

インドネシア共和国

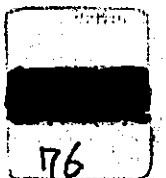
中東部ジャワ道路改良計画

フィージビリティ調査報告書

図面集

昭和51年10月

国際協力事業団



インドネシア共和国

中東部ジャワ道路改良計画

フイージビリティ調査報告書

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図面集

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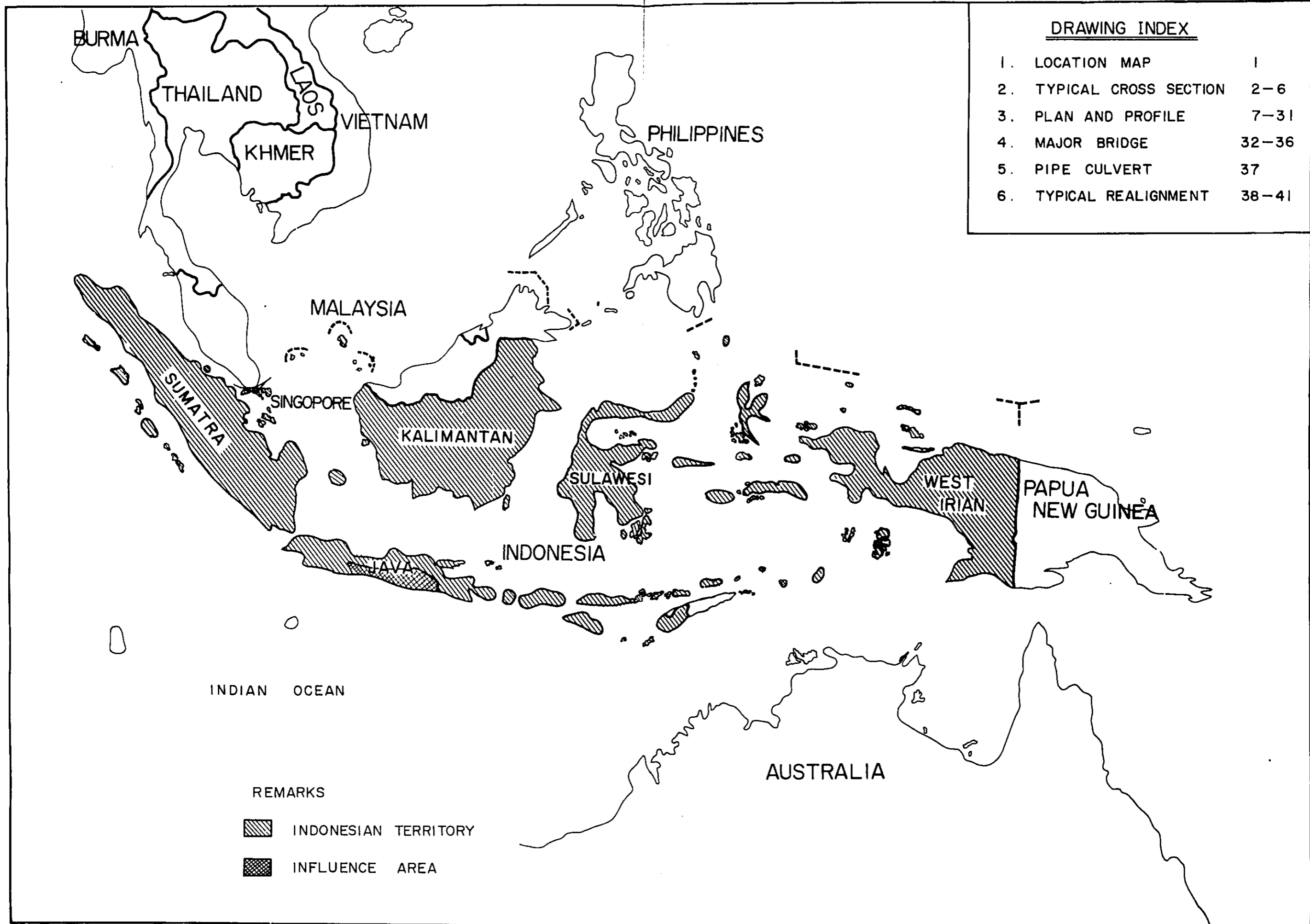
昭和51年10月

国際協力事業団



CR(5)
76

DRAWING INDEX

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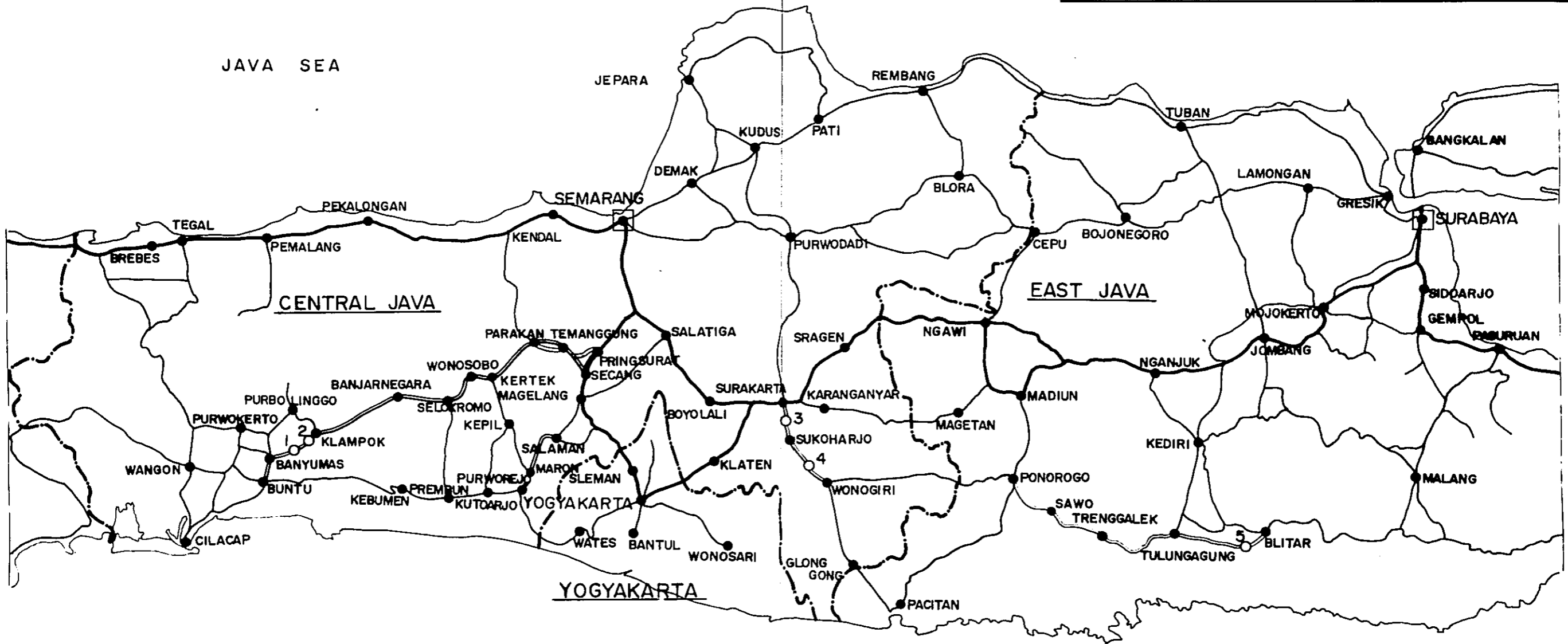
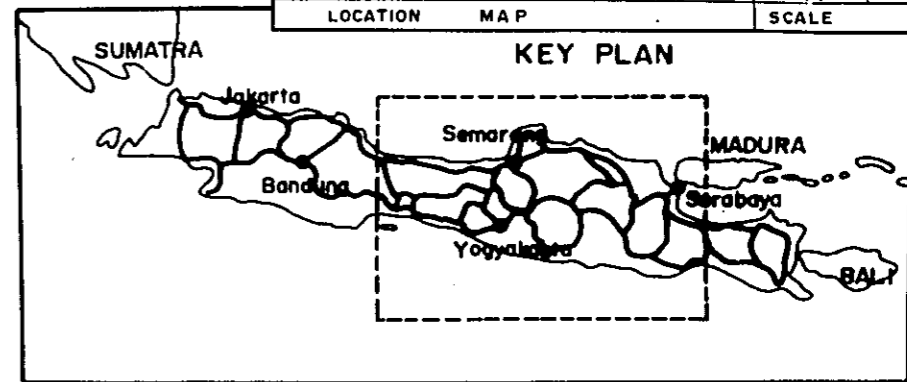


REMARKS

-  INDONESIAN TERRITORY
-  INFLUENCE AREA

LOCATION MAP OF CENTRAL AND EAST JAVA ROAD BETTERMENT PROJECT

PROJECT	TOTAL SHEETS	SHEET N.O.
CENTRAL AND EAST JAVA ROAD BETTERMENT	4	1
LOCATION MAP	SCALE	



LEGEND

- NATIONAL ROAD
- PROVINCIAL ROAD
- PROVINCIAL CAPITAL
- MAIN TOWN
- PROVINCIAL BOUNDARY

- SELECTED ROUTE
- ROUTE I (BUNTU - PRINGSURAT)
- ROUTE II (SALAMAN - PURWOREJO)
- ROUTE III (SURAKARTA - WONOGIRI)
- ROUTE IV (PONOROGO - BLITAR)

- SELECTED MAJOR BRIDGE SITE
- 1. GUMELEM BRIDGE
- 2. SAPI BRIDGE
- 3. BACEM BRIDGE
- 4. NGUTER BRIDGE
- 5. TRISULA BRIDGE

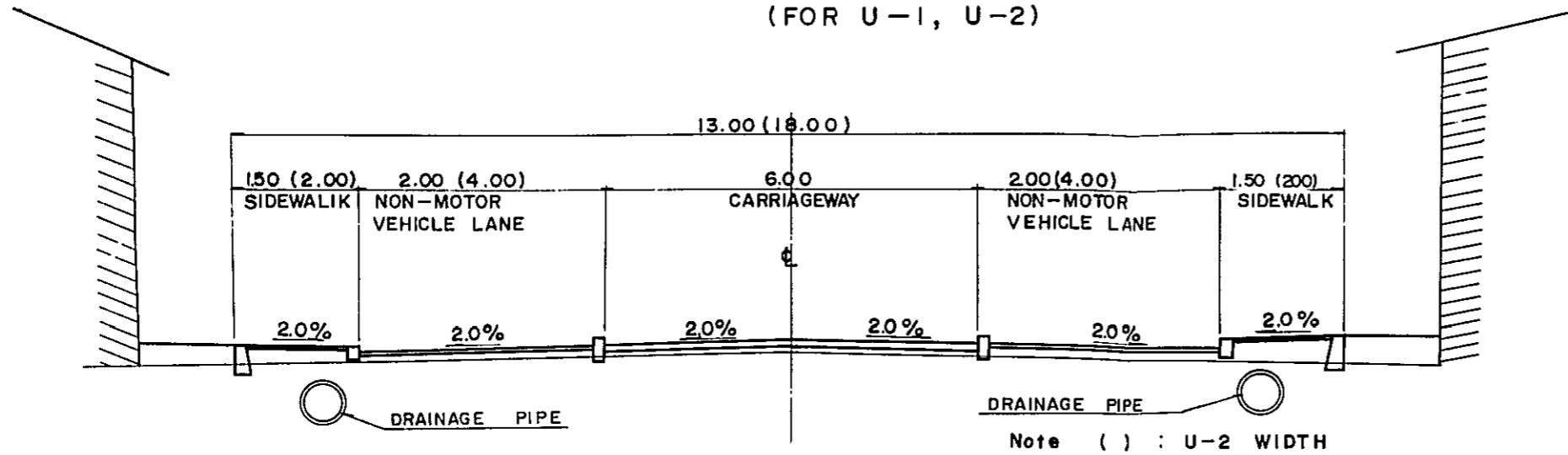
INDIAN OCEAN
(INDONESIAN OCEAN)

SCALE



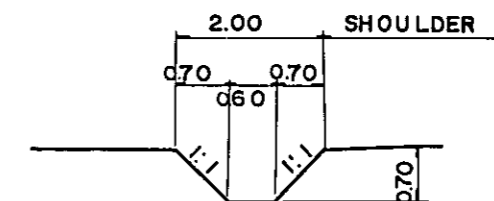
TYPICAL CROSS SECTION IN URBAN AND SUBURBAN AREA

IN URBAN AREA
(FOR U-1, U-2)

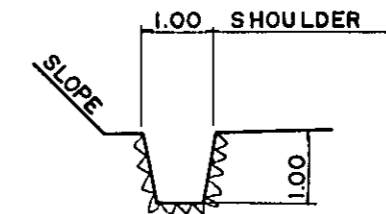


DETAIL OF DRAINAGE FACILITIES

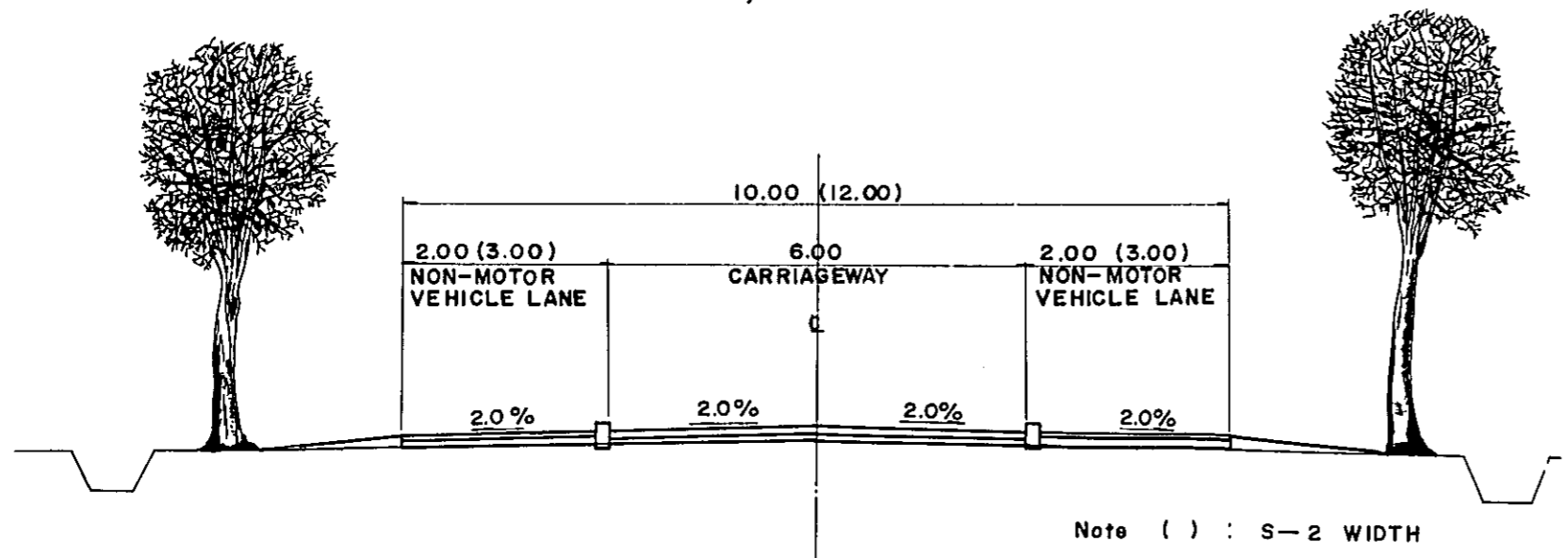
IN GENTLE GRADE SECTION
EARTH TYPE



IN STEEP GRADE SECTION
STONE PAVED TYPE

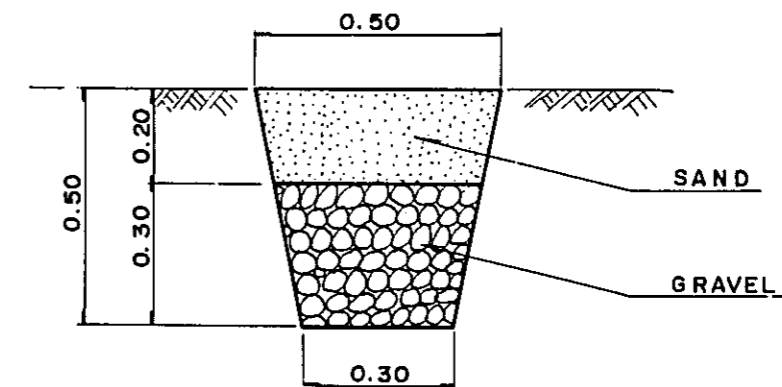


IN SUBURBAN AREA
(FOR S-1, S-2)



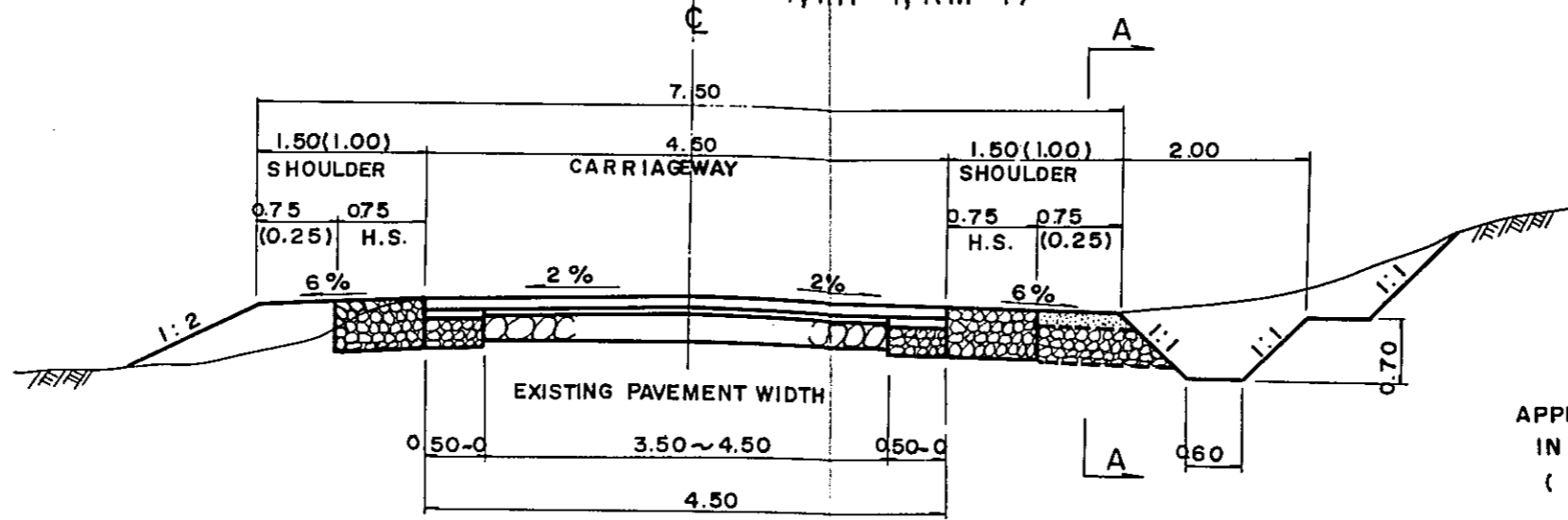
SECTION A-A (Scale 1:15)

French Drain: average intervals
of 20 meters on both sides
in RURAL AREA



TYPICAL CROSS SECTION IN RURAL AREA

TYPE 1 (FOR RF-1, RH-1, RM-1)



Note () : RM-1 WIDTH

APPLIED TYPICAL CROSS SECTION BY PLAN
IN RURAL AREA
(In detail, shown in sheet NO.7-31.)

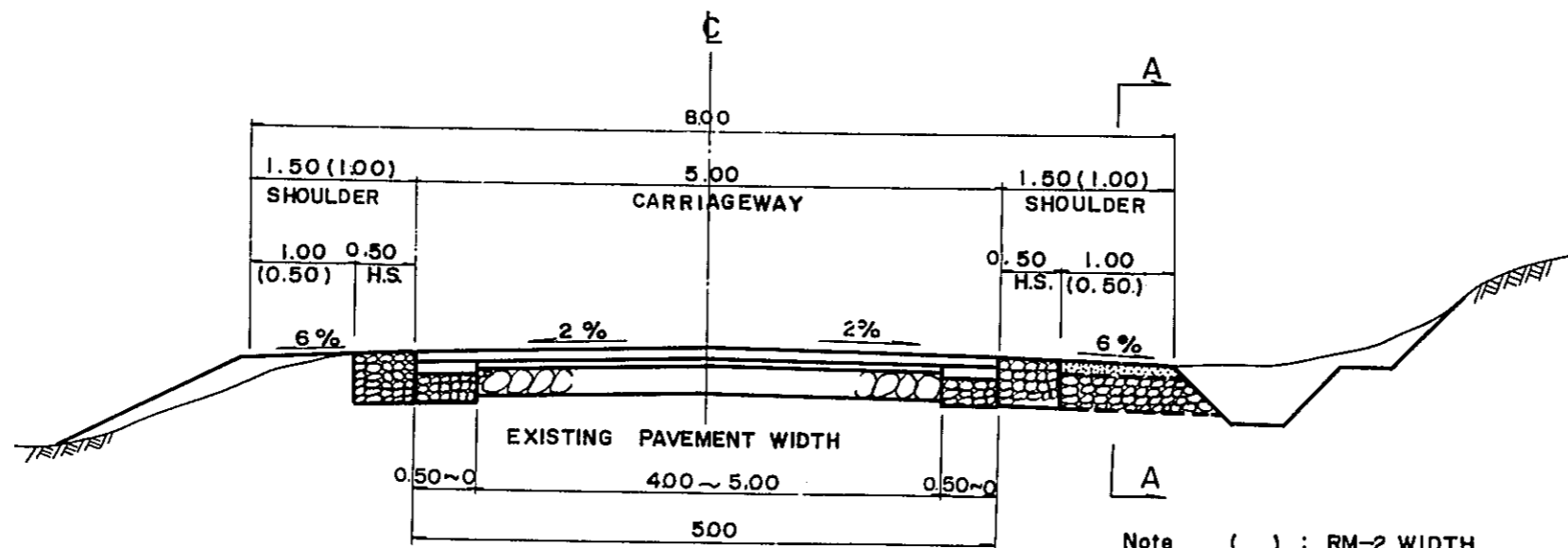
	PLAN I	PLAN II
TYPE 1	X	O
TYPE 2	X	O
TYPE 3	O	O
TYPE 4	O	X

Notes:

O : Applied

X : Not applied

TYPE 2 (FOR RF-2, RH-2, RM-2)



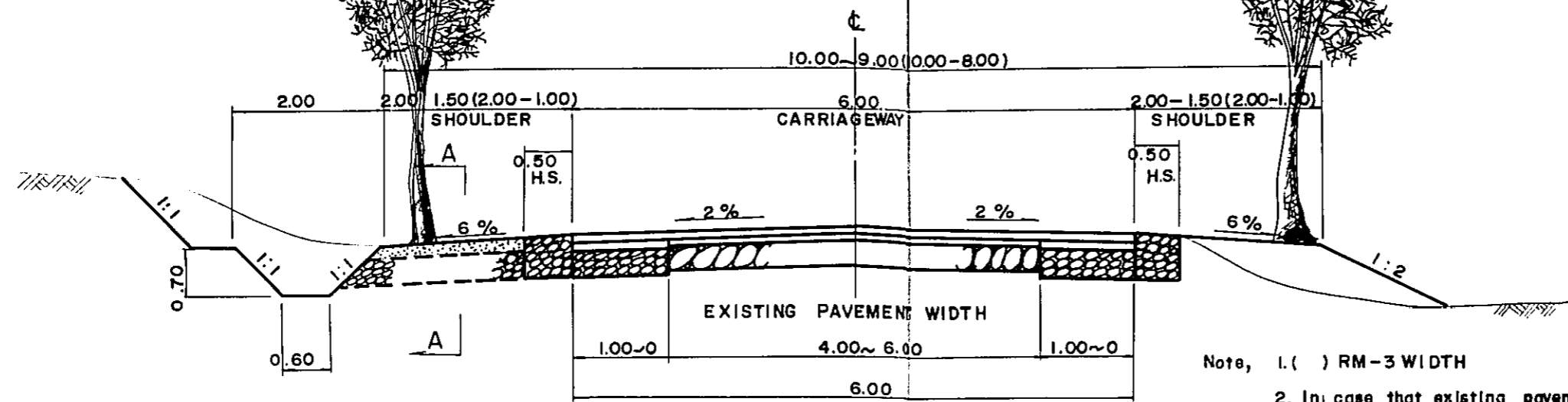
Note () : RM-2 WIDTH

Remarks :

1. As to pavement structure, refer to sheet NO.5 & 6.
2. H.S. stands for Hard Shoulder.
3. As to Section A-A, refer to sheet NO.2.

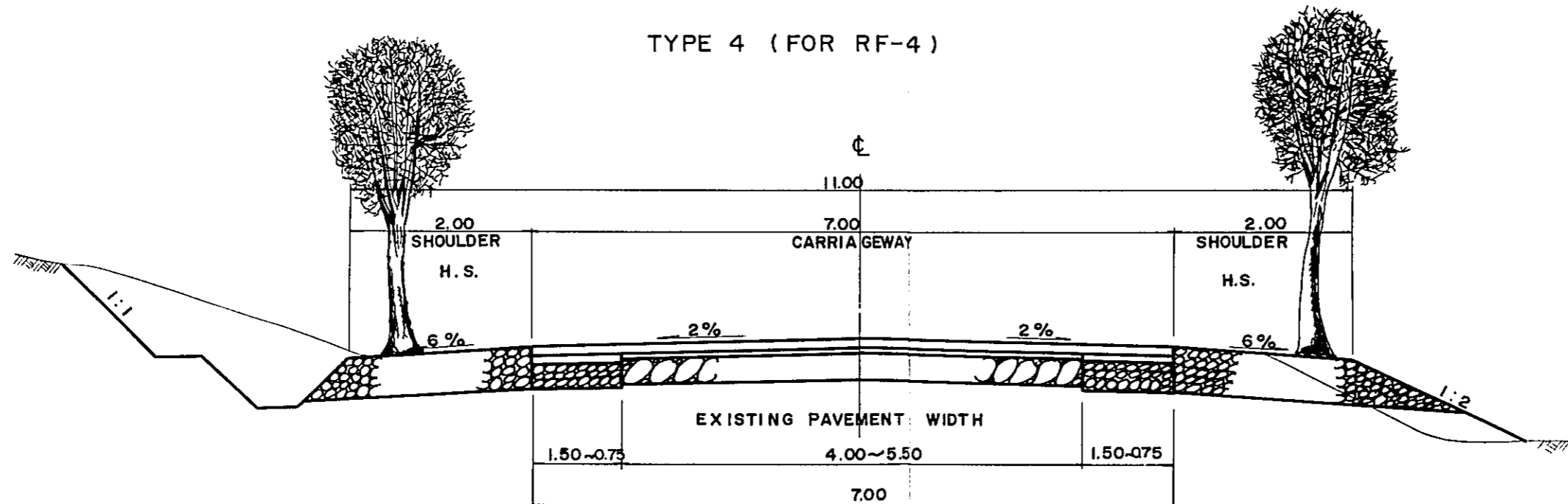
TYPICAL CROSS SECTION IN RURAL AREA

TYPE 3 (FOR RF-3, RH-3, RM-3)



Note, 1. () RM-3 WIDTH
 2. In case that existing pavement width is 5.5m or 6.5m, carriageway width with betterment is 5.5m or 6.5m.
 In this case, the abbreviation of typical cross section is shown as RF-3'(5.5) or RF-3'(6.5) or RH-3'(5.5) or RH-3'(6.5) or RM-3'(5.5) or RM-3'(6.5) in sheet NO. 7 - 31.

TYPE 4 (FOR RF-4)

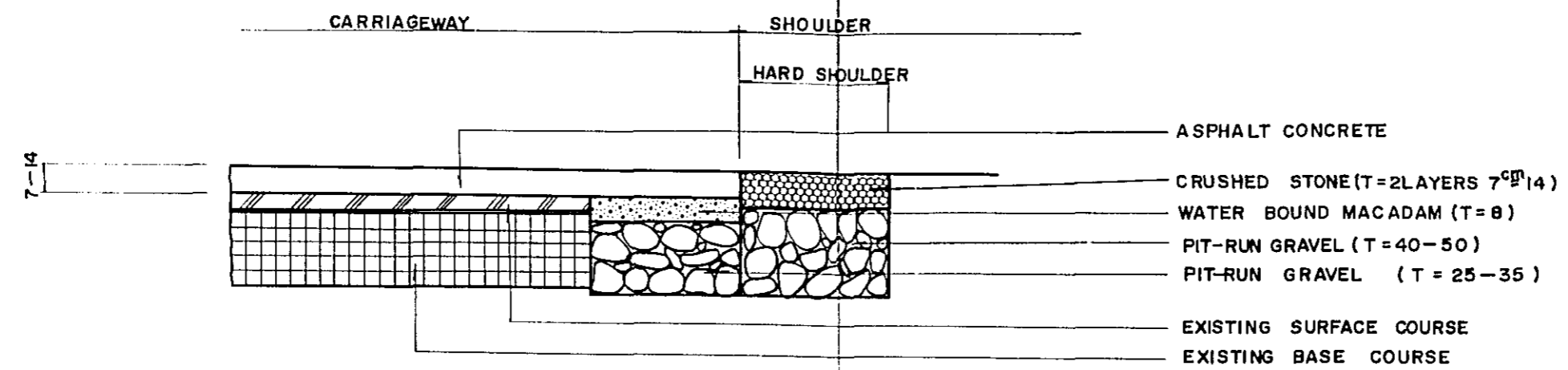


Remarks :

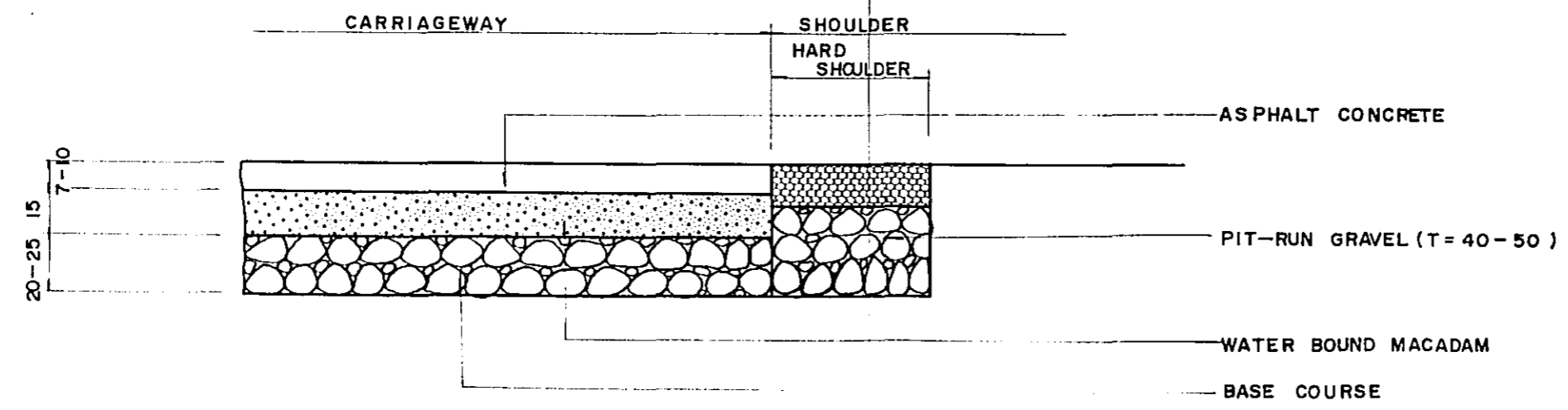
1. As to pavement structure, refer to sheet NO.5 & 6.
2. H.S. stands for Hard Shoulder.
3. As to Section A-A, refer to sheet NO.2.

