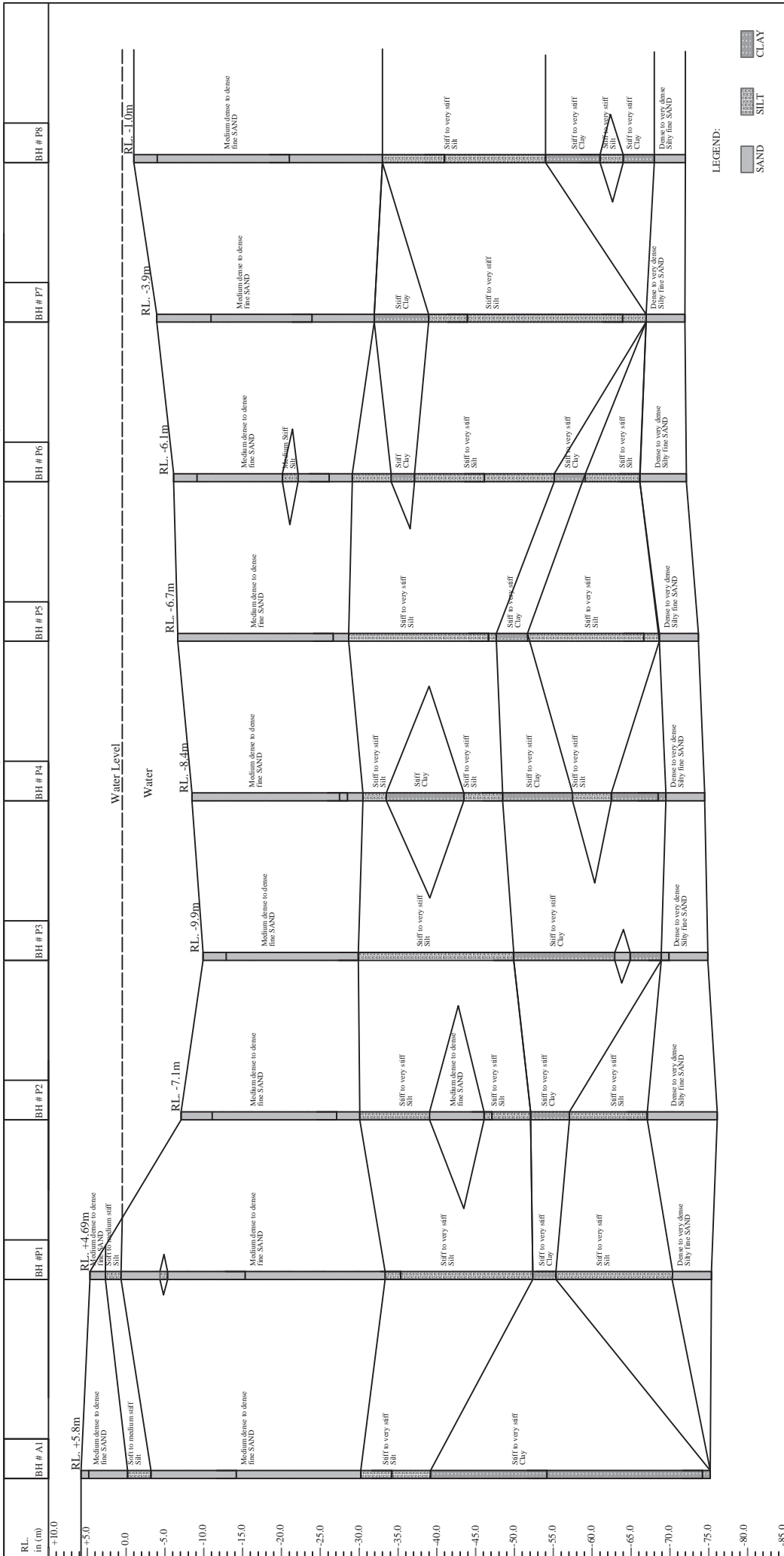


GEOLOGICAL PROFILE

SURVEY 2000

GEOLOGICAL PROFILE ALONG THE BOREHOLE AI, P1 TO P8 AT MEGHNA-GUMTI BRIDGE, DAUKKANDI, COMILLA



PRESSURE METER TEST

PRESSUREMETER TEST DATA RESULTS

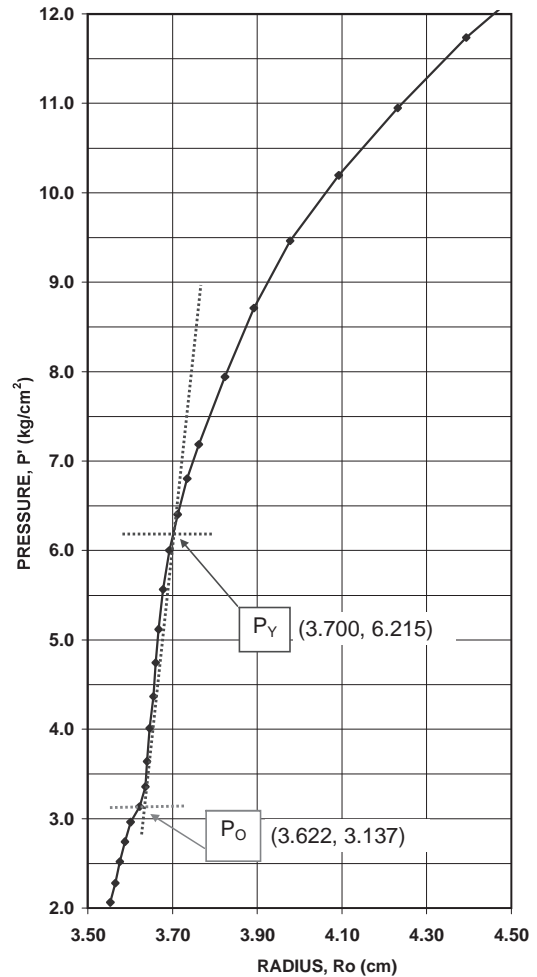
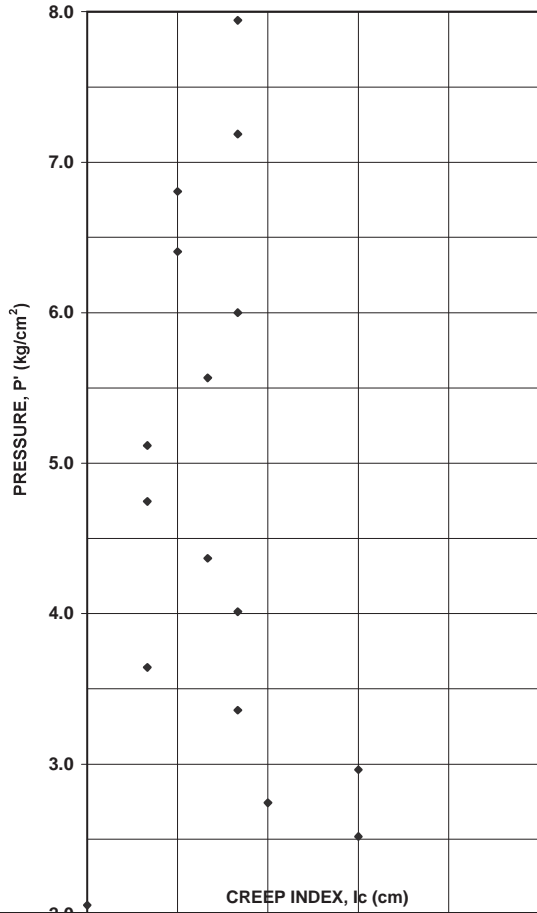
No.	(1) P kg/cm ²	(2) P' = P - RG kg/cm ²	(3) RG kg/cm ²	(4) Rn ₀ mm	(5) Rn ₃₀ mm	(6) Rn ₆₀ mm	(7) Rn ₁₂₀ mm	(8) Creep Index, I _c mm	(9) Rs cm	(10) Ro cm
1	1.83	2.06	-0.23	-1.62	-1.62	-1.62	-1.62	0.00	2.19	3.55
2	2.14	2.28	-0.14	-1.61	-1.59	-1.50	-1.42	0.17	2.21	3.57
3	2.45	2.52	-0.07	1.39	-1.35	-1.30	-1.26	0.09	2.22	3.58
4	2.75	2.74	0.01	-1.24	-1.12	-1.08	-1.06	0.06	2.24	3.59
5	3.06	2.96	0.10	-1.03	-0.94	-0.89	-0.85	0.09	2.27	3.60
6	3.36	3.14	0.23	-0.78	-0.69	-0.57	-0.52	0.17	2.30	3.62
7	3.67	3.36	0.31	-0.37	-0.35	-0.33	-0.30	0.05	2.32	3.64
8	3.98	3.64	0.33	-0.26	-0.26	-0.24	-0.24	0.02	2.33	3.64
9	4.38	4.01	0.37	-0.19	-0.19	-0.18	-0.14	0.05	2.34	3.65
10	4.79	4.37	0.42	-0.06	-0.04	-0.02	0.00	0.04	2.35	3.66
11	5.20	4.75	0.45	0.04	0.06	0.07	0.08	0.02	2.36	3.66
12	5.61	5.12	0.49	0.15	0.16	0.17	0.18	0.02	2.37	3.67
13	6.12	5.57	0.55	0.30	0.31	0.33	0.35	0.04	2.39	3.68
14	6.63	6.00	0.63	0.50	0.52	0.53	0.57	0.05	2.41	3.69
15	7.14	6.41	0.73	0.81	0.85	0.86	0.88	0.03	2.44	3.71
16	7.65	6.80	0.84	1.16	1.19	1.20	1.22	0.03	2.47	3.73
17	8.15	7.19	0.97	1.56	1.58	1.61	1.63	0.05	2.51	3.76
18	9.17	7.94	1.23	2.47	2.50	2.52	2.55	0.05	2.61	3.82
19	10.19	8.71	1.48	3.39	3.46	3.49	3.54	0.08	2.70	3.89
20	11.21	9.46	1.75	4.60	4.68	4.72	4.76	0.08	2.83	3.98
21	12.23	10.20	2.04	6.07	6.20	6.25	6.35	0.15	2.99	4.09
22	13.25	10.95	2.30	7.97	8.12	8.16	8.23	0.11	3.17	4.23
23	14.27	11.74	2.53	9.80	10.05	10.19	10.35	0.30	3.39	4.39
24	15.29	12.54	2.75	12.36	12.74	12.81	12.90	0.16	3.64	4.59
25	16.31	13.33	2.98	14.62	14.96	15.34	15.95	0.99	3.95	4.84
26	17.33	14.14	3.19	17.63	18.00	18.24	18.25	0.25	4.18	5.03
REMARKS:								TIME TAKEN :		
(2) ... P' (kg/cm ²) effective pressure obtained by (1) - (3) : P' = P - RG (3) ... RG (kg/cm ²) obtained from Rn (120) using Rg Calibration Chart. (8) ... Creep Index, I _c Obtained by (7) - (5); I _c = Rn (120) - Rn (30) in mm. (9) ... R _s inside radius obtained by the following equations: <u>Medium Rubber</u> <u>Hard Rubber</u> R _s (cm) = {Rn(120) + 23.5} / 10 for P <= 10 R_s(cm) = {Rn(120) + 23.5} / 10 for P <= 20 R _s (cm) = {Rn(120) + 23.5-[P-10]/666} /10 for P>10 R_s(cm) = {Rn(120) + 23.5 - [P-20] / 400} /10 for P>20 (10) ... R _o outside radius, obtained by using R _o = (R _s ² + A/π) ^{1/2} , where A = 24.63cm ² .								TEST LOCATION:	TEST DEPTH:	
								P-1	15m	
								TEST NO.:	TEST DATE:	
								1	26/03/2012	
PAGE:	N - VALUE:									
1/3	25									
RUBBER TYPE:	GROUND WATER LEVEL:	N VALUE:	SOIL TYPE:	SPECIALIST SUB-CONTRACTOR:						
MIDIUM		25	SANDY SILT	SURVEY2000						
PROJECT:				TEL: 8818386						
				Email: survey2k@yahoo.com						
CLIENT:					CONSULTANT:					
ROADS & HIGHWAY DEPARTMENT					ORIENTAL COSULTANTS CO. LTD					

PRESSUREMETER TEST DATA RESULTS

No.	(1) P Mpa	(2) Rn ₀ mm	(3) Rn ₃₀ mm	(4) Rn ₆₀ mm	(5) Rn ₁₂₀ mm
1	0.18	-1.62	-1.62	-1.62	-1.62
2	0.21	-1.61	-1.59	-1.50	-1.42
3	0.24	1.39	-1.35	-1.30	-1.26
4	0.27	-1.24	-1.12	-1.08	-1.06
5	0.30	-1.03	-0.94	-0.89	-0.85
6	0.33	-0.78	-0.69	-0.57	-0.52
7	0.36	-0.37	-0.35	-0.33	-0.30
8	0.39	-0.26	-0.26	-0.24	-0.24
9	0.43	-0.19	-0.19	-0.18	-0.14
10	0.47	-0.06	-0.04	-0.02	0.00
11	0.51	0.04	0.06	0.07	0.08
12	0.55	0.15	0.16	0.17	0.18
13	0.60	0.30	0.31	0.33	0.35
14	0.65	0.50	0.52	0.53	0.57
15	0.70	0.81	0.85	0.86	0.88
16	0.75	1.16	1.19	1.20	1.22
17	0.80	1.56	1.58	1.61	1.63
18	0.90	2.47	2.50	2.52	2.55
19	1.00	3.39	3.46	3.49	3.54
20	1.10	4.60	4.68	4.72	4.76
21	1.20	6.07	6.20	6.25	6.35
22	1.30	7.97	8.12	8.16	8.23
23	1.40	9.80	10.05	10.19	10.35
24	1.50	12.36	12.74	12.81	12.90
25	1.60	14.62	14.96	15.34	15.95
26	1.70	17.63	18.00	18.24	18.25
REMARKS:			TIME TAKEN :		
(2) ... P' (kg/cm ²) effective pressure obtained by (1) - (3) : P' = P - RG (3) ... RG (kg/cm ²) obtained from Rn (120) using Rg Calibration Chart. (8) ... Creep Index, I _c Obtained by (7) - (5); I _c = Rn (120) - Rn (30) in mm. (9) ... R _s inside radius obtained by the following equations: <u>Medium Rubber</u> R _s (cm) = {Rn(120) + 23.5} / 10 for P <= 10 R _s (cm) = {Rn(120) + 23.5-[P-10]/666} /10 for P>10 (10) ... R _o outside radius, obtained by using R _o = (R _s ² + A/π) ^{1/2} , where A = 24.63cm ² .			TEST LOCATION:	TEST DEPTH:	
			P-1	15m	
			TEST NO.:	TEST DATE:	
			1	26/03/2012	
PAGE:	N - VALUE:				
	25				
RUBBER TYPE:	SOIL TYPE:	SPECIALIST SUB-CONTRACTOR:			
M	Silty Fine Sand	SURVEY2000			
PROJECT:	PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION		TEL: 8818386		
CLIENT:	ORIENTAL CONSUTANS CO.LTD		Email: survey2k@yahoo.com		

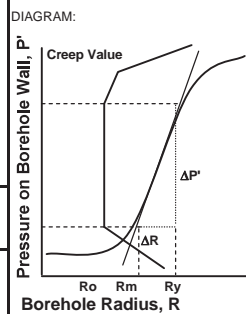
PRESSUREMETER TEST DATA RESULTS

	EARTH PRESSURE AT REST	YIELD PRESSURE	FAILURE PRESSURE	COEFFICIENT OF SOIL REACTION	MODULUS OF ELASTICITY	MEAN RADIUS OF K VALUE CALCULATION
NO. OF CYCLE	P _o (kg/cm ²)	P _y (kg/cm ²)	P _f (kg/cm ²)	K _m (kg/cm ³)	E _m (kg/cm ²)	R _m (cm)
1st	3.137	6.215	-	39.462	187.809	3.661



REMARKS: 0.00 0.03 0.06 0.09 0.12 0.15

P_o, P_o' Earth Pressure at Rest
 P_y, P_y' Yield Pressure
 $E = (1 + \nu) \cdot R_m \cdot K_m$ Modulus of Elasticity
 $\nu = 0.3$



TEST LOCATION: P-1 MEGHNA_GU	TEST DEPTH: 15m
TEST NO.: 1	TEST DATE: 26/03/2012

RUBBER TYPE: MEDIUM	N VALUE: 25	SOIL TYPE: SILTY FINE SAND
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SPECIALIST SUB-CONTRACTOR:
SURVEY2000
 TEL: 8818386
 Email: survey2k@yahoo.com

PROJECT:
PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT

CLIENT:
BANGLADESH ROADS & HIGHWAY DEPARTMENT

CONSULTANT:
ORIENTAL COSULTANTS CO. LTD

PRESSUREMETER TEST DATA RESULTS

No.	(1) P kg/cm ²	(2) P' = P - RG kg/cm ²	(3) RG kg/cm ²	(4) Rn ₀ mm	(5) Rn ₃₀ mm	(6) Rn ₆₀ mm	(7) Rn ₁₂₀ mm	(8) Creep Index, I _c mm	(9) Rs cm	(10) Ro cm
1	2.14	2.67	-0.53	-2.30	-2.30	-2.30	-2.29	0.01	2.12	3.51
2	2.45	2.84	-0.40	-2.03	-2.02	-2.02	-2.00	0.02	2.15	3.53
3	2.75	2.98	-0.23	-1.88	-1.70	-1.65	-1.62	0.08	2.19	3.55
4	3.06	3.23	-0.17	1.59	-1.56	-1.54	-1.50	0.06	2.20	3.56
5	3.36	3.48	-0.12	-1.49	-1.45	-1.40	-1.37	0.08	2.21	3.57
6	3.67	3.72	-0.05	-1.30	-1.27	-1.24	-1.21	0.06	2.23	3.58
7	3.98	3.96	0.01	-1.15	-1.10	-1.08	-1.06	0.04	2.24	3.59
8	4.28	4.25	0.03	-1.05	-1.04	-1.01	-1.01	0.03	2.25	3.59
9	4.59	4.52	0.07	-0.99	-0.98	-0.96	-0.92	0.06	2.26	3.60
10	4.89	4.80	0.09	-0.91	-0.90	-0.88	-0.86	0.04	2.26	3.60
11	5.30	5.18	0.12	-0.86	-0.84	-0.81	-0.80	0.04	2.27	3.60
12	5.71	5.55	0.16	-0.75	-0.74	-0.72	-0.70	0.04	2.28	3.61
13	6.12	5.94	0.18	-0.69	-0.68	-0.66	-0.64	0.04	2.29	3.61
14	6.52	6.32	0.21	-0.60	-0.60	-0.58	-0.57	0.03	2.29	3.62
15	6.93	6.69	0.24	-0.53	-0.50	-0.49	-0.49	0.01	2.30	3.62
16	7.44	7.14	0.30	-0.39	-0.36	-0.35	-0.34	0.02	2.32	3.63
17	7.95	7.59	0.36	-0.22	-0.20	-0.18	-0.16	0.04	2.33	3.65
18	8.46	8.01	0.45	-0.02	0.04	0.06	0.08	0.04	2.36	3.66
19	9.17	8.60	0.57	0.43	0.42	0.44	0.42	0.00	2.39	3.68
20	10.19	9.44	0.75	0.90	0.91	0.94	0.94	0.03	2.44	3.72
21	11.21	10.27	0.94	1.44	1.49	1.49	1.54	0.05	2.50	3.76
22	12.23	11.06	1.17	2.21	2.25	2.28	2.34	0.09	2.58	3.81
23	13.25	11.87	1.39	2.96	3.05	3.08	3.15	0.10	2.67	3.87
24	14.27	12.59	1.68	4.08	4.10	4.37	4.42	0.32	2.79	3.95
25	15.29	13.36	1.93	5.36	5.50	5.60	5.70	0.20	2.92	4.05
26	16.31	14.09	2.22	7.13	7.30	7.41	7.59	0.29	3.11	4.18
27	17.33	14.80	2.53	9.49	9.90	10.10	10.30	0.40	3.38	4.39
28	18.35	15.61	2.74	11.90	12.33	12.48	12.74	0.41	3.62	4.58
29	19.37	16.41	2.95	14.40	14.92	15.20	15.60	0.68	3.91	4.81
30	20.39	17.25	3.14	16.85	17.19	17.40	17.75	0.56	4.12	4.99

TIME TAKEN :

(2) ... P' (kg/cm²) effective pressure obtained by (1) - (3) : P' = P - RG

(3) ... RG (kg/cm²) obtained from Rn (120) using Rg Calibration Chart.

(8) ... Creep Index, I_c Obtained by (7) - (5); I_c = Rn (120) - Rn (30) in mm.

(9) ... R_s inside radius obtained by the following equations:

Medium Rubber

Hard Rubber

$$R_s(\text{cm}) = \{Rn(120) + 23.5\} / 10 \text{ for } P \leq 10$$

$$R_s(\text{cm}) = \{Rn(120) + 23.5\} / 10 \text{ for } P \leq 20$$

$$R_s(\text{cm}) = \{Rn(120) + 23.5 \cdot [P-10]/666\} / 10 \text{ for } P > 10$$

$$R_s(\text{cm}) = \{Rn(120) + 23.5 - [P-20] / 400\} / 10 \text{ for } P > 20$$

(10) ... R_o outside radius, obtained by using $R_o = (R_s^2 + A/\pi)^{1/2}$, where A = 24.63cm².

TEST LOCATION:

TEST DEPTH:

P-1

19m

TEST NO.:

TEST DATE:

2

26/03/2012

PAGE:

N - VALUE:

2/3

17

RUBBER TYPE: MEDIUM	GROUND WATER LEVEL:	N VALUE: 17	SOIL TYPE: SANDY SILT
PROJECT:			
CLIENT:			
CONSULTANT:			

MEGHNA-GUMUTI

SPECIALIST SUB-CONTRACTOR:

SURVEY2000

TEL: 8818386

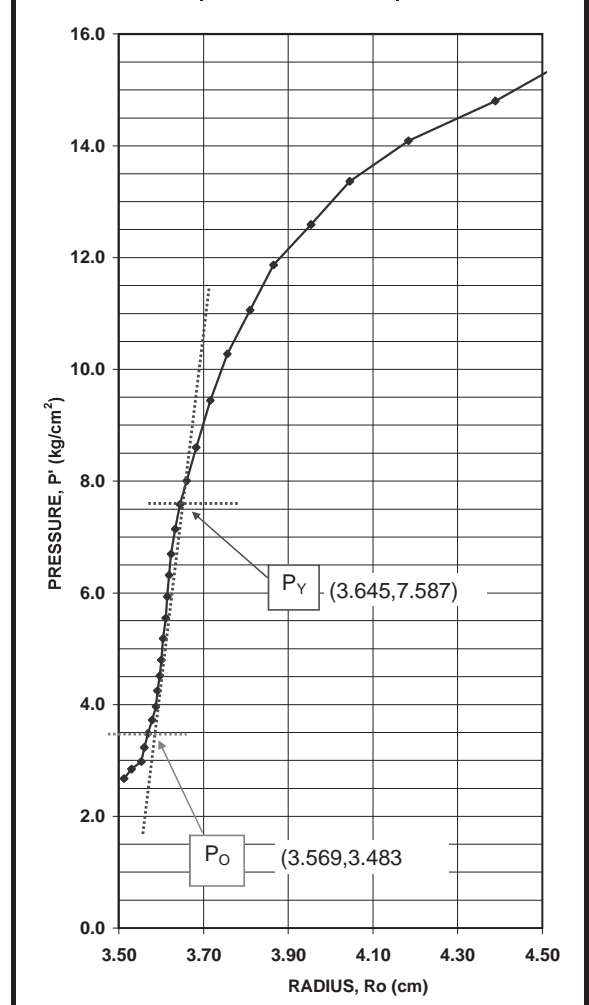
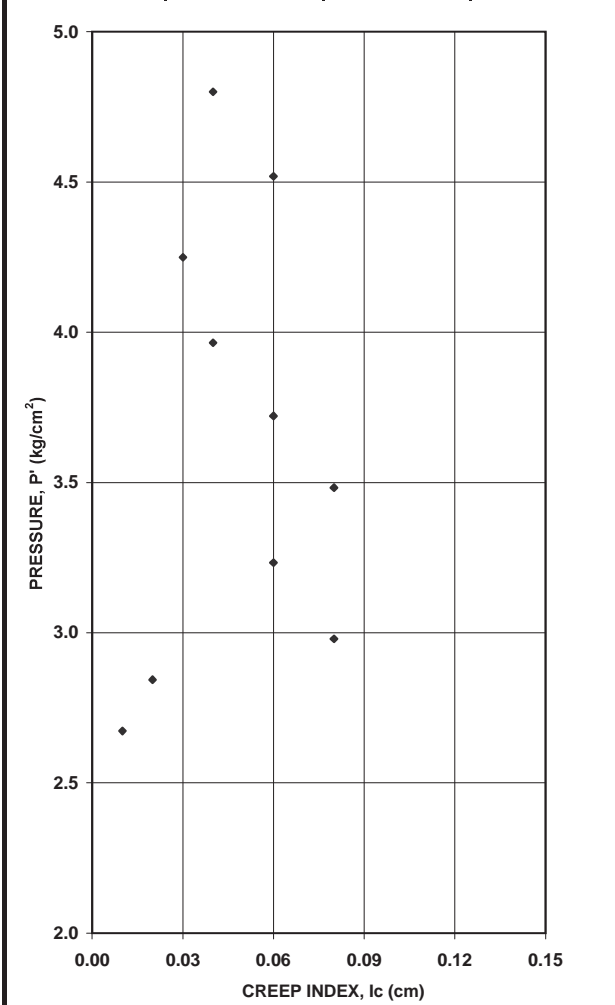
Email: survey2k@yahoo.com

PRESSUREMETER TEST DATA RESULTS

No.	(1) P Mpa	(2) Rn ₀ mm	(3) Rn ₃₀ mm	(4) Rn ₆₀ mm	(5) Rn ₁₂₀ mm
1	0.21	-2.30	-2.30	-2.30	-2.29
2	0.24	-2.03	-2.02	-2.02	-2.00
3	0.27	-1.88	-1.70	-1.65	-1.62
4	0.30	1.59	-1.56	-1.54	-1.50
5	0.33	-1.49	-1.45	-1.40	-1.37
6	0.36	-1.30	-1.27	-1.24	-1.21
7	0.39	-1.15	-1.10	-1.08	-1.06
8	0.42	-1.05	-1.04	-1.01	-1.01
9	0.45	-0.99	-0.98	-0.96	-0.92
10	0.48	-0.91	-0.90	-0.88	-0.86
11	0.52	-0.86	-0.84	-0.81	-0.80
12	0.56	-0.75	-0.74	-0.72	-0.70
13	0.60	-0.69	-0.68	-0.66	-0.64
14	0.64	-0.60	-0.60	-0.58	-0.57
15	0.68	-0.53	-0.50	-0.49	-0.49
16	0.73	-0.39	-0.36	-0.35	-0.34
17	0.78	-0.22	-0.20	-0.18	-0.16
18	0.83	-0.02	0.04	0.06	0.08
19	0.90	0.43	0.42	0.44	0.42
20	1.00	0.90	0.91	0.94	0.94
21	1.10	1.44	1.49	1.49	1.54
22	1.20	2.21	2.25	2.28	2.34
23	1.30	2.96	3.05	3.08	3.15
24	1.40	4.08	4.10	4.37	4.42
25	1.50	5.36	5.50	5.60	5.70
26	1.60	7.13	7.30	7.41	7.59
27	1.70	9.49	9.90	10.10	10.30
28	1.80	11.90	12.33	12.48	12.74
29	1.90	14.40	14.92	15.20	15.60
30	2.00	16.85	17.19	17.40	17.75
REMARKS:			TIME TAKEN :		
(2) ... P' (kg/cm ²) effective pressure obtained by (1) - (3) : P' = P - RG (3) ... RG (kg/cm ²) obtained from Rn (120) using Rg Calibration Chart. (8) ... Creep Index, I _c Obtained by (7) - (5); I _c = Rn (120) - Rn (30) in mm. (9) ... R _s inside radius obtained by the following equations: <u>Medium Rubber</u> R _s (cm) = {Rn(120) + 23.5} / 10 for P <= 10 R _s (cm) = {Rn(120) + 23.5-[P-10]/666} /10 for P>10 (10) ... R _o outside radius, obtained by using R _o = (R _s ² + A/π) ^{1/2} , where A = 24.63cm ² .			TEST LOCATION:	TEST DEPTH:	
			P-1	19m	
			TEST NO.:	TEST DATE:	
			2	26/03/2012	
PAGE:	N - VALUE:				
1/3	17				
RUBBER TYPE:	SOIL TYPE:	SPECIALIST SUB-CONTRACTOR:			
M	SILTY FINE SAND	SURVEY2000 TEL: 8818386 Email: survey2k@yahoo.com			
PROJECT:					
CLIENT:	ORIENTAL CONSUTANS CO.LTD				

