

19. APPENDIX M - LEVEL AND GRADIENT DISCREPANCIES UPDTE FROM HYDROCK

Drainage changes from DOC to As Built.												
SW MH	As built level	DOC Level	Difference	Length	Upstream level (m)	Downstream level (m)	Outlet Pipe diameter (mm)	Downstream Pipe diameter (mm)	Invert level difference (Pipes laid soffit to soffit) (m)	Gradient 1 in x	Hydrock as-built Gradient 1 in x	Discrepancy on Hydrock As-built drawings / notes
Main Carrier Drain												
SW 1000	0.967	0.945	22mm	65.781	0.967	0.831	450	450	0.000	484	400	Yes
SW 1001	0.831	0.830	1mm	47.640	0.831	0.682	450	450	0.000	320	400	Yes
SW 1002	0.682	0.680	2mm	74.050	0.682	0.517	450	450	0.000	449	400	Yes
SW 1003	0.517	0.500	17mm	78.835	0.517	0.313	450	450	0.000	386	400	Yes
SW 1004	0.313	0.295	18mm	16.598	0.313	0.262	450	450	0.000	325	400	Yes
SW 1005	0.262	0.265	3mm	8.325	0.262	0.251	450	450	0.000	757	400	Yes
Outfall 1	0.251	0.250	1mm									
Unit 2												
SW 200	1.813	1.820	7mm	43.259	1.813	1.442	450	450	0.000	117	450	Yes
SW 201a	1.442	1.460	18mm	48.783	1.442	1.076	450	450	0.000	133	450	Yes
SW 201	1.076	1.055	21mm	13.746	1.076	0.953	450	450	0.000	112	450	Yes
SW 202	0.953	0.935	18mm	12.393	0.953	0.810	450	450	0.000	87	450	Yes
SW 203	0.810	0.795	15mm	12.904	0.810	0.745	450	450	0.000	199	450	Yes
SW 204	0.745	0.730	15mm	71.041	0.745	0.567	450	450	0.000	399	400	No
SW 205a	0.567	0.550	17mm	5.939	0.567	0.501	450	300	0mm Laid invert level to invert level	90	400	n/a
SW 206	1.716	1.725	9mm	71.682	1.716	0.995	225	225	0.000	99	100	No
SW 207	0.995	0.975	20mm	11.276	0.995	0.539	225	225	0.000	25	40	
SW 209	0.539	0.520	19mm	15.075	0.539	0.501	450	300	0mm Laid invert level to invert level	397		Note manhole position and upstream pipes not aligning properly on drawing
SW 210	1.432	1.450	18mm	60.744	1.432	0.836	300	300	0.000	102	100	No
SW 211	0.836	0.850	14mm	14.418	0.836	0.716	300	300	0.000	120	100	Yes
SW 212	0.716	0.730	14mm	9.500	0.716	0.531	300	300	0.000	51	100	Yes
SW 211a	1.236	1.250	14mm	23.089	1.236	1.076	225	450	0mm Laid invert level to invert level	144	Not shown	Note this chamber is not shown on Hydrock Drawing
SW 213	0.531	0.525	6mm	42.195	0.531	0.539	450	450	0.000	-5274	Tank	minor fall of 8mm in the wrong direction. Proportion of attenuation tank will have max 8mm standing water. ADBLY to check levels.
FC 201	0.501	0.485	16mm	12.390	0.501	0.313	300	450	0.150	326	300	Yes
Access Road												
SW 501	2.069	2.085	16mm	74.508	2.069	1.726	300	300	0.000	217	300	Yes
SW 502	1.726	1.710	16mm	65.940	1.726	1.222	300	450	0.150	186	300	Note Hydrock Access Road Drainage Layout drawing (SAL-HYD) PH1-ZZ-DR-C-7022 Phase 1) differs from ADBLY as built drawing. SMH-502a now removed. Hydrock to update
SW 503	1.222	1.230	8mm	89.059	1.222	0.932	450	600	0.150	636	400	Yes
SW 504	0.932	0.850	82mm	9.526	0.932	0.903	600	600	0.000	328	380	Note ADBLY manhole reference incorrect, differs from Hydrock as built drawing
SW 505	0.903	0.830	73mm	49.498	0.903	0.795	600	600	0.000	458	not shown	Note ADBLY manhole reference incorrect, differs from Hydrock as built drawing
SW 505a	0.795	0.770	25mm	48.134	0.795	0.728	tank	tank	0.000	718	not shown	
SW 505b	0.728	0.715	13mm	59.343	0.728	0.625	tank	tank	0.000	576	not shown	
FC 501	0.625	0.640	15mm	25.914	0.625	0.431	600	225	0mm Laid invert level to invert level	134	125	Note ADBLY manhole reference incorrect, differs from Hydrock as built drawing
