



Lidl Great Britain Limited

Remediation Strategy

Lidl, Wilmslow Road, Manchester

February 2026

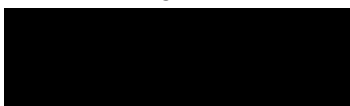


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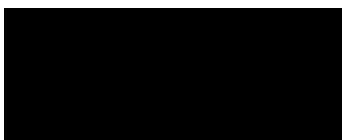
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Drawings

24-1965-P/01/A	Site Location Plan
24-1965-P/02/A	Exploratory Hole Location Plan
24-1965-P/03/A	Pre-Construction Remediation Plan
24-1965-P/04/A	Construction Remediation Plan
2594/F413	Proposed Setting Out Site Plan



1 Introduction

Obsidian Geo-Consulting Ltd (Obsidian) was commissioned by Lidl Great Britain Limited & Buzzard Holdings Limited (the Client) to produce a Remediation Strategy for their proposed development site at Wilmslow Road, Manchester.

The proposed development is a former bus garage adjacent to Wilmslow Road, Manchester. Lidl propose to develop the site with the construction of a new store building in the southern area of the site, with car parking in the western and northern areas of the site and access from Wilmslow Road to the west.

The site has also been the subject of previous ground investigation and assessment undertaken by Brownfield Solutions and Obsidian Geo-Consulting Ltd, as detailed in the following reports:

- Brownfield Solutions Phase 1 Geo-Environmental Assessment Report, Ref. B/C5749/13067 dated May 2024.
- Obsidian Geo-Consulting Ltd Geo-Environmental Investigation Report, Ref. 24-1965-P-R1, dated June 2024.

For the preparation of this document, we have been provided with the following, updated plans:

- HTC Architects Proposed Setting Out Site Plan, Ref. 2594/F413, dated April 2024.
- Technics Topographical and Utility Survey Plan, Ref. SP24659-0524-01, dated May 2024.

This strategy document should be read in conjunction with the previous investigation phases undertaken.

1.1 Objective

The objective of this document is to set out a strategy and methodology for addressing and mitigating the residual contamination risks identified by the previous report, listed above.

1.2 Limitations

This report has been prepared by Obsidian with all reasonable skill, care, and attention within the terms of the Contract with the Client and taking account of the information made available by the Client, as well as the manpower and resources devoted to it by agreement with the Client. Obsidian disclaims any responsibility to the Client and others in respect of any matters outside the scope of the above Contract.

This report has been produced on behalf of the Client, and no responsibility is accepted to any Third Party for all or any part. This report should not be relied upon or transferred to any other parties without the express written authorisation of Obsidian. If any unauthorised Third Party comes into possession of this report, they rely on it at their own risk and the authors owe them no duty of care or skill.

Any plans appended to this report should not be used for scaling purposes.

2 Background Information

2.1 Site Description

During the ground investigation in June 2024, the site was accessed via two gated entrances located on the western site boundary with Wilmslow Road. The site was dominated centrally by a former bus



garage building which was broadly split into three distinct areas. The western part comprised former offices and welfare areas which showed significant evidence of vandalism. The central area was accessed via roller shutters on the north and south elevation and may have been used for light vehicle maintenance. An above ground fuel/waste oil storage tank was located in this area. The eastern area was a vaulted former bus parking area which was open on the eastern elevation.

External areas were predominantly surfaced with concrete with localised patches of bituminous surfacing. The western area of the site was formerly the location of a fuel station, and the former tank island was still present with six inspection/access covers. Technics surveyors opened up the covers and confirmed that tanks appear to be foam filled. Surveys also indicated the buried fuel lines were also still present in this area. Interceptors appear to be present within the eastern and western extremities of the site.

The site was bounded by residential land to the east and south, commercial/derelict land to the north and Wilmslow Road to the west.

By February 2026, it is believed that the building has been demolished and all that remains is the hardstanding. It is also understood that the underground fuel tank, fuel pipes, and interceptors remain in-situ.

2.2 Site History

A review of the historical maps indicates that the site comprised some residential dwellings with associated gardens up to 1951 when the buildings in the west of the site were shown to be a garage. Further structures were then also present within the east of the site.

By 1971 a structure with the appearance of a fuel filling station was shown in the west of the site and the current large bus garage structure was present centrally on site. Wider land use in the surrounding area comprises commercial, residential, and recreational land.

2.3 Geology

The ground conditions encountered in the exploratory holes across the site comprised variable thicknesses of reinforced concrete surfacing, present to 0.15m bgl to 0.23m bgl with localised bituminous surfacing in WS02 and concrete paving blocks in WS04. Beneath the hardstanding, variable, granular Made Ground was present to 0.25m bgl to 1.15m bgl. A concrete obstruction, believed to be an old concrete foundation was encountered at 0.90m bgl in WS01.

The natural strata comprised predominantly firm to very stiff, gravelly CLAY.

Localised hydrocarbon odours were noted within WS01, WS02, WS08 and WS11.

2.3.1 Made Ground

Reinforced concrete surfacing was encountered within all but two of the exploratory holes and was recorded to depths of 0.15m bgl to 0.23m bgl. Within WS02, two layers of bituminous surfacing were recorded to depths of 0.04m bgl and then 0.09m bgl. Within WS04, concrete paving blocks were present to 0.07m bgl.

Predominantly granular Made Ground was then encountered to depths of 0.25m bgl to 1.15m bgl comprising grey, brown and locally black sandy gravel with variable cobble content. The gravel comprised admixed materials such as limestone, brick, concrete, and sandstone. Cobbles were of brick and concrete. Ash was present locally within WS12.

Hydrocarbon odours were noted within the Made Ground in WS01, WS08 and WS11 with staining also visible on the underside of the concrete surfacing in WS11.



A concrete obstruction, considered to be an old foundation was encountered at 0.90m bgl within WS01.

2.3.2 Natural Strata

Within WS02, WS06 and WS09 an initial firm, brown and orange brown, locally gravelly CLAY was encountered to 0.70m bgl to 1.20m bgl. Recorded locally as soft in WS06 and WS09.

The remainder of the natural strata recorded on site comprised stiff to very stiff reddish brown and locally grey, gravelly CLAY with gravel comprising fine sandstone and coal.

Hydrocarbon odours were noted within the natural CLAY within WS02 and WS11 to maximum depths of 0.80m bgl and 1.30m bgl, respectively.

