

TABLE 2.1.1 (26/42) BORING LOG DB15


 PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA			SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA										BORING LOG												
Bore Hole	DB-16	Sheet	1 of 1	Ground Water Level (GWL)				meter	Date		9 - 10 - 1997 to 10 - 10 - 1997														
Location	URBAN DRAINAGE			Coordinate				X *	Y *	Drilled by			Asap / Sobandi												
Boring Depth	10.00 meter			Angle				Bearing			Logged by			Rudy Mulranto											
Elevation	- 0.970 meter			Drilling Machine				YBM - 3ES			Supervisor														
CLASSIFICATION AND DESCRIPTION OF MATERIAL																									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20						
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	CWL	DESCRIPTION	Standard Penetration Test			Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (γ _m)	Void Ratio, e	Atterberg Limits							
									N - Value Number of Blows per 30 Cm Penetration									● Plastic Limit (%) □ Plastic Index (%) ▲ Liquid Limit (%)							
									0	10	20	30	40	50				0	40	60	120	160	Type	Angle internal friction (°)	Cohesion (kg/cm ²)
9 OCTOBER 1997	1							0.00 - 4.20 m: SAND, grey, medium to very coarse grained, dense, well graded.																	
	2					SW		2.20 - 3.20 m: MASONRY, gravels, sand, clay, and red brick.																	
	3																								
	4			4.20																					
10 OCTOBER 1997	5			4.45		CH		4.20 - 4.45 m: SANDY CLAY, grey, high plasticity, firm, moist.																	
	6			5.30		SW		4.45 - 5.30 m: SAND, grey, medium to coarse grained, very loose, well graded.																	
	7							5.30 - 10.00 m: SANDY CLAY, grey, high plasticity, very soft to firm, moist.																	
	8					CH																			
	9																								
	10			10.00																					
	11							BOTTOM OF HOLE																	
	12																								
	13																								
	14																								
	15																								

TABLE 2.1.1 (27/42) BORING LOG DB16 (1/2)


 PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA			SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA										BORING LOG																
Bore Hole	DB-16	Sheet 1 of 2	Ground Water Level (GWL)					meter	Date					5-10-1997 to 7-10-1997															
Location	URBAN DRAINAGE		Coordinate					x *	y *					Drifted by		Asap / Sobandi													
Boring Depth	30.00 meter		Angle					Bearing					Logged by		Rudy Mujiarto														
Elevation	-1.455 meter		Drilling Machine					YBM-3ES					Supervisor																
CLASSIFICATION AND DESCRIPTION OF MATERIAL																													
1	2	3	4	5	6	7	8	9	12					13	14	15	16	17	18	19				20					
									Standard Penetration Test											Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (t/m ³)	Void Ratio, e	Atterberg Limits			
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	G.W.L	DESCRIPTION	N - Value Number of Blows per 30 Cm Penetration					● Plastic Limit (%) □ Plastic Index (%) ▲ Liquid Limit (%)															
									0	10	20	30	40	50						0	40	80	120	160					
								0.00 - 1.60 m: SANDY SILT, black to brown, low plasticity, very soft, wet to saturated.																					
				1.60				1.60 - 2.10 m: SAND, dark grey, very fine to medium grained, poorly graded, very loose, moist; occasionally gravels, with diameter up to 3.00 cm.																					
				2.10				2.10 - 3.00 m: SANDY CLAY, greyish brown, high plasticity, stiff, moist.																					
				3.00				3.00 - 5.00 m: SAND, dark grey to grey, fine to coarse grained, poorly to moderately graded, moderately dense.																					
				5.00				5.00 - 16.90 m: SANDY CLAY, grey, high plasticity, soft to firm, moist; occasionally mollusca shells.																					
5 OCTOBER 1997																													

TABLE 2.1.1 (28/42) BORING LOG DB16 (2/2)

PT. Geo ACE Jl. Pajajaran no. 125 BANDUNG, INDONESIA			SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA												BORING LOG											
Bore Hole : DB-16 Sheet 2 of 2			Ground Water Level (GWL) : meter						Date : 5-10-1997 to 7-10-1997																	
Location : URBAN DRAINAGE			Coordinate : x * y *						Drilled by : Asep / Sobandi																	
Boring Depth : 30.00 meter			Angle : Bearing						Logged by : Rudy Muiranto																	
Elevation : -1.435 meter			Drilling Machine : YBM-3ES						Supervisor																	
CLASSIFICATION AND DESCRIPTION OF MATERIAL																										
1	2	3	4	5	6	7	8	9	12					13	14	15	16	17	18	19				20		
									Standard Penetration Test											Coological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (γ _m)	Void Ratio, e	Atterberg Limits
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	GWL	DESCRIPTION	N - Value Number of Blows per 30 Cm Penetration					■ Plastic Limit (%) □ Plastic Index (%) ▲ Liquid Limit (%)				Type	Angle internal friction (°)							Cohesion (kg/cm ²)
									0	10	20	30	40	50						0	40	80	120	160		
5/10-97								5.00 - 16.90 m: SANDY CLAY, grey, high plasticity, soft to firm, moist; occasionally mollusca shells.																		
				16.90		CH	0.50																			
				17.55		SP		16.90 - 17.55 m: CLAYEY SAND, grey, very fine to fine grained, poorly graded, moderately dense.																		
								17.55 - 27.95 m: CLAY, brown, high plasticity, very stiff to hard, moist.																		
6 OCTOBER 1997						CH																				
							0.50																			
7 OCTOBER 1997								27.95 - 29.00 m: SILTY SAND, brownish grey, very fine to fine grained, poorly graded, very dense.																		
						SP																				
								29.00 - 30.00 m: CLAY, brown, high plasticity, hard, moist.																		
				30.00		CH	0.50																			

BOTTOM OF HOLE

LEGEND [Symbol] CORAS [Symbol] SP1 [Symbol] UDS

TABLE 2.1.1 (29/42) BORING LOG DB17

PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA		SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA												BORING LOG						
Bore Hole	08-17	Sheet	1 of 1		Ground Water Level (GWL)				meter		Date		2-10-1997 to 3-10-1997							
Location	URBAN DRAINAGE				Coordinate				x* y*		Ordered by		Asep / Sobandi							
Boring Depth	10.00 meter				Angle				Bearing		Logged by		Rudy Murenko							
Elevation	1135 meter				Drilling Machine				YBM-3E		Supervisor									
CLASSIFICATION AND DESCRIPTION OF MATERIAL																				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	GWL	DESCRIPTION	N-Value Number of Blows per 30 Cm Penetration	Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (γ _{ms})	Void Ratio, e	Atterberg Limits		Strength Test		
									0 10 20 30 40 50								<input type="checkbox"/> Plastic Limit (%) <input type="checkbox"/> Plastic Index (%) <input type="checkbox"/> Liquid Limit (%)	Type	Angle internal friction (°)	Cohesion (kg/cm ²)
2 OCTOBER 1997	1			1.40				0.00 - 1.40 m: SANDY CLAY, black to grey, medium to high plasticity, very soft, moist to wet.	0	rd										
	2			1.80				1.40 - 1.80 m: MASONRY.	50/3	B										
	3			2.10				1.80 - 2.10 m: SANDY CLAY, grey, high plasticity, very soft, moist.	3/30											
	4			4.60			0.00	2.10 - 4.60 m: SAND, grey, very fine to medium grained, poorly graded, very loose, moist.	3/30											
	5							4.60 - 10.00 m: SANDY CLAY, grey, high plasticity, very soft, moist, occasionally mollusca shells.	0/30	As										
3 OCTOBER 1997	6								4											
	7						0.00		6											
	8								7											
	9								8											
	10								9											
				10.00			0.00	BOTTOM OF HOLE	10											
									11											
									12											
									13											
									14											
									15											

LEGEND CORING SPT UO8

TABLE 2.1.1 (30/42) BORING LOG DB18

PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA			SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA										BORING LOG											
Bore Hole	DB-18	Sheet 1 of 1	Ground Water Level (GWL)		meter		Date	6-10-1997																
Location	URBAN DRAINAGE		Coordinate		x =	y =	Dated by	Sudarmadji																
Boring Depth	10.00 meter		Angle		Bearing		Logged by	Rudy Murtanto																
Elevation	-0.455 meter		Drilling Machine		YBM-3ES		Supervisor																	
CLASSIFICATION AND DESCRIPTION OF MATERIAL																								
1	2	3	4	5	6	7	8	9	12		13	14	15	16	17	18	19		20					
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	GWL	DESCRIPTION	Standard Penetration Test		Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (kN/m ³)	Void Ratio, e	Atterberg Limits		Strength Test					
									N - Value Number of Blows per 30 Cm Penetration								● Plastic Limit (%) □ Plastic Index (%) ▲ Liquid Limit (%)		Type	Angle internal friction (°)	Cohesion (kg/cm ²)			
									0	10	20	30	40	50				0	40	80	120	160		
6 OCTOBER 1997				0.40		SP		0.00 - 0.40 m: SAND, dark grey, fine to medium grained, loose, poorly graded, small amount of gravels, diameter up to 1.50 cm.	0			rd												
				1.15		CH		0.40 - 1.15 m: SILTY CLAY, light brown, stiff, high plasticity, moist.	1			R												
				1.55		SW				2														
				2.20		CH		1.15 - 1.55 m: SILTY SAND, light brown to greyish brown, medium to coarse grained, loose, well graded; occasionally gravels with diameter up to 1.00 cm.	3															
				3.55		SP				4														
										5														
								1.55 - 2.20 m: SANDY CLAY, greyish brown, high plasticity, firm, moist.	6															
										7														
								2.20 - 3.55 m: CLAYEY SAND, grey, very fine to fine grained, poorly graded, loose.	8															
										9														
									10															
				10.00		CH	4.10	3.55 - 10.00 m: SANDY CLAY, grey, high plasticity, soft to firm, moist; occasionally mollusca shells.																
								BOTTOM OF HOLE																

LEGENO CORONA SPT UDS

TABLE 2.1.1 (31/42) BORING LOG DB19

PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA			SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA												BORING LOG													
Bore Hole	DB-19	Sheet 1 of 1	Ground Water Level (GWL) : meter						Date	7 - 10 - 1997																		
Location	URBAN DRAINAGE						Coordinate	x = y =						Drilled by	Ace K / Kosasih													
Boring Depth	10.00 meter						Angle	Bearing :						Logged by	Rudy Mukanto													
Elevation	+ 0.270 meter						Drilling Machine	YBM - JES						Supervisor														
CLASSIFICATION AND DESCRIPTION OF MATERIAL																												
1	2	3	4	5	6	7	8	9	12						13	14	15	16	17	18	19					20		
									Standard Penetration Test												Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (γ _m)	Void Ratio, e	Atterberg Limits	
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	CWL	DESCRIPTION	N - Value Number of Blows per 30 Cm Penetration																		● Plastic Limit (%) □ Plastic Index (%) ▲ Liquid Limit (%)	
									0	10	20	30	40	50							0	40	80	120	160			
								0.00 - 2.50 m: SANDY CLAY, greyish brown, high plasticity, very soft moist containing anorganic materials and some amount of plant roots.																				
								2.50 - 3.10 m: CLAYEY SAND, grey, fine to medium grained, poorly graded, medium dense.																				
								3.10 - 7.35 m: SANDY CLAY, grey, high plasticity, very soft, moist.																				
								7.35 - 8.20 m: CLAYEY SAND, grey, fine to medium grained, poorly graded, very loose.																				
								8.20 - 10.00 m: SANDY CLAY, grey, high plasticity, very soft, moist.																				
								BOTTOM OF HOLE																				

TABLE 2.1.1 (32/42) BORING LOG DB20


 PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA			SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA											BORING LOG															
Bore Hole	DB-20	Sheet 1 of 1	Ground Water Level (GWL) : meter						Date		5-10-1997																		
Location			URBAN DRAINAGE						Coordinate		x = y =																		
Boring Depth			10.00 meter						Angle		Beasng																		
Elevation			+0.065 meter						Drilling Machine		YBM-3ES																		
									Dried by		Ade K / Kosasih																		
									Logged by		Rudy Mulanto																		
									Supervisor																				
CLASSIFICATION AND DESCRIPTION OF MATERIAL																													
1	2	3	4	5	6	7	8	9	12					13	14	15	16	17	18	19				20					
									Standard Penetration Test											Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (γ _{mo})	Void Ratio, e	Atterberg Limits			
Date	Scale	Elevation	Stratum Thickness	Depth (m)	Soil Profile	Classification	GWL	DESCRIPTION	N-Value Number of Blows per 30 Cm Penetration																				
				0.20						0 10 20 30 40 50																			
								0.00 - 0.20 m: SANDY SILT, black, low plasticity, very soft, moist occasionally organic and anorganic materials.																					
								2.50 - 10.00 m: SANDY CLAY, grey, high plasticity, very soft, moist																					
5 OCTOBER 1997																													
				10.00			1.35																						
								BOTTOM OF HOLE																					

TABLE 2.1.1 (33/42) BORING LOG DB21

PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA				SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA										BORING LOG														
Bore Hole : DB-21		Sheet : 1 of 1		Ground Water Level (GWL) : meter				Date : 30 - 9 - 1997																				
Location : URBAN DRAINAGE				Coordinate : x * y *				Drilled by : Komardi																				
Boring Depth : 10.00 meter				Angle : Bearing :				Logged by : Rudy Mukanto																				
Elevation : +0.950 meter				Drilling Machine : YSO-1				Supervisor :																				
CLASSIFICATION AND DESCRIPTION OF MATERIAL																												
1	2	3	4	5	6	7	8	9	12					13	14	15	16	17	18	19				20				
									Standard Penetration Test											Ecological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (t/m ³)	Void Ratio, e	Atterberg Limits		
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	GWL	DESCRIPTION	N - Value Number of Blows per 30 Cm Penetration					0	10	20	30	40	50							0	40	80
30 SEPTEMBER 1997	1							0.00 - 5.30 m: SANDY CLAY, brown to grey, high plasticity, very soft to soft, moist; containing some amount of mollusca shells and gravels with diameter up to 3.00 cm.	0											B								
	2																											
	3																											
	4						CH																					
	5				5.30																							
	6				5.60		SP		5.30 - 5.60 m: SAND, grey, very fine to medium grained, poorly graded, very loose.																			
	7								5.60 - 10.00 m: SILTY CLAY, grey, high plasticity, very soft to soft, moist to wet.																			
	8						CH																					
	9																											
	10				10.00			1.50																				
								BOTTOM OF HOLE																				

LEGEND: [Symbol] CORING [Symbol] SPT [Symbol] UDS

TABLE 2.1.1 (34/42) BORING LOG DB22

PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA			SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA												BORING LOG															
Bore Hole	08-22	Sheet 1 of 1	Ground Water Level (GWL)		meter		Date		1-10-1997		Location		URBAN DRAINAGE		Coordinate		x = y =		Drilled by		Ade K / Kosasih									
Boring Depth	10.00 meter		Angle		Bearing		Logged by		Rudy Mulianto		Elevation		+0.800 meter		Drilling Machine		YBM-3ES		Supervisor											
CLASSIFICATION AND DESCRIPTION OF MATERIAL																														
1	2	3	4	5	6	7	8	9	12								13	14	15	16	17	18	19				20			
									Standard Penetration Test														Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (γ _{mo})	Void Ratio, e	Atterberg Limits	
Date	Scale	Elevation	Stratum Thickness	Depth (m)	Soil Profile	Classification	GWL	DESCRIPTION	N - Value Number of Blows per 30 Cm Penetration																					● Plastic Limit (%) □ Plastic Index (%) ▲ Liquid Limit (%)
									0	10	20	30	40	50									0	40	80	120	160			
				0.50		SW		0.00 - 0.50 m: SAND, light grey, fine to coarse grained, well graded, loose, wet.																						
								0.50 - 10.00 m: SILTY CLAY, dark brown to greyish brown, high plasticity, soft, moist, occasionally mollusca shells in 6.00 m depth.																						
1																														
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10				10.00			2.10																							
								BOTTOM OF HOLE																						
11																														
12																														
13																														
14																														
15																														

LEGEND: CORING SPT UDS

TABLE 2.1.1 (35/42) BORING LOG DB23

PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA			SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA												BORING LOG												
Bore Hole	05-23	Sheet 1 of 1	Ground Water Level (GWL) : meter										Date	4-10-1997													
Location: URBAN DRAINAGE			Coordinate: ° ° °										Drilled by: Ade K. Kosasih														
Boring Depth: 10.00 meter			Angle: ° ° °										Logged by: Rusy Mulianto														
Elevation: +0.700 meter			Drilling Machine: YBM-3ES										Supervisor:														
CLASSIFICATION AND DESCRIPTION OF MATERIAL																											
1	2	3	4	5	6	7	8	9	12 Standard Penetration Test					13	14	15	16	17	18	19				20			
									N-Value Number of Blows per 30 Cm Penetration											Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (γ _{sat})	Void Ratio, e	Atterberg Limits	
					0 10 20 30 40 50									● Plastic Limit (%) □ Plastic Index (%) ▲ Liquid Limit (%)													
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	GWL	DESCRIPTION															Type	Angle internal friction (°)	Cohesion (kg/cm ²)		
4 OCTOBER 1997				0.30		CH		0.00 - 0.30 m: SANDY CLAY, grey, very soft, high plasticity, moist containing organic and anorganic materials.																			
						SP		0.30 - 3.40 m: CLAYEY SAND, grey, very fine to fine grained, very loose, poorly graded, moist to wet																			
				3.40				3.40 - 10.00 m: SANDY-SILTY CLAY, grey, moderately to high plasticity, very soft, moist to wet																			
						CH																					
							3.00																				
				10.00				BOTTOM OF HOLE																			

LEGEND: CORING SPT UOS

TABLE 2.1.1 (36/42) BORING LOG DB24

PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA		SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA												BORING LOG										
Bore Hole : DB-24	Sheet : 1 of 1	Ground Water Level (GWL) : meter										Date : 9 - 10 - 1997												
Location : URBAN DRAINAGE		Coordinate : * * * * * Y *										Drilled by : Sudarmadji												
Boring Depth : 10.00 meter		Angle : Bearing :										Logged by : Rudy Murtanto												
Elevation : ± 0 ± 15 meter		Drilling Machine : YBM - 3ES										Supervisor :												
CLASSIFICATION AND DESCRIPTION OF MATERIAL																								
1	2	3	4	5	6	7	8	9	12			13	14	15	16	17	18	19		20				
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	GWL	DESCRIPTION	Standard Penetration Test			Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (k/m ³)	Void Ratio, e	Atterberg Limits		Strength Test				
									N - Value Number of Blows per 30 Cm Penetration									● Plastic Limit (%)	□ Plastic Index (%)	▲ Liquid Limit (%)	Type	Angle internal friction (°)	Cohesion (kg/cm ²)	
									0	10	20	30	40	50				0	40	80	120	160		
9 OCTOBER 1997	1					ML		0.00 - 1.90 m: CLAYEY SILT, black very soft, lo plasticity, wet.	0				1/30											
	2			1.90		SW		1.90 - 3.00 m: SAND, reddish brown, medium to coarse grained, well graded, moderately dense; occasionally gravels with diameter up to 2.00 cm.	1				25/30											
	3			3.00				3.00 - 3.55 m: CORRAL.	2				47/30											
	4			3.55				3.55 - 10.00 m: SANDY CLAY, grey, firm, high plasticity, moist; some amount of mollusca shells.	3				5/30											
	5								4				4/30											
	6								5				8/30											
	7					CH			6				6/30											
	8								7				5/30											
	9								8				5/30											
	10			10.00				0.20		9				5/30										
								BOTTOM OF HOLE	10				5/30	Ac										
									11															
									12															
									13															
									14															
									15															

LEGEND ESTER CORING SPT UDS

TABLE 2.1.1 (37/42) BORING LOG DB25

PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA			SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA										BORING LOG												
Bore Hole	DB-25	Sheet 1 of 1	Ground Water Level (GWL) : meter					Date : 7-10-1997 to 8-10-1997																	
Location	URBAN DRAINAGE		Coordinate : x = y =					Drilled by : Sudarnadj																	
Boring Depth	10.00 meter		Angle : Bearing					Logged by : Rudy Muerto																	
Elevation	- 0.015 meter		Drilling Machine : YBM-3ES					Supervisor																	
CLASSIFICATION AND DESCRIPTION OF MATERIAL																									
1	2	3	4	5	6	7	8	9	12		13	14	15	16	17	18	19		20						
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	GWL	DESCRIPTION	Standard Penetration Test N - Value Number of Blows per 30 Cm Penetration		Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (γ _m)	Void Ratio, e	Atterberg Limits ● Plastic Limit (%) □ Shrinkage Limit (%) ▲ Liquid Limit (%)		Strength Test						
									0	10	20	30	40	50				0	40	80	120	160	Type	Angle internal friction (°)	Cohesion (kg/cm ²)
7 OCTOBER 1997				0.70		SW		0.00 - 0.70 m: GRAVELLY SAND, gray, medium to very coarse grained, well graded, very dense. Gravels: diameter up to 2.00 cm.	0		B														
							370	0.70 - 10.00 m: SANDY CLAY, gray, high plasticity, very soft to firm, moist.	1	2															
									3	4															
									5	6															
									7	8															
8 OCTOBER 1997									9	10															
				10.00			415				Ac														
								BOTTOM OF HOLE																	

LEGEND: CORING SPT UDS

TABLE 2.1.1 (38/42) BORING LOG DB26 (1/3)

PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA				SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA											BORING LOG																							
Bore Hole: DB-26		Sheet: 1 of 3		Ground Water Level (GWL):				meter		Date: 11-10-1997 to 13-10-1997				Drilled by: Sudarmadji																								
Location: URBAN DRAINAGE				Coordinate: x = y =				Angle: Bearing:				Logged by: Rudy Mukranto		Supervisor:																								
Boring Depth: 35.00 meter				Elevation: -0.220 meter				Drilling Machine: YBM-3ES																														
CLASSIFICATION AND DESCRIPTION OF MATERIAL																																						
1	2	3	4	5	6	7	8	9	12					13	14	15	16	17	18	19				20														
									Standard Penetration Test											N - Value Number of Blows per 30 Cm Penetration				Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (γ _m)	Void Ratio, e	Atterberg Limits				Type	Strength Test			
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	GWL	DESCRIPTION	0	10	20	30	40	50	Plastic Limit (%)	Plastic Index (%)	Liquid Limit (%)	Type	Angle internal friction (°)	Cohesion (kg/cm ²)																		
									0.00 - 0.55 m: SANDY SILT, black, very soft, low plasticity, wet to saturated.				0.55 - 1.55 m: WOOD.								1.55 - 18.00 m: SANDY CLAY, grey, high plasticity, soft to firm, moist; occasionally mollusca shells.																	
11 OCTOBER 1997						ML CL			0																													
									1																													
									2						4/30																							
									3						7/30																							
									4						3/30																							
									5						3/30																							
									6						4/30																							
									7						5/30																							
									8						6/30																							
									9						5/30																							
							CH		10																													
									11						6/30																							
									12						6/30																							
									13						7/30																							
									14						7/30																							
									15																													
LEGEND: CORING SPT VDS																																						

TABLE 2.1.1 (39/42) BORING LOG DB26 (2/3)

PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA			SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA										BORING LOG																												
Bore Hole: DB-26 Sheet 2 of 3			Ground Water Level (GWL): meter						Date: 11-10-1997 to 13-10-1997																																
Location: URBAN DRAINAGE			Coordinate: x = y =						Dated by: Sudarmadj																																
Boring Depth: 35.00 meter			Angle: Bearing:						Logged by: Rudy Mukanto																																
Elevation: -0.220 meter			Drilling Machine: YBM-3ES						Supervisor:																																
CLASSIFICATION AND DESCRIPTION OF MATERIAL																																									
1	2	3	4	5	6	7	8	9	12					13	14	15	16	17	18	19				20																	
									Standard Penetration Test											Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (t/m ³)	Void Ratio, e	Atterberg Limits				Strength Test											
Date	State	Elevation	Stratum Thickness	Depth (m)	Soil Profile	Classification	GWL	DESCRIPTION	N-Value Number of Blows per 30 Cm Penetration																																
									0 10 20 30 40 50																																
15	11/10 - 1997							1.55 - 18.00 m: SANDY CLAY, grey, high plasticity, soft to firm, moist; occasionally mollusca shells.	15																																
16									16																																
17									17																																
18				18.00				18.00 - 35.00 m: CLAY, brownish grey to brown, high plasticity, stiff to hard, moist; small amount of gravels with diameter up to 1.00 cm.	18																																
19									19																																
20									20																																
21									21																																
22									22																																
23	12 OCTOBER 1997								23																																
24									24																																
25									25																																
26									26																																
27									27																																
28									28																																
29									29																																
30									30																																

LEGEND: [Symbol] CORING [Symbol] SPT [Symbol] UDS

TABLE 2.1.1 (40/42) BORING LOG DB26 (3/3)





PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA			SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA										BORING LOG												
Bore Hole : DB-26 Sheet 3 of 3			Ground Water Level (GWL) : meter					Date : 11-10-1997 to 13-10-1997																	
Location : URBAN DRAINAGE			Coordinate : x = y =					Drilled by : Sudarmaji																	
Boring Depth : 35.00 meter			Angle : Bearing :					Logged by : Rudy Muranto																	
Elevation : -0.220 meter			Drilling Machine : YBM-JES					Supervisor :																	
CLASSIFICATION AND DESCRIPTION OF MATERIAL																									
1	2	3	4	5	6	7	8	9	12					13	14	15	16	17	18	19			20		
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	GWL	DESCRIPTION	Standard Penetration Test					Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (γ _m)	Void Ratio, e	Atterberg Limits				Strength Test	
									N-Value Number of Blows per 30 Cm Penetration											Type	Angle internal friction (°)	Cohesion (kg/cm ²)			
								0	10	20	30	40	50						0				40	80	120
13 OCTOBER 1997				35.00		CH	6.55	18.00 - 35.00 m: CLAY, brownish grey to brown, high plasticity, stiff to hard, moist, small amount of gravels with diameter up to 1.00 cm.																	
								BOTTOM OF HOLE																	

LEGEND CORING SPT UGS

TABLE 2.1.1 (41/42) BORING LOG DB27 (1/2)

PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA		SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA										BORING LOG																	
Bore Hole	DB-27	Sheet	1	of	2	Ground Water Level (GWL)				meter	Date	22 - 10 - 1997 to 24 - 10 - 1997																	
Location	URBAN DRAINAGE					Coordinate		x =	Y =	Drilled by	Sudarmadj																		
Boring Depth	30.00 meter					Angle		Bearing :		Logged by	Rudy Muranto																		
Elevation	- 0.400 meter					Drilling Machine		YBM - 3ES		Supervisor																			
CLASSIFICATION AND DESCRIPTION OF MATERIAL																													
1	2	3	4	5	6	7	8	9				12	13	14	15	16	17	18	19		20								
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	GWL	DESCRIPTION				Standard Penetration Test					Geological Strata	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (k/m ³)	Void Ratio, e	Atterberg Limits				Strength Test		
												N - Value Number of Blows per 30 Cm Penetration											● Plastic Limit (%) □ Plastic Index (%) ▲ Liquid Limit (%)				Type	Angle internal friction (°)	Cohesion (kg/cm ²)
				0.30								0								0	40	80	120	160					
								0.00 - 0.30 m: RETAINING WALL.																					
								0.30 - 4.00 m: SANDY-CLAYEY SILT, grey, low to medium plasticity, very soft to soft, moist to wet; small amount of mollusca shells, and some plant roots.				1	2/30																
						ML						2	1/30																
												3	3/30																
				4.00				4.00 - 4.50 m: CLAYEY SAND, grey, very fine to fine grained, poorly graded, very loose; containing some amount of mollusca shells.				4	1/30																
						SP						5	3/30																
				4.50				4.50 - 18.00 m: SANDY CLAY, grey, high plasticity, soft to firm, moist; having some amount of mollusca shells.				6																	
												7	3/30																
												8	3/30																
												9	3/30																
												10	3/30																
						CH	1.70					11																	
												12	3/30																
												13	5/30																
												14	6/30																
												15	7/30																
								BOTTOM OF HOLE																					

TABLE 2.1.1 (42/42) BORING LOG DB27 (2/2)

 PT. Geo ACE Jln. Pajajaran no. 125 BANDUNG, INDONESIA			SOIL MECHANICS SURVEY FOR THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA											BORING LOG																				
Bore Hole	DB-27	Sheet 2 of 2	Ground Water Level (GWL):		Coordinates		Date																											
Location	URBAN DRAINAGE		meter		* * * *		22 - 10 - 1997 to 24 - 10 - 1997																											
Boring Depth:	30.00 meter		Angle		Bearing		Drilled by		Sudannadj																									
Elevation	-0.049 meter		Drilling Machine		YBM-3ES		Logged by		Rudy Murtanto																									
													Supervisor																					
CLASSIFICATION AND DESCRIPTION OF MATERIAL																																		
1	2	3	4	5	6	7	8	9	12					13	14	15	16	17	18	19				20										
									Standard Penetration Test											Core Barrel Type	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (k/m ³)	Void Ratio, e	Atterberg Limits				Strength Test				
Date	Scale	Elevation	Stratum Thickness	Depth(m)	Soil Profile	Classification	GWL	DESCRIPTION	N-Value Number of Blows per 30 Cm Penetration					Core Barrel Type	Method of Sampling	Specific Gravity	Water Content (%)	Unit Weight (k/m ³)	Void Ratio, e							Atterberg Limits				Strength Test				
									0	10	20	30	40							50														
21 AUGUST 1997																																		
15								4.50 - 18.00 m: SANDY CLAY, grey, high plasticity, soft to firm, moist; having some amount of mollusca shells.				15/30																						
16																																		
17																																		
18				18.00																														
19								18.00 - 30.00 m: CLAY, grey to brown, high plasticity, stiff to hard, moist.																										
20																																		
21																																		
22							CH																											
23																																		
24															Ac																			
25																																		
26																																		
27							0.80																											
28																																		
29																																		
30				30.00											OC																			
BOTTOM OF HOLE													LEGEND:  CORAG  SPT  UGS																					

**TABLE 2.1.2 (1/9) SUMMARY OF LABORATORY TEST RESULTS (1/9)
FOUNDATION INVESTIGATION**

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			DB - 26	DB - 26	DB - 26	DB - 27
	DEPTH (m)			9.00 - 9.60	14.00 - 14.60	19.00 - 19.60	5.00 - 5.60
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.667	2.761	2.615	2.672
2	Natural Water Content	Wn	%	84.23	92.79	70.72	70.28
3	Unit Weight, Natural State	γ_m	t/m ³	1.517	1.561	1.576	1.628
4	Dry Unit Weight	γ_d	t/m ³	0.823	0.810	0.923	0.956
5	Natural Void Ratio	e	-	2.239	2.410	1.833	1.795
6	Natural Porosity	n	%	69.125	70.674	64.698	64.219
7	Degree of Saturation	Sr	%	100.000	100.000	100.000	100.000
8	Saturation of Water Content	Wsat	%	84.230	92.790	70.720	70.280
9	Saturation Unit Weight	γ_{sat}	t/m ³	1.517	1.561	1.576	1.628
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	114.16	115.14	112.67	73.13
13	Plastic Limit	PL	%	35.22	33.65	32.29	29.57
14	Plasticity Index	PI	%	78.93	81.48	80.38	43.56
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	97.10	96.50	96.10	87.50
17	U.U.	Triaxial Compression Test		ϕ	deg	1.212	-
				c	kg/cm ²	0.012	-
	C.U.	Triaxial Compression Test	Total	ϕ	deg		0.027
			Effective	c	kg/cm ²		
18	Consolidation Test	Cc		-	0.686	-	0.356
		Pc	kg/cm ²	-	0.3683	-	0.8312
19	N Value		blow				

f: c:\data\ssmg97\lab\uds\DB

**TABLE 2.1.2 (1/9) SUMMARY OF LABORATORY TEST RESULTS (2/9)
FOUNDATION INVESTIGATION**

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			DB - 27	DB - 27
	DEPTH (m)			10.00 - 10.60	15.00 - 15.70
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH
1	Specific Gravity	G	-	2.759	2.640
2	Natural Water Content	Wn	%	86.61	71.62
3	Unit Weight, Natural State	γ_m	U/m^3	1.501	1.576
4	Dry Unit Weight	γ_d	U/m^3	0.804	0.918
5	Natural Void Ratio	e	-	2.430	1.875
6	Natural Porosity	n	%	70.846	65.216
7	Degree of Saturation	Sr	%	98.332	100.000
8	Saturation of Water Content	Wsat	%	88.079	71.620
9	Saturation Unit Weight	γ_{sat}	U/m^3	1.513	1.576
10	Unconfined Compr. Strength	qu	kg/cm ²		
11	Sensitivity	St	-		
12	Liquid Limit	LL	%	97.94	93.92
13	Plastic Limit	PL	%	34.09	28.85
14	Plasticity Index	PI	%	63.84	65.07
15	Shrinkage Limit	SL	%		
16	% Passing 200 US Stand Sieve	-	%	94.70	95.70
17	U.U.	Triaxial Compression Test		ϕ	deg
				c	kg/cm ²
	C.U.	Triaxial Compression Test	Total	ϕ	deg
				c	kg/cm ²
		Effective	ϕ	deg	
		c	kg/cm ²		
18	Consolidation Test		Cc		
			Pc	kg/cm ²	
19	N Value			blow	

f: c:\data\ssmg97\lab\uds\DB

**TABLE 2.1.2 (1/9) SUMMARY OF LABORATORY TEST RESULTS (3/9)
FOUNDATION INVESTIGATION**

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			DB - 7	DB - 8	DB - 8	DB - 8
	DEPTH (m)			15.00 - 15.70	5.00 - 5.70	10.00 - 10.70	15.00 - 15.70
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.725	2.760	2.650	2.635
2	Natural Water Content	Wn	%	80.86	45.38	78.21	73.47
3	Unit Weight, Natural State	γ_m	t/m ³	1.538	1.797	1.576	1.583
4	Dry Unit Weight	γ_d	t/m ³	0.850	1.236	0.884	0.913
5	Natural Void Ratio	e	-	2.204	1.233	1.997	1.888
6	Natural Porosity	n	%	68.793	55.215	66.628	65.368
7	Degree of Saturation	Sr	%	99.954	100.000	100.000	100.000
8	Saturation of Water Content	Wsat	%	80.897	45.380	78.210	73.470
9	Saturation Unit Weight	γ_{sat}	t/m ³	1.538	1.797	1.576	1.583
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensivity	St	-				
12	Liquid Limit	LL	%	113.09	74.39	97.94	126.15
13	Plastic Limit	PL	%	33.33	28.57	33.52	33.98
14	Plasticity Index	PI	%	79.76	45.82	64.43	92.17
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	97.50	65.50	96.90	98.10
17	U.U.	Triaxial Compression Test		ϕ	deg	1.108	10.206
				c	kg/cm ²	0.025	0.060
	C.U.	Triaxial Compression Test	Total	ϕ	deg		
			Effective	c	kg/cm ²		
18	Consolidation Test		Cc			0.645	
			Pc	kg/cm ²		0.4564	
19	N Value			blow			

f: c:\data\ssmg97\lab\uds\DB

**TABLE 2.1.2 (1/9) SUMMARY OF LABORATORY TEST RESULTS (4/9)
FOUNDATION INVESTIGATION**

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			DB - 9	DB - 9	DB - 9	
	DEPTH (m)			8.00 - 8.70	11.00 - 11.70	15.00 - 15.70	
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	
1	Specific Gravity	G	-	2.667	2.690	2.651	
2	Natural Water Content	Wn	%	92.66	62.60	83.43	
3	Unit Weight, Natural State	γ_m	$1/m^3$	1.525	1.651	1.611	
4	Dry Unit Weight	γ_d	$1/m^3$	0.792	1.015	0.878	
5	Natural Void Ratio	e	-	2.369	1.649	2.018	
6	Natural Porosity	n	%	70.321	62.254	66.870	
7	Degree of Saturation	Sr	%	100.000	100.000	100.000	
8	Saturation of Water Content	Wsat	%	92.660	62.600	83.430	
9	Saturation Unit Weight	γ_{sat}	$1/m^3$	1.525	1.651	1.611	
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	83.71	100.25	87.14	
13	Plastic Limit	PL	%	31.18	26.09	31.37	
14	Plasticity Index	PI	%	52.53	74.16	55.77	
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	96.10	95.40	97.40	
17	U.U.	Triaxial Compression Test		ϕ	deg	0.969	2.773
		C.U.	Triaxial Compression Test	Total	ϕ	deg	0.015
	Effective			c	kg/cm ²		
		c	kg/cm ²				
18	Consolidation Test		Cc			0.675	
			Pc	kg/cm ²		0.5430	
19	N Value			blow			

f: c:\data\ssmg97.lab\uds\DB

**TABLE 2.1.2 (1/9) SUMMARY OF LABORATORY TEST RESULTS (5/9)
FOUNDATION INVESTIGATION**

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			DB - 5	DB - 5	DB - 5	DB - 6
	DEPTH (m)			5.00 - 5.60	10.00 - 10.60	15.00 - 15.60	5.00 - 5.60
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.517	2.553	2.517	2.531
2	Natural Water Content	Wn	%	68.07	91.49	70.22	80.12
3	Unit Weight, Natural State	γ_m	U/m^3	1.504	1.498	1.575	1.558
4	Dry Unit Weight	γ_d	U/m^3	0.895	0.782	0.925	0.865
5	Natural Void Ratio	e	-	1.813	2.264	1.721	1.926
6	Natural Porosity	n	%	64.447	69.358	63.249	65.825
7	Degree of Saturation	Sr	%	94.517	100.000	100.000	100.000
8	Saturation of Water Content	Wsat	%	72.019	91.490	70.220	80.120
9	Saturation Unit Weight	γ_{sat}	U/m^3	1.539	1.498	1.575	1.558
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	128.96	122.27	105.44	92.39
13	Plastic Limit	PL	%	37.50	33.71	31.71	32.03
14	Plasticity Index	PI	%	91.46	88.57	73.73	60.36
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	89.20	97.80	97.30	98.80
17	U.U.	Triaxial Compression Test		ϕ	deg		
		C.U.	Triaxial Compression Test	Total	ϕ	deg	
	Effective			c	kg/cm ²		
				c	kg/cm ²		
18	Consolidation Test			Cc		0.735	
				Pc	kg/cm ²	0.3765	
19	N Value						
			blow				

f: c:\data\smg97\lab\uds\DB

TABLE 2.1.2 (1/9) SUMMARY OF LABORATORY TEST RESULTS (6/9)
FOUNDATION INVESTIGATION

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			DB - 6	DB - 6	DB - 7	DB - 7
	DEPTH (m)			10.00 - 10.60	15.00 - 15.60	5.00 - 5.70	11.00 - 11.70
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.548	2.562	2.734	2.749
2	Natural Water Content	Wn	%	64.59	70.48	96.53	71.35
3	Unit Weight, Natural State	γ_m	t/m ³	1.609	1.552	1.560	1.623
4	Dry Unit Weight	γ_d	t/m ³	0.978	0.910	0.794	0.947
5	Natural Void Ratio	e	-	1.606	1.814	2.444	1.902
6	Natural Porosity	n	%	61.633	64.466	70.967	65.544
7	Degree of Saturation	Sr	%	100.000	99.529	100.000	100.000
8	Saturation of Water Content	Wsat	%	64.590	70.813	96.530	71.350
9	Saturation Unit Weight	γ_{sat}	t/m ³	1.609	1.555	1.560	1.623
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	88.36	121.50	102.23	89.20
13	Plastic Limit	PL	%	27.49	34.48	36.08	26.32
14	Plasticity Index	PI	%	60.88	87.02	66.15	62.88
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	88.90	92.10	92.60	93.50
17	U.U.	Triaxial Compression Test		ϕ	deg	1.673	2.064
				c	kg/cm ²	0.014	0.012
	C.U.	Triaxial Compression Test	Total	ϕ	deg		
			Effective	c	kg/cm ²		
18	Consolidation Test		Cc	-		0.723	0.878
			Pc	kg/cm ²		0.5741	0.5117
19	N Value			blow			

f: c:\data\ssmg97\lab\uds\DB

TABLE 2.1.2 (1/9) SUMMARY OF LABORATORY TEST RESULTS (7/9)
FOUNDATION INVESTIGATION

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			DB - 2	DB - 2	DB - 3	DB - 3	
	DEPTH (m)			10.00 - 10.55	15.00 - 15.55	5.00 - 5.55	10.00 - 10.55	
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH	
1	Specific Gravity	G	-	2.743	2.701	2.717	2.767	
2	Natural Water Content	Wn	%	93.10	85.05	48.11	81.59	
3	Unit Weight, Natural State	γ_m	t/m^3	1.520	1.534	1.699	1.534	
4	Dry Unit Weight	γ_d	t/m^3	0.787	0.829	1.147	0.845	
5	Natural Void Ratio	e	-	2.485	2.258	1.369	2.275	
6	Natural Porosity	n	%	71.303	69.309	57.780	69.470	
7	Degree of Saturation	Sr	%	100.000	100.000	95.514	99.214	
8	Saturation of Water Content	Wsat	%	93.100	85.050	50.370	82.237	
9	Saturation Unit Weight	γ_{sat}	t/m^3	1.520	1.534	1.725	1.539	
10	Unconfined Compr. Strength	qu	kg/cm ²					
11	Sensivity	St	-					
12	Liquid Limit	LL	%	99.38	102.94	55.89	90.77	
13	Plastic Limit	PL	%	39.26	34.38	28.70	30.65	
14	Plasticity Index	PI	%	60.12	68.56	27.18	60.13	
15	Shrinkage Limit	SL	%					
16	% Passing 200 US Stand Sieve	-	%	98.00	97.20	54.40	97.10	
17	U.U.	Triaxial Compression Test		ϕ	deg			
				c	kg/cm ²	0.999	4.270	
	C.U.	Triaxial Compression Test	Total	ϕ	deg		0.030	0.028
				c	kg/cm ²			
		Effective	ϕ	deg				
18	Consolidation Test			c	kg/cm ²			
				Cc		0.715		
19	N Value			Pc	kg/cm ²	0.2305		
					blow			

f: c:\data\ssmg97.lab\uds\DB

**TABLE 2.1.2 (1/9) SUMMARY OF LABORATORY TEST RESULTS (8/9)
FOUNDATION INVESTIGATION**

PROJECT : UDWRD (U.D.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			DB - 3	DB - 4	DB - 4	DB - 4
	DEPTH (m)			15.00 - 15.55	5.00 - 5.60	10.00 - 10.60	15.00 - 15.60
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity	G	-	2.644	2.744	2.737	2.742
2	Natural Water Content	Wn	%	71.76	56.36	76.94	68.56
3	Unit Weight, Natural State	γ_m	t/m^3	1.543	1.668	1.553	1.594
4	Dry Unit Weight	γ_d	t/m^3	0.898	1.067	0.878	0.946
5	Natural Void Ratio	e	-	1.943	1.572	2.118	1.900
6	Natural Porosity	n	%	66.023	61.124	67.932	65.512
7	Degree of Saturation	Sr	%	97.640	98.363	99.408	98.965
8	Saturation of Water Content	Wsat	%	73.494	57.298	77.398	69.277
9	Saturation Unit Weight	γ_{sat}	t/m^3	1.559	1.678	1.557	1.601
10	Unconfined Compr. Strength	qu	kg/cm ²				
11	Sensitivity	St	-				
12	Liquid Limit	LL	%	111.49	60.41	90.53	99.70
13	Plastic Limit	PL	%	30.17	23.60	34.33	30.67
14	Plasticity Index	PI	%	81.33	36.82	56.20	69.02
15	Shrinkage Limit	SL	%				
16	% Passing 200 US Stand Sieve	-	%	97.10	59.90		93.40
17	U.U.	Triaxial Compression Test		ϕ	deg		
		C.U.	Triaxial Compression Test	Total	ϕ	deg	
	Effective			c	kg/cm ²		0.778
		c	kg/cm ²			0.025	0.013
18	Consolidation Test		Cc		0.673	0.230	
			Pc	kg/cm ²	0.6642	0.6395	
19	N Value			blow			

f: c:\data\ssmg97\lab\uds\DB

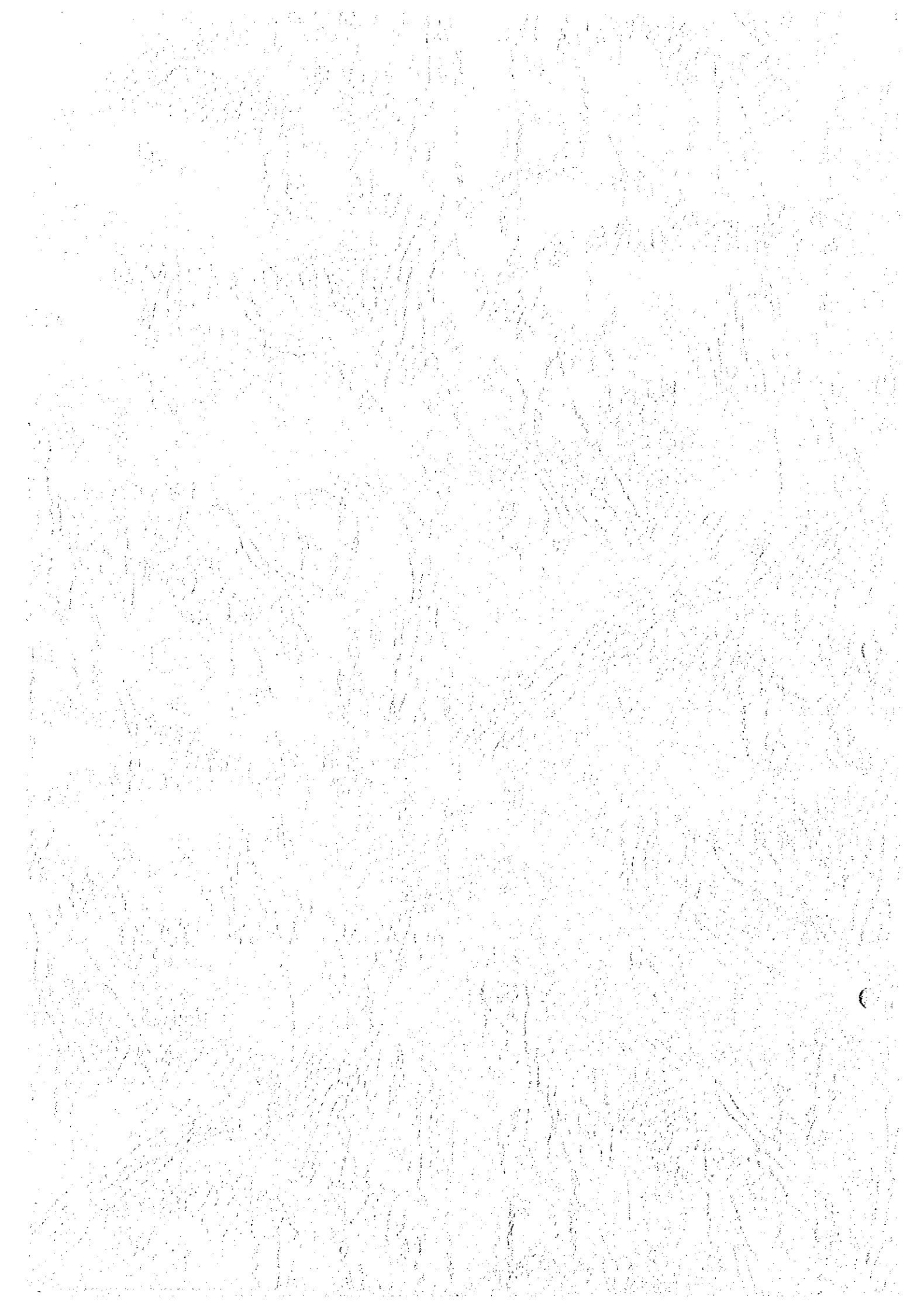
**TABLE 2.1.2 (1/9) SUMMARY OF LABORATORY TEST RESULTS (9/9)
FOUNDATION INVESTIGATION**

PROJECT : UDWRD (U.S.)
 LOCATION : SEMARANG, CENTRAL JAWA
 FEATURE :
 AREA DESIGNATION :

NO	HOLE No.			DB - 1	DB - 1	DB - 1	DB - 2
	DEPTH (m)			5.00 - 5.60	10.00 - 10.60	15.00 - 15.70	5.00 - 5.50
	GROUP SYMBOL	SYM BOL	UNIT	CH	CH	CH	CH
1	Specific Gravity			2.746	2.580	2.659	2.741
2	Natural Water Content			90.06	72.63	78.86	71.27
3	Unit Weight, Natural State			1.506	1.589	1.605	1.513
4	Dry Unit Weight			0.792	0.920	0.897	0.883
5	Natural Void Ratio			2.466	1.803	1.963	2.103
6	Natural Porosity			71.144	64.323	66.252	67.771
7	Degree of Saturation			100.000	100.000	100.000	92.901
8	Saturation of Water Content			90.060	72.630	78.860	76.716
9	Saturation Unit Weight			1.506	1.589	1.605	1.561
10	Unconfined Compr. Strength						
11	Sensitivity						
12	Liquid Limit			101.29	83.12	99.55	111.10
13	Plastic Limit			27.59	24.44	31.71	30.95
14	Plasticity Index			73.70	58.67	67.85	80.14
15	Shrinkage Limit						
16	% Passing 200 US Stand Sieve			96.20	91.90	96.50	87.30
17	U.U.	Triaxial Compression Test		ϕ	deg	2.035	1.849
		C.U.	Triaxial Compression Test	Total	ϕ	deg	0.038
	Effective			c	kg/cm ²	0.063	0.013
			c	kg/cm ²			
	18	Consolidation Test		c	kg/cm ²		
Cc					0.764		
19	N Value		Pc	kg/cm ²	0.6154		
				blow			

f: c:\data\ssmg97\lab\uds\DB





JICA