Drainage Survey

DRAINAGE SURVEY

- LONGITUDINAL AND CROSS-SECTIONAL SURVEY FOR ESTEROS AND CREEKS -

Longitudinal and cross-sectional survey for the followings esteros/creeks was conducted.

No.	Drainage Main/Site	Station/Length
1	Estero de Vitas	0+000 - 1+932
2	Casili Creek	0+306 - 1+627
3	Estero de la Reina	0+000 - 2+827
4	Estero de Binondo	0+000 - 0+889
5	Estero de Tutuban	0+000 - 0+317
6	Estero de Alix	0+000 - 0+197
7	Estero de Sampaloc II	0+000 - 0+506
8	Estero de Valencia	0+000 - 1+091
9	Estero de Provisor	0+000 - 0+393
10	Estero de Tanque	0+000 - 0+309
11	Estero de Balete	0+000 - 0+500
12	Estero de Santibañes	0+000 - 0+395
13	Sta. Clara Creek	0+000 - 1+396
14	Estero de Paco	0+000 - 2+258
15	Estero de Concordia	0+000 - 1+065
16	Estero de Pandacan	0-249 - 3+860
17	Estero Tripa de Gallina	0-075 - 7+499
18	Zanzibar Creek	0+000 - 0+194
19	Estero de San Antonio Abad	0+000 - 1+205
20	Libertad Channel	0-886 - 2+625

Drawing is shown in Chapter 6 of Databook.

Manhole Survey

Results of Manhole Survey

MH_CODE	HousLot	Street	Barangay	City	ManDia	ManLen	ManWid	ManThick	ManDep	ManCovPcs	ManCovDia	ManCovLen	ManCovWid	ManCovThick	ManCrack	WaSurface	WaCon	DepMat	Obs	CurbInl	CurbInlWid	CurbInlHei	DBCode	ManTopElev	BMCode	DrEngr	DateTimeInves	Operator	Remarks	MapPrefix	X	Y	DepSurf	DepSurfNew
II15A3176-04				Manila											N	1700	N			N			ND01	13.374		M.Lopez		kris		II15A3	495500.099	1616253.218	3800	
II15A3177-04		Pacheco cor Sta. Fe		Manila		4000	1600	200	4400	5		2000	900	300	N	1010	Y	garbage & sand		N			ND01	13.051		M.Lopez	2004/6/7	kris		II15A3	495658.951	1616319.524	3115	4170
II15A3178-04		Pacheco cor C.P. Garcia		Manila		4200	1600	350	4230	5		2000	900	350	N	850	Y	garbage & sand		Y	650	2250	ND01	12.932		M.Lopez	2004/6/7	kris		II15A3	495702.186	1616323.991	3500	4150
II15A3179-04		Pacheco cor J.P. Laurel		Manila		4000	1600	200	4260	5		2000	900	300	N	1050	Y	garbage & sand		N			ND01	12.775		M.Lopez	2004/6/8	kris		II15A3	495738.797	1616327.477	3200	4260
II15A3180-04		Pacheco cor Magsaysay		Manila		4000	1600	200	4530	5		2000	900	300	N	990	Y	garbage & sand		Y	700	100	ND01	12.89		M.Lopez	2004/6/8	kris		II15A3	495777.464	1616330.628	2970	
II15A3181-04		Pacheco cor. Velasquez		Manila		4400	1550	250	2700	5		2000	900	300	N	1010	Y	garbage & sand		Y	950	100	ND01	12.082		M.Lopez	2004/6/11	kris		II15A3	496227.984	1616254.255	2330	2550
II15A3182-04		Pacheco cor Sta. Maria		Manila		3000	1600	200	2500	4		2000	900	300	N	150	Y	garbage & sand		Y	350		ND01	11.903		M.Lopez	2004/6/8	kris		II15A3	496286.538	1616237.968	1690	2500
II15A3183-04		Pacheco cor Franco		Manila		3000	1600	250	2600	4		2000	900	300	N	900	Y	garbage & sand		N			ND01	11.912		M.Lopez	2004/6/11	kris		II15A3	496392.555	1616207.365	2300	2550
II15A3184-04		Pacheco cor Franco		Manila		3000	1600	300	2640	4		2000	900	300	N	160	Y	garbage & sand		Y	350		ND01	11.905		M.Lopez	2004/6/8	kris		II15A3	496376.032	1616212.034	2300	2640
II15B2215-04	3012	R. Avenue Ext.	379Z-38	Manila		3025	1350	150	4500	4		1570	800	150	N	1500	Y	garbage & sand	steel pipes mwss	N			ND05A	13.247		M.LOPEZ	2004/6/2	Kris	U	II15B2	497836.414	1618129.247	5200	5250
II15B2216-04	2780	Aurora Blvd.	378-Z38	Manila		2060	1700	250	4750	5		2480	580	250	N	1380	Y	garbage & Sand		N			ND05A	12.697		M.Lopez	2004/6/1	Kris	U	II15B2	498170.567	1617800.922	1330	4500
II15B2297-04	2832	Aurora Blvd./Ma. Natividad		Manila		3400	2100	400	4370	4		2800	900	300	N	1530	Y	Garbage & Sand		N			ND05A	13.007		M. Lopez		Kris	U	II15B2	498090.433	1617872.527	1680	4950
II15B2298-04	2902	Rizal Ave. Ext.		Manila		3150	2000	250	5150	4		2060	850	200	N	1570	Y	garbage & sand		Y	410	570	ND05A	13.267		M.Lopez		kris	U	II15B2	497976.005	1617960.403	3850	4850
II15B2299-04	1166	Hermosa	202	Manila		2900	2000	350	5300	4		2520	900	300	N	1080	Y	garbage & sand	steel pipes mwss	N			ND05B	13.217		M.LOPEZ	2004/6/2	kris	U	II15B2	497717.763	1618261.497	4250	4900
II15B2322-04		Aurora Blvd. cor Maria Natividad		Manila		3200	2100	300	5020	4		2800	900	300	N	1430	Y	garbage & sand		N			ND05B	12.836		M.Lopez	2004/6/1			II15B2	498078.1016	1617884.117	3820	4960
II15B2323-04		Aurora Blvd. cor. Pampanga & Oroqueta		Manila		3000	1830	300	4580	4		2450	750	300	N	1220	Y	garbage & sand		N			ND05B	12.775		M.Lopez	2004/5/28	kris		II15B2	498147.4307	1617821.39	1280	4290
II15B2324-04		Aurora/Pampanga				3000	2050	300	3700	4		2450	750	320	N	1440	N	sand					ND05B	12.503		M.Lopez	2004/6/1	kris		II15B2	498170.072	1617800.391	3500	3400
II15C2224-04		Aurora Blvd. cor. L. Rivera		Manila		2000	1800	300	4700	3		2000	700	300	N	1320	Y	garbage & sand	steel pipe mwss	N			ND05B	12.797		M.Lopez	2004/5/25	kris		II15C2	498412.8391	1617582.358	3700	4560
II15C2226-04		Aurora Blvd.		Manila		3400	1950	300	4500	4		2450	700	300	N	1220	Y	garbao & sand	steel pipe mwss	N			ND05B	12.512		M.Lopez	2004/5/28	kris		II15C2	498251.585	1617727.902	3180	
II15C2227-04		Aurora Blvd. cor Sulu		Manila		3000	2000	300	4400	3		2450	750	300	N	1160	Y	garbage	Steel pipes mwss	N			ND05B	12.524		M.Lopez	2004/5/27	kris		II15C2	498295.9982	1617686.704	3150	4150
II15C2228-04		Aurora Blvd. cor P. Guevarra		Manila		3000	2000	300	4450	3		2450	750	300	N	1110	Y	garbage & sand	steel pipe mwss	N			ND05B	12.645		M.Lopez	2004/5/25	kris		II15C2	498317.3956	1617667.979	1900	1700
II15C2229-04		Aurora Blvd.		Manila		3000	2100		4600	3		2450	750	300	N	1400	Y	garbage & Sand	steel pipe mwss	N			ND05B	12.737		M.Lopez	2004/5/26	kris		II15C2	498375.8134	1617616.474	1500	2900
II15C2230-04		Aurora Blvd.		Manila		3000	2000	300	4800	3		2405	750	300	N	1490	Y	garbage & sand	steel pipe mwss	N			ND05B	12.966		M.Lopez	2004/5/25	kris		II15C2	498437.5975	1617560.326	1700	4650
II15C2231-04		Aurora Blvd.		Manila		2000	1900	300	4650			2450	500	300	N	1400	Y	garbage		N			ND05B	13.037		M.Lopez	2004/5/24			II15C2	498482.3764	1617521.356	1310	4000
II15C2232-04		Blumentritt		Manila		4010	2200	300	4020	6		2600	690	300	N	2080	Y	garbage & sand		N			ND05A	13.758		M.Lopez	2004/5/24	kris		II15C2	498647.7018	1617584.655	2800	4000
II15C2233-04		Blumentritt Ext.		Manila		3500	2200	200	3000	6		2580	700	300	N	1600	N	garbage & sand		N			ND05B	13.86		M.Lopez	2004/6/16	kris		II15C2	498852.275	1617481.965	2100	2200
II15C2234-04		Blumentritt Ext.		Manila		2200	1900	200	4600	3		2600	650	200	N	600	N	garbage & sand		N			ND05A	13.25		M.Lopez	2004/6/16	kris		II15C2	498865.213	1617464.457	3200	4500
II15C2235-04		Blumentritt Ext.		Manila		2200	1900	200	4600	3		2600	650	200	N	1550	N	garbage & sand		N			ND05B	13.35		M.Lopez	2004/6/16	kris		II15C2	498868.4418	1617468.61	3000	4400
II15C2236-04		Blumentritt Ext.		Manila		4000	2400	200	4500	5		2600	690	300	N	1420	N	garbage & sand		N			ND05B	13.3		M.Lopez	2004/6/17	kris		II15C2	498888.7042	1617453.748	2650	3100
II15C2238-04		Blumentritt cor Don Manuel St		Manila		4500	1900	200	4350	6		2300	750	300	N	1550	N	garbage & sand		N			ND05B	13.25		M.Lopez	2004/6/16	kris		II15C2	498914.7149	1617433.33	2900	3800
II15C2239-04		Blumentritt cor Sampaguita		Manila		3500	2200	200	1500	1		2560	650	300	N	500	Y	garbage		N			ND05B	13.1		M.Lopez	2004/6/17	kris	under construction	II15C2	498965.6951	1617393.963	1500	
II15C2240-04		Blumentritt Ext. cor Calamba		Manila		2900	1800	300	4500	4		2480	700	300	N	1200	Y	garbage & sand		N			ND05B	13.505		M.Lopez	2004/6/17	kris		II15C2	499015.3714	1617355.292	3500	3730
II15C2241-04		Aurora Blvd. cor Felix Huertas		Manila		3000	2000	300	4300	3		2450	750	300	N	1040	Y	garbage & sand	steel pipes mwss	N			ND05B	12.436		M.Lopez	2004/5/27	kris		II15C2	498227.0232	1617749.608	3100	4200
II15C2242-04	2780	Aurora Blvd		Manila		3000	1600	300	4600	4		2250	900	300	N	1200	Y	garbage & Sand		Y	410	660	ND05A	12.532		M.Lopez	2004/5/28	Kris	U	II15C2	498233.208	1617737.376	2300	4350
II15C2243-04		Aurora Blvd. cor Sulu		Manila		3100	2000	200	4400	4		2400	800	200	N	980	Y	garbage		N			ND05A	12.567		M.Lopez	2004/5/25	kris	U	II15C2	498256.9536	1617715.537	1200	4000
II15C2244-04	2618	Aurora Blvd.	376 Zone38	Manila		2000	1900	300	4700	3		2550	680	300	N	1330	Y	garbage		N			ND05A	13.053		M.Lopez	2004/5/24	kris	U	II15C2	498478.4081	1617517.836	1300	4700
II15C2245-04	2568	Aurora Blvd.	376-Z38	Manila		2000	1800	300	4750	3		2000	700	300	N	1120	Y	garbage		N			ND05A	12.967		M.Lopez	2004/5/25	kris	U	II15C2	498433.8149	1617556.858	4300	4750
II15C3001-04	1685	New Antipolo cor Felix Huertas	365	Manila		3600	1200	300	2970	5		1350	850	100	N	1120	Y	garbage		N			ND09	13.037		M.Lopez	2004/6/10	kris	U	II15C3	498224.615	1617215.881	1320	3100
II15C3003-04	1816	New Antipolo	369	Manila		1600	1100	300	3500	1		1900	1500	250	N	640	Y	sand & garbage		N			ND09	12.457		M.Lopez	2004/6/7	kris		II15C3	498484.621	1617169.185	2500	2800
II15C3004-04	1823	Isagani cor New Antipolo	369	Manila		4300	1750	300	4000	5		2000	1000	250	N	520	Y	sand & garbage		N			ND09	12.407	GM-53A	M.Lopez	2004/6/7	kris	U	II15C3	498491.559	1617178.636	2750	3950
II15C3005-04	1776	Tiago/Isagani	369	Manila		1700	1300	300	3020	3		1600	650	250	N	880	Y	garbage & sand		N			ND09	12.447		M.Lopez	2004/6/3	kris	U	II15C3	498491.615	1617215.591	2270	3280
II15C3006-04	1803	Isagani cor Tiago	369	Manila		4700	1630	300	3120	5		2000	1000	250	N	920	Y	garbage & sand		N			ND09	12.227		M.Lopez	2004/6/8	kris	U	II15C3	498499.467	1617215.633	2800	3000
II15C3007-04	2400	Tiago/Elias	371	Manila		4650	1500	300	3300	5		2000	1000	250	N	900	Y	garbage & sand		N			ND09	12.327		M.Lopez	2004/8/3	kris	U	II15C3	498538.697	1617213.876	2570	3500
II15C3008-04	1860	Tiago/Karapatan	368	Manila		4950	1500	300	3320	6		2000	1000	250	N	900	Y	garbage & sand		N			ND09	12.407		M.Lopez	2004/6/4	kris	U	II15C3	498583.955	1617211.793	2200	2230
II15C3009-04	1882	Tiago/Vision	368	Manila		4400	1750	300	3000						N	900	Y	garbage & sand		N			ND09	12.417		M.Lopez	2004/6/4	kris	U	II15C3	498627.13	1617210.015	2100	
II15C3010-04	2077	Craig cor Dimasalang	368	Manila		4000	2000	300	3220	4		2130	1020	250	N	700	Y	garbage & sand		Y	400	700	ND09	12.477		M.Lopez	2004/6/11	kris	U	II15C3	498668.642	1617208.744	1850	3000
II15C3281-04	1601	Calamba cor Craig	497	Manila		4530	2030	300	3200	5		2000	1000	250	N	750	Y	garbage & sand		Y	400	700	ND09	12.687		M.Lopez	2004/6/14	kris	U	II15C3	498807.162	1617077.366	2100	3000
II15C3282-04	1851A	New Antipolo/Calamba	497	Manila		4300	1700	300	3380	5		2000	980	250	N	700	Y	garbage & sand		Y	400	700	ND09	12.527	GM-53A	M.Lopez	2004/6/15	kris	U	II15C3	498703.311	1616982.099	2100	3280
II15C3289-04	1453	Simoun/Antipolo	499	Manila		3000	2000	300	2970	4		2000	880	260	N	450	Y	sand & garbage					ND09	12.297		M.Lopez		kris		II15C3	498810.624	1616850.359	2000	3000
II15C3352-04	1950	Craig cor Makiling	497	Manila		4500	2550	300	3530	5		2000	1000	250	N	720	Y	garbage & sand		Y	400	700	ND09	12.627	GM-53A	M.Lopez		kris	U	II15C3	498710.996	1617186.502	2000	2750
II15C3353-04	1931	Calamba cor Kundiman	497	Manila		4000	1600	300	3700	5		2100	900	250	N	750	Y	garbage & sand		N			ND09	12.617	GM-53A	M.Lopez		kris	U	II15C3	498780.162	1617053.048	2200	3200
II15C3354-04	1890	Calamba/Quintos	500	Manila		4600	1700	300	3000	5		2000	980	250	N	850	Y	garbage & sand		N			ND09	12.427	GM-53A	M.Lopez	2004/6/9	kris	U	II15C3	498748.862	1617023.225	2900	3450
II15C3355-04	1402	Maria Clara/ Antipolo	499	Manila		2000	2000	300	2800	4		2000	620	280	N	460	Y	garbage					ND09	11.917		M.Lopez		kris		II15C3	498917.87	1616735.309	2150	2750
II15C3371-04		Blumentritt Ext.		Manila		2200	2000	300	4500	3		2500	800	300	N	1080	N	garbage & sand		N			ND05A	13.077		M.Lopez	2004/6/17	kris		II15C3	499148.227	1617249.626	2600	4030
II15C3374-04	1360	Blumentritt	San Isidro	Manila		3400	2250	300	3620	4		1920	900	300	N	1050	Y	garbage & send		Y	410	660	ND05A	13.467		M.Lopez	2004/6/28	kris	U	II15C3	499409.91	1617043.395	2250	2700
II15C3486-04		Blumentritt Ext.	San Isidro	Manila		2000	2150	200	4500	2		2480	700	300	N	780	Y	Garbage & Sand		N			ND05B	13.077		M. Lopez	2004/6/18			II15C3	499148.4279	1617249.716	2900	3900

Results of Manhole Survey

MH_CODE	HousLot	Street	Barangay	City	ManDia	ManLen	ManWid	ManThick	ManDep	ManCovPcs	ManCovDia	ManCovLen	ManCovWid	ManCovThick	ManCrack	WaSurface	WaCon	DepMat	Obs	CurbInl	CurbInlWid	CurbInlHel	DBCode	ManTopElev	BMCode	DrEngr	DateTimeInves	Operator	Remarks	MapPrefix	X	Y	DepSurf	DepSurfNew
II15C3492-04		New Antipolo cor Sulu		Manila		4000	1800	200	3000	5		2000	830	200	N	1100	Y	garbage & sand		Y	2380	150	ND09	12.775		M.Lopez	2004/6/9	kris		II15C3	498261.6458	1617212.533	2400	3000
II15C3493-04		New Antipolo cor Kalimbas		Manila		4200	1650	300	3100	5		2180	830	200	N	960	Y	garbage & sand		Y	2350	150	ND09	12.435		M.Lopez	2004/6/6	kris		II15C3	498351.0142	1617203.991	2450	2900
II15C3494-04		New Antipolo cor Andrade		Manila		4500	1600	300	3450	5		2000	1000	250	N	540	Y	sand & garbage		N			ND09	12.25		M.Lopez	2004/6/7	kris		II15C3	498444.5538	1617184.397	2400	3100
II15C3495-04		Craig		Manila		3800	1600	200	3500	5		2000	1000	250	N	910	Y	garbage & sand		Y	1250	200	ND09	12.512		M.Lopez	2004/6/11	kris		II15C3	498762.4446	1617132.379	2450	3500
II15C3496-04		Calamba cor Craig		Manila		4500	1500		3400	3		2000	1000	250	N	760	Y	garbage & sand		N			ND09	12.524		M.Lopez	2004/6/14	kris		II15C3	498803.5802	1617089.12	2300	3200
II15C3497-04		Antipolo cor Calamba		Manila		4600	800	200	3000	5		1800	1000	250	N	600	Y	garbage & sand		N			ND09	12.375		M.Lopez	2004/6/15	kris	under construction	II15C3	498708.3152	1616958.93	2150	3000
II15C3498-04		Blumentritt Ext.		Manila		3500	2250	200	1700	2		2550	650	300	N	1400	Y	garbage		N			ND05B	13.385		M.Lopez	2004/6/17	kris	under construction	II15C3	499075.5463	1617307.056	1700	
II15C3499-04		Blumentritt cor Simoun		Manila		3900	2000	250	4500	5		2450	700	300	N	760	Y	garbage & sand		N			ND05B	13.06		M.Lopez	2004/6/23	kris		II15C3	499187.9807	1617219.059	2850	
II15C3500-04		Blumentritt cor Simoun	San Isidro Labrad	Manila		4400	2000	150	2020	7		2600	700	320	N	650	Y	garbage & sand		N			ND05B	12.998		M.Lopez	2004/6/29			II15C3	499194.6745	1617213.508	930	1950
II15C3501-04		Blumentritt cor Simoun		Manila		3000	2250	200	1950	5		2550	700	300	N	800	Y	garbage & sand		N			ND05B	13.14		M.Lopez	2004/6/28	kris		II15C3	499206.5606	1617204.397	1650	
II15C3502-04		P. Margal cor Maceda		Manila		1450	1000	200	2050	2		1450	900	200	N	1850	Y	garbage & sand		N				12.349		M.Lopez	2004/6/15	kris		II15C3	499423.4314	1616555.496	1850	
II15C3503-04		P. Margal cor Maceda		Manila		1200	900	150	2250	3		1200	500	200	N	1250	N	garbage & sand		N				12.455		M.Lopez	2004/6/23	kris		II15C3	499380.8281	1616524.304	1260	
II15C3504-04	2017	P. Margal cor Basilio		Manila		1300	1000	200	2170	2		1400	900	200	N	1850	Y	garbage & sand		Y	650	150		12.41		M.Lopez	2004/6/23	kris		II15C3	499441.2148	1616573.236	1880	
II15C3505-04	2031	P. Margal cor Instruccion	520 Zone51	Manila		1600	1000	200	2170	2		1400	950	200	N	1330	Y	garbage & sand		Y	400	100		12.495		M.Lopez	2004/6/15	kris		II15C3	499466.5834	1616597.678	1720	
II15C3506-04	1095	P. Margal cor Sisa		Manila	600				1800		550				N	900	N			Y	800	150		12.451		M.Lopez		kris		II15C3	499524.9651	1616651.524	1460	
II15C3507-04	2074	Ibarra cor. P. Margal		Manila		1000	1000	150	2000	2		1200	580	200	N	750	Y	garbage & sand		Y	900	150		12.445		M. Lopez	2004/6/15	kris		II15C3	499541.4228	1616645.45	1040	
II15C3508-04		P. Margal cor Crisostomo		Manila		1300	1000	200	1700	2		1400	850	200	N	800	N	sand		N				12.468		M.Lopez	2004/6/23	kris		II15C3	499558.2355	1616682.675	1300	
II15C3509-04	2112-A	P. Margal cor Crisostomo		Manila	600				1300		550				N	830	N	sand		N				12.561		M.Lopez	2004/6/14	kris		II15C3	499568.4296	1616672.881	1020	
II15C3510-04	1100	Casañas cor P. Margal		Manila		900	900	150	1100	2		1170	590	200	N	400	Y	garbage & sand		N				12.437		M.Lopez	2004/6/15	kris		II15C3	499591.1115	1616713.552	900	
II15C3511-04	2160-2162	P. Margal cor Musa		Manila		1000	1000	100	1500	2		1900	580	200	N	910	N	sand		N				12.557		M.Lopez	2004/6/23	kris		II15C3	499629.4158	1616725.808	1000	
II15C3512-04	1103	Josefina cor P. Margal		Manila	600				1250		550				N	750	Y			N				12.602		M.Lopez	2004/7/2			II15C3	499635.1799	1616764.785	1030	
II15C3513-04	1189	Josefina		Manila	600				960	1	550				N	910	N	sand		N				12.88		M.Lopez	2004/7/2	kris		II15C3	499585.1353	1616818.907	950	
II15C3514-04		San diego cor P. Margal	505 Zone50	Manila		1250	1000	150	2100	2		1250	700	100	N	1380	N	garbage & sand		N				12.315		M.Lopez	2004/6/22	kris		II15C3	499279.6718	1616410.274	1380	
II15C3515-04	1139	P. Margal cor Antipolo	507 Zone50	Manila	600				1780		550				N	1720	N			N				12.584		M.Lopez	2004/6/11	kris		II15C3	499242.3563	1616386.16	1760	
II15C3516-04	1058	P. Margal cor Algeciras	472 Zone47	Manila	600				1750		550				N	830	Y			N				12.345		M.Lopez	2004/6/11	kris		II15C3	499220.9137	1616351.947	930	
II15C3517-04		P. Margal cor Algeciras	472 Zone47	Manila	600				1080		500				N	750	Y			N				12.277		M.Lopez	2004/6/11	kris		II15C3	499209.6947	1616349.194	1000	
II15C3518-04	1116	P. Margal cor Algeciras	474 Zone47	Manila		900	900	250	1500	2		1200	630	200	N	1050	N	garbage & sand		N				12.418		M.Lopez	2004/6/17	kris		II15C3	499208.9681	1616382.588	1100	
II15C3519-04	1101	P. Margal cor Cristobal	472 Zone47	Manila	600				1190		550				N	840	N			N				12.405		M.Lopez	2004/6/11	kris		II15C3	499150.733	1616310.862	1000	
II15C3520-04	1751	P. Margal cor Vicente Cruz	477 Zone47	Manila		1130	900	150	1700	3		1300	480	200	N	1410	N	garbage & sand		N				12.363		M.Lopez				II15C3	499106.5889	1616251.818	1500	
II15C3521-04		Laong Laan cor Vicente Cruz		Manila		1020	1000	100	1720	2		1200	580	150	N	1380	N	garbage & sand		N				12.137		M.Lopez	2004/6/17	kris		II15C3	498872.7513	1616470.527	1410	
II15C3522-04		Laong Laan cor Miguelin	487 Zone48	Manila		1200	930	250	1480	3		1270	470	200	N	1040	N	sand		N				12.132		M.Lopez	2004/6/17	kris		II15C3	498907.228	1616504.144	1250	
II15C3523-04		Laong Laan cor R.S. Cristobal		Manila					1620	1		600	550		N	890	N	garbage & sand		N				12.079		M.Lopez	2004/6/17	kris		II15C3	498934.1007	1616528.868	1110	
II15C3524-04		Laong Laan cor RS. Cristobal		Manila		1200	850	200	1270	3		1280	480	200	N	850	N	sand		N				12.094		M.Lopez	2004/6/25	kris		II15C3	498942.5613	1616538.404	1110	
II15C3525-04		Prudencio cor Laong Laan		Manila					1070			600	550		N	690	N	garbage & sand		N				12.094		M.Lopez	2004/6/18	kris		II15C3	498971.9442	1616562.71	1030	
II15C3526-04		Laong Laan cor Algeciras		Manila					1440			600	550		N	790	N			N				12.18		M.Lopez	2004/6/18	kris		II15C3	499004.6758	1616594.772	970	
II15C3527-04	1369-1371	R.S. Cristobal cor Maria Clara		Manila		1270	900	200	1460	3		1270	450	200	N	970	Y			N				12.18		M.Lopez	2004/6/24	kris		II15C3	498842.2889	1616634.663	1230	
II15C3528-04	1301	Antipolo cor Laong Laan	511 Zone50	Manila		1040	950	200	1860	3		1280	480	200	N	1180	N	sand		N				12.615		M.Lopez	2004/6/21	kris		II15C3	499019.0224	1616626.725	1650	
II15C3529-04	1331	Antipolo	511 Zone50	Manila		1050	850	200	1270	3		1270	470	200	N	950	N	sand		N				12.692		M.Lopez	2004/6/18	kris		II15C3	498969.3871	1616679.501	1050	
II15C3530-04		Maria Clara cor Antipolo		Manila		1100	900	150	1060	3		1300	450	200	N	700	N	garbage & sand		N				12.429		M.Lopez	2004/6/16	kris		II15C3	498927.8207	1616723.726	1050	
II15C3531-04	402	Antipolo cor Maria Clara	499 Zone49	Manila		2000	1700	200	1000	4		1900	640	200	N	700	N	garbage & sand		N				12.492		M.Lopez	2004/6/22	kris		II15C3	498922.2726	1616730.29	150	
II15C3532-04	1402	Algeciras cor Maria Clara		Manila		1000	1000	100	1120	2		1220	600	180	N	500	Y	garbage & sand		N				12.294		M.Lopez	2004/6/16	kris		II15C3	498884.0842	1616715.093	900	
II15C3533-04		Maria Clara cor Algeciras		Manila					1410			600	550		N	400	Y			N				12.183		M.Lopez	2004/6/16	kris		II15C3	498880.9372	1616696.502	900	
II15C3534-04		Algeciras cor Maria Clara		Manila		900	900	200	1200	2		1270	640	200	N	600	Y	garbage & sand		N				12.501		M.Lopez	2004/6/16	kris		II15C3	498893.8512	1616706.683	850	
II15C3535-04	1401	Maria Clara cor R.S. Cristobal Sr.	483	Manila		1450	1050	250	1800	2		1440	700	160	N	250	Y	garbage & sand		N				11.861		M.Lopez	2004/6/16			II15C3	498820.1934	1616644.97	560	
II15C3536-04		R.S. Cristobal cor Maria Clara	483 Zone48	Manila		1000	1000	100	1040	2		1180	590	200	N	450	Y			N				11.999		M.Lopez	2004/6/16	kris		II15C3	498820.9315	1616656.297	930	
II15C3537-04	1129	Miguelin	474 Zone47	Manila	600				950		550				N	650	Y	garbage & sand		N				12.186		M.Lopez	2004/7/2			II15C3	499123.6938	1616281.889	700	
II15C3538-04	1760	Miguelin cor Maria Clara		Manila	600				600	1	550				N	590	Y			N				12.122		M.Lopez	2004/6/25	kris		II15C3	498807.602	1616618.442		
II15C3539-04		Maria Clara cor Miguelin		Manila		2000	780	200	1420	3		1200	800	200	N	390	Y	garbage & sand		N				12.005		M.Lopez	2004/6/18			II15C3	498791.5088	1616619.422	790	
II15C3540-04		Vicente Cruz cor Maria Clara		Manila		1200	900	200	1190	2		1230	800	200	N	560	Y	garbage & sand		N				12.162		M.Lopez	2004/6/18	kris		II15C3	498761.3471	1616591.078	880	
II15C3541-04		Vicente Cruz		Manila		1730	850	100	800	2		1040	620	100	N	800	Y			Y	570	250		12.241		M.Lopez	2004/6/17	kris		II15C3	498870.1032	1616498.928		
II15C3542-04	1727	Laong Laan cor Vicente Cruz		Manila		1350	1200	100	1500	2		1550	730	100	N	1080	Y	garbage & sand		Y	780	170		12.261		M.Lopez	2004/6/17	kris		II15C3	498876.0982	1616482.218	1320	
II15C3543-04	1176	Vicente Cruz cor Dapitan		Manila		1200	900	100	1600	3		1170	500	200	N	1450	N	garbage		N				12.075		M.Lopez	2004/6/22	kris		II15C3	498995.672	1616366.507	1500	
II15C3544-04	1002	Vicente Cruz cor P. Florentino		Manila		1000	800	100	2200	2		1340	57	120	N	990	N	garbage & sand		Y	1100	150		12.307		M.Lopez	2004/6/18	kris		II15C3	499204.0897	1616134.768	1050	
II15C3545-04		P. Florentino cor Vicente Cruz		Manila		1050	900	100	1650	1		1300	620	120	N	780	Y	garbage & sand		Y	1100	100		12.203		M.Lopez	2004/6/18	kris		II15C3	499210.8676	1616127.38	960	
II15C3546-04	1009	Miguelin		Manila		1100	1000	100	2400	2		1220	600	200	N	1200	Y	garbage & sand		N				11.995		M.Lopez	2004/6/18	kris		II15C3	499229.2073	1616163.503	1350	
II15C3547-04	1029	Miguelin		Manila		1000	1000	100	1190	2		1200	580	200	N	1070	N	garbage & sand		N				12.098		M.Lopez	2004/6/17	kris		II15C3	499197.0453	1616200.138	1090	
II15C3548-04		Miguelin cor P. Margal		Manila		1000	1000	100	1170	2		1200	580	200	N	810	N	garbage & sand		N				12.068		M.Lopez		kris		II15C3	499134.9483	1616265.872	1000	

Results of Manhole Survey

MH_CODE	HouseLot	Street	Barangay	City	ManDia	ManLen	ManWid	ManThick	ManDep	ManCovPcs	ManCovDia	ManCovLen	ManCovWid	ManCovThick	ManCrack	WaSurface	WaCon	DepMat	Obs	CurbInl	CurbInlWid	CurbInlHel	DBCode	ManTopElev	BMCode	DrEngr	DateTimeInves	Operator	Remarks	MapPrefix	X	Y	DepSurf	DepSurfNew
II15C3549-04		P. Margal cor Miguelin		Manila	600			100	1210	1	700			100	N	800	N	sand		N				12.334		M.Lopez	2004/6/24	kris		II15C3	499084.3826	1616323.865	870	
II15C3550-04	1160	Miguelin cor Dapitan	474 Miguelin	Manila	600				1140		550				N	860	N			N				11.871		M.Lopez	2004/6/11	kris		II15C3	499024.4603	1616385.614	1020	
II15C3551-04	1209	Dapitan cor Cristobal		Manila	600				1150		500				N	900	N			N				12.016		M.Lopez	2004/6/11	kris		II15C3	499047.0709	1616428.992	1000	
II15C3552-04	1164	Dapitan cor Prudencio		Manila		900	900	200	1070	2		1260	620	200	N	900	N	sand		N				12.035		M.Lopez	2004/6/21	kris		II15C3	499070.5063	1616452.088	970	
II15C3553-04	1134-1139	Cristobal	474 Zone47	Manila		900	900	200	1600	2		1250	620	200	N	1050	N	sand		N				12.421		M.Lopez	2004/6/22	kris		II15C3	499097.9712	1616365.214	1070	
II15C3554-04	1192	Dapitan cor Antipolo	507	Manila	600				1450		550				N	1070	N			N				12.119		M.Lopez	2004/6/11	kris		II15C3	499141.9272	1616494.321	1280	
II15C3555-04	1171	Antipolo St.	507 Zone50	Manila		1050	800	300	2040	3		1200	500	200	N	1400	N	sand		N				12.415		M.Lopez	2004/6/17	kris		II15C3	499187.5018	1616445.481	1550	
II15C3556-04	1852	Dapitan cor Antipolo	507 Zone50	Manila		1000	950	200	2250	3		1280	480	200	N	1250	N	sand		N				12.405		M.Lopez	2004/6/21	kris		II15C3	499121.6876	1616516.654	1350	
II15C3557-04	1230	Antipolo	509	Manila		1100	1000	200	1510	3		1280	480	200	N	1180	N	sand		N				12.51		M.Lopez	2004/6/21	kris		II15C3	499061.9529	1616578.473	360	
II15C3558-04	1856A	Antipolo cor Laong Laan	509 Zone50	Manila		1100	950	200	1400	3		1280	480	200	N	1020	N			N				12.472		M.Lopez	2004/6/21	kris		II15C3	499029.5801	1616616.122	1170	
II15C3559-04	1419-1420	Antipolo	Antipolo	Manila		2300	1600	200	1130	4		1900	630	200	N	900	Y	garbage & sand		N				12.696		M.Lopez	2004/6/22	kris		II15C3	499004.488	1616642.148	1000	
II15C3560-04		Simoun cor Algeciras		Manila		1000	1000	150	2500	2		1200	600	200	N	460	Y	garbage & sand		N				12.27		M.Lopez	2004/6/18	kris		II15C3	498780.1179	1616821.685	1260	
II15C3561-04	1506	Simoun cor Algeciras		Manila		1050	900	100	1760			1220	600		Y	400	Y	garbage & sand		N				12.256		M.Lopez	2004/6/14			II15C3	498773.016	1616825.296	770	
II15C3562-04		R.S. Cristobal cor Simoun		Manila		1000	1000	100	1900	2		1170	580	200	N	400	Y	garbage & sand		N				12.105		M.Lopez	2004/6/18	kris		II15C3	498726.5892	1616765.656	1170	
II15C3563-04		Miguelin cor Simoun		Manila					1850	2		600	550	20	N	450	Y	garbage & sand		N				12.036		M.Lopez	2004/6/18	kris		II15C3	498693.9088	1616741.06	1000	
II15C3564-04	1754	Dimasalang cor Simoun		Manila	600				1350		550				N	390	Y	garbage & sand		N				12.085		M.Lopez	2004/6/14	kris		II15C3	498670.9635	1616733.345	1020	
II15C3565-04	1480	Vicente Cruz cor Dimasalang	482	Manila	600				1280		550				N	400	Y	garbage & sand		N				12.013		M.Lopez	2004/6/14	kris		II15C3	498671.1971	1616708.542	980	
II15C3566-04		Blumentritt cor Dapitan		Manila		950	750	200	3030	2		1200	500	200	N	2530	Y	sand	mwss	N				14.886		M.Lopez	2004/6/24	kris		II15C3	499582.33	1616913.349	2970	
II15C3567-04		Dapitan cor Josefina		Manila					1400			600	550	200	Y	1030	Y	garbage & sand		N				13.831		M.Lopez	2004/6/18	kris		II15C3	499532.7271	1616876.274	1050	
II15C3568-04		Dapitan cor Casiñas	515 Zone51	Manila	600				860		550				N	550	N			N				12.72		M.Lopez	2004/6/14	kris		II15C3	499474.3715	1616828.462	750	
II15C3569-04	2033	Dapitan cor Instruccion		Manila	600				1220		550				N	800	N			N				12.15		M.Lopez	2004/6/14	kris		II15C3	499363.8787	1616725.269	1020	
II15C3570-04	1164	Dapitna cor Maceda		Manila	600				1900			550			N	1050	Y	garbage & sand		N				12.13		M.Lopez	2004/6/16	kris		II15C3	499323.1135	1616647.791	1400	
II15C3571-04		Maceda		Manila		1300	1000	100	1600	2		1200	600	150	N	1360	N	garbage		N				12.55		M.Lopez	2004/6/16	kris		II15C3	499391.6794	1616583.202	1370	
II15C3572-04	976	Maceda cor P. Florentino		Manila	600				1470		550				N	500	Y			N				12.543		M.Lopez	2004/6/11	kris		II15C3	499536.4827	1616429.317	1180	
II15C3573-04		Instruccion cor P. Florentino		Manila	600				1230		550				N	760	Y			N				12.731		M.Lopez	2004/6/11	kris		II15C3	499593.1599	1616482	1060	
II15C3574-04	1000	Instruccion cor P. Florentino		Manila	600				950		550				N	700	N			N				12.687		M.Lopez	2004/6/11	kris		II15C3	499575.033	1616499.338	790	
II15C3575-04		Ibarra cor P. Florentino		Manila		1000	1000	100	1090	2		1190	590	200	N	750	N	sand		N				12.907		M.Lopez	2004/6/25	kris		II15C3	499640.1811	1616537.766	760	
II15C3576-04	2125-C	Blumentritt cor Casiñas	531	Manila	600				1620		550				N	1007	N			N				12.79		M.Lopez	2004/6/11	kris		II15C3	499701.6704	1616588.026		
II15C3577-04		Dapitan cor Prudencio		Manila		1200	1000	100	1700	3		1200	500	200	N	810	N	garbage & sand	mwss	N				12.15		M.Lopez	2004/7/1	kris		II15C3	499072.9777	1616441.037	1090	
II15C3578-04		Dapitan cor Algeciras		Manila		1200	1000	100	1600	2		1200	500	200	N	950	N	garbage & sand		N				12.08		M.Lopez	2004/7/1	kris		II15C3	499112.0901	1616467.681	1250	
II15C3579-04	1136	Casañas		Manila		900	900	150	1230	2		1170	590	200	N	700	Y			N				12.61		M.Lopez	2004/7/1	kris		II15C3	499518.7252	1616780.188	1050	
II15C3580-04		Dapitan cor Musa		Manila	600				1520	1	550				N	1170	N	sand		N				12.31		M.Lopez	2004/7/1	kris		II15C3	499511.0517	1616847.401	1350	
II15C3581-04	2162	Musa cor Dapitan		Manila	600				1100	1	550				N	550	N			N				12.93		M.Lopez	2004/7/1	kris		II15C3	499498.9692	1616861.561	600	
II15C3582-04		Instruccion		Manila	600				1250	1	550				N	850	N	garbage & sand		N				13.203		M.Lopez	2004/7/1	kris		II15C3	499523.1294	1616548.472	930	
II15C3583-04		Musa cor P. Margal	513 Zone51	Manila		1000	1000	100	1330	2		1200	570	200	N	890	N	garbage & sand		N				12.593		M.Lopez	2004/7/1	kris		II15C3	499505.5932	1616726.803	910	
II15C3584-04	1146	Musa		Manila	600				1220	1	550				N	910	N	garbage & sand		N				12.553		M.Lopez	2004/7/1	kris		II15C3	499597.9157	1616719.614	930	
II15C3585-04		P. Florentino cor Basilio		Manila	600				1250						N	640	Y	sand		N				12.95		M.Lopez	2004/7/1	kris		II15C3	499562.2939	1616454.927	1070	
II15C3586-04		Basilio cor P. Florentino		Manila	600				1530	1	550				N	860	N	garbage & sand		N				12.93		M.Lopez	2004/7/1	kris		II15C3	499548.83	1616462.725	990	
II15C3587-04		Metrica cor P. Florentino		Manila		1200	1000	100	1800	2		1200	700	150	N	760	Y	garbage & sand		N				12.55		M.Lopez	2004/7/1	kris		II15C3	499503.0201	1616394.776	1130	
II15C3588-04		P. Margal		Manila		1800	1800	500	1650	3		2930	780	300	N	510	Y	Garbage & Sand		N			ND05B	12.84		M. Lopez	2004/7/2			II15C3	499569.3083	1616793.174	1170	
II15C3589-04	2182	Blumentritt Cor. Ma. Clara	496 Zone 49	Manila		3600	2220	300	3400	3		2590	750	300	N	780	Y	garbage & Sand		N			ND05B	13		A. Ditchon	2004/6/29			II15C3	499317.6261	1617116.387	1440	
II15C3590-04		Blumentritt cor Leong Laan		Manila		3350	1720	250	3500	4		2250	900	300	N	1260	Y	garbage & sand		N			ND05B	13.72		M.Lopez	2004/6/28			II15C3	499450.9583	1617010.514	2680	3300
II20C4215-04		P. Ocampo		Manila												1220	N						SD13	12.565		M.Lopez	2004/7/14	kris		II20C4	498327.794	1610286.23	2050	
II25C1136-04OF				Manila											N	3080	N	sand		N			SD13A	13.08		M.Lopez		kris		II25C1	498875.343	1608675.417	3100	
III16A4425-04		Arnaiz cor. Batangas		Makati		1800	1600	200	2700	3		1330	400	200	N	2304	N	garbage & sand		N			SD17	13.342		M.Lopez	2004/6/2	kris		III16A4	500648.9073	1609217.442	2400	
III16A4426-04		Arnaiz cor. Mayor		Makati		2000	1300	200	1950	3		1330	400	200	N	1660	N	sand		Y	300	920	SD17	12.725			2004/6/2			III16A4	500716.2223	1609233.407	1840	
III16A4427-04		Arnaiz cor. P. Binay		Makati		1700	1200	200	1900	3		1330	400	200	N	1750	N	sand		Y	300	600	SD17	12.835		M.Lopez	2004/6/2	kris		III16A4	500791.0712	1609251.697	1850	
III16A4428-04		Arnaiz cor. N.Reyes		Makati		1200	1100	200	1770	3		1330	400	200	N	1560	N	garbage & sand		Y	300	450	SD17	12.871		M.Lopez	2004/6/2	kris		III16A4	500860.7045	1609268.613	1630	
III16A4429-04		Arnaiz cor. Osmeña		Makati		1200	1200	200	1330	3		1330	400	200	N	1180	N	garbage & sand		Y	300	404	SD17	12.232		M.Lopez	2004/6/2			III16A4	500984.8465	1609300.196	1240	

Note:

Field Name	Description	Remarks
Mh_code	Manhole code no.	Primary Key Code
HouseLot	Nearest house lot no.	Alpha-numeric
Street	Street	Alpha-numeric
Barangay	Barangay code	Alpha-numeric
City	City	Alpha-numeric
ManDia	Manhole diameter	Numeric entry. Units in mm
ManLen	Manhole length	Numeric entry. Units in mm
ManWid	Manhole width	Numeric entry. Units in mm
ManThick	Manhole thickness	Numeric entry. Units in mm
ManDep	Manhole depth	Numeric entry. Units in mm
ManCovPcs	Number of manhole cover	Numeric entry. Unit less
ManCovDia	Diameter of manhole cover	Numeric entry. Units in mm
ManCovLen	Length of manhole cover	Numeric entry. Units in mm
ManCovWid	Width of manhole cover	Numeric entry. Units in mm
ManCovThick	Thickness of manhole cover	Numeric entry. Units in mm
ManCrack	With manhole crack?	Y for Yes, N for No
WaSurface	Distance of water surface from top of manhole cover	Numeric entry. Units in mm
WaCon	Water condition	N for Normal, S for Stagnant water

Field Name	Description	Remarks
DepMat	Deposited materials	Alpha-numeric
Obs	With obstacles?	Alpha-numeric
CurbInl	With curb inlet?	Y for Yes, N for No
CurbInlWid	Curb inlet width	Numeric entry. Units in mm
CurbInlHel	Curb inlet height	Numeric entry. Units in mm
DBCode	Drainage block code	Alpha-numeric
ManTopElev	Manhole top elevation	Numeric entry. Units in m
BMCode	Bench mark code used	Alpha-numeric
DrEngr	Drainage engineer	Name of Engineer
DateTimeInve	Date and time of investigation	Date (e.g. 20-Aug-2000)
Operator	Computer encoder/operator	Name of encoder/operator
Remarks	Remarks	Alpha-numeric
MapPrefix	Prefix of map code	
x	x coordinate (easting)	PTM III
y	y coordinate (northing)	PTM III
DepSurf	Distance of deposition surface from top of manhole cover in 2000 survey	Numeric entry. Units in mm
DepSurf New	Distance of deposition surface from top of manhole cover in 2004 survey	Numeric entry. Units in mm

Result of Manhole Survey (Linkage of Manhole)

MH_CODE	OUT_CH	OUT_MH	OUT_STATUS	OUT_MAT	OUT_SHP	OUT_BOT_WID	OUT_CELL	OUT_BOT	OUT_OVB	OUT_CH_LEN	OUT_DIA_WID	OUT_DEP
II15B2298-04		II15B2215-04		Conc	Rect	5250	1	4860	2120		1250	2740
II20C4215-04		II20C4053			Rect	2750	2	2650	110		2750	1500
II15A3176-04				Conc	Rect	2500	2	3800	1100		5000	2700
II15B2324-04		II15B2323-04		Conc	Rect	1820	1	3700	2230		1300	
II15C3355-04		II15C3289-04		Conc	Rect		1	2800	660	157.284	2140	2000
II15C3289-04		II15C3497-04		Conc	Rect		1	2970	630	149.18	2340	3000
III16A4429-04		III16A4428-04		Conc	Circ		1	1350	600			750
III16A4428-04		III16A4427-04		Conc	Circ		1	1710	510			1200
III16A4427-04		III16A4426-04		Conc	Circ		1	2040	740			1300
III16A4426-04		III16A4425-04		Conc	Circ		1	2140	740			1400
III16A4425-04				Conc	Circ		1	2700	1570			1130
II25C1136-04OF				Conc	Rect		1	3500	1500		3500	2000
II25C1136-04OF				Conc	Rect		1	3500	1500		3500	2000
II15C3590-04	DM01-B	II15C3589-04		Conc	Rect		1	3800	2000		1550	1800
II15C3589-04		II15C3501-04		Conc	Rect		1	3400	1550		2700	1850
II15C3588-04	DM01B	II15C3590-04		Conc	Rect		1	2290	660		1800	1630
II15C3587-04				Conc	Rect		1	1250	600		600	650
II15C3586-04				Conc	Circ				500			
II15C3585-04				Conc	Circ				850			
II15C3585-04				Conc	Circ				850			
II15C3584-04				Conc	Circ				500			
II15C3583-04				Conc	Circ				650			
II15C3582-04				Conc	Circ				740			
II15C3581-04				Conc	Circ				600			
II15C3580-04				Conc	Circ				950			
II15C3579-04				Conc	Circ				600			
II15C3578-04				Conc	Circ			1300	700			600
II15C3577-04				Conc	Circ			1200	600			600
II15C3576-04				Conc	Circ				710			
II15C3575-04				Conc	Circ				450			
II15C3574-04				Conc	Circ				420			
II15C3573-04				Conc	Circ				1000			
II15C3573-04				Conc	Circ				400			
II15C3572-04				Conc	Circ				570			
II15C3571-04				Conc	Circ				1230			
II15C3570-04				Conc	Circ				970			
II15C3569-04				Conc	Circ				740			
II15C3568-04	DM28	II15C3354-04		Conc	Circ				450			
II15C3567-04				Conc	Circ				850			
II15C3566-04				Conc	Rect			3030	2430		600	600
II15C3565-04				Conc	Circ				800			
II15C3564-04				Conc	Circ				620			
II15C3563-04				Conc	Circ				580			
II15C3562-04				Conc	Circ			1480	880			600
II15C3561-04				Conc	Circ				870			
II15C3560-04				Conc	Circ				350			
II15C3559-04				Conc	Rect		1	1300	700		1700	600
II15C3558-04				Conc	Circ				830			
II15C3557-04				Conc	Circ				590			
II15C3556-04				Conc	Circ				640			
II15C3555-04				Conc	Circ				810			
II15C3554-04				Conc	Circ				700			
II15C3553-04				Conc	Circ				560			
II15C3552-04				Conc	Circ				530			
II15C3551-04				Conc	Circ				450			
II15C3550-04				Conc	Circ				270			
II15C3549-04				Conc	Circ				520			
II15C3548-04				Conc	Circ				470			
II15C3547-04				Conc	Circ				580			
II15C3546-04				Conc	Circ				630			
II15C3545-04				Conc	Circ				460			
II15C3544-04				Conc	Circ				950			
II15C3543-04				Conc	Rect		1	1450	450		950	1000
II15C3542-04				Conc	Circ				420			
II15C3541-04				Conc	Circ				400			
II15C3540-04				Conc	Circ				450			
II15C3539-04				Conc	Circ			1120	520			600
II15C3538-04				Conc	Circ				440			
II15C3537-04				Conc	Rect				420			
II15C3536-04				Conc	Rect				350		600	
II15C3535-04				Conc	Rect		1	890	280		750	610
II15C3534-04				Conc	Circ				640			
II15C3533-04				Conc	Circ				400			
II15C3532-04				Conc	Circ				440			
II15C3531-04				Conc	Rect		1	1650	650		2000	1000
II15C3530-04				Conc	Circ				410			
II15C3529-04				Conc	Circ				550			
II15C3528-04				Conc	Circ				750			
II15C3527-04				Conc	Circ			1500	700			800
II15C3526-04				Conc	Circ				460			
II15C3525-04				Conc	Circ				700			
II15C3524-04				Conc	Circ			1350	550			800
II15C3523-04				Conc	Circ				400			
II15C3522-04				Conc	Circ				590			
II15C3521-04				Conc	Circ				550			
II15C3520-04				Conc	Circ			1700	900			800
II15C3519-04				Conc	Circ				660			
II15C3518-04				Conc	Circ				650			
II15C3517-04				Conc	Circ				550			
II15C3516-04				Conc	Circ				700			
II15C3515-04				Conc	Circ				1270			
II15C3514-04				Conc	Rect		1	1850	1100		1000	750
II15C3513-04				Conc	Circ				410			
II15C3512-04				Conc	Circ				500			
II15C3511-04				Conc	Circ			1400	400			1000
II15C3510-04				Conc	Rect			1050	450			600
II15C3509-04				Conc	Circ				580			
II15C3508-04				Conc	Circ			1450	850			600
II15C3507-04				Conc	Circ			1360	760			600
II15C3506-04				Conc	Circ			1460	860			600
II15C3505-04				Conc	Circ			2100	1180			920
II15C3504-04				Conc	Circ			2100	1400			700
II15C3503-04				Conc	Rect		1	1800	900		900	900
II15C3502-04				Conc	Rect		1	2050	950		1450	1100
II15C3501-04	DM01B	II15C3500-04		Conc	Rect		1	2750	1100		2000	1650

Result of Manhole Survey (Linkage of Manhole)

MH_CODE	OUT_CH	OUT_MH	OUT_STATUS	OUT_MAT	OUT_SHP	OUT_BOT_WID	OUT_CELL	OUT_BOT	OUT_OVB	OUT_CH_LEN	OUT_DIA_WID	OUT_DEP
II15C3500-04	DM01B	II15C3499-04		Conc	Rect		1	2350	1300		2600	1050
II15C3499-04	DM01B	II15C3486-04		Conc	Rect		1	4200	1700		3900	2500
II15C3498-04		II15C2240-04		Conc	Rect		1	3200	1900		2000	1300
II15C3497-04	DM28	II15C3282-04		Conc	Rect		4	3000	700		4400	2300
II15C3496-04	DM28	II15C3281-04		Conc	Rect		1	3200	1000		4000	2200
II15C3495-04	DM28	II15C3352-04		Conc	Rect		1	3500	1100		3800	2400
II15C3494-04		II15C3493-04		Conc	Rect		1	3450	1060		4000	2390
II15C3493-04		II15C3492-04		Conc	Rect		1	3000	750		4200	2250
II15C3492-04		II15C3001-04		Conc	Rect		1	2800	670		4000	2130
II15C3486-04		II15C2240-04		Conc	Rect		1	4200	200		2000	4000
II15C3374-04	DM01-A	II15C3371-04		Conc	Rect		1	3620	1460		1800	2160
II15C3371-04		II15C2234-04		Conc	Rect		1	4200	2900		2000	1300
II15C3354-04	DM28	II15C3353-04		Conc	Rect		1	3000	600		4200	2400
II15C3353-04	DM28	II15C3496-04		Conc	Rect		1	3700	900		4300	2800
II15C3352-04	DM28	II15C3010-04		Conc	Rect		1	3530	1150		4300	2380
II15C3282-04		II15C3354-04		Conc	Rect		1	3380	1100		4300	2280
II15C3281-04	DM28	II15C3495-04		Conc	Rect		1	3200	1100		4000	2100
II15C3010-04	DM28	II15C3009-04		Conc	Rect		1	3220	550		4200	2670
II15C3009-04	DM28	II15C3008-04		Conc	Rect		1	3000	950		4450	2050
II15C3008-04	DM28	II15C3007-04		Conc	Rect		1	3320	1000		4410	2320
II15C3007-04		II15C3006-04		Conc	Rect		1	3300	620		4200	2680
II15C3006-04		II15C3005-04		Conc	Rect		1	3120	830		4150	2290
II15C3005-04		II15C3004-04		Conc	Rect		1	3020	770		4400	2250
II15C3004-04		II15C3003-04		Conc	Rect		1	2850	1000		3100	1850
II15C3003-04		II15C3494-04		Conc	Rect		1	3500	900		4450	2600
II15C3001-04		II15C3188		Conc	Rect		1	2970	800		4500	2170
II15C3001-04		END		Conc	Rect							
II15C2245-04		II15C2243-04		Conc	Rect		1	4950	2200		1200	2750
II15C2244-04		II15C2245-04		Conc	Rect		1	4500	2070		1200	2430
II15C2243-04		II15C2242-04		Conc	Rect		1	4150	1900		1500	2250
II15C2242-04	DM01	II15B2216-04		Conc	Rect		1	4700	1620		1200	3080
II15C2241-04	DM01B	II15B2323-04		Conc	Rect		1	3200	1900		1500	1300
II15C2240-04				Conc	Rect		1	4000	2200		2900	1800
II15C2240-04	DM01B	II15C2238-04		Conc	Rect		1	4200	2200		1800	2000
II15C2239-04	DM01B	II15C2238-04		Conc	Rect		1					
II15C2238-04	DM01B	II15C2235-04		Conc	Rect		2	4000	2100		2100	1900
II15C2238-04				Conc	Rect		1	4000	2100		2100	1900
II15C2236-04	DM01B	II15C2235-04		Conc	Rect		1	4000	2500		1000	1500
II15C2235-04	DM01B	II15C2233-04		Conc	Rect		1	4400	2200		1900	2200
II15C2234-04		II15C2244-04		Conc	Rect		1	4400	2200		1900	2200
II15C2233-04	DM01B	II15C2231-04		Conc	Rect		1	3500	2000		1000	1500
II15C2232-04		II15C2244-04										
II15C2231-04	DM01B	II15C2230-04		Conc	Rect		1	4070	2120		1400	1950
II15C2230-04	DM01B	II15C2224-04		Conc	Rect		1	4600	2100		1550	2500
II15C2229-04		II15C2228-04		Conc	Rect		1	2500	1950		1500	550
II15C2228-04	DM01B	II15C2227-04		Conc	Rect		1	3700	2200		1500	1500
II15C2227-04	DM01B	II15C2226-04		Conc	Rect		1	4200	2800		1900	1400
II15C2226-04	DM01B	II15C2241-04		Conc	Rect		1	4500	1790		1300	2710
II15C2224-04	DM01B	II15C2229-04		Conc	Rect		1	3400	2000		1500	1400
II15B2323-04		II15B2322-04		Conc	Rect		1	4680	2600		1500	2080
II15B2322-04		II15B2299-04		Conc	Rect		1	5020	2300		1500	2720
II15B2299-04	DM01B			Conc	Rect		1	4800	2500		1500	2300
II15B2297-04		II15B2298-04		Conc	Rect		1	3630	2200		900	1430
II15B2216-04	DM01-A	II15B2297-04		Conc	Rect		1	4750	2350		1200	2400
II15B2215-04	DM01-A			Conc	Rect		1	4750	2900		1400	1850
II15A3184-04	DM03	II15A3182-04		Conc	Rect		1	2550	800		3000	1750
II15A3183-04	DM03	II15A3184-04		Conc	Rect		1	2500	750	17.773	3000	1750
II15A3182-04	DM03	II15A3181-04		Conc	Rect		1	2390	860		3000	1530
II15A3181-04	DM03	II15A3180-04		Conc	Rect		1	2850	900		4400	1950
II15A3180-04	DM03	II15A3179-04		Conc	Rect		1	4120	1430		4000	2690
II15A3179-04	DM03	II15A3178-04		Conc	Rect		1	3950	1300		4000	2650
II15A3178-04	DM03	II15A3177-04		Conc	Rect		1	3750	950		4200	2800
II15A3177-04	DM03	II15A3176-04		Conc	Rect		1	3820	1100		4000	2720

Note:

Field Name	*Description*	*Remarks*
Mh_code	Manhole code number	Automatically encoded when Data Entry Form was used
Out_ch	Outlet channel code	Automatically encoded when Menu (4) was processed
Out_mh	Downstream manhole code	Alpha-numeric entry
Out_status	Condition of channel	N if normal, C if Clogged
Out_mat	Composition/made of channel	C for concrete, S for steel, P for Pvc, M for masonry, R for riprap
Out_shp	Shape of channel	R for rectangle, C for circular, T for trapezoidal
Out_bot_wid	Bottom width. Applicable only in Trapezoidal	Numeric entry. Units in mm
Out_cell	Number of cells	Numeric entry. Unitless
Out_bot	Distance of invert from top of manhole cover	Numeric entry. Units in mm
Out_ovb	Distance of top of channel from top of manhole cover	Numeric entry. Units in mm
Out_ch_len	Distance from downstream manhole specified in 'Out_mh' field	Numeric entry. Units in m
Out_dia_wid	Diameter if Circular or top width if Rectangular or Trapezoidal	Numeric entry. Units in mm
Out_dep	Channel depth for Rectangular and Trapezoidal only	Numeric entry. Units in mm

Chapter 2

TOPOGRAPHIC SURVEY

1. BENCHMARK

The following benchmarks were used as vertical control for topographic survey.

No.	Drainage Main/Site	Benchmark
1	Blumentritt Intercepter	GM-12F
2	Zobel Roxas	DLM-16
3	Faraday	DLM-9a
4	Finlandia	DLM-9a

Note: For detailed information of benchmark, refer to Clause 1.1 "Benchmark survey" of Chapter 1 of Databook.

2. SURVEYED ITEM

Longitudinal and cross-sectional survey for the followings drainage main/site was conducted.

No.	Drainage Main/Site	Station/Length
1	Blumentritt Intercepter	0+000 - 3+284
2	Zobel Roxas	0+000 - 1+200
3	Faraday	0+000 - 0+888
4	Finlandia	0+000 - 0+914

Drawing is shown in Chapter 7 of Databook.

Chapter 3

GEOLOGICAL SURVEY

TABLE OF CONTENTS

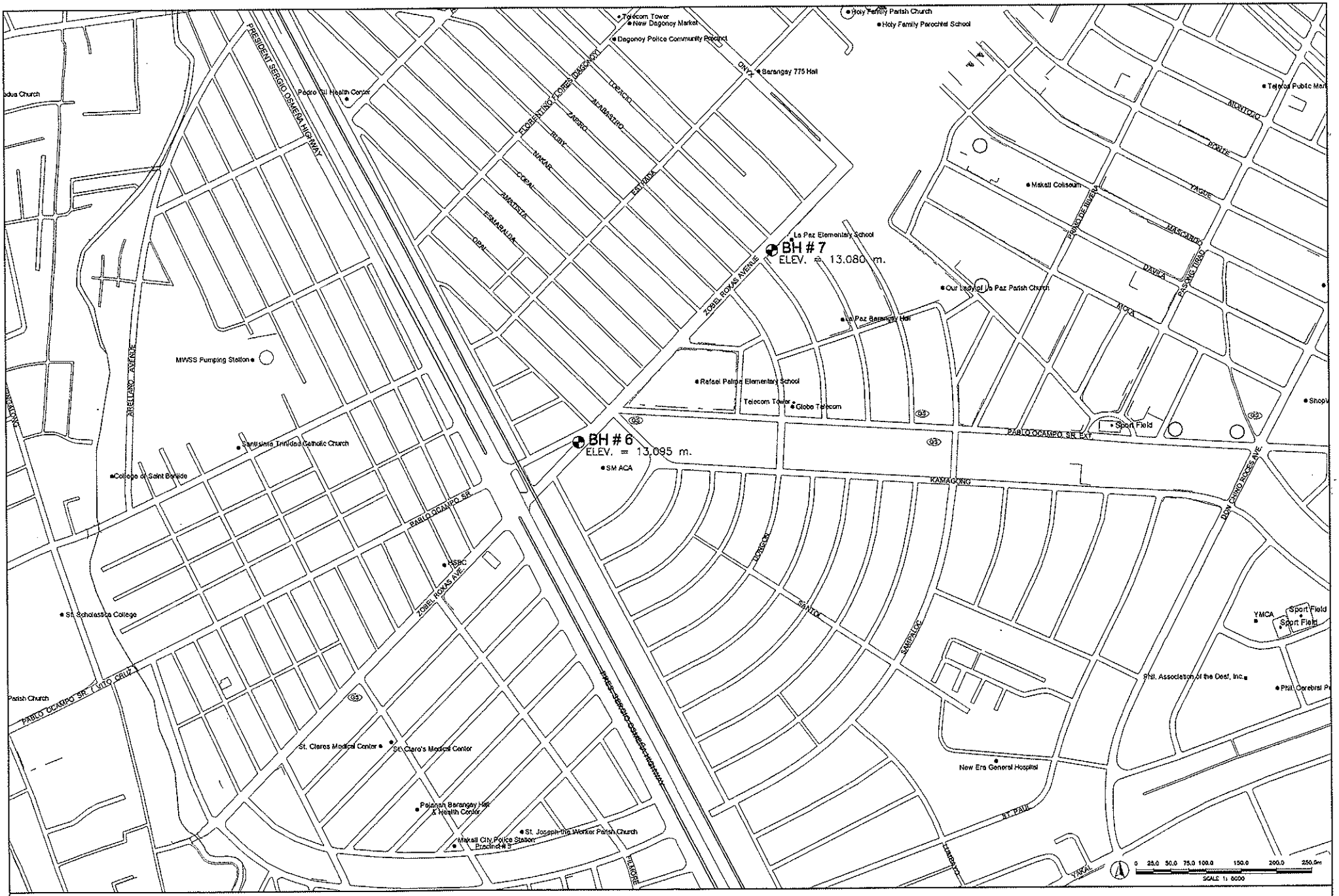
3.1 Location Map of Boreholes

3.2 Log of Boreholes

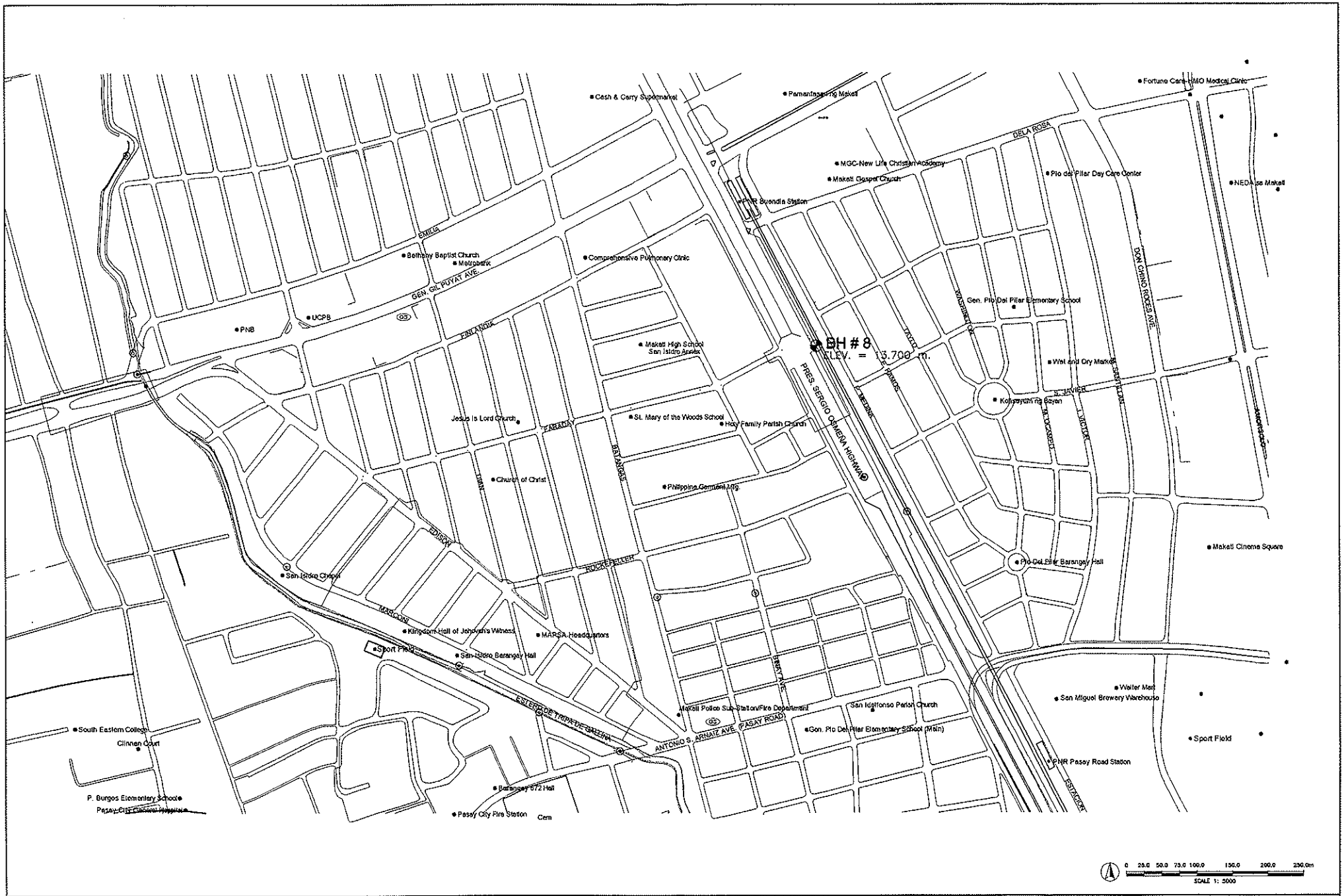
3.3 Summary of Laboratory Test Results

Location Map of Boreholes

BOREHOLE LOCATION (BLUMENTRITT INTERCEPTOR)



BOREHOLE LOCATION (ZOBEL ROXAS DRAINAGE MAIN)



BOREHOLE LOCATION (FARADAY DRAINAGE MAIN)

Log of Boreholes

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Maypajo River beside Hermosa St. Manila*
Client :

Datum : *Ground Surface*
Elevation : *12.804*
Northings : *1618369.665*
Easthings : *496945.356*
Final Depth : *24.75 m.*

Drill Method : *Wash Boring*
Drill Machine : *TONY Drilling Rig*
Casing Depth : *18.00 m.*
Sampler : *50 mm. O.D. Splitspoon*
Water Table : *2.00 m. (10-24-04)*

Log of Borehole : BH - 01

Date Started : *10-20-04*
Date Completed : *10-24-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp I--o--I wl, 20 60)	Standard Penetration Test N-value (10 30 50)	Laboratory Test Results
0		Ground Surface			12.8									
		Gravelly SAND Dark gray, gravelly Sand; fine to medium grained; trace of silt.	SM	MEDIUM DENSE	11.8	SS	1		11					
1		***Silty SAND*** Dark gray to gray, silty Sand; trace of gravel.		VERY LOOSE		SS	2		3					
2				LOOSE	9.8	SS	3		5					
3		***SAND*** Gray, fine Sand; with non-plastic silt.	SM	VERY LOOSE		SS	4		3					Gs = 2.67
4				LOOSE	7.8	SS	5		6					
5		***Silty SAND*** Gray to light gray, silty Sand; fine to medium grained; trace of gravel.	SM	MEDIUM DENSE	5.8	SS	6		19					
6						SS	7		28					
7		***Silty SAND*** Brown, Silty Sand; fine to medium grained; trace of gravel.	SM	VERY DENSE		SS	8		83\25					Gs = 2.47
8						SS	9		88\21					
9					2.8	SS	10		77\22					
10														

Sheet No. : 1 of 3

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Maypajo River beside Hermosa St. Manila*
Client :

Datum : *Ground Surface*
Elevation : *12.804*
Northings : *1618369.665*
Easthings : *496945.356*
Final Depth : *24.75 m.*

Drill Method : *Wash Boring*
Drill Machine : *TONY Drilling Rig*
Casing Depth : *18.00 m.*
Sampler : *50 mm. O.D. Splitspoon*
Water Table : *2.00 m. (10-24-04)*

Log of Borehole : BH - 01

Date Started : *10-20-04*
Date Completed : *10-24-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Laboratory Test Results
		SUBSURFACE PROFILE				SAMPLE						
11		***Silty SAND*** Brown, Silty Sand; fine to medium grained; trace of gravel.		VERY DENSE		SS	11		90\20			
12				DENSE		SS	12		33			
13					-0.196	SS	13		37			
14		***Silty CLAY*** Grayish brown to light brown, Silty Clay; moderately plastic; with fine sand.	CL	HARD		SS	14		34			Gs = 2.53
15						SS	15		43			
				VERY HARD	-2.95	SS	16		50\5			
16		***Silty SAND*** Grayish brown, Silty Sand; trace of gravel.		VERY DENSE		SS	17		50\12			
17					-4.95	SS	18		50\5			
18		***Sandy SILT*** Grayish brown, Sandy Silt; non-plastic; trace of gravel.	ML	HARD		SS	19		45			Gs = 2.60
19				VERY HARD	-7.18	SS	20		74\28			
20												

Water Content: wp |--o--| wl (20 – 60)

Standard Penetration Test: N-value (10 – 30 – 50)

Sheet No. : 2 of 3

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Maypajo River beside Hermosa St. Manila*
Client :

Datum : *Ground Surface*
Elevation : *12.804*
Northings : *1618369.665*
Eastings : *496945.356*
Final Depth : *24.75 m.*

Drill Method : *Wash Boring*
Drill Machine : *TONY Drilling Rig*
Casing Depth : *18.00 m.*
Sampler : *50 mm. O.D. Splitspoon*
Water Table : *2.00 m. (10-24-04)*

Log of Borehole : BH - 01

Date Started : *10-20-04*
Date Completed : *10-24-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp I--o--I wl, 20 60)	Standard Penetration Test N-value (10 30 50)	Laboratory Test Results
21						SS	21		50\10					
22						SS	22		50\8					
		SAND Grayish brown, Sand; fine to medium grained; with silt and gravel.		VERY DENSE		SS	23		50\12					
23			SM											
						SS	24		50\11					
24					-11.9	SS	25		50\5					
25		End of Log												
26														
27														
28														
29														
30														

Sheet No. : 3 of 3

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Hermosa St., cor. Pilar St., Manila*
Client :

Datum : *Ground Surface*
Elevation : *12.540*
Northings : *1618347.562*
Easthings : *497425.805*
Final Depth : *19.90 m.*

Drill Method : *Wash Boring*
Drill Machine : *TOHO Drilling Rig*
Casing Depth : *12.00 m. (w/ PVC)*
Sampler : *50 mm. O.D. Splitspoon*
Water Table : *3.00 m. (10-25-04)*

Log of Borehole : BH - 02

Date Started : *10-22-04*
Date Completed : *10-25-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajarito*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Laboratory Test Results
0		Ground Surface			12.5							
		Sandy SILT Gray, Sandy Silt; non-plastic. trace of gravel.	ML	FIRM		SS	1		7			
1				SOFT		SS	2		3			
2					10.5							
		SAND Grayish brown, fine to medium Sand; with silt; trace of gravel; with streak of gray and light brown from 2.00-3.00m and 5.00-6.00m respectively.		VERY DENSE		SS	3		56			
3						SS	4		42			
4			SM	DENSE		SS	5		50			Gs = 2.43
5						SS	6		39			
6				VERY DENSE		SS	7		73			
7			SM			SS	8		50\13			Gs = 2.47
					4.71							
8		***TUFF*** Grayish brown, highly weathered Tuff (Siltstone); slightly hard and friable; trace of gravel;	ROCK	SOFT ROCK		CS	1				0	
9												
10												

Water Content: wp I--o--I wl (20 – 60)
Standard Penetration Test: N-value (10 – 30 – 50)

Sheet No. : 1 of 2

Project : *Study on Drainage Improvement in the Core Area of Metro Manila*
Location : *Hermosa St., cor. Pilar St., Manila*
Client :

Datum : *Ground Surface*
Elevation : *12.540*
Northings : *1618347.562*
Easthings : *497425.805*
Final Depth : *19.90 m.*

Drill Method : *Wash Boring*
Drill Machine : *TOHO Drilling Rig*
Casing Depth : *12.00 m. (w/ PVC)*
Sampler : *50 mm. O.D. Splitspoon*
Water Table : *3.00 m. (10-25-04)*

Log of Borehole : BH - 02

Date Started : *10-22-04*
Date Completed : *10-25-04*
Field Logged by : *R..Ramilo*
Tested by : *F. Fajarito*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Laboratory Test Results
			ROCK	SOFT ROCK	1.54	CS	2				0	
11												
				DENSE		SS	9		39			
12				VERY DENSE		SS	10		56			
13		***SAND*** Grayish brown, fine to medium Sand; trace of silt and gravel.	SM	DENSE		SS	11		33			Gs = 2.54
14												
						SS	12		71			
15												
					-3.46	SS	13		75			
16			SP-SM									
				VERY DENSE		SS	14		83\21			
17												
		Gravelly SAND Grayish brown, poorly-graded Gravelly Sand; trace of silt.				SS	15		50\10			
18												
						SS	16		50\5			
19			SP-SM									
					-7.36	SS	17		100\20			
20		End of Log										

Water Content: wp ⊢--o--⊣ wl, 20 60

Standard Penetration Test: N-value, 10 30 50

Sheet No. : 2 of 2

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Aurora Blvd., corner Oroquieta St., Mla*
Client :

Datum : *Ground Surface*
Elevation : *12.860*
Northings : *1617796.544*
Eastings : *499148.796*
Final Depth : *22.50 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TONY Drilling Rig*
Casing Depth : *4.50 m.*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *1.57 m. (10-29-04)*

Log of Borehole : BH - 03

Date Started : *10-26-04*
Date Completed : *10-29-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Laboratory Test Results
0		Ground Surface			12.9							
1		*SAND* Gray to brown, fine Sand; with silt; with gravel and silt; trace of shell fragments from 2.00-3.00m.		VERY LOOSE		SS	1		0			
2			SM	LOOSE		SS	2		6			
3												
4				MEDIUM DENSE		SS	3		27			
						SS	4		13			
5					7.86							
6		*CLAY* Yellowish brown to brown; inorganic Clay; highly plastic; trace of sand and silt.	CH	STIFF		SS	5		11			Gs = 2.33
7						SS	6		13			
				VERY STIFF		SS	7		19			
8					4.86							
9		*Silty SAND* Greyish brown, Silty fine to medium Sand; trace of gravel.	SM	MEDIUM DENSE		SS	8		22			Gs = 2.39
				DENSE		SS'	9		44			
10					2.86							

Water Content: wp |--o--| wl (20 – 60)
Standard Penetration Test: N-value (10 – 30 – 50)

Sheet No. : 1 of 3

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Aurora Blvd., corner Oroquieta St., Mla*
Client :

Datum : *Ground Surface*
Elevation : *12.860*
Northings : *1617796.544*
Easthings : *498148.796*
Final Depth : *22.50 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TONY Drilling Rig*
Casing Depth : *4.50 m.*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *1.57 m. (10-29-04)*

Log of Borehole : BH - 03

Date Started : *10-26-04*
Date Completed : *10-29-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *Engr. H. Bambao*

Depth (m)	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Laboratory Test Results
11	***Silty SAND*** Grayish brown, Silty fine to medium Sand; trace of gravel.		DENSE		SS	10		32			
					SS	11		36			
12		SM	VERY DENSE								Gs = 2.39
					SS	12		59			
13			DENSE								
					SS	13		42			
14				-1.14							
	Sandy SILT Light brown, Sandy Silt; non-plastic; with fine gravel.	ML									Gs = 2.53
					SS	14		85\27			
15			VERY HARD								
					SS	15		54			
16				-3.14							
	SAND Grayish brown, fine to medium Sand; with non-plastic silt and gravel.	SM			SS	16		50\2			
17					SS	17		50\13			
18			VERY DENSE								
					SS	18		50\2			
19		SM									
				-6.01	SS	19		50\12			
20											

SUBSURFACE PROFILE — SAMPLE

Water Content: wp ⊢o-⊣ wl (20 – 60)

Standard Penetration Test: N-value (10 – 30 – 50)

Sheet No. : 2 of 3

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Aurora Blvd., corner Oroquieta St., Mla*
Client :

Datum : *Ground Surface*
Elevation : *12.860*
Northings : *1617796.544*
Eastings : *498148.796*
Final Depth : *22.50 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TONY Drilling Rig*
Casing Depth : *4.50 m.*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *1.57 m. (10-29-04)*

Log of Borehole : BH - 03

Date Started : *10-26-04*
Date Completed : *10-29-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp I--o--I wl, 20 60)	Standard Penetration Test N-value (10 30 50)	Laboratory Test Results
21		*TUFF* Grayish brown, highly weathered Tuff (Siltstone); medium hard; with gravel from 21.00-22.50m.	ROCK	SOFT ROCK		CS	1							
22						CS	2							
					-9.64									
		End of Log												
23														
24														
25														
26														
27														
28														
29														
30														

Sheet No. : 3 of 3

Project : *Study on Drainage Improvement in the* . *Core of Mero Manila*
Location : *Blumentritt corner N.S. Amoranto St., Q*
Client :

Datum : *Ground Surface*
Elevation : *13.580*
Northings : *1617496.560*
Easthings : *498839.436*
Final Depth : *20.00 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TOHO Brand Drilling Rig*
Casing Depth : *9.00 m*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *1.90 m. (10-29-04)*

Log of Borehole : BH - 04

Date Started : *10-27-04*
Date Completed : *10-29-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp |--o--| wl, 20 60)	Standard Penetration Test (N-value, 10 30 50)	Laboratory Test Results
0		Ground Surface			0									
1		***SAND*** Gray, fine to medium Sand; with silt and gravel.	SM	VERY LOOSE		SS	1		2					
				MEDIUM DENSE	-2	SS	2		16					
3		***SAND*** Brownish Gray, Poorly-graded Sand; with gravel and trace of silt.	SP-SM			SS	3		68					Gs = 2.63
4						SS	4		55					
5				VERY DENSE	-5	SS	5		83					
6		***SAND*** Grayish brown, Poorly-graded Gravelly Sand; coarse to medium grained; trace of silt.	SP-SM			SS	6		50/12					Gs = 2.67
					-7	SS	7		60					
7		***Gravelly SAND*** Grayish brown, Gravelly fine to medium Sand; with silt.	SM		-7.65	SS	8		50/10					Gs = 2.40
8		***TUFF*** Grayish brown, highly weathered Tuff (Siltstone); medium hard.	ROCK	SOFT ROCK	-9	CS	1							U.W. = 1.747 g/cm3 qu = 70.19 kg/cm2
9														
10														

Sheet No. : 1 of 2

Project : *Study on Drainage Improvement in the* . *Core of Mero Manila*
Location : *Blumentritt corner N.S. Amoranto St., Q*
Client :

Datum : *Ground Surface*
Elevation : *13.580*
Northings : *1617496.560*
Eastings : *498839.436*
Final Depth : *20.00 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TOHO Brand Drilling Rig*
Casing Depth : *9.00 m*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *1.90 m. (10-29-04)*

Log of Borehole : BH - 04

Date Started : *10-27-04*
Date Completed : *10-29-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajarito*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp I--o--I wl, 20 60)	Standard Penetration Test N-value (10 30 50)	Laboratory Test Results
						CS	2				15			
11		*TUFF* Grayish brown, slightly weathered Tuff (Siltstone), medium hard.				CS	3				37			U.W. = 1.679 g/cm3 qu = 67.91 kg/cm2
12					-12									
13		*TUFF* Grayish brown, highly weathered Tuff (Siltstone); medium hard.				CS	4							
14						CS	5							
15		*TUFF* Light brown, slightly weathered Tuff (Siltstone) inter bedded with Tuffaceous Sandstone, medium hard.	ROCK	SOFT ROCK	-15	CS	6				33			U.W. = 1.603 g/cm3 qu = 26.27 kg/cm2
16					-16.5									
17		*TUFF* Light brown, slightly weathered Tuff (Siltstone); medium hard.			-18	CS	7				21			U.W. = 1.662 g/cm3 qu = 23.78 kg/cm2
18														
19		*TUFF* Grayish brown, highly weathered Tuff (Siltstone); medium hard.				CS	8							
20					-20									

Sheet No. : 2 of 2

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Blumentritt cor. Dapitan St., Manila*
Client :

Datum : *Ground Surface*
Elevation : *14.610*
Northings : *1616920.004*
Eastings : *499555.750*
Final Depth : *20.00 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TONY Brand Drilling Rig*
Casing Depth : *6.00 m.*
Sampler : *50 mm. O.D. Splitspoon +NQ Core Barrel*
Water Table : *3.20 m. (11-7-04)*

Log of Borehole : BH - 05

Date Started : *11-4-04*
Date Completed : *11-7-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Laboratory Test Results
0		Ground Surface			14.6							
				FIRM		SS	1		8			
1		***CLAY*** Grayish brown to yellowish brown, Inorganic Clay, highly plastic; with fine sand.	CH	VERY STIFF		SS	2		22			Gs = 2.45
2				VERY HARD		SS	3		80|20			
3					11.6							
		Gravelly SAND Grayish brown, gravelly Sand; coarse to medium grained, with silt.	SM	VERY DENSE		SS	4		80|21			Gs = 2.52
4				DENSE		SS	5		43			
5		***GRAVEL*** Grayish brown, Poorly-graded Gravel; fine grained; with coarse to medium sand; trace of silt.	GP - GM	MEDIUM DENSE	9.61	SS	6		22			
6		***SILT*** Brownish gray, Silt; with gravel and highly weathered siltstone (tuff).			8.61	SS	7		80|20			
7		***Sandy SILT*** Brownish gray, sandy Silt; non-plastic; (highly weathered siltstone).	ML	VERY HARD	7.71	SS	8		82|25			Gs = 2.42
8		***TUFF*** Brownish gray, highly weathered Tuff (Siltstone); medium hard.	ROCK	SOFT ROCK	6.66	CS	1				0	
9												
10					4.61							U.W. = 1.736 g/cm3 qu = 3.83 kg/cm2

Water Content: wp |--o--| wl (20, 60)
Standard Penetration Test: N-value (10, 30, 50)

Sheet No. : 1 of 2

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Blumentritt cor. Dapitan St., Manila*
Client :

Datum : *Ground Surface*
Elevation : *14.610*
Northings : *1616920.004*
Easthings : *499555.750*
Final Depth : *20.00 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TONY Brand Drilling Rig*
Casing Depth : *6.00 m.*
Sampler : *50 mm. O.D. Splitspoon +NQ Core Barrel*
Water Table : *3.20 m. (11-7-04)*

Log of Borehole : BH - 05

Date Started : *11-4-04*
Date Completed : *11-7-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp I--o--I wl, 20 60)	Standard Penetration Test N-value (10 30 50)	Laboratory Test Results
						CS	2				8			
11		*TUFF* Light brown, highly to slightly weathered Tuff (Siltstone); very broken to broken; medium hard.	ROCK	SOFT ROCK		CS	3				10			
12						CS	4				49			U.W. = 1.709 g/cm3 qu = 6.8 kg/cm2
13					1.11									
14		*TUFF* Grayish Brown, slightly weathered Tuffaceous Sandstone; broken; medium hard.				CS	5				61			
15					-0.39									
16		*TUFF* Grayish brown, slightly weathered Tuff (Siltstone), medium hard.				CS	6				13			
17						CS	7				31			U.W. = 1.758 g/cm3 qu = 26.23 kg/cm2
18					-3.39									
19		*TUFF* Grayish brown, slightly weathered Tuff (Siltstone) inter-bedded with Tuffaceous Sandstone; medium hard.				CS	8				21			
20					-5.39									

Sheet No. : 2 of 2

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Aurora Blvd. cor. Tecson St., Manila*
Client :

Datum : *Ground Surface*
Elevation : *12.876*
Northings : *1617542.089*
Easthings : *498442.797*
Final Depth : *21.00 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TOHO Drilling Rig*
Casing Depth : *12.00 m.*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *3.00 m. (11-9-04)*

Log of Borehole : BH - 5A

Date Started : *11-5-04*
Date Completed : *11-9-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Laboratory Test Results
0		Ground Surface			12.9							
		Sandy SILT Brownish gray, Sandy Silt, non-plastic.	ML	SOFT	11.9	SS	1		3			
1				MEDIUM DENSE		SS	2		13			
2				LOOSE		SS	3		7			
3		***SAND*** Grayish brown, Fine Sand; with non-plastic silt; trace of gravel; with shell fragments from 2.55-4.00 m.	SM	MEDIUM DENSE		SS	4		18			Gs = 2.62
4				DENSE	7.88	SS	5		39			
5						SS	6		50			
6		***SILT*** Grayish brown, non-plastic Silt; with fine sand and highly weathered tuff (siltstone).	ML	HARD		SS	7		37			Gs = 2.32
7				VERY HARD	4.92	SS	8		71|26			
8		***TUFF*** Grayish brown, Highly weathered Tuff (Siltstone); with gravel from 9.00-10.50 m.; very broken; friable to medium hard.	ROCK	SOFT ROCK		CS	1					
9												
10												

Water Content (wp I--o--I wl, 20 60)

Standard Penetration Test (N-value, 10 30 50)

Sheet No. : 1 of 3

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Aurora Blvd. cor. Tecson St., Manila*
Client :

Datum : *Ground Surface*
Elevation : *12.876*
Northings : *1617542.089*
Easthings : *498442.797*
Final Depth : *21.00 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TOHO Drilling Rig*
Casing Depth : *12.00 m.*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *3.00 m. (11-9-04)*

Log of Borehole : BH - 5A

Date Started : *11-5-04*
Date Completed : *11-9-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajarito*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp I--o--I wl, 20 60)	Standard Penetration Test N-value (10 30 50)	Laboratory Test Results
					2.38	CS	2							
			SP	DENSE		SS	9		50					
11														
		SAND Grayish brown, Poorly-graded, coarse to medium Sand; with coarse to fine gravel.				SS	10		50|12					
12														
						CS	3							
13					-0.624									
				VERY DENSE										
14			SM											
		Gravelly SAND Grayish brown, Gravelly Sand; fine to medium grained.				SS	11		73|22					
15														
						CS	4							
16					-3.62									
17						CS	5							
18		*TUFF* Grayish brown, Highly weathered Tuff (siltstone); with gravel; very broken; friable to medium hard.	ROCK	SOFT ROCK										
						CS	6							
19														
20					-7.12									

Sheet No. : 2 of 3

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Aurora Blvd. cor. Tecson St., Manila*
Client :

Datum : *Ground Surface*
Elevation : *12.876*
Northings : *1617542.089*
Easthings : *498442.797*
Final Depth : *21.00 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TOHO Drilling Rig*
Casing Depth : *12.00 m.*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *3.00 m. (11-9-04)*

Log of Borehole : BH - 5A

Date Started : *11-5-04*
Date Completed : *11-9-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajarilo*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp |--o--| wl, 20 60)	Standard Penetration Test (N-value, 10 30 50)	Laboratory Test Results
		TUFF Grayish brown, Highly weathered Tuff (siltstone); with gravel; very broken; friable to medium hard.	ROCK	SOFT ROCK		CS	7							
21					-8.12									
		End of Log												
22														
23														
24														
25														
26														
27														
28														
29														
30														

Sheet No. : 3 of 3

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Zobel Roxas cor South Superhighway Mla*
Client :

Datum : *Ground Surface*
Elevation : *13.095*
Northings : *1611043.374*
Easthings : *500274.792*
Final Depth : *36.10 m.*

Drill Method : *Wash Boring*
Drill Machine : *TONY Drilling Machine*
Casing Depth : *12.00 m.*
Sampler : *50 mm. O.D. Splitspoon*
Water Table : *2.35 m. (11-18-04)*

Log of Borehole : BH - 06

Date Started : *11-14-04*
Date Completed : *11-18-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajarito*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp I--o--I wl, 20 60)	Standard Penetration Test N-value (10 30 50)	Laboratory Test Results
0		Ground Surface			13.1									
		SAND Grayish brown to gray, fine to medium Sand, with silt and gravel.	SM	VERY DENSE		SS	1		53					
1				MEDIUM DENSE		SS	2		11					
2		***Silty SAND*** Grayish brown, Silty fine Sand.	SM		11.1	SS	3		7					
3		***SAND*** Grayish brown, Fine Sand; with non-plastic silt.	SM	LOOSE	10.1	SS	4		6					
4						SS	5		10					
5						SS	6		6					
6		***Silty SAND*** Gray, Silty fine Sand; with shell fragments.		VERY LOOSE	7.1	SS	7		4					
7						SS	8		1|45					
8			SM			SS	9		3					Gs = 2.63
9		***Sandy SILT*** Gray, non-plastic Silt; sandy; trace of shell fragments.	ML	STIFF	4.1	SS	10		11					
10					3.1									

Sheet No. : 1 of 4

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Zobel Roxas cor South Superhighway Mla*
Client :

Datum : *Ground Surface*
Elevation : *13.095*
Northings : *1611043.374*
Easthings : *500274.792*
Final Depth : *36.10 m.*

Drill Method : *Wash Boring*
Drill Machine : *TONY Drilling Machine*
Casing Depth : *12.00 m.*
Sampler : *50 mm. O.D. Splitspoon*
Water Table : *2.35 m. (11-18-04)*

Log of Borehole : BH - 06

Date Started : *11-14-04*
Date Completed : *11-18-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajarito*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp l--o--l wl, 20–60)	Standard Penetration Test N-value (10–50)	Laboratory Test Results
				STIFF		SS	11		11					
11				FIRM		SS	12		9					
12			CH	STIFF		SS	13		10					Gs = 2.59
13						SS	14		20					
14				VERY STIFF		SS	15		22					
15		*CLAY* Gray to light brown, inorganic Clay; moderate to highly plastic; with highly weathered siltstone from 16.55-16.75 m.				SS	16		28					
16				VERY HARD		SS	17		50/5					
17			CH			SS	18		22					Gs = 2.73
18				VERY STIFF		SS	19		29					
19						SS	20		21					
20					-6.9									

Sheet No. : 2 of 4

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Zobel Roxas cor South Superhighway Mla*
Client :

Datum : *Ground Surface*
Elevation : *13.005*
Northings : *1611043.374*
Easthings : *500274.792*
Final Depth : *36.10 m.*

Drill Method : *Wash Boring*
Drill Machine : *TONY Drilling Machine*
Casing Depth : *12.00 m.*
Sampler : *50 mm. O.D. Splitspoon*
Water Table : *2.35 m. (11-18-04)*

Log of Borehole : BH - 06

Date Started : *11-14-04*
Date Completed : *11-18-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp I--o--I wl, 20–60)	Standard Penetration Test N-value (10–50)	Laboratory Test Results
21				VERY STIFF		SS	21		17					
22		***SILT*** Gray, Silt; non-plastic; trace of sand.	ML	STIFF		SS	22		12					
23						SS	23		12					
24				VERY STIFF	-10.9	SS	24		20					
25		***Silty SAND*** Gray, Silty fine Sand; trace of shell fragments.	SM	MEDIUM DENSE		SS	25		19					
26				DENSE	-12.9	SS	26		43					Gs = 2.58
27		***SAND*** Gray, fine Sand; with silt.	SM			SS	27		44					
28						SS	28		83(27					
29				VERY DENSE		SS	29		78					
30					-16.9	SS	30		78					

Sheet No. : 3 of 4

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Zobel Roxas cor South Superhighway Mla*
Client :

Datum : *Ground Surface*
Elevation : *13.095*
Northings : *1611043.374*
Easthings : *500274.792*
Final Depth : *36.10 m.*

Drill Method : *Wash Boring*
Drill Machine : *TONY Drilling Machine*
Casing Depth : *12.00 m.*
Sampler : *50 mm. O.D. Splitspoon*
Water Table : *2.35 m. (11-18-04)*

Log of Borehole : BH - 06

Date Started : *11-14-04*
Date Completed : *11-18-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajarito*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD
				DENSE		SS	31		45		
31		***Poorly-graded SAND*** Gray, poorly-graded Sand; fine to medium grained; trace of silt.	SP-SM			SS	32		57		
32						SS	33		76		
33					-19.9						
			SM	VERY DENSE		SS	34		83(19		
34		***SAND*** Gray, fine Sand; with silt.									
35						SS	35		61		
						SS	36		62		
36		***Gravelly SAND*** Gray, poorly-graded Sand; fine grained; gravelly; trace of silt.	SP-SM		-22.9	SS	37		30(10		
		End of Log									
37											
38											
39											
40											

Water Content: wp |--o--| wl (20, 60)

Standard Penetration Test: N-value (10, 30, 50)

Laboratory Test Results

Sheet No. : 4 of 4

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Zobel Roxas St., cor Caton St. Manila*
Client :

Datum : *Ground Surface*
Elevation : *13.08*
Northings : *1611315.094*
Eastings : *500554.831*
Final Depth : *15.00 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TONY Drilling Machine*
Casing Depth : *9.00 m.*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *1.90 m. (11-12-04)*

Log of Borehole : BH - 07

Date Started : *11-11-04*
Date Completed : *11-12-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Laboratory Test Results
0		Ground Surface			13.1							
		Sandy SILT Gray, Sandy Silt; non-plastic; trace of gravel and shell fragments.	ML	VERY SOFT		SS	1		2			
1				SOFT		SS	2		4			Gs = 2.32
2				STIFF		SS	3		10			
3		***SAND*** Gray, fine to medium Sand; with silt; trace of shell fragments.	SM	MEDIUM DENSE	10.1	SS	4		21			
4						SS	5		29			
5		***Sandy SILT*** Light gray, Sandy Silt; non-plastic; trace of highly weathered Tuff (siltstone).	ML	VERY STIFF	8.08	SS	6		29			Gs = 2.50
6		***GRAVEL*** Gray, Gravel; trace of sand.		VERY DENSE	7.08							
		Silty CLAY Brown to dark gray, Silty Clay; with moderate plasticity; trace of highly weathered siltstone.	CL	HARD	6.43	SS	7		100/25			Gs = 2.42
7						SS	8		46			
8		***TUFF*** Gray to reddish brown, Tuffaceous Sandstone inter-bedded with Siltstone; highly weathered; very broken to broken; medium hard.	ROCK	SOFT ROCK	5.08	SS	9		90/25			U.W. = 1.813 g/cm3 qu = 41.25 kg/cm2
9												
10												

Water Content (wp |--o--| wl, 20 – 60)

Standard Penetration Test (N-value, 10 – 30 – 50)

Sheet No. : 1 of 2

Project : *Study on Drainage Improvement in the . Core Area of Matro Manila*
Location : *Zobel Roxas St., cor Caton St. Manila*
Client :

Datum : *Ground Surface*
Elevation : *13.08*
Northings : *1611315.094*
Easthings : *500554.831*
Final Depth : *15.00 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TONY Drilling Machine*
Casing Depth : *9.00 m.*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *1.90 m. (11-12-04)*

Log of Borehole : BH - 07

Date Started : *11-11-04*
Date Completed : *11-12-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp |--o--| wl, 20 60)	Standard Penetration Test N-value (10 30 50)	Laboratory Test Results
					2.58	CS	1				0			
11						CS	2				0			
12		*TUFF* Reddish brown to light brown, Siltstone (Tuff); highly weathered; very broken to broken; medium hard.	ROCK	SOFT ROCK		CS	3				0			
13														
14						CS	4				0			
15					-1.92									
		End of Log												
16														
17														
18														
19														
20														

Sheet No. : 2 of 2

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Faraday St., South Superhighway, Manila*
Client :

Datum : *Ground Surface*
Elevation : *13.700*
Northings : *1609776.260*
Easthings : *500830.068*
Final Depth : *34.90 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TOHO Drilling Machine*
Casing Depth : *6.00 m. with PVC*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *1.00 m. (11-15-04)*

Log of Borehole : BH - 08

Date Started : *11-11-04*
Date Completed : *11-15-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Laboratory Test Results
		Ground Surface			13.7							
0–1		***Silty SAND*** Gray to brown, Silty fine Sand; trace of shell fragments from 2.55-3.00 m.	SM	VERY LOOSE		SS	1		4			Gs = 2.43
1–2				LOOSE		SS	2		5			
2–3				MEDIUM DENSE	10.7	SS	3		12			Gs = 2.52
3–4		***SAND*** Grayish brown, Sand; fine to medium grained; with silt; trace of highly weathered Sandstone.				SS	4		14			
4–5				VERY DENSE	8.75	SS	5		78(25			
5–6		***TUFF*** Grayish brown to brown; highly weathered Tuffaceous Sandstone inter-bedded with Siltstone.	ROCK	SOFT ROCK	7.7	CS	1				0	
6–7		***TUFF*** Brown to grayish brown, Siltstone; highly weathered; broken to very broken; medium hard.				CS	2				7	UW. = 1.603 g/cm3 qu = 10.38 kg/cm2
7–8						CS	3				27	UW. = 1.819 g/cm3 qu = 16.16 kg/cm2
8–9												
9–10												

Water Content: wp I--o--I wl (20 – 60)
Standard Penetration Test: N-value (10 – 30 – 50)

Sheet No. : 1 of 4

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Faraday St., South Superhighway, Manila*
Client :

Datum : *Ground Surface*
Elevation : *13.700*
Northings : *1609776.260*
Eastings : *500830.068*
Final Depth : *34.90 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TOHO Drilling Machine*
Casing Depth : *6.00 m. with PVC*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *1.00 m. (11-15-04)*

Log of Borehole : BH - 08

Date Started : *11-11-04*
Date Completed : *11-15-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp I--o--I wl, 20 60)	Standard Penetration Test N-value (10 30 50)	Laboratory Test Results
					3.2	CS	4				0			
11		*TUFF* Gray, inter-layer of Siltstone to Tuffaceous Sandstone; Slightly weathered, broken; medium hard.			1.7	CS	5				8			UW. = 1.729 g/cm3 qu = 19.89 kg/cm2
12														
13						CS	6				0			
14		*TUFF* Brown to light brown, Siltstone; highly weathered; very broken; friable to medium hard.				CS	7				0			
15			ROCK	SOFT ROCK										
16					-2.8	CS	8				0			
17		*TUFF* Gray, Siltstone with sub-rounded gravel; very weakly cemented and completely weathered silt matrix resulting from very poor or no recovery.				CS	9				0			
18						SS	6		50/10					
19						CS	10				0			
					-5.9	SS	7		50/10					
20														

Sheet No. : 2 of 4

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Faraday St., South Superhighway, Manila*
Client :

Datum : *Ground Surface*
Elevation : *13.700*
Northings : *1609776.260*
Easthings : *500830.068*
Final Depth : *34.90 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TOHO Drilling Machine*
Casing Depth : *6.00 m. with PVC*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *1.00 m. (11-15-04)*

Log of Borehole : BH - 08

Date Started : *11-11-04*
Date Completed : *11-15-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajarito*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp I--o--I wl, 20 60)	Standard Penetration Test N-value (10 30 50)	Laboratory Test Results
21						CS	11				0			
22						CS	12				0			
23		*TUFF* Grayish brown, Siltstone with gravel; with lenses of Tuffaceous Sandstone from 22.50-24.00 m.; highly weathered; very broken; friable to medium hard.				CS	13				0			
24						CS	14				0			
25			ROCK	SOFT ROCK	-11.8									
26						CS	15				0			
27		*TUFF* Grayish brown, Siltstone with gravel; highly weathered; very broken; friable to medium hard. (SM)				CS	16				0			
28						SS	8		80/18					
29						CS	17				0			
30					-16.3									

Sheet No. : 3 of 4

Project : *Study on Drainage Improvement in the . Core Area of Metro Manila*
Location : *Faraday St., South Superhighway, Manila*
Client :

Datum : *Ground Surface*
Elevation : *13.700*
Northings : *1609776.260*
Easthings : *500830.068*
Final Depth : *34.90 m.*

Drill Method : *Wash Boring and Coring*
Drill Machine : *TOHO Drilling Machine*
Casing Depth : *6.00 m. with PVC*
Sampler : *50 mm. O.D. Splitspoon + NQ Core Barrel*
Water Table : *1.00 m. (11-15-04)*

Log of Borehole : BH - 08

Date Started : *11-11-04*
Date Completed : *11-15-04*
Field Logged by : *R. Ramilo*
Tested by : *F. Fajardo*
Checked by: *Engr. H. Bambao*

Depth (m)	Symbol	Description	USCS Symbol	Consistency	Elevation	Sample	Number	Type	N-value	Recovery	% RQD	Water Content (wp I--o--I wl, 20 60)	Standard Penetration Test N-value (10 30 50)	Laboratory Test Results
31		*TUFF* Grayish brown, Siltstone with gravel; highly weathered; very broken; friable to medium hard	ROCK	SOFT ROCK		CS	18				0			
32						CS	19				0			
33					-19.3									
34		*TUFF* Gray to grayish brown; higly weathered Siltstone with sub-rounded gravel; sand matrix very weakly cemented and completely weathered.				CS	20				0			
					-21.2	SS	9		85(22					
35		End of Log												
36														
37														
38														
39														
40														

Sheet No. : 4 of 4

Summary of Laboratory Test Results

PROJECT	Study on Drainage Improvement in the Core Area of Metro Manila
LOCATION	Maypajo River beside Hermosa St., Manila

SUMMARY OF LABORATORY TEST RESULTS FOR BOREHOLE SAMPLES

BOREHOLE NO.	SAMPLE NO.	DEPTH (m)	USCS	NMC	ATTERBERG LIMITS			SIEVE ANALYSIS (% FINER) PASSING SIEVE NO.												Sp. Gr.	Unit Wt. (g/cm^3)	UCT (kg/cm^2)	CONSOLIDATION TEST	
					LL	PL	PI	3"	2"	1"	3/4"	1/2"	3/8"	# 4	# 10	# 20	# 40	# 100	# 200				C_c	e_o
BH - 01	SS - 1	0.55 - 1.00	SM	28	-	-	NP			100	86	74	72	62	50	39	29	17	13					
	SS - 2	1.55 - 2.00																						
	SS - 3	2.55 - 3.00																						
	SS - 4	3.55 - 4.00	SM	31	-	-	NP						100	99	99	97	95	39	27	2.67				
	SS - 5	4.55 - 5.00																						
	SS - 6	5.55 - 6.00																						
	SS - 7	6.55 - 7.00	SM	51	-	-	NP						100	99	95	87	77	56	48					
	SS - 8	7.55 - 7.95																						
	SS - 9	8.55 - 8.91	SM	48	-	-	NP						100	91	87	73	64	52	45	2.47				
	SS - 10	9.55 - 9.92																						
	SS - 11	10.55 - 10.90																						
	SS - 12	11.55 - 12.00																						
	SS - 13	12.55 - 13.00																						
	SS - 14	13.55 - 14.00	CL	42	49	27	22								100	98	92	82	78	2.53				
	SS - 15	14.55 - 15.00																						
	SS - 16	15.55 - 15.75																						
	SS - 17	16.55 - 16.67																						
	SS - 18	17.55 - 17.75																						
	SS - 19	18.55 - 19.00	ML	33	-	-	NP					100	93	92	91	91	90	65	55	2.60				
	SS - 20	19.55 - 19.98																						
	SS - 21	20.55 - 20.80																						
	SS - 22	21.55 - 21.78																						
	SS - 23	22.55 - 22.67																						
	SS - 24	23.55 - 23.81	SM	18	-	-	NP					100	91	79	62	49	38	23	17					
	SS - 25	24.55 - 24.75																						
	END OF BOREHOLE																							

REMARKS	LABORATORY TESTS CONDUCTED ON SELECTED SAMPLES ONLY!	SHEET NO.	1	1

PROJECT	Study on Drainage Improvement in the Core Area of Metro Manila
LOCATION	Hermosa St., corner Pilar St., Manila

SUMMARY OF LABORATORY TEST RESULTS FOR BOREHOLE SAMPLES

BOREHOLE NO.	SAMPLE NO.	DEPTH (m)	USCS	NMC	ATTERBERG LIMITS			SIEVE ANALYSIS (% FINER) PASSING SIEVE NO.												Sp. Gr.	Unit Wt. (g/cm^3)	UCT (kg/cm^2)	CONSOLIDATION TEST	
					LL	PL	PI	3"	2"	1"	3/4"	1/2"	3/8"	# 4	# 10	# 20	# 40	# 100	# 200				C_c	e_o
BH - 02	SS - 1	0.55 - 1.00																						
	SS - 2	1.55 - 2.00	ML	54	-	-	NP						100	94	88	81	74	57	50					
	SS - 3	2.55 - 3.00																						
	SS - 4	3.55 - 4.00																						
	SS - 5	4.55 - 5.00	SM	35	-	-	NP						100	92	83	77	60	22	15	2.43				
	SS - 6	5.55 - 6.00																						
	SS - 7	6.55 - 7.00																						
	SS - 8	7.55 - 7.83	SM	27	-	-	NP					100	95	92	86	76	56	30	23	2.47				
	CS - 1	7.83 - 9.50	ROCK																					
	CS - 2	9.50 - 11.00																						
	SS - 9	11.55 - 12.00																						
	SS - 10	12.55 - 13.00																						
	SS - 11	13.55 - 14.00	SM	36	-	-	NP						100	97	86	65	46	18	13	2.54				
	SS - 12	14.55 - 15.00																						
	SS - 13	15.55 - 16.00																						
	SS - 14	16.55 - 16.91	SP-SM	10	-	-	NP				100	85	79	67	39	27	19	12	10					
	SS - 15	17.55 - 17.80																						
	SS - 16	18.55 - 18.75																						
	SS - 17	19.55 - 19.90	SP-SM	16	-	-	NP				100	90	84	76	45	24	16	8	6	-				
	END OF BOREHOLE																							

REMARKS	LABORATORY TESTS CONDUCTED ON SELECTED SAMPLES ONLY!	SHEET NO.	1	1

PROJECT	Study on Drainage Improvement in the Core Area of Metro Manila
LOCATION	Aurora Blvd., corner Oroqueta St., Manila

SUMMARY OF LABORATORY TEST RESULTS FOR BOREHOLE SAMPLES

BOREHOLE NO.	SAMPLE NO.	DEPTH (m)	USCS	NMC	ATTERBERG LIMITS			SIEVE ANALYSIS (% FINER) PASSING SIEVE NO.												Sp. Gr.	Unit Wt. (g/cm^3)	UCT (kg/cm^2)	CONSOLIDATION TEST	
					LL	PL	PI	3"	2"	1"	3/4"	1/2"	3/8"	# 4	# 10	# 20	# 40	# 100	# 200				C_c	e_o
BH - 03	SS - 1	0.55 - 2.00																						
	SS - 2	2.55 - 3.00	SM	36	-	-	NP						100	98	94	90	86	58	20					
	SS - 3	3.55 - 4.00																						
	SS - 4	4.55 - 5.00																						
	SS - 5	5.55 - 6.00	CH	65	70	29	41									100	99	92	86	2.33				
	SS - 6	6.55 - 7.00																						
	SS - 7	7.55 - 8.00																						
	SS - 8	8.55 - 9.00	SM	61	-	-	NP							100	96	87	72	38	31	2.39				
	SS - 9	9.55 - 10.00																						
	SS - 10	10.55 - 11.00																						
	SS - 11	11.55 - 12.00																						
	SS - 12	12.55 - 13.00	SM	44	-	-	NP					100	98	93	81	68	58	33	25	2.39				
	SS - 13	13.55 - 14.00																						
	SS - 14	14.55 - 14.97	ML	9	-	-	NP				100	86	79	71	63	58	54	45	39	2.53				
	SS - 15	15.55 - 16.00																						
	SS - 16	16.55 - 16.72	SM	48	-	-	NP					100	90	74	59	46	39	27	22					
	SS - 17	17.55 - 17.68																						
	SS - 18	18.55 - 18.72																						
	SS - 19	19.55 - 19.67	SM	33	-	-	NP			100	94	82	82	73	63	51	43	32	27					
	CS - 1	19.67 - 21.00	ROCK																					
	CS - 2	21.00 - 22.50																						
	END OF BOREHOLE																							

REMARKS	LABORATORY TESTS CONDUCTED ON SELECTED SAMPLES ONLY!	SHEET NO.	1	1

PROJECT	Study on Drainage Improvement in the Core Area of Metro Manila
LOCATION	Blumentritt corner N.S. Amoranto ST., Quezon City

SUMMARY OF LABORATORY TEST RESULTS FOR BOREHOLE SAMPLES

BOREHOLE NO.	SAMPLE NO.	DEPTH (m)	USCS	NMC	ATTERBERG LIMITS			SIEVE ANALYSIS (% FINER) PASSING SIEVE NO.												Sp. Gr.	Unit Wt. (g/cm^3)	UCT (kg/cm^2)	CONSOLIDATION TEST	
					LL	PL	PI	3"	2"	1"	3/4"	1/2"	3/8"	# 4	# 10	# 20	# 40	# 100	# 200				C_c	e_o
BH - 04	SS - 1	0.55 - 1.00	SM	25	-	-	NP					100	92	79	67	55	45	31	25					
	SS - 2	1.55 - 2.00																						
	SS - 3	2.55 - 3.00	SP-SM	22	-	-	NP					100	93	83	67	47	27	15	11	2.63				
	SS - 4	3.55 - 4.00																						
	SS - 5	4.55 - 5.00																						
	SS - 6	5.55 - 5.82	SP-SM	12	-	-	NP				100	96	90	62	37	26	20	13	11	2.67				
	SS - 7	6.55 - 7.00																						
	SS - 8	7.55 - 7.65	SM	30	-	-	NP				100	83	75	64	55	45	38	29	24	2.43				
	CS - 1	7.65 - 9.00	ROCK																					
	CS - 2	9.00 - 10.50																			1.747	70.19		
	CS - 3	10.50 - 12.00																			1.679	67.91		
	CS - 4	12.00 - 13.50																						
	CS - 5	13.50 - 15.00																						
	CS - 6	15.00 - 16.50																			1.603	26.27		
	CS - 7	16.50 - 18.00																			1.662	23.78		
	CS - 8	18.00 - 20.00																						
	END OF BOREHOLE																							

REMARKS	LABORATORY TESTS CONDUCTED ON SELECTED SAMPLES ONLY!	SHEET NO.	1	1

PROJECT	Study on Drainage Improvement in the Core Area of Metro Manila
LOCATION	Blumentritt corner Dapitan St., Manila

SUMMARY OF LABORATORY TEST RESULTS FOR BOREHOLE SAMPLES

BOREHOLE NO.	SAMPLE NO.	DEPTH (m)	USCS	NMC	ATTERBERG LIMITS			SIEVE ANALYSIS (% FINER) PASSING SIEVE NO												Sp. Gr.	Unit Wt. (g/cm^3)	UCT (kg/cm^2)	CONSOLIDATION TEST	
					LL	PL	PI	3"	2"	1"	3/4"	1/2"	3/8"	# 4	# 10	# 20	# 40	# 100	# 200				C_c	e_o
BH - 05	SS - 1	0.55 - 1.00																						
	SS - 2	1.55 - 2.00	CH	43	62	26	36							100	100	98	96	90	85	2.45				
	SS - 3	2.55 - 2.90																						
	SS - 4	3.55 - 3.91	SM	19	-	-	NP					100	91	70	46	33	26	18	15	2.52				
	SS - 5	4.55 - 5.00																						
	SS - 6	5.55 - 6.00	GP-GM	9	-	-	NP			100	89	74	65	30	17	11	9	6	5					
	SS - 7	6.55 - 6.90																						
	SS - 8	7.55 - 7.95	ML	33	-	-	NP					100	96	86	80	74	68	56	48	2.42				
	CS - 1	7.95 - 9.00	ROCK																					
	CS - 2	9.00 - 10.50																			1.736	3.83		
	CS - 3	10.50 - 12.00																						
	CS - 4	12.00 - 13.50																			1.709	6.8		
	CS - 5	13.50 - 15.00																						
	CS - 6	15.00 - 16.50																						
	CS - 7	16.50 - 18.00																			1.758	26.23		
	CS - 8	18.00 - 20.00																						
	END OF BOREHOLE																							

REMARKS	LABORATORY TESTS CONDUCTED ON SELECTED SAMPLES ONLY!	SHEET NO.	1	1

PROJECT	Study on Drainage Improvement in the Core Area of Metro Manila
LOCATION	Aurora Blvd., corner Tecson St., Manila

SUMMARY OF LABORATORY TEST RESULTS FOR BOREHOLE SAMPLES

BOREHOLE NO.	SAMPLE NO.	DEPTH (m)	USCS	NMC	ATTERBERG LIMITS			SIEVE ANALYSIS (% FINER) PASSING SIEVE NO.												Sp. Gr.	Unit Wt. (g/cm^3)	UCT (kg/cm^2)	CONSOLIDATION TEST	
					LL	PL	PI	3"	2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#100	#200				C_c	e_o
BH - 05A	SS - 1	0.55 - 1.00	ML	32	-	-	NP							100	100	98	89	79	59					
	SS - 2	1.55 - 2.00																						
	SS - 3	2.55 - 3.00																						
	SS - 4	3.55 - 4.00	SM	34	-	-	NP				100	89	89	85	77	72	69	62	29	2.62				
	SS - 5	4.55 - 5.00																						
	SS - 6	5.55 - 6.00																						
	SS - 7	6.55 - 7.00	ML	53	-	-	NP								100	100	100	87	76	2.32				
	SS - 8	7.55 - 7.96																						
	CS - 1	7.96 - 9.00	ROCK																					
	CS - 2	9.00 - 10.50																						
	SS - 9	10.55 - 10.85	SP	11	-	-	NP			100	84	71	67	57	38	19	11	6	4					
	SS - 10	11.55 - 11.82																						
	CS - 3	11.82 - 13.50																						
	SS - 11	14.55 - 14.93	SM	26	-	-	NP				100	90	83	69	58	51	45	33	26					
	CS - 4	14.93 - 16.50																						
	CS - 5	16.50 - 18.00	ROCK																					
	CS - 6	18.00 - 19.50																						
	CS - 7	19.50 - 21.00																						
	END OF BOREHOLE																							

REMARKS	LABORATORY TESTS CONDUCTED ON SELECTED SAMPLES ONLY!	SHEET NO.	1	1

PROJECT	Study on Drainage Improvement in the Core Area of Metro Manila
LOCATION	Zobel Roxas St. corner South Superhighway, Manila

SUMMARY OF LABORATORY TEST RESULTS FOR BOREHOLE SAMPLES

BOREHOLE NO.	SAMPLE NO.	DEPTH (m)	USCS	NMC	ATTERBERG LIMITS			SIEVE ANALYSIS (% FINER) PASSING SIEVE NO.												Sp. Gr.	Unit Wt. (g/cm^3)	UCT (kg/cm^2)	CONSOLIDATION TEST	
					LL	PL	PI	3"	2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#100	#200				C_c	e_o
BH - 06	SS - 1	0.55 - 1.00	SM	22	--	--	NP				100	96	94	80	69	57	46	32	26					
	SS - 2	1.55 - 2.00																						
	SS - 3	2.55 - 3.00	SM	44	--	--	NP								100	97	85	57	48					
	SS - 4	3.55 - 4.00																						
	SS - 5	4.55 - 5.00	SM	26	--	--	NP						100	99	97	91	70	40	25					
	SS - 6	5.55 - 6.00																						
	SS - 7	6.55 - 7.00																						
	SS - 8	7.55 - 8.00																						
	SS - 9	8.55 - 9.00	SM	37	--	--	NP						100	98	95	91	88	66	44	2.63				
	SS - 10	9.55 - 10.00	ML	34	--	--	NP						100	99	95	91	88	71	63					
	SS - 11	10.55 - 11.00																						
	SS - 12	11.55 - 12.00																						
	SS - 13	12.55 - 13.00	CH	45	61	26	35					100	97	96	96	95	95	92	85	2.59				
	SS - 14	13.55 - 14.00																						
	SS - 15	14.55 - 15.00																						
	SS - 16	15.55 - 16.00																						
	SS - 17	16.55 - 16.75																						
	SS - 18	17.55 - 18.00	CH	75	76	27	49						100	99	99	99	99	98	97	2.73				
	SS - 19	18.55 - 19.00																						
	SS - 20	19.55 - 20.00																						
	SS - 21	20.55 - 21.00																						
	SS - 22	21.55 - 22.00	ML	71	--	--	NP									100	99	96	92					
	SS - 23	22.55 - 23.00																						
	SS - 24	23.55 - 24.00																						
	SS - 25	24.55 - 25.00																						
	SS - 26	25.55 - 26.00	SM	46	--	--	NP							100	96	91	82	50	42	2.58				
	SS - 27	26.55 - 27.00																						
	SS - 28	27.55 - 27.97	SM	36	--	--	NP									100	89	38	28					
	SS - 29	28.55 - 29.00																						
	SS - 30	29.55 - 30.00																						

REMARKS	LABORATORY TESTS CONDUCTED ON SELECTED SAMPLES ONLY!	SHEET NO.	1	1

PROJECT	Study on Drainage Improvement in the Core Area of Metro Manila
LOCATION	Zobel Roxas St. corner South Superhighway, Manila

SUMMARY OF LABORATORY TEST RESULTS FOR BOREHOLE SAMPLES

BOREHOLE NO.	SAMPLE NO.	DEPTH (m)	USCS	NMC	ATTERBERG LIMITS			SIEVE ANALYSIS (% FINER) PASSING SIEVE NO.												Sp. Gr.	Unit Wt. (g/cm^3)	UCT (kg/cm^2)	CONSOLIDATION TEST	
					LL	PL	PI	3"	2"	1"	3/4"	1/2"	3/8"	# 4	# 10	# 20	# 40	# 100	# 200				C_c	e_o
BH - 06	SS - 31	30.55 - 31.00																						
	SS - 32	31.55 - 32.00	SP-SM	39	--	--	NP							100	99	94	61	17	12					
	SS - 33	32.55 - 33.00																						
	SS - 34	33.55 - 33.89	SM	17	--	--	NP						100	99	98	97	86	32	25					
	SS - 35	34.55 - 35.00																						
	SS - 36	35.55 - 36.00																						
	SS - 37	36.00 - 36.10	SP-SM	22	--	--	NP					100	83	61	52	50	44	16	9					
	END OF BOREHOLE																							

REMARKS	LABORATORY TESTS CONDUCTED ON SELECTED SAMPLES ONLY!	SHEET NO.	2	2

PROJECT	Study on Drainage Improvement in the Core Area of Metro Manila
LOCATION	Zobel Roxas St. corner Caton St., Manila

SUMMARY OF LABORATORY TEST RESULTS FOR BOREHOLE SAMPLES

BOREHOLE NO.	SAMPLE NO.	DEPTH (m)	USCS	NMC	ATTERBERG LIMITS			SIEVE ANALYSIS (% FINER) PASSING SIEVE NO												Sp. Gr.	Unit Wt. (g/cm^3)	UCT (kg/cm^2)	CONSOLIDATION TEST	
					LL	PL	PI	3"	2"	1"	3/4"	1/2"	3/8"	# 4	# 10	# 20	# 40	# 100	# 200				C_c	e_o
BH - 07	SS - 1	0.55 - 1.00																						
	SS - 2	1.55 - 2.00	ML	55	--	--	NP						100	86	78	71	67	60	54	2.32				
	SS - 3	2.55 - 3.00																						
	SS - 4	3.55 - 4.00	SM	21	--	--	NP							100	97	89	63	28	22					
	SS - 5	4.55 - 5.00																						
	SS - 6	5.55 - 6.00	ML	54	--	--	NP							100	99	95	80	68	60	2.5				
	SS - 7	6.55 - 6.65																						
	SS - 8	7.55 - 8.00	CL	63	48	25	23					100	93	90	86	81	76	56	49	2.42				
	SS - 9	8.55 - 8.95																						
	CS - 1	8.95 - 10.50	ROCK																		1.813	41.25		
	CS - 2	10.50 - 12.00																						
	CS - 3	12.00 - 13.50																						
	CS - 4	13.50 - 15.00																						
	END OF BOREHOLE																							

REMARKS	LABORATORY TESTS CONDUCTED ON SELECTED SAMPLES ONLY!	SHEET NO.	1	1

PROJECT	Study on Drainage Improvement in the Core Area of Metro Manila
LOCATION	In front of Faraday St., South Superhighway

SUMMARY OF LABORATORY TEST RESULTS FOR BOREHOLE SAMPLES

BOREHOLE NO.	SAMPLE NO.	DEPTH (m)	USCS	NMC	ATTERBERG LIMITS			SIEVE ANALYSIS (% FINER) PASSING SIEVE NO												Sp. Gr.	Unit Wt. (g/cm^3)	UCT (kg/cm^2)	CONSOLIDATION TEST	
					LL	PL	PI	3"	2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#100	#200				C_c	e_o
BH - 08	SS - 1	0.55 - 1.00	SM	33	–	--	NP						100	90	80	72	66	54	44	2.43				
	SS - 2	1.55 - 2.00																						
	SS - 3	2.55 - 3.00	SM	53	–	--	NP					100	98	98	97	96	95	67	45	2.52				
	SS - 4	3.55 - 4.00																						
	SS - 5	4.55 - 4.95	SM	40	--	--	NP					100	95	90	77	61	44	21	15					
	CS - 1	4.95 - 6.00																						
	CS - 2	6.00 - 7.50																			1.603	10.38		
	CS - 3	7.50 - 9.00																			1.819	16.16		
	CS - 4	9.00 - 10.50																						
	CS - 5	10.50 - 12.00	ROCK																		1.729	19.99		
	CS - 6	12.00 - 13.50																						
	CS - 7	13.50 - 15.00																						
	CS - 8	15.00 - 16.50																						
	CS - 9	16.50 - 18.00			NO RECOVERY																			
	SS - 6	18.00 - 18.10			NO RECOVERY																			
	CS - 10	18.10 - 19.50	ROCK																					
	SS - 7	19.50 - 19.60			NO RECOVERY																			
	CS - 11	19.60 - 21.00																						
	CS - 12	21.00 - 22.50																						
	CS - 13	22.50 - 24.00	ROCK																					
	CS - 14	24.00 -25.50																						
	CS - 15	25.50 - 27.00																						
	CS - 16	27.00 - 28.50																						
	SS - 8	28.50 - 28.83	SM	16	–	--	NP				100	88	83	63	47	14	8	5	4					
	CS - 17	28.83 - 30.00																						
	CS - 18	30.00 - 31.50	ROCK																					
	CS - 19	31.50 - 33.00																						
	CS - 20	33.00 - 34.50																						
	SS - 9	34.50 - 34.90																						
	END OF BOREHOLE																							

REMARKS	LABORATORY TESTS CONDUCTED ON SELECTED SAMPLES ONLY!	SHEET NO.	1	1