an asbestos survey should be undertaken in accordance with the relevant guidance and legislation, with asbestos, including that at ground level, removed in accordance with the relevant legislation. Documentation in this regard must be retained and the Local Authority may require confirmation in this regard.

6.8 Regulatory Approval

This report should be submitted to the Local Authority in support of an application to discharge planning condition 5. The conclusions drawn in this report should be considered as provisional until such time as the report has been accepted and the relevant conditions have been discharged.

6.9 Discovery Strategy

If, during the course of the site clearance and development works, any materials not previously identified by the investigation that are suspected of being 'contaminants' are encountered, then the following procedure will apply:

- All works in that area are to cease and the site manager informed.
- Advice sought from suitably qualified and experienced personnel as to whether any further site inspection, sampling, testing and/or assessment is deemed necessary.
- If required, the conclusions of any assessment and any proposed remedial works (if required) are to be agreed by the local authority.
- If necessary, full details of any remedial works are to be included in a verification report for the site.

Suspected 'contamination' may take the following form, though it is noted that this list is not exhaustive and site operatives should ask if they are at all unsure of any findings:

- Soil or water looks oily and/or has an oily odour
- Soil or water has a solvent type of odour
- Significant quantities of man-made materials within fill such as paint cans, car parts, glass fragments
- Suspected asbestos containing materials (insulating boards, cement, loose fibres etc.)
- Significant volumes of clinker like or ashy material
- Sand bags, and/or subsurface concrete structures
- Animal carcasses or evidence of animal burial pits

7. HANDLING AND DISPOSAL OF WASTE

7.1 Waste Management – Legislative Framework

"A material is waste if the holder has discarded it…Assessment of whether a material has been discarded is based on the actions of the holder. A holder may unintentionally, involuntarily or accidentally discard a material. They may also be required to discard it" [20].

Soils excavated during construction works are generally considered to be waste (examples of this have been given by previous Environment Agency guidance).

Soils may also be used as a non-waste (on the same site or another site) in accordance with the CL:AIRE code of practice[21], but only if the soils meet the four principles for use of materials as a non-waste.

Soils and other materials taken for disposal should be handled, transferred and disposed of as controlled waste in accordance with current waste management[22,23] and duty of care regulations[24] and comply with current codes of practice[25]. Waste transfer notes detailing the site address, the waste type, details of the haulage contractor and full details of the disposal site must be kept by the waste producer.

The disposal of any asbestos containing materials (where encountered) should be undertaken by appropriately trained personnel. The disposal of such material and other hazardous waste should be undertaken in accordance with the Hazardous Waste Regulations 2005[26].

It is a legal requirement to correctly assess and classify waste[27]. Classification of waste requires analysis of total contaminant concentrations within the soils, as specified in WM3[28]: The guidance notes that "*Landfill WAC analysis (specifically leaching test results) must **not** be used for waste classification and hazardous waste assessment purposes.*"

7.2 Analysis of Laboratory Test Results

Characterisation of the waste in full accordance with current guidance[29] was beyond the scope of this assessment. However, analysis of the results of the laboratory testing has been undertaken using the HazWasteOnline™[30] tool. HazWasteOnline classifies waste as either hazardous or non-hazardous based on its chemical composition, related legislation and the rules and data defined in the current UK and/or EU technical guidance. The HazWasteOnline output sheets generated by the tool are presented in Appendix J.

The following table summarises the classification of soils tested, the appropriate code from the List of Wastes (LoW) and, where undertaken, the findings of the WAC testing.

[20] Environment Agency, Check if your material is waste, last updated 11th July 2024
[21] CL:AIRE Definition of Waste: Development Industry Code of Practice, Version 2, March 2011
[22] The Waste (England and Wales) Regulation 2011
[23] Section 34, Environmental Protection Act 1990
[24] The Environmental Protection (Duty of Care) Regulations 1991
[25] Waste Duty of Care: Code of Practice, Updated 26th November 2018
[26] Hazardous Waste (England and Wales) Regulations 2005
[27] Environment Agency, Disposal of waste to landfill, Published 30th January 2020, last updated 12th March 2025
[28] Technical Guidance WM3: Waste Classification – Guidance on the assessment of waste, 1st Edition v1.2.GB, Oct 2021
[29] As discussed in BS EN 14899:2005 Characterisation of waste
[30] https://www.hazwasteonline.com/

Table 15. Summary of Classification of Samples from HazWasteOnline Analysis

Exploratory Hole Location	Sample Depth (m bgl)	Strata	Classification	Code from LoW	WAC Test Results (where testing undertaken)
WS01	0.30	Made Ground	Non Hazardous	17 05 04	-
WS01	0.65	Raised Beach Deposits	Non Hazardous	17 05 04	Does not meet inert WAC
WS03	0.15	Made Ground	Non Hazardous	17 05 04	-
WS04	0.10	Made Ground	Non Hazardous	17 05 04	-
WS05	0.15	Made Ground	Hazardous	17 05 03*	Meets hazardous WAC

Table Note: The asterisk (*) at the end of a code indicates that the waste is classified as hazardous.

The sample of made ground from adjacent to the above ground tank has been classified as hazardous waste due to concentrations of petroleum hydrocarbons, as discussed in Section 6.3.4, probably representative of a surface spill.

All of the other samples of made ground soils and the sample of undisturbed Raised Beach Deposits tested have been classified as non-hazardous construction and demolition waste, with a code from the List of Wastes (LoW) of 17-05-04.

The sample of Raised Beach Deposits does not meet the inert WAC due to concentrations of total organic carbon (TOC) with the sample.

In relation to asbestos waste, WM3 states:

"The assessment of asbestos containing waste considers both the presence of asbestos as
- fibres that are free and dispersed, and
- identifiable pieces of asbestos containing material

If the waste contains fibres that are free and dispersed then the waste will be hazardous if the waste material *as a whole* contains 0.1% or more asbestos by weight."

If the waste contains any identifiable pieces of suspected asbestos containing material they must be assessed as set out below. This would also apply to any dispersed fibres produced by deliberately breaking up such identifiable pieces.

Where the waste contains identifiable pieces of asbestos containing material (i.e. any particle of a size that can be identified as potentially being asbestos by a competent person if examined by the naked eye), then these pieces must be assessed separately. The waste is hazardous if the concentration of asbestos in the piece of asbestos containing material is 0.1% or more. The waste is regarded as a mixed waste and classified accordingly (see example 1 for advice on how to apply list of waste codes to mixed waste). The following codes should be assigned to the asbestos waste as appropriate:

- 17 06 05* Construction material containing asbestos
- 17 06 01*Insulation material containing asbestos

17 06 05* would normally be used in preference to 17 06 01* for the asbestos in asbestos contaminated soil and stones.

Within most solid asbestos containing materials, the percentage of asbestos within the material will be greater than 0.1%. HSE guidance[31] states that profiled sheets e.g. roofing contains 10% -15% chrysotile asbestos.

If the soils contain visual pieces of material (e.g. asbestos cement), that cannot be removed and dealt with as a separate waste stream, the waste soils from that area should be classified as a mixed waste and classified as hazardous using codes 17 06 05* and 17 05 04. In such circumstance, further WAC testing would be required to see if the soils could be disposed as at a landfill licensed to accept stable non-reactive hazardous waste in a non-hazardous landfill.

It is noted that the disposal site has the final decision on whether to accept any materials and we would recommend that all of the testing and classification information be provided to them at the earliest opportunity.

[31] Health and Safety Executive, Asbestos: The survey guide, HSG264, Second Edition, 2012.

FIGURES

Figure 1 Site Location Plan
Figure 2 Site Plan



N

ASHDOWN
SITE INVESTIGATION

Head Office

Unit 3
The Old Grain Store
Ditchling Common Business Park
Ditchling
East Sussex
BN6 8SG
contact@ashdownsi.co.uk

Site

77 Marlborough Road
Lancing
West Sussex

Project Ref

P17891

Figure No

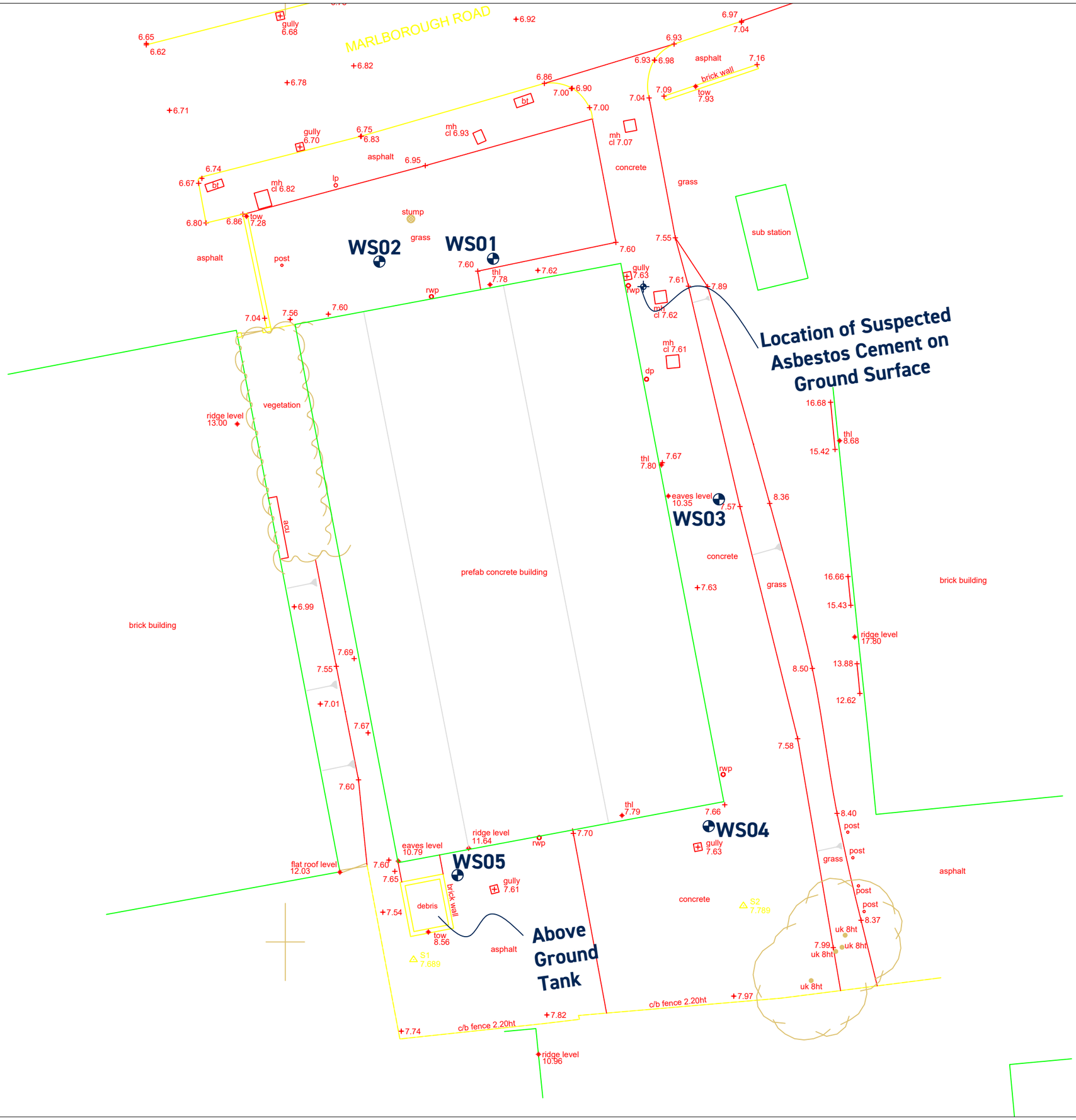
1

Drawing Title

Site Location Plan

Scale

Not To Scale



ASHDOWN SITE INVESTIGATION

Head Office

Unit 3
The Old Grain Store
Ditchling Common Business Park
Ditchling
East Sussex
BN6 8SG
contact@ashdownsi.co.uk

Site

77 Marlborough Road
Lancing
West Sussex

Project Ref

P17891

Figure No

2

Drawing Title

Site Plan

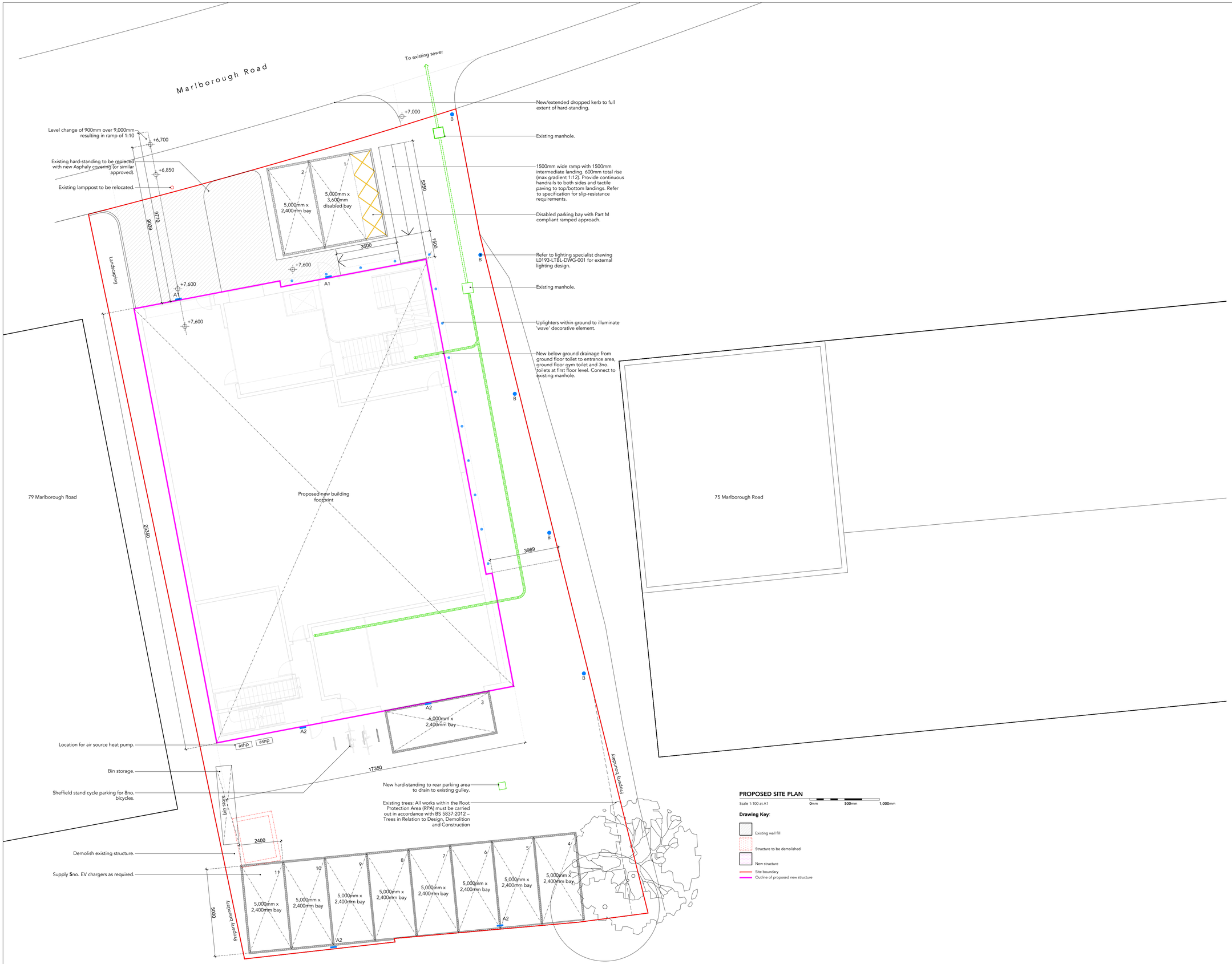
Scale

Not To Scale

APPENDIX A

Proposed Development Layout

Drawing notes:



PROPOSED SITE PLAN

Scale 1:100 at A1 — 0mm — 500mm — 1,000mm

Drawing Key:

- Existing wall fill
- Structure to be demolished
- New structure
- Site boundary
- Outline of proposed new structure

PROJECT INDUSTRIAL IT SYSTEMS®

PLANNING

Proposed site plan rev. D

079-3-s001

Project:	**77 Marlborough Rd, Lancing. BN15 8UF**
Scale:	**1:100 at A1**
Issue date:	**23/04/2026 - Rev.D** - additional information included
Drawn by:	**JMP**

NOTES:
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Drawing notes:

079-3-102
3

Glazing to gym area with opening pane to comply with ventilation regulations.

Wider wall build-up accommodating structure and cladding - approx. 700mm wide.

G/08
WELFARE AREA
AREA = **39.8**m²
FFL - U/C = 4,000mm

shower
shower
shower
wc

Drainage from new showers to discharge into existing sewer on site.

Privacy screen between gym and shower areas.

Drainage from new toilets to discharge into existing sewer on site.

landing
+2,380

G/06
PRODUCTION SUPPORT
AREA = **28.5**m²
FFL - U/C = 4,000mm

G/04
PRODUCTION AREA (inc. ancillary storage)
AREA = **223.0**m²
FFL - U/C = 4,000mm

079-3-101
2

079-3-102
4

Line of canopy above.

Opening pane for ventilation.

G/03
PLANT
AREA = **8.0**m²
FFL - U/C = 4,000mm

Drainage from new toilets to discharge into existing sewer on site.

G/03
WC
AREA = **4.8**m²
FFL - U/C = varies

+2,040

internal layout t.b.c.

G/01
ENTRANCE
AREA = **28.4**m²
FFL - U/C = t.b.c.mm

double height

G/02
OFFICE
AREA = **26.2**m²
FFL - U/C = t.b.c.mm

disabled refuge space
900mm x 1,400mm

Dedicated disabled refuge space.

Enclosed vertical lifting platform.

platform
1,100mm x 1,400mm

Glazed screen between office and warehouse.

Stair:
Rise of 166.6mm/going of 250mm.
Floor-to-floor height of 4,500mm with 27 risers total.
Internal width between balustrade of 1,800mm.

landing
1,800mm x 1,800mm

+0,850

Structural layout indicative. Refer to structural design for further details.

roller shutter
4,000mm x 4,000mm

Wider wall build-up accommodating structure and cladding - approx. 700mm wide.

Pedestrian access.

approx. boundary

approx. boundary

1
079-3-101

N

PROPOSED FIRST FLOOR PLAN

Scale 1:50 at A1 — 0mm — 1,000mm — 2,000mm

- Proposed walls
- Proposed wall fill
- Demolition
- Proposed new Joinery
- No proposed work to area

PROJECT INDUSTRIAL IT SYSTEMS

PLANNING

Proposed ground plan rev. F

079-3-001

Project:	**77 Marlborough Rd, Lancing. BN15 8UF**
Scale:	**1:50 at A1**
Issue date:	**28/03/2026 - Rev.F** - Layout amended
Drawn by:	**AH**

NOTES:
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Drawing notes:

079-3-102
3

Corner glazing at high level to avoid over-looking. Refer to elevations.

Larger cill to accommodate wider cladding to elevation.

Opening pane for ventilation.

Wider wall build-up accommodating structure and cladding - approx. 700mm wide.

Safety glass screen between kitchen and office area.

Cladding position varies in relation to the 'wave' feature to elevation.

Line of canopy above.

Floor to ceiling height glazed walls surrounding stairwell. FD60 Rated.

Internal partition walls - metal stud (or timber) with plasterboard both sides.

Connection between wall and glazing to provide fire resistance compliant with Part B of the Building Regulations.

Cill at first floor level above wall build-up between ground and first floor glazing.

Stair:
Rise of 166.6mm/going of 250mm.
Floor-to-floor height of 4,500mm with 27 risers total.
Internal width between balustrade of 1,800mm.

Structural layout indicative. Refer to structural design for further details.

Secondary means of escape.

Floor to ceiling height glazed walls surrounding stairwell. FD60 Rated.

Dedicated disabled refuge space.

Enclosed vertical lifting platform.

Corner glazing at high level to avoid over-looking. Refer to elevations.

Larger cill to accommodate wider cladding to elevation.

Opening pane for ventilation.

1/06
LARGE INTERNAL MEETING ROOM
AREA = **27.4**m²
FFL - U/C = vaulted

1/07
TOILETS
AREA = **2.7**m² (per cubicle)
FFL - U/C = vaulted

1/08
STORE ROOM
AREA = **6.7**m²
FFL - U/C = vaulted

1/05
QUIET WORKING
AREA = **7.6**m²
FFL - U/C = vaulted

1/04
STAFF KITCHEN
AREA = **33.8**m²
FFL - U/C = vaulted

1/03
SMALL INTERNAL MEETING ROOM
AREA = **13.0**m²
FFL - U/C = vaulted

1/02
ENGINEERING AND SUPPORT OFFICE AREA
AREA = **229.0**m²
FFL - U/C = vaulted

1/01
LANDING
AREA = **9.3**m²
FFL - U/C = vaulted

disabled refuge space 900mm x 1,400mm

landing

+2,380

double height

+2,040

+0,850

platform 1,100mm x 1,400mm

079-3-101
2

079-3-102
4

079-3-101
1

approx. boundary

approx. boundary

N

PROPOSED FIRST FLOOR PLAN

Scale 1:50 at A1 — 0mm — 1,000mm — 2,000mm

Proposed walls

Proposed wall fill

Demolition

Proposed new Joinery

No proposed work to area

PLANNING

Proposed first plan rev. E

079-3-002

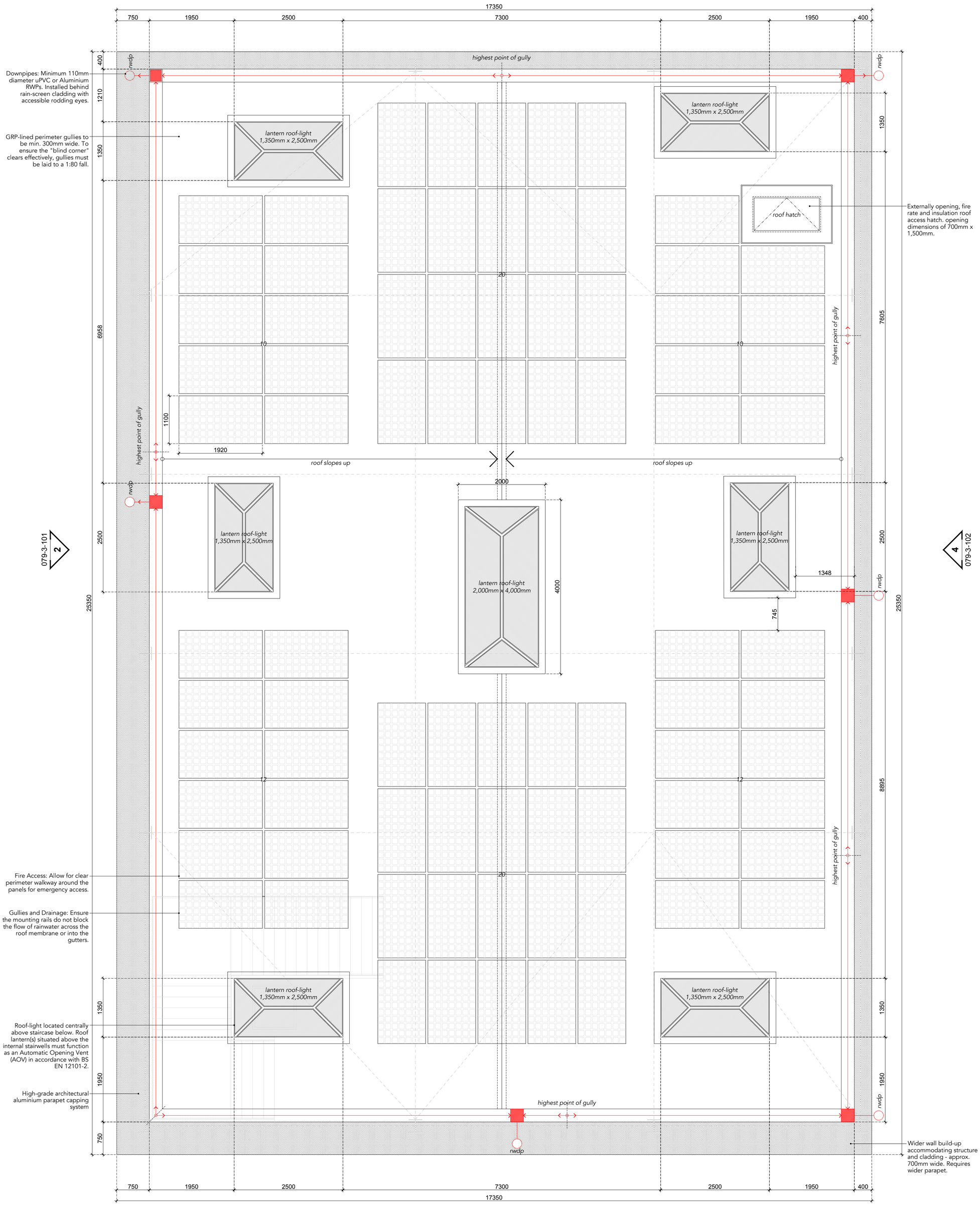
Project:	**77 Marlborough Rd, Lancing. BN15 8UF**
Scale:	**1:50 at A1**
Issue date:	**28/04/2026 - Rev. E** - Layout amended
Drawn by:	**JMP**

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Drawing notes:

079-3-102
3



079-3-101
2

4
079-3-102

1
079-3-101

N

PROPOSED ROOF PLAN

Scale 1:50 at A1 — 0mm — 1,000mm — 2,000mm

- Proposed walls
- Proposed wall fill
- Demolition
- Proposed new Joinery
- No proposed work to area

