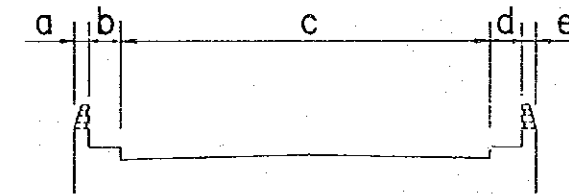


List of Bridge

LIST OF BRIDGES (AD-2-1:SD)

Station	Materials	Structural System	Width (a+b+c+d+e:m)	Span and Length (m)	Remarks	(Fig.)
1+378	RC	SP.SL	0.3+2.2+15.0+2.2+0.3=20.0 (0.3+1.2+8.0+1.2+0.3=11.0)	6.0+10.0+6.0=22.0	Widened to 15.0 m.	(A)
6+247	RC	SP.SL	2*(0.3+1.2+10.5)+3.2=27.2 (0.3+1.2+12.0+1.2+0.3=15.0)	6.0+8.0+6.0=20.0	Widened to 2*10.5 m.	(B)
12+332	RC	SP.SL	2*(0.3+1.2+10.5)+3.2=27.2 (0.3+1.2+8.0+1.2+0.3=11.0)	3*5.0=15.0	Widened to 2*10.5 m.	(B)
15+500	RC	SP.SL	2*(0.3+1.2+10.5+0.5)=12.5	1*10.0=10.0	New construction Divided 2 bridges	(C)
17+000	RC	SP.SL	2*(0.3+1.2+10.5+0.5)=12.5	2*7.0=14.0	New construction Divided 2 bridges	(C)
25+000	RC	SP.SL	2*(0.3+1.2+10.0)+3.2=26.2 (0.3+1.2+8.0+1.2+0.3=11.0)	1*10.0=10.0	Widened to 2*10.0 m.	(D)
29+730	RC	SP.SL	2*(0.3+1.2+10.0)+3.2=26.2 (0.3+1.2+8.0+1.2+0.3=11.0)	1*10.0=10.0	Widened to 2*10.0 m.	(D)
34+950	RC	SP.SL	2*(0.3+1.2+10.0)+3.2=26.2 (0.3+1.2+8.0+1.2+0.3=11.0)	3*6.0=18.0	Widened to 2*10.0 m.	(D)

- Note: (1) Materials
 RC: Reinforced Concrete Bridge
 (2) Structural System
 SP.SL: Simply Supported Slab
 (3) Width and length in parentheses on lower column shows the existing conditions.



List of Culvert

LIST OF BOX AND PIPE CULVERT

STATION	CULVERT TYPE	CULVERT SIZE (m)		NO. of LOCATIONS	CULVERT LENGTH (m)		
		PIPE	BOX		EXISTING	EXTENDED CONST- RUCTION	NEW CONST- RUCTION
		NO. of ROW x DIAMETER	NO. of CELLS (CLEAR SPAN x DEPTH)				
0+230	Pipe	1xØ1.00		1	14.0	9.0	
0+502	Pipe	2xØ0.60		1	14.0	9.0	
0+662	Pipe	1xØ0.60		1	14.0	9.0	
1+276	Pipe	2xØ1.00		1	18.0	9.0	
2+113	Pipe	1xØ0.60		1	16.0	10.0	
2+259	Pipe	1xØ0.60		1	16.0	14.0	
2+463	Pipe	1xØ0.60		1	16.0	14.0	
2+719	Pipe	1xØ0.60		1	17.0	14.0	
2+323	Pipe	1xØ0.60		1	17.0	14.0	
3+271	Pipe	1xØ0.60		1	13.0	14.0	
3+591	Pipe	1xØ0.60		1	14.0	14.0	
4+343	Box		1(2.40x2.40)	1	13.0	14.0	
4+661	Pipe	1xØ0.60		1	12.0	14.0	
4+932	Pipe	1xØ0.60		1	12.0	9.0	
4+952	Pipe	1xØ0.80		1	12.0	9.0	
5+207	Pipe	1xØ0.60		1	13.0	9.0	
5+387	Pipe	1xØ0.40		1	13.0	9.0	
5+540	Pipe	1xØ1.00		1	10.0	9.0	
5+759	Pipe	1xØ0.60		1	13.0	13.0	
5+789	Pipe	1xØ1.00		1	12.0	13.0	
5+973	Pipe	2xØ1.00		1	13.0	14.0	
6+182	Pipe	1xØ0.60		1	16.0	14.0	
6+706	Pipe	2xØ1.00		1	18.0	14.0	
6+823	Box		2(1.80x1.50)	1	12.0	14.0	
7+199	Pipe	1xØ0.40		1	33.0	14.0	
7+286	Box		2(1.80x1.50)	1	14.0	14.0	
8+627	Pipe	1xØ0.80		1	15.0	14.0	
8+660	Pipe	3xØ0.80		1	16.0	14.0	
8+712	Box		3(1.50x1.50)	1	12.0	14.0	
9+107	Pipe	1xØ0.80		1	15.0	14.0	
9+111	Pipe	1xØ1.00		1	16.0	14.0	
9+312	Box		2(2.10x2.10)	1	12.0	14.0	
9+377	Pipe	3xØ1.00		1	16.0	14.0	
9+534	Pipe	2xØ1.00		1	19.0	14.0	
9+601	Pipe	3xØ1.00		1	17.0	14.0	
9+878	Box		2(2.10x1.80)	1	12.0	14.0	
9+995	Pipe	2xØ0.80		1	18.0	14.0	
9+995	Pipe	1xØ0.60		1	18.0	14.0	
10+487	Pipe	1xØ0.60		1	17.0	14.0	
10+607	Pipe	1xØ0.80		1	22.0	14.0	

STATION	CULVERT TYPE	CULVERT SIZE (m)		NO. of LOCATIONS	CULVERT LENGTH (m)		
		PIPE	BOX		EXISTING	EXTENDED CONST- RUCTION	NEW CONST- RUCTION
		NO. of ROW x DIAMETER	NO. of CELLS (CLEAR SPAN x DEPTH)				
10+932	Pipe	1xØ0.60		1	16.0	14.0	
11+332	Pipe	1xØ0.60		1	18.0	14.0	
11+512	Pipe	1xØ0.60		1	11.0	14.0	
12+002	Pipe	1xØ0.60		1	31.0	14.0	
12+052	Pipe	2xØ1.00		1	20.0	14.0	
12+878	Box		3(1.80x1.20)	1	12.0	14.0	
13+145	Pipe	1xØ0.60		1	16.0	14.0	
13+597	Box		3(1.80x1.50)	1	12.0	14.0	
13+742	Pipe	2xØ0.40		1	10.0	14.0	
14+098	Box		2(1.20x1.00)	1	13.0	14.0	
14+145	Pipe	1xØ0.60		1	16.0	14.0	
14+334	Pipe	1xØ0.60		1	18.0	14.0	
14+564	Pipe	2xØ0.60		1	36.0	14.0	
14+838	Pipe	1xØ0.60		1	18.0	14.0	
15+300-18+550	Pipe	2xØ1.00		2			32.0
	Pipe	1xØ0.80		1			32.0
18+883	Pipe	1xØ0.60		1	18.0	13.0	
19+214	Pipe	1xØ0.80		1	20.0	13.0	
19+832	Pipe	1xØ0.80		1	19.0	13.0	
19+863	Pipe	1xØ0.80		1	20.0	13.0	
20+682	Pipe	1xØ1.00		1	20.0	13.0	
20+682	Pipe	1xØ0.60		1	18.0	13.0	
21+492	Pipe	1xØ0.60		1	18.0	13.0	
22+094	Pipe	1xØ0.60		1	24.0	13.0	
22+357	Pipe	1xØ1.00		1	20.0	13.0	
22+452	Box		3(1.50x1.20)	1	42.0	13.0	
23+242	Pipe	2xØ0.80		1	40.0	13.0	
23+667	Pipe	2xØ1.00		1	40.0	13.0	
24+292	Pipe	1xØ0.60		1	21.0	13.0	
24+354	Pipe	2xØ0.60		1	36.0	13.0	
25+792	Pipe	1xØ0.60		1	18.0	13.0	
25+909	Pipe	1xØ0.60		1	15.0	13.0	
25+916	Pipe	1xØ0.60		1	18.0	13.0	
26+019	Box		3(1.50x1.20)	1	12.0	13.0	
26+518	Pipe	1xØ1.00		1	15.0	13.0	
26+612	Pipe	1xØ1.00		1	16.0	13.0	
26+692	Pipe	1xØ0.60		1	20.0	13.0	
27+018	Pipe	1xØ0.80		1	15.0	13.0	
27+115	Pipe	1xØ0.60		1	18.0	13.0	
27+582	Pipe	2xØ0.80		1	24.0	13.0	

LIST OF BOX AND PIPE CULVERT


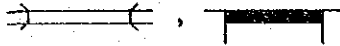

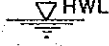

STATION	CULVERT TYPE	CULVERT SIZE (m)		NO. of LOCATIONS	CULVERT LENGTH (m)		
		PIPE	BOX		EXISTING	EXTENDED CONST- RUCTION	NEW CONST- RUCTION
		NO. of ROW x DIAMETER	NO. of CELLS (CLEAR SPAN x DEPTH)				
28+482	Pipe	1x \odot 0.60		1	19.0	13.0	
28+934	Pipe	1x \odot 0.60		1	19.0	13.0	
29+829	Pipe	1x \odot 0.60		1	21.0	13.0	
30+464	Pipe	1x \odot 0.80		1	17.0	13.0	
30+792	Pipe	1x \odot 0.60		1	19.0	13.0	
31+011	Pipe	3x \odot 0.60		1	20.0	13.0	
30+792	Pipe	1x \odot 0.60		1	19.0	13.0	
31+011	Pipe	3x \odot 0.60		1	20.0	13.0	
31+595	Pipe	2x \odot 1.00		1	43.0	13.0	
32+950	Pipe	1x \odot 0.60		1	13.0	13.0	
33+582	Pipe	1x \odot 0.80		1	14.0	13.0	
34+252	Pipe	1x \odot 0.60		1	19.0	13.0	
34+787	Pipe	1x \odot 0.40		1	11.0	13.0	
35+160	Pipe	1x \odot 0.60		1	14.0	13.0	
35+757	Pipe	1x \odot 0.60		1	14.0	13.0	
38+368	Pipe	1x \odot 0.60		1	15.0	13.0	

