



FIG.		SCALE: 1:25,000	THE STUDY ON URBAN DRAINAGE AND SEWERAGE SYSTEM FOR HO CHI MINH CITY	JAPAN INTERNATIONAL COOPERATION AGENCY
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CATCHMENT AREA

Catchment Name	Area (ha)	Time of Concentration (min) t _c	Max Length (m)	Run Off Coefficient (%)	Population 1997
100AA_1	1.31	4.0	85	66%	114
100AB_1	3.31	4.0	219	66%	114
100C_1	1.59	4.0	83	66%	114
101B_1	4.29	4.6	301	66%	114
101C_1	8.91	6.6	318	66%	114
102A_1	13.07	8.0	336	66%	114
102BA_1	7.97	6.9	223	66%	114
102C_1	8.27	6.4	228	66%	114
103C_1	17.96	9.4	433	75%	627
104AA_1	27.33	11.6	484	72%	167
104BA_1	22.52	10.5	476	72%	117
117_1	0.18	4.0	97	75%	691
119B_1	5.16	5.0	352	71%	687
11A_1	14.19	8.4	665	79%	700
123A_1	4.99	5.0	390	75%	607
123D_1	8.11	6.3	557	75%	822
124A_1	8.38	6.4	268	76%	582
124B_1	15.64	8.8	689	76%	710
125_1	3.67	4.3	223	76%	907
127A_1	19.84	9.9	636	75%	710
127B_1	9.42	6.8	571	75%	343
127C_1	8.73	6.6	578	75%	419
128A_1	4.79	4.9	479	75%	243
129A_1	6.15	5.5	728	76%	1,101
130_1	7.12	5.9	399	76%	1,123
133_1	18.57	9.6	493	76%	644
134A_1	3.22	4.0	229	76%	-
134B_1	14.18	8.4	492	76%	642
135A_1	7.84	6.2	357	76%	629
136A_1	12.99	8.0	398	76%	724
135B_1	9.24	6.8	284	76%	536
137A_1	7.86	6.2	444	76%	687
138A_1	16.70	9.1	359	76%	387
139A_1	6.02	5.5	320	76%	805
139B_1	17.21	9.2	483	76%	800
140A_1	14.67	8.5	372	76%	894
141A_1	4.50	4.7	203	76%	772
142_1	22.02	10.4	543	76%	823
145AA_1	14.84	8.6	549	76%	821
146_1	7.05	5.9	408	77%	694
147A_1	2.42	4.0	205	76%	553
14A_1	2.76	4.0	249	79%	825
152_1	16.05	8.9	478	76%	649
153A_1	2.56	4.0	242	76%	602
154B_1	1.71	4.0	105	76%	641
155A_1	6.93	5.9	372	76%	570
156A_1	6.04	5.5	350	76%	570
156B_1	1.54	4.0	125	76%	570
156C_1	1.29	4.0	110	76%	535
157A_1	9.03	6.7	312	76%	448
158A_1	8.21	6.4	343	76%	284
15B_1	11.14	7.4	485	77%	387
160A_1	2.23	4.0	202	76%	475
160B_1	1.83	4.0	166	76%	531
160B_1	0.95	4.0	166	76%	1,021
161A_1	1.35	4.0	167	76%	474
162A_1	0.98	4.0	164	76%	457
164AA_1	1.22	4.0	135	76%	468
164BC_1	0.44	4.0	97	76%	363
164CA_1	1.24	4.0	116	71%	409
165AA_1	1.00	4.0	121	76%	285
165AB_1	3.67	4.3	198	76%	380
165AC_1	2.36	4.0	114	76%	256
165AD_1	1.97	4.0	154	76%	200
165B_1	2.05	4.0	273	71%	114
166AA_1	2.44	4.0	166	71%	114
167AA_1	2.67	4.0	146	71%	114
170B_1	0.44	4.0	89	76%	284
171A_1	1.08	4.0	105	71%	114
171B_1	1.07	4.0	118	76%	284
172AB_1	1.56	4.0	144	76%	284
175C_1	4.95	4.9	410	76%	465
178A_1	6.88	5.8	261	76%	284
178B_1	1.25	4.0	110	76%	284
181A_1	4.45	4.7	228	68%	114
182_1	1.79	4.0	152	66%	114
184_1	7.09	5.9	274	66%	114
187A_1	10.67	7.3	389	76%	284

Catchment Name	Area (ha)	Time of Concentration (min) t _c	Max Length (m)	Run Off Coefficient (%)	Population 1997
187B_1	4.33	4.6	226	76%	284
189A_1	3.78	4.3	253	76%	171
189B_1	2.00	4.0	256	76%	284
18C_1	2.32	4.0	234	75%	698
190A_1	14.32	8.4	421	72%	147
192A_1	2.28	4.0	133	66%	114
193A_1	2.15	4.0	165	69%	114
194_1	2.69	4.0	137	76%	200
196AA_1	4.44	4.7	226	72%	167
196AA_1	1.34	4.0	226	66%	554
197AA_1	3.60	4.2	200	66%	114
19A_1	0.94	4.0	177	75%	684
202A_1	1.76	4.0	143	66%	114
204A_1	3.11	4.0	170	75%	317
204A_1	2.31	4.0	170	66%	427
206A_1	1.79	4.0	118	66%	114
20A_1	1.40	4.0	187	75%	694
210_1	1.29	4.0	104	78%	161
213A_1	4.75	4.8	237	78%	296
213B_1	6.63	5.7	268	78%	296
213C_1	9.90	7.0	361	72%	296
213D_1	16.22	8.9	678	78%	296
214_1	3.40	4.1	156	72%	358
216A_1	3.17	4.0	154	75%	296
217B_1	18.03	9.4	511	75%	296
219B_1	4.57	4.7	170	72%	371
23A_1	4.87	4.9	478	75%	290
23C_1	11.48	7.5	678	75%	682
246_1	8.89	6.6	449	79%	803
253_1	17.37	9.3	394	76%	664
25A_1	1.13	4.0	243	75%	646
268B_1	1.57	4.0	203	75%	647
27A_1	2.65	4.0	281	75%	1,038
27B_1	7.69	6.2	543	75%	350
27DA_1	5.72	5.3	392	75%	615
28AB_1	1.88	4.0	266	75%	646
31_1	1.55	4.0	219	75%	645
33D_1	24.31	11.0	952	75%	329
33E_1	22.38	10.5	867	75%	183
33G_1	19.78	9.9	636	75%	209
34BA_1	5.52	5.2	357	75%	763
34C_1	5.04	5.0	352	75%	1,211
40A_1	8.73	8.6	600	75%	616
41A_1	8.09	6.3	594	75%	318
41C_1	5.83	5.4	588	75%	615
43A_1	28.48	11.9	1,050	75%	571
46B_1	8.42	5.6	444	76%	464
46C_1	2.64	4.0	235	76%	526
46D_1	7.91	6.2	550	76%	651
47A_1	3.54	4.2	183	76%	798
47B_1	3.64	4.2	265	76%	843
48A_1	8.75	6.6	399	76%	895
48B_1	4.93	4.9	248	76%	1,039
49_1	8.93	6.6	280	76%	988
50A_1	14.82	8.6	415	76%	1,121
50B_1	22.40	10.5	487	76%	505
50EA_1	13.82	8.3	530	76%	665
50EB_1	9.96	7.0	461	76%	616
51_1	9.35	6.8	385	76%	652
52A_1	15.05	8.6	416	76%	429
53A_1	21.19	10.2	410	76%	578
54A_1	15.55	8.8	420	76%	659
55B_1	1.71	4.0	154	76%	387
55C_1	7.23	6.0	501	76%	775
56A_1	2.59	4.0	128	76%	725
56CA_1	2.99	4.0	188	76%	901
56E_1	4.94	4.9	265	76%	972
57DA_1	4.28	4.6	267	76%	885
57E_1	3.13	4.0	235	76%	703
58B_1	2.52	4.0	225	76%	474
58D_1	3.90	4.4	250	75%	474
59A_1	0.84	4.0	89	75%	478
59B_1	3.98	4.4	233	76%	474
59D_1	4.04	4.5	261	76%	471
60A_1	9.20	8.7	310	76%	284
60B_1	2.31	4.0	140	76%	284
60C_1	1.23	4.0	107	76%	284
60CB_1	0.66	4.0	127	76%	284

Catchment Name	Area (ha)	Time of Concentration (min) t _c	Max Length (m)	Run Off Coefficient (%)	Population 1997
60D_1	1.71	4.0	145	76%	284
60DA_1	1.30	4.0	113	76%	474
60DB_1	2.70	4.0	135	76%	474
60EB_1	4.63	4.8	278	76%	476
63A_1	10.64	7.2	267	76%	495
63BB_1	8.74	6.6	313	76%	575
63C_1	11.68	7.8	313	76%	521
63DB_1	24.14	10.9	471	76%	425
63DB_2	8.31	6.4	368	76%	368
65_1	12.65	7.9	419	76%	179
66AA_1	0.70	4.0	90	76%	284
67A_1	1.62	4.0	120	76%	284
67B_1	0.89	4.0	77	76%	284
68A_1	1.21	4.0	120	76%	284
68B_1	1.10	4.0	105	76%	391
69A_1	12.01	7.7	368	76%	161
69BA_1	3.04	4.0	155	76%	201
69BB_1	10.79	7.3	411	76%	228
69C_1	9.41	6.8	284	76%	228
69D_1	11.39	7.5	421	76%	480
70_1	10.13	7.1	626	76%	314
73BB_1	1.59	4.0	122	76%	284
74A_1	23.95	10.9	686	76%	239
74CA_1	2.30	4.0	110	76%	206
74D_1	1.62	4.0	115	76%	186
74DA_1	0.81	4.0	105	76%	164
74DB_1	0.43	4.0	80	76%	136
74DC_1	2.36	4.0	146	76%	195
74FA_1	3.99	4.4	241	76%	474
75BA_1	7.08	5.9	319	76%	161
75BB_1	9.63	6.9	384	76%	178
75C_1	7.10	5.9	327	74%	210
75DD_1	21.90	10.4	1,046	74%	383
76B_1	8.37	6.4	521	74%	117
76E_1	2.36	4.0	122	71%	114
76FA_1	1.14	4.0	93	76%	114
76FC_1	2.15	4.0	146	76%	114
79AA_1	2.83	4.0	138	77%	162
79AB_1	2.77	4.0	134	77%	162
79BB_1	4.67	4.8	215	75%	162
80A_1	2.12	4.0	175	71%	114
86_1	1.85	4.0	189	76%	474
87A_1	2.39	4.0	122	71%	114
87BB_1	1.13	4.0	114	71%	114
87CA_1	0.68	4.0	115	71%	332
87CA_1	1.30	4.0	115	71%	174
87CB_1	1.69	4.0	170	71%	114
88BA_1	1.44	4.0	115	66%	114
88BB_1	1.68	4.0	136	66%	114
88C_1	2.00	4.0	265	66%	114
89BB_1	1.58	4.0	122	66%	114
89CA_1	1.81	4.0	122	66%	114
89D_1	2.85	4.0	144	66%	114
89EC_1	1.77	4.0	132	66%	114
89FB_1	1.04	4.0	88	66%	114
90AA_1	3.29	4.0	163	78%	162
90AB_1	2.52	4.0	147	78%	161
90B_1	5.97	5.4	292	75%	161
91A_1	8.22	6.4	324	72%	142
91C_1	3.98	4.4	217	66%	114
91EA_1	1.78	4.0	122	66%	114
91EC_1	0.96	4.0	88	66%	114
91FA_1	1.62	4.0	109	66%	114
91GA_1	1.37	4.0	166	66%	114

Table with 6 columns: Line No. (Distance in m), Minimum (m³/s), Maximum (m³/s), Minimum Time, Maximum Time, Accumulated Volume (m³). Rows include data for [A Zone] from 101C.1 to 59C.1.

Table with 6 columns: Line No. (Distance in m), Minimum (m³/s), Maximum (m³/s), Minimum Time, Maximum Time, Accumulated Volume (m³). Rows include data from 59D.1 to 164BA.1.

