

DRAINAGE LAYOUT PLAN
SCALE 1:250



ADOPTED DRAINAGE NOTES

FOUL WATER & SURFACE WATER SEWER (3m MAXIMUM PIPE LENGTHS)
ALL PIPES AND FITTINGS FOR DIAMETER OF 100/110mm TO BE EITHER:

- FLOLINE EN401 DRAINAGE SYSTEM
 - HENWORTH PLASTODRAIN SYSTEM
 - MARLEY SOLID WALL UNDERGROUND DRAINAGE PIPE SYSTEM
 - OSMA DRAIN BUILDING DRAINAGE SYSTEM
 - POLYPIPE EN401/1 STANDARD UNDERGROUND DRAIN SYSTEM
- ALL PIPES AND FITTINGS FOR DIAMETERS OF 150mm - 300mm TO BE EITHER:
- MARLEY TWINWALL SYSTEM
 - UPWORK ULTRA-RIB SYSTEM
 - WAWN OSMA ULTRA-RIB SYSTEM
 - POLYPIPE CIVILS POLYSEWER TWINWALL SYSTEM

3m MAXIMUM LENGTH PVC-U PIPES INSTALLED BY BIFFPPO ACCREDITED CONTRACTOR - COPY OF CERTIFICATE REQUIRED.
USE OF DIFFERENT PIPE SUPPLIER OR SPECIFICATION MUST BE APPROVED BY STATUTORY UNDERTAKER.

ALL PIPEWORK MANUFACTURED IN UNPLASTICIZED POLYVINYL CHLORIDE (PVC-U). PVC-U DRAINAGE SYSTEMS WITH FLEXIBLE JOINTS TO BE EN401/1:1996 BS 8601 OR BS 5451. PVC-U PIPES INSTALLED BY BRITISH PLASTICS FEDERATION - PLASTIC PIPES GROUP - MANUFACTURER APPROVED INSTALLERS. PLEASE PROVIDE COPY OF CERTIFICATION TO RCA PRIOR TO LAYING ANY PIPEWORK.

WHEN SEWERS ARE LOCATED WITHIN A PUBLIC HIGHWAY, THE OUTSIDE OF THE SEWER SHOULD BE IN THE VEHICLE CARRIAGEWAY (NOT FOOTPATH) AND BE AT LEAST 1m AWAY FROM THE KERBLINE. THE OUTSIDE OF WHOLE CONSTRUCTIONS SHOULD BE AT LEAST 0.5m AWAY FROM THE KERBLINE.

THE DEVELOPER MUST SELF-VET AND CERTIFY THAT THE DESIGN CRITERIA, MATERIAL STANDARDS AND WORKMANSHIP SPECIFICATIONS FOR THE PROPOSED POTENTIALLY ADOPTABLE SEWERS ARE IN ACCORDANCE WITH THOSE SET OUT IN SEWERS FOR ADOPTION - A DESIGN AND CONSTRUCTION GUIDE FOR DEVELOPERS' 7th EDITION AND THE REQUIREMENTS OF THE STATUTORY UNDERTAKER DWR CYMRU WELSH WATER (DOWW) AND CONFIRM THE SAME IN WRITING TO THE ADOPTION AUTHORITY.

THE CONTRACTOR SHALL ENSURE THAT AN UP-TO-DATE COPY OF SEWERS FOR ADOPTION 7th EDITION TOGETHER WITH ALL ITS CURRENT DWR CYMRU WELSH WATER ADDENDUM AND WELSH GOVERNMENT MINISTERS' STANDARDS DOCUMENTS IS AVAILABLE ON SITE FOR COMPLIANCE.

THIS PROJECT HAS BEEN DESIGNED TO COMPLY WITH SEWERS FOR ADOPTION 7th EDITION AND WELSH GOVERNMENT MINISTERS' STANDARDS.

KEY

- → → SURFACE WATER SUB-BASE PIPE
- - - SURFACE WATER PIPE
- S300 SURFACE WATER MANHOLE
- R300 RAIN GARDEN INLET / OUTLET
- S500 SURFACE WATER FLOW CONTROL
- RAIN GARDEN
- ATTENUATION BASIN
- CARRIAGEWAY - PERMEABLE PAVING
- CELLULAR STORAGE TANK
- PROPOSED FOUL SEWER
- PROPOSED FOUL MANHOLE
- EXISTING SURFACE WATER PIPE
- EXISTING FOUL PIPE
- PROPOSED SURFACE WATER LINEAR CHANNEL
- PROPOSED SURFACE WATER PUMP UNIT
- SITE BOUNDARY
- S104 FOUL MANHOLE
- S104 FOUL SEWER
- PROPOSED SITE BOUNDARY

GENERAL NOTES:

- DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT PROJECT DRAWINGS.
- USE OF THIS DRAWING DOES NOT ABSOLVE THE CLIENT FROM HIS RESPONSIBILITIES UNDER THE HEALTH AND SAFETY: THE CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS 2015. THE PRINCIPAL DESIGNER IS REQUIRED TO CONTACT HYDROCK CONSULTANTS PRIOR TO PERMITTING THIS DRAWING TO BE USED IN CONNECTION WITH ANY CONSTRUCTION WORKS.
- THE DRAWING SHALL BE READ IN CONJUNCTION WITH THE HEALTH AND SAFETY INFORMATION PROVIDED AND/OR WITHIN THE PRE-CONSTRUCTION INFORMATION.
- BEFORE COMMENCEMENT OF WORKS ASSOCIATED WITH THE DRAWING REFER TO ALL RELEVANT HEALTH AND SAFETY INFORMATION FOR THE WORKS INCLUDING RESIDUAL RISK INFORMATION.
- THE DRAWING HAS BEEN BASED ON INFORMATION PROVIDED BY OTHER PARTIES AND HYDROCK DO NOT WARRANT THE ACCURACY OF THIS INFORMATION.
- THE DRAWING SHALL BE USED FOR THE INTENDED PURPOSE ONLY AND HYDROCK DOES NOT WARRANT THE ACCURACY OF THIS INFORMATION.
- DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL DIMENSIONS AND LEVELS ON SITE FOR THE ACTUAL SETTING OUT OF THE WORKS.
- HYDROCK IS NOT RESPONSIBLE FOR CHECKING DIMENSIONS ON SITE.
- HYDROCK IS NOT RESPONSIBLE FOR SETTING OUT GRID LINES, BUILDING LINE ETC.
- HYDROCK IS NOT RESPONSIBLE FOR DIMENSIONS USED IN THE ORDERING AND MANUFACTURING OF EQUIPMENT AND THIS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL FIGURED LEVELS ARE IN METRES AND RELATED TO EXISTING SURVEY GRID & DATUM UNLESS NOTED OTHERWISE.
- ALL FIGURED DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.

GENERAL DRAINAGE NOTES:

- THE PLANNING, DESIGN AND CONSTRUCTION OF ALL ADOPTED SEWERS SHALL BE IN ACCORDANCE WITH SEWERS FOR ADOPTION 7TH EDITION, A DESIGN AND CONSTRUCTION GUIDE FOR DEVELOPERS, THE CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 7TH EDITION AND DOWW WATER AMENDMENTS TO DESIGN.
- ALL ADOPTABLE SEWERS WITHIN ADOPTABLE HIGHWAY WITH LESS THAN 1.2M COVER TO HAVE REINFORCED CONCRETE SLAB PROTECTION. ALL ADOPTABLE SEWERS WITHIN GRASSED AREAS WITH COVER LESS THAN 0.6M TO HAVE REINFORCED CONCRETE SLAB PROTECTION. ALL AREAS WITH GREATER COVER THAN THE MINIMUM REQUIRED TO HAVE TYPE S800 SURROUND.
- SEALED AND LOCKABLE COVERS TO BE SUPPLIED WHERE SPECIFIED ON MANHOLE SCHEDULE.
- ALL PRIVATE DRAINAGE TO COMPLY WITH CURRENT BUILDING REGULATIONS, BS EN 752 DRAIN AND SEWER SYSTEMS OUTSIDE BUILDINGS AND OTHER RELEVANT BRITISH STANDARDS AND CODES OF PRACTICES.
- ALL SEWERS TO BE LAID SOFFIT TO SOFFIT UNLESS OTHERWISE SHOWN.
- IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE EXISTING SERVICES ON SITE ACCURATELY.
- THE CONTRACTOR SHOULD COMPLY WITH HSE's '47' AVOIDING DANGER FROM UNDERGROUND SERVICES' WHEN EXCAVATING AROUND EXISTING SERVICES.
- THE CONTRACTOR IS TO VERIFY THE LINE, LEVEL AND DIAMETER OF EXISTING SEWERS BEFORE COMMENCING DRAINAGE WORKS.
- ALL LEVELS ARE TO OS DATUM.
- COMPLIANCE WITH HEALTH & SAFETY MATTERS ON ANY TRENCH/MANHOLE IS OBLIGATORY AND A PERMIT TO ENTER A CONFINED SPACE IS REQUIRED WHEN CONNECTING SITE DRAINAGE TO THE EXISTING PUBLIC SEWERAGE SYSTEM. A PERMIT TO ENTER A CONFINED SPACE WILL BE OBTAINED FROM DOWW PRIOR TO THE WORKS COMMENCING ON ANY PUBLIC SEWERAGE SYSTEM.
- PROPOSED ADOPTABLE SEWERS ARE ONLY PERMITTED TO HAVE OTHER SEWER/GULLY CONNECTIONS AND OTHER SERVICES LAID AT AN ANGLE OF BETWEEN 45° AND 90° ACROSS THE LINE WITH A VERTICAL CLEARANCE IN EXCESS OF 300MM.
- WHERE SEWERS ARE TO BE CONSTRUCTED INSIDE THE RESTRICTED TREE ZONE A SUITABLE TRESS PROTECTION BARRIER IS TO BE INSTALLED TO THE LANDSCAPE ARCHITECTS SPECIFICATION.
- ALL SVP AND RWP POSITIONS SHOWN ARE APPROXIMATE ONLY. FOR CONSTRUCTION OF SVPs AND RWPs REFER TO ARCHITECTS' DETAILED CONSTRUCTION DRAWINGS. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.
- ALL PRIVATE PIPEWORK SHOWN IS 100MM UNLESS OTHERWISE NOTED.

REVISIONS

P04	09/05/22	Site boundary amended to suit clients comments	AS	CS	CS
P03	08/01/22	Site boundary amended to suit legal boundary supplied by client	HS	CS	CS
P02	20/10/21	Updated to DCWW Comments	HS	CS	TH
P01	23/08/21	First Issue	HB	CS	TH
Rev	Date	Description	By	Chk	App

Hydrock
FIRST FLOOR, CASTLEBRIDGE 5
5-19 COWBRIDGE ROAD EAST
JADED
CF11 9AB
T: +44 (0) 2039 023645
e: cardiff@hydrock.com

CLIENT
BOUYGUES UK

PROJECT
VANTAGE DATA CENTERS - CWL13

TITLE
S104 LAYOUT PLAN

HYDROCK PROJECT NO. C-18877-C	SCALE @ A0 1:250	STATUS S3
STATUS DESCRIPTION STAGE 5	DRAWING NO. (PROJECT ORIGINATOR ZONE LEVEL TYPE ROLL NUMBER) DC3-HYD-SW-XX-GA-C-600608	REVISION P04

MANHOLE NAME	MANHOLE DETAILS					PIPE DETAILS		
COORDINATES	COVER LEVEL	CHAMBER INVERT	DEPTH TO SOFFIT	SIZE	TYPE	COVER TYPE & SIZE	CONNECTION PLAN	INVERT
F16								
E = 328550.921 N = 184562.327	14.822	10.588	4.084	1.200	1	D400 600x600(mm)		0 1 10.588 10.588
								150mm 150mm

THE DEVELOPER MUST SELF-VET AND CERTIFY THAT THE DESIGN CRITERIA, MATERIAL STANDARDS AND WORKMANSHIP SPECIFICATIONS FOR THE PROPOSED POTENTIALLY ADOPTABLE SEWERS ARE IN ACCORDANCE WITH THOSE SET OUT IN "SEWERS FOR ADOPTION - A DESIGN AND CONSTRUCTION GUIDE FOR DEVELOPERS" 7th EDITION AND THE REQUIREMENTS OF THE STATUTORY UNDERTAKER DCWW AND CONFIRM THE SAME IN WRITING TO THE ADOPTION AUTHORITY.