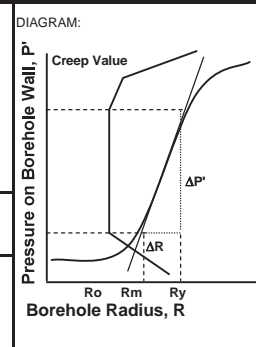
PRESSUREMETER TEST DATA RESULTS

	EARTH PRESSURE AT REST	YIELD PRESSURE	FAILURE PRESSURE	COEFFICIENT OF SOIL REACTION	MODULUS OF ELASTICITY	MEAN RADIUS OF K VALUE CALCULATION
NO. OF CYCLE	P_o (kg/cm ²)	P_y (kg/cm ²)	P_f (kg/cm ²)	K_m (kg/cm ³)	E_m (kg/cm ²)	R_m (cm)
1st	3.483	7.587	-	54.000	253.211	3.607



REMARKS:

P_o, P_o' Earth Pressure at Rest
 P_y, P_y' Yield Pressure
 E = (1 + ν) · R_m · K_m Modulus of Elasticity
 ν = 0.3



TEST LOCATION: P2	TEST DEPTH: 19M
TEST NO.: 2	TEST DATE: 26/3/2012
PAGE: 3/3	N - VALUE: 17
MEGNA-GUMUTI	
SPECIALIST SUB-CONTRACTOR: SURVEY2000	
TEL: 8818386	
Email: survey2k@yahoo.com	

RUBBER TYPE: MEDIUM	N VALUE: 17	SOIL TYPE: SILTY FINE SAND
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PROJECT:
PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT

CLIENT:
BANGLADESH ROADS & HIGHWAY DEPARTMENT

CONSULTANT:
ORIENTAL COSULTANTS CO. LTD

PRESSUREMETER TEST DATA RESULTS

No.	(1) P kg/cm ²	(2) P' = P - RG kg/cm ²	(3) RG kg/cm ²	(4) Rn ₀ mm	(5) Rn ₃₀ mm	(6) Rn ₆₀ mm	(7) Rn ₁₂₀ mm	(8) Creep Index, I _c mm	(9) Rs cm	(10) Ro cm
1	1.83	2.46	-0.62	-2.54	-2.54	-2.52	-2.48	0.06	2.10	3.50
2	2.14	2.52	-0.37	-2.26	-2.07	-2.03	-1.95	0.12	2.16	3.53
3	2.45	2.59	-0.14	-1.83	-1.63	-1.52	-1.43	0.20	2.21	3.57
4	2.75	2.74	0.02	-1.37	-1.17	-1.10	-1.05	0.12	2.25	3.59
5	3.06	2.96	0.10	-1.02	-0.95	-0.91	-0.84	0.11	2.27	3.60
6	3.36	3.23	0.14	-0.83	-0.85	-0.82	-0.75	0.10	2.28	3.61
7	3.67	3.52	0.15	-0.78	-0.76	-0.75	-0.72	0.04	2.28	3.61
8	4.08	3.88	0.20	-0.69	-0.65	-0.60	-0.60	0.05	2.29	3.62
9	4.49	4.27	0.22	-0.57	-0.56	-0.56	-0.55	0.01	2.30	3.62
10	4.89	4.65	0.24	-0.52	-0.50	-0.48	-0.48	0.02	2.30	3.62
11	5.30	5.02	0.28	-0.43	-0.40	-0.39	-0.39	0.01	2.31	3.63
12	5.71	5.39	0.32	-0.33	-0.31	-0.31	-0.29	0.02	2.32	3.64
13	6.12	5.76	0.36	-0.20	-0.19	-0.18	-0.18	0.01	2.33	3.64
14	6.63	6.20	0.43	0.00	0.01	0.01	0.01	0.00	2.35	3.66
15	7.14	6.66	0.48	0.11	0.13	0.14	0.15	0.02	2.37	3.66
16	7.65	7.07	0.57	0.33	0.38	0.40	0.41	0.03	2.39	3.68
17	8.46	7.72	0.74	0.81	0.85	0.87	0.90	0.05	2.44	3.71
18	9.17	8.28	0.90	1.28	1.33	1.39	1.40	0.07	2.49	3.75
19	10.19	9.06	1.13	2.05	2.12	2.15	2.19	0.07	2.57	3.80
20	11.21	9.83	1.39	3.05	3.10	3.12	3.15	0.05	2.67	3.87
21	12.23	10.54	1.69	4.19	4.36	4.43	4.49	0.13	2.80	3.96
22	13.25	11.24	2.01	5.92	6.04	6.12	6.19	0.15	2.97	4.08
23	14.27	11.96	2.31	7.76	8.04	8.12	8.25	0.21	3.18	4.23
24	15.29	12.76	2.53	9.80	10.00	10.15	10.32	0.32	3.38	4.39
25	16.31	13.56	2.75	12.31	12.58	12.70	12.94	0.36	3.64	4.60
26	17.33	14.42	2.91	14.62	14.81	14.90	14.98	0.17	3.85	4.76
27	18.35	15.31	3.04	15.80	16.35	16.54	16.64	0.29	4.01	4.89
28	19.37	16.28	3.09	16.75	17.20	17.20	17.22	0.02	4.07	4.94

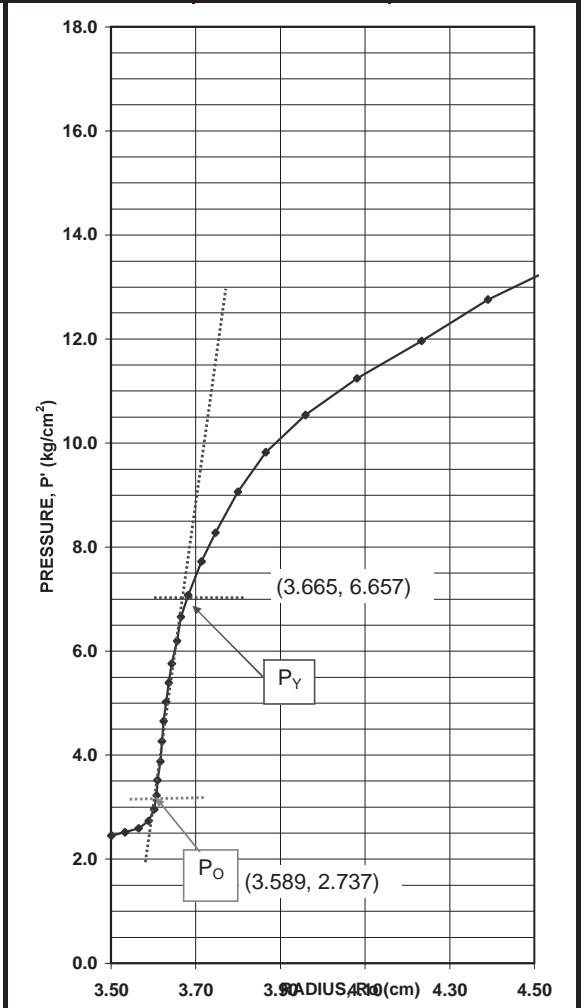
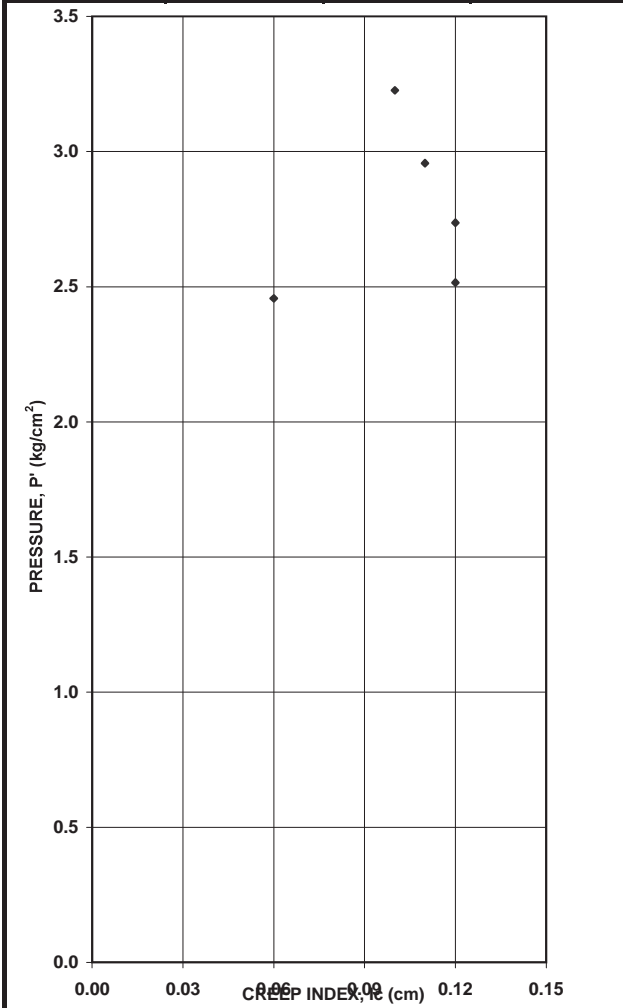
REMARKS:				TIME TAKEN :					
(2) ... P' (kg/cm ²) effective pressure obtained by (1) - (3) : P' = P - RG (3) ... RG (kg/cm ²) obtained from Rn (120) using Rg Calibration Chart. (8) ... Creep Index, I _c Obtained by (7) - (5); I _c = Rn (120) - Rn (30) in mm. (9) ... R _s inside radius obtained by the following equations: <u>Medium Rubber</u> <u>Hard Rubber</u> $R_s(\text{cm}) = \{Rn(120) + 23.5\} / 10$ for P <= 10 $R_s(\text{cm}) = \{Rn(120) + 23.5\} / 10$ for P <= 20 $R_s(\text{cm}) = \{Rn(120) + 23.5 - [P-10]/666\} / 10$ for P > 10 $R_s(\text{cm}) = \{Rn(120) + 23.5 - [P-20] / 400\} / 10$ for P > 20 (10) ... R _o outside radius, obtained by using $R_o = (R_s^2 + A/\pi)^{1/2}$, where A = 24.63cm ² .				TEST LOCATION:		TEST DEPTH:			
				P-8		13m			
				TEST NO.:		TEST DATE:			
				1		27/03/2012			
PAGE:		N - VALUE:							
1/3		21							
RUBBER TYPE:	GROUND WATER LEVEL:	N VALUE:	SOIL TYPE:	SPECIALIST SUB-CONTRACTOR: SURVEY2000 TEL: 8818386 Email: survey2k@yahoo.com					
MIDIUM		21	FINE SAND						
PROJECT:									
PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO. 1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT									
CLIENT:			CONSULTANT:						
BANGLADESH ROADS & HIGHWAY DEPARTMENT			ORIENTAL CONSULTANTS CO.LTD						

PRESSUREMETER TEST DATA RESULTS

No.	(1) P Mpa	(2) Rn ₀ mm	(3) Rn ₃₀ mm	(4) Rn ₆₀ mm	(5) Rn ₁₂₀ mm
1	0.18	-2.54	-2.54	-2.52	-2.48
2	0.21	-2.26	-2.07	-2.03	-1.95
3	0.24	-1.83	-1.63	-1.52	-1.43
4	0.27	-1.37	-1.17	-1.10	-1.05
5	0.30	-1.02	-0.95	-0.91	-0.84
6	0.33	-0.83	-0.85	-0.82	-0.75
7	0.36	-0.78	-0.76	-0.75	-0.72
8	0.40	-0.69	-0.65	-0.60	-0.60
9	0.44	-0.57	-0.56	-0.56	-0.55
10	0.48	-0.52	-0.50	-0.48	-0.48
11	0.52	-0.43	-0.40	-0.39	-0.39
12	0.56	-0.33	-0.31	-0.31	-0.29
13	0.60	-0.20	-0.19	-0.18	-0.18
14	0.65	0.00	0.01	0.01	0.01
15	0.70	0.11	0.13	0.14	0.15
16	0.75	0.33	0.38	0.40	0.41
17	0.83	0.81	0.85	0.87	0.90
18	0.90	1.28	1.33	1.39	1.40
19	1.00	2.05	2.12	2.15	2.19
20	1.10	3.05	3.10	3.12	3.15
21	1.20	4.19	4.36	4.43	4.49
22	1.30	5.92	6.04	6.12	6.19
23	1.40	7.76	8.04	8.12	8.25
24	1.50	9.80	10.00	10.15	10.32
25	1.60	12.31	12.58	12.70	12.94
26	1.70	14.62	14.81	14.90	14.98
27	1.80	15.80	16.35	16.54	16.64
28	1.90	16.75	17.20	17.20	17.22
REMARKS:			TIME TAKEN :		
(2) ... P' (kg/cm ²) effective pressure obtained by (1) - (3) : P' = P - RG (3) ... RG (kg/cm ²) obtained from Rn (120) using Rg Calibration Chart. (8) ... Creep Index, I _c Obtained by (7) - (5); I _c = Rn (120) - Rn (30) in mm. (9) ... R _s inside radius obtained by the following equations: <u>Medium Rubber</u> R _s (cm) = {Rn(120) + 23.5} / 10 for P <= 10 R _s (cm) = {Rn(120) + 23.5-[P-10]/666} /10 for P>10 (10) ... R _o outside radius, obtained by using R _o = (R _s ² + A/π) ^{1/2} , where A = 24.63cm ² .			TEST LOCATION:	TEST DEPTH:	
			P-8	13m	
			TEST NO.:	TEST DATE:	
			1	27/03/2012	
PAGE:	N - VALUE:	21			
RUBBER TYPE:	SOIL TYPE:	MEGHNA-GUMUTI			
M	FINE SAND				
PROJECT:			SPECIALIST SUB-CONTRACTOR:		
PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT			SURVEY2000		
CLIENT: ORIENTAL CONSULTANTS CO.LTD			TEL: 8818386		
			Email: survey2k@yahoo.com		

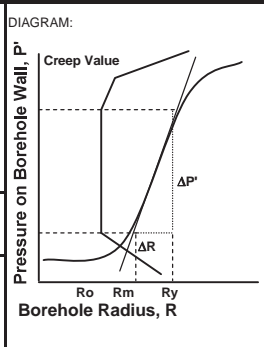
PRESSUREMETER TEST DATA RESULTS

	EARTH PRESSURE AT REST	YIELD PRESSURE	FAILURE PRESSURE	COEFFICIENT OF SOIL REACTION	MODULUS OF ELASTICITY	MEAN RADIUS OF K VALUE CALCULATION
NO. OF CYCLE	P _o (kg/cm ²)	P _y (kg/cm ²)	P _f (kg/cm ²)	K _m (kg/cm ³)	E _m (kg/cm ²)	R _m (cm)
1st	2.737	6.657	-	51.579	243.200	3.627



REMARKS:

P_o, P_o' Earth Pressure at Rest
 P_y, P_y' Yield Pressure
 $E = (1 + \nu) \cdot R_m \cdot K_m$ Modulus of Elasticity
 $\nu = 0.3$



TEST LOCATION: P-8	TEST DEPTH: 13m
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TEST NO.: 1	TEST DATE: 27/03/2012
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RUBBER TYPE: MEDIUM	N VALUE: 21	SOIL TYPE: FINE SAND
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SPECIALIST SUB-CONTRACTOR:
SURVEY2000
 TEL: 8818386
 Email: survey2k@yahoo.com

PROJECT:
PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT

CLIENT:
BANGLADESH ROADS & HIGHWAY DEPARTMENT

CONSULTANT:
ORIENTAL COSULTANTS CO. LTD

PRESSUREMETER TEST DATA RESULTS

No.	(1) P kg/cm ²	(2) P' = P - RG kg/cm ²	(3) RG kg/cm ²	(4) Rn ₀ mm	(5) Rn ₃₀ mm	(6) Rn ₆₀ mm	(7) Rn ₁₂₀ mm	(8) Creep Index, I _c mm	(9) Rs cm	(10) Ro cm
1	2.04	2.62	-0.58	-2.48	-2.47	-2.42	-2.40	0.07	2.11	3.51
2	2.45	2.85	-0.40	-2.34	-2.20	-2.10	-2.01	0.19	2.15	3.53
3	2.85	3.14	-0.29	-1.95	-1.82	-1.80	-1.76	0.06	2.17	3.54
4	3.26	3.42	-0.16	-1.56	-1.52	-1.50	-1.46	0.06	2.20	3.56
5	3.67	3.78	-0.11	-1.42	-1.38	-1.36	-1.35	0.03	2.22	3.57
6	4.08	4.15	-0.08	-1.34	-1.31	-1.29	-1.27	0.04	2.22	3.58
7	4.59	4.63	-0.04	-1.24	-1.22	-1.20	-1.18	0.04	2.23	3.58
8	5.10	5.09	0.01	-1.14	-1.10	-1.08	-1.06	0.04	2.24	3.59
9	5.61	5.54	0.06	1.01	-0.98	-0.95	-0.93	0.05	2.26	3.60
10	6.12	6.01	0.11	-0.87	-0.85	-0.84	-0.82	0.03	2.27	3.60
11	6.63	6.44	0.19	-0.70	-0.67	-0.65	-0.62	0.05	2.29	3.62
12	7.14	6.83	0.31	-0.46	-0.40	-0.36	-0.31	0.09	2.32	3.64
13	7.65	7.28	0.37	-0.22	-0.20	-0.18	-0.15	0.05	2.34	3.65
14	8.15	7.67	0.48	0.07	0.13	0.14	0.16	0.03	2.37	3.67
15	8.66	8.07	0.59	0.39	0.42	0.44	0.48	0.06	2.40	3.69
16	9.38	8.60	0.78	0.94	0.98	1.00	1.04	0.06	2.45	3.72
17	10.09	9.11	0.98	1.64	1.65	1.67	1.68	0.03	2.52	3.77
18	10.91	9.69	1.21	2.30	2.37	2.44	2.49	0.12	2.60	3.82
19	11.72	10.24	1.48	3.37	3.42	3.46	3.53	0.11	2.70	3.89
20	12.54	10.80	1.74	4.38	4.55	4.63	4.72	0.17	2.82	3.98
21	13.35	11.34	2.01	6.01	6.08	6.13	6.21	0.13	2.97	4.08
22	14.27	11.98	2.29	7.59	7.82	7.93	8.12	0.30	3.16	4.22
23	15.29	12.72	2.57	9.95	10.22	10.40	10.73	0.51	3.42	4.42
24	16.31	13.50	2.81	12.55	13.03	13.30	13.77	0.74	3.73	4.66
25	17.33	14.27	3.05	16.10	16.38	16.55	16.80	0.42	4.03	4.91
26	17.33	14.14	3.19	17.63	18.00	18.24	18.25	0.25	4.18	5.03
REMARKS:								TIME TAKEN :		
(2) ... P' (kg/cm ²) effective pressure obtained by (1) - (3) : P' = P - RG (3) ... RG (kg/cm ²) obtained from Rn (120) using Rg Calibration Chart. (8) ... Creep Index, I _c Obtained by (7) - (5); I _c = Rn (120) - Rn (30) in mm. (9) ... R _s inside radius obtained by the following equations: <u>Medium Rubber</u> <u>Hard Rubber</u> $R_s(\text{cm}) = \{Rn(120) + 23.5\} / 10$ for P <= 10 $R_s(\text{cm}) = \{Rn(120) + 23.5\} / 10$ for P <= 20 $R_s(\text{cm}) = \{Rn(120) + 23.5 - [P-10]/666\} / 10$ for P > 10 $R_s(\text{cm}) = \{Rn(120) + 23.5 - [P-20] / 400\} / 10$ for P > 20 (10) ... R _o outside radius, obtained by using $R_o = (R_s^2 + A/\pi)^{1/2}$, where A = 24.63cm ² .								TEST LOCATION:		TEST DEPTH:
								P8		18M
								TEST NO.:		TEST DATE:
2		27/3/2012								
PAGE:		N - VALUE:								
1/3		17								
RUBBER TYPE:		GROUND WATER LEVEL:		N VALUE:		SOIL TYPE:		SPECIALIST SUB-CONTRACTOR:		
MIDIUM				17		SANDY SILT		SPECIALIST SUB-CONTRACTOR:		
PROJECT:								SURVEY2000		
PREPERATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT.								TEL: 8818386		
								Email: survey2k@yahoo.com		
CLIENT:				CONSULTANT:						
BANGLADESH ROADS & HIGHWAY Department				ORIENTAL CONSULTANTS CO. LTD						

PRESSUREMETER TEST DATA RESULTS

No.	(1) P Mpa	(2) Rn ₀ mm	(3) Rn ₃₀ mm	(4) Rn ₆₀ mm	(5) Rn ₁₂₀ mm
1	0.20	-2.48	-2.47	-2.42	-2.40
2	0.24	-2.34	-2.20	-2.10	-2.01
3	0.28	-1.95	-1.82	-1.80	-1.76
4	0.32	-1.56	-1.52	-1.50	-1.46
5	0.36	-1.42	-1.38	-1.36	-1.35
6	0.40	-1.34	-1.31	-1.29	-1.27
7	0.45	-1.24	-1.22	-1.20	-1.18
8	0.50	-1.14	-1.10	-1.08	-1.06
9	0.55	1.01	-0.98	-0.95	-0.93
10	0.60	-0.87	-0.85	-0.84	-0.82
11	0.65	-0.70	-0.67	-0.65	-0.62
12	0.70	-0.46	-0.40	-0.36	-0.31
13	0.75	-0.22	-0.20	-0.18	-0.15
14	0.80	0.07	0.13	0.14	0.16
15	0.85	0.39	0.42	0.44	0.48
16	0.92	0.94	0.98	1.00	1.04
17	0.99	1.64	1.65	1.67	1.68
18	1.07	2.30	2.37	2.44	2.49
19	1.15	3.37	3.42	3.46	3.53
20	1.23	4.38	4.55	4.63	4.72
21	1.31	6.01	6.08	6.13	6.21
22	1.40	7.59	7.82	7.93	8.12
23	1.50	9.95	10.22	10.40	10.73
24	1.60	12.55	13.03	13.30	13.77
25	1.70	16.10	16.38	16.55	16.80

REMARKS: _____ TIME TAKEN : _____

(2) ... P' (kg/cm²) effective pressure obtained by (1) - (3) : P' = P - RG
(3) ... RG (kg/cm²) obtained from Rn (120) using Rg Calibration Chart.
(8) ... Creep Index, I_c Obtained by (7) - (5); I_c = Rn (120) - Rn (30) in mm.
(9) ... R_s inside radius obtained by the following equations:
Medium Rubber
R_s(cm) = {Rn(120) + 23.5} / 10 for P <= 10
R_s(cm) = {Rn(120) + 23.5-[P-10]/666} /10 for P>10

(10) ... R_o outside radius, obtained by using R_o = (R_s² + A/π)^{1/2}, where A = 24.63cm².

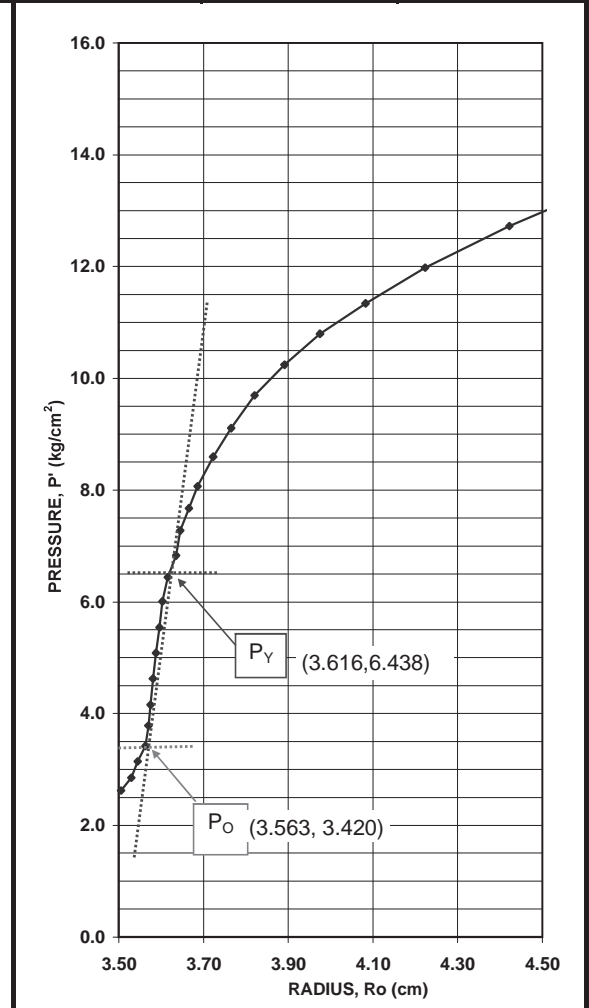
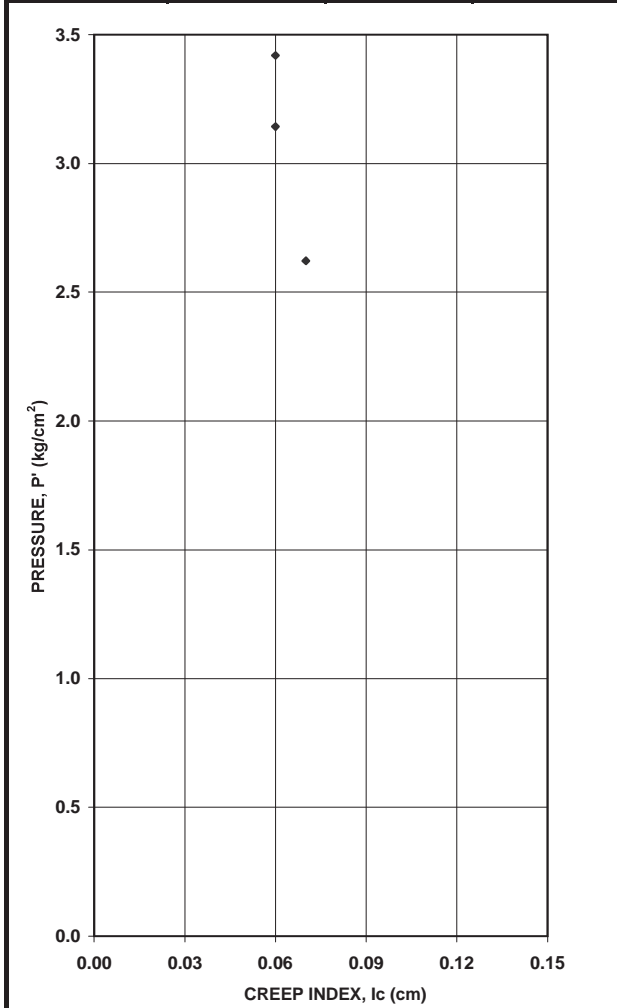
TEST LOCATION: P-8	TEST DEPTH: 18m
TEST NO.: 2	TEST DATE: 27/03/2012
PAGE:	N - VALUE: 17

RUBBER TYPE: **M** SOIL TYPE: **FINE SAND**
PROJECT:
PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1
BRIDGE CONSTRUCTION AND REHABILITATION PROJECT
CLIENT: **ORIENTAL CONSULTANTS CO.LTD**

SPECIALIST SUB-CONTRACTOR:
SURVEY2000
TEL: 8818386
Email: survey2k@yahoo.com

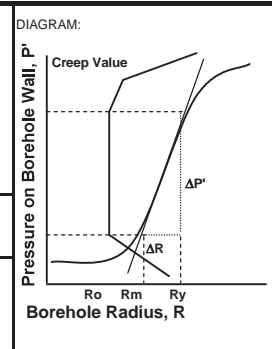
PRESSUREMETER TEST DATA RESULTS

	EARTH PRESSURE AT REST	YIELD PRESSURE	FAILURE PRESSURE	COEFFICIENT OF SOIL REACTION	MODULUS OF ELASTICITY	MEAN RADIUS OF K VALUE CALCULATION
NO. OF CYCLE	P_o (kg/cm ²)	P_y (kg/cm ²)	P_f (kg/cm ²)	K_m (kg/cm ³)	E_m (kg/cm ²)	R_m (cm)
1st	3.420	6.438	-	56.943	265.718	3.590



REMARKS: ..