PROJECT 77 INDUSTRIAL IT SYSTEMS

PLANNING

Proposed roof plan rev. C

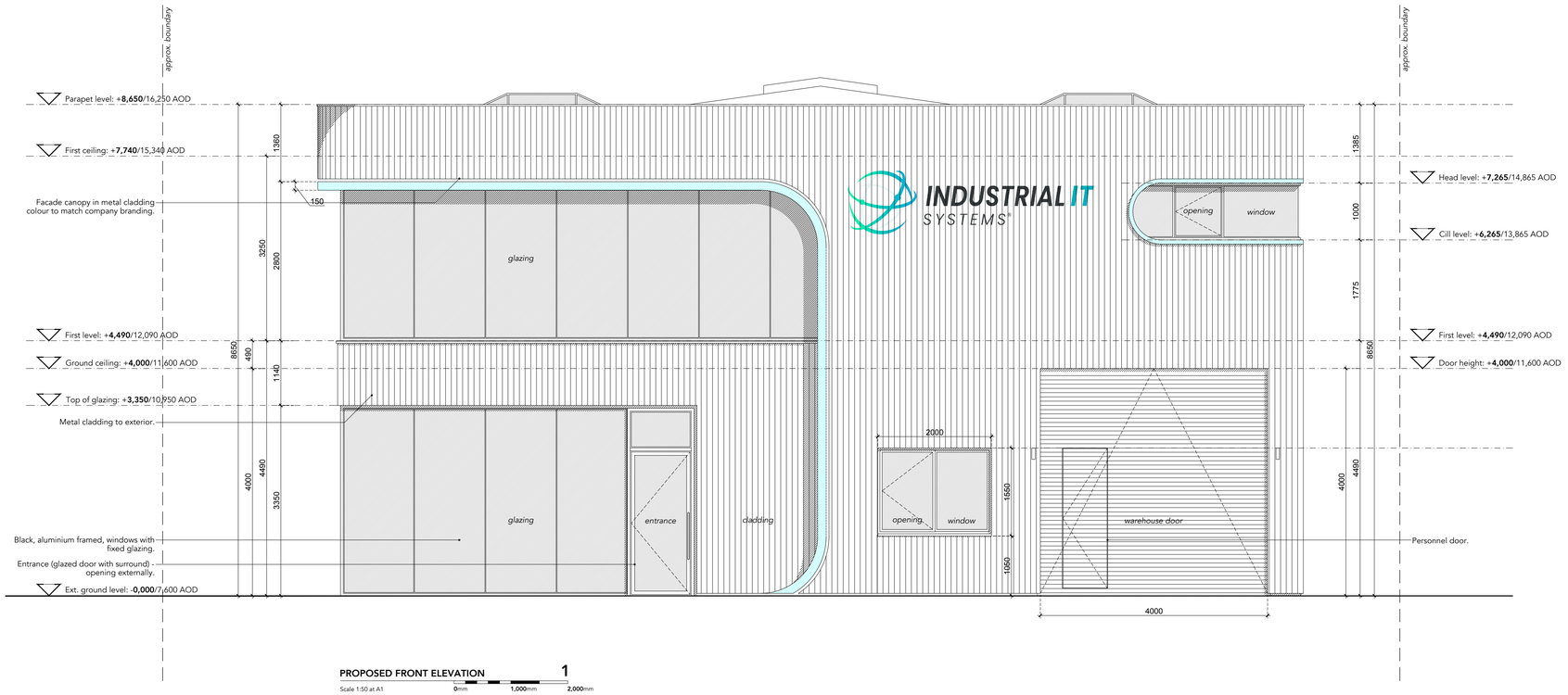
079-3-003

Project:	**77 Marlborough Rd, Lancing. BN15 8UF**
Scale:	**1:50 at A1**
Issue date:	**27/03/2026 - Rev. C** - Layout amended
Drawn by:	**JMP**

NOTES:
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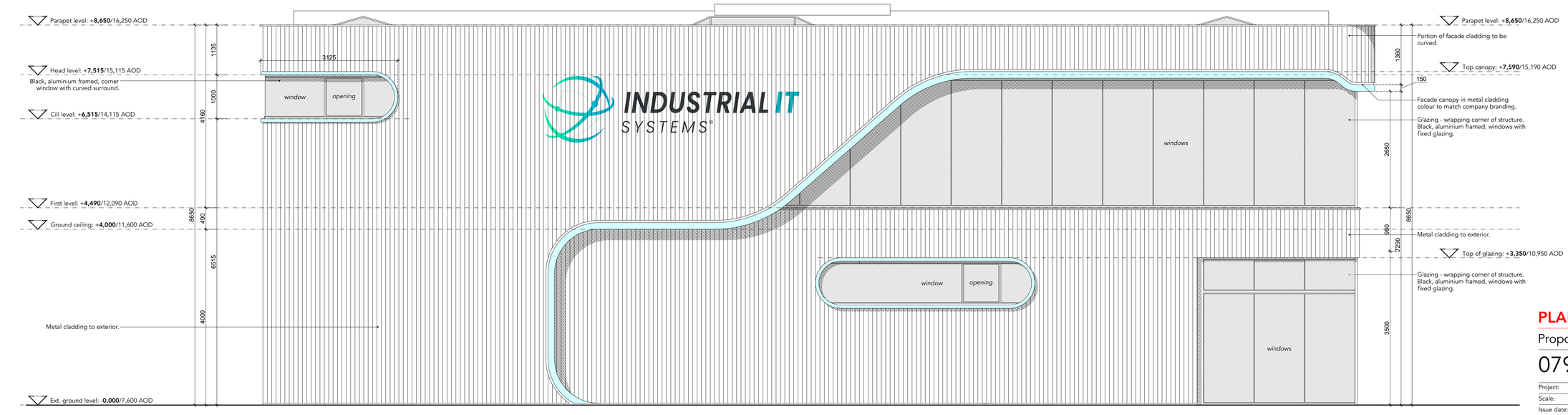
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www.jp-architects.co.uk

Drawing notes:



PROPOSED FRONT ELEVATION 1

Scale 1:50 at A1 0mm 1,000mm 2,000mm



PROPOSED EASTERN ELEVATION 2

Scale 1:50 at A1 0mm 1,000mm 2,000mm

PROJECT 77 INDUSTRIAL IT SYSTEMS

PLANNING

Proposed elevations 1/2 rev. F

079-3-101

Project:	**77 Marlborough Rd, Lancing. BN15 8UF**
Scale:	**1:50 at A1**
Issue date:	**28/04/2026 - Rev.F** - Rooflight included
Drawn by:	**JMP**

NOTES:
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APPENDIX B

Decision Notice

ADUR DISTRICT COUNCIL

Mr Graham Cuthbert
Industrial IT Systems
Unit 1
Tungsten Building
George Street
Brighton
West Sussex
BN41 1RA
United Kingdom

PLANNING PERMISSION

TOWN AND COUNTRY PLANNING ACT 1990
TOWN AND COUNTRY PLANNING (GENERAL PERMITTED DEVELOPMENT) (AMENDMENT) (ENGLAND) ORDER 2015

APPLICATION NUMBER: AWDM/0525/26

Details of Development
DEMOLITION OF THE EXISTING SINGLE-STOREY INDUSTRIAL UNIT AND REDEVELOPMENT TO PROVIDE TWO-STOREY INDUSTRIAL BUILDING (USE CLASS E(G)(III)) COMPRISING PRODUCTION, ASSEMBLY, OPERATIONAL, ANCILLARY STORAGE AND LOGISTICS SPACE AT GROUND FLOOR WITH ANCILLARY OFFICE, WELFARE AND ADMINISTRATIVE ACCOMMODATION AT FIRST FLOOR, TOGETHER WITH ASSOCIATED ACCESS, CAR PARKING AND CYCLE PARKING.

Location of Development
77 MARLBOROUGH ROAD LANCING BUSINESS PARK LANCING WEST SUSSEX BN15 8UF

In pursuance of their powers under the above-mentioned Act and Order the Council hereby notify you that they PERMIT the above development, in accordance with the application and relevant correspondence registered on 30th April 2026.

This is for reasons stated on the schedule overleaf and subject to compliance with the conditions specified thereon.

G Peck

Gary Peck
Head of Planning & Development
21/07/2026

Adur & Worthing Councils, Development Management, Place Directorate,
Worthing Town Hall, Chapel Road, Worthing, West Sussex, BN11 1HA
Tel: 01903 221065 Email: planning@adur-worthing.gov.uk
Web: www.adur-worthing.gov.uk

Ref: AWDM/0525/26

SCHEDULE

Conditions

01. The development hereby permitted shall be carried out in accordance with the following approved plans unless specified otherwise in a subsequent condition imposed on this decision notice.

Reference/Drawing Number	Version	Date Rec
PROPOSED GROUND PLAN	079-3001REV G	30.06.2026
PROPOSED SITE PLAN	079-3s001REV F	30.06.2026
PJC ARBORICULTURAL IMPACT ASSESSMENT	PJC/7069/26-02 REV-	30.04.2026
PJC ARBORICULTURAL SURVEY	PJC/7069/26-01 REV-	30.04.2026
PROPOSED FIRST PLAN	079-3-002 REV F	30.04.2026
PROPOSED ROOF PLAN	079-3-003 REV C	30.04.2026
PROPOSED ELEVATIONS 1/2	079-3-101 REV G	30.04.2026
PROPOSED ELEVATIONS 3/4	079-3-102 REC G	30.04.2026
DESIGN AND ACCESS STATEMENT	REV B	30.04.2026
EXISTING SITE AND GROUND PLAN	079-3-e001 REV A	30.04.2026
EXISTING ELEVATIONS	079-3-E 101 REV A	30.04.2026
PLANNING STATEMENT REV B		30.04.2026
BLOCK AND LOCATION PLANS	079-3-s002 REV /	30.04.2026
TRANSPORT STATEMENT	PROJECT 77	30.04.2026
INDUSTRIAL IT PROJECT 77 BREEAM NEW CONSTRUCTION PRE ASS	V7	30.04.2026
PRELIMINARY ECOLOGICAL APPRAISAL (PEA)	451773/SJ1	30.04.2026
BIODIVERSITY NET GAIN ASSESSMENT	451773/SJ2	30.04.2026
BNG METRIC	451773 SJ3	30.04.2026
INDUSTRIAL IT SYSTEMS LIGHTING ASSESSMENT	L0193-LTBL-REP-001 P01	30.04.2026
STM ENVIRONMENTAL CONTAMINATED LAND RISK ASS	PH1-2026-000014	30.04.2026

Reference/Drawing Number	Version	Date Rec
GROUNDSURE STM ENVIRONMENTAL REPORT	PH1-2026-000014	30.04.2026

Reason: *For the avoidance of doubt and in the interests of proper planning.*

02. The development hereby permitted shall be begun before the expiration of 3 years from the date of this permission.

Reason: *To comply with Section 91 of the Town and Country Planning Act 1990.*

03. Works of construction or demolition, including the use of plant and machinery, necessary for implementation of this consent shall be limited to the following times:
Monday - Friday 08:00 - 18:00 Hours
Saturday 09:00 - 13:00 Hours
Sundays and Bank Holidays no work permitted
Any temporary exception to these working hours shall be agreed in writing by the Local Planning Authority at least five days in advance of works commencing. The contractor shall notify the local residents in writing at least three days before any such works.

Reason: *To safeguard the residential amenity of the area having regard to policies 15 and 34 of the Adur Local Plan.*

04. No development shall take place, including any works of demolition, until a Construction Management Plan has been submitted to and approved in writing by the Local Planning Authority. Thereafter the approved Plan shall be implemented and adhered to throughout the entire construction period. The Plan shall provide details as appropriate, but not necessarily be restricted to the following matters:

the anticipated number, frequency and types of vehicles used during construction;
the method of access and routing of vehicles during construction;
HGV construction traffic routings shall be designed to minimise journey distance through the Council's Air Quality Management Area (AQMA), the parking of vehicles by site operatives and visitor;,
the loading and unloading of plant, materials and waste;
the storage of plant and materials used in construction of the development;
the erection and maintenance of security hoarding;
a commitment to no burning on site;
the provision of wheel washing facilities and other works required to mitigate the impact of construction upon the public highway (including the provision of temporary Traffic Regulation Orders);
methods to control dust from the site;
a commitment to following BS5228:Code of Practice for noise and vibration control on construction and open sites;

details of public and neighbour engagement both prior to and during construction works.

Reason: *In the interests of protecting residential amenity and for highway safety having regard to policies 28 and 34 of the Adur Local Plan.*

05. Prior to the commencement of any groundworks in connection with the construction of the development hereby approved (or such other date or stage in development as may be agreed in writing with the Local Planning Authority), the following components of a scheme to deal with the risks associated with contamination of the site shall each be submitted to and approved in writing by the
Local Planning Authority:
(1) A preliminary risk assessment which has identified: all previous uses; potential contaminants associated with those uses; a conceptual model of the site indicating sources, pathways and receptors; and potentially unacceptable risks arising from contamination at the site.
(2) A site investigation scheme, based on (1) above to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.
(3) The site investigation results and the detailed risk assessment (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.
(4) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action. Any changes to these components require the express consent of the Local Planning Authority.

The scheme shall be implemented as approved above and, prior to commencement of any construction work (or such other date or stage in development as may be agreed in writing with the Local Planning Authority), a Verification Report demonstrating completion of the works set out in the approved remediation strategy and the effectiveness of the remediation shall be submitted to and approved in writing by the Local Planning Authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met. It shall also include any plan (a 'long-term monitoring and maintenance plan') for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action, as identified in the verification plan, and for the reporting of this to the Local Planning Authority.

Reason: *To prevent pollution of groundwater and in the interests of environmental protection and public health and safety, in compliance with the National Planning Policy Framework and policies 34 and 35 of the Adur Local Plan.*

06. No development, other than demolition, shall commence until a detailed surface water drainage scheme for the site has been submitted to and approved in writing by the Local Planning Authority. The surface water drainage scheme must

prioritise the use of source control Sustainable Drainage Systems (SuDS) in consideration of the Non-Statutory Technical Standards for SuDS and demonstrate no increase in flood risk as a result of the Proposed Development with sufficient supporting evidence provided to support its viability including supporting calculations for the 100% AEP (1 in 1 year), 3.33% AEP (1 in 30 year), 3.33% AEP (1 in 30 year) plus climate change, the 1% AEP (1 in 100 year) and the 1% AEP (1 in 100) plus climate change critical storms. The design should follow the hierarchy of preference for different types of surface water drainage disposal systems as set out in Approved Document H of the Building Regulations, and the recommendations of the SuDS Manual produced by CIRIA. Groundwater monitoring and infiltration testing to BRE DG365, or similar approved, will be required to support the design of any infiltration drainage. The scheme shall subsequently be implemented in accordance with the approved details before the development is completed.

Reason: *To ensure the flood risk is adequately addressed and not increased in accordance with the NPPF and Policy 36 of the Adur Local Plan.*

07. The development hereby approved shall not be occupied until details of the maintenance and management of the sustainable drainage scheme have been submitted to and approved in writing by the Local Planning Authority. The drainage scheme shall be implemented prior to the first occupation of the development hereby approved and thereafter managed
and maintained in accordance with the approved details in perpetuity. The Local Planning Authority
shall be granted access to inspect the sustainable drainage scheme for the lifetime of the
development. The details of the scheme to be submitted for approval shall include:
I. a timetable for its implementation.
II. details of SuDS feature and connecting drainage structures and maintenance requirement for
each aspect including a drawing showing where they are located.
III. a management and maintenance plan for the lifetime of the development which shall include
details of design life and the arrangements for adoption by any public body or statutory undertaker, or any other arrangements to secure the operation of the sustainable drainage scheme throughout its lifetime. This will include the name and contact details of any appointed management company.

Reason: *To ensure that the development achieves a high standard of sustainability and to ensure the flood risk is adequately addressed and not increased in accordance with the NPPF and Policy 36 of the Adur Local Plan.*

08. Prior to occupation of the building hereby approved an Air Source Heat Pump acoustic report shall be submitted to the Local Planning Authority for approval. This report shall show that the installation of every heat pump across the development site shall comply with the Chartered Institute of Environmental Health and Institute of Acoustic's guidance: 'Heat Pumps, Professional Advice note.' The report shall outline that the rating level from ASHPs, including the

cumulative impact of multiple ASHPs if relevant, shall not exceed 35dB LAeq15min at any noise sensitive façade of a neighbouring residential premises. If it is not practical to achieve this value for any of the heat pumps, and the local context supports a relaxation, then a report providing a full justification as to why such a relaxation in rating level is required, shall be submitted in writing to the Local Authority for approval.

Following the installation of ASHPs across the development site, post- installation noise monitoring shall be undertaken by the applicant at the reasonable request of the Local Planning Authority.

Reason: *To safeguard residential amenity having regard to policies 15 and 34 of the Adur Local Plan.*

09. No part of the development shall be first occupied until such time as the vehicular access serving the development has been constructed in accordance with the approved plans.

Reason: *In the interests of road safety having regard to policy 28 of the Adur Local Plan.*

10. No part of the development shall be first occupied until the vehicle parking and turning spaces have been constructed in accordance with the approved plan. These spaces shall thereafter be retained for their designated use.

Reason: *To provide adequate on-site car parking and turning space for the development having regard to policy 28 of the Adur Local Plan.*

11. No part of the development shall be first occupied until covered and secure cycle parking spaces have been provided in accordance with plans and details submitted to and approved by the Local Planning Authority.

Reason: *To provide alternative travel options to the use of the car in accordance with current sustainable transport policies.*

12. No works to implement the development hereby permitted shall take place unless and until a Biodiversity Gain Plan has been submitted to and approved in writing by the Local Planning Authority.

Reason: *In accordance with the provisions set out under Schedule 7A of the Town and Country Planning Act 1990 (as amended).*

13. No development above slab level shall be carried out unless and until a schedule of materials and finishes to be used for the external walls (including windows and doors) and roof of the proposed building has been submitted to and approved in writing by the Local Planning Authority and the development shall be completed in accordance with the approved schedule.

Reason: *In the interests of visual amenity and to comply with policy 15 of the Adur Local Plan.*

14. No development above slab level shall take place unless and until there has been submitted to and approved in writing by the Local Planning Authority a scheme of soft and hard landscaping, which shall include indications of all existing trees and hedgerows on the land and details of those to be retained, together with measures for their protection in the course of development. All planting, seeding or turfing comprised in the approved details of landscaping shall be carried out in the first planting and seeding seasons following the occupation of the buildings or the completion of the development, whichever is the sooner, and any trees or plants which within a period of 5 years from the completion of the development die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species, unless the Local Planning Authority gives written consent to any variation. The approved details of hard landscaping shall be completed prior to occupation of the building.

    Reason: *In the interests of visual amenity and the environment and to comply with policies 15 and 30 of the Adur Local Plan.*

15. The external lighting shall be installed in accordance with the approved details and shall operate only between 06:00 and 22:00 on any day. Outside of those hours external lighting shall be restricted to low-level, motion-activated security lighting only.

    Reason: *In the interests of amenity and to comply with policies 15 and 34 of the Adur Local Plan.*

16. The premises shall be used only for purposes within Class E(g)(iii) and for no other use within Class E of the Schedule to the Town and Country Planning (Use Classes) Order 1987 (or in any provision equivalent to that class in any Statutory Instrument revoking and re-enacting that Order with or without modification).

    Reason: *In the interests of safeguarding the unit for employment use having regard to policy 25 of the Adur Local Plan.*

Informatives / Notes to Applicant

01. The Local Planning Authority has acted positively and proactively in determining this application by assessing the proposal against all material considerations, including planning policies and any representations that may have been received and subsequently determining to grant planning permission in accordance with the presumption in favour of sustainable development, as set out within the National Planning Policy Framework.

02. The applicant is required to obtain all appropriate consents from West Sussex County Council, as Highway Authority, to cover the off-site highway works. The applicant is requested to contact the Area Highway Manager (01243 642105) to commence this process. The applicant is advised that it is an offence to undertake any works within the highway prior to the agreement being in place

03. The developer is advised to contact Southern Water of any landscaping proposals in proximity of public apparatus in order to protect it in accordance with Southern Water's guidance, prior to the commencement of the development.

The plan provided by the developer drwg no 079-3-s001 Rev D shows a sewer crossing the site which is not shown on our records. An assessment of the sewer is required to determine its ownership and the impact it could have to the proposed site layout. It is possible that the sewer is now deemed to be public. To get in contact to confirm the exact position of the asset please visit;
https://www.southernwater.co.uk/media/ph4fk3pe/ds-location-of-rising-mains_pb.pdf.
For information on required stand - off distances from public sewers please refer to:
https://www.southernwater.co.uk/media/st5orjvm/stand-off-distances.pdf

In order to protect and safeguard the existing water supply apparatus, Southern Water requests formal notification of any proposed demolition works prior to such works being undertaken

For further advice, please contact Southern Water, Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX (Tel: 0330 303 0119)
Website: southernwater.co.uk or by email at: SouthernWaterPlanning@southernwater.co.uk

Ref: AWDM/0525/26

TOWN AND COUNTRY PLANNING ACT 1990
TOWN AND COUNTRY PLANNING (GENERAL PERMITTED DEVELOPMENT) (AMENDMENT) (ENGLAND) ORDER 2015

YOUR ATTENTION IS DIRECTED TO THE FOLLOWING NOTES FROM THE ABOVE ORDER. THEY ARE FOR INFORMATION ONLY AND DO NOT PRETEND TO SET OUT THE WHOLE OF THE LAW ON THE SUBJECT. IT WOULD BE WELL FOR YOU TO CONSULT YOUR SOLICITOR IF YOU ARE IN ANY DOUBT

Appeals to the Secretary of State

1. If you are aggrieved by the decision of your local planning authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under section 78 of the Town and Country Planning Act 1990.

2. If the decision relates to a householder application or minor commercial application, and you want to appeal, then you must do so within 12 weeks of the date of this notice. If the decision relates to express consent for the display of an advertisement, then you must do so within 8 weeks of the date of this notice. If the decision relates to a non-householder application, an appeal must be lodged within 6 months of the date of the decision notice. Appeals must be made using a form which you can get from the Secretary of State at Temple Quay House, 2 The Square, Temple Quay, Bristol BS1 6PN (Tel: 0303 444 5000) or online at https://www.gov.uk/appeal-planning-decision.

3. The Secretary of State can allow a longer period for giving notice of an appeal, but he will not normally be prepared to use this power unless there are special circumstances, which excuse the delay in giving notice of appeal.

4. The Secretary of State need not consider an appeal if it seems to him that the local planning authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.

5. In practice, the Secretary of State does not refuse to consider appeals solely because the local planning authority based their decision on a direction given by him.

Purchase Notices

6. If either the local planning authority or the Secretary of State refuses permission to develop land or grants it subject to conditions, the owner may claim that he can neither put the land to a reasonably beneficial use in its existing state nor render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted. In these circumstances, the owner may serve a purchase notice on the District Council in whose area the land is situated. This notice will require the Council to purchase his interest in the land in accordance with the provisions of Part VI of the Town and Planning Act 1990..

7. Where this notice conveys approval or permission, conditional or unconditional, please note that the decision given does not purport to convey any consent or approval which may be required under the Building Act and Building Regulations, or any other legislation.

Reduced time for making a planning appeal where enforcement action is being taken

Where an enforcement notice has been served in relation to the same, or substantially the same, development as in the planning application no earlier than 2 years before the date the application was made, the period for receiving a planning appeal is within 28 days of the date on the planning application decision notice or of the date by which the LPA should have decided the application.

However, the LPA may formally decline to determine a retrospective planning application for permission for any development contained within a pre-existing enforcement notice served on or after 6 April 2012, where that notice was issued before the application was received by the LPA (see above). There is no right to make a planning appeal in such circumstances.

Where an enforcement notice was served in relation to the same, or substantially the same, development after the decision notice on the application was issued or after the end of the period the LPA had to determine the application, the period for receiving a planning appeal is within 28 days of the date the enforcement notice was served (unless this would extend the period beyond the normal 12 weeks or 6 months deadline).

APPENDIX C

Explanatory Notes
Exploratory Hole Records
DPSH-B Dynamic Probe Records
TRL Dynamic Cone Penetrometer (CBR) Record

ASHDOWN
SITE INVESTIGATION

EXPLANATORY NOTES

Symbols and abbreviations on Exploratory Hole Records

Samples

U	'Undisturbed' Sample: - 100mm diameter by 450mm long. The number of blows to drive in the sampling tube is shown after the test index letter in the SPT column.
L	Liner sample cut to length indicated.
D	Disturbed Sample
B	Bulk Disturbed Sample
W	Water Sample
ES	Environmental Suite (on older records may be referenced J T)

In Situ Testing

SPT	Standard penetration test (SPT): Using the split spoon sampler.
SPT(C)	Standard Penetration Test (SPT): Using a solid cone instead of the sampler – conducted usually in coarse grained soils or weak rocks.
HV	Shear Vane Test: Undrained shear strength (cohesion).
PP	Hand penetrometer Test: Undrained shear strength (cohesion).
P	Perth Penetrometer Test: Number of blows for 300mm penetration shown under remarks section.

Excavation Method

CP	Cable Percussion Borehole
RC/RO	Rotary Cored Borehole/Rotary Open Hole Borehole
WLS	Dynamic Sampler Borehole using windowless sampler tubes
WS	Dynamic Sampler Borehole using window sampler tubes
TP	Trial Pit excavated using mechanic excavator
HP	Trial Pit excavated using hand tools
HA	Hand Auger borehole

Soil Description

Description and classification of soils has been carried out using as a general basis the British Standard Geotechnical investigation and testing – Identification and classification of soil, Part 1 Identification and description (BS EN ISO 14688-1) and Part 2 Principles of classification (BS EN 14688-2) as well as the BS5930 code of Practice for Ground Investigations. Any topsoil/subsoil terminology is for descriptive purposes only and does not indicate soils would meet relevant classification requirements.

Rock Description

Description and classification of rocks has been carried out using as a general basis the British Standard Geotechnical investigation and testing – Identification and classification of rock, Part 1 Identification and classification (BS EN ISO 14689-1) as well as the BS5930 code of Practice for Ground Investigations. TCR – Total Core Recovery, SCR – Solid Core Recovery, RQD – Rock Quality Designation, NI – Non Intact, If – indicative fracture spacing (min/ave/max), FI – Fracture Index.

Chalk Description

Chalk description is based on BS EN ISO 14688, BS EN ISO 14689 and BS5930. The classification of chalk generally follows the guidance offered by the Construction Industry Research and Information Association (CIRIA) C574, 'Engineering in Chalk'. This is based on assessment of chalk density, discontinuity and aperture spacing, and the proportion of intact chalk to silt of chalk.

In Situ Strength Testing (where undertaken)

Standard penetration testing (SPT) carried out in accordance with BS EN ISO 22476-3:2005.

Continuous dynamic probe testing conducted using a super heavy DPSH-B (As defined by BS EN ISO 22476-2:2005) probing geometry. The DPSH-B configuration is similar to that of the standard penetration test (SPT); the main differences being that the tip comprises a 90° cone, the driving rods are lighter than those used for SPT testing and the blow counts are recorded over 100mm increments rather than 300mm, as is the case for the SPT.

Perth penetrometer tests carried out in accordance with Australian Standard AS 1289:6.3.3-1997, Method of Testing Soils for Engineering Purposes; no equivalent European or British Standard having been published to date.

Undrained shear strength determinations made in-situ using a Geonor hand shear vane or a hand penetrometer.

Testing to determine the in-situ California Bearing Ratio (CBR) of soils conducted at shallow depths using a hand-held Transport Research Laboratory (TRL) cone penetrometer.

Dynamic (Windowless) Sampler

WS01
Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
WLS				1:25

Project Name	Project No.	Start Date	End Date
77 Marlborough Road, Lancing, West Sussex	P17891	2026-07-31	2026-07-31

Client | **Consultant** | **Contractor**

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Type/ Ref	Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Description
		0.05	ES			(0.60)		Topsoil over, MADE GROUND: Brown and dark brown gravelly sandy clay. Gravel is subangular to subrounded fine to medium brick, flint, concrete, plastic and clinker-like material.
		0.30	ES					
		0.65	ES			0.60		Stiff, locally very stiff, brown gravelly sandy CLAY. Gravel is subangular to subrounded fine to medium flint. [Raised Beach Deposits]
		0.80	PP	200 (kPa)		(0.50)		
		0.80	D					
		1.20	D			1.10		Very dense brown and orange brown clayey subangular to subrounded fine to medium GRAVEL of flnt. [Raised Beach Deposits]
		1.70	ES			(0.90)		
		2.00	D			2.00		*End of Borehole at 2.00m*

Remarks
No further progress below 2.00m depth - too dense.
Borehole dry on completion.
Standpipe installed to 2.00m depth; 2.00m to 1.00m slotted pipe with gravel surround; 1.00m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.

