SW MANHOLE SCHEDULE

Manhole	Chamber Type	Cover Level (m)	Depth	Chamber Size	Eastings	Northings	Clear Opening	Cover Grade	Comments
BASIN 1 OUTFALL	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 81.193 INV IN = 81.193 INV OUT = 81.193	1.307	1200Ø	454972.465	221723.644	600x600	D400	
BASIN 2 OUTFALL	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 81.244 INV IN = 81.244 INV OUT = 81.244	1.256	1200Ø	455039.312	221638.997	600x600	D400	
FC64	PPIC	CL = 82.000 SUMP LEVEL OF MANHOLE = 81.000 INV OUT = 81.000	1.000	450Ø	455174.567	221633.130	450x450	D400	
FC70	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 81.000 INV IN = 81.000 INV OUT = 81.000	1.500	1200Ø	455072.688	221580.104	600x600	D400	ORIFICE FLOW CONTROL
FC71	PCC	CL = 82.000 SUMP LEVEL OF MANHOLE = 78.679 INV IN = 78.700 INV OUT = 78.679	3.321	1200Ø	455148.548	221607.508	600x600	D400	HYDROBRAKE CHAMBER
FEATURE POND OVERFLOW	Brick	CL = 82.280 SUMP LEVEL OF MANHOLE = 80.800 INV OUT = 80.800	1.480	1200L x 750W	455043.011	221682.583	1220x675	D400	Rectangular Junction Structure NF SI
FEC-SW-01	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.600 INV OUT = 81.600	0.950	1200Ø	454903.679	221653.068	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
FEC-SW-02	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.520 INV IN = 81.500 INV OUT = 81.500	1.030	1200Ø	454898.273	221659.777	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
FEC-SW-03	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.199 INV IN = 81.199 INV IN = 81.199 INV IN = 81.199 INV OUT = 81.199	1.351	1500Ø	454883.880	221677.381	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
FEC-SW-04	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.700 INV OUT = 81.700	0.850	1200Ø	454856.599	221654.993	600x600	D400	
FEC-SW-05	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.115 INV IN = 81.115 INV IN = 81.115 INV OUT = 81.115	1.435	1500Ø	454877.357	221672.053	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
FEC-SW-06	PCC	CL = 82.560 SUMP LEVEL OF MANHOLE = 81.650 INV OUT = 81.650	0.910	1200Ø	454866.684	221619.424	600x600	D400	
FEC-SW-07	PCC	CL = 82.700 SUMP LEVEL OF MANHOLE = 81.536 INV IN = 81.536 INV OUT = 81.536	1.164	1200Ø	454876.751	221607.140	600x600	D400	
FEC-SW-08	PCC	CL = 82.700 SUMP LEVEL OF MANHOLE = 81.220 INV IN = 81.220 INV OUT = 81.220	1.480	1200Ø	454901.224	221627.121	600x600	D400	
FEC-SW-09	PCC	CL = 82.700 SUMP LEVEL OF MANHOLE = 80.863 INV IN = 80.938 INV OUT = 80.863	1.837	1200Ø	454927.800	221648.891	600x600	D400	
FEC-SW-10	PCC	CL = 82.700 SUMP LEVEL OF MANHOLE = 81.500 INV OUT = 81.800	1.200	1200Ø	454931.831	221622.869	600x600	D400	
FEC-SW-12	PCC	CL = 82.700 SUMP LEVEL OF MANHOLE = 81.213 INV IN = 81.500 INV OUT = 81.500	1.487	1200Ø	454946.195	221644.904	600x600	D400	
FEC-SW-13	PCC	CL = 82.700 SUMP LEVEL OF MANHOLE = 80.691 INV IN = 81.300 INV IN = 80.740 INV OUT = 80.740	2.009	1200Ø	454937.398	221656.877	600x600	D400	
FEC-SW-14	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 80.602 INV IN = 80.500 INV OUT = 80.500	1.948	1800Ø	454948.121	221666.081	600x600	D400	
FEC-SW-15	PPIC	CL = 82.500 SUMP LEVEL OF MANHOLE = 81.500 INV OUT = 81.500	1.000	450Ø	454967.059	221581.209	450x450	D400	

SW MANHOLE SCHEDULE

Manhole	Chamber Type	Cover Level (m)	Depth	Chamber Size	Eastings	Northings	Clear Opening	Cover Grade	Comments
FEC-SW-16	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 81.400 INV IN = 81.400 INV OUT = 81.400	1.100	1200Ø	454961.912	221577.081	600x600	D400	
FEC-SW-17	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 81.250 INV IN = 81.250 INV OUT = 81.250	1.250	1200Ø	454971.633	221565.173	600x600	D400	
FEC-SW-18	PPIC	CL = 82.600 SUMP LEVEL OF MANHOLE = 81.500 INV OUT = 81.500	1.100	450Ø	454930.298	221534.849	450x450	D400	
FEC-SW-19	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 81.300 INV IN = 81.300 INV OUT = 81.300	1.200	1200Ø	454943.506	221541.792	600x600	D400	
FEC-SW-20	PCC	CL = 82.700 SUMP LEVEL OF MANHOLE = 81.500 INV OUT = 81.500	1.200	1200Ø	454907.925	221581.756	600x600	D400	
FEC-SW-21	PCC	CL = 82.700 SUMP LEVEL OF MANHOLE = 81.250 INV IN = 81.250 INV OUT = 81.250	1.450	1200Ø	454924.014	221562.084	600x600	D400	
FEC-SW-22	PCC	CL = 82.700 SUMP LEVEL OF MANHOLE = 81.050 INV IN = 81.050 INV OUT = 81.050	1.650	1200Ø	454939.848	221575.033	600x600	D400	
FEC-SW-23	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 80.950 INV IN = 80.950 INV OUT = 80.950	1.600	1200Ø	454946.245	221567.208	600x600	D400	
FEC-SW-24	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 80.770 INV IN = 80.770 INV IN = 80.770 INV IN = 80.770 INV OUT = 80.770	1.730	1200Ø	454957.318	221553.302	600x600	D400	
FEC-SW-26	PPIC	CL = 82.500 SUMP LEVEL OF MANHOLE = 81.600 INV OUT = 81.800	0.900	450Ø	454962.710	221568.844	450x450	D400	
FEH-SW-25	PCC	CL = 82.400 SUMP LEVEL OF MANHOLE = 79.900 INV IN = 80.720 INV OUT = 79.900	2.500	1200Ø	454966.867	221542.248	600x600	D400	
FEH-SW-27	PPIC	CL = 82.500 SUMP LEVEL OF MANHOLE = 81.000 INV IN = 81.650 INV OUT = 81.200	1.500	450Ø	454972.359	221557.046	450x450	D400	SILT TRAP
FEH-SW-28	PPIC	CL = 82.400 SUMP LEVEL OF MANHOLE = 81.000 INV OUT = 81.000	1.400	450Ø	454950.375	221539.764	450x450	D400	SILT TRAP
HB2	PCC	CL = 82.400 SUMP LEVEL OF MANHOLE = 80.150 INV IN = 80.150 INV OUT = 80.150	2.250	1200Ø	454962.990	221541.352	600x600	D400	HYDROBRAKE CHAMBER
HB3	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 80.300 INV IN = 80.300 INV OUT = 80.300	2.200	1200Ø	454816.415	221542.660	600x600	D400	HYDROBRAKE CHAMBER
HE-SW-01	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.600 INV OUT = 81.600	0.950	1200Ø	454983.133	221622.611	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
HE-SW-02	PCC	CL = 82.705 SUMP LEVEL OF MANHOLE = 81.900 INV OUT = 81.900	0.805	1200Ø	454984.431	221626.958	600x600	D400	SILT TRAP
HE-SW-03	PCC	CL = 82.705 SUMP LEVEL OF MANHOLE = 81.900 INV OUT = 81.900	0.805	1200Ø	454987.174	221678.499	600x600	D400	
HE-SW-04	PCC	CL = 82.650 SUMP LEVEL OF MANHOLE = 81.637 INV IN = 81.637 INV OUT = 81.637	1.013	1200Ø	455016.769	221642.579	600x600	D400	CATCH PIT
HE-SW-05	PPIC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.900 INV OUT = 81.900	0.650	450Ø	454991.491	221610.378	450x450	D400	

SW MANHOLE SCHEDULE

Manhole	Chamber Type	Cover Level (m)	Depth	Chamber Size	Eastings	Northings	Clear Opening	Cover Grade	Comments
HE-SW-06	PPIC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.900 INV OUT = 81.900	0.650	450Ø	455000.709	221600.962	450x450	D400	
HE-SW-07	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.817 INV IN = 81.817 INV IN = 81.817 INV OUT = 81.817	0.733	1200Ø	454999.468	221608.206	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
HE-SW-08	PPIC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.900 INV OUT = 81.900	0.650	450Ø	455009.374	221587.887	450x450	D400	
HE-SW-09	PPIC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.738 INV IN = 81.738	0.812	450Ø	455022.261	221598.274	450x450	D400	SILT TRAP
HE-SW-10	PCC	CL = 82.582 SUMP LEVEL OF MANHOLE = 81.900 INV OUT = 81.900	0.682	1200Ø	455053.761	221634.183	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
HE-SW-11	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.616 INV IN = 81.616 INV OUT = 81.616	0.934	1200Ø	455031.745	221616.873	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
HE-SW-12	PPIC	CL = 82.550 SUMP LEVEL OF MANHOLE = 80.935 INV IN = 80.935 INV OUT = 80.935	1.615	450Ø	455063.308	221658.496	450x450	D400	
HE-SW-13	PPIC	CL = 82.500 SUMP LEVEL OF MANHOLE = 80.885 INV IN = 80.885 INV OUT = 80.885	1.615	450Ø	455068.169	221657.207	450x450	D400	
HE-SW-14	PCC	CL = 82.582 SUMP LEVEL OF MANHOLE = 81.900 INV OUT = 81.900	0.682	1200Ø	455051.148	221595.618	600x600	D400	
HE-SW-15	PCC	CL = 82.300 SUMP LEVEL OF MANHOLE = 80.900 INV IN = 80.900 INV OUT = 80.900	1.400	1200Ø	455102.822	221637.882	600x600	D400	
HE-SW-16	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 81.500 INV OUT = 81.500	1.000	1200Ø	455005.001	221545.202	600x600	D400	
HE-SW-17	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 80.953 INV IN = 80.953 INV OUT = 80.953	1.547	1200Ø	455049.368	221581.355	600x600	D400	
HE-SW-18	PPIC	CL = 82.282 SUMP LEVEL OF MANHOLE = 81.630 INV IN = 81.630 INV OUT = 81.630	0.632	600Ø	455041.574	221638.943	600x600	D400	SILT TRAP
HW-SW-01	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.600 INV OUT = 81.600	0.950	1200Ø	454914.078	221662.050	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
HW-SW-02	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.347 INV IN = 81.347 INV OUT = 81.347	1.203	1200Ø	454898.090	221681.628	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
HW-SW-03	PPIC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.600 INV OUT = 81.600	0.950	450Ø	454892.676	221691.036	450x450	D400	
HW-SW-04	PPIC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.800 INV OUT = 81.800	0.750	450Ø	454926.940	221743.920	450x450	D400	SILT TRAP
HW-SW-05	PCC	CL = 82.582 SUMP LEVEL OF MANHOLE = 81.900 INV OUT = 81.900	0.682	1200Ø	454968.892	221738.597	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
HW-SW-06	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.736 INV IN = 81.736 INV OUT = 81.736	0.814	1200Ø	454956.104	221728.297	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
HW-SW-07	PPIC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.900 INV OUT = 81.900	0.650	450Ø	454935.414	221718.350	450x450	D400	SILT TRAP

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

Do not scale from this drawing.

