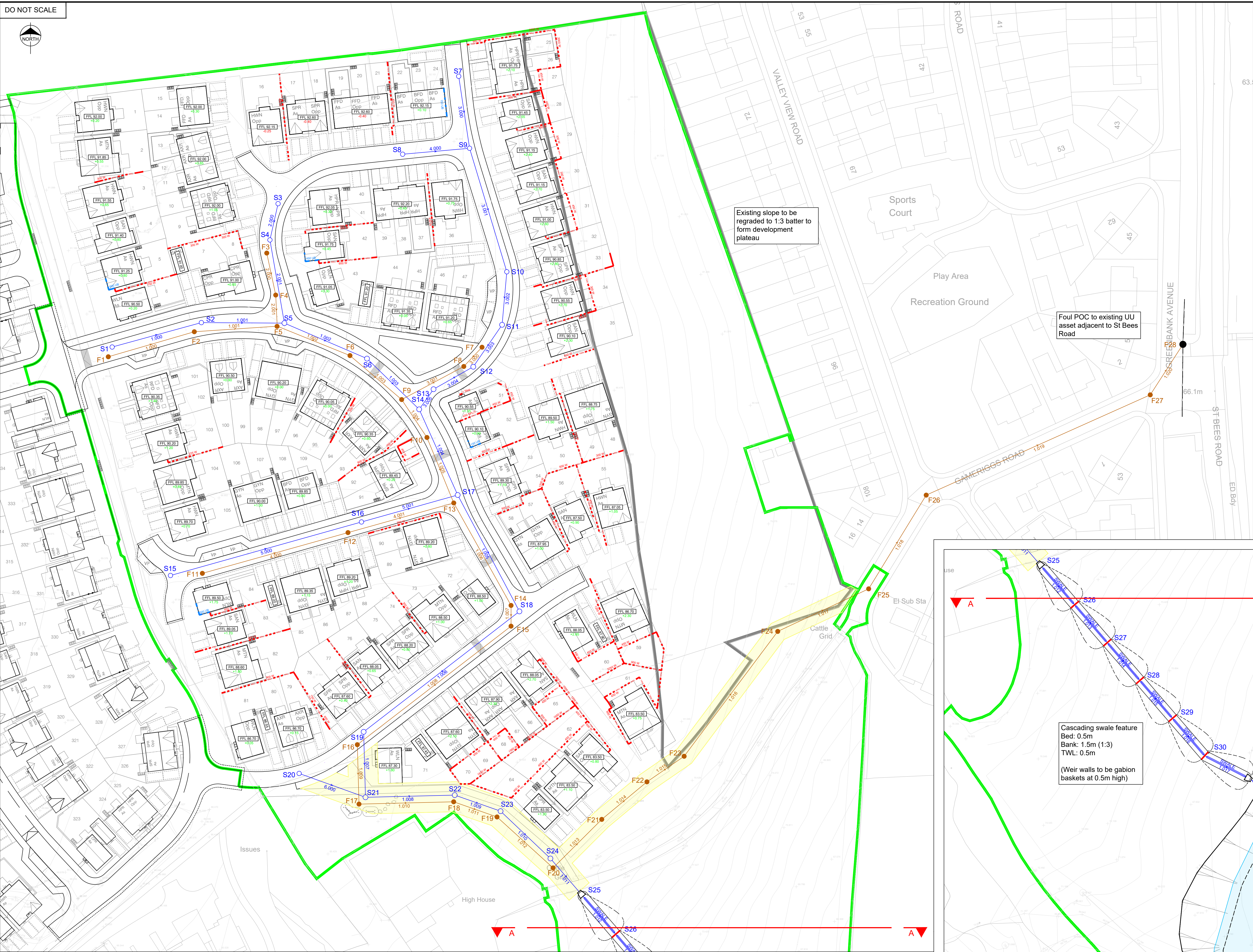


DO NOT SCALE

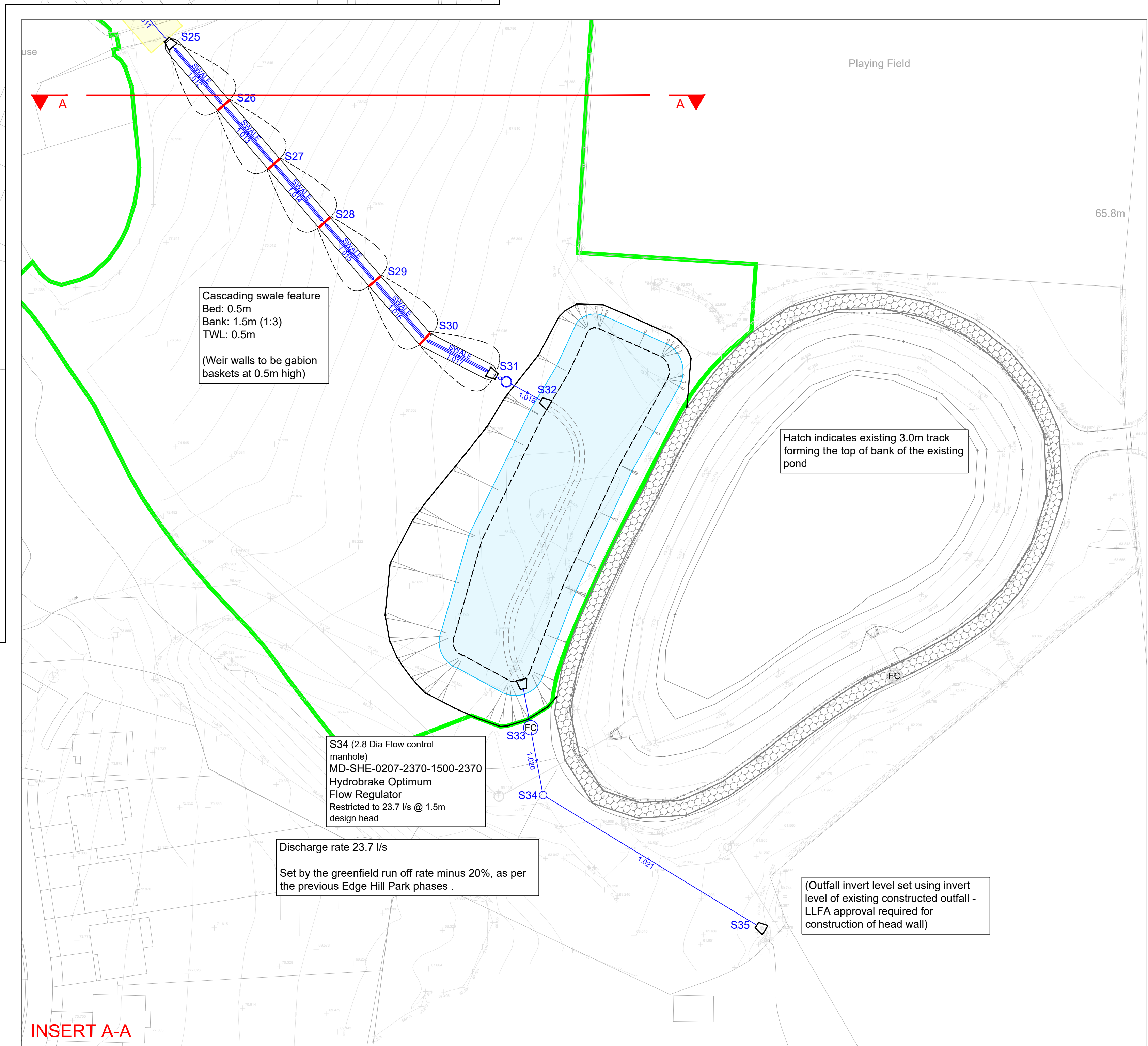


Legend

- Site Boundary
- Existing
- Proposed
- Adoptable Surface Water Sewer
- Adoptable Foul Sewer
- Attenuation Pond base
- Slab Level
- Retaining Wall
- Underbuild
- Retention below 300mm not indicated
- Depth of fill (Existing levels to proposed)

Notes

- Setting out shall be undertaken using only the information given. Distances should not be scaled from this drawing.
