

HYDROLOGICAL DESIGN SHEET

SLOPE				"n"	TIME	TIME	INTENSITY	CODE	COEFF	AREA	CA	SUM AREA	Q	BY PASS	TOTAL FLOW	GUTTER SLOPE	FLOW WIDTH	PIT TYPE	INLET	INFLOW	BY FLOW	BY PIT	KINEMATIC MIN TIME 5 MAX TIME 20 HAWKS NEST	REMARKS
%					min	min	mm/h			ha	ha	ha	L/s	L/s	L/s	%	m		m	L/s	L/s			
275	2	25	1	0.170	11.679		108	-0.5	0.652	0.174	0.113						1.915	1	1.8	43		275		
	4	35	0.5	0.010		11.7	5Yr	-0.9	0.814	0.036	0.029	0.143	43		43	0.5	0.03PH	SAG						
278	2	30	1	0.170	12.779		104	-0.5	0.652	0.133	0.087						1.889	1	1.8	29		276		
	4	30	0.5	0.010		12.8	5Yr	-0.9	0.814	0.017	0.014	0.101	29		29	0.5	0.03PH	SAG						
276	2	30	1	0.170	14.091		100	-0.5	0.652	0.160	0.104						1.926	1	1.8	34		276		
	4	60	0.5	0.010		14.1	5Yr	-0.9	0.814	0.022	0.018	0.122	34		34	0.5	0.03PH	SAG						
277	3	20	1	0.170	9.279		119	-0.5	0.652	0.054	0.035						1.434	1	1.8	16		277		
	4	15	0.5	0.010		9.3	5Yr	-0.9	0.814	0.015	0.012	0.047	16		16	0.5	0.03PH	SAG						
281	2	25	1	0.170	11.445		109	-0.5	0.652	0.140	0.091						2.014	1	1.8	34		281		
	4	30	0.5	0.010		11.4	5Yr	-0.9	0.814	0.025	0.020	0.112	34		34	0.5	0.03PH	SAG						
282	2	40	1	0.170	15.533		96	-0.5	0.652	0.211	0.138						2.108	1	2.4	42		282		
	4	35	0.5	0.010		15.5	5Yr	-0.9	0.814	0.025	0.020	0.158	42		42	0.5	0.03PH	SAG						
283	2	30	1	0.170	12.539		105	-0.5	0.652	0.113	0.074						1.77	1	1.8	25		282		
	4	25	0.5	0.010		12.5	5Yr	-0.9	0.814	0.015	0.012	0.086	25		25	0.5	0.03PH	SAG						
286	2	35	1	0.170	13.826		101	-0.5	0.652	0.163	0.106						1.995	1	1.8	33		287		
	4	25	0.5	0.010		13.8	5Yr	-0.9	0.814	0.015	0.012	0.118	33		33	0.5	0.03PH	SAG						
285	2	20	1	0.170	10.046		115	-0.5	0.652	0.144	0.094						2.055	1	1.8	36		287		
	4	30	0.5	0.010		10	5Yr	-0.9	0.814	0.021	0.017	0.111	36		36	0.573	1.997	1	1.8	36		287		
287	2	30	1	0.170	12.292		106	-0.5	0.652	0.290	0.189						2.055	1	2.4	59		287		
	4	20	0.5	0.010		12.3	5Yr	-0.9	0.814	0.015	0.012	0.201	59		59	0.5	0.04PH	SAG						
312	2	35	1	0.170	13.582		101	-0.5	0.652	0.228	0.149						1.731	1	2.4	48		312		
	4	20	0.5	0.010		13.6	5Yr	-0.9	0.814	0.025	0.020	0.169	48		48	0.5	0.03PH	SAG						
297	3	6	3	0.010	0.644		150	-0.3	0.571	0.005	0.003						1.053	1	1.8	9				
	4	10	3	0.010		5	5Yr	-0.9	0.814	0.022	0.018	0.021	9		9	0.52	0.03PH	SAG						
316	3	10	3	0.170	3.916		150	-0.3	0.571	0.019	0.011						0.924	1	1.8	10		317		
	4	6	0.5	0.010		5	5Yr	-0.9	0.814	0.015	0.012	0.023	10		10	1	0.924	1	1.8	10				
317	3	6	3	0.010	0.517		150	-0.3	0.571	0.005	0.003						0.516	1	1.8	5		294		
	4	6	3	0.010		5	5Yr	-0.9	0.814	0.010	0.008	0.011	5		5	0.891	0.516	1	1.8	5		294		
294	2	20	1	0.170	10.046		115	-0.5	0.652	0.130	0.085						2.047	1	1.8	39		294		
	4	30	0.5	0.010		10	5Yr	-0.9	0.814	0.046	0.037	0.122	39		39	0.5	0.03PH	SAG						
295	3	6	3	0.010	1.394		150	-0.9	0.814	0.015	0.012						0.05	21	1.8	21		297		
	4	40	3	0.010		5	5Yr	-0.9	0.814	0.046	0.037	0.05	21		21	0.891	14.28	1	1.8	21		297		
296	3	6	3	0.010	1.394		150	-0.9	0.814	0.015	0.012						0.05	21	1.8	21				
	4	40	3	0.010		5	5Yr	-0.9	0.814	0.046	0.037	0.05	21		21	0.891	14.28	1	1.8	21				
298	3	6	3	0.010	0.517		150	-0.3	0.571	0.005	0.003						0.516	1	1.8	5		299		
	4	6	3	0.010		5	5Yr	-0.9	0.814	0.010	0.008	0.011	5		5	0.891	0.516	1	1.8	5		299		
299	2	20	1	0.170	10.046		115	-0.5	0.652	0.118	0.077						1.991	1	1.8	37		299		
	4	30	0.5	0.010		10	5Yr	-0.9	0.814	0.046	0.037	0.114	37		37	0.5	0.03PH	SAG						
300	2	30	1	0.170	12.036		107	-0.5	0.652	0.084	0.055						1.506	1	1.8	19		300		
	4	15	0.5	0.010		12	5Yr	-0.9	0.814	0.013	0.011	0.065	19		19	0.5	0.03PH	SAG						
306	2	20	1	0.170	9.801		116	-0.5	0.652	0.106	0.069						1.905	1	1.8	30		307		
	4	25	0.5	0.010		9.8	5Yr	-0.9	0.814	0.028	0.023	0.092	30		30	0.5	0.03PH	SAG						
307	2	30	1	0.170	12.539		105	-0.5	0.652	0.171	0.111						1.903	1	2.4	37		307		
	4	25	0.5	0.010		12.5	5Yr	-0.9	0.814	0.019	0.015	0.127	37		37	0.5	0.03PH	SAG						
302	2	15	1	0.170	9.028		120	-0.5	0.652	0.120	0.078						1.745	1	1.8	35		302		
	4	40	0.5	0.010		9	5Yr	-0.9	0.814	0.031	0.025	0.103	35		35	0.5	0.03PH	SAG						
303	2	10	1	0.170	5.578		144	-0.3	0.571	0.005	0.003						0.404	1	1.8	3		304		
	4	6	0.5	0.010		5.6	5Yr	-0.9	0.814	0.005	0.004	0.007	3		3	0.5	0.404	1	1.8	3		304		
304	2	30	1	0.170	12.779		104	-0.5	0.652	0.190	0.124						2.088	1	2.4	41		304		
	4	30	0.5	0.010		12.8	5Yr	-0.9	0.814	0.022	0.018	0.142	41		41	0.5	0.03PH	SAG						
314	2	35	1	0.170	13.582		101	-0.5	0.652	0.266	0.173						2.172	1	2.4	58		314		
	4	20	0.5	0.010		13.6	5Yr	-0.9	0.814	0.040	0.033	0.206	58		58	0.5	0.03PH	SAG						