2.4 Obsidian Contamination Assessment

2.4.1 Soil

Representative soil samples from across the site were scheduled for a suite of analyses. The analysis included a suite comprising Metals, Cyanide, Phenol, PAH's, TPH, BTEX, VOC's and Asbestos.

The results of the analysis were reviewed and compared against appropriate screening criteria for Human Health within a Commercial end use scenario. None of the recorded concentrations of Metals, Cyanide, Phenol, TPH, BTEX, VOC's or PAH's were recorded above their adopted screening values.

Fibres of Chrysotile Asbestos were detected within the Made Ground at boreholes WS08, WS11 and WS12 at depths of 0.20m bgl to 0.50m bgl. Subsequent quantification confirmed that the concentrations of Asbestos within the matrix was at trace concentrations of <0.001% to 0.012%.

A buried tank farm has been identified within the western area of the site, and the surveyors have indicated that these are foam filled following observations made when the inspection covers were lifted as part of their survey. It is also understood from the survey that the buried fuel distribution pipes from the former filling station are also still present.

The site drainage and interceptor system may also be concentrating hydrocarbons in acute locations, and this should also be inspected when excavated and removed.

There is a fuel/waste oil tank located above ground and centrally within the existing building. WS12 was positioned close to the tank and did not identify elevated hydrocarbon concentrations, however, there is the potential that soils directly beneath the tank may be locally impacted, which can only be assessed once the tank has been removed and the floor slab broken out.

Although not at concentrations which pose a risk to human health, the recorded TPH and PAH concentrations may pose a risk to buried PE drinking water pipes pending confirmation with the local water authority. As a precautionary measure, it is recommended that barrier pipe be used on site for buried drinking water pipes.

The results of the pH and water-soluble sulphate testing indicate that the risk posed to future buried concrete structures is negligible.

The above assessment is the result of investigations undertaken within accessible areas of the site at the time of the investigation. A significant proportion of the development footprint was covered by the former building, and the presence of buried services prevented the positioning of exploratory holes in some areas. Given the restrictions imposed by the current site layout, it is possible that other areas of contamination may be present adjacent to or beneath the identified services and building



constraints. Further investigation may be required to further assess and quantify these areas once vacant possession has been obtained.

2.4.2 Ground Gas

The preliminary risk assessment from the Desk Study identified the ground gas risk to be low for the site.

No methane has been detected, and a maximum carbon dioxide concentration of 1.5% v/v has been recorded during the monitoring visits. No flow has been detected above the instrument lower detection limit of 0.1 l/hr.

The maximum carbon dioxide concentration and a gas flow rate of 0.1l/hr have been selected to calculate an initial Gas Screening Values (GSV's) for the site in accordance with CIRIA Report C665 to determine the required level of methane and carbon dioxide protection measures for the proposed future site development.

The GSV is calculated as follows:

$$\text{GSV} = (\text{Gas Concentration}/100) \times \text{Flow Rate}$$

In line with the recommendations provided in CIRIA C665, a GSV of 0.0015l/hr has been calculated for methane and a GSV of 0.039l/hr has been calculated for carbon dioxide. The GSV's classify the site as 'Characteristic Situation 1' (Very Low Risk) whereby no ground gas protective measures are required for the proposed building on site.

No Radon protection measures are required for this site.

3 Remediation Strategy

3.1 Development of the Remediation Strategy

3.1.1 Introduction

The overall aim of a remediation strategy is to design the necessary remediation works to mitigate the potentially unacceptable contamination risks identified through various desk study and investigation reports. The remediation process begins with development of the remediation objectives and the options appraisal process, although the appraisal process must be proportionate to the degree and extent of the remediation required. A verification plan will also need to be documented, which can be implemented as the remediation works are completed.

The processes of remediation design, implementation and verification comprise:

- Definition of remediation objectives.
- Appraisal of the options for remediation and selection of a preferred strategy.
- Planning and implementation of the preferred strategy.
- Long term monitoring and maintenance (if required).
- Preparation of a verification report.

The previous assessments have identified unacceptable contamination risks. The remediation strategy must present a clear methodology for managing the risks associated with each pollutant linkage that has been identified.



3.1.2 Identified Contamination Risks

From the previous contamination assessment, the following pollutant linkages have been identified:

- Fibres of Chrysotile Asbestos were detected within the Made Ground at boreholes WS08, WS11 and WS12 at depths of 0.20m bgl to 0.50m bgl. Subsequent quantification confirmed that the concentrations of Asbestos within the matrix was at trace concentrations of <0.001% to 0.012%.
- A buried tank farm has been identified within the western area of the site. It is also understood from the survey that the buried fuel distribution pipes from the former filling station are also still present. Although no significant contamination has been identified around the fuel tanks and pipes thus far, they still represent valid potential contamination sources and there could be some localised soil contamination around them.
- The site drainage and interceptor system may also be concentrating hydrocarbons in acute locations, and this should also be inspected when excavated and removed. Although no significant contamination has been identified around the interceptor thus far, it still represents a valid potential contamination source and there could be some localised soil contamination around it.
- There is a fuel/waste oil tank located above ground and centrally within the existing building. WS12 was positioned close to the tank and did not identify elevated hydrocarbon concentrations, however, there is the potential that soils directly beneath the tank may be locally impacted, which can only be assessed once the tank has been removed and the floor slab broken out.
- The service plan suggests there may be an unknown tank in the east of the site. During the removal of the hardcore on site, this should be confirmed and remediated if necessary.
- The results indicate that the Made Ground and natural strata beneath the site falls within Design Sulphate Class DS-1 and ACEC (Aggressive Chemical Environment for Concrete) Class AC-1s.

3.1.3 Objectives

On some sites a range of objectives may be established in response to the different nature of the risks associated with different identified pollutant linkages. These fall into the following three categories:

- Contamination remediation objectives must be based on the conceptual site model for the individual site and must define the desired end condition. They can be qualitative or quantitative but must always relate to the risk assessment. Contamination related objectives are the most important of the three types and wherever possible, should drive the selection of a remediation option.
- Engineering related objectives consider the need for improvement, maintenance, or modification of the engineering properties of the physical ground conditions on a site. Improvements in stability of the site or changes in ground levels may be required in order to construct the proposed development.
- Management related objectives often relate to the aspects of the remediation process itself, but also to the site after remediation has been completed. For example, the costs of a particular remediation option may exceed the budget, making the project not financially viable. Programme constraints may conflict with the use of particular remediation technology. On sites where there are existing buildings or structures to be retained, remediation activities will have to be designed and carried out to avoid unnecessary disruption.