- All sewers shall be constructed in accordance with Design and Construction Guidance (DCG) Standards and United Utilities Details & Guidelines.
- The minimum gravity pipe diameter under adoptable highways shall be 150mm.
- It is the responsibility of the Contractor to verify all information given with regards to existing services and drainage connections etc. prior to commencing the works. The rates shall include for hand dig ground services where necessary. The Contractor shall adhere to the CDM Regulations at all times.
- All materials to bear the relevant B.S. Kitemark and comply fully with the specifications. All concrete & concrete products must use Sulphate resistant cement to withstand Class 3 condition (unless the site investigation report proves that sulphate attack from soils and groundwater will not occur).
- All opening notices etc. as required under Highways Acts etc. are to be obtained prior to commencement of works. All works are to be inspected by L.A., NHBC or the Network Operator as applicable.
- Where structured wall UPVC pipes (or similar approved) are used in adoptable drainage they shall be handled and laid in accordance with the manufacturers instructions and will be subject to post installation deformation testing prior to adoption. A Class S Bed and Surround must be used for structured wall pipes.
- Trench backfill in highways to within 1m of highway shall, as directed by the Highway Authority be a suitable granular material all in accordance with Design and Construction Guidance (DCG) Standards.
- Slab levels shall not be varied without reference to the Engineer for guidance.
- Pipes have not been designed to accommodate construction traffic loading. The contractor is responsible for providing adequate protection to the pipes during construction.



STORM Network 1									
Pipe Code	Dimensions (mm)	Gradient (1%)	Section Type	Pipe Type	Pipe Length	Manhole	Upstream Manhole Invert	Downstream Manhole Invert	Cost
1.000	225	95	Channel	CLAY	27.780	51	86.108	86.521	86.850
1.001	225	168	Channel	CLAY	24.833	52	86.754	86.930	86.531
1.002	300	238	Channel	CLAY	27.086	53	86.925	86.931	86.862
1.003	375	290	Channel	CONC	21.868	54	86.937	86.969	86.302
1.004	450	44	Channel	CONC	28.178	55	86.137	86.502	86.470
1.005	450	340	Channel	CONC	26.581	517	86.470	86.502	86.388
1.006	450	40	Channel	CONC	39.188	518	86.388	86.502	86.470
1.007	450	40	Channel	CONC	39.188	519	86.388	86.502	86.470
1.008	450	40	Channel	CONC	39.188	520	86.388	86.502	86.470
1.009	450	40	Channel	CONC	39.188	521	86.388	86.502	86.470
1.010	450	250	Channel	CONC	29.848	522	86.132	86.416	86.4
1.011	450	250	Channel	CONC	15.001	523	86.132	86.416	86.4
1.012	500x500	8	Swale 1:3	CLAY	17.728	524	86.132	86.416	86.4
1.013	500x500	8	Swale 1:3	CLAY	15.001	525	86.132	86.416	86.4