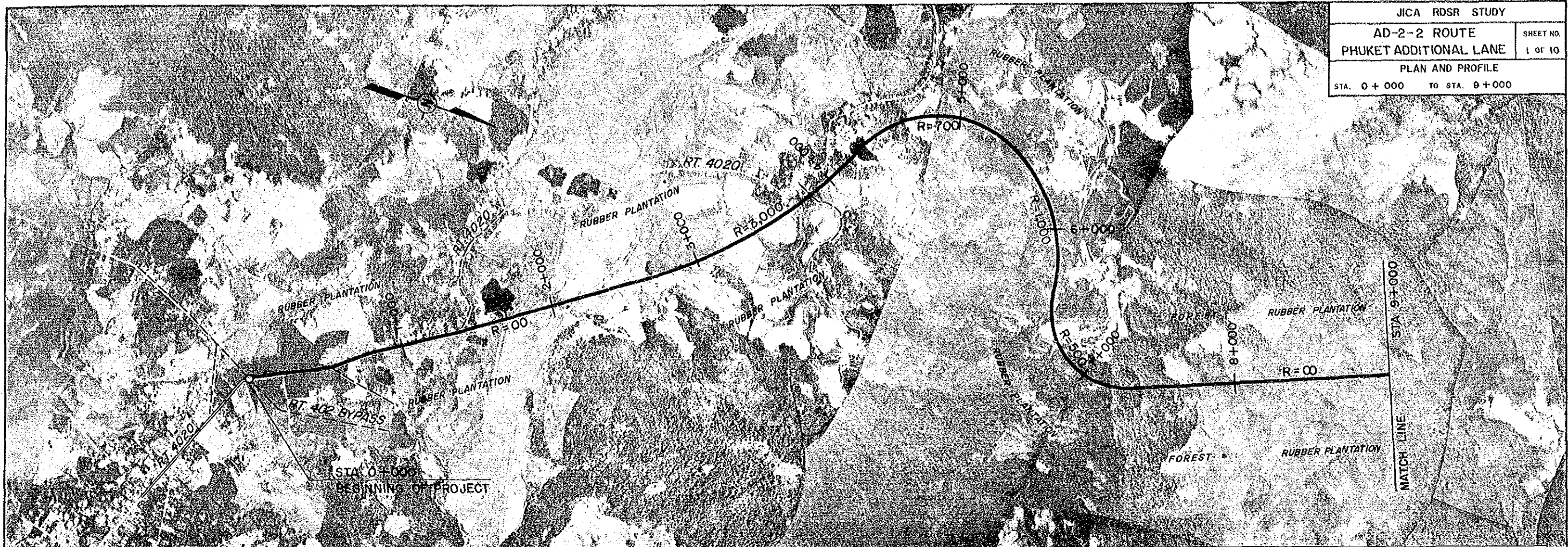
2) AD-2-2
Drawing

SHEET NO. LIST OF DRAWINGS

- 1. - 4. Plan and Profile
- 5. (A) Reinforced Concrete Slab Bridge
- 6. (B) Reinforced Concrete Slab Bridge
- 7. (C) Tunnel for STA. 7+945
- 8. (D) Tunnel for STA. 30+070 (Airport)
- 9. Box Culvert
- 10. Pipe Culvert

ABBREVIATION AND SYMBOLS FOR PROFILE AND PLAN

-  : Alignment of Proposed Route
-  : Proposed Bridge
-  : Proposed Box Culvert
-  : High Water Level
-  : Water Level
- No. : Number
- R : Radius of Curvature
- L : Length of Curve
- BR.RC.SP.SL L : Reinforced Concrete Bridge (Bridge Length)
- BR.PC.GRDR L : Prestressed Concrete Bridge (Bridge Length)
- BR.ST.SP.TR L : Steel Bridge (Bridge Length)
- RC-B m - n x a x b x i : Box Culvert (No. of Locations - No. of Cells x Clear Span x Depth x Length)

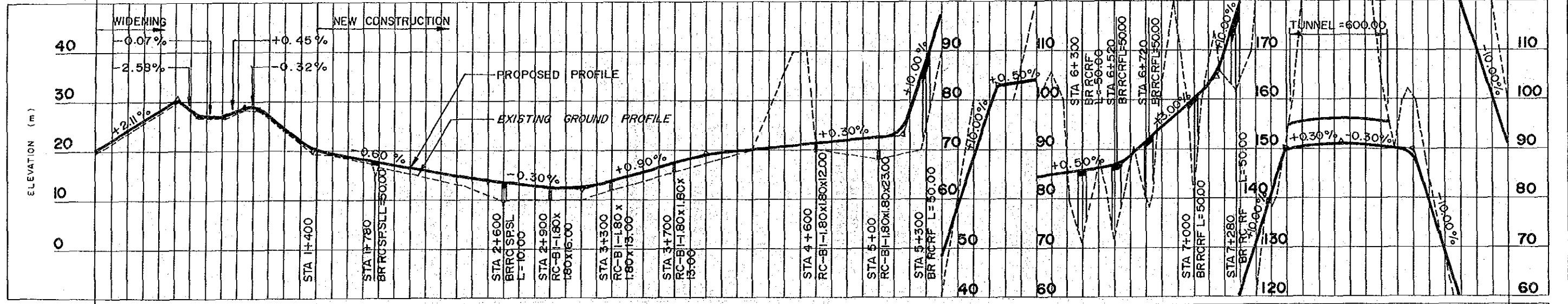


TERRAIN	FLAT	MOUNTAINOUS
---------	------	-------------

PAVEM'T	Type	AC PAVEMENT
	Existing Condition	-

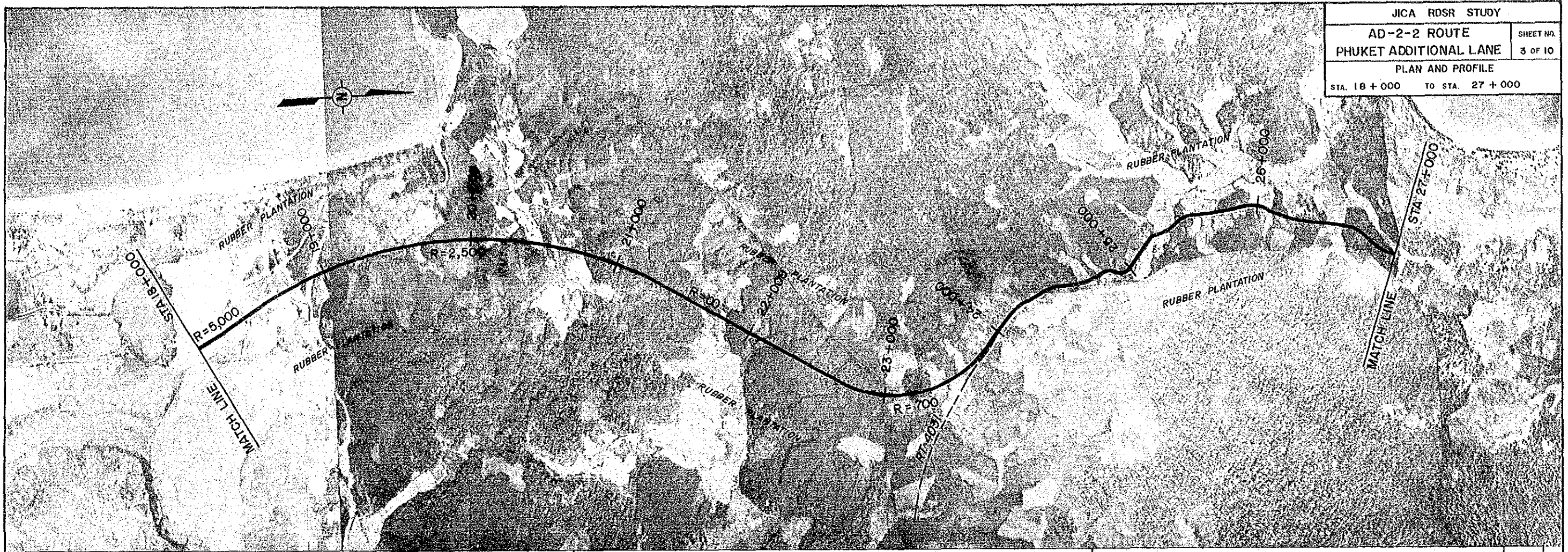
FLOODING	Length (km) Height (m.)	-
----------	----------------------------	---

RIGHT OF WAY (m.)	L	20.00	25.00
	R	20.00	25.00



CURVATURE BAND	Existing Alignment	EXISTING DATA ARE NOT AVAILABLE
	Proposed Alignment	R=0, L=1,800 R=3,000, L=1,100 R=300, L=1,000 R=1,000, L=850 R=500, R=0

STATION (Km.)	0+000	1+000	2+000	3+000	4+000	5+000	6+000	7+000	8+000	9+000
---------------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

