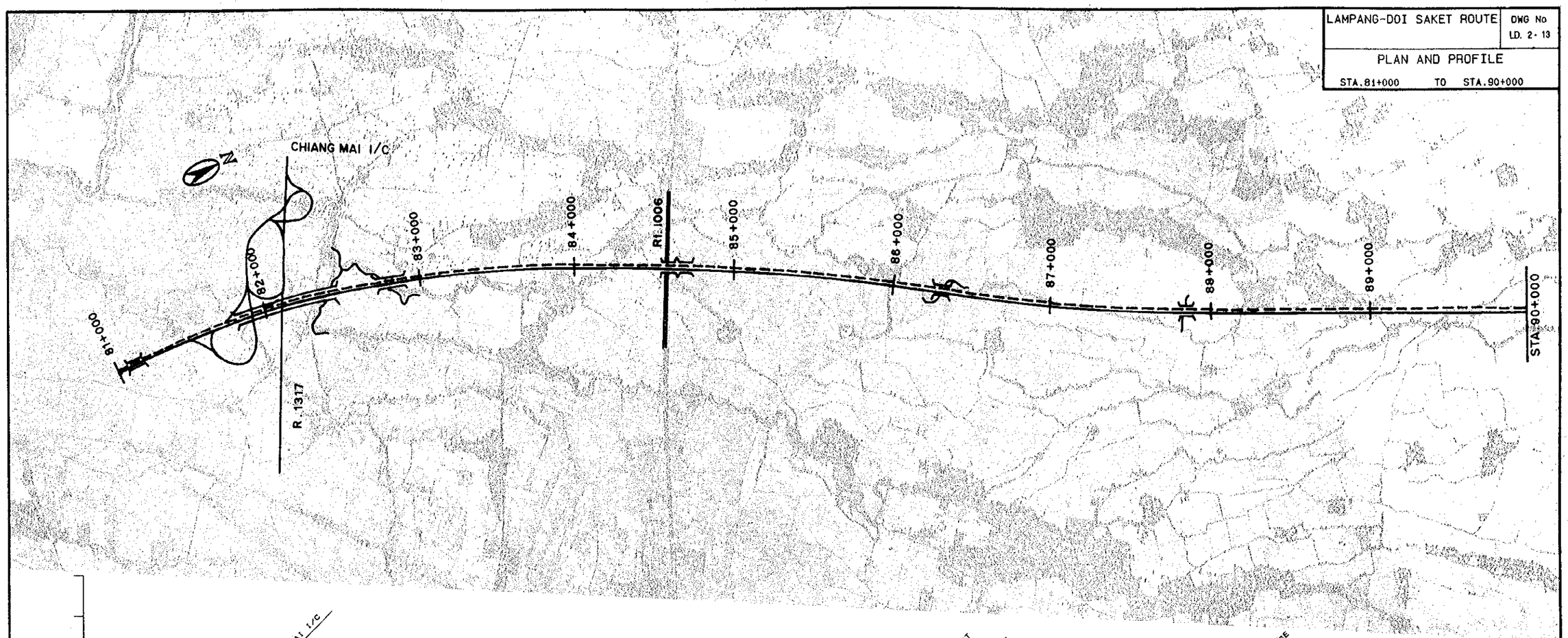
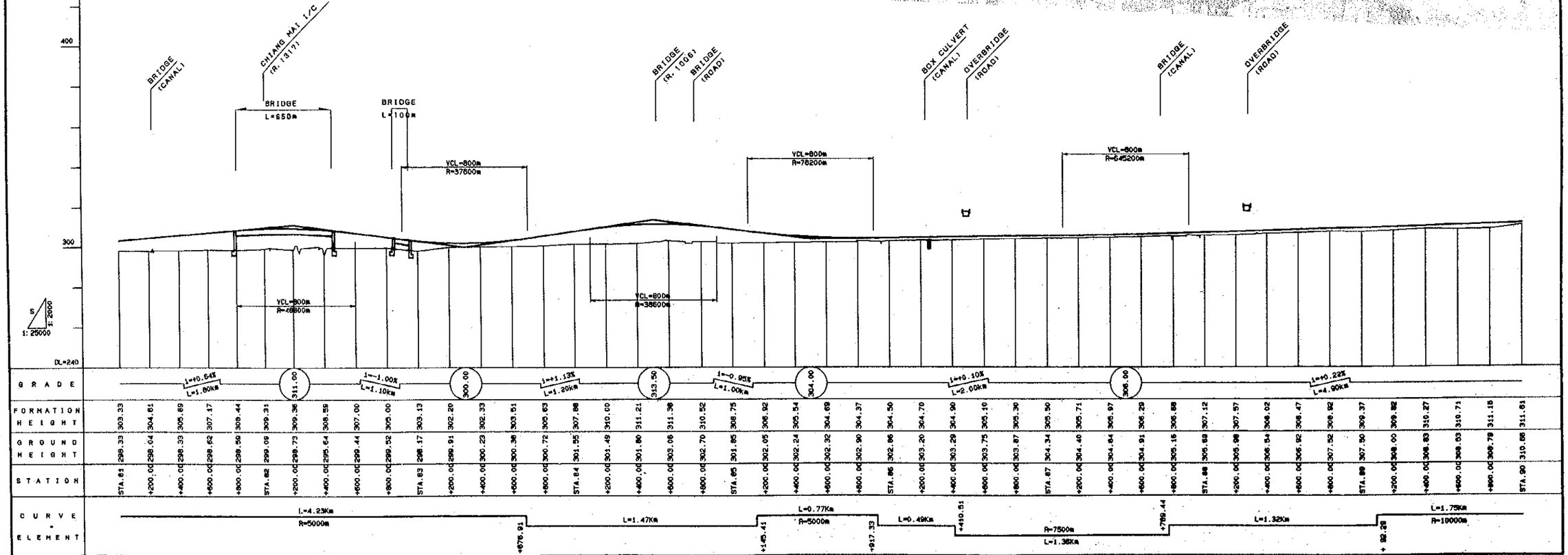
LAMPANG-DOI SAKET ROUTE | DWG No LD. 2-13

PLAN AND PROFILE

STA.81+000 TO STA.90+000

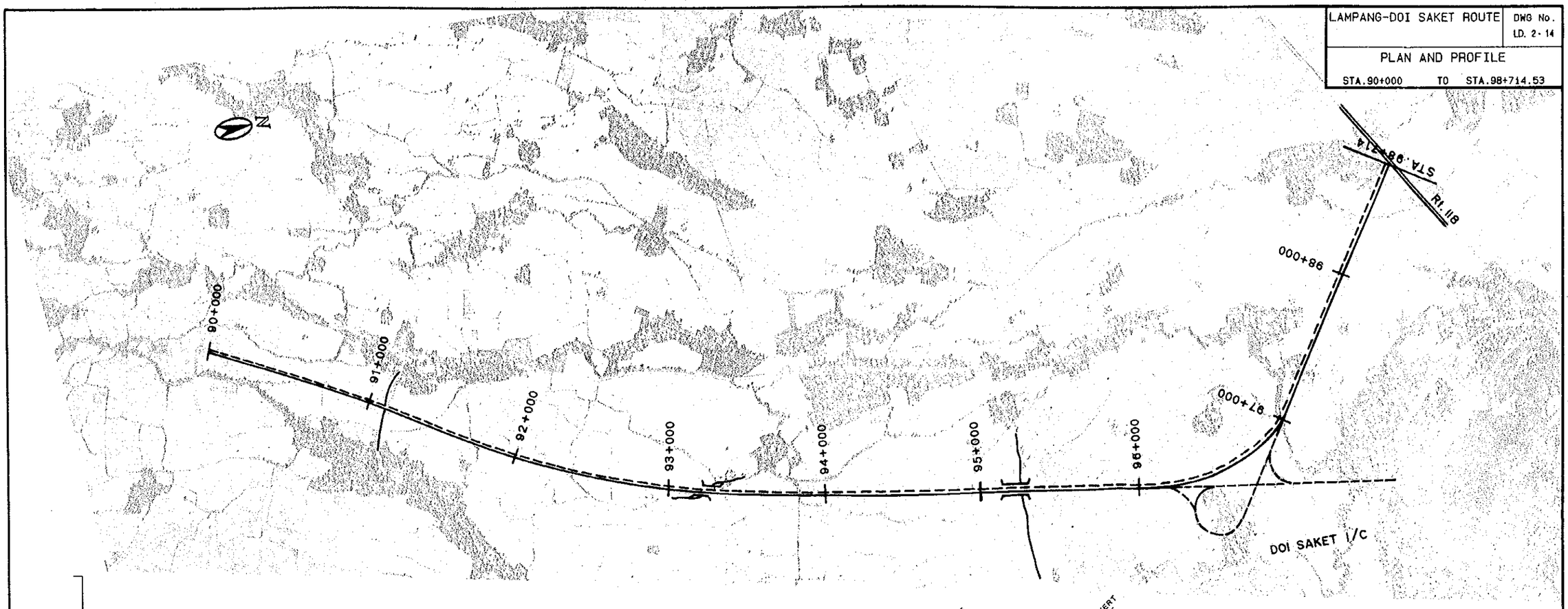




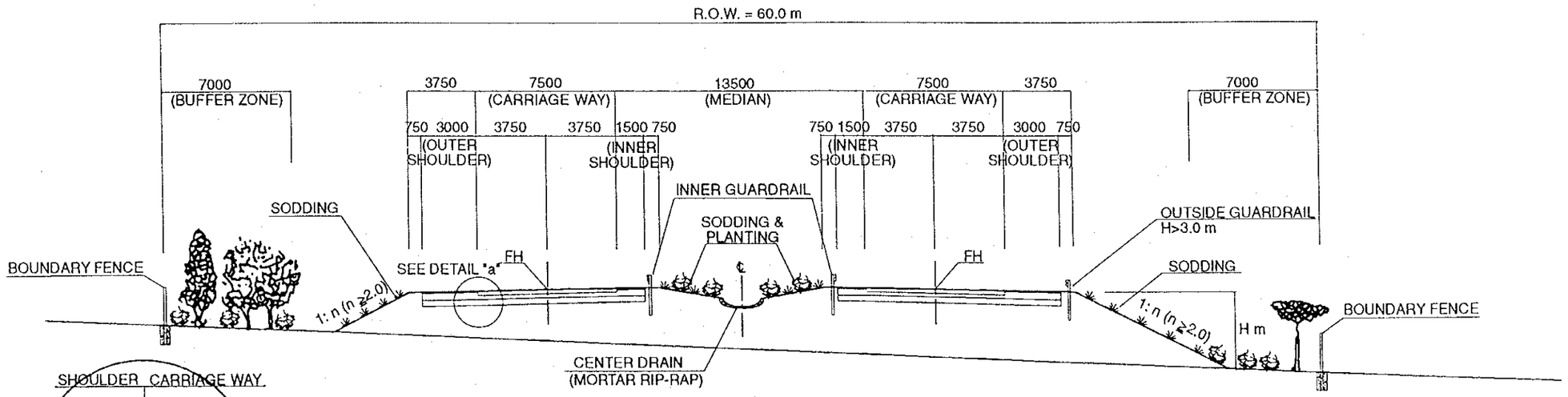
LAMPANG-DOI SAKET ROUTE | DWG No. LD. 2-14

PLAN AND PROFILE

STA.90+000 TO STA.98+714.53

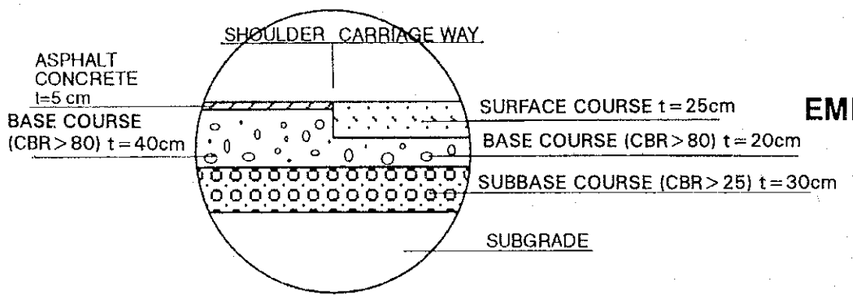


LAMPANG-DOI SAKET ROUTE	DWG No. LD. 3- 1
TYPICAL CROSS SECTION (1)	



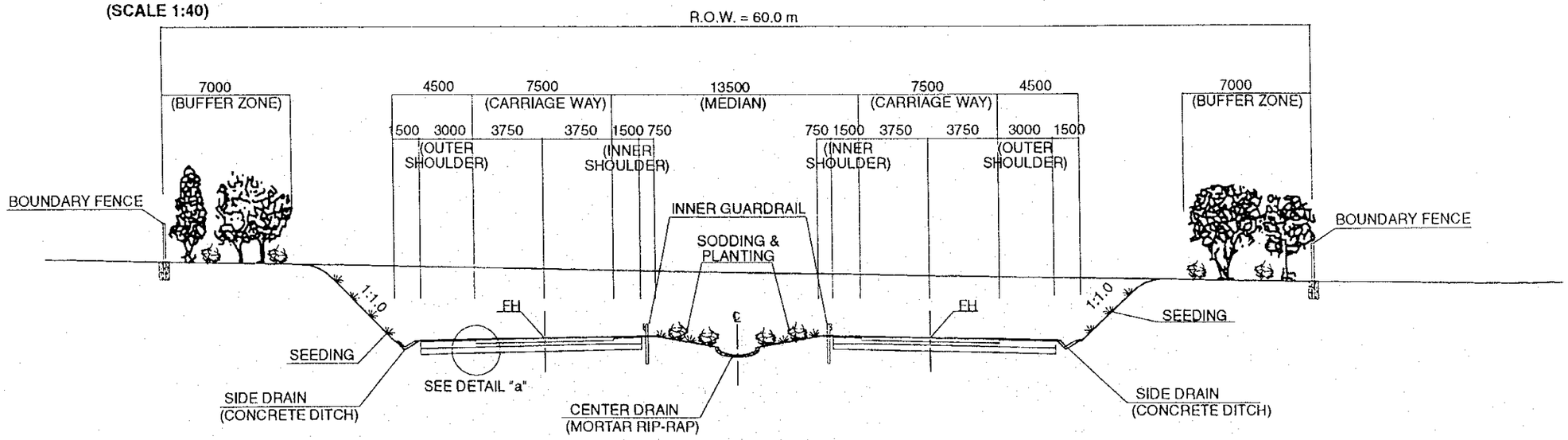
EMBANKMENT SECTION IN FLAT AREA

(SCALE 1:250)



DETAIL "a"

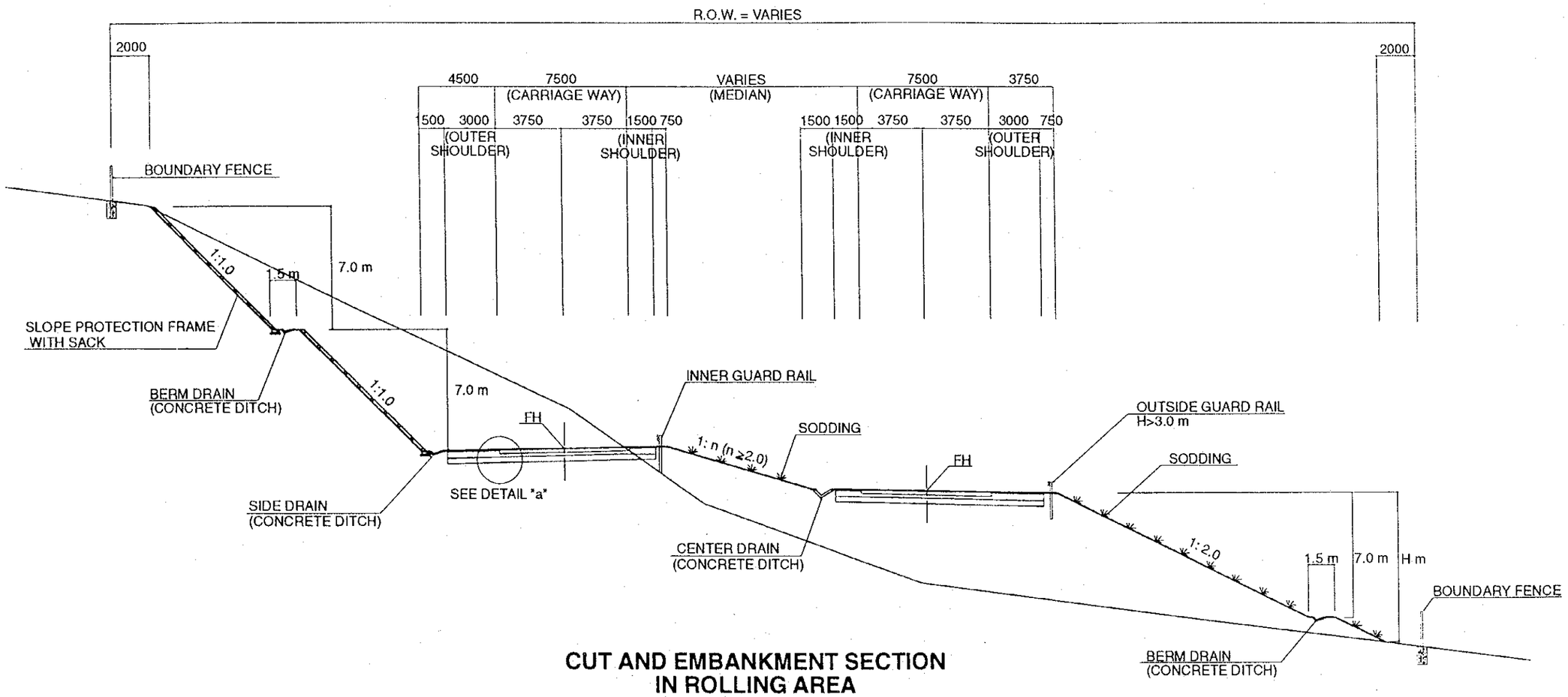
(SCALE 1:40)



CUT SECTION IN FLAT AREA

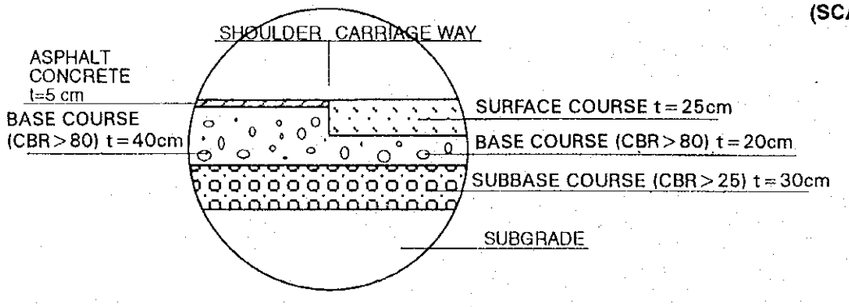
(SCALE 1:250)

LAMPANG-DOI SAKET ROUTE	DWG No. LD. 3- 2
TYPICAL CROSS SECTION (2)	



CUT AND EMBANKMENT SECTION IN ROLLING AREA

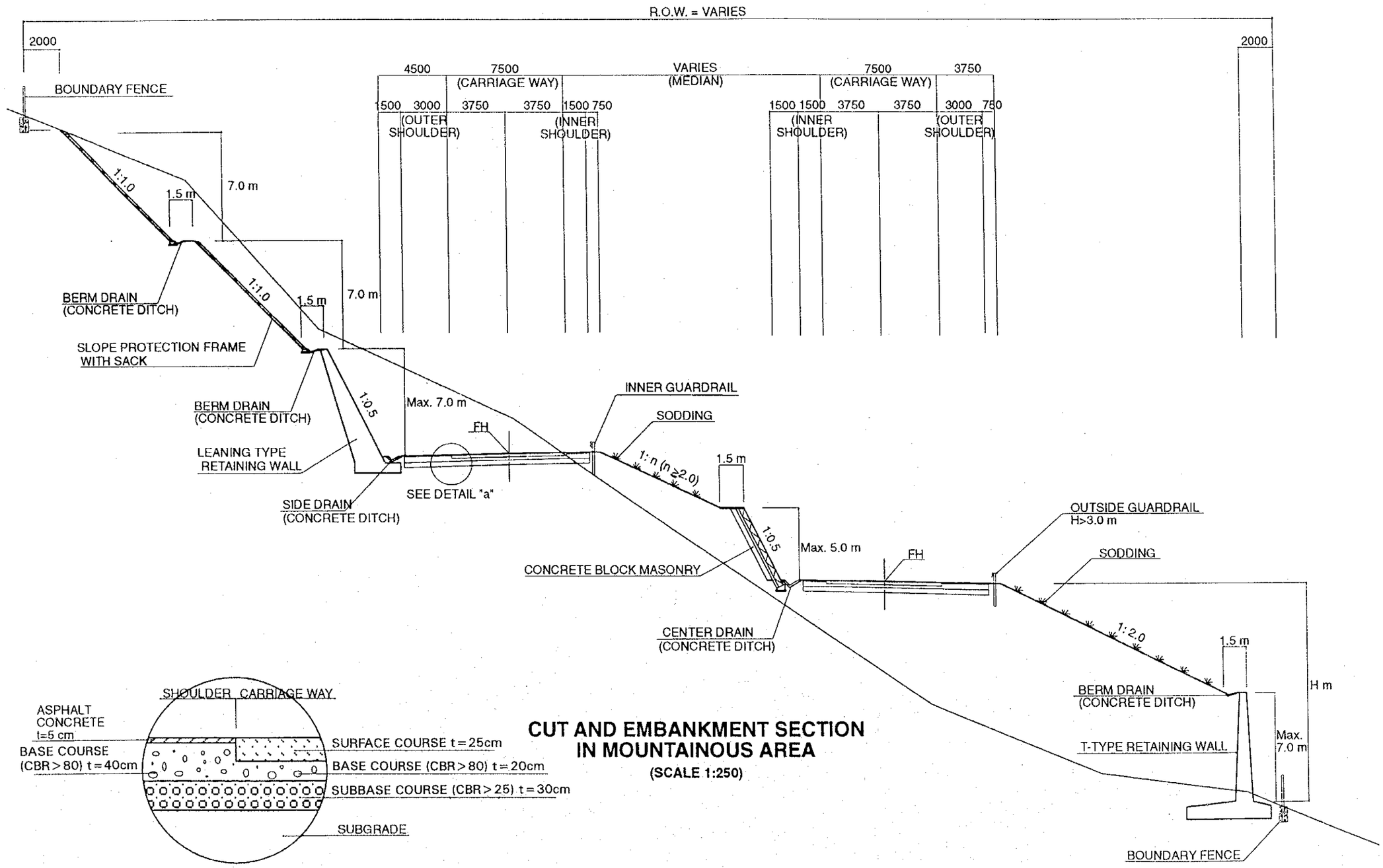
(SCALE 1:250)



DETAIL "a"

(SCALE 1:40)

LAMPANG-DOI SAKET ROUTE	DWG No. LD. 3- 3
TYPICAL CROSS SECTION (3)	



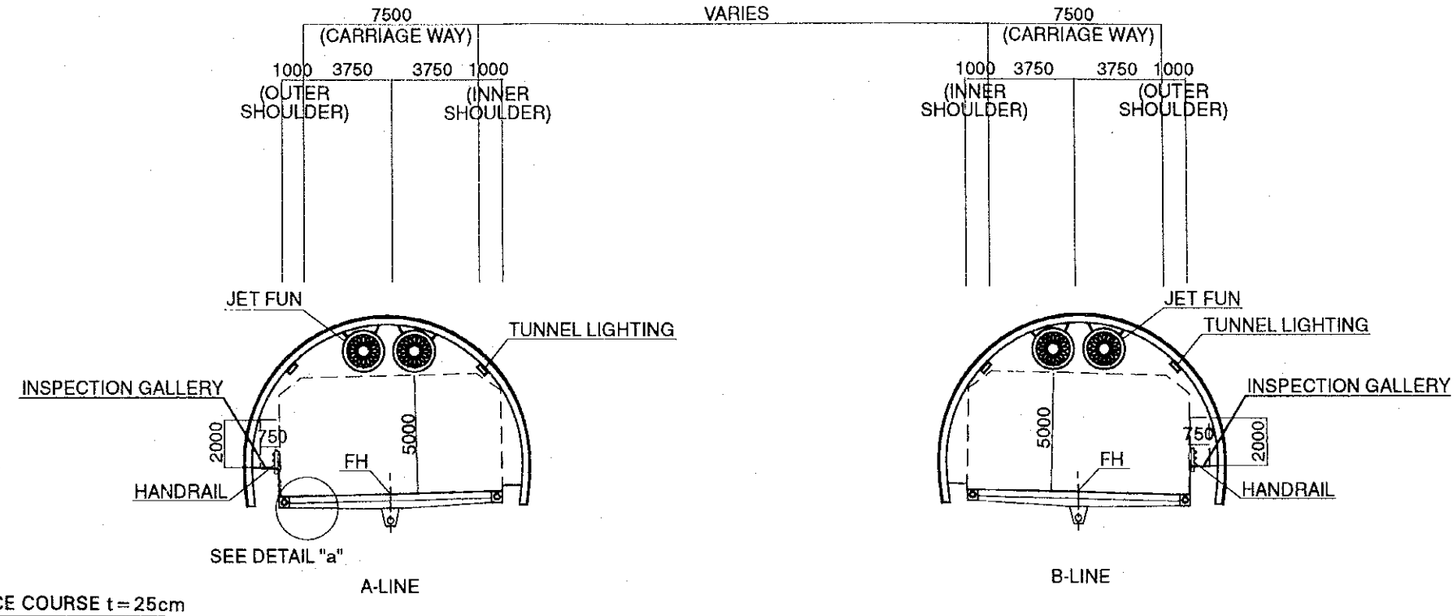
CUT AND EMBANKMENT SECTION IN MOUNTAINOUS AREA

(SCALE 1:250)

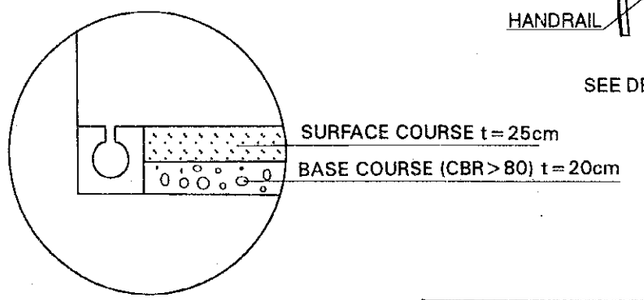
DETAIL "a"