1.014	500x500	8	Swale 1:3	CLAY	15.001	526	86.132	86.416	86.4
1.015	500x500	8	Swale 1:3	CLAY	15.001	527	86.132	86.416	86.4
1.016	500x500	8	Swale 1:3	CLAY	15.001	528	86.132	86.416	86.4
1.017	500x500	8	Swale 1:3	CLAY	15.001	529	86.132	86.416	86.4
1.018	675	218	Channel	CONC	7.843	531	86.800	86.804	86.200
1.019	675	402	Channel	CONC	63.853	532	86.800	86.804	86.200
1.020	225	68	Channel	CLAY	13.293	533	86.717	86.699	86.416
1.021	225	15	Channel	CLAY	46.353	534	86.485	86.295	86.277
2.000	225	29	Channel	CLAY	11.170	535	86.660	86.674	86.660
2.001	225	28	Channel	CLAY	22.288	54	86.660	86.674	86.660
3.000	225	75	Channel	CLAY	21.274	57	86.186	86.186	86.660
3.001	225	100	Channel	CLAY	38.758	59	86.892	86.892	86.470
3.002	225	100	Channel	CLAY	38.758	60	86.892	86.892	86.470
3.003	300	100	Channel	CLAY	15.293	511	86.246	86.651	86.674
3.004	300	54	Channel	CLAY	13.758	512	86.246	86.651	86.674
3.005	375	24	Channel	CONC	7.430	513	86.622	86.620	86.300
4.000	225	56	Channel	CLAY	29.482	58	86.647	86.297	86.862
5.000	225	168	Channel	CLAY	99.079	515	87.581	88.231	87.226
5.001	225	56	Channel	CLAY	39.125	516	87.226	88.297	87.477
6.000	225	66	Channel	CLAY	21.171	520	86.651	86.079	86.104

FLOOD Network 1									
Pipe Code	Dimensions (mm)	Gradient (1%)	Pipe Type	Pipe Length	Manhole	Upstream Manhole Invert	Downstream Manhole Invert	Cost	
1.000	100	75	CLAY	24.906	F1	86.000	86.008	F2	86.416
1.001	100	75	CLAY	24.906	F2	86.008	86.016	F3	86.008
1.002	100	100	CLAY	23.871	F3	86.016	86.024	F4	86.024
1.003	100	148	CLAY	25.265	F4	86.024	86.032	F5	86.032
1.004	100	100	CLAY	13.001	F5	86.032	86.040	F6	86.040
1.005	100	100	CLAY	13.001	F6	86.040	86.048	F7	86.048
1.006	100	100	CLAY	13.001	F7	86.048	86.056	F8	86.056
1.007	100	100	CLAY	13.001	F8	86.056	86.064	F9	86.064
1.008	100	100	CLAY	13.001	F9	86.064	86.072	F10	86.072
1.009	100	100	CLAY	13.001	F10	86.072	86.080	F11	86.080
1.010	100	100	CLAY	13.001	F11	86.080	86.088	F12	86.088
1.011	100	100	CLAY	13.001	F12	86.088	86.096	F13	86.096
1.012	100	24	CLAY	24.440	F17	86.300	86.308	F18	86.308
1.013	100	170	CLAY	13.758	F18	86.308	86.316	F19	86.316
1.014	100	24	CLAY	22.747	F19	86.316	86.324	F20	86.324
1.015	100	100	CLAY	13.001	F20	86.324	86.332	F21	86.332
1.016	100	100	CLAY	17.002	F21	86.332	86.340	F22	86.340
1.017	100	100	CLAY	13.001	F22	86.340	86.348	F23	86.348
1.018	100	24	CLAY	46.885	F23	86.348	86.356	F24	86.356
1.019	100	18	CLAY	37.254	F24	86.356	86.364	F25	86.364
1.020	100	30	CLAY	23.905	F25	86.364	86.372	F26	86.372
1.021	100	28	CLAY	13.001	F27	86.372	86.380	F28	86.380
2.000	100	30	CLAY	13.001	F3	86.380	86.388	F4	86.388
2.001	100	75	CLAY	7.860	F7	86.388	86.396	F8	86.396
2.002	100	75	CLAY	7.860	F8	86.396	86.404	F9	86.404
2.003	100	75	CLAY	7.860	F9	86.404	86.412	F10	86.412
2.004	100	75	CLAY	7.860	F10	86.412	86.420	F11	86.420
2.005	100	75	CLAY	7.860	F11	86.420	86.428	F12	86.428