NOT FOR CONSTRUCTION

rev	sc	date	by	chk	description
P2	S2	17.06.22	HHu	PDa	Planning Condition Discharge
P1	S2	30.03.22	HHu	PDa	RIBA 3 Issue

Drawing title
Main Resort Surface Water Manhole Schedule
Sheet 1 of 2

scale (s): NTS @ A1 | date: March 2022 | drawn: HHu

elliottwood | engineering a bettersociety
Elliott Wood Partnership Ltd
Central London • Wimbledon • Nottingham
Consulting Structural and Civil Engineers
(020) 7499 5888 • elliottwood.co.uk

Project
Proposed Great Wolf Lodge, Chesterton, Bicester, Oxfordshire

Drawing status: Preliminary | Status: S2 | Revision: P2

Project no. | Originator | Zone | Level | Type | Role | drg no.
2180501-EWP-ZZ-XX-DR-C-1110

SW MANHOLE SCHEDULE									
Manhole	Chamber Type	Cover Level (m)	Depth	Chamber Size	Eastings	Northings	Clear Opening	Cover Grade	Comments
HW-SW-08	PPIC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.900 INV OUT = 81.900	0.650	450Ø	454916.900	221709.928	450x450	D400	SIL TRAP
HW-SW-09	PPIC	CL = 82.550 SUMP LEVEL OF MANHOLE = 81.900 INV OUT = 81.900	0.650	450Ø	454933.843	221688.834	450x450	D400	SILT TRAP
HW-SW-10	PCC	CL = 82.610 SUMP LEVEL OF MANHOLE = 81.900 INV OUT = 81.900	0.710	1200Ø	454955.570	221676.656	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
RAIN GARDEN FC	PCC	CL = 82.600 SUMP LEVEL OF MANHOLE = 81.175 INV OUT = 81.175	1.425	1200Ø	455041.990	221712.657	600x600	D400	Cylindrical Structure Slab Top Circular Frame SI
SW PUMP	PCC	CL = 81.700 SUMP LEVEL OF MANHOLE = 80.450	0.555	1200Ø	454955.072	221574.888	600x600	D400	
SW PUMP OUTFALL	PPIC	CL = 82.455 SUMP LEVEL OF MANHOLE = 81.900 INV OUT = 81.900	0.555	450Ø	454990.671	221530.108	450x450	D400	
SW01	PCC	CL = 83.650 SUMP LEVEL OF MANHOLE = 80.929 INV IN = 80.929 INV OUT = 80.929	2.721	1200Ø	454854.338	221700.337	600x600	D400	
SW02	PCC	CL = 83.650 SUMP LEVEL OF MANHOLE = 80.500 INV IN = 80.500 INV OUT = 80.500	3.150	1200Ø	454921.968	221752.963	600x600	D400	
SW03	PCC	CL = 83.500 SUMP LEVEL OF MANHOLE = 80.295 INV IN = 80.295 INV OUT = 80.295	3.205	1200Ø	454971.590	221789.673	600x600	D400	
SW04	PCC	CL = 83.250 SUMP LEVEL OF MANHOLE = 80.265 INV IN = 80.265 INV IN = 80.265 INV OUT = 80.265	2.985	1200Ø	454975.668	221784.743	600x600	D400	
SW05	PCC	CL = 82.450 SUMP LEVEL OF MANHOLE = 80.420 INV IN = 80.420 INV OUT = 80.420	2.030	1800Ø	454949.177	221678.301	600x600	D400	
SW06	PCC	CL = 82.520 SUMP LEVEL OF MANHOLE = 79.995 INV IN = 80.040 INV IN = 80.040 INV OUT = 80.040	2.525	1800Ø	455016.586	221734.860	600x600	D400	
SW08	PCC	CL = 82.164 SUMP LEVEL OF MANHOLE = 79.799 INV IN = 80.500 INV IN = 79.799 INV IN = 80.625 INV OUT = 79.799	2.365	1800Ø	455060.205	221680.962	600x600	D400	
SW09	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 79.723 INV IN = 79.723 INV OUT = 79.723	2.777	1800Ø	455077.906	221695.511	600x600	D400	
SW10	PCC	CL = 82.200 SUMP LEVEL OF MANHOLE = 79.434 INV IN = 79.434 INV OUT = 79.434	2.766	1800Ø	455133.026	221628.240	600x600	D400	CATCH PIT
SW11	PCC	CL = 82.550 SUMP LEVEL OF MANHOLE = 80.800 INV OUT = 80.800	1.750	1200Ø	454824.415	221610.245	600x600	D400	
SW12	PCC	CL = 83.700 SUMP LEVEL OF MANHOLE = 80.620 INV IN = 80.620 INV OUT = 80.620	3.080	1200Ø	454803.499	221593.163	600x600	D400	
SW13	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 80.481 INV IN = 80.481 INV OUT = 80.682	2.019	1200Ø	454794.243	221574.504	600x600	D400	
SW14	PCC	CL = 82.400 SUMP LEVEL OF MANHOLE = 81.000 INV OUT = 81.370	1.400	1200Ø	454808.067	221543.504	600x600	D400	SILT TRAP
SW15	PCC	CL = 82.350 SUMP LEVEL OF MANHOLE = 80.069 INV IN = 80.069 INV OUT = 80.069	2.281	1200Ø	454838.900	221519.678	600x600	D400	

SW MANHOLE SCHEDULE									
Manhole	Chamber Type	Cover Level (m)	Depth	Chamber Size	Eastings	Northings	Clear Opening	Cover Grade	Comments
SW16	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 79.846 INV IN = 79.846 INV OUT = 79.846	2.654	1800Ø	454869.102	221488.850	600x600	D400	
SW17	PCC	CL = 82.400 SUMP LEVEL OF MANHOLE = 79.555 INV IN = 79.555 INV OUT = 79.555	2.845	1800Ø	454941.131	221527.147	600x600	D400	
SW18	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 79.389 INV IN = 79.389 INV IN = 79.700 INV OUT = 79.389	3.111	1800Ø	454990.554	221533.337	600x600	D400	
SW19	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 79.274 INV IN = 79.274 INV OUT = 79.274	3.226	1800Ø	455024.846	221536.771	600x600	D400	
SW20	PCC	CL = 82.400 SUMP LEVEL OF MANHOLE = 79.034 INV IN = 79.034 INV IN = 80.614 INV OUT = 79.034	3.366	1800Ø	455076.736	221586.148	600x600	D400	
SW22	PCC	CL = 82.200 SUMP LEVEL OF MANHOLE = 78.858 INV IN = 78.858 INV IN = 80.265 INV OUT = 78.858	3.342	1800Ø	455119.910	221617.095	600x600	D400	CATCH PIT
SW23	PPIC	CL = 83.540 SUMP LEVEL OF MANHOLE = 82.190 INV OUT = 82.190	1.350	450Ø	455008.898	221804.551	450x450	D400	
SW24	PPIC	CL = 83.270 SUMP LEVEL OF MANHOLE = 81.946 INV IN = 81.946 INV IN = 81.946 INV OUT = 81.946	1.324	450Ø	455024.366	221785.633	450x450	D400	
SW25	PPIC	CL = 83.000 SUMP LEVEL OF MANHOLE = 81.626 INV IN = 81.626 INV OUT = 81.626	1.374	450Ø	455044.675	221760.887	450x450	D400	
SW26	PPIC	CL = 83.000 SUMP LEVEL OF MANHOLE = 81.650 INV OUT = 81.650	1.350	450Ø	455009.214	221765.543	450x450	D400	
SW27	PPIC	CL = 82.750 SUMP LEVEL OF MANHOLE = 81.382 INV IN = 81.382 INV IN = 81.382 INV OUT = 81.382	1.368	450Ø	455025.777	221745.520	450x450	D400	
SW28	PPIC	CL = 82.600 SUMP LEVEL OF MANHOLE = 81.250 INV OUT = 81.250	1.350	450Ø	455044.119	221737.043	450x450	D400	
SW29	PPIC	CL = 82.955 SUMP LEVEL OF MANHOLE = 81.197 INV IN = 81.197 INV IN = 80.915 INV OUT = 81.197	1.758	450Ø	455037.475	221731.230	450x450	D400	
SW30	PPIC	CL = 82.500 SUMP LEVEL OF MANHOLE = 80.890 INV IN = 80.890 INV OUT = 80.890	1.610	450Ø	455063.692	221707.277	450x450	D400	
SW31	PPIC	CL = 82.500 SUMP LEVEL OF MANHOLE = 80.812 INV IN = 80.812 INV OUT = 80.812	1.688	450Ø	455071.105	221698.230	450x450	D400	
SW32	PPIC	CL = 82.950 SUMP LEVEL OF MANHOLE = 81.600 INV OUT = 81.600	1.350	450Ø	455115.444	221736.060	450x450	D400	
SW33	PPIC	CL = 82.485 SUMP LEVEL OF MANHOLE = 81.122 INV IN = 81.122 INV OUT = 81.122	1.363	450Ø	455142.704	221702.791	450x450	D400	
SW34	PCC	CL = 82.370 SUMP LEVEL OF MANHOLE = 80.506 INV IN = 80.506 INV IN = 80.540 INV OUT = 80.506	1.864	1200Ø	455097.697	221665.914	600x600	D400	
SW35	PPIC	CL = 82.250 SUMP LEVEL OF MANHOLE = 79.800 INV IN = 80.209 INV OUT = 80.209	2.450	450Ø	455123.751	221634.265	450x450	D400	
SW36	PCC	CL = 82.200 SUMP LEVEL OF MANHOLE = 79.700 INV IN = 80.163 INV OUT = 80.163	2.500	1200Ø	455130.314	221626.300	600x600	D400	CATCH PIT

SW MANHOLE SCHEDULE									
Manhole	Chamber Type	Cover Level (m)	Depth	Chamber Size	Eastings	Northings	Clear Opening	Cover Grade	Comments
SW37	PPIC	CL = 82.350 SUMP LEVEL OF MANHOLE = 81.000 INV OUT = 81.000	1.350	450Ø	455174.628	221704.796	450x450	D400	
SW38	PPIC	CL = 82.200 SUMP LEVEL OF MANHOLE = 80.696 INV IN = 80.696 INV OUT = 80.696	1.504	450Ø	455200.367	221688.575	450x450	D400	SILT TRAP
SWALE 2 FC	PCC	CL = 82.500 SUMP LEVEL OF MANHOLE = 81.429	1.071	1200Ø	454966.464	221777.316	600x600	D400	ORIFICE FLOW CONTROL

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

Do not scale from this drawing.

