Crossfield CONSULTING
GEOTECHNICAL ENVIRONMENTAL

DAY'S PROPERTY HOLDINGS LIMITED

LAND OFF SEVEN STILES AVENUE, NEWPORT RETAIL PARK, NEWPORT, NP19 4TX

CONSTRUCTION WORKS ENVIRONMENTAL STRATEGY

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1. PROJECT BACKGROUND

1.1 Introduction

A commercial development is proposed at land off Seven Stiles Avenue, Newport Retail Park, Newport. The site is currently occupied by a vacant development plot comprising an area of gravel surfacing within the northern part of the site and overgrown shrub vegetation elsewhere. The proposed development comprises a van rental premises to include a van workshop and wash bays with an office/reception area together with car/van parking and limited areas of managed soft landscaping.

The location of the site is shown on Figure 1 and a plan showing the site boundary is provided as Figure 2. A pre-development topographical survey is reproduced as Figure 3. A proposed development layout of the site is illustrated on the Landscape Planting Plan, by DEP Landscape Architecture Limited, and is reproduced in this report.

A site investigation (comprising a desk study and ground investigation) has been undertaken by Crossfield Consulting. The Site Investigation Report (Report No. CCL03796.CU99-R1) relating to that work is given in the References and should be referred to for background information relevant to this document. It should be noted that, since the Site Investigation Report was produced, the Client is proposing to add an extra area of land to the proposed development. The additional area is shown on Figures 2 and 3. It is noted that the additional land area has the same history and usage as the site area that was previously investigated. On that basis, it is considered that additional ground investigation is not required (and unexpected ground conditions, if encountered in the additional area can be dealt with under a discovery strategy, as included in this document).

The investigation, including laboratory testing and qualitative and quantitative risk assessments, have identified no unacceptable risks to the health of end users of the proposed development or to controlled waters such that no requirement for remediation has been identified at the site. However, it was recommended that certain good practice controls be put in place during construction. It is also recommended that, if topsoil/growing medium materials are to be imported to site for soft landscaping development, the import of such materials should be documented and the materials should meet certain acceptance criteria. Materials removed from site (waste) will also be documented in line with good practice.

Crossfield Consulting has been commissioned to prepare this Construction Works Environmental Strategy. The document details control measures to be in place during construction, confirmation of requirements for proposed soft landscaping areas, records to be kept for materials imported to site (including contaminant concentration acceptance criteria) and materials removed from site as waste. This document also includes a discovery strategy that should be displayed on site and followed during construction.

It is confirmed that this document has been prepared by a professionally qualified and competent person (Chartered Geologist). The Strategy has been prepared in relation to Planning Condition 4 Part c in the Decision Notice issued by Newport City Council for Planning Application 24/0969 for the proposed development. This document should be read in conjunction with the Site Investigation Report, as referenced.

1.2 Site Description

This site description is based on observations made during Crossfield Consulting's investigation works on site in September 2024 for context of the contaminated land risk assessment and this Environmental Strategy. It is understood that, at the time this document was prepared, no construction works had commenced on site.

The site is a rectangular plot of land with an approximate area of 0.81 ha. The site and wider area is generally relatively flat and level.

The site comprises a vacant development plot with a gravel surfaced area present within the northern section of the site. The gravel surfaced area has two existing vehicular access entrances, one along the northern site boundary to the Matalan car park access road, and the other on the western site boundary to Seven Stiles Avenue. The western entrance is currently blocked by a vegetated soil bund and a caravan is parked on the Seven Stiles Avenue side of the bund within the entrance. The remaining site area is covered by variable overgrown and rough/shrub vegetation and dense brambles. Soil bunds are also present along the northern and western site boundaries and are covered with brambles. Two existing stockpiles are located within the northeastern part of the site and to the southeast of the gravel surfaced area is a shallow trench, as shown on Figure 3. An additional area of land, as shown on Figure 3, is to be incorporated into the site and forms an extension of the site area described above with no significant differences.

An electricity substation is present along the western site boundary, adjacent to Seven Stiles Avenue. Mature trees are present along the eastern site boundary.

2. SUMMARY OF GROUND CONDITIONS

A summary of the ground conditions indicated at the site is presented below. Additional information is presented in the Site Investigation Report.

Made Ground
Made Ground was encountered across the site to depths of between 0.80 m and 1.50 m and comprises a thin cover of relatively loose gravelly sand with rootlets to approximately 0.1 m depth and is underlain by dense to very dense layers of sandy gravel with cobbles, which appears to have been placed and compacted and includes thin cemented layers. The Made Ground contains some brick and concrete fragments and rare, possible slag fragments. Within the northeastern part of the site, large concrete boulders were also encountered within the Made Ground, similar to those observed within the adjacent stockpile.

A stockpile to the southeast of the gravel surfaced area comprises brown gravelly sand with cobbles and concrete boulders with rebar and some metal fragments and other demolition materials.

A stockpile located to the east of the gravel surfaced area of the site is recorded to comprise brown and grey sandy fine to coarse angular gravel with brick fragments and possible rare, crushed slag materials.

The perimeter bund to the north and west of the gravel surfaced area comprises a thin covering of topsoil materials underlain by grey and brown gravelly sand with brick, concrete and plastic pipe fragments.

Tidal Flats Deposits
Beneath the Made Ground across the site, initially a firm to stiff consistency, light bluish grey mottled brown, silty clay was encountered. The clay varied in strength with depth but typically became firm consistency below 2 m depth and soft consistency, below 3 m depth and sometimes became firm to stiff consistency again below 4 m depth. Horizons of spongy pseudo-fibrous peat, up to 0.6 m thick, were also recorded within the clay from approximately 2.5 m depth.

Mercia Mudstone Group
Mercia Mudstone Group strata are indicated (on published geological maps) to be present below the superficial deposits at the site. The strata were not encountered in trial pits or dynamic sample boreholes. However, two dynamic sample holes were extended to depths of 10 m using dynamic probing. It is noted that the probing records indicated an increase in ground strength or density at a depth of approximately 8.5 m to 9.0 m and the interface between the Tidal Flat Deposits and the Mercia Mudstone Group may be present within that depth range.

