

Materials Management Plan (MMP) Form - October 2014

This form should be completed once the lines of evidence have been marshalled in relation to suitability for use, certainty of use and quantity required.

The answers to the questions posed within this form, together with the supporting information will constitute the MMP and must be provided to the Qualified Person.

A Qualified Person may comment on draft versions of this MMP, but will not complete the Declaration until all the relevant documents, demonstrating lines of evidence have been provided for each site.

The person / organisation who will pay the Declaration fee should confirm that they have read and understand the Terms and Conditions relating to the payment of the Declaration fee to CL:AIRE. These can be found on the CL:AIRE website.

The person / organisation agreeing to pay the Declaration Fee - Name, organisation and contact details inc. email address -	Envirotrat Technologies Ltd accounts@envirotrat.com
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✓ **I confirm I have read and understood the Terms & Conditions.**

Each question must be answered. If the question is not applicable please state this and provide a brief explanation.

1. Specify the scenario to which this MMP relates, as described in the Definition of Waste: Development Industry Code of Practice (DoW CoP) (1, 2, 3 or 4):

- ☒ 1. Reuse on the Site of Origin
- ☐ 2. Direct Transfer of clean naturally occurring soil / mineral materials
- ☐ 3. Cluster Project
- ☐ 4. Combination of any of the above

In the case of a combination of reuse scenarios, please describe it below (e.g. (i) Reuse on Site of Origin and Direct Transfer of clean naturally occurring unpolluted soils, (ii) Reuse on the Site of Origin with Direct Transfer of clean naturally occurring soil to x number of development sites etc:

(NB: A Declaration is required for reuse on the Site of Origin and for any 2 site arrangement i.e. there is no facility for a combination Declaration)

2. Organisation and name of person preparing this MMP	(Full address and contact details) Simon Farr Envirotrat Technologies Ltd LCP House Pensnett Estate Kingswinford DY6 7NA
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Document Control

Date issued	04/10/2022
Revision date	
Summary of revision 1	
Summary of revision 2	

Insert additional lines to the table above for any subsequent revisions.

Note - revisions to the MMP do not trigger an additional Declaration by a Qualified Person, unless an additional site is added to the project.

Revisions to the MMP must be recorded and summarised in the Document Control box above.

Site Details

3. Site / Project name(s)	Campbell Road, Eastleigh
Reuse / receiving site name :	Campbell Road, Eastleigh
Donor site name (if Direct Transfer)	Not applicable

Landowners

4a. Name of Landowner(s) (full address and contact details) – where excavated materials are to be reused	Diageo Investment Fund 16 Great Marlborough Street London W1F 7HS
4b. Name of Landowner(s) (full address and contact details) – where excavated materials are arising from	Diageo Investment Fund 16 Great Marlborough Street London W1F 7HS

Summary and objectives

5a. Provide a brief description of the planned project and how excavated materials are to be reused.	The site will be redeveloped for the construction of multiple small to medium warehouse units with associated car parking and limited soft landscaping. This MMP relates to the redevelopment of the central part of the site only (see section 6). Surplus soil will be generated during reprofiling that is intended to be reused on the site, any surplus soils will be disposed of offsite.
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	The objective of this MMP is to facilitate the reuse of suitable excavated soils back on the site of origin for activities including bringing areas up to formation, backfill drainage and service trenches. Surplus soils not required for the development will be generated as a consequence of the enabling works, these will be fully assessed and removed in accordance with The Waste (England and Wales) Regulations 2011.
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General Plans and Schematics

6. <u>Attach</u> a location plan for the site(s) and a plan of the site(s) which identifies where different materials are to be excavated from, stockpile locations (if applicable), where materials are to be treated (if applicable) and where materials are to be reused.	Plan Document Reference(s): See <u>18-082 008 T01 Marketing Master Plan (Appendix A)</u> Development includes Areas:- • Plot 303 (no development following demolition of existing) • Plot 305 (no development following demolition of existing) • Unit 200 (new build following demolition of existing) • Unit 205 (new build following demolition of existing) and • Unit 210 (new build following demolition of existing) Soils are to be generated across the development area during construction activities, including:- • Reprofilling to formation levels • Foundations • Drainage • Services
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Based on existing site levels and proposed site levels including makeup, foundation, drainage (including attenuation tanks) and services, it is estimated there is a net surplus of circa 1,300m³ of materials. This will consist of hardstanding, subbase and soils (predominately natural clays and some made ground). However, construction arisings will exceed this volume, requiring some arisings to be reused within the development.

It is proposed that all suitable materials that can be accommodated are reused onsite.

No materials have been identified as not being unsuitable for reuse onsite.

Materials will be excavated by nominated groundworkers (HWM Group). Envirotreat will be attendance during key stages of the enabling works in an advisor role / watching brief.

Envirotreat will direct materials will be stockpiled as follows:-

- Hardcore
- Tarmac
- Subbase
- Natural soils (clay)
- Made ground

Natural soil will be assessed (visual and olfactory) and reused where required.
Made ground will be assessed (visual and olfactory supported by laboratory testing – where required) and reused where required.

Exact locations of soil stockpile placement have not been determined / agreed.

Appendix B Combined Topographical Survey Development Area and– show existing site levels in respect to the development area (ie plans 18-23 inclusive and 53-55 inclusive) and 18-082 91 P01 Site Survey area 2.

Appendix C 3062-EVE-1B-XX-DR-C-0500-H Drainage – shows finished site levels - see cover levels

Manhole reference	Cover level (m AOD)
PIC S40	14.050
MH S20	14.050
PIC S6	14.050
PIC S1	14.050
MH S4	14.000
PIC S13	14.050
MH S5	14.300
PIC S15	14.300
MH S6	14.300
MH S7	14.300
PIC S3	13.900
PIC S5	13.900
PIC S10	13.900
PIC S12	13.900

Appendix C 3062-EVE-1B-XX-DR-C-0601-D – shows finished levels makeup

7. <u>Attach</u> a schematic of proposed materials movement. Where there is only one source area and one placement area briefly describe it. For all other projects a schematic is required.	Description & Schematic Document Reference: See Appendix D for a typical schematic for stockpiling soils onsite, actual arrangement to be agreed onsite.
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Parties Involved and Consultation – if more than one party please provide additional details for them and identify the location that they will be working e.g. where a site is zoned

8a. Main earthworks contractor(s) (full address and contact details) – Where excavated materials are to be reused	HWM Group, Otterbourne Farm, Kiln Lane, Otterbourne, Hampshire. SO21 2EN. Telephone: 01962 718033 alex@hwmgroup.co.uk On behalf of Principal Contractor ADI Group, 66 Melchett Road, Kings Norton Business Centre, Kings Norton, Birmingham. B30 3HX. Telephone: 0121 451 2255 JMills@adilt.co.uk 07896 068534 Contracts Manager
8b. Main earthworks contractor(s) (full address and contact details) - Where excavated materials are arising from	Not applicable – same site

9. Treatment contractor(s) (full address and contact details) – for treatment on site of origin, or at a Hub site within a fixed STF / Cluster Project	Not applicable – no treatment envisaged based on soil identified onsite.
10. Where wastes and materials are to be transported between sites, provide details of the transport contractor(s) (full address, contact details and waste carriers registration details (if applicable))	Not applicable – same site
11. Provide Local Authority contact details (full address and named contacts) where excavated materials are to be reused	Andy Grandfield Executive Head for Planning and Economy. Eastleigh Borough Council Eastleigh House, Upper Market Street, Eastleigh. SO50 9YN Telephone: 023 8068 8000
12a. For the site where materials are to be reused and for Hub Site locations provide Environment Agency contact details (full address and named contacts):	Suz Greenwood Planning Advisor Sustainable Places Solent and South Downs

	02084745098 And SSD Groundwater Protection Emma Cullis Technical Officer, Groundwater, Hydrology and Contaminated Land Solent and South Downs Area Environment Agency Chichester Office, Oving Rd, Chichester. West Sussex PO20 2AG emma.cullis@environment-agency.gov.uk 020 847 48891
<i>For all Cluster Projects:</i> 12b. Attach any relevant documentation from the EA relating to the excavation and reuse of the materials to demonstrate no objection to the proposals (see 3.37 of DoW CoP) If the EA has not been consulted please explain why (see paragraph 3.39 of the DoW CoP).	Not applicable

Lines of Evidence

There is no one single factor that can be used to decide that a substance or object is waste, or when it is, at what point it ceases to be waste; as complete a picture as possible has to be created.

The following sections require completion to ensure the correct decision is made.

If a requested item is not relevant it is important to clearly state why this is so (e.g. no planning permission required because permitted development status exists).

Suitable for use criteria

13. Please describe or provide copies of the required specification(s) for the materials to be reused on each site.	Document Reference(s): Included in (Appendix E) Geo-Environmental Assessment Eastleigh Works - Issued: March 2019 - Delta-Simons Project No. 17-1080.05 Delta Simons concluded that no remediation was required. Therefore, soils are suitable for reuse outside of creation of the minimal areas of soft landscaping. Delta Simons uses a number of sources for criteria for assessing Human Health risk (Delta Simons, LQM and C4SL) – these are presented within the Tables presented on pages 27 and 28. No made ground soils will be used in the top 300mm of the areas of soft landscaping.
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Natural soils may be reused to make these areas up, but the reuse of natural soils on the site of origin is beyond the scope of DoW:CoP.

If soils or made ground materials are identified that are noted to be inconsistent with those characterised in the SI reports, they will be subject to laboratory testing under 'unexpected contamination' methodology. Soils will be analysed for totals and screened against the GAC presented in pages 27 and 28 of the Delta Simons SI report, and the leachate criteria taken from that report, presented below.

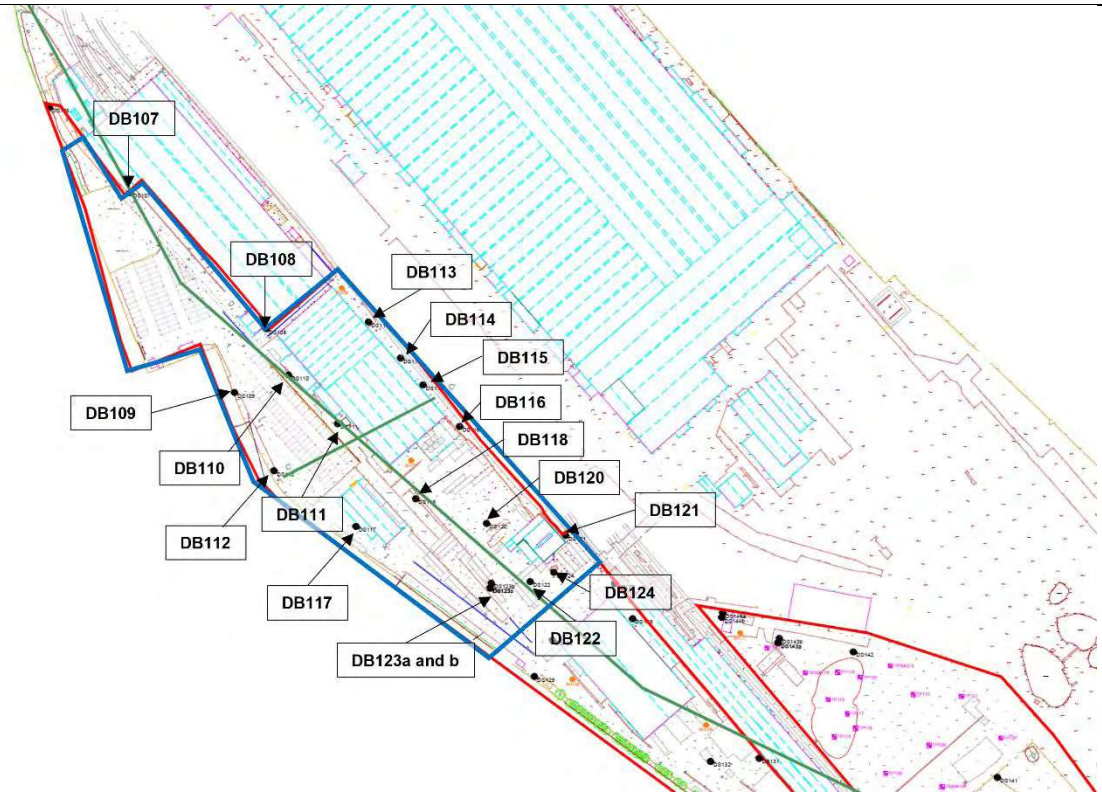
TPH Hydrocarbon fraction	Delta Simons GAC for Groundwater (ug/l)
Cadmium	0.08
Copper	2.12 (*)
Chromium (III)	4.7
Chromium (VI)	3.4
Nickel	8.48
Zinc	8
Naphthalene	4.24
Anthracene	0.1
Fluoranthcene	0.12
Aliphatic >C8-C10	300
Aliphatic >C10-C12	300
Aliphatic >C12-C16	300
Aliphatic >C16-C21	300
Aliphatic >C21-C35	300

Aromatic >C8-C10	20
Aromatic >C10-C12	90
Aromatic >C12-C16	90
Aromatic >C16-C21	90
Aromatic >C21-C35	90
Total Petroleum Hydrocarbons	300

In respect to heavy metals Delta Simons state

“Marginally elevated heavy metals have been recorded within the groundwater. Given the absence of any surface water features within close proximity to this area of the Site combined with the historical legacy of the surrounding area, these concentrations are considered to be reflective of background levels and no further assessment or mitigation is considered necessary.”