Table with 6 columns: Line No. (Distance in m), Minimum (m³/s), Maximum (m³/s), Minimum Time, Maximum Time, Accumulated Volume (m³). Rows include data from 160A.1 to 86FA.1.

Table 1 (Left)						Table 2 (Middle)						Table 3 (Right)					
Line No. (Distance in m)	Minimum (m ³ /s)	Maximum (m ³ /s)	Minimum Time	Maximum Time	Accumulated Volume (m ³)	Line No. (Distance in m)	Minimum (m ³ /s)	Maximum (m ³ /s)	Minimum Time	Maximum Time	Accumulated Volume (m ³)	Line No. (Distance in m)	Minimum (m ³ /s)	Maximum (m ³ /s)	Minimum Time	Maximum Time	Accumulated Volume (m ³)
91A,1 -- 91BA,1 32.42	0.00	0.19	1999/1/1 11.00	1999/1/1 14.00	223.4	202A,1 -- 89EC,1 24.64	-0.01	0.01	1999/1/1 13.20	1999/1/1 13.40	-21.8	129A,1 -- 129C,1 29.03	0.00	0.03	1999/1/1 11.00	1999/1/1 11.19	10.9
91A,1 -- 91BA,1 97.27	0.00	0.18	1999/1/1 11.00	1999/1/1 14.00	220.1	202A,1 -- 89EC,1 73.93	-0.01	0.01	1999/1/1 13.20	1999/1/1 13.40	-4.8	129A,1 -- 129C,1 87.10	0.00	0.03	1999/1/1 11.00	1999/1/1 11.09	10.6
91BA,1 -- 91BB,1 23.23	0.00	0.18	1999/1/1 11.00	1999/1/1 14.00	218.9	202A,1 -- 91FA,1 29.26	-0.03	0.03	1999/1/1 12.40	1999/1/1 14.00	-0.1	129A,1 -- 129C,1 145.17	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	9.4
91BA,1 -- 91BB,1 69.69	0.00	0.18	1999/1/1 11.00	1999/1/1 14.00	216.2	202A,1 -- 91FA,1 69.79	-0.05	0.03	1999/1/1 12.40	1999/1/1 14.00	-32.5	129A,1 -- 129C,1 203.24	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	10.4
91BB,1 -- 91C,1 34.75	0.00	0.23	1999/1/1 11.00	1999/1/1 14.00	251.4	189B,1 -- 73A,1 23.16	0.00	0.22	1999/1/1 13.00	1999/1/1 14.00	178.1	129A,1 -- 129C,1 261.31	0.00	0.01	1999/1/1 11.00	1999/1/1 11.19	7.5
91BB,1 -- 91C,1 104.24	0.00	0.23	1999/1/1 11.00	1999/1/1 14.00	224.6	189B,1 -- 73A,1 69.47	0.00	0.02	1999/1/1 11.00	1999/1/1 14.00	171.2	129A,1 -- 129C,1 319.38	0.00	0.01	1999/1/1 11.00	1999/1/1 11.19	5.8
915B,1 -- 91C,1 173.73	0.00	0.22	1999/1/1 11.20	1999/1/1 14.00	199.8	185B,1 -- 189A,1 27.44	-0.18	0.00	1999/1/1 14.00	1999/1/1 12.40	-129.5	129A,1 -- 129C,1 377.44	0.00	0.00	1999/1/1 11.00	1999/1/1 11.23	4.9
91C,1 -- 89CA,1 31.93	0.00	0.20	1999/1/1 11.00	1999/1/1 14.00	209.3	181A,1 -- 91D,1 31.43	0.00	0.05	1999/1/1 13.20	1999/1/1 14.00	59.7	129A,1 -- 129C,1 435.51	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	4.6
91C,1 -- 89CA,1 95.79	0.00	0.20	1999/1/1 11.00	1999/1/1 14.00	190.1	181A,1 -- 89CB,1 30.05	0.00	0.05	1999/1/1 13.00	1999/1/1 14.00	59.8	129A,1 -- 129C,1 493.58	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	3.9
91C,1 -- 89CA,1 159.66	0.00	0.19	1999/1/1 11.00	1999/1/1 14.00	172.8	181A,1 -- 89CB,1 50.14	0.00	0.05	1999/1/1 13.20	1999/1/1 14.00	58.7	129A,1 -- 129C,1 551.65	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	2.6
91EA,1 -- 89D,1 30.88	0.00	0.00	1999/1/1 14.00	1999/1/1 11.20	5.9	[B Zone]						129A,1 -- 129C,1 609.72	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	1.4
91EA,1 -- 89D,1 92.64	0.00	0.00	1999/1/1 11.00	1999/1/1 14.00	5.9	138A,1 -- 138B,1 33.50	0.00	0.68	1999/1/1 11.00	1999/1/1 14.40	3,663.8	129A,1 -- 129C,1 667.78	0.00	0.00	1999/1/1 11.00	1999/1/1 11.23	0.5
91EA,1 -- 89D,1 154.40	0.00	0.00	1999/1/1 14.00	1999/1/1 12.40	5.9	138A,1 -- 138B,1 100.49	0.00	0.68	1999/1/1 11.00	1999/1/1 14.40	3,655.2	129A,1 -- 129C,1 725.85	0.00	0.00	1999/1/1 11.00	1999/1/1 11.23	0.1
91EA,1 -- 91EB,1 25.66	0.00	0.35	1999/1/1 11.00	1999/1/1 14.00	322.6	138A,1 -- 138B,1 167.48	0.00	0.68	1999/1/1 11.00	1999/1/1 14.40	3,649.8	129A,1 -- 129C,1 783.92	0.00	0.00	1999/1/1 11.00	1999/1/1 11.23	0.1
91EA,1 -- 91EB,1 76.98	0.00	0.35	1999/1/1 11.00	1999/1/1 14.00	313.7	138B,1 -- 55B,1 25.27	-0.31	0.48	1999/1/1 14.40	1999/1/1 15.20	2,732.4	129A,1 -- 129C,1 841.99	0.00	0.00	1999/1/1 11.00	1999/1/1 11.23	0.0
91EA,1 -- 91EB,1 128.30	0.00	0.34	1999/1/1 13.00	1999/1/1 14.00	300.0	132B,1 -- 55B,1 77.30	-0.31	0.48	1999/1/1 14.40	1999/1/1 15.20	2,697.4	129A,1 -- 129C,1 900.06	0.00	0.00	1999/1/1 11.00	1999/1/1 11.23	0.0
91EB,1 -- 91EC,1 19.20	-0.06	0.31	1999/1/1 12.40	1999/1/1 14.00	265.5	55B,1 -- 55C,1 30.34	-0.03	1.71	1999/1/1 14.40	1999/1/1 15.20	10,998.6	129C,1 -- 129D,1 9.70	0.00	0.00	1999/1/1 11.00	1999/1/1 11.00	0.2
91EC,1 -- 91FA,1 34.51	-0.10	0.24	1999/1/1 12.40	1999/1/1 14.00	154.9	55B,1 -- 55C,1 91.02	-0.03	1.71	1999/1/1 14.40	1999/1/1 15.20	10,995.0	130,1 -- 129D,1 30.28	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	12.4
91EC,1 -- 91FA,1 103.52	-0.12	0.24	1999/1/1 12.40	1999/1/1 14.00	97.3	55B,1 -- 55C,1 151.69	-0.02	1.11	1999/1/1 14.40	1999/1/1 15.20	10,972.3	130,1 -- 129D,1 90.79	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	12.3
91FA,1 -- 91FB,1 35.12	-0.09	0.22	1999/1/1 12.40	1999/1/1 14.00	99.0	147A,1 -- 145B,1 32.04	-0.03	0.71	1999/1/1 14.40	1999/1/1 15.20	629.0	130,1 -- 129D,1 151.31	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	12.4
91FB,1 -- 91GA,1 25.65	-0.11	0.12	1999/1/1 12.40	1999/1/1 14.00	-32.1	147A,1 -- 145B,1 95.13	-0.02	0.11	1999/1/1 14.40	1999/1/1 15.20	632.2	130,1 -- 129D,1 211.84	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	12.2
91GA,1 -- 91GB,1 25.41	-0.13	0.16	1999/1/1 12.40	1999/1/1 14.00	-56.8	147A,1 -- 145B,1 160.22	-0.02	0.11	1999/1/1 14.40	1999/1/1 15.40	652.0	130,1 -- 129D,1 272.36	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	11.6
91GB,1 -- 198A,1 29.45	-0.22	0.23	1999/1/1 12.40	1999/1/1 14.00	-148.2	145B,1 -- 145BA,1 16.42	0.00	0.23	1999/1/1 14.40	1999/1/1 15.20	57.4	130,1 -- 129D,1 332.89	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	10.5
198A,1 -- 197BA,1 15.55	-0.30	0.28	1999/1/1 12.40	1999/1/1 14.00	-259.8	54A,1 -- 54B,1 29.63	0.00	2.69	1999/1/1 11.00	1999/1/1 14.40	15,242.3	130,1 -- 129D,1 393.41	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	8.7
197BA,1 -- 91G,2 43.76	-0.35	0.37	1999/1/1 12.40	1999/1/1 14.00	-296.5	54A,1 -- 54B,1 88.88	0.00	2.69	1999/1/1 11.00	1999/1/1 14.40	15,759.7	133,1 -- 50EA,1 27.64	0.00	0.02	1999/1/1 11.00	1999/1/1 11.19	18.8
740A,1 -- 171B,1 25.17	-0.07	0.08	1999/1/1 12.40	1999/1/1 14.00	43.2	54A,1 -- 54B,1 148.14	0.00	2.69	1999/1/1 11.00	1999/1/1 14.40	15,765.3	133,1 -- 50EA,1 82.93	0.00	0.02	1999/1/1 11.00	1999/1/1 11.19	18.8
60C,1 -- 60D,1 29.29	-0.01	0.20	1999/1/1 13.20	1999/1/1 14.00	128.8	54A,1 -- 54B,1 207.39	0.00	2.69	1999/1/1 11.00	1999/1/1 14.40	15,759.9	133,1 -- 50EA,1 138.22	0.00	0.02	1999/1/1 11.00	1999/1/1 11.23	18.8
60C,1 -- 60D,1 84.86	-0.02	0.19	1999/1/1 13.20	1999/1/1 14.00	115.3	U63A,1 -- U63C,1 26.62	0.00	0.49	1999/1/1 11.00	1999/1/1 14.00	3,343.2	133,1 -- 50EA,1 193.50	0.00	0.02	1999/1/1 11.00	1999/1/1 11.23	18.7
60C,1 -- 60D,1 141.44	-0.02	0.19	1999/1/1 12.40	1999/1/1 14.00	75.9	U63A,1 -- U63C,1 79.87	0.00	0.49	1999/1/1 11.00	1999/1/1 14.00	3,345.1	133,1 -- 50EA,1 249.79	0.00	0.02	1999/1/1 11.00	1999/1/1 11.23	18.4
192A,1 -- 91BB,1 33.42	0.00	0.06	1999/1/1 11.20	1999/1/1 14.00	72.7	U63A,1 -- U63C,1 133.12	0.00	0.49	1999/1/1 11.00	1999/1/1 14.00	3,348.8	134B,1 -- 50EA,1 29.32	0.00	0.03	1999/1/1 11.00	1999/1/1 11.23	18.1
192A,1 -- 91BB,1 100.25	0.00	0.06	1999/1/1 11.20	1999/1/1 14.00	68.1	U63A,1 -- U63C,1 186.36	0.00	0.49	1999/1/1 11.00	1999/1/1 14.00	3,347.5	134B,1 -- 50EA,1 87.95	0.00	0.02	1999/1/1 11.00	1999/1/1 11.23	16.3
68A,1 -- 172AA,1 42.56	-0.03	0.14	1999/1/1 13.20	1999/1/1 14.00	-43.7	U63A,1 -- U63C,1 239.61	0.00	0.49	1999/1/1 11.00	1999/1/1 14.00	3,347.9	134B,1 -- 50EA,1 145.59	0.00	0.02	1999/1/1 11.00	1999/1/1 11.23	13.7
172AA,1 -- 68B,1 38.58	-0.09	0.23	1999/1/1 13.20	1999/1/1 14.00	-14.4	U63A,1 -- U63C,1 292.86	0.00	0.49	1999/1/1 11.00	1999/1/1 14.00	3,348.5	134B,1 -- 50EA,1 205.22	0.00	0.02	1999/1/1 11.00	1999/1/1 11.23	10.8
172AB,1 -- 172BB,1 41.26	-0.13	0.04	1999/1/1 14.00	1999/1/1 13.20	-15.0	U63A,1 -- U63C,1 346.10	0.00	0.49	1999/1/1 11.00	1999/1/1 14.00	3,349.2	135A,1 -- 50EB,1 29.72	0.00	0.01	1999/1/1 11.00	1999/1/1 11.09	7.7
172AB,1 -- 172AA,1 36.18	-0.05	0.16	1999/1/1 13.20	1999/1/1 14.00	31.4	U63A,1 -- U63C,1 399.35	0.00	0.49	1999/1/1 11.00	1999/1/1 14.00	3,347.1	135A,1 -- 50EB,1 69.15	0.00	0.01	1999/1/1 11.00	1999/1/1 11.09	7.7
87BB,1 -- 87CA,1 29.62	-0.13	0.26	1999/1/1 12.40	1999/1/1 14.00	-5.8	U63C,1 -- U63D,1 26.03	0.00	1.54	1999/1/1 11.00	1999/1/1 14.40	7,711.8	135A,1 -- 50EB,1 149.58	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	7.1
87BB,1 -- 87CA,1 88.65	-0.15	0.28	1999/1/1 12.40	1999/1/1 14.00	-47.6	U63C,1 -- U63D,1 78.08	0.00	1.54	1999/1/1 11.00	1999/1/1 14.40	7,744.3	135A,1 -- 50EB,1 208.01	0.00	0.01	1999/1/1 11.00	1999/1/1 11.19	5.7
87BA,1 -- 87CA,1 149.10	-0.18	0.26	1999/1/1 12.40	1999/1/1 14.00	-92.7	U63C,1 -- U63D,1 130.13	0.00	1.54	1999/1/1 11.00	1999/1/1 14.40	7,732.0	135A,1 -- 50EB,1 267.45	0.00	0.01	1999/1/1 11.00	1999/1/1 11.19	4.3
80A,1 -- 76FB,1 24.75	-0.16	0.13	1999/1/1 14.00	1999/1/1 12.40	68.3	U63D,1 -- U64A,1 34.47	0.00	1.28	1999/1/1 11.00	1999/1/1 15.00	7,468.0	135A,1 -- 50EB,1 326.88	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	3.6
80A,1 -- 76FB,1 74.25	-0.16	0.10	1999/1/1 14.00	1999/1/1 12.40	24.8	U63D,1 -- U64A,1 103.49	0.00	1.28	1999/1/1 11.00	1999/1/1 15.00	7,475.7	135A,1 -- 50EB,1 386.31	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	3.0
80A,1 -- 83A,1 33.13	-0.05	0.09	1999/1/1 12.40	1999/1/1 14.00	-20.3	U63D,1 -- U64A,1 172.34	0.00	1.28	1999/1/1 11.00	1999/1/1 15.00	7,451.3	138A,1 -- 138B,1 28.92	0.00	0.01	1999/1/1 11.00	1999/1/1 11.09	14.7
83A,1 -- 87CA,1 33.20	-0.09	0.03	1999/1/1 14.00	1999/1/1 12.40	-74.4	U63D,1 -- U64A,1 241.28	0.00	1.28	1999/1/1 11.00	1999/1/1 15.00	7,415.2	138A,1 -- 138B,1 86.75	0.00	0.01	1999/1/1 11.00	1999/1/1 11.23	14.8
80A,1 -- 80B,1 38.72	-0.12	0.16	1999/1/1 14.00	1999/1/1 14.00	-28.7	U64A,1 -- 53AB,1 28.91	0.00	1.18	1999/1/1 11.00	1999/1/1 14.20	7,546.1	138A,1 -- 138B,1 144.59	0.00	0.01	1999/1/1 11.00	1999/1/1 11.19	14.3
84A,1 -- 80B,1 38.73																	