Groundwater
Perched water was encountered at the base of the Made Ground within TP1 at 1.15 m depth. No groundwater was encountered elsewhere across the site. Groundwater depths have been recorded between 0.89 m and 1.21 m (levels of 5.61 m OD and 5.39 m OD respectively) during the monitoring period following the intrusive ground investigation.

The groundwater conditions are based on observations made at the time of the fieldwork. It should be noted that groundwater levels may vary due to seasonal and other effects.

Ground Gases
Ground gas monitoring during the ground investigation identified no significant concentrations of methane or carbon dioxide and no significant gas flow rates. The associated ground gas risk assessment concluded that the proposed development should not be constrained by ground gas issues.

3. STRATEGY OBJECTIVES

Previous ground investigation work has demonstrated that there are no unacceptable long-term risks to end users of the development or to controlled waters. However certain measures have been recommended and the following objectives are relevant:

1. There will be no unacceptable risks to the health of groundworkers involved in construction works at the site
2. Risks to the healthy growing of plantings in soft landscaping will be minimised and topsoil materials imported to site as a growing medium will be suitable for use (in the context of not causing an unacceptable risk to human health or the wider environment)
3. A procedure is to be in place should unexpected and potentially contaminated ground be identified during groundworks and, if encountered, such ground is to be inspected and assessed and, where applicable, a remediation strategy will subsequently be issued as an addendum to this Environmental Strategy

The design of the Strategy has been based on risk assessments using the information obtained from relevant ground investigation data. The proposed works relate to existing soil conditions and their influence on groundworkers and landscape plantings. On the basis of the risk assessments, there is no requirement to undertake pre-commencement works to provide safe working conditions for groundworkers and health protection measure will take the form of construction-stage mitigation measures.

The Strategy relates to the known ground conditions at the site. It is possible that, during the groundworks phase of construction, ground or groundwater conditions not previously identified may be encountered and there may be associated potential contaminated land issues. If such ground conditions are encountered by groundworkers, who are experienced in the development of brownfield sites and are considered to be competent for the purposes of identifying potentially contaminated ground conditions (i.e. maintaining a watching brief), the Site Manager will inform Crossfield Consulting and a suitably qualified geoenvironmental engineer will attend site to assess the ground, recover samples, if necessary, and issue an assessment, including the requirement for any remedial works.

On completion of the works relevant to this Strategy document, a Completion Report will be prepared that will confirm that the objectives of the Strategy have been met.

4. CONSTRUCTION PHASE WORKS

4.1 Health Protection Measures for Groundworkers

Ground investigation work at the site has not identified significant contaminant concentrations in the shallow soils beneath the site and no asbestos (fibres or ACM) has been encountered. The recorded ground conditions are considered not to represent a short-term exposure risk to groundworkers, based on, where applicable, reference to published occupational exposure limits and acute assessment criteria for human health. On this basis, the risks to groundworks are considered to be negligible. However, it is possible that ground conditions could be present at the site that have not been identified during ground investigation work and that could represent a greater risk to groundworkers.

Based on the known ground conditions, it is considered that conventional personal protective equipment (PPE) would be adequate to mitigate the low level of risk to groundworkers. Such PPE will be commensurate with groundworks on general brownfield land and will include gloves and overalls (PPE, such as steel-toed boots and hard hats, relating to physical construction hazards are not applicable to this document).

During construction, a watching brief will be maintained by construction personnel. In the unlikely event that fragments of asbestos containing materials (ACMs) are encountered, those materials will be hand-picked and bagged before being placed in a skip or bin with a lid that will only be used for asbestos materials. If evidence of asbestos materials is encountered, provision will be made for appropriate disposable PPE to be maintained on site for the use of groundworkers. Such PPE will include disposable gloves, disposable overalls and disposable masks. At the end of each day working in soils that indicate visible evidence of potential asbestos materials, the disposable PPE will be put into black bags and placed into a lidded skip or bin that is to be used only for suitable off-site disposal of potential asbestos materials. Although considered to be unlikely, if significant quantities of ACM are identified then additional soil sampling and testing for asbestos fibres may be applicable (due to the increased risk that fibres may be present in soils containing significant quantities of ACM). If such testing is undertaken and identifies significant fibre concentrations, working method statements will be reviewed and additional protection measures may be required.

In addition to the above precautions, appropriate soil-dampening equipment will be maintained on site and this will be used during dry and/or windy conditions during soil moving or excavation works. Such a provision will minimise the potential for airborne dust and will further reduce risks to groundworkers together with preventing dust migrating beyond the site boundaries such that risk or nuisance to neighbours and the general public will be minimised.

4.2 Material Removal from Site

It is understood that the Client is proposing not to significantly reduce general ground levels at the site. However, there are a number of features, such as stockpiles and bunds, that are likely to be removed and the construction process will generate arisings, such as from foundations or services excavations. It is anticipated that such materials will be removed from site for disposal at a suitably permitted waste facility.

Waste classification advice has previously been provided in the Site Investigation Report and soils removed from site will be in accordance with the given recommendations (or as superseded if additional testing is undertaken). If, during construction, groundworkers encounter materials that appear to differ from those previously tested and classified, additional sampling and testing will be undertaken for waste classification and, if applicable, waste acceptance purposes.

The results of additional testing, if undertaken, will be provided in a Completion Report together with documentation relating to the disposal of soils from site including waste transfer consignment notes and receiving facility receipts.

4.3 Growing Medium in Soft Landscaped Areas

Based on the known ground conditions, concentrations of phytotoxic metals are not excessive. Whilst the site currently supports vegetative growth, no discernible topsoil layer was identified at near surface depths during the ground investigation. Therefore, the existing shallow soils are considered unlikely to be suitable to form a growing medium for decorative planting, as proposed for the new development. The proposed soft landscaping and planting plan (Drawing Ref. 5477.01 Revision C by DEP Landscape Architecture Limited) reproduced in this report indicates that good quality topsoil is required to form the growing medium in new soft landscaping areas. On this basis, it is anticipated that there will be a requirement to import such topsoil to site during construction works.