TYPICAL PAVEMENT SECTION (UNIT : CM)
(NON STAGED CONSTRUCTION)

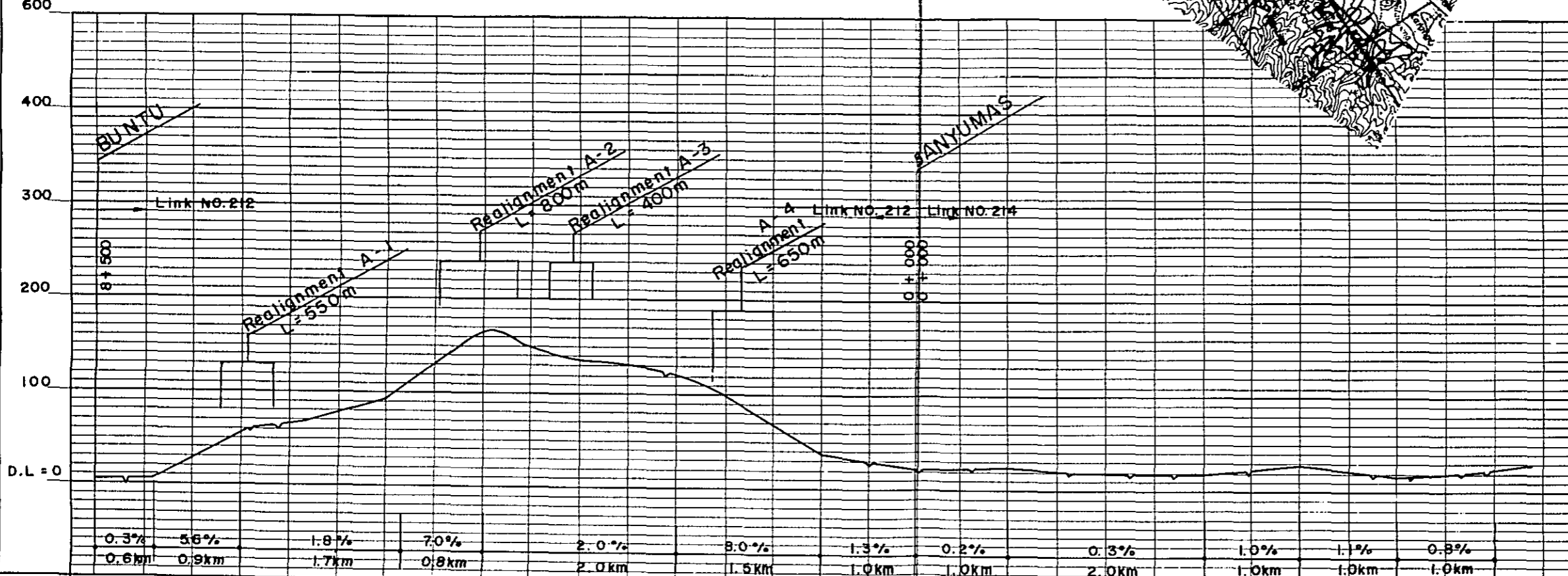
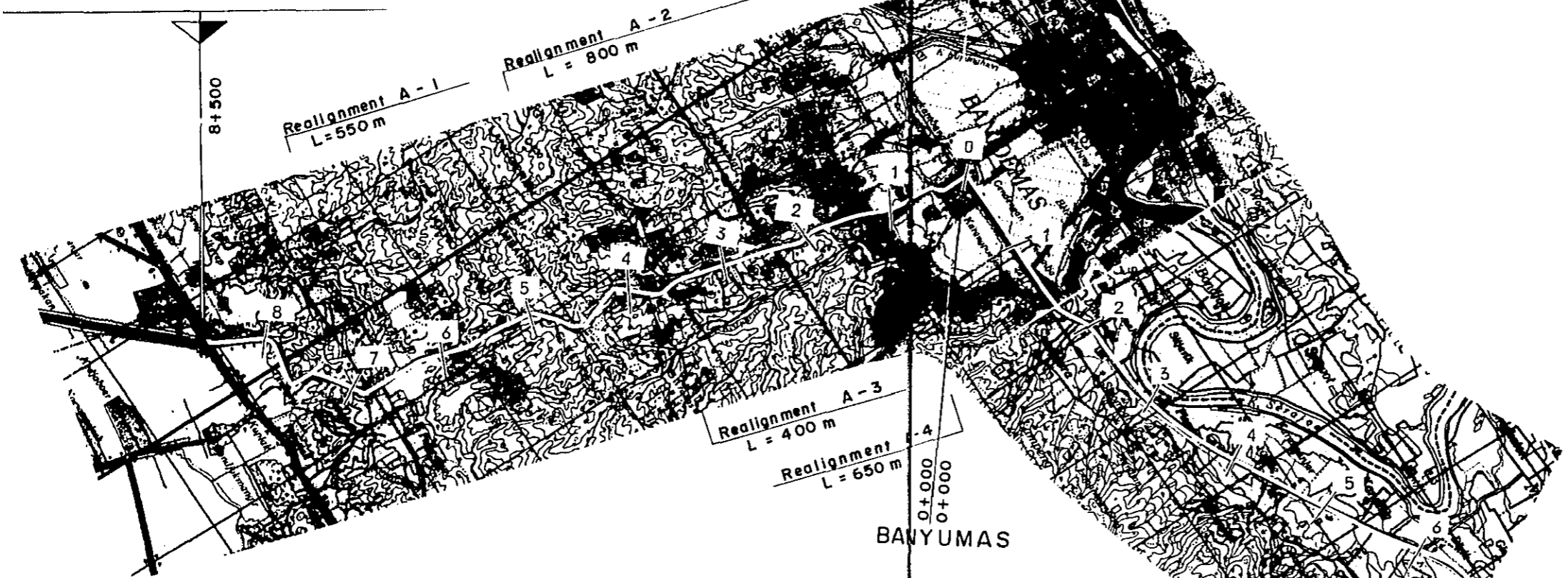
WIDENING SECTION



NEW CONSTRUCTION ROAD SECTION

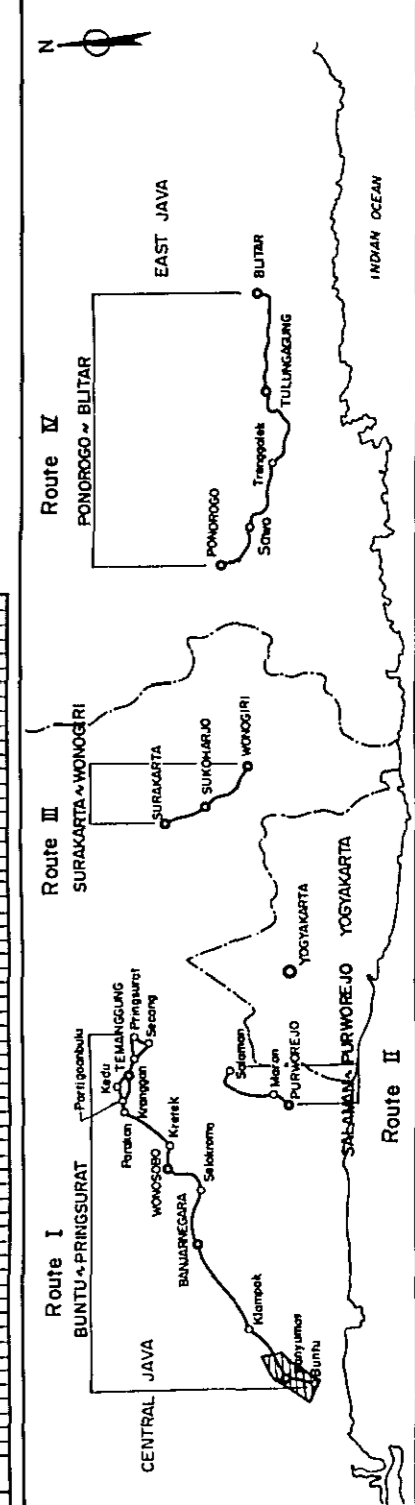


BUNTU
Beginning of Route I (BUNTU-PRINGSURAT)



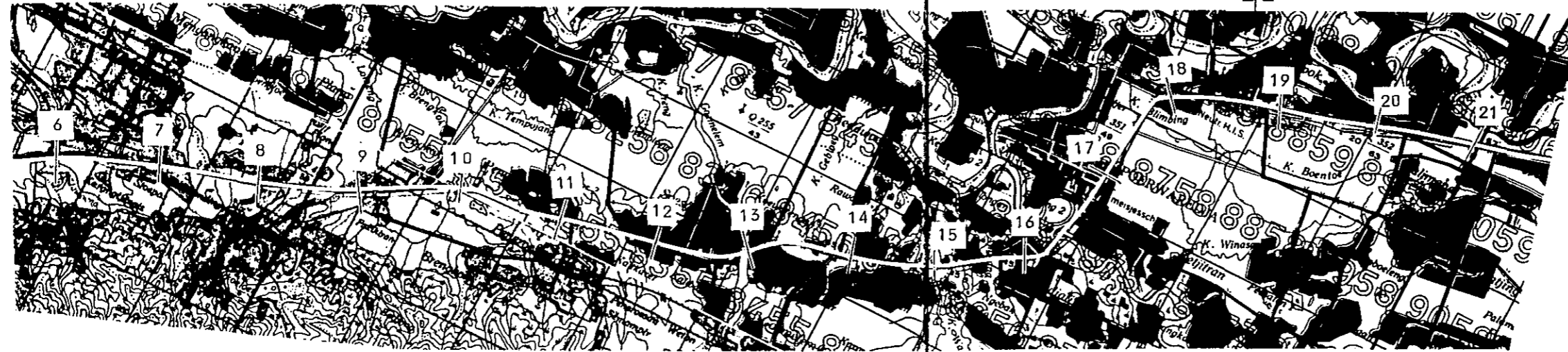
STATION	8	7	6	5	4	3	2	1	0	1	2	3	4	5	6
PLAN I	RF-3				RM - 3					RF - 3				RF - 3	
PLAN II	L = 0.5km		RM - 3		L = 7.0km					L = 1.0km	RF-3 (5.5)			RF - 2	
			L = 3.1km		L = 0.5km		RM - 2			L = 0.5km				L = 13.4km	
							L = 3.4km								

KEY PLAN

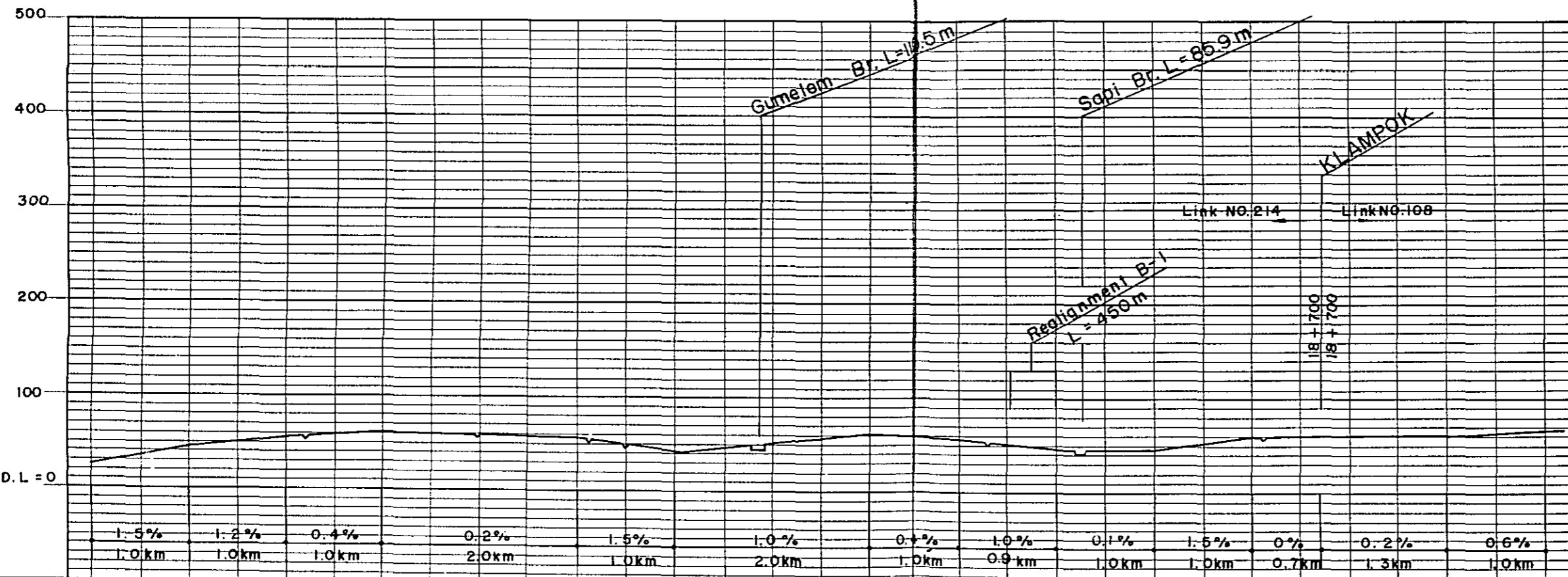
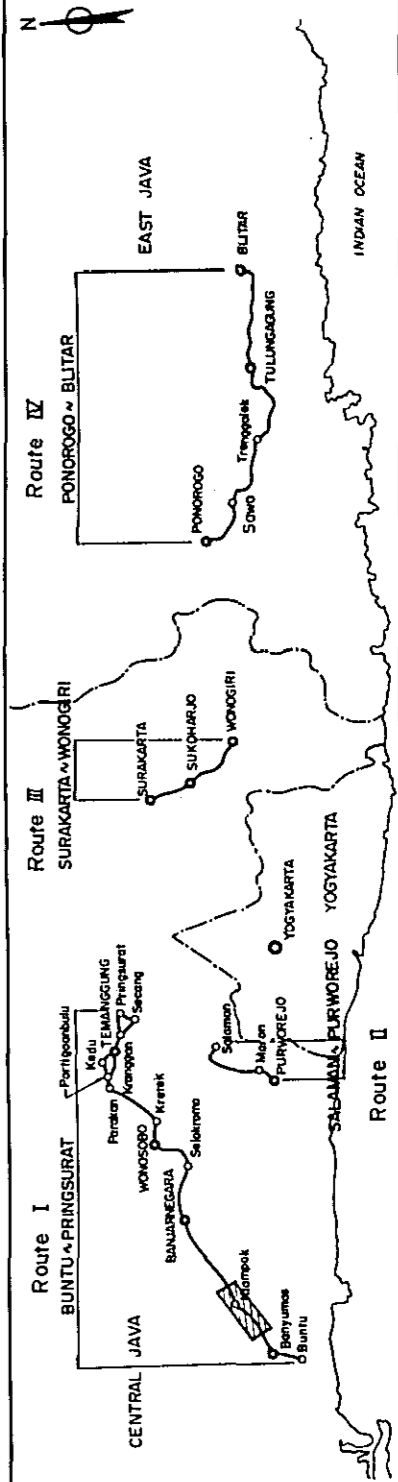


KLAMPOK

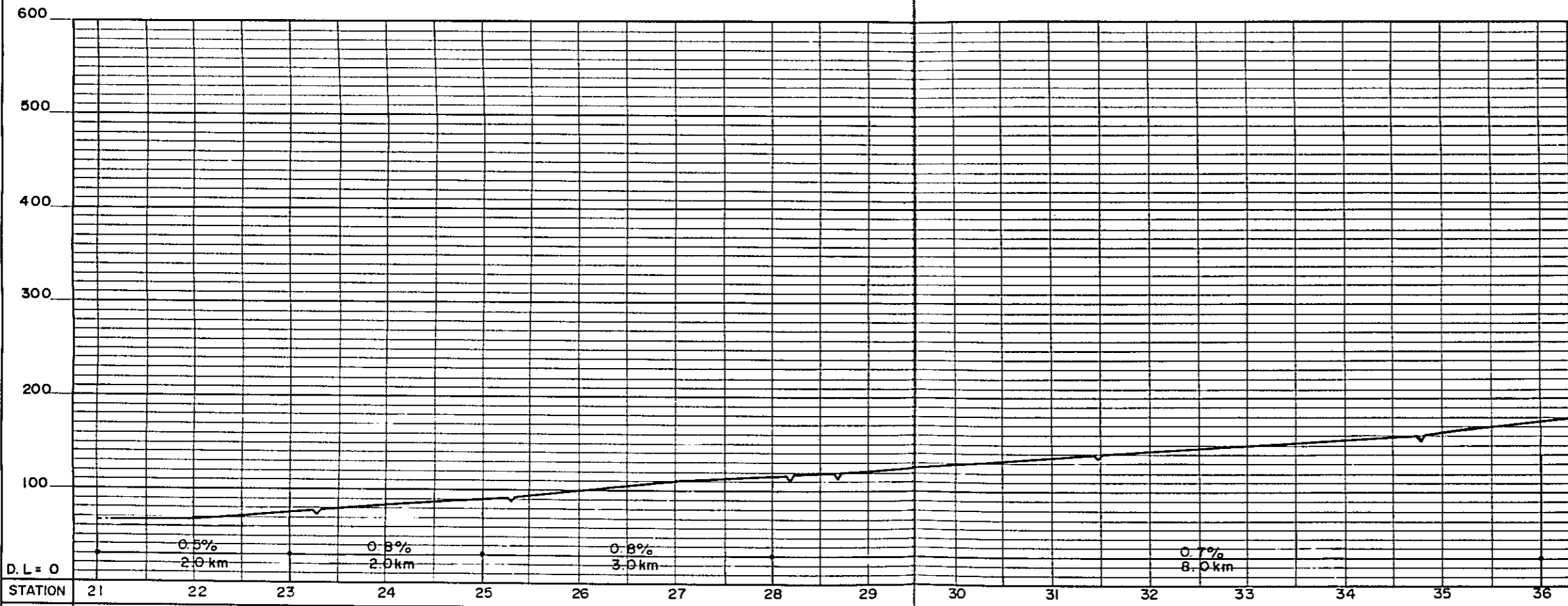
Gumelem Br. L=110.5m Link NO. 214 Link NO. 108
 Sapi Br. L=85.9m
 Realignment B-1
 L = 450 m



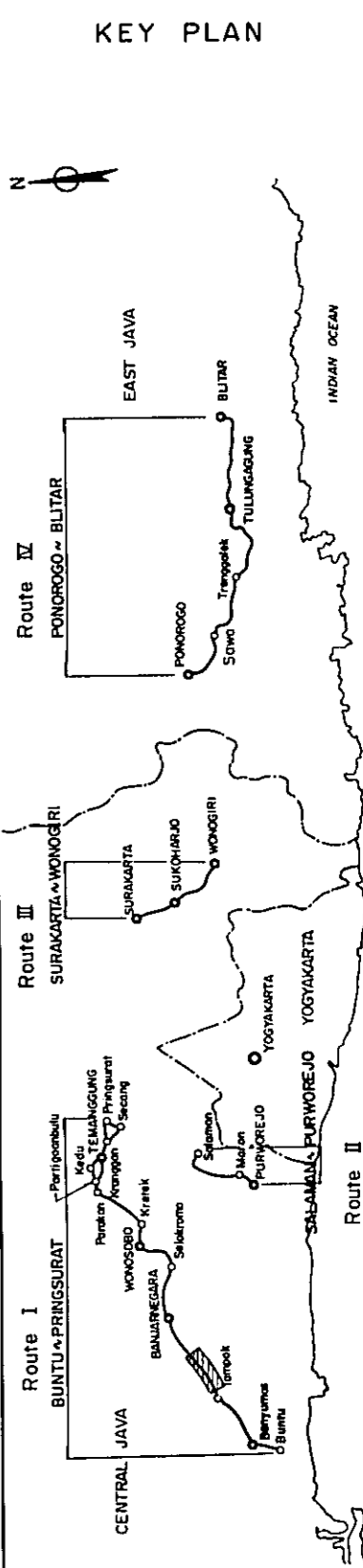
KEY PLAN



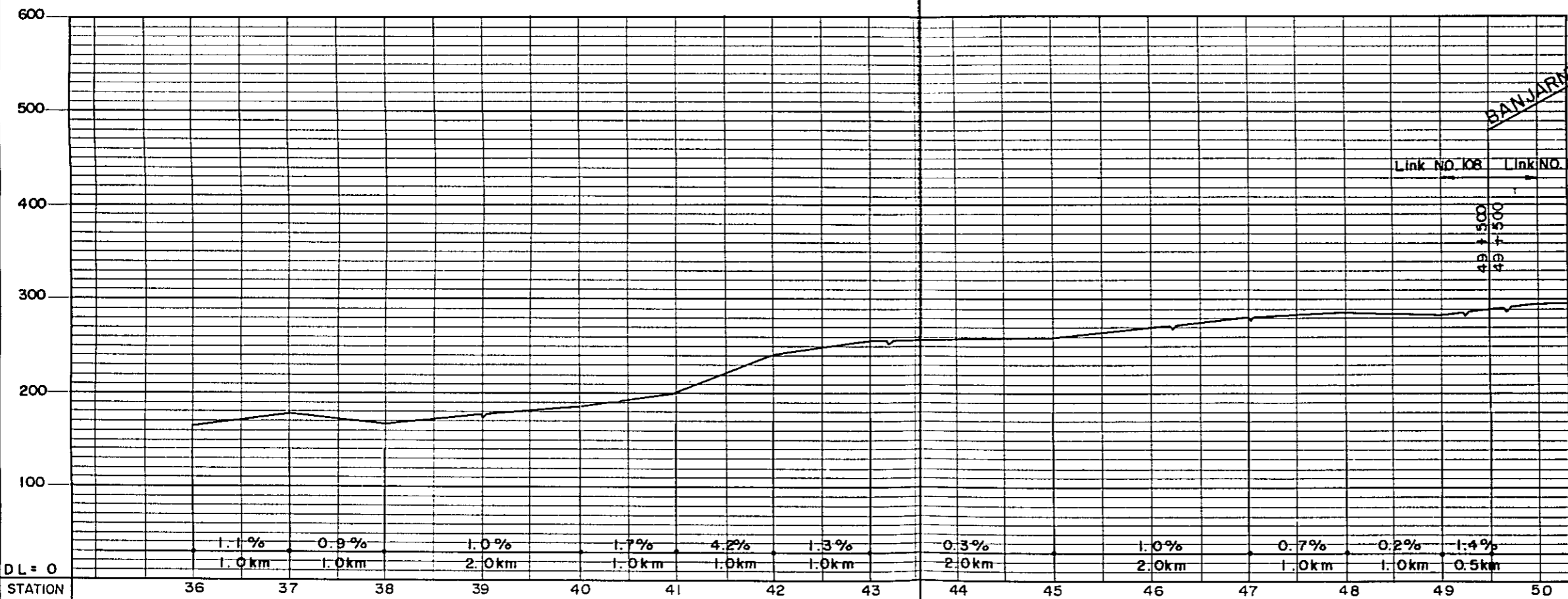
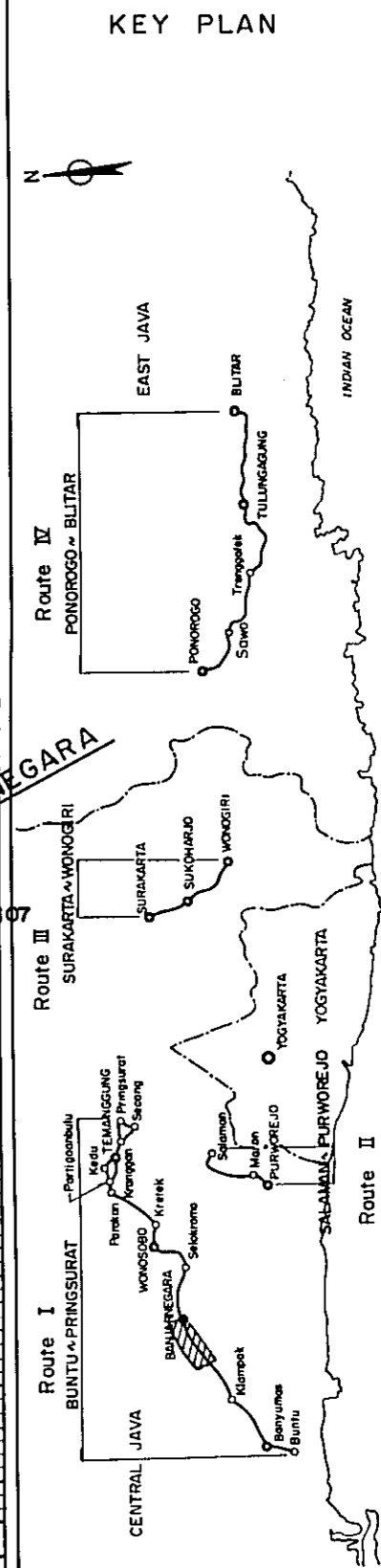
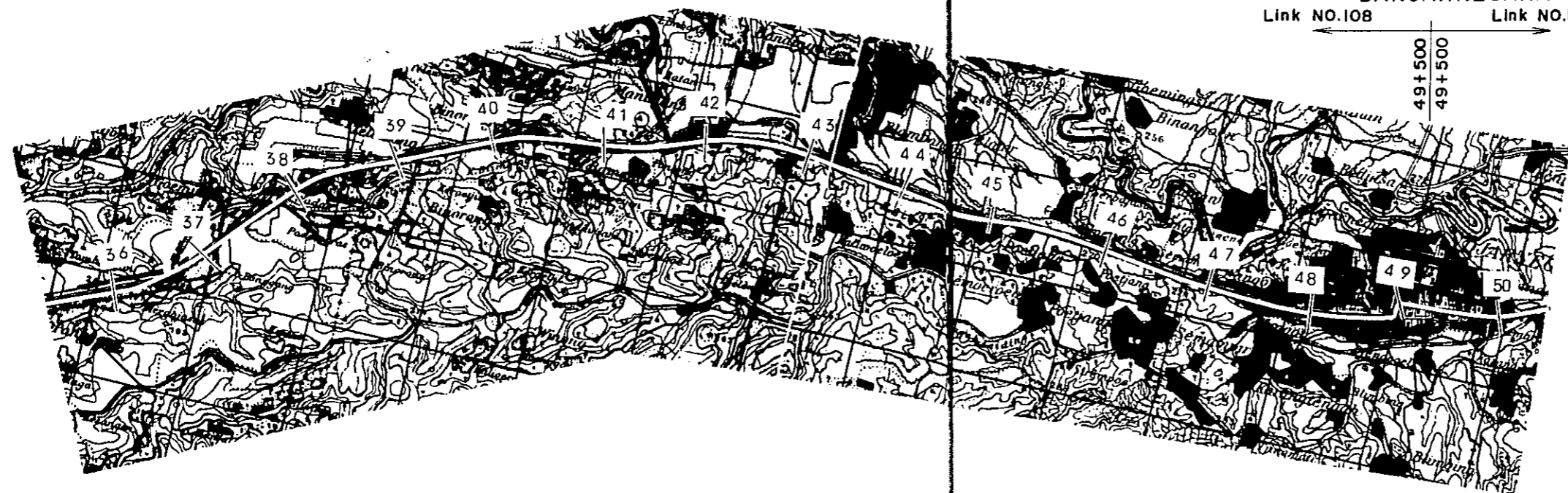
STATION	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21						
PLAN I	RF - 3 L = 15.0 km										S - 1 L = 0.1 km L = 15.0 km											
PLAN II	RF - 2 L = 13.4 km										RF - 3 L = 1.1 km		S - 1 L = 0.9 km		L = 2.0 km		L = 0.7 km		RF - 3' (55) L = 1.2 km		RF - 2 L = 13.4 km	



STATION	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
PLAN I	RF - 4 L = 30.2 km															
PLAN II	RF - 3 L = 3.7 km				RF - 3 (5.5) L = 2.3 km				RF - 3 L = 9.0 km				RF - 3 (5.5) L = 3.7 km			



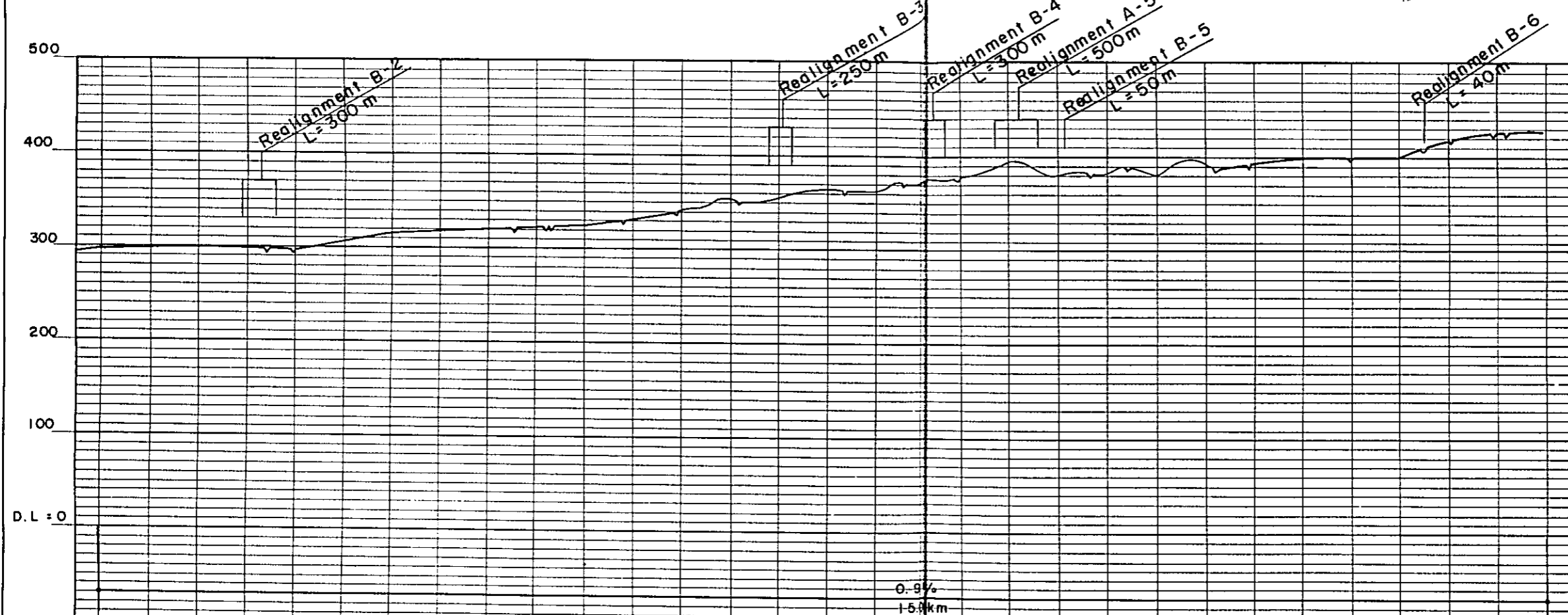
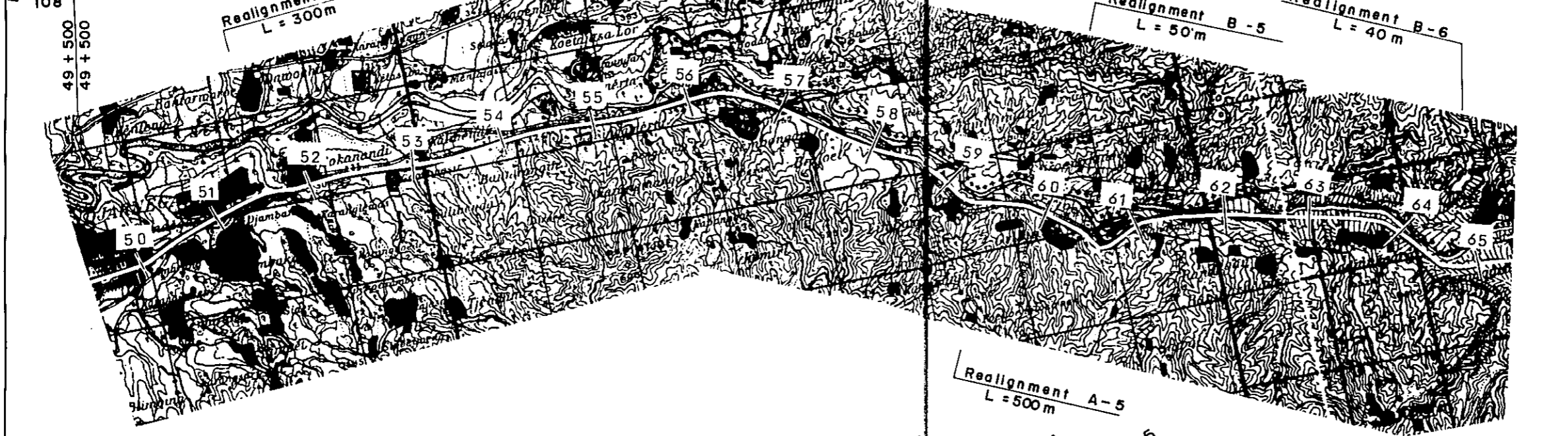
PROJECT	TOTAL SHEETS	SHEET NO
CENTRAL AND EAST JAVA ROAD BETTERMENT	41	10
PLAN AND PROFILE	SCALE	H: 1:50,000 V: 1:5,000



