

DGA01 } PODIUM BC
DGA02 } TOWERS B&C
DGA03 }
DGA04 } PODIUM A
DGA05 } TOWER A

FOR COORDINATES TO FW & SW
POP UPS REFER TO HBA DRAWINGS

FOR DETAILS OF SEWER
EASEMENTS SE1 TO SE5
REFER TO DRAWING
VRS-ROC-ZZ-DR-C-SE1

SE5

GULLY & SLOT DRAIN TO CONNECT TO
PERFORATED PIPE WITHIN OPEN SERVICES
SUB-BASE LAYER (350mm) BENEATH PLANTER

ACCESS RAMP TO DRAIN
TO DRAINAGE CHANNEL

CONTRACTOR PROPOSAL: POLYSTORM GEOCELLULAR ATTENUATION TANK.
PLAN AREA 92m², VOL_{MAX}: 110.4m³, STORAGE 104.88m³ IL: 28.00m, 1.2m DP,
1.5 LAYERS, WELDED GEOMEMBRANE. TO BE INSTALLED STRICTLY IN
ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS INCLUDING
VENT PIPE AND TOP OF VENT PIPE TO PROJECT ABOVE FLOOD LEVELS
(APPROX 700mm ABOVE CAR PARK SLAB LEVEL).

- SITE BOUNDARY
- EXISTING COMBINED SEWER
- SEWER TO BE ABANDONED
- DIVERTED COMBINED SEWER
- EXTENT OF PODIUM ABOVE
- ABOVE GROUND POTABLE WATER STORAGE TANKS. REFER TO M&E INFORMATION
- EXTENT OF TOWER CRANE BASE
- RAIN GARDEN
- PERMEABLE PAVEMENT
- ATTENUATION TANK
- SURFACE WATER DRAIN
- SURFACE WATER MANHOLE/ INSPECTION CHAMBER
- RAINWATER PIPE & 1500 CONNECTION
- ROAD GULLY & 1500 CONNECTION
- YARD GULLY & 1100 CONNECTION
- ACO 150D 10.0 BRICKSLOT TWINSLOT WITH SUMP UNIT (SU) & ACCESS UNIT (AU)
- ACO HEXDRAIN BRICKSLOT WITH SUMP UNIT & CORNER UNIT
- 1000 PERFORATED PIPE
- PERMAVOID DIFFUSER UNIT & 1500 CONNECTION
- FOUL WATER DRAIN
- FOUL WATER MANHOLE/ INSPECTION CHAMBER
- FOUL WATER CONNECTION 1500
- FLOOR GULLY
- DENOTES CHAMBER TO BE FITTED WITH EICO (PETER SAVAGE) PRESSURE RATED PS754 COVER & FRAME CAST INTO SLAB. REFER TO TYPICAL DETAIL