As the growing medium does not require to form a capping layer that would provide an effective barrier between end users of the development and the existing ground, no recommendation is made in this document with respect to the thickness of the growing layer from a contaminated land risk assessment perspective. However, the development's proposed planting plan makes reference to the following requirements in new soft landscaping areas:

- Shrub beds to have a minimum topsoil thickness of 450 mm.
- Tree pits are to have a depth of 750 mm (topsoil mixed with tree planting compost) and an area of 1000 mm by 1000 mm.
- Topsoil thickness for other soft landscaping (wetland/meadowland seeding and amenity grass) is not specified.

As the depths indicated above have been proposed by a specialist landscaper to reflect the growing medium requirements and the nature of proposed plantings, it is considered that the depths are suitable for the development. The above thicknesses are not required to form an effective barrier/capping layer for the protection of human health and/or the wider environment.

It will be necessary to ensure that topsoil materials imported to site as part of the growing layer are of sufficient quality to provide healthy growing conditions for plants and that the materials themselves do not represent an unacceptable level of risk to end users of the development or to the wider environment. The following procedure is to be implemented to confirm compliance with this Strategy document.

Prior to importing materials to site, documentation will be obtained from the topsoil supplier to demonstrate that the soils are suitable to support plant growth in landscaping areas. If topsoil is sourced from a brownfield site or a recycling facility (or if provenance is unknown), then a suite of testing that is compatible with the acceptability criteria in Table 1 should be provided by the supplier. To minimise delays and to ensure that appropriate materials are brought to site, material sources will be identified at an early stage and documentation provided by the supplier will be reviewed by Crossfield Consulting so that the source can be confirmed as appropriate (or rejected). Imported topsoil should also be compliant with BS 3882:2015 *Specification for Topsoil* and the supplier should provide a Declaration of Analysis to demonstrate compliance with BS 3882:2015 (and the required criteria are given in Table 2). Haulier delivery notes will be kept for each load of topsoil brought to site to confirm that the materials have been sourced from the correct facility.

In addition to documentation supplied by the source site, Crossfield Consulting will also sample and test the topsoil materials, regardless of source and any documentation provided by the supplier, after they have been imported to site and placed in landscaping areas to confirm that the correct materials have been provided by

the supplier and that there has been no cross-contamination during transit. The testing will be compliant with Table 1 (modified as necessary based on the nature of the source site) and will be undertaken at a UKAS accredited laboratory in accordance with the Environment Agency's Monitoring Certification Scheme (MCERTS). In accordance with the Welsh Land Contamination Group's document *Requirements for the Chemical Testing of Imported Materials for Various End Uses and Validation of Cover Systems*, the testing frequency will be at a rate of 4 No. samples (per material, per source) for the first 250 m^3 of soil. Where applicable, it is considered that a further 1 No. sample for each additional 250 m^3 would be appropriate for the same material source. If any materials are removed from site to accommodate the placement of the growing medium, consignment transfer documentation will also be collected for this work.

It should be noted that the acceptance criteria provided in Table 1 do not represent an upper limit of acceptable risk to human health. Therefore, if, at any stage of the testing, determinands are identified that exceed the values given in Table 1, additional risk assessment, including consideration of alternative or site-specific acceptance criteria, may be appropriate to confirm that imported materials are not an unacceptable risk to end users of the development. Whilst the proposed development is of commercial end-use type, criteria relating to residential end use have been used in Table 1. Acceptance criteria compatible with commercial end use may include relatively high contaminant concentrations and may be associated with materials that are aesthetically compromised (and may also, technically, be classified as hazardous waste). Therefore, commercial health criteria are considered not to be suitable, in the first instance, for materials to be placed at surface level in decorative landscaping (although it may be appropriate to consider such criteria on an individual contaminant basis depending on the laboratory test data).

In view of material placement on the ground surface or at shallow depth, risks to controlled water associated with the chemical quality of topsoil materials are considered to be negligible. However, laboratory test data will be reviewed and, if elevated concentrations of potentially mobile contaminants are recorded, risks to controlled waters or the wider environment will be considered when determining that materials are suitable for use at the site.

The following information will be collected to demonstrate compliance with the Strategy objectives and will be provided in a Completion Report:

- Documentation provided by the topsoil supplier to demonstrate imported soil suitability (including analytical laboratory test reports that demonstrate compliance with Table 1, if applicable).
- Details of soil samples taken after material import to site.
- Results of analytical laboratory testing on samples taken after material import to site (demonstrating compliance with Table 1).
- Photographs of soil inspections and sampling.
- A plan showing the locations of soil inspections and sampling.
- Based on the above information, confirmation that works have been undertaken in accordance with the Environmental Strategy.

5. UNFORESEEN GROUND CONDITIONS

Given the ground investigation works that have been undertaken at the property, together with the site history, it is considered that risks to human health, the wider environment and construction materials have been adequately assessed. Therefore, it is considered very unlikely that potential contamination would be encountered during development that had not previously been considered. However, a discovery strategy has been produced and outlines the procedure to be followed by site operatives should unexpected (and potentially 'contaminated') ground conditions be encountered during development. This procedure is presented in Appendix I.