Method, Plant, Stability, Dimensions | **Logger**
0.00 - 2.00m WLS — JW
Borehole stable on completion.

Dynamic (Windowless) Sampler

WS02

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
WLS				1:25

Project Name	Project No.	Start Date	End Date
77 Marlborough Road, Lancing, West Sussex	P17891	2026-07-31	2026-07-31

Client | **Consultant** | **Contractor**

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
		0.08	ES			(0.10) 0.10		Topsoil.
		0.25	ES					MADE GROUND: Brown and dark brown gravelly clay. Gravel is subangular to subrounded fine to medium flint, brick, concrete and clinker-like material.
						(0.50)		
		0.65	ES			0.60		Very stiff light brown and brown gravelly sandy CLAY. Gravel is subangular to subrounded fine to medium flint. [Raised Beach Deposits]
		1.00	D			(0.70)		
						1.30		*becoming very dense clayey GRAVEL towards base. (1.30m)*
								End of Borehole at 1.30m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

Remarks

No further progress below 1.30m depth - too dense.
Borehole dry on completion.

Method, Plant, Stability, Dimensions

0.00 - 1.30m WLS
Borehole cased to 1.00m depth. Borehole stable on completion.

Logger

JW

Dynamic (Windowless) Sampler

WS03

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
WLS				1:25

Project Name	Project No.	Start Date	End Date
77 Marlborough Road, Lancing, West Sussex	P17891	2026-07-31	2026-07-31

Client | **Consultant** | **Contractor**

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Type/ Ref	Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Description
						(0.14) 0.14		Concrete.
		0.15	ES			(0.14) 0.28		MADE GROUND: Brown gravelly sandy clay. Gravel is subangular to subrounded fine to medium flint.
		0.35	ES					Stiff brown gravelly sandy CLAY. Gravel is subangular to subrounded fine to medium flint. [Raised Beach Deposits]
		0.40	PP	75 (kPa)				
		0.50	PP	210 (kPa)				
		0.50	D			(0.62)		*becoming very stiff below 0.50m depth. (0.50m)*
						0.90		Very dense orange brown sandy clayey subangular to subrounded fine to coarse GRAVEL of flint. [Raised Beach Deposits]
		1.00	D					
		1.10	ES			(0.40)		
						1.30		*End of Borehole at 1.30m*

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

Remarks

No further progress below 1.30m depth - too dense.
Borehole dry on completion.

Method, Plant, Stability, Dimensions

0.00 - 1.30m WLS
Borehole stable on completion.

Logger

JW

Dynamic (Windowless) Sampler

WS04

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
WLS				1:25

Project Name	Project No.	Start Date	End Date
77 Marlborough Road, Lancing, West Sussex	P17891	2026-07-31	2026-07-31

Client | **Consultant** | **Contractor**

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Type/ Ref	Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Description
						(0.08) 0.08		Concrete.
		0.10	ES			(0.27) 0.35		MADE GROUND: Light brown and grey brown gravelly sand. Gravel is subangular to subrounded fine to medium concrete, flint, clinker-like material and occasional brick.
		0.40	ES					Very stiff brown and light brown slightly gravelly sandy CLAY. Gravel is subangular to subrounded fine to medium flint. [Raised Beach Deposits]
		0.50	PP	175 (kPa)		(0.45) 0.80		
		0.50	D					
		0.60	PP	200 (kPa)				
		0.75	D					
		1.10	ES			(0.70) 1.50		Very dense brown and orange brown sandy subangular to subrounded fine to medium GRAVEL of flint. [Raised Beach Deposits]
		1.40	D					*End of Borehole at 1.50m*

Remarks
No further progress below 1.50m depth - too dense.
Borehole dry on completion.

Method, Plant, Stability, Dimensions
0.00 - 1.50m WLS
Borehole cased to 1.00m depth. Borehole stable on completion.

Logger
JW

Dynamic (Windowless) Sampler

WS05

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
WLS				1:25

Project Name	Project No.	Start Date	End Date
77 Marlborough Road, Lancing, West Sussex	P17891	2026-07-31	2026-07-31

Client | **Consultant** | **Contractor**

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Type/ Ref	Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Description
						(0.06) 0.06		Asphalt.
		0.15	ES			(0.19) 0.25		MADE GROUND: Light brown gravelly sand. Gravel is subangular to subrounded fine to medium flint, asphalt and occasional concrete.
		0.30	ES					Stiff brown gravelly sandy CLAY. Gravel is subangular to subrounded fine to medium flint. [Raised Beach Deposits]
		0.40	PP	150 (kPa)				
		0.50	PP	175 (kPa)				*becoming very stiff below 0.50m depth. (0.50m)*
		0.50	D					
		0.60	ES					*becoming clayey GRAVEL at 0.70m depth. (0.70m)*
						(1.25)		
		1.00	ES					
		1.20	D					
						1.50		Very dense orange brown very sandy clayey subangular to subrounded fine to coarse GRAVEL of flint. [Raised Beach Deposits]
		1.80	ES					
						(1.50)		
		2.50	ES					
		3.00	D			3.00		*End of Borehole at 3.00m*

Remarks

Borehole dry on completion.

Standpipe installed to 2.00m depth; 2.00m to 1.00m slotted pipe with gravel surround; 1.00m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.

Method, Plant, Stability, Dimensions | **Logger**

0.00 - 3.00m WLS — JW

Borehole colllapsed to 2.20m depth on completion.

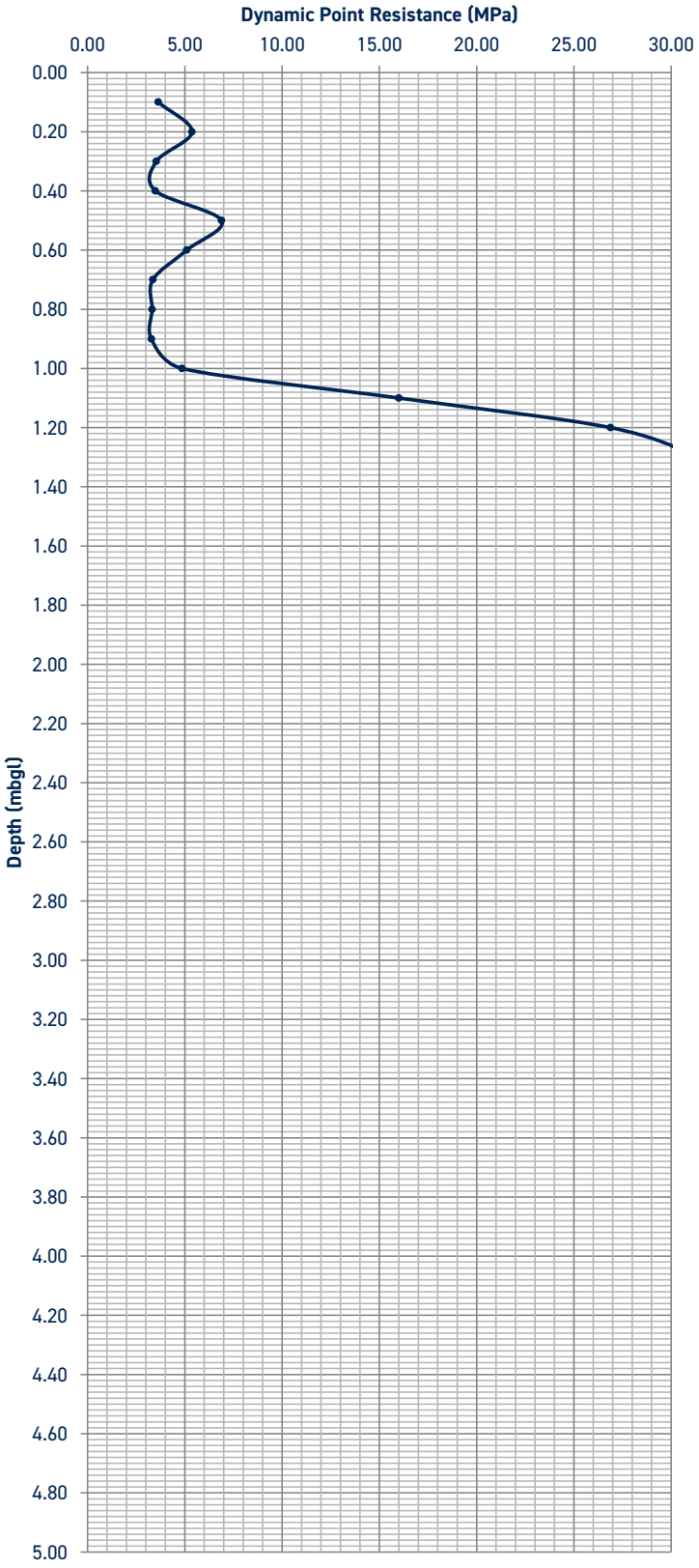
ASHDOWN SITE INVESTIGATION

DPSH-B DYNAMIC PROBE RECORD

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17591

Test Location Reference	WS01

Depth (mbgl)	Blows (per 100mm)	Average Penetration per Blow (m)	Unit Point Resistance (MPa)	Dynamic Point Resistance (MPa)
0.10	2	0.05	3.74	3.63
0.20	3	0.03	5.61	5.37
0.30	2	0.05	3.74	3.54
0.40	2	0.05	3.74	3.49
0.50	4	0.03	7.48	6.89
0.60	3	0.03	5.61	5.10
0.70	2	0.05	3.74	3.36
0.80	2	0.05	3.74	3.32
0.90	2	0.05	3.74	3.28
1.00	3	0.03	5.61	4.86
1.10	10	0.01	18.69	16.00
1.20	17	0.01	31.77	26.88
1.30	20	0.01	37.38	31.26
1.40	21	0.00	39.24	32.45
1.50	23	0.00	42.98	35.14
1.60	26	0.00	48.59	39.28
1.70	28	0.00	52.33	41.83
1.80	30	0.00	56.06	44.33
1.90				
2.00				
2.10				
2.20				
2.30				
2.40				
2.50				
2.60				
2.70				
2.80				
2.90				
3.00				
3.10				
3.20				
3.30				
3.40				
3.50				
3.60				
3.70				
3.80				
3.90				
4.00				
4.10				
4.20				
4.30				
4.40				
4.50				
4.60				
4.70				
4.80				
4.90				
5.00				



Notes:
No further progress below 1.80m depth - hammer bouncing.

Hammer Mass	63.5	kg
Fall Height	0.76	m
Cone Area	0.0019	m^2
E_{theor}	473	J
Energy Ratio	0.75	
Anvil Mass	1	kg
Rod Mass	8.79	kg/m

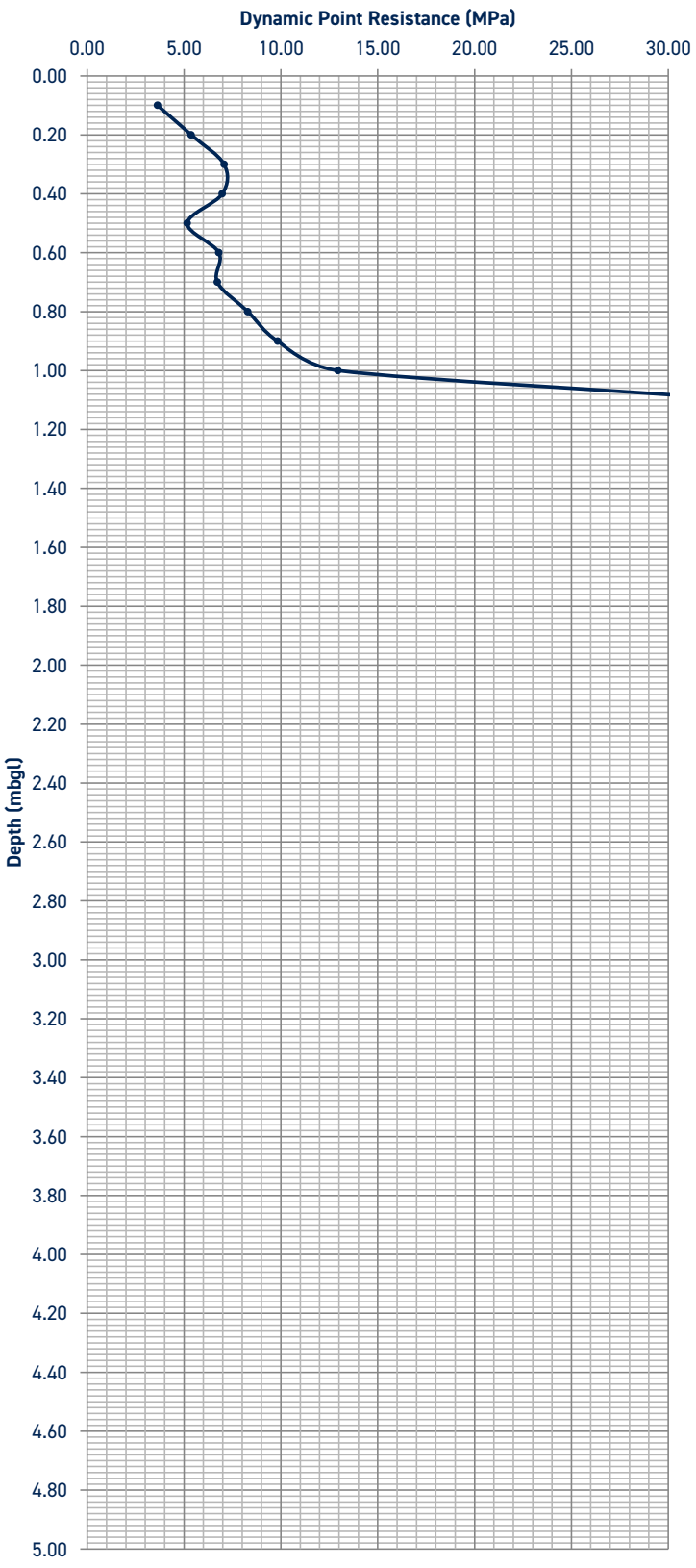
ASHDOWN SITE INVESTIGATION

DPSH-B DYNAMIC PROBE RECORD

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17591

Test Location Reference	WS02

Depth (mbgl)	Blows (per 100mm)	Average Penetration per Blow (m)	Unit Point Resistance (MPa)	Dynamic Point Resistance (MPa)
0.10	2	0.05	3.74	3.63
0.20	3	0.03	5.61	5.37
0.30	4	0.03	7.48	7.07
0.40	4	0.03	7.48	6.98
0.50	3	0.03	5.61	5.17
0.60	4	0.03	7.48	6.80
0.70	4	0.03	7.48	6.72
0.80	5	0.02	9.34	8.30
0.90	6	0.02	11.21	9.83
1.00	8	0.01	14.95	12.95
1.10	21	0.00	39.24	33.60
1.20	30	0.00	56.06	47.44
1.30				
1.40				
1.50				
1.60				
1.70				
1.80				
1.90				
2.00				
2.10				
2.20				
2.30				
2.40				
2.50				
2.60				
2.70				
2.80				
2.90				
3.00				
3.10				
3.20				
3.30				
3.40				
3.50				
3.60				
3.70				
3.80				
3.90				
4.00				
4.10				
4.20				
4.30				
4.40				
4.50				
4.60				
4.70				
4.80				
4.90				
5.00				



Notes:

No further progress below 1.20m depth - hammer bouncing.

Hammer Mass	63.5 kg
Fall Height	0.76 m
Cone Area	0.0019 m^2
E_{theor}	473 J
Energy Ratio	0.75
Anvil Mass	1 kg
Rod Mass	8.79 kg/m

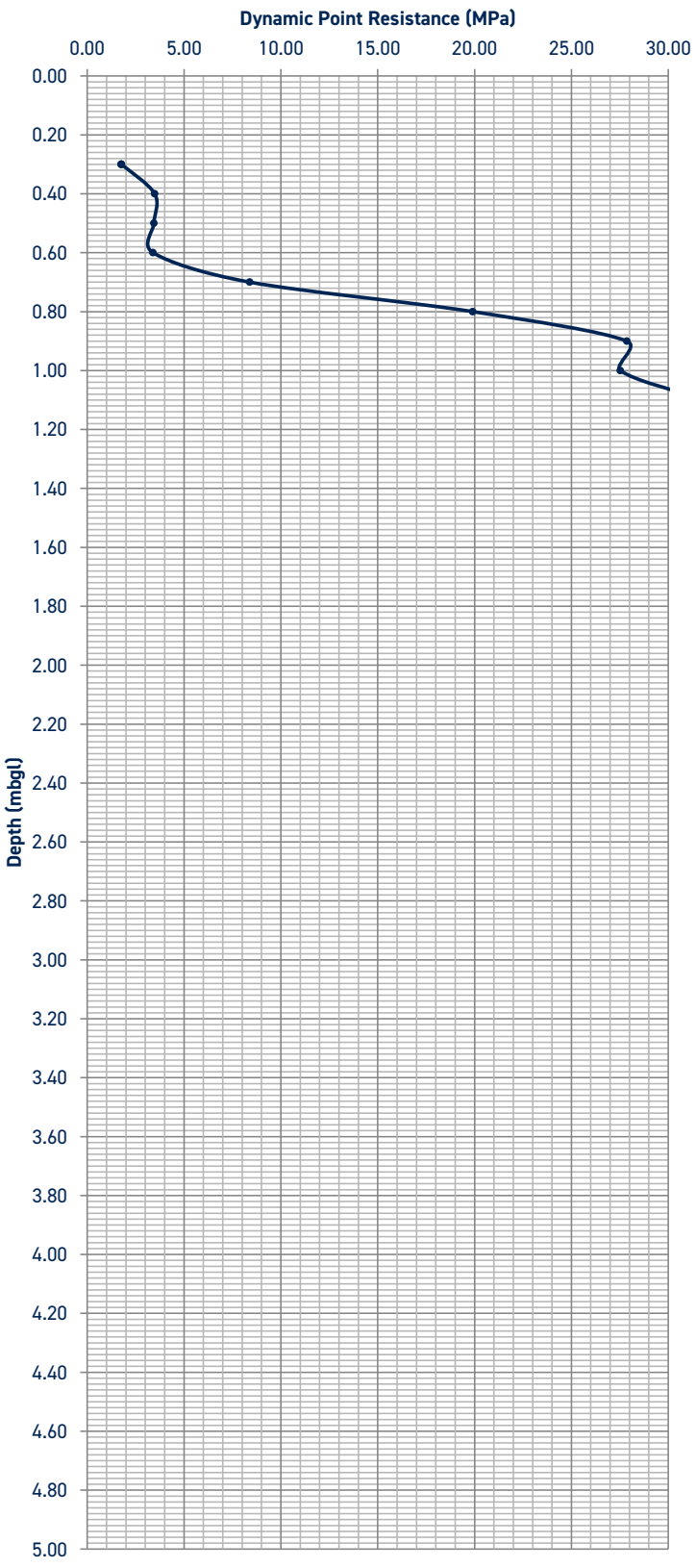
ASHDOWN SITE INVESTIGATION

DPSH-B DYNAMIC PROBE RECORD

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17591

Test Location Reference	WS03

Depth (mbgl)	Blows (per 100mm)	Average Penetration per Blow (m)	Unit Point Resistance (MPa)	Dynamic Point Resistance (MPa)
0.10				
0.20				
0.30	1	0.10	1.87	1.77
0.40	2	0.05	3.74	3.49
0.50	2	0.05	3.74	3.45
0.60	2	0.05	3.74	3.40
0.70	5	0.02	9.34	8.40
0.80	12	0.01	22.43	19.91
0.90	17	0.01	31.77	27.86
1.00	17	0.01	31.77	27.53
1.10	20	0.01	37.38	32.00
1.20	24	0.00	44.85	37.95
1.30	25	0.00	46.72	39.08
1.40	30	0.00	56.06	46.36
1.50				
1.60				
1.70				
1.80				
1.90				
2.00				
2.10				
2.20				
2.30				
2.40				
2.50				
2.60				
2.70				
2.80				
2.90				
3.00				
3.10				
3.20				
3.30				
3.40				
3.50				
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3.80				
3.90				
4.00				
4.10				
4.20				
4.30				
4.40				
4.50				
4.60				
4.70				
4.80				
4.90				
5.00				



Notes:

No further progress below 1.30m depth - hammer bouncing.

Hammer Mass	63.5	kg
Fall Height	0.76	m
Cone Area	0.0019	m^2
E_{theor}	473	J
Energy Ratio	0.75	
Anvil Mass	1	kg
Rod Mass	8.79	kg/m

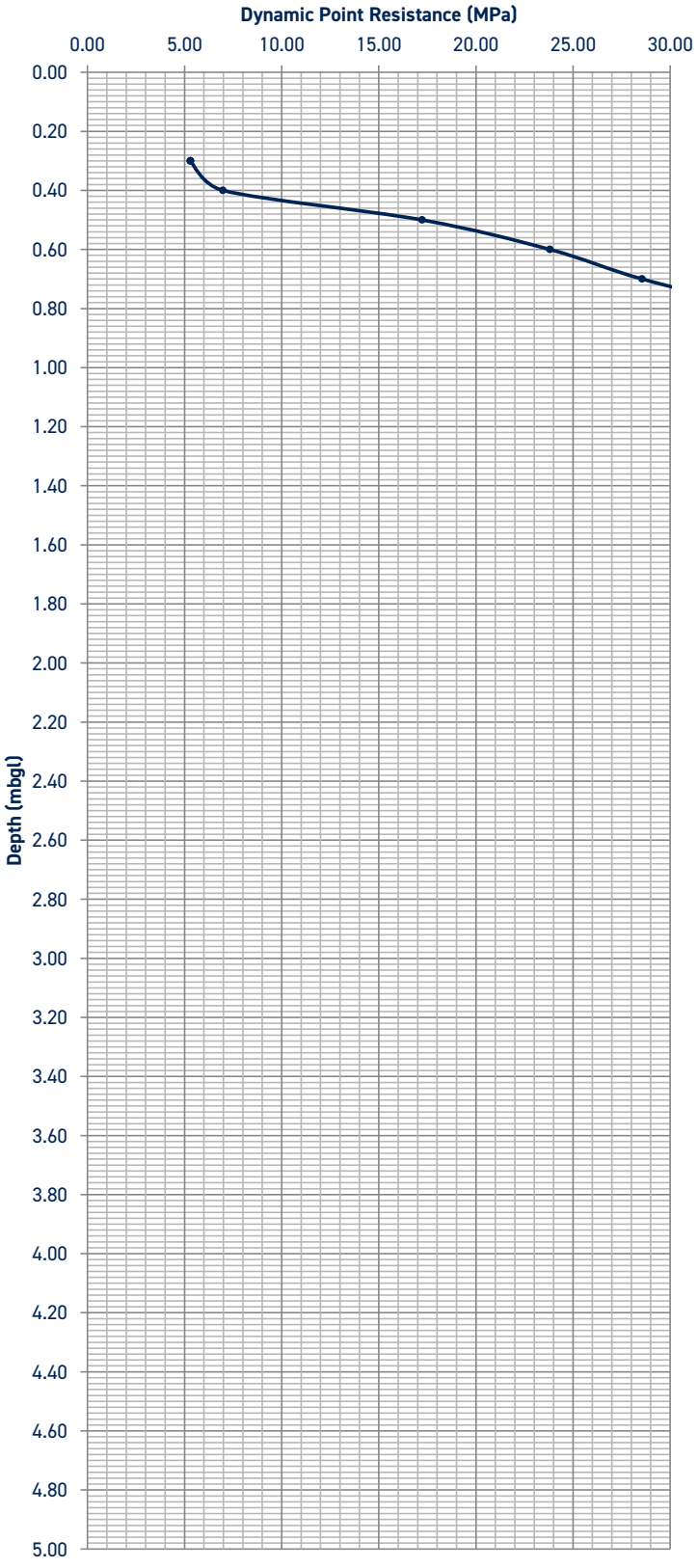
ASHDOWN SITE INVESTIGATION

DPSH-B DYNAMIC PROBE RECORD

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17591

Test Location Reference	WS04

Depth (mbgl)	Blows (per 100mm)	Average Penetration per Blow (m)	Unit Point Resistance (MPa)	Dynamic Point Resistance (MPa)
0.10				
0.20				
0.30	3	0.03	5.61	5.30
0.40	4	0.03	7.48	6.98
0.50	10	0.01	18.69	17.23
0.60	14	0.01	26.16	23.81
0.70	17	0.01	31.77	28.55
0.80	21	0.00	39.24	34.84
0.90	26	0.00	48.59	42.61
1.00	27	0.00	50.46	43.72
1.10	30	0.00	56.06	48.00
1.20				
1.30				
1.40				
1.50				
1.60				
1.70				
1.80				
1.90				
2.00				
2.10				
2.20				
2.30				
2.40				
2.50				
2.60				
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3.70				
3.80				
3.90				
4.00				
4.10				
4.20				
4.30				
4.40				
4.50				
4.60				
4.70				
4.80				
4.90				
5.00				



Notes:

No further progress below 1.10m depth - hammer bouncing.