PLAN I	RF - 4 L = 30.2 km						U-2 U-2	
PLAN II	RF - 3' (5.5) L = 3.7 km	RF - 3 L = 1.3 km	RF - 3' (5.5) L = 4.0 km	RF - 3 L = 3.0 km	RF - 3' (5.5) L = 3.0 km	L = 0.5 km L = 1.5 km		

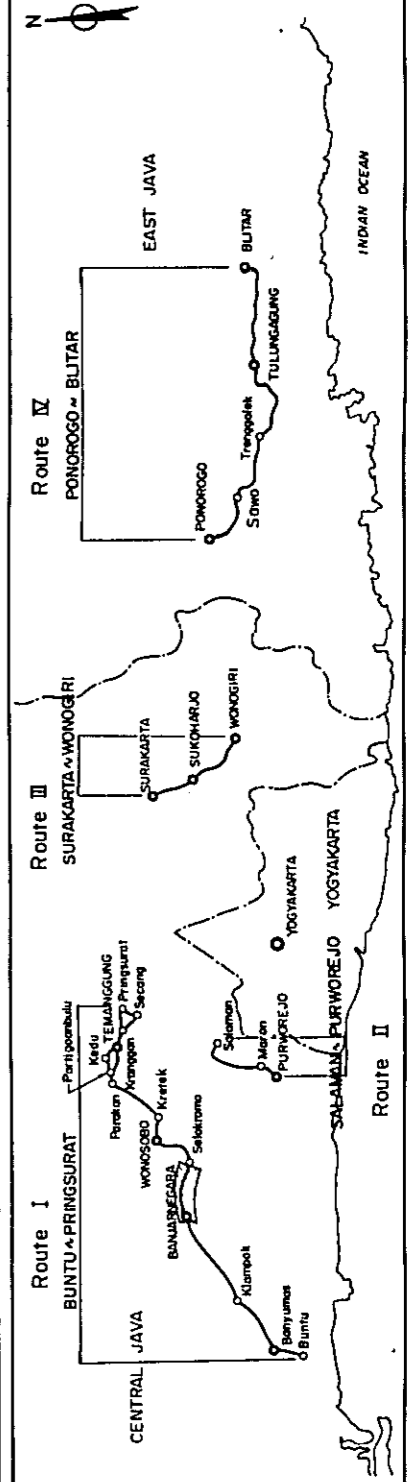
PROJECT	TOTAL SHEETS	SHEET NO
CENTRAL AND EAST JAVA ROAD BETTERMENT	4	1
PLAN AND PROFILE	SCALE	H: 1:50,000 V: 1:5,000

BANJARNEGARA
Link NO. Link NO.107

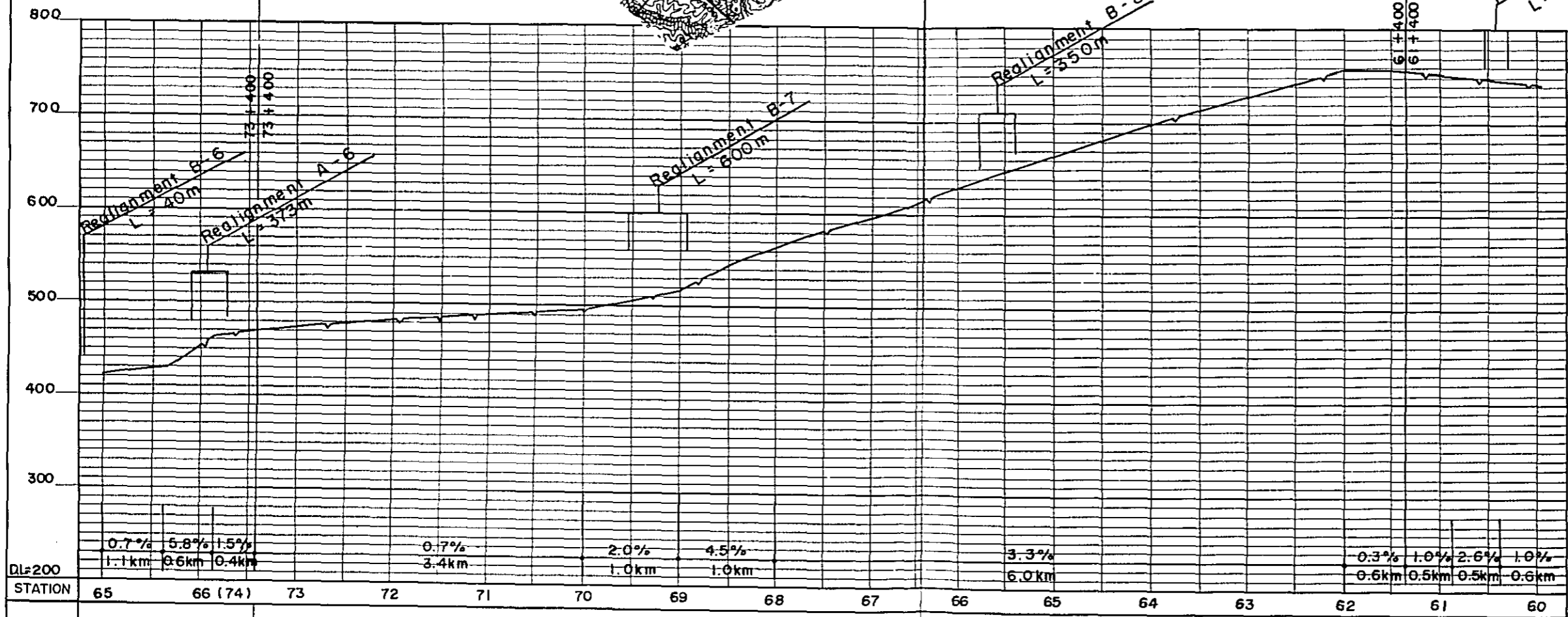
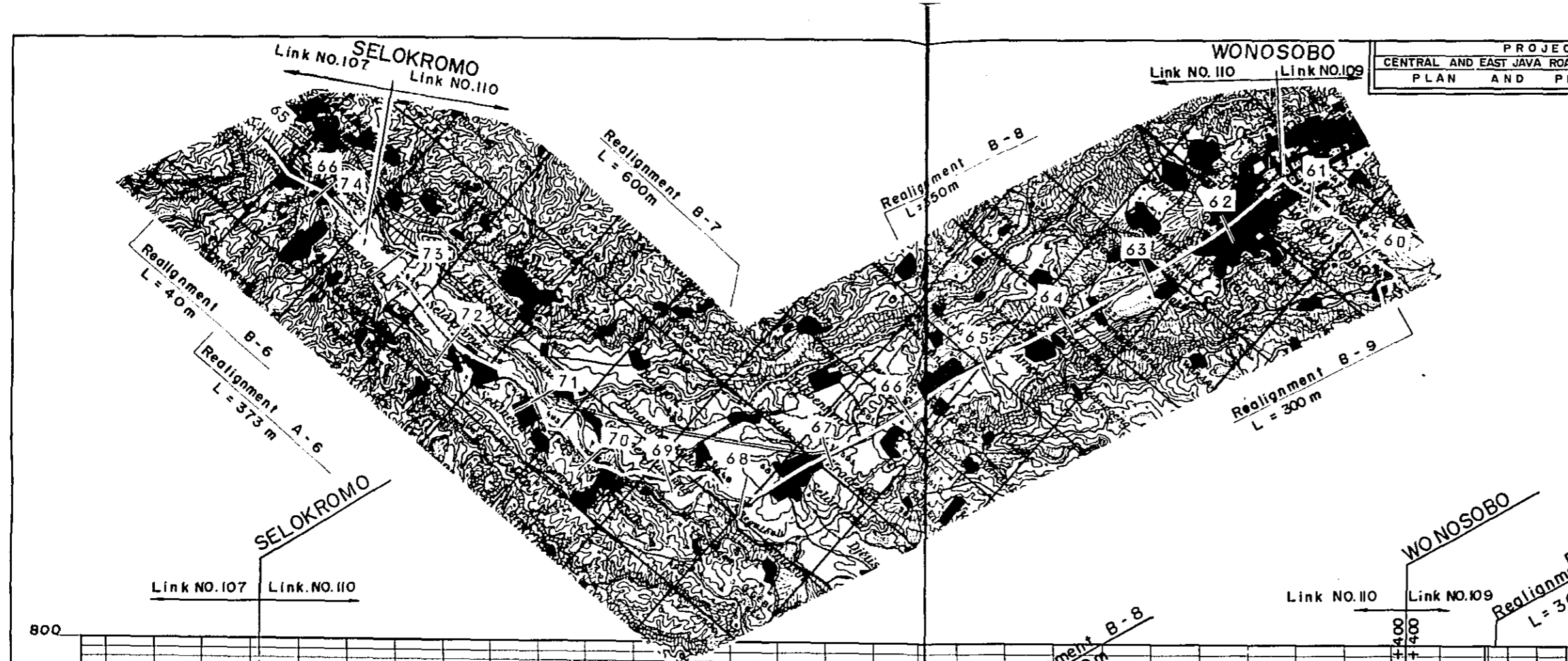


STATION	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
PLAN I	U - 2		RF - 3		L = 2.0km						RM - 3				L = 13.6km	
PLAN II	L = 1.5km		RF - 3' (5.5)		L = 2.0km											

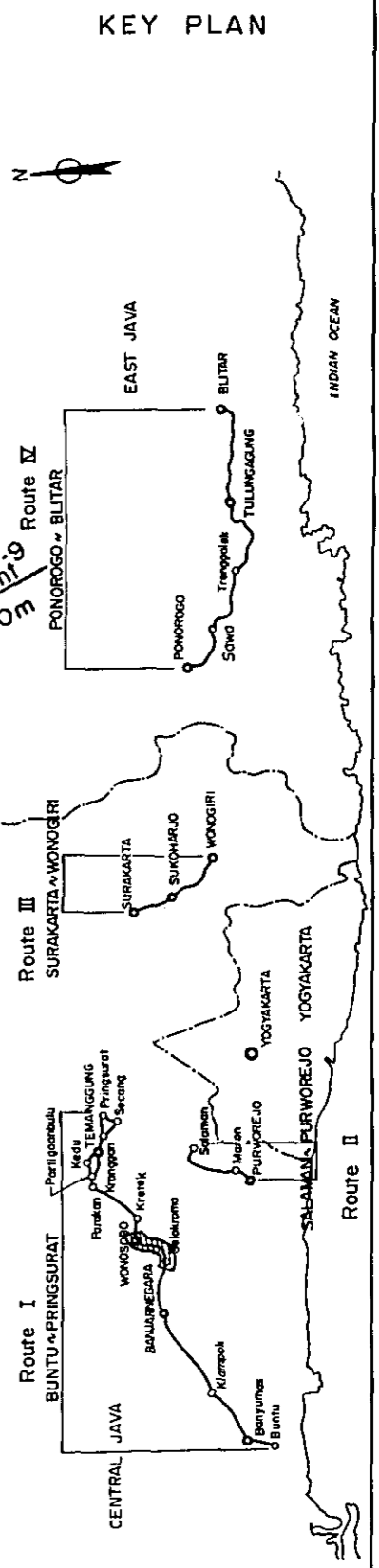
KEY PLAN



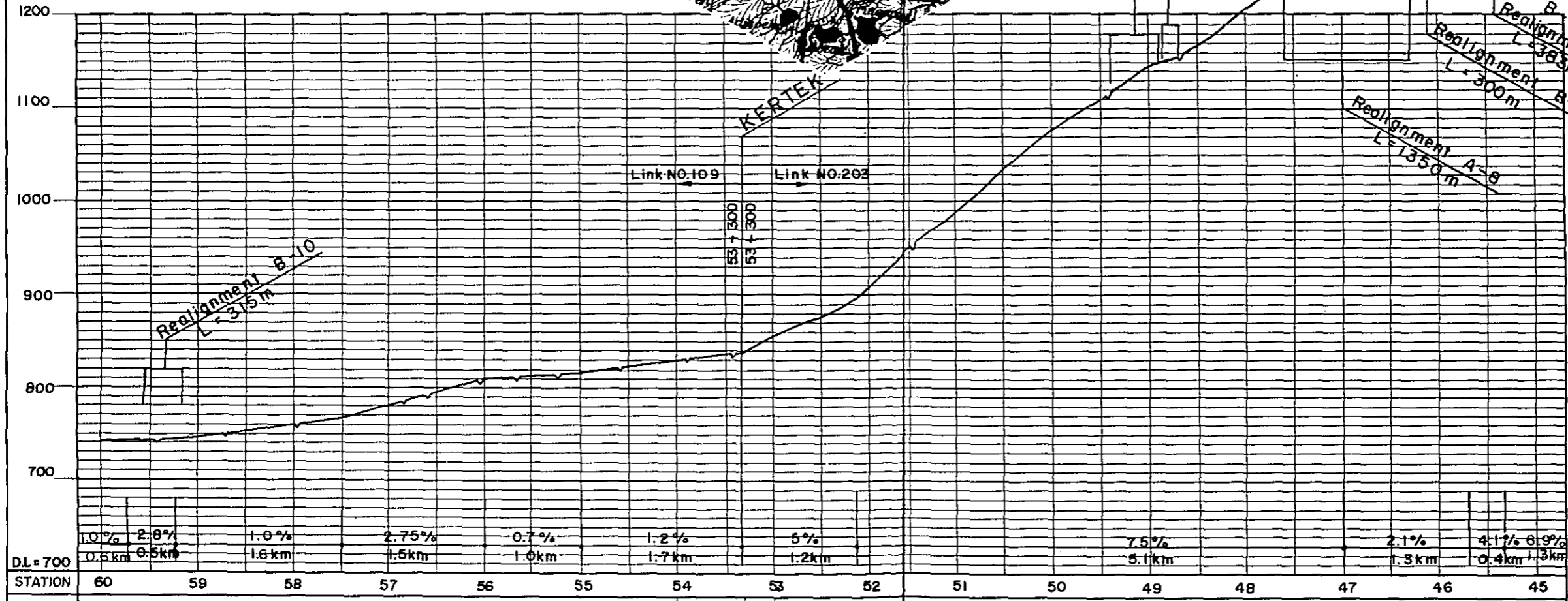
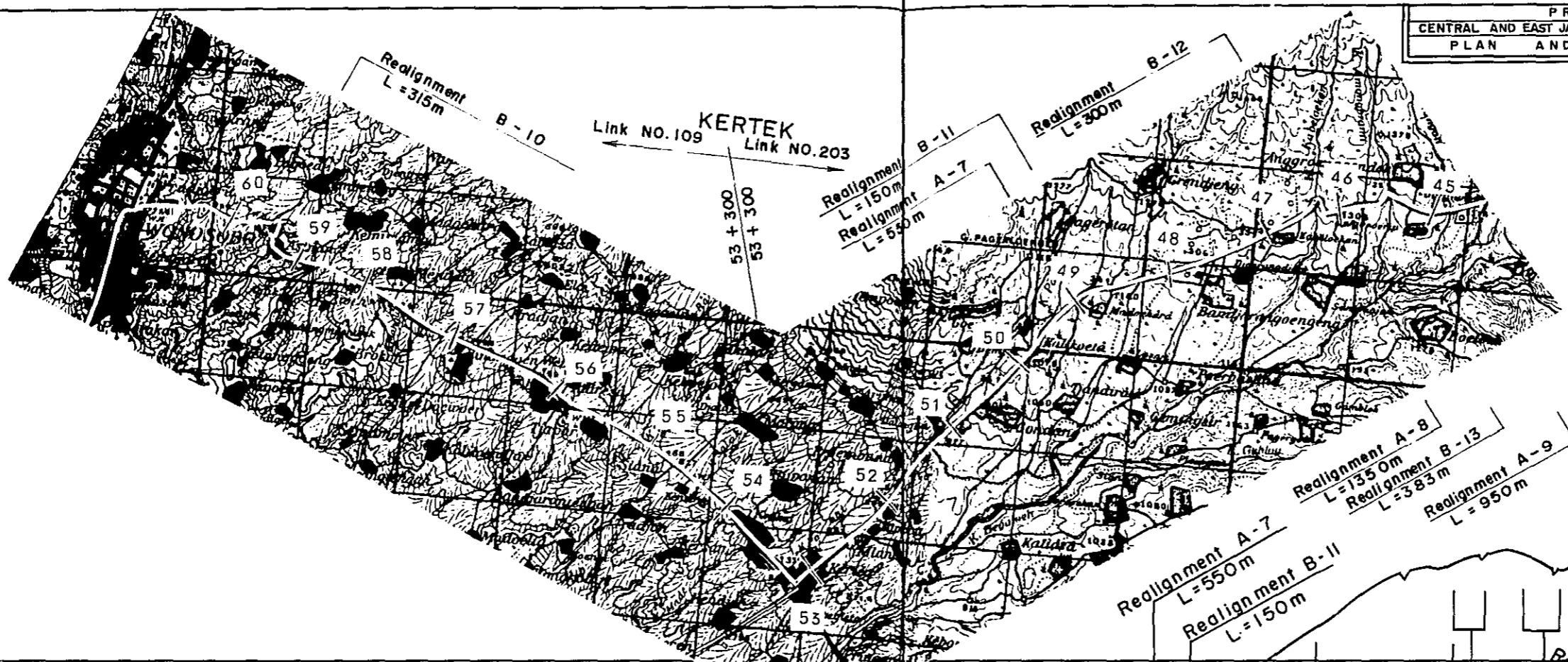
PROJECT		TOTAL SHEETS	SHEET NO
CENTRAL AND EAST JAVA ROAD BETTERMENT		41	12
PLAN AND PROFILE		SCALE	H: 1:50,000 V: 1:5,000



PLAN I	RM - 3 L = 13.6km	RH - 3 L = 10.9km									
PLAN II		RH - 3 L = 7.4km				RH - 3' (5.5) L = 3.5km		U - 1 L = 1.1km	U - 1 L = 0.4km	RH - 3 L = 6.8km	

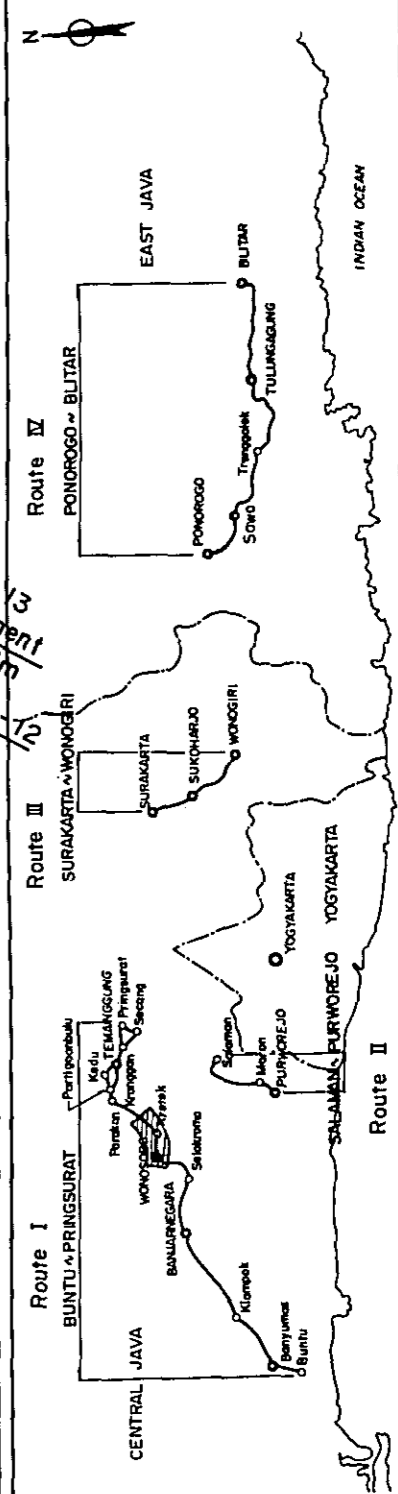


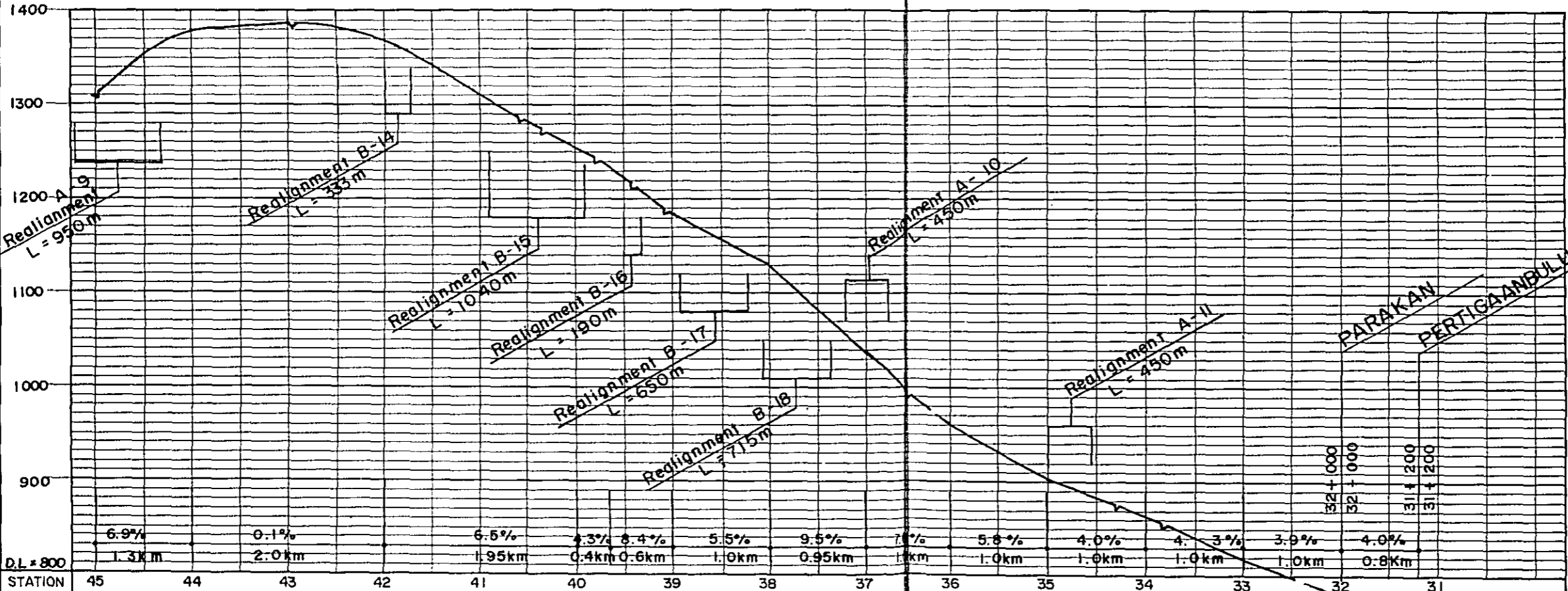
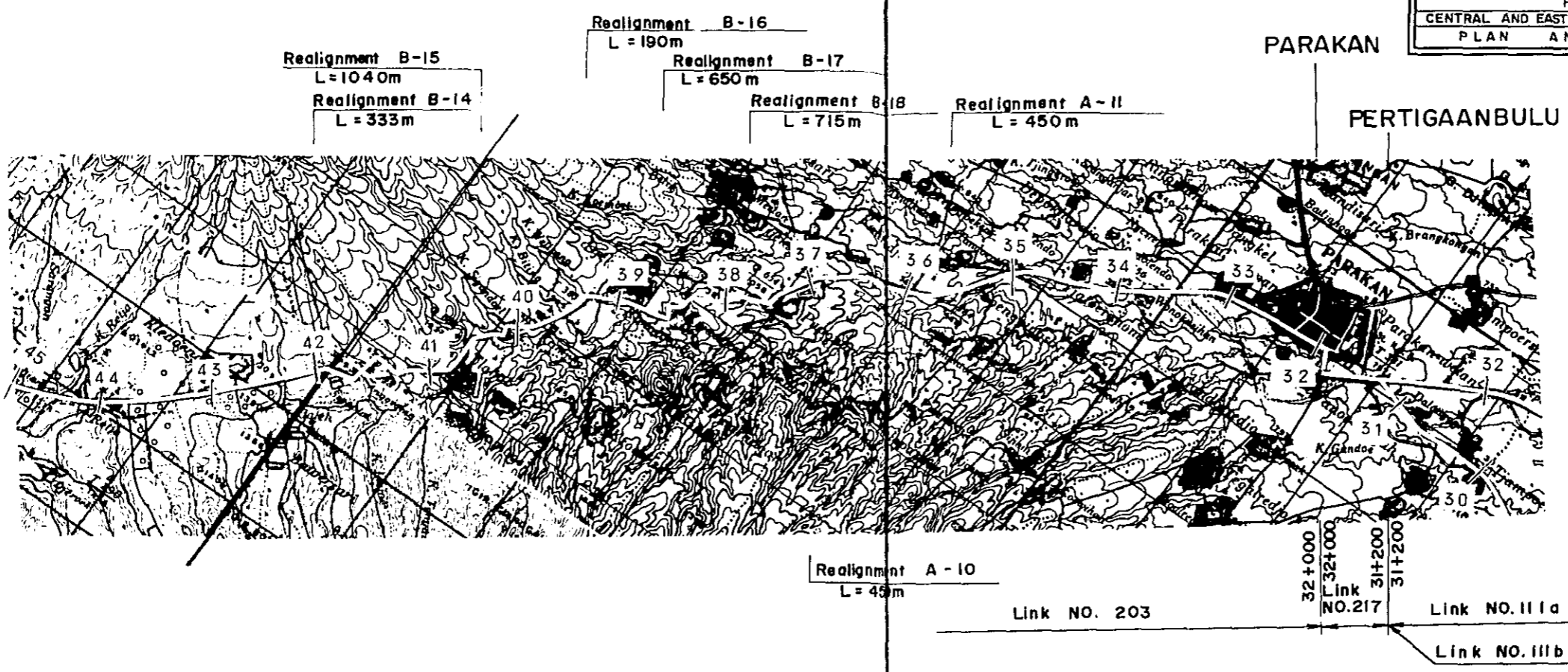
PROJECT	TOTAL SHEETS	SHEET NO.
CENTRAL AND EAST JAVA ROAD BETTERMENT	41	13
PLAN AND PROFILE	SCALE: H: 1/50,000	V: 1/9,000



STATION	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
PLAN I	RH - 3			S - 1			S - 1			RM - 3						
PLAN II	L = 6.8km			L = 0.7km			L = 0.3km			L = 19.7km						

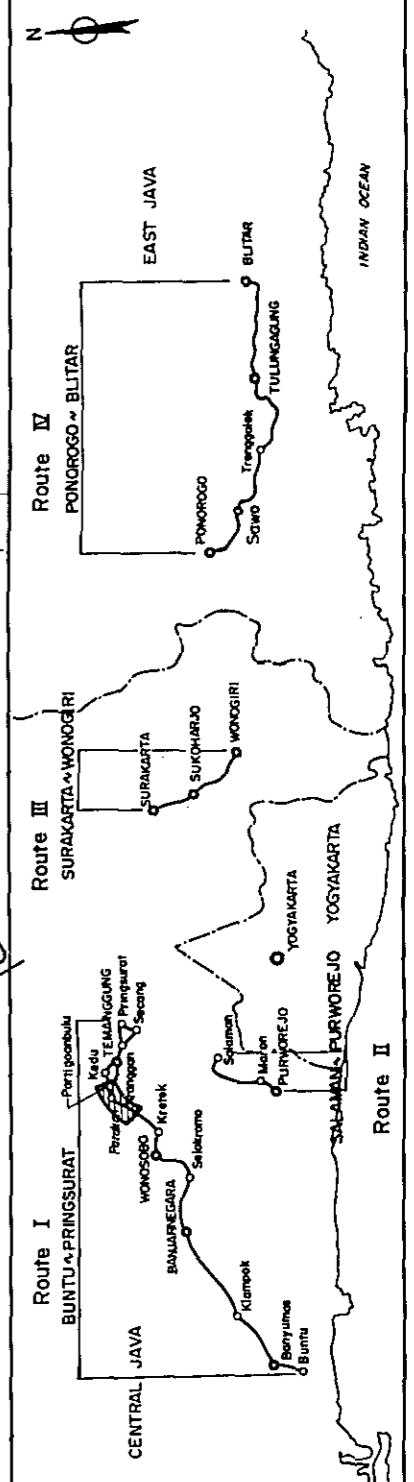
KEY PLAN





D.L. = 800	6.9%	0.1%	6.5%	4.3%	8.4%	5.5%	9.5%	7.0%	5.8%	4.0%	4.3%	3.9%	4.0%		
STATION	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31
PLAN I	RM - 3														
PLAN II	L = 19.7 km														
											U - 1	U - 1			
											L = 1.2 km	L = 0.8 km			