6. COMPLETION REPORTING

On completion of the work indicated in this Construction Works Environmental Strategy document, a Completion Report will be prepared and will comply with the requirements of the Newport City Council Planning Authority (Planning Condition 4 Part d of the Decision Notice for Application 24/0969). The report will provide the following information:

- Confirmation that Made Ground materials were kept damp during ground works
- A record of soil disposal consignment notes, waste facility receipts and any additional laboratory testing (if applicable)
- A record of the imported topsoil materials, consignment transfer documentation, associated laboratory testing and confirmation that the materials are suitable for use as a growing medium at the site and that they do not form an unacceptable risk to human health or the wider environment
- Confirmation that no unforeseen ground conditions were encountered or details of the assessment and remediation work undertaken if such conditions were encountered
- Confirmation that works on site have been completed in accordance with the Construction Works Environmental Strategy

REFERENCES

Crossfield Consulting Limited (October 2021, R1 – May 2025) *Land off Seven Stiles Avenue, Newport Retail Park, Newport, NP19 4TX, Site Investigation Report* Report No. CCL03769.CU99-R1

BSI (2017) *BS 10175:2011+A2:2017 Code of Practice for Investigation of Potentially Contaminated Sites* British Standards Institution

BSI (205) *BS 3882:2015 Specification for topsoil and requirements for use* British Standards Institution

CIRIA (2001) *CIRIA C552 – Contaminated Land Risk Assessment: A Guide to Good Practice* Construction Industry Research Association

CL:AIRE (2010) *Soil Generic Assessment Criteria for Human Health Risk Assessment* Contaminated Land: Applications in Real Environments

CL:AIRE (2014) SP1010: *Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination – Final Project Report (Revision 2)* Contaminated Land: Applications in Real Environments

DoE (1990) *The Environmental Protection Act* Department of The Environment HMSO

Environment Agency (October 2020, Updated July 2023) *Land Contamination Risk Management (LCRM)* EA

HSE (1991) *Protection of Workers and the General Public During the Development of Contaminated Land* Health and Safety Executive

LQM/CIEH (2015) *The LQM/CIEH S4ULs for Human Health Risk Assessment* Land Quality Press, Nottingham

Welsh Government (2014) *Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination – Policy Companion Document* Welsh Government

Welsh Government (February 2024) *Planning Policy Wales – 12th Edition* Welsh Government

Welsh Government (2012) *Contaminated Land Statutory Guidance* Welsh Government

Welsh Land Contamination Working Group (2023) *Development of Land Affected by Contamination: A Guide for Developers, Version 4* WLGA & NRW

Welsh Land Contamination Working Group (2013) *Requirements for the Chemical Testing of Imported Materials for Various End Uses and Validation of Cover Systems, Version 1* WLGA

TABLES

ACCEPTANCE CRITERIA FOR IMPORTED SOILS

Parameter	Acceptance Criteria Concentration not to Exceed (mg/kg)		
	1% to <2.5% Soil Organic Matter	2.5% to <6% Soil Organic Matter	6% or Greater Soil Organic Matter
Arsenic	40 [2]	40 [2]	40 [2]
Cadmium	85 [2]	85 [2]	85 [2]
Chromium (III)	910 [2]	910 [2]	910 [2]
Chromium (VI)	6 [2]	6 [2]	6 [2]
Lead	310 [3]	310 [3]	310 [3]
Inorganic Mercury	56 [2]	56 [2]	56 [2]
Selenium	430 [2]	430 [2]	430 [2]
Petroleum Hydrocarbons (TOTAL)	500 [4]	500 [4]	500 [4]
Aliphatics $C_5 – C_6$	42 [2]	78 [2]	160 [2]
Aliphatics $C_6 – C_8$	100 [2]	230 [2]	- [5]
Aliphatics $C_8 – C_{10}$	27 [2]	65 [2]	150 [2]
Aliphatics $C_{10} – C_{12}$	130 [2]	330 [2]	- [5]
Aromatics $C_6 – C_7$	370 [2]	- [5]	- [5]
Aromatics $C_8 – C_{10}$	47 [2]	110 [2]	270 [2]
Aromatics $C_{10} – C_{12}$	250 [2]	- [5]	- [5]
Polyaromatic Hydrocarbons (TOTAL)	100 [4]	100 [4]	100 [4]
Naphthalene	2.3 [2]	5.6 [2]	13 [2]
Benz(a)anthracene	11 [2]	14 [2]	15 [2]
Chrysene	30 [2]	31 [2]	32 [2]
Benzo(b)fluoranthene	3.9 [2]	4.0 [2]	4.0 [2]
Benzo(a)pyrene	3.2 [2]	3.2 [2]	3.2 [2]
Indeno(123cd)pyrene	45 [2]	46 [2]	46 [2]
Dibenzo(ah)anthracene	0.31 [2]	0.32 [2]	0.32 [2]
Asbestos	Absent [8]	Absent [8]	Absent [8]

NOTES:

1. If documentation indicates that the source site is associated with past industrial use or waste disposal, it may be necessary to extend the testing indicated above depending on the details provided in the documentation. If this occurs, the additional testing will be assessed against appropriate criteria such as LQM S4ULs (2015), CL:AIRE GAC (2010) or Welsh Government/Defra C4SLs (2014).
2. Suitable for Use Level (S4UL) published by LQM/CIEH, 2015 – Residential Without Plant Uptake land use. S4UL assumptions comprise 1%, 2.5% or 6% soil organic matter (as appropriate), soil pH of 7 and sandy loam soil type. S4ULs are copyright © Land Quality Management Limited reproduced with permission; Publication Number S4UL3133.
3. Category 4 Screening Level (C4SL), Welsh Government/Defra (March 2014)
4. Upper bound limit of inert waste concentration. This value is largely provided for aesthetic reasons for the imported materials. Acceptability in relation to human health is based on the values given below the 'total' row.
5. TPH-CWG fractions that are not presented in this Table would have acceptability criteria greater than the value presented for total petroleum hydrocarbons (TPH). Therefore, any soil meeting the TPH criteria of 500 mg/kg would also meet the acceptability criteria for the non-presented fractions by default. Polyaromatic hydrocarbon (PAH) species that are not presented would have an acceptability criteria greater than the total PAH value specified.
6. The above parameters relate to soil materials imported to site that may be obtained from a greenfield source, a brownfield source or a recycled materials source. The above criteria do not apply to materials obtained as aggregates from a source such as a quarry.
7. This Table generally uses generic values as assessment criteria to demonstrate imported material suitability for use with the context of the proposed development. Values associated with residential usage are used for initial acceptance screening for aesthetic reasons of materials to be placed at the surface as a growing medium. However, exceedance of the above values is not automatically associated with unacceptable levels of risk. If laboratory tests relating to imported materials identify determinands at concentrations above those indicated in the above Table, it may be appropriate to calculate site specific acceptability criteria for individual determinands or consider the suitability of alternative assessment criteria rather than rejecting a particular source material.
8. Asbestos fibres recorded as not detected or detected at concentrations below the laboratory reporting limit (maximum acceptable method reporting limit of 0.001%) will be deemed to meet the criteria. Visible asbestos containing materials (ACM), if present, will not be acceptable and is to be hand-picked and removed.
9. The criteria in this Table relate to protection of human health. Test data will also be reviewed in respect of risks to controlled waters and, where elevated mobile contaminants are identified, appropriate risk assessment will be undertaken or the source will be rejected for use on site.