Table with 6 columns: Line No. (Distance in m), Minimum (m³/s), Maximum (m³/s), Minimum Time, Maximum Time, Accumulated Volume (m3). Rows include data for lines 253.1 to 1248.1 and 137A.1 to 137B.1.

Table with 6 columns: Line No. (Distance in m), Minimum (m³/s), Maximum (m³/s), Minimum Time, Maximum Time, Accumulated Volume (m3). Rows include data for lines JTI-030 to U82A.1.

Table with 6 columns: Line No. (Distance in m), Minimum (m³/s), Maximum (m³/s), Minimum Time, Maximum Time, Accumulated Volume (m3). Rows include data for lines U82A.1 to 63C.1.

Table with 5 columns: Line No. (Distance in m), Minimum (m³/s), Maximum (m³/s), Minimum Time, Maximum Time, Accumulated Volume (m³). Rows include data for lines 63A.1 through 63DB.1 and [D Zone] lines 23A.1 through 33G.1.

Table with 5 columns: Line No. (Distance in m), Minimum (m³/s), Maximum (m³/s), Minimum Time, Maximum Time, Accumulated Volume (m³). Rows include data for lines 33G.1 through 33J.1 and 34AA.1 through 42A.1.

Table with 5 columns: Line No. (Distance in m), Minimum (m³/s), Maximum (m³/s), Minimum Time, Maximum Time, Accumulated Volume (m³). Rows include data for lines 42A.1 through 42L.1.

Line No. (Distance in m)	Minimum (m ³ /s)	Maximum (m ³ /s)	Minimum Time	Maximum Time	Accumulated Volume (m ³)
JT1-082 -- 330,1	0.00	1.66	1999/1/1 11:01	1999/1/1 14:08	10,655.3
U47A,1 -- U47B,1	0.00	0.34	1999/1/1 11:11	1999/1/1 13:40	2,213.4
U47A,1 -- U47B,1	0.00	0.34	1999/1/1 11:00	1999/1/1 13:40	2,211.8
U47A,1 -- U47B,1	0.00	0.33	1999/1/1 11:00	1999/1/1 13:40	2,210.7
U47A,1 -- U47B,1	0.00	0.29	1999/1/1 11:00	1999/1/1 13:40	2,209.2
U47A,1 -- U47B,1	0.00	0.26	1999/1/1 11:00	1999/1/1 14:55	2,201.2
U47A,1 -- U47B,1	0.00	0.26	1999/1/1 11:00	1999/1/1 14:55	2,200.7
U47A,1 -- U47B,1	-0.01	0.26	1999/1/1 13:35	1999/1/1 14:55	2,199.5
U47A,1 -- U47B,1	-0.03	0.26	1999/1/1 13:36	1999/1/1 14:55	2,198.2
U47B,1 -- U47C,1	0.00	0.42	1999/1/1 11:00	1999/1/1 13:41	3,295.5
U47B,1 -- U47C,1	0.00	0.42	1999/1/1 11:00	1999/1/1 13:41	3,288.8
U47B,1 -- U47C,1	0.00	0.42	1999/1/1 11:00	1999/1/1 13:41	3,281.4
U47B,1 -- U47C,1	0.00	0.42	1999/1/1 11:00	1999/1/1 13:41	3,273.2
U47B,1 -- U47C,1	0.00	0.42	1999/1/1 11:00	1999/1/1 13:41	3,266.4
U47B,1 -- U47C,1	0.00	0.39	1999/1/1 11:00	1999/1/1 14:54	3,254.5
U47B,1 -- U47C,1	0.00	0.39	1999/1/1 11:00	1999/1/1 14:54	3,243.6
U47B,1 -- U47C,1	0.00	0.39	1999/1/1 11:00	1999/1/1 14:54	3,232.2
U47B,1 -- U47C,1	0.00	0.39	1999/1/1 11:00	1999/1/1 14:54	3,219.8
U47B,1 -- U47C,1	0.00	0.39	1999/1/1 11:00	1999/1/1 14:54	3,206.5
U47B,1 -- U47C,1	0.00	0.39	1999/1/1 12:15	1999/1/1 14:54	3,192.8
U47B,1 -- U47C,1	0.00	0.39	1999/1/1 12:15	1999/1/1 14:54	3,178.3
U47B,1 -- U47C,1	0.00	0.39	1999/1/1 11:57	1999/1/1 14:54	3,163.2
U47B,1 -- U47C,1	0.00	0.39	1999/1/1 11:57	1999/1/1 14:54	3,147.6
U47C,1 -- U43B,1	-0.04	0.41	1999/1/1 14:07	1999/1/1 15:07	3,800.0
U47C,1 -- U43B,1	-0.07	0.41	1999/1/1 14:06	1999/1/1 15:07	3,782.2
U47C,1 -- U43B,1	-0.11	0.41	1999/1/1 14:05	1999/1/1 15:07	3,749.2
U47C,1 -- U43B,1	-0.15	0.41	1999/1/1 14:05	1999/1/1 15:07	3,726.8
U47C,1 -- U43B,1	-0.18	0.41	1999/1/1 14:05	1999/1/1 15:07	3,697.9
U43B,1 -- U42AA,1	-0.13	0.34	1999/1/1 14:05	1999/1/1 16:04	3,089.2
U43B,1 -- U42AA,1	-0.20	0.34	1999/1/1 14:05	1999/1/1 16:04	3,061.8
U43B,1 -- U42AA,1	-0.20	0.34	1999/1/1 14:05	1999/1/1 16:04	3,035.3
U43B,1 -- U42AA,1	-0.19	0.34	1999/1/1 14:05	1999/1/1 16:04	2,999.3
U43B,1 -- U42AA,1	-0.19	0.34	1999/1/1 14:05	1999/1/1 16:04	2,974.2
U43B,1 -- U42AA,1	-0.19	0.34	1999/1/1 14:05	1999/1/1 16:04	2,941.2
U43B,1 -- U42AA,1	-0.19	0.34	1999/1/1 14:05	1999/1/1 16:04	2,908.1
U43B,1 -- U42AA,1	-0.18	0.34	1999/1/1 14:05	1999/1/1 16:04	2,872.6
U46,2 -- U45A,1	-0.02	0.00	1999/1/1 14:22	1999/1/1 16:17	-1.6
U46,2 -- U45A,1	-0.04	0.01	1999/1/1 14:23	1999/1/1 16:17	-4.2
U46,2 -- U45A,1	-0.05	0.02	1999/1/1 14:23	1999/1/1 16:17	-7.5
U46,2 -- U45A,1	-0.06	0.02	1999/1/1 14:24	1999/1/1 16:17	-11.3
U46,2 -- U45A,1	-0.07	0.03	1999/1/1 14:25	1999/1/1 16:17	-15.8
U46,2 -- U45A,1	-0.07	0.04	1999/1/1 14:26	1999/1/1 16:17	-20.8
U46,2 -- U45A,1	-0.08	0.04	1999/1/1 14:26	1999/1/1 16:17	-26.7
U45A,1 -- U47D,1	-0.09	0.05	1999/1/1 14:26	1999/1/1 16:17	-34.0
U45A,1 -- U47D,1	-0.09	0.05	1999/1/1 14:13	1999/1/1 16:17	-40.4
U45A,1 -- U47D,1	-0.11	0.05	1999/1/1 14:13	1999/1/1 16:17	-47.8
U45A,1 -- U47D,1	-0.12	0.06	1999/1/1 14:12	1999/1/1 16:17	-56.0
U45A,1 -- U47D,1	-0.13	0.06	1999/1/1 14:12	1999/1/1 16:17	-63.3
U45A,1 -- U47D,1	-0.14	0.06	1999/1/1 14:10	1999/1/1 16:17	-75.4
U45A,1 -- U47D,1	-0.15	0.06	1999/1/1 14:10	1999/1/1 16:17	-87.1
U45A,1 -- U47D,1	-0.17	0.06	1999/1/1 14:09	1999/1/1 16:18	-98.7
U45A,1 -- U47D,1	-0.17	0.06	1999/1/1 14:09	1999/1/1 16:18	-112.1
U45A,1 -- U47D,1	-0.19	0.06	1999/1/1 14:08	1999/1/1 16:18	-125.2
U47D,1 -- U47C,1	-0.36	0.15	1999/1/1 14:07	1999/1/1 16:48	606.9
U42AA,1 -- U42BB,1	-0.47	0.35	1999/1/1 14:04	1999/1/1 14:03	-841.5
U42AA,1 -- U42BB,1	-0.46	0.28	1999/1/1 14:52	1999/1/1 14:03	-857.0
U42AA,1 -- U42BB,1	-0.46	0.20	1999/1/1 14:52	1999/1/1 17:00	-882.9
U42AA,1 -- U42BB,1	-0.46	0.20	1999/1/1 14:52	1999/1/1 17:00	-913.1
U42AA,1 -- U42BB,1	-0.46	0.20	1999/1/1 14:51	1999/1/1 17:00	-942.9
U42AA,1 -- U42BB,1	-0.46	0.20	1999/1/1 14:51	1999/1/1 17:00	-971.1
U42AA,1 -- U42BB,1	-0.47	0.20	1999/1/1 14:03	1999/1/1 17:00	-1,004.1
U42AA,1 -- U42BB,1	-0.57	0.20	1999/1/1 14:03	1999/1/1 17:00	-1,034.5
U42AA,1 -- U42BB,1	-0.59	0.20	1999/1/1 14:03	1999/1/1 17:00	-1,065.4
U42AA,1 -- U42BB,1	-0.59	0.20	1999/1/1 14:03	1999/1/1 17:00	-1,099.2
U42AA,1 -- U42BB,1	-0.59	0.20	1999/1/1 14:03	1999/1/1 17:00	-1,126.0
U42BB,1 -- JT1-019	0.00	0.42	1999/1/1 11:00	1999/1/1 14:54	3,416.7
U42BB,1 -- JT1-019	0.00	0.42	1999/1/1 11:00	1999/1/1 14:54	3,385.5
U42BB,1 -- JT1-019	0.00	0.42	1999/1/1 11:00	1999/1/1 14:54	3,344.4
U42BB,1 -- JT1-019	0.00	0.42	1999/1/1 11:00	1999/1/1 14:54	3,315.2
U42BB,1 -- JT1-019	0.00	0.42	1999/1/1 11:00	1999/1/1 14:54	3,285.2
U42BB,1 -- JT1-019	0.00	0.42	1999/1/1 11:00	1999/1/1 14:54	3,255.4
U42BB,1 -- JT1-019	0.00	0.42	1999/1/1 11:00	1999/1/1 14:54	3,225.5
U42BB,1 -- JT1-019	0.00	0.42	1999/1/1 11:58	1999/1/1 14:54	3,191.3
U42BB,1 -- JT1-019	0.00	0.42	1999/1/1 11:58	1999/1/1 14:54	3,161.9
11A,1 -- 12,2	-0.28	2.77	1999/1/1 13:30	1999/1/1 14:38	16,559.4
11A,1 -- 12,2	-0.29	2.77	1999/1/1 12:01	1999/1/1 14:38	16,448.6
11A,1 -- 12,2	-0.32	2.77	1999/1/1 12:00	1999/1/1 14:38	16,337.3
11A,1 -- 12,2	-0.35	2.77	1999/1/1 12:00	1999/1/1 14:38	16,226.6
11A,1 -- 12,2	-0.37	2.77	1999/1/1 12:00	1999/1/1 14:38	16,115.3
11A,1 -- 12,2	-0.40	2.77	1999/1/1 12:00	1999/1/1 14:38	16,004.2
11A,1 -- 12,2	-0.43	2.77	1999/1/1 11:58	1999/1/1 14:37	15,893.1
11A,1 -- 12,2	-0.46	2.77	1999/1/1 11:58	1999/1/1 14:37	15,782.0
11A,1 -- 12,2	-0.49	2.76	1999/1/1 11:58	1999/1/1 14:38	15,670.9