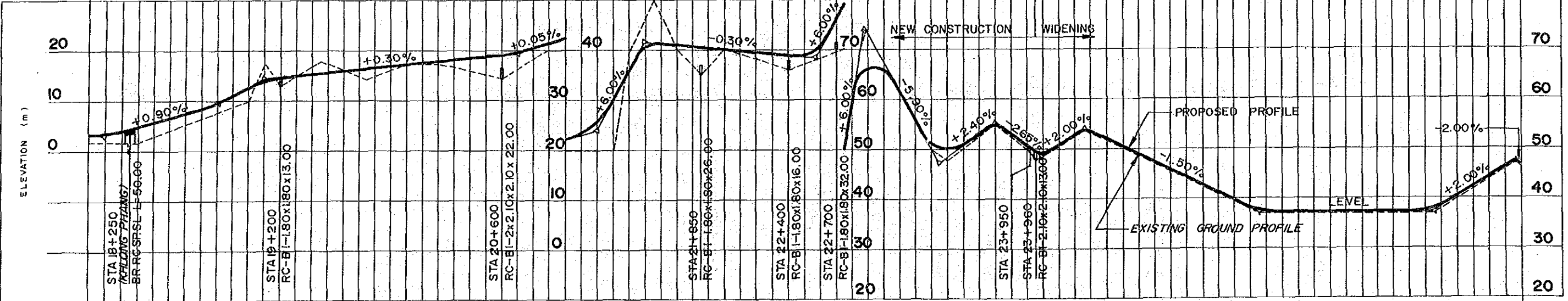


TERRAIN	FLAT	MODERATELY ROLLING	FLAT
---------	------	--------------------	------

PAVEM'T	Type	AC PAVEMENT
	Existing Condition	—

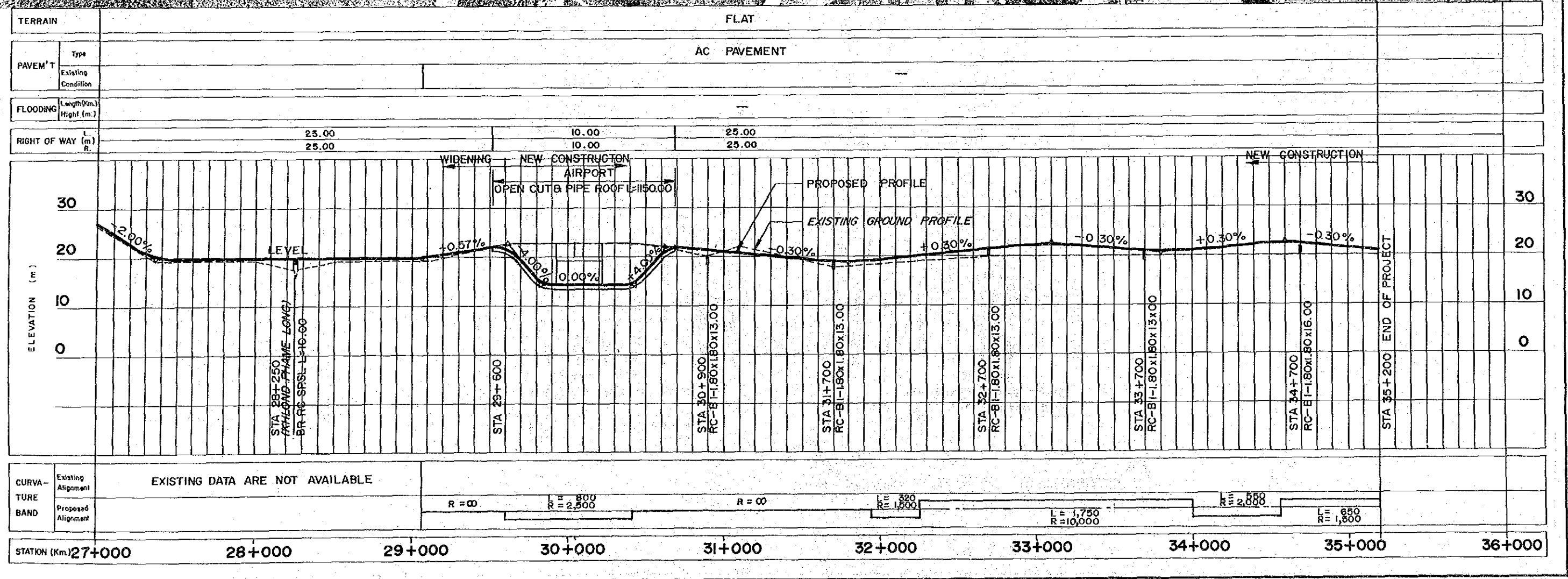
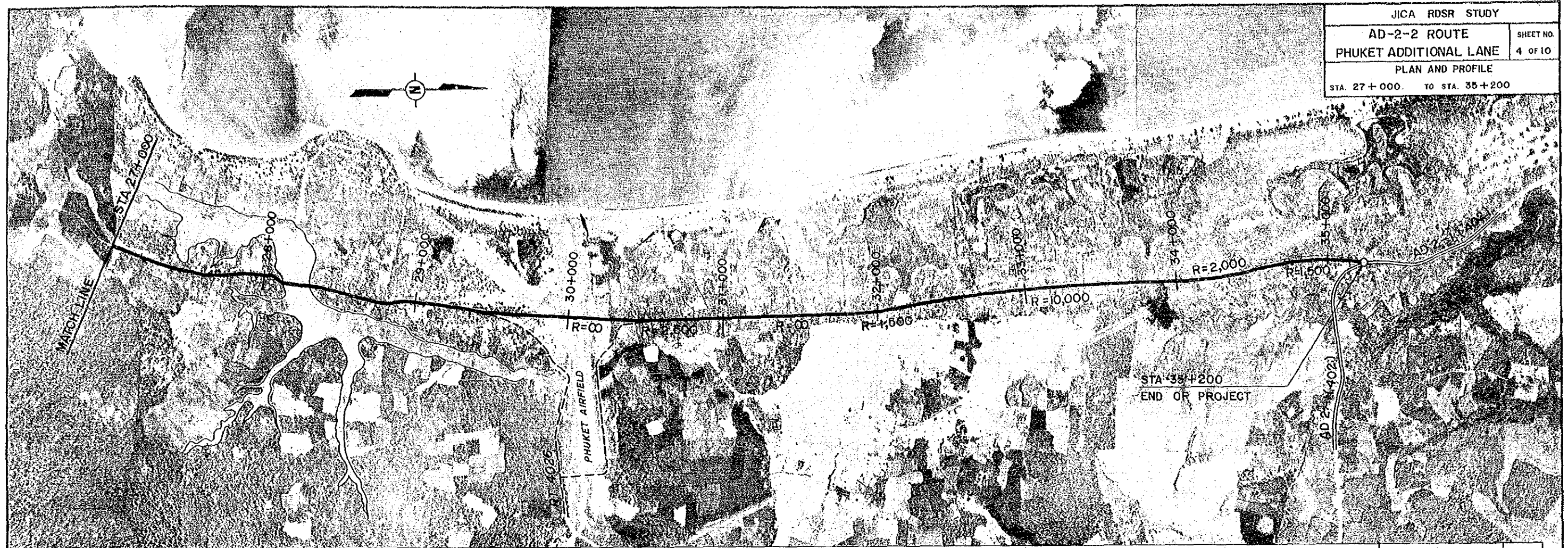
FLOODING	Length (km)	—
	Height (m.)	—

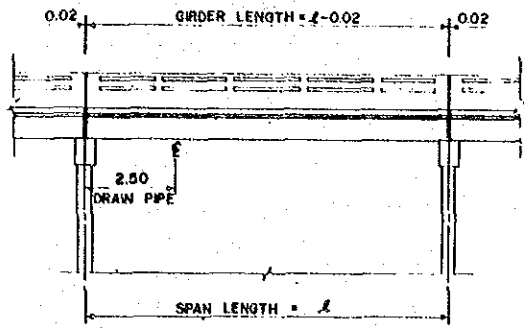
RIGHT OF WAY (m.)	L	25.00
	R	25.00



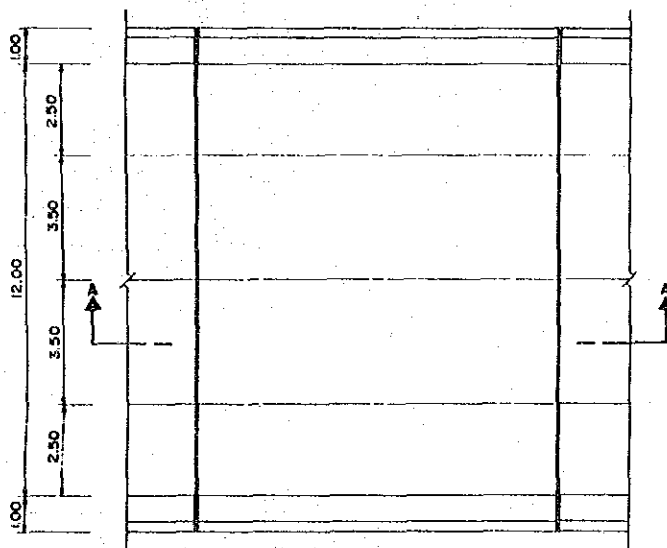
CURVA-- TURE BAND	Existing Alignment	EXISTING DATA ARE NOT AVAILABLE		
	Proposed Alignment	R=5,000	R=2,500	R=700

STATION (Km.)	18+000	19+000	20+000	21+000	22+00	23+000	24+000	25+000	26+000	27+000
---------------	--------	--------	--------	--------	-------	--------	--------	--------	--------	--------





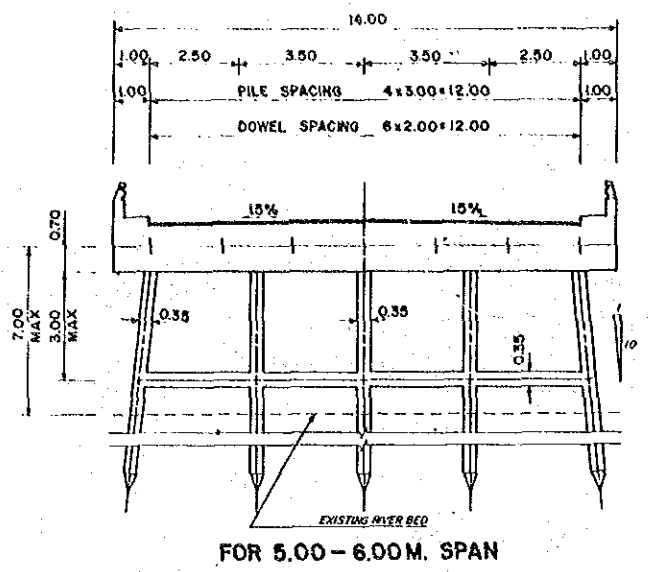
SECTION A-A
 SCALE 1:200



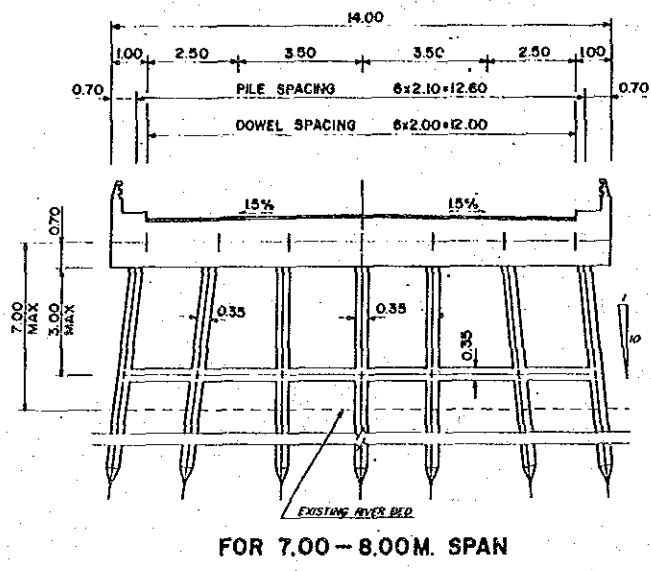
PLAN
 SCALE 1:200

LIST OF BRIDGES

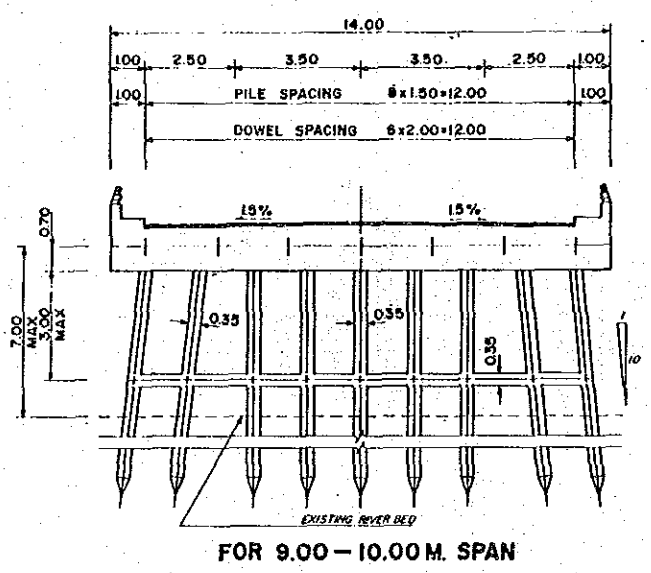
STATION	SPAN AND LENGTH (m.)
1+780	5 x 10.00 = 50.00
2+800	1 x 10.00 = 10.00
9+800	1 x 10.00 = 10.00
10+600	3 x 10.00 = 30.00
11+200	3 x 7.00 = 21.00
12+420	1 x 10.00 = 10.00
14+900	1 x 10.00 = 10.00
15+200	3 x 8.00 = 24.00
18+250	5 x 10.00 = 50.00
28+250	1 x 10.00 = 10.00