NOTES

- ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ARCHITECTS, ENGINEERS AND SPECIALIST DRAWINGS AND SPECIFICATIONS.
- ANY DISCREPANCIES SHOULD BE REPORTED TO THE ENGINEER IMMEDIATELY SO THAT CLARIFICATION CAN BE SOUGHT PRIOR TO THE COMMENCEMENT OF WORK.
- BEFORE STARTING ANY WORKS, CONTRACTOR TO CHECK INVERT LEVELS AND POSITIONS OF EXISTING DRAINS, SEWERS, INSPECTIONS CHAMBERS AND MANHOLES AGAINST INFORMATION SHOWN ON THIS DRAWING.
- ROCKER PIPES ARE TO BE PROVIDED AT ALL CONCRETE CASED INTERFACES.
- CLASS 2 CONCRETE SURROUND TO BE PROVIDED FOR PIPES WITH COVER LESS THAN 1.2m ABOVE THE CROWN OF THE PIPE FOR ROADS AND 0.6m FOR SOFT AND PEDESTRIAN AREAS ONLY AND UNDER ALL FOUNDATIONS AND WHERE PRESS LAD WITHIN 1m OF FOUNDATIONS.
- CONNECTIONS TO EXISTING PUBLIC SEWERS IN ACCORDANCE WITH UNITED UTILITIES REQUIREMENTS, TO BE APPROVED / AGREED WITH THE WATER AUTHORITY.
- PROPOSED COVER LEVELS ARE APPROXIMATE AND SHALL BE CHECKED BY THE CONTRACTOR ON SITE TO SUIT THE EXACT FINISHED LEVEL AND GRADIENT.
- ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY AND IN CONJUNCTION WITH ALL RELEVANT BRITISH STANDARDS, CODES OF PRACTICE AND SEWERS FOR ADOPTION 76 EDITION.
- ACCESS COVERS AND FRAMES SHALL COMPLY WITH THE LOADINGS SPECIFIED AND TO BS EN 124 AND KITEMARKED OR IF RECESSED COVERS ARE SPECIFIED THEN IN ACCORDANCE WITH FACTA ASSOCIATION EQUIVALENT. ALLOW FOR RECESS MANHOLE COVERS TO ACCEPT LANDSCAPE ARCHITECT FINISHES TO ALL NON-ASPHALT EXTERNAL AREAS.
- THE PROPOSED BUILDING LAYOUTS SHOWN ON THIS DRAWING ARE FOR INFORMATION ONLY. REFER TO ARCHITECTS PLANS FOR PRECISE LOCATION SETTING OUT INFORMATION AND DETAILS.
- FOR SETTING OUT DIMENSIONS OF SSS, SVPS, RWPS, FLOOR GULLYS & OTHER DRAINAGE POP UP LOCATIONS, REFER TO ARCHITECTS OR MECHANICAL & ELECTRICAL ENGINEERS DRAWINGS.
- ALL DRAINAGE PIPEWORK SHOWN SHALL BE 100mm DIAMETER FOR FOUL AND 150mm FOR SURFACE WATER UNLESS NOTED OTHERWISE. ALL DRAINAGE PIPEWORK SHALL BE LAID SOFFIT TO SOFFIT UNLESS OTHERWISE STATED.
- ALL UNDERSLAB DRAINAGE SHALL BE LAID AT GRADIENTS OF 1:80 MIN. FOR FOUL PIPEWORK AND 1:100 MIN. FOR SURFACE WATER UNLESS NOTED OTHERWISE. ALL UNDERSLAB DRAINAGE SHALL BE CLEAR OF FOUNDATIONS UNLESS SHOWN OTHERWISE. USE OF SHORT/ LONG RADIUS BENDS IS ACCEPTABLE PROVIDED THEY ARE KEPT TO A MINIMUM AND USED WHERE UNAVOIDABLE.
- AT LEAST ONE SOIL PIPE AT THE HEAD OF EACH FLOOR RUN SHALL BE VENTED TO THE ATMOSPHERE. ALL RAINWATER PIPES SHALL HAVE ABOVE GROUND RIDDING ACCESS.
- ALL PRIVATE DRAINAGE PIPEWORK FOR FOUL AND SURFACE WATER SYSTEMS HAVE BEEN DESIGNED ON THE BASIS OF UPVC TO BS EN 401-1, UNLESS NOTED OTHERWISE.
- CONCRETE ENCASEMENT OF THE PIPEWORK SHALL BE REQUIRED WHERE THE VERTICAL CLEARANCE BETWEEN TWO PIPES CROSSING IS LESS THAN 300mm.
- WHERE NEW DRAINAGE IS SITUATED WITHIN 5 METRES OF NEW OR EXISTING TREES THE PIPEWORK SHALL BE ENCASED IN CONCRETE TO REDUCE THE RISK OF ROOT INGRESS.
- ALL NEW DRAINAGE INSTALLATIONS TOGETHER WITH ANY EXISTING DRAINAGE RETAINED SHALL BE JETTED AND CCTV SURVEYED UPON COMPLETION. CONTRACTOR TO ENSURE THAT THE DRAINAGE SYSTEM IS FULLY OPERATIONAL, FREE OF EXCESS DEBRIS/SILT AND ALL IDENTIFIED FAULTS RECTIFIED.
- SURFACE WATER DRAINAGE DESIGN HAS BEEN DEVELOPED ON THE BASIS OF THE PREVIOUSLY AGREED DISCHARGE RATES AND POINTS OF CONNECTION BETWEEN CIVIC ENGINEERS AND MCC LLFA.
- ATTENUATION STORAGE CALCULATIONS INCLUDE CLIMATE CHANGE ALLOWANCE OF 40% IN ACCORDANCE WITH CURRENT ENVIRONMENT AGENCY GUIDELINES.

INFO	DATE	DESCRIPTION	PAW	JAS
C10	08.11.24	UPDATED TO SUIT AS BUILT RECORDS	ARJ	PAW
C9	12.09.24	CHANGES AS CLOUDDED	ARJ	PAW
C8	22.09.23	LEGEND UPDATED	PAW	ARJ
C7	19.04.22	TOWER C POP UPS ADJUSTED TO SUIT ASD	PAW	ARJ
C6	21.03.22	TOWER C LVL01 DRAINAGE: ADDED/UPDATED. LVL00 CL% REFINED TO SUIT SSL	PAW	ARJ
C5	09.03.22	POP UP POSITIONS AND SGD UPDATED	PAW	ARJ
C4	11.02.22	SUB-STRUCTURE PENETRATION LEVELS ASSESS	PAW	JAS
C3	08.02.22	DRAWN TO SUIT COORDINATED DRAWINGS FROM HAWKINS BROWN DATED 31.01.2022	WDC	PAW
C2	08.12.21	UPDATED TO SUIT TOWER CRANE BASES, FLOOD COMPENSATION LEVELS AND PLANT LEVELS. SLOT DRAINS ADDED AT DOOR THRESHOLDS ALONG BROMLEY ST	ARJ	JAS
C1	02.11.21	ISSUED FOR CONSTRUCTION	ARJ	JAS
REV	DATE	DETAILS	DRN	CHK

DRAWING STATUS
CONSTRUCTION

RIBA STAGE
STAGE 5

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DRAWN	DATE	SCALES
ARJ	SEP 21	1:100
CHECKED	DATE	THE ABOVE SCALES APPLY WHEN PLOTTED AT 1:1 SIZE --DO NOT SCALE--
PAW	SEP 21	
APPRVD.	DATE	EMAIL FOR DRAWINGS
JAS	SEP 21	info@rocconsulting.com

CLIENT
FEC

PROJECT TITLE
VICTORIA RIVERSIDE

DRAWING TITLE
**BELOW GROUND DRAINAGE
GENERAL ARRANGEMENT
SHEET 1 of 5**

DRAWING No.	REV.
VRS-ROC-ZZ-XX-DR-C-DGA01	INFO 1

DASHED L
ABOVE. A
PERMEAB

4212

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