Line No. (Distance in m)	Minimum (m ³ /s)	Maximum (m ³ /s)	Minimum Time	Maximum Time	Accumulated Volume (m ³)
127C,1 -- 27B,1	-0.01	3.69	1999/1/1 13:28	1999/1/1 14:42	15,139.8
127C,1 -- 27B,1	-0.02	3.69	1999/1/1 13:28	1999/1/1 14:42	15,025.4
27B,1 -- 27DA,1	-0.11	2.69	1999/1/1 13:04	1999/1/1 14:53	15,861.1
27B,1 -- 27DA,1	-0.12	2.69	1999/1/1 13:04	1999/1/1 14:53	15,749.0
27B,1 -- 27DA,1	-0.14	2.69	1999/1/1 13:03	1999/1/1 14:53	15,638.4
27B,1 -- 27DA,1	-0.15	2.69	1999/1/1 13:03	1999/1/1 14:53	15,526.0
27B,1 -- 27DA,1	-0.16	2.69	1999/1/1 13:02	1999/1/1 14:53	15,417.8
27B,1 -- 27DA,1	-0.18	2.69	1999/1/1 13:02	1999/1/1 14:53	15,305.3
27B,1 -- 27DA,1	-0.19	2.69	1999/1/1 13:02	1999/1/1 14:53	15,191.4
27B,1 -- 27DA,1	-0.20	2.69	1999/1/1 13:02	1999/1/1 14:53	15,075.5
27DA,1 -- 27DB,1	-0.22	3.70	1999/1/1 12:43	1999/1/1 14:44	18,010.2
27DB,1 -- 27DB,1	-1.04	0.00	1999/1/1 14:44	1999/1/1 15:41	-2,010.5
123C,1 -- 123D,1	-1.03	0.01	1999/1/1 14:39	1999/1/1 15:38	-2,032.5
123C,1 -- 123D,1	-0.00	0.81	1999/1/1 11:01	1999/1/1 14:38	2,596.1
123C,1 -- 123D,1	-0.01	0.81	1999/1/1 13:01	1999/1/1 14:38	2,562.5
123C,1 -- 123D,1	-0.01	0.81	1999/1/1 13:01	1999/1/1 14:38	2,556.3
123C,1 -- 123D,1	-0.01	0.81	1999/1/1 11:27	1999/1/1 14:38	2,527.7
27EB,1 -- 27EB,1	-0.45	5.61	1999/1/1 11:52	1999/1/1 14:45	22,217.0
27EB,1 -- 27EB,2	-0.50	5.61	1999/1/1 11:51	1999/1/1 14:45	21,983.0
146,1 -- 247,1	-0.01	0.34	1999/1/1 12:29	1999/1/1 14:45	1,533.6
146,1 -- 247,1	-0.03	0.34	1999/1/1 12:30	1999/1/1 14:45	1,498.0
146,1 -- 247,1	-0.04	0.34	1999/1/1 12:32	1999/1/1 14:45	1,462.4
146,1 -- 247,1	-0.05	0.34	1999/1/1 12:33	1999/1/1 14:45	1,426.9
146,1 -- 247,1	-0.06	0.34	1999/1/1 12:34	1999/1/1 14:45	1,391.4
23B,1 -- 23C,1	-0.01	0.01	1999/1/1 13:59	1999/1/1 16:05	-21.0
23B,1 -- 23C,1	-0.02	0.02	1999/1/1 13:02	1999/1/1 16:05	-53.6
23B,1 -- 23C,1	-0.03	0.03	1999/1/1 12:52	1999/1/1 16:05	-94.9
23B,1 -- 23C,1	-0.05	0.03	1999/1/1 12:52	1999/1/1 16:05	-145.5
23C,1 -- 23DA,1	-0.06	0.04	1999/1/1 12:52	1999/1/1 16:05	-207.3
23C,1 -- 23DA,1	-0.09	0.04	1999/1/1 12:52	1999/1/1 16:05	-318.3
23DA,1 -- 23DB,1	-0.10	0.04	1999/1/1 12:52	1999/1/1 16:05	-461.1
23DB,1 -- 23DB,2	-0.07	0.07	1999/1/1 12:52	1999/1/1 16:05	-47.1
23DB,1 -- 23DB,2	-0.07	0.07	1999/1/1 12:52	1999/1/1 16:05	-5.0
23DB,1 -- 23DB,2	-0.08	0.07	1999/1/1 11:47	1999/1/1 16:05	-57.1
23DB,1 -- 23DB,2	-0.10	0.07	1999/1/1 11:43	1999/1/1 16:05	-109.0
42A,1 -- 127A,1	-0.53	0.22	1999/1/1 14:38	1999/1/1 14:53	-2.1
42A,1 -- 127A,1	-0.54	0.22	1999/1/1 14:37	1999/1/1 14:53	-0.9
42A,1 -- 127A,1	-0.59	0.31	1999/1/1 14:37	1999/1/1 14:53	1.1
42A,1 -- 127A,1	-0.60	0.32	1999/1/1 14:36	1999/1/1 14:53	0.7
42A,1 -- 127A,1	-0.60	0.32	1999/1/1 14:36	1999/1/1 14:53	0.7
42A,1 -- 127A,1	-0.60	0.32	1999/1/1 14:36	1999/1/1 14:53	0.3
42A,1 -- 127A,1	-0.60	0.32	1999/1/1 14:36	1999/1/1 14:53	-0.1
42A,1 -- 127A,1	-0.60	0.32	1999/1/1 14:36	1999/1/1 14:53	0.0
42A,1 -- 127A,1	-0.60	0.32	1999/1/1 14:36	1999/1/1 14:53	-0.2
127A,1 -- 127B,1	-0.80	0.34	1999/1/1 14:36	1999/1/1 15:11	-1.8
127A,1 -- 127B,1	-0.61	0.37	1999/1/1 14:36	1999/1/1 15:12	-2.6
127A,1 -- 127B,1	-0.63	0.39	1999/1/1 14:22	1999/1/1 15:12	-8.5
127A,1 -- 127B,1	-0.64	0.39	1999/1/1 14:22	1999/1/1 15:12	-21.1
127A,1 -- 127B,1	-0.64	0.39	1999/1/1 14:22	1999/1/1 15:12	-40.3
127A,1 -- 127B,1	-0.84	0.39	1999/1/1 14:22	1999/1/1 15:12	-45.4
127B,1 -- 127C,1	-0.02	1.73	1999/1/1 13:06	1999/1/1 14:42	4,754.8
127B,1 -- 127C,1	-0.03	1.73			

MOUSE Pipe Flow Simulation STATUS REPORT
Dynamic Wave

File Overview Simulation Parameters

Sewer network data : FS_1.SWF Simulation time HH:MM:SS :
 Hydraulic data : Maximum time step (sec) : 10
 Weir/Gate/Pump RTC : Minimum time step (sec) : 1

Runoff Hydrographs : FS_1.RRF
 Boundary conditions : DESIGN.BSF
 Hotstart file :
 Result file : FS_1.PRF Save time step HH:MM:SS : 0:20:00
 Simulation start date : 1999-01-01 11:00:00
 Simulation end date : 1999-01-01 16:00:00

1 : START VOLUME in Pipes, Manholes and Structures : 929409.5 M3
 2 : END VOLUME in Pipes, Manholes and Structures : 2108966.9 M3
 3 : Total INFLOW VOLUME (runoff, boundary, DWF) : 1197828.8 M3
 4 : Total DIVERTED VOLUME (weirs, pumps and outlets) : 24608.5 M3
 5 : Water Generated in Empty Parts of the System : 15447.7 M3
 6 : CONTINUITY BALANCE = (2-1) - (3-4+5) : -9110.6 M3
 Continuity balance MAX value : 0.0 M3
 Continuity balance MIN value : -8260.1 M3

Calculation started : 1999-10-02 10:32:45
 Calculation ended : 1999-10-02 10:37:02 Time HH:MM:SS : 0:04:17

3a : Total generated Dry Weather Flow volume (DWF) : 2199.0 M3

Time Step parameters loaded from the DHIAPP.INI file:

Relative change criteria for inflow time series : 0.0500
 Low flow limit for inflow time series : 0.0100
 Max. relative water level change : 0.300
 Max. Variation in Cross Section parameters : 0.030
 Cross check low depth limit (relative) : 0.040
 Cross check level : 1.000
 Max. Variation in Pump Flow : 0.100
 Max. Courant Number : 20.000

MOUSE Pipe Flow Simulation STATUS REPORT
Dynamic Wave

File Overview Simulation Parameters

Sewer network data : FS_2.SWF Simulation time HH:MM:SS :
 Hydraulic data : Maximum time step (sec) : 5
 Weir/Gate/Pump RTC : Minimum time step (sec) : 1

Runoff Hydrographs : FS_2.RRF
 Boundary conditions : DESIGN.BSF
 Hotstart file :
 Result file : FS_2.PRF Save time step HH:MM:SS : 0:20:00
 Simulation start date : 1999-01-01 11:00:00
 Simulation end date : 1999-01-01 17:00:00

1 : START VOLUME in Pipes, Manholes and Structures : 2404.3 M3
 2 : END VOLUME in Pipes, Manholes and Structures : 75421.3 M3
 3 : Total INFLOW VOLUME (runoff, boundary, DWF) : 64339.4 M3
 4 : Total DIVERTED VOLUME (weirs, pumps and outlets) : 0.0 M3
 5 : Water Generated in Empty Parts of the System : 8182.9 M3
 6 : CONTINUITY BALANCE = (2-1) - (3-4+5) : 494.7 M3
 Continuity balance MAX value : 2125.3 M3
 Continuity balance MIN value : -104.5 M3

Calculation started : 1999-09-16 11:24:05
 Calculation ended : 1999-09-16 11:24:45 Time HH:MM:SS : 0:00:40

3a : Total generated Dry Weather Flow volume (DWF) : 2142.1 M3

Time Step parameters loaded from the DHIAPP.INI file:

Relative change criteria for inflow time series : 0.0500
 Low flow limit for inflow time series : 0.0100
 Max. relative water level change : 0.300
 Max. Variation in Cross Section parameters : 0.030
 Cross check low depth limit (relative) : 0.040
 Cross check level : 1.000
 Max. Variation in Pump Flow : 0.100
 Max. Courant Number : 20.000

MOUSE Pipe Flow Simulation STATUS REPORT
Dynamic Wave

File Overview Simulation Parameters

Sewer network data : FS_3.SWF Simulation time HH:MM:SS :
Hydraulic data : Maximum time step (sec) : 10
Weir/Gate/Pump RTC : Minimum time step (sec) : 1

Runoff Hydrographs : FS_3.RRF
Boundary conditions : DESIGN.BSF
Hotstart file :
Result file : FS_3.PRF Save time step HH:MM:SS : 0:10:00
 Simulation start date : 1999-01-01 11:00:00
 Simulation end date : 1999-01-01 17:00:00

1 : START VOLUME in Pipes, Manholes and Structures : 17127.9 M3
2 : END VOLUME in Pipes, Manholes and Structures : 26231.2 M3
3 : Total INFLOW VOLUME (runoff, boundary, DWF) : 1418.4 M3
4 : Total DIVERTED VOLUME (weirs, pumps and outlets) : 2810.0 M3
5 : Water Generated in Empty Parts of the System : 11239.2 M3
6 : CONTINUITY BALANCE = (2-1) - (3-4+5) : -744.2 M3
 Continuity balance MAX value : 0.0 M3
 Continuity balance MIN value : -744.2 M3

Calculation started : 1999-09-18 12:06:33
Calculation ended : 1999-09-18 12:06:50 Time HH:MM:SS : 0:00:17

3a : Total generated Dry Weather Flow volume (DWF) : 653.2 M3

Time Step parameters loaded from the DHIAPP.INI file:

Relative change criteria for inflow time series : 0.0500
Low flow limit for inflow time series : 0.0100
Max. relative water level change : 0.300
Max. Variation in Cross Section parameters : 0.030
Cross check low depth limit (relative) : 0.040
Cross check level : 1.000
Max. Variation in Pump Flow : 0.100
Max. Courant Number : 20.000

MOUSE Pipe Flow Simulation STATUS REPORT
Dynamic Wave

File Overview Simulation Parameters

Sewer network data : FS_4.SWF Simulation time HH:MM:SS :
Hydraulic data : Maximum time step (sec) : 10
Weir/Gate/Pump RTC : Minimum time step (sec) : 1

Runoff Hydrographs : FS_4_1.RRF
Boundary conditions : DESIGN.BSF
Hotstart file :
Result file : FS_4_1.PRF Save time step HH:MM:SS : 0:01:00
 Simulation start date : 1999-01-01 11:00:00
 Simulation end date : 1999-01-01 17:00:00

1 : START VOLUME in Pipes, Manholes and Structures : 17800.9 M3
2 : END VOLUME in Pipes, Manholes and Structures : 169264.2 M3
3 : Total INFLOW VOLUME (runoff, boundary, DWF) : 191368.6 M3
4 : Total DIVERTED VOLUME (weirs, pumps and outlets) : 52870.3 M3
5 : Water Generated in Empty Parts of the System : 21108.7 M3
6 : CONTINUITY BALANCE = (2-1) - (3-4+5) : -8143.7 M3
 Continuity balance MAX value : 0.4 M3
 Continuity balance MIN value : -8143.7 M3

Calculation started : 1999-09-15 15:27:47
Calculation ended : 1999-09-15 15:31:50 Time HH:MM:SS : 0:04:03

Time Step parameters loaded from the DHIAPP.INI file:

Relative change criteria for inflow time series : 0.0500
Low flow limit for inflow time series : 0.0100
Max. relative water level change : 0.300
Max. Variation in Cross Section parameters : 0.030
Cross check low depth limit (relative) : 0.040
Cross check level : 1.000
Max. Variation in Pump Flow : 0.100
Max. Courant Number : 20.000

MOUSE Pipe Flow Simulation STATUS REPORT
Dynamic Wave

File Overview Simulation Parameters

Sewer network data : UDC2_R1.SWF Simulation time HH:MM:SS :
 Hydraulic data : Maximum time step (sec) : 60
 Weir/Gate/Pump RTC : Minimum time step (sec) : 10

Runoff Hydrographs : UDC2_R1.RRF
 Boundary conditions : DESIGN.BSF
 Hotstart file :
 Result file : UDC2_R1.PRF Save time step HH:MM:SS : 0:10:00
 Simulation start date : 1999-01-01 11:00:00
 Simulation end date : 1999-01-01 17:00:00

1 : START VOLUME in Pipes, Manholes and Structures : 5662330.7 M3
 2 : END VOLUME in Pipes, Manholes and Structures : 12428065.2 M3
 3 : Total INFLOW VOLUME (runoff, boundary, DWF) : 8456203.9 M3
 4 : Total DIVERTED VOLUME (weirs, pumps and outlets) : 1690401.4 M3
 5 : Water Generated in Empty Parts of the System : 142.3 M3
 6 : CONTINUITY BALANCE = (2-1) - (3-4+5) : -210.4 M3
 Continuity balance MAX value : 7545.0 M3
 Continuity balance MIN value : -268.6 M3

Calculation started : 1999-04-26 17:58:37
 Calculation ended : 1999-04-26 18:00:47 Time HH:MM:SS : 0:02:10

3a : Total generated Dry Weather Flow volume (DWF) : 14041.8 M3

Time Step parameters loaded from the DHIAPP.INI file:

Relative change criteria for inflow time series : 0.0500
 Low flow limit for inflow time series : 0.0100
 Max. relative water level change : 0.300
 Max. Variation in Cross Section parameters : 0.030
 Cross check low depth limit (relative) : 0.040
 Cross check level : 1.000
 Max. Variation in Pump Flow : 0.100
 Max. Courant Number : 20.000

MOUSE Pipe Flow Simulation STATUS REPORT
Dynamic Wave

File Overview Simulation Parameters

Sewer network data : FS_6.SWF Simulation time HH:MM:SS :
 Hydraulic data : Maximum time step (sec) : 60
 Weir/Gate/Pump RTC : Minimum time step (sec) : 10

Runoff Hydrographs : FS_6.RRF
 Boundary conditions : DESIGN.BSF
 Hotstart file :
 Result file : FS_6.PRF Save time step HH:MM:SS : 0:10:00
 Simulation start date : 1999-01-01 11:00:00
 Simulation end date : 1999-01-01 17:00:00

1 : START VOLUME in Pipes, Manholes and Structures : 1.1 M3
 2 : END VOLUME in Pipes, Manholes and Structures : 4945.9 M3
 3 : Total INFLOW VOLUME (runoff, boundary, DWF) : 18573.2 M3
 4 : Total DIVERTED VOLUME (weirs, pumps and outlets) : 13583.1 M3
 5 : Water Generated in Empty Parts of the System : 1.0 M3
 6 : CONTINUITY BALANCE = (2-1) - (3-4+5) : -46.2 M3
 Continuity balance MAX value : 3.9 M3
 Continuity balance MIN value : -46.2 M3

Calculation started : 1999-09-18 13:11:47
 Calculation ended : 1999-09-18 13:11:49 Time HH:MM:SS : 0:00:02

3a : Total generated Dry Weather Flow volume (DWF) : 270.8 M3

Time Step parameters loaded from the DHIAPP.INI file:

Relative change criteria for inflow time series : 0.0500
 Low flow limit for inflow time series : 0.0100
 Max. relative water level change : 0.300
 Max. Variation in Cross Section parameters : 0.030
 Cross check low depth limit (relative) : 0.040
 Cross check level : 1.000
 Max. Variation in Pump Flow : 0.100
 Max. Courant Number : 20.000

**I-4 COMPUTATION TABLE FOR DESIGN OF STORM SEWER
IN BINH DANG, PHAM THE HIEN AND RACH ONG AREAS**

Flowing Time
7.00 min

Rain-fall Intensity: I = 13.567 (t^{-0.89})
Δ Sewer: m³/ha

DISCHARGE CALCULATION

133.00 ha

Drainage Name
P(Rain)
Total Area

Line Joint No.	Drainage Area		Ditch Length (m)	Pipe Length		Reach Time (min)	Total Time (min)	Ratio of Run-off C	par lha		Discharge		Pipes			Notes				
	Part (ha)	Total (ha)		Part (m)	Total (m)				Rain (m ³ /ha)	Sewer (m ³ /ha)	Rain (m ³ /s)	Sewer (m ³ /s)	Total (m ³ /s)	Size (mm)	Slope (%)		Velocity (m/s)	Flow (m ³ /s)	Height	
																			I.E. (m)	Cover (m)
RC4	6.37	6.37	20.00	374.00	374.00	0.3	9.9	15.2	0.70	0.2318	1.477	1.477	φ 1300	1.2	1.260	1.672	1.672	1.80	1.80	1.65
RC5	4.65	4.65	20.00	317.00	317.00	0.3	9.0	14.3	0.70	0.2354	1.095	1.095	φ 1100	1.3	1.173	1.115	1.115	1.80	1.80	1.61
RC6	24.73	24.73	20.00	709.00	709.00	0.3	1.5	16.1	0.70	0.2283	5.646	5.646	φ 2500	0.8	1.590	7.805	7.805	1.80	1.80	0.79
RD1	6.17	6.17	20.00	272.00	272.00	0.3	7.2	12.5	0.70	0.2427	1.497	1.497	φ 1300	1.2	1.260	1.672	1.672	1.80	1.80	1.53
RD2	3.11	3.11	20.00	199.00	199.00	0.3	5.8	11.1	0.70	0.2486	0.773	0.773	φ 1000	1.4	1.142	0.897	0.897	1.80	1.80	1.48
RD3	6.14	15.42	20.00	641.00	641.00	0.3	8.6	20.0	0.70	0.2140	3.300	3.300	φ 1800	1.0	1.428	3.654	3.654	1.80	1.80	1.05
RD4	4.93	20.35	20.00	852.00	852.00	0.3	4.6	24.9	0.70	0.1977	4.023	4.023	φ 2000	1.0	1.532	4.813	4.813	1.80	1.80	1.45
RE1	5.90	5.90	20.00	331.00	331.00	0.3	8.8	14.1	0.70	0.2362	1.394	1.394	φ 1300	1.2	1.260	1.672	1.672	1.80	1.80	1.60
RE2	3.34	3.34	20.00	285.00	285.00	0.3	8.3	13.6	0.70	0.2382	0.796	0.796	φ 1000	1.4	1.142	0.897	0.897	1.80	1.80	1.60
RE3	5.65	14.89	20.00	763.00	763.00	0.3	9.2	23.1	0.70	0.2035	3.030	3.030	φ 1800	1.2	1.565	3.982	3.982	1.80	1.80	1.12
RF1	15.81	15.81	20.00	510.00	510.00	0.3	10.9	16.2	0.70	0.2279	3.603	3.603	φ 1800	1.2	1.565	3.982	3.982	1.80	1.80	1.81