NOTE this report is site wide on NOT just the development areas.
Envirotrat summary is given below.



	In respect to groundwater protection Delta Simons state:- <i>“Given the ‘prevent and limit’ approach of the Water Framework Directive (2000/60/EC) and the identified receptors, a range of Water Quality Standards (WQS) have been applied as Generic Assessment Criteria (GAC), these include Water Framework Directive standards and thresholds (WFD), the Freshwater Environmental Quality Standards (EQS), the UK Drinking Water Quality Standards (DWQS), WHO Guidelines for Drinking Water Quality or SEPA resource protection values which have been used as initial conservative GAC to assess whether groundwater contamination requires further assessment or discussion in terms of the risks to controlled waters. Where specific water quality standards are not available, Delta-Simons has adopted surrogate values based on professional judgement (DS GAC).”</i> Site wide exceedances (together with adopted criteria) are shown in the Tables on pages 31 and 32. With the exception of DS124b none of the exceedance are within the development area. Although DS124b is within the development area. Soils from DS124 indicated shallow TPH contamination of 1,100 mg/kg. No excavations are envisaged / expected within this part of the development site Delta Simons concluded that:- <i>“Based on the identified organic contamination within the groundwater it is likely that a degree of remediation will likely be required at the Site to provide betterment however the requirement and scope for the works can only be confirmed following the completion of further delineation works and the production of a Detailed Quantitative Risk Assessment”</i>
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	Delta Simon are still closely involved with the project and have not advised of any further action in respect to this development area.
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<i>Where contamination is suspected or known to be present</i> 14a. Please provide copies of or relevant extracts from the risk assessment(s) that has been used to determine the specification for use on the site. This must relate to the place where materials are to be used. This must be in terms of (i) human health (ii) controlled waters and (iii) any other relevant receptors. If a risk assessment is not relevant for a particular receptor given the site setting please explain why below:	Document Reference(s): See comments / assessment above in Section 13.
14b. Please attach any relevant documentation from the LA relating to the excavation and reuse of the materials to demonstrate no objection (see 3.37 of the CoP)	LA Document references: The Delta Simons site investigation report:-

	Geo-Environmental Assessment Eastleigh Works - Issued: March 2019 - Delta-Simons Project No. 17-1080.05 Has been approved as part of the planning process, Delta Simons state:- <i>“5.8 Earthworks Localised reprofiling works will be required in the centre of the Site to enable the provision of flat areas of open storage however these are likely to comprise small volumes of site won demolition materials and/ or imported aggregate.”</i> <i>“Limited earthworks will be required to provide a level development platform along with reprofiling activities to provide suitable falls for the proposed car park. It is recommended that following processing of Site won materials that geotechnical classification be undertaken to confirm the nature of the material which should then be incorporated into an earthworks strategy to support the proposed development. It will also be necessary to submit a Materials Management Plan to support the reuse of materials on Site.”</i>
14c. Please attach any relevant documentation from the EA relating to the excavation and reuse of the materials to demonstrate no objection (see 3.37 and Table 2 of the CoP)	EA Document references: The Environment Agency were emailed (03/03/2022) to ascertain if they had any objections to the reuse of site son soils under the CL:AIRE Code of Practice Definition of Waste. No response was received, we therefore assumed the Environment Agency had no objections. See Appendix F.

14d. Please attach any relevant documentation from any other regulators (if relevant) relating to the excavation and reuse of the materials to demonstrate no objection (see 3.37 of the CoP)	Document Reference(s): The Local Authority were emailed (03/03/2022) to ascertain if they had any objections to the reuse of site son soils under the CL:AIRE Code of Practice Definition of Waste. No response was received, we therefore assumed the Local Authority had no objections. See Appendix F.
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<i>Where contamination is not suspected</i> 15a. Please attach copies or relevant extracts from the Desk Top Study that demonstrates that there is no suspicion of contamination.	Document Reference(s) Delta Simons reported contamination present on the overall site. Within the development area, there was asbestos, heavy metals and hydrocarbon contamination recorded, none (with the exception of asbestos) exceeded GAC used for assessment of Human Health. The site benefits from hardstanding or suitable soft landscaped capping. See site investigation (Geo-Environmental Assessment Eastleigh Works - Issued: March 2019 - Delta-Simons Project No. 17-1080.05) within Appendix E.
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15b. Please attach copies of or relevant extracts from the site investigation/testing reports that adequately characterise the clean materials to be used (if appropriate).	Document Reference(s) Delat Simons state in their site investigation that:- <i>“The results of the assessment have identified marginally elevated heavy metal concentrations to be present sporadically across the site. Elevated PAHs and TPH fractions have also been recorded in areas of previously identified organic contamination at DS101, DS102a, DS124b and at DS143/DS144/BH111 which were significantly elevated.”</i> Only DS 124b falls within the development area, no excavation are expected to be undertaken here. Envirotreat will provide a watching brief throughout the enabling works including any excavation / works, in or around DS12b <i>“Several marginally elevated longer chain TPH fractions have been recorded at BH106 and BH109 however these are considered to be reflective of background concentrations given the historic nature of the Site”.</i> Outside the development area. <i>“High mobility short chain hydrocarbons, PCBs, cyanide, phenols or VOC contamination has not been identified at the Site above laboratory detection limits.”</i> <i>The groundwater analysis results are considered further in the CSM presented in Section 8.0 with regard to potential pollutant linkages.</i> In respect to contaminated made ground Delta Simons state:- <i>“Leaching of contamination into groundwater followed by migration of groundwater to the wider groundwater environment or discharge to surface waters.”</i> <i>Localised areas of organic impact to groundwater have been identified and may pose a risk to identified receptors. It is recommended that further delineation works and detailed modelling be undertaken to assess the identified pollutant linkages.”</i> The
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	source of the TPH contamination within DS124b is not believed to be associated with soils within the development area, more likely the NAPL source referenced. Capping soils specification – see Appendix G
15c. Please attach copies of any other relevant information (if available) confirming that land contamination is not an issue.	Document Reference(s) All documents attached A further supplementary (geotechnical) site investigation (Geotechnical Assessment Eastleigh Works Units 200-215 Presented to Diageo Investment Funds Ltd Issued: July 2020 Delta-Simons Project No. 17-1080.12) was undertaken by Delta Simons (Appendix E). This focused on geotechnical considerations, although there was no reference of any contamination.

NB: It is your responsibility to assess the nature of the material to be used and that it fits within the limitations of the scenario under which it is to be used

Certainty of use

Various lines of evidence are required to demonstrate that the materials are certain to be used. This includes:

- o The production of this MMP
- o An appropriate planning permission (or conditions that link with the reuse of the said materials)
- o An agreed Remediation Strategy(ies)
- o An agreed Design Statement(s)
- o Details of the contractual arrangements

Please identify in the following sections what lines of evidence relate to the site(s) **where the materials are to be used**.

16a. Planning Permission(s) relating to the site where materials are to be reused Please provide a copy of the relevant planning permission	Document Reference: The site is subject to planning by Eastleigh Borough Council F/20/87841 – see Appendix I
16b. Explain how the reuse of the excavated materials fits within the planning permission(s) for each site.	Surplus soils will be generated as part of the works. All unsuitable / surplus soils will be disposed of offsite. This MMP covers the reuse of site won soils to facilitate the development in accordance with F/20/87841.

16c. If planning permission is not required for any one site please explain why below e.g. permitted development, clean up of a chemical spill, surrender of an Environmental Permit, re-contouring within the existing permission.	Not applicable.
<i>Where contamination is suspected or is known to be present</i> 17. Please provide a copy of any Remediation Strategy(ies) that have been agreed with relevant regulators.	Document Reference(s): Not applicable a Remediation Strategy / Method Statement is not envisaged based on the scope of works.
<i>Where contamination is not suspected</i> 18. Please provide a copy of any Design Statement(s) that have been agreed (e.g. with the planning authority or in the case of permitted developments the client).	Document Reference(s): Not applicable.

Quantity of Use

19. Please provide a breakdown of the excavated materials for each site and how much will be placed at each site or sub area of each site. Where this is not specific to a single readily identifiable source refer to an annotated plan, schematic or attach a tabulated summary.	Document Reference(s): All excavated soils will be assessed by Envirotreat prior to reuse. Made ground will be sampled and tested (where applicable). Suitable site won soils will be reused on site as part of the enabling works to achieve formation. Unsuitable soils will be disposed of offsite. Surplus soils will be disposed of offsite. Estimations at present predict circa 1,300 m³ of surplus soils.
20a. How has consolidation/compaction being considered in the above mass balance calculations?	Compaction has not been included in the volume assessment

20b. How has loss due to treatment being considered in the above mass balance calculations (if applicable)?	No treatment to occur at site.
20c. How has the addition of treatment materials being considered in the above mass balance calculations (if applicable)? Note - An exact figure is not required but one that is reasonable in the circumstances and can be justified if challenged.	No treatment to occur at site.

Contingency arrangements

Explain what is to happen in the following situations and **identify the appropriate clauses** in the contract(s) (Such clauses must be provided to the Qualified Person, preferably as a summary document): or

21a. What is to happen to, and who is to pay for out of specification materials?	Reference: Out of specification material will be disposed of offsite. As such, the waste producer (Principal Contractor – ADI Group) will be responsible.
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21b. What is to happen to, and who is to pay for any excess materials?	Surplus material will be disposed of offsite. As such, the waste producer (Principal Contractor – ADI Group) will be responsible.
21c. What happens if the project programme slips in relation to excavated materials or materials under -going treatment?	The program is not time sensitive and programme slippage are immaterial.
21d. Other identified risk scenarios for the project (relating to excavated materials)?	None applicable

The Tracking System

Where contamination is suspected or known to be present, state the procedures put in place to:

22a. For all sites please describe the tracking system to be employed to monitor materials movements.	The record is attached in Appendix H.
<i>Where contamination is suspected or known to be present, state the procedures put in place to:</i> 22b. Prevent contaminants not suitable for the treatment process being accepted	Made ground (where applicable) will be sampled prior to reuse. Unsuitable materials will be disposed of offsite.
<i>Where contamination is suspected or known to be present, state the procedures put in place to:</i> 22c. Prevent cross contamination of materials not in need of treatment, wastes awaiting treatment and treated materials	In the event unsuitable (contaminated) materials are found (by onsite assessment and / or laboratory testing), they will be placed within a designated quarantine area – see Appendix D
<i>Where contamination is suspected or known to be present, state the procedures put in place to:</i> 22d. Demonstrate that materials that do not require treatment and successfully treated materials reach their specific destination	Not applicable as no treatment is to be undertaken onsite.