(SCALE 1:40)

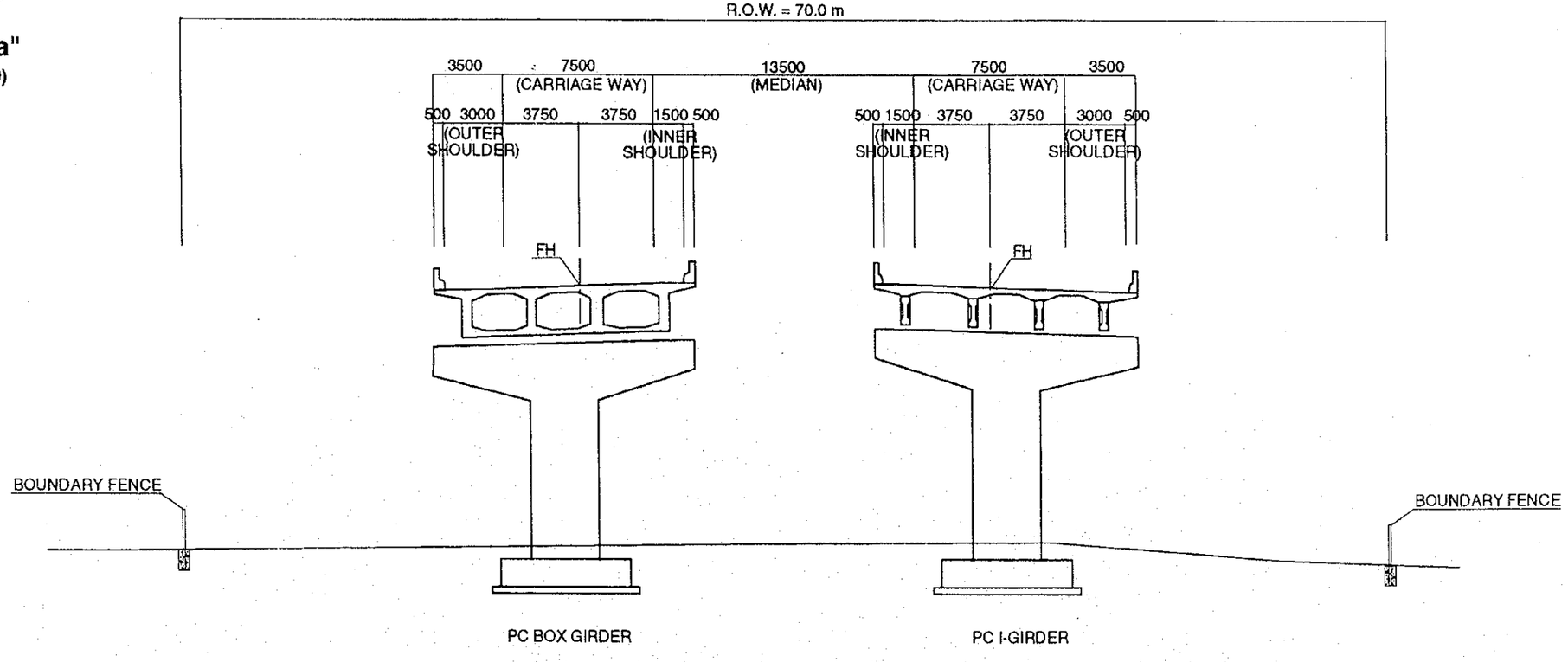
LAMPANG-DOI SAKET ROUTE	DWG No. LD. 3- 4
TYPICAL CROSS SECTION (4)	



TUNNEL SECTION
(SCALE 1:250)

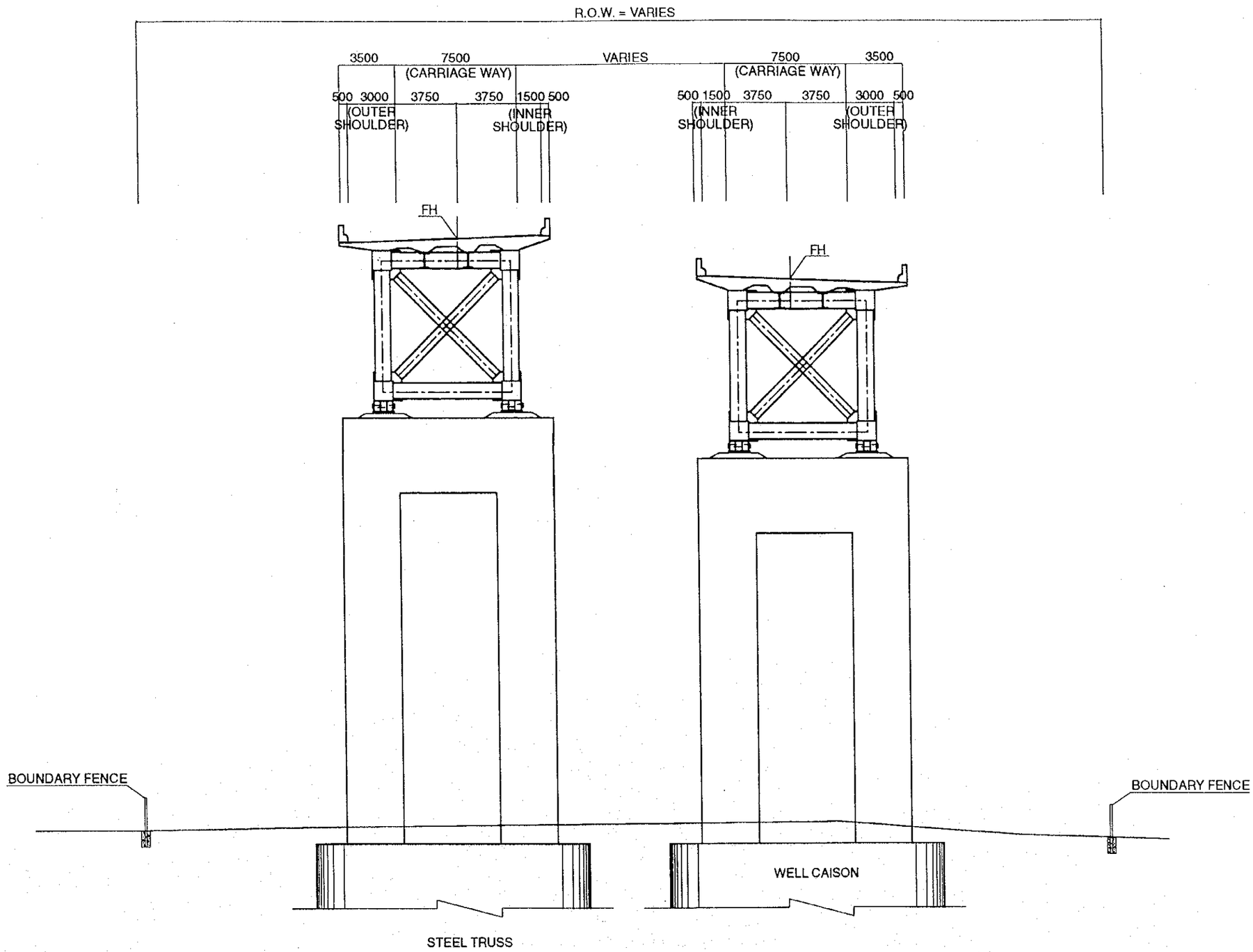


DETAIL "a"
(SCALE 1:40)



BRIDGE AND VIADUCT SECTION IN FLAT AREA
(SCALE 1:250)

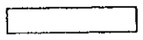
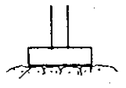
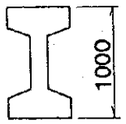
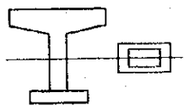
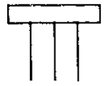
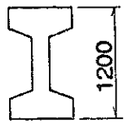
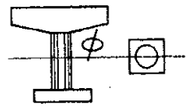
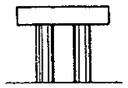
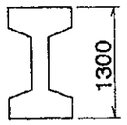
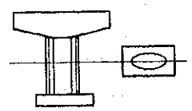
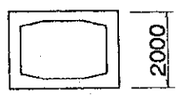
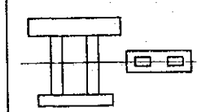
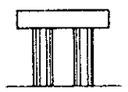
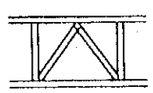
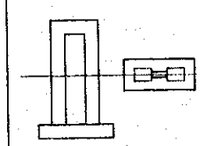
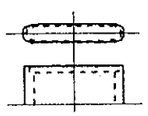
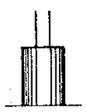
LAMPANG-DOI SAKET ROUTE	DWG No. LD. 3- 5
TYPICAL CROSS SECTION (5)	



VIADUCT SECTION IN MOUNTAINOUS AREA

(SCALE 1:250)

LAMPANG-DOI SAKET ROUTE	DWG No. LD. 4- 1
STRUCTUAL CLASSIFICATION	

Superstructure			Subsutructure			Foundation		
Type	Shape	Available Span(m)	Type	Shape	Description	Type	Shape	Description
RC. A		L ≦15	A	Pile Bent	DOH Standard	A		Spread Foudation
PC. B - 1		15 < L ≦ 25	B		Wall Applicable to Viaduct	B		Precast □ - 400 RC Pile
PC. B - 2		25 < L < 30	C		Culum Applicable to River Cossings	C - 1		Cast in Place RC . Pile ∅1.0m
PC. B - 3		30 ≦ L ≦ 35	D		Wall Applicable to River Cossings	C - 2		Cast in Place RC . Pile ∅1.2m
PC. B - 4		35 < L ≦ 50	E		Double Column Applicable to the Southern Route	C - 3		Cast in Place RC . Pile ∅ 1.5m
M . C		50 < L <100	F		H - Section Wall Applicable to the High Pier H ≧ 25	D		Open Well Applicable to Mountain area
						E		RC . Pile . ∅ 3.0m (Chicago Board Method)

LAMPANG-DOI SAKET ROUTE	DWG No. LD. 4-. 2
LIST OF BRIDGES AND VIADUCTS	

BRIDGE

STA.	Length (m)	Number of Spans	Type: Super-structure	Type: Sub-structure	Remark
11+920	30.0	2 x 15.0m	A	A	Canal TH=95cm
15+130	10.0	1 x 10.0m	A	A	Canal TH=60cm
15+320	30.0	3 x 10.0m	A	A	Canal TH=60cm
15+700	5.0	1 x 5.0m	A	A	Canal TH=35cm
15+900	50.0	2 x 25.0m	B - 1	A	PC Post-Ten Canal GH=1.0m
16+280	20.0	1 x 20.0m	B - 1	A	PC Post-Ten Canal GH=1.0m
16+370	20.0	1 x 20.0m	B - 1	A	PC Post-Ten Canal GH=1.0m
16+740	30.0	2 x 15.0m	A	A	Cnanal TH=95cm
19+300	30.0	2 x 15.0m	A	A	River TH=95cm
22+480 ~22+530	50.0	2 x 25.0m	B - 1	A	PC Post-Ten Canal GH=1.0m
22+660 ~22+750	90.0	3 x 30.0m	B - 3	A	PC Post-Ten Canal GH=1.3m
25+920 ~25+970	50.0	2 x 25.0m	B - 1	A	PC Post-Ten Canal GH=1.0m
57+650	30.0	2 x 15.0m	A	A	Canal TH=95cm
63+460	60.0	3 x 20.0m	B - 1	A	Canal GH=1.0m
66+750	20.0	1 x 20.0m	B - 1	A	Canal GH=1.0m
68+120	20.0	2 x 10.0m	A	A	Canal TH=60cm
71+550	26.0	2 x 13.0m	A	A	Canal TH=80cm
72+520 ~72+580	60.0	3 x 20.0m	B - 1	A	PC Post-Ten Canal GH=1.0m
73+080	20.0	2 x 10.0m	A	A	Canal TH=60cm
74+020 ~74+050	30.0	2 x 15.0m	A	A	Canal TH=95cm
74+380	20.0	2 x 10.0m	A	A	Canal TH=60cm
75+530		2 x 25.0m	B - 1	A	PC Post-Ten GH=1.0m
~75+600	70.0	2 x 10.0m	A	A	Canal TH=60cm
78+160 ~78+240	80.0	4 x 20.0m	B - 1	A	PC Post-Ten Canal GH=1.0m
79+990	30.0	3 x 10.0m	A	A	Canal TH=60cm
80+390	15.0	1 x 15.0m	A	A	Canal TH=95cm
81+220	40.0	2 x 20.0m	B - 1	A	PC Post-Ten Canal GH=1.0m
82+840 ~82+940	100.0	4 x 25.0m	B - 1	A	PC Post-Ten River GH=1.0m
84+760	35.0	1 x 35.0m	B - 3	A	PC Post-Ten Canal GH=1.3m
87+720	20.0	2 x 10.0m	A	A	Canal TH=60cm

NOTE : 1.TH ; Thickness (cm) , 2.GH ; Girder Height (m)

VIADUCT

STA.	Length (m)	Number of Spans	Type: Super-structure	Type: Sub-structure	Type: Foun-dation	Remark
17+180		9 x 35.0m	B - 3	C	C - 1	
~17+550	370.0	2 x 27.5m	B - 2	C	C - 1	3 - Canal
17+800		1 x 40.0m	B - 4	B	C - 2	
~18+050	250.0	6 x 35.0m	B - 3	C	C - 1	Route NO.11. 3-Canal
27+230		1 x 30.0m	B - 3	C	C - 1	
~27+310	80.0	2 x 25.0m	B - 1	C	C - 1	
		2 x 20.0m	B - 1	C	C - 1	
27+480	560.0	2 x 35.0m	B - 3	C	C - 1	
~28+040		10 x 45.0m	B - 4	B	C - 3	
28+350		2 x 25.0m	B - 1	C	C - 1	
~28+440	90.0	1 x 40.0m	B - 4	C	C - 2	
28+840						
~29+120	280.0	4 x 70.0m	M.C	F	D	Deep Valley : h=38m
29+920		1 x 50.0m	B - 4	F	D	
~30+040	120.0	2 x 35.0m	B - 3	B	D	
30+110		2 x 20.0m	B - 1	B	D	
~30+190	80.0	1 x 40.0m	B - 4	F	D	
30+460						
~30+760	300.0	10 x 30.0m	B - 3	B	E	
31+200						
~31+600	400.0	5 x 80.0m	M.C	F	D , E	Deep Valley : h=52m
31+675		1 x 20.0m	B - 1	B	E	
~31+730	55.0	1 x 35.0m	B - 3	B	E	
31+770						A - Line
~31+980	210.0	3 x 70.0m	M.C	F	D , E	Deep Valley : h=30m
32+020		4 x 80.0m	M.C	F	D	A - Line
~32+360	340.0	1 x 20.0m	B - 1	C - 1	E	Deep Valley : h=35m
31+770		2 x 20.0m	B - 1	B	E	B - Line
~32+360	590.0	6 x 90.0m	M.C	F	D	Deep Valley : h=35m
36+550						A - Line
~37+030	480.0	12 x 40.0m	B - 4	B	E	Deep Valley : h=22m
36+550		2 x 25.0m	B - 1	B	E	B - Line
~37+100	550.0	10 x 50.0m	B - 4	B	D	Deep Valley : h=20m
37+460						
~37+550	90.0	3 x 30.0m	B - 3	B	E	A - Line
37+500		2 x 20.0m	B - 1	B	E	
~37+600	100.0	2 x 30.0m	B - 3	B	E	B - Line
38+000						A - Line
~38+400	400.0	5 x 80.0m	M.C	F	D , E	Deep Valley : h=25m
38+100						B - Line
~38+400	300.0	5 x 60.0m	M.C	F	D , E	Deep Valley : h=25m
40+050						
~40+110	60.0	2 x 30.0m	B - 2	B	E	
40+370						
~40+770	400.0	5 x 80.0m	M.C	F	D , E	Deep Valley : h=30m
40+820		2 x 30.0m	B - 3	B	E	
~40+900	80.0	1 x 20.0m	B - 1	B	E	
41+620		4 x 20.0m	B - 1	B	E	
~41+900	280.0	5 x 40.0m	B - 4	B	D	
		1 x 20.0m	B - 1	B	E	
43+850	950.0	11 x 80.0m	M.C	F	D	Deep Valley : h=42m
~44+800		2 x 25.0m	B - 1	B	E	
47+075	30.0	1 x 30.0m	B - 3	B	E	

STA.	Length (m)	Number of Spans	Type: Super-structure	Type: Sub-structure	Type: Foun-dation	Remark
45+800		4 x 20.0m	B - 1	B	E	
~46+600	800.0	18 x 40.0m	B - 4	B	D	Deep Valley : h=20m
48+250	35.0	1 x 35.0m	B - 3	B	E	
48+700	35.0	1 x 35.0m	B - 3	B	E	
		1 X 10.0m	A	C	E	
		1 x 20.0m	B - 1	B	E	
50+770	930.0	8 x 80.0m	M.C	F	D	A - Line
~51+700		4 x 45.0m	B - 4	B	D	Deep Valley : h=34m
		2 x 40.0m	B - 4	B	D	
		1 x 20.0m	B - 1	B	E	
50+800	900.0	9 x 80.0m	M.C	F	D	B - Line
~51+700		4 x 40.0m	B - 4	F	D	Deep Valley : h=34m
54+860						
~55+000	140.0	4 x 35.0m	B - 3	B	C - 1	
56+100	40.0	2 x 20.0m	B - 1	B	C - 1	
		4 x 40.0m	B - 4	B	C - 2	
59+280	1320.0	30 x 35.0m	B - 3	B	C - 1	Lamphun I/C
~60+600		5 x 22.0m	B - 1	B	C - 1	
		2 x 25.0m	B - 1	B	C - 1	
81+800		16 x 30.0m	B - 3	B	C - 1	
~82+450	650.0	2 x 35.0m	B - 3	B	C - 1	Chiang Mai I/C
		1 x 50.0m	B - 4	B	C - 3	
84+500		2 x 30.0m	B - 3	B	C - 1	
~84+580	80.0	1 x 20.0m	B - 1	B	C - 1	R. 1006

RIVER OVERCROSSING

STA.	Length (m)	Number of Spans	Type: Super-structure	Type: Sub-structure	Type: Foun-dation	Remark
0+300 ~1+200	900.0	18 x 50.0m	B - 4	D	C - 3	Wang River
56+900 ~57+000	100.0	4 x 25.0m	B - 1	C	C - 1	Pond

LIST OF OVERBRIDGES AND BOX CULVERTS

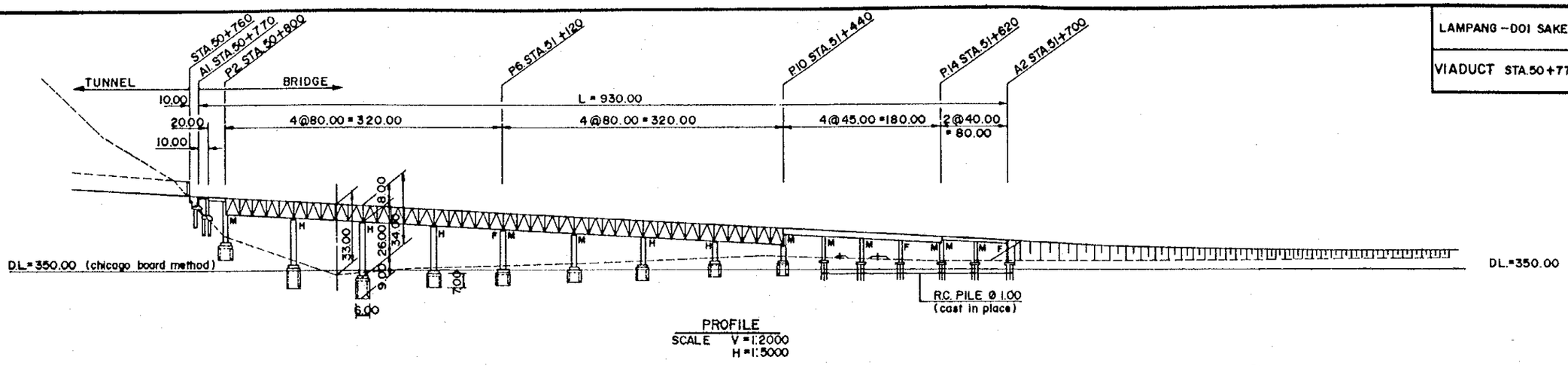
OVERBRIDGE

STA.	Length (m)	Width (m)	Number of Spans	Type	Remark
3+704	120.0	5.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
5+297	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
6+500	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
8+860	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
9+830	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
10+830	120.0	7.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	R 1034 , TH=60cm Gradient 5%
12+840	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
14+240	120.0	5.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
15+320	120.0	5.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
45+200	120.0	5.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
58+100	120.0	5.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
62+600	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
64+190	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
65+740	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
68+730	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
71+550	120.0	7.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
74+020	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
77+760	120.0	7.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
80+280	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
86+500	120.0	7.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
88+280	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
91+110	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
93+300	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
95+230	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%
97+720	120.0	6.0	2 x 10.0m 4 x 25.0m	RC Slab PC Post-Ten	TH=60cm Gradient 5%

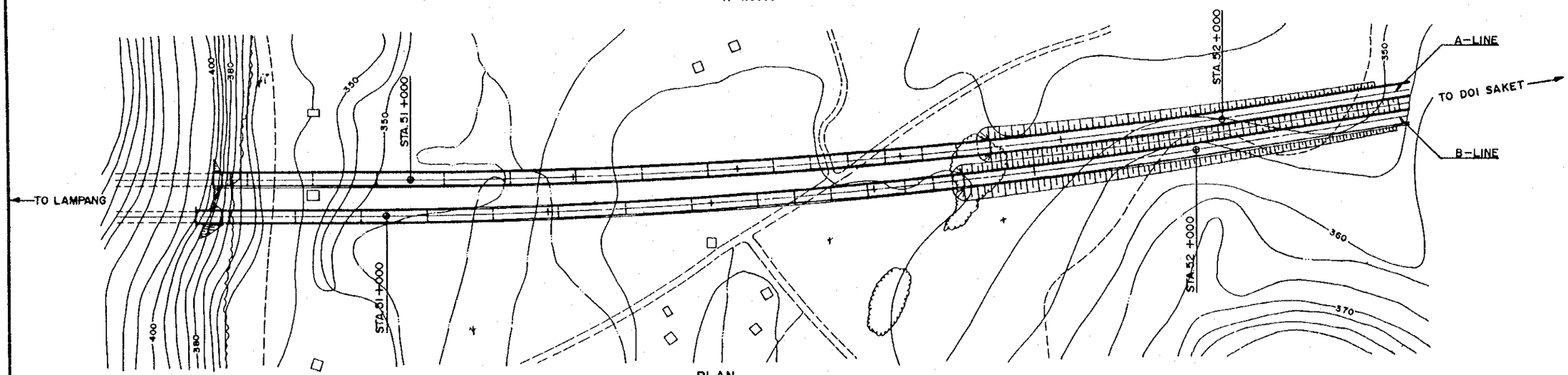
BOX CULVERTS

STA.	Cross Section	Length (m)
21+450	3.0m x 1.5m	36.0
26+120	3.0m x 1.5m	36.0
54+800	3.0m x 1.5m	36.0
63+880	2.0m x 1.5m	36.0
76+390	3.0m x 1.5m	36.0
86+200	2.0m x 1.5m	36.0
93+200	2.0m x 1.5m	36.0
96+150	2.0m x 1.5m	36.0

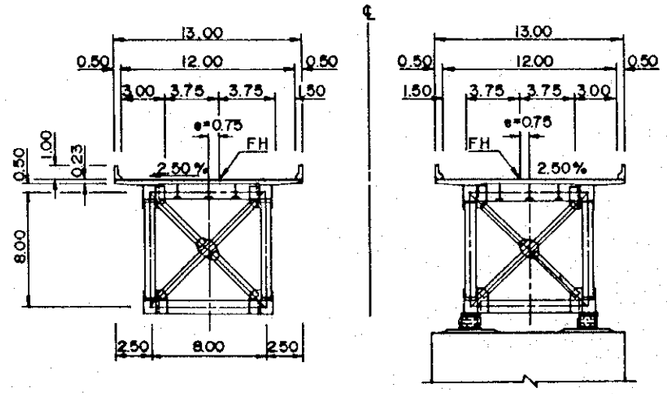
LAMPANG – DOI SAKET ROUTE	DWG No. LD.4-4
VIADUCT STA.50+770 TO STA.51+700	