TABLE 2

SOIL QUALITY REQUIREMENTS FOR IMPORTED TOPSOIL

Parameter	Acceptance Criteria – For Multipurpose Grade Topsoil		
Soil Texture	To comply with permitted soil texture classes on Figure 1 in BS3882:2015		
Stone content			
> 2mm	30% (maximum)		
> 20 mm	10% (maximum)		
> 50 mm	0% (maximum)		
pH Value	5.5 to 8.5		
Loss on Ignition			
Clay 5% to 20%	3 to 20%		
Clay 20% to 35%	5 to 20%		
Nutrient Content			
P (extractable)	16 to 140 mg/l		
K (extractable)	121 to 1500 mg/l		
Mg (extractable)	51 to 600 mg/l		
N (total)	>0.15%		
Electrical conductivity	3300 µS/cm (maximum)		
Phytotoxic Contaminants	**Soil pH <6**	**Soil pH 6 to 7**	**Soil pH >7**
Zinc	<200 mg/kg	<200 mg/kg	<300 mg/kg
Copper	<100 mg/kg	<135 mg/kg	<200 mg/kg
Nickel	<60 mg/kg	<75 mg/kg	<110 mg/kg
Visible Contaminants	<0.5%		
of which are plastics	<0.25%		
Sharps	Zero in 1 kg of air dried soil		

NOTES:

1. It should be appreciated that topsoil quality generally deteriorates with storage in large stockpiles. Hence, topsoil should be handled and stored on site in accordance with BS3882:2015 to maintain topsoil quality.

2. The above parameters relate to the Topsoil/growing medium only

3. All tests to be undertaken in accordance with BS3882:2015 Specification for Topsoil.

4. The topsoil supplier should complete a Supplier's Declaration of Analysis (including analysis certificate and details of the sampling protocol), confirming compliance with BS3882:2015 Specification for Topsoil