KEY PLAN

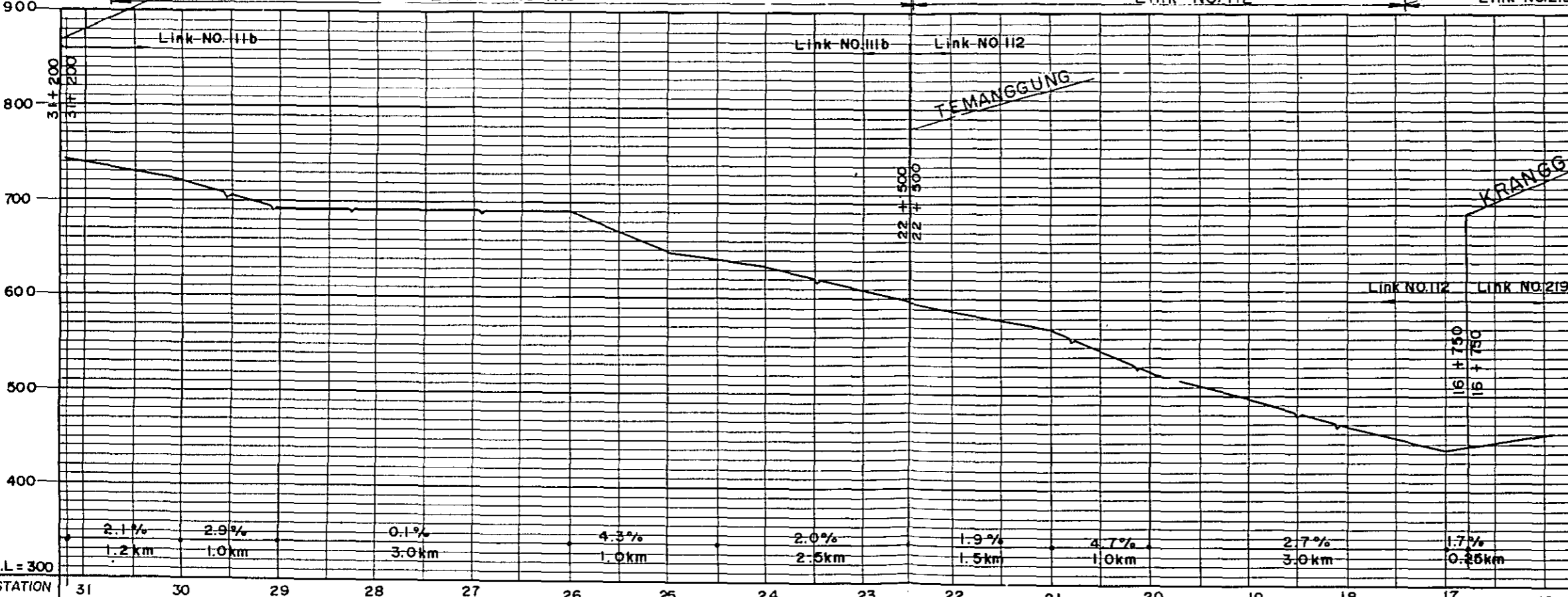
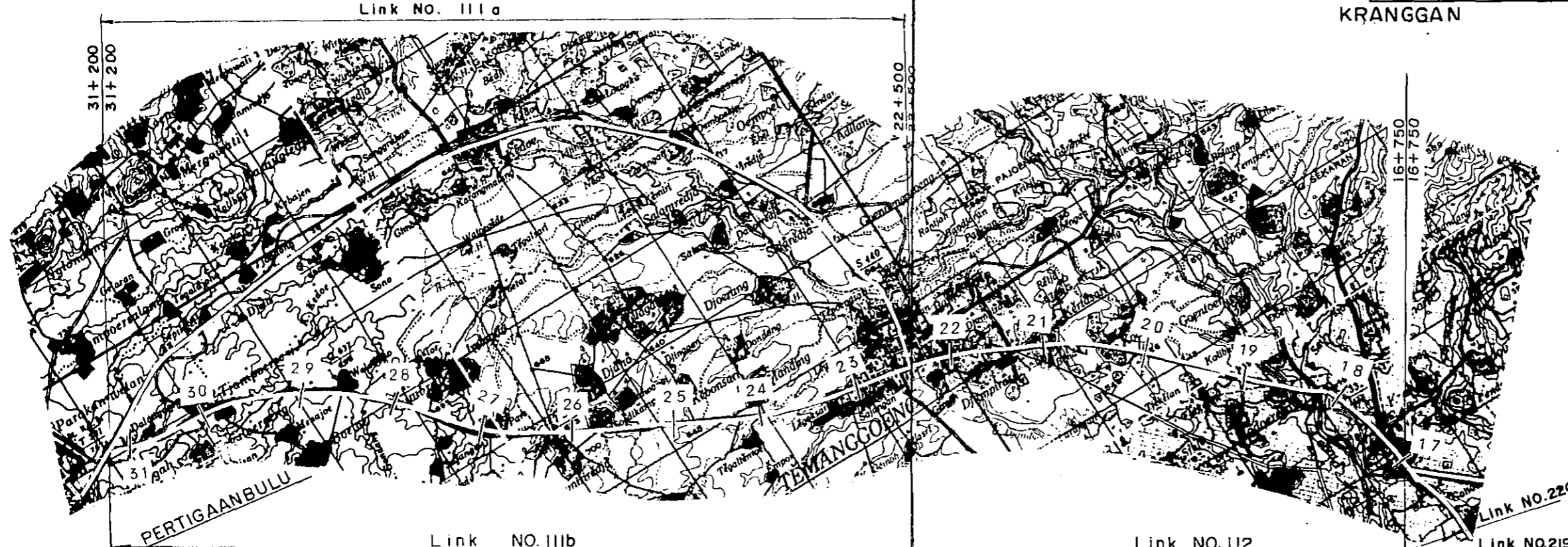


PERTIGAANBULU

TEMANGGUNG

KRANGGAN

PROJECT	TOTAL SHEETS	SHEET NO
CENTRAL AND EAST JAVA ROAD BETTERMENT	41	16
PLAN AND PROFILE	SCALE	H: 1:50,000 V: 1:5,000

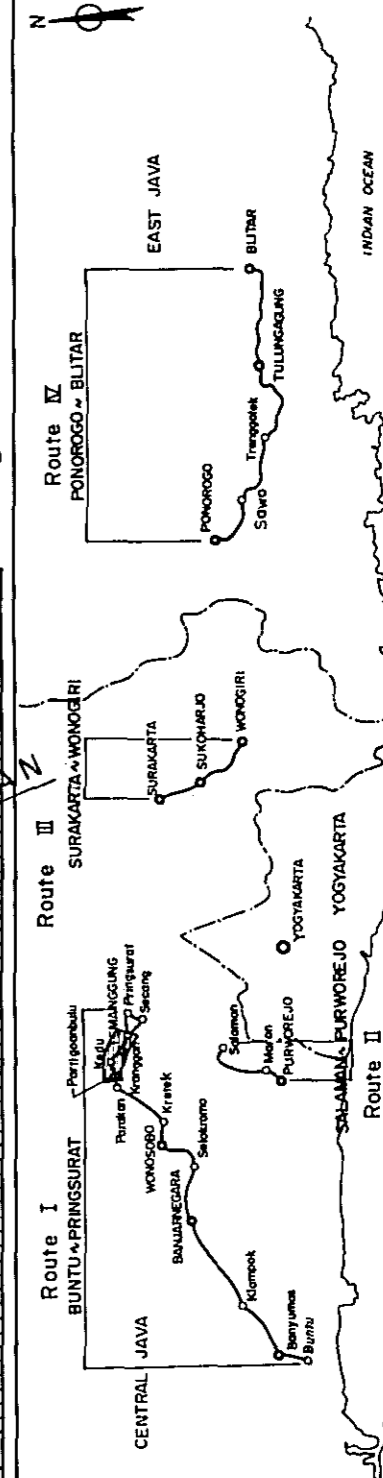


O.L = 300

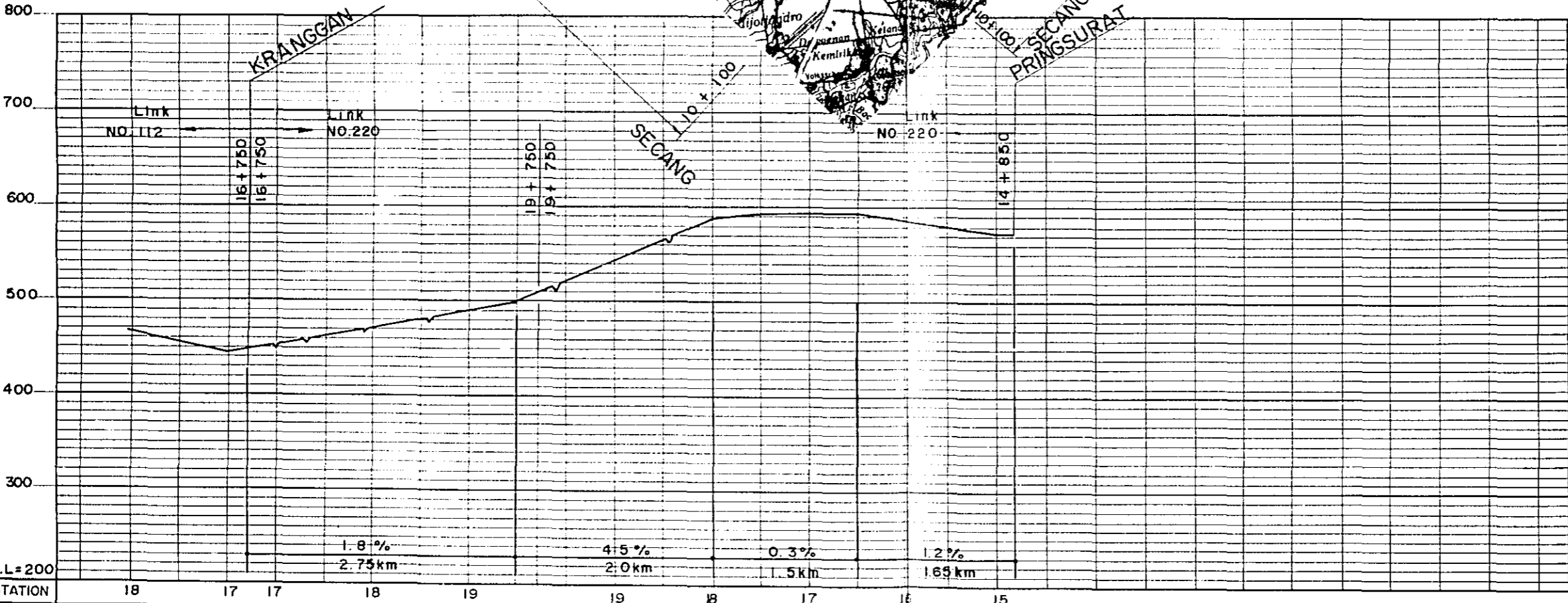
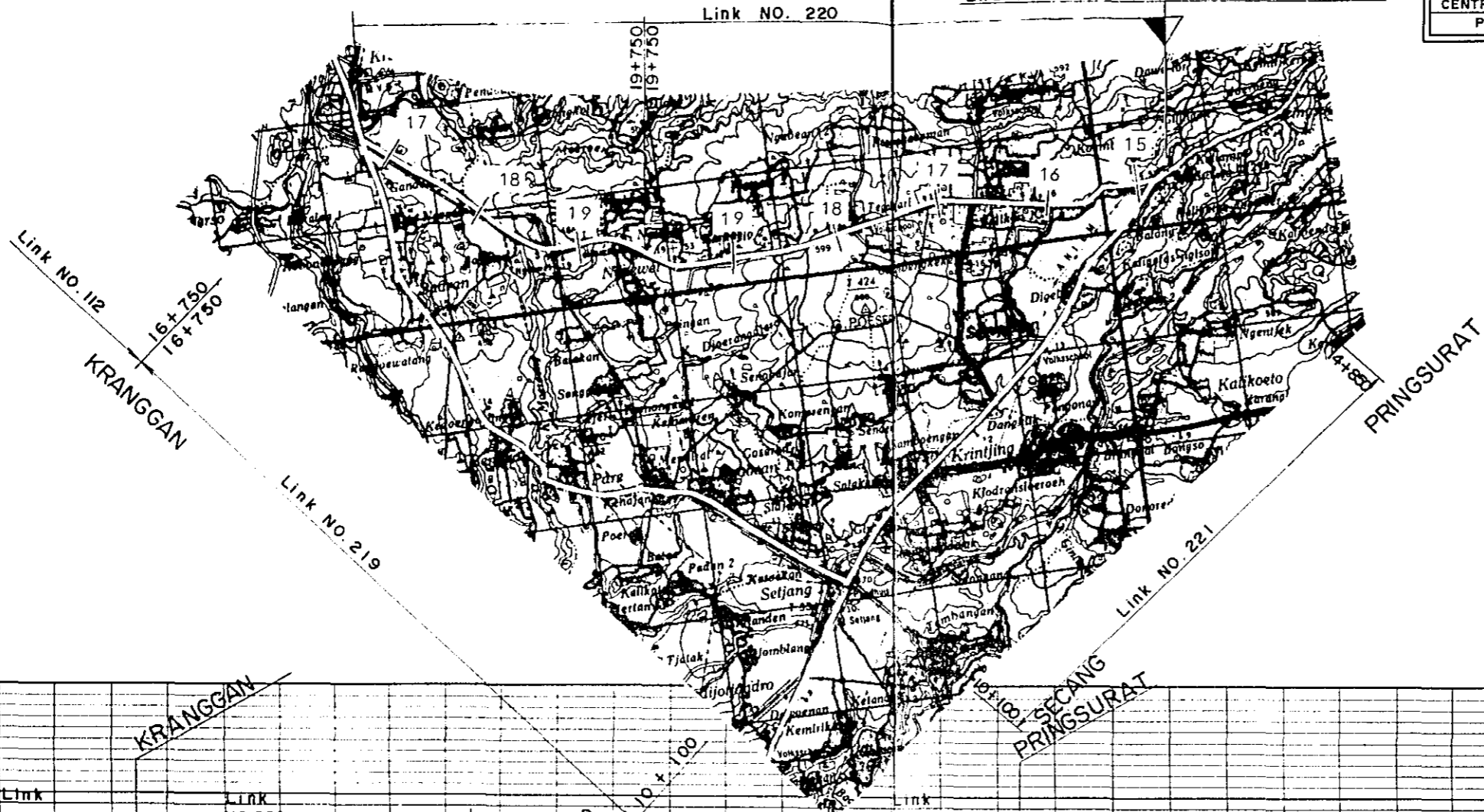
STATION 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16

PLAN I	U - 2	RF - 3	L = 7.7 km
PLAN II	L = 0.2 km	RF - 2	L = 7.7 km
		U - 1	L = 0.8 km
		U - 1	L = 1.5 km
		RH - 3	L = 4.25 km

KEY PLAN



PROJECT	TOTAL SHEETS	SHEET NO
CENTRAL AND EAST JAVA ROAD BETTERMENT	41	17
PLAN AND PROFILE	SCALE	H: 1:50,000 V: 1:5,000



D.L = 200

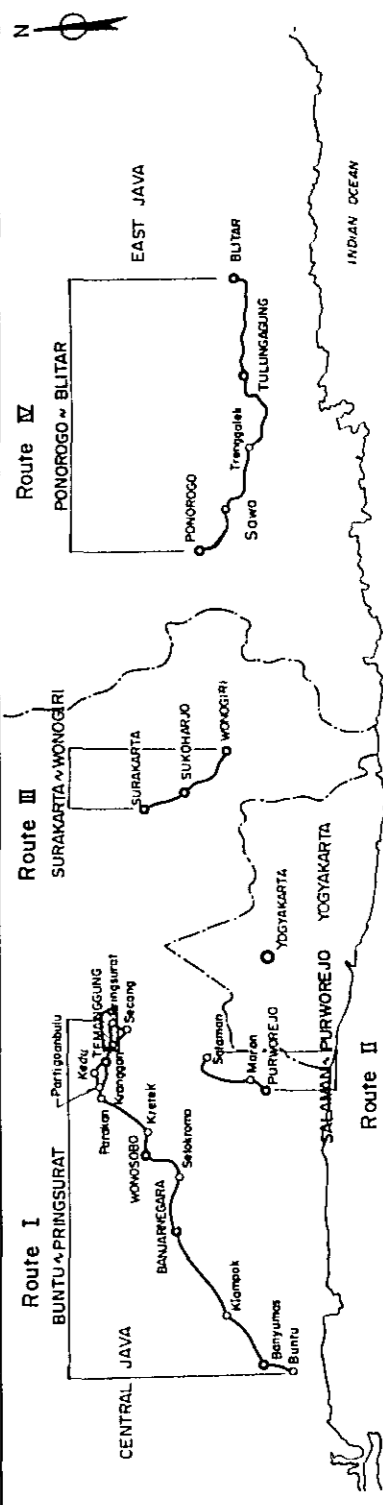
STATION

PLAN I

PLAN II

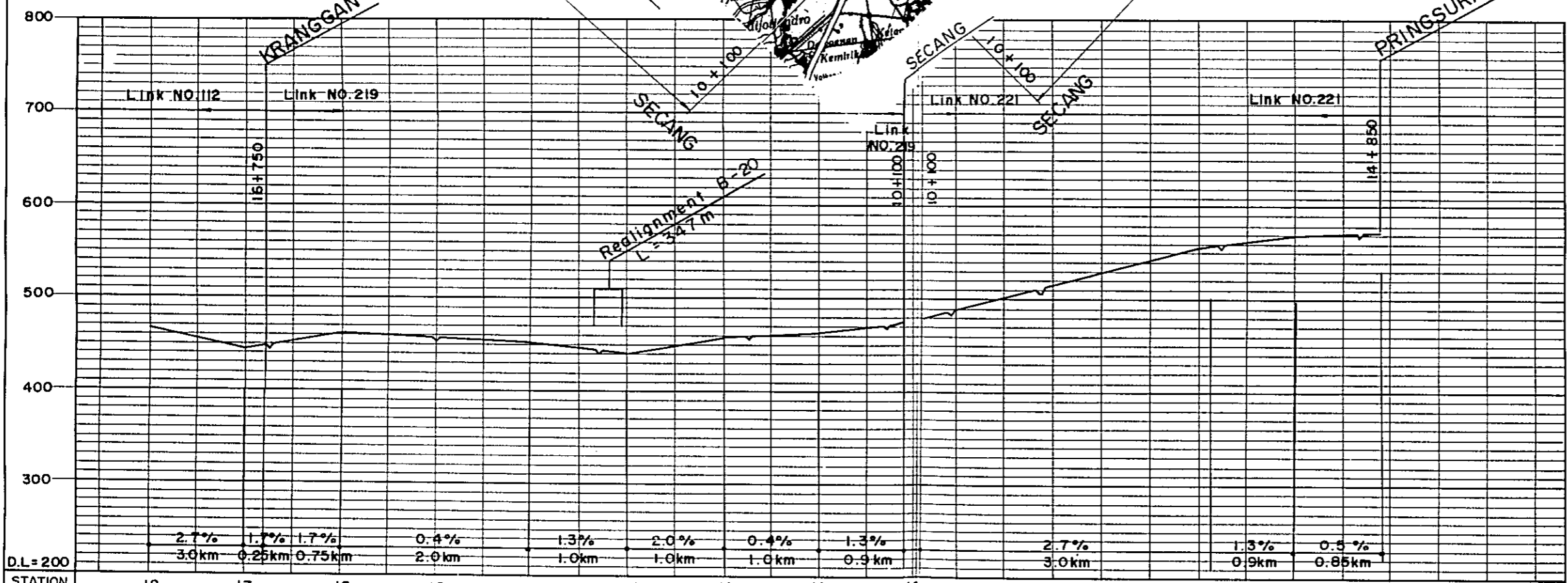
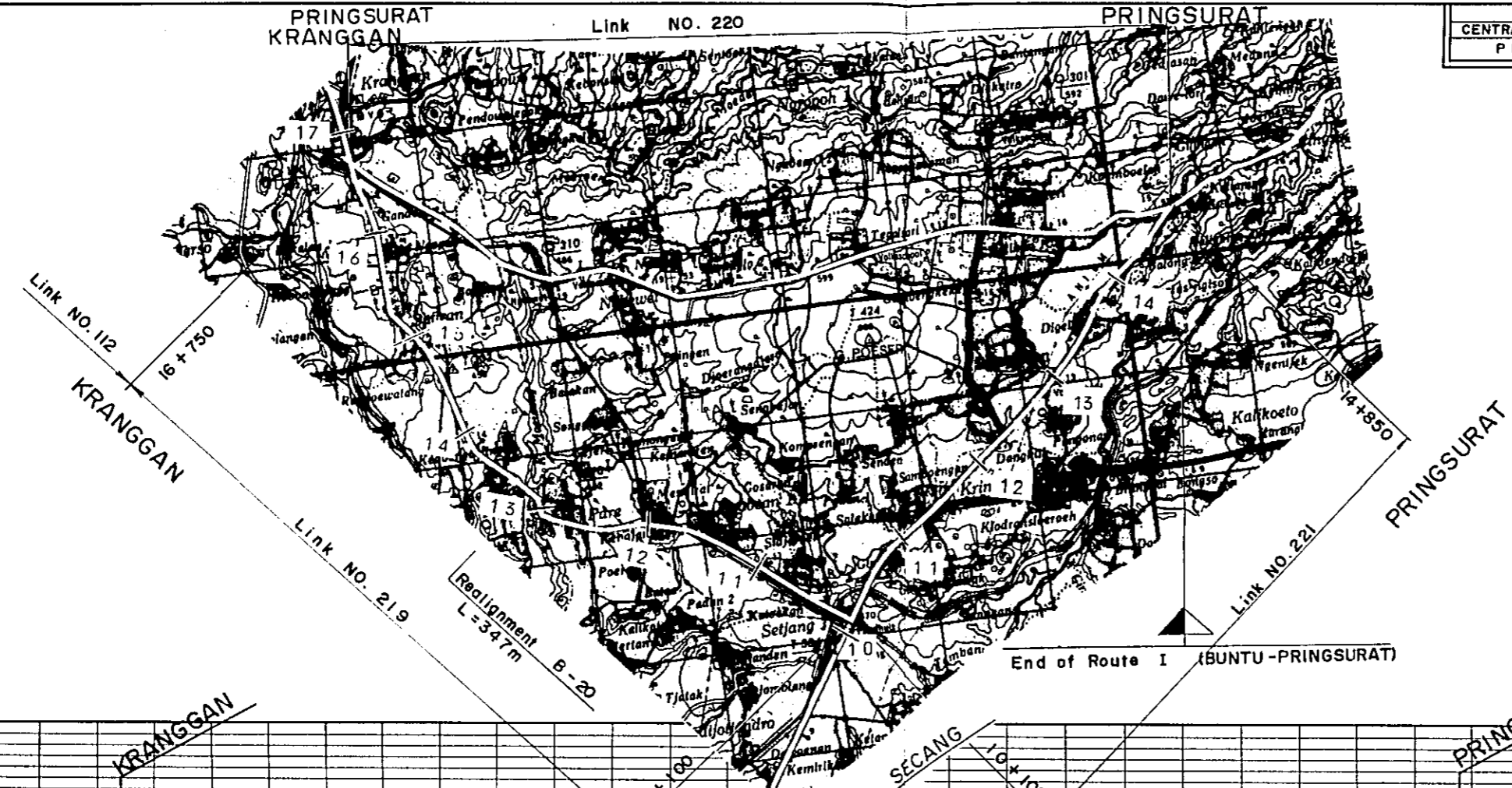
18	17	17	18	19	19	18	17	16	15
RH - 3 L = 4.25 km	RF - 3 L = 2.75 km	RF - 2 L = 2.75 km	RH - 3 L = 2.0 km	RH - 2 L = 2.0 km	RF - 3 L = 3.15 km	RF - 2 L = 3.15 km			

KEY PLAN



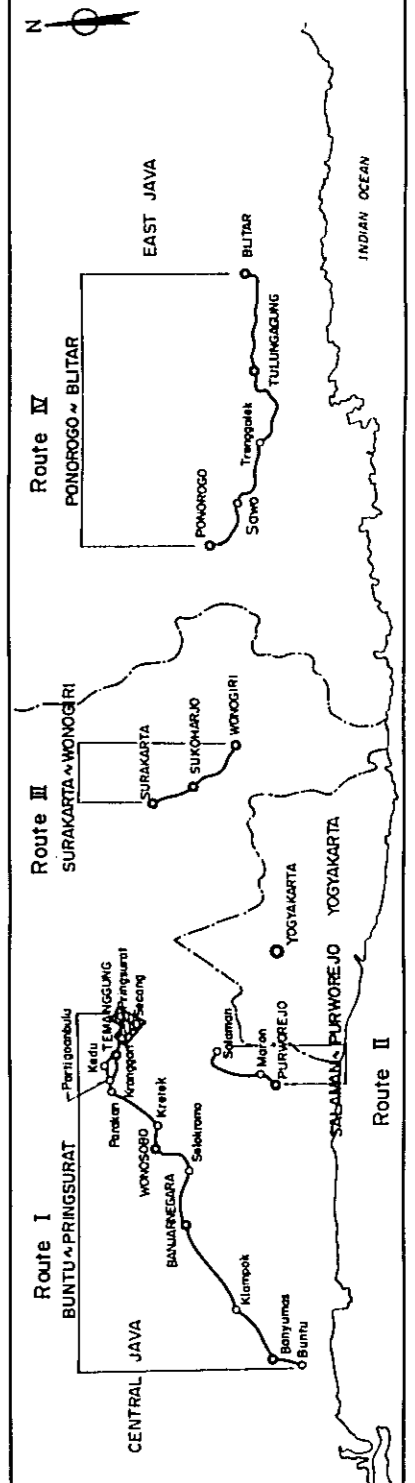
PRINGSURAT KRANGGAN Link NO. 220 PRINGSURAT

PROJECT	TOTAL SHEETS	SHEET NO.
CENTRAL AND EAST JAVA ROAD BETTERMENT	41	18
PLAN AND PROFILE	SCALE: H: 1/50,000	V: 1/5,000

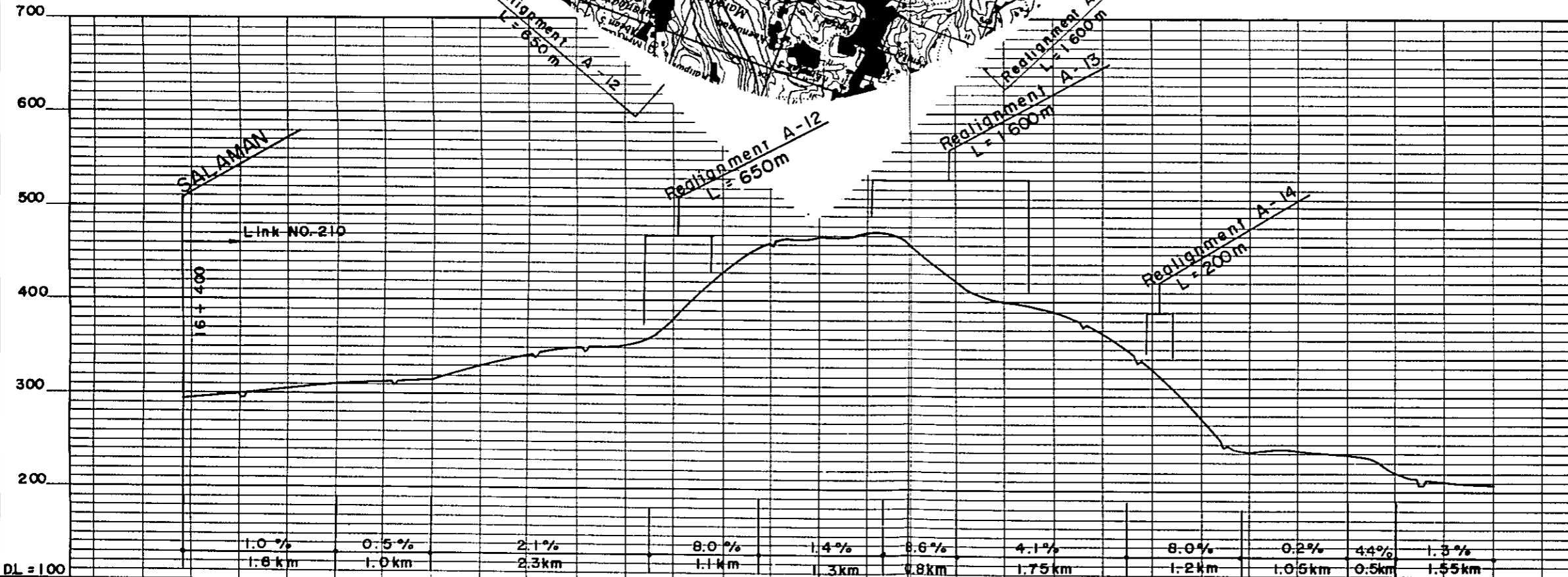
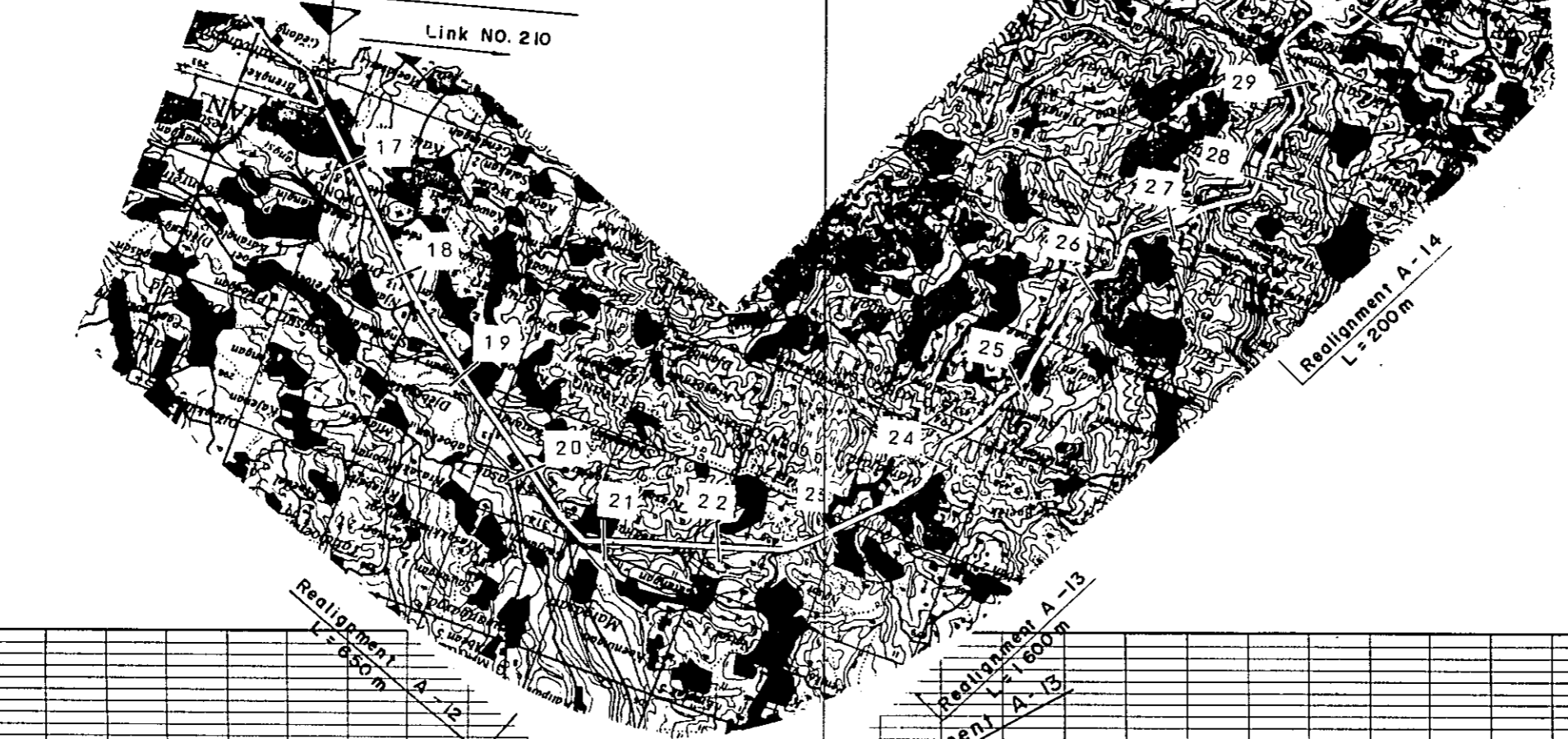