Flowing Time
7.00 min

Rain-fall Intensity: I = 13.567 (t^{-0.89})
Δ Sewer: m³/ha

DISCHARGE CALCULATION

195.80 ha

Drainage Name
P(Rain)
Total Area

Line Joint No.	Drainage Area		Ditch Length (m)	Pipe Length		Reach Time (min)	Total Time (min)	Ratio of Run-off C	par lha		Discharge		Pipes			Notes				
	Part (ha)	Total (ha)		Part (m)	Total (m)				Rain (m ³ /ha)	Sewer (m ³ /ha)	Rain (m ³ /s)	Sewer (m ³ /s)	Total (m ³ /s)	Size (mm)	Slope (%)		Velocity (m/s)	Flow (m ³ /s)	Height	
																			I.E. (m)	Cover (m)
PA1	4.99	4.99	20.00	275.00	275.00	0.3	7.7	15.0	0.70	0.2326	1.161	1.161	φ 1200	1.2	1.194	1.350	1.350	1.80	1.80	1.53
PA2	1.09	1.09	20.00	99.00	99.00	0.3	3.3	10.6	0.70	0.2507	0.273	0.273	φ 700	1.7	0.992	0.382	0.382	1.80	1.80	1.37
PA3	2.82	8.90	20.00	246.00	521.00	0.3	5.9	16.8	0.70	0.2256	2.008	2.008	φ 1500	1.2	1.386	2.449	2.449	1.80	1.80	1.25
PA4	7.58	7.58	20.00	479.00	479.00	0.3	12.7	20.0	0.70	0.2140	1.622	1.622	φ 1300	1.2	1.260	1.672	1.672	1.80	1.80	1.78
PA5	3.72	3.72	20.00	303.00	303.00	0.3	8.8	16.1	0.70	0.2283	0.849	0.849	φ 1000	1.4	1.142	0.897	0.897	1.80	1.80	1.62
PA6	20.20	20.20	20.00	601.00	601.00	0.3	1.7	18.1	0.70	0.2208	4.460	4.460	φ 2000	1.0	1.532	4.813	4.813	1.80	1.80	1.28
PB1	10.68	10.68	20.00	438.00	438.00	0.3	10.5	17.8	0.70	0.2219	2.370	2.370	φ 1500	1.2	1.386	2.449	2.449	1.80	1.80	1.73
PB2	8.86	8.86	20.00	425.00	425.00	0.3	10.2	17.5	0.70	0.2230	1.976	1.976	φ 1500	1.2	1.386	2.449	2.449	1.80	1.80	1.20
PB3	3.68	23.22	20.00	287.00	725.00	0.3	6.2	24.0	0.70	0.2006	4.658	4.658	φ 2000	1.0	1.532	4.813	4.813	1.80	1.80	1.53
PB4	6.07	6.07	20.00	382.00	382.00	0.3	10.7	18.0	0.70	0.2212	1.343	1.343	φ 1200	1.2	1.194	1.350	1.350	1.80	1.80	1.66
PB5	29.29	29.29	20.00	805.00	805.00	0.3	1.7	20.0	0.70	0.2140	6.268	6.268	φ 2500	0.8	1.590	7.805	7.805	1.80	1.80	1.05
PC1	8.04	8.04	20.00	432.00	432.00	0.3	10.4	17.7	0.70	0.2223	1.787	1.787	φ 1500	1.2	1.386	2.449	2.449	1.80	1.80	1.72
PC2	5.43	5.43	20.00	345.00	345.00	0.3	9.6	16.9	0.70	0.2253	1.223	1.223	φ 1200	1.2	1.194	1.350	1.350	1.80	1.80	1.61
PC3	3.67	17.14	20.00	275.00	707.00	0.3	5.9	23.1	0.70	0.2035	3.488	3.488	φ 1800	1.2	1.565	3.982	3.982	1.80	1.80	1.44

Flowing Time
7.00 min

DISCHARGE CALCULATION
Rain-fall Intensity: I = 13,567 (t+89)
Δ s Sewer: m/s/ha

Drainage Name
P(Rain)
Total Area 195.80 ha

Line Joint No. No.	Drainage Area		Ditch Length (m)	Reach Time (min)	Total Time (min)	Ratio of Run-off C	par l/ha		Discharge		Pipes		Height	Notes				
	Part (ha)	Total (ha)					Rain (m³/ha)	Sewer (m³/ha)	Rain (m³/s)	Sewer (m³/s)	Total (m³/s)	Size (mm)			Slope (%)	Velocity (m/s)	Flow (m³/s)	I.E. (m)
			20.00															
PC4	5.49	5.49	20.00	0.3	10.1	0.70	0.2234		1.226		1.226	φ 1200	1.2	1.104	1.350	-0.650	1.80	1.20
PC5		22.63	20.00	0.3	1.7	0.70	0.2161		4.890		4.890	φ 2500	0.8	1.590	7.805	-1.902	1.80	1.15
PD1	3.25	3.25	20.00	0.3	5.0	0.70	0.2465		0.791		0.791	φ 1000	1.4	1.142	0.897	-0.450	1.80	1.20
PD2 PD6	11.73	14.98	20.00	0.3	10.7	0.70	0.2028		3.038		3.038	φ 1800	1.2	1.565	3.982	-1.854	1.80	1.80
PD3 PD6	5.91	5.91	20.00	0.3	5.9	0.70	0.2398		1.417		1.417	φ 1300	1.2	1.260	1.672	-0.750	1.80	1.20
PD4	0.90	0.90	20.00	0.3	3.2	0.70	0.2512		0.226		0.226	φ 600	1.9	0.947	0.268	-0.050	1.80	1.20
PD5	6.90	7.80	20.00	0.3	7.8	0.70	0.2190		1.708		1.708	φ 1500	1.2	1.386	2.449	-0.950	1.80	1.20
PD6	0.71	29.40	20.00	0.3	1.7	0.70	0.2119		6.230		6.230	φ 2500	0.8	1.590	7.805	-1.940	1.80	1.15
PE1 PE3	10.06	10.06	20.00	0.3	10.2	0.70	0.2230		2.243		2.243	φ 1500	1.2	1.386	2.449	-0.950	1.80	1.20
PE2	6.75	6.75	20.00	0.3	9.7	0.70	0.2249		1.518		1.518	φ 1300	1.2	1.260	1.672	-0.750	1.80	1.20
PE3	9.28	26.09	20.00	0.3	7.2	0.70	0.1990		5.192		5.192	φ 2500	0.8	1.590	7.805	-2.224	1.80	1.47
PF1 PF4	7.76	7.76	20.00	0.3	10.0	0.70	0.2238		1.737		1.737	φ 1500	1.2	1.386	2.449	-0.950	1.80	1.20
PF2 PF4	7.57	7.57	20.00	0.3	7.9	0.70	0.2318		1.755		1.755	φ 1500	1.2	1.386	2.449	-0.950	1.80	1.60

Flowing Time
7.00 min

DISCHARGE CALCULATION
Rain-fall Intensity: I = 13,567 (t+89)
Δ s Sewer: m/s/ha

Drainage Name
P(Rain)
Total Area 195.80 ha

Line Joint No. No.	Drainage Area		Ditch Length (m)	Reach Time (min)	Total Time (min)	Ratio of Run-off C	par l/ha		Discharge		Pipes		Height	Notes				
	Part (ha)	Total (ha)					Rain (m³/ha)	Sewer (m³/ha)	Rain (m³/s)	Sewer (m³/s)	Total (m³/s)	Size (mm)			Slope (%)	Velocity (m/s)	Flow (m³/s)	I.E. (m)
PF3	3.95	3.95	20.00	0.3	8.5	0.70	0.2295		0.907		0.907	φ 1100	1.3	1.173	1.115	-0.550	1.80	1.20
PF4 PF6	2.96	22.24	20.00	0.3	5.4	0.70	0.2088		4.644		4.644	φ 2500	0.8	1.590	7.805	-2.155	1.80	1.41
PF5	6.14	6.14	20.00	0.3	15.0	0.70	0.2061		1.265		1.265	φ 1200	1.2	1.194	1.350	-0.650	1.80	1.20
PF6		28.38	20.00	0.3	1.7	0.70	0.1996		5.665		5.665	φ 2500	0.8	1.590	7.805	-2.014	1.80	1.26
PG1	10.90	10.90	20.00	0.3	10.2	0.70	0.2230		2.431		2.431	φ 1600	1.2	1.447	2.909	-1.050	1.80	1.20
PG2	28.91	39.81	20.00	0.3	11.2	0.70	0.1856		7.389		7.389	φ 2500	0.8	1.590	7.805	-2.379	1.80	1.63

Drainage Name
BDA(Rain)

Total Area
208.00 ha

Rain-fall Intensity: I = 13.567 (t=1.18+89)
Δ Sewer:

Flowing Time
7.00 min

page 1

DISCHARGE CULCULATION

Line Joint No. No.	Drainage Area		Ditch Length (m)	Length		Reach Time (min)	Total Time of Run-off (min)	Ratio of Run-off C	par ha		Discharge		Pipes			Notes				
	Part (ha)	Total (ha)		Total (m)	Part (m)				Rain (m ³ /ha)	Sewer (m ³ /ha)	Rain (m ³ /s)	Sewer (m ³ /s)	Total (m ³ /s)	Size (mm)	Slope (%)		Velocity (m/s)	Flow (m ³ /s)	Height	
																			I.E. (m)	G.L. (m)
BA1 BA4	16.55	16.55	20.00	638.00	0.3	13.6	20.9	0.70	0.2108	3.489	3.489	1.2	1.565	3.982	-1.250	1.80	1.20			
BA2	2.86	2.86	20.00	107.00	0.3	3.1	10.4	0.70	0.2516	0.720	0.720	1.4	1.142	0.897	-0.450	1.80	1.20			
BA3	10.96	13.82	20.00	420.00	0.3	8.9	19.6	0.70	0.2154	2.977	2.977	1.2	1.565	3.982	-1.250	1.80	1.20			
BA4	1.57	31.94	20.00	95.00	0.3	2.0	21.9	0.70	0.2074	6.624	6.624	0.8	1.590	7.805	-2.036	1.80	1.29			
BB1 BB4	11.72	11.72	20.00	661.00	0.3	15.9	23.2	0.70	0.2031	2.380	2.380	1.2	1.386	2.449	-0.950	1.80	1.20			
BB2 BB4	8.42	8.42	20.00	453.00	0.3	10.9	18.2	0.70	0.2204	1.856	1.856	1.2	1.386	2.449	-1.494	1.80	1.74			
BB3	1.73	1.73	20.00	181.00	0.3	5.9	13.2	0.70	0.2398	0.415	0.415	1.5	1.019	0.512	-0.250	1.80	1.20			
BB4		21.87	20.00	696.00	0.3	0.7	14.2	0.70	0.2358	5.157	5.157	0.8	1.590	7.805	-1.763	1.80	1.01			
BC1	5.66	5.66	20.00	246.00	0.3	6.9	14.2	0.70	0.2358	1.335	1.335	1.2	1.194	1.350	-0.650	1.80	1.20			
BC2 BC4	3.62	9.28	20.00	499.00	0.3	6.1	20.6	0.70	0.2119	1.966	1.966	1.2	1.386	2.449	-0.945	1.80	1.50			
BC3	5.24	5.24	20.00	239.00	0.3	6.7	14.0	0.70	0.2366	1.240	1.240	1.2	1.194	1.350	-0.937	1.80	1.49			
BC4 BC7	9.92	24.44	20.00	961.00	0.3	9.7	24.0	0.70	0.2006	4.903	4.903	0.8	1.590	7.805	-1.950	1.80	1.20			
BC5 BC7	8.10	8.10	20.00	457.00	0.3	11.0	18.3	0.70	0.2201	1.783	1.783	1.2	1.386	2.449	-0.950	1.80	1.20			
BC6	4.78	4.78	20.00	255.00	0.3	7.1	14.4	0.70	0.2350	1.123	1.123	1.2	1.194	1.350	-0.650	1.80	1.20			

