



LOWER MORTLAKE ROAD

Cycle

BELOW GROUND DRAINAGE NOTES

1. THE LOCATION AND LEVEL OF EXISTING DRAINAGE CONNECTIONS AND EXISTING SERVICES IS TO BE CHECKED PRIOR TO COMMENCEMENT OF DRAINAGE WORKS. ANY VARIANCE TO THE DETAILS ON THIS DRAWING AND THE SCHEDULE IS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
2. THE DESIGN IS BASED ON THE INFORMATION AVAILABLE ON THE DATE OF ISSUE FROM OTHER PARTS (E.G. ARCHITECT AND M&E ENGINEER). IT IS SUBJECT TO CHANGE RESULTING FROM UPDATES TO THE AVAILABLE INFORMATION FROM OTHERS.
3. THE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE NBS SPECIFICATIONS, ASSOCIATED MANHOLE SCHEDULE AND STANDARD DRAINAGE DETAIL DRAWINGS WHERE APPLICABLE.
4. THE POSITIONS OF FOUL AND SURFACE WATER DRAINAGE POINTS ARE INDICATIVE ONLY. REFER TO THE ARCHITECTS DRAWINGS FOR SETTING OUT DETAILS.
5. PRIVATE FOUL AND SURFACE WATER DRAINAGE IS TO BE CONSTRUCTED IN ACCORDANCE WITH BUILDING REGULATIONS PART H, BS EN752 AND BS EN12056.
6. DRAINS AT GROUND LEVEL ARE TO BE CONSTRUCTED USING VITRIFIED CLAY PIPES TO BS EN 285-1 SUPER STRENGTH SPECIFICATION (HEPWORTH SUPERLEVEL) OR SIMILAR APPROVED.
7. ALL SURFACE WATER CONNECTIONS TO BE 150mm DIAMETER AND TO BE LAID AT A MINIMUM GRADIENT OF 1:80 UNLESS NOTED OTHERWISE.
8. ALL SOIL CONNECTIONS AND RAINWATER PIPES SHOULD BE RODDABLE FROM GROUND LEVEL.
9. RAINWATER DOWN PIPES ARE TO CONNECT TO A DRAIN VIA A REST BEND, WHERE DRAINAGE IS COMBINED A 'P' TRAP MUST ALSO BE PROVIDED.
10. IN CASES OF IN SITU CONCRETE FLOOR SLABS, DRAINS ARE TO BE CAST INTEGRAL WITH THE SLAB WHERE PIPE COVER TO THE CROWN IS LESS THAN 300mm - NOTE SPECIAL PROVISIONS APPLY TO BASEMENT FLOOR SLABS - SEE DETAILED DRAINAGE AND STRUCTURAL DRAWINGS. CONCRETE ENCASUREMENT TO BE REINFORCED AS PER DRAINAGE DETAIL.
11. WHERE DRAINS PASS THROUGH FOUNDATIONS OR OTHER RIGID STRUCTURES A LINTEL OR SLEEVE IS TO BE USED AND PROVISION FOR FLEXIBILITY IS TO BE MADE USING ROCKER PIPES.
12. BACKFILLING OF DRAIN TRENCHES ADJACENT TO BUILDING OR OTHER STRUCTURES IS TO BE IN ACCORDANCE WITH DIAGRAM 8 OF THE BUILDING REGULATIONS.
13. ANY PIPE OR GULLY OR OTHER FITTING OR DUCT PENETRATING THE BASEMENT SLAB OR WALL IS TO BE WATERPROOFED USING HYDROPHILIC STRIPS OR PUDDLE FLANGES TO ENSURE A WATER TIGHT JOINT. CONCRETE SURROUND TO DRAINAGE PIPES AND FITTINGS MAY BE REQUIRED IN CERTAIN CASES - REFER TO DETAILED DRAINAGE DRAWINGS AND RELEVANT STRUCTURAL DETAILS.
14. EXISTING FOUNDATIONS AND RETAINING WALLS MUST NOT BE UNDERMINED BY NEW DRAINAGE RUNS UNLESS AGREED IN WRITING WITH THE STRUCTURAL ENGINEER. CONTRACTOR TO SUBMIT METHOD STATEMENTS AND TEMPORARY WORKS PROPOSALS TO THE STRUCTURAL ENGINEER FOR COMMENT PRIOR TO COMMENCEMENT OF WORKS.
15. ALL DRAINAGE EXCAVATIONS SHOULD BE RISK ASSESSED BY THE CONTRACTOR TO ENSURE TRENCH SAFETY / STABILISATION MEASURES ARE CONSIDERED DURING THE CONSTRUCTION PERIOD. ANY EXCAVATIONS LEFT EXPOSED SHOULD BE INSPECTED BY A COMPETENT PERSON ON A DAILY BASIS. GROUND CONDITIONS SHOULD BE MONITORED AND TOOL BOX TALKS SHOULD INCLUDE SITE INVESTIGATION INFORMATION TO AID THE CONTRACTORS ONGOING RISK ASSESSMENT AND METHOD OF EXCAVATION. ALL EXCAVATIONS SHOULD BE ASSESSED BY A COMPETENT PERSON FOR CONFINED SPACES REQUIREMENTS.
16. THE CONTRACTOR IS TO CONSIDER PHASING OF THE DRAINAGE INSTALLATION AND ARE TO PROVIDE TEMPORARY DRAINAGE MEASURES THEY DETERMINE ARE REQUIRED.
17. SUDS ARE TO BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS MADE WITHIN THE CURIA SUDS MANUAL C753 (WITH PARTICULAR ATTENTION DRAWN TO CHAPTER 31) AND CURIA GUIDANCE ON THE CONSTRUCTION OF SUDS C768. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONSIDER CONSTRUCTION PROGRAMME OF SUDS.
18. DETAILED DESIGN OF GEOCELLULAR ATTENUATION CRATES IS A CDP ITEM AND SHOULD BE BASED ON LEVEL LAYOUT AND VOLUME DETAILS SHOWN. DETAILED DESIGN INFORMATION SHOULD BE PROVIDED TO THE CIVIL ENGINEER TO PASS COMMENT.
19. ALL MANHOLE COVER LEVELS SHOWN ARE APPROXIMATE AND ARE TO SUIT THE FINAL GROUND OR BUILDING LEVELS.
20. MANHOLE COVERS IN BLOCK PAVED AREAS ARE TO BE RECESSED UNLESS NOTED OTHERWISE.
21. ALL EXTERNAL FOUL AND COMBINED WATER MANHOLE COVERS IN FOOTPATHS AND PAVED AREAS (OTHER THAN ROADS) ARE TO BE NON-VENTILATING AND SINGLE SEALED UNLESS NOTED OTHERWISE.
22. ALL EXTERNAL SURFACE WATER MANHOLE COVERS ARE TO BE NON-VENTILATING UNLESS NOTED OTHERWISE.
23. ALL MANHOLE COVERS ARE TO BE INSTALLED SQUARE TO PAVING, KERB LINES OR BUILDINGS.
24. FOR ADOPTED DRAINAGE, MANHOLE COVERS ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE DCS OR SPECIFIC WATER AUTHORITY REQUIREMENT.
25. DEPTH CHAMBERS ARE TO HAVE A REDUCED ACCESS PIECE WHEN THE DEPTH IS GREATER THAN 1.2m TO THE BASE OF THE CHAMBER.