D.L. = 200	2.7% 3.0km	1.7% 0.25km	1.7% 0.75km	0.4% 2.0km	1.3% 1.0km	2.0% 1.0km	0.4% 1.0km	1.3% 0.9km	2.7% 3.0km	1.3% 0.9km	0.5% 0.85km		
STATION	18	17	16	15	14	13	12	11	10	11	12	13	14
PLAN I	RH - 3		RF - 3						RF - 4				
PLAN II	L = 4.25km		L = 6.65km						L = 4.75km				

KEY PLAN

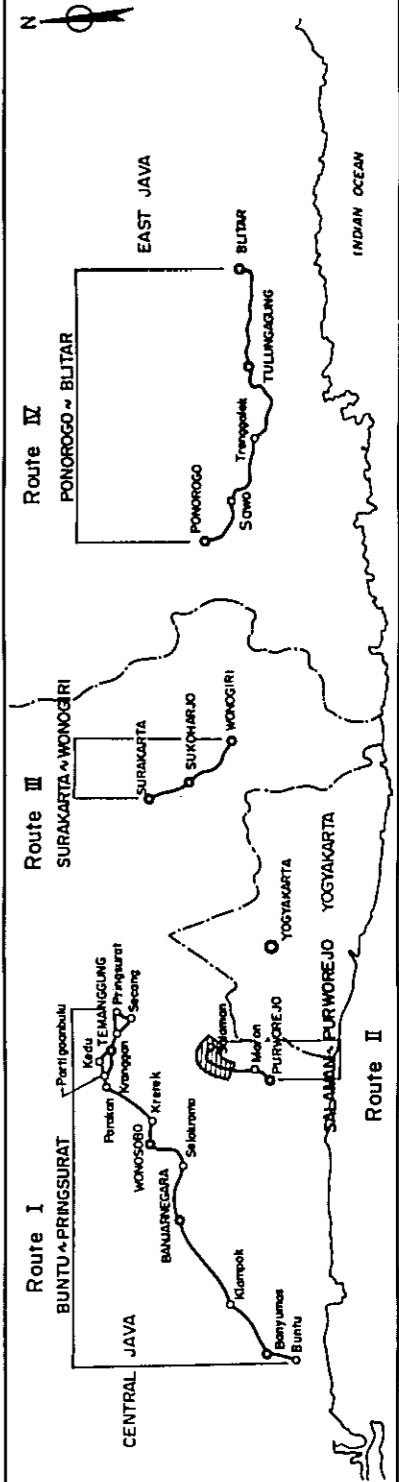


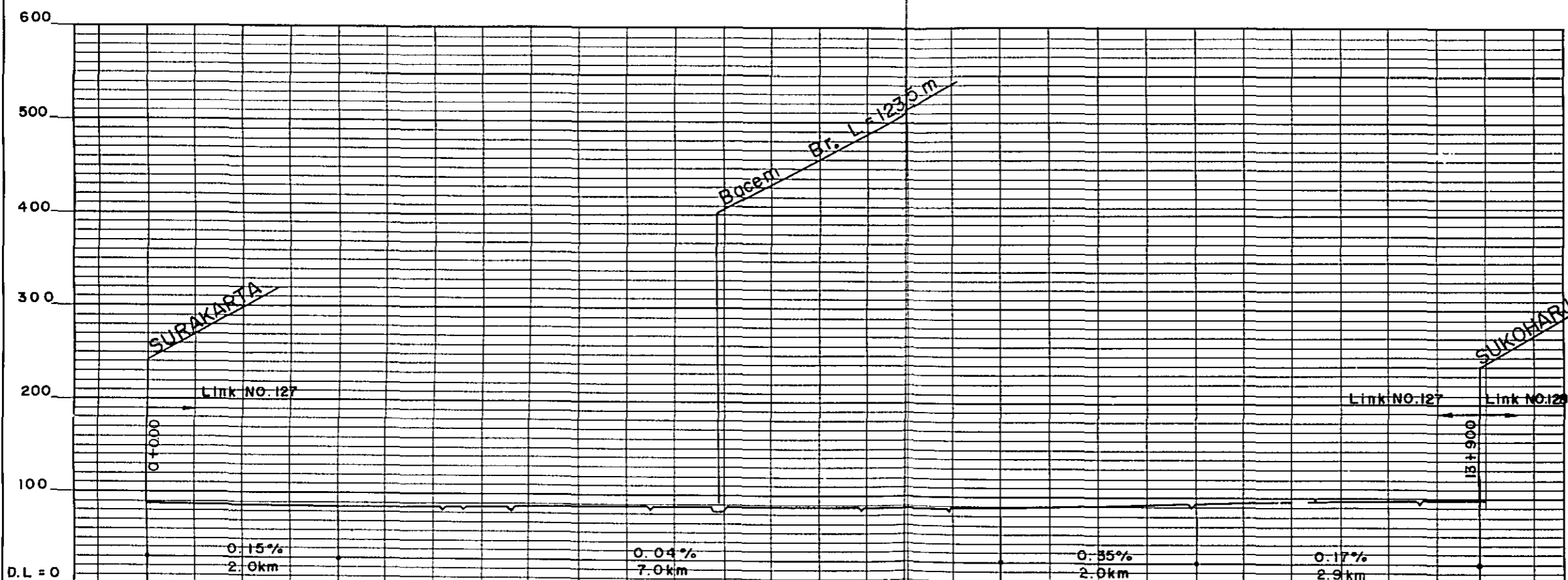
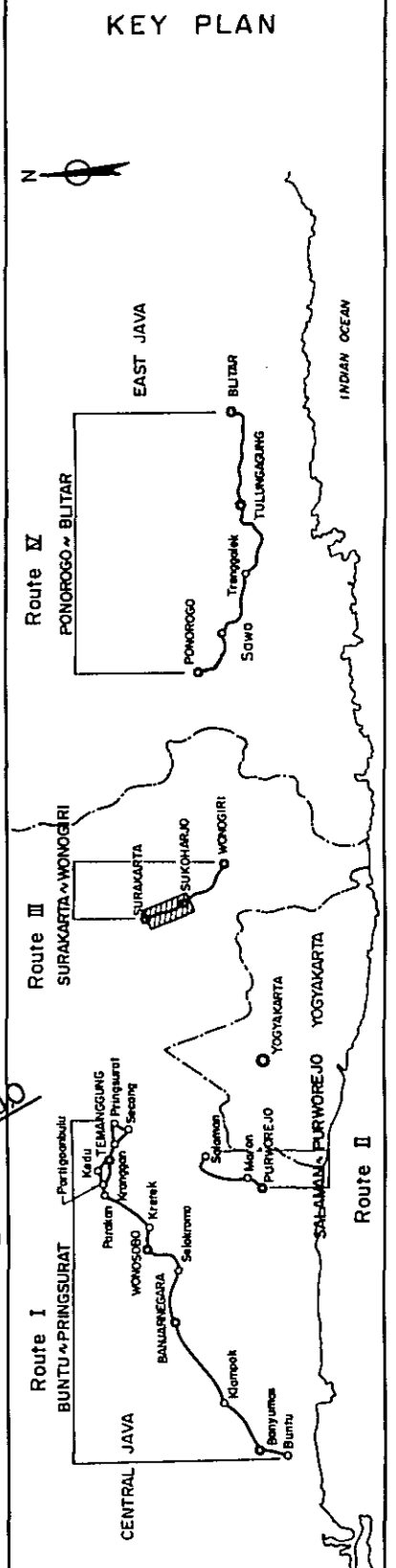
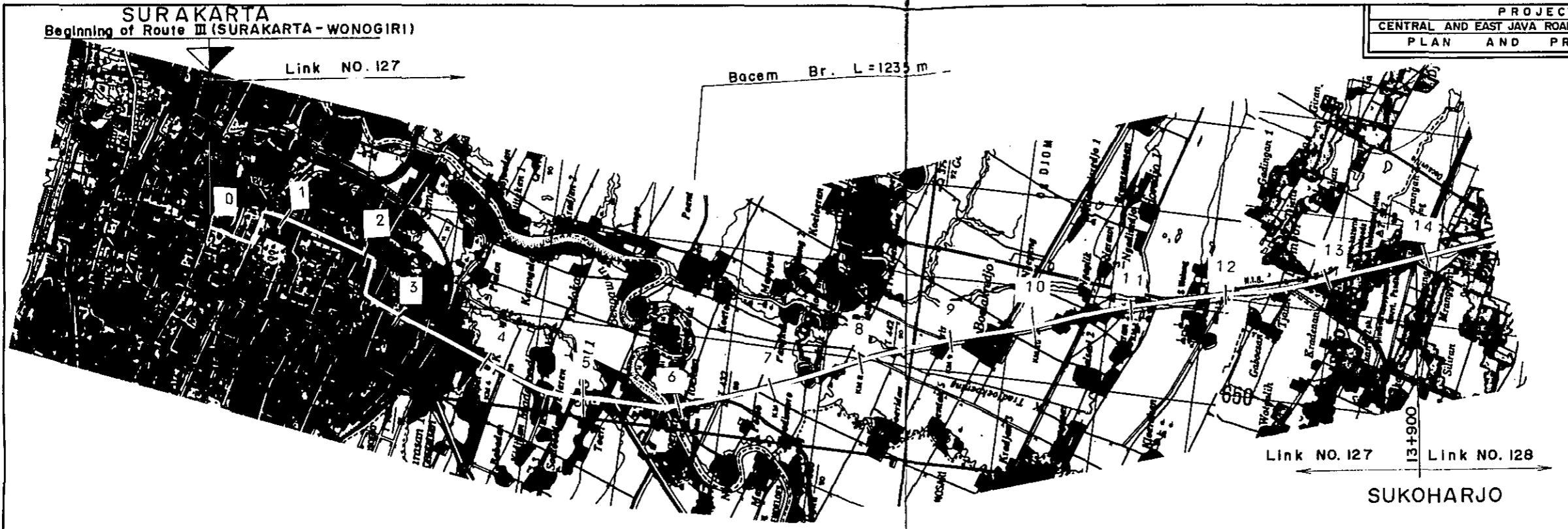
SALAMAN
Beginning of Route II (SALAMAN-PURWOREJO)
Link NO. 210



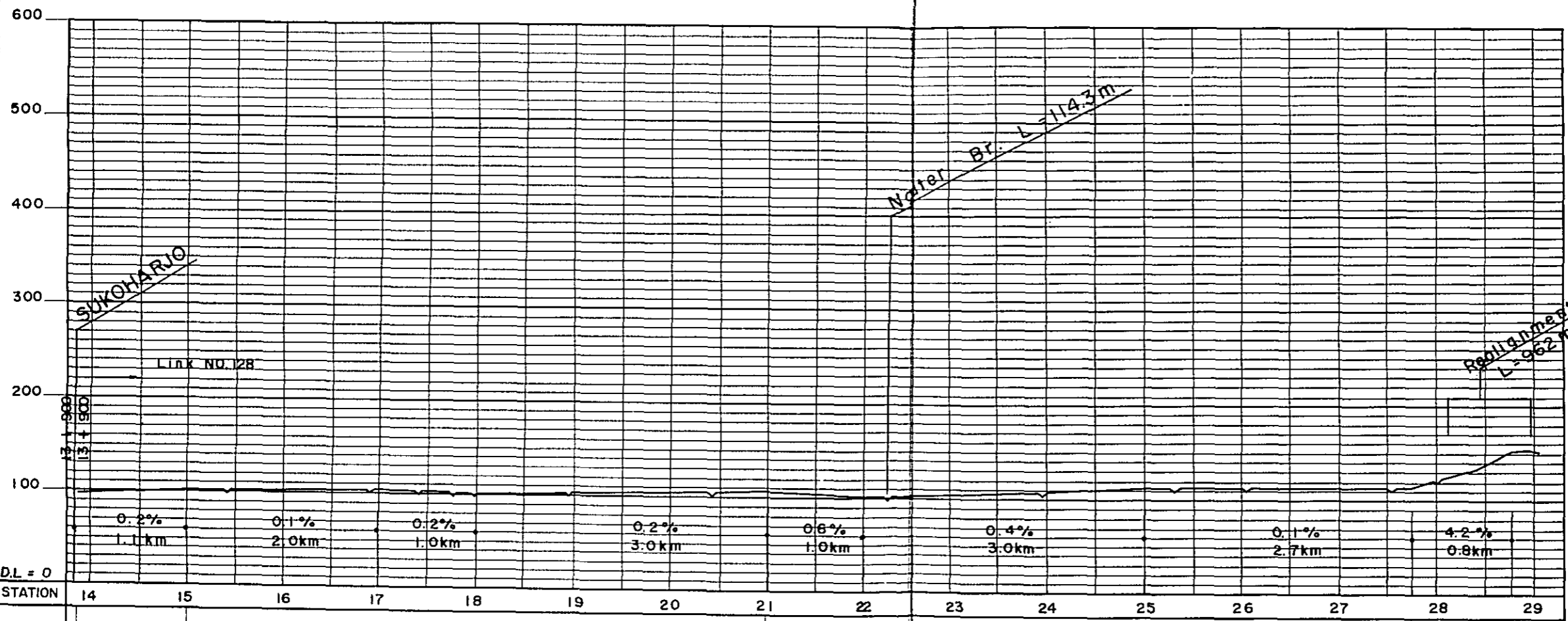
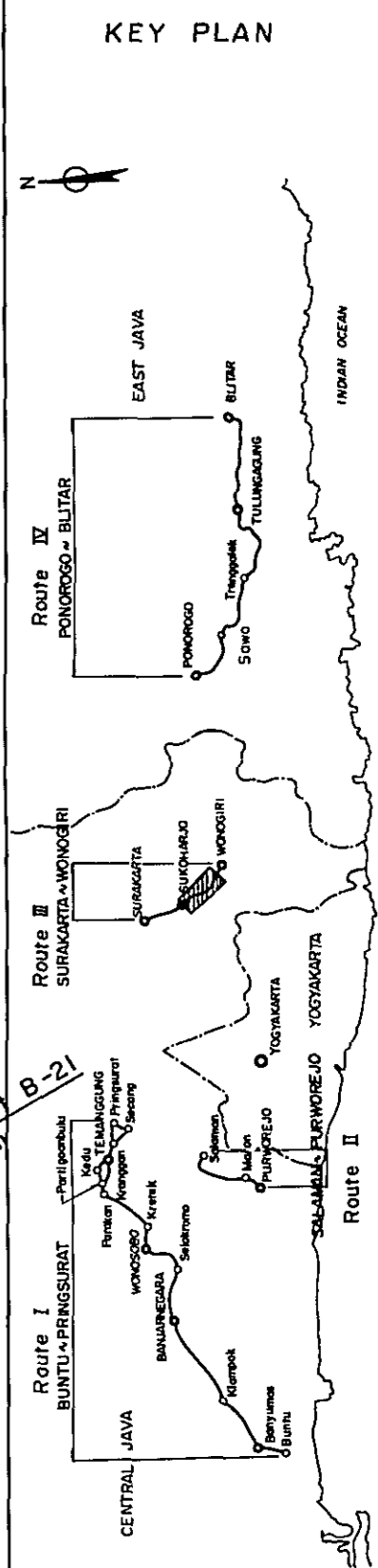
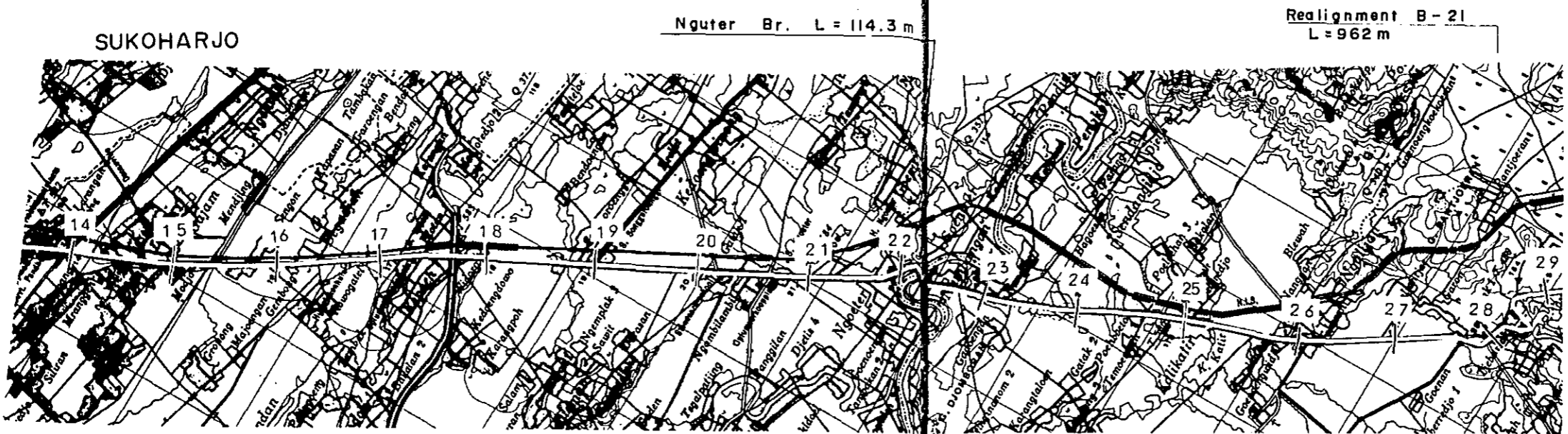
STATION	17	18	19	20	21	22	23	24	25	26	27	28	29	30
PLAN I		S-2		RF - 3 L = 3.7 km				RM - 3 L = 10.8 km						
PLAN II		L=0.6 km		RF - 2 L = 3.7 km				RM - 2 L = 10.8 km						

KEY PLAN





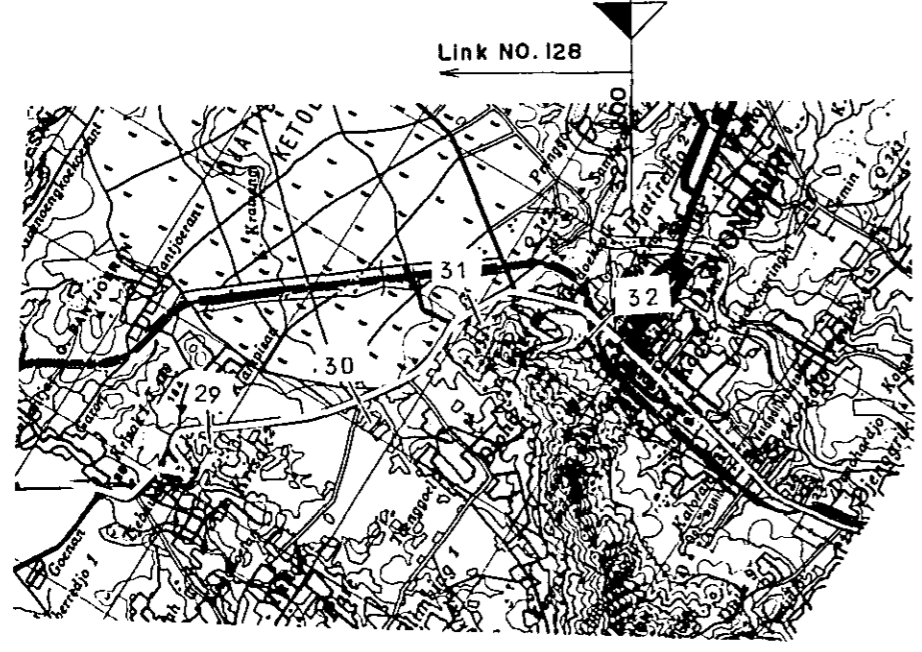
D.L = 0	0.15% 2.0km	0.04% 7.0km	0.35% 2.0km	0.17% 2.9km												
STATION	0	1	2	3	4	5	6	7	8	9	9	10	11	12	13	14
PLAN I	U - 2 L = 4.0km		S - 2 L = 2.5km		F - 3 L = 5.5km		F - 3 (5.5) L = 5.5km		S - 2 L = 1.9km							
PLAN II																



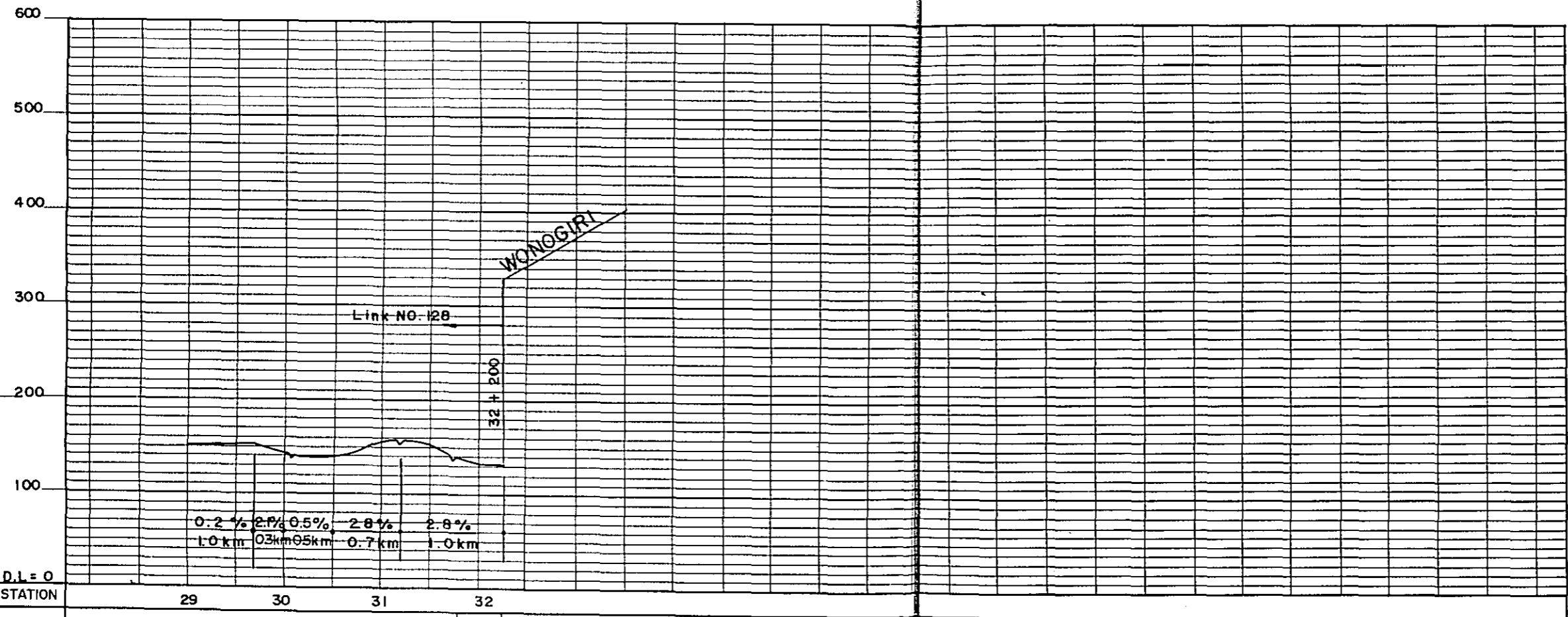
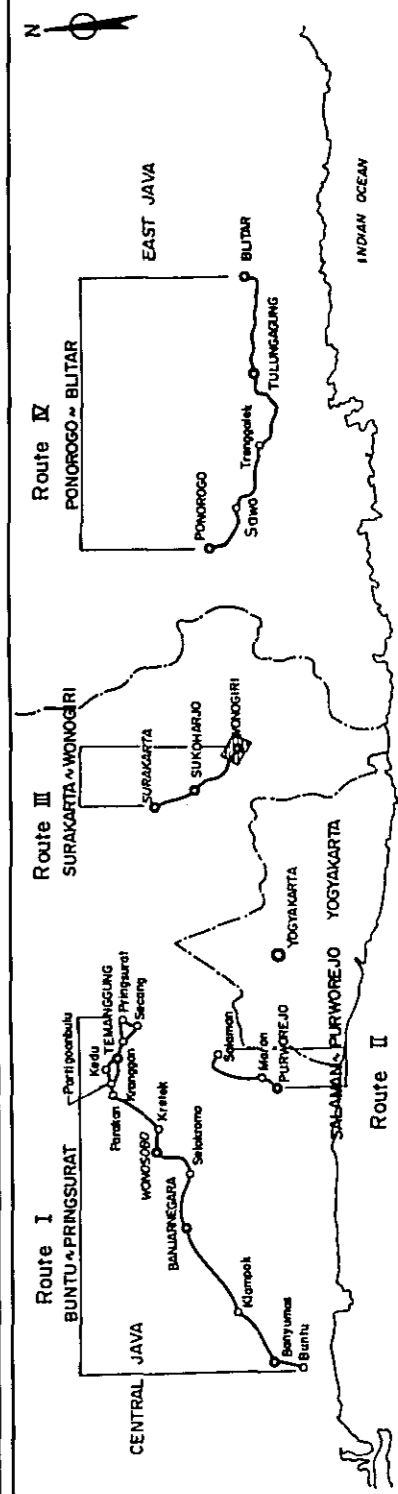
DL = 0																												
STATION	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29												
PLAN I	S - 2		RF - 3													S - 2		RF - 3			RH - 3		RF - 3					
PLAN II	L = 1.1 km		RF - 3 (5.5)													L = 1.5 km		RF - 3			L = 5.2 km		L = 0.8 km		L = 3.1 km			
			L = 6.0 km															L = 4.5 km										

PROJECT	TOTAL SHEETS	SHEET NO.
CENTRAL AND EAST JAVA ROAD BETTERMENT	41	23
PLAN AND PROFILE	SCALE : H : 1 50,000	V : 1 5,000

WONOGIRI
End of Route III (SURAKARTA - WONOGIRI)



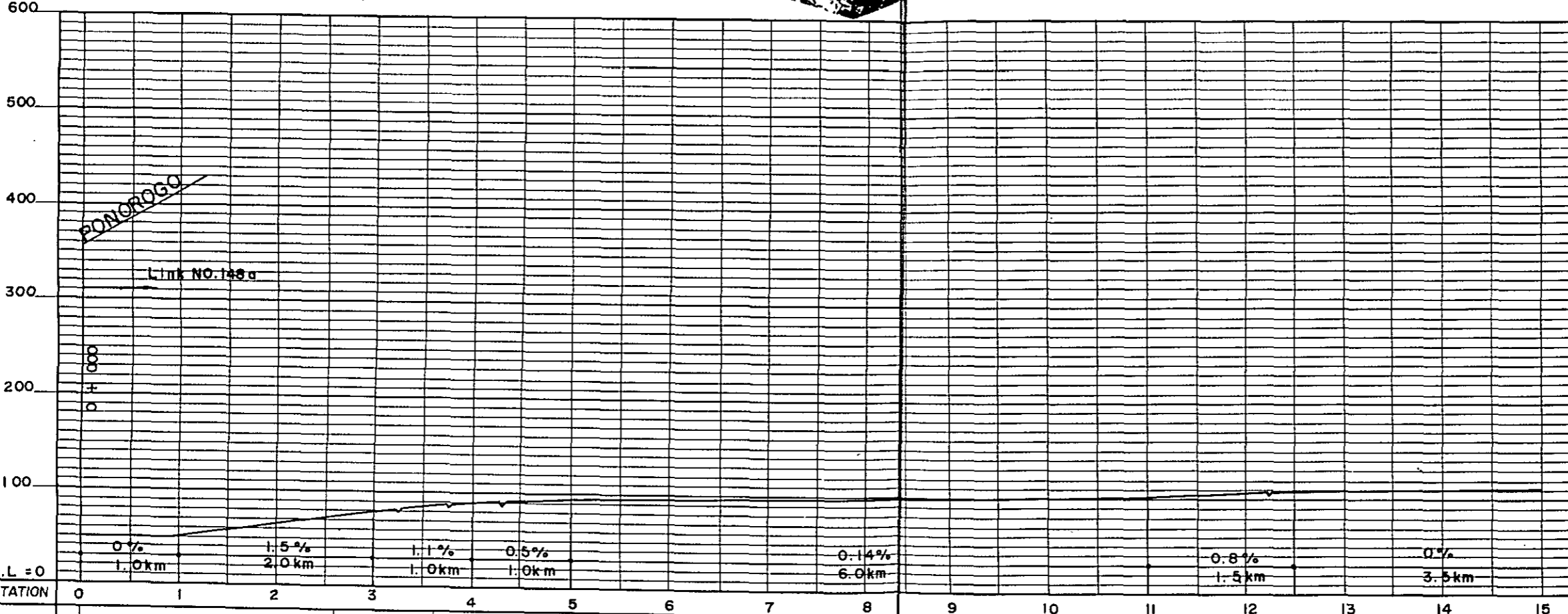
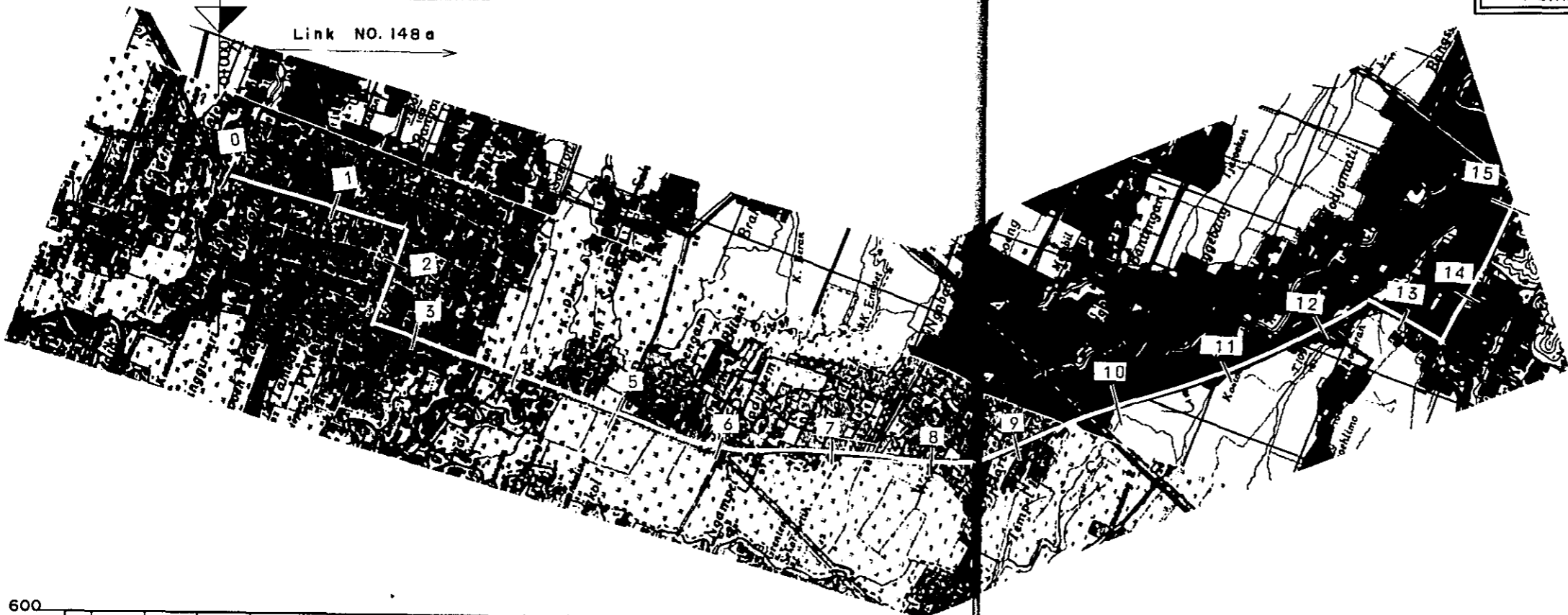
KEY PLAN