Hammer Mass	63.5 kg
Fall Height	0.76 m
Cone Area	0.0019 m^2
E_{theor}	473 J
Energy Ratio	0.75
Anvil Mass	1 kg
Rod Mass	8.79 kg/m

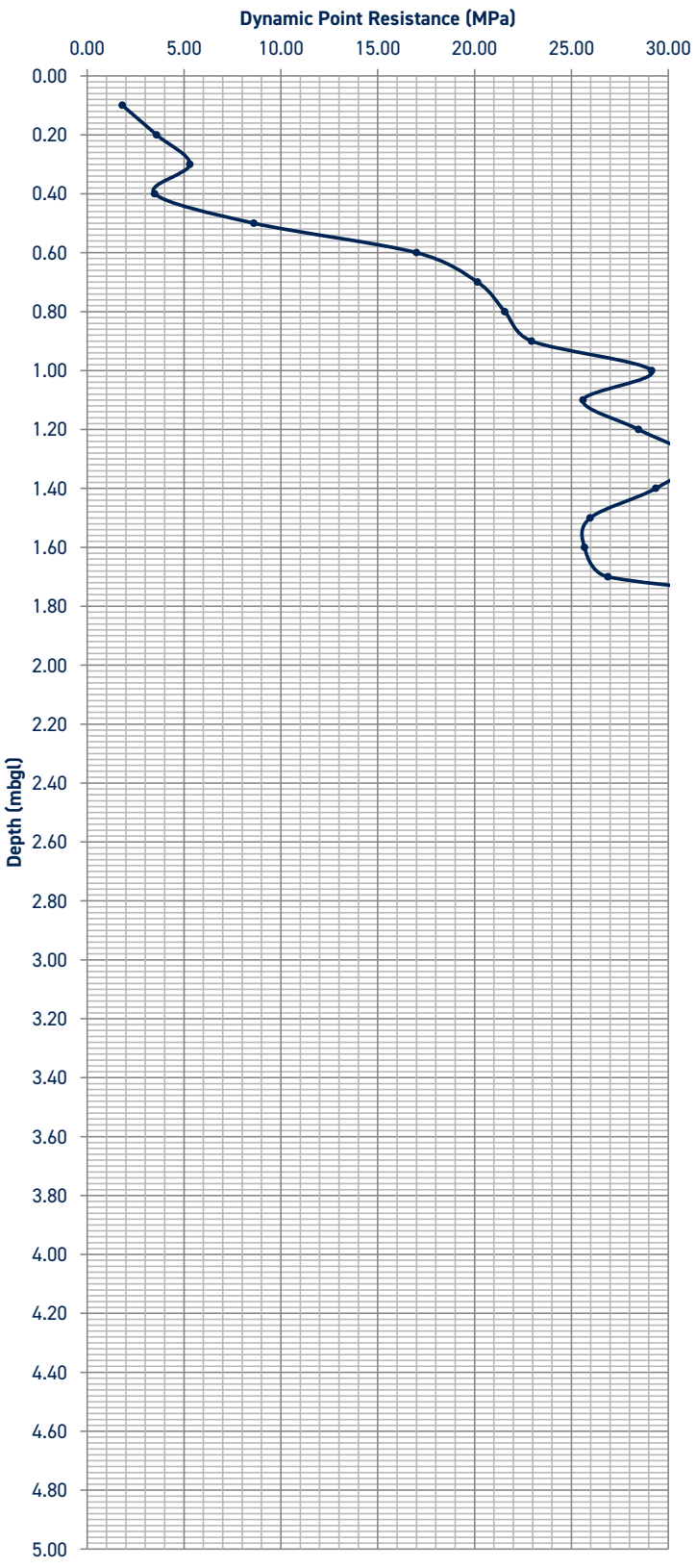
ASHDOWN SITE INVESTIGATION

DPSH-B DYNAMIC PROBE RECORD

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17591

Test Location Reference	WS05

Depth (mbgl)	Blows (per 100mm)	Average Penetration per Blow (m)	Unit Point Resistance (MPa)	Dynamic Point Resistance (MPa)
0.10	1	0.10	1.87	1.82
0.20	2	0.05	3.74	3.58
0.30	3	0.03	5.61	5.30
0.40	2	0.05	3.74	3.49
0.50	5	0.02	9.34	8.61
0.60	10	0.01	18.69	17.01
0.70	12	0.01	22.43	20.16
0.80	13	0.01	24.29	21.57
0.90	14	0.01	26.16	22.95
1.00	18	0.01	33.64	29.15
1.10	16	0.01	29.90	25.60
1.20	18	0.01	33.64	28.46
1.30	20	0.01	37.38	31.26
1.40	19	0.01	35.51	29.36
1.50	17	0.01	31.77	25.97
1.60	17	0.01	31.77	25.68
1.70	18	0.01	33.64	26.89
1.80	27	0.00	50.46	39.89
1.90	30	0.00	56.06	43.85
2.00				
2.10				
2.20				
2.30				
2.40				
2.50				
2.60				
2.70				
2.80				
2.90				
3.00				
3.10				
3.20				
3.30				
3.40				
3.50				
3.60				
3.70				
3.80				
3.90				
4.00				
4.10				
4.20				
4.30				
4.40				
4.50				
4.60				
4.70				
4.80				
4.90				
5.00				



Notes:

No further progress below 1.90m depth - hammer bouncing.

Hammer Mass	63.5 kg
Fall Height	0.76 m
Cone Area	0.0019 m^2
E_{theor}	473 J
Energy Ratio	0.75
Anvil Mass	1 kg
Rod Mass	8.79 kg/m

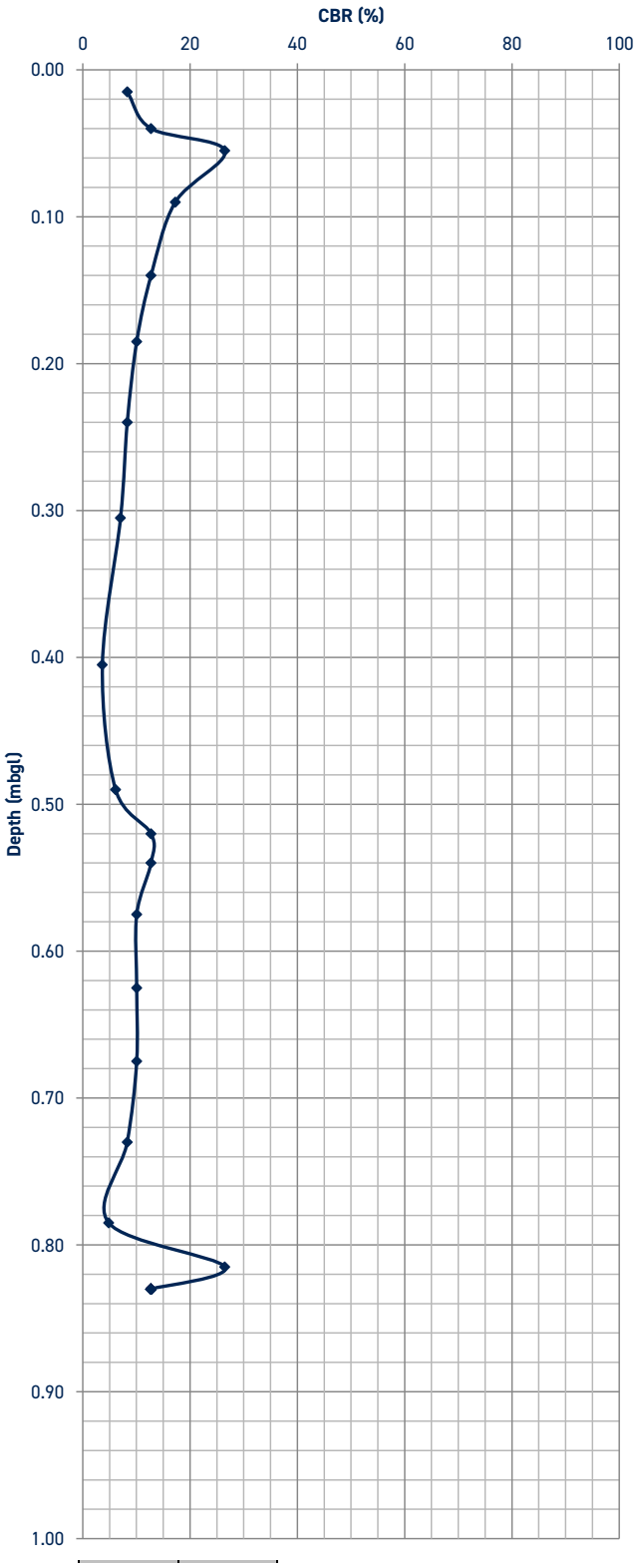
ASHDOWN SITE INVESTIGATION

TRL DYNAMIC CONE PENETROMETER RECORD

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

Test Location Reference	WS01
Depth of Start of Test (mbgl)	0.00

No. Blows	Total Blows	Reading (mm)	Depth (mbgl)	CBR%
DCP Zero Reading		80	0.00	
1	1	110	0.03	8
1	2	130	0.05	13
1	3	140	0.06	26
4	7	200	0.12	17
2	9	240	0.16	13
2	11	290	0.21	10
2	13	350	0.27	8
2	15	420	0.34	7
2	17	550	0.47	4
1	18	590	0.51	6
1	19	610	0.53	13
1	20	630	0.55	13
2	22	680	0.60	10
2	24	730	0.65	10
2	26	780	0.70	10
2	28	840	0.76	8
1	29	890	0.81	5
1	30	900	0.82	26
1	31	920	0.84	13



Notes: CBR Value calculated in accordance with the TRRL equation given in TRL Road Note 8.

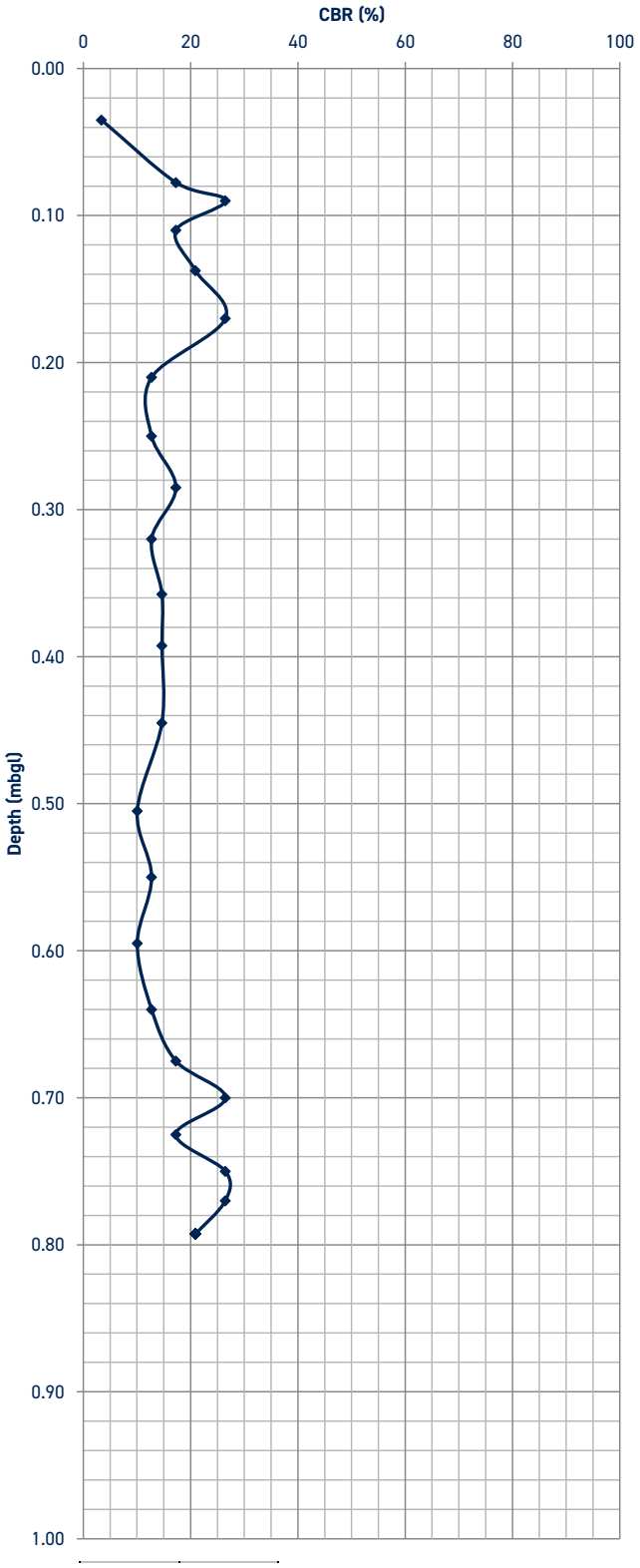
ASHDOWN SITE INVESTIGATION

TRL DYNAMIC CONE PENETROMETER RECORD

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

Test Location Reference	WS02
Depth of Start of Test (mbgl)	0.00

No. Blows	Total Blows	Reading (mm)	Depth (mbgl)	CBR%
DCP Zero Reading		110	0.00	
1	1	180	0.07	3
1	2	195	0.09	17
1	3	205	0.10	26
2	5	235	0.13	17
2	7	260	0.15	21
4	11	300	0.19	26
2	13	340	0.23	13
2	15	380	0.27	13
2	17	410	0.30	17
2	19	450	0.34	13
2	21	485	0.38	15
2	23	520	0.41	15
4	27	590	0.48	15
2	29	640	0.53	10
2	31	680	0.57	13
2	33	730	0.62	10
2	35	770	0.66	13
2	37	800	0.69	17
2	39	820	0.71	26
2	41	850	0.74	17
2	43	870	0.76	26
2	45	890	0.78	26
2	47	915	0.81	21



Notes: CBR Value calculated in accordance with the TRRL equation given in TRL Road Note 8.

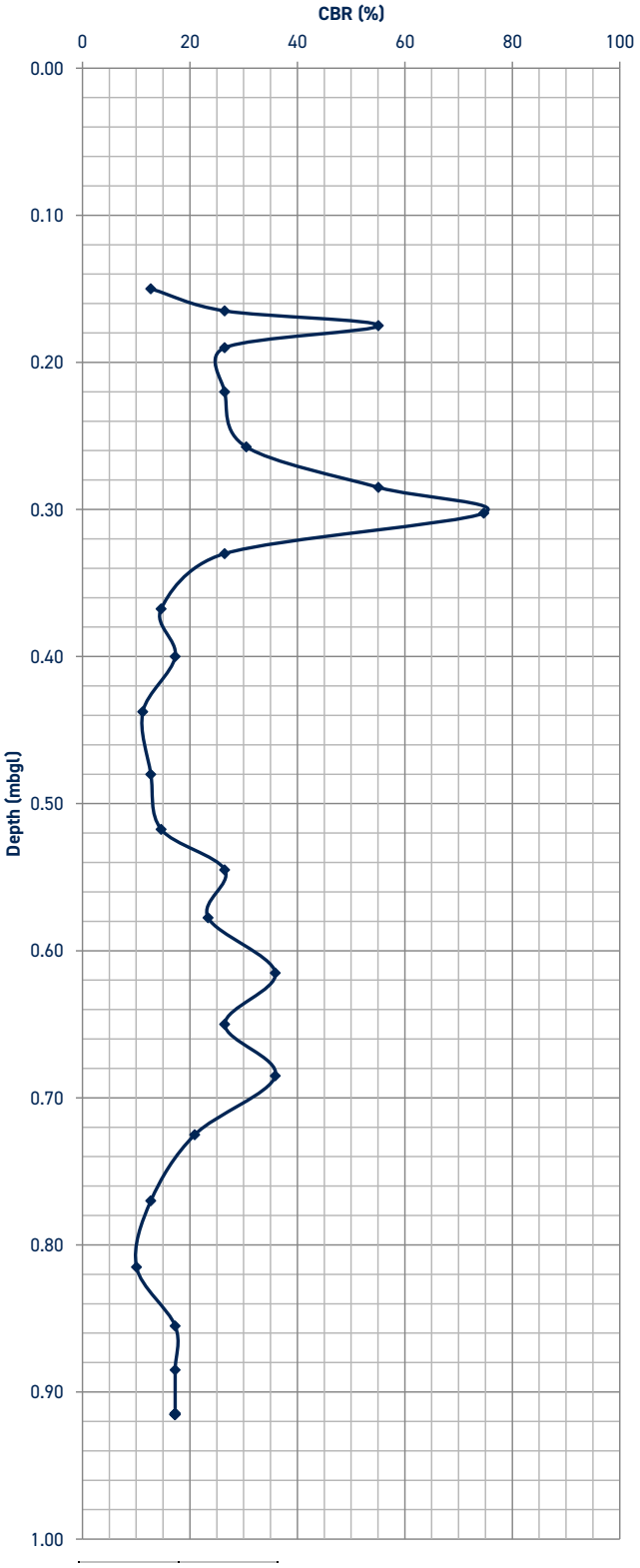
ASHDOWN SITE INVESTIGATION

TRL DYNAMIC CONE PENETROMETER RECORD

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

Test Location Reference	WS03
Depth of Start of Test (mbgl)	0.14

No. Blows	Total Blows	Reading (mm)	Depth (mbgl)	CBR%
DCP Zero Reading		120	0.14	
1	1	140	0.16	13
1	2	150	0.17	26
2	4	160	0.18	55
2	6	180	0.20	26
4	10	220	0.24	26
4	14	255	0.28	30
4	18	275	0.30	55
4	22	290	0.31	75
4	26	330	0.35	26
2	28	365	0.39	15
2	30	395	0.42	17
2	32	440	0.46	11
2	34	480	0.50	13
2	36	515	0.54	15
2	38	535	0.56	26
4	42	580	0.60	23
4	46	610	0.63	36
4	50	650	0.67	26
4	54	680	0.70	36
4	58	730	0.75	21
2	60	770	0.79	13
2	62	820	0.84	10
2	64	850	0.87	17
2	66	880	0.90	17
2	68	910	0.93	17



Notes: CBR Value calculated in accordance with the TRRL equation given in TRL Road Note 8.

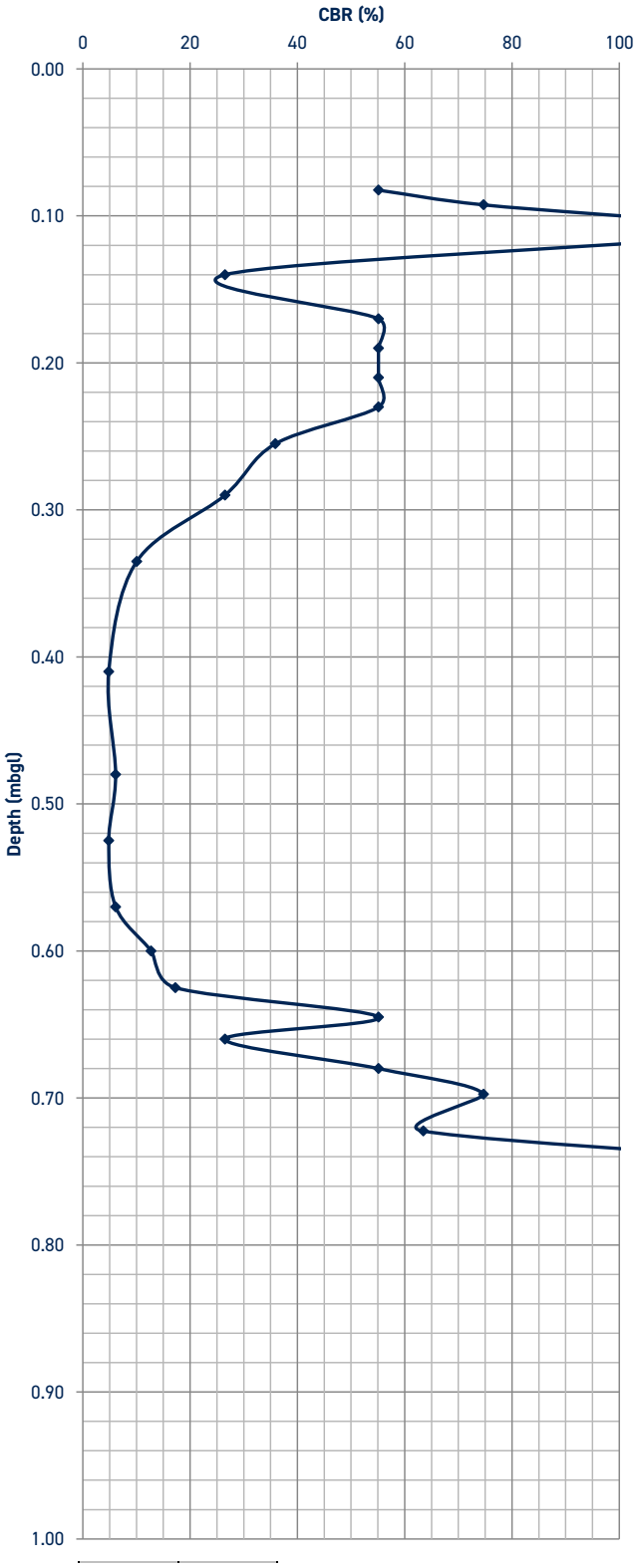
ASHDOWN SITE INVESTIGATION

TRL DYNAMIC CONE PENETROMETER RECORD

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

Test Location Reference	WS04
Depth of Start of Test (mbgl)	0.08

No. Blows	Total Blows	Reading (mm)	Depth (mbgl)	CBR%
DCP Zero Reading		140	0.08	
1	1	145	0.09	55
4	5	160	0.10	75
4	9	170	0.11	115
4	13	180	0.12	115
4	17	220	0.16	26
4	21	240	0.18	55
4	25	260	0.20	55
4	29	280	0.22	55
4	33	300	0.24	55
4	37	330	0.27	36
4	41	370	0.31	26
2	43	420	0.36	10
2	45	520	0.46	5
1	46	560	0.50	6
1	47	610	0.55	5
1	48	650	0.59	6
1	49	670	0.61	13
2	51	700	0.64	17
2	53	710	0.65	55
2	55	730	0.67	26
4	59	750	0.69	55
4	63	765	0.71	75
8	71	800	0.74	63
8	79	815	0.76	155



Notes: CBR Value calculated in accordance with the TRRL equation given in TRL Road Note 8.

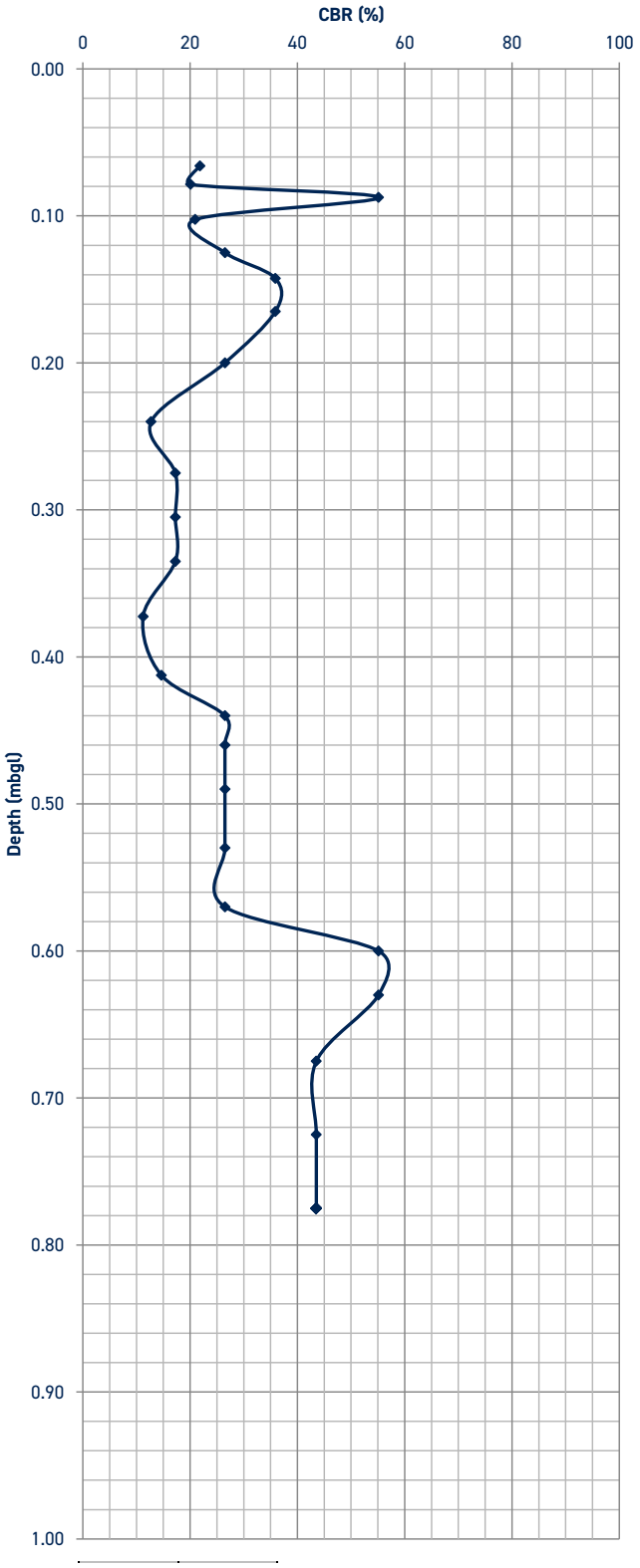
ASHDOWN SITE INVESTIGATION

TRL DYNAMIC CONE PENETROMETER RECORD

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

Test Location Reference	WS05
Depth of Start of Test (mbgl)	0.06

No. Blows	Total Blows	Reading (mm)	Depth (mbgl)	CBR%
DCP Zero Reading		70	0.06	
1	1	82	0.07	22
1	2	95	0.09	20
1	3	100	0.09	55
2	5	125	0.12	21
2	7	145	0.14	26
2	9	160	0.15	36
4	13	190	0.18	36
4	17	230	0.22	26
2	19	270	0.26	13
2	21	300	0.29	17
2	23	330	0.32	17
2	25	360	0.35	17
2	27	405	0.40	11
2	29	440	0.43	15
2	31	460	0.45	26
2	33	480	0.47	26
4	37	520	0.51	26
4	41	560	0.55	26
4	45	600	0.59	26
4	49	620	0.61	55
8	57	660	0.65	55
8	65	710	0.70	44
8	73	760	0.75	44
8	81	810	0.80	44



Notes: CBR Value calculated in accordance with the TRRL equation given in TRL Road Note 8.

APPENDIX D

Gas Concentration and Groundwater Monitoring Results

ASHDOWN SITE INVESTIGATION

GAS AND GROUNDWATER MONITORING RESULTS

Site: 77 Marlborough Road, Lancing, West Sussex

Project Ref: P17891

Position	Date	Time	Dynamic Pressure (pa)	Atmospheric Pressure (mbar)	Atmospheric Trend	Standing Water Depth (m bgl)	Flow Rate (l/hr)				Methane (%)				Carbon Dioxide (%)				Oxygen (%)				CO (ppm)	H_2S (ppm)
							Seconds				Seconds				Seconds				Seconds					
							15	30	45	60	15	30	45	60	15	30	45	60	15	30	45	60		
WS01	06/08/2026	09:00	0	1020	Rising	DRY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.0	1.0	1.0	19.9	19.6	19.6	19.6	0	0
WS05	06/08/2026	09:12	0	1020	Rising	DRY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.9	20.9	20.9	20.9	0	0
WS01	14/08/2026	08:27	0	1015	Falling	DRY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	20.9	20.9	20.9	0	0
WS05	14/08/2026	08:20	0	1015	Falling	DRY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	20.9	20.9	20.9	0	0
WS01	20/08/2026	09:09	0	1003	Rising	1.86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.9	20.8	20.8	20.8	0	0
WS05	20/08/2026	09:04	0	1003	Rising	DRY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.0	1.0	1.0	19.8	19.5	19.5	19.5	0	0

APPENDIX E

Geotechnical Laboratory Test Results
Contamination Laboratory Test Results

ASHDOWN SITE INVESTIGATION

SOIL CLASSIFICATION SUMMARY

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

BH/TP No.	Depth (m)	Nat. Moist. Cont. (w %)	Equiv. Moist. Cont. (w_a %)	Atterberg Limits			Class'n	Cons. Index (I_c)	% passing 425 µm sieve	Visual Description of Sample
				W_l %	W_p %	I_p %				
WS01	0.80	8.6		34	18	16	ClL	1.59*	22	Very stiff brown very gravelly sandy CLAY.
WS02	1.00	8.7		32	18	14	ClL	1.66*	~63	Very stiff light brown and brown gravelly sandy CLAY.
WS04	0.50	16		35	19	16	ClL/ClM	1.19*	~94	Very stiff brown and light brown slightly gravelly sandy CLAY.

Test Method: Classification Tests BS1377: Part 2: 1990: Method 4.4, 5.3 and 5.4

~ % passing the 425µm estimated, likely based on proportion of gravel fraction only.

* Consistency index based on natural moisture content and not the equivalent moisture content.