PROFILE
SCALE V = 1:2000
H = 1:5000



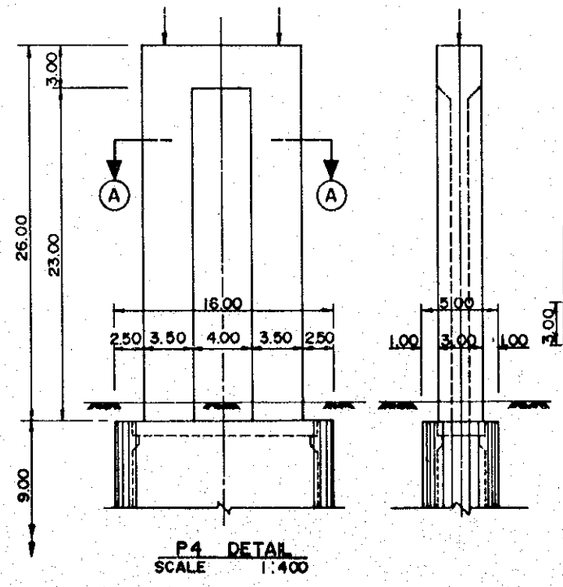
PLAN
SCALE 1:5000



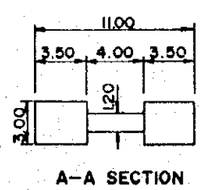
A-LINE

B-LINE

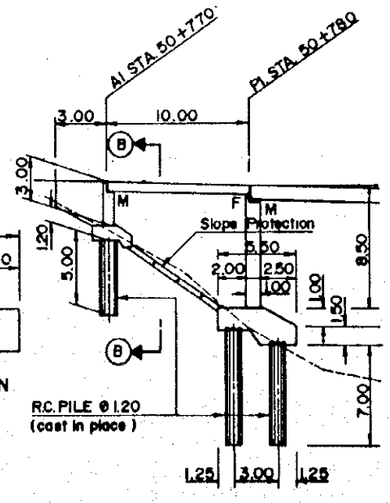
CROSS SECTION
SCALE 1:400



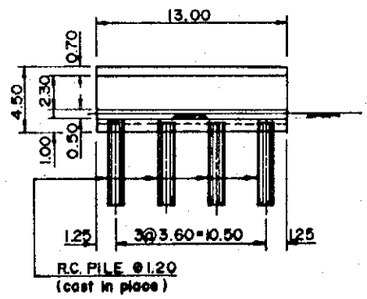
P4 DETAIL
SCALE 1:400



A-A SECTION

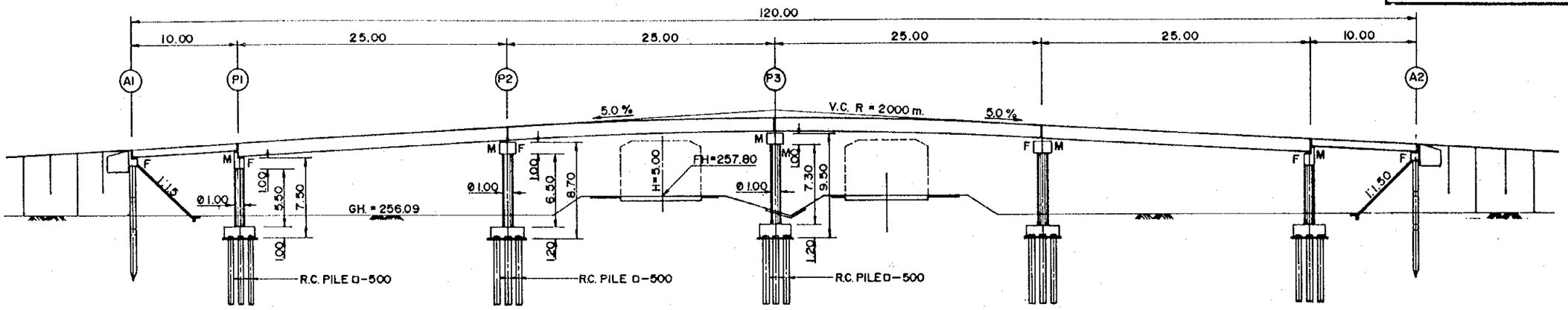


A1, P1 DETAIL
SCALE 1:400

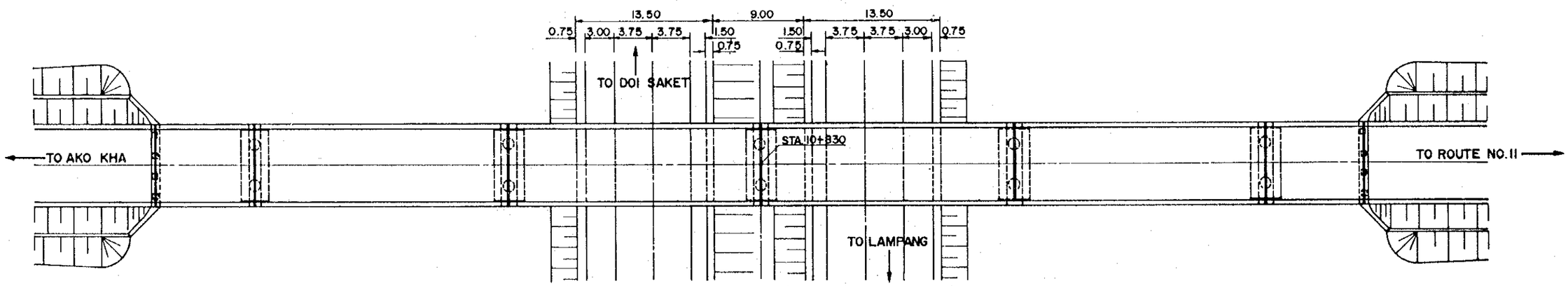


B-B SECTION
SCALE 1:400

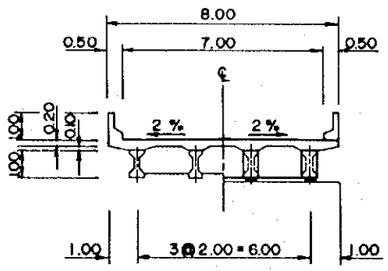
LAMPANG – DOI SAKET ROUTE	DWG No. LD. 4 – 6
GENERAL VIEW OVER. BRIDGE STA.10+830 ROUTE NO.1034	



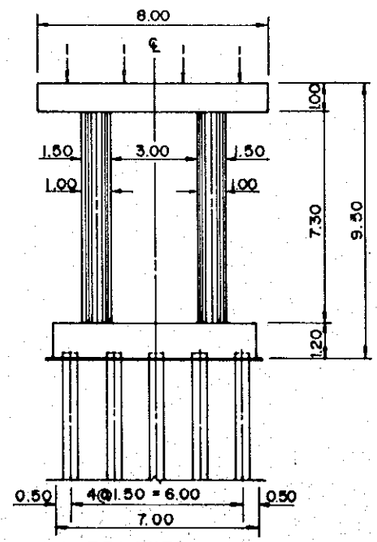
PROFILE
SCALE 1:400



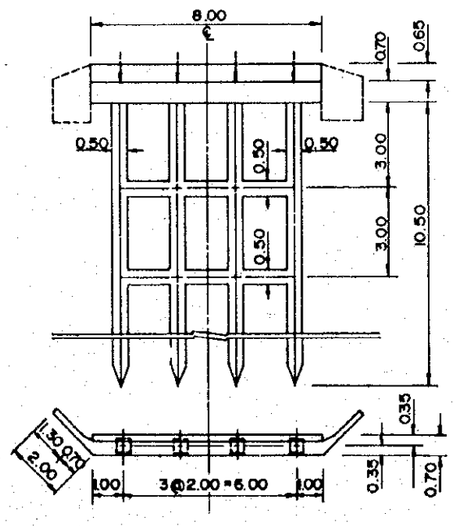
PLAN
SCALE 1:400



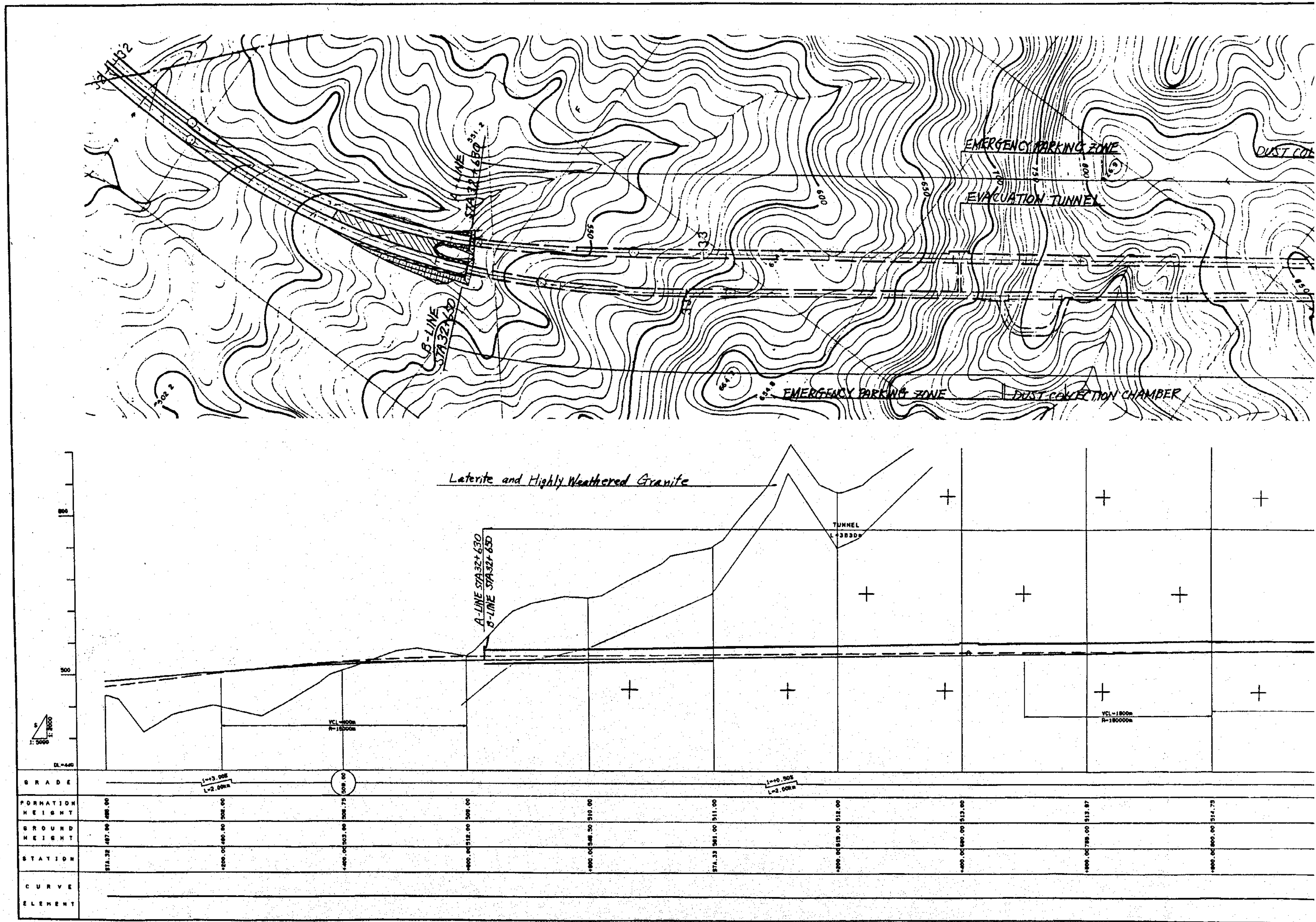
TYPICAL CROSS SECTION
SCALE 1:200



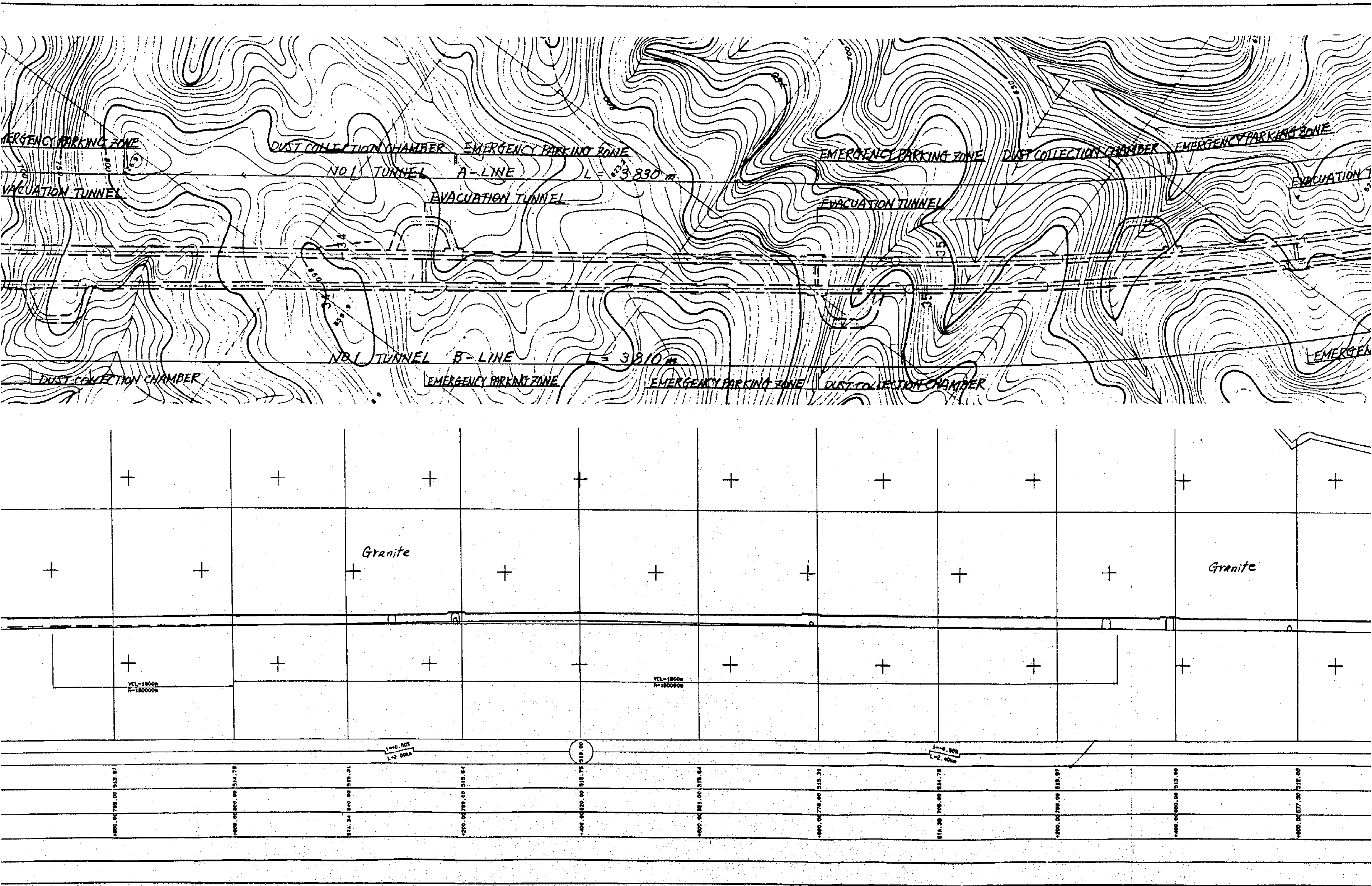
P3 DETAIL
SCALE 1:200

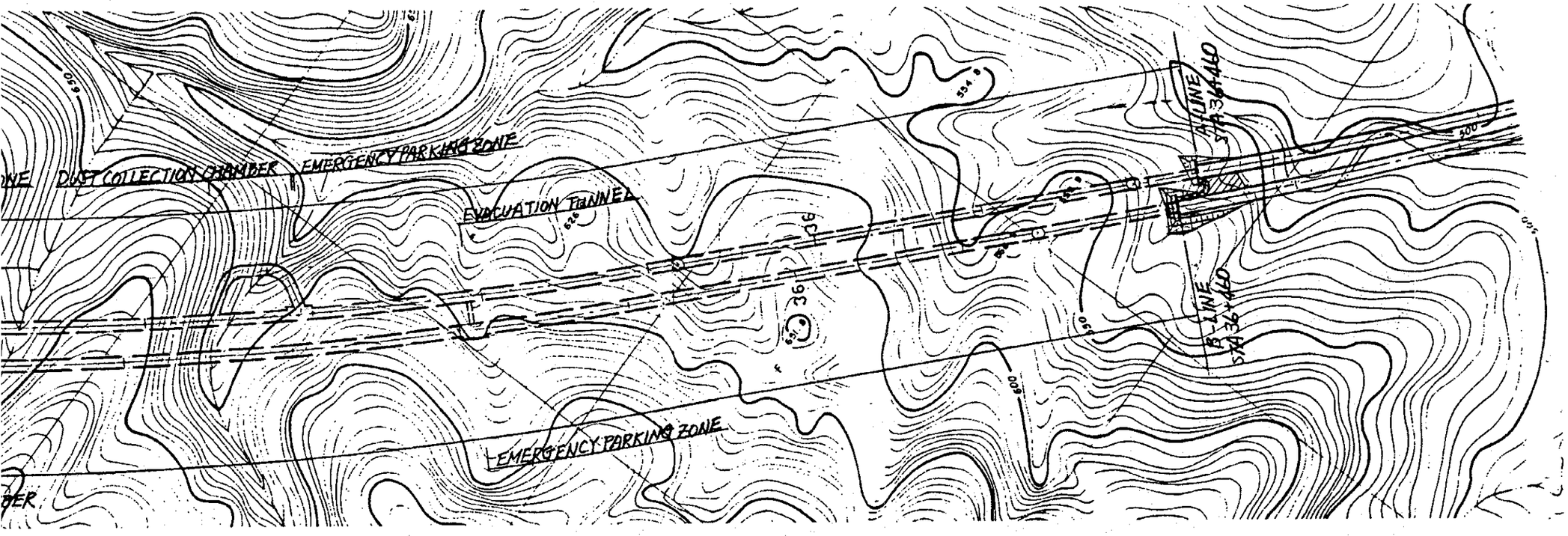


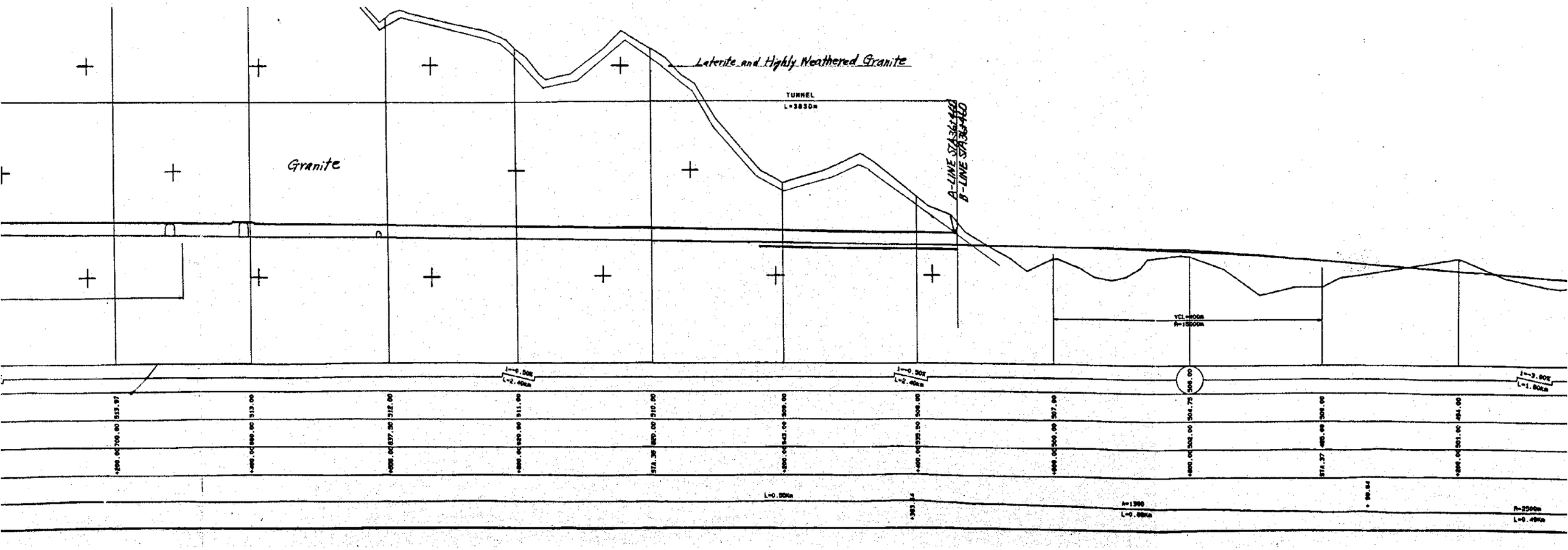
A1 , A2 ABUTMENT
SCALE 1:200



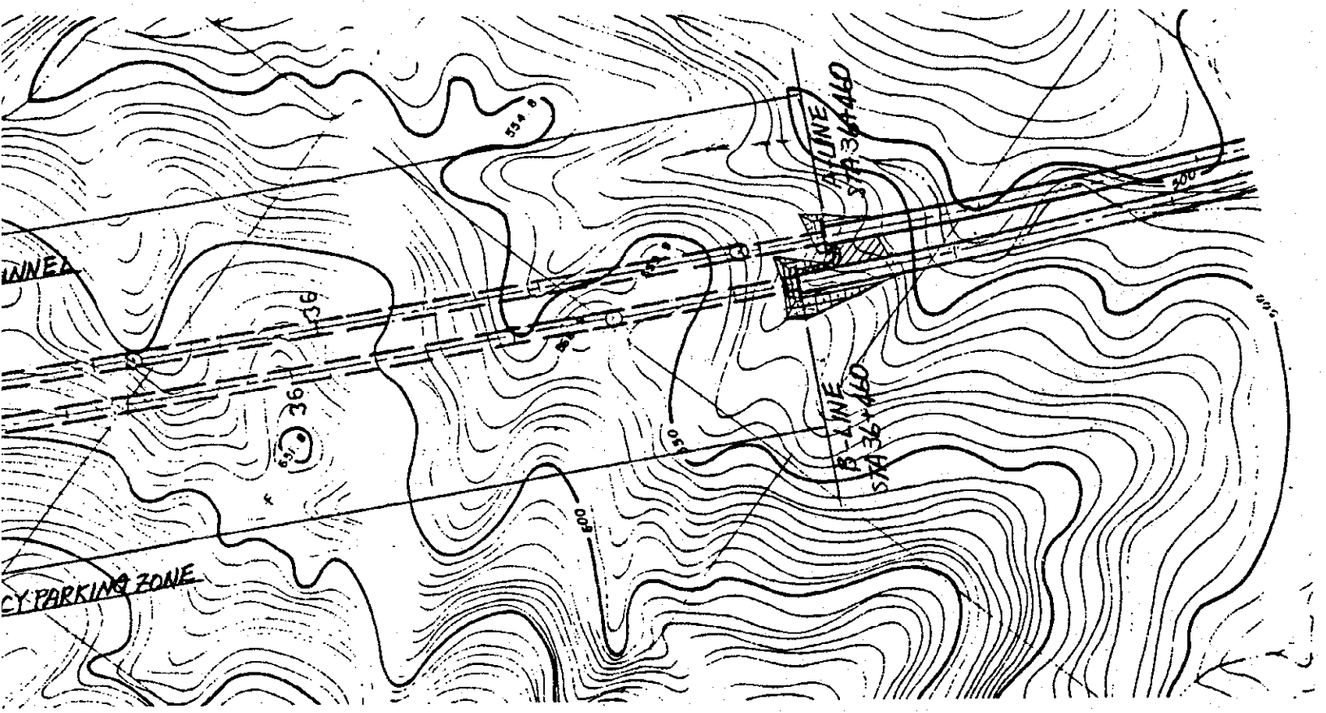
EMERGENCY PARKING ZONE
EVACUATION TUNNEL
DUST COL
A-LINE STA32+650
B-LINE STA32+630
EMERGENCY PARKING ZONE
DUST COLLECTION CHAMBER
Laterite and Highly Weathered Granite
TUNNEL
A-LINE STA32+630
B-LINE STA32+650
VCL=400m
R=16000m
VCL=1800m
R=180000m
1: 5000
DL=440
GRADE
i=+3.00%
L=2.00km
i=+0.50%
L=2.00km
FORMATION HEIGHT
GROUND HEIGHT
STATION
CURVE ELEMENT
STA.32
+200.00
+400.00
+600.00
+800.00
STA.33
+200.00
+400.00
+600.00
+800.00

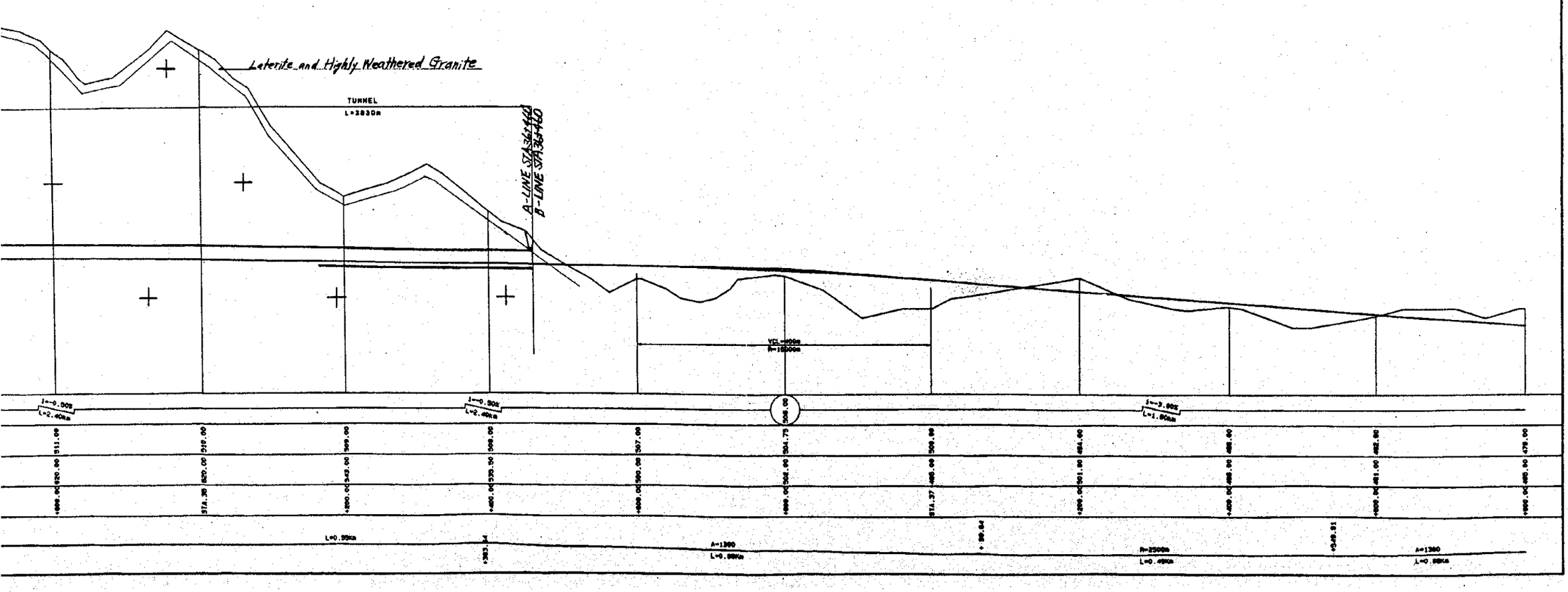

EMERGENCY PARKING ZONE
DUST COLLECTION CHAMBER
EMERGENCY PARKING ZONE
NO1 TUNNEL A-LINE
L=3830 m
EVACUATION TUNNEL
EVACUATION TUNNEL
EMERGENCY PARKING ZONE
DUST COLLECTION CHAMBER
EMERGENCY PARKING ZONE
EVACUATION TUNNEL
EVACUATION TUNNEL
NO1 TUNNEL B-LINE
L=3810 m
DUST COLLECTION CHAMBER
EMERGENCY PARKING ZONE
EMERGENCY PARKING ZONE
DUST COLLECTION CHAMBER
Granite
Granite