FOR 5.00-6.00M. SPAN

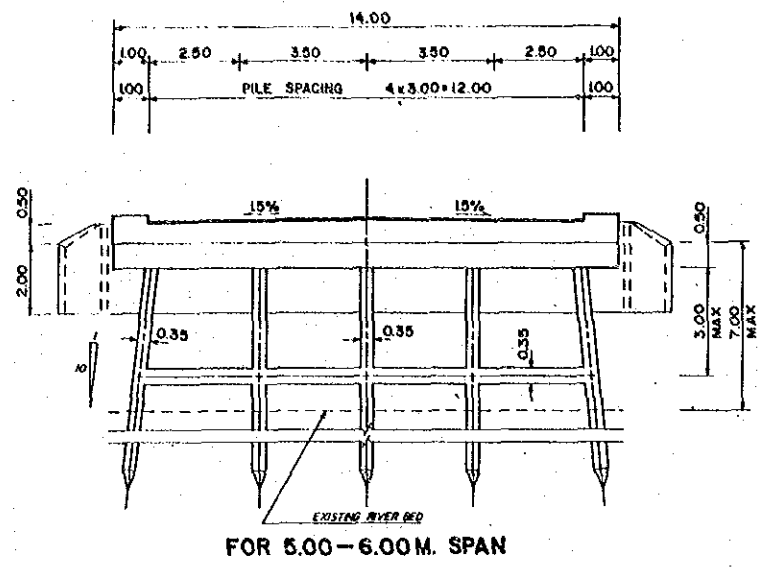


FOR 7.00-8.00M. SPAN

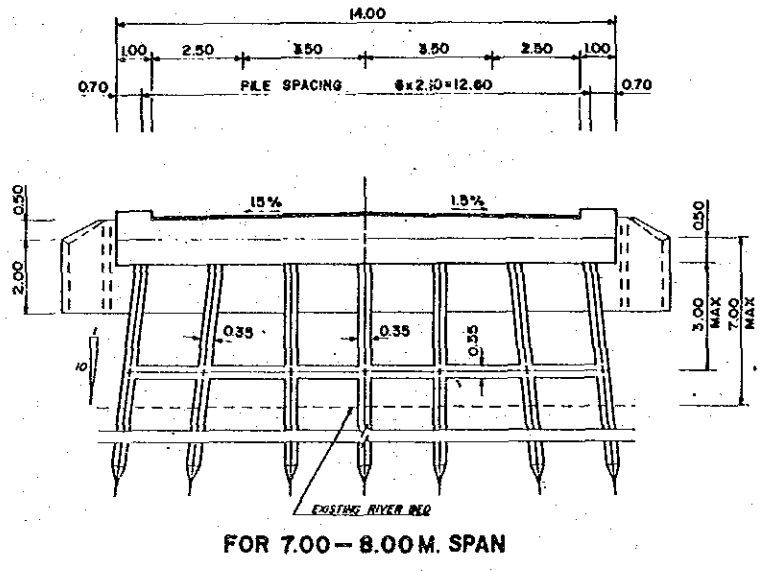


FOR 9.00-10.00M. SPAN

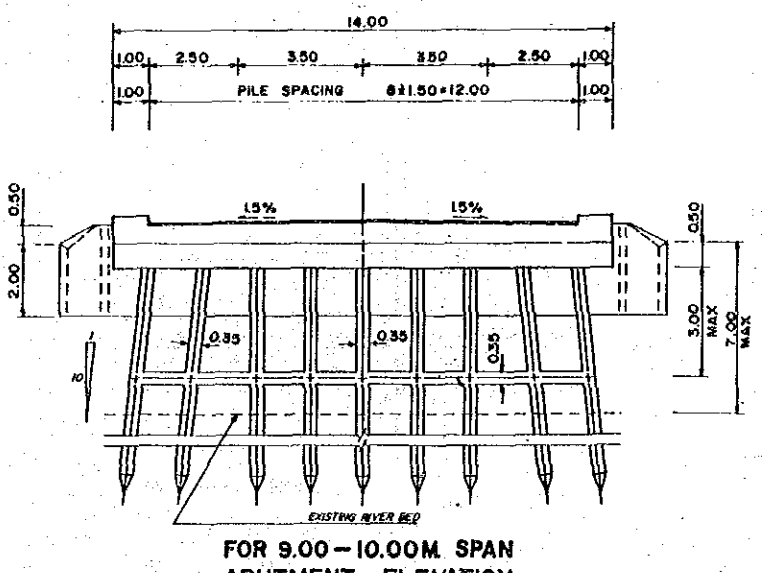
PILE BENT ELEVATION
 SCALE 1:200



FOR 5.00-6.00M. SPAN

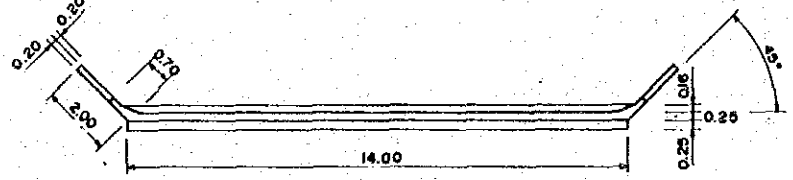


FOR 7.00-8.00M. SPAN



FOR 9.00-10.00M. SPAN

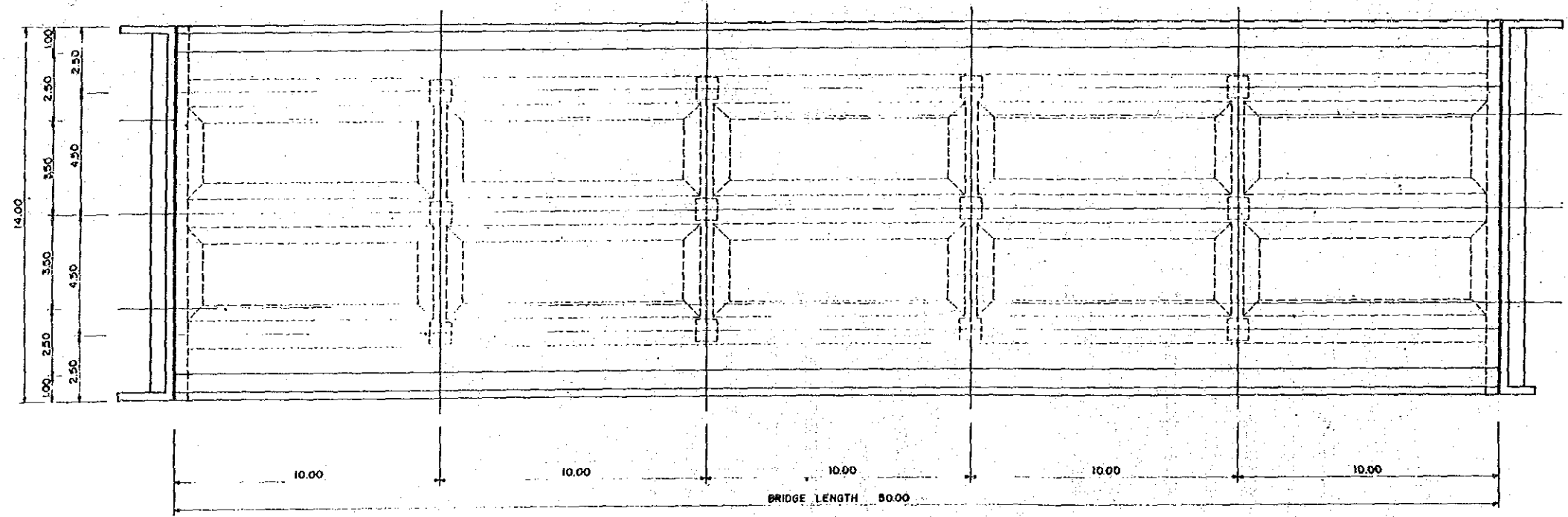
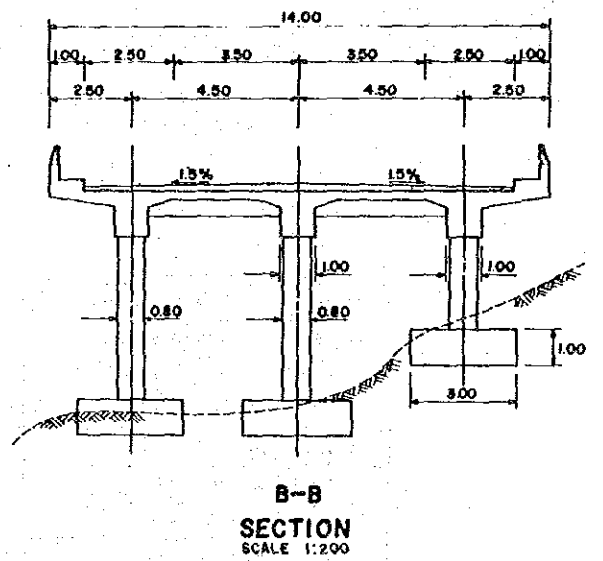
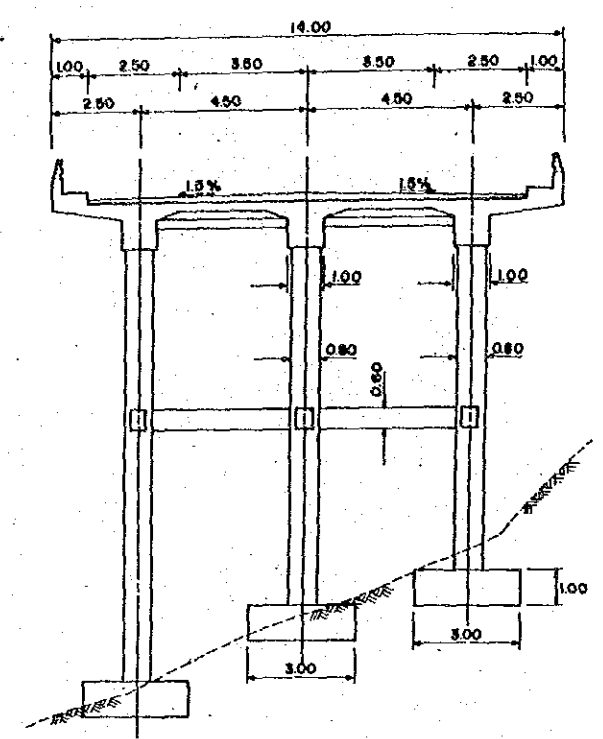
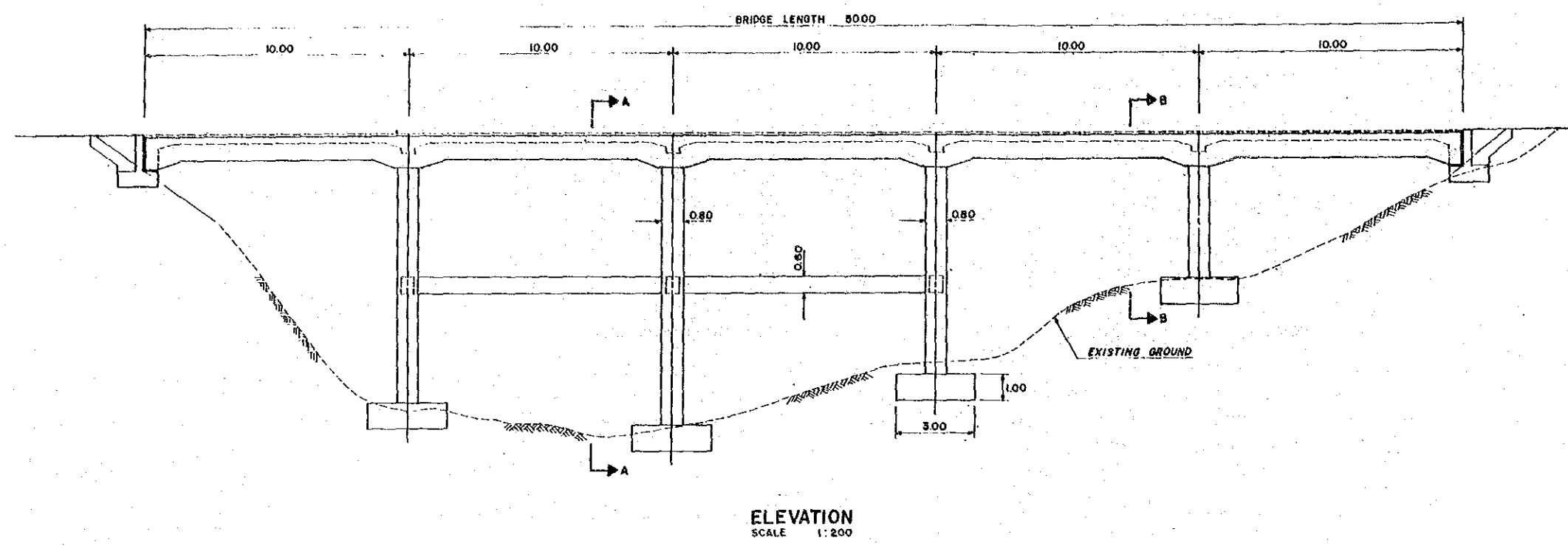
ABUTMENT ELEVATION
 SCALE 1:200



