

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 09 May 2002 TIME STARTED: 10:53 AM TIME FINISHED: 11:33 AM		GAUGE HT.: 0.82 m GAUGE HT.: 0.82 m			
NAME OF STATION: 8664		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 8 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR.	VEL (mps)	NR.	VEL (mps)	NR.	VEL (mps)			
0	0	0	W/E(L/B)									
1	2.6	2.6	0.18	0.04	UR	0.11	UR	0.14	UR	0.0000	0.50	0.0000
2	5.4	3	0.23	0.05	UR	0.14	UR	0.18	UR	0.0000	0.69	0.0000
3	8.2	3	0.29	0.08	UR	0.17	UR	0.23	UR	0.0000	0.87	0.0000
4	11.0	3	0.29	0.08	0.045	0.17	UR	0.23	UR	0.0450	0.87	0.0392
5	13.8	3	0.28	0.08	0.101	0.17	0.048	0.22	UR	0.0745	0.84	0.0628
6	17.0	3	0.28	0.08	0.088	0.17	0.075	0.22	0.066	0.0755	0.84	0.0654
7	20.2	3	0.37	0.07	0.138	0.22	0.125	0.30	0.091	0.1193	1.11	0.1324
8	23.4	3	0.54	0.11	0.119	0.32	0.136	0.43	0.088	0.1198	1.62	0.1940
9	26.6	3	0.78	0.16	0.132	0.47	0.075	0.62	0.090	0.0930	2.34	0.2178
10	29.8	3	0.82	0.16	0.126	0.49	0.087	0.66	0.045	0.0813	2.48	0.2245
11	32.6	3	0.80	0.16	0.133	0.48	0.139	0.64	0.110	0.1303	2.40	0.3128
12	35.8	3	1.00	0.20	0.082	0.60	0.139	0.80	0.172	0.1330	3.00	0.3960
13	38.6	3	1.20	0.24	0.094	0.72	0.075	0.98	0.107	0.0878	3.60	0.3159
14	41.8	3	1.20	0.24	0.073	0.72	0.05	0.98	0.050	0.0558	3.60	0.2007
15	44.6	3	0.99	0.20	UR	0.59	UR	0.79	UR	0.0000	2.97	0.0000
16	47.8	3	0.50	0.10	UR	0.30	UR	0.40	UR	0.0000	1.33	0.0000
17	49.9	2.3	W/E(R/B)									
										TOTAL	29.04	2.1618

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 16 May 2002 TIME STARTED: 10:20 AM TIME FINISHED: 10:57 AM		GAUGE HT.: 0.92 m GAUGE HT.: 0.92 m			
NAME OF STATION: 3664		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 8 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR.	VEL (mps)	NR.	VEL (mps)	NR.	VEL (mps)			
0	0	0	W/E(L/B)									
1	1	1	0.22	0.04	UR	0.13	UR	0.18	UR	0.0000	0.44	0.0000
2	4	3	0.30	0.08	UR	0.18	0.034	0.24	UR	0.0370	0.90	0.0333
3	7	3	0.30	0.08	0.040	0.18	0.037	0.24	0.042	0.0390	0.90	0.0351
4	10	3	0.25	0.05	0.047	0.15	0.040	0.20	0.032	0.0398	0.75	0.0298
5	13	3	0.25	0.05	0.044	0.15	0.090	0.20	0.082	0.0890	0.75	0.0668
6	16	3	0.20	0.04	0.107	0.12	0.108	0.18	0.104	0.1088	0.60	0.0641
7	19	3	0.35	0.07	0.125	0.21	0.114	0.28	0.109	0.1155	1.05	0.1213
8	22	3	0.43	0.09	0.130	0.26	0.134	0.34	0.128	0.1315	1.29	0.1696
9	25	3	0.80	0.12	0.117	0.38	0.121	0.48	0.121	0.1215	1.80	0.2187
10	28	3	0.70	0.14	0.109	0.42	0.094	0.58	0.108	0.1010	2.10	0.2121
11	31	3	0.80	0.16	0.112	0.48	0.116	0.64	0.094	0.1095	2.40	0.2629
12	34	3	0.85	0.17	0.109	0.51	0.123	0.68	0.105	0.1148	2.55	0.2926
13	37	3	1.00	0.20	0.116	0.60	0.127	0.80	0.111	0.1210	3.00	0.3630
14	40	3	1.20	0.24	0.088	0.72	0.107	0.98	0.091	0.0978	3.60	0.3519
15	43	3	1.00	0.20	0.086	0.60	0.112	0.80	0.104	0.1040	3.00	0.3120
16	46	3	0.60	0.12	0.045	0.36	0.054	0.48	UR	0.0495	1.92	0.0950
17	49.4	3.4	W/E(R/B)									
										TOTAL	27.05	2.6281

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS The Study on Water Resources Development for Metro Manila in the Republic of the Philippines				DATE: 20 May 2002 TIME STARTED : 3:58 PM TIME FINISHED: 4:28 PM		GAUGE HT. : 0.014m GAUGE HT. : 0.14 m		
NAME OF STATION: 8G84		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG				CHECKED: RLB		
HYDROGRAPHIC TEAM: DVG, ENTENG, Gerry						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D	VEL (mps)	NR. 4 D	VEL (mps)	NR. 8 D	VEL (mps)	MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
0	0		W/E(L/B)									
1	3	3	0.600	0.12	0.078	0.36	0.540	0.48	0.015	0.2933	1.80	0.5279
2	6	3	0.600	0.12	0.180	0.36	0.119	0.48	0.080	0.1245	1.80	0.2241
3	9	3	0.640	0.13	0.180	0.38	0.180	0.51	0.095	0.1588	1.92	0.3048
4	12	3	0.610	0.12	0.240	0.37	0.140	0.49	0.116	0.1590	1.83	0.2910
5	15	3	0.550	0.11	0.220	0.33	0.170	0.44	0.172	0.1830	1.65	0.3020
6	18	3	0.580	0.12	0.251	0.35	0.150	0.46	0.210	0.1903	1.74	0.3310
7	21	3	0.680	0.14	0.290	0.41	0.210	0.54	0.190	0.2250	2.04	0.4590
8	24	3	0.760	0.15	0.321	0.46	0.273	0.61	0.220	0.2718	2.28	0.6196
9	27	3	0.850	0.19	0.210	0.57	0.366	0.76	0.305	0.2568	2.85	0.7317
10	30	3	1.000	0.20	0.310	0.60	0.250	0.80	0.239	0.2623	3.00	0.7868
11	33	3	1.250	0.25	0.250	0.73	0.260	1.00	0.306	0.2695	3.75	1.0106
12	36	3	1.000	0.20	0.250	0.60	0.310	0.80	0.265	0.2838	3.00	0.8513
13	39	3	1.250	0.25	0.210	0.75	0.240	1.00	0.210	0.2250	3.75	0.8438
14	42	3	1.100	0.22	0.119	0.66	0.220	0.88	0.109	0.1670	3.30	0.5511
15	45	3	1.100	0.22	0.175	0.66	0.190	0.88	0.09	0.1613	3.30	0.5321
16	48	3	0.750	0.15	0.189	0.45	0.110	0.60	0.051	0.1100	2.25	0.2475
17	49	14	W/E(R/B)									
TOTAL											40.26	8.6141

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS The Study on Water Resources Development for Metro Manila in the Republic of the Philippines				DATE: 21 May 2002 TIME STARTED : 1:00 PM TIME FINISHED: 1:15 AM		GAUGE HT. : 0.08 m GAUGE HT. : 0.08 m		
NAME OF STATION: 8G84		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG				CHECKED: RLB		
HYDROGRAPHIC TEAM: DVG, AMS, JBD						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D	VEL (mps)	NR. 4 D	VEL (mps)	NR. 8 D	VEL (mps)	MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
0	0		W/E(L/B)									
1	1.5	1.5	0.61	0.12	UR	0.37	UR	0.49	UR	0.0000	1.37	0.0000
2	4.5	3.0	0.57	0.11	0.080	0.37	0.055	0.46	0.070	0.0648	1.71	0.1107
3	7.5	3.0	0.52	0.10	0.115	0.37	0.112	0.42	0.069	0.1020	1.56	0.1591
4	10.5	3.0	0.49	0.10	0.139	0.29	0.110	0.38	0.116	0.1160	1.47	0.1749
5	13.5	3.0	0.44	0.09	0.160	0.28	0.104	0.35	0.198	0.1415	1.32	0.1868
6	16.5	3.0	0.45	0.09	0.210	0.27	0.180	0.36	0.186	0.1940	1.35	0.2619
7	19.5	3.0	0.68	0.14	0.220	0.41	0.185	0.54	0.185	0.1938	2.04	0.3953
8	22.5	3.0	0.75	0.15	0.198	0.45	0.222	0.60	0.201	0.2108	2.25	0.4742
9	25.5	3.0	0.90	0.18	0.350	0.54	0.224	0.72	0.172	0.2425	2.70	0.6548
10	28.5	3.0	1.05	0.21	0.200	0.63	0.224	0.84	0.184	0.2565	3.15	0.8080
11	31.5	3.0	1.02	0.20	0.200	0.61	0.197	0.82	0.217	0.2028	3.06	0.6204
12	34.5	3.0	1.18	0.24	0.212	0.71	0.207	0.94	0.165	0.1978	3.54	0.7000
13	37.5	3.0	1.37	0.27	0.185	0.82	0.166	1.10	0.189	0.1775	4.11	0.7295
14	40.5	3.0	1.42	0.30	0.110	0.88	0.114	1.18	0.160	0.1245	4.44	0.5528
15	43.5	3.0	1.30	0.26	0.210	0.78	0.153	1.04	0.170	0.1715	3.90	0.6689
16	46.5	3.0	0.91	0.18	0.110	0.65	0.115	0.73	0.121	0.1153	2.73	0.3148
17	48.5	3.0	0.31	0.09	UR	0.19	UR	0.25	UR	0.0000	0.84	0.0000
18	50.8	11	W/E(R/B)									
TOTAL											41.34	6.8117