FIGURES

FIGURE 1

SITE LOCATION PLAN

Scale 1: 50,000

Reproduced from the 2022 1:50,000 Ordnance Survey map with the permission of Ordnance Survey.
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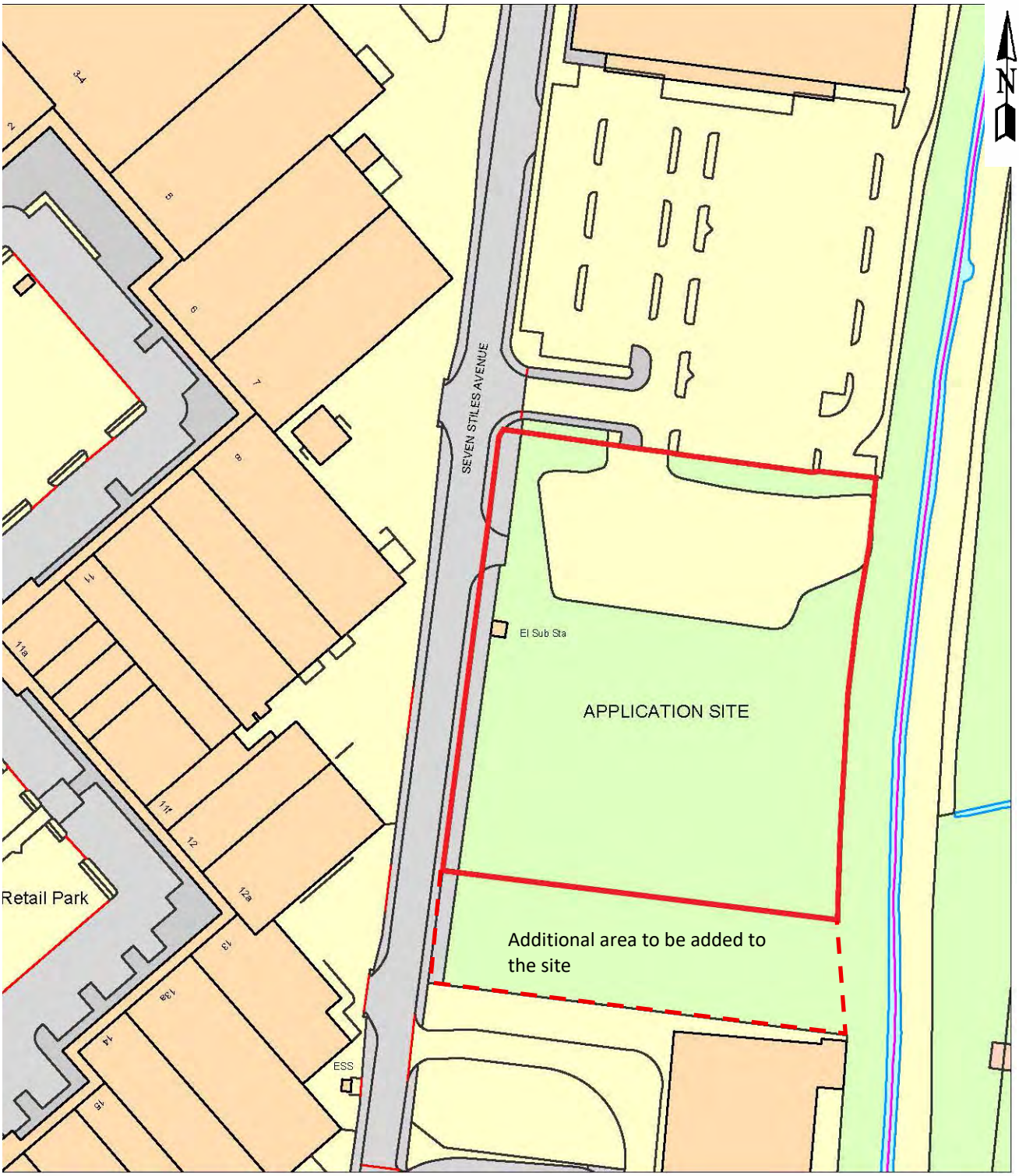
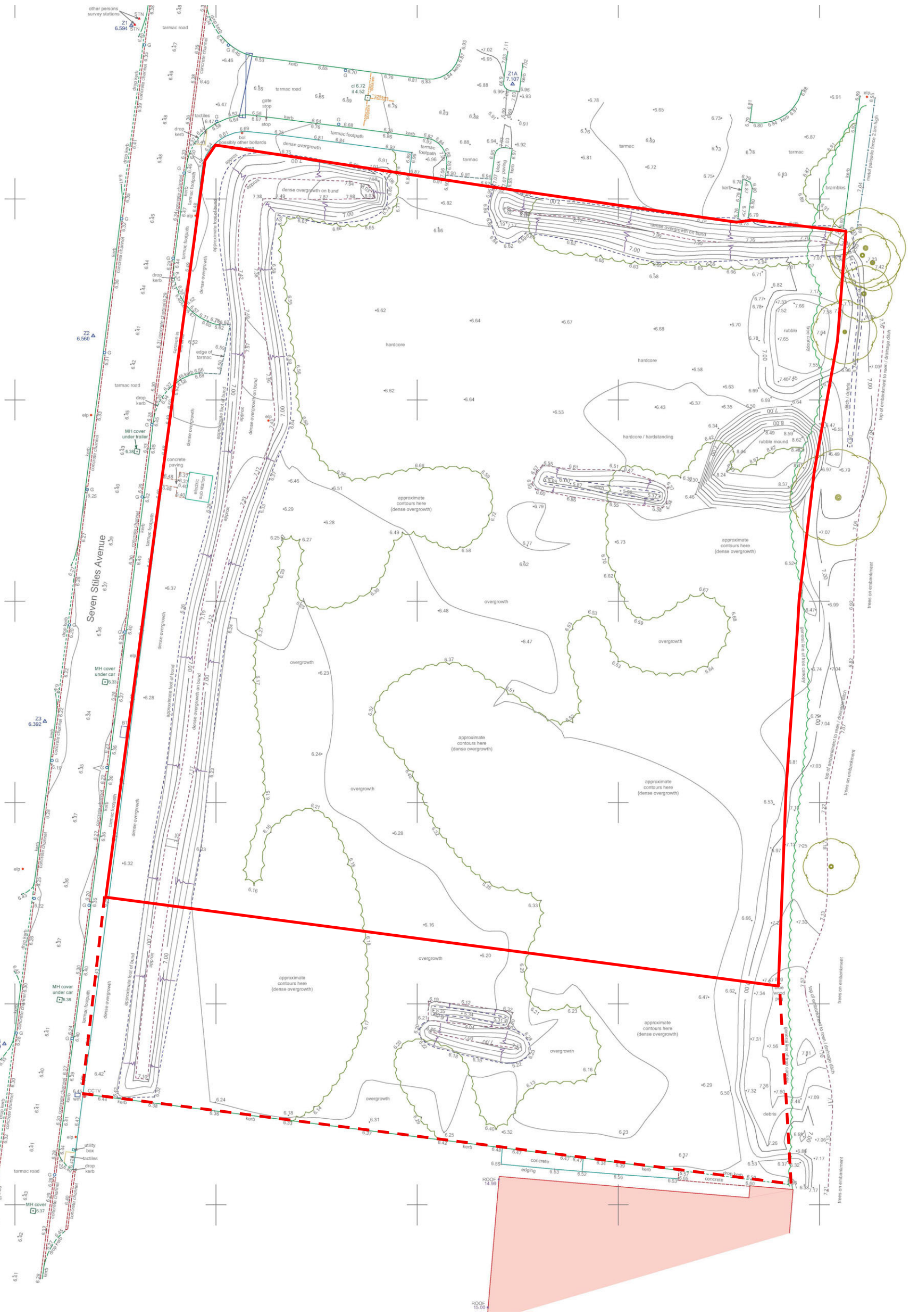
FIGURE 2



SITE PLAN
Scale 1: 1,250

Reproduced from a Site Location Plan, dated May 2024, by Opfer Logan Architects, Dwg Ref. 22424-LOC-01
Includes Ordnance Survey map data © Crown copyright 2024. OS 100014660

FIGURE 3



TOPOGRAPHICAL SURVEY
Scale 1:500

Reproduced from a Topographical Survey, dated August 2024, by Zenith Land Surveys Limited, Dwg No. 22022_A

DRAWINGS

Planting Notes:

1. Tree procurement, planting and management shall be in accordance with BS 8545:2014 Trees: from Nursery to Independence in the landscape- Recommendations.

2. All other plants shall be handled in accordance with 'Plant Handling', the booklet published by the Committee for Plant Supply and Establishment (CPSE). The contractor shall comply with clauses 3 & 4 of the above booklet (obtained from the Horticulture Trades Association, 19 High Street, Theale, Reading, Berks RG7 5H) which refers to the receipt, unloading and temporary storage of plants.

2. Plants shall be first class examples of their species or variety, free from all pests and diseases, with good fibrous root systems and materially undamaged (refer to relevant sections of BS3936 Parts 1-4 'Specification of Nursery Stock').

3. All planting is to be in general compliance with BS4428: 1989 'Code of Practice for general landscape operations (excluding hard surfaces).'

4. Shrub beds to have a min depth of 450mm good quality topsoil, beds should be cultivated prior to planting and be free from weeds or any stones/ rubble material greater than 50mm. Ensure that areas around the base of shrubs are maintained weed free during the establishment period using a glyphosate based herbicide.