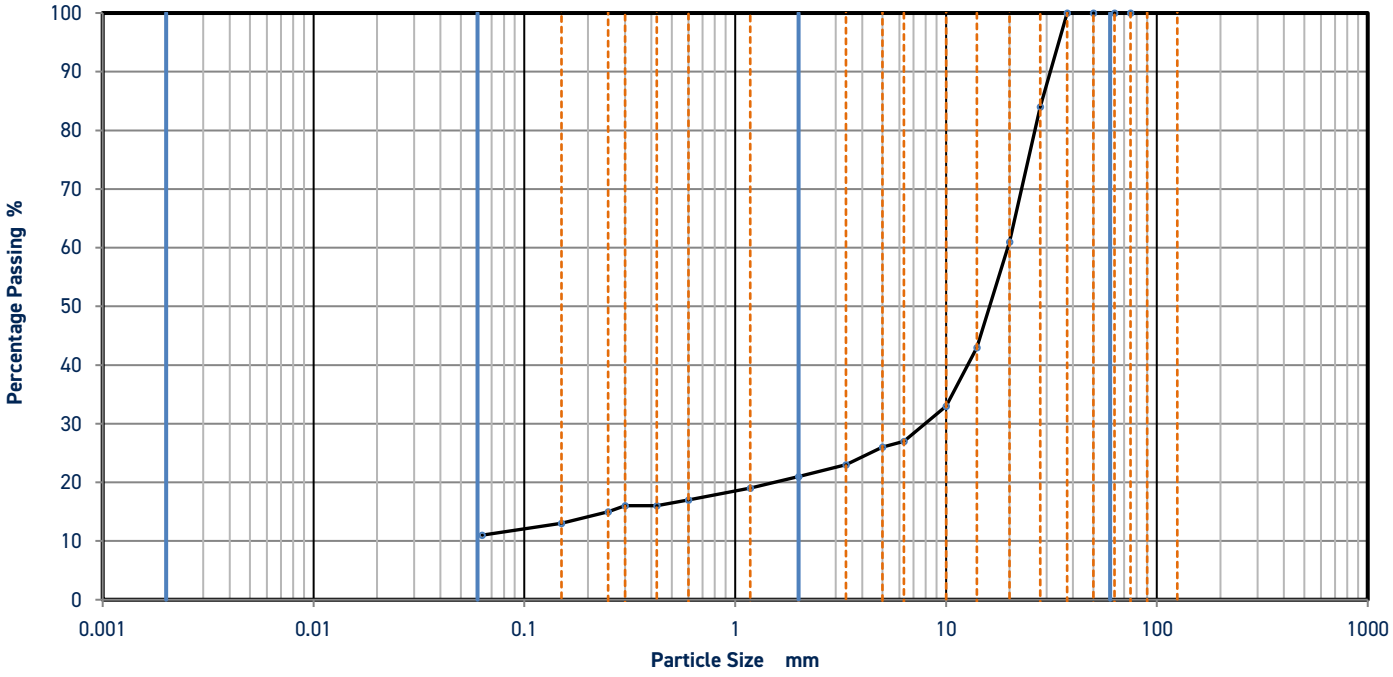
ASHDOWN SITE INVESTIGATION

PARTICLE SIZE DISTRIBUTION

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

Soil Description:	Sandy clayey GRAVEL.	**Borehole/Pit No.**	WS03
Test Method	BS1377:Part2:1990, Clause 9.2	**Depth (m)**	1.00

CLAY	SILT			SAND			GRAVEL			COBBLES	BOULDERS
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse		



Sieving		Sedimentation	
Particle Size mm	**% Passing**	**Particle Size mm**	**% Passing**
75	100	0.0200	
63	100	0.0060	
50	100	0.0020	
37.5	100		
28	84		
20	61		
14	43		
10	33		
6.3	27		
5	26		
3.35	23		
2	21		
1.18	19		
0.6	17		
0.425	16		
0.3	16		
0.25	15		
0.15	13		
0.063	11		

Dry Mass of sample (g)	1220

Sample Proportions	**% dry mass**
Very coarse	0
Gravel	79
Sand	10
Fines <0.063mm	11

Grading Analysis		
D_{100}	mm	37.500
D_{60}	mm	19.608
D_{30}	mm	7.937
D_{10}	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

Preparation and testing in accordance with BS1377 unless noted below

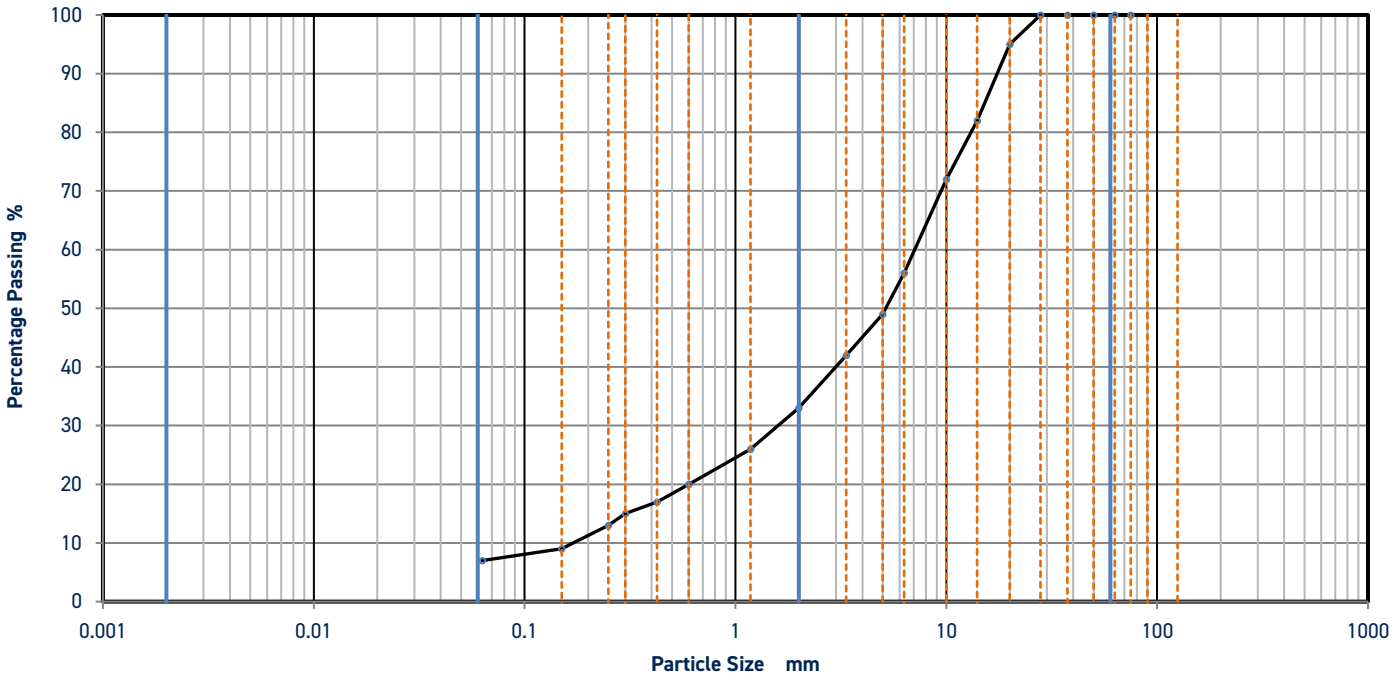
ASHDOWN SITE INVESTIGATION

PARTICLE SIZE DISTRIBUTION

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

Soil Description:	Very sandy clayey GRAVEL.	**Borehole/Pit No.**	WS05
Test Method	BS1377:Part2:1990, Clause 9.2	**Depth (m)**	3.00

CLAY	SILT			SAND			GRAVEL			COBBLES	BOULDERS
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse		



Sieving		Sedimentation	
Particle Size mm	**% Passing**	**Particle Size mm**	**% Passing**
75	100	0.0200	
63	100	0.0060	
50	100	0.0020	
37.5	100		
28	100		
20	95		
14	82		
10	72		
6.3	56		
5	49		
3.35	42		
2	33		
1.18	26		
0.6	20		
0.425	17		
0.3	15		
0.25	13		
0.15	9		
0.063	7		

Dry Mass of sample (g)	882

Sample Proportions	**% dry mass**
Very coarse	0
Gravel	67
Sand	26
Fines <0.063mm	7

Grading Analysis		
D_{100}	mm	28.000
D_{60}	mm	7.071
D_{30}	mm	1.595
D_{10}	mm	0.170
Uniformity Coefficient		41.5
Curvature Coefficient		2.1

Remarks

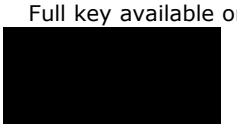
Preparation and testing in accordance with BS1377 unless noted below

ANALYTICAL TEST REPORT

Report Number	26-09547, issue number 3
Contract name:	77 Marlborough Road, Lancing, West Sussex
Client reference:	P17891_3530
Clients name:	Ashdown Site Investigation Ltd
Clients address:	Ashdown Site Investigation Ltd Unit 3 The Grain Store Ditchling Common Business Park West Sussex BN6 8SG
Samples received:	05/08/2026
Analysis started:	06/08/2026
Analysis completed:	14/08/2026
Report issued:	26/08/2026 3. Replaces Analytical Report number 26-09547; issue no.2

Key

U UKAS accredited test
M MCERTS & UKAS accredited test
(B) Analysis performed at Southampton Site
I/S Insufficient sample to carry out test
U/S Sample not suitable for testing
NAD No Asbestos Detected
Full key available on Information page



Approved by: Georgia Hunter
Senior Reporting Administrator

Re-Issue Summary

Client: Ashdown Site Investigation Ltd
Address: Unit 3 The Grain Store, Ditchling Common Business Park, Ditchling Common, West Sussex, BN6 8SG

Date: **26-Aug-26**

Report No.: **26-09547**

Issue: **3**

This report replaces 26-09547, issue: 2, issued: 14 August 2026

Reason for Change
sample depth amendment

Naphthalene
Phenanthrene
Anthracene
Benzo(g,h,i)perylene
Total PAH(16)
Loss on Ignition
Barium
Molybdenum
Antimony
Mineral Oil (>C10-C40
Total PAH(17)
Acid Soluble Sulphate
Asbestos Identification

Key
A - Additional Work added
D - Work Deleted
E - Result Edited*
R - Work Repeated*

*If a result changed, please refer to the previous report for the old result. The new result will be shown in this report.

Re-issued by: Georgia Hunter
Senior Reporting Administrator



Approved by: Sam Rogerson
Receipt and Reporting Manager



SAMPLE INFORMATION

MCERTS (Soils):

Soil descriptions are only intended to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions. MCERTS accreditation applies for sand, clay and loam/topsoil, or combinations of these whether these are derived from naturally occurring soils or from made ground, as long as these materials constitute the major part of the sample. Other materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
% Moisture reported as MCERTS drying at 30ºC

Lab ref	Sample ID	Depth (m)	Sample description	Material removed	% Removed	% Moisture
124046	WS01	0.30 - 0.30	Grey Sand with Gravel and Vegetation.	-	-	3.0
124047	WS01	0.65 - 0.65	Brown Sand with Gravel and Vegetation.	-	-	5.3
124048	WS01	1.70 - 1.70	Brown Sandy Clay with Gravel and Vegetation.	-	-	4.1
124049	WS03	0.15 - 0.15	Grey Sand with Gravel and Vegetation.	-	-	7.4
124050	WS03	0.35 - 0.35	Brown Sandy Clay with Gravel and Vegetation.	-	-	16.0
124051	WS03	0.50 - 0.50	Brown Sandy Clay with Gravel and Vegetation.	-	-	7.2
124052	WS04	0.10 - 0.10	Brown Sand with Gravel and Vegetation.	-	-	4.8
124053	WS04	0.40 - 0.40	Brown Clayey Sand with Gravel and Vegetation.	-	-	12.7
124054	WS04	1.10 - 1.10	Brown Sand with Gravel and Vegetation.	-	-	5.5
124055	WS05	0.15 - 0.15	Brown Sand with Gravel and Vegetation.	-	-	5.3
124056	WS05	0.60 - 0.60	Brown Sand with Gravel and Vegetation.	-	-	7.6
124057	WS05	1.80 - 1.80	Brown Sand with Gravel and Vegetation.	-	-	6.3
124058	ACM1	-	-	-	-	-

SOILS

Lab Number					124046	124047	124048	124049	124050
Sample ID					WS01	WS01	WS01	WS03	WS03
Depth (m)					0.30 - 0.30	0.65 - 0.65	1.70 - 1.70	0.15 - 0.15	0.35 - 0.35
Sampling Date					31/07/2026	31/07/2026	31/07/2026	31/07/2026	31/07/2026
Test	**Method**	**Accred**	**LoD**	**Units**					
Asbestos									
Asbestos Identification	SUBCON	SU	0	-	NAD	n/t	n/t	NAD	n/t
Metals									
Water Soluble Sulphate	CE061	M	0.01	g/l	n/t	n/t	< 0.010	n/t	n/t
Acid Soluble Sulphate (SO4)	CE062	M	100	mg/kg	524	n/t	n/t	1830	n/t
Water Soluble Boron	CE063	N	0.5	mg/kg	0.58	n/t	n/t	0.54	n/t
Antimony	CE264	U	4.7	mg/kg	n/t	< 4.7	n/t	n/t	n/t
Arsenic	CE264	M	2.3	mg/kg	17.3	8.9	n/t	7.7	n/t
Barium	CE264	M	7.6	mg/kg	n/t	43.8	n/t	n/t	n/t
Cadmium	CE264	M	1.1	mg/kg	< 1.1	< 1.1	n/t	< 1.1	n/t
Chromium	CE264	U	1.3	mg/kg	15.3	13.8	n/t	14.5	n/t
Copper	CE264	M	1.2	mg/kg	65.0	10.3	n/t	20.4	n/t
Lead	CE264	U	2.4	mg/kg	214	27.1	n/t	9.9	n/t
Mercury	CE264	M	0.6	mg/kg	< 0.6	< 0.6	n/t	< 0.6	n/t
Molybdenum	CE264	M	1.1	mg/kg	n/t	< 1.1	n/t	n/t	n/t
Nickel	CE264	M	1.6	mg/kg	17.7	9.4	n/t	14.5	n/t
Selenium	CE264	M	3	mg/kg	< 3.0	< 3.0	n/t	< 3.0	n/t
Zinc	CE264	M	2.4	mg/kg	132	31.0	n/t	21.9	n/t
Water soluble magnesium	CE061	N	0.001	g/l	n/t	n/t	0.01	n/t	n/t
PCB (ICES 7 congeners)									
Total PCBs (7 congeners)	CE137	M	0.035	mg/kg	n/t	< 0.035	n/t	n/t	n/t
PCB 101	CE137	M	0.015	mg/kg	n/t	< 0.015	n/t	n/t	n/t
PCB 118	CE137	M	0.015	mg/kg	n/t	< 0.015	n/t	n/t	n/t
PCB 138	CE137	M	0.015	mg/kg	n/t	< 0.015	n/t	n/t	n/t
PCB 153	CE137	M	0.01	mg/kg	n/t	< 0.010	n/t	n/t	n/t
PCB 180	CE137	M	0.01	mg/kg	n/t	< 0.010	n/t	n/t	n/t
PCB 28	CE137	M	0.015	mg/kg	n/t	< 0.015	n/t	n/t	n/t
PCB 52	CE137	M	0.01	mg/kg	n/t	< 0.010	n/t	n/t	n/t
Colourimetric									
Water Soluble Chloride	CE261	U	3	mg/kg	n/t	n/t	23.8	n/t	n/t
Nitrate as N	CE261	N	2	mg/kg	n/t	n/t	8.81	n/t	n/t

SOILS

Lab Number					124046	124047	124048	124049	124050
Sample ID					WS01	WS01	WS01	WS03	WS03
Depth (m)					0.30 - 0.30	0.65 - 0.65	1.70 - 1.70	0.15 - 0.15	0.35 - 0.35
Sampling Date					31/07/2026	31/07/2026	31/07/2026	31/07/2026	31/07/2026
Test	**Method**	**Accred**	**LoD**	**Units**					
Water Soluble Chromium VI	CE263	N	0.04	mg/kg	< 0.040	n/t	n/t	0.120	n/t
Combustion									
Moisture Content	CE001	N	0.1	%	3.0	5.3	4.1	7.4	16.0
Total Organic Carbon	CE197	M	0.1	%	n/t	8.29	n/t	n/t	n/t
Loss on Ignition	CE006	U	0.1	%	n/t	2.14	n/t	n/t	n/t
Soil Organic Matter	CE192	N	0.1	%	3.29	n/t	n/t	1.69	n/t
Polyaromatic hydrocarbons									
Naphthalene	CE087	M	0.016	mg/kg	0.252	< 0.016	n/t	0.089	n/t
Acenaphthylene	CE087	M	0.015	mg/kg	0.774	0.020	n/t	< 0.015	n/t
Acenaphthene	CE087	M	0.013	mg/kg	0.361	< 0.013	n/t	< 0.013	n/t
Fluorene	CE087	U	0.013	mg/kg	0.386	< 0.013	n/t	< 0.013	n/t
Phenanthrene	CE087	M	0.014	mg/kg	11.4	0.062	n/t	0.099	n/t
Anthracene	CE087	U	0.017	mg/kg	3.17	0.026	n/t	< 0.017	n/t
Fluoranthene	CE087	M	0.017	mg/kg	28.5	0.200	n/t	0.024	n/t
Pyrene	CE087	M	0.016	mg/kg	25.1	0.209	n/t	0.029	n/t
Benzo(a)anthracene	CE087	U	0.012	mg/kg	11.5	0.108	n/t	0.021	n/t
Chrysene	CE087	M	0.028	mg/kg	11.8	0.104	n/t	< 0.028	n/t
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	14.9	0.158	n/t	< 0.020	n/t
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	6.07	0.063	n/t	< 0.025	n/t
Benzo(a)pyrene	CE087	U	0.019	mg/kg	11.9	0.130	n/t	< 0.019	n/t
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	10.9	0.135	n/t	< 0.019	n/t
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	2.24	0.029	n/t	< 0.017	n/t
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	9.05	0.113	n/t	< 0.019	n/t
Coronene	CE087	N	0.02	mg/kg	n/t	0.028	n/t	n/t	n/t
Total PAH(16)	CE087	N	0.28	mg/kg	148	n/t	n/t	< 0.280	n/t
Total PAH(17)	CE087	N	0.3	mg/kg	n/t	1.38	n/t	n/t	n/t
BTEX									
Benzene	CE267	U	0.001	mg/kg	n/t	< 0.001	n/t	n/t	n/t
Toluene	CE267	U	0.001	mg/kg	n/t	< 0.001	n/t	n/t	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	< 0.001	n/t	n/t	n/t
Xylenes	CE267	N	0.004	mg/kg	n/t	< 0.004	n/t	n/t	n/t

SOILS

Lab Number					124046	124047	124048	124049	124050
Sample ID					WS01	WS01	WS01	WS03	WS03
Depth (m)					0.30 - 0.30	0.65 - 0.65	1.70 - 1.70	0.15 - 0.15	0.35 - 0.35
Sampling Date					31/07/2026	31/07/2026	31/07/2026	31/07/2026	31/07/2026
Test	**Method**	**Accred**	**LoD**	**Units**					
MTBE	CE267	N	0.002	mg/kg	n/t	< 0.002	n/t	n/t	n/t
Total BTEX	CE267	N	0.007	mg/kg	n/t	< 0.007	n/t	n/t	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	< 0.002	n/t	n/t	n/t
oXylenes	CE267	U	0.002	mg/kg	n/t	< 0.002	n/t	n/t	n/t
Total Petroleum Hydrocarbons									
>C5-C6 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	< 0.10	< 0.10	n/t	< 0.10	< 0.10
>C6-C8 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	< 0.10	< 0.10	n/t	< 0.10	< 0.10
>C8-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	< 0.100	< 0.100	n/t	< 0.100	< 0.100
>C10-C12 Soil (EH_1D_Total)	CE033	M	3	mg/kg	< 3.0	< 3.0	n/t	< 3.0	< 3.0
>C12-C16 Soil (EH_1D_Total)	CE033	M	4	mg/kg	7.0	< 4.0	n/t	< 4.0	< 4.0
>C16-C21 Soil (EH_1D_Total)	CE033	M	4	mg/kg	46.4	< 4.0	n/t	< 4.0	< 4.0
>C21-C35 Soil (EH_1D_Total)	CE033	M	9	mg/kg	367	< 9.0	n/t	< 9.0	< 9.0
>C35-C44 Soil (EH_1D_Total)	CE033	U	8	mg/kg	121	< 8.0	n/t	< 8.0	< 8.0
Mineral Oil (>C10-C40 Total) (EH_CU_1D_Total)	CE162	N	19	mg/kg	n/t	< 19	n/t	n/t	n/t
Wet Chem									
pH	CE004	M	0.1	pH units	7.5	7.7	7.7	10.3	n/t
Acid Neutralisation Capacity pH4	CE083	N	0.02	mol/kg	n/t	1.87	n/t	n/t	n/t
Acid Neutralisation Capacity pH7	CE083	N	0.02	mol/kg	n/t	0.130	n/t	n/t	n/t

SOILS

Lab Number					124051	124052	124053	124054	124055
Sample ID					WS03	WS04	WS04	WS04	WS05
Depth (m)					0.50 - 0.50	0.10 - 0.10	0.40 - 0.40	1.10 - 1.10	0.15 - 0.15
Sampling Date					31/07/2026	31/07/2026	31/07/2026	31/07/2026	31/07/2026
Test	**Method**	**Accred**	**LoD**	**Units**					
Asbestos									
Asbestos Identification	SUBCON	SU	0	-	n/t	NAD	n/t	n/t	NAD
Metals									
Water Soluble Sulphate	CE061	M	0.01	g/l	0.023	n/t	n/t	0.032	n/t
Acid Soluble Sulphate (SO4)	CE062	M	100	mg/kg	n/t	2270	n/t	n/t	143
Water Soluble Boron	CE063	N	0.5	mg/kg	n/t	0.65	n/t	n/t	< 0.50
Antimony	CE264	U	4.7	mg/kg	n/t	n/t	n/t	n/t	< 4.7
Arsenic	CE264	M	2.3	mg/kg	n/t	4.6	n/t	n/t	2.5
Barium	CE264	M	7.6	mg/kg	n/t	n/t	n/t	n/t	26.7
Cadmium	CE264	M	1.1	mg/kg	n/t	< 1.1	n/t	n/t	< 1.1
Chromium	CE264	U	1.3	mg/kg	n/t	10.2	n/t	n/t	15.4
Copper	CE264	M	1.2	mg/kg	n/t	7.4	n/t	n/t	16.5
Lead	CE264	U	2.4	mg/kg	n/t	8.5	n/t	n/t	26.2
Mercury	CE264	M	0.6	mg/kg	n/t	< 0.6	n/t	n/t	< 0.6
Molybdenum	CE264	M	1.1	mg/kg	n/t	n/t	n/t	n/t	< 1.1
Nickel	CE264	M	1.6	mg/kg	n/t	7.9	n/t	n/t	17.6
Selenium	CE264	M	3	mg/kg	n/t	< 3.0	n/t	n/t	< 3.0
Zinc	CE264	M	2.4	mg/kg	n/t	22.0	n/t	n/t	78.3
Water soluble magnesium	CE061	N	0.001	g/l	< 0.00	n/t	n/t	< 0.00	n/t
PCB (ICES 7 congeners)									
Total PCBs (7 congeners)	CE137	M	0.035	mg/kg	n/t	n/t	n/t	n/t	< 0.035
PCB 101	CE137	M	0.015	mg/kg	n/t	n/t	n/t	n/t	< 0.015
PCB 118	CE137	M	0.015	mg/kg	n/t	n/t	n/t	n/t	< 0.015
PCB 138	CE137	M	0.015	mg/kg	n/t	n/t	n/t	n/t	< 0.015
PCB 153	CE137	M	0.01	mg/kg	n/t	n/t	n/t	n/t	< 0.010
PCB 180	CE137	M	0.01	mg/kg	n/t	n/t	n/t	n/t	< 0.010
PCB 28	CE137	M	0.015	mg/kg	n/t	n/t	n/t	n/t	< 0.015
PCB 52	CE137	M	0.01	mg/kg	n/t	n/t	n/t	n/t	< 0.010
Colourimetric									
Water Soluble Chloride	CE261	U	3	mg/kg	9.65	n/t	n/t	12.5	n/t
Nitrate as N	CE261	N	2	mg/kg	< 2.00	n/t	n/t	< 2.00	n/t

SOILS

Lab Number					124051	124052	124053	124054	124055
Sample ID					WS03	WS04	WS04	WS04	WS05
Depth (m)					0.50 - 0.50	0.10 - 0.10	0.40 - 0.40	1.10 - 1.10	0.15 - 0.15
Sampling Date					31/07/2026	31/07/2026	31/07/2026	31/07/2026	31/07/2026
Test	**Method**	**Accred**	**LoD**	**Units**					
Water Soluble Chromium VI	CE263	N	0.04	mg/kg	n/t	0.300	n/t	n/t	< 0.040
Combustion									
Moisture Content	CE001	N	0.1	%	7.2	4.8	12.7	5.5	5.3
Total Organic Carbon	CE197	M	0.1	%	n/t	n/t	n/t	n/t	1.73
Loss on Ignition	CE006	U	0.1	%	n/t	n/t	n/t	n/t	2.49
Soil Organic Matter	CE192	N	0.1	%	n/t	4.72	n/t	n/t	2.98
Polyaromatic hydrocarbons									
Naphthalene	CE087	M	0.016	mg/kg	n/t	0.145	n/t	n/t	0.036
Acenaphthylene	CE087	M	0.015	mg/kg	n/t	0.124	n/t	n/t	0.030
Acenaphthene	CE087	M	0.013	mg/kg	n/t	0.052	n/t	n/t	< 0.013
Fluorene	CE087	U	0.013	mg/kg	n/t	0.116	n/t	n/t	0.028
Phenanthrene	CE087	M	0.014	mg/kg	n/t	1.20	n/t	n/t	0.289
Anthracene	CE087	U	0.017	mg/kg	n/t	0.256	n/t	n/t	0.055
Fluoranthene	CE087	M	0.017	mg/kg	n/t	1.27	n/t	n/t	0.404
Pyrene	CE087	M	0.016	mg/kg	n/t	1.04	n/t	n/t	0.345
Benzo(a)anthracene	CE087	U	0.012	mg/kg	n/t	0.589	n/t	n/t	0.160
Chrysene	CE087	M	0.028	mg/kg	n/t	0.435	n/t	n/t	0.152
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	n/t	0.599	n/t	n/t	0.216
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	n/t	0.220	n/t	n/t	0.073
Benzo(a)pyrene	CE087	U	0.019	mg/kg	n/t	0.476	n/t	n/t	0.156
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	n/t	0.466	n/t	n/t	0.155
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	n/t	0.096	n/t	n/t	0.037
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	n/t	0.389	n/t	n/t	0.162
Coronene	CE087	N	0.02	mg/kg	n/t	n/t	n/t	n/t	0.050
Total PAH(16)	CE087	N	0.28	mg/kg	n/t	7.48	n/t	n/t	2.30
Total PAH(17)	CE087	N	0.3	mg/kg	n/t	n/t	n/t	n/t	2.35
BTEX									
Benzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	< 0.001
Toluene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	0.006
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	< 0.001
Xylenes	CE267	N	0.004	mg/kg	n/t	n/t	n/t	n/t	< 0.004