PLAN
 SCALE 1:200

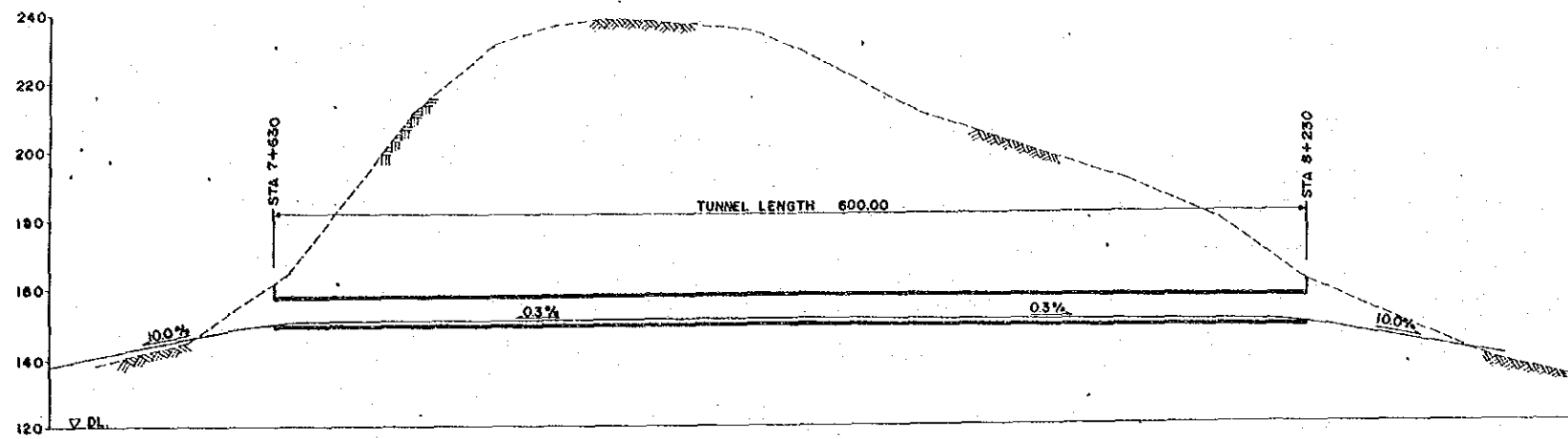
NOTES :

- DESIGN STRESSES :
 a) CONCRETE ; $f_c = 70$ KSC.
 b) STEEL ; $f_s = 1,400$ KSC. (INTERMEDIATE GRADE)
 $f_s = 1,200$ KSC. (STRUCTURAL GRADE)
- CONCRETE SHALL HAVE MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 210 KG/CM^2 FOR $.15 \times .15 \times .15$ CUBE AT 28 DAYS. AND APPROXIMATE MIX DESIGN PER CURIC METER IS SUGGESTED AS FOLLOWS :
 PORTLAND CEMENT, MIN. 350 KG.
 SAND 0.43 M³
 CRUSHED ROCK OR GRAVEL 0.86 M³
 CONCRETE SLUMP, MAX 10 CM.
- CLEAR CONCRETE COVER FOR TOP REINFORCEMENT IN SLAB BRIDGE SHALL BE 3.5 CM. ELSEWHERE OF SLAB BRIDGE AND SIDEWALK SHALL BE 2.5 CM.
- ALL CONCRETE EXPOSED CORNERS SHALL HAVE 2 CM. CHAMFER UNLESS OTHERWISE INDICATED.
- REBARS #4 OR LARGER SHALL BE INTERMEDIATE GRADE DEFORMED BARS, OTHERS SHALL BE STRUCTURAL GRADE PLAIN BARS UNLESS OTHERWISE INDICATED.
- LOCATIONS OF LAP SPLICE OF REBARS SHALL BE APPROVED BY THE ENGINEER.
- LAP LENGTH SHALL NOT BE LESS THAN 40 DIAMETERS OF BIGGER BAR IN CASE OF PLAIN BARS AND 24 DIAMETERS OF BIGGER BAR FOR DEFORMED BARS.
- IN CASE OF SALINE PROTECTION, HIGH SULPHATE RESISTANT PORTLAND CEMENT TYPE 5 CONFORMED TO AASHTO SPECIFICATIONS SHALL BE USED AND ADDITIONAL CONCRETE COVER OF 2.5 CM. FROM NORMAL CASE ALL AROUND SHALL BE PROVIDED WITHOUT ALTERING THE LOCATIONS OF REBARS.
- ALL MATERIALS SHALL BE USED UNDER THE APPROVAL OF THE ENGINEER.
- PAINTING SHALL BE PROVIDED ON ALL SURFACES AT BRIDGE ENDS WHICH EXPOSED TO TRAFFIC. WHITE AND BLACK COLOUR SHALL BE PAINTED ALTERNATELY. WHITE COLOUR SHALL BE LIGHT REFLECTED TYPE.
- ALL DIMENSIONS SHOWN ARE IN METERS UNLESS OTHERWISE INDICATED.
- BAR MARK #101 MAY BE TAKEN OUT ONE BAR ON EACH SIDE OF THE BRIDGE WHEREVER THEY PASS THROUGH DRAIN PIPES. IF THE LOCATIONS OF THESE BARS ARE NEAR V-D RIP SUCH THAT CONCRETE COVER IS NOT ADEQUATE, THEY SHALL BE PLACED ON TOP OF ST 101. OTHER BARS WHICH PASS THROUGH DRAIN PIPES SHALL BE BENT ALONG THE PIPES.
- ALL PIERS WHICH DO NOT HAVE LOG PROTECTION WALLS SHALL BE NAURCH UNDER THE TOP CROSS BRACING.
- IF ANY NOTES ON THE DRAWINGS OF PIERS CONTRADICT THE NOTES ON THIS DRAWING, THEY WILL BE SUPERSEDED BY THESE NOTES.
- THIS DRAWING IS ADAPTED FROM DOH DNG NO. 3 AD5-105-14/1A IN CASE OF ANY DISCREPANCY BETWEEN SUCH DRAWINGS ARISES, THE DOH STANDARD DRAWING WILL PREVAIL UNDER THE APPROVAL OF THE ENGINEER.

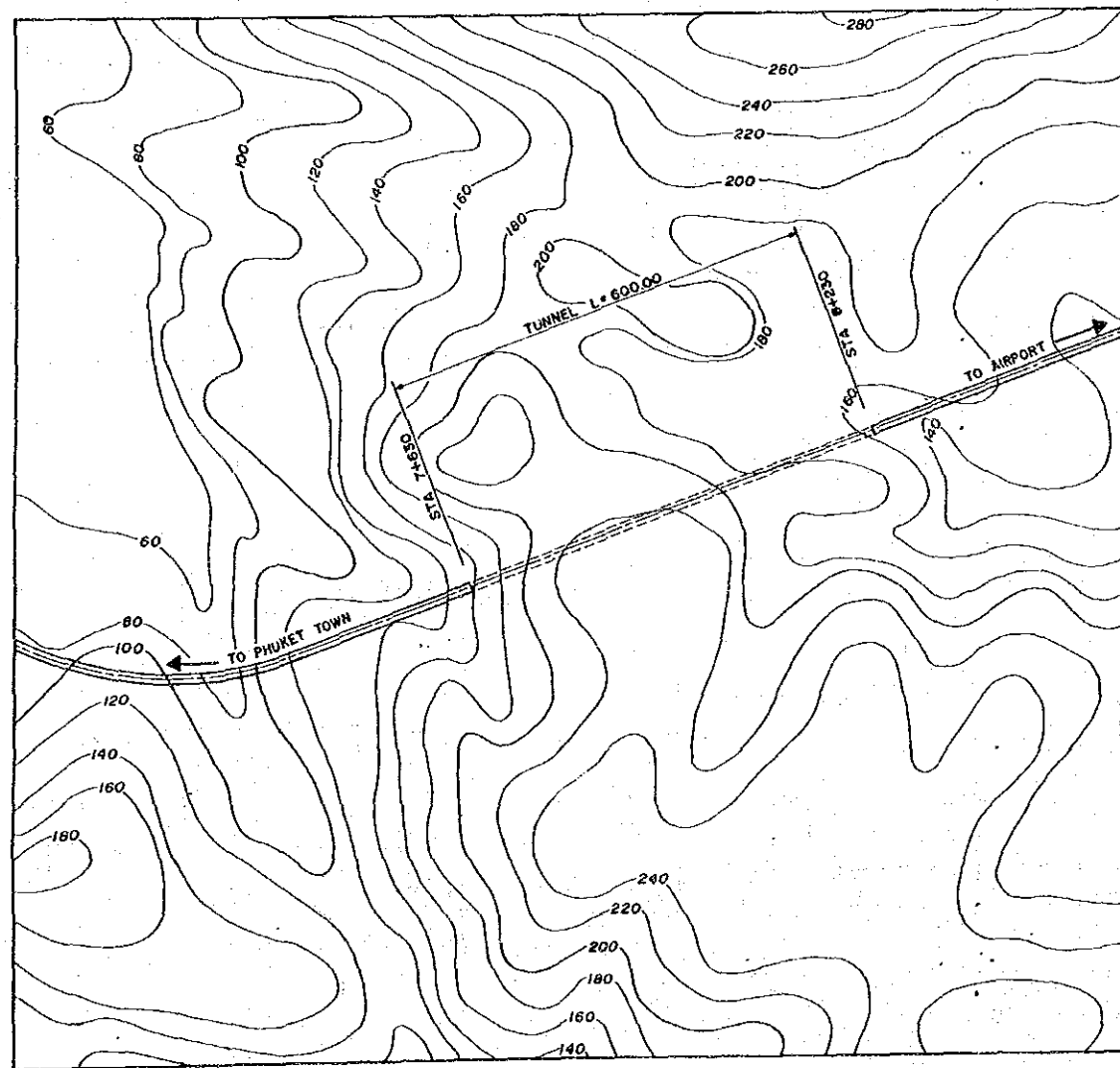


LIST OF BRIDGES

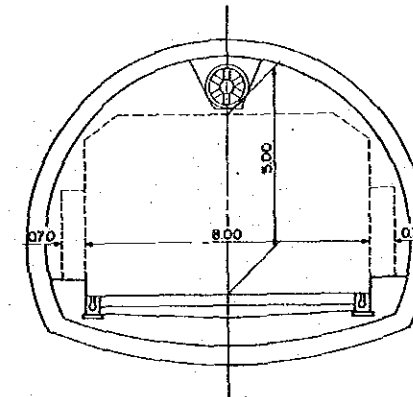
STATION	SPAN AND LENGTH (m.)
5+300	5 x 10.00 = 50.00
6+300	5 x 10.00 = 50.00
6+520	5 x 10.00 = 50.00
6+720	5 x 10.00 = 50.00
7+000	5 x 10.00 = 50.00
7+280	5 x 10.00 = 50.00



