

HYDROLOGICAL DESIGN SHEET

PIT	LAND USE	FLOW LENGTH		SLOPE	"n"	TIME	TIME	INTENSITY	CODE	COEFF	AREA	CA	SUM AREA	Q	BY PASS	TOTAL FLOW	GUTTER SLOPE	FLOW WIDTH	PIT TYPE	LUNTEL	INFLOW	BY FLOW	BY PIT	KINEMATIC MIN TIME 5 MAX TIME 20 HAWKS NEST	REMARKS
		m	%																						
191	2 4	20 25	1 0.5	0.170 0.010	9.801		9.8	116 5Yr	-0.5 -0.9	0.652 0.814	0.083 0.019	0.054 0.015		0.07	22		22	0.506	1.608 0.03PH	1 SAG	1.8	22		191	
192	2 4	6 20	3 0.5	0.170 0.010	3.746		5	150 5Yr	-0.2 -0.9	0.530 0.814	0.013 0.020	0.007 0.016		0.023	10		10	0.5	1.129	1 SAG	1.8	10		193	
193	2 4	30 35	1 0.5	0.170 0.010	13.011		13	103 5Yr	-0.5 -0.9	0.652 0.814	0.203 0.025	0.132 0.020		0.153	44		44	0.5	1.932 0.03PH	1 SAG	2.4	44		193	
160	2 4	25 30	1 0.5	0.170 0.010	11.445		11.4	109 5Yr	-0.5 -0.9	0.652 0.814	0.1 0.017	0.065 0.014		0.079	24		24	0.721	1.528 0.03PH	1 SAG	1.8	24		160	
186	2 4	30 25	1 0.5	0.170 0.010	12.539		12.5	105 5Yr	-0.5 -0.9	0.652 0.814	0.113 0.017	0.074 0.014		0.088	26		26	0.721	1.571 0.03PH	1 SAG	1.8	26		186	
187	3 4	15 10	1 0.5	0.170 0.010	7.486		7.5	129 5Yr	-0.5 -0.9	0.652 0.814	0.050 0.011	0.033 0.009		0.042	15		15	0.509	1.327 0.03PH	1 SAG	1.8	15		187	
226	2 4	30 15	1 0.5	0.170 0.010	12.036		12	107 5Yr	-0.5 -0.9	0.652 0.814	0.083 0.013	0.054 0.011		0.065	19		19	0.5	1.575	1 SAG	1.8	19		228	
228	2 4	30 40	1 0.5	0.170 0.010	13.237		13.2	103 5Yr	-0.5 -0.9	0.652 0.814	0.166 0.025	0.108 0.020		0.129	37		37	0.5	1.991 0.03PH	1 SAG	1.8	37		228	
188	2 4	30 35	1 0.5	0.170 0.010	13.011		13	103 5Yr	-0.5 -0.9	0.652 0.814	0.111 0.020	0.072 0.016		0.089	25		25	0.504	1.78	1 SAG	1.8	25		160	
189	2 4	35 35	1 0.5	0.170 0.010	14.292		14.3	99 5Yr	-0.5 -0.9	0.652 0.814	0.136 0.017	0.089 0.014		0.103	28		28	0.504	1.862	1 SAG	1.8	28		224	
224	2 4	30 30	1 0.5	0.170 0.010	12.779		12.8	104 5Yr	-0.5 -0.9	0.652 0.814	0.118 0.021	0.077 0.017		0.094	27		27	0.506	1.661 0.03PH	1 SAG	2.4	27		224	
225	2 4	6 30	3 0.5	0.170 0.010	4.244		5	150 5Yr	-0.2 -0.9	0.530 0.814	0.021 0.017	0.011 0.014		0.025	10		10	0.506	1.108 0.03PH	1 SAG	1.8	10		225	
185	3 4	30 20	1 0.5	0.170 0.010	12.292		12.3	106 5Yr	-0.5 -0.9	0.652 0.814	0.107 0.013	0.070 0.011		0.08	24		24	0.509	1.719	1 SAG	1.8	24		227	
227	2 4	30 35	1 0.5	0.170 0.010	13.011		13	103 5Yr	-0.5 -0.9	0.652 0.814	0.132 0.015	0.086 0.012		0.098	28		28	0.5	1.864	1 SAG	1.8	28		229	
229	2 4	25 40	1 0.5	0.170 0.010	11.907		11.9	107 5Yr	-0.5 -0.9	0.652 0.814	0.130 0.025	0.085 0.020		0.105	31		31	0.5	1.864 0.03PH	1 SAG	1.8	31		229	
220	2 4	25 30	1 0.5	0.170 0.010	11.445		11.4	109 5Yr	-0.5 -0.9	0.652 0.814	0.095 0.020	0.062 0.016		0.078	24		24	0.527	1.631 0.03PH	1 SAG	1.8	24		220	
179	2 4	25 25	1 0.5	0.170 0.010	11.202		11.2	110 5Yr	-0.5 -0.9	0.652 0.814	0.148 0.027	0.096 0.022		0.118	36		36	0.507	1.977 0.03PH	1 SAG	1.8	36		179	