NOT FOR CONSTRUCTION

rev	sc	date	by	chk	description
P2	S2	17.06.22	HHu	PDa	Planning Condition Discharge
P1	S2	30.03.22	HHu	PDa	RIBA 3 Issue

Drawing title

Main Resort Surface Water Manhole Schedule Sheet 2 of 2

scale (s)	date	drawn
NTS @ A1	March 2022	HHu

elliottwood | engineering a bettersociety

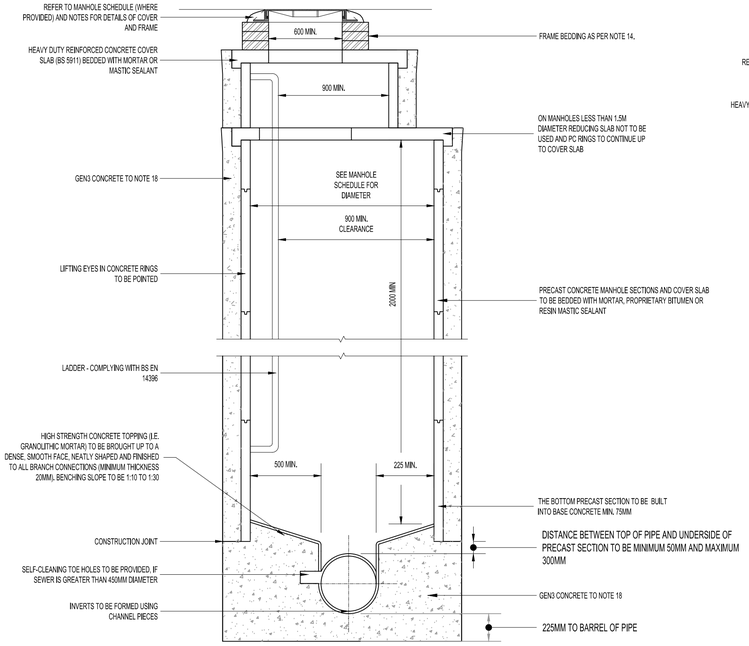
Elliott Wood Partnership Ltd
Central London • Wimbledon • Nottingham
Consulting Structural and Civil Engineers
(020) 7499 5888 • elliottwood.co.uk

Project

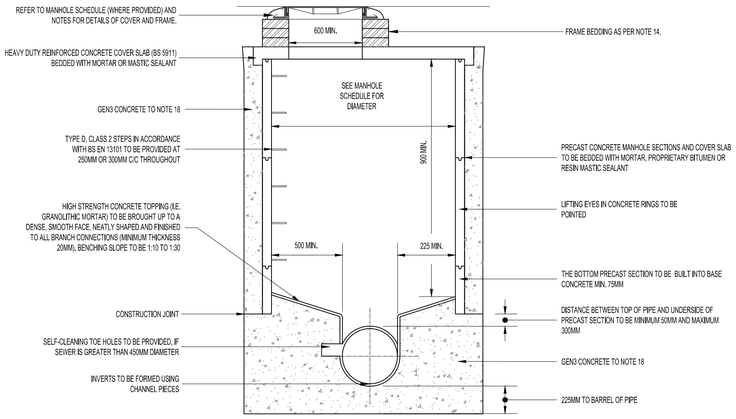
Proposed Great Wolf Lodge, Chesterton, Bicester, Oxfordshire

Drawing status	Status	Revision
Preliminary	S2	P2

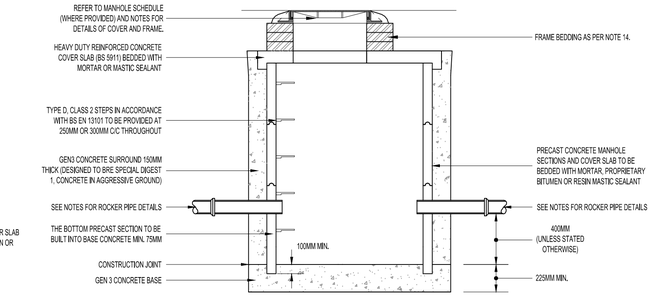
Project no.	Originator	Zone	Level	Type	Role	drg no.
2180501	EWP	ZZ	XX	DR	C	1111



SECTION



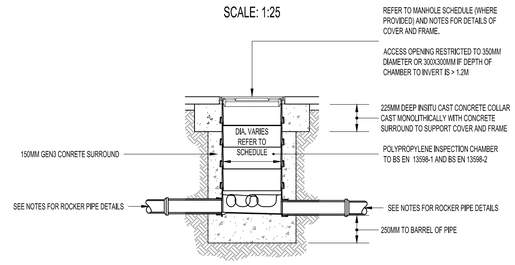
SECTION



SECTION

PRE-CAST CONCRETE CATCHPIT

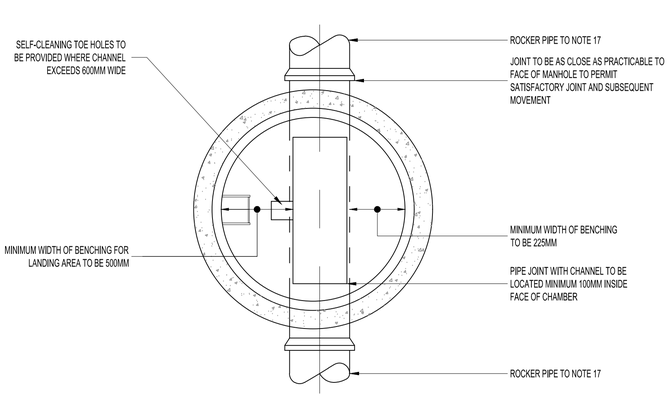
SCALE: 1:25



SECTION

POLYPROPYLENE INSPECTION CHAMBER

SCALE: 1:25



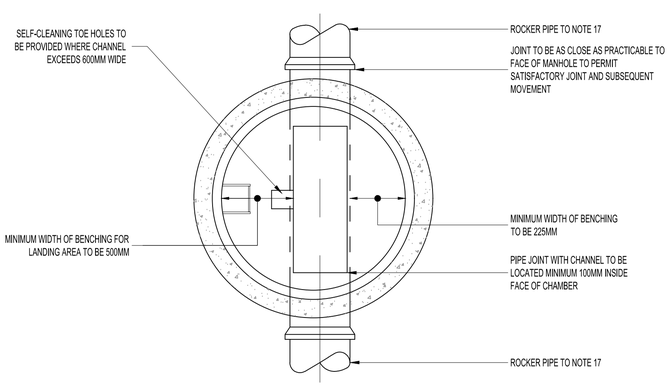
CHAMBERS WITH OUTGOING PIPES GREATER THAN 600MM SHOULD BE FITTED WITH GUARD BARS, SAFETY CHAINS OR OTHER SAFETY DEVICES

PLAN

MANHOLE TYPE A

TYPICAL PRE-CAST CONCRETE MANHOLE - 3 - 6m DEEP TO SOFFIT

SCALE: 1:25



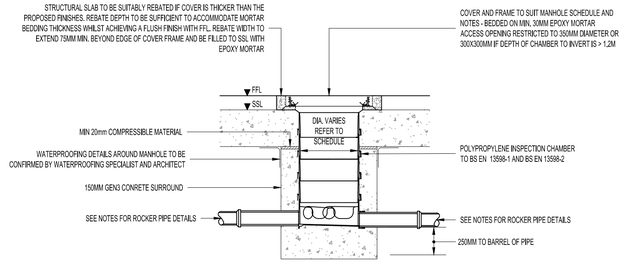
CHAMBERS WITH OUTGOING PIPES GREATER THAN 600MM SHOULD BE FITTED WITH GUARD BARS, SAFETY CHAINS OR OTHER SAFETY DEVICES

PLAN

MANHOLE TYPE B

SCALE: 1:25

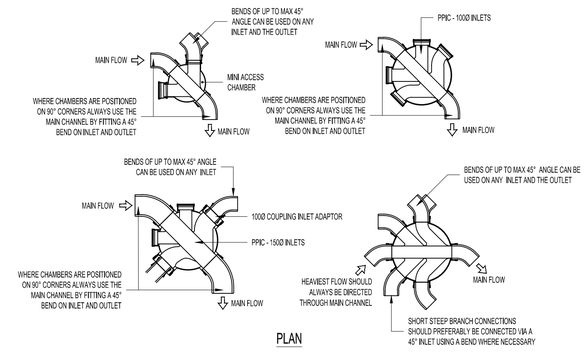
TYPICAL PRE-CAST CONCRETE MANHOLE - 1.5 - 3.0m DEEP TO SOFFIT



SECTION

POLYPROPYLENE INSPECTION CHAMBER WITHIN SLAB

SCALE: 1:25



PLAN

MINI ACCESS CHAMBER / PPIC TYPICAL INSTALLATION DETAILS

SCALE: 1:25

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

Do not scale from this drawing.

Notes:

1. All dimensions are in millimeters unless stated otherwise.
2. This drawing should not be scaled.
3. This drawing should be read in conjunction with the below ground drainage drawing(s) and manhole schedule(s).
4. This drawing should be read in conjunction with all relevant Architect's, Engineer's and Services Engineer's specifications and drawings.
5. All drainage shall be constructed in accordance with the relevant provisions of current Building Regulations, BS EN 752, BS EN 12056 and Sewers for Adoption as appropriate.
6. Pre-cast concrete products shall comply with the relevant provisions of BS 5911: Part 2, 200 & 230.
7. Details surrounding proprietary products and systems are indicative only, contractor to ensure all systems are installed strictly in accordance with the manufactures details.
8. All external manhole covers and frames located within vehicular areas are to be load class D400 and be 150mm deep unless stated otherwise.
9. All external manhole covers and frames located within pedestrian areas are to be load class B125 unless stated otherwise.
10. All external manhole covers and frames are to be installed square to the building, paving or highway channel lines.
11. All external manhole covers and frames shall comply with the relevant provisions of BS EN 124 and BS 7903 and shall be non-ventilated (single sealed) with closed keyways unless stated otherwise.
12. All internal manhole covers and frames are to be double sealed and recessed unless stated otherwise.
13. All manhole covers located on grease traps are to be double sealed.
14. Manhole cover frames shall be bedded on a gauged class 1 (3:1) sand/cement mortar to clause 2402 of SHW - mortar designation (i), and between 2 and 4 courses of engineering brickwork class 'b' to BS EN 771-1:2011 or precast concrete adjusting units - corbelling to be no more than 30mm per course.
15. Manholes < 3m deep shall be installed with type d class 1 steps, complying with the requirements of BS EN 13101:2002.
16. Manholes > 3m deep shall be installed with an appropriate fixed ladder complying with the requirements of BS EN 14396:2004.
17. Where rigid pipes are used, a flexible joint shall be provided as close as is feasible to the outside face of any structure into which a pipe is built, within 150mm for pipe diameters less than 300mm. The design of the joints shall be compatible with any subsequent movement. Rocker pipe lengths shall be in accordance with Table 1, unless stated otherwise.

Table 1	
Nominal Diameter (mm)	Effective Length (m)
150 - 600	0.6
600 - 750	1.0
over 750	1.25

18. Insitu concrete base and surround shall be class 'GEN3' in accordance with 'BRE Special Digest 1 - Concrete in Aggressive Ground' and the requirement of 'Sewers for Adoption'.