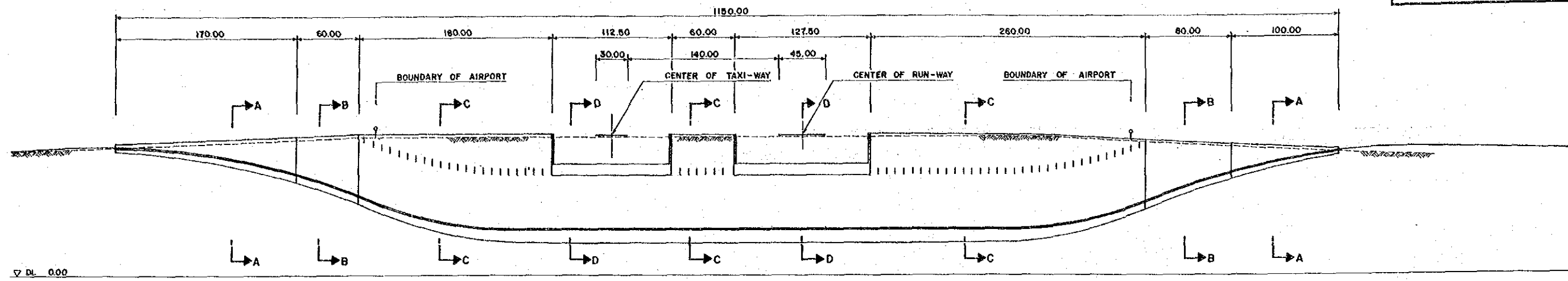
ELEVATION
SCALE H=1:4,000
V=1:2,000



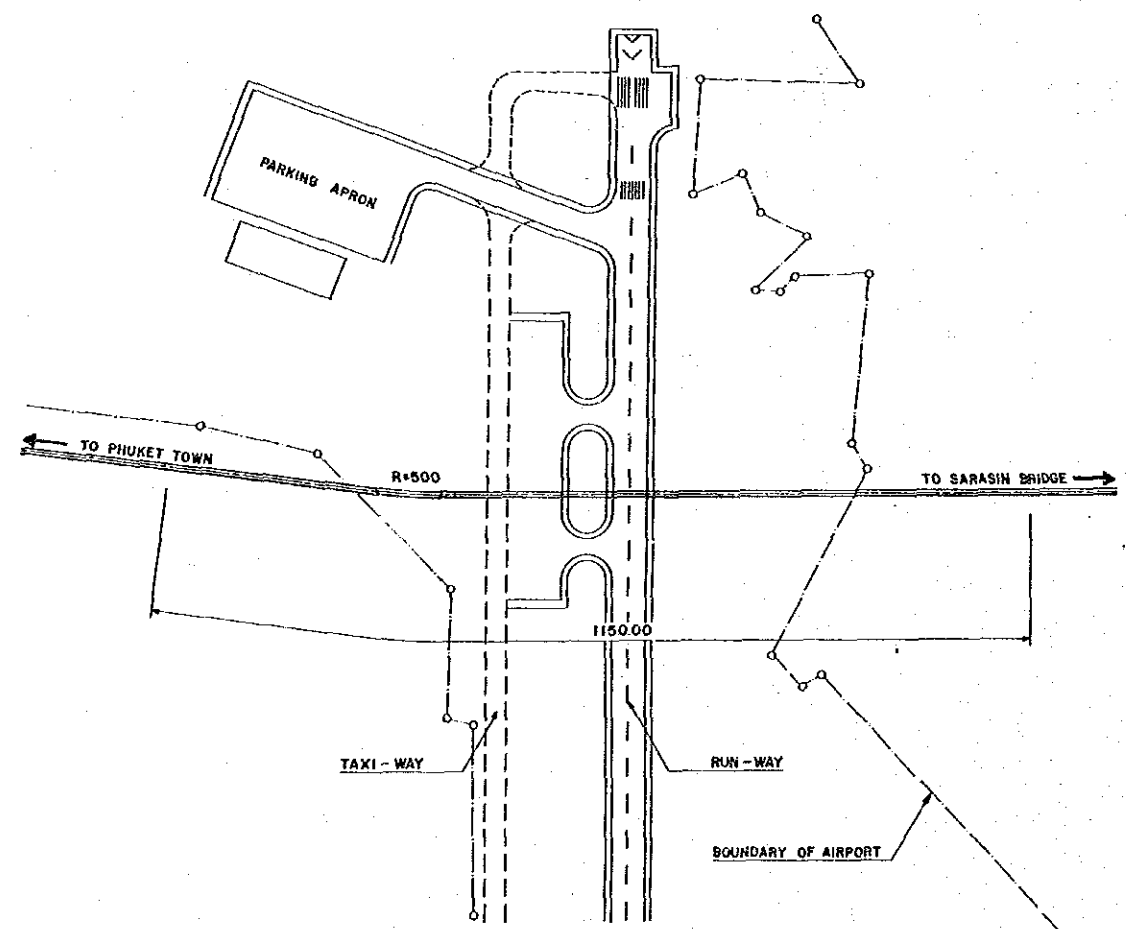
PLAN
SCALE 1:10,000



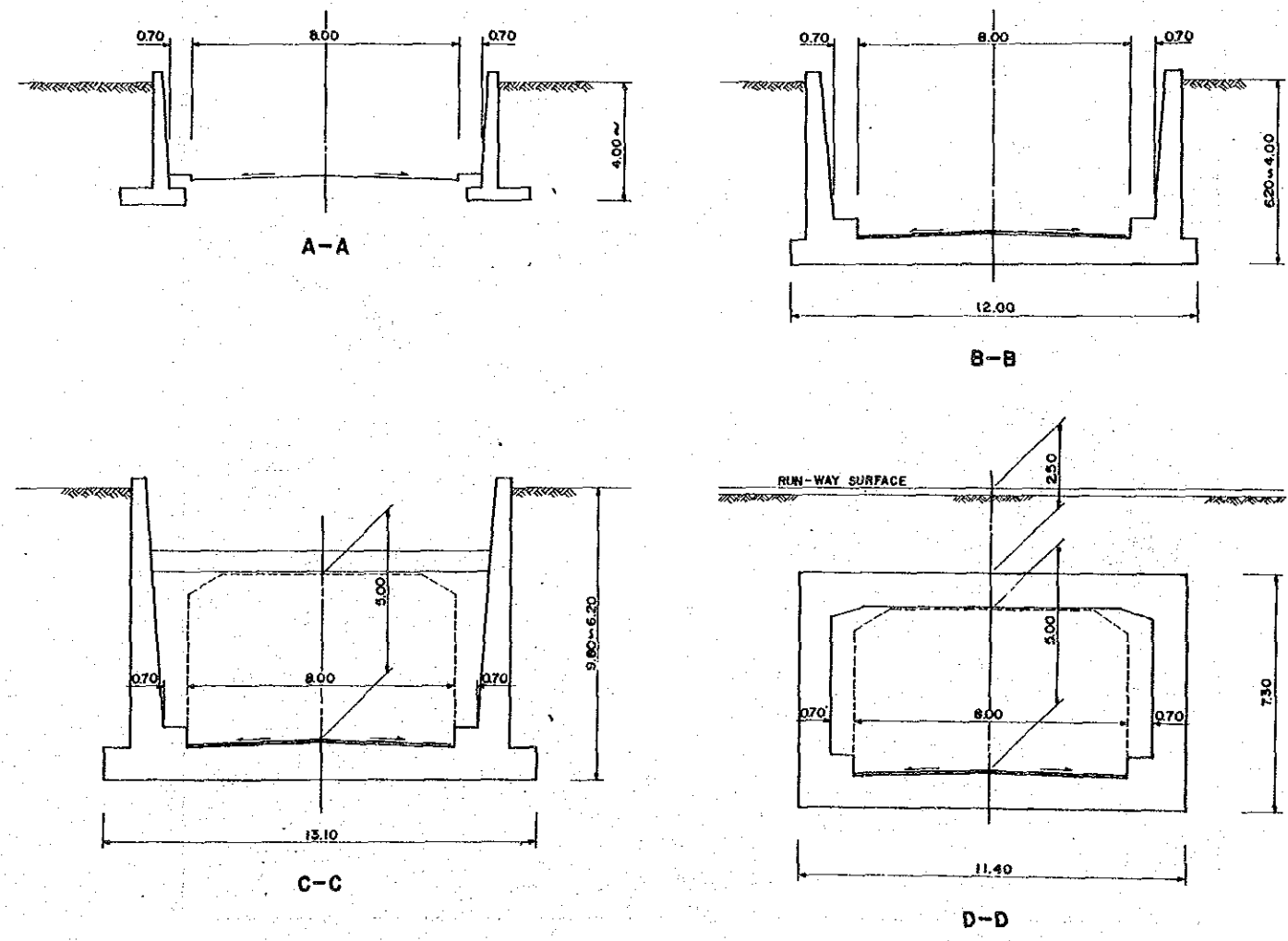
TUNNEL SECTION
SCALE 1:200



ELEVATION
SCALE V=1/400
H=1/4,000



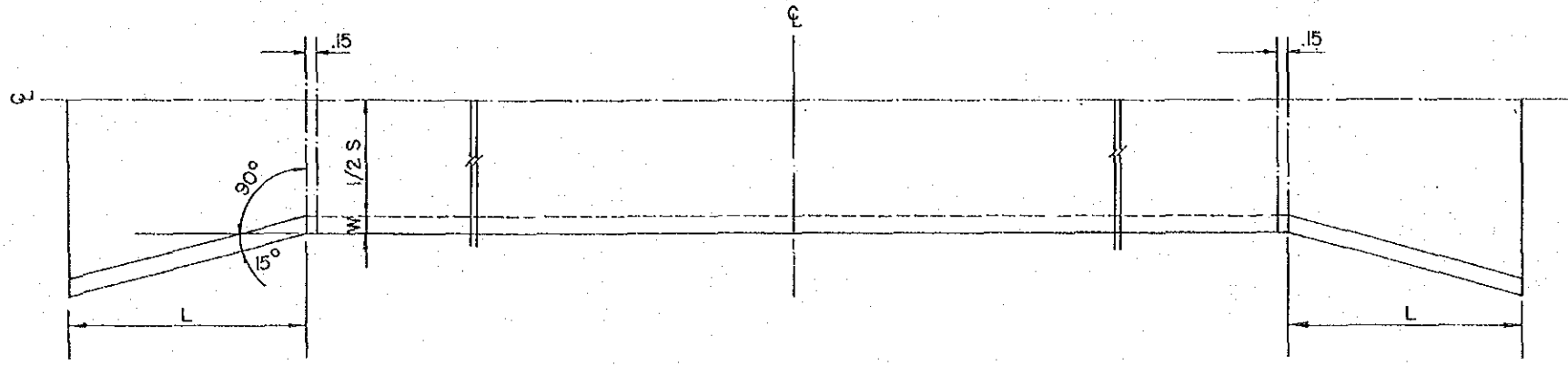
PLAN
SCALE 1:10,000



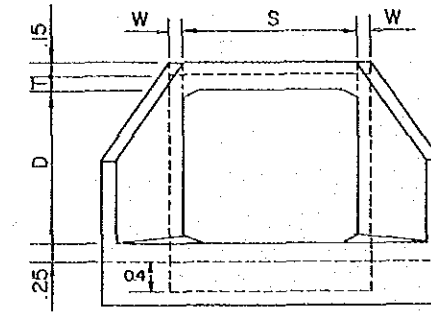
SECTION
SCALE 1:200

BOX CULVERT