P_o, P_o' Earth Pressure at Rest
 P_y, P_y' Yield Pressure
 $E = (1 + \nu) \cdot R_m \cdot K_m$ Modulus of Elasticity
 $\nu = 0.3$



TEST LOCATION: P8	TEST DEPTH: 18M
TEST NO.: 2	TEST DATE: 27/3/2012
PAGE:	N - VALUE: 17

RUBBER TYPE: **MEDIUM** N VALUE: **17** SOIL TYPE: **FINE SAND**

PROJECT:
PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT

SPECIALIST SUB-CONTRACTOR:
SURVEY2000
 TEL: 8818386
 Email: survey2k@yahoo.com

CLIENT:
BANGLADESH ROADS & HIGHWAY DEPARTMENT

CONSULTANT:
ORIENTAL COSULTANTS CO. LTD

PRESSUREMETER TEST DATA RESULTS

No.	(1) P Mpa	(2) Rn ₀ mm	(3) Rn ₃₀ mm	(4) Rn ₆₀ mm	(5) Rn ₁₂₀ mm
1	0.11	-2.29	-2.29	-2.28	-2.27
2	0.14	-1.90	-1.88	-1.87	-1.85
3	0.17	-1.23	-1.20	-1.17	-1.15
4	0.20	-0.48	-0.45	-0.42	-0.39
5	0.23	0.00	0.10	0.14	0.16
6	0.26	0.42	0.49	0.54	0.59
7	0.29	0.80	0.84	0.87	0.90
8	0.33	1.11	1.13	1.17	1.19
9	0.37	1.34	1.37	1.39	1.40
10	0.41	1.59	1.60	1.63	1.65
11	0.45	1.96	2.00	2.01	2.03
12	0.50	2.51	2.55	2.56	2.60
13	0.55	3.22	3.27	3.31	3.35
14	0.60	4.12	4.18	4.21	4.26
15	0.65	5.37	5.48	5.52	5.56
16	0.70	6.80	6.93	7.01	7.09
17	0.75	8.51	8.76	8.83	9.00
18	0.80	11.00	11.29	11.40	11.65
19	0.85	13.11	13.80	14.07	14.47
20	0.90	15.77	16.08	16.33	16.50
21	0.95	17.15	17.16	17.17	17.17
22					
23					
24					
25					
26					

REMARKS:

TIME TAKEN :

(2) ... P' (kg/cm²) effective pressure obtained by (1) - (3) : P' = P - RG
 (3) ... RG (kg/cm²) obtained from Rn (120) using Rg Calibration Chart.
 (8) ... Creep Index, I_c Obtained by (7) - (5); I_c = Rn (120) - Rn (30) in mm.
 (9) ... R_s inside radius obtained by the following equations:
Medium Rubber
 R_s(cm) = {Rn(120) + 23.5} / 10 for P <= 10
 R_s(cm) = {Rn(120) + 23.5-[P-10]/666} /10 for P>10
 (10) ... R_o outside radius, obtained by using R_o = (R_s² + A/π)^{1/2}, where A = 24.63cm².

TEST LOCATION:

TEST DEPTH:

P-13

10m

TEST NO.:

TEST DATE:

1

28/03/2012

PAGE:

N - VALUE:

11

RUBBER TYPE:

M

SOIL TYPE:

FINE SAND

SPECIALIST SUB-CONTRACTOR:

SURVEY2000

PROJECT:

**PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1
 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT**

TEL: 8818386

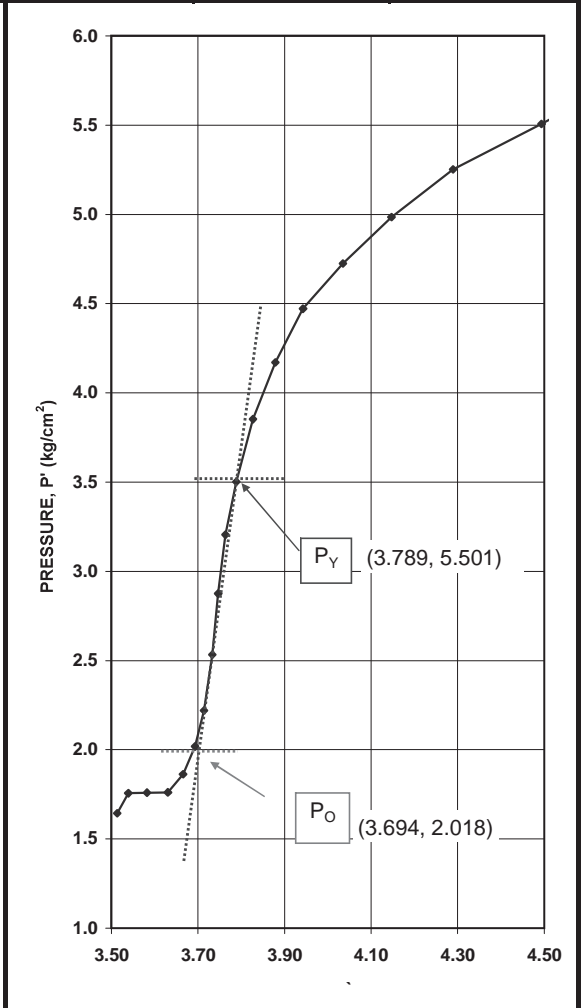
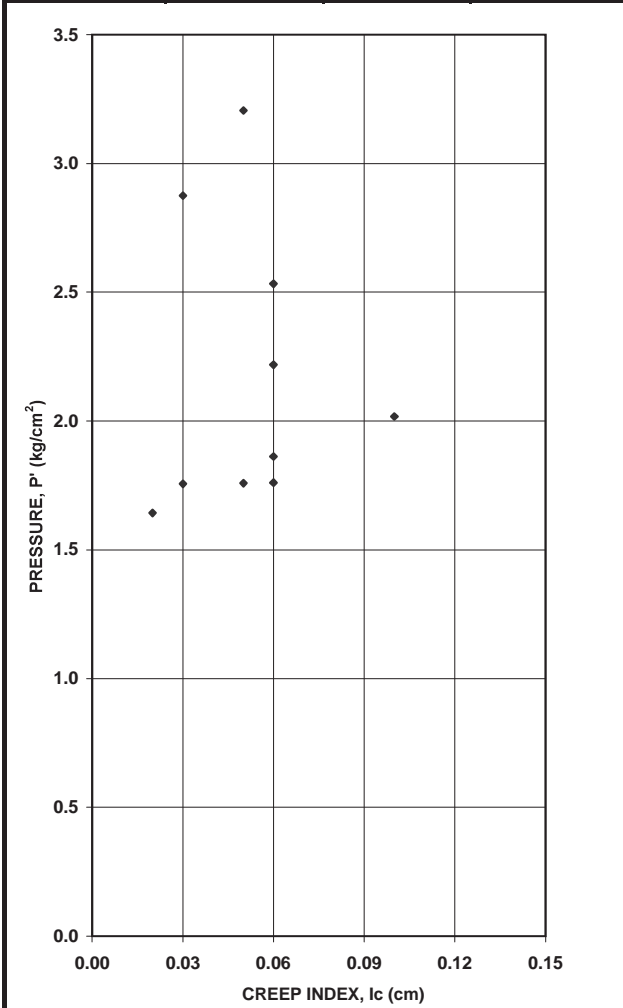
Email: survey2k@yahoo.com

CLIENT:

ORIENTAL CONSULTANTS CO.LTD

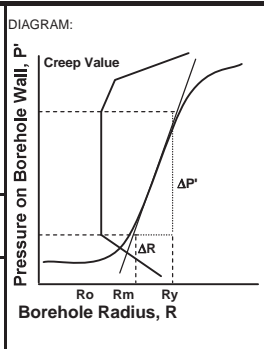
PRESSUREMETER TEST DATA RESULTS

	EARTH PRESSURE AT REST	YIELD PRESSURE	FAILURE PRESSURE	COEFFICIENT OF SOIL REACTION	MODULUS OF ELASTICITY	MEAN RADIUS OF K VALUE CALCULATION
NO. OF CYCLE	P_o (kg/cm ²)	P_y (kg/cm ²)	P_f (kg/cm ²)	K_m (kg/cm ³)	E_m (kg/cm ²)	R_m (cm)
1st	2.018	5.501	-	36.663	178.328	3.742



REMARKS: ..

P_o, P_o' Earth Pressure at Rest
 P_y, P_y' Yield Pressure
 E = (1 + ν) · R_m · K_m Modulus of Elasticity
 ν = 0.3



TEST LOCATION: P-13	TEST DEPTH: 10m
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TEST NO.: 1	TEST DATE: 28/03/2012
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RUBBER TYPE: MEDIUM	N VALUE: 11	SOIL TYPE: FINE SAND
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PROJECT:
PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT

SPECIALIST SUB-CONTRACTOR:
SURVEY2000
 TEL: 8818386
 Email: survey2k@yahoo.com

CLIENT:
BANGLADESH ROADS & HIGHWAY DEPARTMENT

CONSULTANT:
ORIENTAL COSULTANTS CO. LTD

PRESSUREMETER TEST DATA RESULTS

No.	(1) P kg/cm ²	(2) P' = P - RG kg/cm ²	(3) RG kg/cm ²	(4) Rn ₀ mm	(5) Rn ₃₀ mm	(6) Rn ₆₀ mm	(7) Rn ₁₂₀ mm	(8) Creep Index, I _c mm	(9) Rs cm	(10) Ro cm
1	1.22	2.13	-0.90	-3.07	-3.06	-3.06	-3.05	0.01	2.05	3.47
2	1.53	2.15	-0.62	-2.54	-2.50	-2.49	-2.48	0.02	2.10	3.50
3	1.83	2.20	-0.37	-1.99	-1.95	-1.94	-1.93	0.02	2.16	3.53
4	2.14	2.22	-0.08	-1.38	-1.33	-1.30	-1.28	0.05	2.22	3.57
5	2.45	2.30	0.15	-0.85	-0.79	-0.75	-0.72	0.07	2.28	3.61
6	2.75	2.46	0.29	-0.44	-0.40	-0.38	-0.35	0.05	2.32	3.63
7	3.06	2.63	0.43	-0.17	-0.08	-0.02	0.02	0.10	2.35	3.66
8	3.36	2.83	0.53	0.18	0.22	0.26	0.30	0.08	2.38	3.67
9	3.77	3.13	0.64	0.58	0.60	0.60	0.62	0.02	2.41	3.70
10	4.18	3.50	0.68	0.68	0.70	0.71	0.73	0.03	2.42	3.70
11	4.59	3.85	0.74	0.83	0.86	0.89	0.91	0.05	2.44	3.71
12	5.10	4.28	0.82	1.05	1.09	1.12	1.15	0.06	2.47	3.73
13	5.61	4.67	0.94	1.48	1.52	1.52	1.54	0.02	2.50	3.76
14	6.12	5.04	1.08	1.85	1.93	1.98	2.00	0.07	2.55	3.79
15	6.63	5.38	1.24	2.49	2.55	2.56	2.59	0.04	2.61	3.83
16	7.14	5.71	1.42	3.09	3.21	3.24	3.30	0.09	2.68	3.88
17	7.65	6.01	1.63	3.91	4.10	4.16	4.21	0.11	2.77	3.94
18	8.36	6.46	1.90	5.18	5.40	5.52	5.57	0.17	2.91	4.04
19	9.17	6.93	2.25	7.15	7.48	7.65	7.78	0.30	3.13	4.20
20	10.19	7.59	2.60	9.67	10.40	10.75	11.10	0.70	3.46	4.45
21	11.01	8.10	2.91	13.33	14.03	14.45	15.01	0.98	3.85	4.76
22	11.82	8.74	3.09	16.40	16.98	17.16	17.16	0.18	4.07	4.94

REMARKS: _____ TIME TAKEN : _____

(2) ... P' (kg/cm²) effective pressure obtained by (1) - (3) : P' = P - RG
 (3) ... RG (kg/cm²) obtained from Rn (120) using Rg Calibration Chart.
 (8) ... Creep Index, I_c Obtained by (7) - (5); I_c = Rn (120) - Rn (30) in mm.
 (9) ... R_s inside radius obtained by the following equations:
Medium Rubber Hard Rubber
 $R_s(\text{cm}) = \{Rn(120) + 23.5\} / 10$ for $P \leq 10$ $R_s(\text{cm}) = \{Rn(120) + 23.5\} / 10$ for $P \leq 20$
 $R_s(\text{cm}) = \{Rn(120) + 23.5 - [P-10]/666\} / 10$ for $P > 10$ $R_s(\text{cm}) = \{Rn(120) + 23.5 - [P-20] / 400\} / 10$ for $P > 20$
 (10) ... R_o outside radius, obtained by using $R_o = (R_s^2 + A/\pi)^{1/2}$, where A = 24.63cm².

TEST LOCATION: P-13	TEST DEPTH: 14m
TEST NO.: 2	TEST DATE: 28/03/2012
PAGE:	N - VALUE:

RUBBER TYPE: MIDIUM	GROUND WATER LEVEL:	N VALUE: 13	SOIL TYPE: FINE SAND
PROJECT: PREPERATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT.			
CLIENT: BANGLADESH ROADS & HIGHWAY Department			CONSULTANT: ORIENTAL CONSULTANTS CO. LTD

SPECIALIST SUB-CONTRACTOR:
SURVEY2000
 TEL: 8818386
 Email: survey2k@yahoo.com

PRESSUREMETER TEST DATA RESULTS

No.	(1) P Mpa	(2) Rn ₀ mm	(3) Rn ₃₀ mm	(4) Rn ₆₀ mm	(5) Rn ₁₂₀ mm
1	0.12	-3.07	-3.06	-3.06	-3.05
2	0.15	-2.54	-2.50	-2.49	-2.48
3	0.18	-1.99	-1.95	-1.94	-1.93
4	0.21	-1.38	-1.33	-1.30	-1.28
5	0.24	-0.85	-0.79	-0.75	-0.72
6	0.27	-0.44	-0.40	-0.38	-0.35
7	0.30	-0.17	-0.08	-0.02	0.02
8	0.33	0.18	0.22	0.26	0.30
9	0.37	0.58	0.60	0.60	0.62
10	0.41	0.68	0.70	0.71	0.73
11	0.45	0.83	0.86	0.89	0.91
12	0.50	1.05	1.09	1.12	1.15
13	0.55	1.48	1.52	1.52	1.54
14	0.60	1.85	1.93	1.98	2.00
15	0.65	2.49	2.55	2.56	2.59
16	0.70	3.09	3.21	3.24	3.30
17	0.75	3.91	4.10	4.16	4.21
18	0.82	5.18	5.40	5.52	5.57
19	0.90	7.15	7.48	7.65	7.78
20	1.00	9.67	10.40	10.75	11.10
21	1.08	13.33	14.03	14.45	15.01
22	1.16	16.40	16.98	17.16	17.16
23					
24					
25					

REMARKS:

TIME TAKEN :

(2) ... P' (kg/cm²) effective pressure obtained by (1) - (3) : P' = P - RG
 (3) ... RG (kg/cm²) obtained from Rn (120) using Rg Calibration Chart.
 (8) ... Creep Index, I_c Obtained by (7) - (5); I_c = Rn (120) - Rn (30) in mm.
 (9) ... R_s inside radius obtained by the following equations:
Medium Rubber
 R_s(cm) = {Rn(120) + 23.5} / 10 for P <= 10
 R_s(cm) = {Rn(120) + 23.5-[P-10]/666} /10 for P>10
 (10) ... R_o outside radius, obtained by using R_o = (R_s² + A/π)^{1/2}, where A = 24.63cm².

TEST LOCATION:

TEST DEPTH:

P-13

14m

TEST NO.:

TEST DATE:

2

28/03/2012

PAGE:

N - VALUE:

13

RUBBER TYPE:

SOIL TYPE:

M

FINE SAND

SPECIALIST SUB-CONTRACTOR:

SURVEY2000

PROJECT:

**PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1
 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT**

TEL: 8818386

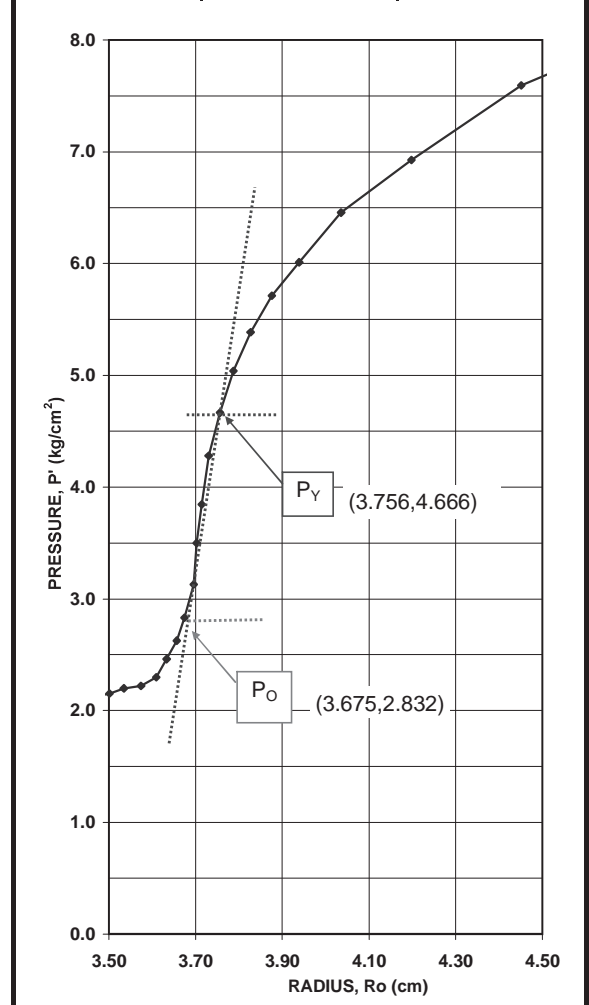
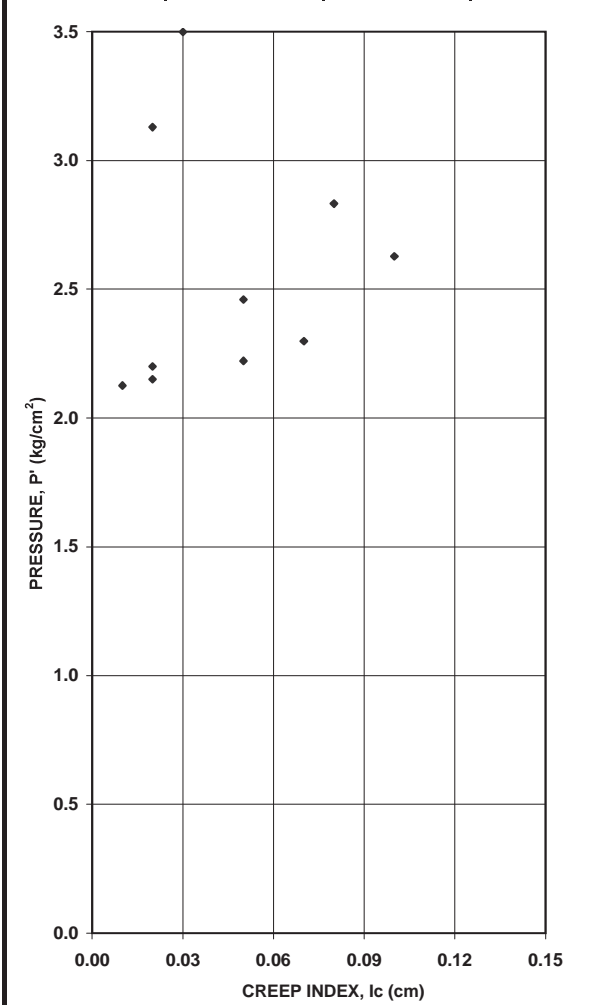
Email: survey2k@yahoo.com

CLIENT:

ORIENTAL CONSULTANTS CO.LTD

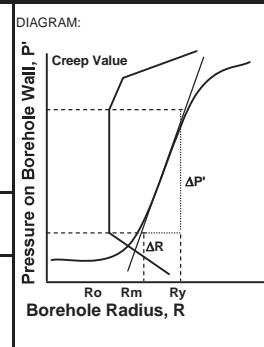
PRESSUREMETER TEST DATA RESULTS

	EARTH PRESSURE AT REST	YIELD PRESSURE	FAILURE PRESSURE	COEFFICIENT OF SOIL REACTION	MODULUS OF ELASTICITY	MEAN RADIUS OF K VALUE CALCULATION
NO. OF CYCLE	P_o (kg/cm ²)	P_y (kg/cm ²)	P_f (kg/cm ²)	K_m (kg/cm ³)	E_m (kg/cm ²)	R_m (cm)
1st	4.666	2.832	-	22.642	109.364	3.716



REMARKS:

P_o, P_o' Earth Pressure at Rest
 P_y, P_y' Yield Pressure
 $E = (1 + \nu) \cdot R_m \cdot K_m$ Modulus of Elasticity
 $\nu = 0.3$



TEST LOCATION: P-13	TEST DEPTH: 14m
TEST NO.: 2	TEST DATE: 28/03/2012

RUBBER TYPE: **MEDIUM**
 N VALUE: **13**
 SOIL TYPE: **FINE SAND**

PROJECT:
PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT

SPECIALIST SUB-CONTRACTOR:
SURVEY2000
 TEL: 8818386
 Email: survey2k@yahoo.com

CLIENT:
BANGLADESH ROADS & HIGHWAY DEPARTMENT

CONSULTANT:
ORIENTAL COSULTANTS CO. LTD

PRESSUREMETER TEST DATA RESULTS

No.	(1) P kg/cm ²	(2) P' = P - RG kg/cm ²	(3) RG kg/cm ²	(4) Rn ₀ mm	(5) Rn ₃₀ mm	(6) Rn ₆₀ mm	(7) Rn ₁₂₀ mm	(8) Creep Index, I _c mm	(9) Rs cm	(10) Ro cm
1	1.22	2.13	-0.90	-3.07	-3.06	-3.06	-3.05	0.01	2.05	3.47
2	1.53	2.15	-0.62	-2.54	-2.50	-2.49	-2.48	0.02	2.10	3.50
3	1.83	2.20	-0.37	-1.99	-1.95	-1.94	-1.93	0.02	2.16	3.53
4	2.14	2.22	-0.08	-1.38	-1.33	-1.30	-1.28	0.05	2.22	3.57
5	2.45	2.30	0.15	-0.85	-0.79	-0.75	-0.72	0.07	2.28	3.61
6	2.75	2.46	0.29	-0.44	-0.40	-0.38	-0.35	0.05	2.32	3.63
7	3.06	2.63	0.43	-0.17	-0.08	-0.02	0.02	0.10	2.35	3.66
8	3.36	2.83	0.53	0.18	0.22	0.26	0.30	0.08	2.38	3.67
9	3.77	3.13	0.64	0.58	0.60	0.60	0.62	0.02	2.41	3.70
10	4.18	3.50	0.68	0.68	0.70	0.71	0.73	0.03	2.42	3.70
11	4.59	3.85	0.74	0.83	0.86	0.89	0.91	0.05	2.44	3.71
12	5.10	4.28	0.82	1.05	1.09	1.12	1.15	0.06	2.47	3.73
13	5.61	4.67	0.94	1.48	1.52	1.52	1.54	0.02	2.50	3.76
14	6.12	5.04	1.08	1.85	1.93	1.98	2.00	0.07	2.55	3.79
15	6.63	5.38	1.24	2.49	2.55	2.56	2.59	0.04	2.61	3.83
16	7.14	5.71	1.42	3.09	3.21	3.24	3.30	0.09	2.68	3.88
17	7.65	6.01	1.63	3.91	4.10	4.16	4.21	0.11	2.77	3.94
18	8.36	6.46	1.90	5.18	5.40	5.52	5.57	0.17	2.91	4.04
19	9.17	6.93	2.25	7.15	7.48	7.65	7.78	0.30	3.13	4.20
20	10.19	7.59	2.60	9.67	10.40	10.75	11.10	0.70	3.46	4.45
21	11.01	8.10	2.91	13.33	14.03	14.45	15.01	0.98	3.85	4.76
22	11.82	8.74	3.09	16.40	16.98	17.16	17.16	0.18	4.07	4.94

REMARKS:	TIME TAKEN :
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(2) ... P' (kg/cm ²) effective pressure obtained by (1) - (3) : P' = P - RG (3) ... RG (kg/cm ²) obtained from Rn (120) using Rg Calibration Chart. (8) ... Creep Index, I _c Obtained by (7) - (5); I _c = Rn (120) - Rn (30) in mm. (9) ... R _s inside radius obtained by the following equations: <u>Medium Rubber</u> <u>Hard Rubber</u> $R_s(\text{cm}) = \{Rn(120) + 23.5\} / 10$ for P <= 10 $R_s(\text{cm}) = \{Rn(120) + 23.5\} / 10$ for P <= 20 $R_s(\text{cm}) = \{Rn(120) + 23.5 - [P-10]/666\} / 10$ for P > 10 $R_s(\text{cm}) = \{Rn(120) + 23.5 - [P-20] / 400\} / 10$ for P > 20 (10) ... R _o outside radius, obtained by using $R_o = (R_s^2 + A/\pi)^{1/2}$, where A = 24.63cm ² .	TEST LOCATION: P-13 MEGHNA_GUMUTI	TEST DEPTH: 19m
	TEST NO.: 3	TEST DATE: 28/03/2012
	PAGE:	N - VALUE: 21

RUBBER TYPE: MWDIUM	GROUND WATER LEVEL:	N VALUE: 21	SOIL TYPE: SANDY SILT	SPECIALIST SUB-CONTRACTOR:
PROJECT: PREPERATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT.				SURVEY2000 TEL: 8818386 Email: survey2k@yahoo.com
CLIENT: BANGLADESH ROADS & HIGHWAY Department			CONSULTANT: ORIENTAL CONSULTANTS CO. LTD	

PRESSUREMETER TEST DATA RESULTS

No.	(1) P Mpa	(2) Rn ₀ mm	(3) Rn ₃₀ mm	(4) Rn ₆₀ mm	(5) Rn ₁₂₀ mm
1	0.17	-3.19	-3.18	-3.18	-3.17
2	0.20	-3.00	-3.00	-3.00	-2.98
3	0.23	-2.65	-2.58	-2.55	-2.54
4	0.26	-2.14	-2.00	-1.94	-1.92
5	0.30	-1.60	-1.46	-1.42	-1.46
6	0.34	-1.08	-0.98	-0.92	-0.89
7	0.38	-0.79	-0.68	-0.65	-0.58
8	0.42	-0.52	-0.45	-0.40	-0.36
9	0.46	-0.23	-0.15	-0.13	-0.10
10	0.50	-0.08	-0.02	0.00	0.01
11	0.55	0.11	0.15	0.17	0.18
12	0.60	0.32	0.35	0.36	0.38
13	0.65	0.62	0.64	0.65	0.66
14	0.70	0.91	0.92	0.94	0.95
15	0.77	1.46	1.47	1.47	1.48
16	0.84	2.03	2.05	2.09	2.10
17	0.91	2.70	2.77	2.79	2.84
18	0.98	3.56	3.62	3.68	3.75
19	1.06	4.71	4.77	4.82	4.89
20	1.14	6.09	6.18	6.26	6.37
21	1.22	7.84	7.99	8.09	8.20
22	1.30	9.81	10.04	10.14	10.33
23	1.38	12.20	12.47	12.60	12.75
24	1.46	15.21	15.52	15.75	16.15
25	1.50	16.06	16.98	17.03	17.14
26	1.55	17.12	17.15	17.15	17.15

REMARKS:

TIME TAKEN :

(2) ... P' (kg/cm²) effective pressure obtained by (1) - (3) : P' = P - RG
 (3) ... RG (kg/cm²) obtained from Rn (120) using Rg Calibration Chart.
 (8) ... Creep Index, I_c Obtained by (7) - (5); I_c = Rn (120) - Rn (30) in mm.
 (9) ... R_s inside radius obtained by the following equations:
Medium Rubber
 R_s(cm) = {Rn(120) + 23.5} / 10 for P <= 10
 R_s(cm) = {Rn(120) + 23.5-[P-10]/666} /10 for P>10
 (10) ... R_o outside radius, obtained by using R_o = (R_s² + A/π)^{1/2}, where A = 24.63cm².