NOT FOR CONSTRUCTION

rev	sc	date	by	chk	description
P3	S2	17.06.22	PDa	HHu	Issued for planning condition discharge
P2	S2	30.03.22	PDa	HHu	RIBA Stage 3 issue
P1	S2	18.02.22	HHu	PDa	RIBA 3 Part 1 Issue

elliottwood engineering a better society

Elliott Wood Partnership Ltd
Central London • Wimbledon • Nottingham
Consulting Structural and Civil Engineers
(020) 7499 5888 • elliottwood.co.uk

Project

Proposed Great Wolf Lodge, Chesterton, Bicester, Oxfordshire

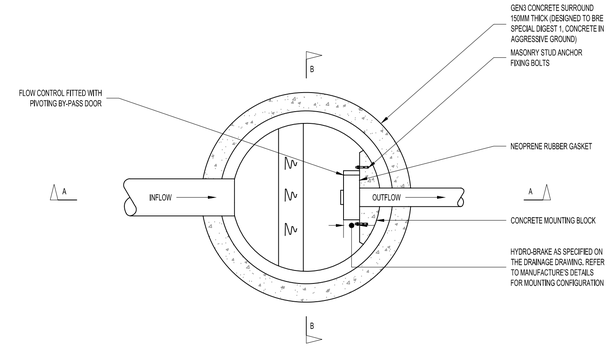
Drawing title

Typical Below Ground Drainage Details

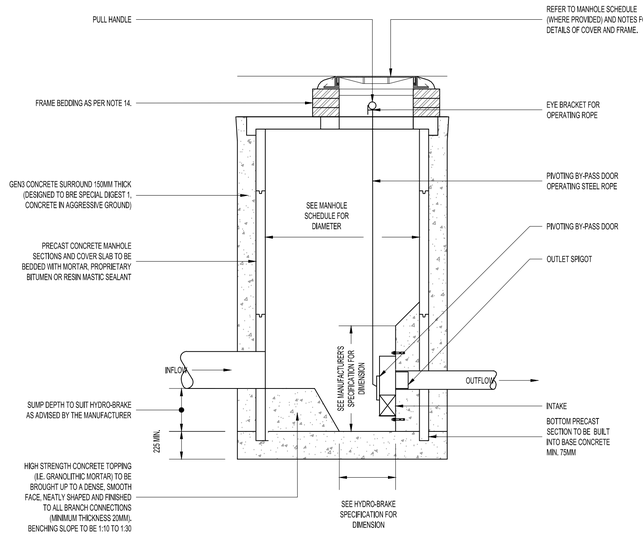
Scale (s)	Date	Drawn
AS NOTED	February 2022	HHu

Drawing status: Preliminary — Status S2 — Revision P3

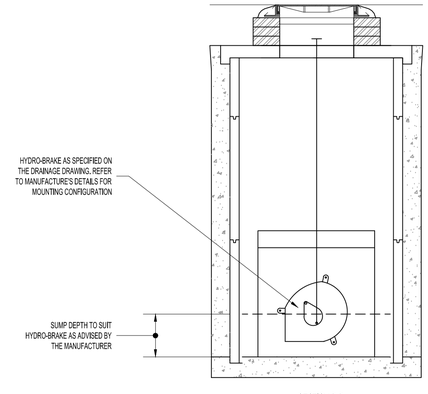
Project no. 2180501 - Originator EWP - Zone ZZ - Level XX - Type DT - Role C - drg no. 3000



PLAN



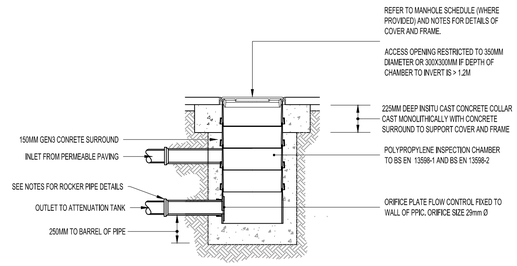
SECTION A-A



SECTION B-B

TYPICAL HYDRO-BRAKE FLOW CONTROL CHAMBER

SCALE: 1:25



SECTION

ORIFICE PLATE FLOW CONTROL 64

SCALE: 1:25

(DEPTH FROM COVER LEVEL TO INVERT OF PIPE 1.2M*)

* UP TO 3.0M IF A REDUCED ACCESS COLLAR IS USED

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

Do not scale from this drawing.

Notes:

1. All dimensions are in millimeters unless stated otherwise.
2. This drawing should not be scaled.
3. This drawing should be read in conjunction with the below ground drainage drawing(s) and manhole schedule(s).
4. This drawing should be read in conjunction with all relevant Architect's, Engineer's and Services Engineer's specifications and drawings.
5. All drainage shall be constructed in accordance with the relevant provisions of current Building Regulations, BS EN 752, BS EN 12056 and Sewers for Adoption as appropriate.
6. Pre-cast concrete products shall comply with the relevant provisions of BS 5911: Part 2, 200 & 230.
7. Details surrounding proprietary products and systems are indicative only. contractor to ensure all systems are installed strictly in accordance with the manufactures details.
8. All external manhole covers and frames located within vehicular areas are to be load class D400 and be 150mm deep unless stated otherwise.
9. All external manhole covers and frames located within pedestrian areas are to be load class B125 unless stated otherwise.
10. All external manhole covers and frames are to be installed square to the building, paving or highway channel lines.
11. All external manhole covers and frames shall comply with the relevant provisions of BS EN 124 and BS 7903 and shall be non-ventilated (single sealed) with closed keyways unless stated otherwise.
12. All internal manhole covers and frames are to be double sealed and recessed unless stated otherwise.
13. All manhole covers located on grease traps are to be double sealed.
14. Manhole cover frames shall be bedded on a gauged class 1 (3:1) sand/cement mortar to clause 2402 of SHW - mortar designation (i), and between 2 and 4 courses of engineering brickwork class 'b' to BS EN 771-1:2011 or precast concrete adjusting units - corbelling to be no more than 30mm per course.
15. Manholes < 3m deep shall be installed with type d class 1 steps, complying with the requirements of BS EN 13101:2002.
16. Manholes > 3m deep shall be installed with an appropriate fixed ladder complying with the requirements of BS EN 14396:2004.
17. Where rigid pipes are used, a flexible joint shall be provided as close as is feasible to the outside face of any structure into which a pipe is built, within 150mm for pipe diameters less than 300mm. The design of the joints shall be compatible with any subsequent movement. Rocker pipe lengths shall be in accordance with Table 1, unless stated otherwise.

Table 1	
Nominal Diameter (mm)	Effective Length (m)
150 - 600	0.6
600 - 750	1.0
over 750	1.25

18. Insitu concrete base and surround shall be class 'GEN3' in accordance with 'BRE Special Digest 1 - Concrete in Aggressive Ground' and the requirement of 'Sewers for Adoption'.

NOT FOR CONSTRUCTION

rev	sc	date	by	chk	description
P3	S2	17.06.22	PDa	HHu	Issued for planning condition discharge
P2	S2	30.03.22	PDa	HHu	RIBA Stage 3 issue
P1	S2	18.02.22	HHu	PDa	RIBA 3 Part 1 Issue

elliottwood | engineering a better society

Elliott Wood Partnership Ltd
Central London • Wimbledon • Nottingham
Consulting Structural and Civil Engineers
(020) 7499 5888 • elliottwood.co.uk

Project

Proposed Great Wolf Lodge, Chesterton, Bicester, Oxfordshire

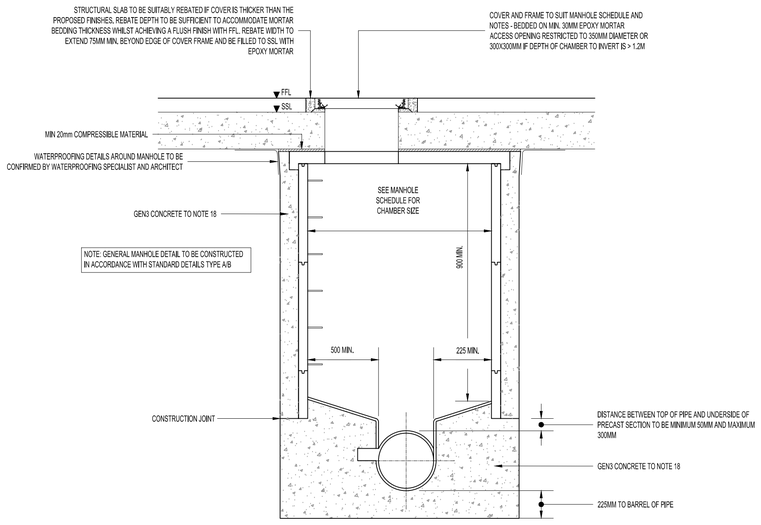
Drawing title

Typical Below Ground Drainage Details

Scale (s)	Date	Drawn
AS NOTED	February 2022	HHu

Drawing status: Preliminary — Status S2 — Revision P3

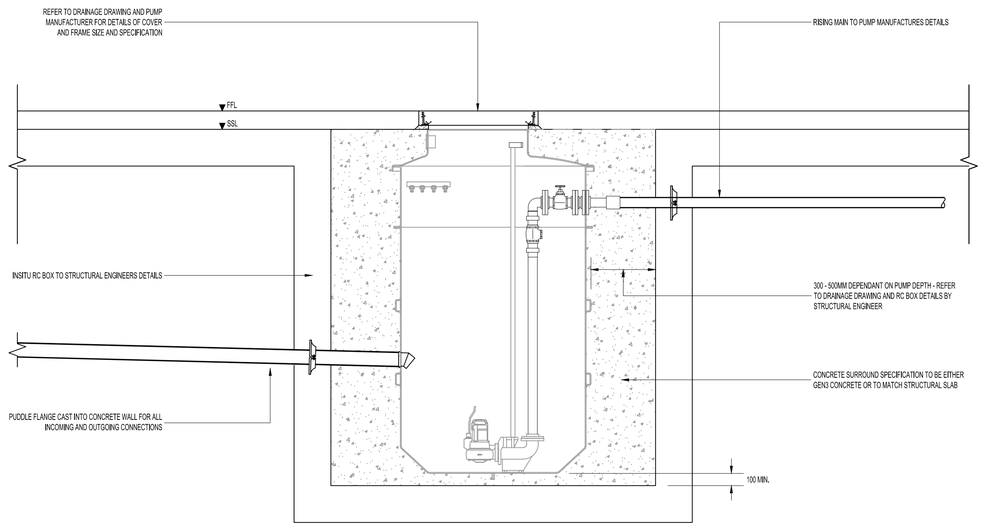
Project no.	Originator	Zone	Level	Type	Role	drg no.
2180501	EWP	ZZ	XX	DT	C	3001



SECTION

PRE-CAST CONCRETE MANHOLE WITHIN SLAB

SCALE: 1:25



TYPICAL SECTION

SCALE: 1:25

PACKAGED PUMPING STATION IN A REINFORCED CONCRETE BOX

(TYPICAL ARRANGEMENT WHERE TOP OF PUMP CASING MEETS COVER AND FRAME)

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

Do not scale from this drawing.

Notes:

1. All dimensions are in millimeters unless stated otherwise.
2. This drawing should not be scaled.
3. This drawing should be read in conjunction with the below ground drainage drawing(s) and manhole schedule(s).
4. This drawing should be read in conjunction with all relevant Architect's, Engineer's and Services Engineer's specifications and drawings.
5. All drainage shall be constructed in accordance with the relevant provisions of current Building Regulations, BS EN 752, BS EN 12056 and Sewers for Adoption as appropriate.
6. Pre-cast concrete products shall comply with the relevant provisions of BS 5911: Part 2, 200 & 230.
7. Details surrounding proprietary products and systems are indicative only. contractor to ensure all systems are installed strictly in accordance with the manufactures details.
8. All external manhole covers and frames located within vehicular areas are to be load class D400 and be 150mm deep unless stated otherwise.
9. All external manhole covers and frames located within pedestrian areas are to be load class B125 unless stated otherwise.
10. All external manhole covers and frames are to be installed square to the building, paving or highway channel lines.
11. All external manhole covers and frames shall comply with the relevant provisions of BS EN 124 and BS 7903 and shall be non-ventilated (single sealed) with closed keyways unless stated otherwise.
12. All internal manhole covers and frames are to be double sealed and recessed unless stated otherwise.
13. All manhole covers located on grease traps are to be double sealed.
14. Manhole cover frames shall be bedded on a gauged class 1 (3:1) sand/cement mortar to clause 2402 of SHW - mortar designation (i), and between 2 and 4 courses of engineering brickwork class 'b' to BS EN 771-1:2011 or precast concrete adjusting units - corbelling to be no more than 30mm per course.
15. Manholes < 3m deep shall be installed with type d class 1 steps, complying with the requirements of BS EN 13101:2002.
16. Manholes > 3m deep shall be installed with an appropriate fixed ladder complying with the requirements of BS EN 14396:2004.
17. Where rigid pipes are used, a flexible joint shall be provided as close as is feasible to the outside face of any structure into which a pipe is built, within 150mm for pipe diameters less than 300mm. The design of the joints shall be compatible with any subsequent movement. Rocker pipe lengths shall be in accordance with Table 1, unless stated otherwise.