DUST COLLECTION CHAMBER
EMERGENCY PARKING ZONE
EVACUATION TUNNEL
EMERGENCY PARKING ZONE
A-LINE STA 36+440
B-LINE STA 36+440

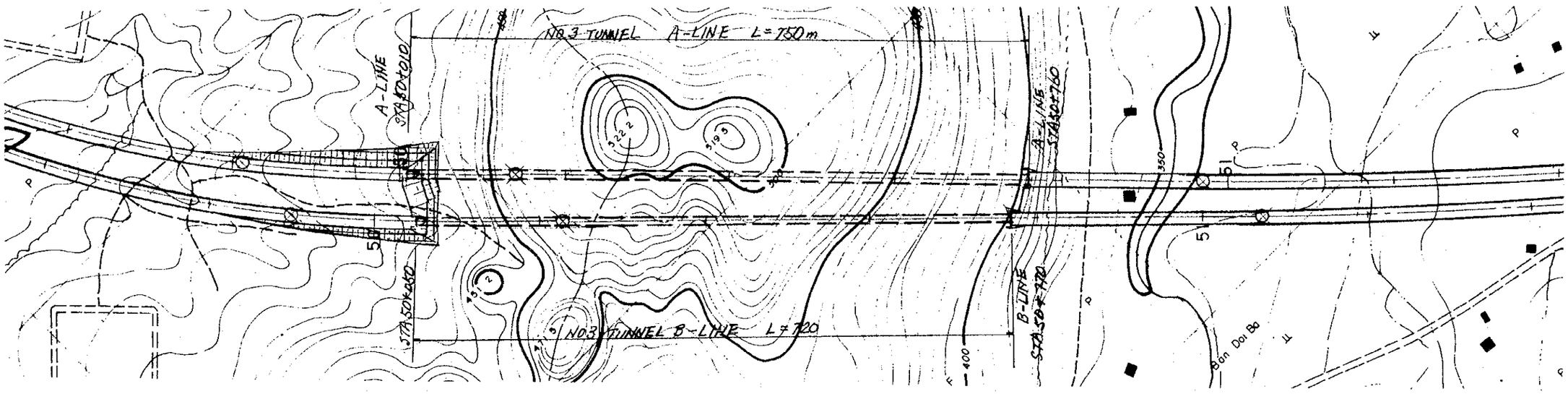

Laterite and Highly Weathered Granite
Granite
TUNNEL
L=3830m
A-LINE STA 36+440
B-LINE STA 36+440
VCL=4000
R=15000m
i=0.50%
L=2.40km
i=0.50%
L=2.40km
i=3.00%
L=1.80km
L=0.90km
A=1380
L=0.69km
R=2500m
L=0.49km

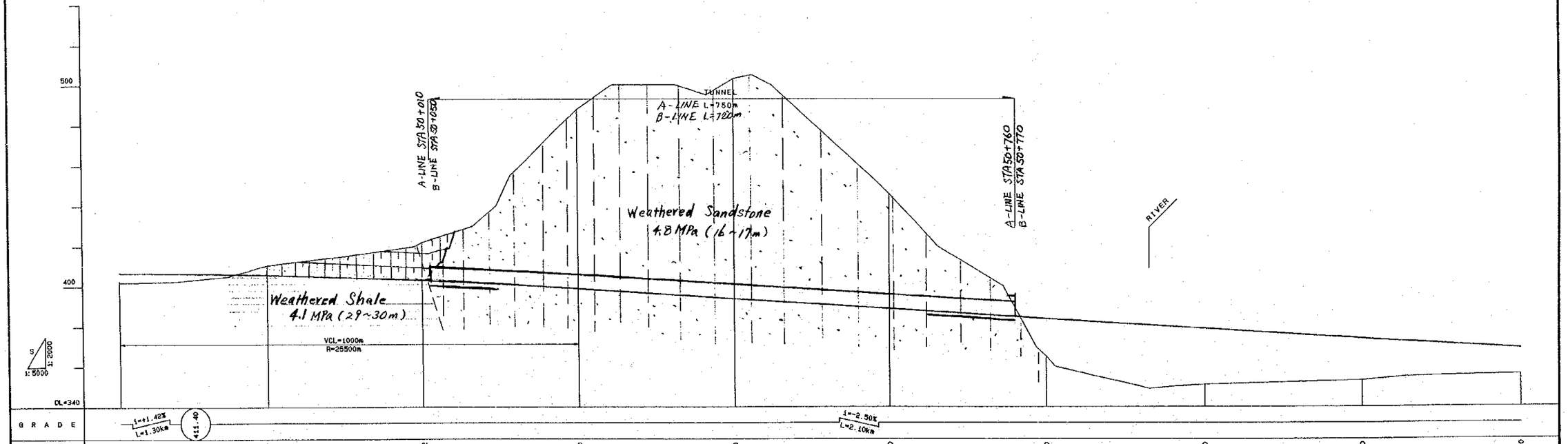
LAMPANG-DOI SAKET ROUTE	DWG No. LD. 5- 1
PLAN AND PROFILE NO.1 TUNNEL	





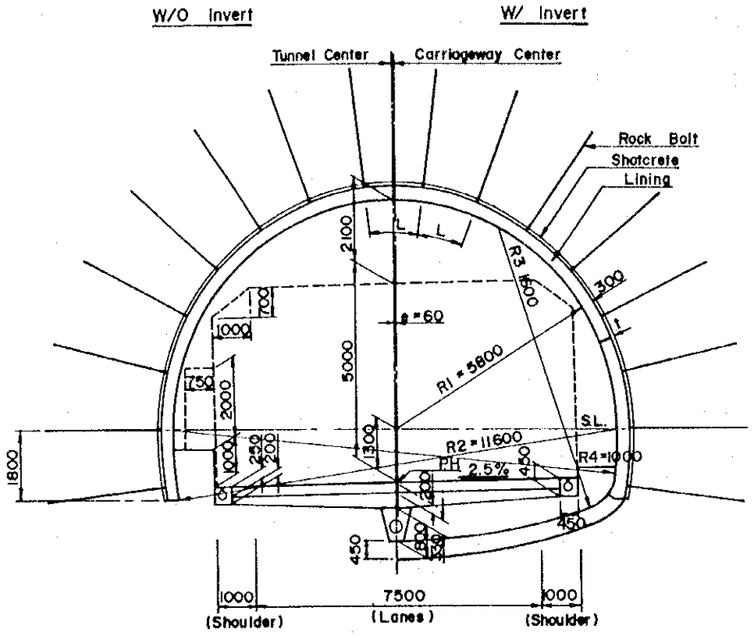
LAMPANG-DOI SAKET ROUTE	DWG No. LD. 5- 2.
PLAN AND PROFILE NO.3 TUNNEL	



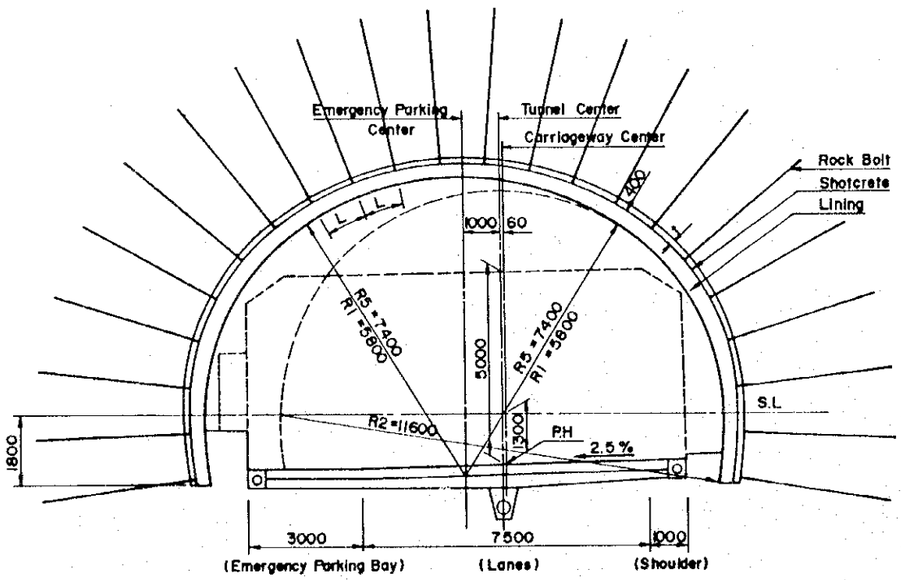


GRADE										
FORMATION HEIGHT	406.85	405.77	403.12	398.90	393.90	388.90	383.90	378.90	373.90	368.90
GROUND HEIGHT	402.00	410.50	422.00	468.00	503.00	445.00	385.00	391.00	353.00	396.00
STATION	+600.00	+800.00	STA.50	+200.00	+400.00	+600.00	+800.00	STA.51	+200.00	+400.00
CURVE ELEMENT										

LAMPANG–DOI SAKET ROUTE	DWG No. LD. 5-3
TYPICAL TUNNEL SECTION AND DUST COLLECTION CHAMBER	

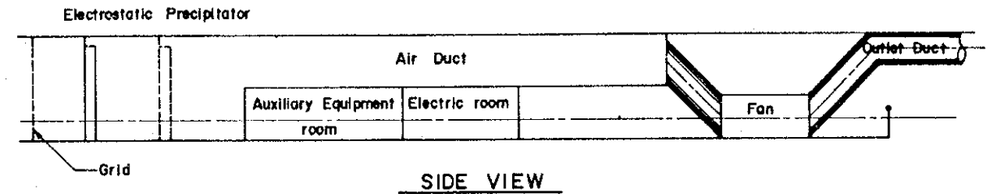


STANDARD SECTION (Classification B, CI, CII, DI(I))

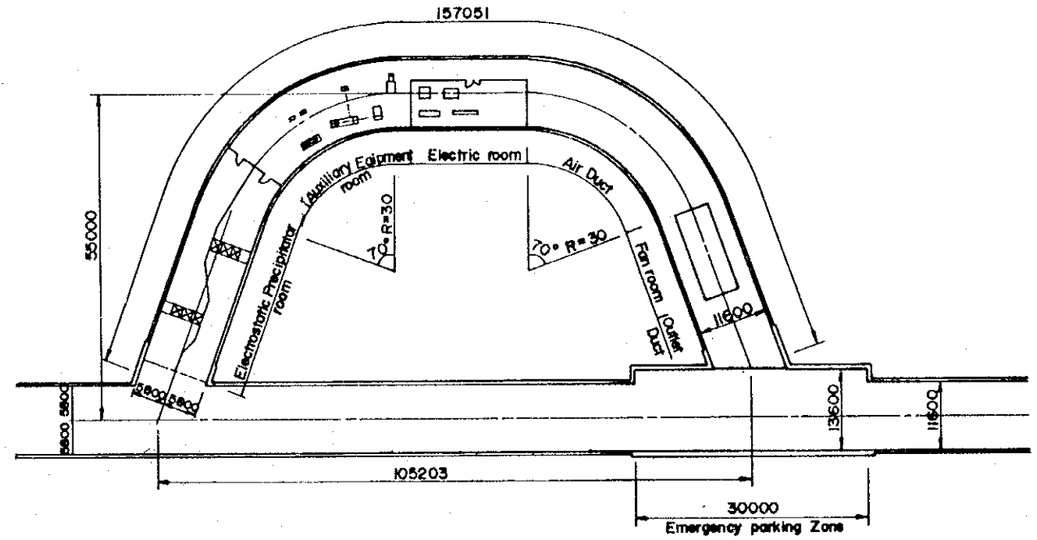


EMERGENCY PARKING ZONE (Classifcation BL, CL)

TYPICAL TUNNEL SECTION
SCALE 1:150



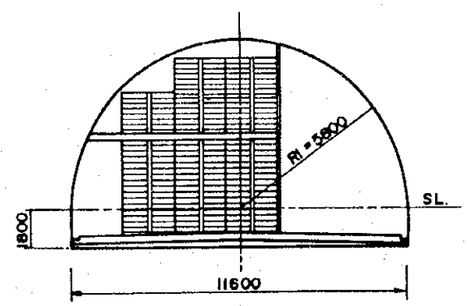
SIDE VIEW
SCALE 1:1,000



PLAN
SCALE 1:1,000

DUST COLLECTION CHAMBER

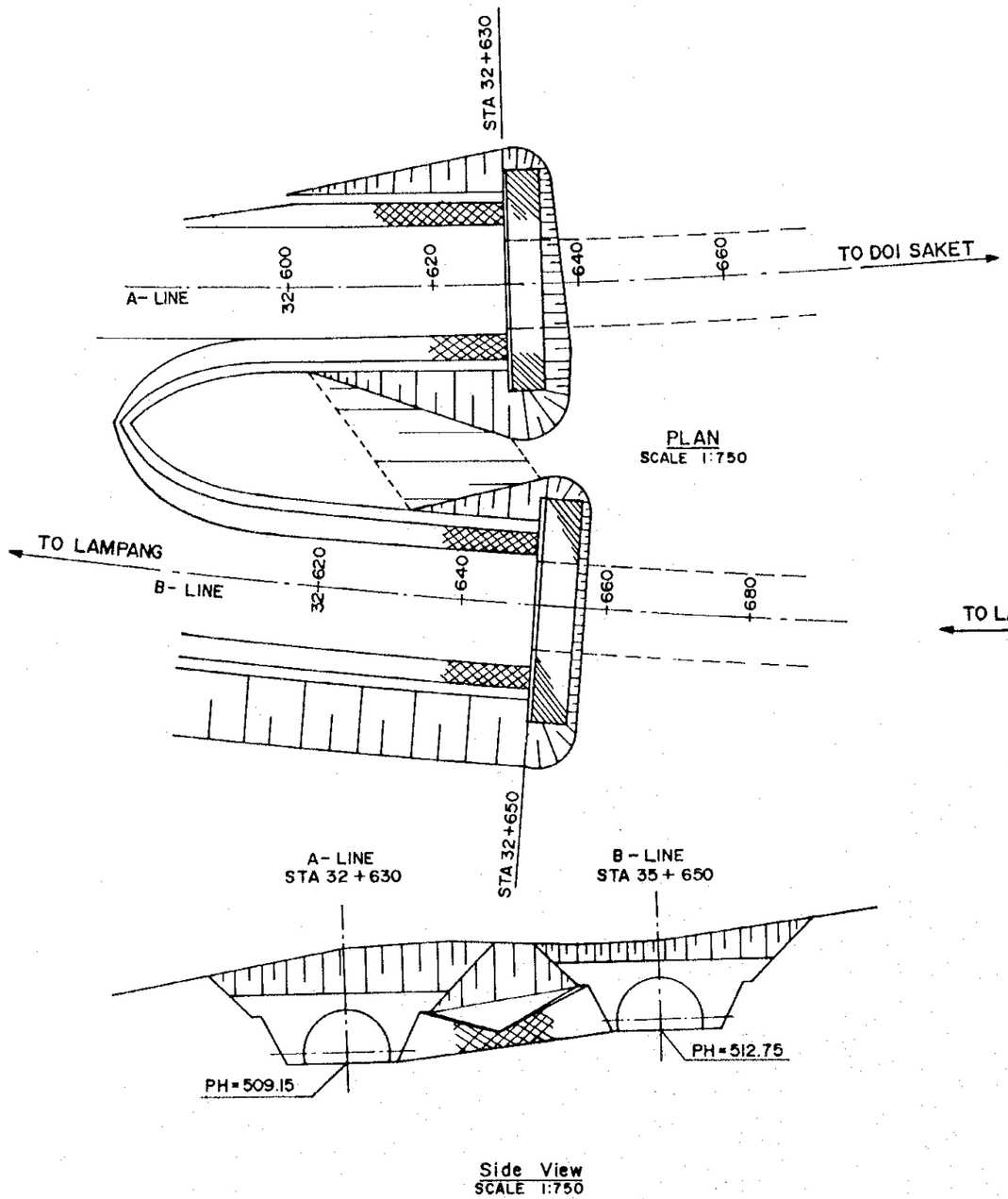
Classification	Rock bolt			Steel arched support	Shotcrete thickness	Lining thickness (cm.)	
	Length (m.)	Spacing (m.)		spacing (m.)	(cm)	Arch wall	Invert
		Circumferencial	Longitudinal				
B	3.0	L=1.5 for upper sec.	2.0	None	t=5	30	None
CI	3.0	1.5	1.5	None	10	30	None
CII	3.0	1.5	1.2	H-125 for upper half 1.2 m.	10	30	None
DI(I)	4.0	1.2	1.0	H-125 1.0m.	15	30	45
BL	4.0	1.5 for upper sec.	2.0	None	10	40	None
CL	4.0	1.2	1.5	None	15	40	None