<i>Where contamination is suspected or known to be present, state the procedures put in place to:</i> 22e. Ensure that waste for off-site disposal or treatment is properly characterised and goes to the correct facility	Unsuitable soils would be fully assessed in accordance with WM3 and only sent to suitably Permitted facility able to accept the waste.
23. Please attach a copy of the tracking forms / control sheets that are to be used to monitor materials movements. To include transfer of loads on site into stockpiles prior to treatment (if applicable), stockpiled after treatment (if applicable), stockpiled awaiting use (as appropriate) and final placement.	Document reference(s) See record in Appendix H
<i>For Hub Sites within Cluster Projects & where materials need treatment before reuse</i>	Permit reference / EA letter reference: Not applicable.

24. Please attach a copy of the Environmental Permit covering the treatment process. Alternatively if the treatment is covered by a Mobile Plant Permit and associated Deployment Form, attach a copy of the EA agreement to the Deployment Form.	
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Records

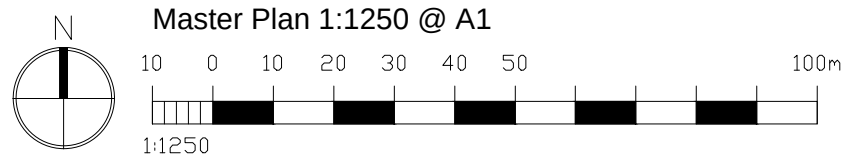
25. Where, and in what form, are records to be kept? Note – records e.g. transfer notes, delivery tickets, Desk Top Study, Site Investigation, Risk Assessment(s), Verification Report(s) need to be kept for at least 2 years after the completion of the works and production of the Verification Report	Records will be maintained by ADI Group (and/or nominated groundworkers) and Envirotreat
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Verification Plan

26. Provide or explain the Verification Plan which sets out how you will record the placement of materials and prove that excavated materials have been reused in the correct location and in the correct quantities within the development works (see 3.4 of the DoW CoP).	Document Reference The verification report will comprise validation test certificates, movement forms and consignment notes and a photographic record on completion of the works.
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APPENDIX A

Master Plan for development



- OPEN STORAGE AREAS
- ROAD WIDENING AREA
- AREA 2 WORKS

Notes

1. This drawing is the copyright of MH Architects Ltd

2. Do not scale this drawing except for Local Authority planning purposes

3. All dimensions must be checked on site by the contractor prior to commencement of the works.

Client Approval

X

A - Approved

X

B - Approved with comments

X

C - Do not use

Rev.	Revision Note/Purpose of Issue	Drw By	Date	Chk By	Date
P05	Road and plot layout amended.	KP	13/11/20	CHS	13/11/20
P06	Hawthorn tree added and acoustic fence amended.	CHS	19.11.20.		
P07	Building Plan, yard, parking spaces, amenity area, plots 300, 303 and 305 amended.	KP	18.12.20	CHS	23.12.20
P08	Unit 210 parking moved and external area amended	JEL	13/01/21	CHS	13/01/21
P09	Rooflights reduced to 15% of roof coverage	JEL	22/01/21	CHS	22/01/21
	Paved walkways removed				
	Traffic calming measures added				
	Bins and cycle storage moved & updated				
P10	Road at south end of site redesigned by traffic consultant to accommodate slope to telegraph poles.	JEL	04/02/21	CHS	04/02/21
P11	Text to yard area to unit 210 amended.	CHS	10.02.21		
P12	Building to the North of Parkway House Removed	JEL	02/03/21	CHS	02/03/21
P13	Reptile protection area information added	JEL	12/04/21	HG	12/04/21
P14	Acoustic fence position changed	JEL	13/04/21	HG	13/04/21
P15	Bridge Area Removed from Drawing	JEL	13/04/21	HG	13/04/21
	Highways Information and security Gate added to gate 3	JEL	04/05/21	CHS	04/05/21
	Plot 300 boundary amended				
	SE information added to Area 1				
P16	Areas notes removed	JEL	07/07/21	CHS	07/07/21
	Area 2 works added				



Diageo Pension Trust Ltd
Eastleigh Railway Depot
Campbell Road
Eastleigh

Drawing title

Proposed Master Plan

Drawn	Date		Checked		Date		Scale at A1	
KP	24/04/2020		HJG		24/04/2020		1:1250	
Job No.	Pro.	Org.	Zone	Level	Type	Role	No.	Rev.
18-082	ERD	MHA	XX	00	DR	A	004	P16
Purpose of Issue								

Ground Floor | Biocentennial Building
Southern Gate | Chichester
West Sussex | PO19 8EZ

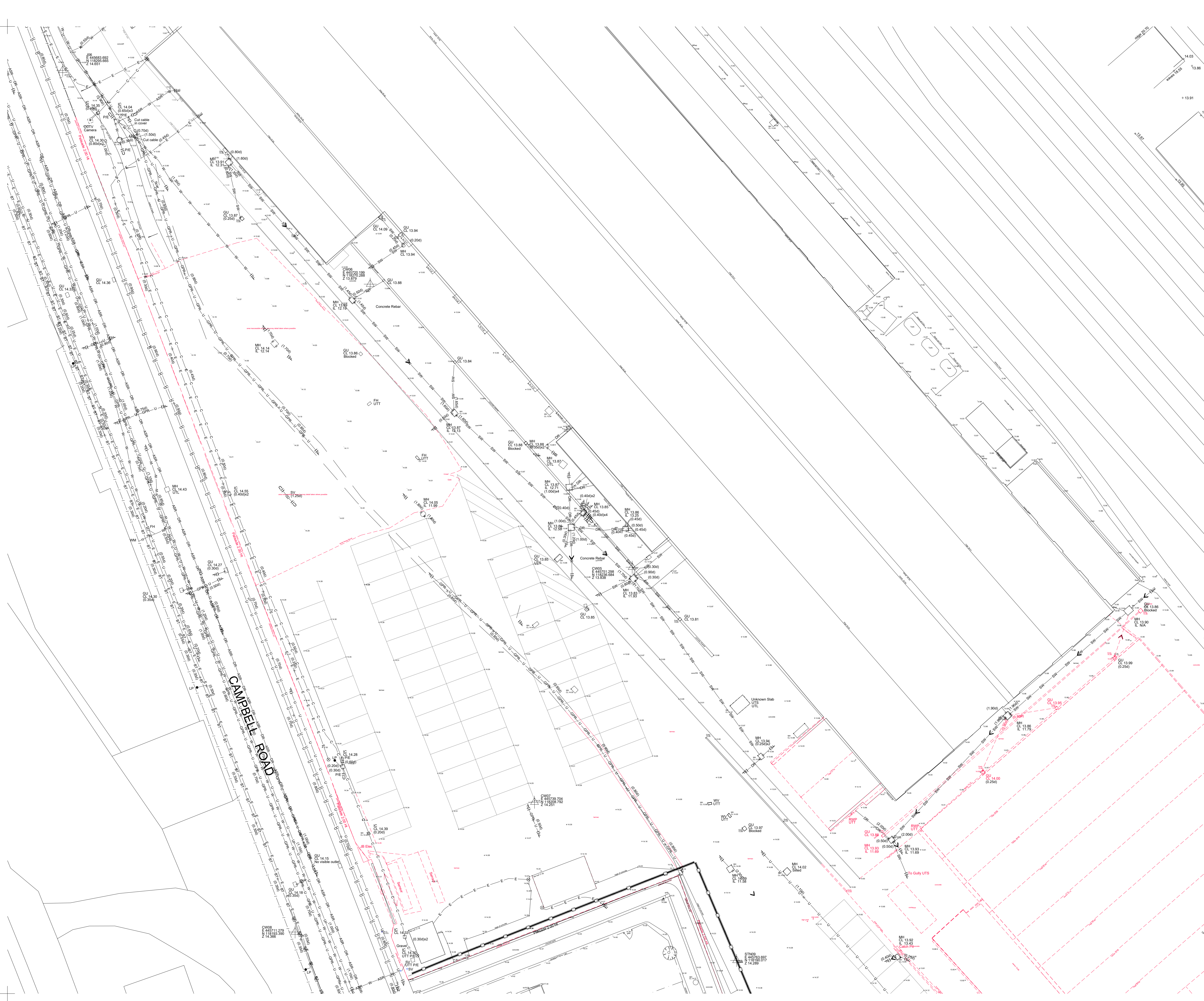
t: 01243 774748
e: admin@mharchitects.co.uk
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APPENDIX B

Existing Topographical



Notes

1. This drawing is the copyright of MH Architects Ltd
2. Do not scale this drawing except for Local Authority planning purposes
3. All dimensions must be checked on site by the contractor prior to commencement of the works.

Client Approval				
X	A - Approved			
X	B - Approved with comments			
X	C - Do not use			
Rev.	Revision Note/Purpose of Issue	Drw By	Date	Chk By
P01	Preliminary issue	CHS	06.07.22	

NOTE
DEMOLITIONS AND/OR REMOVALS SHOWN IN RED

UTILITY LINETYPES

British Telecom	Gas
Cable Television	Heating Pipes
Closed Circuit Television	HV Cables
Communications	Multiple Services Route
Drainage	Oil
Drainage - Combined Water	Oxygen
Drainage - Foul Water	Street Lighting
Drainage - Storm Water	Traffic Signal Loop
Empty Duct	Unknown
Electric	Unknown Cable
Fire Hydrant Main	Unknown Pipeline
Fire Cables	Water
Fuel	

UTILITY SURVEY INFORMATION

Located by Ground Penetrating Radar	GPR	Unable to Survey	UTS
Area of Concern	SVV AREA	Unable to Lift (cover)	UTL
Contracted Survey Area	PREVIOUS	Unable to Trace	IID
Previous Survey Area		Unable to Trace (due to blockage)	IID
Depth to Top of Service (metres)	(0.000)	Unable to Trace Further	III
		End of Trace	IIU

ABBREVIATIONS used on a PAS 128 Survey
(0.050 B2P) 0.050 = Depth in metres, B2 = Quality Level, P = Post processed GPR

TOPOGRAPHIC & UTILITY DETAILS

Barrier (symbol - sized)	Post (symbol)	oPO
Bellshale Beacon (symbol)	Rain Water Pipe (symbol)	oRS
Bollard (symbol)	Road Sign (symbol)	oRE
Borehole (symbol)	Roadside Eye (symbol)	oR
British Telecoms IC	Sailing (symbol)	oSA
Building (incomplete detail)	Sign Post (symbol)	oSP
Cable into Ground (symbol)	Skunk Alley	oSK
Cable TV Box (symbol)	Spot Light (symbol)	oSL
CCTV Camera	Spot Height	oSH
Cover Level in metres	Stop Cock (symbol)	oSC
Direction of Flow (Drainage)	Stop Valve (symbol)	oSV
Distribution Board (symbol)	Survey Station (symbol)	oSS
Earth Rod (symbol)	Telephone Pole (symbol)	oTP
Electric Cabinet	Telephone Box (symbol)	oTB
Electric Pole (symbol)	Traffic Bollard (symbol)	oTB
Electric Sign (symbol)	Tree (dimensions in metres - e.g.)	oT
Embankment	Tree (dimensions in metres - e.g.)	oT
Feeder Pillar	Tree (dimensions in metres - e.g.)	oT
Flag Pole (symbol)	Tree (dimensions in metres - e.g.)	oT
Flat Roof Level in metres	Tree (dimensions in metres - e.g.)	oT
Flood Light (symbol)	Tree (dimensions in metres - e.g.)	oT
Gas Valve (symbol)	Tree (dimensions in metres - e.g.)	oT
Gate	Tree (dimensions in metres - e.g.)	oT
Ground Level in metres	Tree (dimensions in metres - e.g.)	oT
Gully	Tree (dimensions in metres - e.g.)	oT
Inspection Cover	Tree (dimensions in metres - e.g.)	oT
Invert Level in metres	Tree (dimensions in metres - e.g.)	oT
Junction Box - BT	Tree (dimensions in metres - e.g.)	oT
Junction Box - Comm	Tree (dimensions in metres - e.g.)	oT
Junction Box - Elec	Tree (dimensions in metres - e.g.)	oT
Lamp Post (symbol - sized)	Tree (dimensions in metres - e.g.)	oT
Light Bollard (symbol)	Tree (dimensions in metres - e.g.)	oT
Light in ground (symbol)	Tree (dimensions in metres - e.g.)	oT
Manhole	Tree (dimensions in metres - e.g.)	oT
Manhole Capped Port	Tree (dimensions in metres - e.g.)	oT
Parquet Level in metres	Tree (dimensions in metres - e.g.)	oT
Pipe Diameter in millimetres	Tree (dimensions in metres - e.g.)	oT
Pipe into Ground (symbol)	Tree (dimensions in metres - e.g.)	oT