PLAN I	RF - 3	U - 2
PLAN II	L = 3.1 km	L = 0.4 km

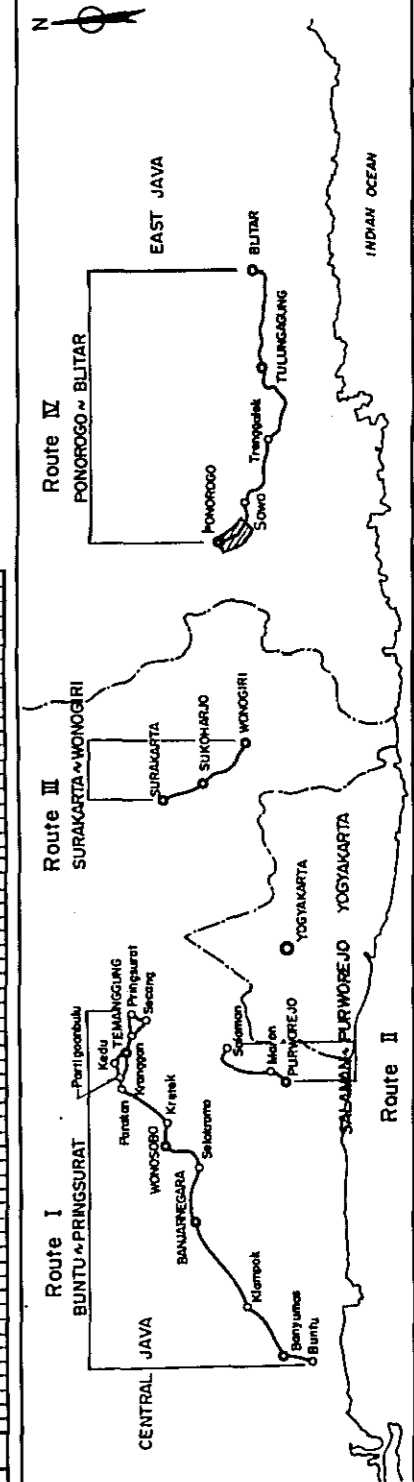
PONOROGO
Beginning of Route IV (PONOROGO-BLITAR)

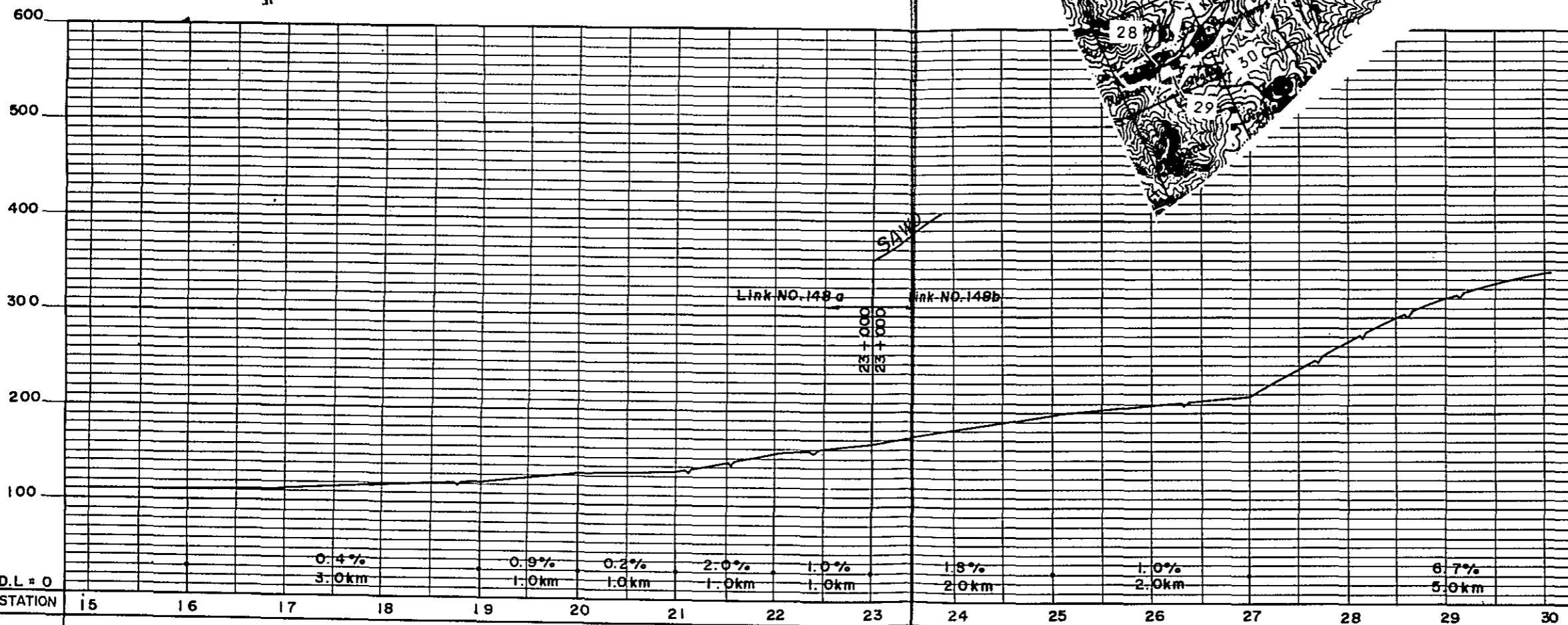
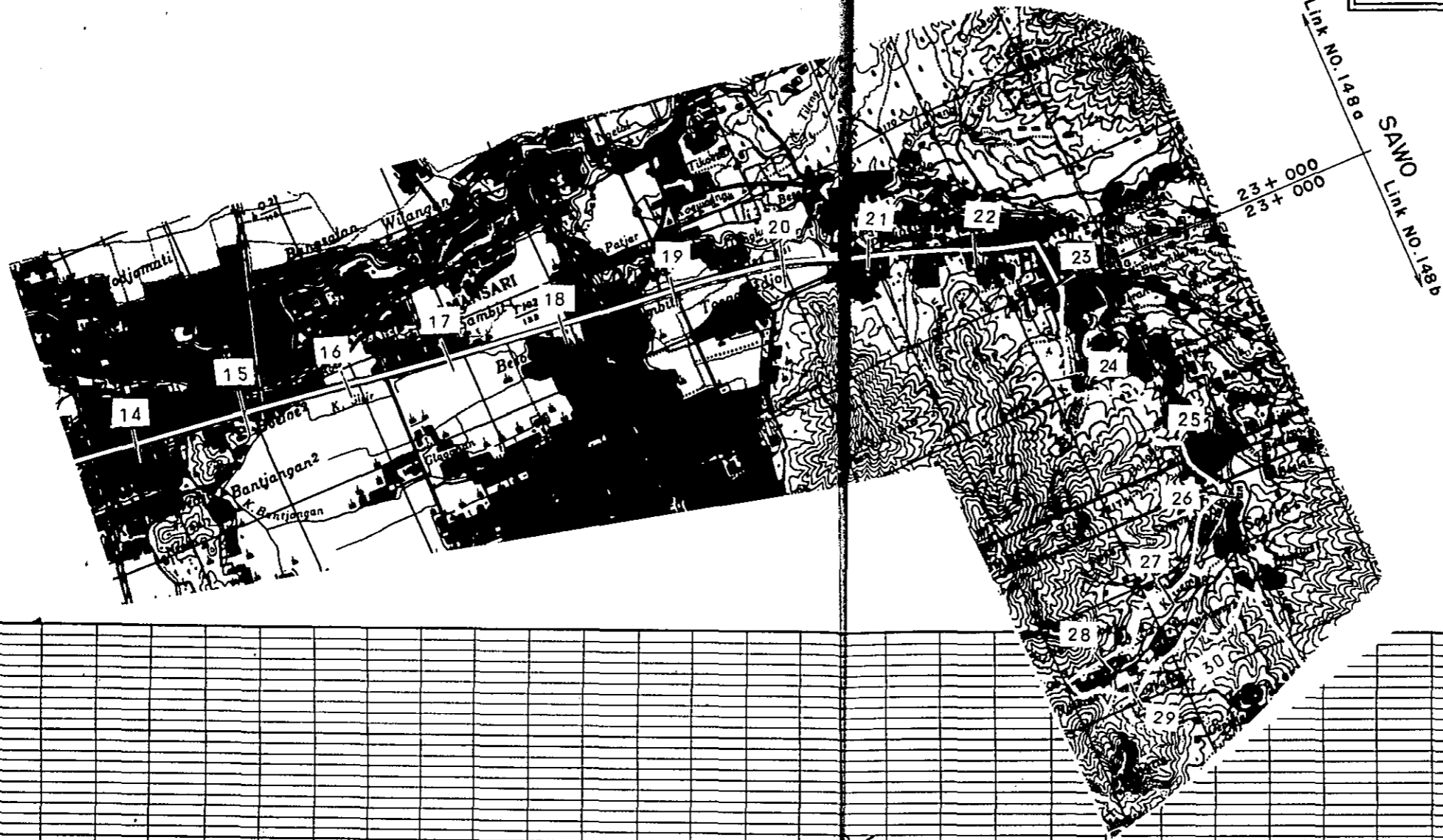
PROJECT	TOTAL SHEETS	SHEET NO.
CENTRAL AND EAST JAVA ROAD BETTERMENT	41	24
PLAN AND PROFILE	SCALE: H: 1:50,000	V: 1:5,000



D.L = 0																
STATION	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLAN I	U - 2 L = 2.6 km			S - 2 L = 1.0 km		RF - 3 L = 0.7 km		RF - 2 L = 1.8 km		RF - 3 L = 19.4 km						
PLAN II										RF - 1 L = 16.9 km						

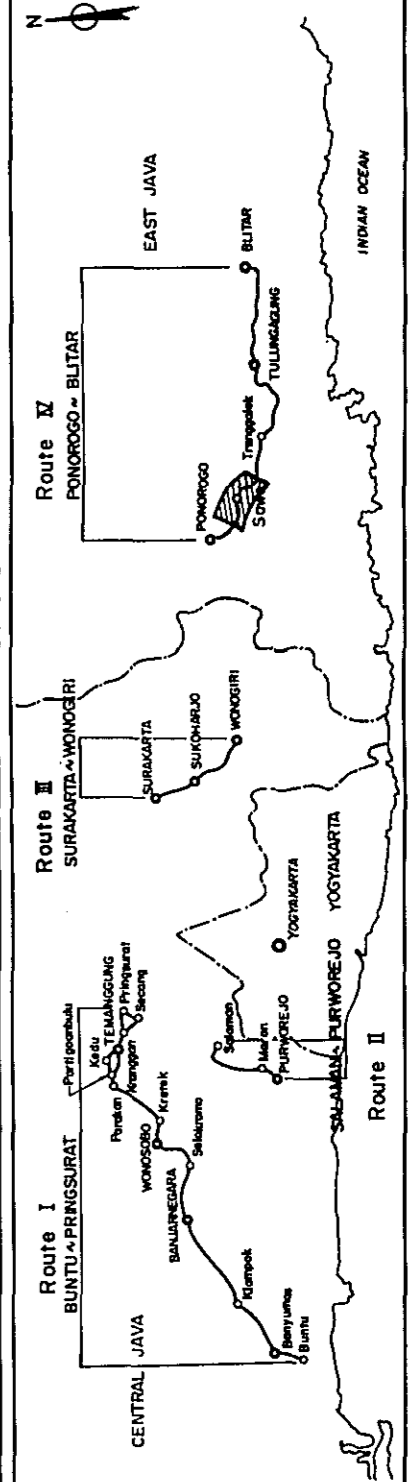
KEY PLAN

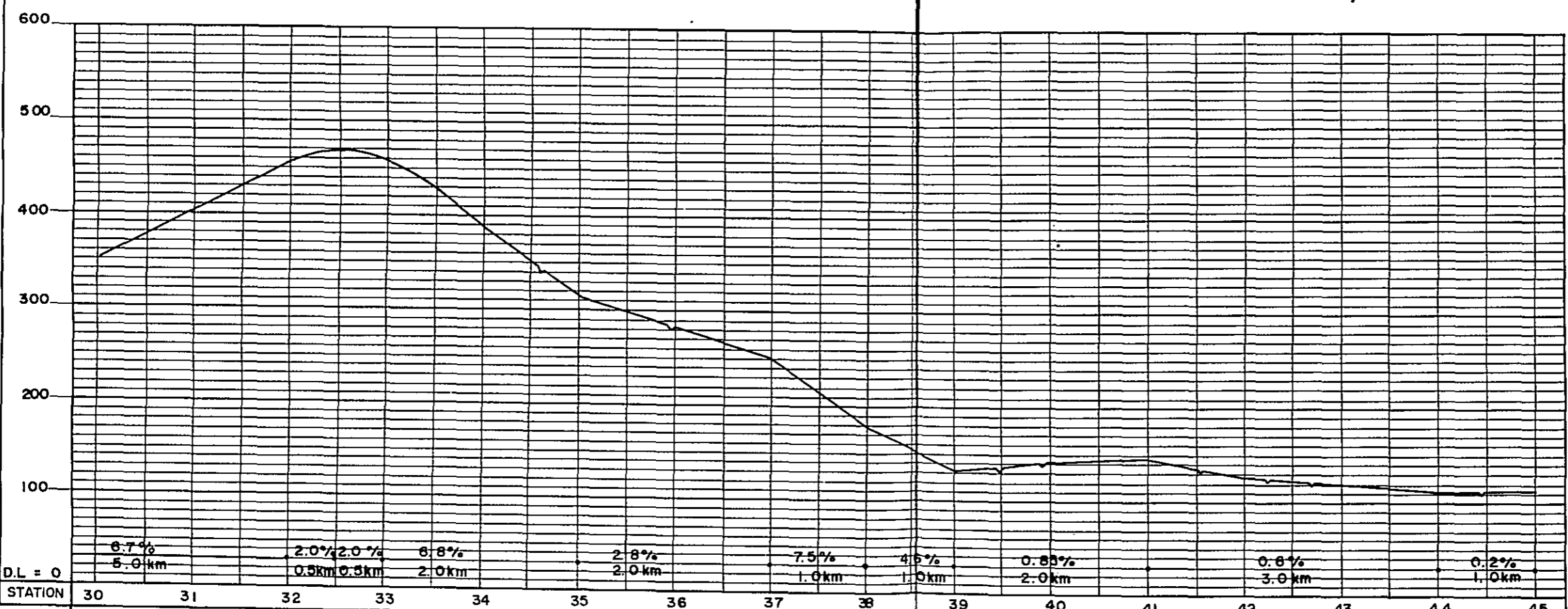
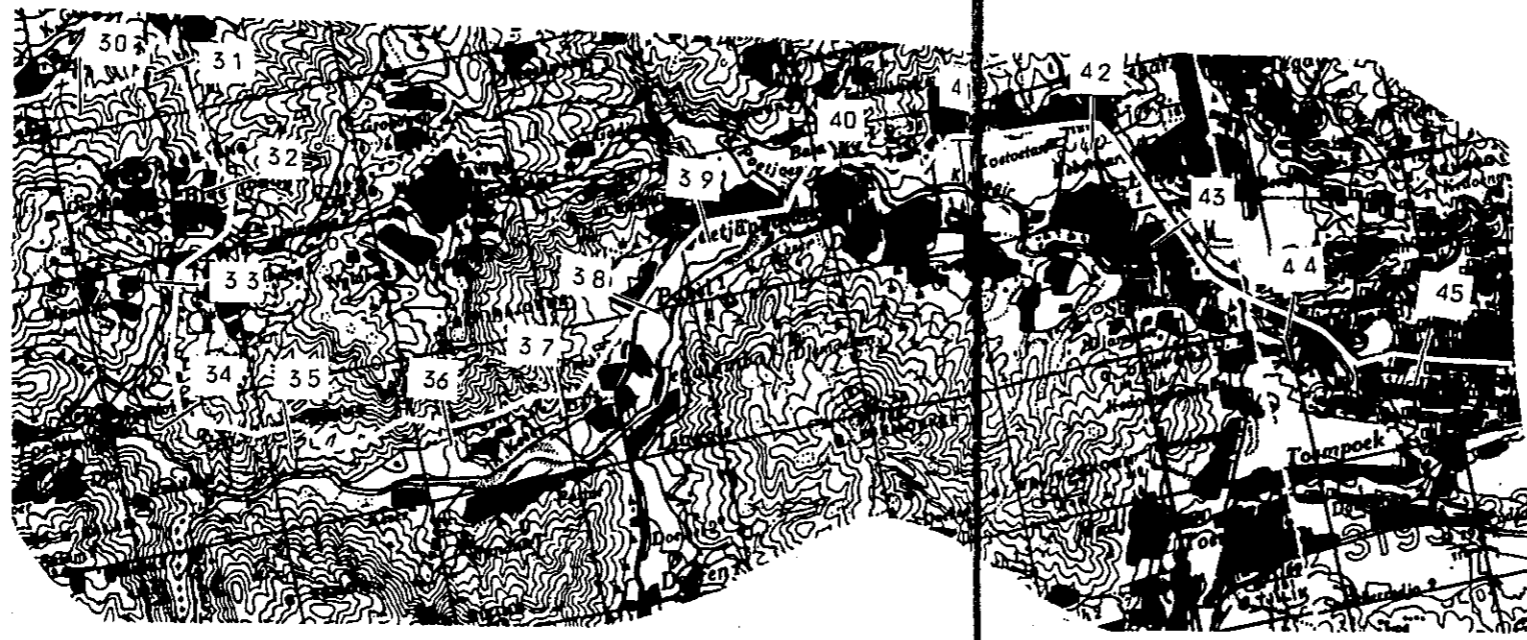




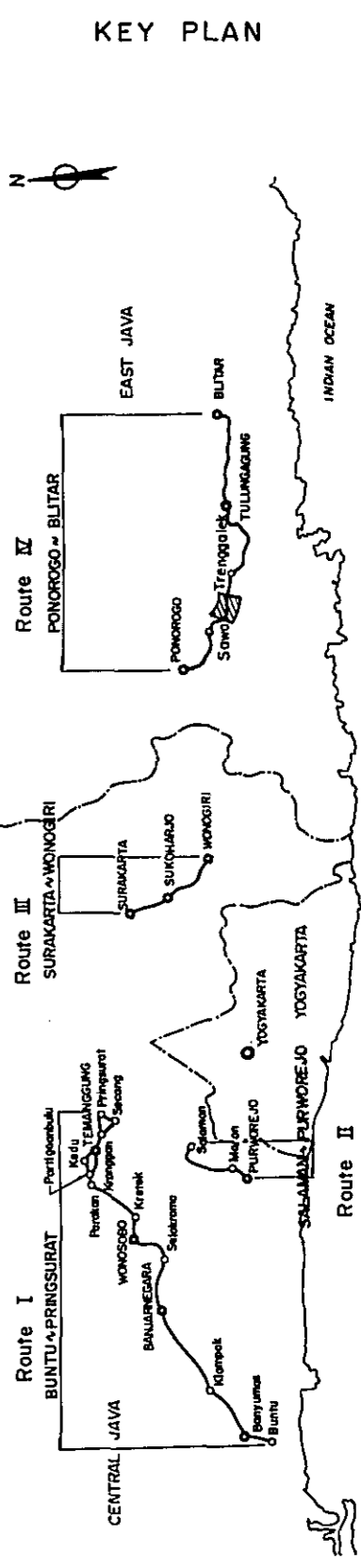
PLAN I	RF - 3 L = 19.4 km	RM - 3 L = 16.0 km
PLAN II	RF - 1 L = 16.9 km	RM - 1 L = 7.5 km

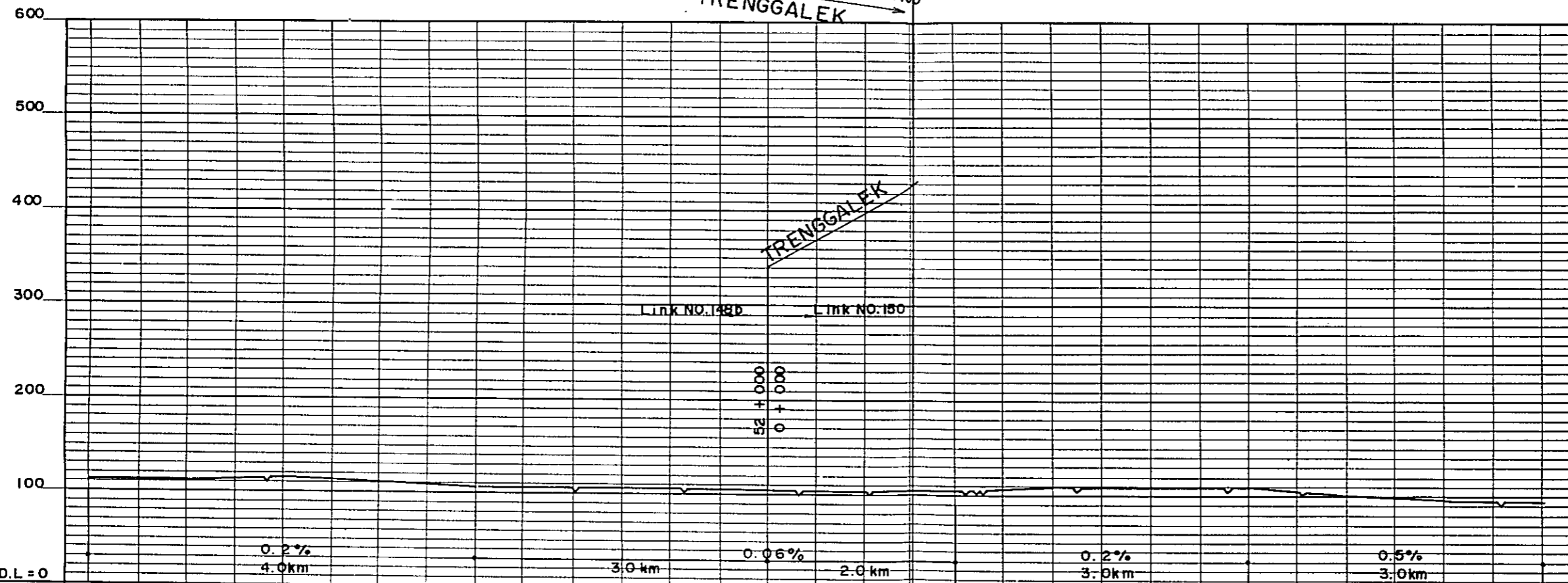
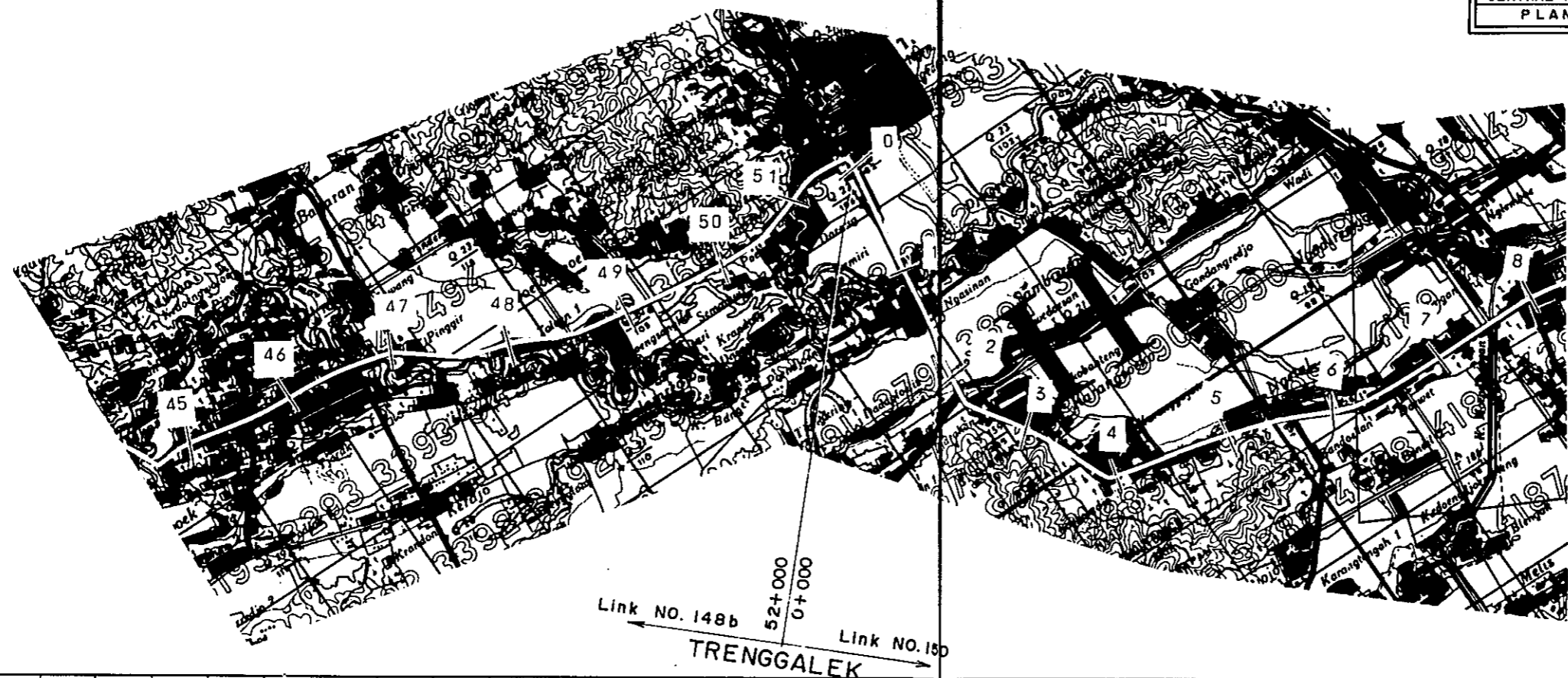
KEY PLAN





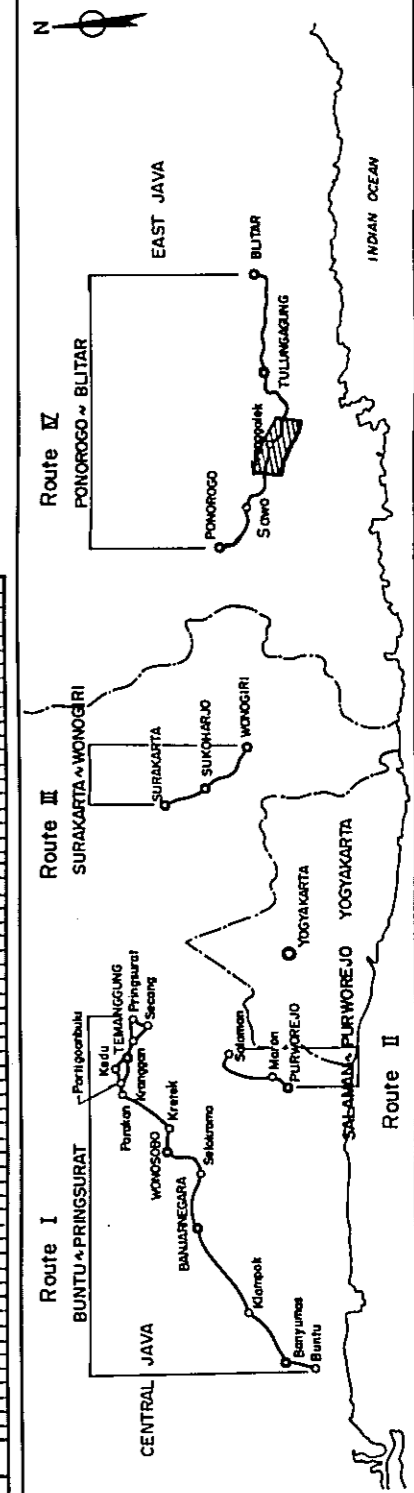
STATION	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
PLAN I				RM - 3									RF - 3			
				L = 16.0 km									L = 6.0 km			
PLAN II	RM - 1				RM - 2			RM - 1					RF - 1			
	L = 7.5 km				L = 3.5 km			L = 5.0 km					L = 6.0 km			

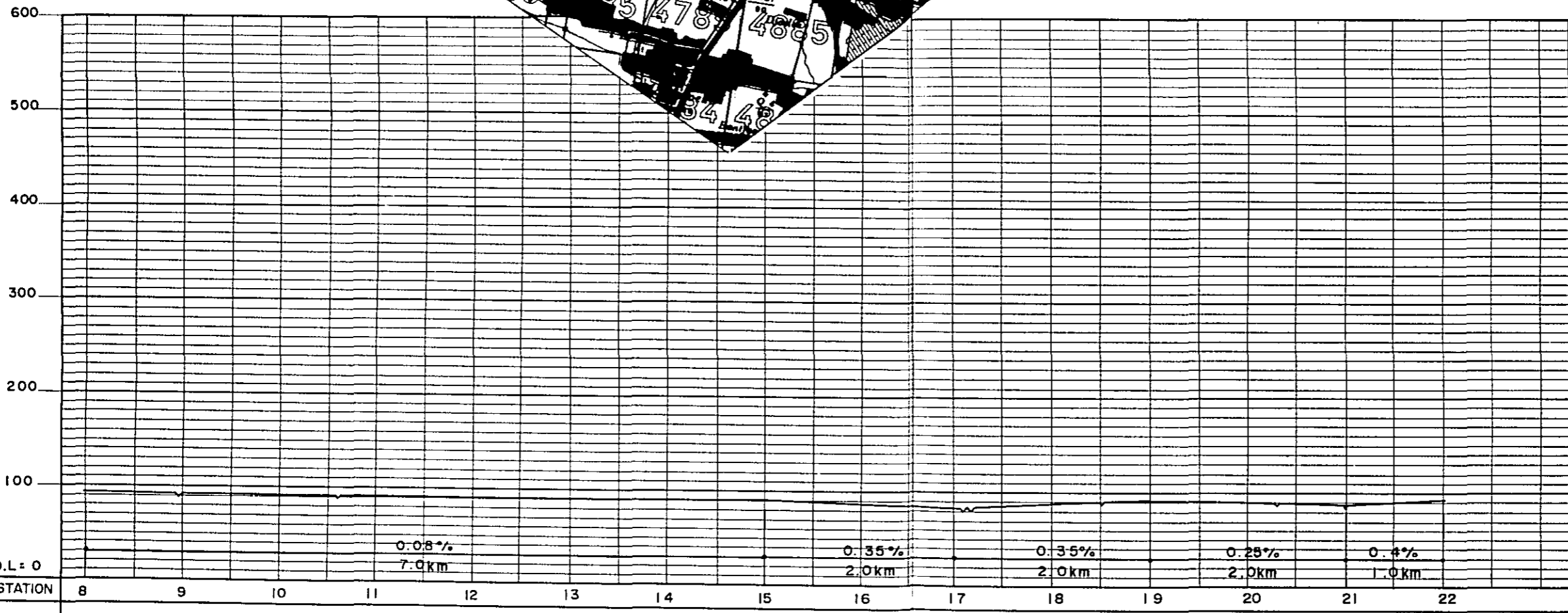




D.L = 0	STATION	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8
PLAN I		S - 1		RF - 3 L = 4.0km				U - 1		RF - 3 L = 29.0km							
PLAN II		L = 2.0km		RF - 1 L = 2.7km		RF - 2 L = 1.3km		L = 1.0km		RF - 3 L = 26.0km							