SW 507	0.431	0.445	14mm	5.383	0.431	0.384	225	225	0.000	115	not shown	
Outfall 2	0.384	0.390	6mm									
SW 508	0.988	1.000	12mm	34.750	0.988	0.625	225	225	0.000	96	100	Yes
SW 509	0.827	0.800	27mm	10.209	0.827	0.625	225	225	0.000	51	150	Yes
SW 510	1.621	1.610	11mm	56.113	1.621	1.222	300	450	150.000	225	220	Yes
SW 511b	1.617	1.420	21mm	38.443	1.617	1.441	300	300	0.000	218	210	Yes
SW 511	1.441	1.605	12mm	29.192	1.441	0.932	300	600	300.000	139	110	Yes
Unit 9												
SW 401	1.691	1.700	9mm	10.365	1.691	1.659	225	450	225.000	323	200	not laid soffit to soffit. Pipe gradient sub-standard
SW 402	1.659	1.650	9mm	14.610	1.659	1.552	450	450	0.000	137	200	Yes
SW 403	1.552	1.575	23mm	15.904	1.552	1.487	450	450	0.000	245	200	Yes
SW 404	1.487	1.495	8mm	17.558	1.487	1.393	450	450	0.000	187	200	Yes
SW 405	1.393	1.390	3mm	14.647	1.393	1.353	450	450	0.000	366	Tank	n/a
SW 406	1.353	1.380	27mm	8.979	1.353	1.312	450	450	0.000	219	400	Yes
SW 408	1.312	1.335	23mm	4.518	1.312	1.302	450	450	0.000	452	400	Yes
SW 407	1.681	1.700	9mm	24.977	1.681	1.312	450	450	0.000	68	200	Yes
SW 409	1.302	1.320	18mm	41.169	1.302	1.126	450	450	0.000	234	400	Yes
SW 410	1.126	1.130	4mm	17.223	1.126	1.083	450	450	0.000	401	400	No
SW 411	1.083	1.095	12mm	9.698	1.083	1.028	450	450	0.000	176	400	Yes
FC 401	1.028	1.075	47mm	7.592	1.028	0.967	300	450	0mm Laid invert level to invert level	124	150	Yes
SW 413	1.719	1.700	19mm	24.219	1.719	1.519	225	225	0.000	121	150	Yes
SW 414	1.519	1.510	8mm	39.201	1.519	1.126	225	450	225.000	233	200	Yes
SW 415	1.854	1.825	29mm	7.465	1.854	1.759	225	225	0.000	79	150	Yes
SW 416	1.759	1.755	4mm	31.897	1.759	1.666	225	225	0.000	343	150	Yes
SW 417	1.666	1.660	6mm	5.277	1.666	1.464	225	450	225.000	26	150	Yes
SW 418	1.464	1.460	4mm	45.292	1.464	1.353	450	450	0.000	408	tank	Yes
SW 420	1.942	1.915	27mm	29.464	1.942	1.731	225	225	0.000	140	150	Yes
SW 421	1.731	1.720	11mm	16.641	1.731	1.353	225	450	0mm Laid invert level to invert level	44	50	Yes
SW 423	1.942	1.965	23mm	13.320	1.942	1.659	225	450	225.000	230	150	Yes
SW 424	1.874	1.905	31mm	15.495	1.874	1.552	225	450	225.000	159	50	Yes
SW 425	1.841	1.870	29mm	22.852	1.841	1.487	225	450	225.000	177	60	Yes
Unit 1												
SW 900	1.657	1.657	0mm	24.370	1.657	1.205	450	450	0.000	54	300	Yes
SW 901	1.205	1.210	5mm	102.606	1.205	0.887	450	450	0.000	323	300	Length of run excessive. Future maintenance to allow for entry from both downstream and upstream ends
SW 902	0.887	0.880	7mm	115.788	0.887	0.479	450	450	0.000	284	300	Length of run excessive. Future maintenance to allow for entry from both downstream and upstream ends
SW 903	0.479	0.485	6mm	66.351	0.479	0.271	450	450	0.000	319	300	Length of run excessive. Future maintenance to allow for entry from both downstream and upstream ends
SW 904	0.271	0.265	6mm	19.234	0.271	0.225	450	450	0.000	418	300	Yes
SW 905	0.225	0.230	5mm	2.460	0.225	0.205	450	450	0.000	123	300	Yes
Outfall 3	0.205	0.205	0mm		0.205		450		-450.000			

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Main Carrier Drain												
SW 1000	0.967	0.945	22mm	65.781	0.967	0.831	450	450	0.000	484	400	Yes
SW 1001	0.831	0.830	1mm	47.640	0.831	0.682	450	450	0.000	320	400	Yes
SW 1002	0.682	0.680	2mm	74.050	0.682	0.517	450	450	0.000	449	400	Yes
SW 1003	0.517	0.500	17mm	78.835	0.517	0.313	450	450	0.000	386	400	Yes