CROSS SECTION OF ELECTROSTATIC PRECIPITATION ROOM
SCALE 1:200

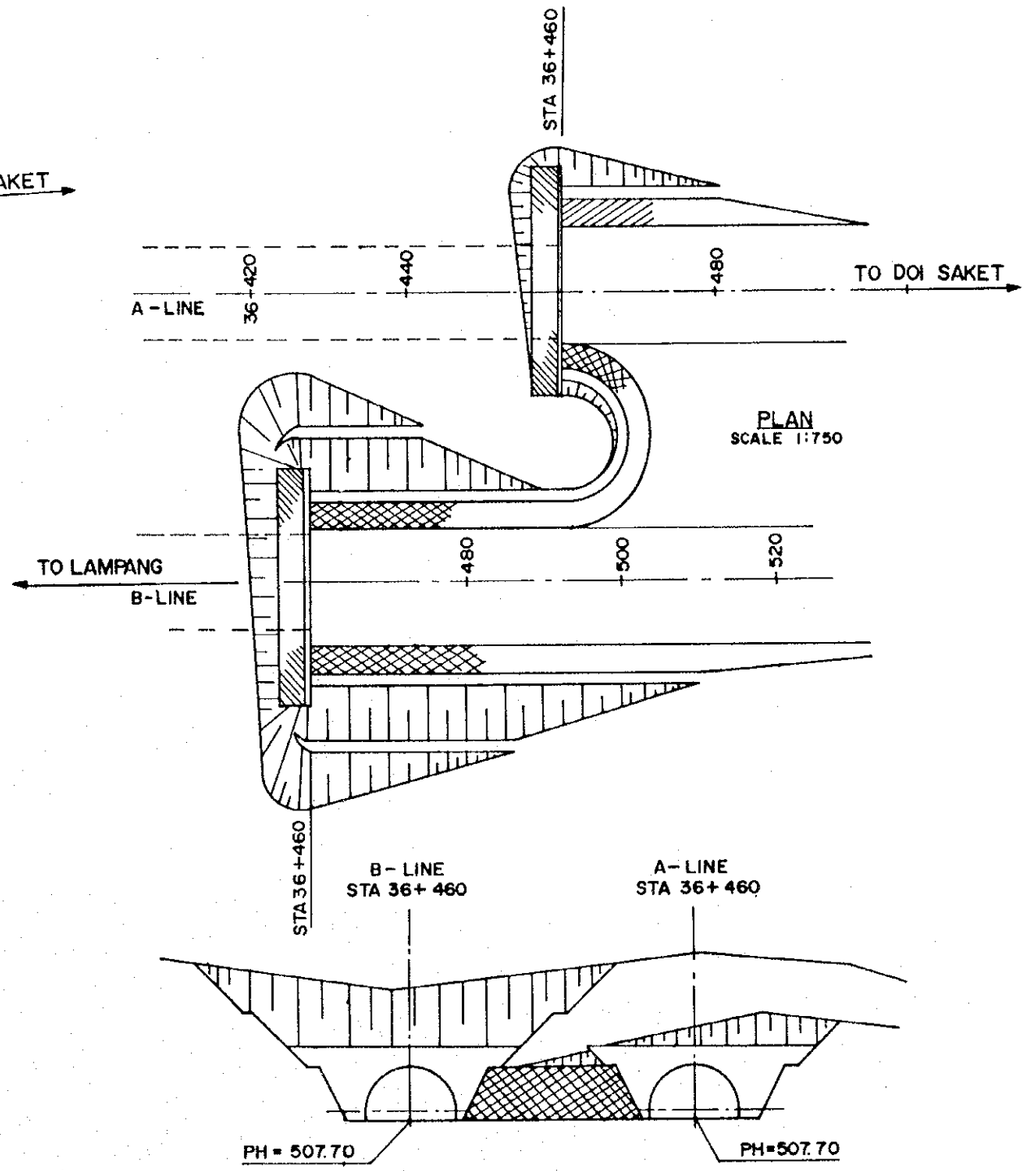
LAMPANG DOI SAKET ROUTE	DWG No. LD.S-9

GENERAL VIEW OF PORTAL
NO.1 TUNNEL



Side View
SCALE 1:750

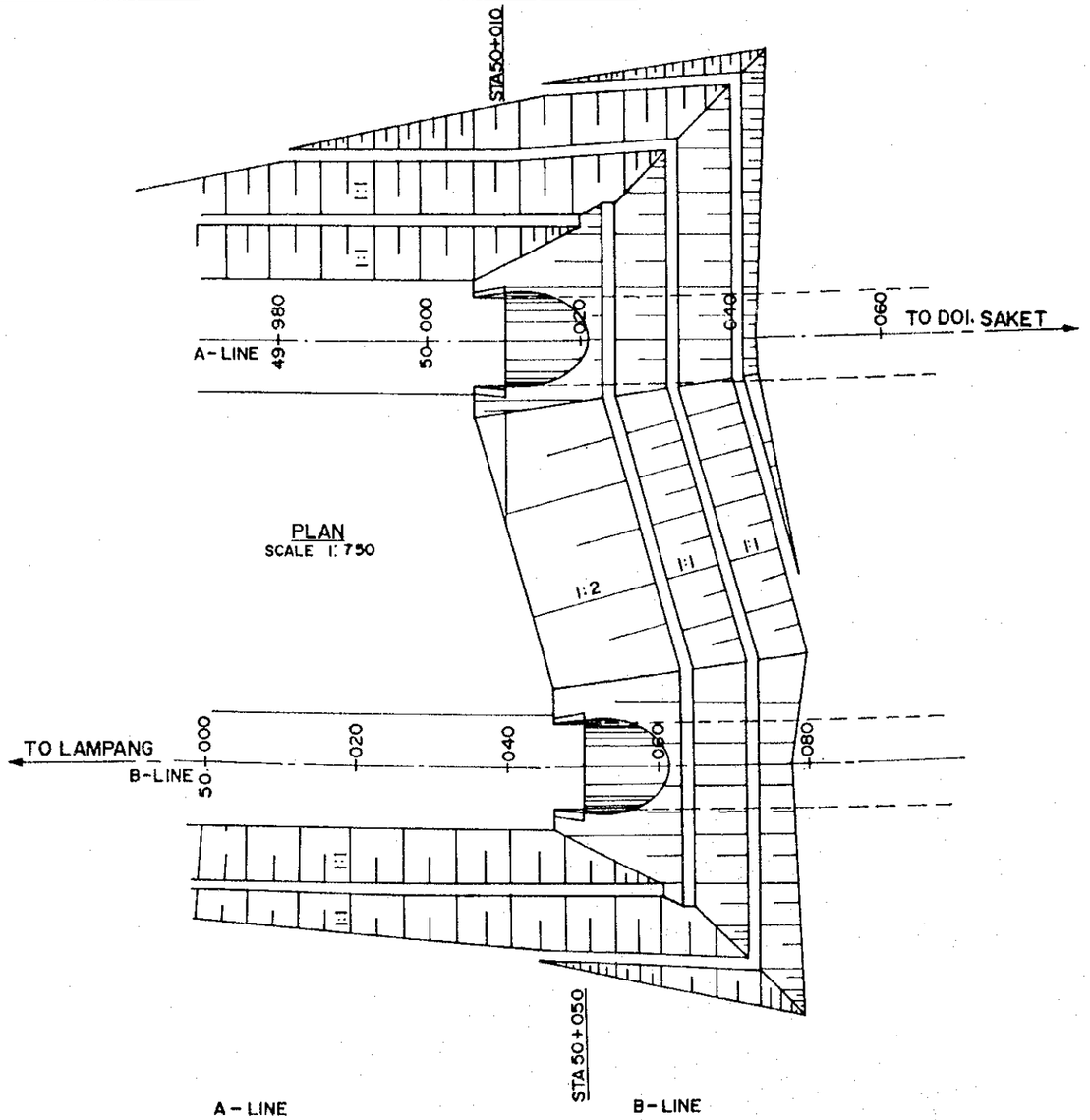
First Portal of No. 1 Tunnel



Side View
SCALE 1:750

Second Portal of No. 1 Tunnel

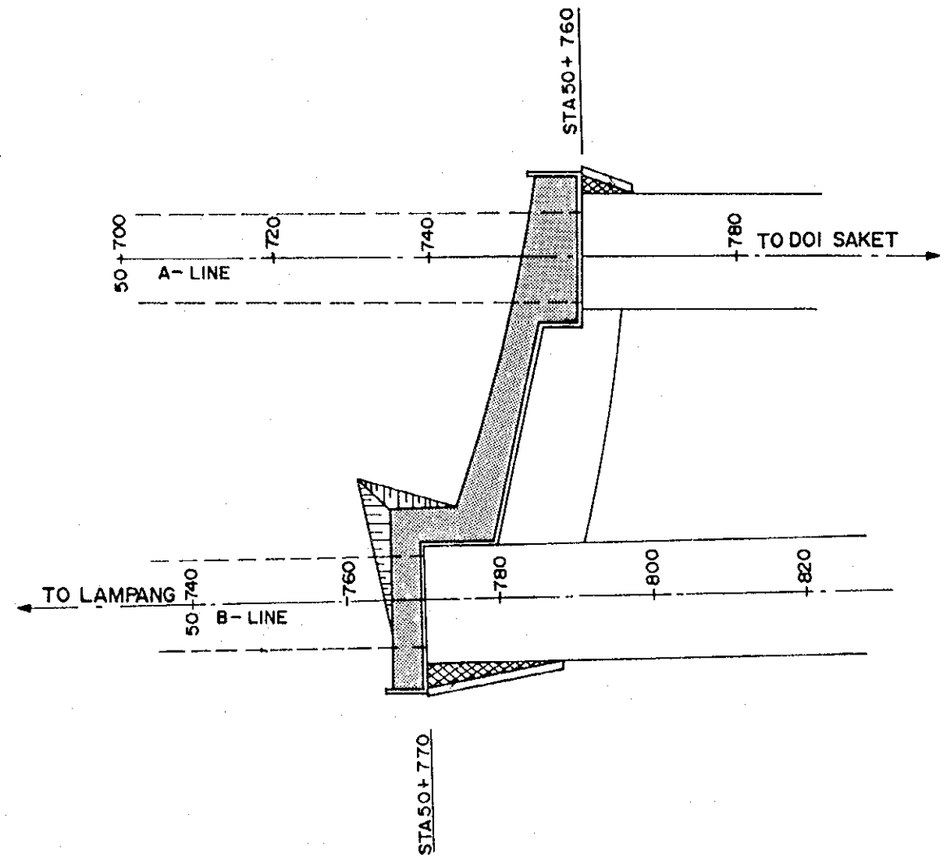
LAMPANG DOI SAKET ROUTE	DWG No. LD.3-8
GENERAL VIEW OF PORTAL NO.3 TUNNEL	



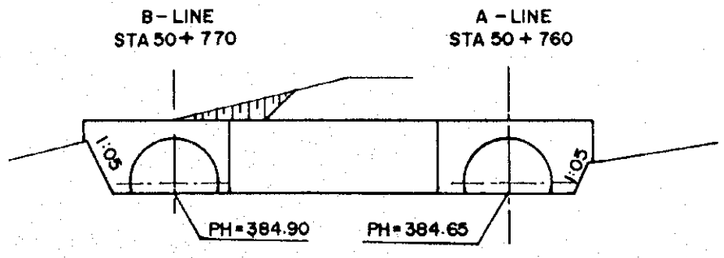
PLAN
SCALE 1:750

Side View
SCALE 1:750

First Portal of No.3 Tunnel



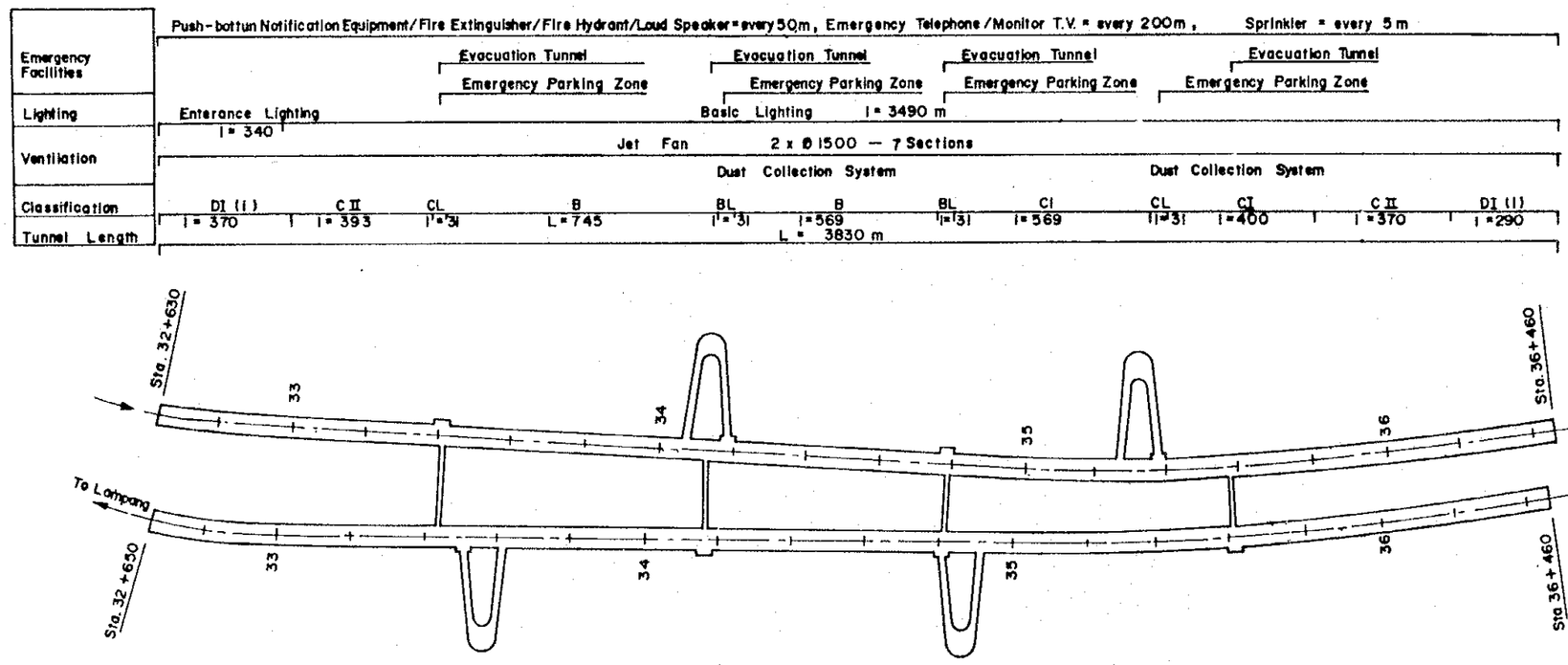
PLAN
SCALE 1:750

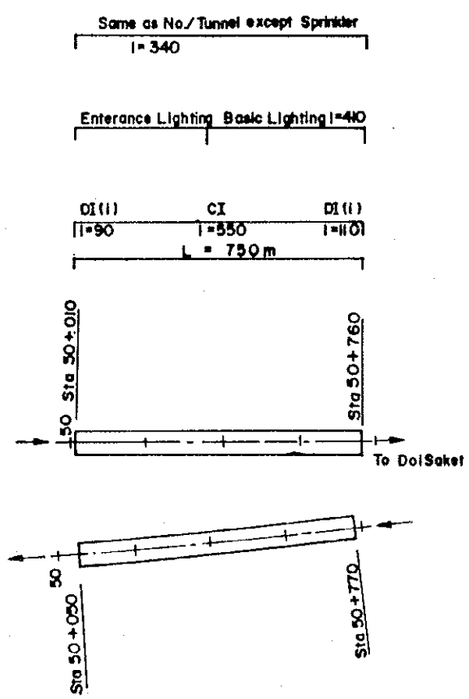


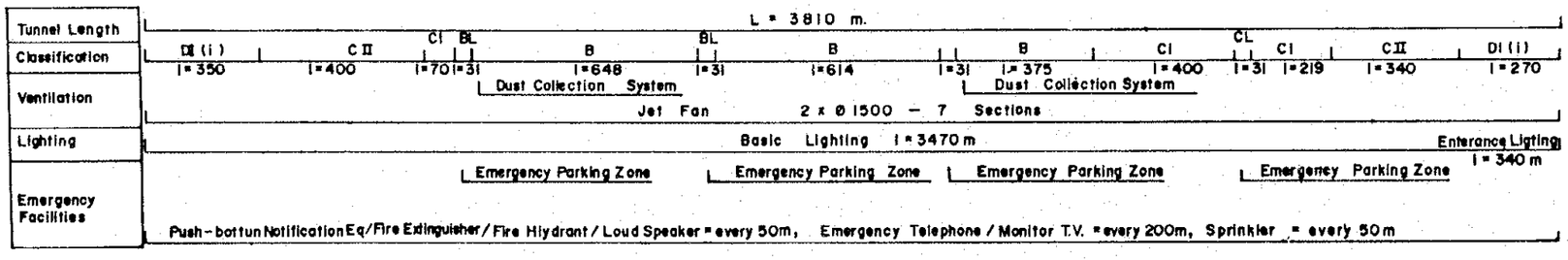
Side View
SCALE 1:750

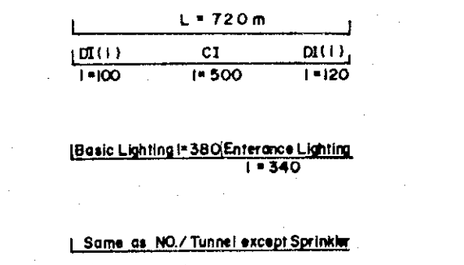
Second Portal of No.3 Tunnel

LAMPANG – DOI SAKET ROUTE	DWG No. LD.S-6
LAYOUT OF TUNNEL FACILITIES	





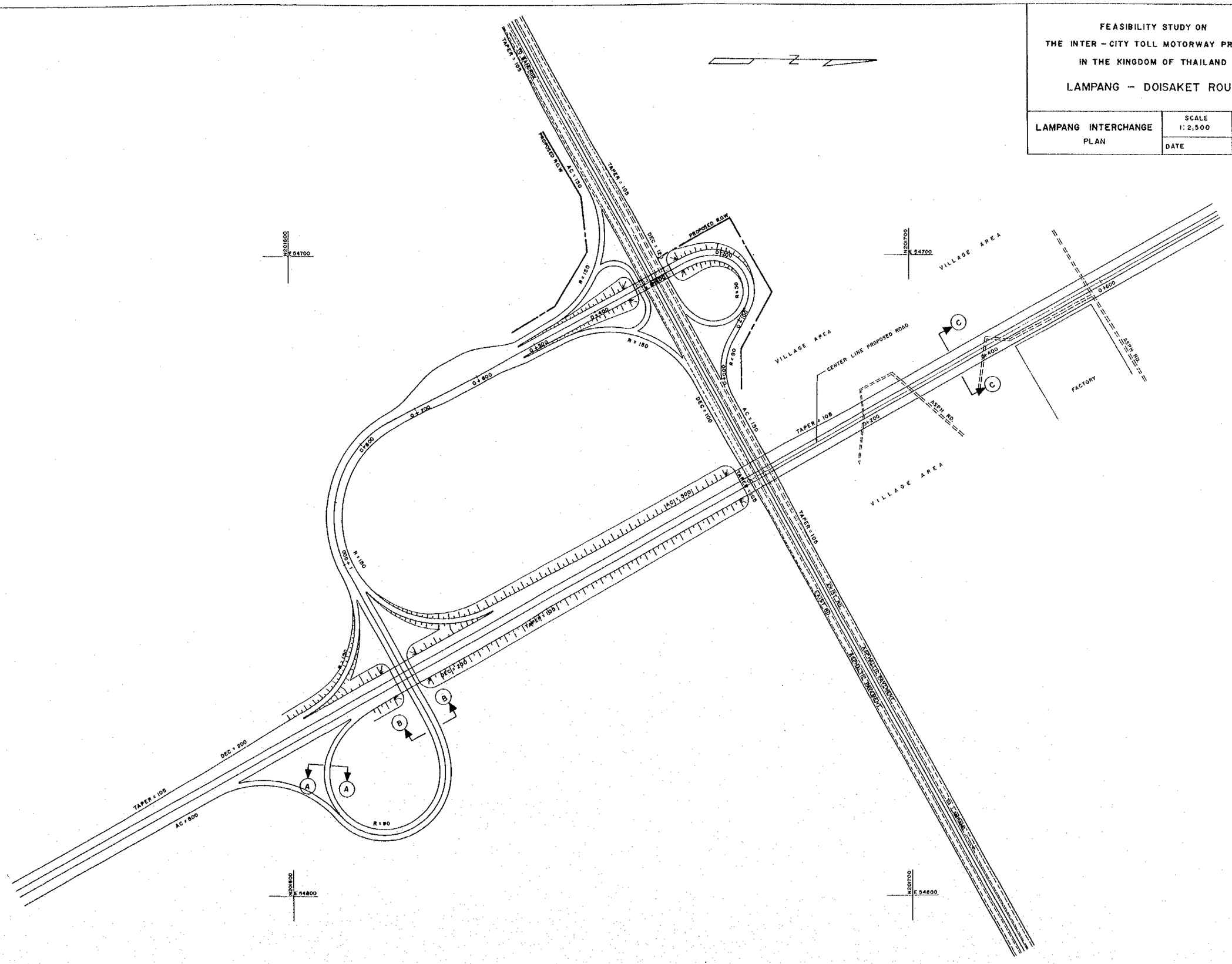




FEASIBILITY STUDY ON
THE INTER - CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND

LAMPANG – DOISAKET ROUTE

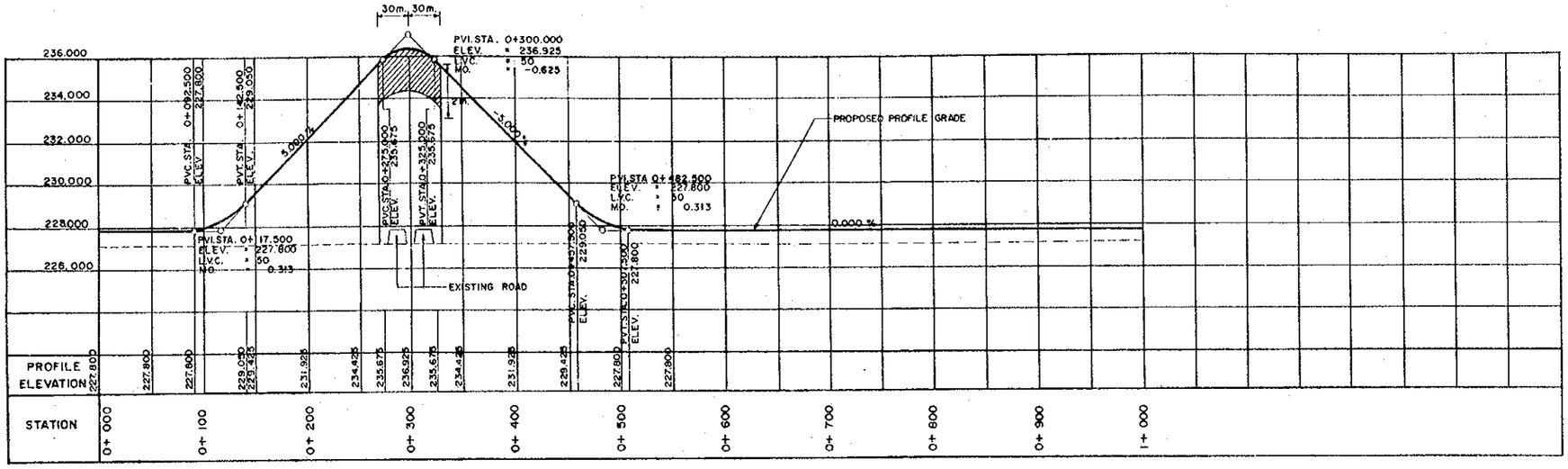
LAMPANG INTERCHANGE PLAN	SCALE 1: 2,500	SHEET NO. LD 6 - 1
	DATE	



FEASIBILITY STUDY ON
THE INTER - CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND

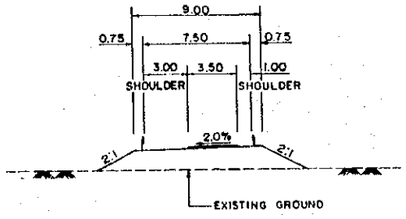
LAM PANG - DOI SAKET ROUTE

LAM PANG INTERCHANGE PROFILE & SECTIONS	SCALE H= 1:125 V= 1:2500 DATE	SHEET NO. LD6 - 2

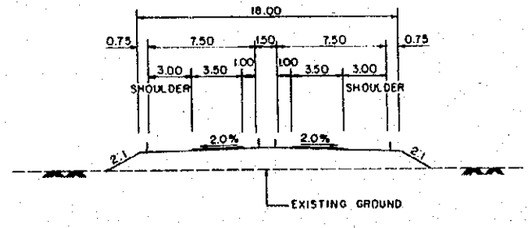


PROFILE OF MAIN RAMP
SCALE HORIZ. 1:2,500, VERT. 1:125

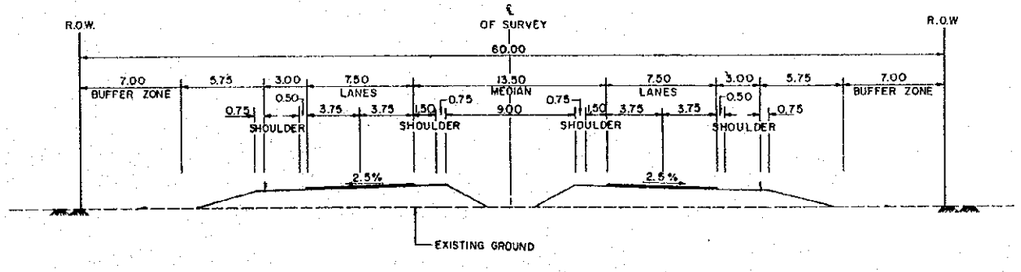
PROFILE OF MAIN RAMP
SCALE HORIZ. 1:2,500, VERT. 1:125



SECTION (A)-(A)
SCALE 1:200



SECTION (B)-(B)
SCALE 1:200

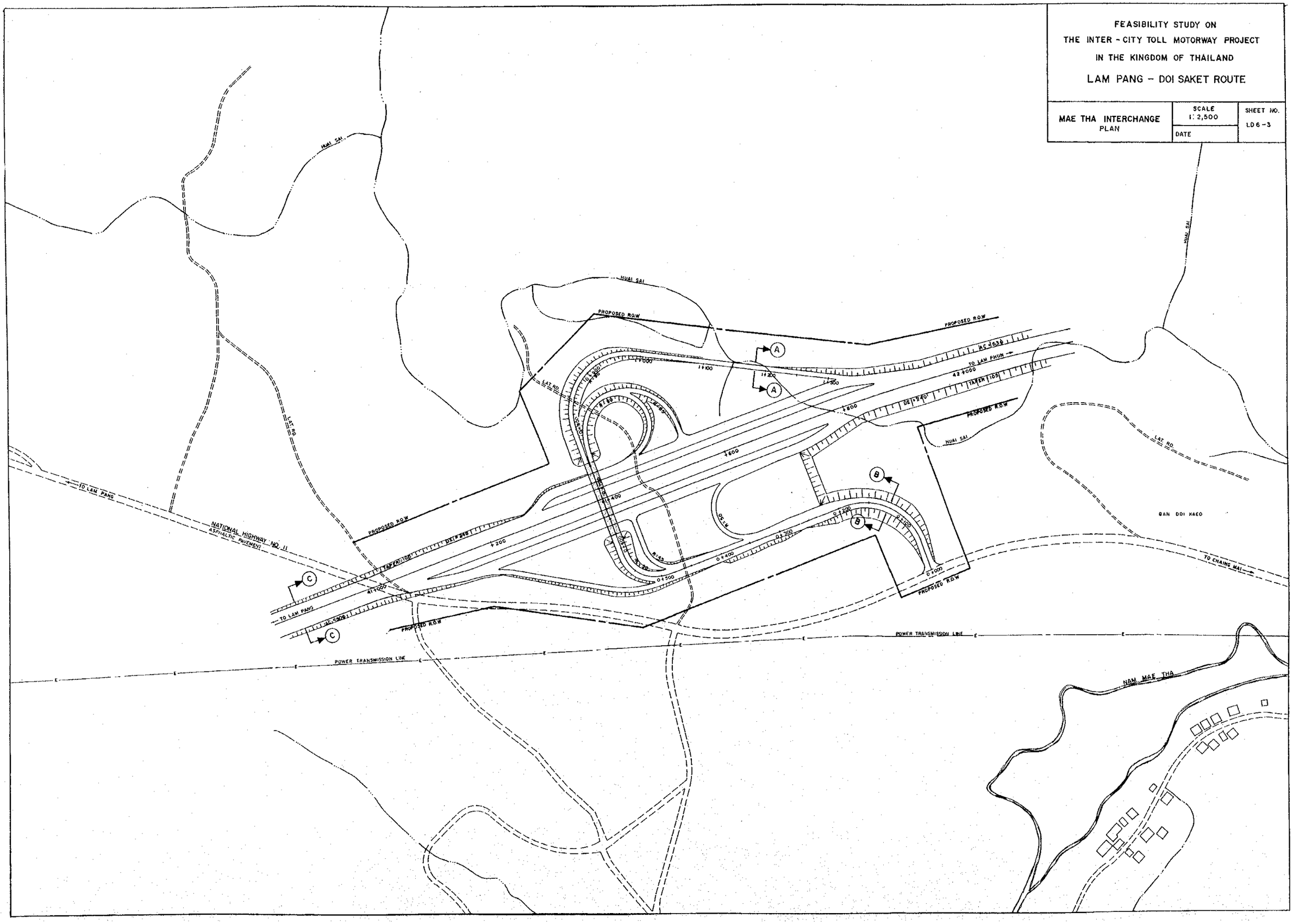


SECTION (C)-(C)
SCALE 1:200

FEASIBILITY STUDY ON
THE INTER - CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND

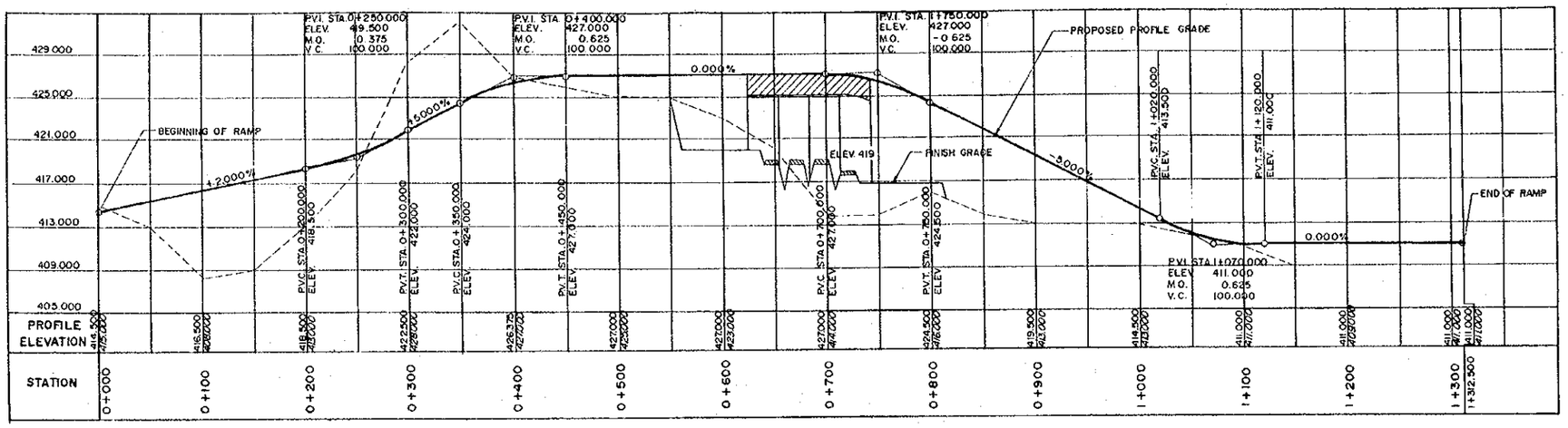
LAM PANG - DOI SAKET ROUTE

MAE THA INTERCHANGE PLAN	SCALE 1: 2,500	SHEET NO. LD6-3
	DATE	



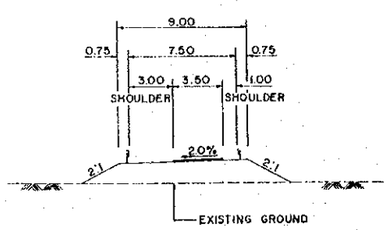
FEASIBILITY STUDY ON
THE INTER - CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND
LAM PANG - DOI SAKET ROUTE

MAE THA INTERCHANGE PROFILE & SECTIONS	SCALE H = 1:2500 V = 1:250	SHEET NO. LD6-4
	DATE	

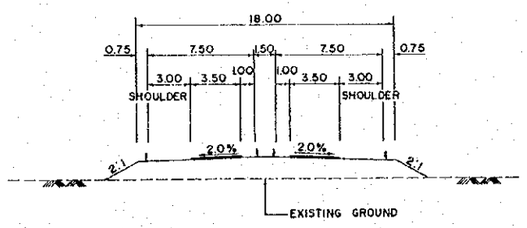


PROFILE OF MAIN RAMP
SCALE HORIZ. 1:2,500, VERT. 1:125

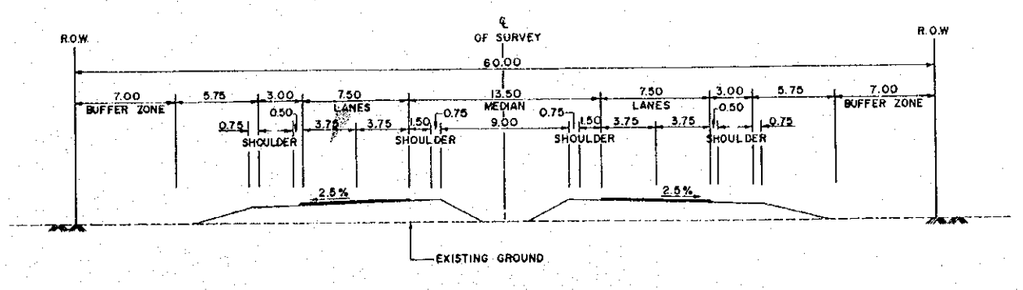
PROFILE OF MAIN RAMP
SCALE HORIZ. 1:2,500, VERT. 1:125