179A	2 4	30 15	1 0.5	0.170 0.010	12.036		12	107 5Yr	-0.5 -0.9	0.652 0.814	0.091 0.013	0.059 0.011		0.07	21		21	0.507	1.625 0.03PH	1 SAG	1.8	21		179A	
194	2 4	15 15	1 0.5	0.170 0.010	7.776		7.8	127 5Yr	-0.5 -0.9	0.652 0.814	0.046 0.013	0.030 0.011		0.041	14		14	0.507	1.303 0.03PH	1 SAG	1.8	14		194	
195	2 4	10 15	1 0.5	0.170 0.010	6.141		6.1	139 5Yr	-0.3 -0.9	0.571 0.814	0.034 0.013	0.019 0.011		0.03	12		12	0.507	1.17 0.03PH	1 SAG	1.8	12		195	
196	3 4	6 10	3 0.5	0.010 0.010	0.905		5	150 5Yr	-0.5 -0.9	0.652 0.814	0.021 0.019	0.014 0.015		0.029	12		12	0.5	1.27 0.03PH	1 SAG	1.8	12		196	
197	3 4	6 7	3 0.5	0.010 0.010	0.739		5	150 5Yr	-0.2 -0.9	0.530 0.814	0.005 0.005	0.003 0.004		0.007	3		3	0.498	0.406	1 SAG	1.8	3		179	
198	3 4	6 7	3 0.5	0.010 0.010	0.739		5	150 5Yr	-0.2 -0.9	0.530 0.814	0.005 0.005	0.003 0.004		0.007	3		3	0.498	0.406	1 SAG	1.8	3		259	
259	2 4	20 25	1 0.5	0.170 0.010	9.801		9.8	116 5Yr	-0.5 -0.9	0.652 0.814	0.191 0.022	0.125 0.018		0.142	46		46	0.001	6.096 0.03PH	1 SAG	2.4	46		259	
221	2 4	30 30	1 0.5	0.170 0.010	12.779		12.8	104 5Yr	-0.5 -0.9	0.652 0.814	0.111 0.025	0.072 0.020		0.093	27		27	0.527	1.723 0.03PH	1 SAG	1.8	27		221	
216	2 4	10 10	1 0.5	0.170 0.010	5.841		5.8	142 5Yr	-0.5 -0.9	0.652 0.814	0.025 0.013	0.016 0.011		0.027	11		11	0.5	0.975 0.03PH	1 SAG	1.8	11		216	
217	2 4	10 10	1 0.5	0.170 0.010	5.841		5.8	142 5Yr	-0.5 -0.9	0.652 0.814	0.022 0.010	0.014 0.008		0.022	9		9	0.5	1.016 0.03PH	1 SAG	1.8	9		217	
218	2 4	6 6	3 0.5	0.010 0.010	0.681		5	150 5Yr	-0.2 -0.9	0.530 0.814	0.005 0.005	0.003 0.004		0.007	3		3	0.5	0.406	1 SAG	1.8	3		219	
219	2 4	30 40	1 0.5	0.170 0.010	13.237		13.2	103 5Yr	-0.5 -0.9	0.652 0.814	0.222 0.031	0.145 0.025		0.17	48		48	0.5	2.131 0.03PH	1 SAG	1.8	48		219	
222	2 4	6 6	3 0.5	0.010 0.010	0.681		5	150 5Yr	-0.2 -0.9	0.530 0.814	0.005 0.005	0.003 0.004		0.007	3		3	0.6	0.393	1 SAG	1.8	3		221	
223	2 4	30 30	1 0.5	0.170 0.010	12.779		12.8	104 5Yr	-0.5 -0.9	0.652 0.814	0.151 0.025	0.098 0.020		0.119	34		34	0.6	1.864 0.03PH	1 SAG	1.8	34		223	
230	2 4	6 6	3 0.5	0.010 0.010	0.681		5	150 5Yr	-0.2 -0.9	0.530 0.814	0.005 0.005	0.003 0.004		0.007	3		3	0.505	0.405	1 SAG	1.8	3		231	
231	2 4	10 6	3 0.5	0.170 0.010	3.916		5	150 5Yr	-0.3 -0.9	0.571 0.814	0.025 0.010	0.014 0.008		0.022	9		9	0.505	1.106	1 SAG	1.8	9		232	
232	2 4	10 6	3 0.5	0.170 0.010	3.916		5	150 5Yr	-0.3 -0.9	0.571 0.814	0.010 0.010	0.006 0.008		0.014	6		6	0.505	0.831	1 SAG	1.8	6		234	
234	2 4	20 45	1 0.5	0.170 0.010	10.735		10.7	112 5Yr	-0.5 -0.9	0.652 0.814	0.154 0.028	0.1 0.023		0.123	38		38	0.504	1.928 0.03PH	1 SAG	1.8	38		234	
35							5	150 5Yr											9999	6		ADP		35	