SW 1004	0.313	0.295	18mm	16.598	0.313	0.262	450	450	0.000	325	400	Yes
SW 1005	0.262	0.265	3mm	8.325	0.262	0.251	450	450	0.000	757	400	Yes
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SW 203	0.810	0.795	15mm	12.904	0.810	0.745	450	450	0.000	199	450	Yes
SW 204	0.745	0.730	15mm	71.041	0.745	0.567	450	450	0.000	399	400	No
SW 205a	0.567	0.550	17mm	5.939	0.567	0.501	450	300	0mm Laid invert level to invert level	90	400	n/a
SW 206	1.716	1.725	9mm	71.682	1.716	0.995	225	225	0.000	99	100	No
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Outfall 2	0.384	0.390	6mm									
SW 508	0.988	1.000	12mm	34.750	0.988	0.625	225	225	0.000	96	100	Yes
SW 509	0.827	0.800	27mm	10.209	0.827	0.625	225	225	0.000	51	150	Yes
SW 510	1.621	1.610	11mm	56.113	1.621	1.222	300	450	150.000	225	220	Yes
SW 511b	1.617	1.420	21mm	38.443	1.617	1.441	300	300	0.000	218	210	Yes
SW 511	1.441	1.605	12mm	29.192	1.441	0.932	300	600	300.000	139	110	Yes
Unit 9												
SW 401	1.691	1.700	9mm	10.365	1.691	1.659	225	450	225.000	323	200	not laid soffit to soffit. Pipe gradient sub-standard
SW 402	1.659	1.650	9mm	14.610	1.659	1.552	450	450	0.000	137	200	Yes
SW 403	1.552	1.575	23mm	15.904	1.552	1.487	450	450	0.000	245	200	Yes
SW 404	1.487	1.495	8mm	17.558	1.487	1.393	450	450	0.000	187	200	Yes
SW 405	1.393	1.390	3mm	14.647	1.393	1.353	450	450	0.000	366	Tank	n/a
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SW 408	1.312	1.335	23mm	4.518	1.312	1.302	450	450	0.000	452	400	Yes
SW 407	1.681	1.700	9mm	24.977	1.681	1.312	450	450	0.000	68	200	Yes
SW 409	1.302	1.320	18mm	41.169	1.302	1.126	450	450	0.000	234	400	Yes
SW 410	1.126	1.130	4mm	17.223	1.126	1.083	450	450	0.000	401	400	No
SW 411	1.083	1.095	12mm	9.698	1.083	1.028	450	450	0.000	176	400	Yes
FC 401	1.028	1.075	47mm	7.592	1.028	0.967	300	450	0mm Laid invert level to invert level	124	150	Yes
SW 413	1.719	1.700	19mm	24.219	1.719	1.519	225	225	0.000	121	150	Yes
SW 414	1.519	1.510	8mm	39.201	1.519	1.126	225	450	225.000	233	200	Yes
SW 415	1.854	1.825	29mm	7.465	1.854	1.759	225	225	0.000	79	150	Yes
SW 416	1.759	1.755	4mm	31.897	1.759	1.666	225	225	0.000	343	150	Yes
SW 417	1.666	1.660	6mm	5.277	1.666	1.464	225	450	225.000	26	150	Yes
SW 418	1.464	1.460	4mm	45.292	1.464	1.353	450	450	0.000	408	tank	Yes
SW 420	1.942	1.915	27mm	29.464	1.942	1.731	225	225	0.000	140	150	Yes
SW 421	1.731	1.720	11mm	16.641	1.731	1.353	225	450	0mm Laid invert level to invert level	44	50	Yes
SW 423	1.942	1.965	23mm	13.320	1.942	1.659	225	450	225.000	230	150	Yes
SW 424	1.874	1.905	31mm	15.495	1.874	1.552	225	450	225.000	159	50	Yes
SW 425	1.841	1.870	29mm	22.852	1.841	1.487	225	450	225.000	177	60	Yes
Unit 1												
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SW 901	1.205	1.210	5mm	102.606	1.205	0.887	450	450	0.000	323	300	Length of run excessive. Future maintenance to allow for entry from both downstream and upstream ends
SW 902	0.887	0.880	7mm	115.788	0.887	0.479	450	450	0.000	284	300	Length of run excessive. Future maintenance to allow for entry from both downstream and upstream ends
SW 903	0.479	0.485	6mm	66.351	0.479	0.271	450	450	0.000	319	300	Length of run excessive. Future maintenance to allow for entry from both downstream and upstream ends
SW 904	0.271	0.265	6mm	19.234	0.271	0.225	450	450	0.000	418	300	Yes
SW 905	0.225	0.230	5mm	2.460	0.225	0.205	450	450	0.000	123	300	Yes
Outfall 3	0.205	0.205	0mm		0.205		450		-450.000			