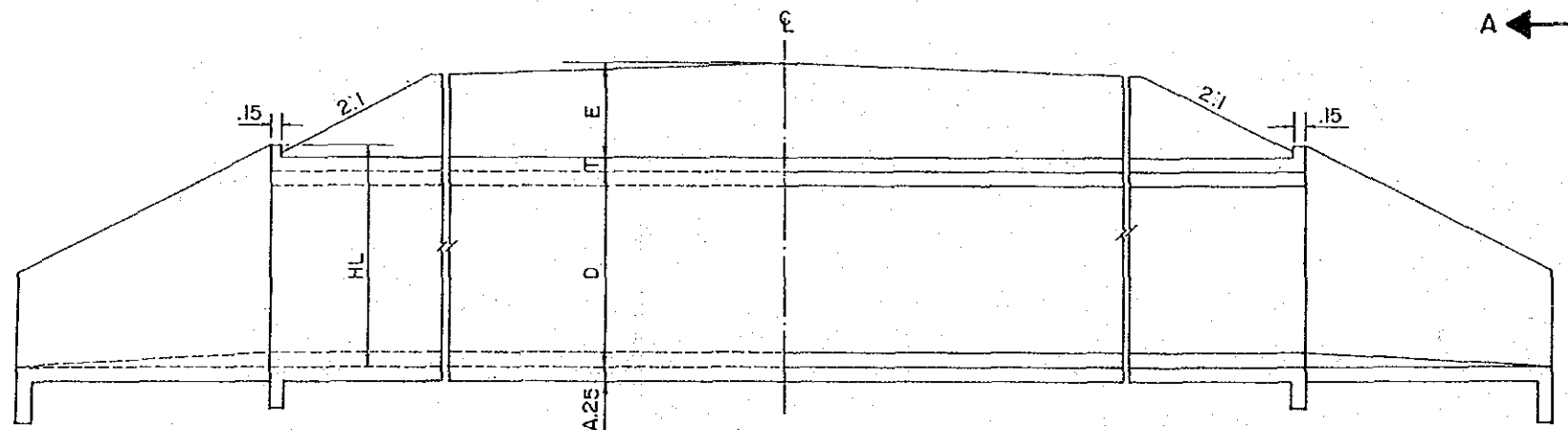
JICA RDSR STUDY	
AD-2-2 ROUTE	SHEET NO.
PHUKET ADDITIONAL LANE	9 OF 10
BOX CULVERT	



HALF LONGITUDINAL PLAN

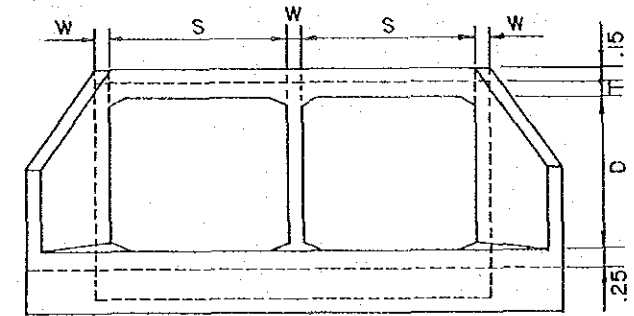


SINGLE TYPE



HALF LONGITUDINAL ELEVATION

HALF LONGITUDINAL SECTION

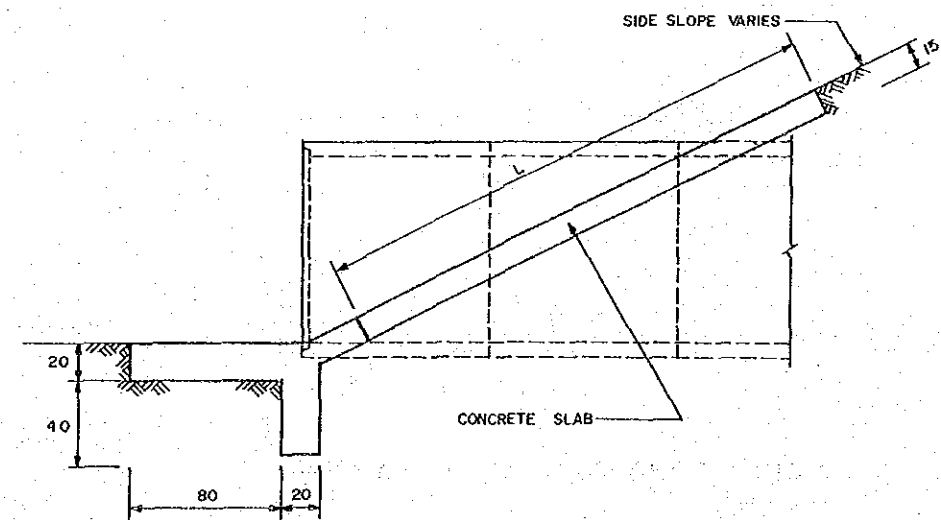
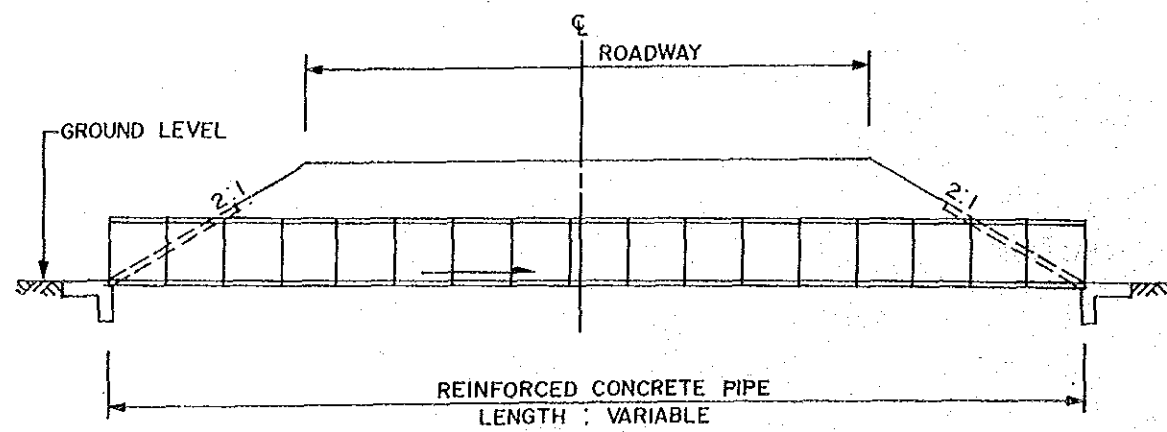
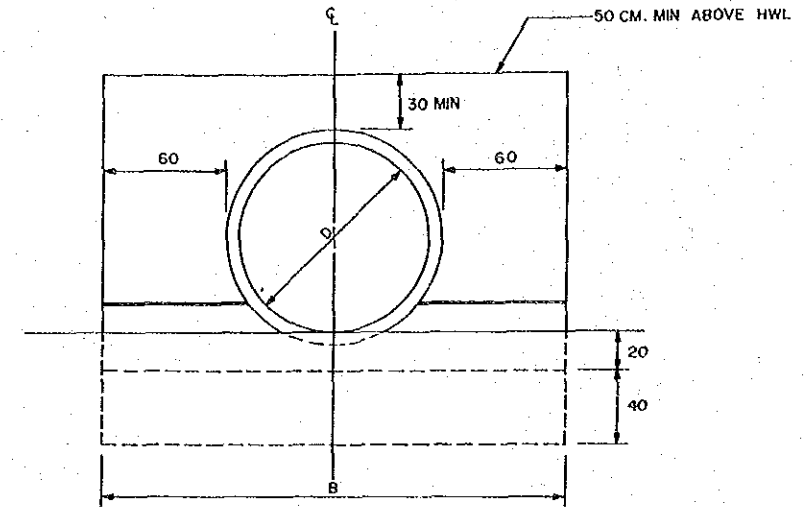
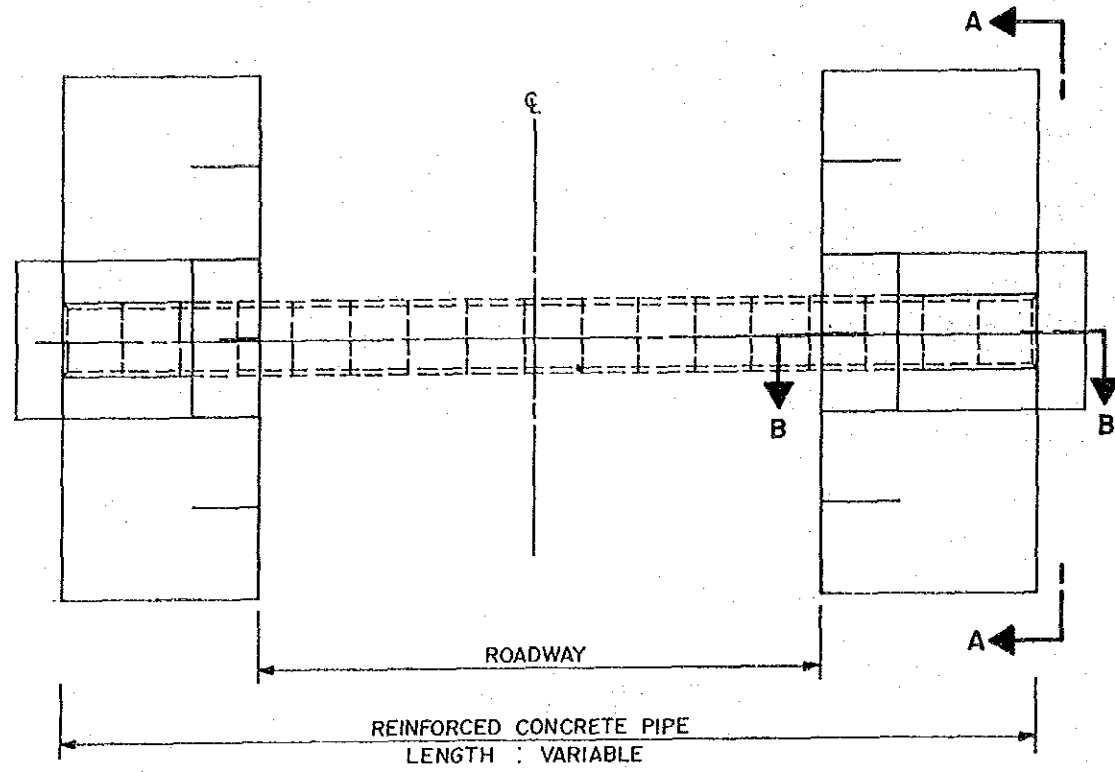