Accordingly, all three categories of objectives need to be considered in developing the strategy.



The remediation objectives for this project are as follows:

- To ensure that future site users do not come into contact with the contaminated soils.
- The water supply pipes will not be adversely affected by any contamination.
- To complete the remediation works in a timely cost-effective manner.
- To conform with current guidance regarding contamination remediation and gain regulatory approval.

3.1.4 Remedial Options Appraisal

Having identified the remediation objectives an appraisal of potentially suitable remediation options must be carried out. Conceptually, remediation action will involve breaking the pollutant linkage or linkages by use of one or more of the following methods:

- Source control: technical action to either remove or in some way modify the source(s) of the contamination, for example excavation or bioremediation.
- Pathway control: technical action to reduce the ability of the contaminant source to pose a threat to receptors by inhibiting or controlling the pathway, for example cover systems or gas membranes.
- Receptor control: non-technical actions or controls that alter the likely likelihood of receptors coming into contact with the contaminants, for example altering the site layout.

A wide range of different techniques can be used individually or in combination in order to break a pollutant linkage. The options appraisal will consider a technique's effectiveness in dealing with the contaminants of concern but will also give consideration of the wider circumstances of the site.

3.1.4.1 Mitigation options for risk to Human Health

Generally, the risks to the future site users will be negligible. The identified soil contamination is only residual and will be largely covered by hardstanding and the building footprint. The identified contamination sources, namely the Asbestos detected within the Made Ground at boreholes WS08, WS11 and WS12 as well as the underground fuel tanks / pipes and the interceptor, will need to be removed at the outset of the project as they will otherwise get in the way and potentially cross contaminate other soils. In light of their removal at the outset, there is no need to assess any alternative remediation options.

3.1.4.2 Mitigation options for risk to Building Materials and Services

The TPH and PAH concentrations within the soils dictate the use of specialist foil lined water supply pipes. The requirement for such pipework will be dictated by the local water supply company and as such there is no requirement to consider any other remediation options.

3.2 Pre-Construction Phase Works

3.2.1 Demolition

It is understood that the demolition of the building on site has already been undertaken. The hardstanding across the site is believed to remain in-situ.

3.2.2 Removal of Asbestos Contaminated Soil

Boreholes WS08, WS11 and WS12 are located within the eastern area of the site, with WS08 and WS11 beneath external hardstanding and WS12 beneath the former building. At its recorded location depth and concentration, the detected Asbestos is likely to be beneath the proposed building footprint and would be unlikely to pose a significant risk to proposed end users if left in-situ and



undisturbed. However, during construction, enabling works in these areas such as the breakout of hardstanding, drainage and removal of foundations will likely require the movement or removal of the Made Ground. As such, to prevent potential cross contamination of material, it is recommended that the Made Ground around borehole WS11 be removed in its entirety from the outset. This borehole recorded Asbestos fibres above the limit of detection and poses the greatest risk to the future users. Boreholes WS08 and WS12 can remain in situ if untouched and capped by either hardstanding or a 450mm clean soil capping layer. A 5m x 5m excavation around borehole WS11 extending to the base of the Made Ground at 0.28m bgl, the depth and size of which may fluctuate across the excavation depending on what is encountered, is recommended. The sides and base of the excavation should be tested to confirm a lack of Asbestos fibres within the soil. Should Asbestos fibres remain, further excavation will be required. However, should the quantification be below the detection limit (0.001%), the material can be treated as those around boreholes WS08 and WS12. Should the material around boreholes WS08 and WS12 also need to be removed as part of the demolition or construction works, the material should be removed from site as Non-Hazardous Waste and not reused on site.

Given its identified presence beneath internal and external hardstanding areas, the potential source of the material may be from the demolition of previous structures on site or indeed, may be a result of material importation to construct development levels historically. Although none of the other exploratory holes identified the presence of Asbestos, Made Ground materials similar to that which contains the positive Asbestos have been identified. Therefore, the potential for Asbestos to be within areas between the investigation locations cannot be ruled out, although the risk is considered low. As there is a low risk, any Made Ground remaining on site should be capped with either hardstanding or a 450mm clean soil capping layer. This is further discussed in Section 3.3.1.

3.2.3 Removal of the Fuel Tanks, Fuel Pipes, and Interceptor

A buried tank farm has been identified within the western area of the site, and the surveyors have indicated that these are foam filled following observations made when the inspection covers were lifted as part of their survey. It is also understood from the survey that the buried fuel distribution pipes from the former filling station are also still present. As part of the proposed development works it is likely that these tanks and fuel delivery pipes will be excavated and removed. There is the strong likelihood that hydrocarbons will be present within the soils adjacent and below these pieces of buried infrastructure, potentially at higher concentrations than those recorded thus far.

It is recommended that the removal of the tanks and pipework be observed by a Geo-Environmental Engineer. The soils surrounding the tank and the pipework should be inspected. Should significant visual and/or olfactory hydrocarbon contamination be observed, these soils should be removed and stockpiled on a damp proof membrane (DPM) or similar and be removed from site following testing to confirm the waste classification. The soils remaining in-situ should also be tested to confirm a lack of contamination. This should be the sides and base of the excavations. If the soils remaining in-situ record values below the appropriate screening values (as discussed in Section 4.1.1.2), these soils can remain. However, should the soils exceed the appropriate screening values, then further excavation is required and the process repeated.

The site drainage and interceptor system may also be concentrating hydrocarbons in acute locations, and this should also be inspected by a Geo-Environmental Engineer when excavated and removed. Investigation of the buried infrastructure from surface using drilling rigs carries a high risk of damage and potential release of contamination. So wider, careful excavation during their removal is the safest approach to further assess these potential buried contamination sources. Before removal, the interceptor should be emptied of any liquid. This will reduce the risk of any potential hydrocarbons, or any other potential liquid contaminants, from entering the soil. The surrounding soil should be observed closely for any visual or olfactory hydrocarbon contamination. Should significant visual



and/or olfactory hydrocarbon contamination be observed, the soil should be removed, stockpiled, and tested in the same way as the potential material around the fuel tanks/pipework. The sides and base of each the excavation should be tested to confirm the remaining soils are below the appropriate screening values. These are discussed in Section 4.1.1.2.