SOILS

Lab Number					124051	124052	124053	124054	124055
Sample ID					WS03	WS04	WS04	WS04	WS05
Depth (m)					0.50 - 0.50	0.10 - 0.10	0.40 - 0.40	1.10 - 1.10	0.15 - 0.15
Sampling Date					31/07/2026	31/07/2026	31/07/2026	31/07/2026	31/07/2026
Test	**Method**	**Accred**	**LoD**	**Units**					
MTBE	CE267	N	0.002	mg/kg	n/t	n/t	n/t	n/t	< 0.002
Total BTEX	CE267	N	0.007	mg/kg	n/t	n/t	n/t	n/t	< 0.007
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	< 0.002
oXylenes	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	< 0.002
Total Petroleum Hydrocarbons									
>C5-C6 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	n/t	< 0.10	< 0.10	n/t	< 0.10
>C6-C8 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	n/t	< 0.10	< 0.10	n/t	< 0.10
>C8-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	n/t	< 0.100	< 0.100	n/t	< 0.100
>C10-C12 Soil (EH_1D_Total)	CE033	M	3	mg/kg	n/t	< 3.0	< 3.0	n/t	< 3.0
>C12-C16 Soil (EH_1D_Total)	CE033	M	4	mg/kg	n/t	< 4.0	< 4.0	n/t	10.4
>C16-C21 Soil (EH_1D_Total)	CE033	M	4	mg/kg	n/t	6.0	< 4.0	n/t	22.6
>C21-C35 Soil (EH_1D_Total)	CE033	M	9	mg/kg	n/t	17.9	< 9.0	n/t	525
>C35-C44 Soil (EH_1D_Total)	CE033	U	8	mg/kg	n/t	< 8.0	< 8.0	n/t	852
Mineral Oil (>C10-C40 Total) (EH_CU_1D_Total)	CE162	N	19	mg/kg	n/t	n/t	n/t	n/t	492
Wet Chem									
pH	CE004	M	0.1	pH units	8.7	11.1	n/t	9.2	8.6
Acid Neutralisation Capacity pH4	CE083	N	0.02	mol/kg	n/t	n/t	n/t	n/t	0.030
Acid Neutralisation Capacity pH7	CE083	N	0.02	mol/kg	n/t	n/t	n/t	n/t	< 0.020

SOILS

Lab Number					124056	124057	124058
Sample ID					WS05	WS05	ACM1
Depth (m)					0.60 - 0.60	1.80 - 1.80	
Sampling Date					31/07/2026	31/07/2026	31/07/2026
Test	**Method**	**Accred**	**LoD**	**Units**			
Asbestos							
Asbestos Identification	SUBCON	SU	0	-	n/t	n/t	Chrysotile
Metals							
Water Soluble Sulphate	CE061	M	0.01	g/l	n/t	0.014	n/t
Acid Soluble Sulphate (SO4)	CE062	M	100	mg/kg	n/t	n/t	n/t
Water Soluble Boron	CE063	N	0.5	mg/kg	n/t	n/t	n/t
Antimony	CE264	U	4.7	mg/kg	n/t	n/t	n/t
Arsenic	CE264	M	2.3	mg/kg	n/t	n/t	n/t
Barium	CE264	M	7.6	mg/kg	n/t	n/t	n/t
Cadmium	CE264	M	1.1	mg/kg	n/t	n/t	n/t
Chromium	CE264	U	1.3	mg/kg	n/t	n/t	n/t
Copper	CE264	M	1.2	mg/kg	n/t	n/t	n/t
Lead	CE264	U	2.4	mg/kg	n/t	n/t	n/t
Mercury	CE264	M	0.6	mg/kg	n/t	n/t	n/t
Molybdenum	CE264	M	1.1	mg/kg	n/t	n/t	n/t
Nickel	CE264	M	1.6	mg/kg	n/t	n/t	n/t
Selenium	CE264	M	3	mg/kg	n/t	n/t	n/t
Zinc	CE264	M	2.4	mg/kg	n/t	n/t	n/t
Water soluble magnesium	CE061	N	0.001	g/l	n/t	0.00	n/t
PCB (ICES 7 congeners)							
Total PCBs (7 congeners)	CE137	M	0.035	mg/kg	n/t	n/t	n/t
PCB 101	CE137	M	0.015	mg/kg	n/t	n/t	n/t
PCB 118	CE137	M	0.015	mg/kg	n/t	n/t	n/t
PCB 138	CE137	M	0.015	mg/kg	n/t	n/t	n/t
PCB 153	CE137	M	0.01	mg/kg	n/t	n/t	n/t
PCB 180	CE137	M	0.01	mg/kg	n/t	n/t	n/t
PCB 28	CE137	M	0.015	mg/kg	n/t	n/t	n/t
PCB 52	CE137	M	0.01	mg/kg	n/t	n/t	n/t
Colourimetric							
Water Soluble Chloride	CE261	U	3	mg/kg	n/t	23.3	n/t
Nitrate as N	CE261	N	2	mg/kg	n/t	< 2.00	n/t

SOILS

Lab Number					124056	124057	124058
Sample ID					WS05	WS05	ACM1
Depth (m)					0.60 - 0.60	1.80 - 1.80	
Sampling Date					31/07/2026	31/07/2026	31/07/2026
Test	**Method**	**Accred**	**LoD**	**Units**			
Water Soluble Chromium VI	CE263	N	0.04	mg/kg	n/t	n/t	n/t
Combustion							
Moisture Content	CE001	N	0.1	%	7.6	6.3	n/t
Total Organic Carbon	CE197	M	0.1	%	n/t	n/t	n/t
Loss on Ignition	CE006	U	0.1	%	n/t	n/t	n/t
Soil Organic Matter	CE192	N	0.1	%	n/t	n/t	n/t
Polyaromatic hydrocarbons							
Naphthalene	CE087	M	0.016	mg/kg	n/t	n/t	n/t
Acenaphthylene	CE087	M	0.015	mg/kg	n/t	n/t	n/t
Acenaphthene	CE087	M	0.013	mg/kg	n/t	n/t	n/t
Fluorene	CE087	U	0.013	mg/kg	n/t	n/t	n/t
Phenanthrene	CE087	M	0.014	mg/kg	n/t	n/t	n/t
Anthracene	CE087	U	0.017	mg/kg	n/t	n/t	n/t
Fluoranthene	CE087	M	0.017	mg/kg	n/t	n/t	n/t
Pyrene	CE087	M	0.016	mg/kg	n/t	n/t	n/t
Benzo(a)anthracene	CE087	U	0.012	mg/kg	n/t	n/t	n/t
Chrysene	CE087	M	0.028	mg/kg	n/t	n/t	n/t
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	n/t	n/t	n/t
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	n/t	n/t	n/t
Benzo(a)pyrene	CE087	U	0.019	mg/kg	n/t	n/t	n/t
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	n/t	n/t	n/t
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	n/t	n/t	n/t
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	n/t	n/t	n/t
Coronene	CE087	N	0.02	mg/kg	n/t	n/t	n/t
Total PAH(16)	CE087	N	0.28	mg/kg	n/t	n/t	n/t
Total PAH(17)	CE087	N	0.3	mg/kg	n/t	n/t	n/t
BTEX							
Benzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t
Toluene	CE267	U	0.001	mg/kg	n/t	n/t	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t
Xylenes	CE267	N	0.004	mg/kg	n/t	n/t	n/t

SOILS

Lab Number					124056	124057	124058
Sample ID					WS05	WS05	ACM1
Depth (m)					0.60 - 0.60	1.80 - 1.80	
Sampling Date					31/07/2026	31/07/2026	31/07/2026
Test	**Method**	**Accred**	**LoD**	**Units**			
MTBE	CE267	N	0.002	mg/kg	n/t	n/t	n/t
Total BTEX	CE267	N	0.007	mg/kg	n/t	n/t	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	n/t	n/t
oXylenes	CE267	U	0.002	mg/kg	n/t	n/t	n/t
Total Petroleum Hydrocarbons							
>C5-C6 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	< 0.10	< 0.10	n/t
>C6-C8 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	< 0.10	< 0.10	n/t
>C8-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	< 0.100	< 0.100	n/t
>C10-C12 Soil (EH_1D_Total)	CE033	M	3	mg/kg	< 3.0	< 3.0	n/t
>C12-C16 Soil (EH_1D_Total)	CE033	M	4	mg/kg	< 4.0	< 4.0	n/t
>C16-C21 Soil (EH_1D_Total)	CE033	M	4	mg/kg	< 4.0	< 4.0	n/t
>C21-C35 Soil (EH_1D_Total)	CE033	M	9	mg/kg	< 9.0	< 9.0	n/t
>C35-C44 Soil (EH_1D_Total)	CE033	U	8	mg/kg	< 8.0	< 8.0	n/t
Mineral Oil (>C10-C40 Total) (EH_CU_1D_Total)	CE162	N	19	mg/kg	n/t	n/t	n/t
Wet Chem							
pH	CE004	M	0.1	pH units	n/t	8.1	n/t
Acid Neutralisation Capacity pH4	CE083	N	0.02	mol/kg	n/t	n/t	n/t
Acid Neutralisation Capacity pH7	CE083	N	0.02	mol/kg	n/t	n/t	n/t

SOIL VOCS

Lab Number					124047	124050	124055
Sample ID					WS01	WS03	WS05
Depth (m)					0.65 - 0.65	0.35 - 0.35	0.15 - 0.15
Sampling Date					31/07/2026	31/07/2026	31/07/2026
Test	**Method**	**Accred**	**LoD**	**Units**			
VOC							
Benzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Toluene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Ethylbenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
m,p-Xylene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
o-xylene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,1-Dichloroethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Chloroform	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Tetrachloromethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,1,1-Trichloroethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Trichloroethylene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Tetrachloroethylene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Chlorobenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Bromobenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Bromodichloromethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,1-Dichloro-1-propene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Trans - 1-2 -dichloroethylene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
2,2-Dichloropropane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Bromochloromethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,2-Dichloroethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Dibromomethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,2-Dichloropropane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,1,2-Trichloroethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Dibromochloromethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,3-Dichloropropane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,2-dibromoethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Styrene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Propylbenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
2-Chlorotoluene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,2,4-Trimethylbenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
4-Chlorotoluene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010

SOIL VOCS

Lab Number					124047	124050	124055
Sample ID					WS01	WS03	WS05
Depth (m)					0.65 - 0.65	0.35 - 0.35	0.15 - 0.15
Sampling Date					31/07/2026	31/07/2026	31/07/2026
Test	**Method**	**Accred**	**LoD**	**Units**			
t-butylbenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,3,5-Trimethylbenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,3-Dichlorobenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Butylbenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Hexachlorobutadiene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1-2-3 - Trichlorobenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Naphthalene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1-2-4 - Trichlorobenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,4-Dichlorobenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,2-Dichlorobenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Bromoform	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,2-Dibromo-3-Chloropropane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
4-Isopropyltoluene_(p-Cymene)	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,1,1,2-Tetrachloroethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Bromomethane	CE174	N	0.03	mg/kg	< 0.030	< 0.030	< 0.030
Chloroethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Chloromethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Cis-1,2-Dichloroethene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
cis-1,3-Dichloro-1-Propene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,1,2,2-Tetrachloroethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Dichlorodifluoromethane_(CFC-12)	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Dichloromethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Isopropylbenzene_(Cumene)	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
MTBE	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
sec-Butylbenzene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
trans-1,3-Dichloro-1-Propene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Trichlorofluoromethane_(CFC-11)	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
Vinyl chloride	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,1-Dichloroethene	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010
1,2,3-Trichloropropane	CE174	N	0.01	mg/kg	< 0.010	< 0.010	< 0.010

LEACHATE

Lab Number					124047	124055
Sample ID					WS01	WS05
Depth (m)					0.65 - 0.65	0.15 - 0.15
Sampling Date					31/07/2026	31/07/2026
Test	**Method**	**Accred**	**LoD**	**Units**		
Metals						
Arsenic 10:1	CE265	N	0.1	µg/l	1.45	1.27
Barium 10:1	CE265	N	0.9	µg/l	11.7	9.37
Cadmium 10:1	CE265	N	0.1	µg/l	< 0.100	< 0.100
Chromium 10:1	CE265	N	0.5	µg/l	2.87	< 0.500
Copper 10:1	CE265	N	0.6	µg/l	2.28	2.16
Mercury 10:1	CE265	N	0.05	µg/l	< 0.050	< 0.050
Molybdenum 10:1	CE265	N	0.9	µg/l	3.01	< 0.900
Nickel 10:1	CE265	N	0.4	µg/l	1.49	0.488
Lead 10:1	CE265	N	0.6	µg/l	1.21	< 0.600
Antimony 10:1	CE265	N	0.8	µg/l	1.26	< 0.800
Selenium 10:1	CE265	N	1.1	µg/l	< 1.10	< 1.10
Zinc 10:1	CE265	N	3	µg/l	4.74	< 3.00
Arsenic 10:1	CE265	N	0.001	mg/kg	0.015	0.013
Barium 10:1	CE265	N	0.009	mg/kg	0.117	0.094
Cadmium 10:1	CE265	N	0.001	mg/kg	< 0.001	< 0.001
Chromium 10:1	CE265	N	0.005	mg/kg	0.029	< 0.005
Copper 10:1	CE265	N	0.006	mg/kg	0.023	0.022
Mercury 10:1	CE265	N	0.0005	mg/kg	< 0.0005	< 0.0005
Molybdenum 10:1	CE265	N	0.009	mg/kg	0.030	< 0.009
Nickel 10:1	CE265	N	0.004	mg/kg	0.015	0.005
Lead 10:1	CE265	N	0.006	mg/kg	0.012	< 0.006
Antimony 10:1	CE265	N	0.008	mg/kg	0.013	< 0.008
Selenium 10:1	CE265	N	0.011	mg/kg	< 0.011	< 0.011
Zinc 10:1	CE265	N	0.03	mg/kg	0.05	< 0.03
Colourimetric						
Chloride 10:1	CE257	N	0.4	mg/l	< 0.40	< 0.40
Fluoride 10:1	CE257	N	0.08	mg/l	0.400	< 0.080
Sulphate 10:1	CE257	N	0.3	mg/l	1.30	< 0.30
Phenol Index 10:1	CE148	N	0.01	mg/l	< 0.01	< 0.01
Chloride 10:1	CE257	N	4	mg/kg	< 4.0	< 4.0

LEACHATE

Lab Number					124047	124055
Sample ID					WS01	WS05
Depth (m)					0.65 - 0.65	0.15 - 0.15
Sampling Date					31/07/2026	31/07/2026
Test	**Method**	**Accred**	**LoD**	**Units**		
Fluoride 10:1	CE257	N	0.8	mg/kg	4.00	< 0.80
Sulphate 10:1	CE257	N	3	mg/kg	13.0	< 3.0
Phenol Index 10:1	CE148	N	0.1	mg/kg	< 0.10	< 0.10
Combustion						
Total Dissolved Solids 10:1	CE039	N	10	mg/l	< 10.0	< 10.0
Dissolved Organic Carbon 10:1	CE247	N	0.85	mg/l	2.48	1.30
Total Dissolved Solids 10:1	CE039	N	100	mg/kg	< 100	< 100
Dissolved Organic Carbon 10:1	CE247	N	8.5	mg/kg	24.8	13.0
Wet Chem						
Temperature 10:1	CE002	N	0	°C	20	24
pH 10:1	CE213	N	0	pH units	7.3	6.3
Conductivity 10:1	CE214	N	50	µS/cm	< 50	< 50
Dry mass of test portion	CE002	N	0	kg	0.090	0.090
Wet Sample Mass Taken (Actual)	CE002	N	0	kg	0.095	0.095
Dry Matter 10:1	CE002	N	0.1	%	94.7	94.7
Moisture Content 10:1	CE001	N	0.1	%	5.6	5.6
Eluent Volume	CE002	N	0	l	0.894	0.894

Waste Acceptance Criteria Testing
BS EN 12457-Part 2, Single Stage Process

WAC Analysis

Lab Ref:	124047			**Landfill Waste Acceptance Criteria Limits**		
Job Number:	26-09547			**Inert Waste Landfill**	**Stable Non-reactive Hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Sample Date:	31/07/2026					
Sample ID:	WS01					
Depth (m)	0.65 - 0.65					
Site:	77 Marlborough Road, Lancing, West Sussex					
Determinand	**Code**	**Units**				
Total Organic Carbon	MU	%	8.29	3	5	6
Loss on Ignition	U	%	2.14	--	--	10
Total BTEX	N	mg/kg	< 0.007	6	--	--
Total PCBs (7 congeners)	MU	mg/kg	< 0.035	1	--	--
Mineral Oil (>C10-C40) (EH_CU_1D_Total)	N	mg/kg	< 19	500	--	--
Total (of 17) PAHs	N	mg/kg	1.38	100	--	--
pH	MU	pH Units	7.7	--	>6	--
Acid Neutralisation Capacity (pH4)	N	mol/kg	1.87	--	To be evaluated	
Acid Neutralisation Capacity (pH7)	N	mol/kg	0.13	--	To be evaluated	
Eluate Analysis		**Conc in Eluate**	**10:1**	**Council Decision 2003/33/EC**		
		10:1	**mg/kg**	**Limit Values mg/kg at L:S 10:1**		
Arsenic (µg/l)	N	1.45	0.015	0.5	2	25
Barium (µg/l)	N	11.7	0.117	20	100	300
Cadmium (µg/l)	N	< 0.100	< 0.001	0.04	1	5
Chromium (µg/l)	N	2.87	0.029	0.5	10	70
Copper (µg/l)	N	2.28	0.023	2	50	100
Mercury (µg/l)	N	< 0.050	< 0.0005	0.01	0.2	2
Molybdenum (µg/l)	N	3.01	0.03	0.5	10	30
Nickel (µg/l)	N	1.49	0.015	0.4	10	40
Lead (µg/l)	N	1.21	0.012	0.5	10	50
Antimony (µg/l)	N	1.26	0.013	0.06	0.7	5
Selenium (µg/l)	N	< 1.10	< 0.011	0.1	0.5	7
Zinc (µg/l)	N	4.74	0.05	4	50	200
Chloride (mg/l)	N	< 0.40	< 4.0	800	15000	25000
Fluoride (mg/l)	N	0.4	4	10	150	500
Sulphate (mg/l)	N	1.3	13	1000	20000	50000
Total Dissolved Solids (mg/l)	N	< 10.0	< 100	4000	60000	100000
Phenol Index (mg/l)	N	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon (mg/l)	N	2.48	24.8	500	800	1000

Leach Test Information

pH	N	7.3
Conductivity (uS/cm)	N	< 50
Temperature (°C)	N	20
Mass of dried test portion (kg)	N	0.09
Mass of wet test portion (kg)	N	0.095
Dry Matter (%)	N	94.7
Moisture (%)	N	5.6
Material Removed (%)		
Eluent Volume (l)	N	0.894

Disclaimer: The Landfill Waste Acceptance Criteria limits in this report are provided for guidance only and values are transcribed from the Council Decision annex 2003/33/EC

Chemtech Environmental Ltd does not take responsibility for any errors or omissions in the transcription, and all data should be verified by the end user.

Results will be colour flagged to the lowest threshold value breached. Any assessments made are based on the published results from the Laboratory and make no assessment of uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. Interpretation/assessment is outside the scope of the laboratory's UKAS accreditation.
Moisture Content Calculated on Wet Weight Basis

Waste Acceptance Criteria Testing
BS EN 12457-Part 2, Single Stage Process

WAC Analysis

Lab Ref:	124055			**Landfill Waste Acceptance Criteria Limits**		
Job Number:	26-09547			**Inert Waste Landfill**	**Stable Non-reactive Hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Sample Date:	31/07/2026					
Sample ID:	WS05					
Depth (m)	0.15 - 0.15					
Site:	77 Marlborough Road, Lancing, West Sussex					
Determinand	**Code**	**Units**				
Total Organic Carbon	MU	%	1.73	3	5	6
Loss on Ignition	U	%	2.49	--	--	10
Total BTEX	N	mg/kg	< 0.007	6	--	--
Total PCBs (7 congeners)	MU	mg/kg	< 0.035	1	--	--
Mineral Oil (>C10-C40) (EH_CU_1D_Total)	N	mg/kg	492	500	--	--
Total (of 17) PAHs	N	mg/kg	2.35	100	--	--
pH		pH Units		--	>6	--
Acid Neutralisation Capacity (pH4)	N	mol/kg	0.03	--	To be evaluated	
Acid Neutralisation Capacity (pH7)	N	mol/kg	< 0.020	--	To be evaluated	
Eluate Analysis		**Conc in Eluate**	**10:1**	**Council Decision 2003/33/EC**		
		10:1	**mg/kg**	**Limit Values mg/kg at L:S 10:1**		
Arsenic (µg/l)	N	1.27	0.013	0.5	2	25
Barium (µg/l)	N	9.37	0.094	20	100	300
Cadmium (µg/l)	N	< 0.100	< 0.001	0.04	1	5
Chromium (µg/l)	N	< 0.500	< 0.005	0.5	10	70
Copper (µg/l)	N	2.16	0.022	2	50	100
Mercury (µg/l)	N	< 0.050	< 0.0005	0.01	0.2	2
Molybdenum (µg/l)	N	< 0.900	< 0.009	0.5	10	30
Nickel (µg/l)	N	0.488	0.005	0.4	10	40
Lead (µg/l)	N	< 0.600	< 0.006	0.5	10	50
Antimony (µg/l)	N	< 0.800	< 0.008	0.06	0.7	5
Selenium (µg/l)	N	< 1.10	< 0.011	0.1	0.5	7
Zinc (µg/l)	N	< 3.00	< 0.03	4	50	200
Chloride (mg/l)	N	< 0.40	< 4.0	800	15000	25000
Fluoride (mg/l)	N	< 0.080	< 0.80	10	150	500
Sulphate (mg/l)	N	< 0.30	< 3.0	1000	20000	50000
Total Dissolved Solids (mg/l)	N	< 10.0	< 100	4000	60000	100000
Phenol Index (mg/l)	N	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon (mg/l)	N	1.3	13	500	800	1000

Leach Test Information

pH	N	6.3
Conductivity (uS/cm)	N	< 50
Temperature (°C)	N	24
Mass of dried test portion (kg)	N	0.09
Mass of wet test portion (kg)	N	0.095
Dry Matter (%)	N	94.7
Moisture (%)	N	5.6
Material Removed (%)		
Eluent Volume (l)	N	0.894

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Interpretation/assessment is outside the scope of the laboratory's UKAS accreditation.
Moisture Content Calculated on Wet Weight Basis

METHOD DETAILS

METHOD	TESTNAME	METHOD SUMMARY	ANALYSIS BASIS
CE267	VPH in Soil	HS-GCFID	As submitted sample
SUBCON	Asbestos Soil	HSG248	Air Dried Sample
CE033	EPH in Soil	Acetone:Hexane Extraction and GCFID	As submitted sample
CE061	W. Sol Metals	ICPOES	Air dried sample
CE001	WAC in leachates 10:1 single stage	BS12457-2	As submitted sample
CE083	Acid Neutralisation Capacity	Titration	Air dried sample
CE174	VOC in Soil	HS-GCMS	As submitted sample
CE002	WAC moistures	Gravimetric	As submitted sample
CE062	Acid Soluble Sulphate in Soils	HCl Extract and ICPOES	Air dried sample
CE063	Water soluble boron	ICPOES	Air dried sample
CE137	PCB's in Soil	DCM Extraction and GCMS	As submitted sample
CE264	Metals by ICP in Soil	ICPOES	Air dried sample
CE267	BTEX in Soils	Analysis by HSGCFID	As submitted sample
CE261	Anions by Discrete Analyser in Soils	Gallery	Air dried sample
CE263	ChromiumVI by Discrete Analyser in Soil	Gallery	Air dried sample
CE087	PAH in Soil	DCM Extraction and GCMS	As submitted sample
CE197	TOC In Soil	PRIMACS Combustion Analyser	Air dried sample
CE006	Loss on ignition at 440 deg C	Gravimetric	Air dried sample
CE162	Mineral Oil in Soil	Acetone:Hexane extract, Floriil clean up and GCFID	As submitted sample

DEVIATING SAMPLE INFORMATION

Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.

For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.

Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

a	Sampling date not provided
b	Sampling time not provided (waters only)
c	Sample not received in appropriate containers
d	Storage Temperature
e	Headspace present in sample container
f	Sample exceeded sampling to receipt
g	Sample exceeded holding time(s)

Lab ref	Sample ID	Depth (m)	Deviating	Tests (Reason for deviation)
124046	WS01	0.30 - 0.30	N	
124047	WS01	0.65 - 0.65	N	
124048	WS01	1.70 - 1.70	N	
124049	WS03	0.15 - 0.15	N	
124050	WS03	0.35 - 0.35	N	
124051	WS03	0.50 - 0.50	N	
124052	WS04	0.10 - 0.10	N	
124053	WS04	0.40 - 0.40	N	
124054	WS04	1.10 - 1.10	N	
124055	WS05	0.15 - 0.15	N	
124056	WS05	0.60 - 0.60	N	
124057	WS05	1.80 - 1.80	N	
124058	ACM1	-	N	

REPORT INFORMATION

Report No.:26-09547, issue number 3

Key	
U	ISO17025 Accredited Result
M	ISO17025 and MCERTS Accredited Result
N	Do not currently hold accreditation
^	MCERTS accreditation not applicable for sample matrix
*	ISO17025 accreditation not applicable for sample matrix
S	Subcontracted
I/S	Insufficient Sample
U/S	Unsuitable sample
N/T	Not tested
<	Means "less than"
>	Means "greater than"

LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.

This report shall not be reproduced except in full, without prior written approval.

Opinions and interpretations expressed herein are outside the UKAS accreditation scope.

All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.

The results relate only to the sample received.

Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Moisture Content Calculated on a Wet Weight basis (at 30°C)

Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.

Where sampling was undertaken by Chemtech Environmental Limited it is outside the UKAS accreditation scope.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

BTEX compounds are identified by retention time only and may include interference from co-eluting compounds.

For soils and solids, all results are reported on a dry basis (30°C). Samples dried at no more than 30°C in a drying cabinet.

For soils and solids, analytical results are inclusive of stones and 'inert' material, where applicable.

'Client Reference', 'Sample ID', 'Sample Location', 'Sample Type', 'Depth', 'Sample Date' and 'Sample Time' information is provided by the customer

Sample Retention and Disposal

All soil samples will be retained for a period of 4 weeks from the point of receipt

All water samples will be retained for a period of 2 weeks from the point of Reporting

Charges may apply to extended sample storage

TPH Classification - HWOL Acronym System

HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
2D	GC-GC - Double coil gas chromatography
#1	EH_Total but with humics mathematically subtracted
#2	EH_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry

Unless specifically identified (noted as "(B)" in analyte name) all internal analysis performed at Durham site

Statement of Conformity

Statement of Conformity

Where Chemtech reports a statement of conformity to a specification, the decision rules applied are derived from the Ilac document ILAC G8:09/2019.