Drainage Name
BDA(Rain)

Total Area
208.00 ha

Rain-fall Intensity: I = 13.567 (t=1.18+89)
Δ Sewer:

Flowing Time
7.00 min

page 2

DISCHARGE CULCULATION

Line Joint No. No.	Drainage Area		Ditch Length (m)	Length		Reach Time (min)	Total Time of Run-off (min)	Ratio of Run-off C	par ha		Discharge		Pipes			Notes				
	Part (ha)	Total (ha)		Total (m)	Part (m)				Rain (m ³ /ha)	Sewer (m ³ /ha)	Rain (m ³ /s)	Sewer (m ³ /s)	Total (m ³ /s)	Size (mm)	Slope (%)		Velocity (m/s)	Flow (m ³ /s)	Height	
																			I.E. (m)	G.L. (m)
BC7	1.55	38.87	20.00	168.00	0.3	3.1	10.4	0.70	0.2516	9.780	9.780	0.8	1.796	12.695	-2.450	1.80	1.20			
BD1 BD3	14.61	14.61	20.00	556.00	0.3	11.8	19.1	0.70	0.2172	3.173	3.173	1.2	1.565	3.982	-1.250	1.80	1.20			
BD2	8.94	8.94	20.00	488.00	0.3	11.7	19.0	0.70	0.2175	1.944	1.944	1.2	1.386	2.449	-0.950	1.80	1.20			
BD3		23.55	20.00	70.00	0.3	1.5	20.8	0.70	0.2112	4.974	4.974	0.8	1.590	7.805	-1.937	1.80	1.19			
BE1 BE3	18.17	18.17	20.00	688.00	0.3	14.7	22.0	0.70	0.2071	3.763	3.763	1.2	1.565	3.982	-1.250	1.80	1.20			
BE2	8.61	8.61	20.00	507.00	0.3	12.2	19.5	0.70	0.2157	1.857	1.857	1.2	1.386	2.449	-0.950	1.80	1.20			
BE3		26.78	20.00	758.00	0.3	1.5	21.3	0.70	0.2095	5.610	5.610	0.8	1.590	7.805	-2.096	1.80	1.35			
BF1 BF3	23.45	23.45	20.00	601.00	0.3	12.6	19.9	0.70	0.2143	5.025	5.025	0.8	1.590	7.805	-1.950	1.80	1.20			
BF2	9.45	9.45	20.00	551.00	0.3	13.3	20.6	0.70	0.2119	2.002	2.002	1.2	1.386	2.449	-0.950	1.80	1.20			
BF3		32.90	20.00	616.00	0.3	0.3	21.2	0.70	0.2098	6.902	6.902	0.8	1.590	7.805	-2.451	1.80	1.70			
BG1	6.46	6.46	20.00	257.00	0.3	6.8	14.1	0.70	0.2362	1.526	1.526	1.2	1.260	1.672	-0.750	1.80	1.20			
BG2	17.08	23.54	20.00	506.00	0.3	10.6	25.0	0.70	0.1974	4.647	4.647	0.8	1.590	7.805	-1.058	1.80	1.51			
BG3	8.55	32.09	20.00	294.00	0.3	6.2	31.5	0.70	0.1787	5.734	5.734	0.8	1.590	7.805	-2.355	1.80	1.61			

***1-5 COMPUTATION TABLE FOR DESIGN OF
INTERCEPTOR AND CONVEYANCE SEWERS AND SANITARY SEWER
IN BINH DANG, PHAM THE HIEN AND RACH ONG AREAS***

Drainage Name
R(Sewer)

Rain-fall Intensity: $I=4.610(t+23)$
 Δ Sewer: 0.0029 m³/ha

Flowing Time
7.00 min

DISCHARGE CALCULATION

page 1

Line Joint No. No.	Drainage Area		Reach Time T	Ratio of Run-of C	per ha			Discharge			Pipes			Height			Notes
	Part (ha)	Total (ha)			Rain (m ³ /ha)	Sewer (m ³ /ha)	Rain (m ³ /s)	Sewer (m ³ /s)	Total (m ³ /s)	Size (mm)	Slope (%)	Velocity (m/s)	Flow (m ³ /s)	I.E. (m)	G.L. (m)	Cover (m)	
1 R1	4.93	4.93	211.00	11.7		0.0029		0.014	0.014	0.014	0.053	0.250	1.80	1.80	1.83	378.6%	
2 4	5.65	5.65	432.00	16.6		0.0029		0.016	0.016	0.016	0.053	0.250	1.80	1.80	2.50	331.3%	
3	5.90	5.90	331.00	14.4		0.0029		0.017	0.017	0.017	0.053	0.250	1.80	1.80	2.19	311.8%	
4 6	3.11	14.66	530.00	18.8		0.0029		0.043	0.043	0.043	0.053	0.250	1.80	1.80	3.11	123.3%	
5	6.17	6.17	272.00	13.1		0.0029		0.018	0.018	0.018	0.053	0.250	1.80	1.80	2.02	294.4%	
6 R1	6.14	26.97	369.00	21.2		0.0029		0.078	0.078	0.078	0.095	0.250	1.80	1.80	3.81	121.8%	
7 R1	6.37	6.37	374.00	15.3		0.0029		0.018	0.018	0.018	0.053	0.250	1.80	1.80	2.32	294.4%	
8 10	15.81	15.81	510.00	18.3		0.0029		0.046	0.046	0.046	0.053	0.250	1.80	1.80	2.73	115.2%	
9	3.34	3.34	285.00	13.3		0.0029		0.010	0.010	0.010	0.053	0.250	1.80	1.80	2.06	530.0%	
10 12	3.72	22.87	522.00	18.5		0.0029		0.066	0.066	0.066	0.095	0.250	1.80	1.80	3.15	143.9%	
11	4.73	4.73	308.00	13.9		0.0029		0.014	0.014	0.014	0.053	0.250	1.80	1.80	2.12	378.6%	
12 R1	5.26	32.86	700.00	20.3		0.0029		0.095	0.095	0.095	0.169	0.250	1.80	1.80	3.73	177.9%	
13 R1	4.65	4.65	317.00	14.1		0.0029		0.013	0.013	0.013	0.053	0.250	1.80	1.80	2.15	407.7%	

Drainage Name
R(Sewer)

Rain-fall Intensity: $I=4.610(t+23)$
 Δ Sewer: 0.0029 m³/ha

Flowing Time
7.00 min

DISCHARGE CALCULATION

page 2

Line Joint No. No.	Drainage Area		Reach Time T	Ratio of Run-of C	per ha			Discharge			Pipes			Height			Notes
	Part (ha)	Total (ha)			Rain (m ³ /ha)	Sewer (m ³ /ha)	Rain (m ³ /s)	Sewer (m ³ /s)	Total (m ³ /s)	Size (mm)	Slope (%)	Velocity (m/s)	Flow (m ³ /s)	I.E. (m)	G.L. (m)	Cover (m)	
14 17	5.09	5.09	291.00	13.5		0.0029		0.015	0.015	0.015	0.053	0.250	1.80	1.80	2.07	353.3%	
15 17	6.93	6.93	275.00	13.1		0.0029		0.020	0.020	0.020	0.053	0.250	1.80	1.80	2.03	265.0%	
16	1.59	1.59	116.00	9.6		0.0029		0.005	0.005	0.005	0.053	0.250	1.80	1.80	1.55	1060.0%	
17 20	5.16	18.77	430.00	16.5		0.0029		0.054	0.054	0.054	0.095	0.250	1.80	1.80	2.63	175.9%	
18 20	4.95	4.95	296.00	13.6		0.0029		0.014	0.014	0.014	0.053	0.250	1.80	1.80	2.09	378.6%	
19	7.25	7.25	262.00	12.8		0.0029		0.021	0.021	0.021	0.053	0.250	1.80	1.80	1.20	252.4%	
20 23	5.21	36.18	578.00	18.9		0.0029		0.105	0.105	0.105	0.169	0.250	1.80	1.80	3.20	161.0%	
21 23	10.03	10.03	335.00	14.5		0.0029		0.029	0.029	0.029	0.053	0.250	1.80	1.80	2.21	182.8%	
22	5.16	5.16	309.00	13.9		0.0029		0.015	0.015	0.015	0.053	0.250	1.80	1.80	1.20	353.3%	
23 R1	3.24	54.61	559.00	18.3		0.0029		0.138	0.138	0.138	0.268	0.250	1.80	1.80	3.60	169.6%	
24 R1	2.61	2.61	166.00	10.7		0.0029		0.008	0.008	0.008	0.053	0.250	1.80	1.80	1.70	662.5%	

Flowing Time
7.00 min

page 1

Rain-fall Intensity: I=4.610(t+23)
Δ S Sewer: 0.0013 m/s/ha

DISCHARGE CULCULATION

195.80 ha

Line Joint No.	Drainage Area		Reach Time	Ratio of Run-off C	par l/s		Discharge		Slope (%)	Velocity (m/s)	Flow (m³/s)	Height			
	Part (ha)	Total (ha)			Rain (m³/ha)	Sewer (m³/ha)	Rain (m³/s)	Sewer (m³/s)				Total (m³/s)	Size (mm)	IE (m)	G.L. (m)
1 R1	3.72	3.72	303.00	13.7	0.0013	0.005	0.005	0.005	3.0	0.749	0.053	0.250	1.80	1.20	2.11
2 4	5.91	5.91	222.00	11.9	0.0013	0.008	0.008	0.008	3.0	0.749	0.053	0.250	1.80	1.20	1.87
3	0.71	0.71	82.00	8.8	0.0013	0.001	0.001	0.001	3.0	0.749	0.053	0.250	1.80	1.20	1.45
4 6	6.90	13.52	405.00	16.0	0.0013	0.018	0.018	0.018	3.0	0.749	0.053	-0.436	1.80	1.89	2.86
5	0.90	0.90	90.00	9.0	0.0013	0.001	0.001	0.001	3.0	0.749	0.053	-0.020	1.80	1.47	2.88
6 8	4.99	19.41	275.00	15.1	0.0013	0.025	0.025	0.025	3.0	0.749	0.053	-1.425	1.80	3.72	3.70
7	1.09	1.09	99.00	9.2	0.0013	0.001	0.001	0.001	3.0	0.749	0.053	0.250	1.80	1.20	2.64
8 R1	2.82	3.91	345.00	14.7	0.0013	0.005	0.005	0.005	3.0	0.749	0.053	-2.270	1.80	1.80	2.71
9 R1	7.58	7.58	479.00	17.7	0.0013	0.010	0.010	0.010	3.0	0.749	0.053	-1.187	1.80	1.20	2.64
10 12	11.73	11.73	503.00	18.2	0.0013	0.015	0.015	0.015	3.0	0.749	0.053	0.250	1.80	1.20	2.71
11	3.25	3.25	173.00	10.8	0.0013	0.004	0.004	0.004	3.0	0.749	0.053	-0.269	1.80	1.72	2.73
12 14	10.68	25.66	438.00	20.5	0.0013	0.033	0.033	0.033	3.0	0.749	0.053	-1.279	1.80	2.73	4.04
13	8.86	8.86	425.00	16.5	0.0013	0.012	0.012	0.012	3.0	0.749	0.053	-2.613	1.80	3.96	3.96
14 R1	3.68	38.20	712.00	22.8	0.0013	0.050	0.050	0.050	2.1	0.759	0.095	-3.216	1.80	4.57	4.57