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>						DATE: 23 May 2012 TIME STARTED: 10:13 AM TIME FINISHED: 10:33 AM		GAUGE HT.: 1.06 m GAUGE HT.: 1.06 m	
NAME OF STATION: S084			OBSERVATION POINT / LOCATION: GEN. NAKAR						COMPUTED BY: DVG		CHECKED: RLB	
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 4 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)			
0	0	0	W/E(L/B)									
1	2.5	2.5	0.31	0.05	0.059	0.19	UR	0.25	UR	0.0500	0.85	0.0428
2	5.5	3	0.45	0.09	0.099	0.27	0.088	0.36	0.086	0.0753	1.35	0.1075
3	8.5	3	0.40	0.08	0.098	0.24	0.091	0.32	0.077	0.0893	1.20	0.1071
4	11.5	3	0.35	0.07	0.129	0.21	0.112	0.28	0.122	0.1188	1.05	0.1247
5	14.5	3	0.40	0.08	0.166	0.24	0.146	0.32	0.134	0.1480	1.20	0.1776
6	17.5	3	0.33	0.07	0.190	0.20	0.182	0.26	0.164	0.1795	0.99	0.1777
7	20.5	3	0.48	0.10	0.198	0.29	0.183	0.36	0.166	0.1925	1.44	0.2772
8	23.5	3	0.80	0.18	0.192	0.48	0.174	0.64	0.133	0.1683	2.40	0.4038
9	26.5	3	0.90	0.18	0.178	0.54	0.163	0.72	0.106	0.1523	2.70	0.4118
10	29.5	3	0.90	0.18	0.185	0.54	0.179	0.72	0.143	0.1665	2.70	0.4495
11	32.5	3	0.80	0.16	0.180	0.48	0.200	0.64	0.180	0.1873	2.40	0.4494
12	35.5	3	1.00	0.20	0.191	0.60	0.182	0.80	0.180	0.1838	3.00	0.5513
13	38.5	3	1.20	0.24	0.198	0.72	0.177	0.96	0.170	0.1805	3.60	0.6498
14	41.5	3	1.40	0.28	0.178	0.84	0.103	1.12	0.154	0.1345	4.20	0.5649
15	44.5	3	1.20	0.24	0.149	0.72	0.160	0.96	0.111	0.1450	3.60	0.5220
16	47.5	3	0.85	0.17	0.140	0.51	0.086	0.68	0.078	0.0975	2.72	0.2652
17	50.9	3.4	0.25	0.05	0.050	0.15	0.032	0.20	0.035	0.0373	0.51	0.0191
18	51.6	0.7	W/E(R/B)									
										TOTAL	35.92	5.2952

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>						DATE: 28 May 2012 TIME STARTED: 9:47 AM TIME FINISHED: 10:15 AM		GAUGE HT.: 1.00 m GAUGE HT.: 1.00 m	
NAME OF STATION: S084			OBSERVATION POINT / LOCATION: GEN. NAKAR						COMPUTED BY: DVG		CHECKED: RLB	
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 4 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)			
0	0	0	W/E(L/B)									
1	2.5	2.5	0.31	0.08	UR	0.18	UR	0.25	UR	0.0000	0.85	0.0000
2	5.5	3	0.35	0.07	0.059	0.21	0.050	0.28	0.040	0.0488	1.05	0.0522
3	8.5	3	0.30	0.06	0.066	0.18	0.043	0.24	0.058	0.0525	0.90	0.0473
4	11.5	3	0.30	0.06	0.095	0.18	0.069	0.24	0.084	0.0943	0.90	0.0840
5	14.5	3	0.35	0.07	0.121	0.21	0.111	0.28	0.086	0.1073	1.05	0.1126
6	17.5	3	0.20	0.04	0.190	0.12	0.139	0.16		0.1390	0.60	0.0834
7	20.5	3	0.30	0.06	0.190	0.18	0.134	0.24	0.150	0.1520	0.90	0.1368
8	23.5	3	0.60	0.12	0.154	0.36	0.154	0.48	0.179	0.1603	1.80	0.2885
9	26.5	3	0.74	0.15	0.189	0.44	0.175	0.59	0.139	0.1645	2.22	0.3652
10	29.5	3	0.75	0.15	0.148	0.45	0.172	0.60	0.096	0.1470	2.25	0.3308
11	32.5	3	0.80	0.16	0.166	0.48	0.152	0.64	0.145	0.1538	2.40	0.3690
12	35.5	3	0.94	0.19	0.147	0.58	0.147	0.75	0.184	0.1563	2.82	0.4406
13	38.5	3	1.10	0.23	0.180	0.66	0.115	0.86	0.157	0.1418	3.30	0.4678
14	41.5	3	1.25	0.25	0.150	0.75	0.119	1.00	0.133	0.1303	3.75	0.4884
15	44.5	3	1.10	0.22	0.153	0.68	0.114	0.88	0.062	0.1108	3.30	0.3655
16	47.5	3	0.81	0.12	0.092	0.37	0.065	0.49	0.071	0.0733	1.83	0.1340
17	50.5	3	W/E(R/B)									
										TOTAL	28.92	3.7669

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT		HYDROLOGICAL INVESTIGATION WORKS The Study on Water Resources Development for Metro Manila in the Republic of the Philippines				DATE: 31 May 2002 TIME STARTED: 11:30 AM TIME FINISHED: 12:18 AM		GAUGE HT.: 0.99 m GAUGE HT.: 0.99 m				
NAME OF STATION: BG64		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG		CHECKED: RLB				
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 3 D		NR. 4 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)				
0	0	0	W/E(L/B)									
1	2.5	2.5	0.34	0.07	UR	0.20	UR	0.27	UR	0.0000	0.99	0.0000
2	5.5	3	0.40	0.08	UR	0.24	UR	0.32	UR	0.0000	1.20	0.0000
3	8.5	3	0.34	0.07	0.074	0.20	0.087	0.27	UR	0.0805	1.02	0.0821
4	11.5	3	0.28	0.05		0.18	0.115	0.21		0.1150	0.78	0.0397
5	14.5	3	0.30	0.06	0.112	0.18	0.096	0.24	0.171	0.1188	0.90	0.1065
6	17.5	3	0.24	0.05		0.14	0.212	0.19		0.2120	0.72	0.1526
7	20.5	3	0.40	0.08	0.226	0.24	0.069	0.32	0.132	0.1385	1.20	0.1662
8	23.5	3	0.67	0.13	0.130	0.40	0.198	0.54	0.141	0.1668	2.01	0.3352
9	26.5	3	0.60	0.16	0.051	0.48	0.160	0.64	0.110	0.1203	2.40	0.2895
10	29.5	3	0.83	0.17	0.158	0.50	0.134	0.68	0.174	0.1495	2.40	0.3723
11	32.5	3	0.87	0.17	0.190	0.52	0.073	0.70	0.116	0.1130	2.61	0.2949
12	35.5	3	1.02	0.20	0.254	0.61	0.093	0.82	0.172	0.1530	3.06	0.4682
13	38.5	3	1.20	0.24	0.116	0.72	0.158	0.98	0.158	0.1475	3.60	0.5310
14	41.5	3	1.35	0.27	0.177	0.81	0.128	1.08	0.179	0.1530	4.05	0.6197
15	44.5	3	1.15	0.23	0.170	0.69	0.061	0.92	0.13	0.1055	3.45	0.3640
16	47.5	3	0.70	0.14	0.093	0.42	0.076	0.56	UR	0.0845	2.10	0.1775
17	50.5	3	W/E(R/B)									
TOTAL											32.53	4.0487

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT		HYDROLOGICAL INVESTIGATION WORKS The Study on Water Resources Development for Metro Manila in the Republic of the Philippines				DATE: 06 June 2002 TIME STARTED: 1:00 PM TIME FINISHED: 1:25 PM		GAUGE HT.: 0.99 m GAUGE HT.: 0.99 m				
NAME OF STATION: BG64		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG		CHECKED: RLB				
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 3 D		NR. 4 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)				
0	0	0	W/E(L/B)									
1	2.7	2.7	0.34	0.07	UR	0.20	UR	0.27	UR	0.0000	0.97	0.0000
2	5.7	3	0.38	0.08		0.23	UR	0.30	UR	0.0470	1.14	0.0467
3	8.7	3	0.35	0.07	0.088	0.21	0.085	0.28	0.055	0.0878	1.05	0.0711
4	11.7	3	0.30	0.06	0.109	0.18	0.087	0.24	0.079	0.0905	0.90	0.0815
5	14.7	3	0.30	0.06	0.128	0.18	0.113	0.24	0.110	0.1160	0.90	0.1044
6	17.7	3	0.30	0.06	0.152	0.18	0.134	0.24	0.127	0.1388	0.90	0.1237
7	20.7	3	0.44	0.09	0.141	0.26	0.127	0.35	0.090	0.1213	1.32	0.1801
8	23.7	3	0.70	0.14	0.117	0.42	0.130	0.56	0.133	0.1275	2.10	0.2678
9	26.7	3	0.85	0.17	0.119	0.51	0.119	0.68	0.124	0.1198	2.55	0.3054
10	29.7	3	0.85	0.17	0.112	0.51	0.115	0.68	0.121	0.1158	2.55	0.2952
11	32.7	3	0.90	0.18	0.122	0.54	0.127	0.72	0.070	0.1115	2.70	0.3011
12	35.7	3	1.10	0.22	0.119	0.68	0.100	0.88	0.102	0.1053	3.30	0.3473
13	38.7	3	1.25	0.25	0.097	0.78	0.099	1.00	0.107	0.1005	3.75	0.3769
14	41.7	3	1.30	0.26	0.115	0.78	0.111	1.04	0.102	0.1088	3.90	0.4280
15	44.7	3	1.15	0.23	0.101	0.69	0.104	0.92	0.074	0.0858	3.45	0.3303
16	47.7	3	0.85	0.13	0.082	0.39	0.071	0.52	UR	0.0785	1.72	0.1318
17	50	2.3	W/E(R/B)									
TOTAL											33.20	3.3705

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 07 June 2002 TIME STARTED : 10:50 AM TIME FINISHED: 11:20 AM		GAUGE HT. : 1.00 m GAUGE HT. : 1.00 m				
NAME OF STATION: SG84		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG			CHECKED: RLB				
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG				REMARKS:									
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)	MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
0	0	0	W/E(L/B)										
1	2.2	2.2	0.32	0.08	UR	0.19	UR	0.26	UR		0.0000	0.83	0.0000
2	5.2	3	0.35	0.07		0.21	0.079	0.28		0.0790	1.05	0.0830	
3	8.2	3	0.34	0.07		0.20	0.093	0.27		0.0930	1.02	0.0949	
4	11.2	3	0.32	0.06		0.19	0.108	0.28		0.1080	0.96	0.1037	
5	14.2	3	0.34	0.07		0.20	0.140	0.27		0.1400	1.02	0.1428	
6	17.2	3	0.27	0.05		0.16	0.172	0.22		0.1720	0.81	0.1393	
7	20.2	3	0.50	0.10	0.218	0.30	0.157	0.40	0.143	0.1683	1.50	0.2524	
8	23.2	3	0.80	0.16	0.136	0.48	0.159	0.64	0.128	0.1455	2.40	0.3492	
9	26.2	3	0.85	0.17	0.140	0.51	0.199	0.68	0.140	0.1695	2.55	0.4322	
10	29.2	3	0.80	0.16	0.136	0.48	0.125	0.84	0.196	0.1455	2.40	0.3492	
11	32.2	3	0.90	0.18	0.108	0.54	0.195	0.72	0.232	0.1825	2.70	0.4928	
12	35.2	3	1.15	0.23	0.170	0.69	0.185	0.92	0.112	0.1630	3.45	0.5624	
13	38.2	3	1.30	0.26	0.155	0.78	0.124	1.04	0.150	0.1393	3.90	0.5392	
14	41.2	3	1.25	0.25	0.126	0.75	0.085	1.00	0.050	0.0865	3.75	0.3244	
15	44.2	3	1.00	0.20	0.259	0.60	0.046	0.80	0.096	0.1118	3.00	0.3353	
16	47.2	3	0.50	0.10	UR	0.30	UR	0.40	UR		0.0000	1.28	0.0000
17	48.3	2.1	W/E(R/B)										
TOTAL											32.62	4.2005	

Submitted by: KEYJO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Dev. For Metro Manila in the Republic of the Philippines (Phase II)</i>				DATE: 20 February 2002 TIME STARTED : 10:25 AM TIME FINISHED: 12:00 NN		GAUGE HT. : GAUGE HT. :			
NAME OF STATION: SG85		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: REY, DARREL, GERRY				REMARKS:								
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)	MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
0	0	0	W/E(R/B)									
1	1.2	1.2	1.26	0.26	0.384	0.76	0.433	1.01	0.193	0.3608	1.39	0.5000
2	2.2	1	1.37	0.27	0.419	0.82	0.451	1.10	0.309	0.4075	1.37	0.5583
3	3.2	1	0.14	0.03	0.450	0.88	0.440	0.11	0.299	0.4073	0.14	0.0558
4	4.2	1	1.36	0.27	0.278	0.82	0.361	1.09	0.455	0.3640	1.36	0.4950
5	5.2	1	0.78	0.16	0.459	0.47	0.468	0.62	0.419	0.4535	0.78	0.3537
6	6.2	1	1.45	0.29	0.451	0.87	0.268	1.16	0.407	0.3475	1.45	0.5039
7	7.2	1	1.50	0.30	0.463	0.90	0.289	1.20	0.189	0.2900	1.50	0.4350
8	8.2	1	1.38	0.28	0.333	0.83	0.496	1.10	0.172	0.3753	1.38	0.5178
9	9.2	1	1.20	0.24	0.516	0.72	0.421	0.96	0.111	0.3673	1.20	0.4407
10	10.2	1	1.10	0.22	0.454	0.66	0.282	0.86	0.229	0.2968	1.10	0.3264
11	11.2	1	1.00	0.20	0.236	0.60	0.239	0.80	0.260	0.2433	1.00	0.2433
12	12.2	1	0.80	0.16	0.271	0.48	0.213	0.64	0.059	0.1890	0.80	0.1612
13	13.2	1	1.2	0.24	0.201	0.72	0.041	0.96	0.050	0.0833	1.20	0.0999
14	14.2	1	1.1	0.22	0.336	0.66	0.381	0.88	0.289	0.3468	1.10	0.3814
15	15.2	1	1.10	0.22	0.058	0.66	0.039	0.88	0.218	0.0873	1.10	0.0960
16	16.2	1	1.2	0.24	0.049	0.72	0.054	0.96	0.056	0.0533	1.20	0.0639
17	17.2	1	1.1	0.22	0.292	0.66	0.22	0.88	0.243	0.2448	1.10	0.2692
18	18.2	1	1.2	0.24	0.261	0.72	0.144	0.96	0.059	0.1495	1.20	0.1784
19	19.2	1	1.3	0.26	0.113	0.78	0.059	1.04	0.089	0.0826	1.30	0.1073
20	20.2	1	1.3	0.26	0.049	0.78	0.039	1.04	UR	0.0440	1.30	0.0572
21	21.2	1	1.1	0.21	UR	0.63	UR	0.84	UR	0.0000	1.05	0.0000
22	22.2	1	0.8	0.16	UR	0.48	UR	0.64	UR	0.0000	0.80	0.0000
23	23.2	1	0.8	0.16	UR	0.48	UR	0.84	UR	0.0000	0.80	0.0000
24	24.2	1	0.2	0.04	UR	0.12	UR	0.16	UR	0.0000	0.16	0.0000
25	24.63	0.45	W/E(L/B)									
TOTAL											25.76	5.8354

Submitted by: KIIJO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Dev for Metro Manila in the Republic of the Philippines</i> Philippines (Phase I)				DATE: 01 March 2002 TIME STARTED : 13:55 PM TIME FINISHED: 14:23 PM		GAUGE HT. : GAUGE HT. :		
NAME OF STATION: S085		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG				CHECKED: RLB		
HYDROGRAPHIC TEAM: DVG,GAG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)							MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 6 D	VEL (mps)	NR. 8 D	VEL (mps)			
0	0	0	W/E(R/B)									
1	0.7	0.7	1.13	0.23	0.227	0.68	0.146	0.90	0.177	0.1740	1.53	0.2654
2	2.7	2	1.26	0.25	0.282	0.75	0.362	1.00	0.268	0.3185	2.80	0.7963
3	4.7	2	0.68	0.14		0.41	0.282	0.64		0.2820	1.36	0.3835
4	6.7	2	1.43	0.29	0.268	0.66	0.278	1.14	0.140	0.2410	2.86	0.6893
5	8.7	2	1.15	0.23	0.300	0.69	0.233	0.92	0.081	0.2118	2.30	0.4870
6	10.7	2	0.90	0.18	0.212	0.54	0.237	0.72	0.113	0.1998	1.80	0.3596
7	12.7	2	1.05	0.21	0.088	0.63	0.069	0.84	0.068	0.0735	2.10	0.1544
8	14.7	2	1.10	0.22	0.272	0.66	0.193	0.88	0.158	0.2040	2.20	0.4488
9	16.7	2	1.00	0.20	0.175	0.60	0.169	0.80	0.114	0.1668	2.00	0.3135
10	18.7	2	1.10	0.22	0.096	0.66	0.065	0.88	0.056	0.0703	2.20	0.1544
11	20.7	2	0.95	0.19	UR	0.67	UR	0.76	UR	0.0000	1.90	0.0000
12	22.7	2	0.75	0.15	UR	0.45	UR	0.60	UR	0.0000	1.13	0.0000
13	23.7	1	W/E(L/B)									
TOTAL											23.87	4.0622

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 13 May 2002 TIME STARTED : 11:40 AM TIME FINISHED: 12:40 PM		GAUGE HT. : GAUGE HT. :		
NAME OF STATION: SGS # 6		OBSERVATION POINT / LOCATION: Kallera River, Downstream of Old station (SGS # 3)				COMPUTED BY: DVG				CHECKED: RLB		
HYDROGRAPHIC TEAM: Garry, Entang, Tote						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)							MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 6 D	VEL (mps)	NR. 8 D	VEL (mps)			
0	0	0	W/E(R/B)									
1	0.8	0.8	0.75	0.15	0.000	0.45	0.04	0.60	0.000	0.0200	0.68	0.0135
2	1.8	1	1.00	0.20	0.103	0.60	0.072	0.80	0.064	0.0628	1.00	0.0828
3	2.8	1	1.25	0.25	0.118	0.75	0.065	1.00	0.067	0.1013	1.25	0.1266
4	3.8	1	1.20	0.24	0.108	0.72	0.112	0.96	0.110	0.1105	1.20	0.1326
5	4.8	1	1.40	0.28	0.146	0.84	0.098	1.12	0.134	0.1180	1.40	0.1666
6	5.8	1	1.20	0.24	0.129	0.72	0.082	0.96	0.075	0.0820	1.20	0.0984
7	6.8	1	1.20	0.24	0.130	0.72	0.078	0.96	0.111	0.0983	1.20	0.1191
8	7.8	1	1.30	0.28	0.161	0.78	0.086	1.04	0.076	0.1023	1.30	0.1329
9	8.8	1	1.00	0.20	0.140	0.60	0.285	0.80	0.097	0.1918	1.00	0.1918
10	9.8	1	0.70	0.14	0.120	0.42	0.13	0.56	0.061	0.1103	0.70	0.0772
11	10.8	1	0.90	0.18	0.082	0.54	0.048	0.72	0.048	0.0565	0.90	0.0509
12	11.8	1	0.70	0.14	0.096	0.42	0.050	0.56	0.048	0.0675	0.70	0.0473
13	12.8	1	0.6	0.12	0.112	0.36	0.030	0.48	0.000	0.0280	0.60	0.0188
14	13.8	1	0.6	0.12	0.041	0.36	0.054	0.48	0.000	0.0373	0.60	0.0224
15	14.8	1	0.80	0.12	0.000	0.36	0.031	0.48	0.061	0.0308	0.60	0.0185
16	15.8	1	0.7	0.14	0.047	0.42	0.067	0.56	0.093	0.0885	0.70	0.0480
17	16.8	1	0.8	0.18	0.055	0.48	0.08	0.64	0.038	0.0513	0.80	0.0410
18	17.8	1	1	0.20	0.071	0.60	0.054	0.80	0.060	0.0448	1.00	0.0448
19	18.8	1	0.9	0.18	0.062	0.54	0.064	0.72	0.037	0.0778	0.90	0.0646
20	19.8	1	0.8	0.16	0	0.48	0.39	0.64	0	0.1950	0.88	0.1716
21	21	1.2	W/E(L/B)									
22												
23												
24												
25												
TOTAL											18.61	1.6659

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 18 May 2002 TIME STARTED: 11:50 AM TIME FINISHED: 12:20 PM		GAUGE HT.: GAUGE HT.:			
NAME OF STATION: SGS # 6		OBSERVATION POINT / LOCATION: Kaiwa River, Downstream of Old station (SGS # 3)				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: Gerry, Enteng, Toto						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 4 D	VEL (mps)	NR. 6 D	VEL (mps)			
0	0	0	W/E(R/B)									
1	0.8	0.8	0.80	0.16	0.000	0.48	0.045	0.64	0.040	0.0325	1.12	0.0364
2	2.8	2	1.00	0.20	0.155	0.60	0.141	0.80	0.146	0.1458	2.00	0.2915
3	4.8	2	1.10	0.22	0.135	0.66	0.151	0.88	0.160	0.1493	2.20	0.3284
4	6.8	2	1.00	0.20	0.151	0.60	0.119	0.80	0.087	0.1190	2.00	0.2380
5	8.8	2	0.90	0.18	0.140	0.54	0.136	0.72	0.113	0.1313	1.80	0.2363
6	10.8	2	0.80	0.16	0.122	0.48	0.132	0.64	0.124	0.1276	1.60	0.2040
7	12.8	2	0.75	0.15	0.098	0.45	0.091	0.60	0.093	0.0933	1.50	0.1399
8	14.8	2	0.70	0.14	0.032	0.42	0.056	0.56	0.054	0.0495	1.40	0.0693
9	16.8	2	1.00	0.20	0.090	0.60	0.072	0.80	0.050	0.0710	2.00	0.1420
10	18.8	2	0.95	0.19	0.057	0.57	0.071	0.76	0.034	0.0583	3.33	0.1937
11	23.8	5	W/E(L/B)									
TOTAL											16.95	1.8794

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 26 May 2002 TIME STARTED: 11:00 AM TIME FINISHED: 11:50 AM		GAUGE HT.: GAUGE HT.:			
NAME OF STATION: SGS # 6		OBSERVATION POINT / LOCATION: Kaiwa River, Downstream of Old station (SGS # 3)				COMPUTED BY: RLB			CHECKED: RLB			
HYDROGRAPHIC TEAM: Gerry, Enteng						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 4 D	VEL (mps)	NR. 6 D	VEL (mps)			
0	0	0	W/E(R/B)									
1	1	1	0.80	0.16	0.056	0.48	0.083	0.64	0.033	0.0638	1.20	0.0765
2	3	2	1.00	0.20	0.155	0.60	0.180	0.80	0.193	0.1770	2.00	0.3540
3	5	2	1.20	0.24	0.170	0.72	0.221	0.96	0.197	0.2023	2.40	0.4854
4	7	2	1.00	0.20	0.184	0.60	0.128	0.80	0.135	0.1438	2.00	0.2875
5	9	2	0.90	0.18	0.182	0.54	0.187	0.72	0.133	0.1723	1.80	0.3101
6	11	2	0.60	0.12	0.160	0.36	0.163	0.48	0.150	0.1590	1.20	0.1908
7	13	2	0.70	0.14	0.069	0.42	0.062	0.56	0.058	0.0623	1.40	0.0872
8	15	2	0.50	0.10	0.112	0.30	0.077	0.40	0.078	0.0660	1.00	0.0860
9	17	2	0.80	0.16	0.161	0.48	0.134	0.64	0.109	0.1345	1.60	0.2152
10	19	2	0.80	0.16	0.075	0.48	0.094	0.64	0.076	0.0848	0.80	0.0678
11	21	2	0.60	0.16	0.054	0.48	0	0.64	0.000	0.0135	0.60	0.0108
12	23.5	2.5	W/E(L/B)									
TOTAL											16.20	2.1712

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT		HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 20 February 2002 TIME STARTED: 14:18 PM TIME FINISHED: 16:48 PM		GAUGE HT.: GAUGE HT.:				
NAME OF STATION: SG86		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG		CHECKED: RLB				
HYDROGRAPHIC TEAM: ENTENG, TOTO, MUTO						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 4 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)			
0	0	0	W/E(R/B)									
1	2	2	0.13	0.03	0.000	0.08	0	0.10	0.000	0.0000	0.26	0.0000
2	4	2	0.18	0.04	0.000	0.11	0.113	0.14	0.000	0.0565	0.36	0.0203
3	6	2	0.27	0.05	0.000	0.16	0.237	0.22	0.000	0.1185	0.54	0.0640
4	8	2	0.30	0.06	0.000	0.18	0.274	0.24	0.000	0.1370	0.60	0.0822
5	10	2	0.44	0.09	0.000	0.26	0.268	0.35	0.000	0.1330	0.88	0.1170
6	12	2	0.59	0.12	0.000	0.35	0.248	0.47	0.000	0.1240	1.18	0.1463
7	14	2	0.74	0.15	0.000	0.44	0.317	0.59	0.000	0.1585	1.48	0.2346
8	16	2	0.80	0.16	0.385	0.48	0.222	0.64	0.217	0.2565	1.60	0.4104
9	18	2	0.80	0.16	0.349	0.48	0.386	0.64	0.324	0.3613	1.60	0.5780
10	20	2	0.88	0.18	0.386	0.53	0.427	0.70	0.301	0.3853	1.78	0.6780
11	22	2	0.85	0.17	0.428	0.51	0.357	0.68	0.235	0.3445	1.70	0.5857
12	24	2	0.84	0.17	0.247	0.50	0.233	0.67	0.268	0.2453	1.68	0.4120
13	26	2	0.85	0.17	0.344	0.51	0.29	0.68	0.396	0.3285	1.70	0.5585
14	28	2	0.80	0.16	0.403	0.48	0.401	0.64	0.299	0.3760	1.60	0.6016
15	30	2	0.83	0.17	0.336	0.50	0.263	0.66	0.17	0.2580	1.66	0.4263
16	32	2	0.94	0.19	0.310	0.56	0.308	0.75	0.246	0.2930	1.88	0.5508
17	34	2	0.9	0.18	0.152	0.54	0.133	0.72	0.142	0.1400	1.80	0.2520
18	36	2	1.01	0.20	0.081	0.61	0.060	0.81	0.000	0.0503	2.02	
19	38	2	W/E(L/B)									
TOTAL											24.30	5.7198

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT		HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 01 March 2002 TIME STARTED: 11:51 AM TIME FINISHED: 12:25 MN		GAUGE HT.: GAUGE HT.:				
NAME OF STATION: SG96		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG		CHECKED: RLB				
HYDROGRAPHIC TEAM: DVG, GAG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 4 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)			
0	0	0	W/E(R/B)									
1	2.7	2.7	0.09	0.02	L/R	0.05	L/R	0.07	L/R	0.0000	0.21	0.0000
2	4.7	2	0.17	0.03		0.10	0.102	0.14		0.1020	0.34	0.0347
3	6.7	2	0.28	0.06		0.17	0.129	0.22		0.1280	0.56	0.0717
4	8.7	2	0.35	0.07	0.256	0.21	0.219	0.28	0.159	0.2133	0.70	0.1493
5	10.7	2	0.48	0.10	0.200	0.29	0.207	0.38	0.210	0.2060	0.98	0.1978
6	12.7	2	0.63	0.13	0.238	0.38	0.228	0.50	0.237	0.2328	1.26	0.2933
7	14.7	2	0.65	0.13	0.289	0.39	0.178	0.52	0.124	0.1923	1.30	0.2499
8	16.7	2	0.80	0.16	0.252	0.48	0.095	0.64	0.136	0.1445	1.60	0.2312
9	18.7	2	0.85	0.17	0.398	0.51	0.172	0.68	0.069	0.2028	1.70	0.3447
10	20.7	2	0.81	0.16	0.219	0.49	0.206	0.65	0.220	0.2128	1.62	0.3447
11	22.7	2	0.76	0.15	0.227	0.48	0.213	0.61	0.212	0.2163	1.52	0.3287
12	24.7	2	0.78	0.16	0.237	0.47	0.251	0.62	0.203	0.2355	1.56	0.3674
13	26.7	2	0.70	0.14	0.198	0.42	0.20	0.56	0.239	0.2088	1.40	0.2923
14	28.7	2	0.80	0.16	0.194	0.48	0.217	0.64	0.209	0.2093	1.60	0.3348
15	30.7	2	0.80	0.12	0.090	0.36	0.086	0.48	0.098	0.0903	1.20	0.1083
16	32.7	2	0.95	0.19	L/R	0.57	L/R	0.76	L/R	0.0000	1.90	0.0000
17	34.7	2	0.32	0.06	L/R	0.19	L/R	0.26	L/R	0.0000	0.48	0.0000
18	35.7	1	W/E(L/B)									
TOTAL											19.91	3.3485

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 13 May 2002 TIME STARTED: 3:14 PM TIME FINISHED: 3:26 PM		GAUGE HT.: GAUGE HT.:	
NAME OF STATION: SGS # 6		OBSERVATION POINT / LOCATION: Kaliwa River, Daraitan (Upstream of old site) (SGS # 3)				COMPUTED BY: DYG				CHECKED: RLB	
HYDROGRAPHIC TEAM: DVG,GAG, ELM						REMARKS:					
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL				MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. 2 D	VEL (mps)	NR. # D	VEL (mps)				NR. # D
0	0		WE(R/B)								
1	3.8	3.8	0.08			0.03	0		0.15	0.0000	
2	5.8	2	0.20			0.12	0.085	0.065	0.40	0.0260	
3	7.8	2	0.30			0.18	0.074	0.074	0.60	0.0444	
4	9.8	2	0.40			0.24	0.053	0.053	0.80	0.0424	
5	11.8	2	0.50			0.30	0.077	0.077	1.00	0.0770	
6	13.8	2	0.50			0.30	0.067	0.067	1.00	0.0670	
7	15.8	2	0.60			0.36	0.073	0.073	1.20	0.0876	
8	17.8	2	0.64			0.38	0.086	0.036	1.28	0.1101	
9	19.8	2	0.64			0.38	0.079	0.079	1.28	0.1011	
10	21.8	2	0.64			0.38	0.07	0.07	1.28	0.0898	
11	23.8	2	0.70			0.42	0.06	0.06	1.40	0.0840	
12	25.8	2	0.70			0.42	0.034	0.034	1.40	0.0476	
13	27.8	2	0.42			0.25	Lur	0.0000	0.84	0.0600	
14	29.8	2	0.40			0.24	Lur	0.0000	0.80	0.0600	
15	31.8	2	0.25			0.15	Lur	0.0000	0.50	0.0000	
16	33.8	2	0.04			0.02	0	0.0000	0.08	0.0000	
17	34.3	0.5	WE(L/B)								
TOTAL									14.01	0.7768	

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 12 May 2002 TIME STARTED: 3:50 PM TIME FINISHED: 4:30 PM		GAUGE HT.: GAUGE HT.:		
NAME OF STATION: SGS # 6		OBSERVATION POINT / LOCATION: Kaliwa River, Daraitan (Upstream of old site) (SGS # 3)				COMPUTED BY: DYG				CHECKED: RLB		
HYDROGRAPHIC TEAM: DVG,GAG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL				MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE		
				NR. 2 D	VEL (mps)	NR. # D	VEL (mps)				NR. # D	VEL (mps)
0	0		WE(R/B)									
1	1.9	1.9	0.10	0.02					0.20	0.0000		
2	3.9	2	0.21	0.04					0.42	0.0000		
3	5.9	2	0.30	0.06	0.090	0.18	0.076	0.24	0.085	0.077	0.60	0.0486
4	7.9	2	0.45	0.09	0.073	0.27	0.073	0.36	0.072	0.073	0.90	0.0655
5	9.9	2	0.56	0.11	0.077	0.34	0.081	0.45	0.054	0.073	1.12	0.0820
6	11.9	2	0.60	0.12	0.096	0.36	0.095	0.48	0.088	0.084	1.20	0.1128
7	13.9	2	0.65	0.13	0.111	0.38	0.109	0.52	0.108	0.109	1.30	0.1420
8	15.9	2	0.80	0.16	0.102	0.48	0.103	0.64	0.095	0.103	1.60	0.1652
9	17.9	2	0.70	0.14	0.092	0.42	0.088	0.56	0.093	0.089	1.40	0.1250
10	19.9	2	0.70	0.14	0.091	0.42	0.09	0.56	0.070	0.080	1.40	0.1124
11	21.9	2	0.70	0.14	0.102	0.42	0.109	0.56	0.080	0.100	1.40	0.1400
12	23.9	2	0.65	0.13	0.113	0.39	0.105	0.52	0.110	0.108	1.30	0.1407
13	25.9	2	0.65	0.13	0.090	0.39	0.09	0.52	0.073	0.082	1.30	0.1089
14	27.9	2	0.80	0.16	0.031	0.48	0.044	0.64	0.052	0.043	1.60	0.0584
15	29.9	2	0.95	0.19	0.000	0.57	0	0.76	0	0.000	1.90	0.0000
16	31.9	2	0.6	0.12	0.000	0.36	0	0.48	0.000	0.000	0.96	0.0000
17	33.1	1.2	WE(L/B)									
TOTAL									18.60	1.3075		

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>						DATE: 26 May 2002 TIME STARTED : 3:18 PM TIME FINISHED: 3:50 PM		GAUGE HT. : GAUGE HT. :	
NAME OF STATION: SGS # 6		OBSERVATION POINT / LOCATION: Kaliwa River, Daraitan (Upstream of old site (SGS # 3))				COMPUTED BY: RLB				CHECKED: RLB		
HYDROGRAPHIC TEAM: GAG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 6 D	VEL (mps)	NR. 8 D	VEL (mps)			
0	0		W/E(R/B)									
1	1.4	1.4	0.37	0.07	0.000	0.22	0	0.30	0.000	0.000	0.63	0.0000
2	3.4	2	0.75	0.15	0.036	0.45	0.000	0.60	0.000	0.000	1.50	0.0000
3	5.4	2	0.75	0.15	0.095	0.45	0.100	0.60	0.087	0.096	1.50	0.1733
4	7.4	2	0.80	0.12	0.140	0.36	0.146	0.48	0.120	0.138	1.20	0.1656
5	9.4	2	0.59	0.12	0.163	0.35	0.151	0.47	0.133	0.150	1.18	0.1764
6	11.4	2	0.60	0.12	0.179	0.35	0.178	0.48	0.144	0.169	1.20	0.2025
7	13.4	2	0.60	0.12	0.141	0.36	0.127	0.48	0.098	0.123	1.20	0.1479
8	15.4	2	0.60	0.12	0.196	0.36	0.188	0.48	0.127	0.174	1.20	0.2085
9	17.4	2	0.57	0.11	0.185	0.34	0.177	0.46	0.134	0.168	1.14	0.1918
10	19.4	2	0.60	0.12	0.194	0.35	0.142	0.48	0.137	0.154	1.20	0.1845
11	21.4	2	0.52	0.10	0.188	0.31	0.155	0.42	0.103	0.150	1.04	0.1563
12	23.4	2	0.53	0.11	0.135	0.32	0.092	0.42	0.100	0.105	1.08	0.1110
13	25.4	2	0.32	0.06	0.141	0.19	0.111	0.28	0.064	0.114	0.84	0.0731
14	27.4	2	0.26	0.05	0.16	0.16	0.09			0.090	0.52	0.0468
15	29.4	2	0.10	0.02	0.06	0.06	0.068			0.068	0.31	0.0205
16	33.6	4.3	W/E(L/B)									
TOTAL											15.52	1.8582

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>						DATE: 03 June 2002 TIME STARTED : 3:50 PM TIME FINISHED: 4:20 PM		GAUGE HT. : GAUGE HT. :	
NAME OF STATION: SGS # 6		OBSERVATION POINT / LOCATION: Kaliwa River, Daraitan (Upstream of old site (SGS # 3))				COMPUTED BY: RLB				CHECKED: RLB		
HYDROGRAPHIC TEAM: GAG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 6 D	VEL (mps)	NR. 8 D	VEL (mps)			
0	0		W/E(R/B)									
1	5	6	0.06	0.01		0.04	0.061	0.05		0.061	0.21	0.0128
2	7	2	0.15	0.03		0.09	0.078	0.12		0.078	0.30	0.0234
3	9	2	0.25	0.05		0.15	0.127	0.20		0.127	0.50	0.0635
4	11	2	0.40	0.08	0.141	0.24	0.180	0.32	0.141	0.151	0.80	0.1204
5	13	2	0.52	0.10	0.167	0.31	0.136	0.42	0.166	0.149	1.04	0.1547
6	15	2	0.50	0.10	0.202	0.36	0.178	0.40	0.126	0.171	1.00	0.1708
7	17	2	0.60	0.12	0.198	0.36	0.176	0.48	0.193	0.186	1.20	0.2229
8	19	2	0.70	0.14	0.172	0.42	0.185	0.56	0.105	0.162	1.40	0.2265
9	21	2	0.59	0.12	0.191	0.35	0.152	0.47	0.145	0.160	1.18	0.1888
10	23	2	0.60	0.12	0.174	0.36	0.152	0.48	0.136	0.154	1.20	0.1842
11	25	2	0.60	0.12	0.215	0.36	0.190	0.48	0.175	0.194	1.20	0.2322
12	27	2	0.60	0.12	0.181	0.36	0.174	0.48	0.102	0.158	1.20	0.1893
13	29	2	0.62	0.12	0.076	0.37	0.116	0.50	0.078	0.097	1.24	0.1200
14	31	2	0.80	0.16	0.038	0.48	0.048			0.033	1.60	0.0524
15	33	2	0.70	0.14		0.42	0			0.000	1.47	0.0000
16	36.2	2.2	W/E(L/B)									
TOTAL											15.54	1.9618

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 01 March 2002 TIME STARTED: 9:10 AM TIME FINISHED: 9:45 AM		GAUGE HT. : GAUGE HT. :			
NAME OF STATION: SCS7		OBSERVATION POINT / LOCATION: LENATHI				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: DVG, GAG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D	VEL (mps)	NR. 8 D	VEL (mps)	NR. 8 D	VEL (mps)	MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
25	12.2	0.8	0.16	0.03		0.10	0.460	0.13		0.4800	0.08	0.0392
26	12.7	0.8	0.17	0.03		0.10	0.484	0.14		0.4940	0.09	0.0420
27	13.2	0.9	0.15	0.03	0.240	0.09	0.536	0.12		0.3980	0.08	0.0291
28	13.7	0.9	0.12	0.02	0.172	0.07	0.601	0.10		0.3366	0.06	0.0202
29	14.2	0.8	0.12	0.02	0.345	0.07	0.669	0.10		0.4770	0.06	0.0286
30	14.7	0.8	0.18	0.04	0.465	0.11	0.287	0.14		0.3610	0.09	0.0326
31	15.2	0.8	0.17	0.03		0.10	0.171	0.14		0.1710	0.09	0.0145
32	15.7	0.8	0.16	0.03		0.10	0.243	0.13		0.2430	0.06	0.0136
33	15.9	0.2	WE(R/B)									
SUB-TOTAL											0.59	0.2197
TOTAL											3.14	0.8276

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 13 May 2002 TIME STARTED: 10:16 AM TIME FINISHED: 10:36 AM		GAUGE HT. : GAUGE HT. :			
NAME OF STATION: SCS7		OBSERVATION POINT / LOCATION: LENATHI RIVER				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: DVG, GAG, RLB						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D	VEL (mps)	NR. 8 D	VEL (mps)	NR. 8 D	VEL (mps)	MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
0	0	0	WE(L/B)									
1	1.2	1.2	0.12	No current			0.000			0.0000	0.13	0.0000
2	2.2	1	0.28	No current			0.000			0.0000	0.28	0.0000
3	3.2	1	WE(R/B)									
4	0	0	WE(L/B)									
4	1.8	1.8	0.05	w/ current but too shallow to measure								
5	2.8	1	0.06	w/ current but too shallow to measure						0.1240	0.07	0.0087
6	3.8	1	0.10			0.06	0.124			0.1240	0.06	0.0074
7	4.8	1	0.15			0.09	0.140			0.1400	0.15	0.0210
8	5.8	1	0.15			0.09	0.188			0.1880	0.15	0.0282
9	6.8	1	0.09			0.05	0.247			0.2470	0.09	0.0222
10	7.8	1	0.05	w/ current but too shallow to measure						0.1690	0.05	0.0065
11	8.8	1	0.03	w/ current but too shallow to measure						0.1690	0.03	0.0051
12	9.8	1	0.01	w/ current but too shallow to measure						0.1690	0.01	0.0017
13	10.8	1	0.12			0.07	0.091			0.0910	0.15	0.0137
14	12.3	1.5	WE(R/B)									
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
TOTAL											1.27	0.1288

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS The Study on Water Resources Development for Metro Manila in the Republic of the Philippines				DATE: 18 May 2002 TIME STARTED: 12:17 PM TIME FINISHED: 12:25 PM		GAUGE HT.: GAUGE HT.:		
NAME OF STATION: SGS # 7a		OBSERVATION POINT / LOCATION: LENATIN RIVER Upstream of Old Site				COMPUTED BY: DVG		CHECKED: RLB			
HYDROGRAPHIC TEAM: DVG, GAG, RLB						REMARKS: Tested upstream - Due to shallow depth in the old site					
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL				MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. 2 D	VEL (mps)	NR. 8 D	VEL (mps)				NR. 8 D
0	0		0 WE(L/B)								
1	1	1	0.22	No current			0.500		0.0000	0.22	0.0000
2	2	1	0.14	No current			0.000		0.0000	0.14	0.0000
3	3	1	0 WE(R/B)								
4	0		0 WE(L/B)								
4	1	1	0.05			0.03	0		0.0000	0.05	0.0000
5	2	1	0.12			0.07	0.125		0.1250	0.12	0.0150
6	3	1	0.22			0.13	0.141		0.1410	0.22	0.0310
7	4	1	0.29			0.17	0.130		0.1300	0.29	0.0377
8	5	1	0.31			0.19	0.125		0.1250	0.31	0.0388
9	6	1	0.29			0.17	0.12		0.1200	0.29	0.0348
10	7	1	0.41			0.25	0.109		0.1090	0.41	0.0447
11	8	1	0.42			0.25	0.100		0.1000	0.42	0.0420
12	9	1	0.38			0.22	0.093		0.0930	0.01	0.0009
13	10	1	0.22			0.13	0.095		0.0675	0.23	0.0156
14	11	1	0.15			0.09	0.042		0.0420	0.08	0.0037
14	11.1	1.1	WE(R/B)								
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
TOTAL									2.79		0.2636

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS The Study on Water Resources Development for Metro Manila in the Republic of the Philippines				DATE: 26 May 2002 TIME STARTED: 11:00 AM TIME FINISHED: 11:12 AM		GAUGE HT.: GAUGE HT.:		
NAME OF STATION: SGS7		OBSERVATION POINT / LOCATION: LENATIN RIVER				COMPUTED BY: RLB		CHECKED: RLB			
HYDROGRAPHIC TEAM: JBD, DVG						REMARKS:					
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL				MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. 2 D	VEL (mps)	NR. 8 D	VEL (mps)				NR. 8 D
0	0		0 WE(L/B)								
1	1.6	1.6	0.20			0.12	0.293		0.2930	0.26	0.0762
2	2.6	1	0.20			0.12	0.317		0.3170	0.20	0.0634
3	3.6	1	0.08			0.04	0.228		0.2280	0.08	0.0137
3	3.4	0.8	WE(R/B)								
4	0		0 WE(L/B)								
4	1.3	1.3	0.05			0.03	0		0.0000	0.06	0.0000
5	2.3	1	0.10			0.08	0.000		0.0000	0.10	0.0000
6	3.3	1	0.15			0.09	0.143		0.1430	0.15	0.0215
7	4.3	1	0.16			0.10	0.192		0.1920	0.16	0.0307
8	5.3	1	0.20			0.12	0.230		0.2300	0.20	0.0460
9	6.3	1	0.21			0.13	0.284		0.2840	0.21	0.0554
10	7.3	1	0.15			0.09	0.368		0.3680	0.15	0.0552
11	8.3	1	0.10			0.06	0.460		0.4600	0.10	0.0460
12	9.3	1	0.09			0.05	0.548		0.5480	0.01	0.0055
13	10.3	1	0.09			0.12	0.558		0.4560	0.09	0.0410
14	11.3	1	0.20			0.12	0.363		0.3630	0.11	0.0389
15	11.3	1	0.20			0.12	0.074		0.0740	0.10	0.0074
15		0.1	WE(R/B)								
16											
17											
18											
19											
20											
21											
22											
23											
24											
TOTAL									1.96		0.5020

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT		HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 03 June 2002 TIME STARTED: 12:00 AM TIME FINISHED: 1:01 AM		GAUGE HT.: GAUGE HT.:				
NAME OF STATION: SGS7		OBSERVATION POINT / LOCATION: LENATIN RIVER				COMPUTED BY: RLB		CHECKED: RLB				
HYDROGRAPHIC TEAM: JBD, DVG				REMARKS: RAINING								
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 6 D	VEL (mps)	NR. 8 D	VEL (mps)			
0	0	0	WE(L/B)									
1	1.6	1.6	0.20			0.12	0.328			0.3280	0.26	0.0855
2	2.6	1	0.22			0.13	0.303			0.3030	0.30	0.0909
3	3.6	1	0.08			too shallow				0.0000	0.00	0.0000
4	0	0	WE(L/B)									
5	2.4	2.4	0.11			0.07	0.051			0.0510	0.19	0.0095
6	2.4	1	0.14			0.08	0.189			0.1890	0.14	0.0237
7	4.4	1	0.17			0.10	0.207			0.2070	0.17	0.0352
8	5.4	1	0.22			0.13	0.236			0.2360	0.22	0.0519
9	6.4	1	0.22			0.13	0.288			0.2880	0.22	0.0634
10	7.4	1	0.15			0.09	0.379			0.3790	0.15	0.0569
11	8.4	1	0.11			0.07	0.489			0.4890	0.11	0.0538
12	9.4	1	0.10			0.06	0.561			0.5610	0.10	0.0541
13	10.4	1	0.09			0.05	0.291			0.2910	0.01	0.0029
14	11.4	1	0.19			0.11	0.041			0.2370	0.11	0.0259
15	12.4	1	0.23			0.14	0.183			0.1830	0.12	0.0210
16	11.55	0.15	WE(R/B)									
17												
18												
19												
20												
21												
22												
23												
24												
TOTAL											2.09	0.5744

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT		HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 10 June 2002 TIME STARTED: 12:00 NN TIME FINISHED: 12:15 NN		GAUGE HT.: GAUGE HT.:				
NAME OF STATION: SGS7		OBSERVATION POINT / LOCATION: LENATIN RIVER				COMPUTED BY: RLB		CHECKED: RLB				
HYDROGRAPHIC TEAM: JBD, DVG				REMARKS: RAINING								
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 6 D	VEL (mps)	NR. 8 D	VEL (mps)			
0	0	0	WE(L/B)									
1	1.5	1.5	0.20			0.12	0.141			0.1410	0.25	0.0353
2	2.5	1	0.20			0.12	0.275			0.2750	0.20	0.0550
3	3.5	1	0.10			0.06	0.280			0.2800	0.10	0.0280
4	0	0	WE(L/B)			island						
5	1.6	1.6	0.05			island						
6	2.8	1	0.12			w/ current but too shallow				0.0000	0.07	0.0030
7	3.8	1	0.15			0.07	0.102			0.1020	0.12	0.0122
8	4.8	1	0.20			0.09	0.180			0.1800	0.15	0.0270
9	5.8	1	0.23			0.12	0.200			0.2000	0.20	0.0400
10	6.8	1	0.16			0.14	0.243			0.2430	0.23	0.0559
11	7.8	1	0.10			0.10	0.301			0.3010	0.16	0.0482
12	8.8	1	0.10			0.06	0.381			0.3810	0.10	0.0381
13	9.8	1	0.05			strong current but too shallow				0.4090	0.10	0.0409
14	10.8	1	0.10			0.06	0.470			0.4090	0.05	0.0205
15	11.8	1	0.20			0.12	UR			0.4700	0.10	0.0470
16	11.2	0.4	WE(R/B)							0.0000	0.14	0.0000
TOTAL											1.97	0.4480

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 01 March 2002 TIME STARTED : 9:50 AM TIME FINISHED: 10:46 AM		GAUGE HT. : GAUGE HT. :			
NAME OF STATION: S088		OBSERVATION POINT / LOCATION: LIMUTAN				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: DVG,GAG, ELM				REMARKS:								
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 3 D		NR. 4 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR.	VEL (mps)	NR.	VEL (mps)	NR.	VEL (mps)			
0	0	0	WE(L/B)									
1	1.2	1.2	0.80	0.12	UR	0.36	UR	0.48	UR	0.0000	0.66	0.0000
2	2.2	1	0.96	0.19	UR	0.58	UR	0.77	UR	0.0000	0.98	0.0000
3	3.2	1	1.25	0.25	UR	0.75	UR	1.00	UR	0.0000	1.25	0.0000
4	4.2	1	1.34	0.27	UR	0.80	UR	1.07	UR	0.0000	1.34	0.0000
5	5.2	1	1.43	0.29	0.074	0.86	0.076	1.14	UR	0.0750	1.43	0.1073
6	6.2	1	1.50	0.30	0.118	0.90	0.072	1.20	0.051	0.0783	1.50	0.1174
7	7.2	1	1.45	0.29	0.122	0.87	0.102	1.16	0.122	0.1120	1.45	0.1624
8	8.2	1	1.42	0.28	0.157	0.85	0.140	1.14	0.114	0.1378	1.42	0.1956
9	9.2	1	1.38	0.27	0.107	0.82	0.117	1.09	0.122	0.1158	1.38	0.1574
10	10.2	1	1.30	0.26	0.151	0.78	0.132	1.04	0.118	0.1358	1.30	0.1765
11	11.2	1	1.15	0.23	0.144	0.69	0.140	0.92	0.112	0.1340	1.15	0.1541
12	12.2	1	1.00	0.20	0.104	0.60	0.143	0.80	0.170	0.1400	1.00	0.1400
13	13.2	1	0.95	0.19	0.141	0.57	0.118	0.76	0.087	0.1160	0.95	0.1102
14	14.2	1	0.88	0.18	0.112	0.53	0.125	0.70	0.118	0.1200	0.88	0.1058
15	15.2	1	0.78	0.16	0.119	0.47	0.090	0.62	0.100	0.0998	0.78	0.0778
16	16.2	1	0.80	0.12	0.130	0.36	0.134	0.48	0.088	0.1215	0.80	0.0729
17	17.2	1	0.50	0.10	0.125	0.30	0.082	0.40	0.107	0.0990	0.50	0.0485
18	18.2	1	0.53	0.11	0.162	0.32	0.126	0.42	0.111	0.1313	0.53	0.0886
19	19.2	1	0.55	0.11	0.20	0.33	0.188	0.44	0.120	0.1730	0.55	0.0952
20	20.2	1	0.57	0.11	0.194	0.34	0.156	0.46	0.115	0.1553	0.57	0.0885
21	21.2	1	0.60	0.12	0.168	0.35	0.141	0.48	0.188	0.1590	0.60	0.0954
22	22.2	1	0.65	0.13	0.185	0.39	0.176	0.52	0.132	0.1673	0.65	0.1087
23	23.2	1	0.80	0.12	0.195	0.36	0.135	0.48	0.121	0.1465	0.80	0.0879
24	24.2	1	0.56	0.10	0.184	0.30	0.145	0.40	0.135	0.1523	0.50	0.0781
SUB-TOTAL											22.53	2.2460

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 01 March 2002 TIME STARTED : 9:50 AM TIME FINISHED: 10:46 AM		GAUGE HT. : GAUGE HT. :			
NAME OF STATION: S088		OBSERVATION POINT / LOCATION: MANGGAHAN				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: DVG,GAG, ELM				REMARKS:								
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 3 D		NR. 4 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR.	VEL (mps)	NR.	VEL (mps)	NR.	VEL (mps)			
25	25.2	1	0.55	0.11	0.177	0.33	0.159	0.44	0.132	0.1568	0.55	0.0962
26	26.2	1	0.57	0.11	0.181	0.34	0.150	0.46	0.121	0.1485	0.57	0.0846
27	27.2	1	0.57	0.11	0.185	0.34	0.178	0.46	0.080	0.1578	0.57	0.0899
28	28.2	1	0.35	0.07	0.174	0.21	0.149	0.28	0.124	0.1485	0.35	0.0520
29	29.2	1	0.30	0.06	0.185	0.18	0.185	0.24	0.168	0.1760	0.30	0.0528
30	30.2	1	0.38	0.06	0.188	0.23	0.135	0.30	0.083	0.1353	0.38	0.0728
31	33.2	3	WE(R/E)									
SUB-TOTAL											3.10	0.4683
TOTAL											25.63	2.7163

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS The Study on Water Resources Development for Metro Manila in the Republic of the Philippines						DATE: 13 May 2002 TIME STARTED: 10:15 AM TIME FINISHED: 10:35 AM		GAUGE HT. : GAUGE HT. :	
NAME OF STATION: SGS #8		OBSERVATION POINT / LOCATION: LIMUTAN RIVER				COMPUTED BY: DVG				CHECKED: RLB			
HYDROGRAPHIC TEAM: DVO,GAG, ELM						REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)				
0	0		W/E(L/B)										
1	2.7	2.7	0.85	0.17	UR	0.51	UR	0.88	UR	0.0000	2.00	0.0000	
2	4.7	2	1.00	0.20	UR	0.80	UR	0.80	UR	0.0000	2.00	0.0000	
3	6.7	2	1.20	0.24	UR	0.72	UR	0.96	0.000	0.0000	2.40	0.0000	
4	8.7	2	1.10	0.22	0.038	0.66	0.000	0.88	0.032	0.0175	2.20	0.0385	
5	10.7	2	1.00	0.20	0.000	0.60	0.076	0.80	0.048	0.0503	2.00	0.1005	
6	12.7	2	0.70			0.42	0.032			0.0320	1.40	0.0448	
7	14.7	2	0.60			0.36	0.048			0.0490	1.20	0.0568	
8	16.7	2	0.45			0.27	0.031			0.0310	0.90	0.0279	
9	18.7	2	0.30			0.18	0.000			0.0000	0.60	0.0000	
10	20.7	2	0.30			0.18	0.044			0.0440	0.60	0.0264	
11	22.7	2	0.40			0.24	0.068			0.0680	0.80	0.0544	
12	24.7	2	0.30			0.18	0.062			0.0620	0.60	0.0372	
13	26.7	2	0.30			0.18	0.056			0.0560	0.60	0.0336	
14	28.7	2	0.25			0.15	0.062			0.0620	0.50	0.0310	
15	30.7	2	0.20			0.12	0.000			0.0000	0.38	0.0000	
16	32.5	1.8	W/E(R/B)										
TOTAL											18.18	0.4531	

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS The Study on Water Resources Development for Metro Manila in the Republic of the Philippines						DATE: 15 May 2002 TIME STARTED: 12:34 PM TIME FINISHED: 12:52 PM		GAUGE HT. : GAUGE HT. :	
NAME OF STATION: SGS #8		OBSERVATION POINT / LOCATION: LIMUTAN RIVER				COMPUTED BY: DVG				CHECKED: RLB			
HYDROGRAPHIC TEAM: DVO,GAG, ELM						REMARKS: Rapids d/s removed for logs passage - velocity increases							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)				
0	0		W/E(L/B)										
1	2.5	1.5	1.00			0.60	0.043			0.0430	2.25	0.0968	
2	4.5	2	1.25	0.25	0.000	0.75	0.044	1.00	0.000	0.0220	2.50	0.0550	
3	6.5	2	1.30	0.28	0.033	0.83	0.037	1.11	0.031	0.0345	2.78	0.0959	
4	8.5	2	1.28	0.28	0.009	0.77	0.042	1.02	0.048	0.0330	2.58	0.0845	
5	10.5	2	1.13	0.22	0.053	0.67	0.038	0.90	0.048	0.0440	2.24	0.0986	
6	12.5	2	0.88	0.18	0.048	0.53	0.046	0.70	0.058	0.0495	1.78	0.0871	
7	14.5	2	0.80	0.18	0.045	0.48	0.047	0.64	0.032	0.0428	1.60	0.0684	
8	16.5	2	0.58	0.12	0.35	0.000	0.47			0.0000	1.18	0.0000	
9	18.5	2	0.45	0.09		0.27	0.068	0.36		0.0680	0.90	0.0612	
10	20.5	2	0.48	0.10		0.29	0.065	0.38		0.0650	0.95	0.0624	
11	22.5	2	0.52	0.10		0.31	0.070	0.42		0.0700	1.04	0.0738	
12	24.5	2	0.48	0.10		0.29	0.085	0.38		0.0850	0.98	0.0824	
13	26.5	2	0.38	0.08		0.25	0.073	0.30		0.0730	0.78	0.0555	
14	28.5	2	0.40	0.08		0.24	0.052	0.32		0.0520	0.80	0.0416	
15	28.5	2	0.31	0.06		0.10	0.044	0.25		0.0440	0.65	0.0286	
16	30.7	2.2	W/E(R/B)										
TOTAL											22.94	0.9707	

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT		HYDROLOGICAL INVESTIGATION WORKS The Study on Water Resources Development for Metro Manila in the Republic of the Philippines				DATE: 10 June 2002 TIME STARTED: 12:20 NN TIME FINISHED: 12:37 NN		GAUGE HT.: GAUGE HT.:				
NAME OF STATION: SGS #8		OBSERVATION POINT / LOCATION: LIMUTAN RIVER				COMPUTED BY: RLB		CHECKED: RLB				
HYDROGRAPHIC TEAM: JBO, DVG						REMARKS: Raining during sampling						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 2 D	VEL (mps)	NR. 2 D	VEL (mps)			
0	0		WE(L/B)									
1	3.6	3.8	1.10	0.22	UR	0.88	UR	0.88	UR	0.0000	3.83	0.0000
2	6.6	3	1.30	0.26	UR	0.78	UR	1.04	UR	0.0000	3.80	0.0000
3	9.6	3	1.20	0.24		0.72	0.000	0.96	0.034	0.0085	3.60	0.0306
4	12.6	3	1.00	0.20	0.052	0.80	0.057	0.80	0.058	0.0555	3.00	0.1865
5	15.6	3	0.75	0.15	0.051	0.45	0.048	0.60	0.038	0.0483	2.25	0.1041
6	18.6	3	0.40	0.08	0.000	0.24	0.052	0.32	0.000	0.0280	1.20	0.0312
7	21.6	3	0.40	0.08		0.24	0.068	0.32		0.068	1.20	0.0818
8	24.6	3	0.48	0.10		0.29	0.090	0.38		0.090	1.44	0.1296
9	27.6	3	0.35	0.07		0.21	0.085	0.28		0.065	1.23	0.0796
10	30.6	3	0.30	0.06		0.18	0.048	0.24		0.048	1.05	0.0504
11	31.6	4	WE(R/B)									
TOTAL											22.50	0.6736

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT		HYDROLOGICAL INVESTIGATION WORKS (Phase II) The Study on Water Resources Development for Metro Manila in the Republic of the Philippines				DATE: 13 May 2002 TIME STARTED: 11:37 AM TIME FINISHED: 11:51 AM		GAUGE HT.: GAUGE HT.:				
NAME OF STATION: SGS #9		OBSERVATION POINT / LOCATION: Kaiwa river US of the reference creek				COMPUTED BY: RLB		CHECKED: RLB				
HYDROGRAPHIC TEAM: DVG, GAG, RLB						REMARKS: NEW SITE						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 2 D	VEL (mps)	NR. 2 D	VEL (mps)			
0	0		WE(R/B)									
1	2	2	0.06			0.04	0.000			0.0000	0.09	0.0000
2	3	1	0.13			0.08	0.148			0.1480	0.13	0.0192
3	4	1	0.19			0.11	0.156			0.1560	0.19	0.0296
4	5	1	0.23			0.14	0.239			0.2390	0.23	0.0550
5	6	1	0.25			0.15	0.273			0.2730	0.25	0.0683
6	7	1	0.31			0.19	0.271			0.2710	0.31	0.0840
7	8	1	0.31			0.19	0.32			0.3200	0.31	0.0982
8	9	1	0.40			0.24	0.357			0.3570	0.40	0.1328
9	10	1	0.45			0.27	0.220			0.2200	0.45	0.0990
10	11	1	0.50			0.30	0.248			0.2480	0.50	0.1230
11	12	1	0.40			0.24	0.211			0.2110	0.40	0.0844
12	13	1	0.35			0.21	0.105			0.1050	0.35	0.0368
13	14	1	0.12			0.07	0.126			0.1260	0.12	0.0151
14	15	1	0.10			0.06	0.102			0.1020	0.10	0.0102
15	16	1	0.05			0.03	0.000			0.0000	0.05	0.0000
16	17	1	WE(L/B)									
TOTAL											3.88	0.8566

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS(Phase II) The Study on Water Resources Development for Metro Manila in the Republic of the Philippines				DATE: 25 May 2002 TIME STARTED :12:12 PM TIME FINISHED: 12:32 PM		GAUGE HT. : GAUGE HT. :			
NAME OF STATION: SGS # 10		OBSERVATION POINT / LOCATION: Kalwa river d/s of the reference creek				COMPUTED BY: RLB			CHECKED: RLB			
HYDROGRAPHIC TEAM: DVG,GAG						REMARKS: The section is very deep hence difficult to measure						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. # D	VEL (mps)	NR. # D	VEL (mps)			
0	0		W/E(R/B)									
1	2.9	2.9	0.15	0.03			0.084			0.0940	0.37	0.0345
2	4.9	2	0.30	0.06		0.18	0.119	0.24		0.1190	0.60	0.0714
3	8.9	2	0.50	0.10			0.138	0.40		0.1380	1.00	0.1380
4	8.9	2	0.65	0.13	0.140	0.39	0.090	0.52	0.130	0.0875	1.30	0.0878
5	10.9	2	0.81	0.16	0.141	0.49	0.090	0.85	0.148	0.0723	1.62	0.1170
6	12.9	2	1.05	0.21	0.169	0.63	0.143	0.84	0.164	0.1548	2.10	0.3250
7	14.9	2	1.50	0.30	0.172	0.90	0.161	1.20	0.137	0.1578	3.00	0.4733
8	18.9	2	1.70	0.34	0.123	1.02	0.160	1.36	0.117	0.1400	3.40	0.4760
9	18.9	2	1.50	0.30	0.054	0.90	0.110	1.20	0.070	0.0860	3.00	0.2580
10	20.9	2	1.00	0.20	0.090	0.60	0.08	0.80	0.090	0.0300	2.00	0.0600
11	22.9	2	0.82	0.16	0.090	0.49	0.090	0.66	0.090	0.0900	1.64	0.0900
12	24.9	2	0.25							0.0900	0.50	0.0900
13	28.9	2	0.50								0.80	
14	28.1	1.2	W/E(L/B)									
TOTAL											21.33	2.0410

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS(Phase II) The Study on Water Resources Development for Metro Manila in the Republic of the Philippines				DATE: 03 June 2002 TIME STARTED :2:00 PM TIME FINISHED: 2:30 PM		GAUGE HT. : GAUGE HT. :			
NAME OF STATION: SGS # 10		OBSERVATION POINT / LOCATION: Kalwa river d/s of the reference creek				COMPUTED BY: RLB			CHECKED: RLB			
HYDROGRAPHIC TEAM: DVG,GAG						REMARKS: The section is very deep hence difficult to measure						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. # D	VEL (mps)	NR. # D	VEL (mps)			
0	0		W/E(R/B)									
1	2.8	2.8	0.42	0.08			0.082			0.0820	1.01	0.0625
2	4.8	2	0.80	0.16	0.083	0.48	0.090	0.84	0.083	0.0865	1.80	0.1384
3	6.8	2	1.10	0.22	0.064		0.079	0.88	0.083	0.0763	2.20	0.1678
4	8.8	2	1.45	0.29	0.082	0.87	0.11	1.16	0.091	0.0918	2.90	0.2661
5	10.8	2	1.90	0.38	0.135	1.14	0.153	1.52	0.089	0.1325	3.80	0.5035
6	12.8	2	2.00	0.40	0.174	1.20	0.182	1.80	0.189	0.1818	4.00	0.7270
7	14.8	2	1.30	0.26	0.115	0.78	0.119	1.04	0.060	0.1033	2.80	0.2685
8	16.8	2	0.80	0.16	0.090	0.48	0.041	0.64	0.035	0.0540	1.60	0.0864
9	18.8	2	0.85	0.17	0.116	0.51	0.054	0.68	0.090	0.0560	1.70	0.0952
10	20.8	2	0.42	0.08	0.090	0.25	0	0.34	0.090	0.0900	0.84	0.0900
11	22.8	2	0.15	0.03	0.090	0.09	0.090	0.12	0.090	0.0900	0.44	0.0900
12	28.6	3.8	W/E(L/B)							0.0900	0.44	0.0900
13												
14												
TOTAL											22.88	2.3153

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 28 May 2002 TIME STARTED :09:07 AM TIME FINISHED: 09:14 AM		GAUGE HT. : GAUGE HT. :		
NAME OF STATION: SGS # 12		OBSERVATION POINT / LOCATION: LENATIN RIVER Upstream of Limestone				COMPUTED BY: RLB			CHECKED: RLB		
HYDROGRAPHIC TEAM: JED & DVG						REMARKS: Site selection was difficult due to small water flow					
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL				MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. # D	VEL (mps)	NR. # D	VEL (mps)				NR. # D
0	0		0 W/E(LB)								
1	0.8	0.8	0.07			0.04	0.074		0.0740	0.06	0.0047
2	1.8	1	0.17			0.10	0.126		0.1260	0.17	0.0214
3	2.8	1	0.30			0.18	0.086		0.0860	0.30	0.0258
4	3.8	1	0.40			0.24	0.195		0.1950	0.40	0.0780
5	4.8	1	0.44			0.28	0.203		0.2030	0.44	0.0893
6	5.8	1	0.46			0.28	0.234		0.2340	0.46	0.1076
7	6.8	1	0.36			0.22	0.164		0.1640	0.36	0.0696
8	7.8	1	0.50			0.30	0.147		0.1470	0.50	0.0735
9	8.8	1	0.50			0.30	0.096		0.0960	0.50	0.0480
10	9.8	1	0.40			0.24	0.048		0.0480	0.40	0.0184
11	10.8	1	0.20			0.12	0.035		0.0350	0.17	0.0060
12	11.5	0.7	W/E(RB)								
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
TOTAL									3.76		0.5425

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 03 June 2002 TIME STARTED :10:10 AM TIME FINISHED: 10:30 AM		GAUGE HT. : GAUGE HT. :		
NAME OF STATION: SGS # 12		OBSERVATION POINT / LOCATION: LENATIN RIVER Upstream of Limestone				COMPUTED BY: RLB			CHECKED: RLB		
HYDROGRAPHIC TEAM: JED & DVG						REMARKS: Site selection was difficult due to small water flow					
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL				MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. # D	VEL (mps)	NR. # D	VEL (mps)				NR. # D
0	0		0 W/E(LB)								
1	0.8	0.8	0.15	0.03		0.09	0.093	0.12	0.0930	0.14	0.0126
2	1.8	1	0.24	0.05		0.14	0.119	0.19	0.1180	0.24	0.0283
3	2.8	1	0.39	0.08		0.23	0.083	0.31	0.0930	0.39	0.0363
4	3.8	1	0.48	0.10	0.256	0.29	0.239	0.36	0.2348	0.48	0.1127
5	4.8	1	0.56	0.11	0.257	0.34	0.246	0.45	0.2270	0.56	0.1271
6	5.8	1	0.50	0.10	0.203	0.30	0.179	0.40	0.1888	0.50	0.0944
7	6.8	1	0.43	0.09		0.26	0.189	0.34	0.1890	0.43	0.0813
8	7.8	1	0.50	0.10	0.204	0.30	0.181	0.40	0.1713	0.50	0.0856
9	8.8	1	0.50	0.10	0.093	0.30	0.116	0.40	0.1038	0.53	0.0545
10	9.8	1	0.48	0.10	0.090	0.29	0.047	0.38	0.0678	0.50	0.0291
11	10.9	1.1	W/E(RB)								
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
TOTAL									4.28		0.6818

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 10 June 2002 TIME STARTED: 9:15 AM TIME FINISHED: 9:24 AM		GAUGE HT.: GAUGE HT.:			
NAME OF STATION: SGS # 12		OBSERVATION POINT / LOCATION: LENATIN RIVER Upstream of Limestone				COMPUTED BY: RLB		CHECKED: RLB				
HYDROGRAPHIC TEAM: JBD & DVG					REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 3 D	VEL (mps)	NR. 3 D	VEL (mps)			
0	0		WE(L/B)									
1	1.9	1.9	0.15	0.03		0.09	0.142	0.12		0.1420	0.22	0.0309
2	2.9	1	0.25	0.05		0.15	0.120	0.20		0.1200	0.25	0.0300
3	3.9	1	0.37	0.07		0.22	0.147	0.30		0.1470	0.37	0.0544
4	4.9	1	0.40	0.08		0.24	0.200	0.32		0.2000	0.40	0.0800
5	5.9	1	0.44	0.09		0.28	0.216	0.35		0.2160	0.44	0.0950
6	6.9	1	0.42	0.08		0.25	0.129	0.34		0.1290	0.42	0.0542
7	7.9	1	0.50	0.10	0.216	0.30	0.184	0.40	0.117	0.1753	0.50	0.0876
8	8.9	1	0.50	0.10	0.150	0.30	0.105	0.40	0.104	0.1160	0.50	0.0580
9	9.9	1	0.35	0.07		0.21	0.040	0.28		0.0200	0.35	0.0370
10	10.9	1	0.25	0.05		0.15 LR		0.20		0.0000	0.25	0.0000
11	11.9	1	WE(RB)									
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
										TOTAL	3.70	0.4871

Submitted by: KEYO CONSTRUCTION