There was a fuel/waste oil tank located above ground and centrally within the existing building. WS12 was positioned close to the tank and did not identify elevated hydrocarbon concentrations, however, there is the potential that soils directly beneath the tank may be locally impacted, which can only be assessed once the tank has been removed and the floor slab broken out. As the building has been demolished, it is assumed that this has also been removed. Therefore, when the floor slab has been removed, the soils should be inspected for any visual or olfactory contamination. Should contamination be observed, the soils should be removed and the remaining soils tested.

The service plan suggests there may be an unknown tank in the east of the site. During the removal of the hardcore on site, this should be confirmed and remediated as above if necessary.

It should be noted that the recorded cohesive geology may have attenuated any potential contamination within a localised area around the interceptors, fuel pipes, and tanks, reducing the impact of any potential contamination.

3.3 Construction Phase Works

3.3.1 Capping of Soft Landscaped Areas

Where Made Ground is anticipated to remain following rationalisation of final development formation levels, the soft landscaping should include a high-visibility alarm membrane acting as a separation layer, overlain by 450mm of clean verified topsoil/subsoil.

3.3.2 Drinking Water Pipe Selection

A potential low risk has been identified for drinking water pipes, and it is recommended that the results of this assessment are confirmed with the local water supply authority prior to any water supply pipes being installed. The barrier water supply pipes will be fitted by specialist contractors.

3.3.3 Concrete Classification

The ground conditions, pH values and water-soluble sulphate concentrations and BRE SD-1 results have been assessed for potential aggressive attack on concrete in accordance with BRE Special Digest 1 Concrete in Aggressive Ground (2005).

The results indicate that the Made Ground and natural strata beneath the site falls within Design Sulphate Class DS-1 and ACEC (Aggressive Chemical Environment for Concrete) Class AC-1s.

The specific concrete mixes for the DS Class to be used at the site will be determined, mindful of the ACEC Class, by the site-specific concrete requirements in terms of the required durability and structural performance. These are assessed in terms of the Structural Performance Level (SPL) and any Additional Protection Measures (APM).

4 Verification

4.1.1 Pre-Construction Phase Works

4.1.1.1 Removal of Asbestos Contaminated Soil

Once the excavation works have ceased, the supervising Geo-Environmental Engineer will obtain an appropriate number of representative samples from the sides and base of the excavation and schedule them for appropriate, confirmatory laboratory analysis at a UKAS and MCERTS accredited laboratory. Asbestos will be firstly screened and if detected, it will be quantified. Ideally, the samples



would contain no Asbestos fibres. However, should they be detected but be below the detection limit of 0.001%, the material can remain in-situ, providing the material is capped as detailed in Sections 3.3.1 and 4.1.2.1. Should Asbestos fibres be detected above the limit of detection, further excavation should take place.

The results of the supervision and validation works will be presented within a validation report.

4.1.1.2 Removal of the Fuel Tanks, Fuel Pipes, and Interceptor

Once the tanks are removed and any excavation works have ceased, the supervising Geo-Environmental Engineer will obtain an appropriate number of representative samples from the sides and base of the excavations and schedule them for appropriate, confirmatory laboratory analysis at a UKAS and MCERTS accredited laboratory.

To confirm that the residual concentrations within the resulting excavation do not pose a risk to Human Health, the recorded concentrations will be screened against appropriate screening criteria.

The screening will be undertaken using the Obsidian OB-Screen Human Health Screening Tool which will compare the recorded concentrations to the DEFRA 'Category 4 Screening Levels' (C4SL's) and the LQM/CIEH 'Suitable 4 Use Levels' (S4UL's) to be protective of human health. Where C4SL's and S4UL's are not available, the EIC/AGS/CL:AIRE Generic Assessment Criteria (GAC's) will be used. Given the development proposals, screening values for the Residential use without plant uptake scenario will be adopted.

Soil Organic Matter (SOM) analysis has been previously undertaken to determine the most appropriate screening values for organic contaminants. Based on the SOM analysis undertaken during the Obsidian investigation, screening values relating to 1% have been adopted for the screening assessment. The proposed remedial target values for the excavations are detailed in Table 4.1.

Table 4.1: Proposed Remedial Target Values

Determinand	OB-Screen Value (mg/kg)
Aliphatic TPH Fractions	
Aliphatic C ₅ -C ₆	3,200
Aliphatic C ₆ -C ₈	7,800
Aliphatic C ₈ -C ₁₀	2,000
Aliphatic C ₁₀ -C ₁₂	9,700
Aliphatic C ₁₂ -C ₁₆	59,000
Aliphatic C ₁₆ -C ₂₁	1,600,000
Aliphatic C ₂₁ -C ₃₅	1,600,000
Aromatic TPH Fractions	
Aromatic C ₅ -C ₇	27
Aromatic C ₇ -C ₈	56,000
Aromatic C ₈ -C ₁₀	3,500
Aromatic C ₁₀ -C ₁₂	16,000
Aromatic C ₁₂ -C ₁₆	36,000
Aromatic C ₁₆ -C ₂₁	28,000
Aromatic C ₂₁ -C ₃₅	28,000
BTEX Compounds	
Benzene	27,000
Toluene	56,000,000
Ethyl benzene	5,700,000
m-Xylene	5,900,000
o-Xylene	5,900,000
p-Xylene	6,600,000
MTBE	7,900,000



If concentrations in excess of the screening values are identified in the validation testing, then further excavation works may be necessary following further assessment, and further validation samples obtained for further analysis and screening.

The results of the supervision and validation works will be presented within a validation report.

4.1.2 Construction Phase Works

4.1.2.1 Capping of Soft Landscaped Areas

Where Made Ground is anticipated to remain following rationalisation of final development formation levels, the soft landscaping should include a high-visibility alarm membrane acting as a separation layer, overlain by 450mm of clean verified topsoil/subsoil.

The composition of the topsoil should be verified in advance of it being received on site. Chemical analysis results are to be obtained from the topsoil supplier and compared with appropriate metals, PAH, TPH, BTEX and asbestos screening values in line with the proposed end use. If acceptable, the topsoil will then be imported to site and placed.

The imported material should meet the following verification criteria which are also based on screening values for the Commercial end use scenario.

