

DO NOT SCALE



GENERAL NOTES

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH REDROW HOMES DRAWING REFERENCES 4607-16-06-105_108 - PRIVATE DRAINAGE LAYOUT - SHEETS 1 TO 4.
- ALL LEVELS AND DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER. IF IN DOUBT, ASK.
- ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH IWNL'S SPECIFICATIONS/SPECIAL REQUIREMENTS.
- ALL BUILDING DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS EN 752:2008 BUILDING REGULATIONS AND THE LOCAL AUTHORITY BUILDING CONTROL SPECIFICATIONS AND REGULATIONS.
- THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT & DIVERSION WORKS AS NECESSARY TO ALL EXISTING SERVICES TO THE SATISFACTION OF THE PUBLIC UTILITY COMPANIES.
- THE CONTRACTOR SHALL ALLOW FOR OBTAINING ALL RELEVANT APPROVALS FROM THE RELEVANT AUTHORITIES WHEN WORKING IN THE PUBLIC HIGHWAY AND ON SEWERAGE SYSTEMS.
- UPON COMPLETION OF THE WORKS, THE CONTRACTOR SHALL CLEAN ALL DRAINAGE BY JETTING, REMOVING ALL DEBRIS FROM SITE. NO DEBRIS SHALL BE PERMITTED TO ENTER THE PUBLIC DRAINAGE OR WATERCOURSE SYSTEM. ALL DRAINS SHALL BE CCTV SURVEYED WITH THE DVD/CD PASSED TO THE ENGINEER FOR REVIEW.

DRAINAGE NOTES

(THESE NOTES APPLY TO ALL ADOPTABLE DRAINAGE WORKS)

- ALL ADOPTABLE SEWER WORKS AND MATERIALS ARE TO BE IN ACCORDANCE WITH 'DESIGN AND CONSTRUCTION GUIDANCE (DCG)/CODE FOR ADOPTION'. THE RELEVANT BRITISH/EUROPEAN AND IWNL'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.
- MANHOLE COVERS SHALL/MUST HAVE A CLEAR OPENING OF 600mm AND SHALL BE CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS.
- FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF IWNL BEFORE ANY SEWER WORKS ARE CARRIED OUT.
- IWNL IS NOT OBLIGED TO ACCEPT FILTER DRAIN/LAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM (DIRECTLY OR IN-DIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIAISE WITH THE LOCAL AUTHORITY, LAND DRAINAGE SECTION WITH REGARD TO THE DISPOSAL OF THE FILTER DRAIN/LAND DRAINAGE RUN-OFF.
- COVER SLABS MUST CARRY THE BS1 KITEMARK OR WILL BE REJECTED BY IWNL INSPECTOR. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOAD BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO 600mm X 600mm FOR THE IWNL SPECIFIED COVER SIZE.
- SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
- SEWERS MUST HAVE 3m CLEARANCE FROM TREES AND 1.5m FROM SHRUBS / BUSHES.
- SEWERS TO BE LAID IN CLASS 'S' BEDDING AND SURROUND, WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2m IN HIGHWAYS AND VERGES (OR LESS THAN 900mm IN NONE VEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE THE GRANULAR BED AND SURROUND.
- BEDDING AND BACKFILL MATERIAL IS TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).
- THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED TO ACCOMMODATE THE CONNECTIONS AND BENDS.
- IWNL POLICY IS THAT TYPE 'C' BRICK MANHOLES AND 1050mm DIA MANHOLE RINGS ARE NOT PREFERRED. INSTEAD IT IS PREFERRED THAT YOU USE A TYPE 'B' MANHOLE WITH 1200mm DIA OR 1500mm DIA RINGS, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS BETWEEN 1-1.5m
- ADOPTABLE PLASTIC SEWER PIPES TO BE BS1 KITEMARKED (CERTIFIED TO WIS 4-35-01 AND BS/EN13476) AND TO THE RELEVANT BRITISH STANDARDS (SOLID WALL PVC-U TO BS EN 1401, SPIRAL WOUND WELDED HDPE TO EN 13476 PARTS 1 & 2, STRUCTURE-WALL THERMOPLASTIC TO EN 13476 PARTS 1 & 3, POLYPROPYLENE TO BS EN 1852). ADOPTABLE PLASTIC SEWER PIPES ARE TO BE LAID IN MAXIMUM 3m LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND IWNL WOULD PREFER CLAYWARE CHANNEL IN MANHOLES. WE HAVE FOUND THAT PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE BECAUSE THEY FLOAT AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON THE BENCHING.
- WHERE A B125 COVER AND FRAME HAS BEEN APPROVED, THIS MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.