TEST LOCATION:

TEST DEPTH:

**P13
MEGHNA_GUMUT**

19m

TEST NO.:

TEST DATE:

3

28/03/2012

PAGE:

N - VALUE:

21

RUBBER TYPE:

SOIL TYPE:

M

FINE SAND

SPECIALIST SUB-CONTRACTOR:

SURVEY2000

PROJECT:

TEL: 8818386

**PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1
BRIDGE CONSTRUCTION AND REHABILITATION PROJECT**

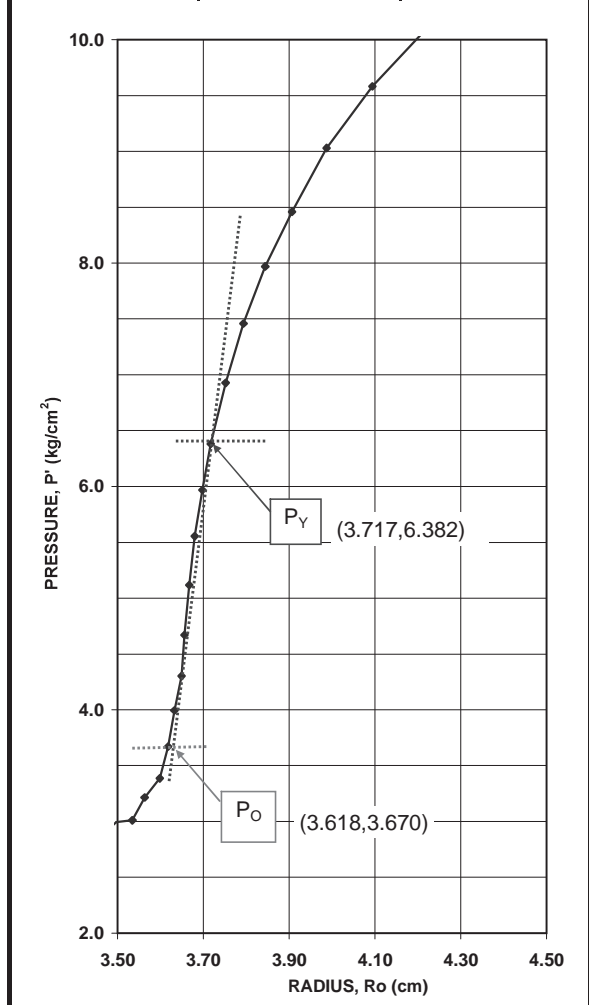
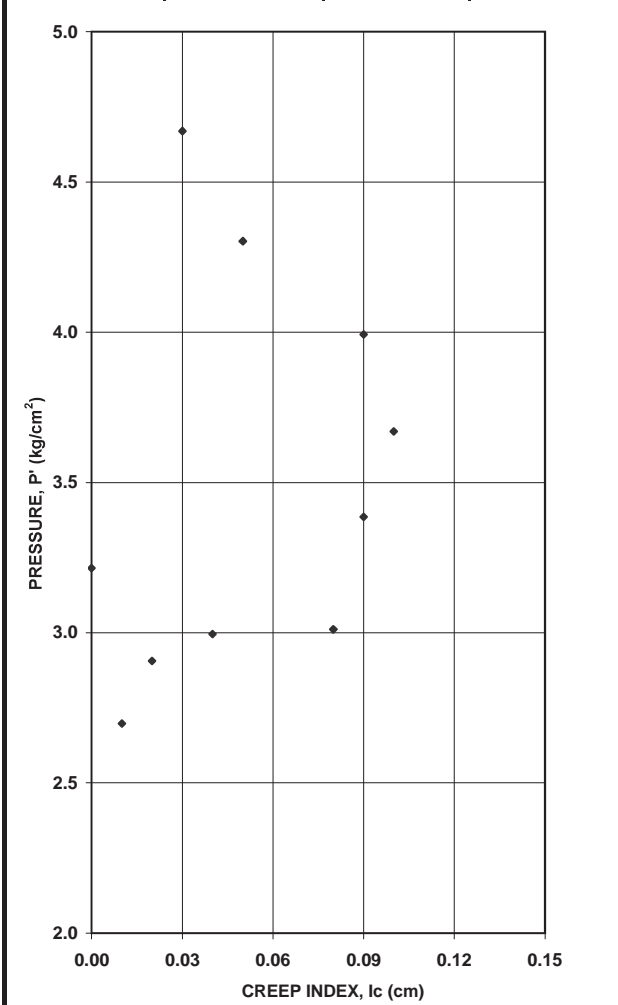
Email: survey2k@yahoo.com

CLIENT:

ORIENTAL CONSULTANTS CO.LTD

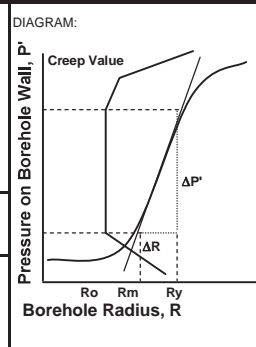
PRESSUREMETER TEST DATA RESULTS

	EARTH PRESSURE AT REST	YIELD PRESSURE	FAILURE PRESSURE	COEFFICIENT OF SOIL REACTION	MODULUS OF ELASTICITY	MEAN RADIUS OF K VALUE CALCULATION
NO. OF CYCLE	P _o (kg/cm ²)	P _y (kg/cm ²)	P _f (kg/cm ²)	K _m (kg/cm ³)	E _m (kg/cm ²)	R _m (cm)
1st	6.382	3.670	-	27.394	130.607	3.668



REMARKS:

P_o, P_o' Earth Pressure at Rest
 P_y, P_y' Yield Pressure
 E = (1 + ν) · R_m · K_m Modulus of Elasticity
 ν = 0.3



TEST LOCATION: P-13 MEGHNA_GUMUTI	TEST DEPTH: 19m
TEST NO.: 3	TEST DATE: 28/03/2012

RUBBER TYPE: MEDIUM	N VALUE: 21	SOIL TYPE: SANDY SILT
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SPECIALIST SUB-CONTRACTOR:
SURVEY2000
 TEL: 8818386
 Email: survey2k@yahoo.com

PROJECT:
PREPARATORY SURVEY FOR DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT

CLIENT:
BANGLADESH ROADS & HIGHWAY DEPARTMENT

CONSULTANT:
ORIENTAL COSULTANTS CO. LTD

CBR TEST

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
LOCAL GOVERNMENT ENGINEERING DEPARTMENT
CENTRAL QUALITY CONTROL UNIT
Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

PROCTOR DENSITY TEST FOR MDD & OMC DETERMINATION

Client : Md. Mahabubul Islam, Geologist, SURVEY 2000	Ref.No.&Date: Survey/Soil-141-2012,03.04.2012
Scheme Const. New Meghna-Gumti Bridge	Location : Daudkandi (TP-A1)
Quantity Collected from Field : 40 Kg	Quantity represented : Not Informed
Sample No : D1	Sampled By : Mahabubul Islam, Geologist.
Description of Sample : Soil	Sampled Date : 10.03.2012
Lab. Registration No. : LGED/C-Lab/07/04-05/16	Date of Test : 21.05.2012
Type of Test : MDD	Method of Test : Standard
Mold Dia : 101.4 mm	No. of Layer : 3
Wt. of rammer : 5.5 lbs	Blow/Layer : 25

Determination no.	01	02	03	04	05
Assumed Moisture Content (%)	10	12	14	16	18

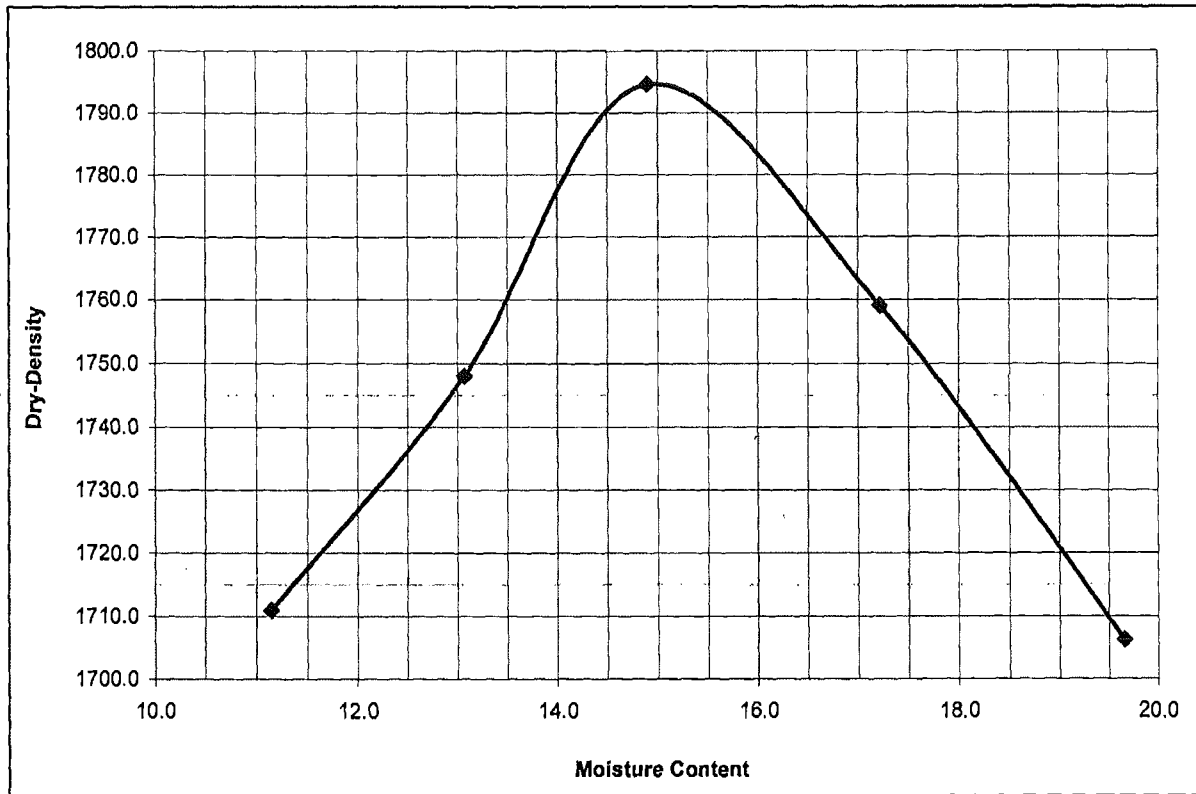
Moisture Content Determination

Moisture Can No.	17	1	8	*	3
Wt. of Can + Wet of specimen (A), gm	278.5	255.7	303.0	325.2	250.7
Wt. of Can + dry of specimen (B), gm	253.0	229.2	267.9	281.8	214.0
Wt. of Water (A-B), gm	25.5	26.5	35.1	43.4	36.7
Wt. of Can (C) gm	24.2	26.5	32.4	29.7	27.3
Wt. of dry Specimen (B-C), gm	228.8	202.7	235.5	252.1	186.7
Moisture Content $m = (A-B)/(B-C)$, %	11.2	13.1	14.9	17.2	19.7
Average Moisture Content %	11	13	15	17	20

Density Determination

Wt. of Wet Material + Mold (X), Kg	3.820	3.882	3.970	3.962	3.995
Wt. of Mold (Y), Kg	2.036	2.036	2.036	2.036	2.036
Wt. of Material in Mould (W=X-Y), Kg	1.78	1.85	1.93	1.93	1.96
Volume of Mould (V), m ³	0.000936	0.000936	0.000936	0.000936	0.000960
Wet Density ($\gamma_{WET} = W/V$) Kg/m ³	1901.71	1976.5	2061.97	2061.97	2041.67
Dry Density ($\gamma_{DRY} = (\gamma_{WET})/(1+m/100)$, k	1710.9	1748.0	1794.6	1759.1	1706.2

NOTE : 1 kg/m³ = 0.06243 lb/cft, 1 Kg = 2.2046 lb, 1m³ = 35.3147 cft.



ZERO-AIR-VOID LINE' calculation (optional) to check the accuracy of Testing :--

Specific Gravity (G_s) =

(Note: For normal soil, Sp.Gr. May be assumed 2.68, for short-cut check, For soil containing aggregates, use combined Sp. Gr.)

Assumed Moisture Content (Starting from OMC) in %, w									
Corresponding Dry Density at 'Zero-Air-Void' in $\text{kg/m}^3 = G_s \times 100 / (1 + w \times G_s / 100)$									

Maximum-Dry-Density (MDD) : 1794.6 \approx 1795 kg/m^3 Optimum-Moisture-Content (OMC) : 15 %

(NOTE ; it is recommended to express MDD (kg/m^3) and OMC (%) by rounding to the nearest whole number)

Tested by : Mr. Rabiul Haque, SAE(QC)

Supervised by : Mr. Md.Tarikuzzaman, Sr. AE(QC)

Rabiul Haque
 (Rabiul Haque)
 Sub-Assistant Engineer (QC)
 Central Quality Control Unit, LGED.

Md. Tarikuzzaman
 (Md. Tarikuzzaman)
 Sr. Assistant Engineer (QC)
 Central Quality Control Unit, LGED.

Md. Abul Bashar
 (Md. Abul Bashar)
 Executive Engineer (QC)
 Central Quality Control Unit, LGED.

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
LOCAL GOVERNMENT ENGINEERING DEPARTMENT
CENTRAL QUALITY CONTROL UNIT
Agargaon, Sher-e-Bangla Nagar, Dhaka-1207
CALIFORNIA BEARING RATIO (CBR) TEST

Client : Md. Mahabubul Islam, Geologist, SURVEY 2000 Ref. No. & Date : Survey/Soil-141-2012, 03.04.2012
 Scheme : Const. New Meghna-Gumti Bridge Location : **Daudkandi (TP-A1)**
 Sample No. : D 1 Sampled by & Date : Mahbubul Islam, Geologist, 10.3.12
 Quantity Collected from Field 40 kg Quantity Represented : Not Mentioned
 Quantity Represented : Not Mentioned Test Date : 27.05.2012
 Lab. Reg. No. : LGED/C-Lab/07/04-05/16 Description of Test Specimen : Soil
 Type of Test : **Three point CBR Test (Specimen Compacted at different density)**
 Designation of CBR Test : Soaking Condition : **Soaked (4 days) / Unsoaked / At Field Moisture**

Moisture Content Determination

Moisture Can No.		02		48		56	
Wt. of Can + Wet Specimen	(A) gm	341.6	341.6	291.8	291.8	341.3	341.3
Wt. of Can + Dry Specimen	(B) gm	298.8	298.8	257.1	257.1	300.0	300.0
Wt. of Water	(A-B) gm	42.8	42.8	34.7	34.7	41.3	41.3
Wt. of Can	(C) gm	26.7	26.7	32.4	32.4	40.9	40.9
Wt. of dry Specimen	(B-C) gm	272.1	272.1	224.7	224.7	259.1	259.1
Moisture Content	(%)	15.7	15.7	15.4	15.4	15.9	15.9
Average Moisture Content	m (%)	15.7		15.4		15.9	
Optimum Moisture Content (OMC) =				15 %			

DENSITY DETERMINATION

Mould No.		Mold No. - 09*	Mold No. - 05	Mold No. -03
Compacting	Undisturbed Specimen	----	----	----
Effort	In-Situ Test (Truck-Mounted Machine)	----	----	----
	Blows Applied (in each of 3 Layer)	18	36	56
Specimen	Av. Diameter of CBR Mold (D), mm	152.4	152.4	152.4
Volume	Av. Height Excluding Spacer (H), mm (Spacer Disc #2 Av. Height 61.48mm)	116.5 (= 178-61.5)	117.5 (= 179-61.5)	116.5 (= 178-61.5)
	Volume V= .785 X D ² X H / (1000) ³ m ³	0.002124	0.002142	0.002124
Wt. of Wet Material + Mold	(X) Kg	8.350	8.450	8.650
Wt. of Mold	(Y) Kg	4.290	4.197	4.210
Wt. of Material in Mold	(W = X - Y) Kg	4.060	4.253	4.440
Wet-Density	= W / V (kg/m ³)	1911	1985	2090
Dry density	(kg/m ³)	1652	1720	1803
Compaction %		92	96	100
(MDD and Type of Proctor Density test)		(MDD = 1795 Method -A of AASHTO T-99 (Standard Proctor)		

NOTE: 1 Kg/m³ = 0.06243 lb / cft, 1 m³ = 35.3147 cft, 1 lb / cft = 1 Kg/m³, 1 KN / m² = 0.145038psi.

SWELL DATA

Time	Date (Elapsed Time)	Mold-	H= mm	Mold-	H= mm	Mold-	H= mm
		Reading	Swell	Reading	Swell	Reading	Swell
Submerged At--							
Final Reading--							

Load Cell No : **CM-9-1624**

Maximum Capacity : **10 KN**

Load Determination :

Area of penetration Plunger : A 0.001935 m²

Date of Penetration : 27.05.2012

CBR 'LOAD-PENETRATION' DATA

Penetration Reading	Proving Ring Reading and Stress								
	Mold No. - 09*			Mold No. - 05			Mold No. -03		
		Load, P	Stress, P/A		Load, P	Stress, P/A		Load, P	Stress, P/A
in (mm)	(KN)	(Kpa)		(KN)	(Kpa)		(KN)	(Kpa)	
0.000	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.025	0.64	0.10	51.68	0.12	62.02	0.26	134.37	134.37	
0.050	1.27	0.19	98.19	0.30	155.04	0.58	299.74	299.74	
0.075	1.91	0.30	155.04	0.50	258.40	0.91	470.28	470.28	
0.100	2.54	0.46	237.73	0.74	382.43	1.23	635.66	635.66	
0.125	3.18	0.63	325.58	1.02	527.13	1.53	790.70	790.70	
0.150	3.81	0.82	423.77	1.30	671.83	1.80	930.23	930.23	
0.175	4.45	1.04	537.47	1.59	821.71	2.06	1064.60	1064.60	
0.200	5.08	1.26	651.16	1.87	966.41	2.31	1193.80	1193.80	
0.225	5.72	1.52	785.53	2.16	1116.28	2.54	1312.66	1312.66	
0.250	6.35	1.77	914.73	2.46	1271.32	2.77	1431.52	1431.52	
0.275	6.99	2.02	1043.93	2.74	1416.02	2.98	1540.05	1540.05	
0.300	7.62	2.29	1183.46	3.02	1560.72	3.19	1648.58	1648.58	
0.325	8.25								
0.350	8.89								
0.400	10.16								

CBR CALCULATION (From the graph of above data, as shown in next page)

CBR	Calculation	a) Stress at 2.54 mm = 350 Kpa	a) Stress at 2.54mm = 550 Kpa	a) Stress at 2.54mm = 636 Kpa
	Ratio (in %) =	5	8	9
	b) Stress at 5.08 mm = 850 Kpa		b) Stress at 5.08 mm = 1150 Kpa	b) Stress at 5.08 mm = 1194 Kpa
	Ratio (in %) =	8	11.2	12
	CBR =	8 %	11 %	12 %
	At Dry-Density	1652	1720	1803
	(% Compaction)	92	96	100
Remark (if any)				

NOTE : --- When stress is in KPa, use standard load (stress) 6900 KPa & 10300 Kpa for 0.100 in. and 0.200 in. penetration respectively.

--- When stress is in Psi, use standard load (stress) 1000 Psi & 1500 Psi for 0.100 in. and 0.200 in. penetration respectively.

CBR AT PARTICULAR COMPCION FROM ' Dry-Density versus CBR' GRAPH (APLICABLE FOR 3-POINT CBR TEST ONLY)

CBR at particular Degree of Compaction	At 100 % Copaction (or 1795 kg/m ³ Dry-Density) ; the soaked CBR = 12 %
	(MDD = 1795 Kg/m ³ , Standard Proctor Test)

Tested by : Mr. Rabiul Haque, SAE(QC)

Supervised by : Mr. Md.Tarikuzzaman, Sr. AE(QC)

Rabiul Haque
 (Rabiul Haque)
 Sub-Assistant Engineer (QC)
 Central Quality Control Unit, LGED.

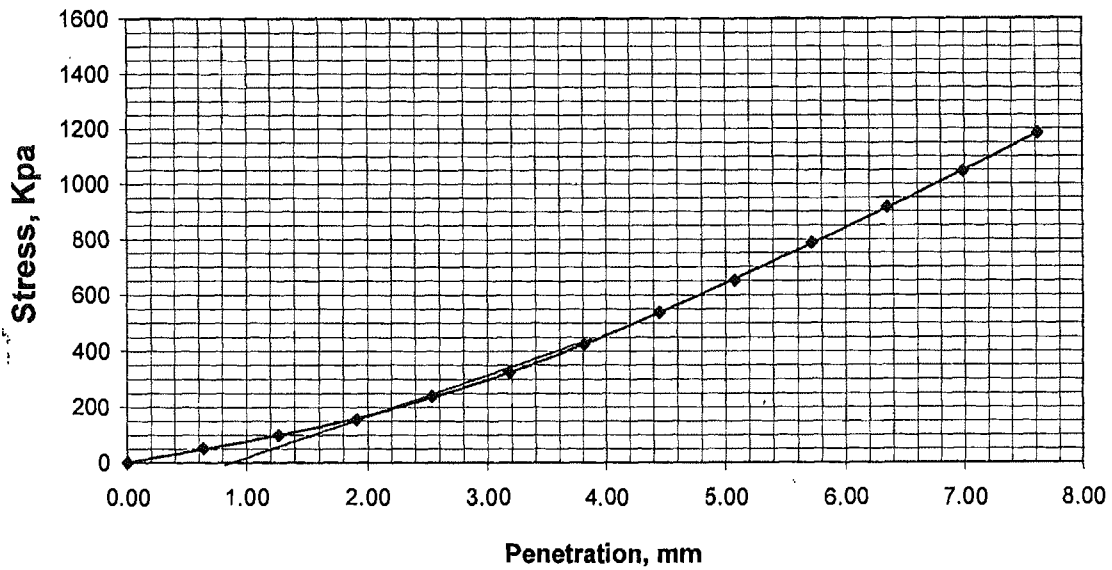
Md. Tarikuzzaman
 (Md. Tarikuzzaman)
 Sr. Assistant Engineer (QC)
 Central Quality Control Unit, LGED.

Abul Bashar
 (Md. Abul Bashar)
 Executive Engineer (QC)
 Central Quality Control Unit, LGED.

CBR LOAD-PENETRATION CURVE (Mold No. - 09*)

Dry-Density 1652 kg/m³ or 97 % Compaction

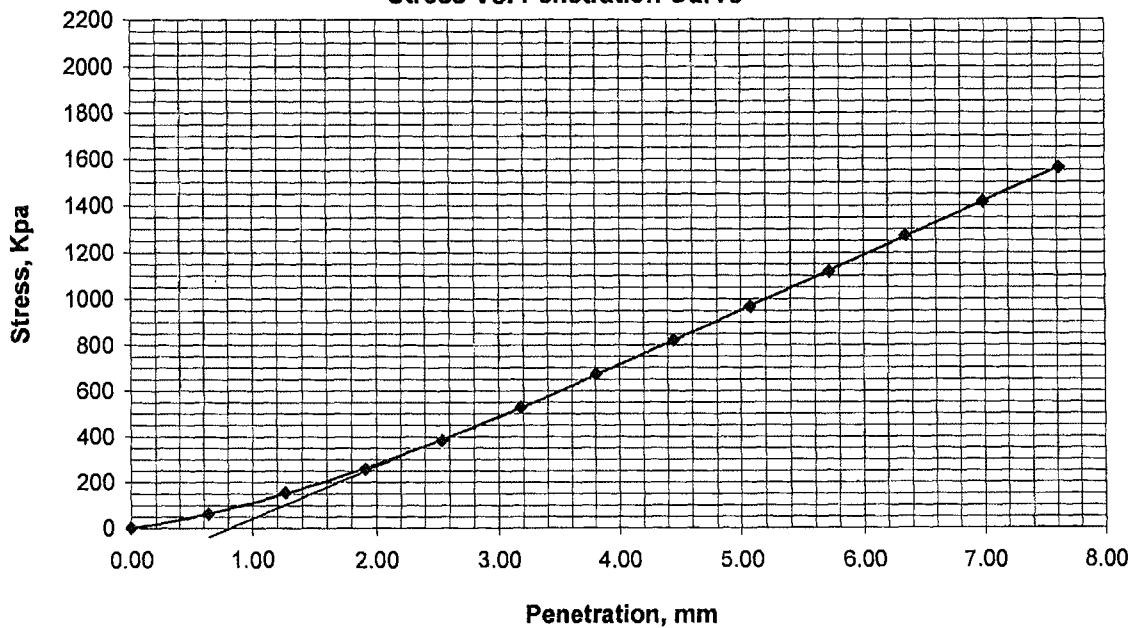
Stress Vs Penetration Curve



CBR LOAD-PENETRATION CURVE (Mold No. - 05)

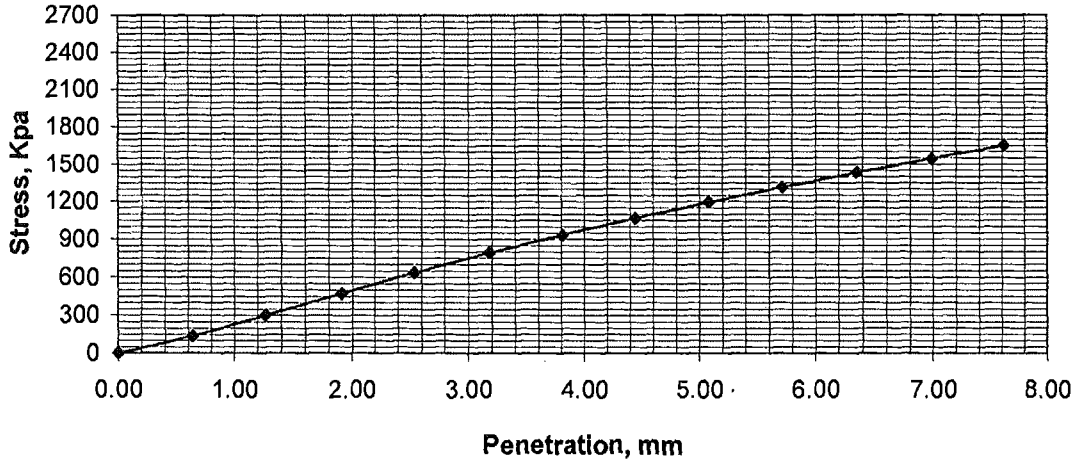
Dry-Density 1679 kg/m³ or 99 % Compaction

Stress Vs. Penetration Curve

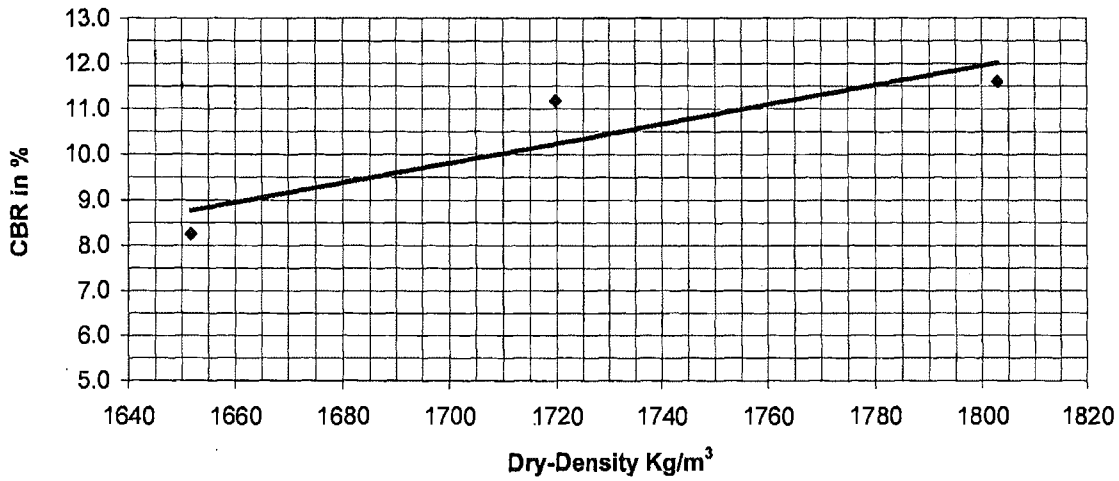


CBR LOAD-PENETRATION CURVE (Mold No. -03)
 Dry-Density 1752 kg/m³ or 103 % Compaction

Stress Vs. Penetration Curve



Dry Density Versus CBR Curve



CBR (Soaked) = 12 % at 100 % Compaction (Standard Proctor) or at 1795 Kg/m³ Dry-Density

Tested by : Mr. Rabiul Haque, SAE(QC)

Supervised by : Mr. Md. Tarikuzzaman, Sr. AE(QC)

Rabiul Haque
 (Rabiul Haque)
 Sub-Assistant Engineer (QC)
 Central Quality Control Unit, LGED.

Md. Tarikuzzaman
 (Md. Tarikuzzaman)
 Sr. Assistant Engineer (QC)
 Central Quality Control Unit, LGED.

Md. Abul Bashar
 (Md. Abul Bashar)
 Executive Engineer (QC)
 Central Quality Control Unit, LGED.

**GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
LOCAL GOVERNMENT ENGINEERING DEPARTMENT**

CENTRAL QUALITY CONTROL UNIT

Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

PROCTOR DENSITY TEST FOR MDD & OMC DETERMINATION

Client : Md. Mahabubul Islam, Geologist, SURVEY 2000

Ref. No. & Date: Survey/Soil-141-2012, 03.04.2012

Scheme Const. New Meghna-Gumti Bridge

Location : **Daudkandi (TP-A2)**

Quantity Collected from Field : 40 Kg

Quantity represented : Not Informed

Sample No : D1

Sampled By : Mahabubul Islam, Geologist.

Description of Sample : Fine Sand

Sampled Date : 10.03.2012

Lab. Registration No. : LGED/C-Lab/07/04-05/16

Date of Test : 21.05.2012

Type of Test : MDD

Method of Test : Standard

Mold Dia : 101.4 mm

Wt. of rammer : 5.5 lbs

No. of Layer : 3

Blow/Layer : 25

Determination no.	01	02	03	04	05
Assumed Moisture Content (%)	14	16	18	20	22

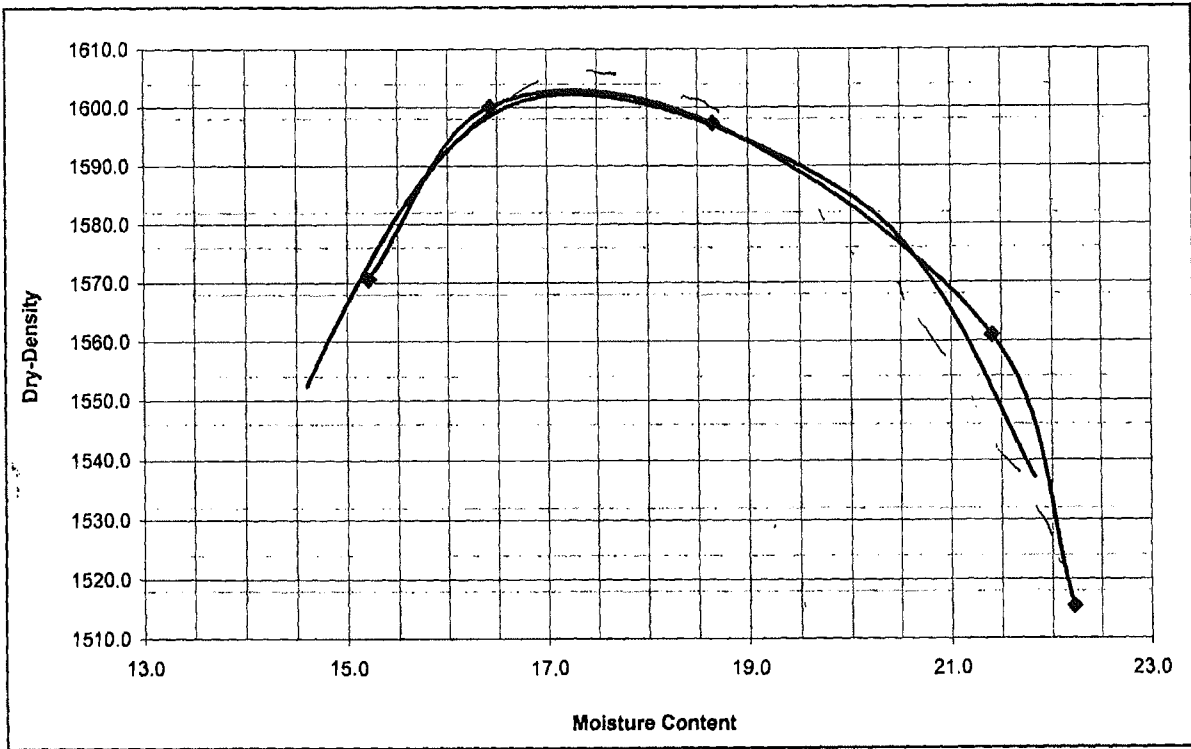
Moisture Content Determination

Moisture Can No.	10	5	14	4	6
Wt. of Can + Wet of specimen (A), gm	225.6	236.0	268.7	261.9	250.7
Wt. of Can + dry of specimen (B), gm	199.4	206.5	231.0	220.6	209.8
Wt. of Water (A-B), gm	26.2	29.5	37.7	41.3	40.9
Wt. of Can (C) gm	27.1	26.9	28.9	27.7	25.8
Wt. of dry Specimen (B-C), gm	172.3	179.6	202.1	192.9	184.0
Moisture Content $m = (A-B)/(B-C)$, %	15.2	16.4	18.7	21.4	22.2
Average Moisture Content %	15	16	19	21	22

Density Determination

Wt. of Wet Material + Mold (X), Kg	3.713	3.768	3.798	3.795	3.750
Wt. of Mold (Y), Kg	2.025	2.025	2.025	2.025	2.025
Wt. of Material in Mould (W=X-Y), Kg	1.69	1.74	1.77	1.77	1.73
Volume of Mould (V), m ³	0.000934	0.000934	0.000934	0.000934	0.000934
Wet Density ($\gamma_{WET} = W/V$) Kg/m ³	1809.42	1862.96	1895.07	1895.07	1852.25
Dry Density $\gamma_{DRY} = (\gamma_{WET})/(1+m/100)$, kg	1570.5	1600.1	1597.2	1560.9	1515.4

NOTE: 1 kg/m³ = 0.06243 lb/cft, 1 Kg = 2.2046 lb, 1 m³ = 35.3147 cft.



ZERO-AIR-VOID LINE' calculation (optional) to check the accuracy of Testing :-

Specific Gravity (G_s) =

(Note: For normal soil, Sp.Gr. May be assumed 2.68, for short-cut check. For soil containing aggregates, use combined Sp. Gr.)

Assumed Moisture Content (Starting from OMC) in %, w									
Corresponding Dry Density at 'Zero-Air-Void' in $kg/m^3 = G_s \times 100 / (1 + w \times G_s / 100)$									

Maximum-Dry-Density (MDD) : 1602.3 \approx 1602 kg/m^3 Optimum-Moisture-Content (OMC) : 17 %

(NOTE ; it is recommended to express MDD (kg/m^3) and OMC (%) by rounding to the nearest whole number)

Tested by : Mr. Rabiul Haque, SAE(QC)

Supervised by : Mr. Md.Tarikuzzaman, Sr. AE(QC)

Rabiul Haque
05.06.12
(Rabiul Haque)
Sub-Assistant Engineer (QC)
Central Quality Control Unit, LGED.

Md. Tarikuzzaman
(Md. Tarikuzzaman)
Sr. Assistant Engineer (QC)
Central Quality Control Unit, LGED.

Md. Abul Bashar
(Md. Abul Bashar)
Executive Engineer (QC)
Central Quality Control Unit, LGED.

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
LOCAL GOVERNMENT ENGINEERING DEPARTMENT

CENTRAL QUALITY CONTROL UNIT

Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

CALIFORNIA BEARING RATIO (CBR) TEST

Client : Md. Mahabubul Islam, Geologist, SURVEY 2000 Ref. No. & Date : Survey/Soil-141-2012, 03.04.2012
 Scheme : Const. New Meghna-Gumti Bridge Location : **Daudkandi (TP-A2)**
 Sample No D 1 Sampled by & Date : Mahabubul Islam, Geologist, 10.3.12
 Quantity Collected from Field : 40 kg Quantity Represented : Not Mentioned
 Quantity Represented : Not Mentioned Test Date : 27.05.2012
 Lab. Reg. No. : LGED/C-Lab/07/04-05/16 Description of Test Specimen : Fine Sand
 Type of Test : **Three point CBR Test** (Specimen Compacted at different density)
 Designation of CBR Test : Soaking Condition : **Soaked (4 days) / Unsoaked / At Field Moisture**

Moisture Content Determination

Moisture Can No.	#	10	14	
Wt. of Can + Wet Specimen (A) gm	351.3	351.3	337.1	337.1
Wt. of Can + Dry Specimen (B) gm	305.1	305.1	291.1	291.1
Wt. of Water (A-B) gm	46.2	46.2	46.0	46.0
Wt. of Can (C) gm	29.8	29.8	27.2	27.2
Wt. of dry Specimen (B-C) gm	275.3	275.3	263.9	263.9
Moisture Content (%)	16.8	16.8	17.4	17.4
Average Moisture Content m (%)	16.8	17.4	17.5	
Optimum Moisture Content (OMC) = 17 %				

DENSITY DETERMINATION

Mould No.	Mold No. - 10	Mold No. - 01	Mold No. -04
Compacting Undisturbed Specimen	-----	-----	-----
Effort In-Situ Test (Truck-Mounted Machine)	-----	-----	-----
Blows Applied (in each of 3 Layer)	18	36	56
Specimen Av. Diameter of CBR Mold (D), mm	152.4	152.4	152.4
Volume Av. Height Excluding Spacer (H), mm (Spacer Disc #2 Av. Height 61.48mm)	116.5 (= 178-61.5)	117.5 (= 179-61.5)	116.5 (= 178-61.5)
Volume $V = .785 \times D^2 \times H / (1000)^3$ m ³	0.002124	0.002142	0.002124
Wt. of Wet Material + Mold (X) Kg	11.030	11.098	11.270
Wt. of Mold (Y) Kg	7.285	7.257	7.277
Wt. of Material in Mold (W =X-Y) Kg	3.745	3.841	3.993
Wet-Density = W / V (kg/m ³)	1763	1793	1880
Dry density (kg/m ³)	1510	1527	1601
Compaction %	94	95	100
(MDD and Type of Proctor Density test)	(MDD = 1602	Method -A of AASHTO T-99 (Standard Proctor)	

NOTE: 1 Kg/m³ = 0.06243 lb / cft, 1 m³ = 35.3147 cft, 1 lb / cft = 1 Kg/m³, 1 KN / m² = 0.145038psi.

SWELL DATA

Time Date (Elapsed Time)	Mold- Reading	H= mm Swell	Mold- Reading	H= mm Swell	Mold- Reading	H= mm Swell
	Submerged At--					
Final Reading--						

Load Cell No : **CM-9-1624**

Maximum Capacity : **10 KN**

Load Determination :

Area of penetration Plunger : A 0.001935 m²

Date of Penetration : 27.05.2012

CBR 'LOAD-PENETRATION' DATA

Penetration Reading	Proving Ring Reading and Stress								
	Mold No. - 10			Mold No. - 01			Mold No. -04		
	Load, P	Stress, P/A		Load, P	Stress, P/A		Load, P	Stress, P/A	
in (mm)	(KN)	(Kpa)	(KN)	(Kpa)	(KN)	(Kpa)	(KN)	(Kpa)	(Kpa)
0.000	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.025	0.64	0.12	62.02	0.17	87.86	0.32	165.37	0.32	165.37
0.050	1.27	0.36	186.05	0.42	217.05	0.98	506.46	0.98	506.46
0.075	1.91	0.87	449.61	1.03	532.30	1.54	795.87	1.54	795.87
0.100	2.54	1.14	589.15	1.27	656.33	2.17	1121.45	2.17	1121.45
0.125	3.18	1.37	708.01	1.52	785.53	2.99	1545.22	2.99	1545.22
0.150	3.81	1.98	1023.26	2.07	1069.77	3.57	1844.96	3.57	1844.96
0.175	4.45	2.17	1121.45	2.39	1235.14	4.02	2077.52	4.02	2077.52
0.200	5.08	2.42	1250.65	2.64	1364.34	4.59	2372.09	4.59	2372.09
0.225	5.72	2.69	1390.18	2.87	1483.20	4.97	2568.48	4.97	2568.48
0.250	6.35	3.02	1560.72	3.18	1643.41	5.10	2635.66	5.10	2635.66
0.275	6.99	3.27	1689.92	3.41	1762.27	5.23	2702.84	5.23	2702.84
0.300	7.62	3.34	1726.10	3.59	1855.30	5.37	2775.19	5.37	2775.19
0.325	8.25								
0.350	8.89								
0.400	10.16								

CBR CALCULATION (From the graph of above data, as shown in next page)

CBR	Calculation	a) Stress at 2.54 mm = 700 Kpa	a) Stress at 2.54mm = 750 Kpa	a) Stress at 2.54mm = 1121 Kpa
	Ratio (in %) =	10	11	18
	b) Stress at 5.08 mm = 1350 Kpa		b) Stress at 5.08 mm = 1450 Kpa	b) Stress at 5.08 mm = 2372 Kpa
	Ratio (in %) =	13	14.1	23
	CBR =	13 %	14 %	23 %
	At Dry-Density	1510	1527	1801
	(% Compaction)	94	95	100
Remark (if any)				

NOTE : -- When stress is in KPa, use standard load (stress) 6900 KPa & 10300 Kpa for 0.100 in. and 0.200 in. penetration respectively.
 -- When stress is in Psi, use standard load (stress) 1000 Psi & 1500 Psi for 0.100 in. and 0.200 in. penetration respectively.

CBR AT PARTICULAR COMPCCTION FROM ' Dry-Density versus CBR' GRAPH (APLICABLE FOR 3-POINT CBR TEST ONLY)

CBR at particular Degree of Compaction	At 100 % Copaction (or 1602 kg/m ³ Dry-Density) ; the soaked CBR = 23 % (MDD =1602 Kg/m3 , Standard Proctor Test)
--	--

Tested by : Mr. Rabiul Haque, SAE(QC)

Supervised by : Mr. Md.Tarikuzzaman, Sr. AE(QC)

Rabiul Haque
 05.05.12
 (Rabiul Haque)
 Sub-Assistant Engineer (QC)
 Central Quality Control Unit, LGED.

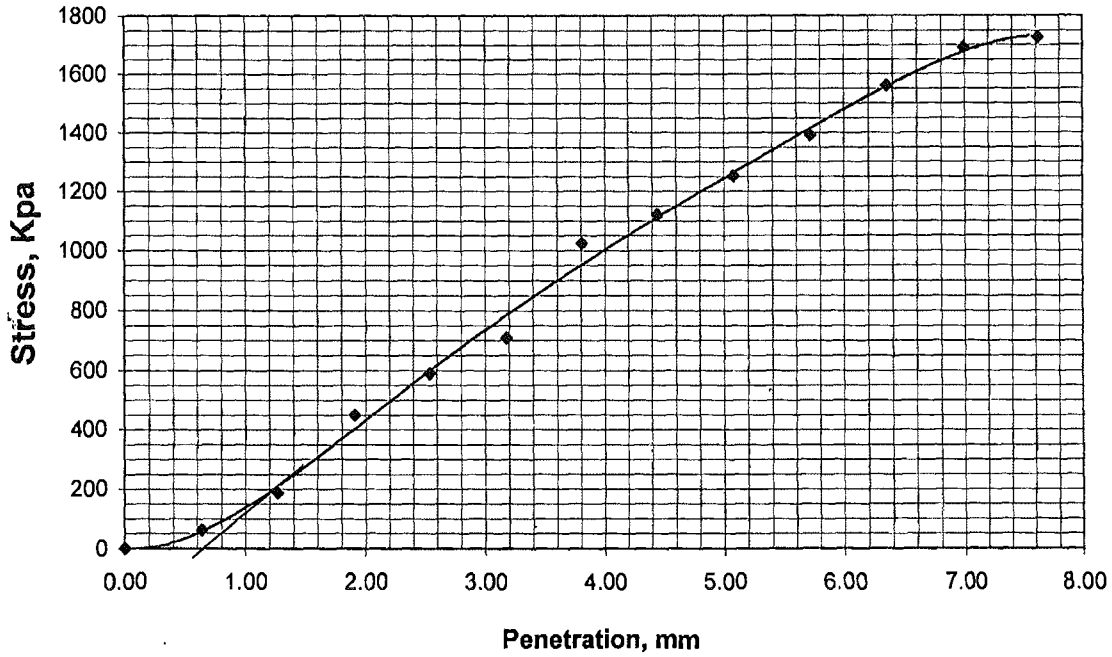
Md. Tarikuzzaman
 05/05/12
 (Md. Tarikuzzaman)
 Sr. Assistant Engineer (QC)
 Central Quality Control Unit, LGED.

Md. Abul Bashar
 05/05/12
 (Md. Abul Bashar)
 Executive Engineer (QC)
 Central Quality Control Unit, LGED.

CBR LOAD-PENETRATION CURVE (Mold No. - 10)

Dry-Density 1510 kg/m³ or 94 % Compaction

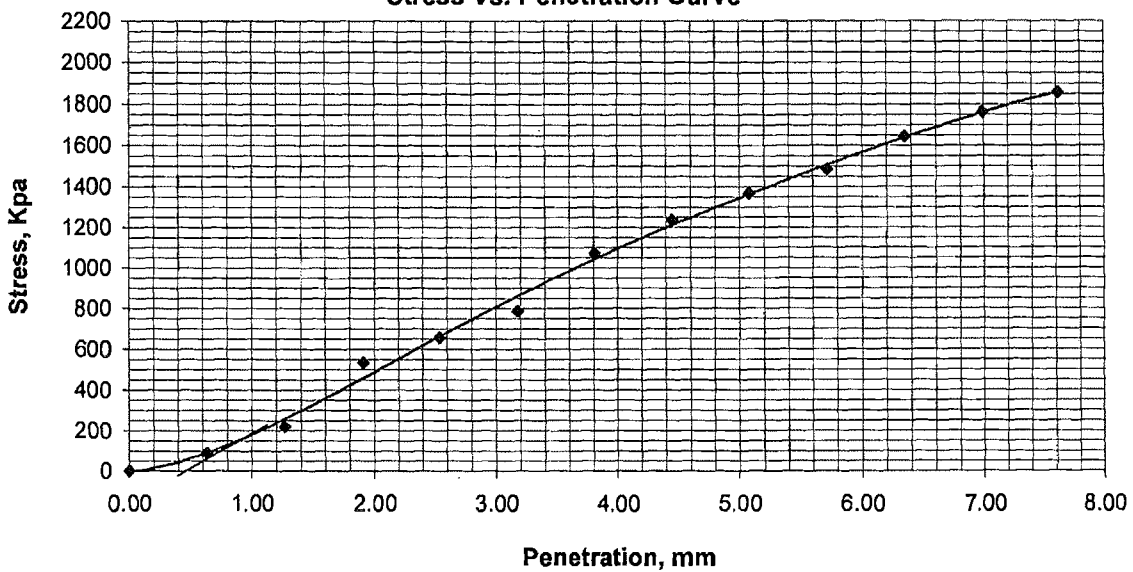
Stress Vs Penetration Curve



CBR LOAD-PENETRATION CURVE (Mold No. - 01)

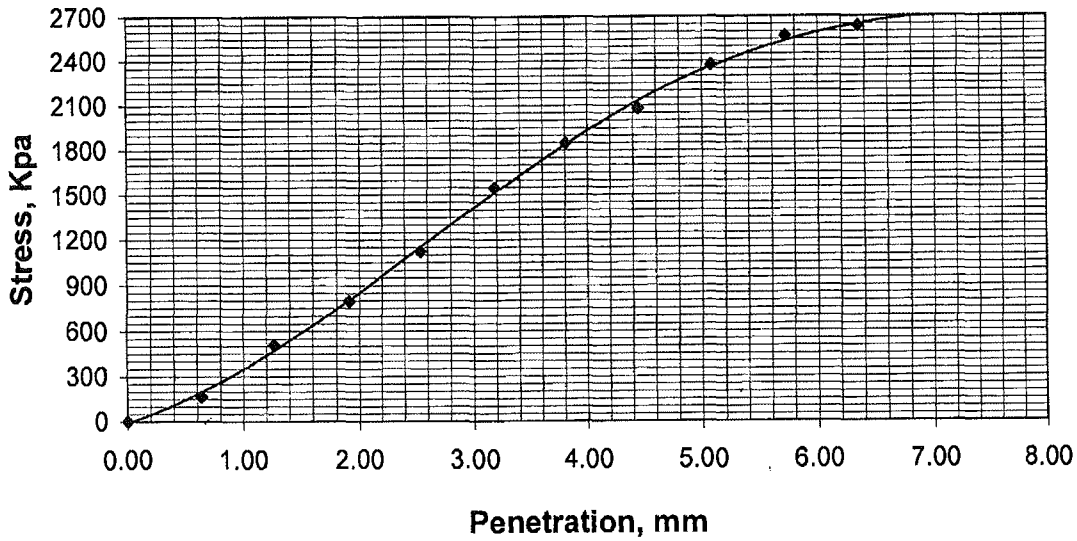
Dry-Density 1527 kg/m³ or 95 % Compaction

Stress Vs. Penetration Curve

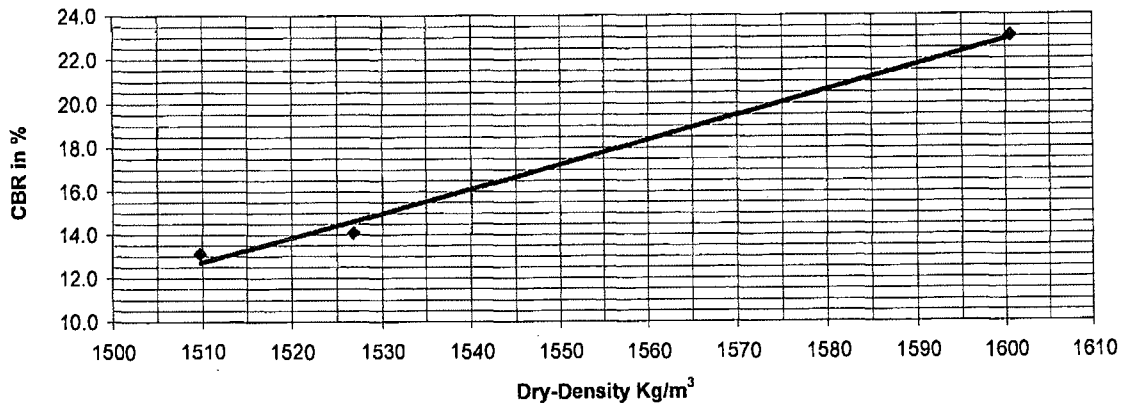


CBR LOAD-PENETRATION CURVE (Mold No. -04)
 Dry-Density 1601 kg/m³ or 100 % Compaction

Stress Vs. Penetration Curve



Dry Density Versus CBR Curve



CBR (Soaked) = 23.0 % at 100 % Compaction (Standard Proctor) or at 1602 Kg/m³ Dry-Density

Tested by : Mr. Rabiul Haque, SAE(QC)

Supervised by : Mr. Md.Tarikuzzaman, Sr. AE(QC)

Rabiul Haque
 05.06.12
 (Rabiul Haque)
 Sub-Assistant Engineer (QC)
 Central Quality Control Unit, LGED.

Md. Tarikuzzaman
 05/06/12
 (Md. Tarikuzzaman)
 Sr. Assistant Engineer (QC)
 Central Quality Control Unit, LGED.

Md. Abul Bashir
 (Md. Abul Bashir)
 Executive Engineer (QC)
 Central Quality Control Unit, LGED.

APPENDIX 4.
RECORDS OF TRAFFIC SURVEY

1. PHOTO RECORDS OF TRAFFIC SURVEY



Manual Classified Counts



Manual Classified Counts



OD Interview Survey



OD Interview Survey



Traffic Movement Count Survey

2. SURVEY FORM

Survey Form (Manual Classified Counts)

**DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT
TRAFFIC COUNT TALLY SURVEY**

DATE													
LOCATION NAME													
DIRECTION	To Dhaka						To Chittagong						
SURVEYOR NAME													
	1	2	3	4	5	6	7	8	9	10	11	12	13
	Heavy Truck	Medium Truck	Small Truck	Large Bus	Medium bus	Mercedes	Utility	Car/Taxi	Babycar/Tempo	Motor Cycle	Bicycle	Cycle Rickshaw	Cart
TO													
TO													
TO													
TO													

Survey Form (OD Interview Survey)

DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT INTERVIEW SURVEY OF ORIGIN DISTINATION

OD Survey Form1

LOCATION NAMA		DATE	
DIRECTION To Dhaka or To Chittagong		<input type="text"/> / <input type="text"/> / 2 0 1 2	
SURVEYOR NAME :		WEATHER	

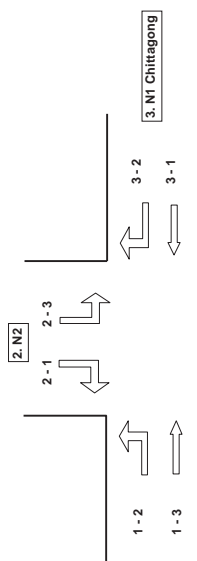
Number	<input type="text"/>	<input type="text"/>
Interview time	hour/minute <input type="text"/> : <input type="text"/>	hour/minute <input type="text"/> : <input type="text"/>
A Address of residence	<input type="text"/>	
B Vehicle type	1. Heavy Truck 2. Medium Truck 3. Small Truck 4. Large Bus 5. Medium bus 6. Microbus 7. Utility 8. Car/Taxi	9. Baby-taxi/Tempo 10. Motor Cycle 11. Bicycle 12. Cycle Rickshaw 13. Cart
C Occupation	1. Worker(Private Sector) 2. Worker(Government) 3. Student 4. House wife 5. No occupation 6. Others (<input type="text"/>)	1. Worker(Private Sector) 2. Worker(Government) 3. Student 4. House wife 5. No occupation 6. Others (<input type="text"/>)
D Number of passenger *including the driver	<input type="text"/>	
E Origin of trip	<input type="text"/>	
F Distination of trip	<input type="text"/>	
G Travel time	hours / minutes	
What is your expected travel time to distination?	<input type="text"/> : <input type="text"/>	
H What is the primary purpose of your trip	1. To work 2. To school 3. To shop/market 4. To Home 5. To business 6. Others (<input type="text"/>)	1. To work 2. To school 3. To shop/market 4. To Home 5. To business 6. Others (<input type="text"/>)
I How frequently do you use this drive	1. Everyday 2. Everyweekday 3. Two,three times a week 4. One time a week 5. Two,three times a month 6. One time a month 7. Others (<input type="text"/>)	1. Everyday 2. Everyweekday 3. Two,three times a week 4. One time a week 5. Two,three times a month 6. One time a month 7. Others (<input type="text"/>)
J Commodity / Loading volume *excluding deadweight	<input type="text"/> tonne	<input type="text"/> tonne
K Commodity type	1. Empty(no cargo) 2. Agricultur (rice, vegetable etc.) 3. Forest (timber, wood etc.) 4. Marine (fish, fish product etc.) 5. Mineral (coal, copper etc.) 6. Metal, Machine (steel, car, bike etc.) 7. Chemical (petroleum etc.) 8. Light Industry (machine parts etc.) 9. Textile (garment, shoes etc.) 10. Construction (asphalt, cement etc.) 11. Others (<input type="text"/>)	1. Empty(no cargo) 2. Agricultur (rice, vegetable etc.) 3. Forest (timber, wood etc.) 4. Marine (fish, fish product etc.) 5. Mineral (coal, copper etc.) 6. Metal, Machine (steel, car, bike etc.) 7. Chemical (petroleum etc.) 8. Light Industry (machine parts etc.) 9. Textile (garment, shoes etc.) 10. Construction (asphalt, cement etc.) 11. Others (<input type="text"/>)
L Mejor bottleneck point along the national No.1	<input type="text"/>	
M What other roads could you use to complete this trip if you could not use this route (national No.1)?	<input type="text"/>	

Road and Highway Department
*Question(J - L) for Vehicle type (1,2,3,7)

Japan International Cooperation Agency

Survey Form (Traffic Movement Count Survey)

DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT TRAFFIC COUNT AT INTERSECTION



DATE : _____

LOCATION NAME : _____

DIRECTION : _____

SURVEYOR NAME : _____

	MOTORISED													NON-MOTORISED		
	1 Heavy Truck	2 Medium Truck	3 Small Truck	4 Large Bus	5 Medium bus	6 Microbus	7 Utility	8 Car/Taxi	9 Baby-taxi/Tempo	10 Motor Cycle	11 Bicycle	12 Cycle Rickshaw	13 Cart			
TO																
TO																
TO																
TO																

Survey Form (Traffic speed survey)

**DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1
BRIDGE CONSTRUCTION AND REHABILITATION PROJECT
TRAFFIC SPEED SURVEY**

DATE _____ : _____
 SURVEYOR NAME _____ : _____

Location	KP	passing time					
		Outbound	Outbound	Outbound	Outbound	Outbound	Outbound
N-1 (0 KP)	0 KP						
Kanchpure bridge (Dhaka side)	KP						
Meghna Bridge Toll Gate	KP						
Meghna-Gumti Bridge Toll Gate	KP						
Location	KP	Inbound	Inbound	Inbound	Inbound	Inbound	Inbound
Meghna-Gumti Bridge Toll Gate	0 KP						
Meghna Bridge Toll Gate	KP						
Kanchpure bridge (Dhaka side)	KP						
N-1 (0 KP)	KP						

Road and Highway Department

Japan International Cooperation Agency

Traffic jam point

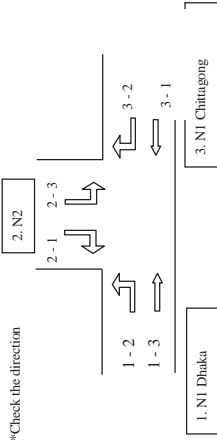
Location, KP			
Time			
Location, KP			
Time			
Location, KP			
Time			
Location, KP			
Time			

3. SURVEY RESULT

No	Location	Motorized Vehicles										Non-Motorized Vehicles			Grand Total		
		1 Heavy Truck	2 Medium Truck	3 Small Truck	4 Large Bus	5 Mini bus	6 Microbus	7 Utility	8 Car/Taxi	9 Baby-taxi/ Tempo	10 Motor Cycle	11 Bicycle	12 Cycle Rickshaw	13 Cart		Total Motor	Total Non-M
1	Demra	2,107	1,468	1,245	1,002	745	1,464	1,488	1,832	2,360	770	119	367	-	14,480	486	14,966
2	Kanchpur	4,974	3,417	2,349	4,958	3,766	2,559	2,690	3,237	5,472	1,031	178	581	8	34,453	767	35,220
3	Meghna, Meghna-Gumti	3,337	4,944	1,797	4,138	1,986	2,929	2,740	2,937	2,509	260	-	-	-	27,578	-	27,578
4	N-2:Sylhet Road	3,755	1,487	1,243	2,645	1,966	1,704	1,938	1,855	4,201	1,049	220	1,698	-	21,843	1,918	23,761
5	Modonpur to Bandar road	760	627	587	19	217	307	235	368	1,879	324	116	1,369	-	5,323	1,485	6,808
6	Modonpur to Arihazar road	4,603	1,295	1,088	1,068	897	1,145	463	784	6,127	461	185	3,683	-	17,931	3,868	21,799

No	Location	Motorized Vehicles										Non-Motorized Vehicles			Grand Total		
		1 Heavy Truck	2 Medium Truck	3 Small Truck	4 Large Bus	5 Mini bus	6 Microbus	7 Utility	8 Car/Taxi	9 Baby-taxi/ Tempo	10 Motor Cycle	11 Bicycle	12 Cycle Rickshaw	13 Cart		Total Motor	Total Non-M
	PCU Equivalency	3.00	3.00	3.00	3.00	3.00	3.00	1.00	1.00	0.75	0.75	0.50	2.00	3.00			
1	Demra	6,320	4,403	3,736	3,007	2,234	4,391	1,488	1,832	1,770	577	60	735	-	29,759	794	30,553
2	Kanchpur	14,921	10,252	7,046	14,875	11,297	7,676	2,690	3,237	4,104	773	89	1,163	23	76,872	1,275	78,147
3	Meghna, Meghna-Gumti	10,012	14,831	5,392	12,413	5,958	8,786	2,740	2,937	1,882	195	-	-	-	65,147	-	65,147
4	N-2:Sylhet Road	11,265	4,461	3,729	7,935	5,898	5,112	1,938	1,855	3,151	787	110	3,396	-	46,131	3,506	49,637
5	Modonpur to Bandar road	2,280	1,881	1,761	57	651	921	235	368	1,409	243	58	2,738	-	9,806	2,796	12,602
6	Modonpur to Arihazar road	13,809	3,885	3,264	3,204	2,691	3,435	463	784	4,595	346	93	7,366	-	36,476	7,459	43,935

DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1 BRIDGE CONSTRUCTION AND REHABILITATION PROJECT
Turning Movement Manual Traffic Count



	1-2		1-3		2-1		2-3		3-2		3-1	
	Total	Heavy vehicle	Total	Heavy vehicle	Total	Heavy vehicle	Total	Heavy vehicle	Total	Heavy vehicle	Total	Heavy vehicle
6:00 - 7:00	235	97	347	174	231	108	77	20	86	47	1161	620
7:00-8:00	237	164	399	221	167	99	100	39	137	54	1062	543
8:00 - 9:00	353	187	480	225	288	142	88	18	150	63	1071	572
9:00-10:00	355	195	428	209	293	145	101	20	120	33	933	486
10:00 - 11:00	397	187	485	248	382	164	167	33	146	42	936	434
11:00 - 12:00	342	164	475	225	352	168	219	29	173	59	818	362
12:00 - 13:00	379	170	506	270	345	152	244	33	193	60	922	374
13:00 - 14:00	380	174	519	251	377	167	223	31	187	55	795	350
14:00 - 15:00	340	158	471	248	329	156	245	58	151	45	727	356
15:00 - 16:00	325	164	528	288	328	167	275	63	177	46	666	310
16:00 - 17:00	310	176	646	313	318	193	321	61	203	62	623	297
17:00 - 18:00	316	160	627	293	324	158	256	40	232	60	775	396
18:00 - 19:00	339	161	688	324	444	223	229	60	297	99	714	434
19:00 - 20:00	403	216	704	337	411	220	253	28	261	55	605	333
20:00 - 21:00	285	175	491	268	283	180	282	31	185	59	642	388
21:00 - 22:00	222	141	321	180	273	172	211	23	150	55	440	266
Total	5218	2689	8115	4074	5145	2614	3291	587	2848	894	12890	6521

**DHAKA-CHITTAGONG NATIONAL HIGHWAY NO.1
BRIDGE CONSTRUCTION AND REHABILITATION PROJECT
TRAFFIC SPEED SURVEY**

Location	KP	2012/3/3				2012/6/3				
		Outbound	Outbound	Outbound	average	Outbound	Outbound	Outbound	Outbound	average
N-1 (0 KP)	0 KP									
Kanchpure bridge (Dhaka side)	12KP	32.72	14.40	17.14	21.42	14.69	15.32	18.46	32.73	20.30
Meghna Bridge Toll Gate	26.5KP	45.79	37.80	48.33	43.97	43.50	43.50	36.25	48.33	42.90
Meghna-Gumti Bridge Toll Gate	41.0KP	33.22	32.22	48.33	37.92	41.49	48.33	51.17	34.80	43.95
average speed 0kp to 41kp		37.24	28.14	37.93	34.44	33.23	35.72	35.29	38.62	35.71
average speed kanchpur to Meghnagumuti		39.51	35.01	48.33	40.95	42.50	45.92	43.71	41.57	43.42
Location	KP	Inbound	Inbound	Inbound	average	Inbound	Inbound	Inbound	Inbound	average
Meghna-Gumti Bridge Toll Gate	0 KP									
Meghna Bridge Toll Gate	14.5KP	20.23	43.50	36.25	33.33	45.79	39.59	41.43	41.43	42.06
Kanchpure bridge (Dhaka side)	29.0KP	27.19	43.50	37.82	36.17	39.54	31.07	48.33	36.25	38.80
N-1 (0 KP)	41.0KP	16.36	18.00	18.46	17.61	15.32	15.32	18.46	16.74	16.46
average speed 0kp to 41kp		21.26	35.00	30.84	29.03	33.55	28.66	36.07	31.47	32.44
average speed Meghnagumuti to kanchpur		23.71	43.50	37.04	34.75	42.67	35.33	44.88	38.84	40.43
Total average speed 0kp to 41kp		29.25	31.57	34.39	31.74	33.39	32.19	35.68	35.05	34.08
Total average speed Meghnagumuti to kanchpur		31.61	39.26	42.68	37.85	42.58	40.62	44.30	40.20	41.93

Road and Highway Department

Japan International Cooperation Agency

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A	B	C	C	C	D	E	F	G	H	H'	I	I'	J	K	K'	L	M
				Address of residence (Zone No.1 -28)	Vehicle type (1-13)	Occupation (1-6)	Occupation (if its 6, writ down)	Number of passenger	Origin of trip (Zone No.1-28)	Destination of trip (Zone No.1-28)	Travel time	purpose (1-6)	purpose (if its 6, writ down)	frequency (1-7)	frequency (if its 7, writ down)	Loading volume (1-11)	Commodit y type (1-11)	Commodity type (if its 11, writ down)	Mejbr bottleneck point along the national No.1	What other roads	
1	1	1	8:05	3	6	1		8	3	1	7:50	6		2							
2	1	1	8:20	2	5	1		45	9	1	7:55	6		1							
3	1	1	8:25	4	4	1		25	4	1	8:00	6		1							
4	1	1	8:30	18	4	1		38	18	1	7:20	6		1							
5	1	1	8:35	19	9	1		1	19	1	7:20	6		1							
6	1	1	8:40	2	8	1		15	2	1	8:00	6		1							
7	1	1	8:45	4	7	1		1	12	1	8:05	5		1		11					
8	1	1	8:55	4	4	1		8	4	1	8:10	6		1							
9	1	1	9:00	2	1	1		2	2	1	8:40	1		1							
10	1	1	9:10	3	10	1		2	3	1	8:50	1		1							
11	1	1	9:15	24	7	1		1	18	1	7:50	6		2							
12	1	1	9:20	25	4	1		2	25	1	8:40	6		2		11					
13	1	1	9:25	25	4	2		24	25	1	7:45	6		1							
14	1	1	9:35	2	6	1		5	2	1	8:10	1		1							
15	1	1	9:40	19	7	1		2	3	1	8:20	6		1		7					
16	1	1	9:45	4	9	1		4	4	1	8:02	6		1							
17	1	1	9:50	2	8	6		4	3	1	7:55	6		3							
18	1	1	10:00	12	5	1		50	18	1	6:20	6		1							
19	1	1	10:05	4	9	6		4	2	1	9:50	6		1							
20	1	1	10:15	24	1	6		3	24	1	6:10	6		6		2					
21	1	1	10:20	4	6	6		2	10	4	9:20	5		4							
22	1	1	11:00	2	7	6		3	2	1	10:40	4		1							
23	1	1	11:15	2	10	1		2	2	1	10:20	1		4							
24	1	1	12:00	3	9	6		6	3	1	11:50	4		1							
25	1	1	12:10	3	4	1		52	3	1	10:00	6		1							
26	1	1	12:15	12	4	2		40	12	1	10:20	6		1							
27	1	1	12:18	4	5	6		42	4	1	9:30	6		6							
28	1	1	12:22	12	5	1		35	12	1	10:00	6		1							
29	1	1	12:25	7	4	2		42	16	1	9:50	6		1							
30	1	1	12:30	4	4	2		40	4	1	9:30	6		1							
31	1	1	12:35	4	5	6		38	12	1	10:30	6		1							
32	1	1	12:40	18	4	6		43	18	1	3:05	6		1							
33	1	1	12:45	18	2	1		2	18	1	2:30	6		2		10					
34	1	1	12:50	12	3	1		2	12	1	11:20	1		3		2					
35	1	1	12:55	5	9	6		5	5	1	12:30	6		1							
36	1	1	1:00	4	1	6		3	4	1	9:50	6		2		11					
37	1	1	1:10	12	3	1		3	12	1	11:50	1		3		2					
38	1	1	1:15	5	4	6		49	16	1	10:30	6		3							
39	1	1	1:20	16	5	6		39	12	1	11:30	6		1							
40	1	1	1:25	18	1	6		5	18	1	2:20	6		4		10					
41	1	1	1:30	16	5	6		32	16	1	10:50	6		1							
42	1	1	1:35	5	6	6		5	5	1	12:15	5		2							
43	1	1	1:37	16	3	6		2	16	1	10:30	6		3		3					
44	1	1	1:40	19	3	6		4	16	1	9:30	6		3		2					
45	1	1	1:45	4	4	6		53	4	1	9:30	6		1							
46	1	1	1:52	18	1	6		4	18	1	12:10	6		3		10					
47	1	1	1:56	16	8	6		3	16	1	10:50	1		3							
48	1	1	2:00	16	2	6		2	16	1	9:20	6		1		2					
49	1	1	2:05	16	3	6		2	8	1	8:10	6		3		2					
50	1	1	2:10	12	2	6		5	12	1	10:50	6		5		2					
51	1	1	2:15	16	5	6		42	16	1	10:30	6		1							
52	1	1	2:20	16	3	6		3	16	1	11:20	6		3							
53	1	1	2:25	16	7	6		5	16	1	1:45	6		6							
54	1	1	2:30	18	4	6		53	18	1	3:15	6		1							

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 -28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Distination of trip (Zone No.1 - 28)	G Travel time	H purpose (1-6)	H' purpose (if its 6, writ down)	I frequency (1-7)	I' frequency (if its 7, writ down)	J Loading volume	K Commodit y type (1-11)	K' Commodity type (if its 11, writ down)	L Mejbr bottleneck point along the national No.1	M What other roads
55	1	1	2:35	2	9	6		4	2	1	1.45	1		4						
56	1	1	2:42	25	1	6		2	25	1	8.30	6		7		10				
57	1	1	2:50	16	6	6		6	16	1	11.20	6		7						
58	1	1	2:55	16	3	6		2	16	1	12.00	6		3						
59	1	1	3:00	12	5	1		35	12	1	12.05	6		1						
60	1	1	3:05	16	2	6		2	16	1	4.30	6		5		3				
61	1	1	3:10	5	10	3		1	5	1	2.30	6		3						
62	1	1	3:15	16	3	6		3	16	1	12.20	6		2		11				
63	1	1	3:22	18	5	6		41	18	1	12.50	6		1						
64	1	1	3:30	18	2	6		3	18	1	6.30	6		5		11				
65	1	1	3:35	2	5	6		44	2	1	12.15	6		1						
66	1	1	3:40	18	1	6		3	18	1	6.40	6		2						
67	1	1	3:45	18	8	6		4	18	1	6.30	6		7						
68	1	1	3:55	18	2	6		2	18	1	7.50	6		4						
69	1	1	4:10	18	9	6		5	18	1	3.10	6		1						
70	1	1	4:20	18	4	6		48	18	1	3.30	6		1						
71	1	1	4:30	5	9	6		2	5	1	3.15	4		3						
72	1	1	4:40	2	3	6		2	2	1	3.20	6		2						
73	1	1	4:50	16	7	4		4	16	1	1.30	4		6						
74	1	1	5:05	2	8	1		1	2	1	7.50	6		1						
75	1	1	5:15	1	1	1		4	4	1	6.55	1		2						

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 - 28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Distination of trip (Zone No.1 - 28)	G Travel time	H purpose (1-6)	H' purpose (if its 6, writ down)	I frequency (1-7)	I' frequency (if its 7, writ down)	J Loading volume	K Commodit y type (1-11)	K Commodity type (if its 11, writ down)	L Mejor bottleneck point along the national No.1	M What other roads
1	2	2	8.05	1	4	1	1	52	1	18	7.40	5	1	1						
2	2	2	8.16	1	4	1	1	4	1	18	7.00	1	2	2						
3	2	2	8.23	1	6	2	1	4	1	1	6.00	6	5	1						
4	2	2	8.32	1	4	1	1	48	1	13	7.30	1	1	1						
5	2	2	8.43	1	4	1	1	50	1	12	8.00	5	1	1						
6	2	2	8.54	18	7	1	1	3	1	18	7.00	4	5	1						
7	2	2	9.05	1	1	1	1	3	1	18	8.00	5	3	1		8				
8	2	2	9.16	1	8	1	1	4	1	12	8.30	5	3	1						
9	2	2	9.26	1	6	1	1	7	1	18	8.30	6	6	1						
10	2	2	9.49	1	2	1	1	3	1	9	8.00	5	1	1		2	2			
11	2	2	10.00	12	3	1	1	3	1	12	9.00	1	1	1		3	2			
12	2	2	10.12	1	4	1	1	48	1	16	8.45	5	1	1						
13	2	2	10.32	1	1	1	1	3	1	18	10.00	1	3	1		45	10			
14	2	2	10.34	1	3	1	1	4	1	18	10.00	1	5	1		3	7			
15	2	2	10.42	1	6	1	1	8	1	13	10.00	4	6	1						
16	2	2	10.54	1	4	1	1	46	1	18	10.15	5	1	1						
17	2	2	11.00	1	9	1	1	3	1	12	10.40	5	3	1						
18	2	2	11.06	12	5	1	1	27	1	12	10.40	5	1	1						
19	2	2	11.12	1	4	1	1	44	1	18	10.45	5	1	1						
20	2	2	11.19	1	6	1	1	7	1	12	10.50	1	5	1						
21	2	2	11.25	1	4	1	1	41	1	18	11.00	5	1	1						
22	2	2	11.32	1	2	1	1	3	1	12	10.30	1	2	1		2	10			
23	2	2	11.40	1	8	1	1	3	1	12	11.10	5	3	1						
24	2	2	11.47	1	9	1	1	5	1	12	11.00	1	1	1						
25	2	2	11.55	1	10	6	1	2	1	12	11.15	5	2	1						
26	2	2	12.02	1	4	1	1	42	1	18	11.30	1	1	1						
27	2	2	12.21	1	4	1	1	49	1	12	11.30	1	1	1						
28	2	2	12.30	1	5	1	1	30	1	9	11.30	5	1	1						
29	2	2	12.40	1	6	1	1	12	1	18	12.00	1	5	1						
30	2	2	12.49	12	4	1	1	48	1	12	12.20	5	1	1						
31	2	2	12.57	1	4	1	1	45	1	18	12.10	5	1	1						
32	2	2	1.05	32	1	10	3	2	1	12	12.15	1	2	1						
33	2	2	1.13	12	9	1	1	4	1	12	12.30	5	3	1						
34	2	2	1.20	1	3	1	1	2	1	12	12.25	1	2	1		3	10			
35	2	2	1.32	1	7	1	1	5	1	18	12.00	1	3	1						
36	2	2	1.44	1	4	1	1	40	1	18	12.00	1	1	1						
37	2	2	1.54	1	4	1	1	46	1	18	1.20	5	1	1						
38	2	2	2.03	1	1	1	1	4	1	9	1.20	5	3	1						
39	2	2	2.13	1	4	1	1	30	1	18	1.30	5	1	1						
40	2	2	2.24	9	2	1	1	7	1	9	1.00	5	2	1						
41	2	2	2.33	1	3	1	1	2	1	12	1.30	5	3	1						
42	2	2	2.42	18	1	1	1	3	1	18	1.35	5	1	1						
43	2	2	2.53	12	5	1	1	30	1	12	2.00	5	1	1						
44	2	2	2.59	1	1	1	1	4	1	18	2.10	1	2	1						
45	2	2	3.07	1	6	1	1	6	1	18	2.00	1	5	1						
46	2	2	3.15	9	2	1	1	3	1	9	2.30	1	3	1						
47	2	2	3.48	1	3	1	1	2	1	12	2.00	5	3	1						
48	2	2	4.00	1	4	1	1	42	1	18	2.30	5	1	1						
49	2	2	4.12	18	1	1	1	2	1	18	3.00	1	3	1						
50	2	2	4.24	9	6	1	1	6	1	12	3.10	4	6	1						
51	2	2	4.33	1	2	1	1	5	1	12	3.30	5	4	1						
52	2	2	4.45	1	1	1	1	3	1	18	3.00	1	3	1						
53	2	2	4.54	1	4	1	1	43	1	18	4.15	5	1	1						
54	2	2	5.02	1	3	1	1	3	1	12	4.00	1	3	1						
55	2	2	5.09	1	5	1	1	30	1	12	4.30	5	1	1						

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 - 28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Distination of trip (Zone No.1 - 28)	G Travel time	H purpose (1 - 6)	H' purpose (if its 6, writ down)	I frequency (1 - 7)	I' frequency (if its 7, writ down)	J Loading volume	K Commodit y type (1 - 11)	K' Commodity type (if its 11, writ down)	L Mejor bottleneck point along the national roads No.1	M What other roads
56	2	2	5:19	1	4	1		46	1	18	4:20	5		1						
57	2	2	5:30	1	6	1		10	1	18	4:30	1	6							
58	2	2	5:43	12	5	1		32	1	12	4:00	1	3							
59	2	2	5:49	1	7	1		6	1	12	4:20	5	3							
60	2	2	5:40	12	6	1		7	1	12	4:45	1	2							
61	2	2	6:02	12	4	1		30	1	12	5:00	1	2							
62	2	2	6:13	1	7	1		7	1	18	5:15	5	5							
63	2	2	6:18	1	4	1		49	1	18	5:00	5	1							
64	2	2	6:24	1	2	1		3	1	12	5:20	1	3			3	2			
65	2	2	6:32	1	6	1		7	1	18	5:15	1	3							
66	2	2	6:40	18	7	1		10	1	18	5:00	1	3							
67	2	2	6:50	1	6	1		7	1	18	5:20	1	5							

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 - 28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Distination of trip (Zone No.1 - 28)	G Travel time	H purpose (1-6)	H' purpose (if its 6, writ down)	I frequency (1-7)	I' frequency (if its 7, writ down)	J Loading volume	K Commodit y type (1-11)	K Commodity type (if its 11, writ down)	L Mejor bottleneck point along the national No.1	M What other roads
1	3	2	8.00	1	5	1		32	1	16	7.00	5		1						
2	3	1	8.00	1	5	1		32	1	12	7.10	5		1						
3	3	1	8.05	1	4	6		46	1	18	7.00	5		1						
4	3	2	8.05	1	8	1		2	1	12	6.00	1		2						
5	3	1	8.06	1	6	1		5	12	1	7.00	1		3						
6	3	2	8.10	12	3	1		2	1	12	7.20	1		2	3	2				
7	3	1	8.15	1	2	6		3	20	1	7.10	1		3	5	10				
8	3	2	8.15	11	1	1		4	11	12	7.30	5		1	40	2				
9	3	1	8.20	1	4	6		40	12	1	7.30	1		1						
10	3	2	8.25	1	7	1		2	1	12	6.00	5		2						
11	3	1	8.30	1	8	1		2	18	11	6.30	1		1						
12	3	1	8.37	1	5	1		28	12	1	7.00	1		1						
13	3	2	8.40	1	9	1		5	1	2	7.00	6		1						
14	3	2	8.42	1	3	1		3	1	2	7.30	1		2	3	10				
15	3	1	8.45	1	10	6		1	12	1	7.00	1		1						
16	3	1	8.50	1	7	6		5	2	1	6.40	1		1						
17	3	2	8.50	1	2	6		2	1	3	6.30	1		3	3	6				
18	3	1	9.00	1	5	1		5	12	1	7.00	1		3						
19	3	2	9.05	1	1	1		3	1	9	7.30	1		2	20	2				
20	3	1	9.08	1	8	1		2	4	1	6.30	1		1						
21	3	2	9.10	1	8	1		5	1	4	7.00	1		6						
22	3	1	9.15	1	1	6		2	2	1	7.00	5		5	45	8				
23	3	1	9.20	4	6	6		6	4	1	6.00	1		5						
24	3	2	9.20	1	2	6		3	1	12	7.20	1		3	10	10				
25	3	2	9.25	12	8	1		2	12	1	7.00	1		1						
26	3	2	9.27	1	6	1		8	1	2	7.30	1		2						
27	3	1	9.30	1	7	1		8	12	1	6.30	1		2						
28	3	1	9.35	1	3	1		4	18	1	7.20	1		3	5	6				
29	3	1	9.40	4	7	6		4	4	1	8.20	1		2						
30	3	2	9.40	1	10	6		2	1	12	8.00	1		6						
31	3	1	9.45	2	7	6		2	2	1	7.30	1		1						
32	3	2	9.50	1	9	6		4	1	2	8.20	6		3						
33	3	1	9.50	1	4	1		60	18	1	7.30	1		5						
34	3	1	9.55	3	7	1		2	3	1	8.00	5		3						
35	3	2	10.00	12	8	1		6	1	12	7.30	6		3						
36	3	1	10.00	18	1	1		3	18	1	6.00	1		5	20	10				
37	3	2	10.10	1	6	1		8	1	2	9.00	1		2						
38	3	1	10.12	1	5	1		26	12	1	7.00	1		3						
39	3	1	10.15	11	2	1		2	18	11	5.00	1		3	5	10				
40	3	1	10.20	18	4	1		40	18	1	6.00	1		1						
41	3	2	10.25	1	2	5		3	1	12	8.00	1		5	3	2				
42	3	2	10.30	1	1	1		3	1	9	7.30	5		5	45	2				
43	3	1	10.40	1	5	1		37	12	1	9.10	1		1						
44	3	2	10.45	1	4	1		48	1	18	8.30	1		3						
45	3	1	10.45	1	1	1		4	18	1	6.00	1		5	40	5				
46	3	2	10.50	1	2	1		2	1	3	8.30	1		3	10	10				
47	3	2	11.00	1	10	3		1	1	2	9.10	6		7						
48	3	2	11.05	1	8	1		2	1	2	10.00	1		3						
49	3	1	11.05	21	1	1		2	21	1	9.00	1		3	22	10				
50	3	2	11.10	1	10	6		2	1	12	9.30	1		3						
51	3	1	11.10	1	2	1		2	9	1	9.30	1		2	6	2				
52	3	1	11.15	2	5	1		45	2	1	10.00	1		2						
53	3	2	11.15	53	1	4		28	1	12	10.00	1		3						
54	3	2	11.25	1	7	1		3	1	2	10.10	1		3						
55	3	1	11.20	1	10	3		2	2	1	10.30	2		1						

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 - 28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Distination of trip (Zone No.1 - 28)	G Travel time	H purpose (1-6)	H' purpose (if its 6, writ down)	I frequency (1-7)	I' frequency (if its 7, writ down)	J Loading volume	K Commodit y type (1-11)	K Commodity type (if its 11, writ down)	L Mejor bottleneck point along the national No.1	M What other roads
56	3	1	11.25	1	5	1		45	2	1	10.30	1		1						
57	3	2	11.30	1	2	6		4	1	4	10.30	1		3		10				
58	3	1	11.35	12	8	1		5	12	1	10.00	1		1						
59	3	2	11.40	4	2	1		3	1	4	10.00	1		2		15	6			
60	3	1	11.40	2	7	1		3	2	1	10.30	1		2						
61	3	1	11.45	1	10	6		2	2	1	10.30	6		3						
62	3	1	11.50	11	2	1		3	2	11	10.20	1		2		12	2			
63	3	2	11.50	1	4	1		48	1	18	10.30	1		1						
64	3	2	11.55	1	5	1		30	1	12	10.30	1		1						
65	3	1	11.55	1	8	1		5	9	1	10.30	1		3						
66	3	1	12.00	2	3	1		2	2	1	10.30	1		2		5	6			
67	3	2	12.00	1	6	1		5	1	2	10.20	1		3						
68	3	2	12.10	1	9	6		4	1	2	10.00	1		5						
69	3	1	12.05	1	4	1		50	18	1	9.30	1		1						
70	3	1	12.10	1	5	1		30	2	1	11.00	1		1						
71	3	1	12.15	1	5	1		32	21	1	10.00	1		1						
72	3	2	12.20	1	3	1		2	1	12	11.10	1		1		3	3			
73	3	1	12.25	18	4	1		60	18	1	9.00	1		1						
74	3	1	12.30	1	7	1		3	12	1	10.00	5		3						
75	3	2	12.30	1	3	1		3	1	2	11.00	1		1		5	2			
76	3	2	12.35	18	4	1		38	1	18	11.30	1		1						
77	3	1	12.35	1	6	1		5	2	1	11.00	1		1						
78	3	1	12.40	1	2	1		5	2	1	11.00	1		1		15	11			
79	3	2	12.40	1	4	1		42	1	2	11.00	1		1						
80	3	2	12.45	1	5	1		30	1	21	10.30	1		1						
81	3	2	12.50	1	5	1		32	1	12	10.50	1		1						
82	3	1	12.55	18	4	1		52	18	1	10.00	1		1						
83	3	1	12.58	12	6	1		6	12	1	11.00	1		3						
84	3	1	1.00	1	6	1		6	2	1	10.30	1		2						
85	3	2	1.00	2	1	1		3	1	2	11.30	1		3		20	10			
86	3	1	1.05	2	10	3		1	2	1	11.00	1		1						
87	3	2	1.10	1	8	1		4	1	4	11.00	1		2						
88	3	1	1.10	1	2	1		3	1	2	11.30	1		2		15	2			
89	3	1	1.15	2	6	1		6	2	1	11.20	1		3						
90	3	2	1.20	1	2	1		2	1	12	11.30	1		2		12	11			
91	3	1	1.25	9	6	1		2	9	1	10.00	1		3						
92	3	2	1.30	1	9	6		3	1	2	11.00	1		2						
93	3	2	1.35	1	1	1		2	1	12	12.00	1		3		20	10			
94	3	2	1.40	1	10	6		2	1	2	11.45	1		5						
95	3	2	1.45	1	4	1		36	1	18	12.00	1		3						
96	3	2	1.50	1	7	1		3	1	12	12.20	1		2						
97	3	1	1.55	1	7	1		3	9	1	11.00	1		2						
98	3	1	2.00	2	3	1		3	2	1	12.30	1		4		5	2			
99	3	1	2.05	1	8	1		5	16	1	12.00	1		2						
100	3	2	2.10	1	4	1		42	1	18	12.30	1		1						
101	3	1	2.15	2	7	1		6	2	1	1.00	5		3						
102	3	2	2.20	1	4	1		40	1	18	12.00	1		1						
103	3	2	2.25	12	4	1		50	1	12	12.30	1		1						
104	3	1	2.30	1	9	6		4	2	1	12.30	1		1						
105	3	2	2.35	1	4	1		50	1	16	12.30	1		1						
106	3	1	2.40	1	7	1		4	2	1	1.00	1		3						
107	3	1	2.45	1	5	1		30	1	12	1.30	1		1						
108	3	1	2.50	12	4	1		50	12	1	1.00	1		1						
109	3	2	2.50	1	6	1		6	1	9	1.20	1		3						
110	3	2	3.00	1	8	1		5	1	18	1.00	1		2						

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 - 28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Distination of trip (Zone No.1 - 28)	G Travel time	H purpose (1 - 6)	H' purpose (if its 6, writ down)	I frequency (1 - 7)	I' frequency (if its 7, writ down)	J Loading volume	K Commodit y type (1 - 11)	K Commodity type (if its 11, writ down)	L Mejor bottleneck point along the national No.1	M What other roads
111	3	1	3.00	1	2	1	1	3	2	1	1.30	1		3		5	10			
112	3	1	3.05	2	7	1	1	5	2	1	2.00	1	2							
113	3	1	3.10	9	1	1	1	2	9	1	1.30	1	3		45	6				
114	3	1	3.15	1	8	1	1	3	21	1	2.00	1	3							
115	3	2	3.25	1	6	1	1	5	1	12	1.45	1	3							
116	3	1	3.25	1	6	1	1	3	2	1	2.30	5	2							
117	3	1	3.30	18	4	1	1	50	18	1	12.00	1	1							
118	3	2	3.35	1	3	1	1	2	1	12	2.00	1	3		5	2				
119	3	1	3.40	1	6	1	1	6	18	1	12.00	1	5		10	11				
120	3	2	3.45	1	2	1	1	4	1	16	1.30	1	3							
121	3	1	3.50	1	5	1	1	45	18	1	12.30	1	1		18	10				
122	3	2	3.50	1	1	1	1	3	1	22	2.00	1	3							
123	3	2	4.00	1	5	1	1	28	1	2	2.00	1	1							
124	3	1	4.00	1	7	1	1	3	2	1	2.30	1	2							
125	3	2	4.05	1	4	1	1	46	1	18	2.35	1	1		15	6				
126	3	1	4.05	1	6	1	1	10	7	1	2.45	1	3							
127	3	2	4.10	1	5	1	1	28	1	12	2.30	1	1							
128	3	2	4.15	1	3	1	1	3	1	18	2.00	1	2		12	9				
129	3	1	4.15	18	4	1	1	52	18	1	1.00	1	1							
130	3	1	4.25	1	8	1	1	4	21	1	1.30	5	3							
131	3	2	4.25	1	5	1	1	32	1	16	2.30	1	1							
132	3	1	4.30	2	5	1	1	30	2	1	3.00	1	1							
133	3	2	4.30	1	2	1	1	2	2	2	3.00	1	5							
134	3	2	4.40	1	8	1	1	5	1	12	3.15	1	3							
135	3	1	4.45	1	8	1	1	3	12	1	2.30	1	3							
136	3	2	4.50	1	4	1	1	38	1	12	3.00	1	1							
137	3	1	4.50	1	7	1	1	5	4	1	3.00	1	6							
138	3	1	5.00	1	8	1	1	3	2	1	3.30	5	3							
139	3	2	5.00	1	6	1	1	8	1	2	3.45	1	3							
140	3	2	5.05	1	1	1	1	3	1	9	3.30	1	2		20	11				
141	3	1	5.10	12	7	1	1	5	12	1	2.30	5	3							
142	3	1	5.15	1	8	1	1	2	2	1	3.00	1	2							
143	3	2	5.20	2	7	1	1	3	2	2	3.20	1	5							
144	3	1	5.25	1	5	1	1	30	12	1	3.30	1	1							
145	3	1	5.30	1	1	1	1	3	4	1	2.00	1	3		40	11				
146	3	2	5.30	1	1	1	1	5	1	9	3.30	1	3		25	2				
147	3	1	5.35	2	8	1	1	3	2	1	4.10	1	5							
148	3	2	5.40	1	4	1	1	52	1	18	3.40	1	1							
149	3	1	5.40	1	1	1	1	3	18	1	2.00	1	3		35	2				
150	3	1	5.45	2	2	1	1	2	2	1	3.00	1	2		5	10				
151	3	2	5.45	1	4	1	1	40	1	12	4.00	1	1							
152	3	2	5.50	1	3	1	1	2	1	2	4.10	1	5		3	6				
153	3	1	5.50	18	4	1	1	60	18	1	2.30	1	1							
154	3	1	5.55	12	5	1	1	40	12	1	3.00	1	1							
155	3	2	5.55	1	8	1	1	4	1	4	3.00	1	3							
156	3	1	6.00	1	1	1	1	2	12	1	3.30	1	2		46	6				
157	3	2	6.10	2	5	1	1	32	1	2	4.00	1	1							
158	3	1	6.10	1	10	6	1	1	2	1	3.40	1	6							
159	3	1	6.20	12	7	1	1	3	12	1	3.20	1	3							
160	3	2	6.20	1	10	6	1	2	1	2	4.20	1	4							
161	3	2	6.30	1	1	1	1	2	1	16	3.30	1	2		50	2				
162	3	2	6.35	1	1	1	1	3	1	18	3.00	1	5		36	11				
163	3	2	6.40	1	4	1	1	42	1	18	4.10	1	1							

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 - 28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Distination of trip (Zone No.1 - 28)	G Travel time	H purpose (1-6)	H' purpose (if its 6, writ down)	I frequency (1-7)	I' frequency (if its 7, writ down)	J Loading volume	K Commodit y type (1-11)	K Commodity type (if its 11, writ down)	L Mejor bottleneck point along the national No.1	M What other roads
1	4	2	8:20	12	6	1		2	1	12	7:00	1		3						
2	4	2	8:25	2	1	1		3	1	12	7:00	1		3		12				
3	4	1	8:29	1	1	1		2	2	11	7:00	1		5		20	11			
4	4	1	8:30	2	4	1		35	12	1	6:30	1		1						
5	4	2	8:32	1	5	1		18	1	12	7:15	1								
6	4	1	8:35	2	10	6		1	9	12	7:30	1		3						
7	4	1	8:37	2	1	1		3	9	18	8:30	1		5		40	10			
8	4	1	8:40	18	3	1		3	18	1	12:00	1		3		5	2			
9	4	2	8:45	1	5	1		28	1	12	7:30	1		1						
10	4	2	8:57	1	6	1		5	1	18	8:30	5		1						
11	4	1	9:00	2	6	1		7	12	9	7:30	1		1						
12	4	1	9:05	1	1	1		4	6	1	6:00	1		1		10	8			
13	4	1	9:12	2	8	1		2	2	12	7:00	1		3						
14	4	1	9:16	2	9	1		5	12	1	7:40	1		1						
15	4	1	9:20	9	6	1		1	9	2	8:00	6		1						
16	4	1	9:30	12	5	1		27	9	12	8:15	1		1						
17	4	2	9:30	1	7	1		5	1	2	7:30	1		3						
18	4	1	9:40	2	7	1		2	2	12	8:20	1		2						
19	4	2	9:42	1	10	6		1	1	2	8:00	6		1						
20	4	1	9:45	9	8	1		4	9	18	9:00	1		3						
21	4	2	9:50	2	3	1		2	2	12	9:00	1		1		3	2			
22	4	1	9:53	2	2	1		3	12	1	7:00	1		3		5	10			
23	4	2	9:55	2	6	6		2	2	18	8:00	1		6						
24	4	1	9:58	1	4	1		37	18	1	7:00	1		3						
25	4	2	10:00	2	3	1		2	2	12	8:30	1		5						
26	4	2	10:06	2	9	6		4	2	12	9:00	1		1						
27	4	2	10:07	9	2	1		2	2	9	9:30	1		1		3	2			
28	4	2	10:12	2	3	1		2	1	2	8:00	1		3		3	9			
29	4	2	10:17	2	6	1		4	12	9	8:30	1		1						
30	4	2	10:19	1	8	1		5	1	2	7:30	1		5						
31	4	2	10:22	2	6	1		4	1	2	8:00	1		1						
32	4	2	10:28	2	4	1		40	2	9	8:30	5		1						
33	4	1	10:33	1	8	1		2	12	1	7:00	1		2						
34	4	1	10:35	9	1	1		3	9	12	7:00	1		1		35	10			
35	4	1	10:40	2	1	1		2	2	1	7:30	1		5		3	11			
36	4	2	10:42	1	7	1		8	11	12	7:00	5		3						
37	4	1	10:50	2	5	1		30	2	1	8:00	1		1						
38	4	2	10:58	1	6	1		8	1	2	8:30	1		3						
39	4	1	10:58	1	8	1		3	1	2	8:00	1		3						
40	4	2	11:00	1	6	1		2	1	2	9:00	1		5						
41	4	1	11:00	2	1	1		2	2	1	9:30	1		2		10	2			
42	4	1	11:05	1	1	1		2	2	1	9:00	1		1		20	6			
43	4	2	11:07	11	8	1		5	1	12	8:30	1		5						
44	4	1	11:10	12	6	1		4	12	1	8:00	1		3						
45	4	2	11:12	2	2	1		2	2	9	10:00	1		3		15	9			
46	4	2	11:15	1	7	1		4	1	18	7:00	1		5						
47	4	1	11:15	12	6	1		3	12	1	10:00	1		5						
48	4	1	11:20	2	5	1		19	2	1	9:30	1		1						
49	4	1	11:25	1	1	1		3	2	1	10:00	1		3		36	10			
50	4	1	11:27	2	4	1		38	12	1	9:00	1		1						
51	4	1	11:30	2	1	1		3	2	1	9:30	1		2		20	2			
52	4	1	11:35	12	6	1		8	12	1	7:00	1		5						
53	4	1	11:38	1	2	1		2	2	1	10:00	1		3		3	9			
54	4	1	11:40	2	1	1		2	2	1	10:00	1		3		40	10			
55	4	2	11:45	1	5	1		35	1	12	10:00	1		1						

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 - 28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Distination of trip (Zone No.1 - 28)	G Travel time	H purpose (1-6)	H' purpose (if its 6, writ down)	I frequency (1-7)	I' frequency (if its 7, writ down)	J Loading volume	K Commodity type (1-11)	K Commodity type (if its 11, writ down)	L Major bottleneck point along the national No.1	M What other roads
56	4	2	11.48	12	6	1		3	12	9	9.30	1		1						
57	4	2	11.50	2	3	1		2	12	12	10.30	1		1		3	10			
58	4	1	11.57	2	2	1		2	2	1	10.00	1		3		5	2			
59	4	2	11.58	2	10	6		1	1	12	10.30	1		5						
60	4	1	12.00	12	1	1		3	12	1	10.00	1		2		10	9			
61	4	2	12.05	12	5	1		35	12	1	10.30	1		3		2	3			
62	4	2	12.07	9	3	1		3	12	9	9.00	1		3						
63	4	2	12.15	1	6	1		3	1	2	10.00	6		7						
64	4	1	12.19	12	6	1		5	12	1	11.00	1		2						
65	4	2	12.22	65	1	1		2	12	12	10.30	1		3		5	3			
66	4	2	12.25	2	2	1		2	12	9	10.30	1		1		36	9			
67	4	1	12.25	2	1	1		2	2	11	11.00	1		2						
68	4	2	12.30	1	5	1		29	1	2	11.15	1		1						
69	4	1	12.35	2	10	3		1	2	1	10.00	1		3						
70	4	2	12.37	1	7	1		5	2	2	10.00	1		6						
71	4	1	12.40	2	1	1		2	2	11	10.30	1		3		45	8			
72	4	1	12.43	12	5	1		27	12	1	11.00	1		3		40	2			
73	4	1	12.45	11	1	1		2	2	11	10.20	1		3						
74	4	2	12.58	9	4	1		50	18	9	8.00	1		1						
75	4	1	1.00	12	5	1		27	9	12	9.30	1		1						
76	4	2	1.05	2	1	1		3	2	12	12.30	1		5		36	10			
77	4	1	1.10	18	8	1		4	18	1	7.00	1		3						
78	4	2	1.13	78	1	1		45	1	12	11.00	1		1		45	6			
79	4	2	1.15	2	2	1		3	2	28	12.00	1		6						
80	4	2	1.25	2	8	1		3	2	12	10.00	1		1						
81	4	1	1.25	1	5	1		32	1	12	11.20	1		1						
82	4	2	1.30	1	4	1		40	16	18	6.00	1		1						
83	4	1	1.35	2	1	1		3	2	1	11.30	1		3		36	10			
84	4	2	1.40	1	5	1		30	1	12	11.00	1		1						
85	4	1	1.45	9	3	1		2	9	18	10.30	1		3		2	8			
86	4	2	1.45	12	8	1		3	12	1	11.20	1		5						
87	4	1	1.58	12	2	1		2	12	1	12.00	1		3		3	4			
88	4	1	1.49	2	10	6		1	2	1	10.45	1		5						
89	4	1	2.05	2	6	1		4	2	1	11.15	1		5						
90	4	2	2.15	2	1	1		3	2	9	12.20	1		5		10	8			
91	4	2	2.20	2	6	1		5	2	12	12.00	1		3						
92	4	1	2.25	12	6	1		6	12	1	11.30	1		3						
93	4	1	2.30	2	5	1		29	2	1	1.00	1		1						
94	4	2	2.37	1	7	1		3	1	2	12.00	1		2						
95	4	1	2.40	9	2	1		2	9	18	10.00	1		3		3	8			
96	4	2	2.43	1	3	1		2	1	12	11.00	1		3		2	2			
97	4	2	2.50	2	3	1		2	2	18	1.00	1		3		3	10			
98	4	1	2.55	1	4	1		33	12	1	11.30	1		1						
99	4	2	2.55	1	8	1		2	1	12	12.30	1		1						
100	4	1	2.59	2	1	1		3	2	1	12.20	1		2		45	6			
101	4	2	3.10	2	7	6		3	2	12	12.20	1		3						
102	4	2	3.20	1	10	6		1	1	12	1.00	1		6						
103	4	1	3.21	12	8	1		6	12	1	1.30	1		5						
104	4	2	3.32	2	2	1		2	2	9	2.00	1		5		3	2			
105	4	2	3.40	1	5	1		45	1	12	1.30	1		3						
106	4	1	3.41	1	8	1		4	12	1	12.00	1		3						
107	4	1	3.53	2	7	1		3	12	1	12.30	1		3						
108	4	2	4.00	1	6	1		4	1	12	2.00	1		5						
109	4	1	4.15	2	4	1		50	2	24	3.30	1		1						
110	4	1	4.20	12	2	1		2	12	1	2.30	1		2		4	2			

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A	B	C	C	D	E	F	G	H	H'	I	I'	J	K	K'	L	M
				Address of residence (Zone No.1 - 28)	Vehicle type (1-13)	Occupation (1-6)	Occupation (if its 6, writ down)	Number of passenger	Origin of trip (Zone No.1 - 28)	Distination of trip (Zone No.1 - 28)	Travel time	purpose (1-6)	purpose (if its 6, writ down)	frequency (1-7)	frequency (if its 7, writ down)	Loading volume	Commodit y type (1-11)	Commodity type (if its 11, writ down)	Mejor bottleneck point along the national No.1	What other roads
111	4	1	4:30	2	1	1		2	2	11	3:30	1		3		35	10			
112	4	2	4:32	1	2	1		3	1	12	2:40	1		2		10	2			
113	4	1	4:48	2	8	1		5	2	1	3:00	1		3						
114	4	2	4:50	1	5	1		35	1	12	3:00	1		1						
115	4	2	5:00	1	6	1		11	1	2	3:30	1		7						
116	4	2	5:15	1	7	1		4	1	12	3:45	1		3						
117	4	2	5:30	1	4	1		50	1	18	3:30	1		1						
118	4	1	5:19	12	8	1		4	12	1	4:00	1		2						
119	4	1	5:31	9	1	1		3	12	9	3:50	1		3		35	2			
120	4	2	5:55	12	1	1		2	12	1	4:00	1		5		42	6			
121	4	1	5:57	2	4	1		35	2	1	5:00	1		2						
122	4	1	6:00	18	5	1		8	18	1	3:00	1		3						
123	4	1	6:10	1	10	6		1	2	1	4:00	1		7						
124	4	1	6:17	12	3	1		3	12	1	5:00	1		5		3	6			
125	4	2	6:20	2	9	6		4	2	12	5:00	1		3						
126	4	2	6:30	1	4	1		40	1	12	4:30	1		1						
127	4	1	6:31	9	2	1		3	9	12	4:00	1		3		3	9			

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 - 28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Distination of trip (Zone No.1 - 28)	G Travel time	H purpose (1-6)	H' purpose (if its 6, writ down)	I frequency (1-7)	I' frequency (if its 7, writ down)	J Loading volume	K Commodit y type (1-11)	K Commodity type (if its 11, writ down)	L Mejor bottleneck point along the national No.1	M What other roads
1	5	2	8.10	2	1	1		4	2	9	8.00	1		3		0	1			
2	5	2	8.20	1	6	1		5	1	12	8.40	1		1						
3	5	1	8.37	1	6	1		5	9	2	8.20	1		1						
4	5	1	9.00	1	2	1		6	12	1	6.00	1		1		5	6			
5	5	2	9.05	2	1	1		4	2	4	9.40	5		3		7	10			
6	5	2	9.10	2	5	1		15	1	12	9.00	5		1						
7	5	2	9.30	2	1	1		3	12	1	9.10	5		3		6	2			
8	5	1	9.30	2	6	1		1	12	2	10.00	5		1						
9	5	1	9.40	1	2	1		2	18	2	8.00	1		1		3	10			
10	5	2	9.45	2	4	1		30	12	2	9.10	1		1						
11	5	1	9.50	9	1	1		2	9	18	3.05	1		4		8	7			
12	5	1	10.00	12	10	1		1	18	1	11.40	1		3						
13	5	1	10.20	1	1	1		4	3	2	7.30	1		1		10	10			
14	5	1	10.30	1	6	1		5	12	2	11.05	1		6						
15	5	2	10.47	1	1	1		2	2	18	8.00	1		1		15	2			
16	5	1	10.50	2	2	1		2	4	1	11.20	1		3		5	10			
17	5	2	10.58	4	1	1		4	1	4	9.10	1		2		10	2			
18	5	2	11.00	2	9	1		5	4	2	9.00	1		1						
19	5	1	11.00	2	9	1		2	2	1	10.00	1		1						
20	5	2	11.15	1	1	1		2	1	2	9.00	1		1		20	2			
21	5	1	11.15	22	1	1		3	22	2	5.00	5		6		12	2			
22	5	2	11.17	1	4	1		25	1	2	8.00	1		1						
23	5	1	11.25	2	8	1		2	12	2	9.00	1		2						
24	5	2	11.26	2	1	6		3	2	12	10.00	1		1						
25	5	2	11.40	2	1	1		2	2	18	10.30	1		6		7	6			
26	5	1	11.40	1	2	6		3	2	1	11.05	5		7		3	10			
27	5	1	11.50	2	4	1		15	2	1	8.00	5		1						
28	5	2	12.05	2	2	1		2	2	12	10.00	1		2		8	9			
29	5	1	12.10	9	6	1		10	9	1	5.00	4		7						
30	5	1	12.30	1	4	1		25	2	1	10.00	1		1						
31	5	2	12.30	1	8	1		4	1	2	11.00	1		1						
32	5	1	12.45	2	7	1		6	2	1	10.10	5		5						
33	5	2	12.48	1	9	6		2	1	2	9.00	1		1						
34	5	2	12.55	2	1	1		2	12	2	11.10	1		3		20	11			
35	5	1	1.00	2	8	1		3	2	1	10.30	5		6						
36	5	2	1.02	1	5	1		38	1	12	12.00	1		1						
37	5	1	1.10	12	10	5		2	2	12	10.30	1		5						
38	5	2	1.20	2	1	1		2	18	2	8.00	1		4		30	2			
39	5	1	1.25	2	8	6		3	2	1	11.00	5		3						
40	5	1	1.35	9	1	1		2	9	2	10.02	1		6		6	7			
41	5	2	1.45	4	1	1		2	4	2	11.00	1		2		10	10			
42	5	1	1.50	2	7	1		15	2	1	9.38	5		1						
43	5	2	1.57	1	3	1		2	1	2	11.00	1		1		3	9			
44	5	1	2.00	1	5	1		21	2	1	11.30	5		1						
45	5	2	2.00	18	1	1		2	18	2	5.00	1		5		7	3			
46	5	1	2.10	1	6	1		6	2	1	11.45	4		7						
47	5	2	2.10	2	5	1		35	1	2	10.30	5		1						
48	5	2	2.15	1	6	1		10	1	2	9.00	4		7						
49	5	2	2.17	1	8	1		4	1	2	12.00	5		6						
50	5	1	2.20	2	1	6		3	2	1	11.30	6		7		3	9			
51	5	1	2.30	1	10	3		2	2	1	12.00	4		7						
52	5	2	2.30	2	1	1		2	2	12	12.30	1		1		20	10			
53	5	2	2.40	1	1	1		4	1	2	12.20	1		1		30	10			
54	5	1	2.40	2	1	6		3	2	1	1.00	5		5		20	11			
55	5	2	2.45	4	7	1		2	4	2	12.15	5		6						

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 - 28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Distination of trip (Zone No.1 - 28)	G Travel time	H purpose (1-6)	H' purpose (if its 6, writ down)	I frequency (1-7)	I' frequency (if its 7, writ down)	J Loading volume	K Commodit y type (1-11)	K Commodity type (if its 11, writ down)	L Mejor bottleneck point along the national No.1	M What other roads
56	5	1	2:50	9	3	6		2	9	1	8:00	5		7		5	4			
57	5	2	2:52	2	10	6		1	1	2	1:30	4		5						
58	5	2	3:00	3	1	1		2	3	2	12:00	1		3		7	10			
59	5	1	3:02	2	6	6		3	2	1	12:30	6		1						
60	5	2	3:15	1	1	1		2	12	2	11:20	1		3		15	2			
61	5	1	3:15	61	7	6		5	2	1	1:30	1		1						
62	5	2	3:20	2	1	1		2	2	12	12:30	1		6		45	9			
63	5	2	3:25	1	3	1		1	1	2	1:30	1		2		2	2			
64	5	1	3:25	1	8	6		4	2	1	1:20	4		7						
65	5	2	3:30	1	5	1		37	1	2	1:00	5		1						
66	5	1	3:40	2	7	1		2	2	1	2:00	1		7						
67	5	2	3:46	12	2	1		2	12	2	9:00	1		1		5	5			
68	5	1	3:50	1	8	6		3	2	1	2:00	4		7						
69	5	1	4:00	2	5	1		18	2	1	2:10	6		2						
70	5	2	4:00	1	2	1		2	2	12	3:00	1		7		5	9			
71	5	1	4:05	2	7	1		2	2	1	2:10	5		5						
72	5	1	4:08	1	8	1		5	2	1	3:30	1		6						
73	5	2	4:10	1	8	1		2	2	1	2:30	1		1						
74	5	1	4:10	2	3	6		3	2	1	3:00	5		7		3	8			
75	5	2	4:13	1	3	1		3	1	2	2:30	1		2		3	2			
76	5	1	4:16	1	1	1		4	2	1	3:20	1		1		20	10			
77	5	2	4:22	1	5	1		20	1	2	1:00	1		5						
78	5	1	4:24	12	5	1		5	12	2	2:25	5		5						
79	5	2	4:25	2	2	1		3	2	18	3:00	1		1		5	10			
80	5	2	4:28	18	5	1		39	18	2	10:00	1		1						
81	5	1	4:35	2	1	6		2	2	1	3:00	6		5		45	10			
82	5	2	4:35	2	1	1		5	2	12	1:00	1		2		7	9			
83	5	2	4:36	1	2	1		4	1	2	3:00	1		2		4	3			
84	5	1	4:50	2	1	1		1	2	1	3:10	6		7		10	10			
85	5	2	4:57	1	1	1		3	2	1	2:30	1		2		36	2			
86	5	1	5:00	1	5	1		20	2	1	3:30	1		1						
87	5	2	5:08	2	5	1		39	1	2	3:00	1		1						
88	5	1	5:10	1	6	6		6	2	1	3:20	6		7						
89	5	2	5:10	1	2	1		2	11	2	3:00	1		3		6	9			
90	5	1	5:20	2	1	5		3	7	2	4:00	1		3		20	6			
91	5	2	5:20	7	6	1		7	7	2	12:15	1		7						
92	5	1	5:30	1	1	6		3	2	1	3:15	1		5		10	2			
93	5	2	5:37	2	3	1		3	2	1	4:20	1		3		3	2			
94	5	1	5:40	12	8	6		4	2	12	4:30	1		3						
95	5	2	5:40	1	8	1		5	1	2	2:30	1		2		35	10			
96	5	2	5:46	1	1	1		2	2	1	5:00	1		1		3	9			
97	5	1	5:50	2	2	1		2	2	12	5:30	5		5		2	2			
98	5	2	5:58	2	2	1		3	2	1	4:00	1		2						
99	5	1	6:00	1	7	6		3	2	1	5:10	6		1						
100	5	2	6:05	2	1	1		2	1	2	5:00	1		2		20	10			
101	5	2	6:10	1	1	2		2	1	2	5:30	1		2		10	2			
102	5	1	6:15	2	6	1		6	12	2	4:10	5		5						
103	5	1	6:20	1	8	1		4	2	1	4:30	6		2		6	10			
104	5	2	6:30	1	1	6		3	2	1	5:00	6		5						
105	5	2	6:40	18	3	1		2	18	2	10:00	1		3		5	10			

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 - 28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Distination of trip (Zone No.1 - 28)	G Travel time	H purpose (1-6)	H' purpose (if its 6, writ down)	I frequency (1-7)	I' frequency (if its 7, writ down)	J Loading volume	K Commodit y type (1-11)	K Commodity type (if its 11, writ down)	L Mejor bottleneck point along the national No.1	M What other roads
1	6	2	6:30	1	2	1		2	1	5	5:00	5		1		20	10			
2	6	2	6:36	24	2	1		2	24	9	9:00	5		3		5	2			
3	6	2	6:42	1	5	2		30	1	8	10:45	5		1						
4	6	2	6:45	1	2	1		2	1	4	5:00	5		2		20	3			
5	6	2	6:51	11	1	1		2	11	7	11:10	5		1		20	6			
6	6	2	6:55	1	4	1		45	1	4	3:00	5		1						
7	6	2	7:02	1	2	1		2	1	8	5:30	5		3		15	2			
8	6	2	7:06	11	2	1		1	11	9	4:00	5		3		20	10			
9	6	2	7:11	1	4	1		45	1	9	7:20	5		1						
10	6	2	7:15	1	1	1		2	1	7	7:30	5		2		15	6			
11	6	2	7:19	1	2	1		2	1	13	7:00	5		1		20	10			
12	6	2	7:26	1	2	1		2	1	9	7:45	5		1		10	2			
13	6	2	7:31	1	7	5		3	1	4	2:30	5		1						
14	6	2	7:35	1	2	1		2	1	9	8:09	5		1		5	11			
15	6	2	7:41	1	4	1		50	1	4	6:00	1		1						
21	6	2	7:46	1	4	1		45	1	4	9:00	4		1						
22	6	2	7:50	1	6	5		3	1	4	8:00	4		1						
23	6	2	7:55	1	2	5		2	1	7	8:45	5		1						
24	6	2	8:00	6	6	1		10	1	6	9:00	4		3						
25	6	2	8:05	4	4	1		40	1	4	9:20	4		1						
26	6	2	8:08	4	1	5		2	9	4	10:15	5		2		5	7			
27	6	2	8:16	4	7	5		4	1	4	8:30	4		1						
28	6	2	8:20	4	1	5		3	9	4	10:15	5		2		8	7			
29	6	2	8:26	9	1	6		2	1	9	10:20	5		2		10	8			
30	6	2	8:32	7	4	5		5	1	7	10:00	1		1						
31	6	2	8:36	1	2	5		2	1	4	11:20	5		1		5	10			
32	6	2	8:40	1	5	5		25	1	4	10:45	5		1						
33	6	2	8:45	1	4	5		43	1	6	10:50	1		1						
34	6	2	8:52	1	2	5		2	1	4	10:50	1		2		1				
35	6	2	8:55	1	1	1		2	1	9	11:00	5		2		10	6			
36	6	2	9:02	1	6	1		5	1	8	11:00	4		1						
37	6	2	9:10	1	7	1		2	1	4	11:50	4		2		2	8			
38	6	2	9:16	1	3	5		2	1	7	12:00	5		2						
39	6	2	9:22	1	1	5		2	1	5	12:30	5		2		1				
40	6	2	9:28	1	7	1		2	1	4	11:40	6		1						
41	6	2	9:36	1	4	1		50	1	9	12:10	5		1						
42	6	2	9:52	1	1	1		2	1	4	1:50	1		1						
43	6	2	10:00	1	10	3		1	1	4	1:20	1		2						
44	6	2	10:06	9	2	1		3	1	9	1:40	5		2		5	8			
45	6	2	10:10	1	5	1		25	1	4	1:45	1		1						
46	6	2	10:16	1	3	1		2	2	4	1:20	1		1		3	10			
47	6	2	10:20	4	2	1		2	1	4	2:30	1		1		3	9			
48	6	2	10:26	1	4	1		42	1	4	1:45	1		1						
49	6	2	10:31	1	2	1		2	1	9	2:50	5		2		8	11			
50	6	2	10:36	1	11	3		1	1	4	3:20	4		2						
51	6	2	10:40	1	1	1		2	1	9	3:00	5		2		9	9			
52	6	2	10:50	1	4	1		40	1	9	3:15	5		1						
53	6	2	11:02	1	2	2		2	1	9	3:40	1		1		9	11			
54	6	2	11:05	1	8	1		2	1	4	4:00	4		5						
55	6	2	11:16	1	3	1		2	1	4	5:00	5		2		4	10			
56	6	2	11:21	1	4	1		35	1	9	4:20	5		1						
57	6	2	11:30	1	2	1		2	1	9	4:25	5		2		10	6			
58	6	2	11:36	1	5	1		26	1	4	4:30	1		1						
59	6	2	11:41	1	1	1		2	1	9	4:50	5		2		10	8			
60	6	2	11:52	1	8	1		3	1	7	5:15	1		1						

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 - 28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Distination of trip (Zone No.1 - 28)	G Travel time	H purpose (1-6)	H' purpose (if its 6, writ down)	I frequency (1-7)	I' frequency (if its 7, writ down)	J Loading volume (1-11)	K Commodity type (if its 11, writ down)	L Major bottleneck point along the national No.1	M What other roads
61	6	2	11.56	1	2	1		2	1	8	5.20	1		2		4			
62	6	2	12.00	1	10	3		1	1	7	5.40	4		6					
63	6	2	12.05	1	5	1		30	1	4	7.00	5		1					
64	6	2	12.08	1	4	1		45	1	4	7.10	5		1					
65	6	2	12.13	1	2	1		2	1	4	5.02	5		2		15			
66	6	2	12.17	1	4	1		40	1	7	7.00	5		2					
67	6	2	12.24	1	1	1		2	1	9	5.30	5		2					
68	6	2	12.31	1	4	2		45	1	4	7.30	5		2					
69	6	2	12.37	1	2	1		2	16	4	3.00	5		5		10			
70	6	2	12.46	1	4	1		45	1	4	3.35	5		1					
71	6	2	12.55	1	5	1		35	1	5	7.30	5		1					
72	6	2	1.00	1	2	1		2	1	4	7.35	5		1					
73	6	2	1.04	1	2	1		2	1	7	6.00	5		1					
74	6	2	1.09	1	2	1		2	1	9	4.30	5		1					
75	6	2	1.13	1	6	1		5	1	4	7.30	5		1					
76	6	2	1.19	1	6	1		5	1	4	8.00	5		1					
77	6	2	1.25	1	4	1		45	1	9	8.00	5		1					
78	6	2	1.31	1	6	1		2	1	4	8.00	5		1					
79	6	2	1.35	1	2	1		2	1	9	11.45	5		3		10			
80	6	2	1.41	16	2	1		2	16	7	1.00	5		3					
81	6	2	1.49	1	2	1		2	1	4	9.30	5		1					
82	6	2	1.55	1	3	1		4	1	7	9.45	5		1					
83	6	2	2.00	1	2	1		2	1	4	9.00	5		1					
84	6	2	2.08	1	2	1		35	1	4	9.00	5		1					
85	6	2	2.12	1	2	1		2	1	9	9.00	5		1					
86	6	2	2.19	1	5	1		35	1	2	9.10	5		1					
87	6	2	2.25	1	1	1		2	1	9	9.30	5		2					
88	6	2	2.32	1	4	1		45	1	4	9.45	5		1					
89	6	2	2.35	1	2	1		2	1	4	12.00	5		2					
90	6	2	2.40	1	5	1		35	1	7	10.00	5		1					
91	6	2	2.45	1	4	1		45	1	13	10.00	5		1					
92	6	2	2.51	1	2	1		2	1	4	10.00	5		1					
93	6	2	2.55	1	4	1		45	1	8	10.00	5		1					
94	6	2	3.02	1	4	1		45	1	5	10.15	5		1					
95	6	2	3.11	1	4	1		45	1	9	10.30	5		6					
96	6	2	3.16	1	2	1		2	1	13	10.15	5		1					
97	6	2	3.20	1	2	1		2	1	9	10.20	5		1					
98	6	2	3.31	1	4	1		45	1	9	10.20	5		1					
99	6	2	3.37	1	1	1		2	1	7	10.30	5		2					
100	6	2	3.42	1	2	1		2	1	8	7.00	5		3					
101	6	2	3.49	11	2	1		2	11	9	11.00	5		3					
102	6	2	4.00	11	1	1		2	11	7	11.00	5		1					
103	6	2	4.05	1	5	1		30	1	8	10.45	5		1					
104	6	2	4.09	1	2	1		2	1	4	12.00	5		2					
105	6	2	4.16	4	2	1		2	1	5	12.45	5		1					
106	6	2	4.21	25	2	1		2	24	9	9.00	5		3					
107	6	2	4.25	1	4	1		45	1	5	11.45	5		1					
108	6	2	4.30	1	4	1		45	1	5	11.50	5		1					
109	6	2	4.35	1	4	2		45	1	4	12.00	5		1					
110	6	2	4.41	11	2	1		2	1	4	12.30	5		1					
111	6	2	4.45	1	2	1		2	1	9	12.00	5		5					
112	6	2	4.50	1	2	1		2	1	4	12.00	5		2					
113	6	2	4.56	1	4	1		45	1	6	12.00	5		1					
114	6	2	5.01	1	4	1		45	1	6	12.45	5		1					
115	6	2	5.05	1	4	1		45	1	8	12.30	5		1					

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 - 28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Distination of trip (Zone No.1 - 28)	G Travel time	H purpose (1 - 6)	H' purpose (if its 6, writ down)	I frequency (1 - 7)	I' frequency (if its 7, writ down)	J Loading volume	K Commodit y type (1 - 11)	K' Commodity type (if its 11, writ down)	L Mejor bottleneck point along the national roads No.1	M What other roads
116	6	2	5:10	4	2	1		2	1	7	12.45	5		1		20	2			
117	6	2	5:16	1	4	1		48	1	7	1.00	5		1						
118	6	2	5:20	1	2	1		2	1	4	11.00	5		1		20	7			
119	6	2	5:25	1	2	1		2	1	4	5.00	5		4		22	2			
120	6	2	5:31	24	2	1		2	24	9	1.00	5		1		7	8			
121	6	2	5:35	1	1	1		2	1	4	1.30	5		1		20	2			
122	6	2	5:42	1	2	1		2	2	4	1.00	5		1		20	2			
123	6	2	5:45	1	2	1		2	1	4	12.00	5		1		20	10			
124	6	2	5:52	1	1	1		2	1	9	1.00	5		1		18	10			
125	6	2	6:00	1	2	1		2	1	4	1.20	5		1		12	10			

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 -28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1-28)	F Destination of trip (Zone No.1-28)	G Travel time	H purpose (1-6)	H' purpose (if its 6, writ down)	I frequency (1-7)	I' frequency (if its 7, writ down)	J Loading volume (1-11)	K Commodity type (if its 11, writ down)	K Commodity type (if its 11, writ down)	L Mebr bottleneck point along the national No.1	M What other roads
1	7	1	6:30	7	8	1		5	5	1	5:00	5		3						
2	7	1	6:37	2	5	1		30	7	1	5:00	5		1						
3	7	1	6:40	1	4	1		50	9	1	3:00	5		1						
4	7	1	6:46	9	6	1		6	9	1	5:00	5		3						
5	7	1	6:52	1	5	1		40	4	1	4:00	5		1						
6	7	1	6:55	11	1	1		3	9	1	2:00	5		3		15				
7	7	1	7:02	9	1	1		2	9	24	4:30	5		2		20				
8	7	1	7:05	11	2	1		2	9	11	12:00	1		3		2				
9	7	1	7:07	9	8	1		5	9	1	5:00	1		1		10				
10	7	1	7:12	1	6	1		5	9	1	5:00	1		3						
11	7	1	7:18	7	1	1		3	7	1	5:00	1		1		10				
12	7	1	7:25	9	1	1		2	9	1	6:00	1		1		20				
13	7	1	7:27	6	2	1		2	6	1	5:30	5		2		5				
14	7	1	7:32	2	1	1		3	9	2	6:00	1		1		16				
15	7	1	7:42	9	4	1		55	9	1	5:00	1		1						
16	7	1	7:45	4	1	1		3	4	1	3:00	1		1		20				
17	7	1	7:50	7	6	1		5	7	24	12:00	1		2						
18	7	1	7:06	4	8	1		4	4	1	5:30	5		2						
19	7	1	8:10	1	2	1		2	9	1	11:00	5		1		10				
20	7	1	8:14	9	1	1		2	9	27	12:00	1		1		15				
21	7	1	8:20	1	5	1		45	9	1	11:30	5		1		7				
22	7	1	8:26	9	1	1		2	9	2	5:00	5		3		10				
23	7	1	8:31	1	4	1		50	9	1	1:00	5		1		11				
24	7	1	8:35	9	1	1		2	9	1	5:00	5		1		25				
25	7	1	8:42	1	5	1		40	4	1	6:00	5		1						
26	7	1	8:45	4	4	2		4	4	1	7:00	1		2						
27	7	1	8:52	1	4	1		52	4	1	7:20	5		1						
28	7	1	8:55	1	5	1		12	4	1	8:00	5		1						
29	7	1	9:02	4	4	1		50	4	1	6:30	5		1						
30	7	1	9:22	5	5	1		47	5	11	5:00	5		1						
31	7	1	9:27	1	6	1		7	4	1	7:30	3		3						
32	7	1	9:31	9	1	1		2	9	16	10:00	5		3		10				
33	7	1	9:35	4	4	1		40	4	1	7:50	5		1						
34	7	1	9:48	1	1	1		9	9	1	11:00	5		1		15				
35	7	1	10:02	9	8	1		5	13	1	9:00	3		3		2				
36	7	1	10:06	1	2	1		2	9	1	6:00	1		1		5				
37	7	1	10:10	4	8	1		5	4	1	8:30	4		3						
38	7	1	10:16	9	2	1		2	9	1	7:00	1		1		10				
39	7	1	10:20	1	4	1		48	4	1	7:30	5		1						
40	7	1	10:25	9	1	1		2	9	1	6:30	5		3		25				
41	7	1	10:32	4	4	1		50	4	1	8:00	5		1						
42	7	1	10:35	1	1	1		2	9	1	11:30	3		3		12				
43	7	1	10:40	4	6	1		7	4	1	4:00	4		3						
44	7	1	10:46	2	1	1		3	9	2	5:00	1		3		16				
45	7	1	10:50	8	7	1		2	8	1	7:00	3		1						
46	7	1	10:56	1	8	1		3	4	1	10:00	1		3						
47	7	1	11:00	9	1	1		2	9	1	5:00	1		1		20				
48	7	1	11:04	9	1	1		2	9	1	4:30	1		1		10				
49	7	1	11:11	1	1	1		3	9	1	6:00	1		2		20				
50	7	1	11:18	9	1	1		2	9	1	6:30	1		3		18				
51	7	1	11:25	1	4	1		50	9	1	5:00	5		1						
52	7	1	11:31	4	1	1		2	9	1	5:00	1		3		20				
53	7	1	11:35	9	4	1		55	9	1	5:00	5		1						
54	7	1	11:42	8	4	1		50	9	1	6:00	1		1						

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 -28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 -28)	F Destination of trip (Zone No.1 -28)	G Travel time	H purpose (1-6)	H' purpose (if its 6, writ down)	I frequency (1-7)	I' frequency (if its 7, writ down)	J Loading volume (1-11)	K Commodity type (if its 11, writ down)	L Mebr bottleneck point along the national No.1	M What other roads
55	7	1	11.46	20	1	1		3	20	16	11.00	1		3		25	6		
56	7	1	11.50	4	8	1		5	4	1	6.00	1		1		10	8		
57	7	1	12.00	9	2	1		2	9	1	7.00	1		1		22	10		
58	7	1	12.04	1	1	1		2	9	1	5.00	5		3		20			
59	7	1	12.12	9	1	1		2	9	16	8.00	1		1		16	10		
60	7	1	12.20	1	1	1		3	9	1	9.00	1		1					
61	7	1	12.26	1	4	1		50	9	1	5.00	5		1					
62	7	1	12.30	4	1	1		3	4	1	8.00	1		1		12	8		
63	7	1	12.35	4	4	1		40	4	2	9.00	5		1		20	7		
64	7	1	12.41	9	1	1		3	9	1	7.30	5		3		12	2		
65	7	1	12.45	11	1	1		2	9	11	6.00	5		3		25	4		
66	7	1	12.52	9	1	1		2	9	1	9.00	1		1		8	9		
67	7	1	12.55	1	2	1		2	7	1	5.00	5		1					
68	7	1	1.02	18	4	1		45	8	1	10.00	1		1					
69	7	1	1.06	9	6	1		5	9	1	5.00	5		3					
70	7	1	1.10	1	2	1		2	9	1	5.00	1		3		12	10		
71	7	1	1.15	9	1	1		2	9	2	6.00	1		3		15	2		
72	7	1	1.18	9	1	1		4	9	1	6.20	1		2		25	2		
73	7	1	1.25	4	2	1		2	4	1	8.00	5		1		10	6		
74	7	1	1.31	1	2	1		2	9	1	8.00	1		1		10	8		
75	7	1	1.35	7	4	1		40	7	1	6.00	5		1		16	11		
76	7	1	1.42	9	2	1		2	9	1	9.30	1		1		20	10		
77	7	1	1.45	2	1	1		2	2	2	7.00	5		1		12	10		
78	7	1	1.51	9	1	1		3	9	1	8.30	5		1					
79	7	1	1.55	11	8	1		2	9	11	5.00	1		2					
80	7	1	2.02	9	3	1		2	9	1	10.10	1		1		2	3		
81	7	1	2.11	1	5	1		36	9	1	9.00	1		1					
82	7	1	2.15	6	1	1		2	6	24	6.00	1		1		20	8		
83	7	1	2.22	9	1	1		3	9	1	10.00	1		1		15	2		
84	7	1	2.26	24	1	1		2	9	24	4.00	1		1		20	2		
85	7	1	2.31	4	6	1		4	4	1	11.00	1		2					
86	7	1	2.36	9	8	1		4	9	1	6.00	5		3					
87	7	1	2.40	1	8	1		3	4	1	10.30	1		3					
88	7	1	2.45	9	1	1		2	9	1	5.00	1		3		10	11		
89	7	1	2.50	4	1	1		3	4	1	11.00	1		1					
90	7	1	3.01	7	8	1		2	4	1	11.30	1		2					
91	7	1	3.05	1	4	1		55	9	1	10.00	1		1					
92	7	1	3.09	4	8	1		5	4	1	11.30	1		3					
93	7	1	3.15	1	2	1		3	9	1	10.30	1		1		10	2		
94	7	1	3.21	9	6	1		4	9	23	11.00	1		3					
95	7	1	3.25	11	4	1		50	9	1	11.30	5		1		20	6		
96	7	1	3.31	9	1	1		3	9	1	11.30	1		1		16	10		
97	7	1	3.40	9	1	1		4	9	26	11.00	1		1		16	2		
98	7	1	3.51	24	1	1		2	9	24	6.00	1		3		25	8		
99	7	1	3.55	1	1	1		3	9	1	7.00	1		2					
100	7	1	4.02	11	8	1		6	9	11	8.30	1		3					
101	7	1	4.06	9	4	1		40	9	1	6.00	5		1					
102	7	1	4.11	1	1	1		2	9	1	7.20	1		3		10	2		
103	7	1	4.15	1	6	1		5	4	1	8.00	5		3		20	6		
104	7	1	4.22	9	1	1		2	9	3	8.00	1		3		8	11		
105	7	1	4.26	1	2	1		2	9	1	6.30	5		1		10	2		
106	7	1	4.30	24	2	1		3	9	24	6.00	1		3					
107	7	1	4.35	1	7	1		5	7	1	8.00	1		3					
108	7	1	4.42	9	2	1		2	9	1	10.00	1		3		12	4		

No	Location (OD-1-7)	Direction 1:inbound 2:outbound	Interview time	A Address of residence (Zone No.1 - 28)	B Vehicle type (1-13)	C Occupation (1-6)	C Occupation (if its 6, writ down)	D Number of passenger	E Origin of trip (Zone No.1 - 28)	F Destination of trip (Zone No.1 - 28)	G Travel time	H purpose (1-6)	H' purpose (if its 6, writ down)	I frequency (1-7)	I' frequency (if its 7, writ down)	J Loading volume (1-11)	K Commodity type (if its 11, writ down)	L Mejbr bottleneck point along the national No.1	M What other roads
109	7	1	4.45	9	2	1		2	9	16	7.00	1		1		10			
110	7	1	4.50	1	1	1		3	9	1	8.30	1		3		16			
111	7	1	4.55	24	1	1		4	9	24	6.00	1		1		22			
112	7	1	5.02	7	1	1		2	7	3	11.00	1		1		20			
113	7	1	5.05	2	2	1		2	9	2	8.30	5		3		10			
114	7	1	5.10	16	1	1		2	9	16	6.00	5		1		16			
115	7	1	5.16	9	1	1		2	9	11	7.00	5		1		20			
116	7	1	5.21	1	1	1		2	9	1	10.00	5		3		25			
117	7	1	5.25	5	6	1		2	5	1	11.00	1		1					
118	7	1	5.31	8	8	1		4	8	1	10.00	5		3					
119	7	1	5.35	4	4	1		50	4	1	12.00	5		1					
120	7	1	5.42	1	1	1		2	9	1	10.00	1		3		25			
121	7	1	5.46	1	2	1		2	4	1	12.00	5		1		5			
122	7	1	5.50	7	8	1		4	7	1	11.00	1		3					
123	7	1	5.55	9	1	1		2	9	1	9.00	1		3		20			
124	7	1	6.00	21	1	1		2	9	21	6.00	1		3		25			

4. NUMBER OF ACCIDENTS

Kachpur Bridge to Meghna Gomoti Bridge: Part of N1

Distance from Zero Point (Dhaka) : 12.8 - 41.2 Km

Year : 1998 - 2006; Condition: Total Accident No. \geq 4 (Locations are based on IDC's road inventory 1998)

Sl. No.	Name of the Locations	Distance from Zero Point (Dhaka)	Fatal Accident No.	Non-fatal Accident No.	Total Accident No.
1	Shanarpar	10.5	5	0	5
2	Narayanganj Intersection	15	12	3	15
3	Sylhet 334/Comilla 85/Chittagong 252/Dhaka 12	12	5	0	5
4	100m after the km post of Sylhet 334/Comilla 85/Chittagong 252/Dhaka 12	12.1	9	1	10
5	Petrol Pump/Rahim Steel Mill	14.7	4	1	5
6	Comilla 82/Chittagong 249/Dhaka 15	15	6	2	8
7	Madanpur Bazar / Bus Stand	16.6	8	2	10
8	Sonargaon Intersection/Mograpara Bus Stand	24.5	8	2	10
9	Meghna Ghat Road Intersection	27.3	7	3	10
10	Toll Box of Meghna Bridge	27.4	9	1	10
11	Meghna P.E.T Industry	27.5	5	1	6
12	Bridge	34.5	3	1	4
13	Comilla 61/Chittagong 228/Dhaka 36	36	2	2	4
14	Moddhya Bausia Bus Stand	36.3	13	11	24
15	Bridge	36.4	5	2	7
16	Bridge	36.5	2	2	4
17	Daudkandi Bus Stand	42.9	3	4	7
18	Shilamandi Textiles/Mosque	46.3	4	0	4
19	Huglia Baropara Bus Stand/Baropara Madrasa	47.6	6	0	6
20	Police Line Intersection/Shaherprotap	50	4	0	4
21	Raipur Bazar/Bus Stand	53.6	4	1	5

Dr. Hasib Mohammed Ahsan
Professor, Dept. of Civil Engg. &
Director, Accident Research Institute (ARI)
BUET, Dhaka-1000, Bangladesh

Kachpur Bridge to Meghna Gomoti Bridge: Part of N1

Distance from Zero Point (Dhaka) : 12.8 - 41.2 Km

Year : 2007 - 2008; Condition: Total Accident No. \geq 2 (Locations are based on IDC's road inventory 1998)

Sl. No.	Name of the Locations	Distance from Zero Point (Dhaka)	Fatal Accident No.	Non-fatal Accident No.	Total Accident No.
1	Narayanganj Intersection	11.7	4	1	5
2	100m after the km post of Sylhet 334/Comilla 85/Chittagong 252/Dhaka 12	12.1	9	3	12
3	Kanchpur Bridge	12.8	1	1	2
4	km post	16.6	4	0	4
5	Darikandi Bus Stand	21.2	2	1	3
6	Sonargaon Intersection/Mograpara Bus Stand	24.5	4	1	5
7	Daudkandi Ghat Road	41.5	4	0	4
8	Daudkandi Bridge Toll Box	41.8	2	0	2
9	Daudkandi Bus Stand	42.9	2	2	4
10	Shahidnagar Bus Stand	46.3	1	1	2
11	Huglia Baropara Bus Stand/Baropara Madrasa	47.6	2	0	2
12	km post	48	0	2	2
13	Matlab - Bashurhat - Pennai Intersection	49.1	1	1	2
14	km post	50	1	1	2
15	Culvert 52/1	51.3	2	0	2
16	Dippur Bus Stand	52.5	2	0	2
17	Raipur Bazar/Bus StandDippur Bus Stand	53.6	2	0	2

Dr. Hasib Mohammed Ahsan
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Director, Accident Research Institute (ARI)
BUET, Dhaka-1000, Bangladesh

Kachpur Bridge to Meghna Gomoti Bridge: Part of N1

Distance from Zero Point (Dhaka) : 12.8 - 41.2 Km

Year : 2009 - 2010; Condition: Total Accident No. \geq 2 (Locations are based on IDC's road inventory 1998)

Sl. No.	Name of the Locations	Distance from Zero Point (Dhaka)	Fatal Accident No.	Non-fatal Accident No.	Total Accident No.
1	Shanarpar	10.5	2	1	3
2	Narayanganj Intersection	11.7	2	0	2
3	100m after the km post of Sylhet 334/Comilla 85/Chittagong 252/Dhaka 12	12.1	3	0	3
4	300m before Kanchpur Bridge	12.5	2	0	2
5	Kanchpur Bridge	12.8	3	0	3
6	Jangal Bus Stand	18.6	1	1	2
7	Darikandi Bus Stand	21.2	2	0	2
8	Daudkandi Bus Stand	42.9	3	1	4
9	Bus Stand/Mosque	54.1	2	0	2

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BUET, Dhaka-1000, Bangladesh