SECTION (1) - (1)
SCALE 1:200



SECTION (2) - (2)
SCALE 1:200

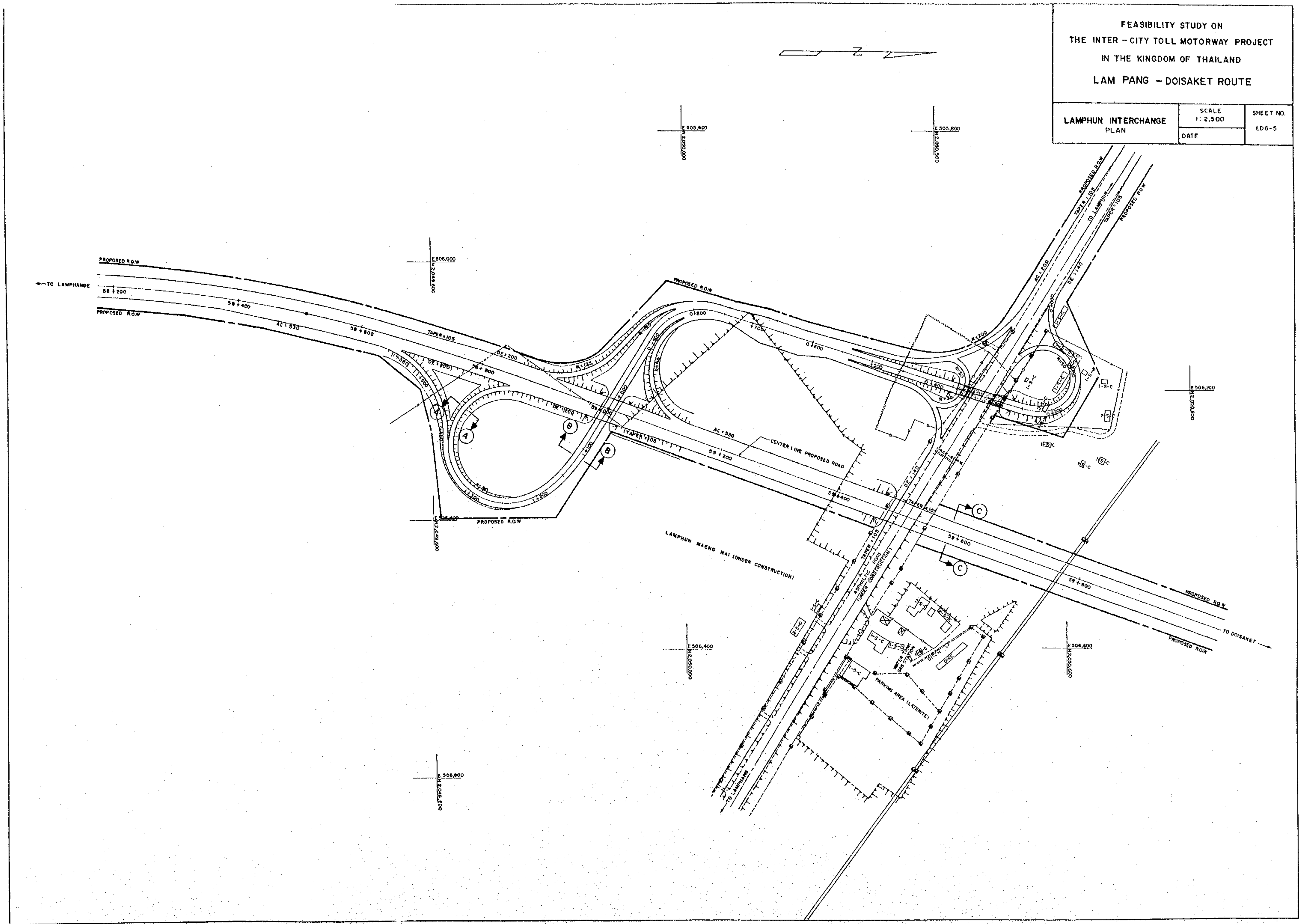


SECTION (3) - (3)
SCALE 1:200

FEASIBILITY STUDY ON
THE INTER – CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND

LAM PANG – DOISAKET ROUTE

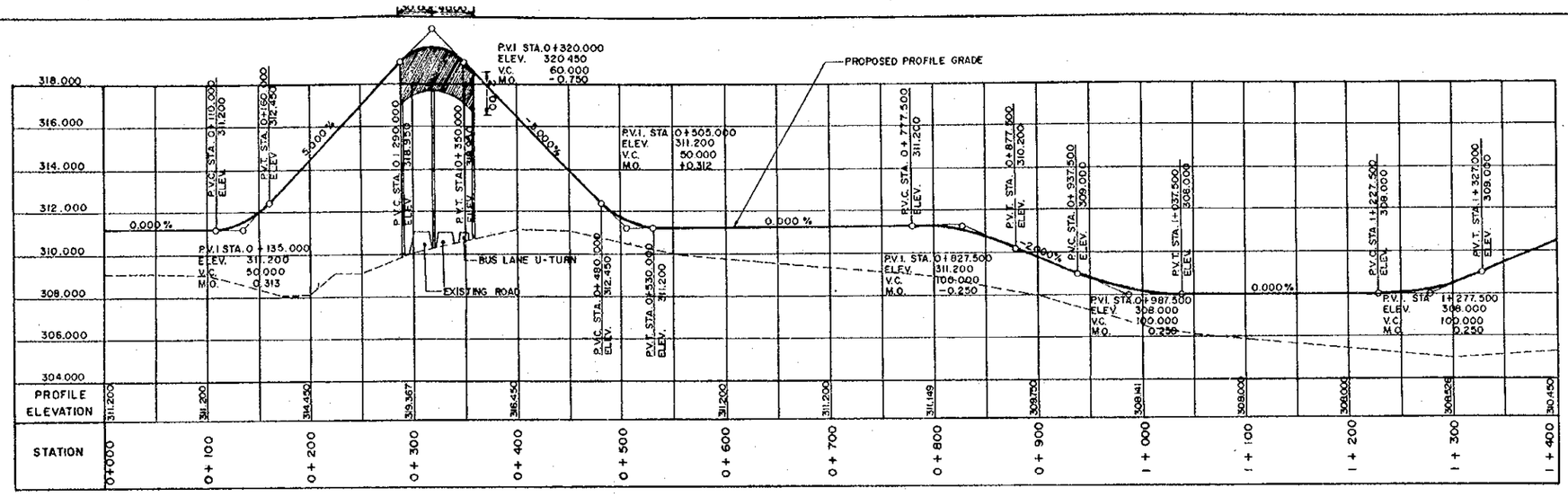
LAMPHUN INTERCHANGE PLAN	SCALE 1: 2,500	SHEET NO. LD6-5
	DATE	



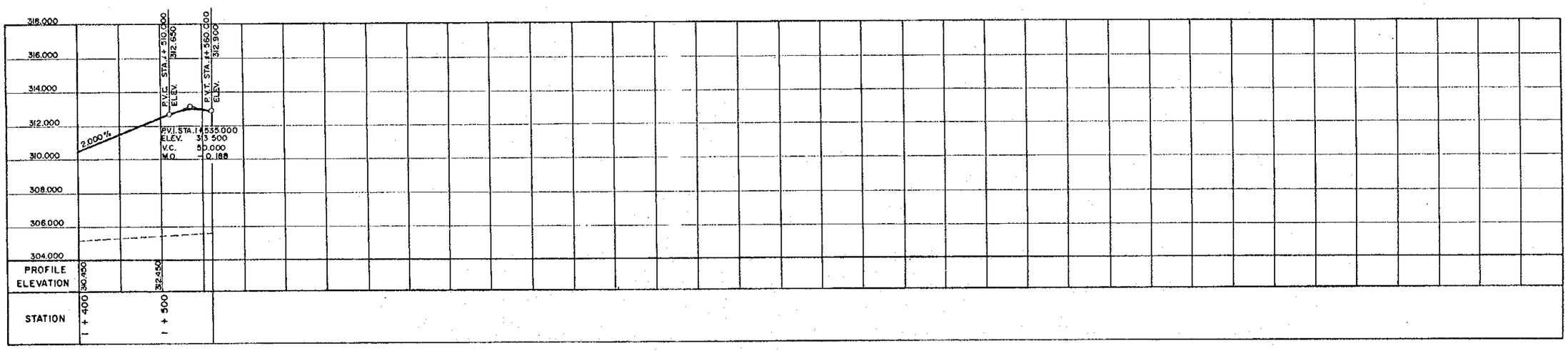
FEASIBILITY STUDY ON
THE INTER - CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND

LAM PANG - DOI SAKET ROUTE

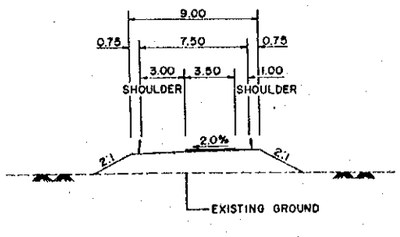
LAM PHUN INTERCHANGE PROFILE & SECTIONS	SCALE H = 1:125 V = 1:2500 DATE	SHEET NO. LD6-6



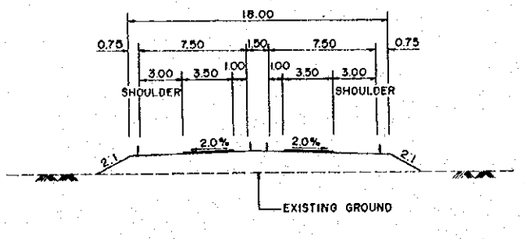
PROFILE OF MAIN RAMP
SCALE HORIZ. 1:2,500, VERT. 1:125



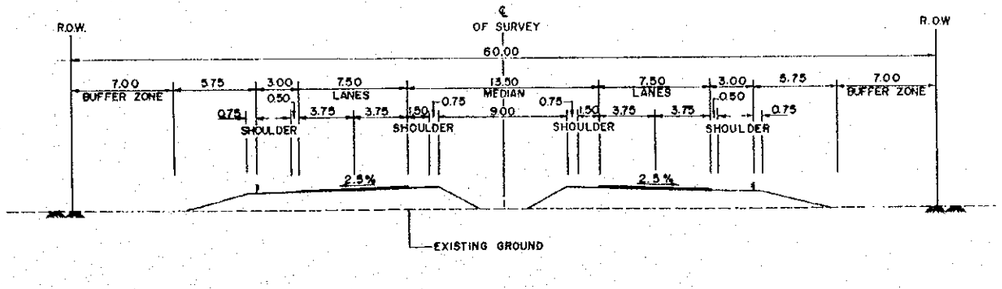
PROFILE OF MAIN RAMP
SCALE HORIZ. 1:2,500, VERT. 1:125



SECTION (1)-(1)
SCALE 1:200



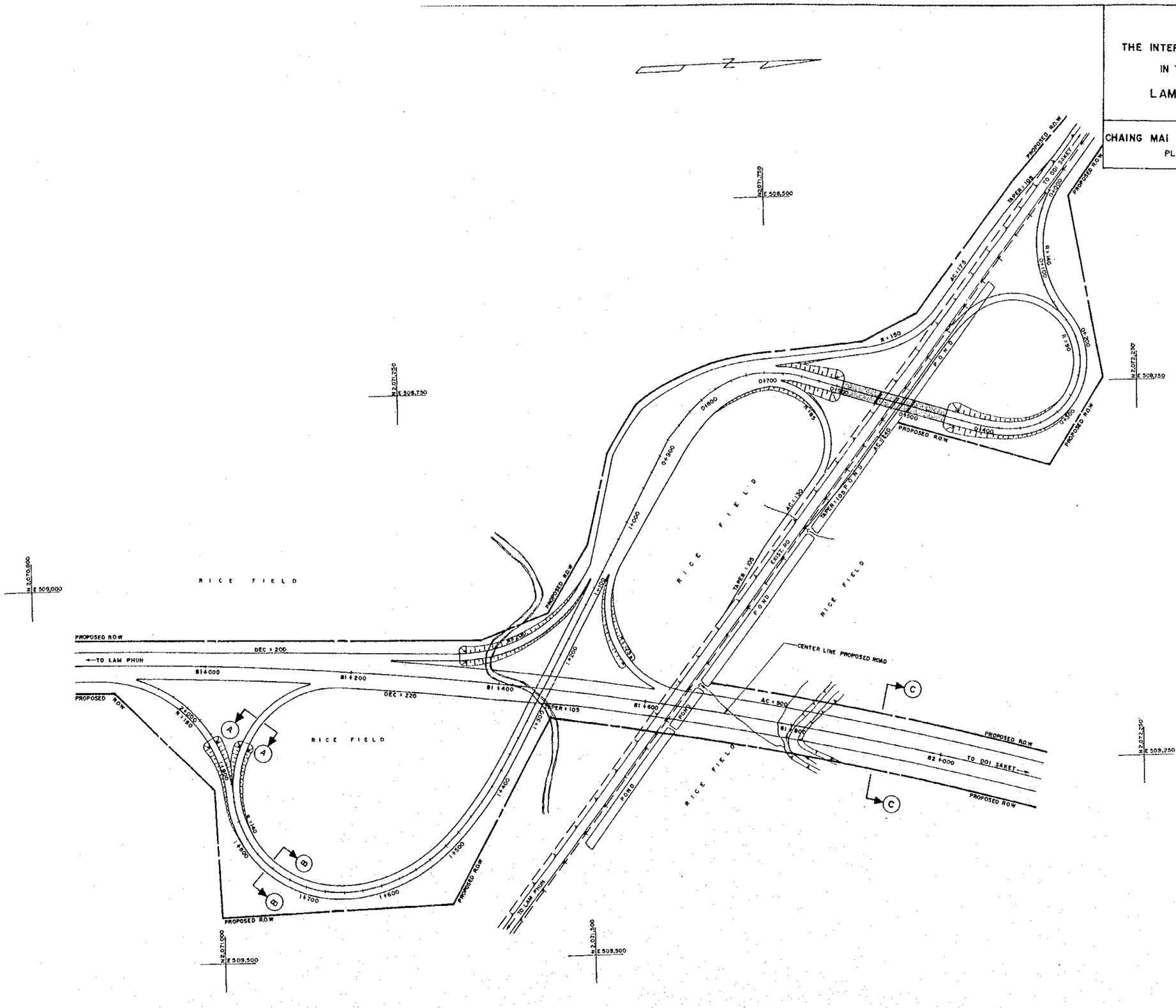
SECTION (2)-(2)
SCALE 1:200



SECTION (3)-(3)
SCALE 1:200

FEASIBILITY STUDY ON
THE INTER-CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND
LAM PANG - DOI SAKET ROUTE

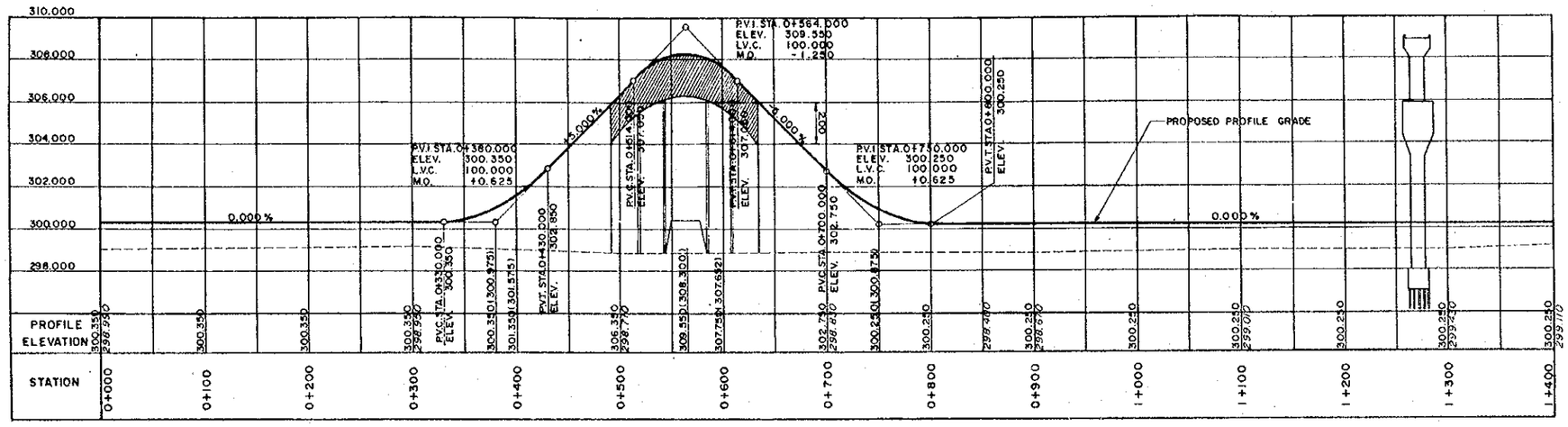
CHAING MAI INTERCHANGE PLAN	SCALE 1:2,500	SHEET NO. LD6-7
	DATE	



FEASIBILITY STUDY ON
THE INTER - CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND

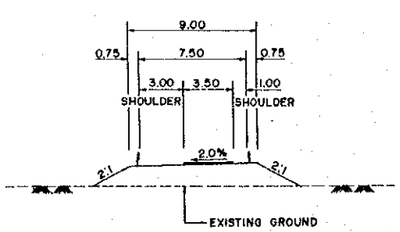
LAM PANG - DOI SAKET ROUTE

CHAING MAI INTERCHANGE PROFILE & SECTIONS	SCALE H = 1:2500 V = 1:125 DATE	SHEET NO. LD 6-8

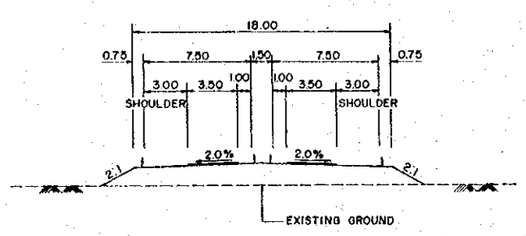


PROFILE OF MAIN RAMP
SCALE HORIZ. 1:2,500, VERT. 1:125

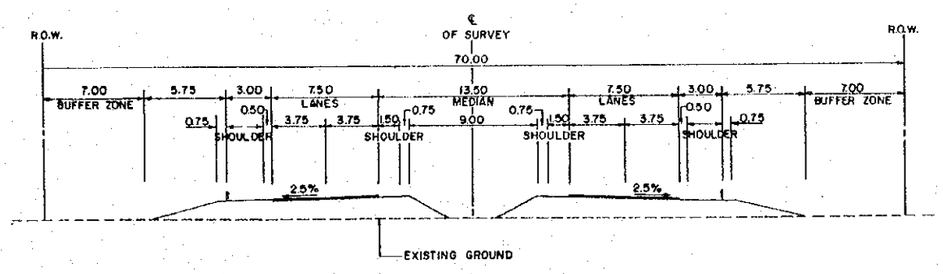
PROFILE OF MAIN RAMP
SCALE HORIZ. 1:2,500, VERT. 1:125



SECTION (A)-(A)
SCALE 1:200



SECTION (B)-(B)
SCALE 1:200

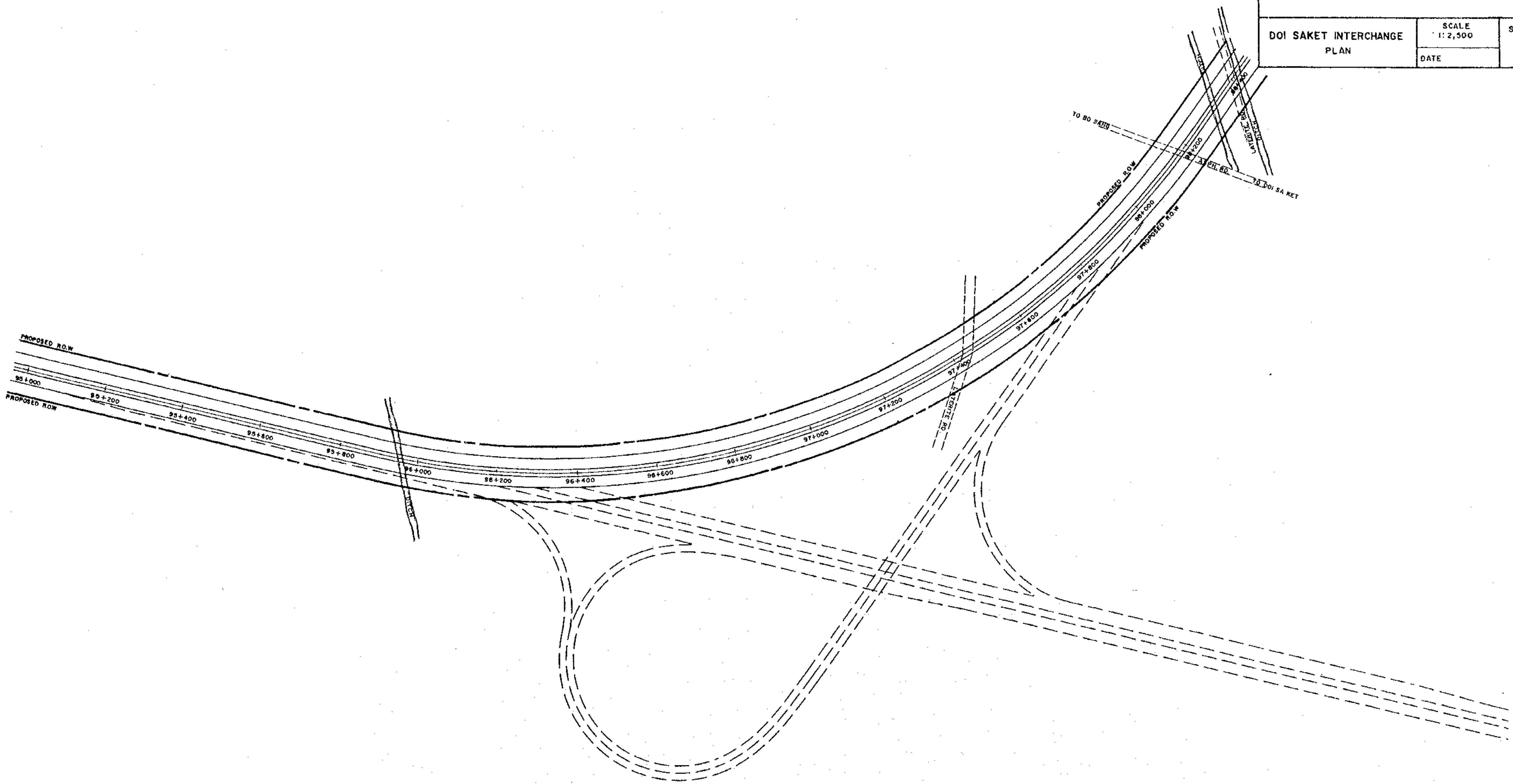


SECTION (C)-(C)
SCALE 1:200

FEASIBILITY STUDY ON
THE INTER – CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND

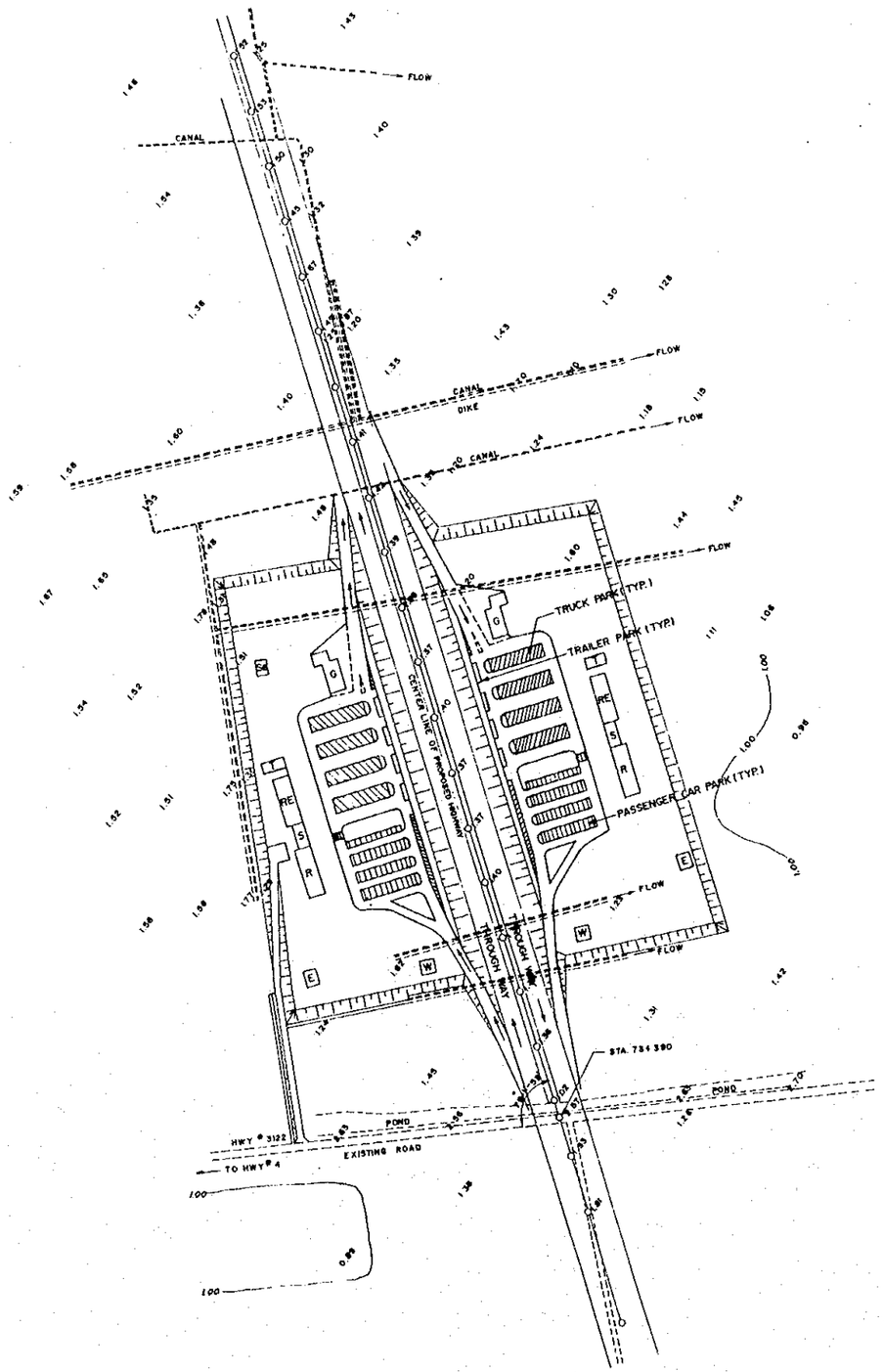
LAM PANG – DOI SAKET ROUTE

DOI SAKET INTERCHANGE PLAN	SCALE 1:2,500	SHEET NO LDG-9
	DATE	



FEASIBILITY STUDY ON
THE INTER-CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND
BAN PONG - CHA AM ROUTE
LAMPANG - DOI SAKET ROUTE

REST AREA TYPE "A" DETAIL	SCALE 1 : 2,500	SHEET NO. LD. 6 - 10
	DATE	



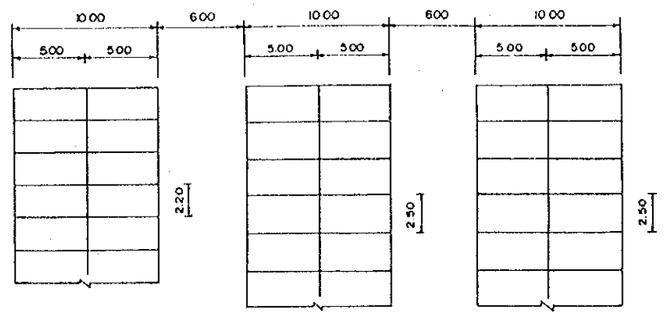
REST AREA TYPE "A" DETAILS
SCALE 1:2500

SYMBOL :

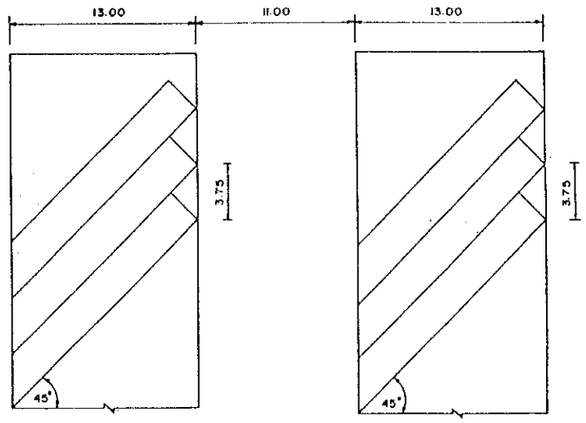
- W = ELEVATED WATER TANK
- R = RESTAURANT
- S = SHOP
- RE = RESTING ROOM
- T = TOILET
- G = GAS STATION
- SW = SEWERAGE EQUIPMENT ROOM
- E = ELECTRICITY MACHINERY FACILITY ROOM
- EMBANKMENT SLOPE

NOTES :

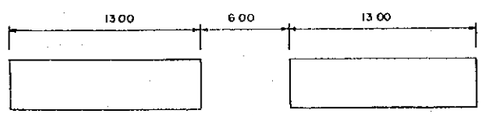
1. THIS PLAN SHOWN PROPOSED SERVICE AREA AT KHAO YOI ON BAN PONG - CHA AM ROUTE.
2. THIS TYPE OF SERVICE AREA ALSO WILL BE USED FOR PROPOSED SERVICE AREA AT MAETHA ON LAMPANG - DOI SAKET ROUTH.