Table 1	
Nominal Diameter (mm)	Effective Length (m)
150 - 600	0.6
600 - 750	1.0
over 750	1.25

18. Insitu concrete base and surround shall be class 'GEN3' in accordance with 'BRE Special Digest 1 - Concrete in Aggressive Ground' and the requirement of 'Sewers for Adoption'.

NOT FOR CONSTRUCTION

rev	sc	date	by	chk	description
P3	S2	17.06.22	PDa	HHu	Issued for planning condition discharge
P2	S2	30.03.22	PDa	HHu	RIBA Stage 3 issue
P1	S2	18.02.22	HHu	PDa	RIBA 3 Part 1 Issue

elliottwood | engineering a better society

Elliott Wood Partnership Ltd
Central London • Wimbledon • Nottingham
Consulting Structural and Civil Engineers
(020) 7499 5888 • elliottwood.co.uk

Project

Proposed Great Wolf Lodge, Chesterton, Bicester, Oxfordshire

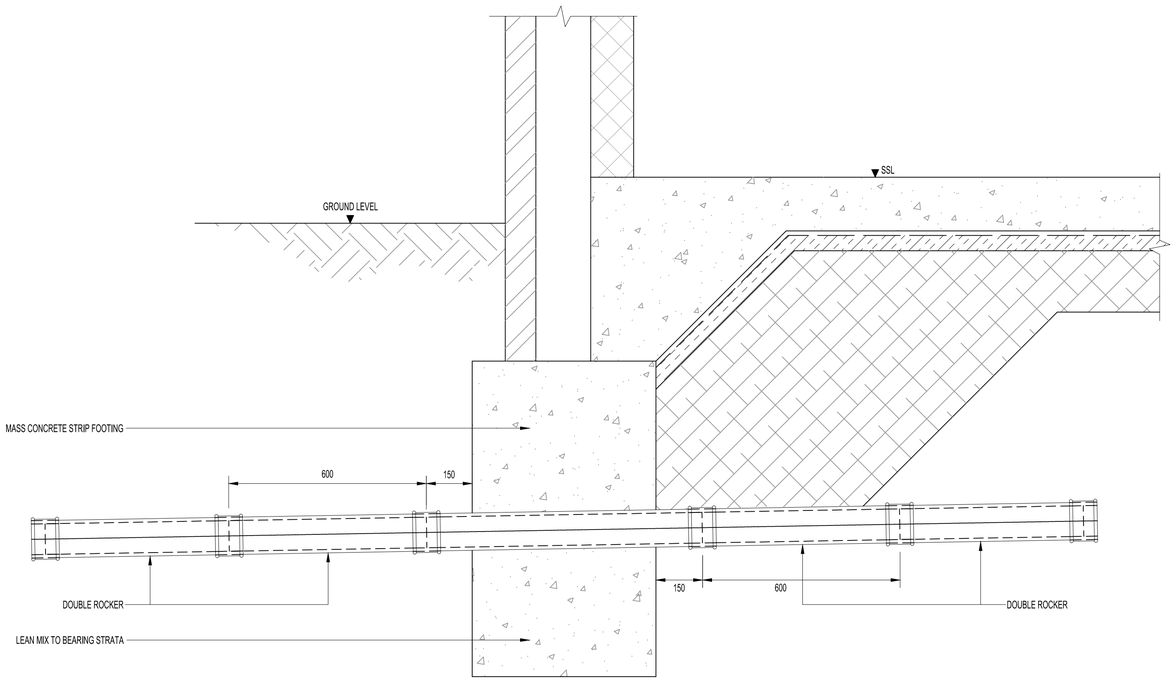
Drawing title

Typical Below Ground Drainage Details

Scale (s)	Date	Drawn
AS NOTED	February 2022	HHu

Drawing status: Preliminary — Status S2 — Revision P3

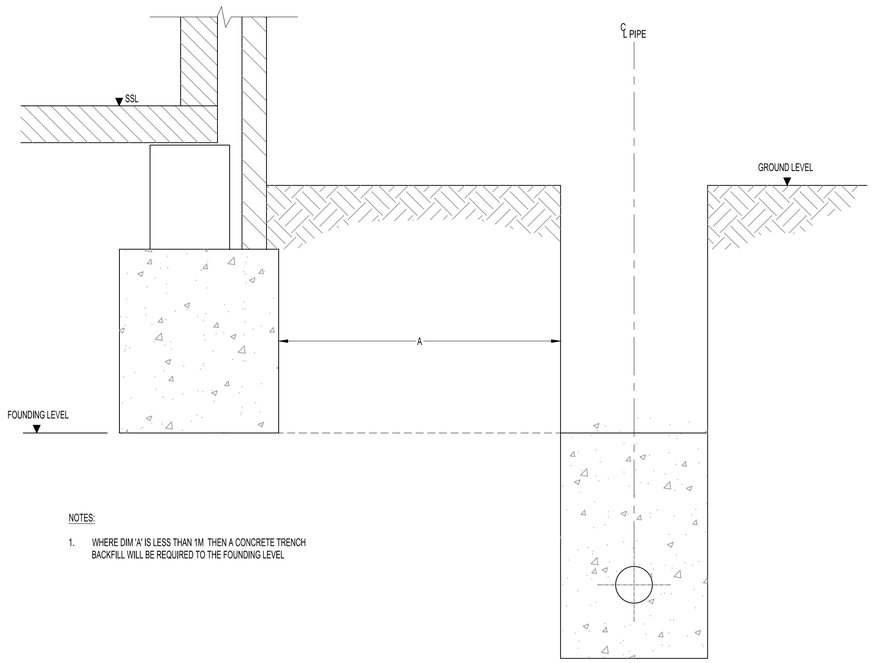
Project no. 2180501 - Originator EWP - Zone ZZ - Level XX - Type DT - Role C - drg no. 3002



SECTION

TYPICAL PIPE PENETRATING STRIP FOOTING

SCALE: 1:10

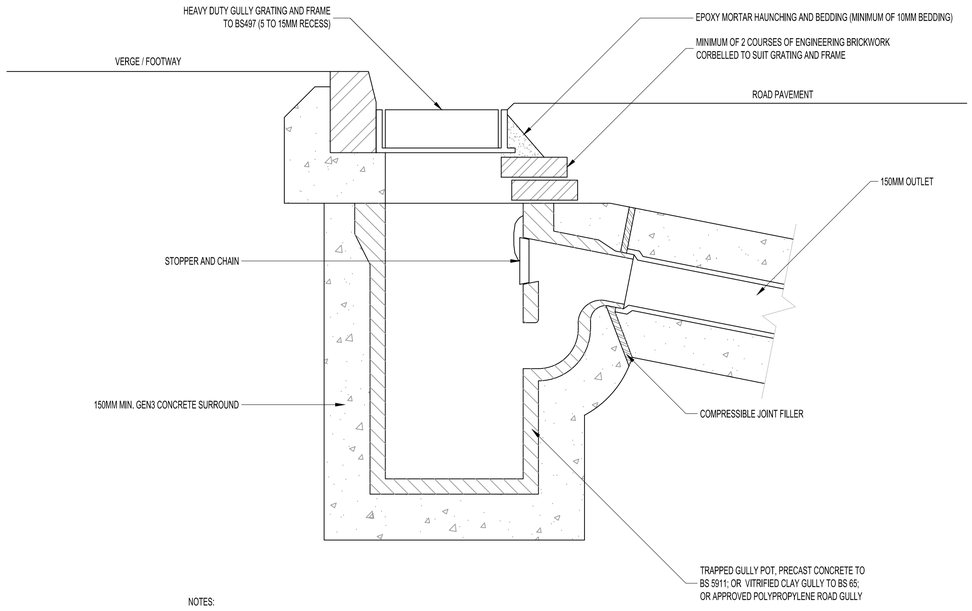


NOTES:

1. WHERE DIM 'A' IS LESS THAN 1M THEN A CONCRETE TRENCH BACKFILL WILL BE REQUIRED TO THE FOUNDING LEVEL

PIPE RUNS NEAR BUILDINGS: A < 1M

SCALE: 1:10



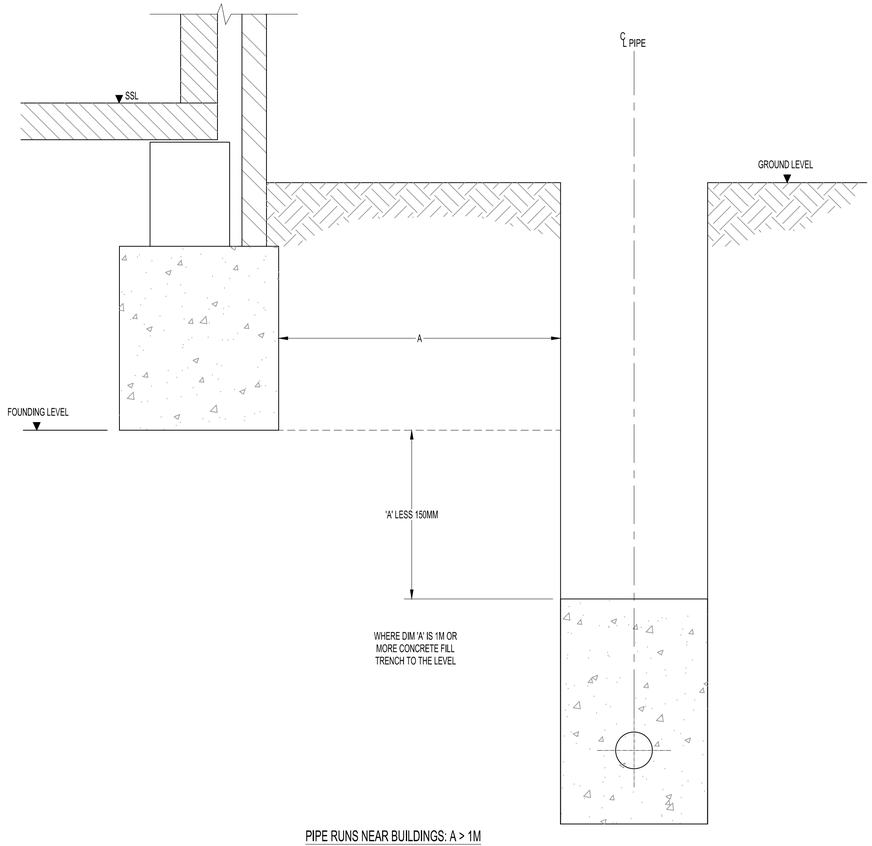
NOTES:

1. WHERE GULLY IS LOCATED AWAY FROM KERB, SURROUNDING PARKING / ROAD SURFACE TO FALL TOWARDS RECESSED GULLY GRATING
2. CLASSES OF MORTAR AND CONCRETE SHALL BE IN ACCORDANCE WITH DEPARTMENT OF TRANSPORT 'SPECIFICATION FOR HIGHWAY WORKS'

SECTION

TYPICAL TRAPPED ROAD GULLY

SCALE: 1:10



PIPE RUNS NEAR BUILDINGS: A > 1M

SCALE: 1:10

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

Do not scale from this drawing.