DC REF	EASTING	NORTHING	COVER LEVEL	INVERT LEVEL 100mm	INVERT LEVEL 150mm	MH DEPTH (m)	MH TYPE	CHAMBER	COVER TYPE	PIPE LENGTH	PIPE GRADIENT	PIPE MATERIAL	PIPE MANUFACTURER
FDC01	414880.249	420491.872	164.87	163.00	162.95	1.92	RAPPIC	WAVIN	B125	10.37m	1.22	VITRIED CLAY	HEPWORTH
FDC02	415009.329	420495.468	163.84	161.80	161.75	2.09	1050 DIA. CONCRETE	-	D400	9.53m	1.40	VITRIED CLAY	HEPWORTH
FDC03	415289.948	420446.297	164.00	161.80	161.75	2.25	1050 DIA. CONCRETE	-	B125	8.20m	1.33	VITRIED CLAY	HEPWORTH
FDC04	415231.172	420452.538	162.70	160.80	160.75	1.95	RAPPIC	WAVIN	B125	4.45m	1.18	VITRIED CLAY	HEPWORTH
FDC05	415151.138	420439.010	161	158.8	158.75	2.25	1050 DIA. CONCRETE	-	B125	4.45m	1.10	VITRIED CLAY	HEPWORTH
FDC06	415151.797	420427.592	160.75	158.50	158.45	2.30	1050 DIA. CONCRETE	-	B125	6.95m	1.70	VITRIED CLAY	HEPWORTH
FDC07	415123.814	420422.704	160.55	158.275	158.225	2.33	1050 DIA. CONCRETE	-	B125	7.41m	1.74	VITRIED CLAY	HEPWORTH
FDC08	415113.013	420459.175	161.10	159.30	159.25	1.85	RAPPIC	WAVIN	B125	6.36m	1.64	VITRIED CLAY	HEPWORTH
FDC09	415124.135	420458.739	161.15	159.00	158.95	2.20	1050 DIA. CONCRETE	-	B125	5.52m	1.55	VITRIED CLAY	HEPWORTH
FDC10	415221.622	420503.562	164.15	162.60	162.55	1.60	RAPPIC	WAVIN	B125	8.87m	1.33	VITRIED CLAY	HEPWORTH
FDC11	415193.664	420518.435	163.35	161.05	161.00	2.35	1050 DIA. CONCRETE	-	D400	11.33m	1.57	VITRIED CLAY	HEPWORTH
FDC12	415145.772	420485.428	161.83	160.00	159.95	1.88	RAPPIC	WAVIN	B125	8.53m	1.43	VITRIED CLAY	HEPWORTH
FDC13	415106.396	420508.156	162.05	159.40	159.35	2.70	1050 DIA. CONCRETE	-	B125	10.60m	1.53	VITRIED CLAY	HEPWORTH
FDC14	415106.141	420489.206	162.05	159.75	159.70	2.35	1050 DIA. CONCRETE	-	B125	9.04m	1.45	VITRIED CLAY	HEPWORTH
FDC15	415068.696	420516.425	162.20	160.75	160.70	1.50	RAPPIC	WAVIN	B125	4.79m	1.48	VITRIED CLAY	HEPWORTH
FDC16	415074.769	420535.668	161.85	159.95	159.90	1.95	RAPPIC	WAVIN	B125	8.83m	1.59	VITRIED CLAY	HEPWORTH
FDC17	415061.433	420535.163	162.00	160.15	160.10	1.90	RAPPIC	WAVIN	B125	6.75m	1.34	VITRIED CLAY	HEPWORTH
FDC18	415031.538	420563.543	161.85	160.15	160.10	1.75	RAPPIC	WAVIN	B125	14.65m	1.24	VITRIED CLAY	HEPWORTH
FDC19	415103.421	420610.244	158.77	156.35	156.30	2.47	1050 DIA. CONCRETE	-	B125	6.52m	1.10	VITRIED CLAY	HEPWORTH
FDC20	415166.103	420655.251	156.25	154.30	154.25	2.00	1050 DIA. CONCRETE	-	B125	5.31m	1.15	VITRIED CLAY	HEPWORTH
FDC21	415127.590	420570.276	160.85	158.95	158.90	1.95	RAPPIC	WAVIN	B125	7.05m	1.24	VITRIED CLAY	HEPWORTH
FDC22	415132.646	420560.198	161.00	159.25	159.20	1.80	RAPPIC	WAVIN	B125	5.86m	1.10	VITRIED CLAY	HEPWORTH
FDC23	415184.574	420596.016	160.20	158.30	158.25	1.95	RAPPIC	WAVIN	B125	5.25m	1.10	VITRIED CLAY	HEPWORTH
FDC24	415179.344	420606.128	160	157.9	157.85	2.15	1050 DIA. CONCRETE	-	B125	6.40m	1.64	VITRIED CLAY	HEPWORTH
FDC25	415206.372	420625.501	160.05	157.40	157.35	2.70	1050 DIA. CONCRETE	-	B125	6.99m	1.16	VITRIED CLAY	HEPWORTH
FDC26	415199.224	420674.664	155.23	153.55	153.50	1.73	RAPPIC	WAVIN	B125	5.10m	1.51	VITRIED CLAY	HEPWORTH
FDC27	415209.962	420679.279	154.98	152.65	152.60	2.38	1050 DIA. CONCRETE	-	B125	6.98m	1.70	VITRIED CLAY	HEPWORTH
FDC28	415263.248	420627.990	159.50	157.65	157.60	1.90	RAPPIC	WAVIN	B125	5.86m	1.15	VITRIED CLAY	HEPWORTH
FDC29	415261.885	420646.947	158.20	156.50	156.45	1.75	RAPPIC	WAVIN	B125	5.33m	1.10	VITRIED CLAY	HEPWORTH
FDC30	415243.968	420637.924	158.38	156.55	156.50	1.88	RAPPIC	WAVIN	B125	16.12m	1.15	VITRIED CLAY	HEPWORTH
FDC31	415272.508	420672.473	156.60	154.55	154.50	2.10	1050 DIA. CONCRETE	-	B125	6.54m	1.65	VITRIED CLAY	HEPWORTH
FDC32	415298.552	420675.850	156.60	153.35	153.30	3.30	1050 DIA. CONCRETE	-	B125	8.19m	1.27	VITRIED CLAY	HEPWORTH
FDC33	415259.790	420721.569	151.90	150.35	150.30	1.60	RAPPIC	WAVIN	B125	2.38m	1.24	VITRIED CLAY	HEPWORTH
FDC34	415275.335	420606.518	161.60	160.00	159.95	1.65	RAPPIC	WAVIN	B125	7.52m	1.75	VITRIED CLAY	HEPWORTH
FDC35	415312.904	420596.082	163.10	160.45	160.40	2.70	1050 DIA. CONCRETE	-	D400	17.76m	1.18	VITRIED CLAY	HEPWORTH
FDC36	415336.785	420605.256	162.00	159.85	159.80	2.20	1050 DIA. CONCRETE	-	B125	7.27m	1.16	VITRIED CLAY	HEPWORTH
FDC37	415349.752	420564.164	161.40	159.50	159.45	1.95	RAPPIC	WAVIN	B125	4.73m	1.10	VITRIED CLAY	HEPWORTH
FDC38	415358.953	420567.662	161.30	159.50	159.45	1.85	RAPPIC	WAVIN	B125	5.15m	1.10	VITRIED CLAY	HEPWORTH
FDC39	415303.036	420533.239	163.70	161.60	161.55	2.15	1050 DIA. CONCRETE	-	D400	9.71m	1.65	VITRIED CLAY	HEPWORTH
FDC40	415305.127	420515.073	163.70	161.80	161.75	1.95	RAPPIC	WAVIN	B125	9.82m	1.28	VITRIED CLAY	HEPWORTH
FDC41	415364.264	420520.912	160.55	158.65	158.60	1.95	RAPPIC	WAVIN	B125	8.99m	1.13	VITRIED CLAY	HEPWORTH
FDC42	415354.159	420538.256	161.35	158.90	158.85	2.50	1050 DIA. CONCRETE	-	B125	12.44m	1.13	VITRIED CLAY	HEPWORTH
FDC43	415375.714	420543.404	160.35	157.15	157.10	3.25	1050 DIA. CONCRETE	-	B125	11.06m	1.18	VITRIED CLAY	HEPWORTH
FDC44	415390.324	420513.065	159.50	156.85	156.80	2.70	1050 DIA. CONCRETE	-	B125	5.86m	1.12	VITRIED CLAY	HEPWORTH
FDC45	415408.533	420470.030	158.80	156.65	156.60	2.20	1050 DIA. CONCRETE	-	B125	9.37m	1.10	VITRIED CLAY	HEPWORTH
FDC46	415317.768	420467.844	163.30	161.40	161.35	1.95	RAPPIC	WAVIN	B125	7.64m	1.10	VITRIED CLAY	HEPWORTH
FDC47	415338.791	420461.836	161.60	159.20	159.10	2.50	1050 DIA. CONCRETE	-	B125	7.54m	1.75	VITRIED CLAY	HEPWORTH
FDC48	415335.332	420489.447	161.60	159.85	159.80	1.80	RAPPIC	WAVIN	B125	6.20m	1.10	VITRIED CLAY	HEPWORTH
FDC49	415390.853	420430.806	158.85	157.05	157.00	1.85	RAPPIC	WAVIN	B125	9.83m	1.75	VITRIED CLAY	HEPWORTH

DC REF	EASTING	NORTHING	COVER LEVEL	INVERT LEVEL 100mm	INVERT LEVEL 150mm	MH DEPTH (m)	MH TYPE	CHAMBER	COVER TYPE	PIPE LENGTH	PIPE GRADIENT	PIPE MATERIAL	PIPE MANUFACTURER
SDC01	414960.723	420491.564	165.75	164.15	164.10	1.65	RAPPIC	WAVIN	B125	8.09m	1.36	VITRIED CLAY	HEPWORTH
SDC02	415012.064	420495.685	163.75	162.35	162.30	1.45	RAPPIC	WAVIN	B125	7.53m	1.55	VITRIED CLAY	HEPWORTH
SDC03	415284.161	420446.753	164.00	162.45	162.40	1.60	RAPPIC	WAVIN	B125	5.79m	1.18	VITRIED CLAY	HEPWORTH
SDC04	415250.253	420453.709	163.65	162.35	162.30	1.35	RAPPIC	WAVIN	B125	6.75m	1.16	VITRIED CLAY	HEPWORTH
SDC05	415152.997	420438.930	161.00	159.55	159.50	1.50	RAPPIC	WAVIN	B125	7.43m	1.21	VITRIED CLAY	HEPWORTH
SDC06	415154.241	420428.335	160.80	159.30	159.25	1.55	RAPPIC	WAVIN	B125	4.83m	1.48	VITRIED CLAY	HEPWORTH
SDC07	415122.077	420422.866	160.45	159.05	159.00	1.45	RAPPIC	WAVIN	B125	4.85m	1.32	VITRIED CLAY	HEPWORTH
SDC08	415124.285	420456.904	161.15	159.45	159.40	1.75	RAPPIC	WAVIN	B125	7.19m	1.10	VITRIED CLAY	HEPWORTH
SDC09	415113.288	420455.838	161.05	158.85	158.80	2.25	1050 DIA. CONCRETE	-	B125	5.08m	1.51	VITRIED CLAY	HEPWORTH
SDC10	415245.717	420502.708	164.78	163.31	163.26	1.52	RAPPIC	WAVIN	B125	10.22m	1.76	VITRIED CLAY	HEPWORTH
SDC11	415189.916	420516.945	163.17	161.78	161.73	1.44	RAPPIC	WAVIN	B125	8.26m	1.38	VITRIED CLAY	HEPWORTH
SDC12	415173.392	420490.272	162.26	160.86	160.81	1.45	RAPPIC	WAVIN	B125	10.83m	1.57	VITRIED CLAY	HEPWORTH
SDC13	415148.450	420485.391	161.85	160.48	160.43	1.42	RAPPIC	WAVIN	B125	10.73m	1.72	VITRIED CLAY	HEPWORTH
SDC14	415127.540	420485.985	161.72	159.78	159.73	1.99	RAPPIC	WAVIN	B125	11.50m	1.12	VITRIED CLAY	HEPWORTH
SDC15	415122.675	420505.351	161.90	160.10	160.05	1.85	RAPPIC	WAVIN	B125	8.04m	1.73	VITRIED CLAY	HEPWORTH
SDC16	415104.009	420489.574	162.06	160.38	160.27	1.79	RAPPIC	WAVIN	B125	10.62m	1.39	VITRIED CLAY	HEPWORTH
SDC17	415069.243	420513.650	162.06	161.05	161.00	1.06	RAPPIC	WAVIN	B125	6.94m	1.69	VITRIED CLAY	HEPWORTH
SDC18	415061.774	420536.681	162.06	160.65	160.60	1.46	RAPPIC	WAVIN	B125	7.63m	1.76	VITRIED CLAY	HEPWORTH
SDC19	415075.205	420536.944	161.70	160.35	160.30	1.40	RAPPIC	WAVIN	B125	9.22m	1.61	VITRIED CLAY	HEPWORTH
SDC20	415029.420	420567.349	161.70	160.33	160.28	1.42	RAPPIC	WAVIN	B125	16.12m	1.28	VITRIED CLAY	HEPWORTH
SDC21	415106.456	420613.374	158.70	157.30	157.25	1.45	RAPPIC	WAVIN	B125	6.54m	1.20	VITRIED CLAY	