HYDRAULIC DESIGN SHEET

PIT	TIME	INTENSITY	AREAS	FLOW	LENGTH	DIAMETER	GRADE	H.G.L.GRADE	VEL. D/A	K	HEAD LOSS	VEL CAP	PIPE VEL	PIPE CAP	PIPE TIME	C=C.W., MAX TIME Z0 HAWKS NEST BY PASS=AREA AREA=ADP Q	N=MANNINGS	REMARKS
LINE 75 196-197	5	150 5Yr	0.029	12	12.579 C0.0006	375	0.318	0.005	0.11	3.5	0.002	1029	0.58	114	0.36			
197-198	5.4	146 5Yr	0.036	15	7.525 C0.0006	375	0.332	0.006	0.132	1.4	0.001	1052	0.62	116	0.2			
198-259	8.3	124 5Yr	0.113	39	36.024 C0.0006	375	0.305	0.041	0.354	1.5	0.01	1008	0.8	111	0.75			
259-221	12.3	105 5Yr	0.444	130	63.711 C0.0006	451	0.306	0.165	0.816	1.8	0.061	1133	1.12	181	0.95			
221-222	13.3	102 5Yr	0.615	175	12.989 C0.0006	451	0.308	0.294	1.095	1.4	0.086	1137	1.22	182	0.18			
LINE 70 216-217	5.8	141 5Yr	0.027	11	7.703 C0.0006	375	0.325	0.004	0.096	3.5	0.002	1039	0.57	115	0.23			
217-218	6.1	139 5Yr	0.049	19	12.347 C0.0006	375	0.324	0.011	0.174	1.5	0.002	1038	0.65	115	0.32			
218-219	6.4	137 5Yr	0.056	21	67.163 C0.0006	375	0.305	0.013	0.194	0.9	0.002	1008	0.66	111	1.7			
219-222	13.2	102 5Yr	0.226	64	25.535 C0.0006	375	0.313	0.107	0.583	1.4	0.024	1021	0.94	113	0.45			
222-223	13.7	101 5Yr	0.848	238	54.081 C0.0006	450x1200	0.305	0.025	0.441	1.5	0.015	1597	1.22	862	0.74			
223-230	14.4	98 5Yr	0.967	265	25.534 C0.0006	450x1200	0.313	0.031	0.491	1	0.012	1618	1.26	874	0.34			
230-231	16.5	92 5Yr	1.969	508	16 C0.0006	450x1200	0.313	0.11	0.941	1.7	0.077	1616	1.48	873	0.18			
231-232	16.7	92 5Yr	1.991	511	13.05 C0.0006	450x1200	0.307	0.111	0.947	0.5	0.023	1601	1.47	864	0.15			
232-234	16.9	92 5Yr	2.005	513	14.685 C0.0006	450x1200	0.306	0.112	0.95	0.5	0.023	1601	1.47	864	0.17			
234-235	17	91 5Yr	2.128	542	20.232 C0.0006	450x1200	0.297	0.124	1.003	1.3	0.067	1575	1.48	850	0.23			
LINE 26 35-41	5	150 5Yr		1	24 C0.0006	450x1200 6	0.333	0.001	0	0.5	0	1669	1.32	5408	0.3			

LAND USE CODES

1. PARKS/RESERVES
2. ALLOTMENTS
3. ROADS
4. KERB & GUTTER
5. TABLE/CATCH DRAINS
6. PIPES

PIT TYPE CODES

- | | |
|--------------------------------------|---------------------------|
| 1. G.G.P. GRATED GULLY PIT | 7. D.C. DIRECT CONNECTION |
| 2. L.S.I.P. LETTER BOX GULLY PIT | 8. S.P. SUMP PIT |
| 3. S.I.P. SURFACE INLET PIT | 9. BEND BEND IN PIPE |
| 4. G.S.I.P. GRATED SURFACE INLET PIT | 10. I.P. INSPECTION PIT |
| 5. J.P. JUNCTION PIT | 11. S.J. SLOPE JUNCTION |
| 6. H.W. HEADWALL | |

PROPOSED DRAINAGE CALCULATION SHEETS

[illegible]