NOTE
DEMOLITIONS AND/OR REMOVALS SHOWN IN RED

UTILITY LINETYPES

British Telecom	Gas
Cable Television	Heating Pipes
Closed Circuit Television	HV Cables
Communications	Multiple Services Route
Drainage	Oil
Drainage - Combined Water	Oxygen
Drainage - Foul Water	Street Lighting
Drainage - Storm Water	Traffic Signal Loop
Empty Duct	Unknown
Electric	Unknown Cable
Fire Hydrant Main	Unknown Pipeline
Fire Cables	Water
Fuel	

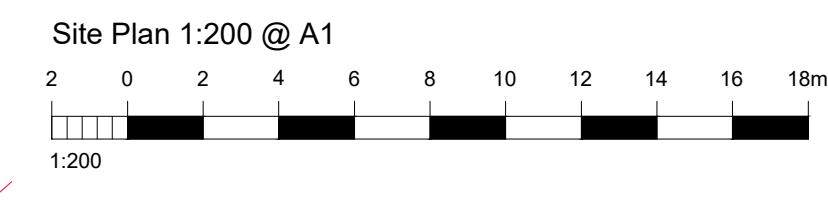
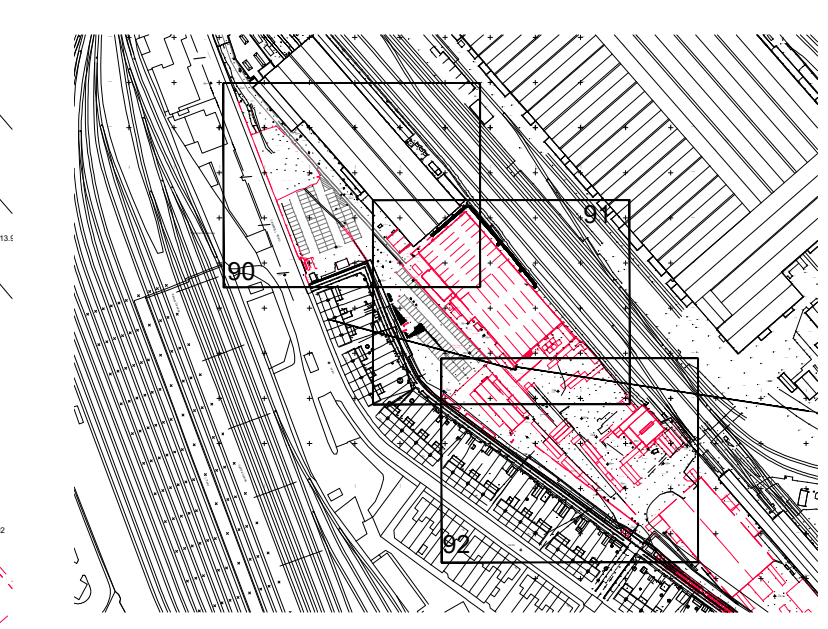
UTILITY SURVEY INFORMATION

Located by Ground Penetrating Radar	GPR	Unable to Survey	UTS
Area of Concern	SVV AREA	Unable to Lift (cover)	UTL
Contracted Survey Area	PREVIOUS	Unable to Trace	IID
Previous Survey Area		Unable to Trace (due to blockage)	IID
Depth to Top of Service (metres)	(0.000)	Unable to Trace Further	III
		End of Trace	IIU

ABBREVIATIONS used on a PAS 128 Survey
(0.050 B2P) 0.050 = Depth in metres, B2 = Quality Level, P = Post processed GPR

TOPOGRAPHIC & UTILITY DETAILS

Barrier (symbol - sized)	Post (symbol)	oPO
Bellshale Beacon (symbol)	Rain Water Pipe (symbol)	oRS
Bollard (symbol)	Road Sign (symbol)	oRE
Borehole (symbol)	Roadside Eye (symbol)	oR
British Telecoms IC	Sailing (symbol)	oSA
Building (incomplete detail)	Sign Post (symbol)	oSP
Cable into Ground (symbol)	Skunk Alley	oSK
Cable TV Box (symbol)	Spot Light (symbol)	oSL
CCTV Camera	Spot Height	oSH
Cover Level in metres	Stop Cock (symbol)	oSC
Direction of Flow (Drainage)	Stop Valve (symbol)	oSV
Distribution Board (symbol)	Survey Station (symbol)	oSS
Earth Rod (symbol)	Telephone Pole (symbol)	oTP
Electric Cabinet	Telephone Box (symbol)	oTB
Electric Pole (symbol)	Traffic Bollard (symbol)	oTB
Electric Sign (symbol)	Tree (dimensions in metres - e.g.)	oT
Embankment	Tree (dimensions in metres - e.g.)	oT
Feeder Pillar	Tree (dimensions in metres - e.g.)	oT
Flag Pole (symbol)	Tree (dimensions in metres - e.g.)	oT
Flat Roof Level in metres	Tree (dimensions in metres - e.g.)	oT
Flood Light (symbol)	Tree (dimensions in metres - e.g.)	oT
Gas Valve (symbol)	Tree (dimensions in metres - e.g.)	oT
Gate	Tree (dimensions in metres - e.g.)	oT
Ground Level in metres	Tree (dimensions in metres - e.g.)	oT
Gully	Tree (dimensions in metres - e.g.)	oT
Inspection Cover	Tree (dimensions in metres - e.g.)	oT
Invert Level in metres	Tree (dimensions in metres - e.g.)	oT
Junction Box - BT	Tree (dimensions in metres - e.g.)	oT
Junction Box - Comm	Tree (dimensions in metres - e.g.)	oT
Junction Box - Elec	Tree (dimensions in metres - e.g.)	oT
Lamp Post (symbol - sized)	Tree (dimensions in metres - e.g.)	oT
Light Bollard (symbol)	Tree (dimensions in metres - e.g.)	oT
Light in ground (symbol)	Tree (dimensions in metres - e.g.)	oT
Manhole	Tree (dimensions in metres - e.g.)	oT
Manhole Capped Port	Tree (dimensions in metres - e.g.)	oT
Parquet Level in metres	Tree (dimensions in metres - e.g.)	oT
Pipe Diameter in millimetres	Tree (dimensions in metres - e.g.)	oT
Pipe into Ground (symbol)	Tree (dimensions in metres - e.g.)	oT



Client
Diageo Pension Fund

Job title
**Eastleigh Railway Depot
Campbell Road
Eastleigh**

Drawing title
**Site Survey
Area 2
Sheet 1 of 3**

Drawn	Date	Checked	Date	Scale at A1
CHS	27.05.2022	105	00/00/00	1:200

Job No.	Pro.	Org.	Zone	Level	Type	Role	No.	Rev.
18-082	ERD	MHA	00	XX	DR	A	100	P01

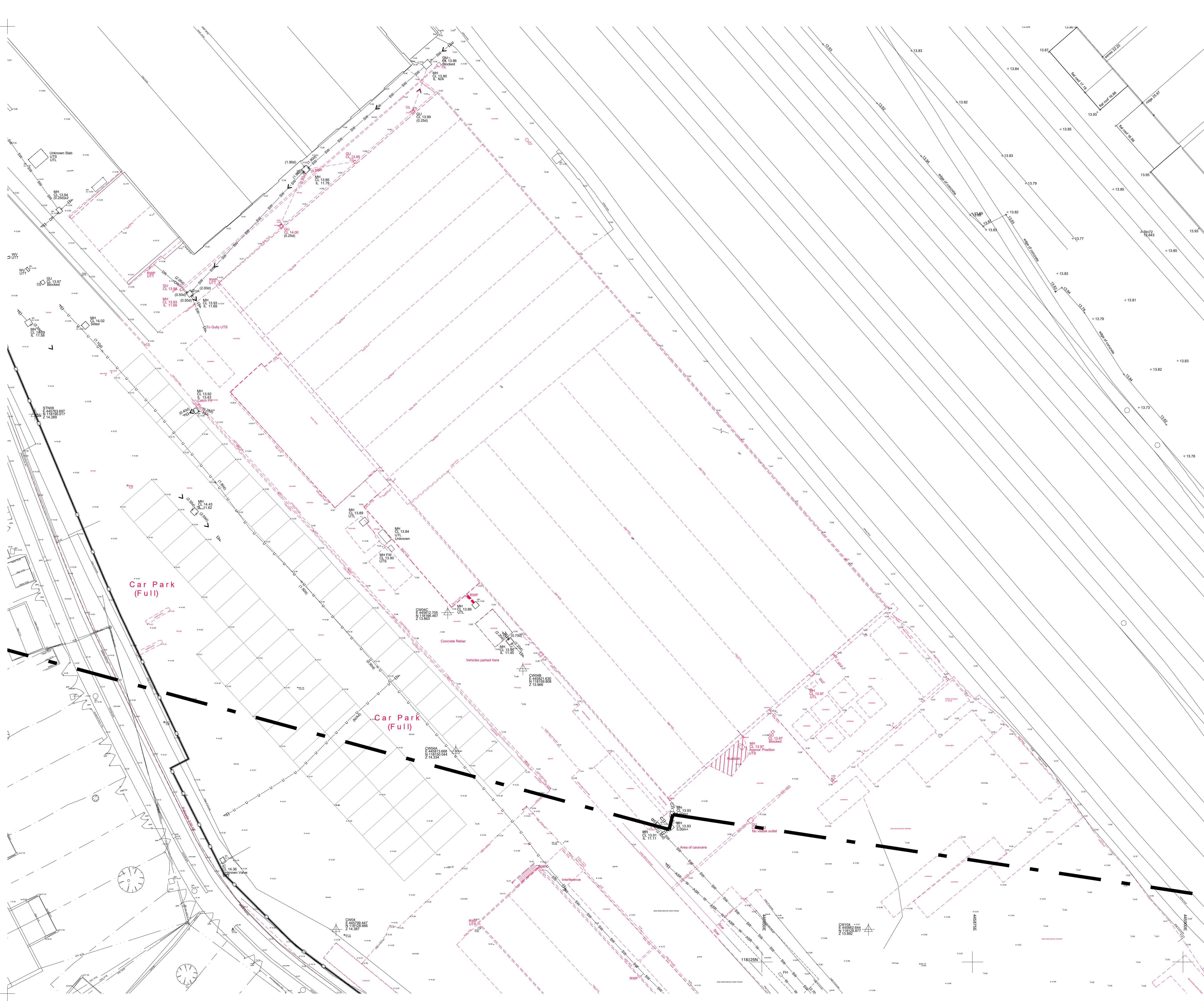
Purpose of Issue
PRE-CONSTRUCTION STAGE 4

Ground Floor | Bicentennial Building
Southern Gate | Chichester
West Sussex | PO19 8EZ

1. 01243 774748
e. admin@mharchitects.co.uk
www.mharchitects.co.uk

Limited Company
Registered in England No. 1994233

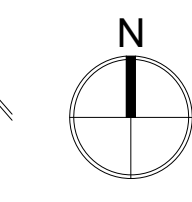
mh
ARCHITECTS



Notes

1. This drawing is the copyright of MH Architects Ltd
2. Do not scale this drawing except for Local Authority planning purposes
3. All dimensions must be checked on site by the contractor prior to commencement of the works.