Flowing Time
7.00 min

page 2

Rain-fall Intensity: I=4.610(t+23)
Δ S Sewer: 0.0013 m/s/ha

DISCHARGE CULCULATION

195.80 ha

Line Joint No.	Drainage Area		Reach Time	Ratio of Run-off C	par l/s		Discharge		Slope (%)	Velocity (m/s)	Flow (m³/s)	Height			
	Part (ha)	Total (ha)			Rain (m³/ha)	Sewer (m³/ha)	Rain (m³/s)	Sewer (m³/s)				Total (m³/s)	Size (mm)	IE (m)	G.L. (m)
15 R1	6.07	6.07	382.00	15.5	0.0012	0.008	0.008	0.008	3.0	0.749	0.053	0.250	1.80	1.20	2.35
16 18	6.75	6.75	368.00	15.2	0.0013	0.009	0.009	0.009	3.0	0.749	0.053	-0.854	1.80	2.30	2.30
17	9.28	9.28	343.00	14.6	0.0013	0.012	0.012	0.012	3.0	0.749	0.053	-0.779	1.80	2.25	2.25
18 20	5.43	21.46	688.00	22.3	0.0013	0.028	0.028	0.028	3.0	0.749	0.053	-0.874	1.80	2.32	3.36
19	8.04	8.04	432.00	16.6	0.0013	0.010	0.010	0.010	3.0	0.749	0.053	-1.046	1.80	2.50	2.50
20 R1	3.67	33.17	275.00	22.7	0.0013	0.043	0.043	0.043	3.0	0.749	0.053	-1.929	1.80	3.38	4.20
21 R	5.49	5.49	360.00	15.0	0.0013	0.007	0.007	0.007	3.0	0.749	0.053	-0.830	1.80	2.28	2.28
22 25	28.91	28.91	536.00	18.9	0.0013	0.038	0.038	0.038	3.0	0.749	0.053	-1.358	1.80	2.81	2.81
23 25	10.06	10.06	426.00	16.5	0.0013	0.013	0.013	0.013	3.0	0.749	0.053	-1.028	1.80	2.48	2.48
24	10.90	10.90	443.00	16.9	0.0013	0.014	0.014	0.014	3.0	0.749	0.053	-1.079	1.80	2.53	2.53
25 28	3.95	14.85	298.00	23.5	0.0013	0.019	0.019	0.019	3.0	0.749	0.053	-1.378	1.80	2.83	2.83
26 28	7.76	7.76	415.00	16.2	0.0013	0.010	0.010	0.010	3.0	0.749	0.053	-0.995	1.80	2.45	2.45

Drainage Name
P(Sewer)
Total Area

195.80 ha

DISCHARGE CALCULATION

Rain-fall Intensity: $I = 4.610(t+23)$
 Δs Sewer: 0.0013 m/ha

Flowing Time
7.00 min

page 3

Line Joint No.	Drainage Area		Resch Time T	Ratio of Run-off C	par lha		Discharge			Pipes			Height		Notes			
	Part	Total			Rain	Sewer	Rain	Sewer	Total	Size	Slope	Velocity	Flow	IE		G.L.	Cover	
	(ha)	(ha)			(m ³ /ha)	(m ³ /ha)	(m ³ /ha)	(m ³ /ha)	(m ³ /ha)	(mm)	(%)	(m/s)	(m ³ /s)	(m)		(m)	(m)	
27	7.57	7.57	329.00	14.3	0.0013	0.0013	0.010	0.010	0.010	0.010	0.010	0.053	0.749	0.053	-0.737	1.80	1.20	2.19
28	2.96	10.53	587.00	20.0	0.0013	0.0013	0.014	0.014	0.014	0.014	0.014	0.053	0.749	0.053	-2.292	1.80	1.80	3.74
29	6.14	13.71	536.00	18.9	0.0013	0.0013	0.018	0.018	0.018	0.018	0.018	0.053	0.749	0.053	-1.558	1.80	1.80	2.81

Drainage Name
BDA(Sewer)
Total Area

208.00 ha

DISCHARGE CALCULATION

Rain-fall Intensity: $I = 4.610(t+23)$
 Δs Sewer: 0.0012 m/ha

Flowing Time
7.00 min

page 2

Line Joint No.	Drainage Area		Resch Time T	Ratio of Run-off C	par lha		Discharge			Pipes			Height		Notes			
	Part	Total			Rain	Sewer	Rain	Sewer	Total	Size	Slope	Velocity	Flow	IE		G.L.	Cover	
	(ha)	(ha)			(m ³ /ha)	(m ³ /ha)	(m ³ /ha)	(m ³ /ha)	(m ³ /ha)	(mm)	(%)	(m/s)	(m ³ /s)	(m)		(m)	(m)	
15	3.62	9.28	253.00	12.6	0.0012	0.0012	0.011	0.011	0.011	0.011	0.011	0.053	0.749	0.053	-0.509	1.80	1.80	1.96
16	6.46	6.46	257.00	12.7	0.0012	0.0012	0.008	0.008	0.008	0.008	0.008	0.053	0.749	0.053	-0.521	1.80	1.80	1.97
17	18.17	39.57	945.00	28.0	0.0012	0.0012	0.047	0.047	0.047	0.047	0.047	0.053	0.749	0.053	-2.605	1.80	1.80	4.06
18	9.45	9.45	551.00	19.3	0.0012	0.0012	0.011	0.011	0.011	0.011	0.011	0.053	0.749	0.053	-0.020	1.80	1.80	1.47
19	17.08	17.08	506.00	18.3	0.0012	0.0012	0.020	0.020	0.020	0.020	0.020	0.053	0.749	0.053	-1.673	1.80	1.80	3.12
20	8.55	8.55	294.00	13.5	0.0012	0.0012	0.010	0.010	0.010	0.010	0.010	0.053	0.749	0.053	-0.632	1.80	1.80	2.08
21	23.45	49.08	895.00	26.7	0.0012	0.0012	0.059	0.059	0.059	0.059	0.059	0.095	0.759	0.095	-1.112	1.80	1.80	2.46

Drainage Name
BDA(Sewer)

Flowing Time
7.00 min

DISCHARGE CALCULATION

Rain-fall Intensity: $i = 4.610(t+25)$
 Δ Sewer 0.0012 m/ha

Line Joint No.	Drainage Area		Reach Time (min)	par l/ha		Discharge		Pipes		Height		Notes				
	Part (ha)	Total (ha)		Rain (m/ha)	Sewer (m/ha)	Sewer (m/s)	Rain (m/s)	Total (m/s)	Size (mm)	Slope (%)	Velocity (m/s)		Flow (m ³ /s)	I.E. (m)	G.L. (m)	Cover (m)
1	3	12.53	12.53	493.00	18.0	0.0012	0.015	0.015	φ 300	3.0	0.749	0.053	-1.229	1.80	2.68	
2		2.86	107.00	9.4	0.0012	0.003	0.003	φ 300	3.0	0.749	0.053	-0.071	1.80	1.52		
3	7	11.72	661.00	24.1	0.0012	0.033	0.033	φ 300	3.0	0.749	0.053	-3.232	1.80	4.68		
4	6	16.55	638.00	21.2	0.0012	0.020	0.020	φ 300	3.0	0.749	0.053	-1.664	1.80	3.11		
5		3.88	132.00	9.9	0.0012	0.005	0.005	φ 300	3.0	0.749	0.053	0.250	1.80	1.20		
6		8.72	453.00	20.0	0.0012	0.035	0.035	φ 300	3.0	0.749	0.053	-1.684	1.80	1.60		
7	9	1.73	181.00	24.0	0.0012	0.070	0.070	φ 400	2.1	0.759	0.095	-3.043	1.80	3.13		
8		10.25	1221.00	30.4	0.0012	0.093	0.093	φ 500	2.0	0.860	0.169	-3.252	1.80	4.49		
9	13	8.94	488.00	30.4	0.0012	0.012	0.012	φ 300	3.0	0.749	0.053	-3.632	1.80	4.98		
10	12	9.92	1113.00	17.3	0.0012	0.012	0.012	φ 300	3.0	0.749	0.053	-1.136	1.80	2.59		
11		5.24	239.00	12.3	0.0012	0.006	0.006	φ 300	3.0	0.749	0.053	0.250	1.80	1.20		
12		14.61	556.00	24.7	0.0012	0.036	0.036	φ 300	3.0	0.749	0.053	-1.156	1.80	1.92		
13	BDA2	8.61	507.00	34.5	0.0012	0.139	0.139	φ 500	2.0	0.860	0.169	-2.824	1.80	4.27		
14	17	5.66	1728.00	12.5	0.0012	0.007	0.007	φ 300	3.0	0.749	0.053	-4.648	1.80	5.90		
			246.00									-5.662	1.80	6.91		
			246.00									0.250	1.80	1.20		
			246.00									-0.488	1.80	1.94		

Drainage Name
R(Rain)

Flowing Time
5.00 min

DISCHARGE CALCULATION

Rain-fall Intensity: $i = 13.567(t+1.18+89)$
 Δ Sewer m/ha

Line Joint No.	Drainage Area		Pipe Length (m)	Pipe I-girth (mm)	Reach Time (min)	Ratio of Run-of C	par l/ha		Discharge		Pipes		Notes						
	Part (ha)	Total (ha)					Rain (m/ha)	Sewer (m/ha)	Rain (m/s)	Sewer (m/s)	Total (m/s)	Size (mm)		Slope (%)	Velocity (m/s)	Flow (m ³ /s)	I.E. (m)	G.L. (m)	Cover (m)
RA1	RA4	10.03	20.00	335.00	8.1	0.70	0.2390	2.397	φ 1500	1.2	1.386	2.449	-0.950	1.80	1.20				
RA2	RA4	5.21	20.00	316.00	8.8	0.70	0.2362	1.231	φ 1200	1.2	1.194	1.350	-1.352	1.80	1.60				
RA3		5.16	20.00	309.00	8.6	0.70	0.2370	1.223	φ 1200	1.2	1.194	1.350	-0.650	1.80	1.20				
RA4		3.24	20.00	250.00	5.2	0.70	0.2161	5.109	φ 2500	0.8	1.590	7.805	-1.021	1.80	1.57				
RA5		2.61	20.00	166.00	3.5	0.70	0.2031	5.331	φ 2500	0.8	1.590	7.805	-1.372	1.80	0.62				
RB1	RB3	7.25	20.00	262.00	6.3	0.70	0.2465	1.787	φ 1500	1.2	1.386	2.449	-1.572	1.80	0.82				
RB2		4.95	20.00	296.00	8.3	0.70	0.2382	1.179	φ 1200	1.2	1.194	1.350	-1.592	1.80	0.98				
RB3	RB6	5.16	20.00	314.00	6.7	0.70	0.2119	3.679	φ 1800	1.2	1.565	3.982	-1.264	1.80	1.23				
RB4	RB6	5.09	20.00	291.00	8.1	0.70	0.2390	1.217	φ 1200	1.2	1.194	1.350	-1.661	1.80	1.61				
RB5		6.93	20.00	275.00	6.6	0.70	0.2452	1.699	φ 1500	1.2	1.386	2.449	-0.650	1.80	1.20				
RB6		1.59	30.97	726.00	3.2	0.70	0.2342	7.253	φ 2500	0.8	1.590	7.805	-1.280	1.80	1.53				
RC1	RC3	3.72	20.00	237.00	6.7	0.70	0.2448	0.911	φ 1100	1.3	1.173	1.115	-1.681	1.80	0.93				
RC2		4.73	20.00	308.00	8.3	0.70	0.2382	1.127	φ 1200	1.3	1.243	1.406	-1.774	1.80	1.02				
RC3	RC6	5.26	33.71	639.00	7.6	0.70	0.2088	2.863	φ 1600	1.2	1.447	2.909	-0.550	1.80	1.20				