2.006	100	75	CLAY	7.860	F12	86.428	86.436	F13	86.436
2.007	100	75	CLAY	7.860	F13	86.436	86.444	F14	86.444
2.008	100	75	CLAY	7.860	F14	86.444	86.452	F15	86.452
2.009	100	75	CLAY	7.860	F15	86.452	86.460	F16	86.460
2.010	100	75	CLAY	7.860	F16	86.460	86.468	F17	86.468
2.011	100	75	CLAY	7.860	F17	86.468	86.476	F18	86.476
2.012	100	75	CLAY	7.860	F18	86.476	86.484	F19	86.484
2.013	100	75	CLAY	7.860	F19	86.484	86.492	F20	86.492
2.014	100	75	CLAY	7.860	F20	86.492	86.500	F21	86.500
2.015	100	75	CLAY	7.860	F21	86.500	86.508	F22	86.508
2.016	100	75	CLAY	7.860	F22	86.508	86.516	F23	86.516
2.017	100	75	CLAY	7.860	F23	86.516	86.524	F24	86.524
2.018	100	75	CLAY	7.860	F24	86.524	86.532	F25	86.532
2.019	100	75	CLAY	7.860	F25	86.532	86.540	F26	86.540
2.020	100	75	CLAY	7.860	F26	86.540	86.548	F27	86.548
2.021	100	75	CLAY	7.860	F27	86.548	86.556	F28	86.556
2.022	100	75	CLAY	7.860	F28	86.556	86.564	F29	86.564
2.023	100	75	CLAY	7.860	F29	86.564	86.572	F30	86.572
2.024	100	75	CLAY	7.860	F30	86.572	86.580	F31	86.580
2.025	100	75	CLAY	7.860	F31	86.580	86.588	F32	86.588
2.026	100	75	CLAY	7.860	F32	86.588	86.596	F33	86.596
2.027	100	75	CLAY	7.860	F33	86.596	86.604	F34	86.604
2.028	100	75	CLAY	7.860	F34	86.604	86.612	F35	86.612
2.029	100	75	CLAY	7.860	F35	86.612	86.620	F36	86.620
2.030	100	75	CLAY	7.860	F36	86.620	86.628	F37	86.628
2.031	100	75	CLAY	7.860	F37	86.628	86.636	F38	86.636
2.032	100	75	CLAY	7.860	F38	86.636	86.644	F39	86.644
2.033	100	75	CLAY	7.860	F39	86.644	86.652	F40	86.652
2.034	100	75	CLAY	7.860	F40	86.652	86.660	F41	86.660
2.035	100	75	CLAY	7.860	F41	86.660	86.668	F42	86.668
2.036	100	75	CLAY	7.860	F42	86.668	86.676	F43	86.676
2.037	100	75	CLAY	7.860	F43	86.676	86.684	F44	86.684
2.038	100	75	CLAY	7.860	F44	86.684	86.692	F45	86.692
2.039	100	75	CLAY	7.860	F45	86.692	86.700	F46	86.700
2.040	100	75	CLAY	7.860	F46	86.700	86.708	F47	86.708
2.041	100	75	CLAY	7.860	F47	86.708	86.716	F48	86.716
2.042	100	75	CLAY	7.860	F48	86.716	86.724	F49	86.724
2.043	100	75	CLAY	7.860	F49	86.724	86.732	F50	86.732
2.044	100	75	CLAY	7.860	F50	86.732	86.740	F51	86.740
2.045	100	75	CLAY	7.860	F51	86.740	86.748	F52	86.748
2.046	100	75	CLAY	7.860	F52	86.748	86.756	F53	86.756
2.047	100	75	CLAY	7.860	F53	86.756	86.764	F54	86.764
2.048	100	75	CLAY	7.860	F54	86.764	86.772	F55	86.772
2.049	100	75	CLAY	7.860	F55	86.772	86.780	F56	86.780
2.050	100	75	CLAY	7.860	F56	86.780	86.788	F57	86.788
2.051	100	75	CLAY	7.860	F57	86.788	86.796	F58	86.796
2.052	100	75	CLAY	7.860	F58	86.796	86.804	F59	86.804
2.053	100	75	CLAY	7.860	F59	86.804	86.812	F60	86.812
2.054	100	75	CLAY	7.860	F60	86.812	86.820	F61	86.820
2.055	100	75	CLAY	7.860	F61	86.820	86.828	F62	86.828
2.056	100	75	CLAY	7.860	F62	86.828	86.836	F63	86.836
2.057	100	75	CLAY	7.860	F63	86.836	86.844	F64	86.844
2.058	100	75	CLAY	7.860	F64	86.844	86.852	F65	86.852