Acceptance limits (AL), applied are derived from the tolerance limits (TL) by you the client or applicable standard (e.g. 2003.33.EC Council Decision, BS3882, BS8601)

Agreed and reported Decision Rule:

"PASS" if the result < TL, and the bias / precision values for the process meet the targets defined within the methodology and/or applied accreditation.

Reported Decisions:

Result < TL for determinands: PASS

Result > TL for determinands: FAIL

Definitions Used:

Acceptance limit (AL) Specified upper or lower bounds of permissible measured quantity values.

Tolerance limit (TL) Specified upper or lower bound of permissible values of a property.

Accreditation of WAC/BS3882/BS8601

Accreditation in Soil to MCERTS is only applicable for specific matrix types identified as soil (Sand/Loam/Clay) during the sample assessment

If the sample is classified as not soil, no accreditation is conveyed

APPENDIX F

Aggressivity To Concrete Assessment
Summary of In Situ CBR Test Results
Graph of Subgrade Surface Modulus vs Depth
Graph of CBR vs Depth
Borehole Infiltration Test Results

ASHDOWN SITE INVESTIGATION

AGGRESSIVITY TO CONCRETE ASSESSMENT

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

Chemical Laboratory Test Results

Sample Location	Sample Depth (m)	pH Value (Units)	Total Sulphate (AS % as SO_4)	Total Sulphur (TS % as S)	Water Soluble Sulphate (mg/l as SO_4)	Water Soluble Chloride (mg/l)	Water Soluble Nitrate (mg/l)	Water Soluble Magnesium (mg/l)
WS01	1.70	7.7			10			
WS03	0.50	8.7			23			
WS04	1.10	9.2			34			
WS05	1.80	8.1			14			

Notes: Chemical testing was undertaken by an external laboratory with recognised (UKAS and MCERTS) accreditation for quality control. Testing scheduled in line with the BRE Special Digest 1:2005 Concrete in Aggressive Ground Suites A-D and as such some determinands were not required to be tested.

Assessment of the Chemical Analysis of the Soil

Ground Condition	Natural Ground Conditions
Groundwater Condition	Mobile Groundwater Conditions
Pyrite Soil Condition	Soils present beneath the site are not expected to contain pyrite

	Characteristic Value	Design Sulfate Class	ACEC Classification
pH	7.7	-	-
Water Soluble Sulphate (mg/l as SO4) *	<100	DS-1	AC-1
Total Potential Sulphate (TPS % SO4)	N/A - Non Pyrite Soil Present	-	-
Magnesium (mg/l) *	N/A - Natural Ground Conditions	-	-
Water Soluble Sulphate including mineral acids (mg/l as SO4) *	N/A - Natural Ground Conditions	-	-

Notes: * Characteristic value rounded to nearest 100.

The aggressivity of the soils to concrete has been assessed in accordance with guidance published by the BRE Special Digest 1:2005 Concrete in Aggressive Ground.

ASHDOWN SITE INVESTIGATION

SUMMARY OF IN SITU CBR TESTS

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

Test Location	Depth (m)	CBR (%)	Ks (MPa)
WS01	0.03	8	68
WS01	0.05	13	90
WS01	0.06	26	143
WS01	0.12	17	109
WS01	0.16	13	90
WS01	0.21	10	77
WS01	0.27	8	68
WS01	0.34	7	61
WS01	0.47	4	40
WS01	0.51	6	56
WS01	0.53	13	90
WS01	0.55	13	90
WS01	0.60	10	77
WS01	0.65	10	77
WS01	0.70	10	77
WS01	0.76	8	68
WS01	0.81	5	48
WS01	0.82	26	143
WS01	0.84	13	90
WS02	0.07	3	38
WS02	0.09	17	109
WS02	0.10	26	143
WS02	0.13	17	109
WS02	0.15	21	123
WS02	0.19	26	143
WS02	0.23	13	90
WS02	0.27	13	90
WS02	0.30	17	109
WS02	0.34	13	90
WS02	0.38	15	98
WS02	0.41	15	98
WS02	0.48	15	98
WS02	0.53	10	77
WS02	0.57	13	90
WS02	0.62	10	77
WS02	0.66	13	90
WS02	0.69	17	109
WS02	0.71	26	143
WS02	0.19	17	109
WS02	0.76	26	143
WS02	0.78	26	143
WS02	0.81	21	123
WS03	0.16	13	90
WS03	0.17	26	143
WS03	0.18	55	229
WS03	0.20	26	143
WS03	0.24	26	143
WS03	0.28	30	157

ASHDOWN SITE INVESTIGATION

SUMMARY OF IN SITU CBR TESTS

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

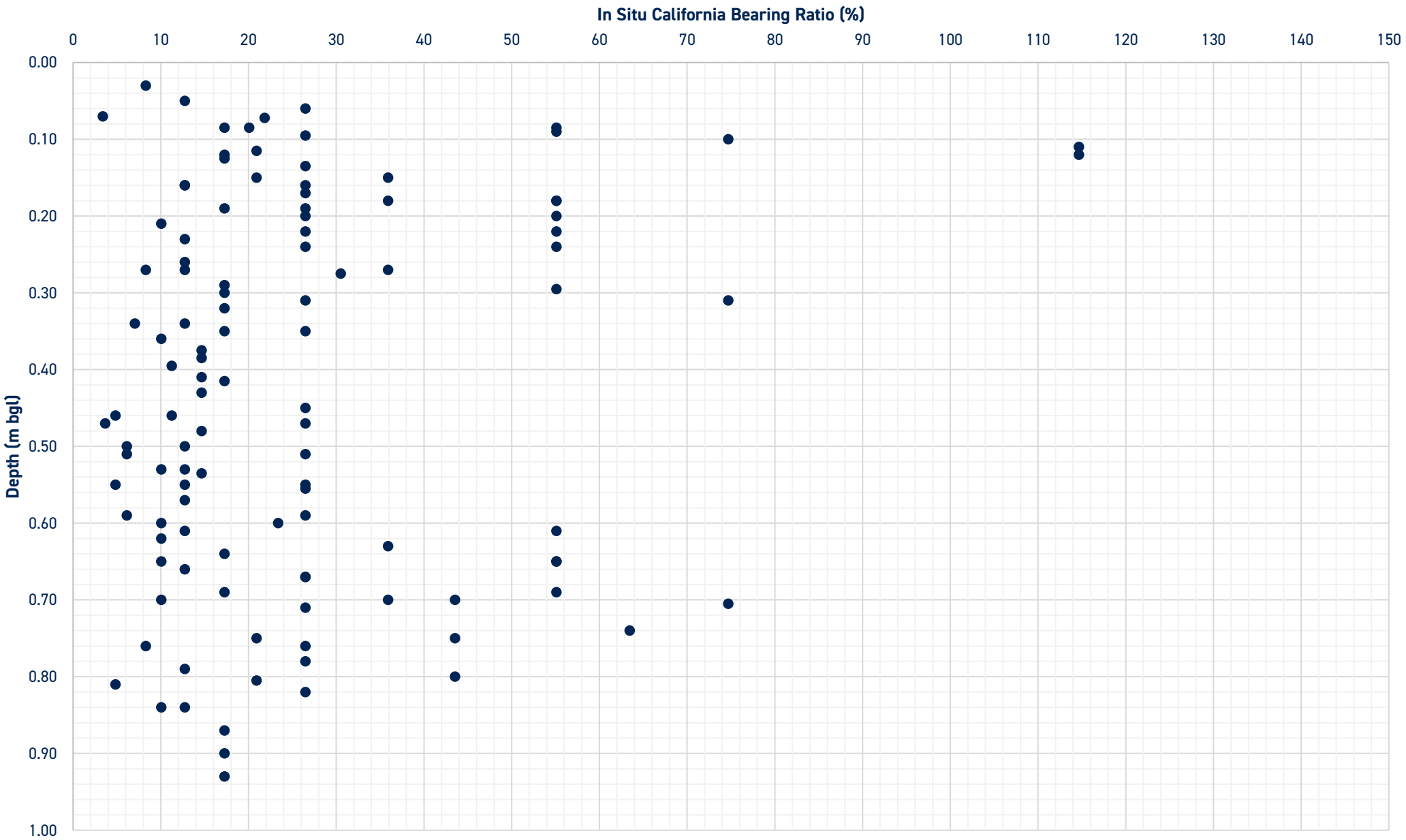
Test Location	Depth (m)	CBR (%)	Ks (MPa)
WS03	0.30	55	229
WS03	0.31	75	278
WS03	0.35	26	143
WS03	0.39	15	98
WS03	0.42	17	109
WS03	0.46	11	83
WS03	0.50	13	90
WS03	0.54	15	98
WS03	0.56	26	143
WS03	0.60	23	132
WS03	0.63	36	174
WS03	0.67	26	143
WS03	0.70	36	174
WS03	0.75	21	123
WS03	0.79	13	90
WS03	0.84	10	77
WS03	0.87	17	109
WS03	0.90	17	109
WS03	0.93	17	109
WS04	0.09	55	229
WS04	0.10	75	278
WS04	0.11	115	366
WS04	0.12	115	366
WS04	0.16	26	143
WS04	0.18	55	229
WS04	0.20	55	229
WS04	0.22	55	229
WS04	0.24	55	229
WS04	0.27	36	174
WS04	0.31	26	143
WS04	0.36	10	77
WS04	0.46	5	48
WS04	0.50	6	56
WS04	0.55	5	48
WS04	0.59	6	56
WS04	0.61	13	90
WS04	0.64	17	109
WS04	0.65	55	229
WS04	0.67	26	143
WS04	0.69	55	229
WS04	0.71	75	278
WS04	0.74	63	251
WS04	0.76	155	445
WS05	0.07	22	127

ASHDOWN
SITE INVESTIGATION

CBR VS DEPTH

Site: 77 Marlborough Road, Lancing, West Sussex

Project Ref: P17891

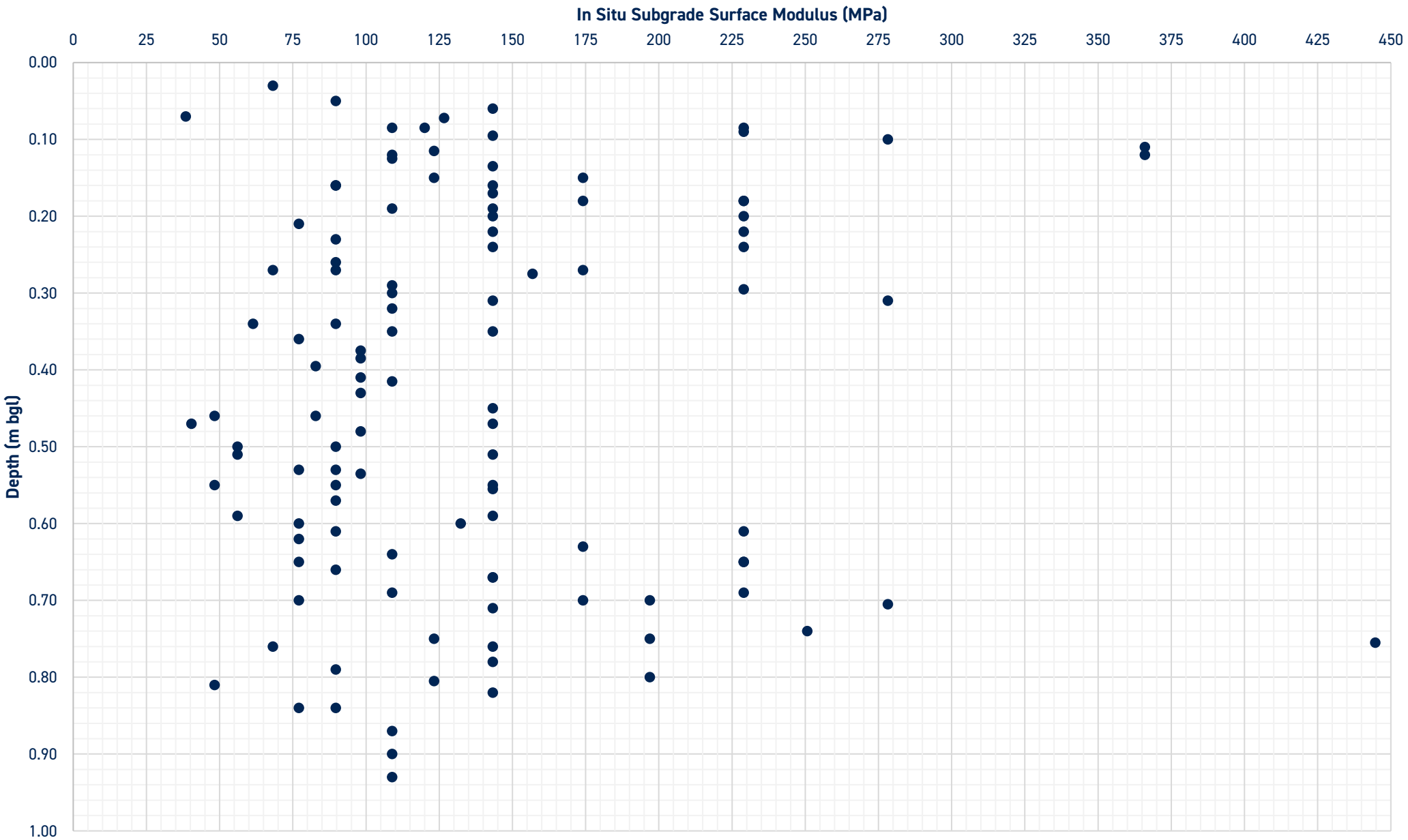


ASHDOWN
SITE INVESTIGATION

SUBGRADE SURFACE MODULUS VS DEPTH

Site: 77 Marlborough Road, Lancing, West Sussex

Project Ref: P17891

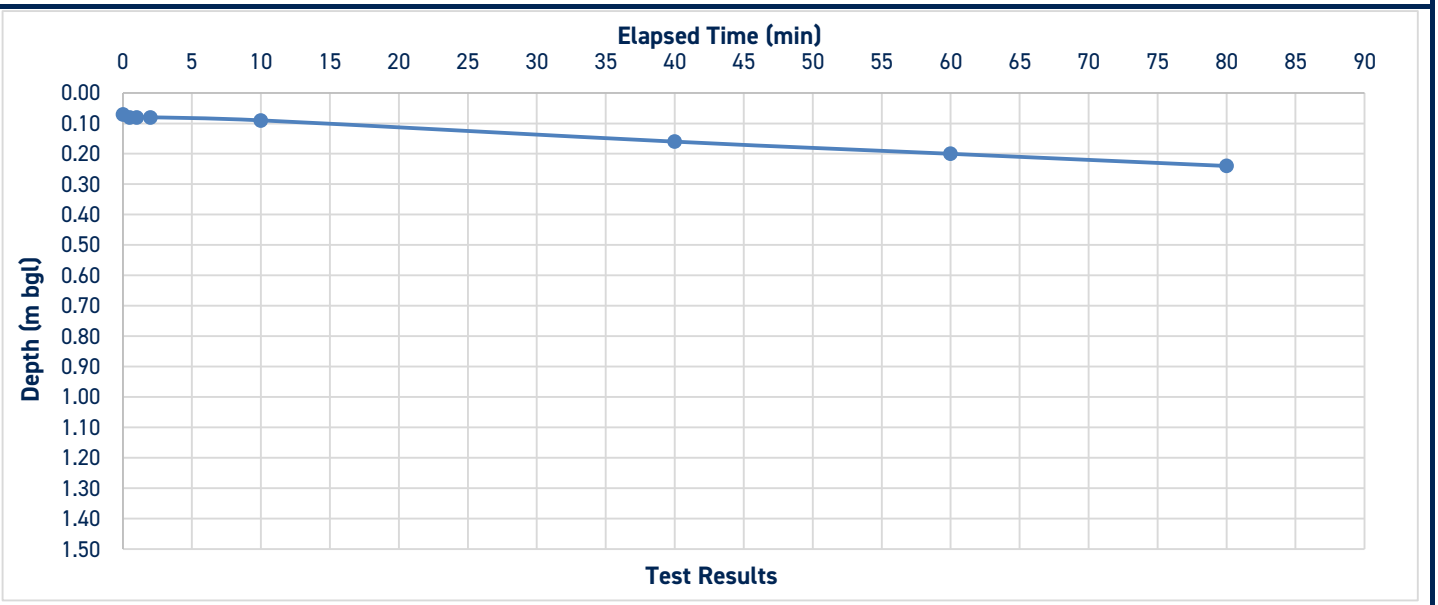


BOREHOLE INFILTRATION TEST RESULTS

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

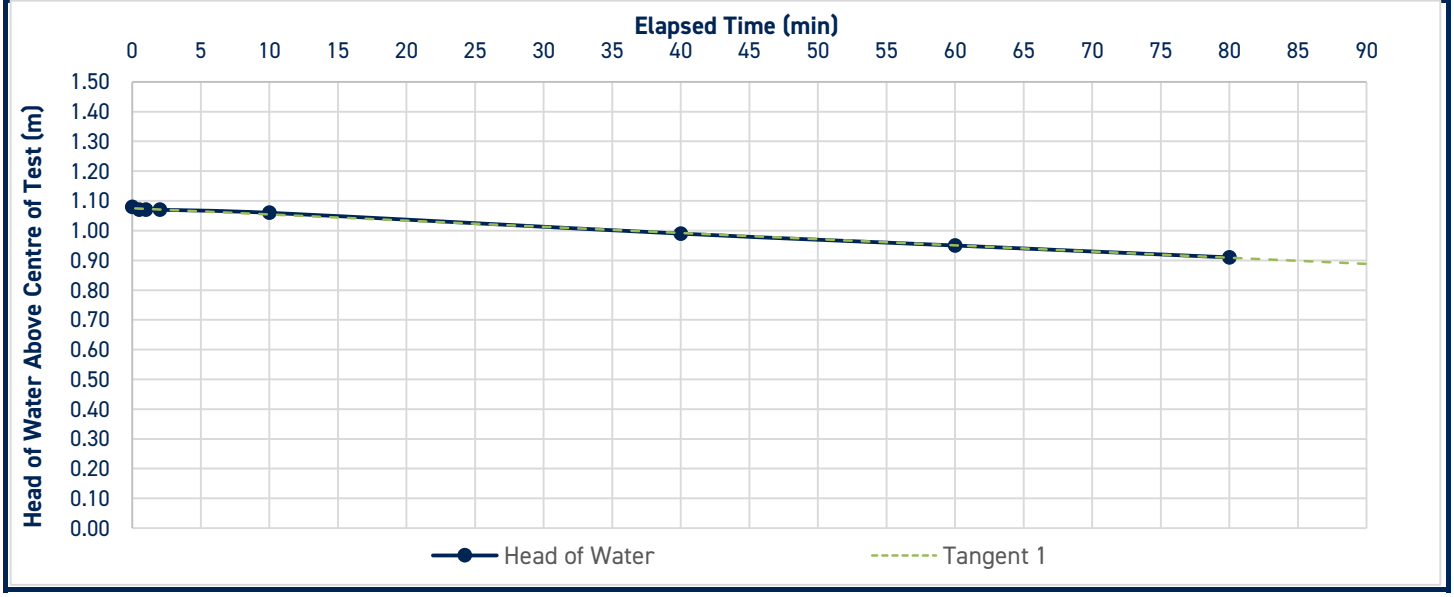
Test Location Reference	**WS02**
Test Number	**1**

Casing Depth	1.00	m blg
Borehole Depth	1.30	m bgl
Casing Diameter (d)	0.105	m
Average Borehole Diameter (D)	0.092	m



Length of Test Zone	0.30	m	L
Depth to Center of Test Zone	1.15	m	X
Water level at start of test	0.07	m	
Water level at end of test	0.24	m	
Duration of test	80	min	
Average Depth Of Water	1.15	m	
Average Drained Area	0.34	m^2	
Volume of Water Lost	0.00	m^3	
Driving Head	**1.0**	**m**	
Infiltration rate	**3.46E-06**	**m/sec**	

Calculation method: Variable (falling) head test method procedure carried out in general accordance with BS EN ISO 22282-2:2012. Infiltration rate calculated for each of the above given value of head of water using the tangent Head intercept (Hp) and the tangent Time intercept (th) and the area of exposed test section using the following formulae - 250.Hp.d^2/D.L.th

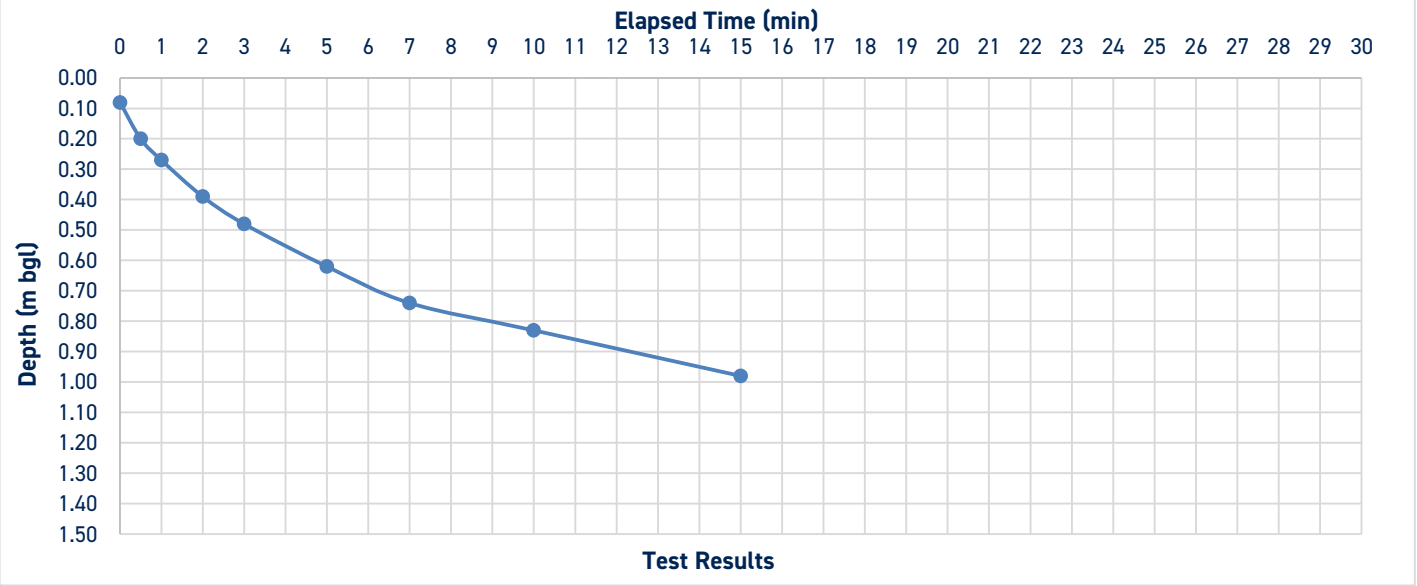


BOREHOLE INFILTRATION TEST RESULTS

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

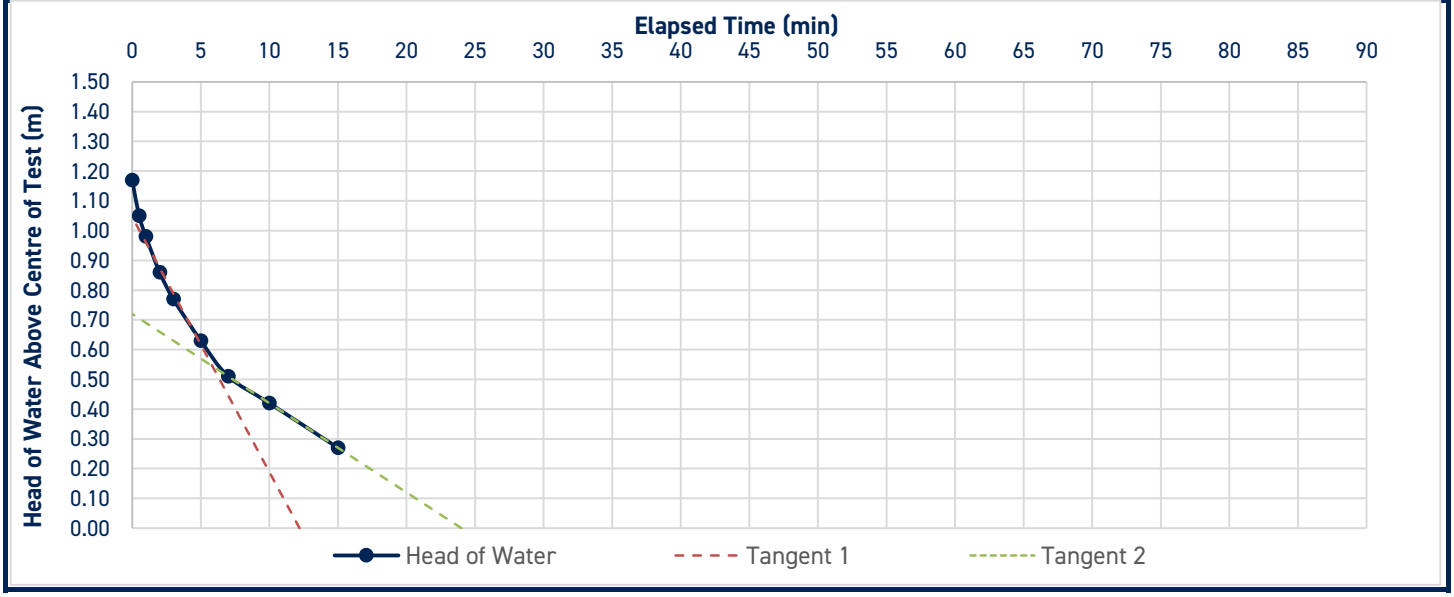
Test Location Reference	**WS04**
Test Number	**1**

Casing Depth	1.00	m blg
Borehole Depth	1.50	m bgl
Casing Diameter (d)	0.105	m
Average Borehole Diameter (D)	0.070	m



Length of Test Zone		0.50 m	L
Depth to Center of Test Zone		1.25 m	X
Water level at start of test		0.08 m	
Water level at end of test		0.98 m	
Duration of test		15 min	
Average Depth Of Water		0.97 m	
Average Drained Area		0.22 m^2	
Volume of Water Lost		0.00 m^3	
Driving Head	**0.8**	**0.4 m**	
Infiltration rate	**1.13E-04**	**3.94E-05 m/sec**	

Calculation method: Variable (falling) head test method procedure carried out in general accordance with BS EN ISO 22282-2:2012. Infiltration rate calculated for each of the above given value of head of water using the tangent Head intercept (Hp) and the tangent Time intercept (th) and the area of exposed test section using the following formulae - 250.Hp.d^2/D.L.th