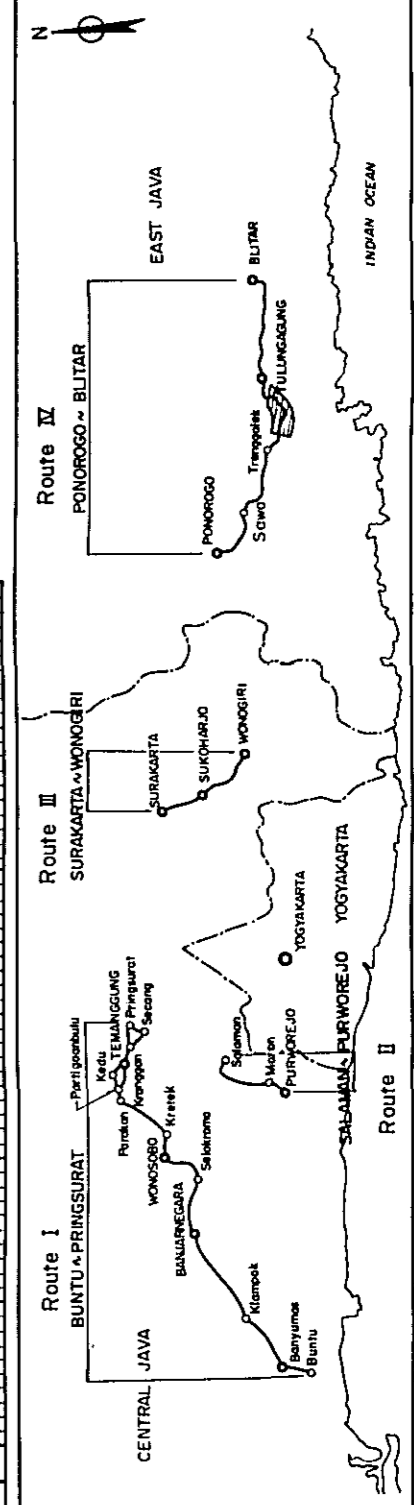
KEY PLAN





STATION	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
PLAN I	RF = 3 L = 29.0km														
PLAN II	RF = 3 L = 26.0km														

KEY PLAN

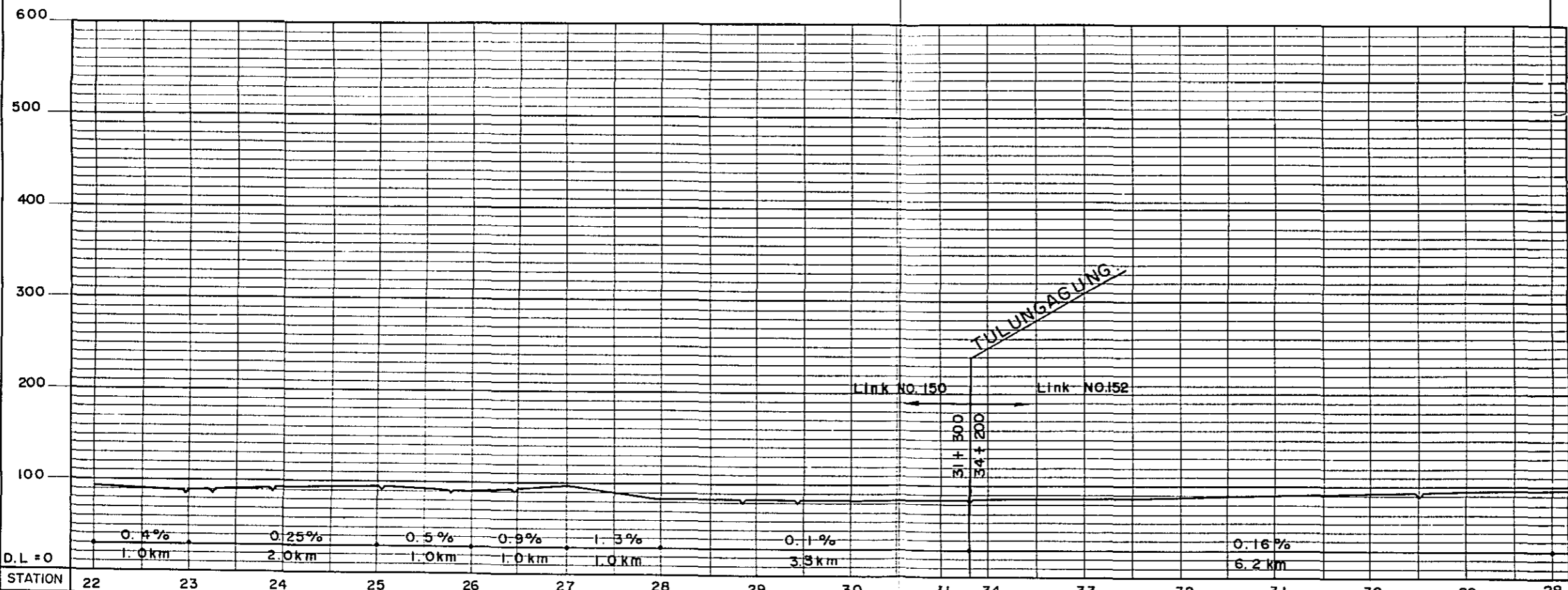
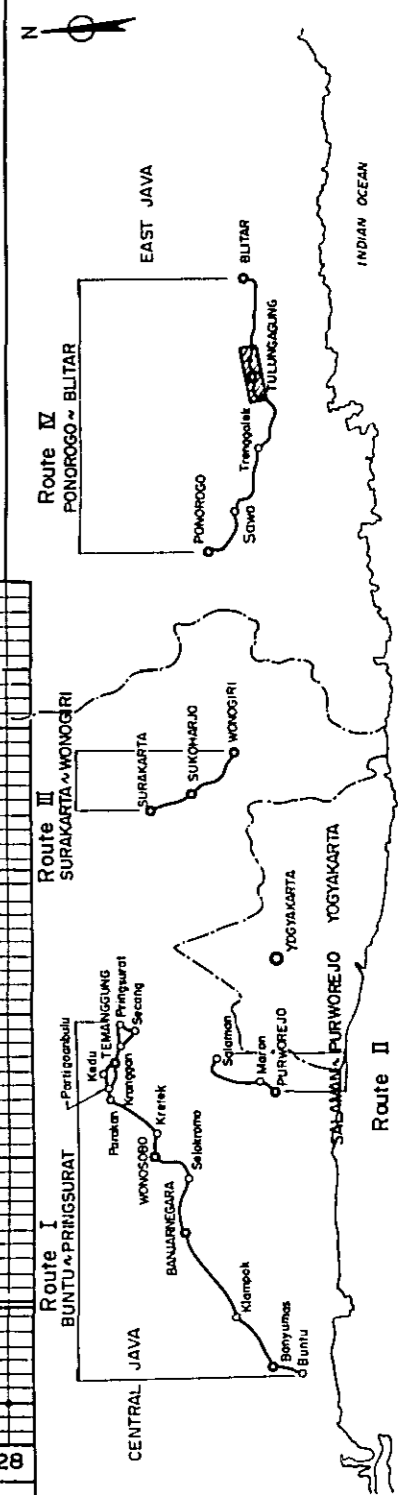


TULUNGAGUNG
Link NO.150 ← → Link NO.152

31+300
34+200



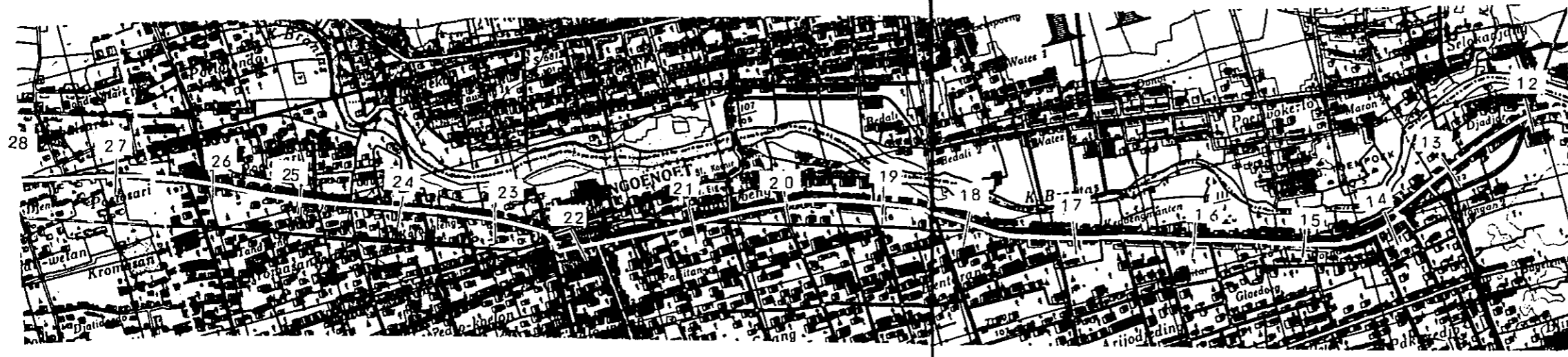
KEY PLAN



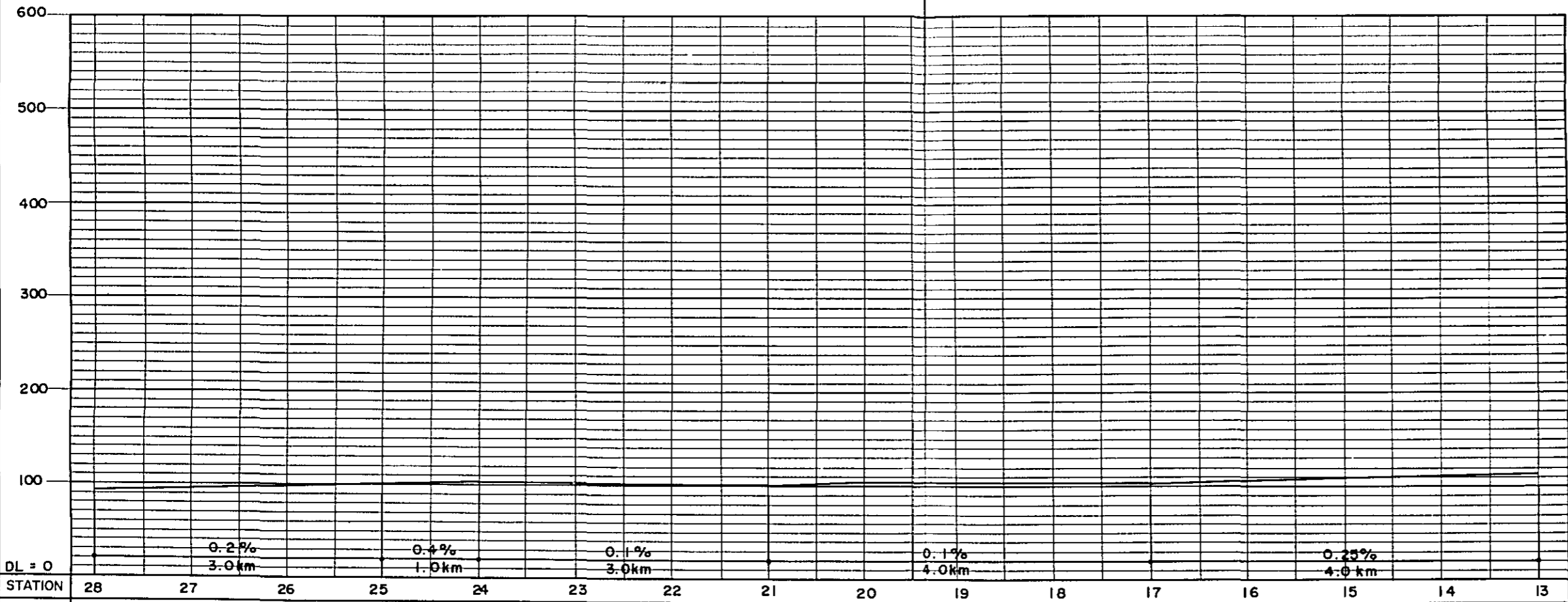
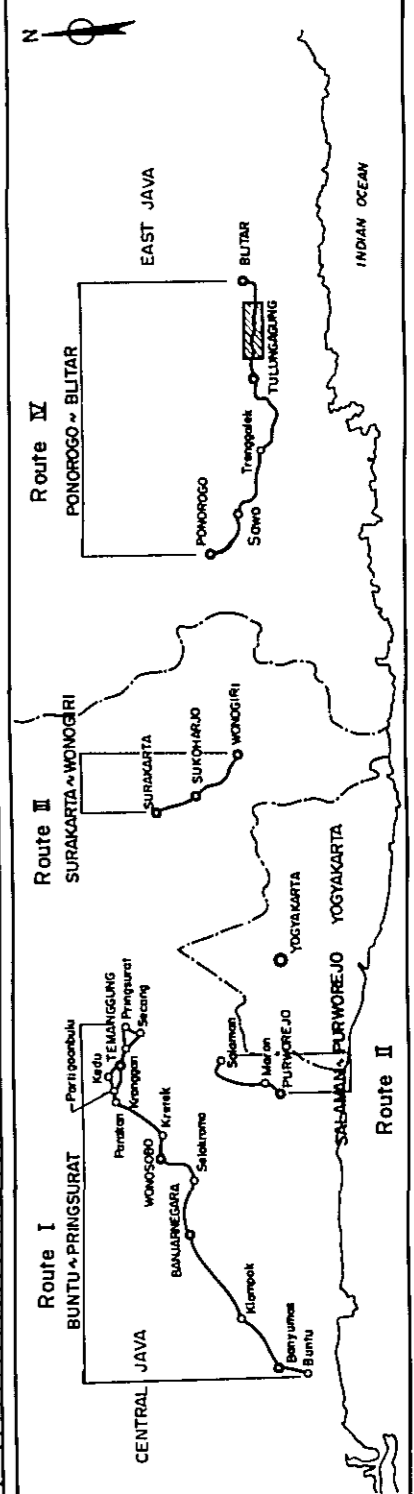
D.L = 0	0.4%	0.25%	0.5%	0.9%	1.3%	0.1%	0.16%
	1.0 km	2.0 km	1.0 km	1.0 km	1.0 km	3.3 km	6.2 km
STATION	22	23	24	25	26	27	28

PLAN I	RF - 3 L = 29.0 km			U - 1 L = 2.3 km	U - 1 L = 1.2 km	RF - 3 L = 10.5 km
PLAN II	RF - 3 L = 26.0 km	RF - 3 (6.5) L = 2.0 km	RF - 3 L = 1.0 km			

NGUNUT

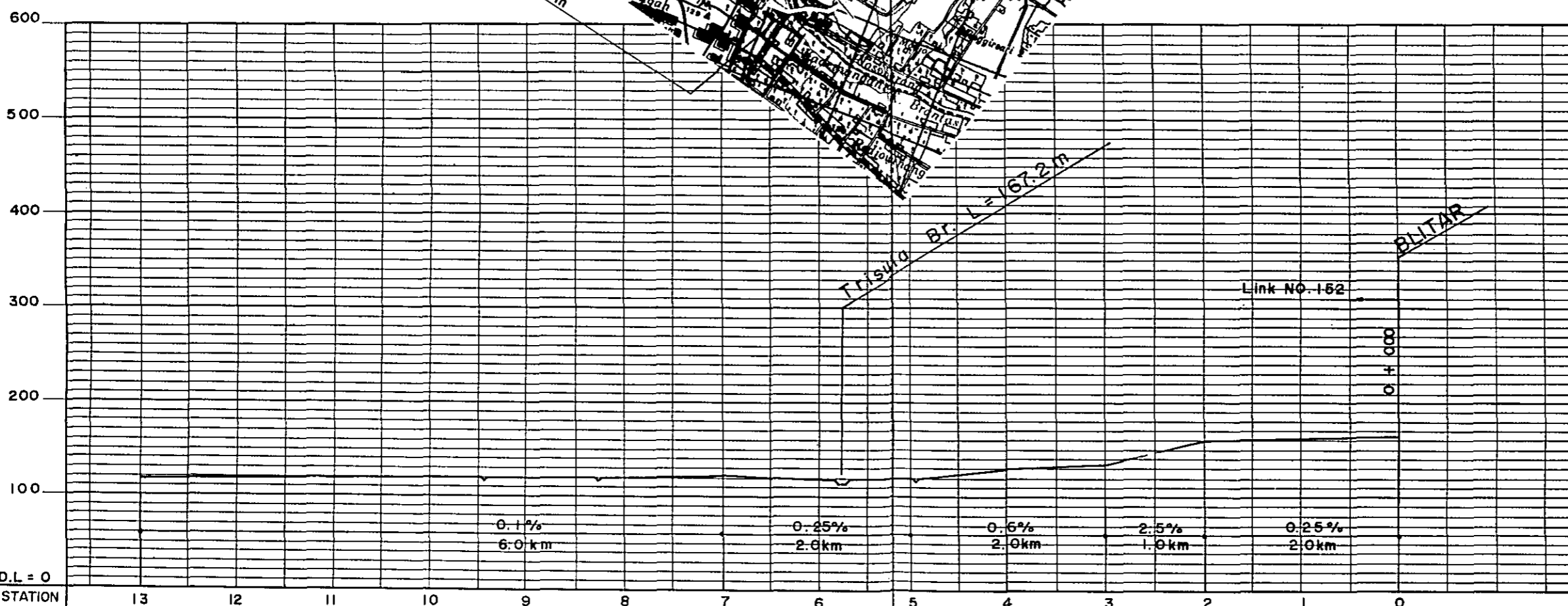
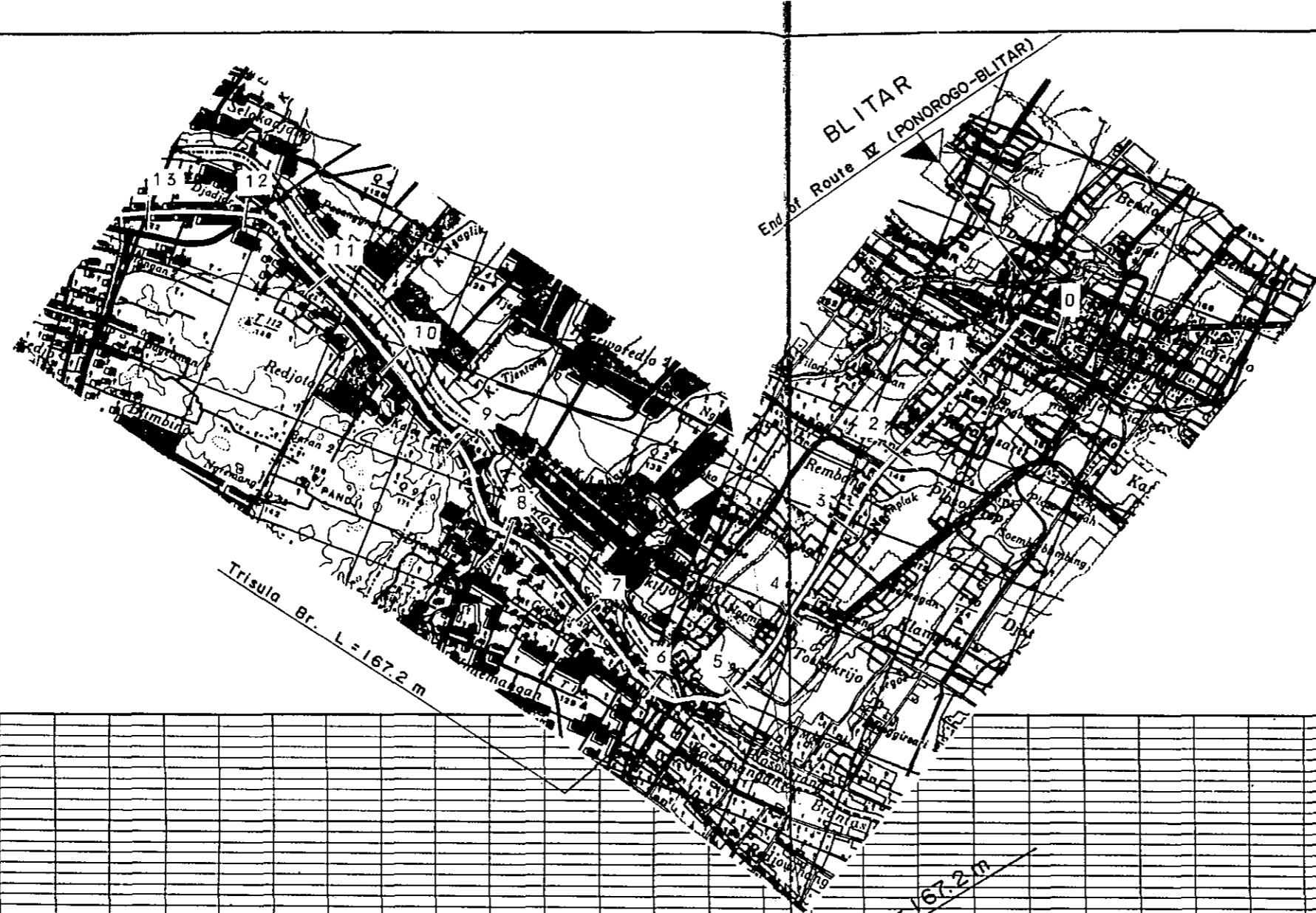


KEY PLAN



PLAN I	RF - 3	S - 2	RF - 3	RF - 3
PLAN II	L = 10.5 km	L = 1.5 km	L = 1.0 km	L = 19.0 km
			RF - 3 (5.5)	RF - 3
			L = 6.0 km	L = 12.0 km

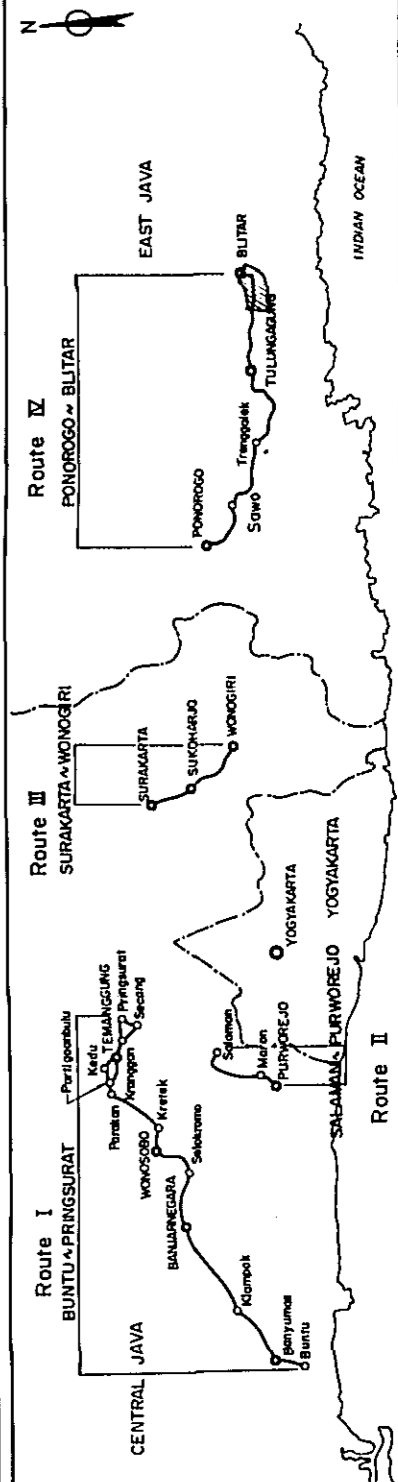
PROJECT		TOTAL SHEETS	SHEET NO.
CENTRAL AND EAST JAVA ROAD BETTERMENT		41	31
PLAN AND PROFILE		SCALE :	H : 1 : 50,000 V : 1 : 5,000



D.L. = 0
STATION

PLAN I	RF - 3 L = 19.0 km	U - 1
PLAN II	RF - 3 L = 12.0 km	L = 2.0 km

KEY PLAN

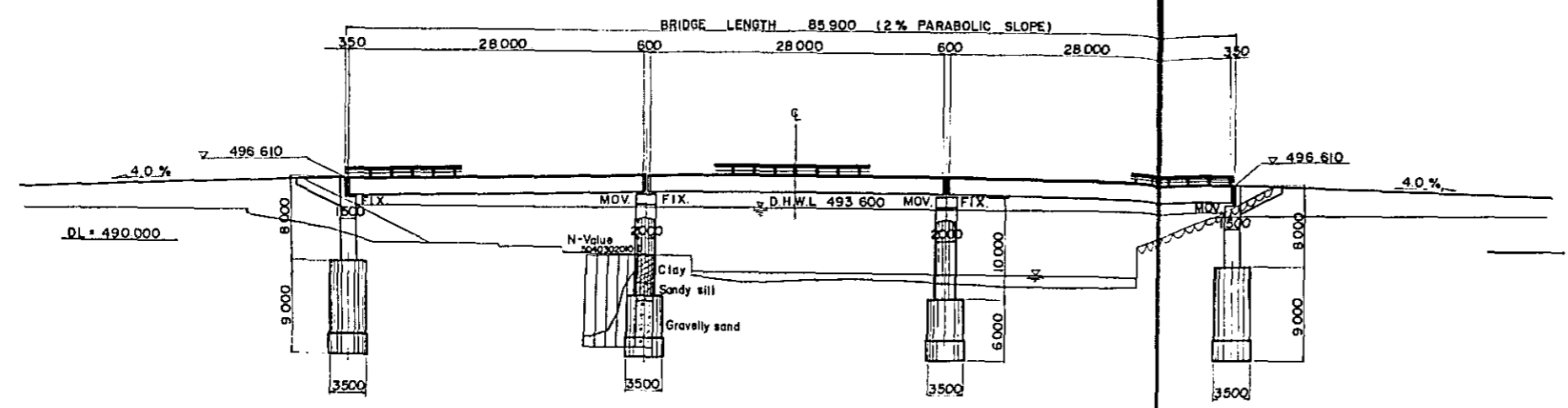


PROJECT	TOTAL SHEETS	SHEET NO.
CENTRAL AND EAST JAVA ROAD BETTERMENT	41	33
SAPI BRIDGE (STEEL COMPOSITE GIRDER)	SCALE 1/600, 1/200	

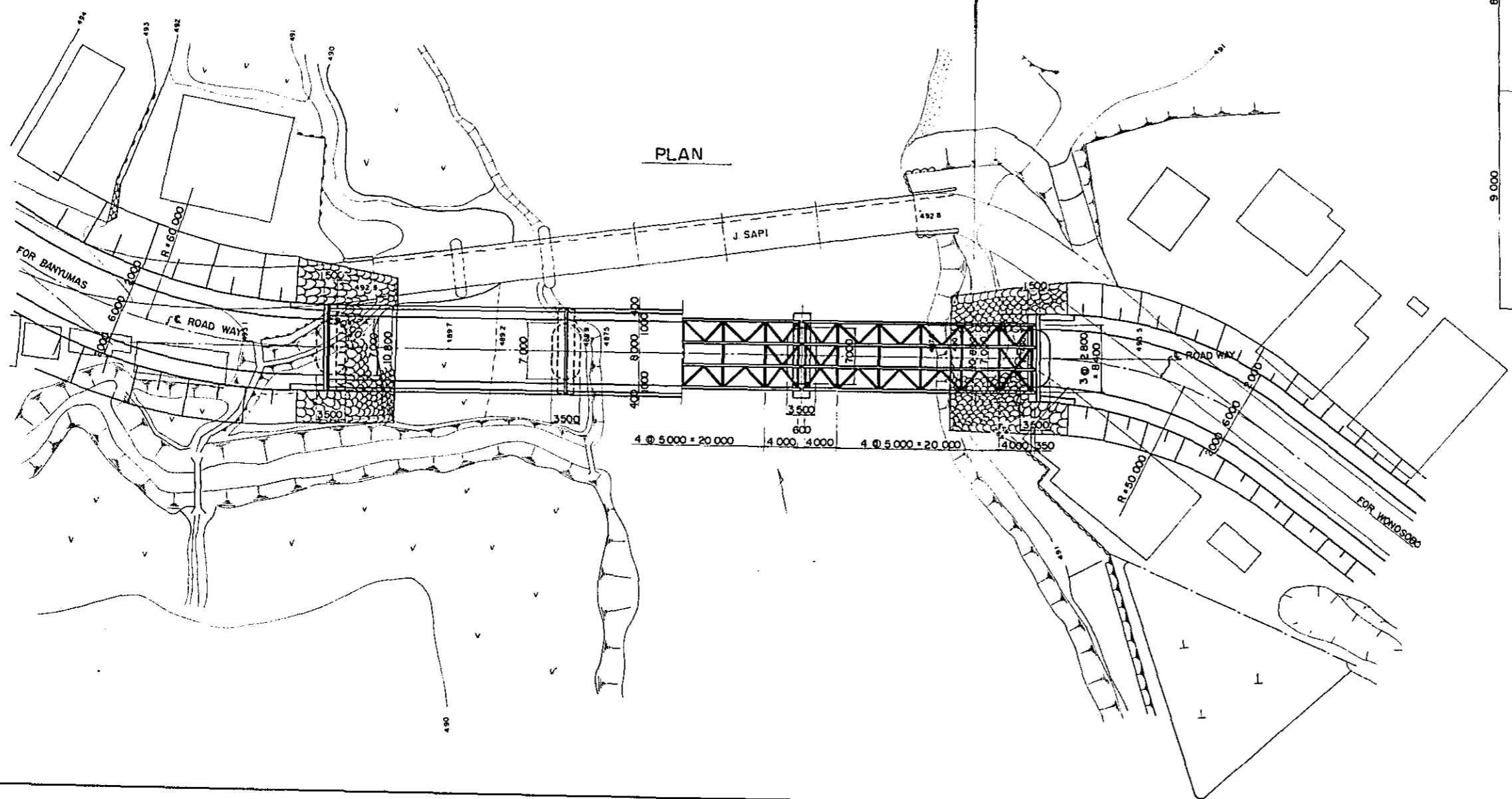
SAPI BRIDGE
(STEEL COMPOSITE GIRDER)