PASSENGER CAR PARK



TRUCK PARK

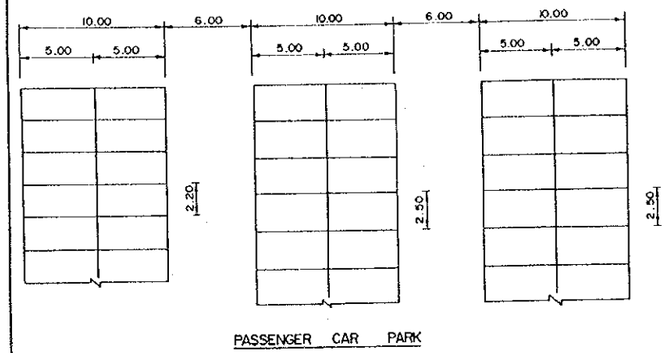


TRAILER PARK

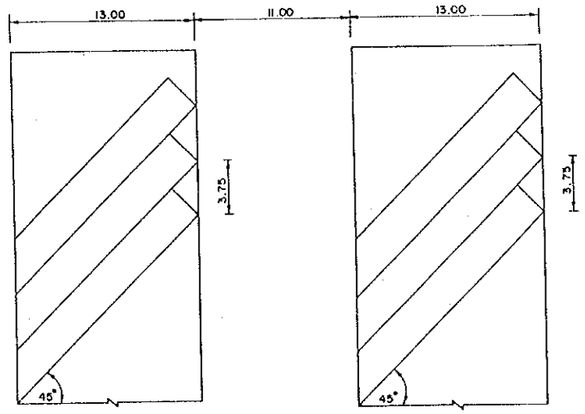
PARKING LOT DETAILS

FEASIBILITY STUDY ON
THE INTER-CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND
BAN PONG - CHA AM ROUTE
LAMPANG - DOI SAKET ROUTE

REST AREA TYPE "B" & "C" DETAILS	SCALE AS SHOWN	SHEET NO. LD. 6-11
	DATE	



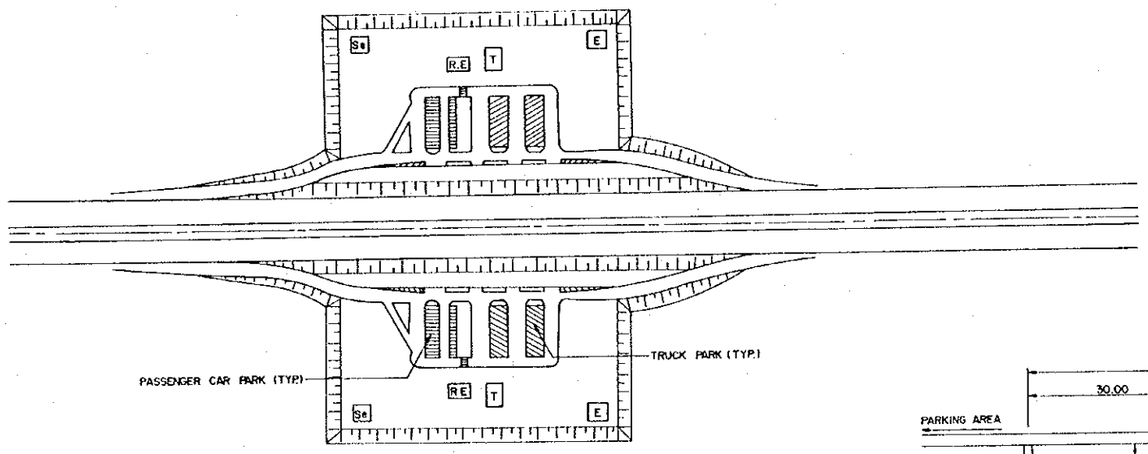
PASSENGER CAR PARK



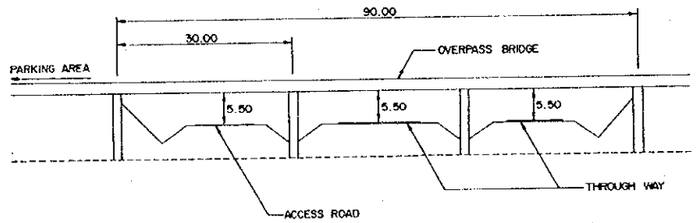
TRUCK PARK

SYMBOL :

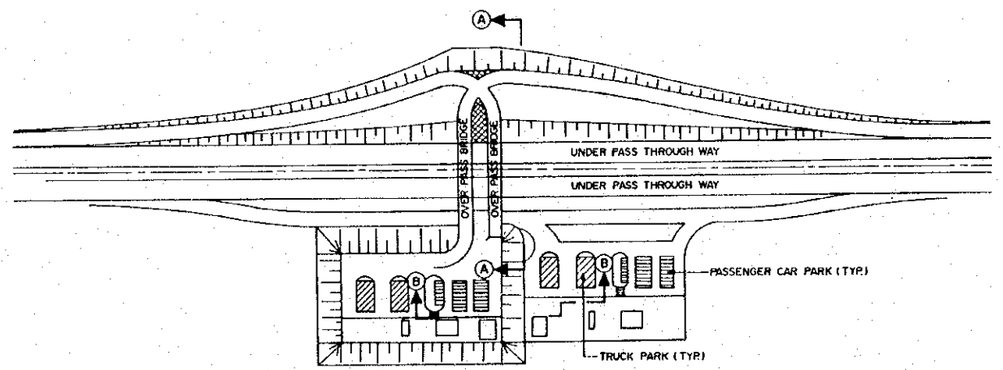
- RE = RESTING ROOM
- T = TOILET
- Se = SEWERAGE EQUIPMENT ROOM
- E = ELECTRICITY MACHINERY FACILITY ROOM
- = EMBANKMENT SLOPE



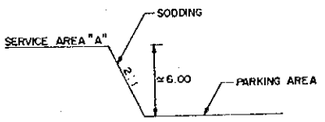
REST AREA TYPE "B" DETAILS
SCALE 1 : 2000



SECTION (A)-(A)
SCALE 1 : 500



REST AREA TYPE "C" DETAILS
SCALE 1 : 2000



SECTION (B)-(B)
SCALE 1 : 250

FEASIBILITY STUDY ON
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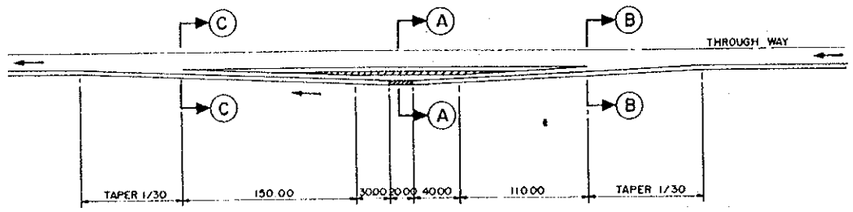
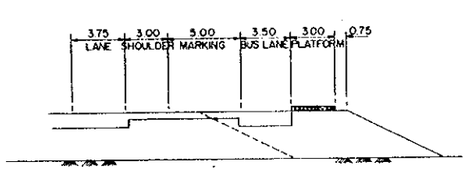
IN THE KINGDOM OF THAILAND
BAN PONG - CHA AM ROUTE
LAM PANG - DOI SAKET ROUTE

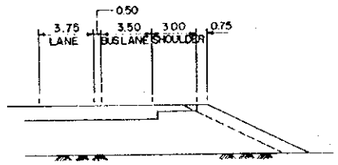
BUS STOP DETAILS	SCALE AS SHOWN	SHEET NO. LD. 6-12
	DATE	



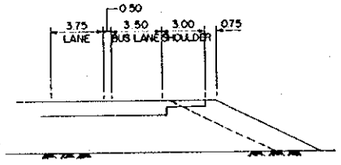
BUS STOP PLAN
SCALE 1:2500



SECTION (A)-(A)
SCALE 1:200

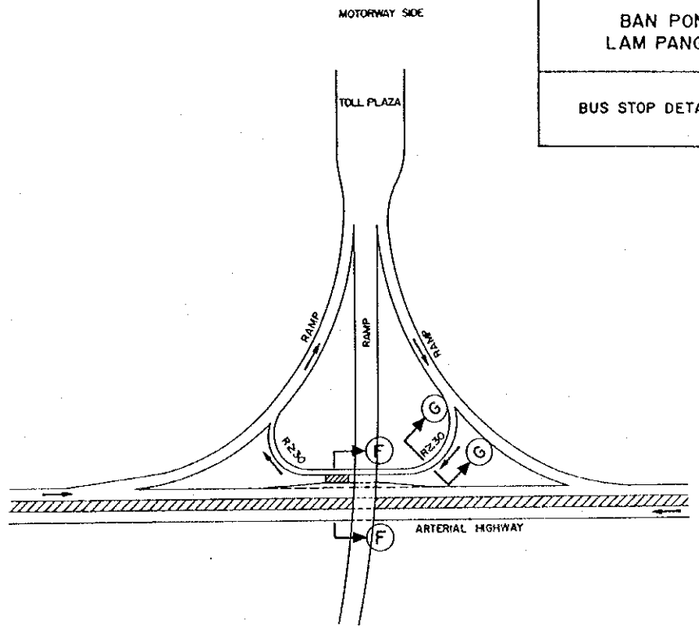


SECTION (B)-(B)
SCALE 1:200

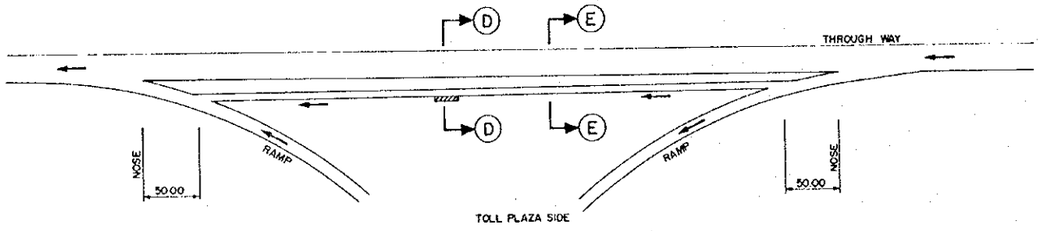


SECTION (C)-(C)
SCALE 1:200

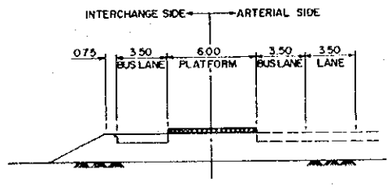
BUS STOP TYPE A (INDEPENDENT TYPE)
SCALE 1:2500



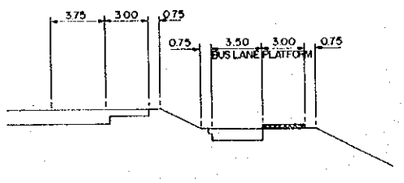
BUS STOP PLAN
SCALE 1:2500



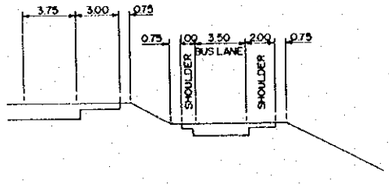
BUS STOP PLAN
SCALE 1:2500



SECTION (F)-(F)
SCALE 1:200

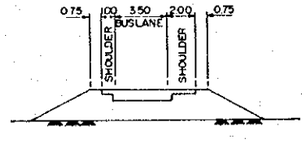


SECTION (D)-(D)
SCALE 1:200



SECTION (E)-(E)
SCALE 1:200

BUS STOP TYPE "B" (BETWEEN RAMPS OF MOTORWAY SIDE)
SCALE 1:2500



SECTION (G)-(G)
SCALE 1:200

BUS STOP TYPE "C" (BETWEEN RAMPS OF ARTERIAL SIDE)
SCALE 1:2500

FEASIBILITY STUDY ON
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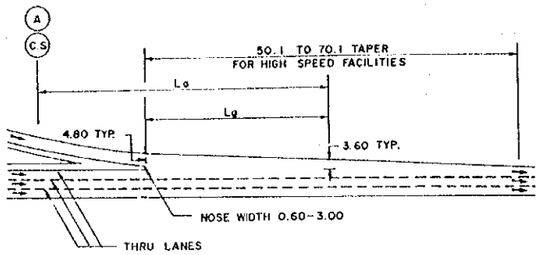
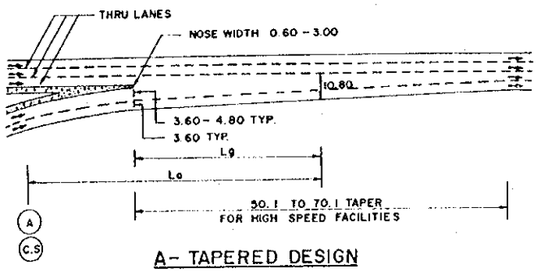
BAN PONG - CHA AM ROUTE
LAM PANG - DOI SAKET ROUTE

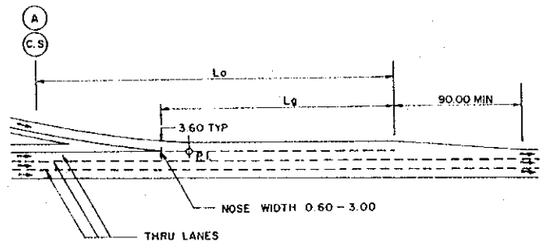
RAMP TEMINAL DETAILS	SCALE: NOT TO SCALE	SHEET NO.
	DATE	LD. 6 - 13



A - TAPERED DESIGN

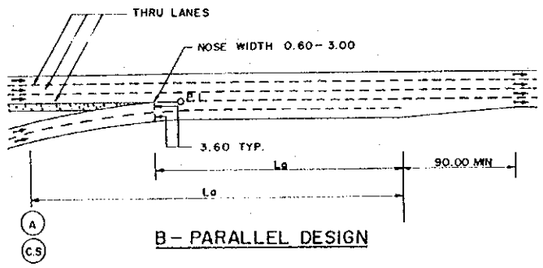


A - TAPERED DESIGN



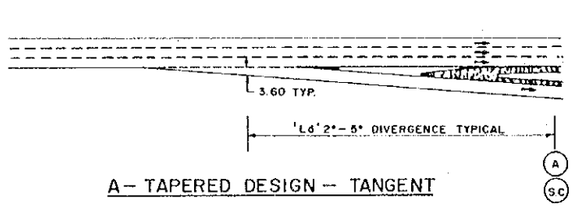
B - PARALLEL DESIGN

TYPICAL SINGLE-LANE ENTRANCE RAMP

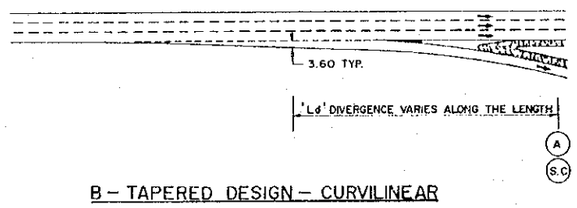


B - PARALLEL DESIGN

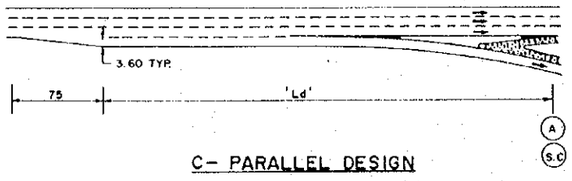
TYPICAL TWO-LANE ENTRANCE RAMP



A - TAPERED DESIGN -- TANGENT

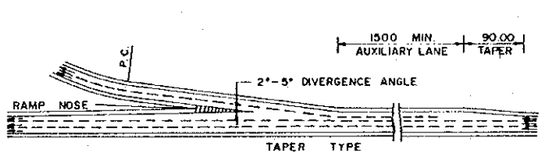


B - TAPERED DESIGN - CURVILINEAR

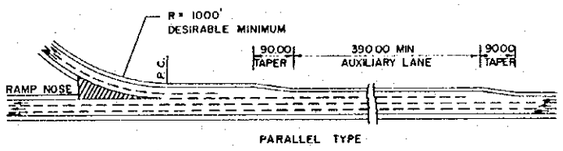


C - PARALLEL DESIGN

TYPICAL SINGLE-LANE EXIT RAMP



A - TAPERED DESIGN

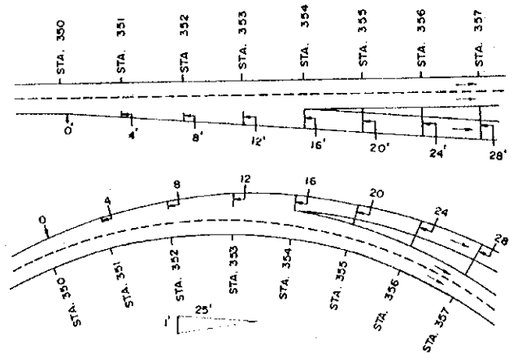


B - PARALLAL DESIGN

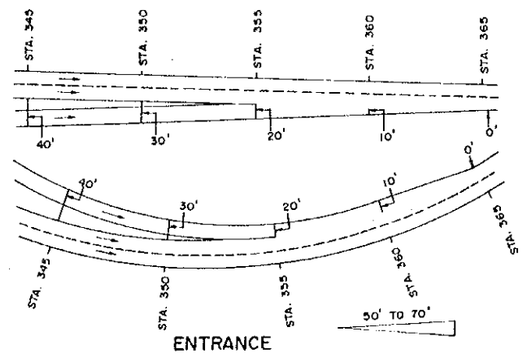
TYPICAL TWO-LANE EXIT RAMP

NOTES

1. "La" IS THE REQUIRED ACCELERATION LENGTH.
2. POINT (A) CONTROLS SAFE SPEED ON THE RAMP "La" SHOULD NOT START BACK ON THE CURVATURE OF THE RAMP UNLESS THE RADIUS EQUALS 300 M. OR MORE
3. "Lg" IS REQUIRED GAP ACCEPTANCE LENGTH Lg SHOULD BE A MINIMUM OF 90 M. TO 150 M. DEPENING ON THE NOSE WIDTH.
4. THE VALVE OF La OR Lg, WHICHEVER PRODUCES THE GREATEST DISTANCE DOWNSTREAM FROM WHERE THE NOSE WIDTH EQUALS 0.60 M., IS SUGGESTED FOR USE IN THE DESIGN OF THE RAMP ENTRANCE.
5. "Ld" IS THE REQUIRED DECELERATION LENGTH.
6. DIMENSION ARE METERS.

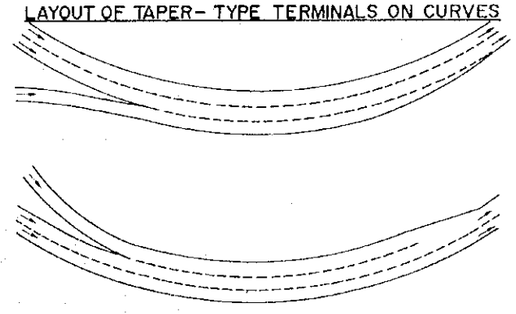


EXIT



ENTRANCE

LAYOUT OF TAPER-TYPE TERMINALS ON CURVES



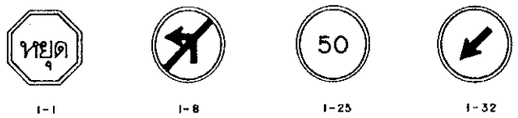
ENTRANCES

EXITS

PARALLEL-TYPE RAMP TERMINALS ON CURVES DIAGRAM-MATIC

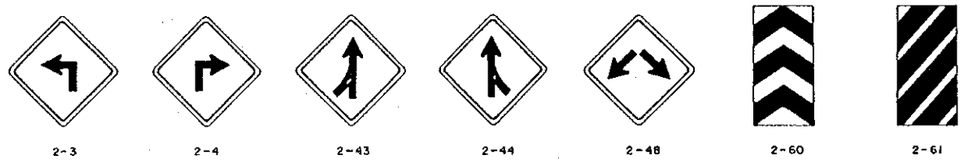
FEASIBILITY STUDY ON
THE INTER-CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND
BAN PONG - CHA AM ROUTE
LUM PANG - DOI SAKET ROUTE

TRAFFIC SIGN DETAIL	SCALE AS SHOWN	SHEET NO.
	DATE	LD. 6-14



1-1 1-8 1-25 1-32

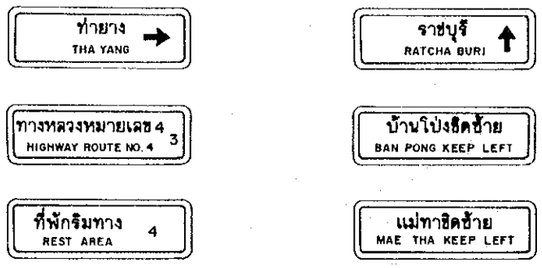
CODE 1 - REGULATORY SIGNS
NOT TO SCALE



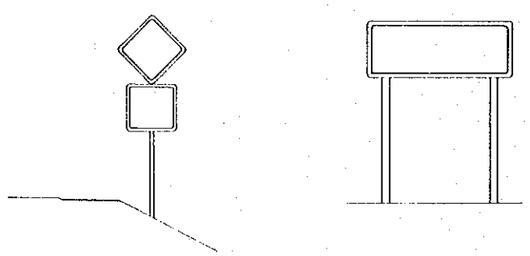
2-3 2-4 2-43 2-44 2-48 2-60 2-61

2-62 2-63 2-80(3) 2-82/1 2-82/2 2-83

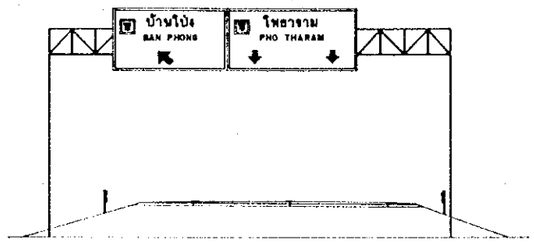
CODE 2 - WARNING SIGNS
NOT TO SCALE



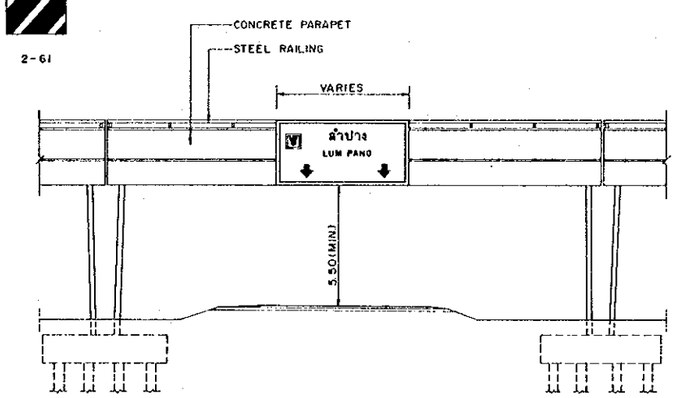
CODE 3 - GUIDE SIGNS
NOT TO SCALE

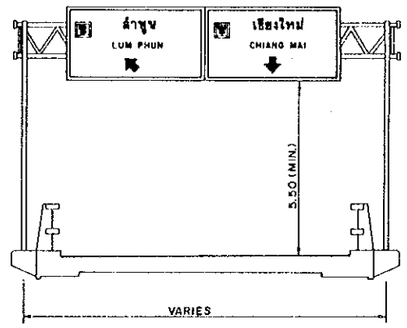


TYPICAL SIGN CODE 1, 2 & 3 INSTALLATION DETAIL
NOT TO SCALE



OVERHEAD SIGN BOARD (TYP.)
NOT TO SCALE

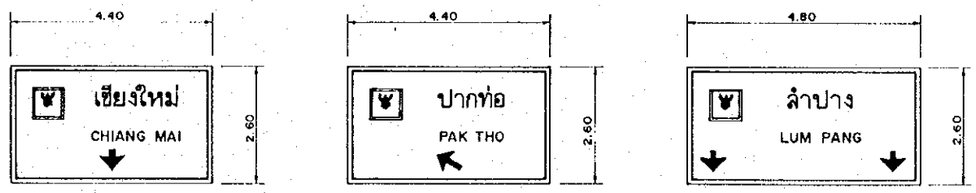




OVERHEAD SIGN BOARD (ON BRIDGE DECK)
NOT TO SCALE

OVERHEAD SIGN BOARD (ON BARRIER)
NOT TO SCALE

TYPICAL OVERHEAD SIGN BOARD INSTALLATION

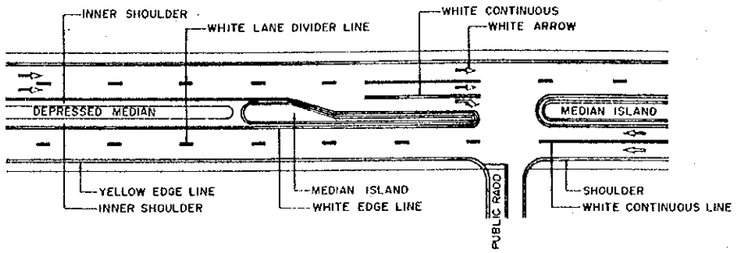


OVERHEAD SIGN DETAILS
NOT TO SCALE

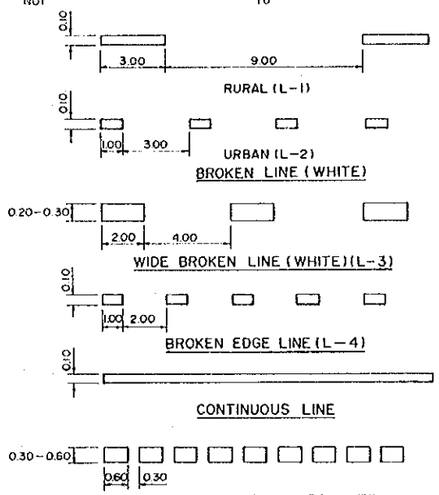
TYPICAL TRAFFIC SIGN INSTALLATION

FEASIBILITY STUDY ON
THE INTER-CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND
BAN PONG – CHA AM ROUTE
LAM PANG – DOI SAKET ROUTE