Table 4.2: Proposed Imported Topsoil/Subsoil Verification Criteria

Determinand	OB-Screen Value (mg/kg)
Metals	
Arsenic	640
W/S Boron	240,000
Cadmium	410
Chromium (hexavalent)	49
Copper	68,000
Lead	2,300
Mercury	1,100
Nickel	980
Selenium	12,000
Zinc	730,000
PAH	
Naphthalene	190
Acenaphthylene	83,000
Acenaphthene	84,000
Fluorene	63,000
Phenanthrene	22,000
Anthracene	520,000
Fluoranthene	23,000
Pyrene	54,000
Benzo(a)anthracene	170
Chrysene	350
Benzo(b)fluoranthene	44
Benzo(k)fluoranthene	1,200
Benzo(a)pyrene	35
Indeno(1,2,3-cd)pyrene	500
Dibenz(a,h)anthracene	3.5
Benzo(ghi)perylene	3,900
Other	
Cyanide	34
Total Phenols (monohydric)	440
Asbestos	Absent
Aliphatic TPH Fractions	
Aliphatic C ₅ -C ₆	3,200
Aliphatic C ₆ -C ₈	7,800
Aliphatic C ₈ -C ₁₀	2,000



Determinand	OB-Screen Value (mg/kg)
Aliphatic C ₁₀ -C ₁₂	9,700
Aliphatic C ₁₂ -C ₁₆	59,000
Aliphatic C ₁₆ -C ₂₁	1,600,000
Aliphatic C ₂₁ -C ₃₅	1,600,000
Aromatic TPH Fractions	
Aromatic C ₅ -C ₇	27
Aromatic C ₇ -C ₈	56,000
Aromatic C ₈ -C ₁₀	3,500
Aromatic C ₁₀ -C ₁₂	16,000
Aromatic C ₁₂ -C ₁₆	36,000
Aromatic C ₁₆ -C ₂₁	28,000
Aromatic C ₂₁ -C ₃₅	28,000
BTEX Compounds	
Benzene	27,000
Toluene	56,000,000
Ethyl benzene	5,700,000
m-Xylene	5,900,000
o-Xylene	6,600,000
p-Xylene	7,900,000
MTBE	7,900,000

The depth of the placed topsoil will be validated by a Geo-Environmental Engineer with the excavation and inspection of hand pits once the topsoil and subsoil has been laid. Samples will be taken for laboratory analysis in line with the contaminants detailed in Table 3.1. The specific density of how many sets of analysis results will be required will be determined by the number of sources for the imported material. Analysis results should be provided to Obsidian prior to the material being imported to assess its suitability for reuse with supplementary samples taken once placed.

As built drawings should also include the placement of the high-visibility alarm membrane and capping layer. Additionally, the correct placement of the membrane will be validated by a Geo-Environmental Engineer.

The results of the topsoil/subsoil validation works will be presented within a validation report.

4.1.2.2 Drinking Water Pipe Selection

As the barrier water supply pipes will be fitted by specialist contractors, evidence of discussions with the local authority and evidence of the eventual pipe selected and used on site should be presented to Obsidian for review and inclusion within the validation report. Ideally, a Geo-Environmental Engineer will see the correct pipes in-situ. However, photographs of the pipes installed will be accepted provided it is clear the photographs were taken on the correct site.

4.1.2.3 Concrete Classification

Evidence of the concrete mixes used in the construction of the foundations, floor slab and other concrete material placed in direct contact with the underlying Made Ground should be provided including design specification sheets, concrete batching, and delivery records. These documents should be made available to Obsidian for inclusion in the final verification report.

4.1.3 General

All validation samples will be clearly labelled with the site name, sample location, sample depth and sample date, stored upside down in cool boxes with chilled ice packs and couriered to a chemical laboratory.

All soil validation sample test results will be included within a Remediation Validation Report.



Any contaminated soils for off-site disposal will be transported by road lorry under Duty of Care from the site to a suitably licensed waste management facility for treatment/disposal. Waste transfer notes for all materials removed off-site will be retained during the remedial works.

5 General Comments

5.1 Protection of Site Workers

The Ground Works Contractor will be responsible for implementing appropriate procedures to protect site workers from exposure to any potentially contaminated materials. This should include, as a minimum, provision of basic Personal Protective Equipment (PPE) including hard hats, gloves, coveralls, and steel toe-capped boots at all times, providing washing facilities, and forbidding eating, drinking, and smoking at all times except in designated areas.

When working in areas potentially impacted by asbestos, Personal Respiratory Equipment (RPE) and disposable coveralls and gloves should be provided.

The Ground Works Contractor is also responsible for implementing appropriate techniques to reduce the spread of potentially contaminated materials across the remainder of the site and surrounding properties during the works. This should include covering spoil to prevent the spread of dust, sealing surface water runoff to prevent the pollution of surface water drains and sewers and cleaning and washing boots, vehicle wheels, and other equipment to prevent the spread of mud. Environmental monitoring including monitoring of asbestos fibres in the atmosphere should be carried out alongside risk assessments and method statements for the handling of potentially contaminated materials including asbestos.

5.2 Unforeseen Ground Conditions

If ground conditions differ significantly from those encountered during the previous ground investigations or should additional areas of potentially contaminated materials be identified during the works, Ground Works Contractor should suspend site redevelopment works in the subject area immediately and inform the Client. The suspect material should then be inspected and assessed by a Geo-Environmental Engineer.

5.3 Waste Disposal

The reuse of soils as engineered fill should be undertaken in accordance with an appropriate Environment Agency licence as defined in the statutory guidance on the 'Definition of Waste' or CL:AIRE Code of Practice. It should be noted that the materials on site should only be classified as a waste material if they are discarded, there is an intent to discard them or if there is a requirement to discard them.

A level 1 waste characterisation of all the recorded chemical laboratory analysis results across the site would indicate that a Non-Hazardous Waste classification is likely to be appropriate for the Made Ground on site.

The three recorded instances of Asbestos have been quantified as being <0.001% to 0.012% which are below the commonly accepted Hazardous Waste threshold of 0.1%. The Made Ground waste classification therefore remains as Non-Hazardous.

WAC analysis which has been undertaken on Made Ground sample WS01/1.00m, indicates that the Made Ground at this location must remain Non-Hazardous due to the recorded concentration of Antimony. WAC analysis undertaken on samples WS07/0.40m and WS10/0.50m indicates that these Made Ground materials can be classified as Inert Waste, which is a sub-category of Non-



Hazardous. The Asbestos impacted Made Ground in and around WS08, WS11 and WS12 remains a Non-Hazardous Waste classification.