This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Do not scale from this drawing.

LEGEND

	SURFACE WATER MANHOLE
	EXISTING SURFACE WATER
	PROPOSED SURFACE WATER
	SURFACE WATER PIPE TO BE ABANDONED
	RG TRAPPED ROAD GULLY
	RWP RAIN WATER PIPE
	GEOCELLULAR SURFACE WATER ATTENUATION (TO CONTRACTOR DESIGN)
	FC FLOW CONTROL CHAMBER
	PROPOSED PERMEABLE PAVING
	BUILDING FOOTPRINT
	GRASS LANDSCAPING
	SITE BOUNDARY
	EXTENT OF WORKS BOUNDARY

BLUE ROOF AREA 3 - RWP  
DISCHARGE RATE = 0.15 l/s  
LOCATION INDICATIVE PENDING M&E DESIGN

BLUE ROOF AREA 2 - RWP  
DISCHARGE RATE = 0.15 l/s  
LOCATION INDICATIVE PENDING M&E DESIGN

BLUE ROOF AREA 1 - RWP  
DISCHARGE RATE = 0.07 l/s  
LOCATION INDICATIVE PENDING M&E DESIGN

NO PROPOSED WORKS TO CAR PARK ON TERSHA STREET. AREA TO DRAIN AS EXISTING.