HYDRAULIC DESIGN SHEET

PIT	TIME	INTENSITY	AREAS	FLOW	LENGTH	DIAMETER	GRADE	H.G.L GRADE	VEL O/A	K	HEAD LOSS	VEL CAP	PIPE VEL	PIPE CAP	PIPE TIME	C=C.W., MAX TIME 20 HAWKS NEST BY PASS=AREA AREA=ADP Q	N=MANNINGS REMARKS
	min	mm/hr	ha	L/s	m	mm	%	%	m/s		m	m/s	m/s	L/s	min		
LINE 95 312-313	13.6	101 5Yr	0.169	48	10.296 C0.0006	375	0.486	0.06	0.431	3.5	0.033	1.271	1	140	0.17		
LINE 91 297-316	5	150 5Yr	0.021	9	7.808 C0.0006	375	0.384	0.003	0.078	3.5	0.001	1.131	0.58	125	0.22		
316-317	5.2	147 5Yr	0.044	18	12.809 C0.0006	375	0.39	0.01	0.163	1.5	0.002	1.14	0.69	126	0.31		
317-298	5.5	144 5Yr	0.055	22	12.513 C0.0006	375	0.4	0.014	0.2	1.5	0.003	1.153	0.74	127	0.28		
LINE 92 294-299	10	115 5Yr	0.122	39	12.58 C0.0006	375	0.477	0.041	0.354	3.5	0.022	1.26	0.93	139	0.23		
LINE 90 295-296	5	150 5Yr	0.05	21	11 C0.0006	375	0.545	0.013	0.188	3.5	0.006	1.347	0.81	149	0.23		
296-298	5.2	147 5Yr	0.099	41	28.04 C0.0006	375	0.538	0.045	0.369	1.8	0.013	1.338	0.99	148	0.44		
298-299	5.8	142 5Yr	0.165	65	57.32 C0.0006	375	0.349	0.111	0.591	1.5	0.027	1.078	0.99	119	0.96		
299-300	10.3	114 5Yr	0.402	127	11.21 C0.0006	451	0.357	0.158	0.797	1.8	0.058	1.223	1.18	195	0.16		
300-301	12	106 5Yr	0.467	139	22.26 C0.0006	451	0.404	0.186	0.868	0.7	0.027	1.302	1.26	208	0.29		
LINE 93 306-307	9.8	116 5Yr	0.092	30	11.406 C0.0006	375	0.438	0.025	0.269	3.5	0.013	1.208	0.83	133	0.23		
307-308	12.5	104 5Yr	0.219	64	20.309 C0.0006	375	0.394	0.105	0.578	1.3	0.022	1.145	1.02	126	0.33		
LINE 94 302-303	9	120 5Yr	0.103	35	28.441 C0.0006	375	0.316	0.032	0.313	3.5	0.017	1.026	0.78	113	0.61		
303-304	9.6	117 5Yr	0.11	36	18.517 C0.0006	375	0.324	0.035	0.325	0.6	0.003	1.038	0.8	115	0.39		
304-305	12.8	104 5Yr	0.252	73	10.407 C0.0006	375	0.384	0.137	0.661	1.3	0.029	1.131	1.05	125	0.17		
LINE 96 314-315	13.6	101 5Yr	0.206	58	14 C0.0006	375	0.429	0.088	0.525	3.5	0.049	1.194	1.02	132	0.23		