As the Made Ground has the potential to contain Asbestos in other areas of the site not previously been tested, it is recommended that the material to be removed from site has further WAC analysis and is screened for Asbestos once stockpiled. This will confirm if the material is suitable for either Inert, Non-Hazardous or Hazardous Waste disposal.

The natural strata on site would be classified as default Inert Waste.

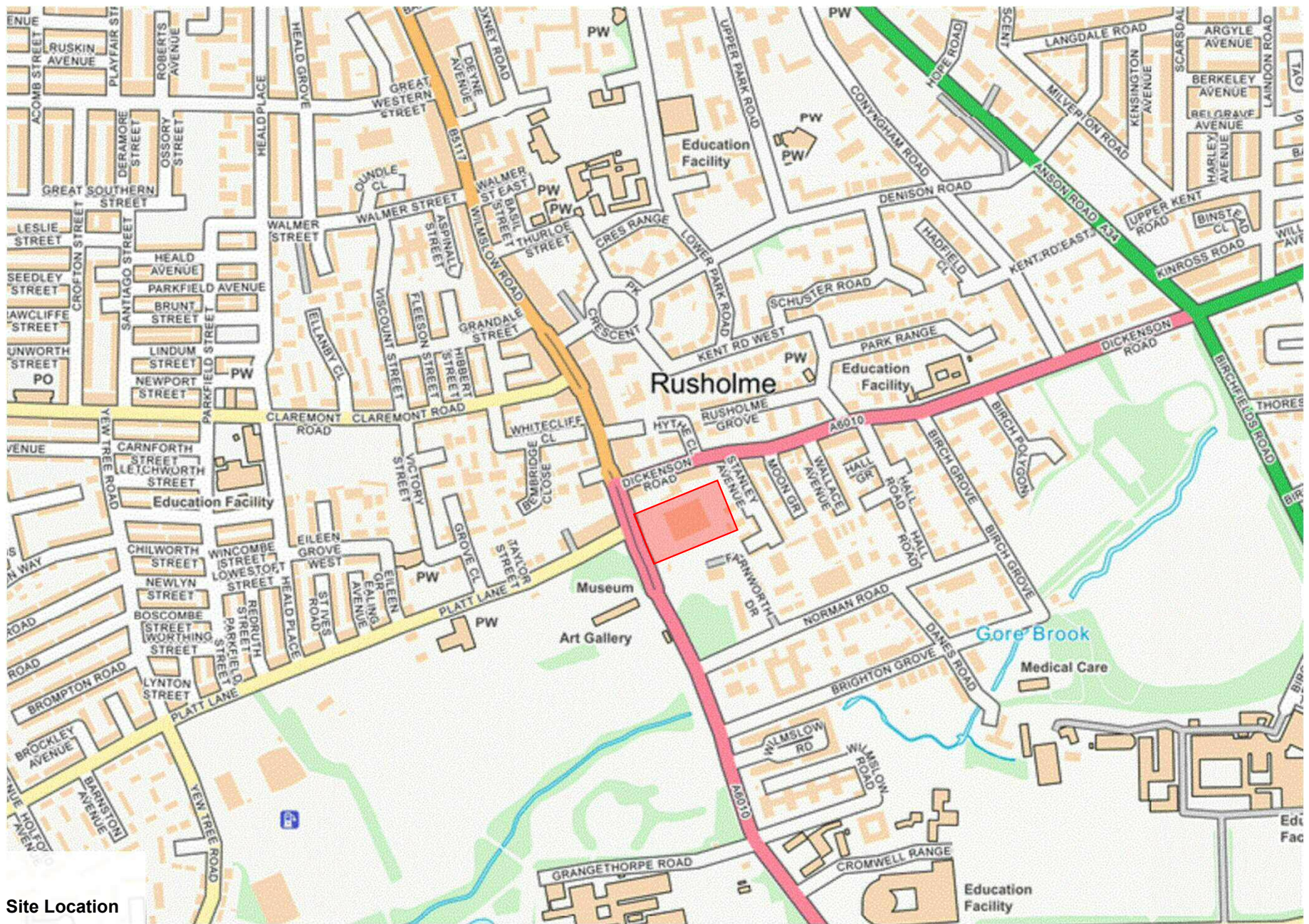
5.4 Consultation with the Local Authority

This report should be submitted to and confirmed with the Local Authority Contaminated Land Officer prior to any works taking place.