Client Approval					
X	A - Approved				
X	B - Approved with comments				
X	C - Do not use				
Rev.	Revision Note/Purpose of Issue	Drw By	Date	Chk By	Date
P01	Preliminary issue	CHS	06.07.22		



NOTE
DEMOLITIONS AND/OR REMOVALS SHOWN IN RED

UTILITY LINETYPES		LEGEND	
British Telecom	Gas	Heating Pipes	UTS
Cable Television	HV Cables	Street Lighting	UTL
Communications	Multiple Services Route	Traffic Signal Loop	ILD
Drainage	Oil	Unknown Cable	ILU
Drainage - Combined Water	Oxygen	Unknown Pipeline	
Drainage - Foul Water	Street Lighting	Water	
Drainage - Storm Water	Traffic Signal Loop		
Empty Duct	Unknown Cable		
Electric	Unknown Pipeline		
Fire Hydrant Main	Water		
Fire Cables			
Fuel			
Assumed Service Route - See GENERAL NOTES (Using abbreviation of service and colour as above)			

UTILITY SURVEY INFORMATION

Located by Ground Penetrating Radar GPR Unable to Survey UTS

Area of Concern BGV AREA Unable to Lift (cover) ILC

Contracted Survey Area PREVIOUS Unable to Trace (due to blockage) ILC

Previous Survey Area Unable to Trace Further ILC

Depth to Top of Service (metres) (0.000) End of Trace ILC

ABBREVIATIONS used on a PAS 128 Survey (0.650 B2P) 0.650 = Depth in metres, B2 = Quality Level, P = Post processed GPR

TOPOGRAPHIC & UTILITY DETAILS

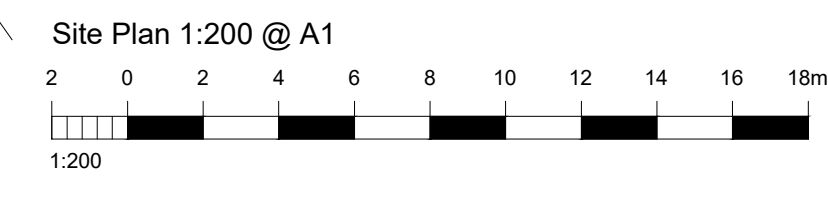
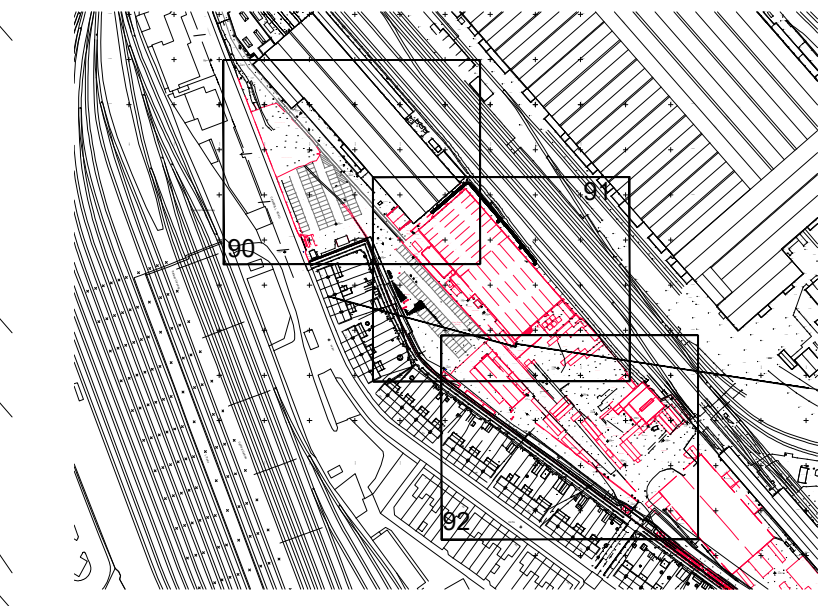
Barrier (symbol - sized) Post (symbol) oPO

Bellshill Beacon (symbol) Rain Water Pipe (symbol) oRS

Bollard (symbol) Road Sign (symbol) oRE

Borehole (symbol) Road Sign (symbol) oSA

British Telecoms IC Sighting (symbol) oSP

Building (incomplete detail)	Sign Post (symbol)	Spot Light (symbol)	Spot Height
Cable into Ground (symbol)	Spot Light (symbol)	Spot Height	Spot Height
Cable TV Box (symbol)	Stop Cock (symbol)	Stop Valve (symbol)	Survey Station (symbol)
CCTV Camera	Stop Valve (symbol)	Survey Station (symbol)	Telephone Pole (symbol)
Cover Level in metres	Telephone Pole (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Direction of Flow (Drainage)	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Distribution Board (symbol)	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Earth Rod (symbol)	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Electric Cabinet	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Electric Pole (symbol)	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Electric Sign (symbol)	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Embankment	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Feeder Pillar	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Flag Pole (symbol)	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Flat Roof Level in metres	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Flood Light (symbol)	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Gas Valve (symbol)	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Gate	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Ground Level in metres	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Gully	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Inspection Cover	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Invert Level in metres	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Junction Box - BT	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Junction Box - Comms	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Junction Box - Elec	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Lamp Post (symbol - sized)	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Light Bollard (symbol)	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Light in ground (symbol)	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Manhole	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Manhole Capped Port	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Parquet Level in metres	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Pipe Diameter in millimetres	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)
Pipe into Ground (symbol)	Telephone Box (symbol)	Telephone Box (symbol)	Telephone Box (symbol)


Client		Diageo Pension Fund	
Job title		Eastleigh Railway Depot Campbell Road Eastleigh	
Drawing title		Site Survey Area 2 Sheet 2 of 3	
Drawn	Date	Checked	Date
CHS	27 05 2022	105	00/00/00
Job No.	Pro.	Org.	Zone
18-082	ERD	MHA	00 XX
Purpose of Issue	Level	Type	Role
	DR	A	101
PRE-CONSTRUCTION STAGE 4			

APPENDIX C

Finished Drainage DWG (x2) indicating finished levels

SOAKAWAY SETTING OUT

SOP N°	SETTING OUT COORDS		LEVEL (mAOD)	
	Easting	Northing	SOFFIT	INVERT
SOP01	445795.017	118204.657	TBC	TBC
SOP02	445804.826	118193.309	TBC	TBC
SOP03	445798.772	118198.078	TBC	TBC
SOP04	445788.964	118199.427	TBC	TBC
SOP05	445827.692	118166.528	TBC	TBC
SOP06	445838.157	118154.423	TBC	TBC
SOP07	445832.104	118149.193	TBC	TBC
SOP08	445821.641	118161.298	TBC	TBC
SOP09	445780.040	118171.334	TBC	TBC
SOP10	445782.657	118168.308	TBC	TBC
SOP11	445781.079	118167.075	TBC	TBC
SOP12	445778.527	118170.025	TBC	TBC

CHANNEL DRAIN SETTING OUT

SOP N°	SETTING OUT COORDS	
	Easting	Northing
SOP13	445794.617	118212.449
SOP14	445795.273	118211.661
SOP15	445813.645	118190.449
SOP16	445814.872	118189.032
SOP17	445824.413	118177.996
SOP18	445825.641	118176.578
SOP19	445829.860	118171.698
SOP20	445831.087	118170.281
SOP21	445849.470	118149.023
SOP22	445850.127	118148.265
SOP23	445785.284	118207.807
SOP24	445842.194	118141.818
SOP25	445877.616	118155.566
SOP26	445850.601	118132.099
SOP27	445843.379	118140.451
SOP28	445772.282	118198.550
SOP29	445838.589	118121.759
SOP30	445770.126	118178.220
SOP31	445781.886	118164.599

WAVIN AQUACELL STORMWATER SOAKAWAY TANK OR SIMILAR APPROVED WRAPPED IN PERMEABLE MEMBRANE. 4.0m x 2.0m x 0.8m DEEP GIVING 6.1m³ OF STORAGE WITH 95% VOIDS.
SOAKAWAY TO BE MIN 600mm BELOW GROUND LEVEL AND FULLY CONTAINED WITHIN SANDS AND GRAVELS STRATA.
IL OF SOAKAWAY TO BE CONFIRMED ON SITE.

PROPOSED PRIVATE FOUL WATER MANHOLE SCHEDULE

MANHOLE REF	MANHOLE TYPE	APPROX. COVER LVL	INVERT LVL OF INCOMING PIPE	DIAMETER OF LARGEST PIPE	APPROX. DEPTH	INTERNAL SIZE	COVER TYPE CLEAR OPENING	LOAD CLASS	SETTING OUT COORDS		REMARKS
									Easting	Northing	
PIC F1	MDPE INSPECTION	14.050	13.150	1500	0.900	6000	600x600	C250	445815.415	118186.539	
PIC F2	MDPE INSPECTION	14.050	13.150	1500	0.900	6000	600x600	C250	445827.617	118172.433	
PIC F3	MDPE INSPECTION	14.050	12.950	1500	1.100	6000	600x600	C250	445826.558	118173.657	
MH F1	PCC RING	0.000	TBC	1500	TBC	12000	600x600	D400	445804.743	118154.805	NEW MANHOLE OVER EXISTING RUN. BD IL: 12.800

WAVIN AQUACELL STORMWATER SOAKAWAY TANK OR SIMILAR APPROVED WRAPPED IN PERMEABLE MEMBRANE. 15.0m x 8.0m x 0.8m DEEP GIVING 91.2m³ OF STORAGE WITH 95% VOIDS.
SOAKAWAY TO BE MIN 600mm BELOW GROUND LEVEL AND FULLY CONTAINED WITHIN SANDS AND GRAVELS STRATA.
DESIGN BASED ON 11.500 IL OF SOAKAWAY. TO BE CONFIRMED ON SITE.

PROPOSED PRIVATE SURFACE WATER MANHOLE SCHEDULE

MANHOLE REF	MANHOLE TYPE	APPROX. COVER LVL	INVERT LVL OF INCOMING PIPE	DIAMETER OF LARGEST PIPE	APPROX. DEPTH	INTERNAL SIZE	COVER TYPE CLEAR OPENING	LOAD CLASS	SETTING OUT COORDS		REMARKS
									Easting	Northing	
PIC S1	MDPE INSPECTION	14.050	13.300	1500	0.750	6000	600x600	C250	445813.304	118229.889	
PIC S2	MDPE INSPECTION	14.050	13.300	1500	0.750	6000	600x600	C250	445836.031	118203.587	
MH S1	PCC RING	14.050	13.095	1500	0.955	10500	600x600	C250	445822.873	118218.815	
PIC S3	MDPE INSPECTION	13.900	12.550	1500	1.350	6000	600x600	C250	445784.523	118208.482	
PIC S4	MDPE INSPECTION	14.050	12.370	2250	1.680	6000	600x600	C250	445793.633	118211.600	
PIC S5	MDPE INSPECTION	13.900	12.550	1500	1.350	6000	600x600	C250	445809.521	118182.429	
PIC S6	MDPE INSPECTION	14.050	12.400	2250	1.650	6000	600x600	C250	445813.694	118188.382	
MH S2	PCC RING	14.050	12.280	2250	1.770	12000	600x600	D400	445802.563	118201.266	600mm SUMP IN BASE OF MANHOLE
PIC S7	MDPE INSPECTION	14.050	13.300	1500	0.750	6000	600x600	C250	445848.022	118188.969	
PIC S8	MDPE INSPECTION	14.050	13.300	1500	0.750	6000	600x600	C250	445868.593	118165.274	
PIC S9	MDPE INSPECTION	14.050	13.115	1500	0.935	6000	600x600	C250	445860.160	118175.034	
PIC S10	MDPE INSPECTION	13.900	12.550	1500	1.350	6000	600x600	C250	445822.034	118167.963	
PIC S11	MDPE INSPECTION	14.050	12.400	2250	1.650	6000	600x600	C250	445828.491	118171.275	
MH S3	PCC RING	13.900	12.550	1500	1.350	10500	600x600	D400	445863.726	118142.101	
PIC S12	MDPE INSPECTION	13.900	12.550	1500	1.350	6000	600x600	C250	445844.547	118142.609	
PIC S13	MDPE INSPECTION	14.050	12.385	2250	1.665	6000	600x600	C250	445849.546	118146.933	
MH S4	PCC RING	14.000	12.280	2250	1.720	1200	600x600	D400	445840.176	118157.767	600mm SUMP IN BASE OF MANHOLE
PIC S14	MDPE INSPECTION	14.300	12.650	1500	1.650	6000	600x600	C250	445775.113	118198.416	
MH S5	PCC RING	14.300	12.360	1500	1.940	12000	600x600	D400	445794.584	118175.906	
PIC S15	MDPE INSPECTION	14.300	12.950	1500	1.350	6000	600x600	C250	445807.551	118160.061	
MH S6	PCC RING	14.300	12.950	1500	1.350	10500	600x600	D400	445824.615	118141.155	
MH S7	PCC RING	14.300	12.950	1500	1.350	10500	600x600	D400	445836.720	118127.159	
MH S8	PCC RING	14.400	13.050	1500	1.350	10500	600x600	D400	445782.838	118166.627	

CHANNEL SETTING OUT

SOP N°	SETTING OUT COORDS		LEVEL (mAOD)	
	Easting	Northing	SOFFIT	INVERT
SOP01	445795.017	118204.657	TBC	TBC
SOP02	445804.826	118193.309	TBC	TBC
SOP03	445798.772	118198.078	TBC	TBC
SOP04	445788.964	118199.427	TBC	TBC
SOP05	445827.692	118166.528	TBC	TBC
SOP06	445838.157	118154.423	TBC	TBC
SOP07	445832.104	118149.193	TBC	TBC
SOP08	445821.641	118161.298	TBC	TBC
SOP09	445780.040	118171.334	TBC	TBC
SOP10	445782.657	118168.308	TBC	TBC
SOP11	445781.079	118167.075	TBC	TBC
SOP12	445778.527	118170.025	TBC	TBC
SOP13	445795.281	118207.604	TBC	TBC
SOP14	445842.193	118141.818	TBC	TBC
SOP15	445813.645	118190.449	TBC	TBC
SOP16	445814.872	118189.032	TBC	TBC
SOP17	445824.413	118177.996	TBC	TBC
SOP18	445825.641	118176.578	TBC	TBC
SOP19	445829.860	118171.698	TBC	TBC
SOP20	445831.087	118170.281	TBC	TBC
SOP21	445849.470	118149.023	TBC	TBC
SOP22	445850.127	118148.265	TBC	TBC
SOP23	445877.616	118155.566	TBC	TBC
SOP24	445850.601	118132.099	TBC	TBC
SOP25	445843.379	118140.451	TBC	TBC
SOP26	445772.282	118198.550	TBC	TBC
SOP27	445838.589	118121.759	TBC	TBC
SOP28	445770.126	118178.220	TBC	TBC
SOP29	445781.890	118164.602	TBC	TBC

GENERAL NOTES
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE EVOLVE DESIGN STATEMENT.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SERVICES & SPECIALIST MANUFACTURERS DETAILS, DRAWINGS AND SPECIFICATIONS.
3. DO NOT SCALE THIS DRAWING. IF IN DOUBT ASK ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. ALL DIMENSIONS TO EXISTING ELEMENTS ARE TO BE CHECKED AND CONFIRMED ON SITE BY CONTRACTOR.

NOTES

THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING:-
(i). ALL OPERATIONS SHOULD BE CARRIED OUT IN ACCORDANCE WITH THE GENERAL HEALTH AND SAFETY POLICY OF THE DEVELOPER AS REQUIRED BY SECTIONS 2 OF THE HEALTH AND SAFETY AT WORK ACT 1974 AND IN PARTICULAR THE CONSTRUCTION (GENERAL PROVISIONS) REGULATIONS.
(ii). THE LOCAL AUTHORITY AND UTILITIES COMPANIES ARE TO BE NOTIFIED PRIOR TO COMMENCEMENT OF WORK ON SITE.
(iii). PRIOR TO CONSTRUCTION THE ACTUAL POSITIONS AND DEPTHS OF SERVICES LIKELY TO BE AFFECTED BY THE WORKS SHOULD BE ESTABLISHED BY MEANS OF HAND DIG IN CLOSE LIAISON WITH THE UTILITY COMPANIES. THE CONTRACTOR SHALL IMMEDIATELY ADVISE THE ENGINEER OF ANY SERVICES EXPOSED WHICH MAY AFFECT THE DESIGN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT PIPES ARE ADEQUATELY PROTECTED FROM CONCENTRATED LOADING BY CONSTRUCTION TRAFFIC DURING THE CONSTRUCTION PERIOD. EVOLVE ARE RESPONSIBLE FOR PERMANENT WORKS ONLY. ANY TEMPORARY BUILD UPS ARE TO BE PROPOSED AND APPROVED BY THE CONTRACTOR PRIOR TO INSTALLATION.

THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT, AND TEMPORARY AND PERMANENT DIVERSION WORKS, AS NECESSARY TO ALL EXISTING SERVICES.

THE CONTRACTOR SHALL ALLOW FOR KEEPING TRENCHES AND EXCAVATIONS AS DRY AS PRACTICABLE BY PUMPING FROM TEMPORARY SUMPS AND DE-WATERING AS APPROPRIATE. THE POINT AND METHOD OF DISCHARGE TO BE AGREED WITH THE DRAINAGE AUTHORITY, LFLA AND ENVIRONMENT AGENCY.

ALL DRAINS TO BE CCTV SURVEYED ON COMPLETION OF THE WORKS.

- ALL EXISTING SERVICES TO BE LOCATED PRIOR TO COMMENCEMENT OF ANY DRAINAGE WORKS, AND WHERE NECESSARY PROTECTION OR DIVERSIONS TO BE UNDERTAKEN TO AVOID CONFLICT WITH THE PROPOSED WORK.
- ALL PROPOSED SERVICES TO BE COORDINATED WITH PROPOSED UNDERGROUND DRAINAGE.
- THIS DESIGN IS DEPENDANT ON LFLA APPROVAL OF DRAINAGE PROPOSAL AND SUITABILITY OF CONNECTION TO THE PUBLIC SEWER. NO WORKS ARE TO COMMENCE UNTIL CONSENT TO CONNECT IS RECEIVED FROM HAMPSHIRE COUNTY COUNCIL.
- ALL EXISTING DRAINS TO BE ABANDONED SHALL BE EITHER REMOVED OR GROUTED UP IF NOT POSSIBLE. GROUTING TO BE PERFORMED BY CAPPING ALL ENDS / CONNECTIONS AND FILLING THE RETAINING VOID WITH GROUT, IN ACCORDANCE WITH CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 7th EDITION (CESWI) 7TH EDITION.
- ALL SOFT SPOTS TO BE REMOVED FROM BOTTOM OF EXCAVATIONS AND TO BE REFILLED TO FORMATION LEVEL IN ACCORDANCE WITH GROUNDWORKS SPECIFICATIONS.
- FOUNDATIONS ADJACENT TO DRAIN RUNS ARE TO BE CONSTRUCTED SO THAT THE DIFFERENCE BETWEEN THE FORMATION LEVEL OF THE FOUNDATION AND INVERT LEVEL OF ANY DRAIN MUST NOT EXCEED THE HORIZONTAL DISTANCE MINUS 500MM.
- WHERE DRAIN RUNS ARE TO BE CAST INTO FOUNDATIONS, A MINIMUM OF 75MM OF CONCRETE IS TO BE MAINTAINED BETWEEN THE OUTSIDE OF THE PIPE AND THE TOP OR BOTTOM REINFORCEMENT OF THE FOUNDATION.
- UNLESS SPECIFIED OTHERWISE PIPE INVERT LEVELS AT MANHOLES AND CHAMBERS TO BE AT SAME LEVEL AS INVERT LEVEL OF CHAMBER
- ALL EXTERNAL DRAINAGE SHOWN ON THIS DRAWING HAS BEEN BASED UPON CLAY/CONCRETE (VITRIFIED CLAYWARE TO BS 65 AND BS EN 295 OR CONCRETE TO BS 5911-1 & BS EN 1916 AND FLEXIBLY JOINTED).
- ALL DRAIN RUNS BELOW STRUCTURAL SLAB ARE TO BE CAST IRON TIMESAVER BY ST-GOBAIN OR SIMILAR APPROVED. ROOFR PIPES TO BE FITTED TO ALL CAST IRON DRAINAGE AT THE POINT WHERE THE PIPE EMERGES FROM BENEATH THE SLAB
- ALL PRIVATE DRAINAGE WORKS TO BE IN ACCORDANCE WITH 'CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 7th EDITION', BS EN 752 2017 'DRAIN AND SEWER SYSTEMS OUTSIDE BUILDINGS' AND THE BUILDING REGULATIONS APPROVED 'DOCUMENT H'.
- ALL PRIVATE DRAINAGE PIPES WITH A COVER OF LESS THAN 900mm IN NON-TRAFFICKED AREAS AND LESS THAN 1200mm IN TRAFFICKED AREAS TO BE BEDDED AND SURROUNDED IN CONCRETE (CLASS Z). COMPRESSIBLE MATERIAL SHALL BE PROVIDED AT EVERY PIPE JOINT. WHERE COVER EXCEEDS THIS DEPTH, PIPES ARE TYPICALLY BEDDED AND SURROUNDED IN CLASS S. REFER TO DRAINAGE DETAILS DRAWING FOR SPECIFIC TYPES.
- BACKFILL TO DRAINAGE TRENCHES UNDER HARDSTANDING AREAS TO BE TYPE 1 SUB BASE MATERIAL. ELSEWHERE BACKFILL TO BE FREE DRAINING READILY COMPATIBLE MATERIAL FREE FROM DETRITUS, ORGANIC MATTER, FROZEN SOIL CLAY LUMPS AND LARGE STONES. TO BE COMPACTED IN LAYERS NOT EXCEEDING 150mm THICK.
- WHERE FOUL SEWERS RUN ABOVE SURFACE SEWERS, CONCRETE PROTECTION MAY BE REQUIRED AT CROSSOVERS TO PREVENT ANY POTENTIAL CONTAMINATION. WHERE FOUL AND SURFACE WATER SEWERS CROSS AND THERE IS LESS THAN 100MM CLEARANCE SHORT LENGTHS OF BOTH RUNS ARE TO BE ENCASED IN CONCRETE.
- THE FIRST PIPE OUT OF MANHOLES TO BE AS SHORT AS PRACTICABLE SO AS TO PROVIDE A FLEXIBLE JOINT AS CLOSE AS POSSIBLE TO THE OUTSIDE FACE OF THE CONCRETE SURROUND AND CONNECTED TO A LENGTH OF ROCKER PIPE.
- ALL CONNECTIONS PASSING THROUGH BASES OR EDGE BEAMS TO BE IN SEALED SLEEVES. ALTERNATIVELY CONNECTIONS MAY BE CAST-IN WITH FLEXIBLE JOINTS NOT GREATER THAN 150MM FROM FACE OF CONCRETE.
- WHERE DRAINAGE PIPES ARE LESS THAN 300mm BELOW THE UNDERSIDE OF THE GROUND FLOOR SLAB, CONCRETE ENCASEMENT IS REQUIRED (CLASS Z). COMPRESSIBLE JOINTS ARE TO BE PROVIDED AT EVERY PIPE JOINT WITHIN THE CONCRETE. WHERE PIPES ARE MORE THAN 300mm BELOW THE UNDERSIDE OF THE SLAB, CLASS S BEDDING IS ACCEPTABLE.
- SEWERS MUST HAVE 5m CLEARANCE FROM TREES AND HEDGES OR TO HAVE SUITABLE ROOT PROTECTION IN ACCORDANCE WITH SFA REQUIREMENTS.
- ALL INTERNAL DRAINAGE POSITIONS ARE TAKEN FROM ARCHITECT'S/M&E CONSULTANTS DRAWINGS. REFER TO AFOREMENTIONED FOR SETTING-OUT.
- REFER TO ARCHITECT'S M&E CONSULTANTS INFORMATION FOR SETTING-OUT OF DRAINAGE ABOVE GROUND FLOOR SLAB. RAINWATER AND FOUL WATER POP UP LOCATIONS AND SIZES TO BE CONFIRMED BY ARCHITECT AND M&E ENGINEER.
- ALL UNDERGROUND FOUL DRAINAGE SHOULD BE SUITABLY VENTED AT OR NEAR TO THE HEAD OF RUNS.
- ALL ACCESS FITTINGS, STACKS, RIMPS AND GULLIES TO BE RODDABLE. ALL TO HAVE LOW LEVEL RODDING ACCESS PLATES UNLESS AN ALTERNATIVE MEANS OF ACCESS IS AGREED. ACCESS POINT TO BE ABOVE ANY GROUND FLOOR CONNECTED APPLIANCE SPILL LEVEL.
- ALL GULLY AND CHANNEL DRAIN OUTLETS AND TERMINATION POINTS TO BE TRAPPED AND RODDABLE.
- ALL BRANCH CONNECTIONS TO BE MADE WITH SWEEP BENDS IN THE DIRECTION OF FLOW IN THE MAIN SEWER.
- WHERE NO WC'S ARE CONNECTED UPSTREAM, UNDERSLAB FLOW DRAINAGE TO BE LAID AT 1:40 MIN. AFTER THE CONNECTION OF AT LEAST 1NO WC, A FALL OF 1:80 APPLIES.
- ALL FOUL MANHOLES, INSPECTION CHAMBERS, RODDING EYES & PUMP CHAMBER TO HAVE DOUBLE SEALED COVERS.
- SOAKAWAY UNITS TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS DETAILS.
- COVER LEVELS, GULLY POSITIONS, AND BUILDING LOCATION ARE APPROXIMATE AND SHALL BE CONFIRMED BY ARCHITECT/LANDSCAPE ARCHITECT. CONTRACTOR TO ALLOW FOR ADJUSTMENT TO SUIT AGREED POSITIONS AND FINISHED LEVELS, AND CONFIRM ALL COVER LEVELS ON SITE.
- BRE365 SOAKAWAY TESTS CARRIED OUT ON SITE JUNE 2019 HAS SHOWN THE INFILTRATION RATE TO BE 0.9611m/hr & 0.4359m/hr. THE SOAKAWAYS HAVE BEEN DESIGNED TO SUIT THE 0.6509m/hr INFILTRATION RATE FOR BOTH AREAS.
- ALL SOAKAWAYS TO BE SITED 5m MINIMUM FROM ANY BUILDING OR WALL, EXISTING OR PROPOSED, & 10m FROM ANY OTHER SOAKAWAY.
- NO SOAKAWAY BASES TO PENETRATE WATER TABLE LEVEL. NO SOAKAWAY TO BE CONSTRUCTED IN CONTAMINATED GROUND.

DRAINAGE KEY

---	EXISTING PRIVATE SURFACE WATER SEWER
---	PROPOSED PRIVATE SURFACE WATER SEWER
---	EXISTING PRIVATE FOUL WATER SEWER
---	PROPOSED PRIVATE FOUL WATER SEWER
---	EXISTING PUBLIC FOUL WATER SEWER
---	ABANDONED DRAINAGE
---	PROPOSED PRIVATE SURFACE WATER PRECAST CONCRETE RING MANHOLE
---	PROPOSED PRIVATE SURFACE WATER MDPE INSPECTION CHAMBER
---	EXISTING PRIVATE SURFACE WATER MANHOLE
---	PROPOSED PRIVATE FOUL WATER PRECAST CONCRETE RING MANHOLE
---	PROPOSED PRIVATE FOUL WATER MDPE INSPECTION CHAMBER
---	EXISTING PRIVATE FOUL WATER MANHOLE
---	EXISTING PUBLIC FOUL WATER MANHOLE
---	PROPOSED CHANNEL DRAIN
---	PERMACCHANNELS, OUTLET FROM CHANNEL EVERY METER TO ADJACENT BIOMAT UNITS FOR HYDROCARBON INTERCEPTION. POSITIVE CONNECTION TO BELOW GROUND DRAINAGE FROM END OF UNITS.
---	CHANNEL OUTLET
---	RODDABLE TRAPPED CHANNEL OUTLET
---	STUB STACK
---	SOIL VENT PIPE
---	POLYPROPYLENE INSPECTION CHAMBER
---	MANHOLE
---	BACKDROP

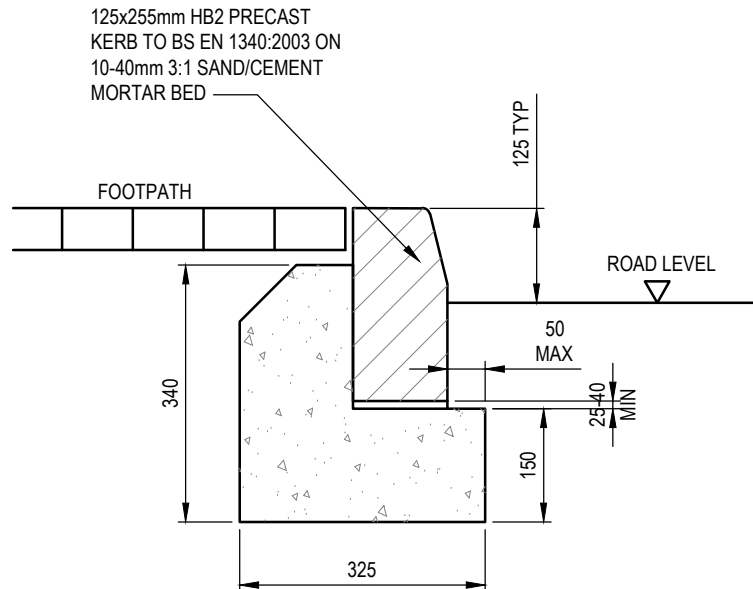
EXISTING PUBLIC FOUL WATER MANHOLE SCHEDULE

MANHOLE REF	MANHOLE TYPE	APPROX. COVER LVL	INVERT LVL OF INCOMING PIPE	DIAMETER OF LARGEST PIPE	APPROX. DEPTH	INTERNAL SIZE	COVER TYPE CLEAR OPENING	LOAD CLASS	SETTING OUT COORDS		REMARKS
									Easting	Northing	
EXMH F1	EXISTING	13.930	10.830	3000	3.100	EXISTING	600x600	D400	-	-	DROP SHAFT MANHOLE
EXMH F1	EXISTING	13.930	7.780	3750	6.150	EXISTING	600x600	D400	-	-	

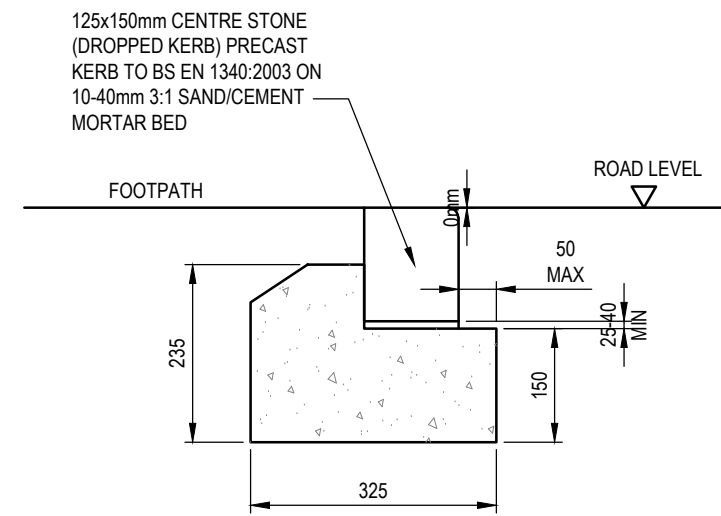
H	12.09.22	ISSUED FOR CONSTRUCTION	PW	SG
G	15.03.21	DRAINAGE MOVED TO SUIT REVISED BUILDING POSITION, GRIDS ADDED FOR COORDINATION	PW	SG
F	01.03.21	REVISED TO SUIT LATEST LAYOUT. REISSUED FOR TENDER	PW	SG
E	04.09.20	REVISED AS CLOUDED	PW	SG
D	20.07.20	STACK ADDED IN UNIT 220. DRAINAGE COORDINATED WITH BUILDING PHASING	PW	SG
C	06.07.20	STACK REMOVED IN UNIT 220. DRAINAGE UPDATED TO SUIT. RE-ISSUED FOR TENDER	PW	SG
B	03.07.20	TENDER ISSUE	PW	SG
A	26.06.20	WORK IN PROGRESS ISSUE	PW	SG
Rev.	Date	Revision	By	Chk

THE PROPOSED SCHEME AS SHOWN ON THIS DRAWING IS STILL SUBJECT TO DESIGN DEVELOPMENT, AND IS AS COMPLETE AS IS POSSIBLE/PRACTICAL AT THE DATE OF ISSUE BUT MAY BE SUBJECT TO CHANGE.

SITE CBR VALUE
3.4 % AVERAGE CBR HAS BEEN TAKEN FROM ON SITE TESTING CARRIED OUT BY ACS TESTING AND REPORTED IN THEIR RESULTS DATED JUNE 2020



TYPICAL KERB - DETAIL A
SCALE 1:10



TYPICAL DROPPED KERB - DETAIL B
SCALE 1:10

RC SLAB CONSTRUCTION		FOUNDATION OPTION 1			FOUNDATION OPTION 1		
SLAB	BEDDING LAYER (mm)	SUB BASE (mm)	CAPPING (mm)	GEOTEXTILE	SUB BASE (mm)	CAPPING (mm)	GEOTEXTILE
175mm THICK REINFORCED CONCRETE SLAB	50 SAND BED	150 ≈	330 ≈	TERRAM 1000	280 ≈	0	TERRAM 1000

BLOCK CONSTRUCTION			FOUNDATION OPTION 1			FOUNDATION OPTION 2		
BLOCK (mm)	BEDDING LAYER (mm)	ROAD BASE (mm)	SUB-BASE (mm)	CAPPING (mm)	GEOTEXTILE	SUB-BASE (mm)	CAPPING (mm)	GEOTEXTILE
80 TO ARCHITECT'S SPECIFICATION	50 SAND BED	0	150 ≈	330 ≈	TERRAM 1000	280 ≈	0	TERRAM 1000

FLEXIBLE CONSTRUCTION			FOUNDATION OPTION 1			FOUNDATION OPTION 2		
WEARING COURSE (mm)	BINDER BASE COURSE (mm)	ROAD BASE (mm)	SUB-BASE (mm)	CAPPING (mm)	GEOTEXTILE	SUB-BASE (mm)	CAPPING (mm)	GEOTEXTILE
40 ΔC	60 ΔC	100 *A	150≈	330≈	TERRAM 1000	280≈	0	TERRAM 1000
20 ΔE	40 ΔD	-	150≈	330≈	TERRAM 1000	280≈	0	TERRAM 1000

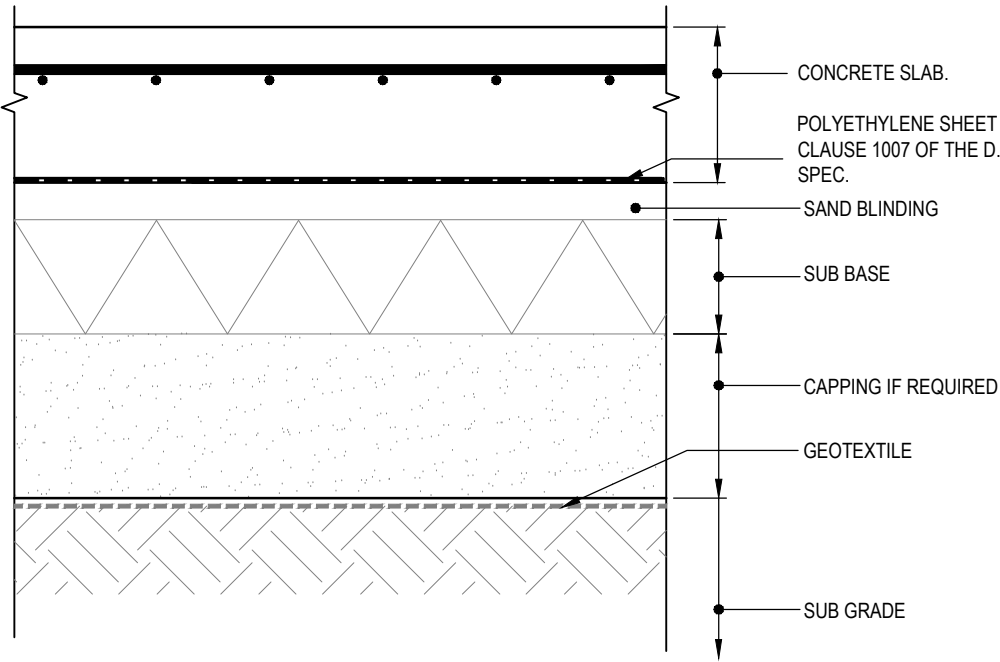
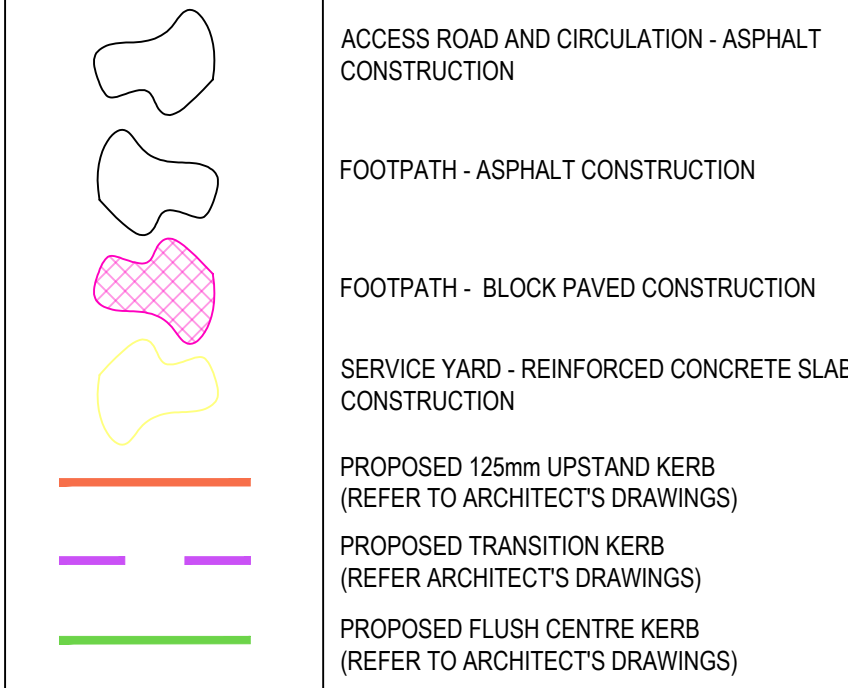
ASPHALT MATERIALS (ALL MATERIALS TO BE LAID AND COMPACTED TO BS 594987:2010 - ASPHALTS FOR ROADS AND OTHER PAVED AREAS)							
SYMBOL	BS EN 1308 MATERIAL DESCRIPTION	USAGE	BITUMEN (PEN.)	THICKNESS (RANGE)	LAYING TEMPERATURE		APPROXIMATE RATE OF SPREAD (m ² /TONNE)
*A	AC 32 DENSE BASE DENSE BASE (ROADBASE)	ACCESS ROAD/CIRCULATION	40/60	70-120	MAX °F	MIN °F	100mm = 4.4m ²
ΔC	AC 20 DENSE BIN DENSE BINDER COURSE (BASECOURSE)	ACCESS ROAD/CIRCULATION	40/60	50-100	190	105	60mm = 7.3m ²
ΔD	AC 20 DENSE BIN DENSE BINDER COURSE (BASECOURSE)	PARKING BAYS	100/150	50-100	170	75	60mm = 7.3m ²
ΔC	AC 10 CLOSE SURF CLOSE GRADED SURFACE COURSE (WEARING COURSE)	ACCESS ROAD/CIRCULATION	40/60	25/40	190	105	30mm = 14.5m ²
ΔE	AC 6 DENSE SURF DENSE SURFACE COURSE (WEARING COURSE)	PAVEMENTS	160/220	20/30	170	85	20mm = 22.0m ²

SYMBOL	MATERIAL DESCRIPTION	SPECIFICATION
≈	SUB BASE	GRANULAR MATERIAL TYPE 1 TO CLAUSES 801 AND 803 OF THE D.Tp. SPECIFICATION LAID AND COMPACTED TO CLAUSE 802 ALTERNATIVE MATERIALS TO D.Tp. TYPE 1 (E.G. D.Tp. TYPE 2 TO CLAUSE 804 OR LOCALLY AVAILABLE FILL MATERIALS) MAY BE USED AT THE CONTRACTORS RISK SUBJECT TO AGREEMENT WITH THE ENGINEER. ALL TO CLAUSES 701 AND 702.
≈	CAPPING	GRANULAR MATERIAL CLASS 1A, 1B, 1C, 6F1 OR 6F2 TO THE D.Tp. SPECIFICATION 601, 602, 613 AND 617. LAID AND COMPACTED TO CLAUSES 606 AND 612.

TYPICAL CONSTRUCTION MAKEUP FOR EXTERNAL LANDSCAPING WORKS.

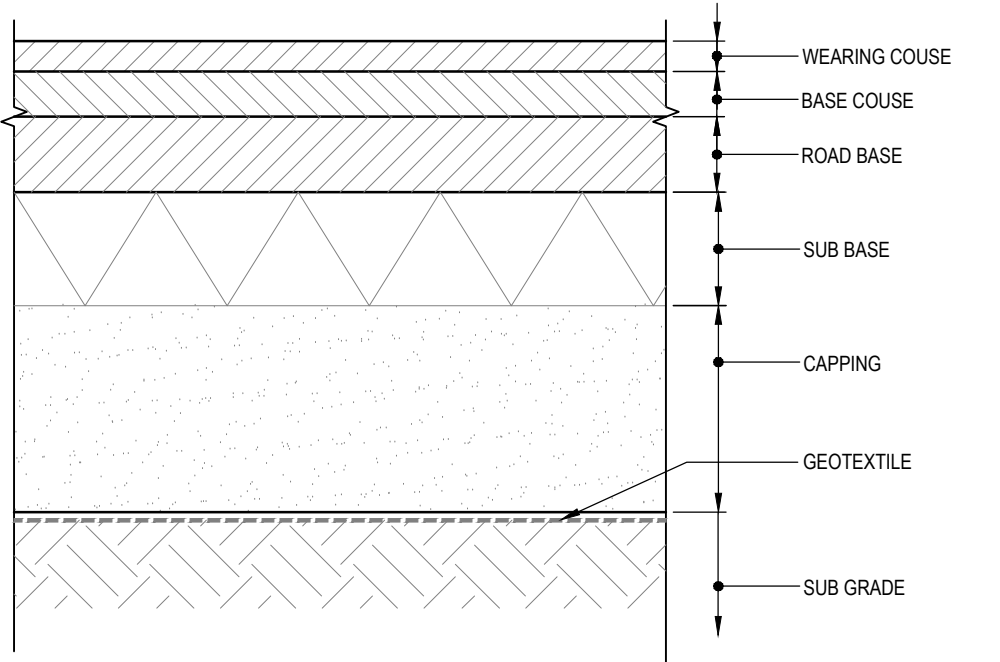
NTS

EXTERNAL SURFACE KEY



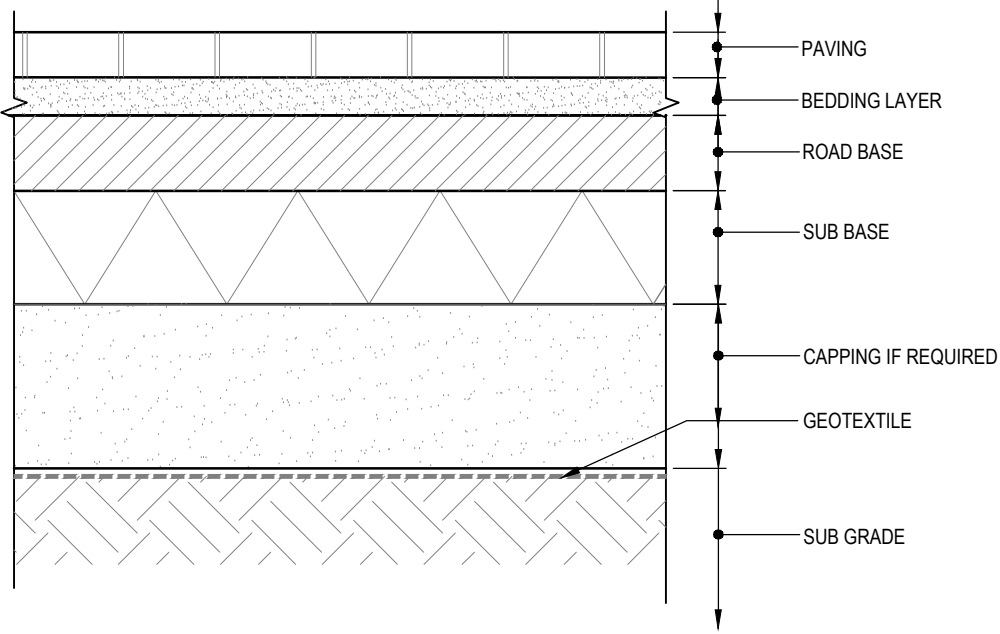
TYPICAL CONCRETE SLAB PAVEMENT CONSTRUCTION DETAIL

SCALE 1:10



TYPICAL FLEXIBLE PAVEMENT CONSTRUCTION DETAIL

SCALE 1:10



TYPICAL BLOCK/SLAB PAVEMENT CONSTRUCTION DETAIL

SCALE 1:10

GENERAL NOTES
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE EVOLVE DESIGN STATEMENT.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SERVICES & SPECIALIST MANUFACTURERS DETAILS, DRAWINGS AND SPECIFICATIONS.
3. DO NOT SCALE THIS DRAWING. IF IN DOUBT ASK. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. ALL DIMENSIONS TO EXISTING ELEMENTS ARE TO BE CHECKED AND CONFIRMED ON SITE BY CONTRACTOR.

NOTES

D	12.09.22	ISSUED FOR CONSTRUCTION	PW	SG
C	01.03.21	REVISED TO SUIT LATEST LAYOUT. REISSUED FOR TENDER	PW	SG
B	28.09.20	UPDATED TO SUIT LATEST LAYOUT	PW	SG
A	02.09.20	TENDER ISSUE	PW	SG
Rev	Date	Revision	By	CHK

CONSTRUCTION

Client
DIAGEO PENSION FUND

Project
EASTLEIGH RAILWAY DEPOT (PHASE 1A AND 1B), CAMPBELL ROAD, EASTLEIGH

Drawing Title
UNITS 200 - 220 EXTERNAL WORKS
CONSTRUCTION BUILD-UPS
GENERAL ARRANGEMENT & DETAILS

Drawn by
PW

Checked by
PW

Scale @ A1
1:250

Drawing No.
3062-EVE-1B-XX-DR-C-0601

Revision
D

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APPENDIX D

Proposed Stockpile Arrangements (tbc onsite)