Notes:

1. All dimensions are in millimeters unless stated otherwise.
2. This drawing should not be scaled.
3. This drawing should be read in conjunction with the below ground drainage drawing(s) and manhole schedule(s).
4. This drawing should be read in conjunction with all relevant Architect's, Engineer's and Services Engineer's specifications and drawings.
5. All drainage shall be constructed in accordance with the relevant provisions of current Building Regulations, BS EN 752, BS EN 12056 and Sewers for Adoption as appropriate.
6. Pre-cast concrete products shall comply with the relevant provisions of BS 5911: Part 2, 200 & 230.
7. Details surrounding proprietary products and systems are indicative only. contractor to ensure all systems are installed strictly in accordance with the manufactures details.
8. All external manhole covers and frames located within vehicular areas are to be load class D400 and be 150mm deep unless stated otherwise.
9. All external manhole covers and frames located within pedestrian areas are to be load class B125 unless stated otherwise.
10. All external manhole covers and frames are to be installed square to the building, paving or highway channel lines.
11. All external manhole covers and frames shall comply with the relevant provisions of BS EN 124 and BS 7903 and shall be non-ventilated (single sealed) with closed keyways unless stated otherwise.
12. All internal manhole covers and frames are to be double sealed and recessed unless stated otherwise.
13. All manhole covers located on grease traps are to be double sealed.
14. Manhole cover frames shall be bedded on a gauged class 1 (3:1) sand/cement mortar to clause 2402 of SHW - mortar designation (i), and between 2 and 4 courses of engineering brickwork class 'b' to BS EN 771-1:2011 or precast concrete adjusting units - corbelling to be no more than 30mm per course.
15. Manholes < 3m deep shall be installed with type d class 1 steps, complying with the requirements of BS EN 13101:2002.
16. Manholes > 3m deep shall be installed with an appropriate fixed ladder complying with the requirements of BS EN 14396:2004.
17. Where rigid pipes are used, a flexible joint shall be provided as close as is feasible to the outside face of any structure into which a pipe is built, within 150mm for pipe diameters less than 300mm. The design of the joints shall be compatible with any subsequent movement. Rocker pipe lengths shall be in accordance with Table 1, unless stated otherwise.

Table 1	
Nominal Diameter (mm)	Effective Length (m)
150 - 600	0.6
600 - 750	1.0
over 750	1.25

18. Insitu concrete base and surround shall be class 'GEN3' in accordance with 'BRE Special Digest 1 - Concrete in Aggressive Ground' and the requirement of 'Sewers for Adoption'.

NOT FOR CONSTRUCTION

rev	sc	date	by	chk	description
P3	S2	17.06.22	PDa	HHu	Issued for planning condition discharge
P2	S2	30.03.22	PDa	HHu	RIBA Stage 3 issue
P1	S2	18.02.22	HHu	PDa	RIBA 3 Part 1 Issue

elliottwood engineering a better society

Elliott Wood Partnership Ltd
Central London • Wimbledon • Nottingham
Consulting Structural and Civil Engineers
(020) 7499 5888 • elliottwood.co.uk

Project

Proposed Great Wolf Lodge, Chesterton, Bicester, Oxfordshire

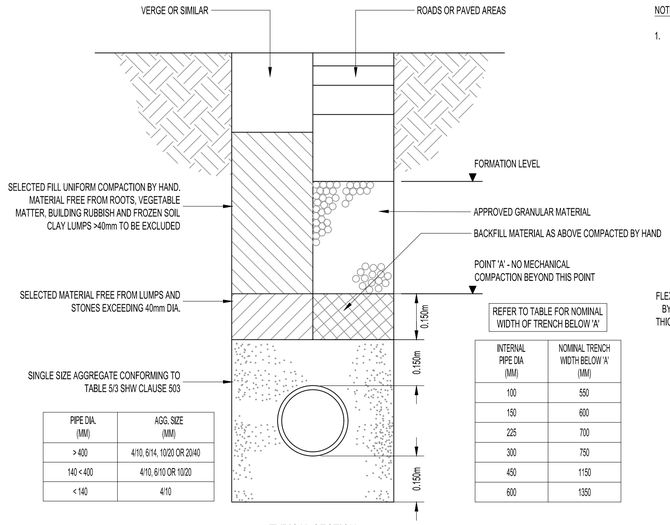
Drawing title

Typical Below Ground Drainage Details

Scale (s)	Date	Drawn
AS NOTED	February 2022	HHu

Drawing status: Preliminary — Status S2 — Revision P3

Project no. 2180501 - Originator EWP - Zone ZZ - Level XX - Type DT - Role C - drg no. 3003



PIPE DIA. (MM)	AGG. SIZE (MM)
> 400	4/10, 6/14, 10/20 OR 20/40
140 < 400	4/10, 6/10 OR 10/20
< 140	4/10

REFER TO TABLE FOR NOMINAL WIDTH OF TRENCH BELOW 'A'

INTERNAL PIPE DIA (MM)	NOMINAL TRENCH WIDTH BELOW 'A' (MM)
100	550
150	600
225	700
300	750
450	1150
600	1350

NOTES:

1. PIPEWORK TO BE LAID IN TYPE S GENERALLY BUT ARE TO BE LAID IN TYPE Z WHERE COVER IS LESS THAN:

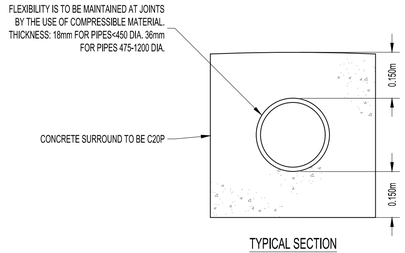
   600mm UNDER SOFT LANDSCAPED AREAS
   900mm UNDER NON TRAFFICKED AREAS I.E. FOOTPATHS
   1200mm UNDER ROADS

TYPICAL SECTION

PIPE BEDDING AND SURROUND - EXTERNAL

GRANULAR BEDDING - TYPE S

SCALE: 1:10

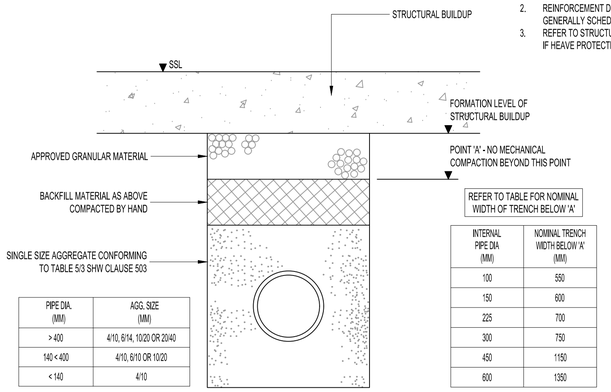


TYPICAL SECTION

PIPE BEDDING AND SURROUND - EXTERNAL

CONCRETE SURROUND - TYPE Z

SCALE: 1:10



PIPE DIA. (MM)	AGG. SIZE (MM)
> 400	4/10, 6/14, 10/20 OR 20/40
140 < 400	4/10, 6/10 OR 10/20
< 140	4/10

REFER TO TABLE FOR NOMINAL WIDTH OF TRENCH BELOW 'A'

INTERNAL PIPE DIA (MM)	NOMINAL TRENCH WIDTH BELOW 'A' (MM)
100	550
150	600
225	700
300	750
450	1150
600	1350

NOTES:

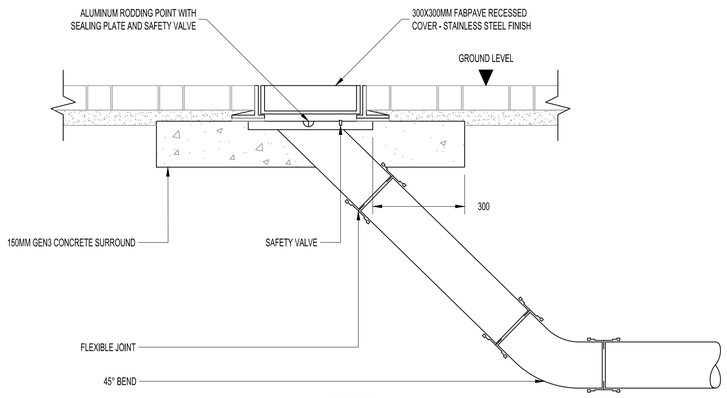
1. PIPEWORK TO BE LAID IN TYPE W GENERALLY BUT ARE TO BE LAID IN TYPE Y WHERE COVER IS LESS THAN 300mm TO THE PIPE SOFFIT
2. REINFORCEMENT DETAILED IN TYPE Y IS NOT GENERALLY SCHEDULED
3. REFER TO STRUCTURAL ENGINEERS DETAILS IF HEAVE PROTECTION IS REQUIRED.

TYPICAL SECTION

PIPE BEDDING AND SURROUND - UNDER BUILDINGS

GRANULAR BEDDING - TYPE W

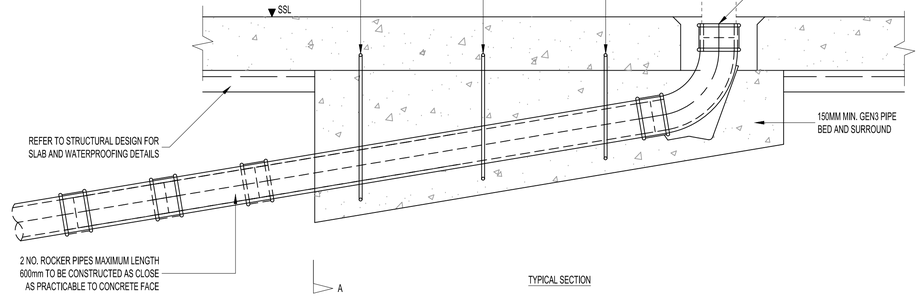
SCALE: 1:10



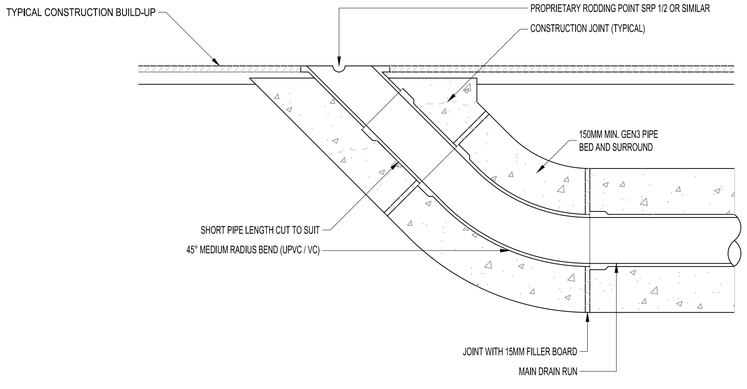
SECTION

TYPICAL RECESSED RODDING EYE

SCALE: 1:10



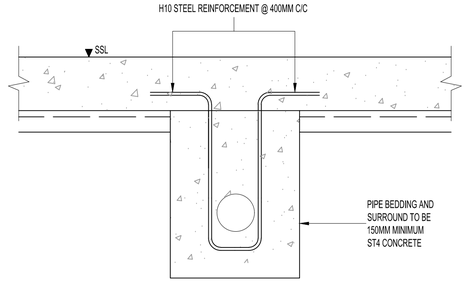
TYPICAL SECTION



SECTION

TYPICAL RODDING EYE

SCALE: 1:10



SECTION A - A

GRANULAR BEDDING - TYPE Y

SCALE: 1:10

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

Do not scale from this drawing.