RAINWATER PIPE SERVING BIKE STORAGE IS INDICATIVE PENDING M&E DESIGN.

RAINWATER PIPE SERVING TRADITIONAL ROOF IS INDICATIVE PENDING M&E DESIGN.

RAINWATER PIPES SERVING TRADITIONAL ROOF AREA TOWARDS THE FRONT OF THE BUILDING TO BE ROUTED AT HIGH LEVEL WITHIN THE BUILDING TO REAR OF PROPERTY. LOCATION INDICATIVE PENDING M&E DESIGN.

1000 PERFORATED UNDERDRAIN LAID FLAT AT IL: +6.150m AOD

PERMEABLE PAVING AREA  
PERMEABLE BLOCK PAVING WITH 300mm DEEP 4/20 COARSE GRADED AGGREGATE SUBBASE WRAPPED IN A NON-WOVEN GEOTEXTILE  
PERMEABLE PAVING AREA: 523m<sup>2</sup>  
CATCHMENT AREA: 968m<sup>2</sup>  
LOWEST CL = +6.656m AOD  
LOWEST IL = +6.155m AOD

PROPOSED GEOCELLULAR ATTENUATION TANK  
CL = +6.47m AOD  
TOP OF TANK = +5.74m AOD  
BASE OF TANK = +4.74m AOD  
AREA SERVING = 634m<sup>2</sup>  
VOLUME OF TANK = 30m<sup>3</sup> (3m (W) x 10m (L) x 1m (D))  
CONTRACTOR TO SPECIFY ATTENUATION TANK AND SUBMIT FOR ENGINEERS APPROVAL  
CRATES ARE TO BE WRAPPED IN AN IMPERMEABLE GEOMEMBRANE AND INSTALLED IN LINE WITH MANUFACTURERS DETAILS.

SURFACE WATER FLOW CONTROL MANHOLE 2  
4500 PPIC ORIFICE FLOW CONTROL  
CL = +6.705m AOD  
IL OUT = +6.150m AOD  
ORIFICE SIZE = 50mmØ  
DESIGN FLOW = 4 l/s

SURFACE WATER FLOW CONTROL MANHOLE 1  
1200mmØ PRE CAST CONCRETE RING  
CL = +6.540m AOD  
IL = +4.74m AOD  
HYDROBRAKE OPTIMUM INSTALLED WITHIN MANHOLE CHAMBER TO RESTRICT SURFACE WATER RUN-OFF TO THE OFFSITE SEWER NETWORK.  
HYDROBRAKE UNIT REFERENCE = MD-SHE-0095-0000-1000-4000  
DESIGN HEAD = 1.0m  
DESIGN FLOW = 4 l/s  
MANHOLE TO HAVE SUMP TO SUIT FLOW CONTROL DEVICE DEPTH

NEW SURFACE WATER OUTFALL MANHOLE TO BE INCORPORATED WITHIN EXISTING SURFACE WATER DRAINAGE RUN. CONDITION OF OUTFALL PIPE TO BE DETERMINED ON SITE PRIOR TO DRAINAGE WORKS. SEWER BENEATH TERSHA STREET ASSUMED TO BE THAMES WATERS. THAMES WATER TO CONFIRM OWNERSHIP OF SEWER. RE-USE OF EXISTING CONNECTION IS THEN SUBJECT TO THAMES WATER APPROVAL VIA A SECTION 106 APPLICATION.

NOT FOR CONSTRUCTION

P2	S2	31.05.24	RBA	KTr	Issued For Planning
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Project  
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Drawing title  
Proposed Below Ground Drainage  
General Arrangement

Scale (s)	Date	Drawn				
1:200@ A1; 1:400@ A3	May 2024	RBA				
Drawing status	Status	Revision				
Preliminary	S2	P2				
Project no.	Originator	Zone	Level	Type	Role	Drig no.
2230479	-EWP	-ZZ	-XX	-DR	-C	-10000