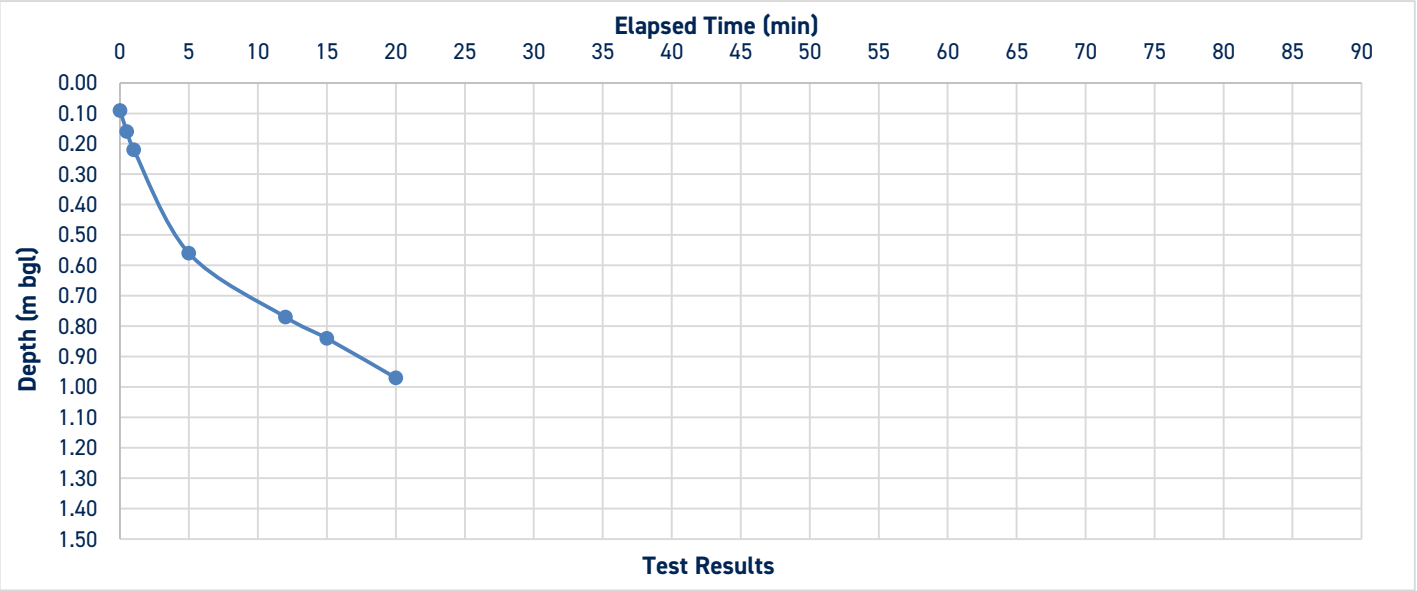


BOREHOLE INFILTRATION TEST RESULTS

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

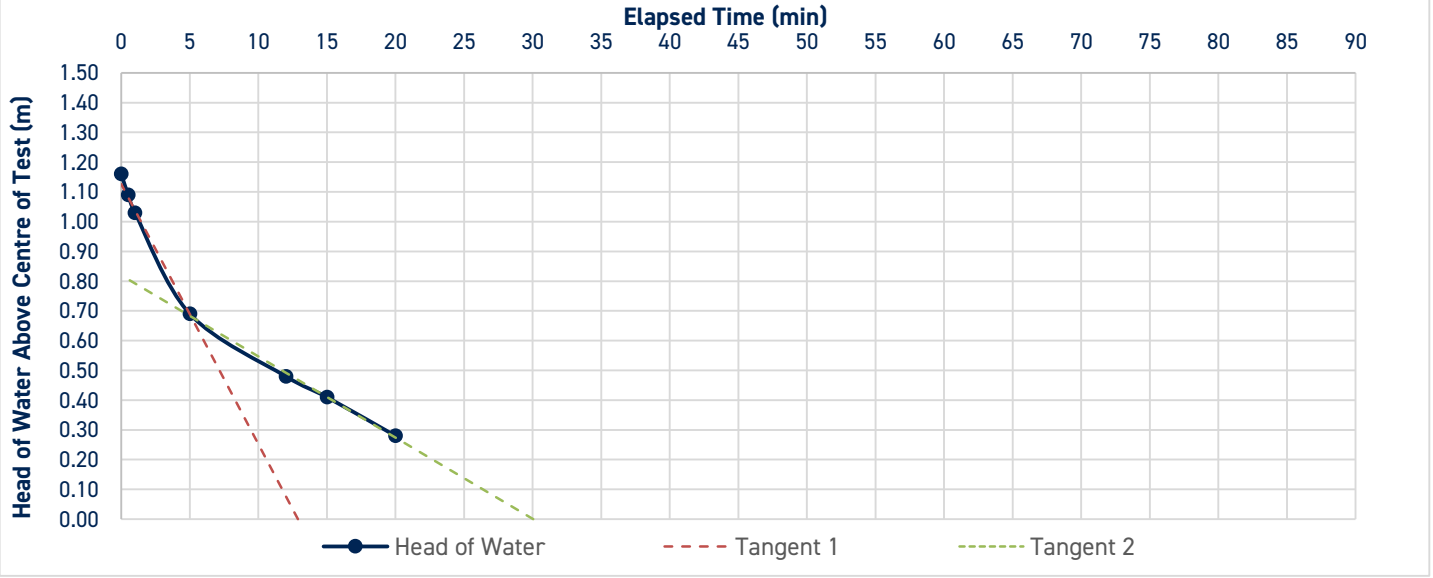
Test Location Reference	**WS04**
Test Number	**2**

Casing Depth	1.00	m blg
Borehole Depth	1.50	m bgl
Casing Diameter (d)	0.105	m
Average Borehole Diameter (D)	0.070	m



Length of Test Zone		0.50 m	L
Depth to Center of Test Zone		1.25 m	X
Water level at start of test		0.09 m	
Water level at end of test		0.97 m	
Duration of test		20 min	
Average Depth Of Water		0.97 m	
Average Drained Area		0.22 m^2	
Volume of Water Lost		0.00 m^3	
Driving Head	**0.9**	**0.5 m**	
Infiltration rate	**1.15E-04**	**3.58E-05 m/sec**	

Calculation method: Variable (falling) head test method procedure carried out in general accordance with BS EN ISO 22282-2:2012. Infiltration rate calculated for each of the above given value of head of water using the tangent Head intercept (Hp) and the tangent Time intercept (th) and the area of exposed test section using the following formulae - 250.Hp.d^2/D.L.th

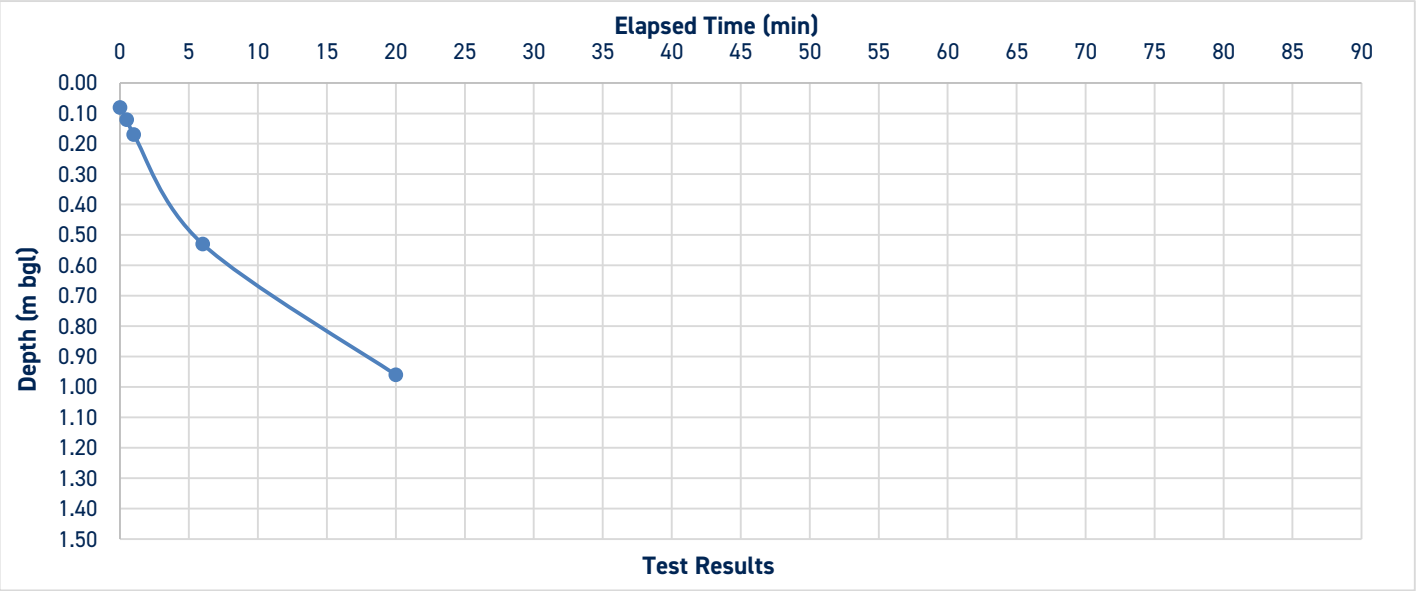


BOREHOLE INFILTRATION TEST RESULTS

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

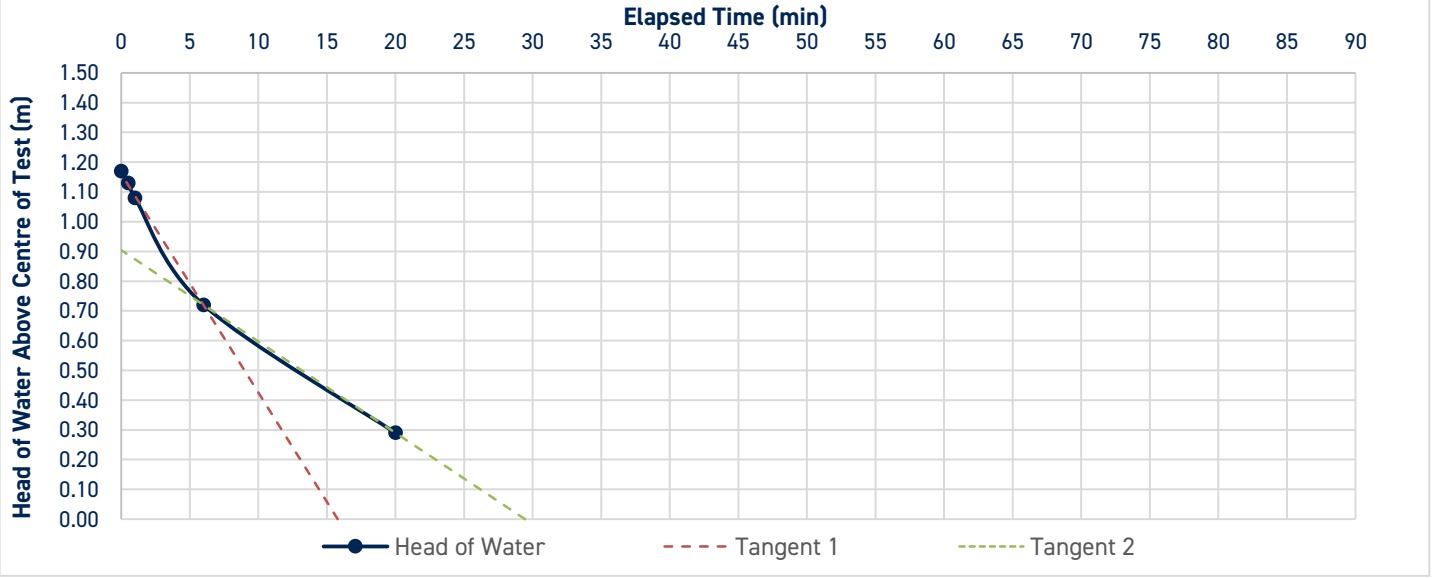
Test Location Reference	**WS04**
Test Number	**3**

Casing Depth	1.00	m blg
Borehole Depth	1.50	m bgl
Casing Diameter (d)	0.105	m
Average Borehole Diameter (D)	0.070	m



Length of Test Zone		0.50 m	L
Depth to Center of Test Zone		1.25 m	X
Water level at start of test		0.08 m	
Water level at end of test		0.96 m	
Duration of test		20 min	
Average Depth Of Water		0.98 m	
Average Drained Area		0.22 m^2	
Volume of Water Lost		0.00 m^3	
Driving Head	**1.0**	**0.5 m**	
Infiltration rate	**9.65E-05**	**4.03E-05 m/sec**	

Calculation method: Variable (falling) head test method procedure carried out in general accordance with BS EN ISO 22282-2:2012. Infiltration rate calculated for each of the above given value of head of water using the tangent Head intercept (Hp) and the tangent Time intercept (th) and the area of exposed test section using the following formulae - 250.Hp.d^2/D.L.th



APPENDIX G

Conceptual Site Risk Model

Table 8: Conceptual Site Risk Model - Potential Sources, Pathways and Receptors identified on the site.

Source/ Potential Contaminants	**Potential Contaminants Associated with Site Use as a Factory (Paper Manufacturer), Above Ground Tank, Elevated Radon Levels and Offsite Land Uses as Southern Railway Carriage Works/Carriage Works, 2no. Factories, Warehouse, Tank and an Infilled Quarry, :** i.e. Acids & Alkalis, Asbestos, Chlorinated & Non-Chlorinated Solvents, Fuels & Fuel Oils, Heavy Metals, Gases: Methane & Carbon Dioxide, Organic & Inorganic Compounds, PAHs, TPHs, VOCs										
	On and Off-Site Contaminants				**On Site Contaminants**		**On Site Contaminants**			**On and Off-Site Contaminants**	
Potential Pathways	• Ingestion of soils, garden vegetables and dust • Ingestion of contaminated drinking water • Dermal absorption • Inhalation of dusts and vapours indoors and outdoors • Migration of ground gases and vapours into properties						Leaching in the unsaturated zone & diffusion in the saturated zone	• Overland run-off • Drainage channels • Base flow	• Direct contact via absorption and ingestion; • Inhalation	• Migration of ground gases and vapours through the unsaturated zone • Attack on water supply service pipes	
Potential Receptors	**ON SITE HUMANS (AFTER COMPLETION)** Future Occupiers & Visitors		**ON SITE HUMANS (DURING DEVELOPMENT)** Construction Workers		**OFF SITE HUMANS** Neighbours		**GROUND WATER** Secondary A Aquifers	**SURFACE WATER** Sea 135m SE	**ECOLOGICAL** None	**ON SITE PROPERTY** Buildings and Services	
Potential Hazards	• Adverse health effects • Injury/ • Death	Explosion/ Fire - Build-up of Methane/ VOCs in confined spaces	• Adverse health effects • Injury/ Death	Explosion/ Fire - Build-up of Methane/ VOCs in confined spaces	• Adverse health effects • Injury/ Death	Explosion/ Methane build-up in confined spaces	Degradation of groundwater quality	• Degradation of surface water quality • Ecological impacts	Degradation of ecological receptor quality	Damage to property and services	Explosion/ Fire - Build-up of Methane/ VOCs in confined spaces
Plausible?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**	**No**	**Yes**	**Yes**
PPL ID	**PPL1a**	**PPL1b**	**PPL1c**	**PPL1d**	**PPL2a**	**PPL2b**	**PPL3**	**PPL4**	**PPL5**	**PPL6a**	**PPL6b**
SEVERITY	Major (4)	Major (4)	Major (4)	Major (4)	Major (4)	Major (4)	Moderate (3)	Moderate (3)	Moderate (3)	Moderate (3)	Moderate (3)
LIKELIHOOD	Remote (2)	Improbable (1)	Improbable (1)	Improbable (1)	Improbable (1)	Improbable (1)	Remote (2)	Improbable (1)	Improbable (1)	Remote (2)	Improbable (1)
RISK	Low to Moderate (8)	Low (4)	Low (4)	Low (4)	Low (4)	Low (4)	Low to Moderate (6)	Very Low (3)	Very Low (3)	Low to Moderate (6)	Very Low (3)
POTENTIALLY SIGNIFICANT?	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**YES**	**NO**	**NO**	**YES**	**NO**

APPENDIX H

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 I

Quantitative Conceptual Model

ASHDOWN SITE INVESTIGATION

QUANTITATIVE CONCEPTUAL MODEL

Site: 77 Marlborough Road, Lancing, West Sussex **Project Ref:** P17891

Source	Receptor	Contaminants	Pathway	Complete Linkage Present?	Probability	Consequence	Risk
None Identified	End Users		Dermal contact with soil and dust (indoor & outdoor)	No contaminants present above SSVs			N/A
			Ingestion of soil and indoor dust	No contaminants present above SSVs			N/A
			Consumption of home-grown produce and attached soil	No private gardens proposed			N/A
			Inhalation of soil dust (indoor and outdoor)	No contaminants present above SSVs			N/A
			Inhalation of soil vapours	No contaminants present above SSVs			N/A
			Inhalation of soil gases/ Risk of explosion	No gases present above GSVs			N/A
	End Users (via Water Supply Pipework)		Contamination of incoming services	No contaminants present above screening criteria			N/A
	Groundwater		Migration to groundwater	No contaminants present at concentrations posing risk to groundwater			N/A

APPENDIX J

HazWasteOnline Output Sheets

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

3K417-YI3CP-29PUD

Report is invalid if pages are removed.

Job name

P17891 - 77 Marlborough Road, Lancing, West Sussex

Description/Comments

Project

P17891

Site

77 Marlborough Road, Lancing, West Sussex

Classified by

Name:
Stuart Card
Date:
27 Aug 2026 13:53 GMT
Telephone:
01273 483119

Company:
Ashdown Site Investigation Ltd
Unit 3, The Old Grain Store Ditchling
Common Business Park
Ditchling
BN6 8SG

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: CERTIFIED

Course	Date
Hazardous Waste Classification	05 Dec 2013
Most recent 3 year Refresher	02 Dec 2025

Next 3 year Refresher due by Dec 2028

Purpose of classification

2 - Material Characterisation

Address of the waste

77 Marlborough Road, Lancing, West Sussex **Post Code** N/A

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Redevelopment of industrial site

Description of the specific process, sub-process and/or activity that created the waste

Waste created during excavation of soils for foundation and other associated works

Description of the waste

As per Ashdown Site Investigation Ltd. Report. Project Ref: P17891, Report Ref: R17289

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	WAC Results			Page
					Inert	SNRHW	Hazardous	
1	WS01-0.30-0.30-31/07/2026--124046		Non Hazardous		-	-	-	3
2	WS01-0.65-0.65-31/07/2026--124047		Non Hazardous		Fail	Fail	N/A	5
3	WS03-0.15-0.15-31/07/2026--124049		Non Hazardous		-	-	-	10
4	WS04-0.10-0.10-31/07/2026--124052		Non Hazardous		-	-	-	12
5	WS05-0.15-0.15-31/07/2026--124055		Hazardous	HP 7, HP 11	N/A	Pass	Pass	14

Related documents

#	Name	Description
1	HWOL_26-09547-20260824.HWOL	Chemtech Environmental .hwol file used to populate the Job
2	CHEMTECH	waste stream template used to create this Job

WAC Results

WAC Settings: samples in this Job do not constitute a single population.

WAC limits used to evaluate the samples in this Job: "UK"
The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

Report

Created by: Stuart Card

Created date: 27 Aug 2026 13:53 GMT

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Classification of sample: WS01-0.30-0.30-31/07/2026--124046

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS01-0.30-0.30-31/07/2026--124046
Moisture content:
3%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 3% No Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	asbestos fibres detected (Yes/No)			ACM_FIBRES		No							
2	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				17.3	mg/kg	1.895	32.775	mg/kg	0.00328 %		
3	boron { boric acid; [1] boric acid; [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		0.58	mg/kg	5.719	3.317	mg/kg	0.000332 %		
4	cadmium { cadmium sulfate }	048-009-00-9	233-331-6	10124-36-4		<1.1	mg/kg	1.855	<2.04	mg/kg	<0.000204 %		<LOD
5	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<0.04	mg/kg	2.27	<0.0908	mg/kg	<0.00000908 %		<LOD
6	copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		65	mg/kg	3.929	255.388	mg/kg	0.0255 %		
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	214	mg/kg	1.56	333.8	mg/kg	0.0214 %		
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.6	mg/kg	1.353	<0.812	mg/kg	<0.0000812 %		<LOD
9	nickel { nickel dibromate }	028-053-00-5	238-596-1	14550-87-9		17.7	mg/kg	5.358	94.842	mg/kg	0.00948 %		
10	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<3	mg/kg	2.554	<7.662	mg/kg	<0.000766 %		<LOD
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		132	mg/kg	2.774	366.187	mg/kg	0.0366 %		
12	TPH (C6 to C40) petroleum group			TPH		542	mg/kg		542	mg/kg	0.0542 %		
13	pH			PH		7.5	pH		7.5	pH	7.5 pH		
14	naphthalene	601-052-00-2	202-049-5	91-20-3		0.252	mg/kg		0.252	mg/kg	0.0000252 %		
15	acenaphthylene		205-917-1	208-96-8		0.774	mg/kg		0.774	mg/kg	0.0000774 %		
16	acenaphthene		201-469-6	83-32-9		0.361	mg/kg		0.361	mg/kg	0.0000361 %		

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
17		fluorene		201-695-5	86-73-7		0.386	mg/kg		0.386	mg/kg	0.0000386 %		
18		phenanthrene		201-581-5	85-01-8		11.4	mg/kg		11.4	mg/kg	0.00114 %		
19		anthracene		204-371-1	120-12-7		3.17	mg/kg		3.17	mg/kg	0.000317 %		
20		fluoranthene		205-912-4	206-44-0		28.5	mg/kg		28.5	mg/kg	0.00285 %		
21		pyrene		204-927-3	129-00-0		25.1	mg/kg		25.1	mg/kg	0.00251 %		
22		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		11.5	mg/kg		11.5	mg/kg	0.00115 %		
23		chrysene	601-048-00-0	205-923-4	218-01-9		11.8	mg/kg		11.8	mg/kg	0.00118 %		
24		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		14.9	mg/kg		14.9	mg/kg	0.00149 %		
25		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		6.07	mg/kg		6.07	mg/kg	0.000607 %		
26		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		11.9	mg/kg		11.9	mg/kg	0.00119 %		
27		indeno[123-cd]pyrene		205-893-2	193-39-5		10.9	mg/kg		10.9	mg/kg	0.00109 %		
28		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		2.24	mg/kg		2.24	mg/kg	0.000224 %		
29		benzo[ghi]perylene		205-883-8	191-24-2		9.05	mg/kg		9.05	mg/kg	0.000905 %		
30		chromium { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15.3	mg/kg	1.462	22.362	mg/kg	0.00224 %		
											Total:	0.168 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and £ 75 °C;"

Force this Hazardous Property to non-hazardous for cumulative determinand results below the concentration of: 1500 mg/kg (0.15%) because: No free product identified. TPH in soil unlikely to be flammable at concentrations recorded.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0542%)

Classification of sample: WS01-0.65-0.65-31/07/2026--124047

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS01-0.65-0.65-31/07/2026--124047
Moisture content:
5.3%
(no correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 5.3% No Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<4.7 mg/kg	1.197	<5.626 mg/kg	<0.000563 %		<LOD
2	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				8.9 mg/kg	1.895	16.861 mg/kg	0.00169 %		
3	barium { barium sulphide }	016-002-00-X	244-214-4	21109-95-5		43.8 mg/kg	1.233	54.027 mg/kg	0.0054 %		
4	cadmium { cadmium sulfate }	048-009-00-9	233-331-6	10124-36-4		<1.1 mg/kg	1.855	<2.04 mg/kg	<0.000204 %		<LOD
5	copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		10.3 mg/kg	3.929	40.469 mg/kg	0.00405 %		
6	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	27.1 mg/kg	1.56	42.271 mg/kg	0.00271 %		
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.6 mg/kg	1.353	<0.812 mg/kg	<0.0000812 %		<LOD
8	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1.1 mg/kg	1.5	<1.65 mg/kg	<0.000165 %		<LOD
9	nickel { nickel dibromate }	028-053-00-5	238-596-1	14550-87-9		9.4 mg/kg	5.358	50.368 mg/kg	0.00504 %		
10	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<3 mg/kg	2.554	<7.662 mg/kg	<0.000766 %		<LOD
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		31 mg/kg	2.774	85.999 mg/kg	0.0086 %		
12	TPH (C6 to C40) petroleum group			TPH		<19 mg/kg		<19 mg/kg	<0.0019 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
17	xylene	601-022-00-9	215-535-7	1330-20-7		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
18		pH			PH		7.7	pH		7.7	pH	7.7 pH		
19		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
20		acenaphthylene		205-917-1	208-96-8		0.02	mg/kg		0.02	mg/kg	0.000002 %		
21		acenaphthene		201-469-6	83-32-9		<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<LOD
22		fluorene		201-695-5	86-73-7		<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<LOD
23		phenanthrene		201-581-5	85-01-8		0.062	mg/kg		0.062	mg/kg	0.0000062 %		
24		anthracene		204-371-1	120-12-7		0.026	mg/kg		0.026	mg/kg	0.0000026 %		
25		fluoranthene		205-912-4	206-44-0		0.2	mg/kg		0.2	mg/kg	0.00002 %		
26		pyrene		204-927-3	129-00-0		0.209	mg/kg		0.209	mg/kg	0.0000209 %		
27		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.108	mg/kg		0.108	mg/kg	0.0000108 %		
28		chrysene	601-048-00-0	205-923-4	218-01-9		0.104	mg/kg		0.104	mg/kg	0.0000104 %		
29		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.158	mg/kg		0.158	mg/kg	0.0000158 %		
30		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.063	mg/kg		0.063	mg/kg	0.0000063 %		
31		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.13	mg/kg		0.13	mg/kg	0.000013 %		
32		indeno[123-cd]pyrene		205-893-2	193-39-5		0.135	mg/kg		0.135	mg/kg	0.0000135 %		
33		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.029	mg/kg		0.029	mg/kg	0.0000029 %		
34		benzo[ghi]perylene		205-883-8	191-24-2		0.113	mg/kg		0.113	mg/kg	0.0000113 %		
35		coronene		205-881-7	191-07-1		0.028	mg/kg		0.028	mg/kg	0.0000028 %		
36		polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3		<0.035	mg/kg		<0.035	mg/kg	<0.0000035 %		<LOD
37		chromium { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13.8	mg/kg	1.462	20.169	mg/kg	0.00202 %		
38		1,1,1,2-tetrachloroethane		211-135-1	630-20-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
39		1,2-dibromo-3-chloropropane	602-021-00-6	202-479-3	96-12-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
40		1,2-dibromoethane	602-010-00-6	203-444-5	106-93-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
41		1,2-dichlorobenzene; o-dichlorobenzene	602-034-00-7	202-425-9	95-50-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
42		1,2-dichloroethane; ethylene dichloride	602-012-00-7	203-458-1	107-06-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
43		1,2-dichloropropane; propylene dichloride	602-020-00-0	201-152-2	78-87-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
44		mesitylene; 1,3,5-trimethylbenzene	601-025-00-5	203-604-4	108-67-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
45		1,3-dichlorobenzene	602-067-00-7	208-792-1	541-73-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
46		1,3-dichloropropane		205-531-3	142-28-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD