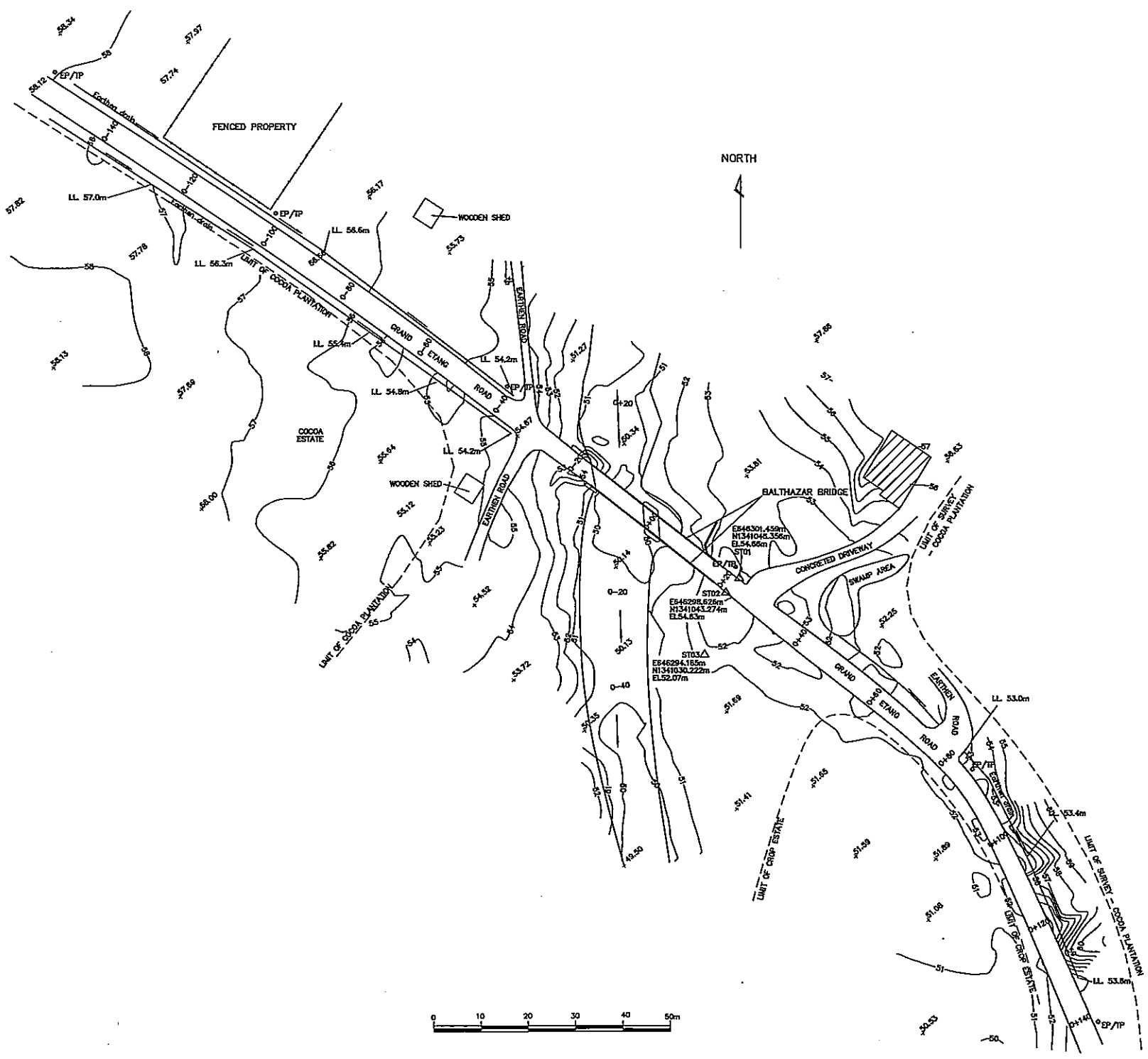


道路(6) ~ (8)

(6) 地形測量

(グランドエタン道路)



NOTES

1. The original A4-size plot of this drawing is meant for an A1-sized sheet of paper. The drawing border shall be 25 mm x 25 mm when the sheet is plotted full size. The scale in the title block refers to the A4 sized plot scale only. If this drawing is plotted on a 11" x 17" sheet it is a reduction of 20%.
2. The projection is based on an assumed co-ordinate system. Units of horizontal measure are in metres.
3. All elevations are given in metres.
4. All road and river changes are in metres.
5. Topographic survey completed on 15/08/01.

LEGEND

- ▲ CONTROL STATIONS
- EARTHEN DRAIN
- ROADWAY
- FENCE
- ▨ TYPICAL DWELLING HOUSE
- FENCE

B	15/08/01	Road and river changes added	KV/KV
A	11/08/01	Preliminary Issues	KV/KV
D	Date	Description	KV/KV

CRC OVERSEAS CO-OPERATION INC.

JOB TITLE
BALTHAZAR BRIDGE

DWG. TITLE
TOPOGRAPHIC SURVEY

DWG. No.
01

SCALE: 1: 400

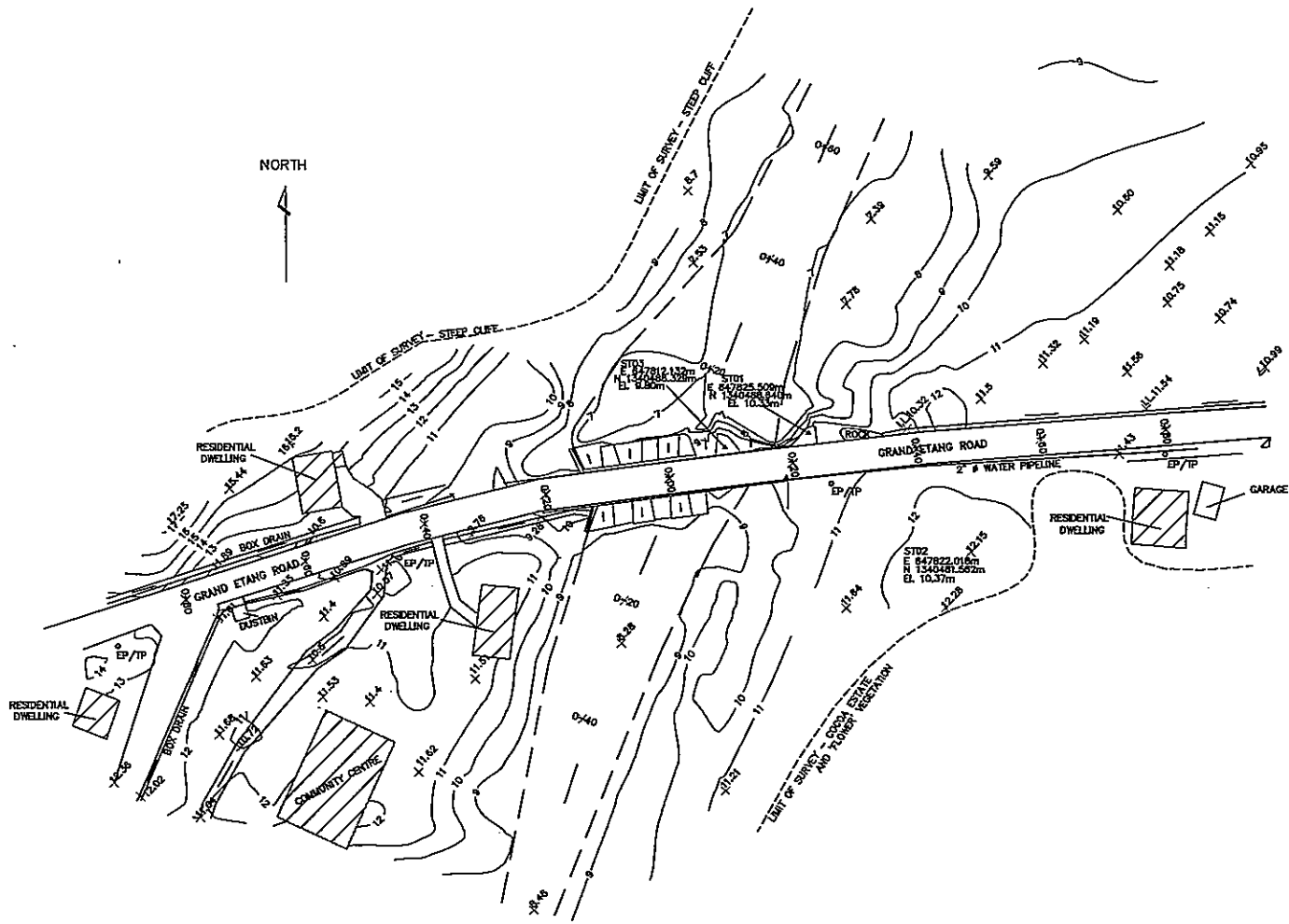
JOB No. W749

LEE YOUNG & PARTNERS
CONSULTING ENGINEERS & PROJECT MANAGERS
PART OF SPAN, TRONDAD NL

1. The original A1-size plot of this drawing is saved for an A1-sized sheet of paper. The drawing border lines would be 508 mm x 603 mm when the sheet is plotted A1 size. The scale in the 100 block refers to the A1 sheet plot scale only. If this drawing is plotted on a 11" x 17" sheet, it is a reduction of 80%.
2. The projection is based on an assumed co-ordinate system. Units of horizontal measure are in metres.
3. All elevations are given in metres.
4. All road and river crossings are in metres.
5. Topographic Survey completed on 14/09/01.

LEGEND

- △ CONTROL STATIONS
- ROADWAY
- RIVER
- BRIDGE
- ▨ TYPICAL BUILDING/DWELLING FOOTPRINT
- X.74 SPOT ELEVATION



Date	Description	Drawn	Checked
12/09/01	Drawing Revised	KV	KV
11/09/01	Preliminary Issue	KV	KV

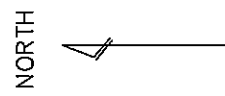
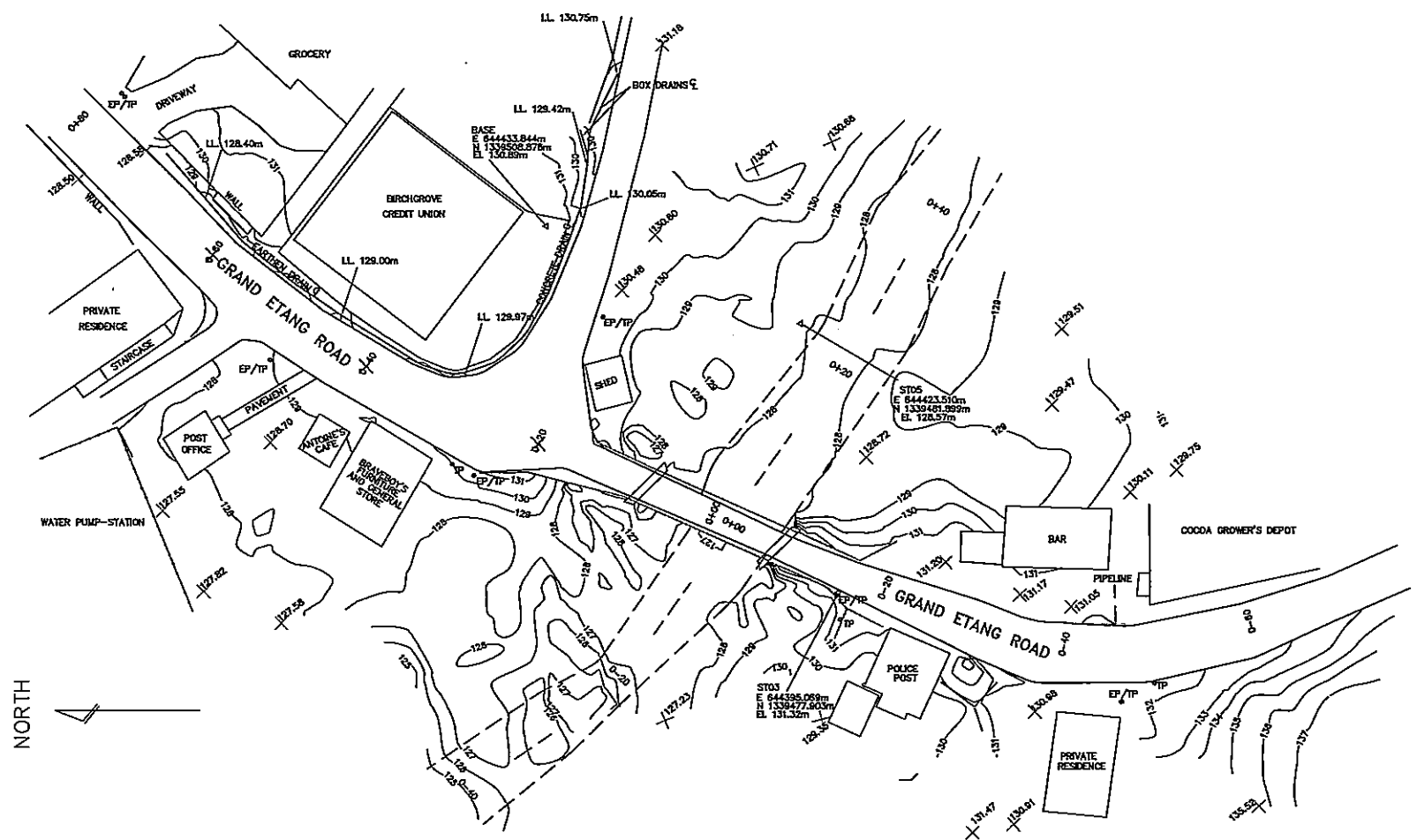
CRC OVERSEAS CO-OPERATION INC.

JOB TITLE
ST. CYR BRIDGE

DWG. TITLE	DWG. No.
TOPOGRAPHIC SURVEY	02

SCALE:	JOB No.
1: 400	W749

LEE YOUNG & PARTNERS
CONSULTING ENGINEERS & PROJECT MANAGERS
PORT OF SPAIN, SINGAPORE



NOTES

1. The original full-size plot of this drawing is meant for an A1-sized sheet of paper. The drawing number from inside the title block shall refer to the full-size plot only. If this drawing is plotted on a 17" x 17" sheet, it is a reduction of 50%.
2. The projection is based on an assumed co-ordinate system. Units of horizontal measure are in metres.
3. All elevations are given in metres.
4. All road and river crossings are in metres.
5. Topographic Survey completed on 12/08/71.

LEGEND

- △ CONTROL STATIONS
- CONCRETE DRAIN
- ROADWAY
- RIVER
- BRIDGE

D	24/08/71	Drawing Revised	KY/KV
A	12/08/71	Preliminary Issues	KY/KV
	Date	Description	Drawn Checked

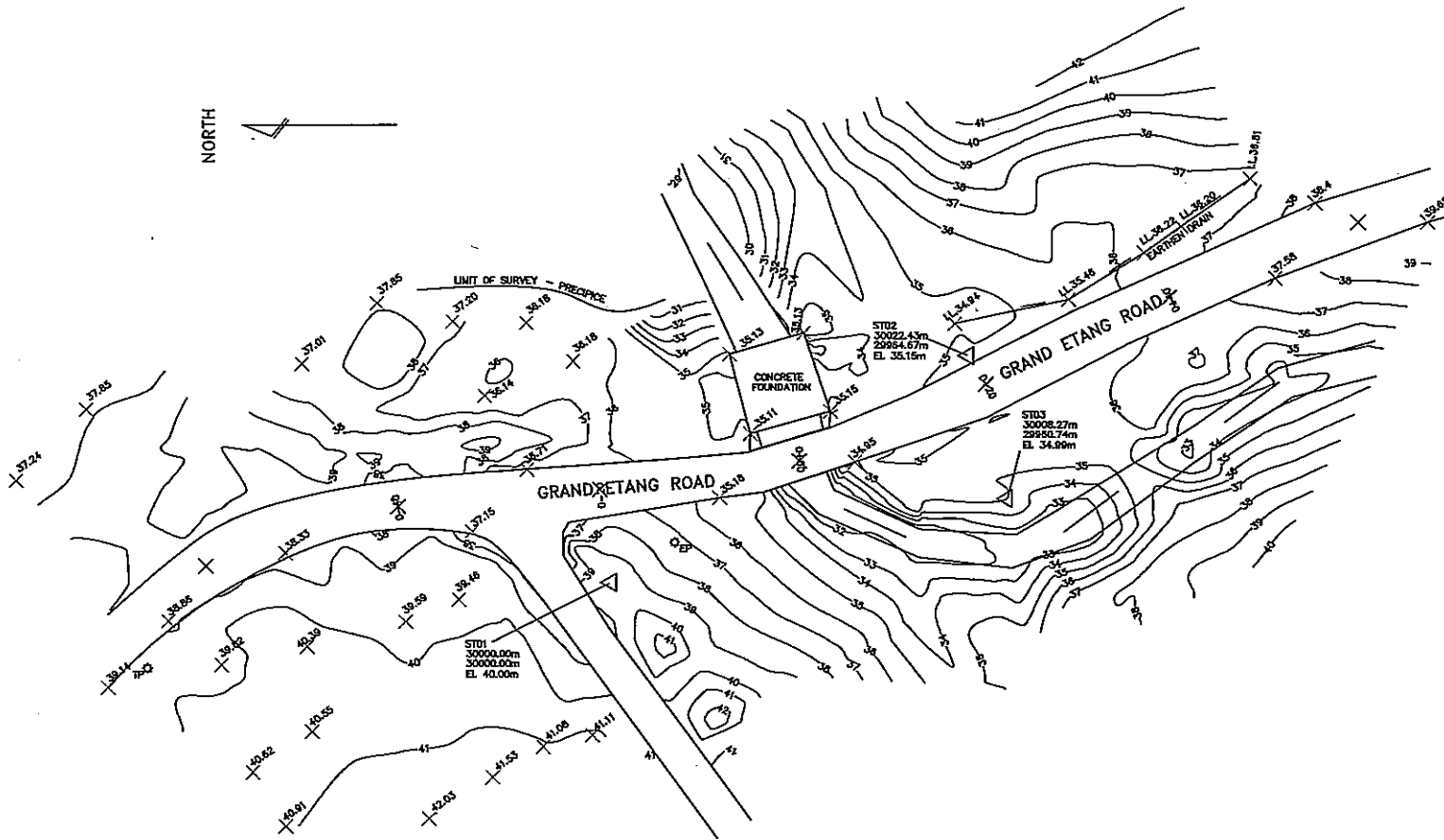
CRC OVERSEAS CO-OPERATION INC.

JOB TITLE
BIRCHGROVE BRIDGE

DWG. TITLE TOPOGRAPHIC SURVEY	DWG. No. 03
---	-----------------------

SCALE: 1: 250	JOB No. W749
-------------------------	------------------------

LEE YOUNG & PARTNERS
CONSULTING ENGINEERS & PROJECT MANAGERS
PORT OF SPAIN, TORONADO RD.



NOTES

1. The original A4-size plot of this drawing is issued for an A1-sized sheet of paper. The drawing border lines would be 508 mm x 603 mm when this sheet is plotted full size. The scale in the EUC block refers to the A4 sheet plot size only, if this drawing is plotted on a 11" x 17" sheet it is a reduction of 50%.
2. The projection is based on an assumed co-ordinate system. Units of horizontal measures are in metres.
3. All elevations are given in metres.
4. All road and river changes are in metres.
5. Topographic Survey completed on 13/09/01.

LEGEND

- △ CONTROL STATIONS
- ROADWAY
- BRIDGE
- RIVER
- DRAIN CENTERLINE

24/10/01	Drawing Revised	KV	KV
11/09/01	Preliminary Issue	KV	KV
Date	Description	Issue	Checked

CRC OVERSEAS CO-OPERATION INC.

JOB TITLE
VENDOME BRIDGE

DWG. TITLE TOPOGRAPHIC SURVEY	DWG. No. D4
----------------------------------	----------------

SCALE 1: 250	JOB No. W749
-----------------	-----------------

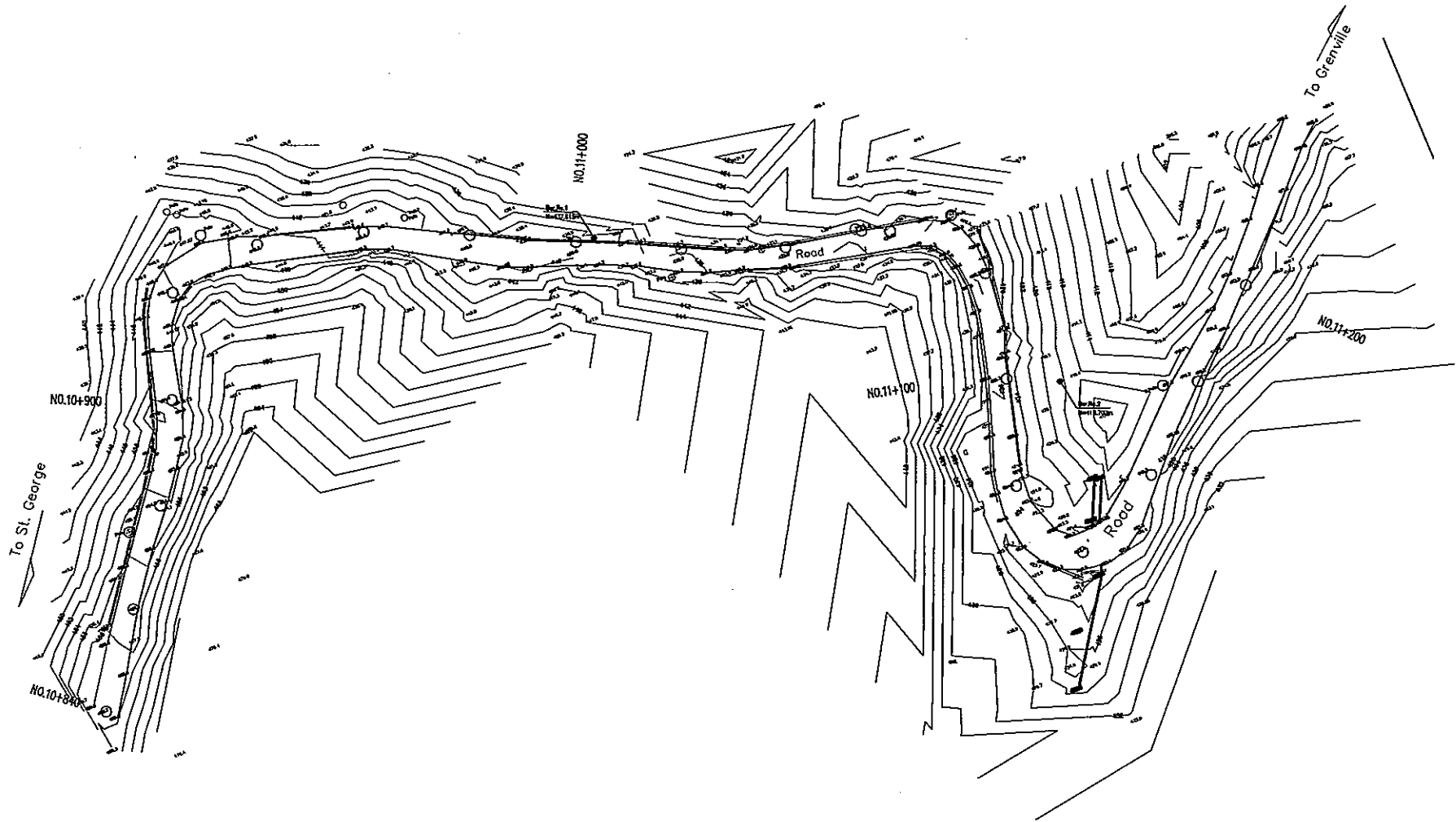
LY LEE YOUNG & PARTNERS
CONSULTING ENGINEERS & PROJECT MANAGERS
PORT OF SPAIN, TORREBON W.I. ©

(7) 地質調査(グランドエタン道路)

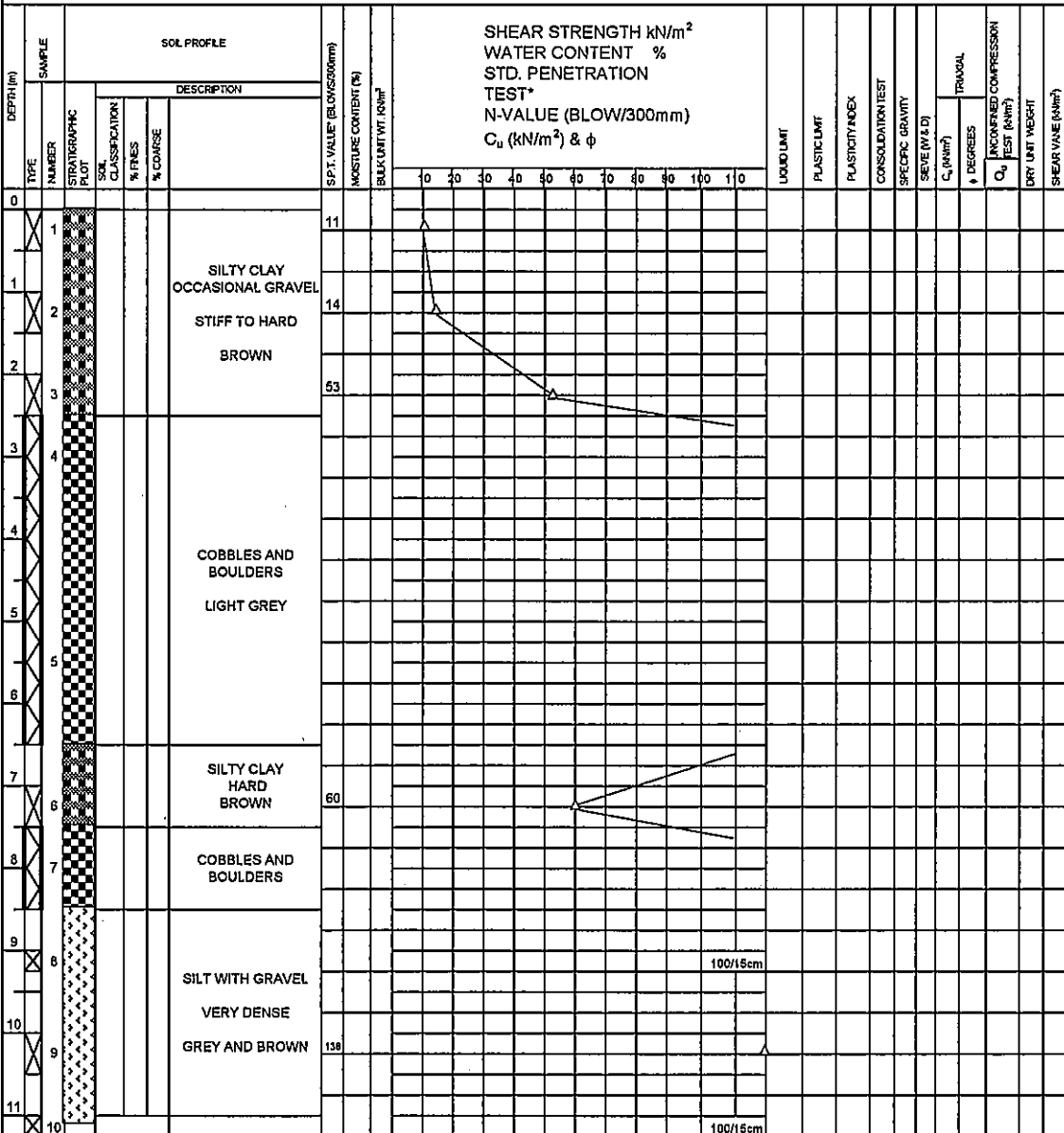
現況調査を行った結果、グランドエタン道路(2箇所)、バーチグローブ橋(2箇所)、バルタ ザール橋(3箇所)、セントシルグレートリバー橋(3箇所)計10箇所についてボーリング調査を行った。

各地点のボーリング柱状図を次ページ以降に示す。なお、図中に示す数値は標準貫入試験で求めたN値を表す。

A PLASE OF HAIRPIN CURVE
NO.10+840~NO.11+220



JOB No. W 750 BORING No. 1 SHEET 1 OF 1
 PROJECT Grand Elang Road DATE STARTED August 02 2001 LOCATION Hairpin Curve
 TYPE BORING SKID MOUNTED JACKER / DRY / ROTARY DATE COMPLETED August 06 2001 GROUND ELEVATION 437.915m



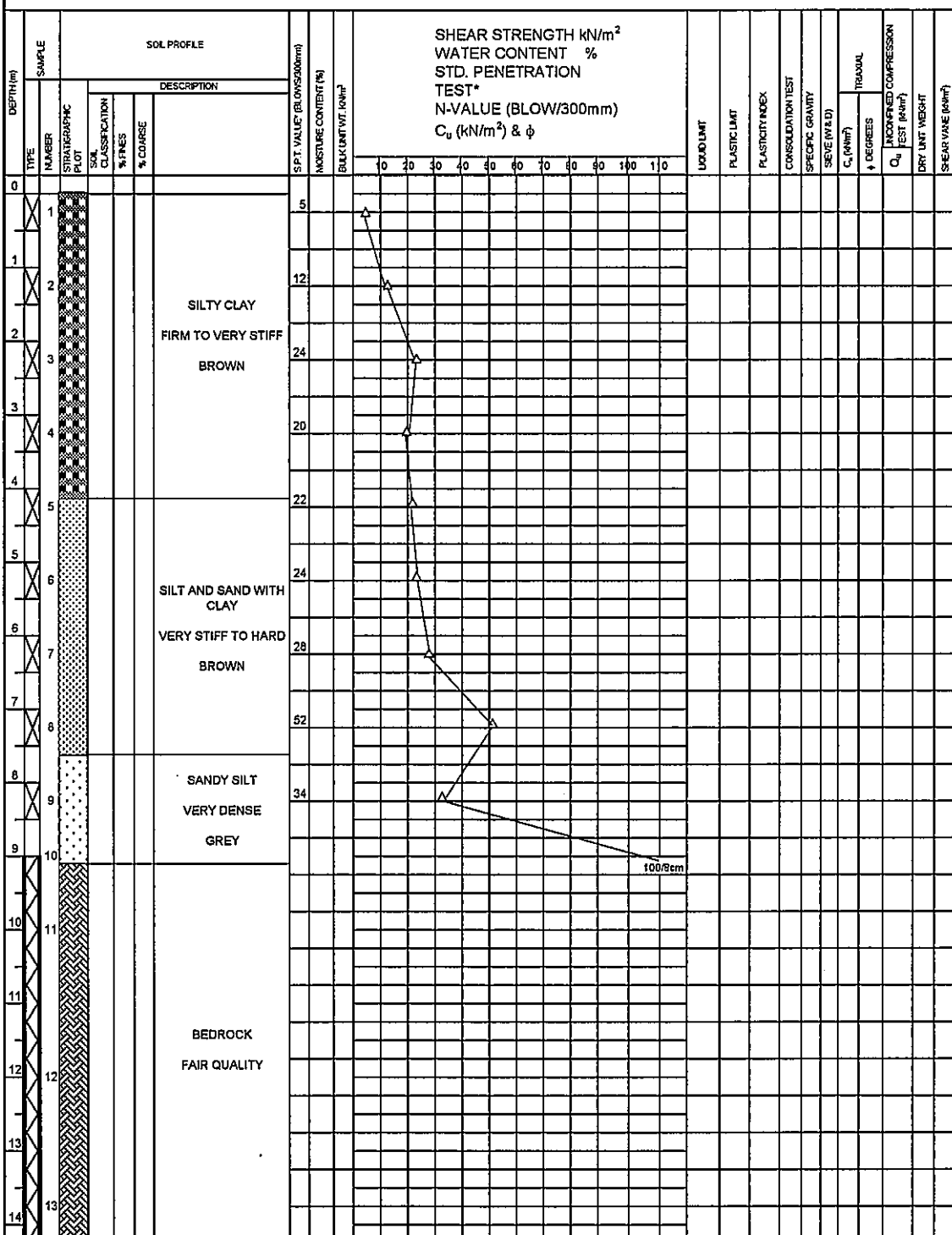
SOIL CLASSIFICATION AS PER ASTM D 2487-93
 WATER DEPTH N/A HOURS AFTER DRILLING _____
 POCKET PEN (kN/m²) & Q_u _____ DRILLER M. Lalla
 WATER ENCOUNTERED _____

LEGEND

	MADE GROUND		GRAVEL		SAND		METAMORPHI		ORGANIC		BOULDERS AND COBBLES
	SILT		CLAY		TOP SOIL		BOULDERS		BEDROCK		

	STANDARD SPILT SPOON (DISTURBED)		PLASTIC LIMIT		LIQUID LIMIT		POCKET PENETROMETER
	UNDISTURBED (SHELBY)		X NATURAL WATER CONTENT, W		N - VALUE (S.P.T.)		UNCONFINED COMPRESSION TEST
	UNDISTURBED (NO RECOVERY)		φ (Angle of Internal Friction)		VANE SHEAR TEST		TRIAxIAL TEST
	AUGER		W = Wet Sieve		C _u (kN/m ²)		Q _u (Unconfined Compression Strength)
	DIAMOND CORE		D = Dry Sieve				*HAMMER WEIGHT - 140lb DROP - 30

JOB No. W 750 BORING No. 2 SHEET 1 OF 1
 PROJECT Grand Etang Road DATE STARTED August 07, 2001 LOCATION Hairpin Curve
 TYPE BORING SKID MOUNTED ACKER / DRY / ROTARY DATE COMPLETED August 11, 2001 GROUND ELEVATION 418.700m

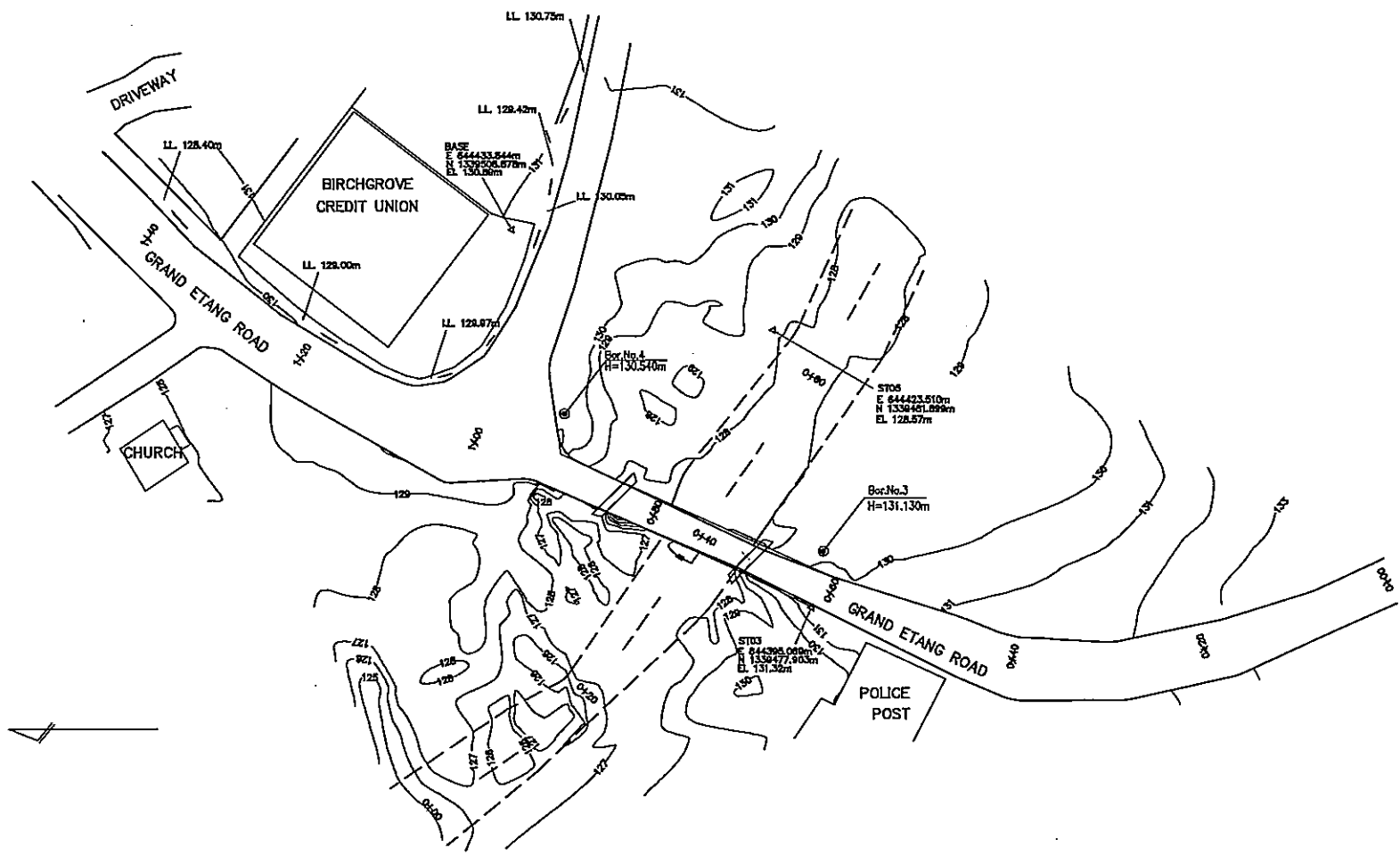


SOIL CLASSIFICATION AS PER ASTM D 2487-93
 WATER DEPTH N/A HOURS AFTER DRILLING
 POCKET PEN (kN/m²) & Q_u
 DRILLER M. Lalla
 WATER ENCOUNTERED

LEGEND

	STANDARD SPILT SPOON (DISTURBED)		POCKET PENETROMETER
	UNDISTURBED (SHELBY)		UNCONFINED COMPRESSION TEST
	UNDISTURBED (NO RECOVERY)		TRIAXIAL TEST
	AUGER		VANE SHEAR TEST
	DIAMOND CORE		C _u (kN/m ²)
			Q _u (Unconfined Compression Strength)
			HAMMER WEIGHT - 140lb DROP - 30

NORTH



JOB No. W 750

BORING No. 3

SHEET 1 OF 1

PROJECT Grand Elang Road

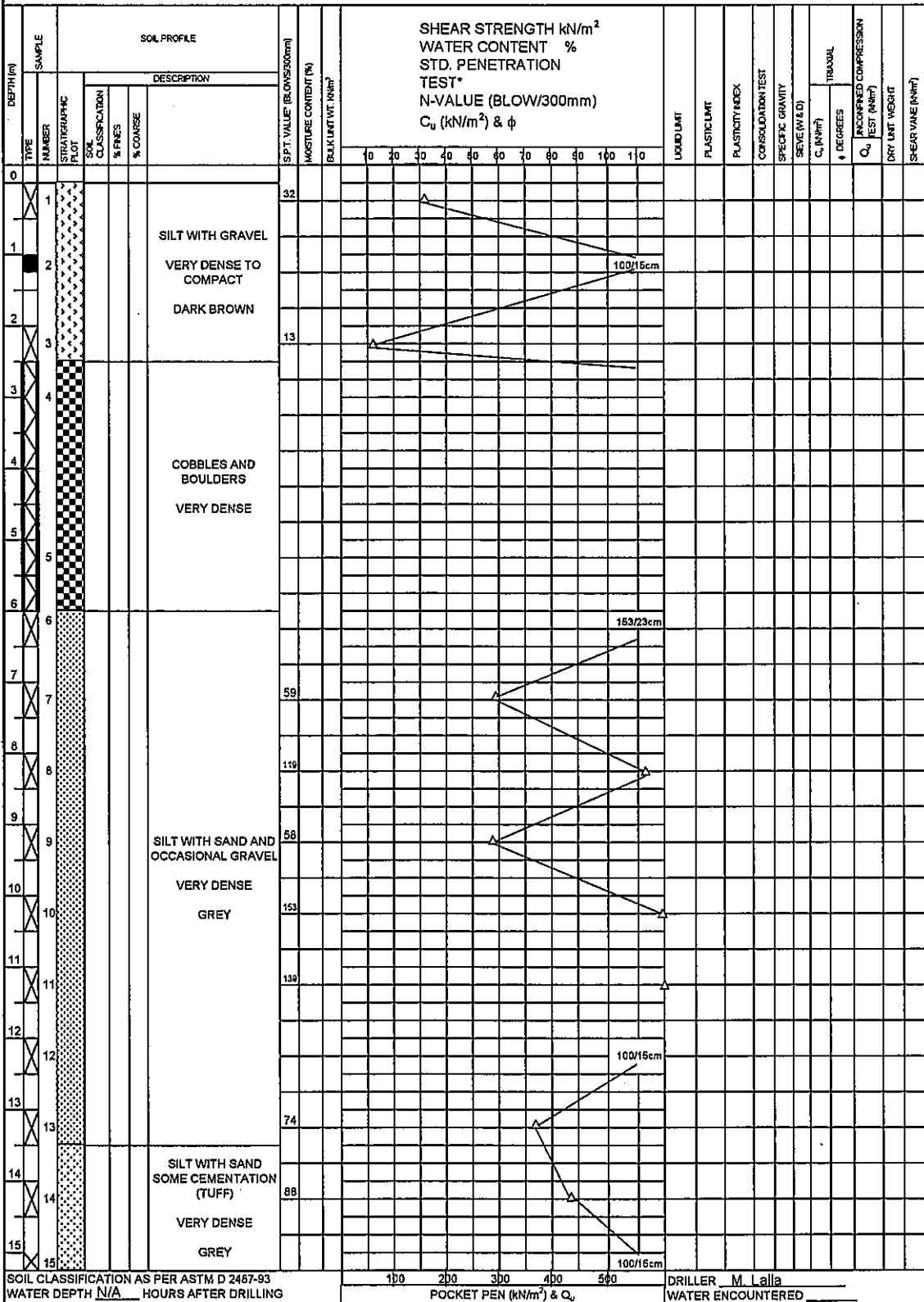
DATE STARTED August 17, 2001

LOCATION Birch Grove Br

TYPE BORING SKID MOUNTED ACKER / ROTARY

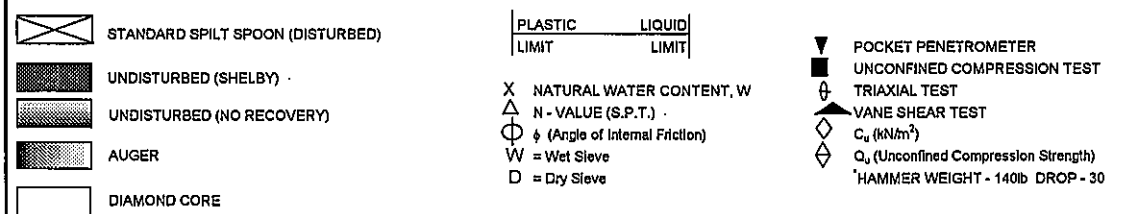
DATE COMPLETED August 18, 2001

GROUND ELEVATION 131.130m



SOIL CLASSIFICATION AS PER ASTM D 2487-93
 WATER DEPTH N/A HOURS AFTER DRILLING

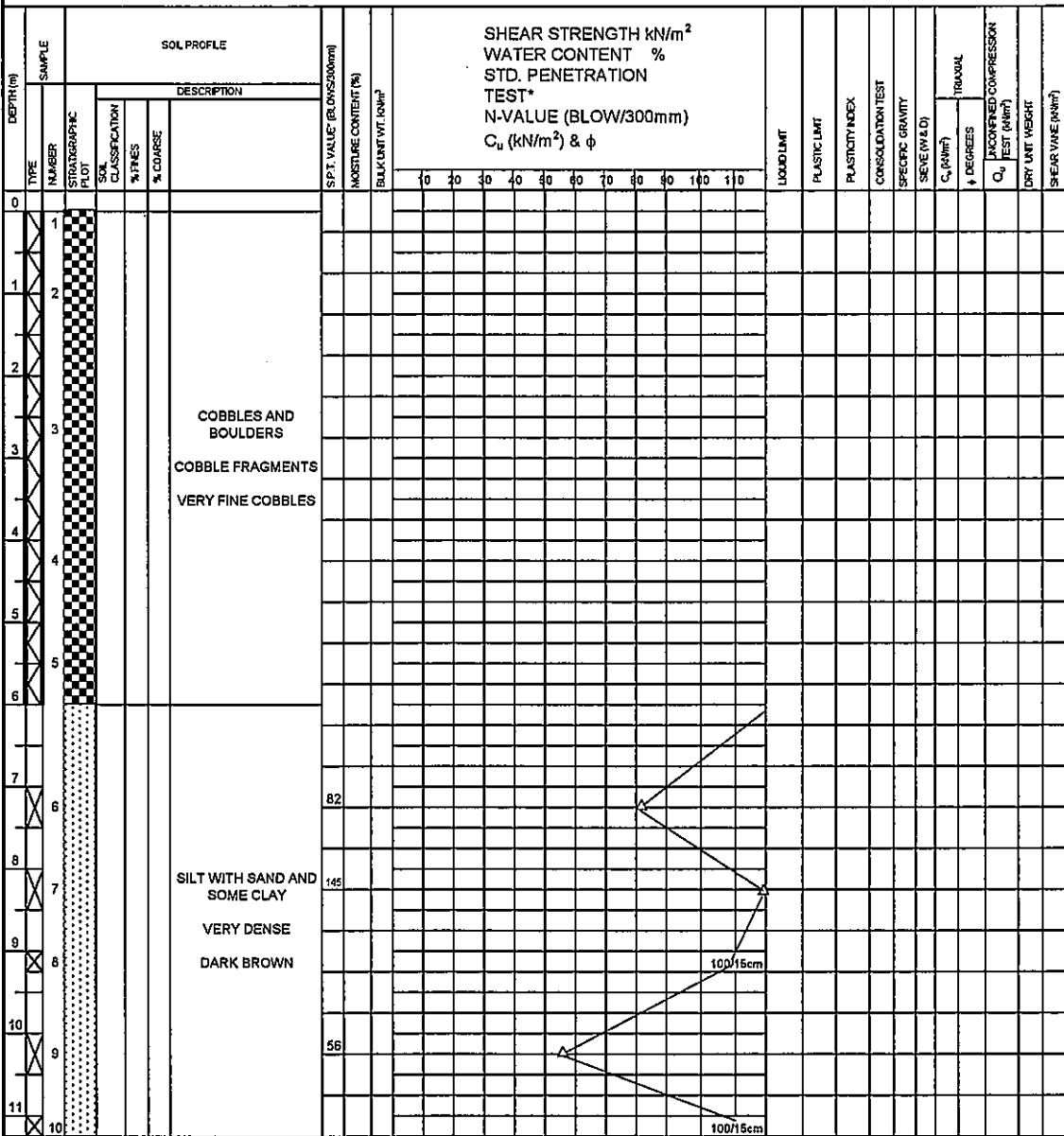
DRILLER M. Lalla
 WATER ENCOUNTERED



JOB No. W 750
 PROJECT Grand Etang Road
 TYPE BORING ACKER MOUNTED SKID / ROTARY

BORING No. 4
 DATE STARTED August 20, 2001
 DATE COMPLETED August 22, 2001

SHEET 1 OF 1
 LOCATION Birch Grove Br
 GROUND ELEVATION 130.540m

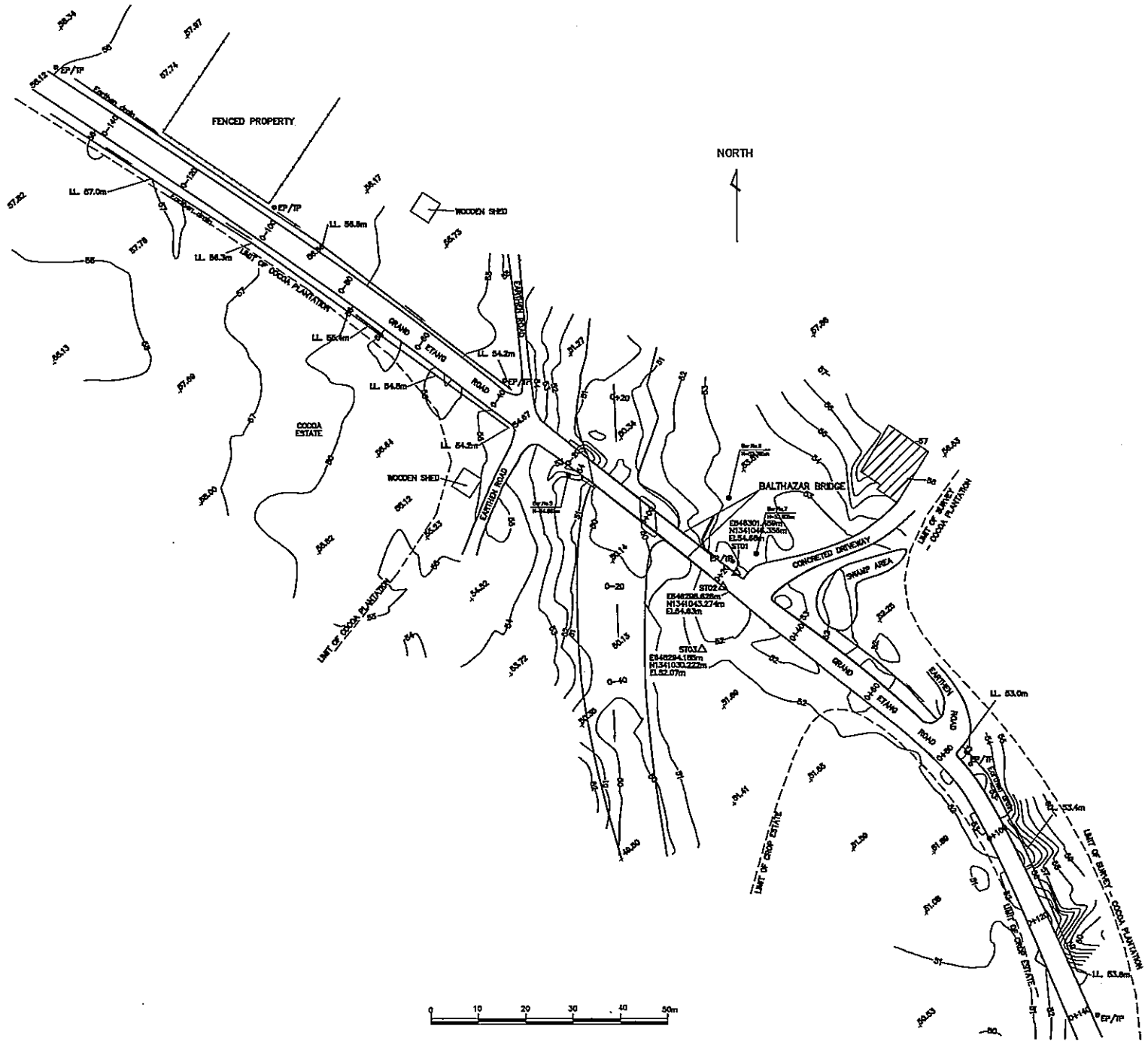


SOIL CLASSIFICATION AS PER ASTM D 2487-93
 WATER DEPTH N/A HOURS AFTER DRILLING
 POCKET PEN (kN/m²) & Q_u
 DRILLER M. Lalla
 WATER ENCOUNTERED

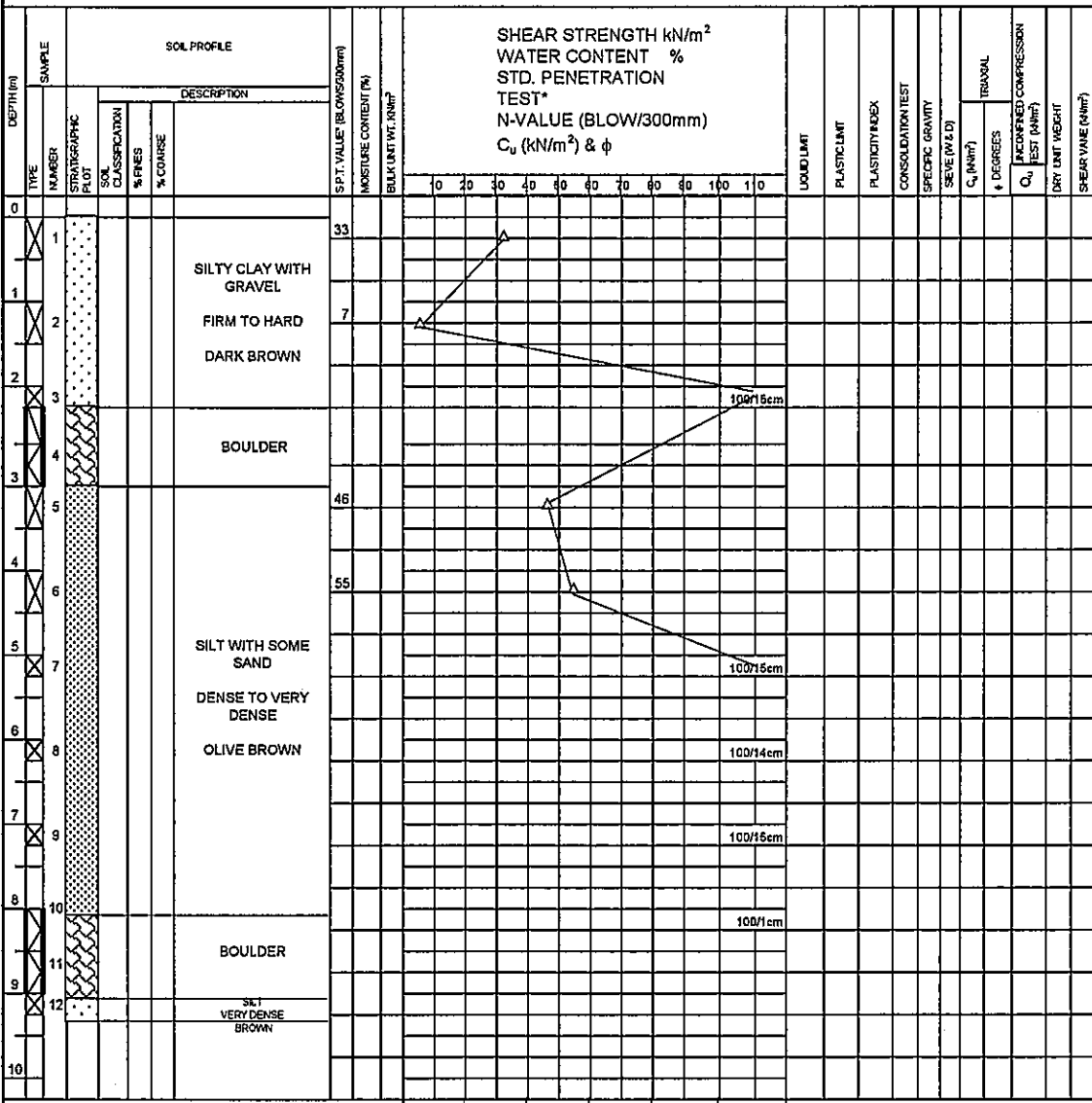
LEGEND

	MADE GROUND		GRAVEL		SAND		METAMORPHI		ORGANIC		BOULDERS AND COBBLES
	UNDISTURBED (SHELBY)		SILT		CLAY		TOP SOIL		BOULDERS		BEDROCK

	STANDARD SPILT SPOON (DISTURBED)		PLASTIC LIMIT		LIQUID LIMIT		POCKET PENETROMETER
	UNDISTURBED (NO RECOVERY)		NATURAL WATER CONTENT, W		N - VALUE (S.P.T.)		UNCONFINED COMPRESSION TEST
	AUGER		φ (Angle of Internal Friction)		VANE SHEAR TEST		C _u (kN/m ²)
	DIAMOND CORE		W = Wet Sieve		Q _u (Unconfined Compression Strength)		HAMMER WEIGHT - 140lb DROP - 30
			D = Dry Sieve				



JOB No. W 750 BORING No. 5 SHEET 1 OF 1
 PROJECT Grand Etang Road DATE STARTED August 23, 2001 LOCATION Balibazar
 TYPE BORING HILLBILLY SKID / DRY / ROTARY DATE COMPLETED August 25, 2001 GROUND ELEVATION 54.665m



SOIL CLASSIFICATION AS PER ASTM D 2487-93
 WATER DEPTH N/A HOURS AFTER DRILLING
 POCKET PEN (kN/m²) & Q_u
 DRILLER M. Lalla
 WATER ENCOUNTERED

LEGEND

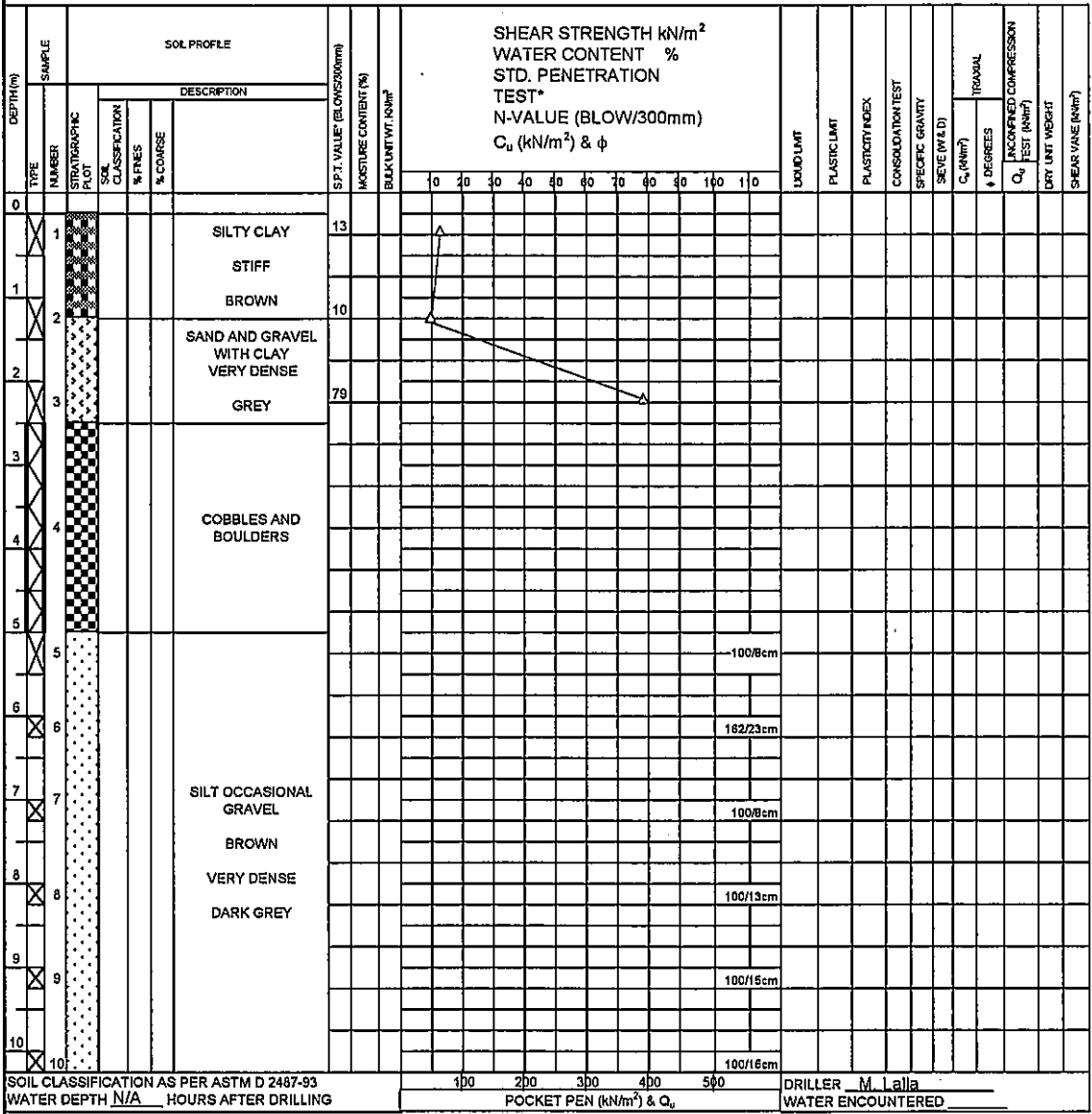
	MADE GROUND		GRAVEL		SAND		METAMORPHI		ORGANIC		BOULDERS AND COBBLES
	UNDISTURBED (SHELBY)		SILT		CLAY		TOP SOIL		BOULDERS		BEDROCK

	STANDARD SPLT SPOON (DISTURBED)		PLASTIC LIMIT		LIQUID LIMIT		POCKET PENETROMETER
	UNDISTURBED (SHELBY)		X		NATURAL WATER CONTENT, W		UNCONFINED COMPRESSION TEST
	UNDISTURBED (NO RECOVERY)		△		N - VALUE (S.P.T.)		TRIAxIAL TEST
	AUGER		○		φ (Angle of Internal Friction)		VANE SHEAR TEST
	DIAMOND CORE		W		C _u (kN/m ²)		Q _u (Unconfined Compression Strength)
			D		φ (Unconfined Compression Strength)		*HAMMER WEIGHT - 140lb DROP - 30

JOB No. W 750
 PROJECT Grand Etang Road
 TYPE BORING HILLBILLY SKID / DRY / ROTARY

BORING No. 6
 DATE STARTED August 27, 2001
 DATE COMPLETED August 29, 2001

SHEET 1 OF 1
 LOCATION Balthazar Br
 GROUND ELEVATION 52.365m



SOIL CLASSIFICATION AS PER ASTM D 2487-93
 WATER DEPTH N/A HOURS AFTER DRILLING
 POCKET PEN (kN/m²) & Q_u
 DRILLER M. Lalla
 WATER ENCOUNTERED

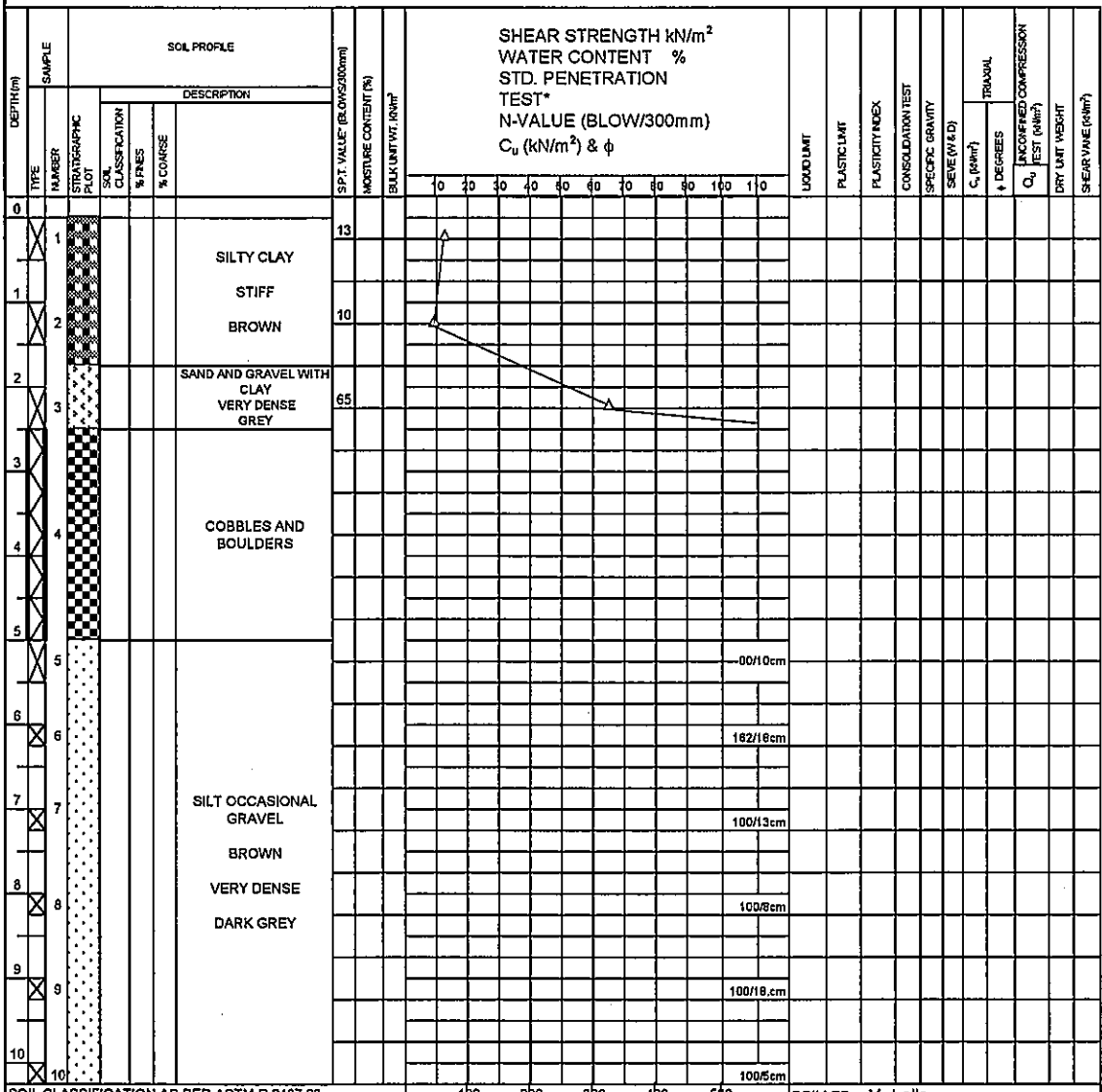
LEGEND

	MADE GROUND		GRAVEL		SAND		METAMORPHI		ORGANIC		BOULDERS AND COBBLES
	UNDISTURBED (SHELBY)		SILT		CLAY		TOP SOIL		BOULDERS		BEDROCK

	STANDARD SPLIT SPOON (DISTURBED)		PLASTIC LIMIT		LIQUID LIMIT		POCKET PENETROMETER
	UNDISTURBED (NO RECOVERY)		NATURAL WATER CONTENT, W		N - VALUE (S.P.T.)		UNCONFINED COMPRESSION TEST
	AUGER		φ (Angle of Internal Friction)		C _v (kN/m ²)		TRIAXIAL TEST
	DIAMOND CORE		W = Wet Sieve		Q _u (Unconfined Compression Strength)		VANE SHEAR TEST
			D = Dry Sieve				

*HAMMER WEIGHT - 140lb DROP - 30

JOB No. W 750 BORING No. 7 SHEET 1 OF 1
 PROJECT Grand Etang Road DATE STARTED August 30, 2001 LOCATION Balthazar Br
 TYPE BORING HILL/BILLY SKID / DRY / ROTARY DATE COMPLETED September 01 GROUND ELEVATION 52.805m



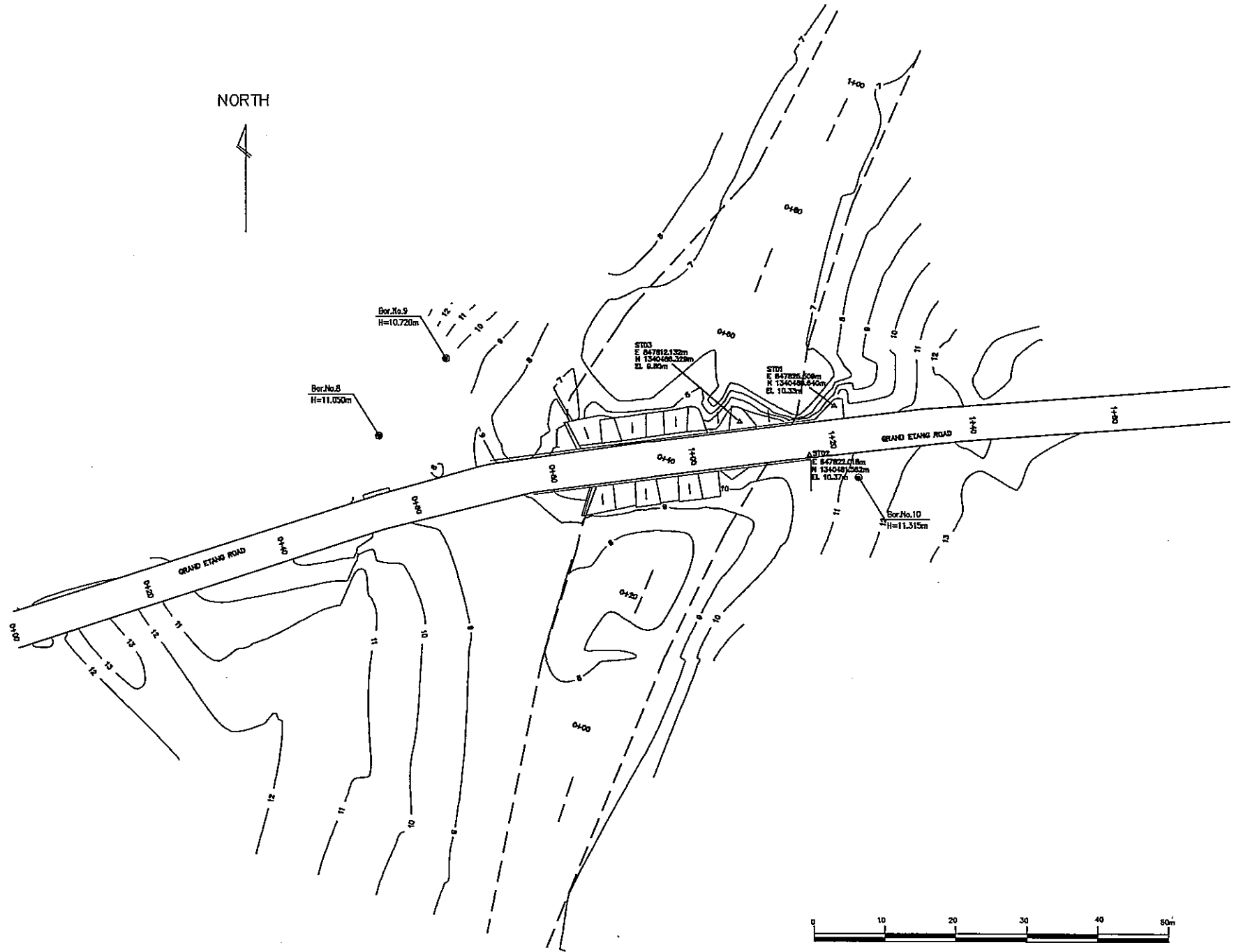
SOIL CLASSIFICATION AS PER ASTM D 2487-93
 WATER DEPTH N/A HOURS AFTER DRILLING
 POCKET PEN (kN/m²) & Q_u
 DRILLER M. Lalla
 WATER ENCOUNTERED

LEGEND

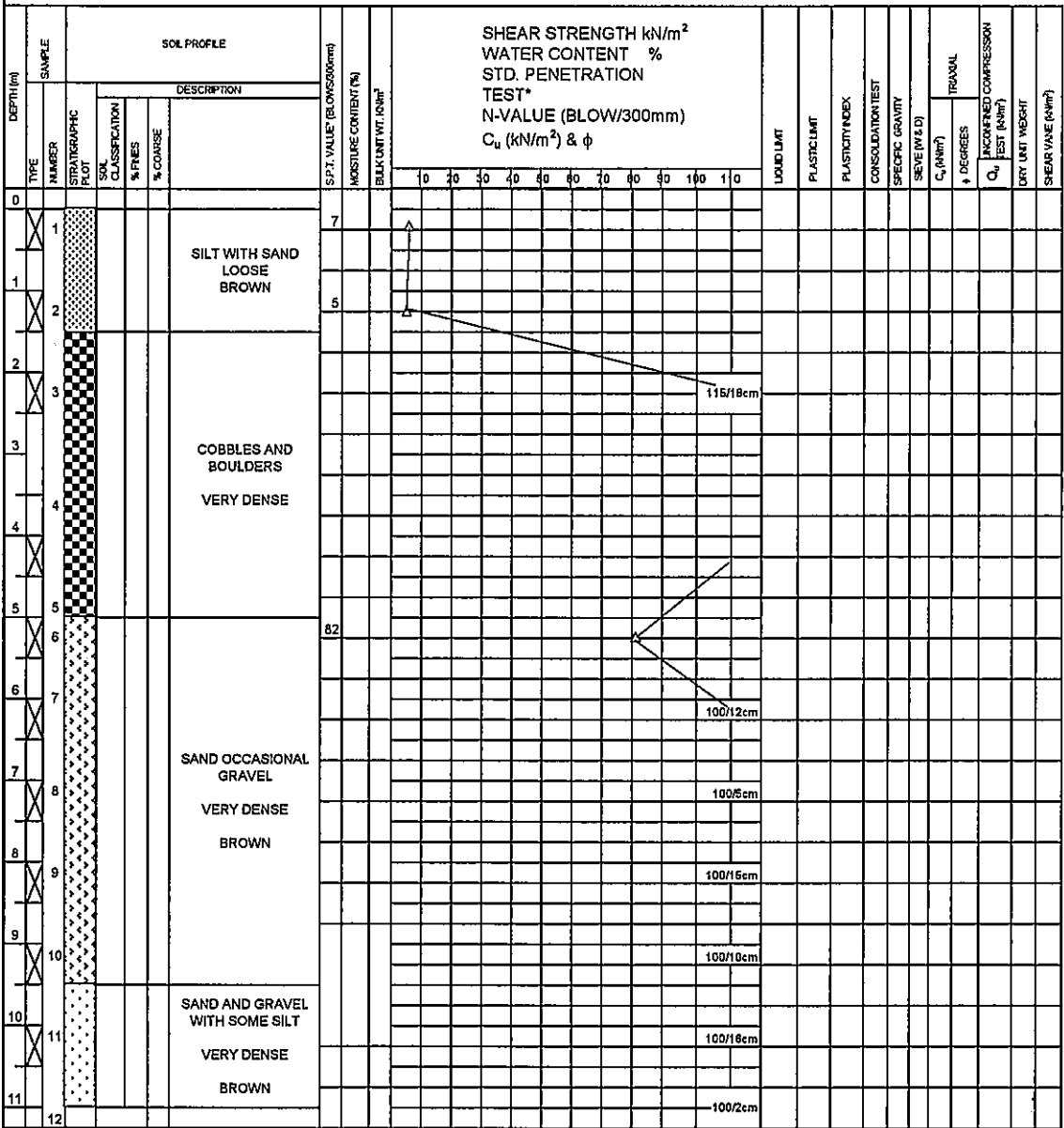
	MADE GROUND		GRAVEL		SAND		METAMORPHI		ORGANIC		BOULDERS AND COBBLES
	UNDISTURBED (SHELBY)		SILT		CLAY		TOP SOIL		BOULDERS		BEDROCK

	STANDARD SPILT SPOON (DISTURBED)		PLASTIC LIMIT		LIQUID LIMIT		POCKET PENETROMETER	
	UNDISTURBED (NO RECOVERY)		NATURAL WATER CONTENT, W			UNCONFINED COMPRESSION TEST		TRIAXIAL TEST
	AUGER		N - VALUE (S.P.T.)			VANE SHEAR TEST		C _u (kN/m ²)
	DIAMOND CORE		φ (Angle of Internal Friction)			Q _u (Unconfined Compression Strength)		HAMMER WEIGHT - 140lb DROP - 30
			W = Wet Sieve					
			D = Dry Sieve					

NORTH



JOB No. W 750 BORING No. 8 SHEET 1 OF 1
 PROJECT Grand Etang Road DATE STARTED September 03 LOCATION St. Cyr Great River
 TYPE BORING HILLBILLY SKID / DRY / ROTARY DATE COMPLETED September 06 GROUND ELEVATION 11.050m



SOIL CLASSIFICATION AS PER ASTM D 2487-93
 WATER DEPTH N/A HOURS AFTER DRILLING
 POCKET PEN (kN/m²) & Q_u
 DRILLER M. Lalla
 WATER ENCOUNTERED

LEGEND

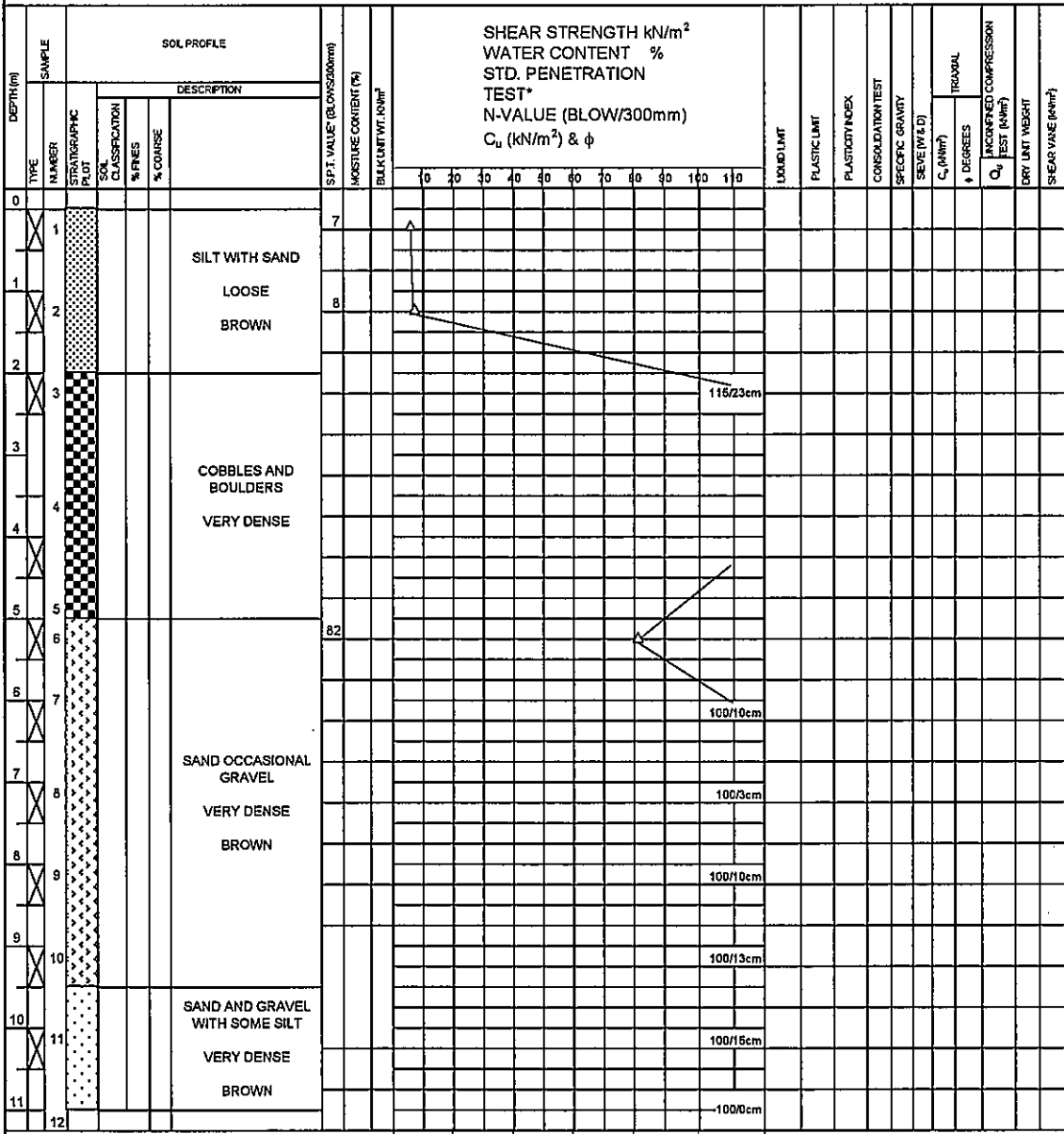
	MADE GROUND		GRAVEL		SAND		METAMORPHIC		ORGANIC		BOULDERS AND COBBLES
	UNDISTURBED (SHELBY)		SILT		CLAY		TOP SOIL		BOULDERS		BEDROCK

	STANDARD SPLIT SPOON (DISTURBED)		PLASTIC LIMIT		LIQUID LIMIT		POCKET PENETROMETER
	UNDISTURBED (SHELBY)		X		NATURAL WATER CONTENT, W		UNCONFINED COMPRESSION TEST
	UNDISTURBED (NO RECOVERY)		Δ		N - VALUE (S.P.T.)		TRIAXIAL TEST
	AUGER		φ		(Angle of Internal Friction)		VANE SHEAR TEST
	DIAMOND CORE		W		= Wet Sieve		C _u (kN/m²)
			D		= Dry Sieve		Q _u (Unconfined Compression Strength)
							*HAMMER WEIGHT - 140lb DROP - 30

JOB No. W 749
 PROJECT Grand Etang Road
 TYPE BORING HILLBILLY SKID / DRY / ROTARY

BORING No. 9
 DATE STARTED September 07
 DATE COMPLETED September 11

SHEET 1 OF 1
 LOCATION St. Cyr Great River
 GROUND ELEVATION 10.720m



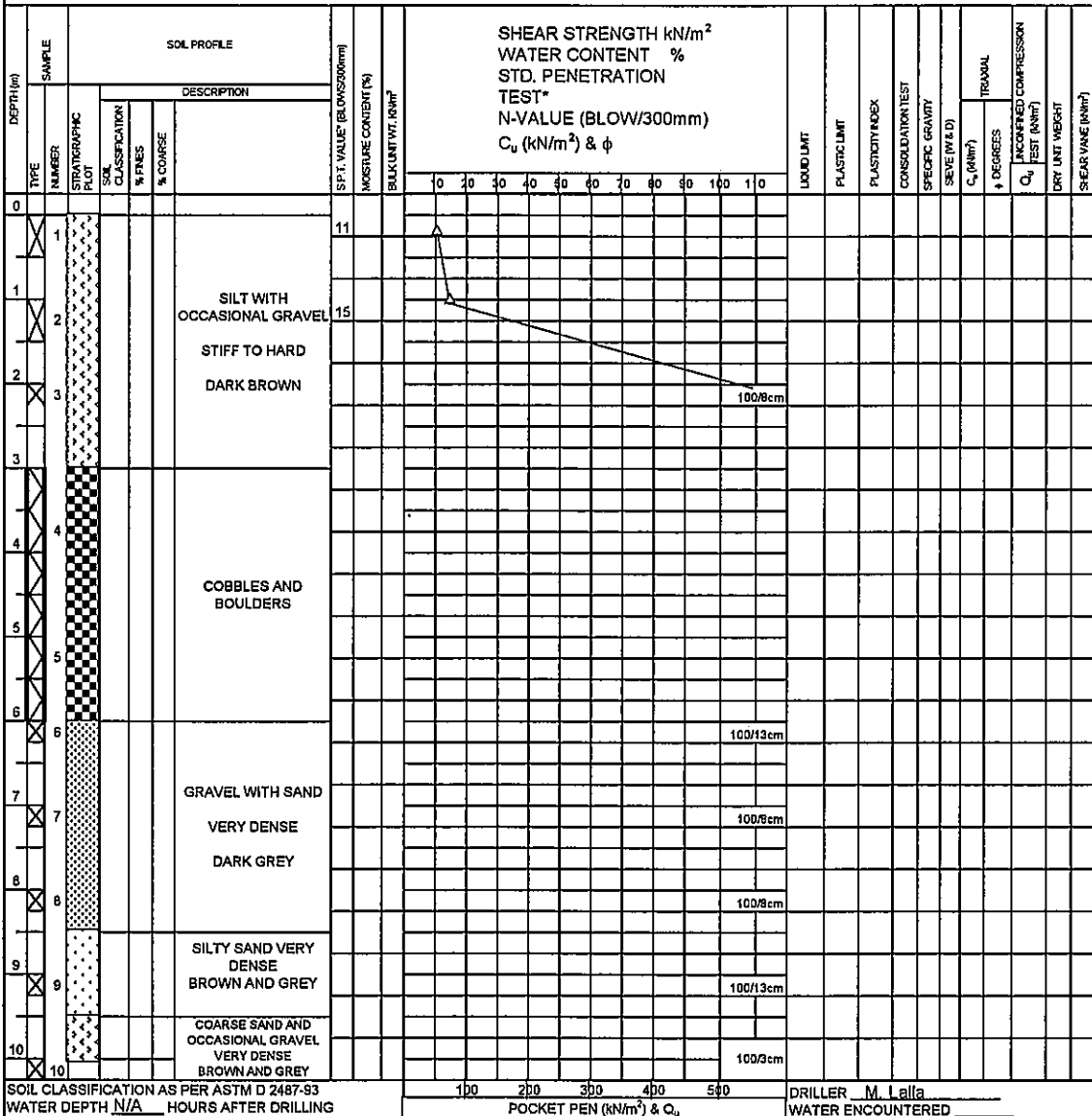
SOIL CLASSIFICATION AS PER ASTM D 2487-93
 WATER DEPTH N/A HOURS AFTER DRILLING
 POCKET PEN (kN/m²) & Q_u
 DRILLER M. Latta
 WATER ENCOUNTERED

LEGEND

	GRAVEL		SAND		METAMORPHI		ORGANIC		BOULDERS AND COBBLES
	MADE GROUND		SILT		TOP SOIL		BOULDERS		BEDROCK
	CLAY								

	STANDARD SPILT SPOON (DISTURBED)	<table border="1"> <tr> <td>PLASTIC LIMIT</td> <td>LIQUID LIMIT</td> </tr> </table>	PLASTIC LIMIT	LIQUID LIMIT		POCKET PENETROMETER
PLASTIC LIMIT	LIQUID LIMIT					
	UNDISTURBED (SHELBY)	X NATURAL WATER CONTENT, W		UNCONFINED COMPRESSION TEST		
	UNDISTURBED (NO RECOVERY)	△ N - VALUE (S.P.T.)		TRIAxIAL TEST		
	AUGER	φ (Angle of Internal Friction)		VANE SHEAR TEST		
	DIAMOND CORE	W = Wet Sieve		C _u (kN/m ²)		
		D = Dry Sieve		Q _u (Unconfined Compression Strength)		
				*HAMMER WEIGHT - 140lb DROP - 30		

JOB No. W 750 BORING No. 10 SHEET 1 OF 1
 PROJECT Grand Etang Road DATE STARTED September 12 LOCATION St. Cyr Great River
 TYPE BORING HILLBILLY SKID / DRY / ROTARY DATE COMPLETED September 13 GROUND ELEVATION 11.315m



LEGEND

	MADE GROUND		GRAVEL		SAND		METAMORPHI		ORGANIC		BOULDERS AND COBBLES
	UNDISTURBED (SHELBY)		SILT		CLAY		TOP SOIL		BOULDERS		BEDROCK

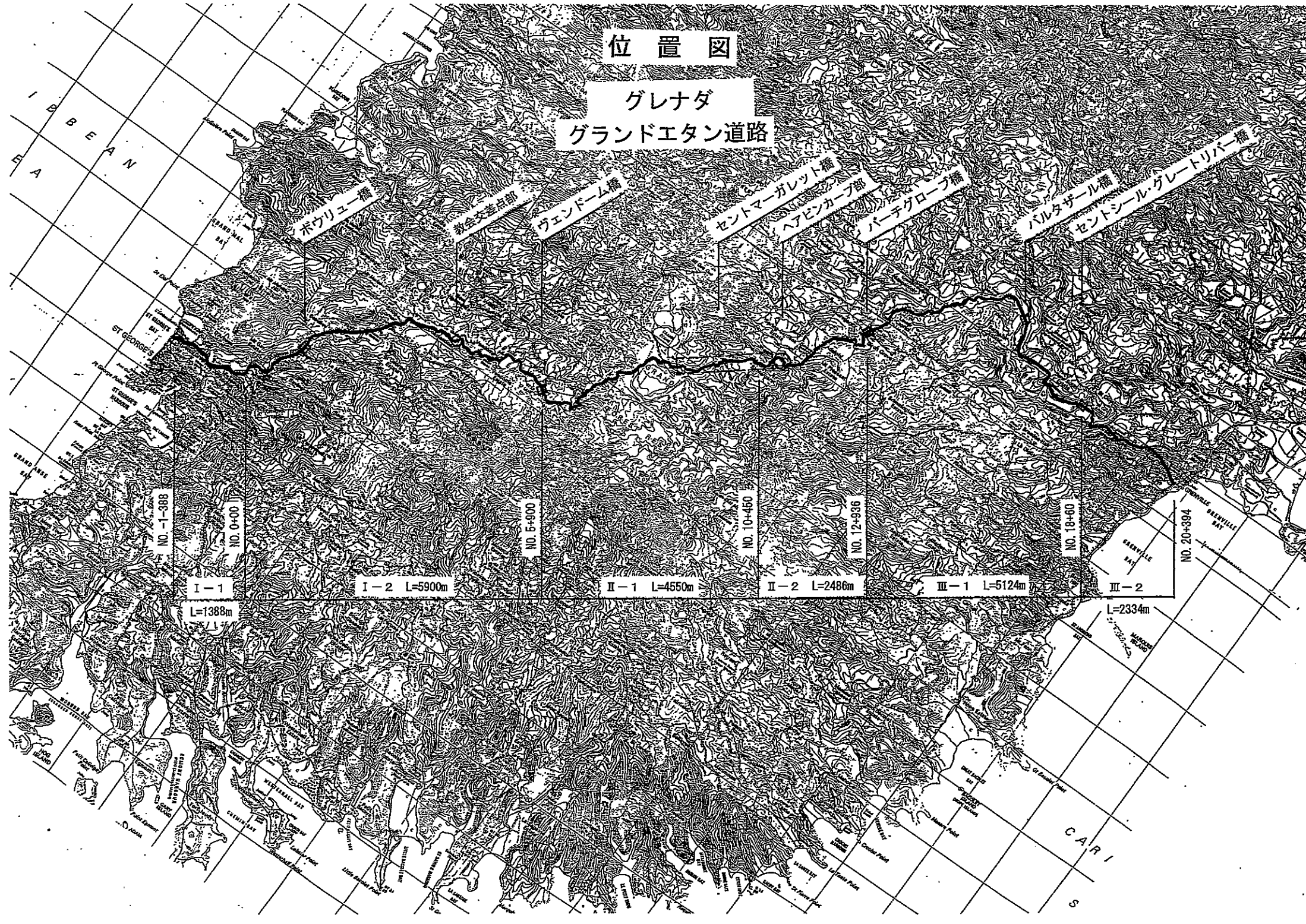
	STANDARD SPILT SPOON (DISTURBED)		PLASTIC LIMIT		LIQUID LIMIT		POCKET PENETROMETER
	UNDISTURBED (SHELBY)		X		N - VALUE (S.P.T.)		UNCONFINED COMPRESSION TEST
	UNDISTURBED (NO RECOVERY)		φ		(Angle of Internal Friction)		TRIAXIAL TEST
	AUGER		W		C _u (KN/m ²)		VANE SHEAR TEST
	DIAMOND CORE		D		Q _u (Unconfined Compression Strength)		C _u (KN/m ²)
							*HAMMER WEIGHT - 140lb DROP - 30

(8) 交通量調査

(グランドエタン道路)

位置図

グレナダ
グランドエタン道路



ポワリエール

セントジョージ

グランドエタン

セントマーガレット

セントパウル

セントピーター

セントジョージ

セントシール・グレートリバー

NO. 1-388

NO. 0-00

NO. 5-900

NO. 10-450

NO. 12-936

NO. 18-60

NO. 20-384

I B B E A N

C A R I S

交通量調査結果

Section I-1 at Tempe Bridge

Time	Passenger Car	Bus	Pick-up	Large Truck	Total	Pedestrians
07:00-08:00	239	244	37	27	547	64
08:00-09:00	258	177	53	78	566	70
09:00-10:00	213	125	53	68	459	53
10:00-11:00	168	112	64	67	411	45
11:00-12:00	178	103	62	77	420	34
12:00-13:00	233	126	50	75	484	55
13:00-14:00	181	113	45	68	407	25
14:00-15:00	192	111	36	66	405	20
15:00-16:00	198	97	48	62	405	44
16:00-17:00	245	156	53	42	496	55
17:00-18:00	245	142	33	24	444	20
18:00-19:00	172	98	25	11	306	25
Total	2,522	1,604	559	665	5,350	510

Section I-2 at Off Temp/Mt. Gay Junction

Time	Passenger Car	Bus	Pick-up	Large Truck	Total	Pedestrians
07:00-08:00	243	213	37	35	528	65
08:00-09:00	214	168	54	55	491	42
09:00-10:00	154	103	49	38	344	18
10:00-11:00	132	111	44	41	328	21
11:00-12:00	118	78	32	29	257	13
12:00-13:00	176	108	35	24	343	50
13:00-14:00	167	96	33	43	339	30
14:00-15:00	137	105	48	38	328	34
15:00-16:00	178	103	66	39	386	42
16:00-17:00	243	147	61	38	489	67
17:00-18:00	219	111	36	27	393	47
18:00-19:00	158	98	28	9	293	38
Total	2,139	1,441	523	416	4,519	467

Section II-1 at the Top of the Hill

Time	Passenger Car	Bus	Pick-up	Large Truck	Total	Pedestrians
07:00-08:00	77	53	7	22	159	0
08:00-09:00	51	28	15	13	107	0
09:00-10:00	48	19	15	13	95	0
10:00-11:00	39	22	10	18	89	3
11:00-12:00	32	21	10	9	72	25
12:00-13:00	48	23	8	16	95	9
13:00-14:00	34	27	8	10	79	0
14:00-15:00	40	24	18	11	93	0
15:00-16:00	68	34	11	16	129	0
16:00-17:00	57	45	22	13	137	0
17:00-18:00	62	44	10	9	125	2
18:00-19:00	35	27	5	2	69	1
Total	591	367	139	152	1,249	40

Section II-2 at Adelphi/Bamboo Bar

Time	Passenger Car	Bus	Pick-up	Large Truck	Total	Pedestrians
07:00-08:00	115	61	37	6	219	31
08:00-09:00	47	27	23	5	102	17
09:00-10:00	58	20	21	12	111	41
10:00-11:00	50	16	12	10	88	8
11:00-12:00	29	26	12	12	79	20
12:00-13:00	44	25	17	9	95	18
13:00-14:00	50	27	18	8	103	14
14:00-15:00	34	23	26	10	93	21
15:00-16:00	58	37	18	13	126	17
16:00-17:00	63	53	35	12	163	16
17:00-18:00	58	39	23	10	130	25
18:00-19:00	32	32	11	4	79	37
Total	638	386	253	111	1,388	265

Section III-1 at St. Cyr Great River Bridge

Time	Passenger Car	Bus	Pick-up	Large Truck	Total	Pedestrians
07:00-08:00	63	41	14	27	145	8
08:00-09:00	61	33	33	17	144	2
09:00-10:00	58	21	23	14	116	6
10:00-11:00	26	12	19	18	75	3
11:00-12:00	75	34	33	15	157	11
12:00-13:00	15	15	11	9	50	2
13:00-14:00	33	24	23	12	92	1
14:00-15:00	37	23	24	12	96	4
15:00-16:00	56	32	21	18	127	7
16:00-17:00	55	29	31	14	129	4
17:00-18:00	70	40	26	10	146	1
18:00-19:00	36	16	8	12	72	3
Total	585	320	266	178	1,349	52

Section III-2 at Grand Brass Gas Station

Time	Passenger Car	Bus	Pick-up	Large Truck	Total	Pedestrians
07:00-08:00	70	76	49	38	233	2
08:00-09:00	89	77	100	36	302	5
09:00-10:00	67	37	74	26	204	7
10:00-11:00	67	41	45	27	180	0
11:00-12:00	44	35	54	11	144	1
12:00-13:00	43	32	40	7	122	2
13:00-14:00	46	43	77	23	189	7
14:00-15:00	53	53	84	15	205	6
15:00-16:00	65	65	84	25	239	3
16:00-17:00	73	74	95	21	263	8
17:00-18:00	85	85	81	16	267	4
18:00-19:00	72	56	46	18	192	2
Total	774	674	829	263	2,540	47