Drawings





Key



Site Location

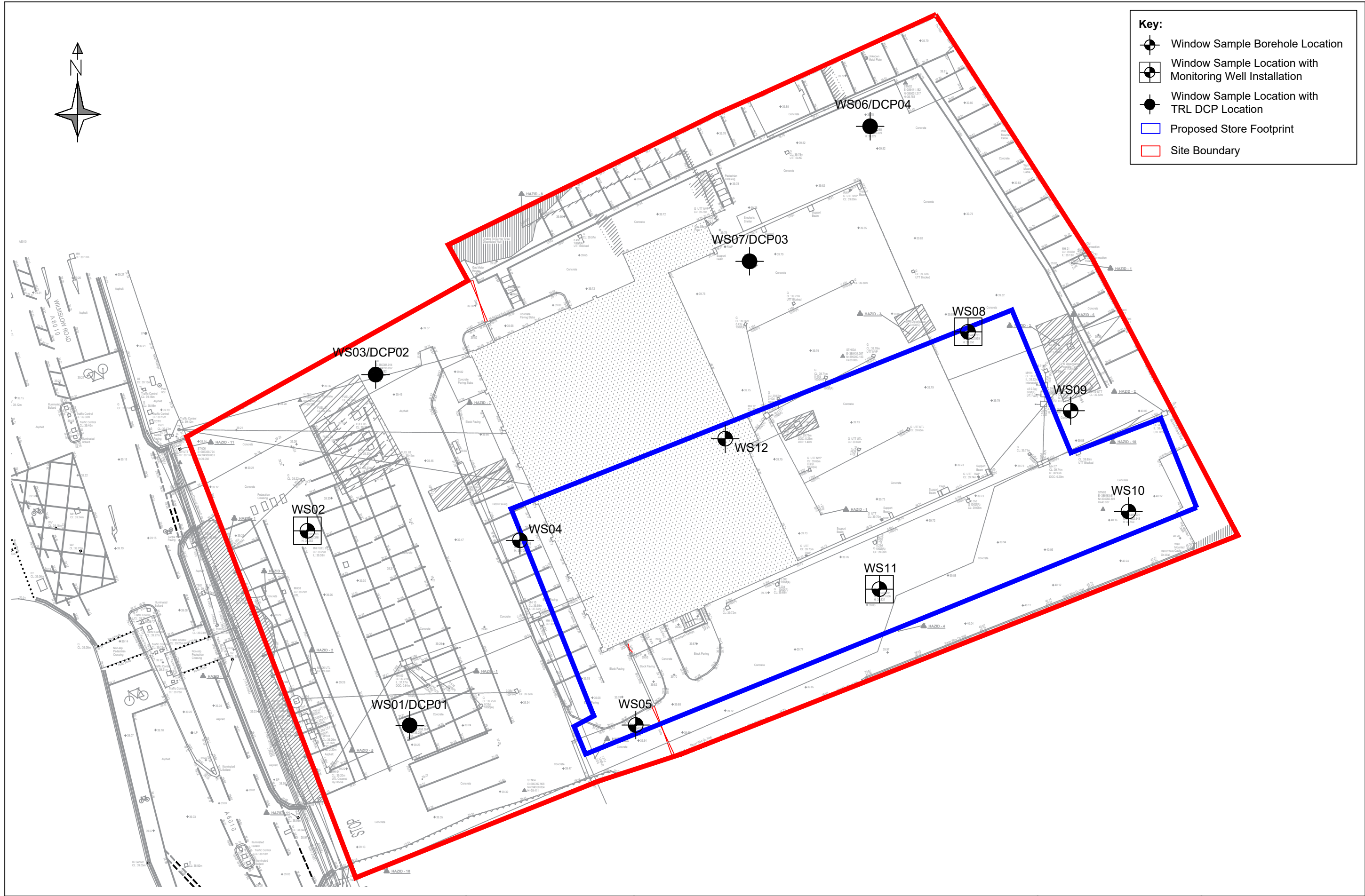


Lidl Great Britain Ltd
& Buzzard Holdings Ltd

Project:
261 Wilmslow Road, Manchester

Title:
Site Location Plan

Project No:	24-1965-P
Drawing No:	01
Revision:	A
Scale:	NTS



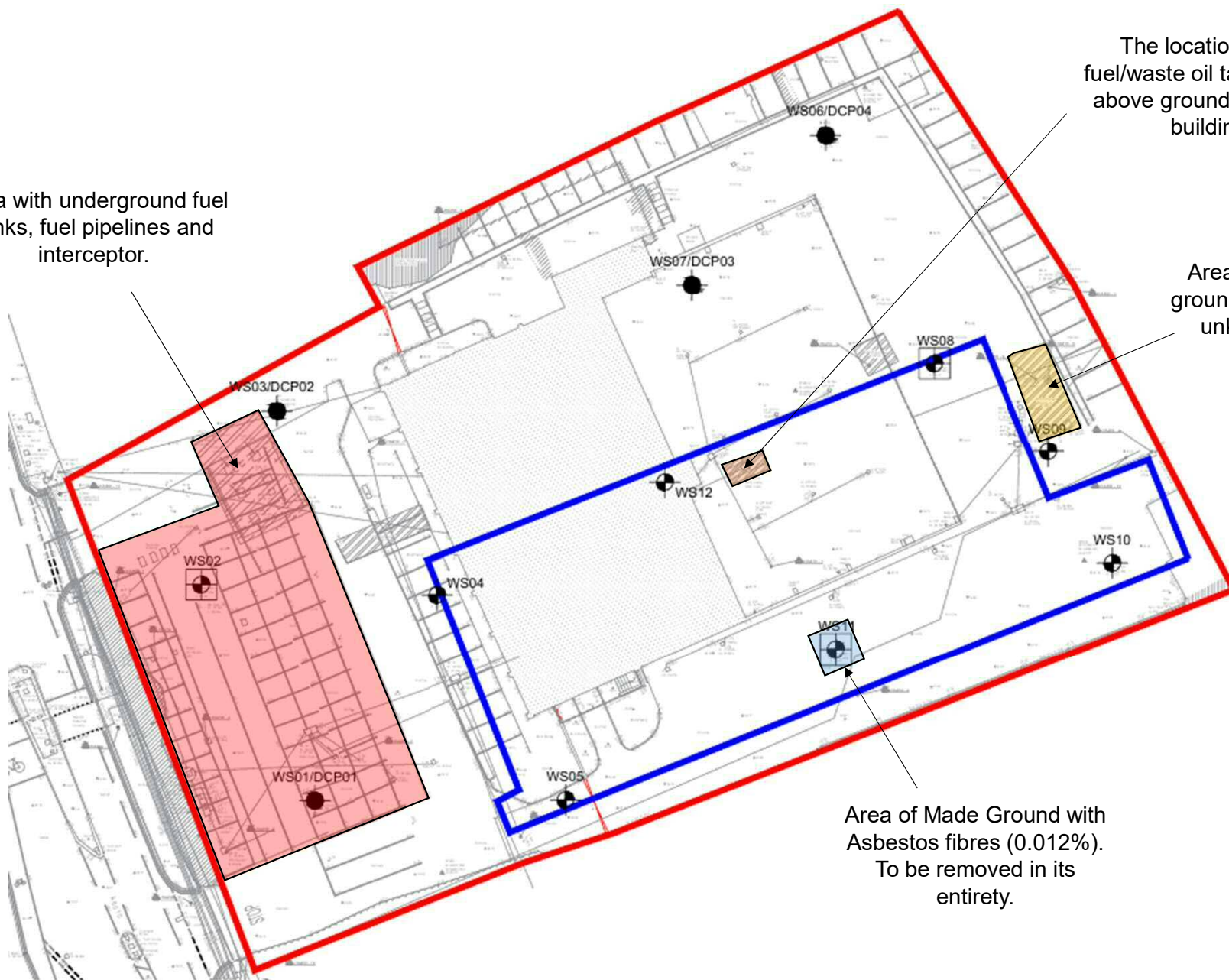
 OBSIDIAN GEO-CONSULTING	Lidl Great Britain Ltd & Buzzard Holdings Ltd	PROJECT:	PROJECT NO: 24-1965-P	DRAWING NO: 02
		Proposed Lidl Store, 261 Wilmslow Road, Manchester	REVISION: A	SCALE: NTS
		TITLE:	DRAWN BY: BM	DATE: 26/06/2024
		Exploratory Hole Location Plan	APPROVED BY: SMD	DATE: 26/06/2024