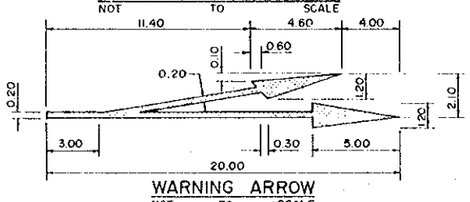
ROAD MARKING DETAILS	SCALE NOT TO SCALE	SHEET NO. LD. 6-15
	DATE	



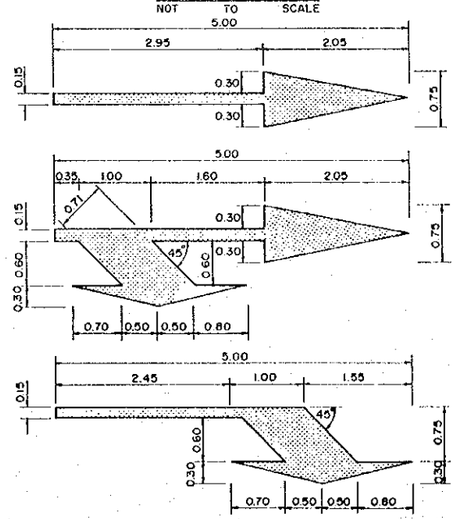
STANDARD LANE MARKING FOR DIVIDED HIGHWAYS
NOT TO SCALE



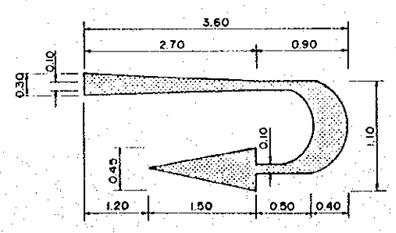
TYPICAL LANE MARKING
NOT TO SCALE



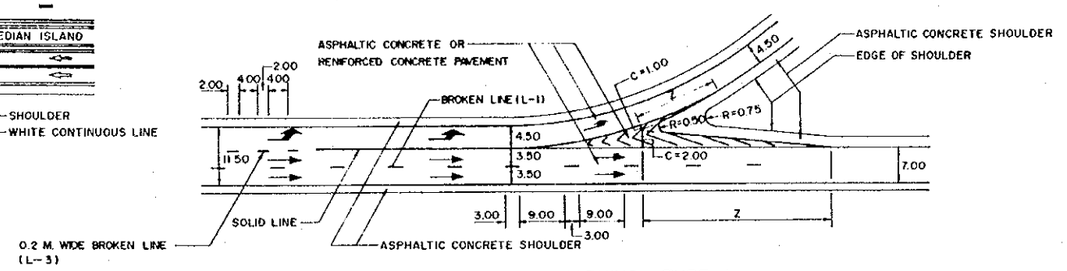
WARNING ARROW
NOT TO SCALE



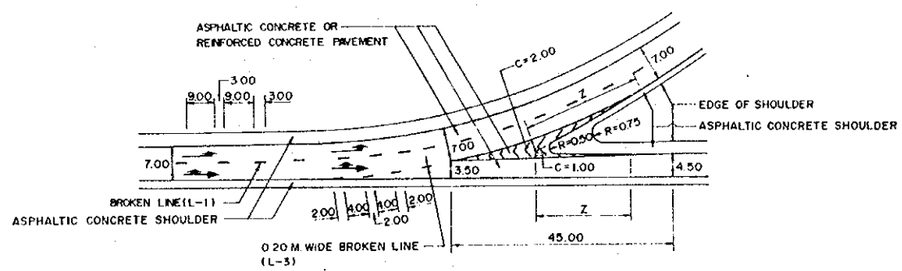
LANE INDICATION ARROWS
NOT TO SCALE



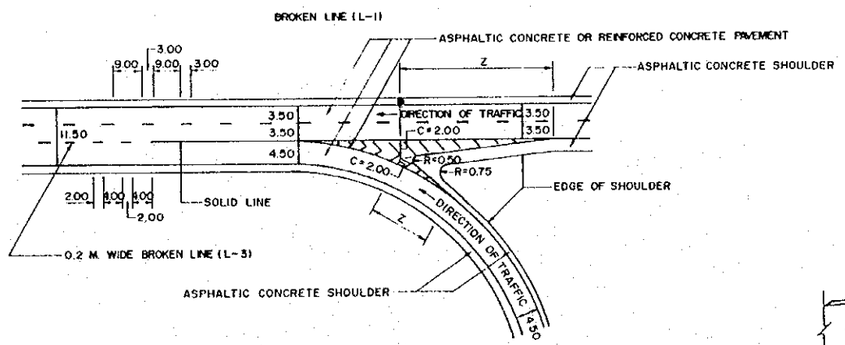
U – TURN ARROW
NOT TO SCALE



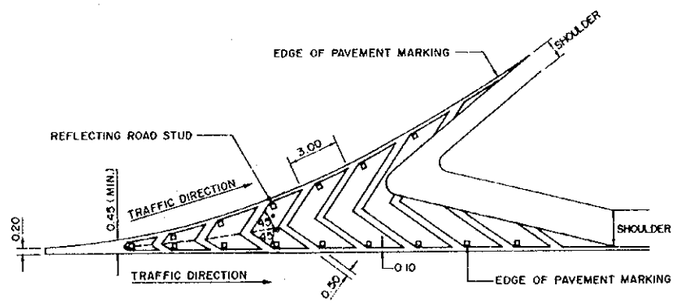
EXIT RAMP MARKING – TYPE 1
NOT TO SCALE



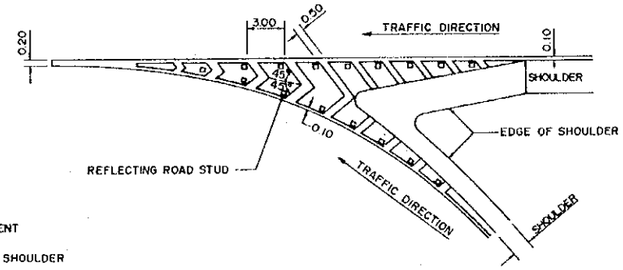
EXIT RAMP MARKING – TYPE 2
NOT TO SCALE



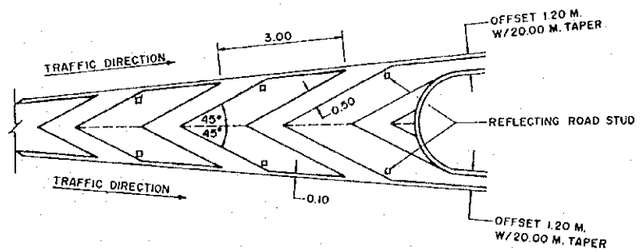
ENTRANCE RAMP MARKING
NOT TO SCALE



EXIT RAMP MARKING DETAIL
NOT TO SCALE



ENTRANCE RAMP MARKING DETAIL
NOT TO SCALE

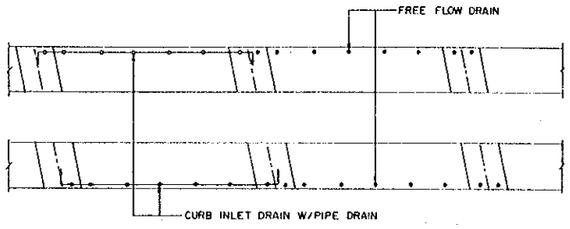


STANDARD CHEVRON HATCHING
NOT TO SCALE

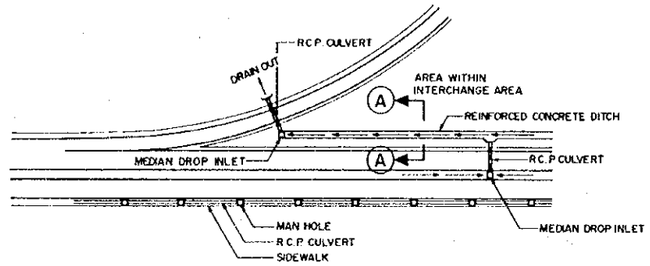
TYPICAL TRAFFIC MARKING

FEASIBILITY STUDY ON
THE INTER-CITY TOLL MOTORWAY PROJECT
IN THE KINGDOM OF THAILAND
BAN PONG – CHA AM ROUTE
LAM PANG – DOI SAKET ROUTE

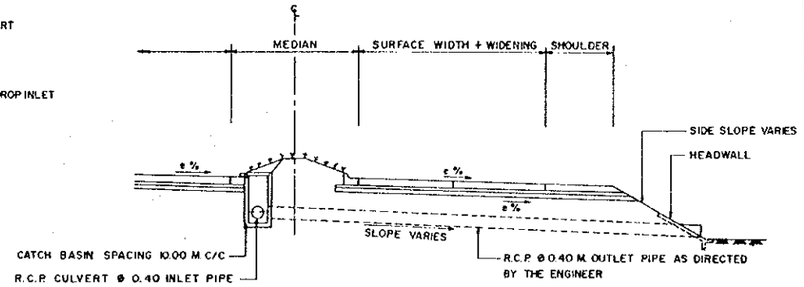
DRAINAGE SYSTEM DETAILS	SCALE NOT TO SCALE	SHEET NO. LD. 6-16
	DATE	



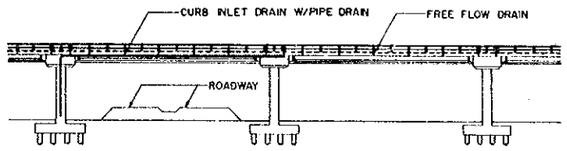
PLAN BRIDGE DECK SLAB
NOT TO SCALE



TYPICAL PLAN AT GRADE DRAINAGE
NOT TO SCALE



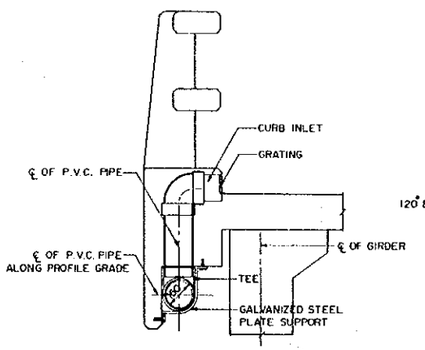
TYPICAL CROSS-DRAIN
NOT TO SCALE



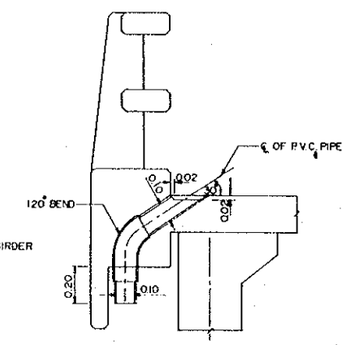
ELEVATION

SECTION (A)-(A)
NOT TO SCALE

CATCH BASIN DETAILS
NOT TO SCALE



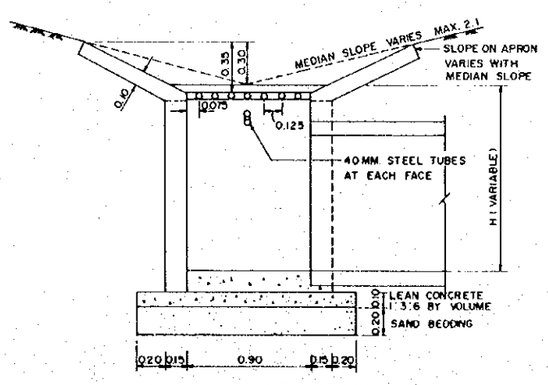
TYPICAL CURB INLET DRAIN



TYPICAL FREE FLOW DRAIN

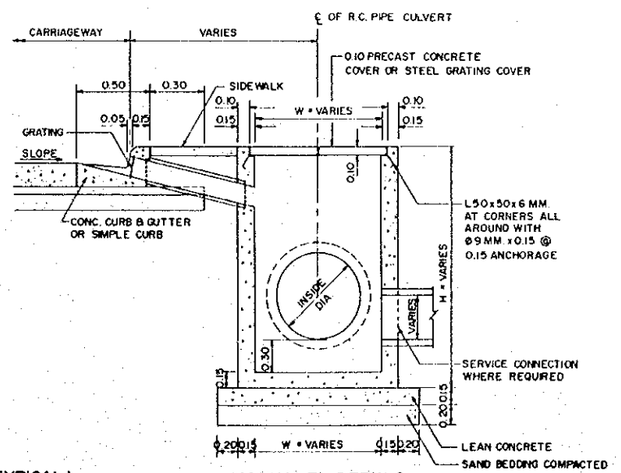
DRAINAGE AT BRIDGE DECK (TYPICAL)
NOT TO SCALE

R.C. DITCH LINING DETAIL
NOT TO SCALE

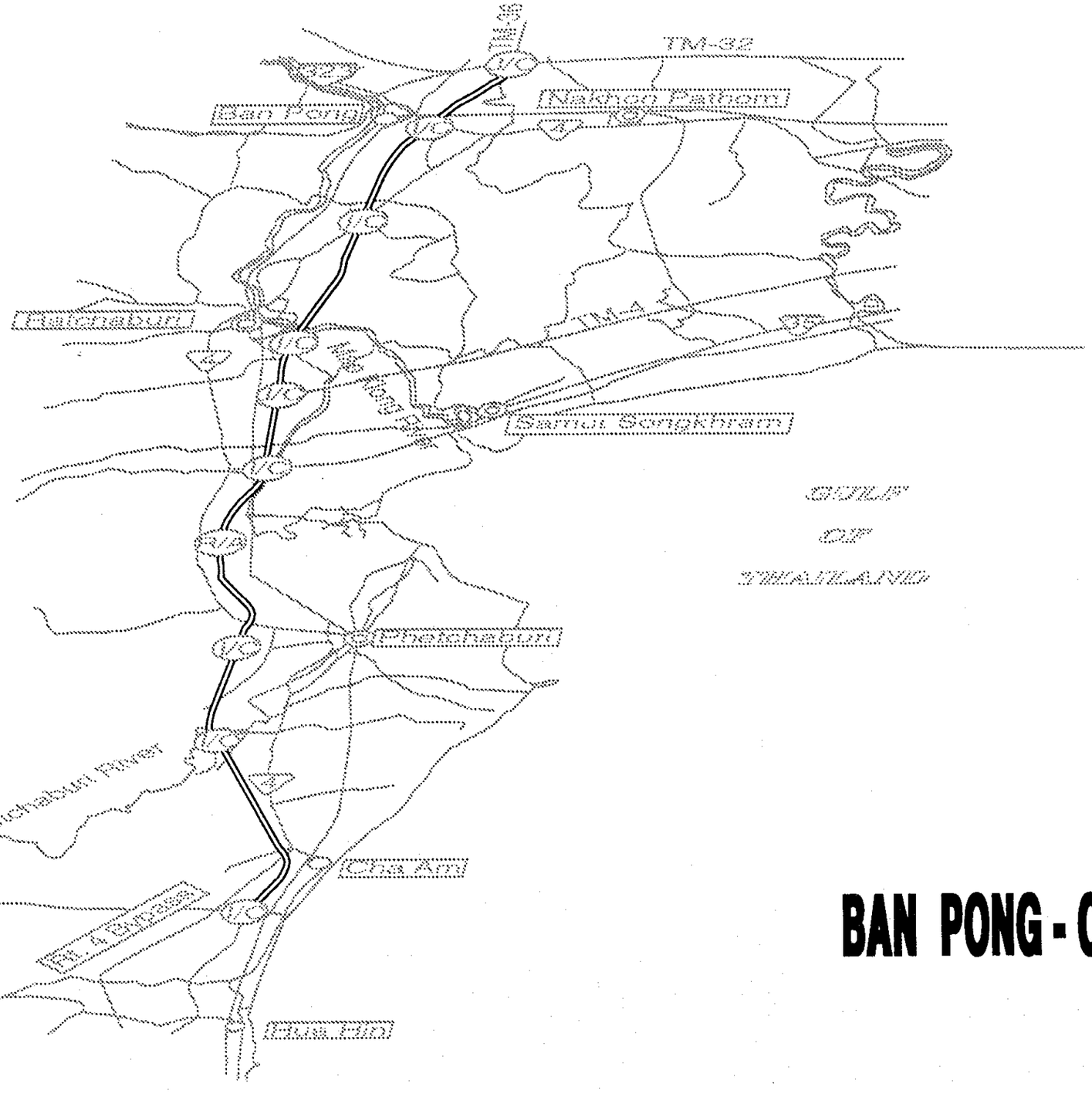


MEDIAN DROP INLET DETAILS
NOT TO SCALE

AT GRADE DRAINAGE (TYPICAL)



MANHOLE DETAILS
NOT TO SCALE



GULF

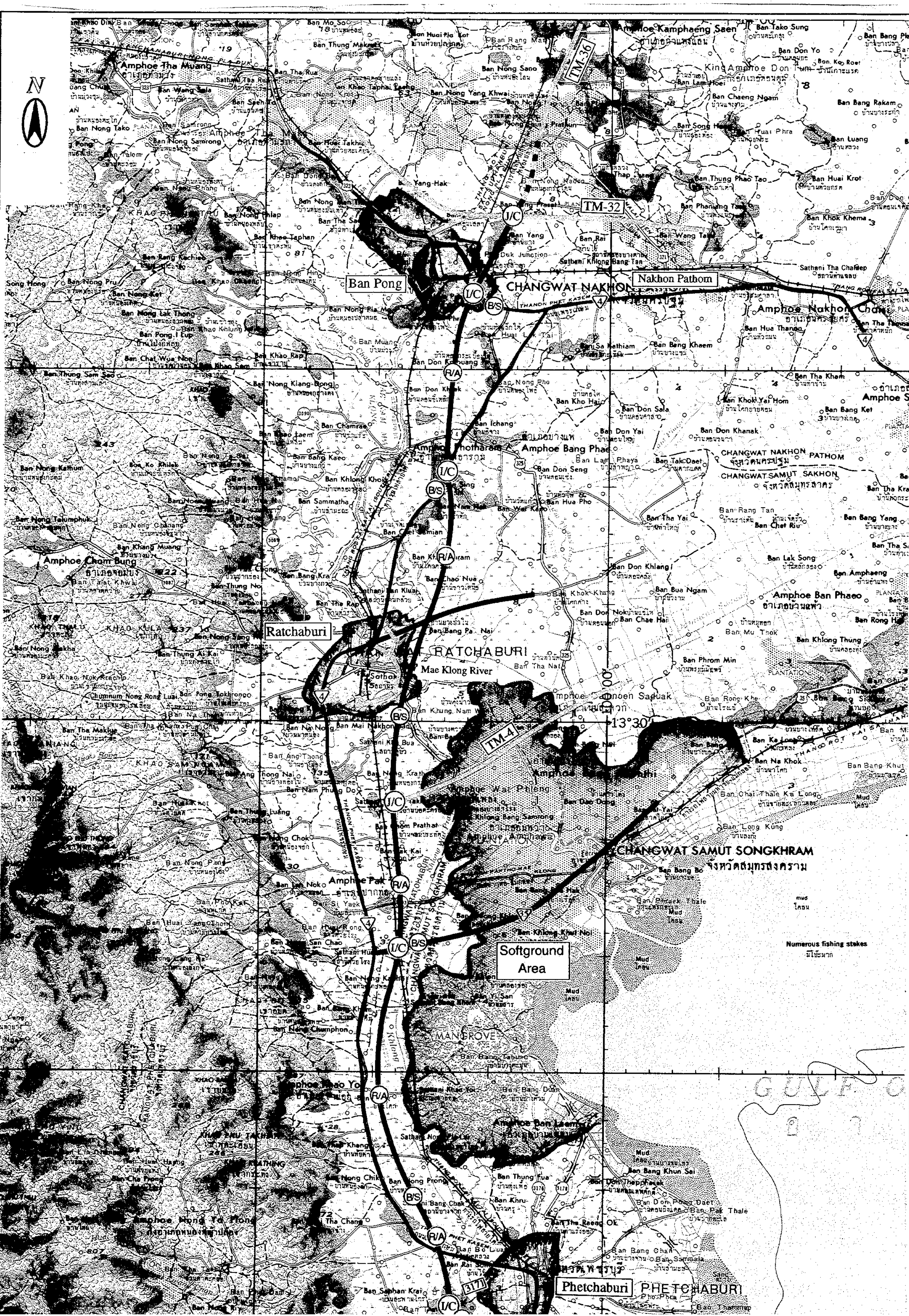
OF

THAILAND

BAN PONG - CHA AM ROUTE

DWG. NO.	T I T L E	C O N T E N T S
BC.1 - 1	ROUTE MAP	
BC.2 - 1	PLAN AND PROFILE	STA. 0+000 TO STA. 9+000
BC.2 - 2	PLAN AND PROFILE	STA. 9+000 TO STA. 18+000
BC.2 - 3	PLAN AND PROFILE	STA. 18+000 TO STA. 27+000
BC.2 - 4	PLAN AND PROFILE	STA. 27+000 TO STA. 36+000
BC.2 - 5	PLAN AND PROFILE	STA. 36+000 TO STA. 45+000
BC.2 - 6	PLAN AND PROFILE	STA. 45+000 TO STA. 54+000
BC.2 - 7	PLAN AND PROFILE	STA. 54+000 TO STA. 63+000
BC.2 - 8	PLAN AND PROFILE	STA. 63+000 TO STA. 72+000
BC.2 - 9	PLAN AND PROFILE	STA. 72+000 TO STA. 81+000
BC.2 - 10	PLAN AND PROFILE	STA. 81+000 TO STA. 90+000
BC.2 - 11	PLAN AND PROFILE	STA. 90+000 TO STA. 99+000
BC.2 - 12	PLAN AND PROFILE	STA. 99+000 TO STA. 108+000
BC.2 - 13	PLAN AND PROFILE	STA. 108+000 TO STA. 117+000
BC.2 - 14	PLAN AND PROFILE	STA. 117+000 TO STA. 126+000
BC.2 - 15	PLAN AND PROFILE	STA. 126+000 TO STA. 133+735.53
BC.3 - 1	TYPICAL CROSS SECTION (1)	EMBANKMENT SECTION IN FLAT AREA EMBANKMENT SECTION IN SOFTGROUND AREA
BC.3 - 2	TYPICAL CROSS SECTION (2)	BRIDGE AND VIADUCT SECTION
BC.4 - 1	STRUCTURAL CLASSIFICATION	
BC.4 - 2	LIST OF BRIDGES AND VIADUCTS	
BC.4 - 3	LIST OF OVERBRIDGES AND BOX CULVERTS	
BC.4 - 4	GENERAL VIEW	MAE KHLONG RIVER BRIDGE
BC.4 - 5	GENERAL VIEW	VIADUCT AT STA. 6+750 TO STA. 9+400

DWG. NO.	T I T L E	C O N T E N T S
BC.5 - 1	BAN PONG JUNCTION	PLAN
BC.5 - 2	BAN PONG JUNCTION	PROFILE AND SECTIONS
BC.5 - 3	BAN PONG INTERCHANGE	PLAN
BC.5 - 4	BAN PONG INTERCHANGE	PROFILE AND SECTIONS
BC.5 - 5	PHOTHARAM INTERCHANGE	PLAN
BC.5 - 6	PHOTHARAM INTERCHANGE	PROFILE AND SECTIONS
BC.5 - 7	RATCHABURI INTERCHANGE	PLAN
BC.5 - 8	RATCHABURI INTERCHANGE	PROFILE AND SECTIONS
BC.5 - 9	PAK THO INTERCHANGE	PLAN
BC.5 - 10	PAK THO INTERCHANGE	PROFILE AND SECTIONS
BC.5 - 11	PHETCHABURI INTERCHANGE	PLAN
BC.5 - 12	PHETCHABURI INTERCHANGE	PROFILE AND SECTIONS
BC.5 - 13	THA YANG INTERCHANGE	PLAN
BC.5 - 14	THA YANG INTERCHANGE	PROFILE AND SECTIONS
BC.5 - 15	CHA AM INTERCHANGE	PLAN
BC.5 - 16	CHA AM INTERCHANGE	PROFILE AND SECTIONS
BC.5 - 17	REST AREA TYPE "A"	DETAILS
BC.5 - 18	REST AREA TYPE "B" & "C"	DETAILS
BC.5 - 19	BUS STOP	DETAILS
BC.5 - 20	RAMP TERMINAL	DETAILS
BC.5 - 21	TRAFFIC SIGN	DETAILS
BC.5 - 22	ROAD MARKING	DETAILS
BC.5 - 23	DRAINAGE SYSTEM	DETAILS


N
TM-36
TM-32
TM-4
Ban Pong
Nakhon Pathom
CHANGWAT NAKHON PATHOM
Ratchaburi
RATCHABURI
Mae Klong River
CHANGWAT SAMUT SONGKHRAM
CHANGWAT SAMUT SAKHON
Softground Area
Phetchaburi
PHETCHABURI
MANGROVE
Numerous fishing stakes
I/C
B/S
R/A
13°30'