6. All BR whips and BR stock (proposed hedgerow and native shrub mix) to be protected with a spiral bound tree-shrub guard and secured into place with a cane. Ensure that the areas around the base of the shrubs are maintained weed free during the establishment period using a glyphosate based herbicide. BR stock should be notch planted and heeled securely into position.

6. Each tree/shrub shall be individually guarded with a 600mm Tree or Shrub Shelter (film-coated @ 130-160 mm diameter) secured by a 25mm X 25mm X 750mm tanalised softwood stake driven a minimum of 250mm below ground-level.

7. Extra heavy standards are to be double staked using short stakes (at 600mm above ground level) and secured with a cross bar and rubber webbing tie and spacer. A robust strimmer-guard (*Arbortech Standard Strimmer Guard* or similar) is to be used.

8. For all trees; one number 80 litre bag of tree planting compost (non-peat based) is to be incorporated into tree pits. Compost must be mixed thoroughly with topsoil. Trees shall be planted in tree pits of the following minimum sizes (or large enough to comfortably accommodate the root ball, whichever is the largest):

Extra heavy standard 1000x1000x750mm deep

9. All trees planted within turf to have a surface mulch of chipped bark or wood chip to be applied to a depth of 100mm in a 500mm radius cleared of all competing vegetation.

10. The contractor must ascertain for himself/herself the exact location of underground services and maintenance points.

11. All areas of ornamental planting are to be mulched to a depth of 50mm with medium grade tree bark.

12. Grassed areas to be seeded with WFG20 Eco Species Rich Lawn grass seed mix by Germinal or similar and approved.

13. SuDS areas will be seeded with EM8 Meadow Mixture for Wetlands that will be tolerant to flooding.

14. Water all plants and trees on the same day of planting and thereafter as necessary (min. once per week in periods of drought) to ensure the establishment of plants during the 12months defects period.

LEGEND

SOFT LANDSCAPE

Existing Trees and Hedges to be Retained
Please refer back to arboricultural report. Trees to be retained in line with BS5837:2012 .

Existing Trees and Hedges to be Removed
Please refer back to arboricultural report. Trees to be removed to facilitate development.

Proposed Trees
Trees to comprise of 14-16cm girth Extra Heavy Standards, 400-450cm height, with 2m clear stem.

Proposed Native Buffer Planting
To be planted as 80-100cm BR whips at 1 plant per sq.m. To consist of at least 5 native shrub species and provide opportunities for nesting and foraging.

Proposed Native Hedgerow
To be planted as 80-100cm BR whips at 5 plants per lin.m. To consist of at least 5 native shrub species and provide opportunities for nesting and foraging.

Proposed Ornamental Planting
Shrubs and herbaceous plants to be planted as 3L pots at 3-5 per sq.m to soften the built form and provide seasonal interest.

SuDS Areas
Proposed SuDS areas to be seeded with a wetland seed mix EM8 Meadow Mixture for Wetlands - Available from Wildseed.co.uk or similar approved.

Amenity Grass
General grassed areas to be seeded with Species-rich Grass Mix - WFG20 Eco Species Rich Lawn by Germinal or similar approved.

WFG20 Eco Species Rich Lawn (10g/m2)	
Mixture Breakdown	
2.0%	Wild Carrot (Daucus carota)
0.5%	Common Knapweed (Centaurea nigra)
0.4%	Self Heal (Prunella vulgaris)
2.0%	Red Clover (Trifolium pratense)
2.0%	White Clover (Trifolium repens)
1.0%	Ribwort Plantain (Plantago lanceolata)
2.0%	Dandelion (Taraxacum officinale)
1.0%	Birdsfoot Trefoil (Lotus corniculatus)
1.0%	Black Medick (Medicago lupulina)
1.8%	Flax (Linum usitatissimum)
0.1%	Common Mouse-Ear (Cerastium fontanum)
0.1%	Cowslip (Primula veris)
0.2%	Burnett Saxifrage (Pimpinella saxifrage)
1.0%	Lady's Bedstraw (Galium verum)
1.0%	Yellow Rattle (Rhinanthus minor)
1.8%	Yarrow (Achillea millefolium)
0.1%	Wild Pansy(Viola tricolor)
2.0%	Common Sorrel (Rumex acetosa)
20.0%	Sheeps Fescue (Festuca Ovina)
15.0%	Strong Creeping Red Fescue (Festuca rubra rubra)
12.5%	Slender Creeping Red Fescue (Festuca rubra litoralis)
12.5%	Chewings Fescue (Festuca rubra commutata)
10.0%	Smooth Stalked Meadow Grass (Poa pratensis)
5.0%	Browntop Bent (Agrostis capillaris)
2.5%	Creeping Bent (Agrostis stolonifera)
2.5%	Lolium perenne (Lolium perenne)

EM8 Meadow Mixture for Wetlands (4g/m2)	
Mixture Breakdown	
0.6%	Agrimony (Agrimonia eupatoria)
0.4%	Betony (Betonica officinalis)
3.6%	Common Knapweed (Centaurea nigra)
1.0%	Meadowsweet (Filipendula ularia)
0.8%	Hedge Bedstraw (Galium album)
2.0%	Lady's Bedstraw (Galium verum)
0.8%	Meadow Vetchling (Lathyrus pratensis)
0.6%	Rough Hawkbit (Leontodon hispidus)
1.2%	Oxeye Daisy (Leucanthemum vulgare)
0.1%	Greater Birdsfoot Trefoil (Lotus pedunculatus)
1.0%	Black Medick (Medicago lupulina)
3.6%	Ribwort Plantain (Plantago lancelata)
0.4%	Cowslip (Primula veris)
0.8%	Selfheal (Prunella vulgaris)
1.2%	Meadow Buttercup (Ranunculus acris)
0.8%	Yellow Rattle (Rhinanthus minor)
0.3%	Great Burnet (Sanguisorba officinalis)
0.4%	Ragged Robin (Silene flos-cuculi)
0.4%	Tufted Vetch (Vicia cracca)
4.0%	Common Bent (Agrostis capillaris)
4.0%	Sweet Vernal-grass (Anthoxanthum odoratum)
1.6%	Grey Sedge (Carex divulsa subsp. divulsa)
34.4%	Crested Dogstail (Cynosurus cristatus)
1.6%	Tufted Hair-grass (Deschampsia cespitosa)
20.0%	Red Fescue (Festuca rubra)
4.0%	Meadow Barley (Hordeum secalinum)
8.0%	Rough-stalked Meadow-grass (Poa trivialis)
2.4%	Tall Fescue (Schedonorus arundinaceous)