DOUBLE TYPE

SECTION A-A

PIPE CULVERT

PIPE CULVERT



List of Bridge

LIST OF BRIDGES (AD-2-2;S1)

Station	Materials	Structural System	Width (a+b+c+d+e:m)	Span and Length (m)	Remarks	(Fig.)
1+780	RC	SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	5*10.0=50.0	New construction	(A)
2+600	RC	SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	1*10.0=10.0	New construction	(A)
5+300	RC	RF	0.3+0.7+12.0+0.7+0.3=14.0	5*10.0=50.0	New construction	(B)
6+300	RC	RF	0.3+0.7+12.0+0.7+0.3=14.0	5*10.0=50.0	New construction	(B)
6+520	RC	RF	0.3+0.7+12.0+0.7+0.3=14.0	5*10.0=50.0	New construction	(B)
6+720	RC	RF	0.3+0.7+12.0+0.7+0.3=14.0	5*10.0=50.0	New construction	(B)
7+000	RC	RF	0.3+0.7+12.0+0.7+0.3=14.0	5*10.0=50.0	New construction	(B)
7+280	RC	RF	0.3+0.7+12.0+0.7+0.3=14.0	5*10.0=50.0	New construction	(B)
9+800	RC	SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	1*10.0=10.0	New construction	(A)
10+600	RC	SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	3*10.0=30.0	New construction	(A)
11+200	RC	SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	3*7.0=21.0	New construction	(A)
12+420	RC	SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	1*10.0=10.0	New construction	(A)
14+900	RC	SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	1*10.0=10.0	New construction	(A)
15+200	RC	SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	3*8.0=24.0	New construction	(A)
18+250	RC	SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	5*10.0=50.0	New construction	(A)
28+250	RC	SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	1*10.0=10.0	New construction	(A)

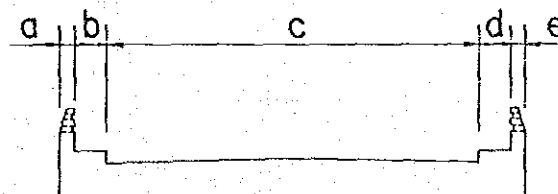
Note: (1) Materials

RC: Reinforced Concrete Bridge

(2) Structural System

SP.SL: Simply Supported Slab

RF : Continuously Supported Rigid Frame



LIST OF TUNNELS (AD-2-2:S1)

Station	Section	Width (m)	Length (m)	Remarks	(Fig.)
7+945	Horseshoe Shaped Section	0.7+8.0+0.7=9.4	600.0	New construction Mountain Tunnel	(C)
30+070	Box Shaped Tunnel	0.7+8.0+0.7=9.4	1,150.0	New construction	(D)
Airport	U-shaped Retaining Wall with Strut Reinforced		(240.0)	Pipe Roof Method	
	U-shaped Retaining Wall		(500.0)	Open Cut Method	
	Retaining Wall		(140.0)		
			(270.0)		

List of Culvert

LIST OF BOX AND PIPE CULVERT

STATION	CULVERT TYPE	CULVERT SIZE (m)		NO. of LOCATIONS	CULVERT LENGTH (m)		
		PIPE	BOX		EXISTING	EXTENDED CONST-RUCTION	NEW CONST-RUCTION
		NO. of ROW x DIAMETER	NO. of CELLS (CLEAR SPAN x DEPTH)				
0+100	Pipe	1xØ0.40		1	13.0	3.0	
0+775	Pipe	1xØ0.60		1	13.0	3.0	
1+054	Pipe	1xØ0.80		3	13.0	3.0	
1+400-2+200	Pipe	1xØ1.00		2			25.0
	Pipe	1xØ0.60		2			25.0
2+200-2+850	Pipe	1xØ0.60		4			20.0
2+850-4+000	Pipe	1xØ1.00		3			20.0
2+900	Box		1(1.80x1.80)	1			16.0
3+300	Box		1(1.80x1.80)	1			13.0
3+700	Box		1(1.80x1.80)	1			13.0
4+000-6+400	Pipe	1xØ1.00		5			48.0
	Pipe	1xØ0.60		5			48.0
4+600	Box		1(1.80x1.80)	1			12.0
5+000	Box		1(1.80x1.80)	1			23.0
6+400-6+700	Pipe	1xØ1.00		1			44.0
	Pipe	1xØ0.60		1			44.0
6+700-6+900	Pipe	1xØ0.60		1			58.0
6+900-7+100	Pipe	1xØ1.00		1			50.0
	Pipe	1xØ0.60		1			50.0
7+100-7+300	Pipe	1xØ1.00		1			50.0
	Pipe	1xØ0.60		1			50.0
7+300-7+800	Pipe	1xØ0.80		1			32.0
	Pipe	1xØ0.60		2			32.0
8+900-9+150	Pipe	1xØ1.00		1			50.0
	Pipe	1xØ0.60		1			50.0
9+150-9+400	Pipe	1xØ0.60		1			32.0
9+400	Box		1(1.80x1.80)	1			16.0
9+400-10+100	Pipe	1xØ1.00		1			20.0
	Pipe	1xØ0.60		3			20.0
10+100-11+000	Pipe	1xØ0.60		5			24.0
11+400	Box		1(1.80x1.00)	1			22.0
11+850-12+550	Pipe	1xØ0.60		3			16.0
13+575	Pipe	1xØ0.40		2	11.0	3.0	
14+075	Pipe	1xØ0.40		1	12.0	3.0	
14+235	Pipe	1xØ0.60		1	12.0	3.0	
14+528	Pipe	1xØ0.40		3	12.0	3.0	
14+530	Pipe	1xØ1.00		2	11.0	3.0	
14+977	Box		1(2.10x2.10)	2	11.0	3.0	
14+990	Pipe	1xØ0.60		1	11.0	3.0	
15+800	Box		1(1.80x1.80)	1			13.0

STATION	CULVERT TYPE	CULVERT SIZE (m)		NO. of LOCATIONS	CULVERT LENGTH (m)		
		PIPE	BOX		EXISTING	EXTENDED CONST-RUCTION	NEW CONST-RUCTION
		NO. of ROW x DIAMETER	NO. of CELLS (CLEAR SPAN x DEPTH)				
15+964	Pipe	1xØ0.60		1	12.0	3.0	
16+127	Pipe	1xØ0.60		1	12.0	3.0	
16+127-17+100	Pipe	1xØ1.00		3			19.0
	Pipe	1xØ0.60		5			19.0
16+400	Box		1(1.80x1.80)	1			13.0
17+100-19+000	Pipe	1xØ1.00		3			19.0
	Pipe	1xØ0.60		6			19.0
17+600	Box		1(1.80x1.80)	1			14.0
19+000-19+400	Pipe	1xØ0.60		1			20.0
19+200	Box		1(1.80x1.80)	1			13.0
19+400-20+200	Pipe	1xØ1.50		2			20.0
	Pipe	1xØ1.00		2			20.0
20+200-21+600	Pipe	1xØ1.00		2			26.0
	Pipe	1xØ0.60		4			26.0
20+600	Box		2(2.10x2.10)	1			22.0
21+600-22+000	Pipe	1xØ0.60		1			18.0
21+850	Box		1(1.80x1.80)	1			26.0
22+000-22+400	Pipe	1xØ0.60		1			22.0
22+400	Box		1(1.80x1.80)	1			16.0
22+400-23+000	Pipe	1xØ0.60		2			48.0
22+700	Box		1(1.00x1.80)	1			32.0
23+000-23+400	Pipe	1xØ1.20		1			16.0
	Pipe	1xØ0.60		1			16.0
23+400-23+950	Pipe	1xØ0.60		2			16.0
24+104	Pipe	1xØ0.80		1	13.0	3.0	
24+324	Pipe	1xØ0.60		1	13.0	3.0	
24+375	Pipe	1xØ1.00		1	9.0	3.0	
25+010	Pipe	1xØ0.60		1	10.0	3.0	
25+696	Pipe	1xØ0.60		2	8.0	3.0	
25+706	Pipe	1xØ1.00		2	8.0	3.0	
25+939	Pipe	1xØ0.60		1	8.0	3.0	
25+991	Pipe	1xØ0.80		1	11.0	3.0	
26+353	Pipe	1xØ0.60		1	8.0	3.0	
26+798	Pipe	1xØ0.60		2	10.0	3.0	
26+800	Pipe	1xØ0.80		2	10.0	3.0	
26+878	Pipe	1xØ0.60		1	10.0	3.0	
26+880	Pipe	1xØ1.00		1	10.0	3.0	
27+286	Pipe	1xØ0.60		1	12.0	3.0	
27+331	Pipe	1xØ0.60		1	8.0	3.0	
27+501	Pipe	1xØ0.60		1	8.0	3.0	

LIST OF BOX AND PIPE CULVERT

STATION	CULVERT TYPE	CULVERT SIZE (m)		NO. of LOCATIONS	CULVERT LENGTH (m)		
		PIPE	BOX		EXISTING	EXTENDED CONST- RUCTION	NEW CONST- RUCTION
		NO. of ROW x DIAMETER	NO. of CELLS (CLEAR SPAN x DEPTH)				
27+626	Pipe	1x \odot 1.00		1	10.0	3.0	
27+909	Pipe	1x \odot 0.60		1	8.0	3.0	
28+557	Pipe	1x \odot 1.00		6	15.0	3.0	
29+183	Pipe	1x \odot 0.60		1	11.0	3.0	
29+600-30+400	Pipe	1x \odot 1.00		7			15.0
30+400-31+350	Pipe	1x \odot 1.00		2			15.0
	Pipe	1x \odot 0.80		2			15.0
	Pipe	1x \odot 0.60		2			15.0
30+900	Box		1(1.80x1.80)	1			13.0
31+350-35+250	Pipe	1x \odot 0.60		16			15.0
31+700	Box		1(1.80x1.80)	1			13.0
32+700	Box		1(1.80x1.80)	1			13.0
33+700	Box		1(1.80x1.80)	1			13.0
34+700	Box		1(1.80x1.80)	1			16.0