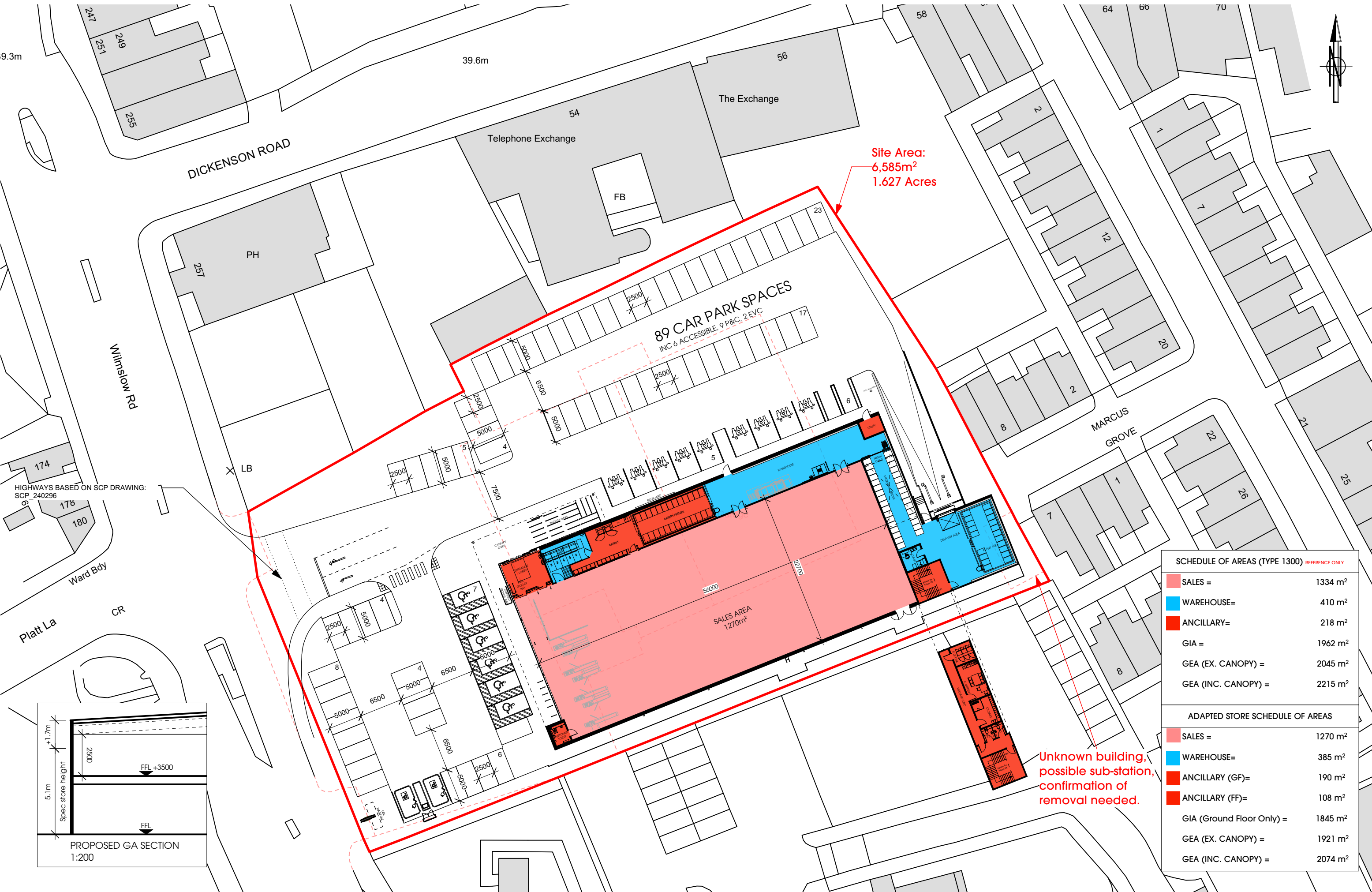
Area with underground fuel tanks, fuel pipelines and interceptor.

The location of the fuel/waste oil tank located above ground within the building.

Area of disturbed ground and potential unknown tank.



Area of Made Ground with Asbestos fibres (0.012%).
To be removed in its entirety.



9.3m

247
249
251
255

DICKENSON ROAD

PH

257

174
178
180

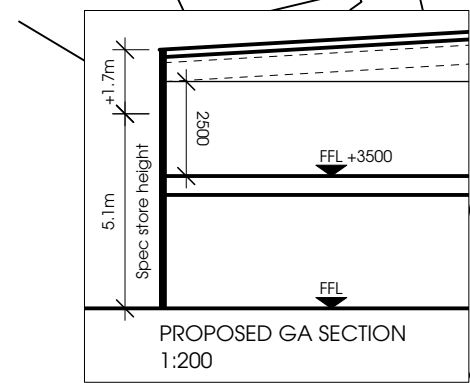
Ward Bdy

Platt La

CR

LB

HIGHWAYS BASED ON SCP DRAWING:
SCP_240296



Site Area:
6,585m²
1.627 Acres

Unknown building,
possible sub-station,
confirmation of
removal needed.

SCHEDULE OF AREAS (TYPE 1300) REFERENCE ONLY	
SALES =	1334 m ²
WAREHOUSE=	410 m ²
ANCILLARY=	218 m ²
GIA =	1962 m ²
GEA (EX. CANOPY) =	2045 m ²
GEA (INC. CANOPY) =	2215 m ²

ADAPTED STORE SCHEDULE OF AREAS	
SALES =	1270 m ²
WAREHOUSE=	385 m ²
ANCILLARY (GF)=	190 m ²
ANCILLARY (FF)=	108 m ²
GIA (Ground Floor Only) =	1845 m ²
GEA (EX. CANOPY) =	1921 m ²
GEA (INC. CANOPY) =	2074 m ²

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DO NOT SCALE!
ALL DIMENSIONS SHOULD BE CHECKED ON SITE BEFORE WORK COMMENCES

client

Lidl GB Ltd

project

Wilmslow Rd, Rusholme

date

April 2024

status

Feasibility

scale

1:500 @ A3

drawing title

Proposed Setting Out Site
Plan- Option 10 2x5m parking

drawn

KA

checked

MH

job no.

2594

dwg no.

F413

rev.

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Rev	Date	Description	Drawn
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www.obsidian-geoconsulting.co.uk