Rev		
Rev C: Layout updated	NN	26/02/2025
Rev B: Layout updated	TR	13/01/2025
Rev A: Layout updated	TR	25/11/2024

PLANT SCHEDULE

SHRUB PLANTING

Abb	Species	Size	Height (cm)	Density	Area	Number
CAB	Ceanothus 'Autumnal Blue'	5L	40-50	3	sq.m	28
CoE	Carex oshimensis 'Evergold'	5L	30-40	5	sq.m	62
EfEG	Euonymus fortunei 'Emerald 'n' Gold'	5L	40-50	5	sq.m	37
Eh	Euonymus harlequin	5L	30-40	5	sq.m	36
HRE	Hebe 'Red Edge'	5L	30-40	5	sq.m	28
LAV	Lavandula angustifolia 'Vera'	5L	30-40	5	sq.m	50
SKG	Skimmia x confusa 'Kew Green'	5L	40-50	4	sq.m	54
Vd	Vinca minor 'Alba'	5L	40-50	3	sq.m	18

TREES

Abb	Species	Girth	Height (cm)	Type	Number
ACE	Acer campestre	14-16	400-450	EHS	6
Bp	Betula pendula	14-16	400-450	EHS	2
Buj	Betula utilis 'Jaquemontii'	14-16	400-450	EHS	3
PcC	Pyrus communis 'Chanticleer'	14-16	400-450	EHS	6
Sa	Sorbus acuparia	14-16	400-450	EHS	7

NATIVE SHRUB MIX

Abb	Species	Size	Height (cm)	Density	Number
Ac	Acer campestre	BR	150-175	10%	33
Ac	Acer campestre	BR	100-120	10%	33
Cs	Cornus sanguinea	BR	100-120	15%	50
Ca	Corylus avellana	BR	100-120	15%	50
Cm	Crataegus monogyna	BR	100-120	15%	50
Cm	Crataegus monogyna	BR	150-175	15%	50
Ia	Ilex aquifolium	2L	100-120	10%	33
Vo	Viburnum opulus	BR	100-120	10%	33

NATIVE HEDGEROW

Abb	Species	Size	Height (cm)	Density	Number
Cav	Corylus avellana	BR	100-120	20%	209
Cmo	Crataegus monogyna	BR	100-120	50%	524
Ia	Ilex aquifolium	2L	100-120	5%	53
PRUSP	Prunus spinosa	BR	100-200	10%	106
Rca	Rosa canina	BR	100-120	5%	53
VIBOP	Viburnum opulus	BR	100-120	10%	106

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Client
ARC Building and Project Management

Project
Days Rental, Newport Business Park

Description
Landscape Planting Plan

Status
Planning

Scale
1:200@A1

Drawn
KR

Job number
5477

Drawing number
.01

Date
Oct 24

Revision
C

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All levels and dimensions to be checked on site by contractor prior to commencement; Any variations to be reported to the client. This drawing is to be read in conjunction with all others relating to the project and all information derived accordingly; any anomolies to be reported to the client. Do not scale from this drawing. Use figured dimensions only. Work shown on this drawings to be carried out in accordance with current British Standards and Codes of Practice.

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APPENDIX I

Crossfield CONSULTING
GEOTECHNICAL ENVIRONMENTAL

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DISCOVERY STRATEGY FOR POTENTIALLY CONTAMINATED MATERIALS ENCOUNTERED DURING CONSTRUCTION WORKS

Background

This Strategy defines the process to be undertaken on site in the event that potentially contaminated ground or suspicious objects are encountered during development that had not previously been identified at the site. It is intended that this Strategy should be understood and followed by all on-site workers and for all new site workers to be made aware of the procedure. A copy of this Strategy should be prominently displayed at all times during construction, such that it is readily accessible to all site operatives. This Strategy, and any work undertaken in accordance with it, is intended to fulfil the requirements of the Decision Notice issued by Newport City Council Planning Authority for Planning Application 24/0969 (Condition 4 Part e).

Identifying Potentially Contaminated Material

Materials or conditions that may be encountered at the site and that could indicate the presence of contamination include, but are not limited to:

- Soils that are oily or have a strong fuel odour
- Solvent-type odours
- Certain man-made objects such as paint cans, oil drums, car parts etc.
- Fragments of asbestos

If any other material is encountered that causes doubt, advice should be sought.

Procedure

On discovery of any suspicious materials within the ground during development, the following procedure should be followed:

- Site personnel to inform the designated Site Manager immediately. Site personnel should not investigate the materials encountered.
- The Site Manager should determine whether this is potential contamination that has not previously been assessed by referring to available information in reports (as detailed below) prepared by Crossfield Consulting Limited. The Site Manager will then inform Crossfield Consulting Limited. The relevant area will be cordoned off and work will cease in this area.
- Crossfield Consulting Limited will attend site to inspect the ground and recover samples for analytical laboratory testing and undertake additional risk assessment, as appropriate. Crossfield Consulting Limited will then inform Newport City Council Planning Authority and, in due course, forward a copy of any assessment, factual information and, where necessary, a remediation strategy. Any proposed remediation works will be agreed with the Planning Authority prior to undertaking such work.

Contact Details

- Crossfield Consulting Limited – Tel: 01926 815678 Email: mail@crossfield-consulting.co.uk

Relevant Reports by Crossfield Consulting Limited

- Site Investigation Report (October 2024 (R1-May 2025)) – Report No. CCL03796.CU99-R1