Notes:

1. All dimensions are in millimeters unless stated otherwise.
2. This drawing should not be scaled.
3. This drawing should be read in conjunction with the below ground drainage drawing(s) and manhole schedule(s).
4. This drawing should be read in conjunction with all relevant Architect's, Engineer's and Services Engineer's specifications and drawings.
5. All drainage shall be constructed in accordance with the relevant provisions of current Building Regulations, BS EN 752, BS EN 12056 and Sewers for Adoption as appropriate.
6. Pre-cast concrete products shall comply with the relevant provisions of BS 5911: Part 2, 200 & 230.
7. Details surrounding proprietary products and systems are indicative only, contractor to ensure all systems are installed strictly in accordance with the manufactures details.
8. All external manhole covers and frames located within vehicular areas are to be load class D400 and be 150mm deep unless stated otherwise.
9. All external manhole covers and frames located within pedestrian areas are to be load class B125 unless stated otherwise.
10. All external manhole covers and frames are to be installed square to the building, paving or highway channel lines.
11. All external manhole covers and frames shall comply with the relevant provisions of BS EN 124 and BS 7903 and shall be non-ventilated (single sealed) with closed keyways unless stated otherwise.
12. All internal manhole covers and frames are to be double sealed and recessed unless stated otherwise.
13. All manhole covers located on grease traps are to be double sealed.
14. Manhole cover frames shall be bedded on a gauged class 1 (3:1) sand/cement mortar to clause 2402 of SHW - mortar designation (i), and between 2 and 4 courses of engineering brickwork class 'b' to BS EN 771-1:2011 or precast concrete adjusting units - corbelling to be no more than 30mm per course.
15. Manholes < 3m deep shall be installed with type d class 1 steps, complying with the requirements of BS EN 13101:2002.
16. Manholes > 3m deep shall be installed with an appropriate fixed ladder complying with the requirements of BS EN 14396:2004.
17. Where rigid pipes are used, a flexible joint shall be provided as close as is feasible to the outside face of any structure into which a pipe is built, within 150mm for pipe diameters less than 300mm. The design of the joints shall be compatible with any subsequent movement. Rocker pipe lengths shall be in accordance with Table 1, unless stated otherwise.

Table 1	
Nominal Diameter (mm)	Effective Length (m)
150 - 600	0.6
600 - 750	1.0
over 750	1.25

18. Insitu concrete base and surround shall be class 'GEN3' in accordance with 'BRE Special Digest 1 - Concrete in Aggressive Ground' and the requirement of 'Sewers for Adoption'.

NOT FOR CONSTRUCTION

rev	sc	date	by	chk	description
P3	S2	17.06.22	PDa	HHu	Issued for planning condition discharge
P2	S2	30.03.22	PDa	HHu	RIBA Stage 3 issue
P1	S2	18.02.22	HHu	PDa	RIBA 3 Part 1 Issue

elliottwood engineering a better society

Elliott Wood Partnership Ltd
Central London • Wimbledon • Nottingham
Consulting Structural and Civil Engineers
(020) 7499 5888 • elliottwood.co.uk

Project

Proposed Great Wolf Lodge, Chesterton, Bicester, Oxfordshire

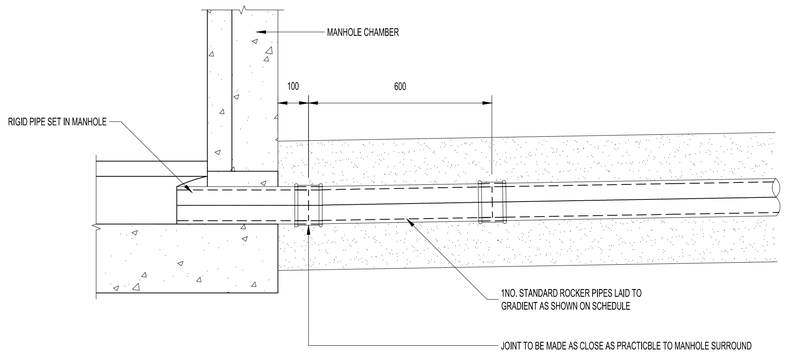
Drawing title

Typical Below Ground Drainage Details

Scale (s)	Date	Drawn
AS NOTED	February 2022	HHu

Drawing status: Preliminary — Status S2 — Revision P3

Project no. 2180501 - Originator EWP - Zone ZZ - Level XX - Type DT - Role C - drg no. 3004

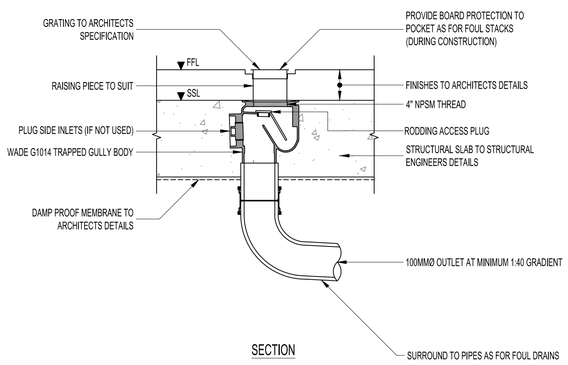


SECTION

TYPICAL ROCKER PIPE DETAIL

SCALE: 1:10

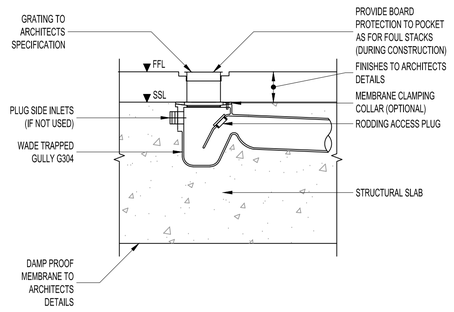
SUITABLE FOR PIPES SIZES UP TO 600MM INTERNAL DIAMETER



SECTION

TYPICAL WADE 1014 TRAPPED VERTICAL OUTLET FLOOR GULLY

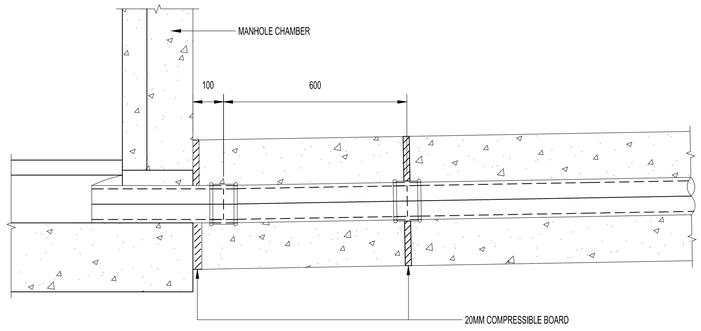
SCALE: 1:10



SECTION

TYPICAL WADE 304 TRAPPED HORIZONTAL OUTLET FLOOR GULLY

SCALE: 1:10

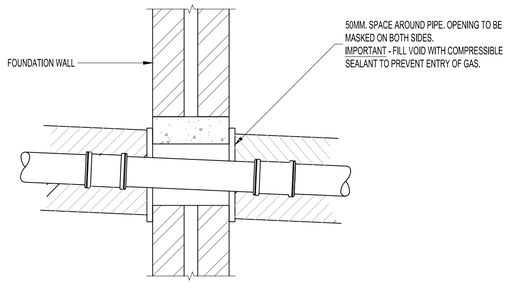


SECTION

TYPICAL ROCKER PIPE DETAIL IN CONCRETE SURROUND

SCALE: 1:10

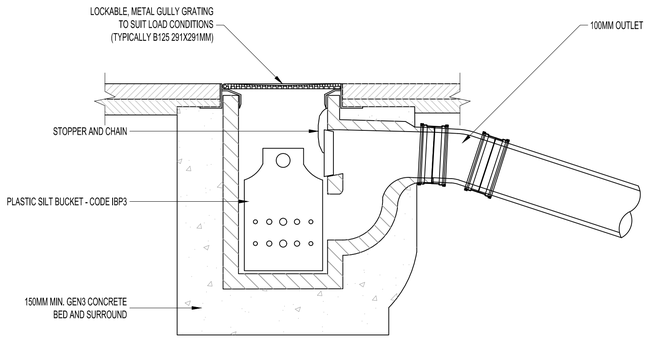
SUITABLE FOR PIPES SIZES UP TO 600MM INTERNAL DIAMETER



SECTION

TYPICAL PIPE THROUGH FOUNDATION

SCALE: 1:10



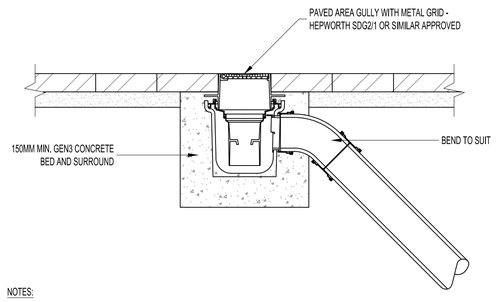
NOTES:

1. DIMENSIONS NOTED ARE TYPICAL OF HEPWORTH YARD GULLY - TYPE RGP6. ALTERNATIVE MANUFACTURERS DETAILS MAY VARY SLIGHTLY AND AMENDMENTS TO CORRESPONDING OUTLETS / FALLS SHOULD BE CARRIED OUT AS APPROPRIATE WITHIN THOSE PARAMETERS LAID OUT IN THE DESIGN AND SPECIFICATION. YARD GULLY CAN CATER FOR UP TO A 100M² AREA
2. WHERE GULLY IS LOCATED AWAY FROM KERB THE SURROUNDING PAVEMENT SURFACE IS TO FALL LOCALLY TOWARDS THE RECESSED GULLY GRATING

SECTION

TYPICAL YARD GULLY

SCALE: 1:10



NOTES:

1. DIMENSIONS NOTED ARE TYPICAL OF HEPWORTH PAVED AREA GULLY. ALTERNATIVE MANUFACTURERS DETAILS MAY VARY SLIGHTLY AND AMENDMENTS TO CORRESPONDING OUTLETS / FALLS SHOULD BE CARRIED OUT AS APPROPRIATE WITHIN THOSE PARAMETERS LAID OUT IN THE DESIGN AND SPECIFICATION. PAVED AREA GULLY CAN CATER FOR UP TO A 50M² AREA
2. WHERE GULLY IS LOCATED AWAY FROM KERB THE SURROUNDING PAVEMENT SURFACE IS TO FALL LOCALLY TOWARDS THE RECESSED GULLY GRATING

SECTION

TYPICAL PAVED AREA GULLY

SCALE: 1:10

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

Do not scale from this drawing.

Notes:

1. All dimensions are in millimeters unless stated otherwise.
2. This drawing should not be scaled.
3. This drawing should be read in conjunction with the below ground drainage drawing(s) and manhole schedule(s).
4. This drawing should be read in conjunction with all relevant Architect's, Engineer's and Services Engineer's specifications and drawings.
5. All drainage shall be constructed in accordance with the relevant provisions of current Building Regulations, BS EN 752, BS EN 12056 and Sewers for Adoption as appropriate.
6. Pre-cast concrete products shall comply with the relevant provisions of BS 5911: Part 2, 200 & 230.
7. Details surrounding proprietary products and systems are indicative only. contractor to ensure all systems are installed strictly in accordance with the manufactures details.
8. All external manhole covers and frames located within vehicular areas are to be load class D400 and be 150mm deep unless stated otherwise.
9. All external manhole covers and frames located within pedestrian areas are to be load class B125 unless stated otherwise.
10. All external manhole covers and frames are to be installed square to the building, paving or highway channell lines.
11. All external manhole covers and frames shall comply with the relevant provisions of BS EN 124 and BS 7903 and shall be non-ventilated (single sealed) with closed keyways unless stated otherwise.
12. All internal manhole covers and frames are to be double sealed and recessed unless stated otherwise.
13. All manhole covers located on grease traps are to be double sealed.
14. Manhole cover frames shall be bedded on a gauged class 1 (3:1) sand/cement mortar to clause 2402 of SHW - mortar designation (i), and between 2 and 4 courses of engineering brickwork class 'b' to BS EN 771-1:2011 or precast concrete adjusting units - corbelling to be no more than 30mm per course.
15. Manholes < 3m deep shall be installed with type d class 1 steps, complying with the requirements of BS EN 13101:2002.
16. Manholes > 3m deep shall be installed with an appropriate fixed ladder complying with the requirements of BS EN 14396:2004.
17. Where rigid pipes are used, a flexible joint shall be provided as close as is feasible to the outside face of any structure into which a pipe is built, within 150mm for pipe diameters less than 300mm. The design of the joints shall be compatible with any subsequent movement. Rocker pipe lengths shall be in accordance with Table 1, unless stated otherwise.

Table 1	
Nominal Diameter (mm)	Effective Length (m)
150 - 600	0.6
600 - 750	1.0
over 750	1.25

18. Insitu concrete base and surround shall be class 'GEN3' in accordance with 'BRE Special Digest 1 - Concrete in Aggressive Ground' and the requirement of 'Sewers for Adoption'.

NOT FOR CONSTRUCTION

rev	sc	date	by	chk	description
P3	S2	17.06.22	PDa	HHu	Issued for planning condition discharge
P2	S2	30.03.22	PDa	HHu	RIBA Stage 3 issue
P1	S2	18.02.22	HHu	PDa	RIBA 3 Part 1 Issue

elliottwood engineering a better society

Elliott Wood Partnership Ltd
Central London • Wimbledon • Nottingham
Consulting Structural and Civil Engineers
(020) 7499 5888 • elliottwood.co.uk

Project

Proposed Great Wolf Lodge, Chesterton, Bicester, Oxfordshire

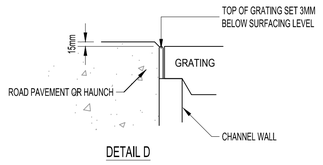
Drawing title

Typical Below Ground Drainage Details

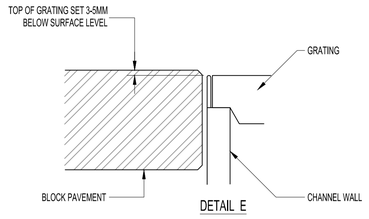
Scale (s)	Date	Drawn
AS NOTED	February 2022	HHu

Drawing status: Preliminary — Status: S2 — Revision: P3

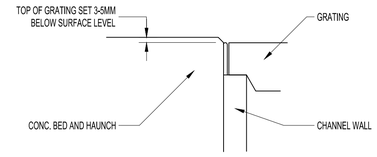
Project no. 2180501 - Originator: EWP - Zone: ZZ - Level: XX - Type: DT - Role: C - drg no.: 3005



DETAIL D

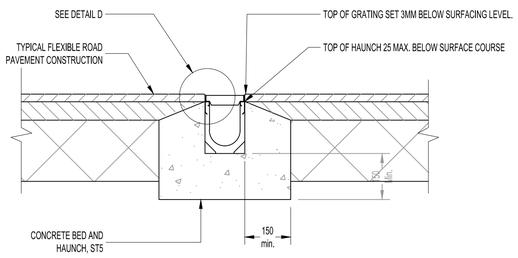


DETAIL E



DETAIL F

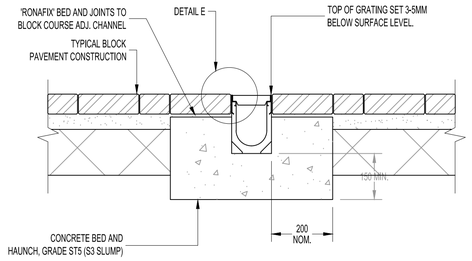
NOTE:
10mm HEELSAFE BRICKSLOT GRATING REQUIRED



SECTION

TYPICAL ACO M100D LINEAR CHANNEL DRAIN WITH HEELGUARD GRATING IN A FLEXIBLE PAVEMENT

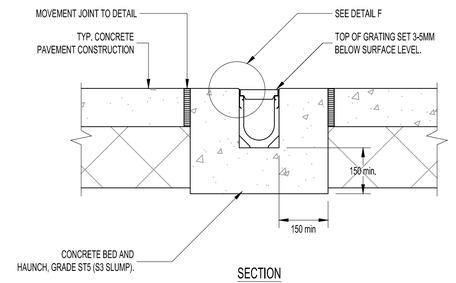
SCALE: 1:10



SECTION

TYPICAL ACO M100D LINEAR CHANNEL DRAIN WITH HEELGUARD GRATING IN A BLOCK PAVEMENT

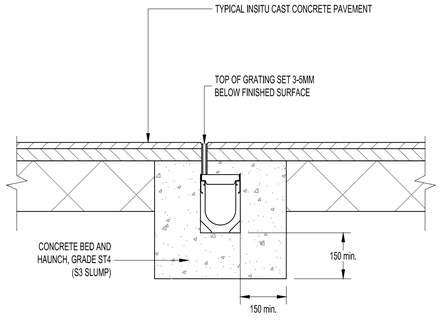
SCALE: 1:10



SECTION

TYPICAL ACO M100D LINEAR CHANNEL DRAIN WITH HEELGUARD GRATING IN AN INSITU CAST PAVEMENT

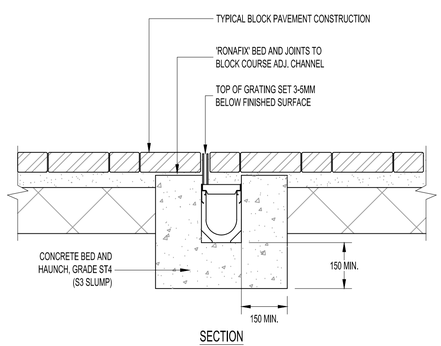
SCALE: 1:10



SECTION

TYPICAL ACO M100D LINEAR CHANNEL DRAIN WITH BRICKSLOT GRATING IN FLEXIBLE PAVEMENT

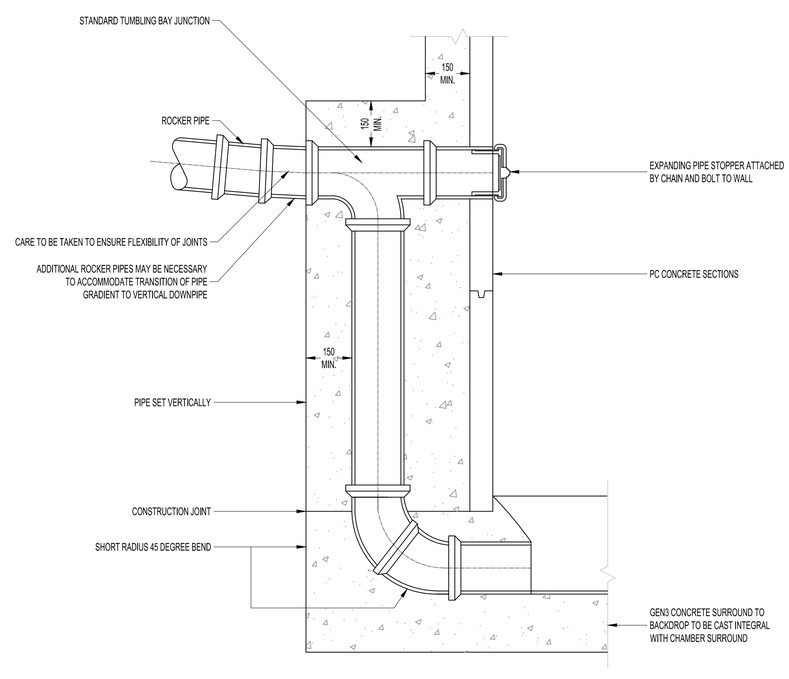
SCALE: 1:10



SECTION

TYPICAL ACO M100D LINEAR CHANNEL DRAIN WITH BRICKSLOT GRATING IN BLOCK PAVING

SCALE: 1:10



SECTION

TYPICAL EXTERNAL BACKDROP

SCALE: 1:10

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

Do not scale from this drawing.

Notes:

1. All dimensions are in millimeters unless stated otherwise.
2. This drawing should not be scaled.
3. This drawing should be read in conjunction with the below ground drainage drawing(s) and manhole schedule(s).
4. This drawing should be read in conjunction with all relevant Architect's, Engineer's and Services Engineer's specifications and drawings.
5. All drainage shall be constructed in accordance with the relevant provisions of current Building Regulations, BS EN 752, BS EN 12056 and Sewers for Adoption as appropriate.
6. Pre-cast concrete products shall comply with the relevant provisions of BS 5911: Part 2, 200 & 230.
7. Details surrounding proprietary products and systems are indicative only. contractor to ensure all systems are installed strictly in accordance with the manufactures details.
8. All external manhole covers and frames located within vehicular areas are to be load class D400 and be 150mm deep unless stated otherwise.
9. All external manhole covers and frames located within pedestrian areas are to be load class B125 unless stated otherwise.
10. All external manhole covers and frames are to be installed square to the building, paving or highway channel lines.
11. All external manhole covers and frames shall comply with the relevant provisions of BS EN 124 and BS 7903 and shall be non-ventilated (single sealed) with closed keyways unless stated otherwise.
12. All internal manhole covers and frames are to be double sealed and recessed unless stated otherwise.
13. All manhole covers located on grease traps are to be double sealed.
14. Manhole cover frames shall be bedded on a gauged class 1 (3:1) sand/cement mortar to clause 2402 of SHW - mortar designation (i), and between 2 and 4 courses of engineering brickwork class 'b' to BS EN 771-1:2011 or precast concrete adjusting units - corbelling to be no more than 30mm per course.
15. Manholes < 3m deep shall be installed with type d class 1 steps, complying with the requirements of BS EN 13101:2002.
16. Manholes > 3m deep shall be installed with an appropriate fixed ladder complying with the requirements of BS EN 14396:2004.
17. Where rigid pipes are used, a flexible joint shall be provided as close as is feasible to the outside face of any structure into which a pipe is built, within 150mm for pipe diameters less than 300mm. The design of the joints shall be compatible with any subsequent movement. Rocker pipe lengths shall be in accordance with Table 1, unless stated otherwise.

Table 1	
Nominal Diameter (mm)	Effective Length (m)
150 - 600	0.6
600 - 750	1.0
over 750	1.25

18. Insitu concrete base and surround shall be class 'GEN3' in accordance with 'BRE Special Digest 1 - Concrete in Aggressive Ground' and the requirement of 'Sewers for Adoption'.

NOT FOR CONSTRUCTION

rev	sc	date	by	chk	description
P3	S2	17.06.22	PDa	HHu	Issued for planning condition discharge
P2	S2	30.03.22	PDa	HHu	RIBA Stage 3 issue
P1	S2	18.02.22	HHu	PDa	RIBA 3 Part 1 Issue

elliottwood engineering a better society

Elliott Wood Partnership Ltd
Central London • Wimbledon • Nottingham
Consulting Structural and Civil Engineers
(020) 7499 5888 • elliottwood.co.uk

Project

Proposed Great Wolf Lodge, Chesterton, Bicester, Oxfordshire

Drawing title

Typical Below Ground Drainage Details

Scale (s)	Date	Drawn
AS NOTED	February 2022	HHu

Drawing status: Preliminary — Status S2 — Revision P3

Project no. 2180501 - Originator EWP - Zone ZZ - Level XX - Type DT - Role C - drg no. 3006