S = 1/600

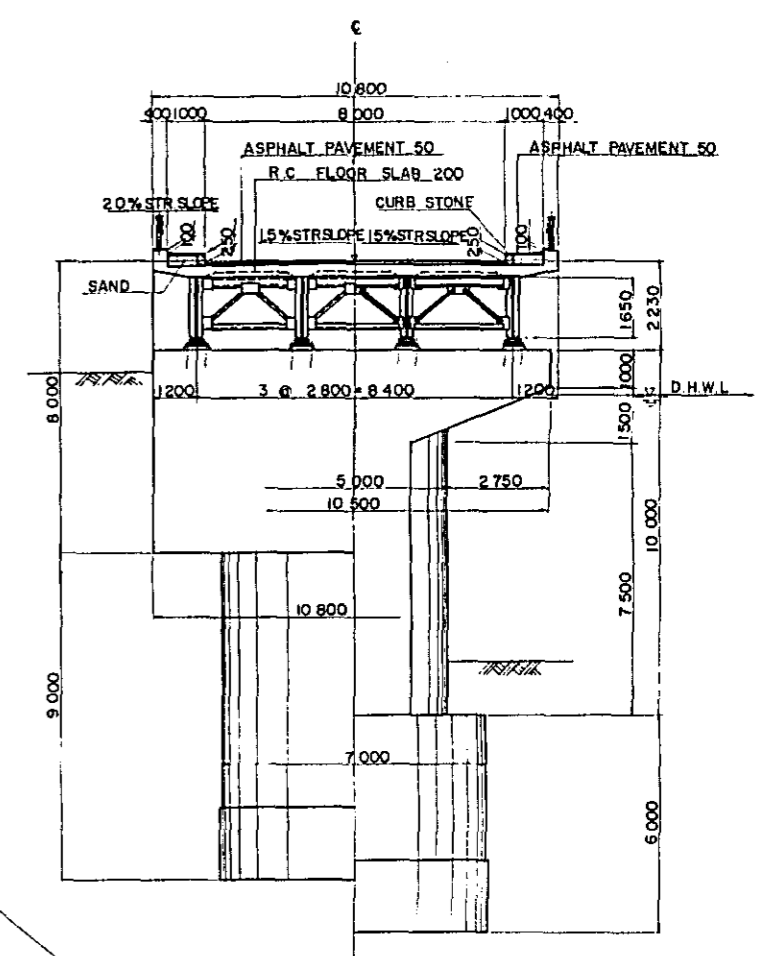
SIDE VIEW



PLAN

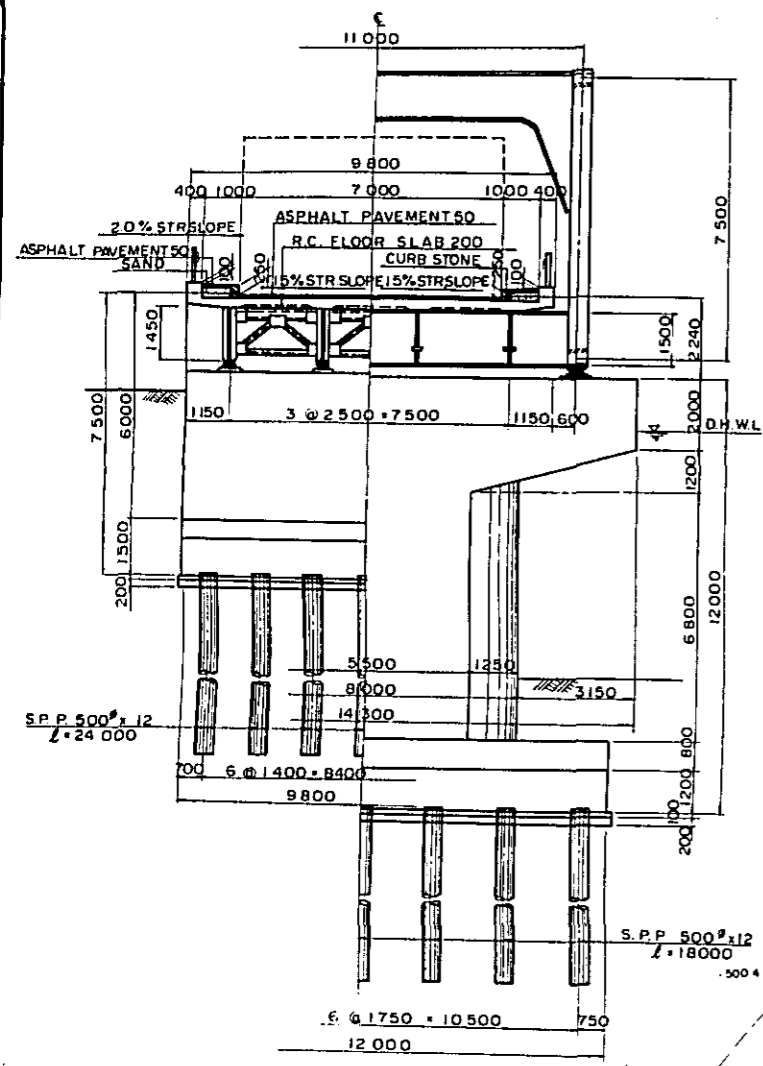


CROSS SECTION S = 1/200

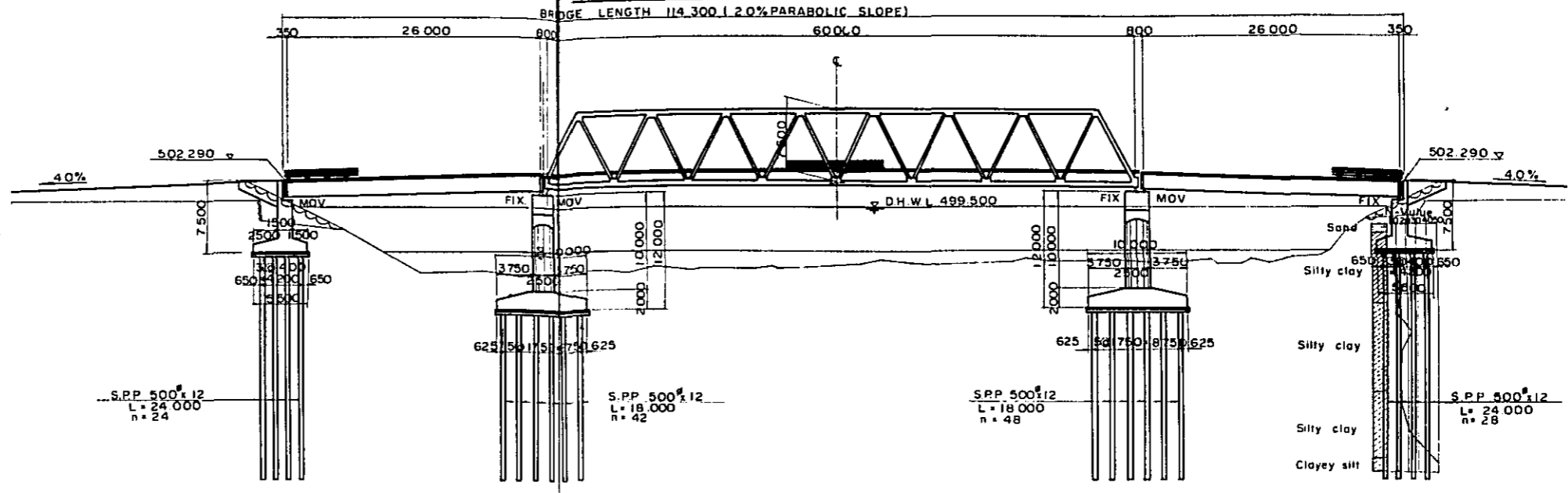


PROJECT	TOTAL SHEETS	SHEET NO.
CENTRAL AND EAST JAVA ROAD BETTERMENT	41	35
NGUTER BRIDGE (STEEL COMPOSITE GIRDER & TRUSS)	SCALE 1/600, 1/200	

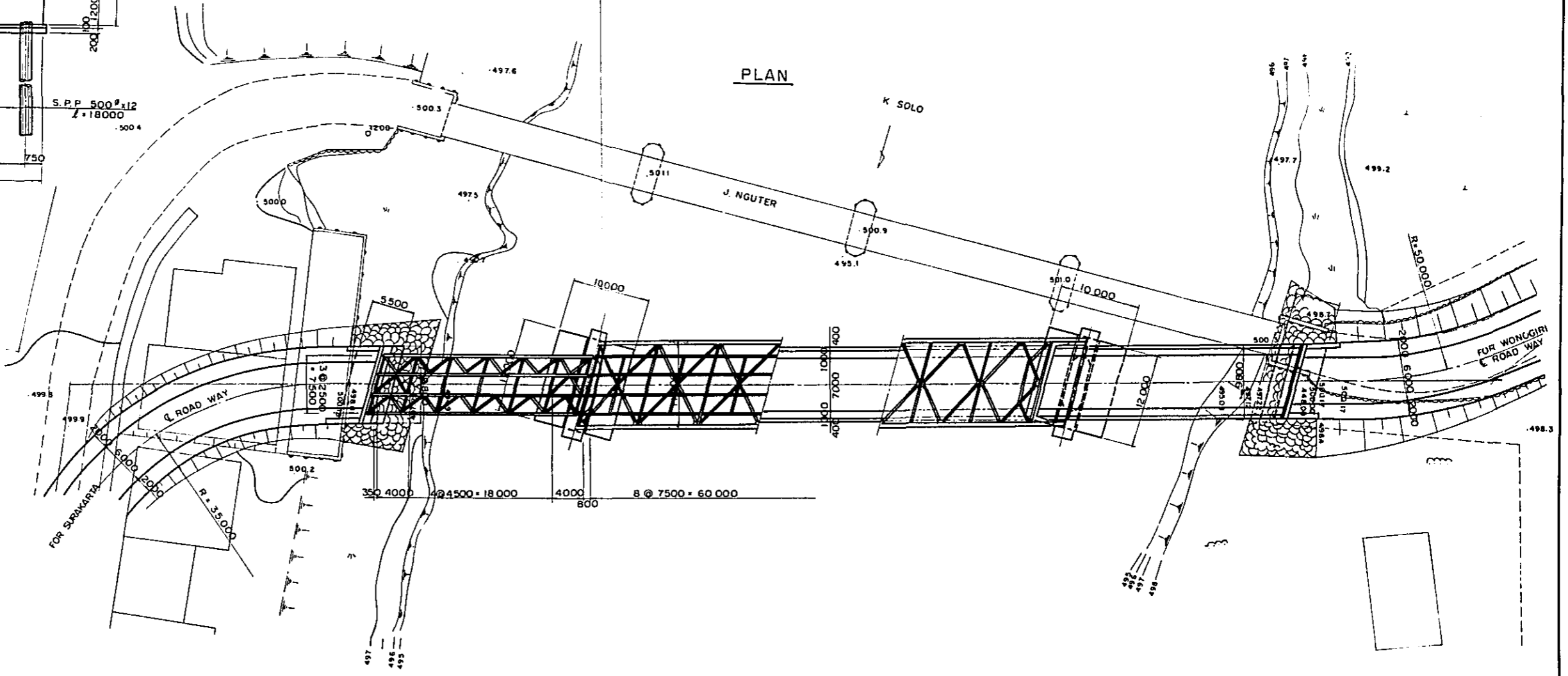
CROSS SECTION s. 1/200



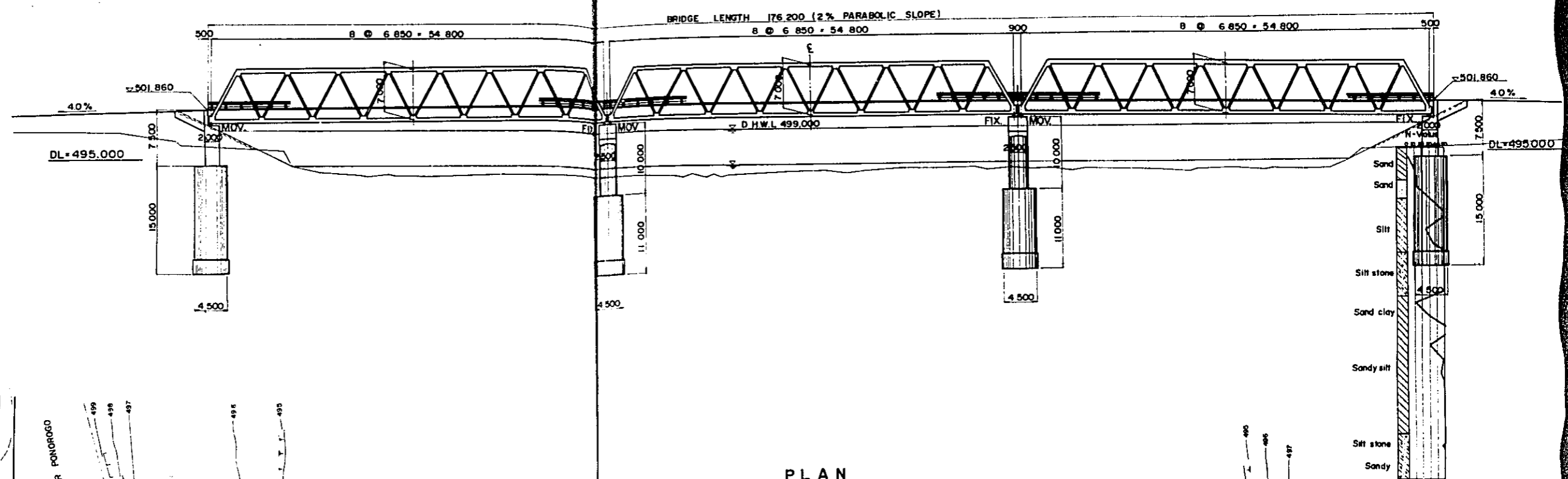
NGUTER BRIDGE s. 1/600
(STEEL COMPOSITE GIRDER & TRUSS)
SIDE VIEW



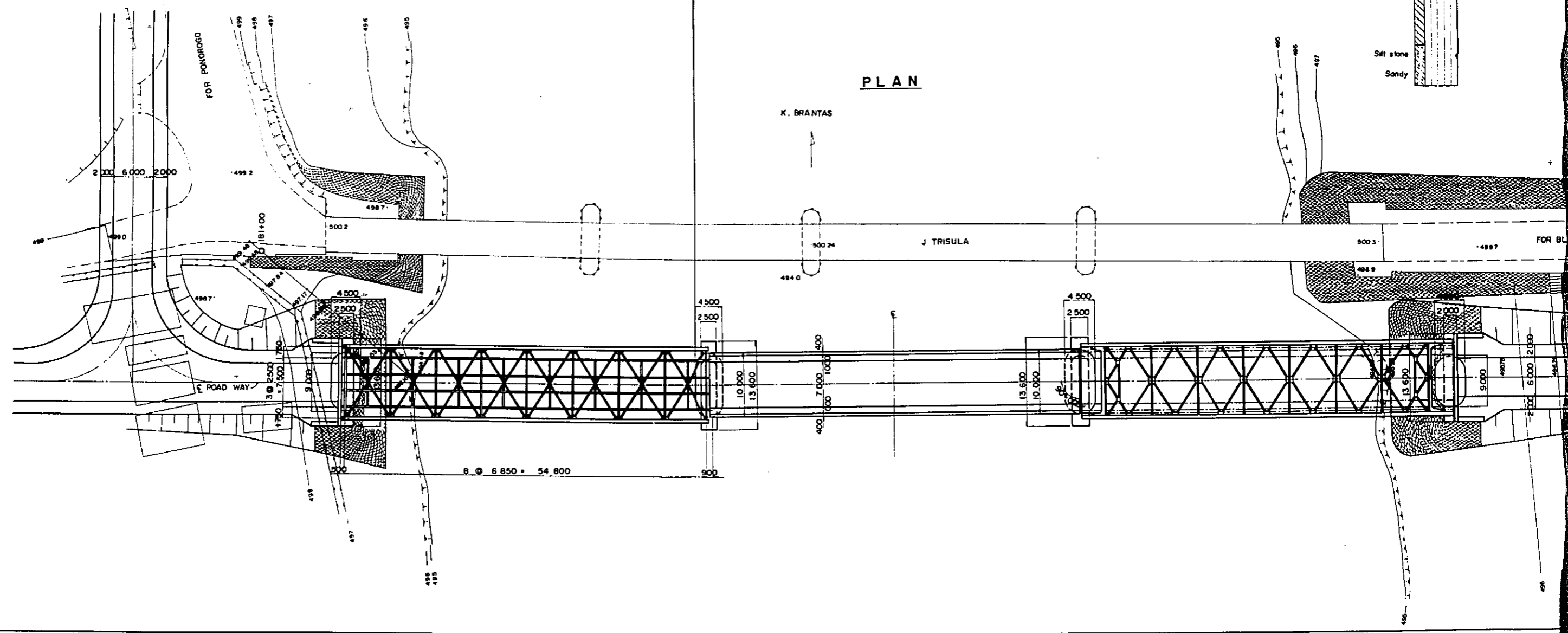
PLAN



TRISULA BRIDGE s = 1/600
(STEEL TRUSS)
SIDE VIEW



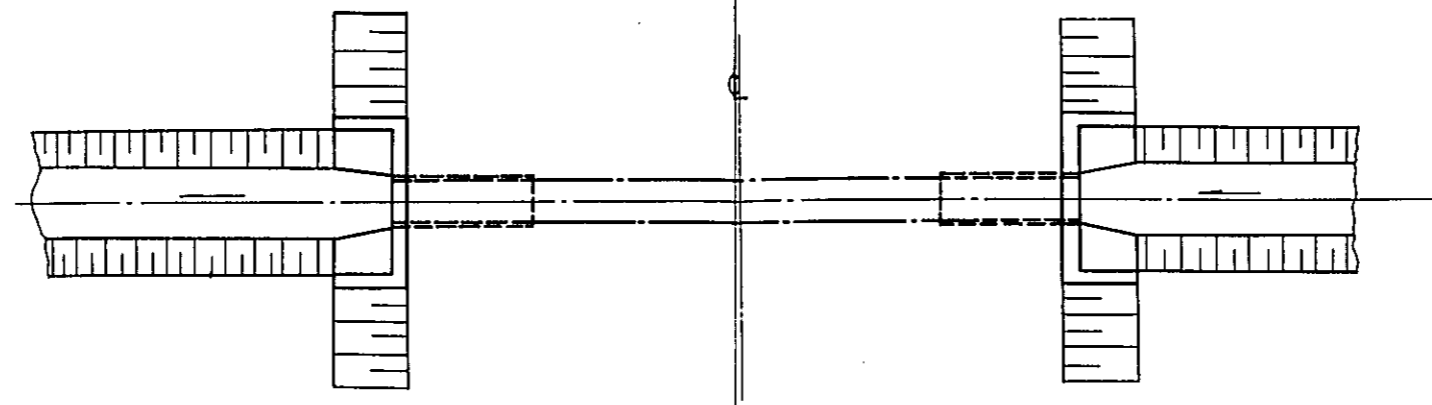
PLAN



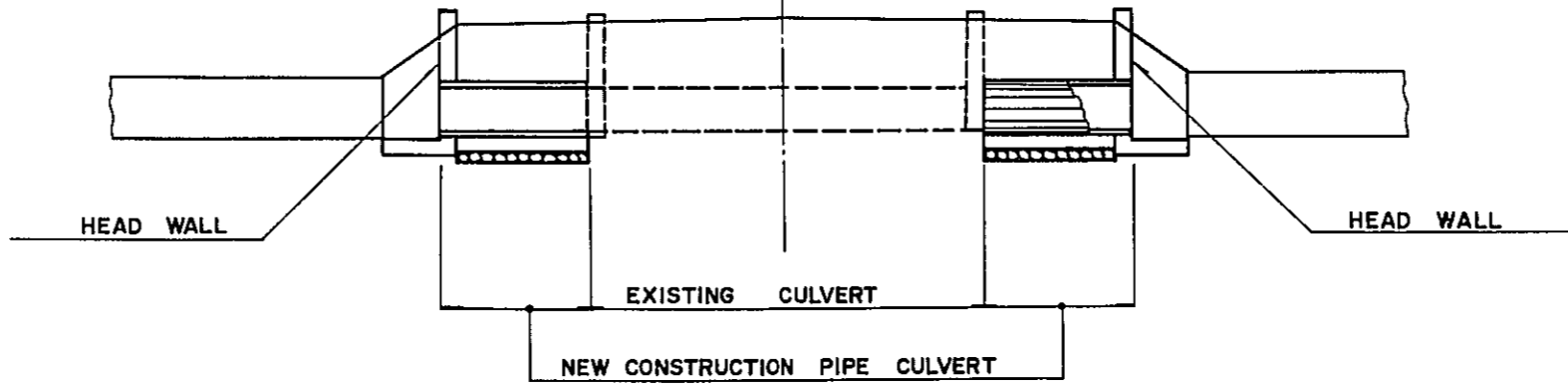
PROJECT	TOTAL SHEETS	SHEET NO.
CENTRAL AND EAST JAVA ROAD BETTERMENT	41	37
PIPE CULVERT	SCALE : 1 : 100	

PIPE CULVERT

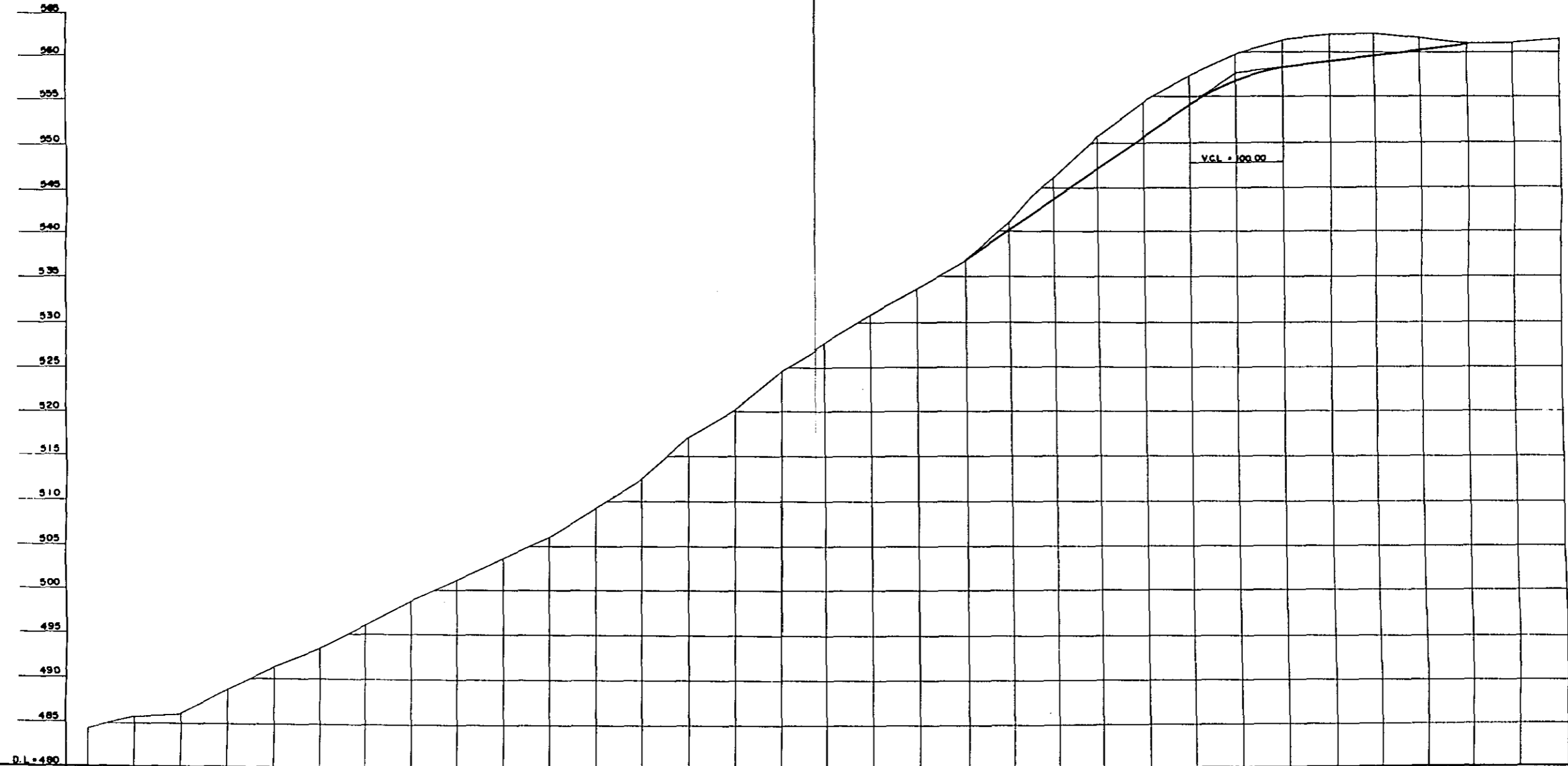
PLAN



PROFILE



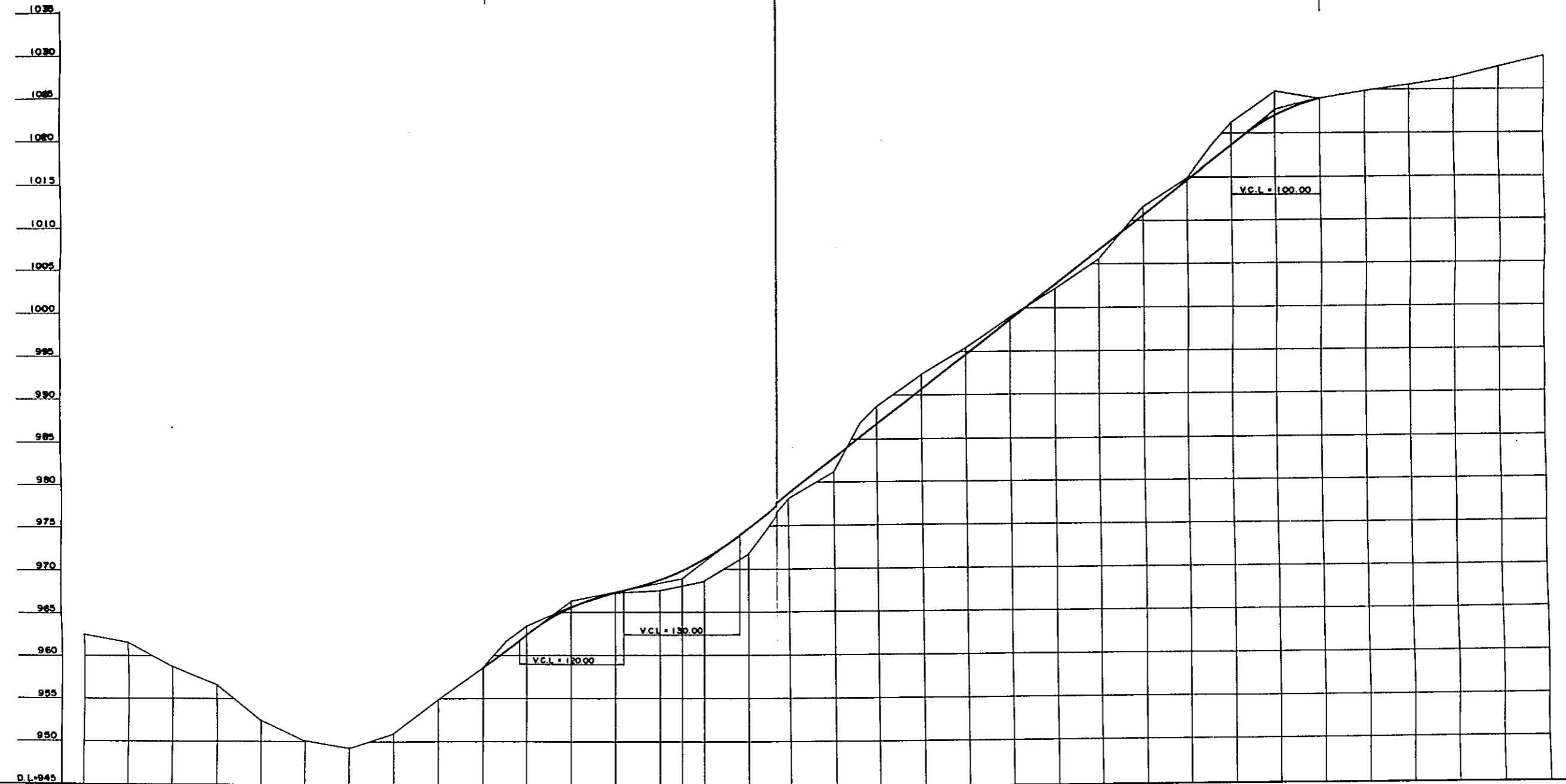
SECTION OF VERTICAL GRADE TO BE IMPROVED (REALIGNMENT A-1)
(WITHIN Link NO. 212 OF ROUTE I)



GRADE	PROPOSED HEIGHT	GROUND HEIGHT	STATION
		484.22	8+150
		484.50	8+100
		485.75	8+050
		488.62	8+000
		491.22	7+950
		493.30	7+900
		495.84	7+850
		498.66	7+800
		500.93	7+750
		503.30	7+700
		505.75	7+650
		509.02	7+600
		512.32	7+550
		517.03	7+500
		520.06	7+450
		524.40	7+400
		527.50	7+350
		530.46	7+300
		533.40	7+250
	536.38	536.38	7+200
	538.88	541.04	7+150
	543.38	546.90	7+100
	548.88	550.48	7+050
	550.38	554.93	7+000
	553.88	557.27	6+950
	556.68	559.59	6+900
	558.03	561.07	6+850
	558.68	561.72	6+800
	559.32	561.70	6+750
	559.97	561.27	6+700
	560.62	560.62	6+650
			6+600
			6+550

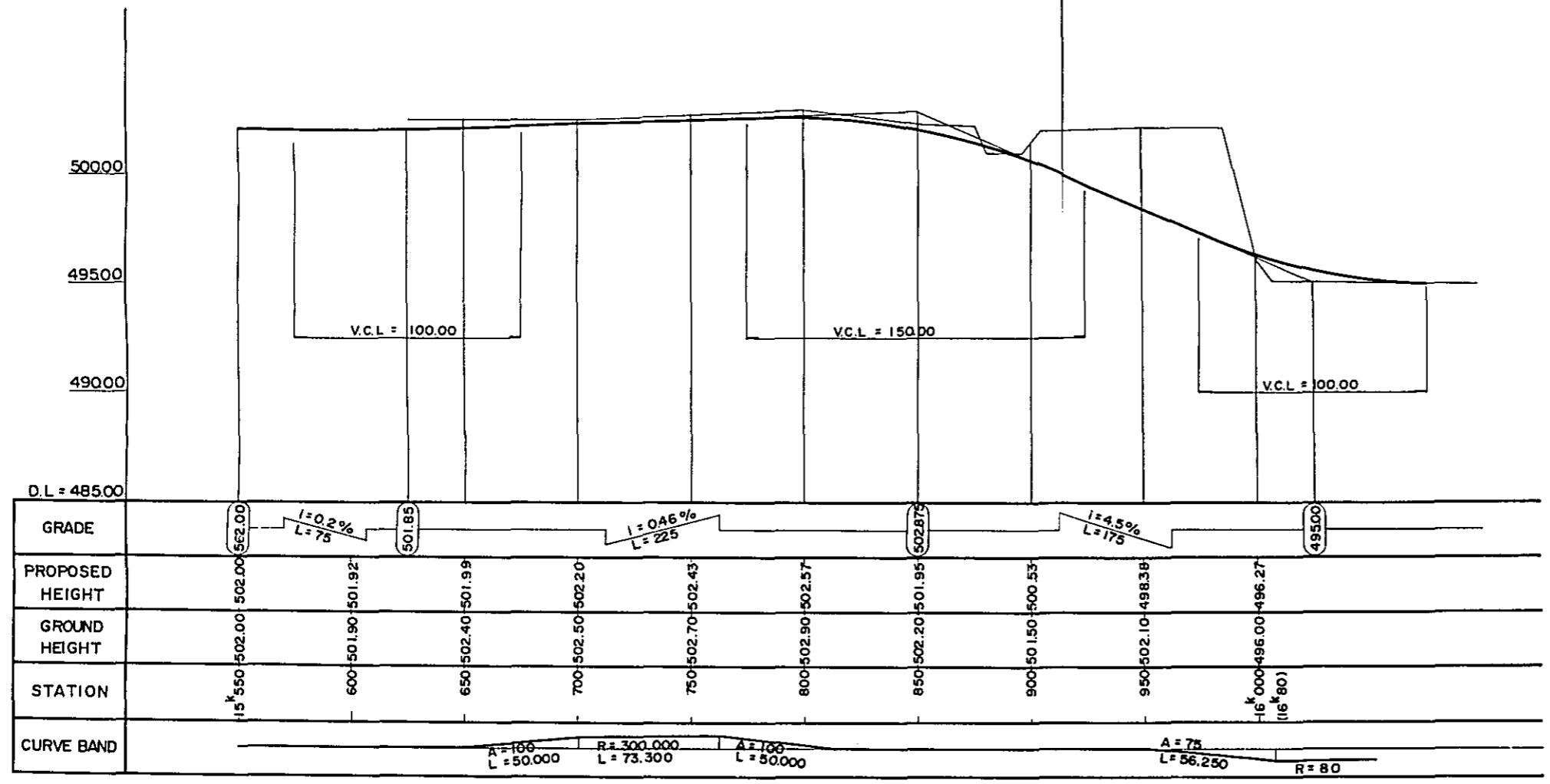
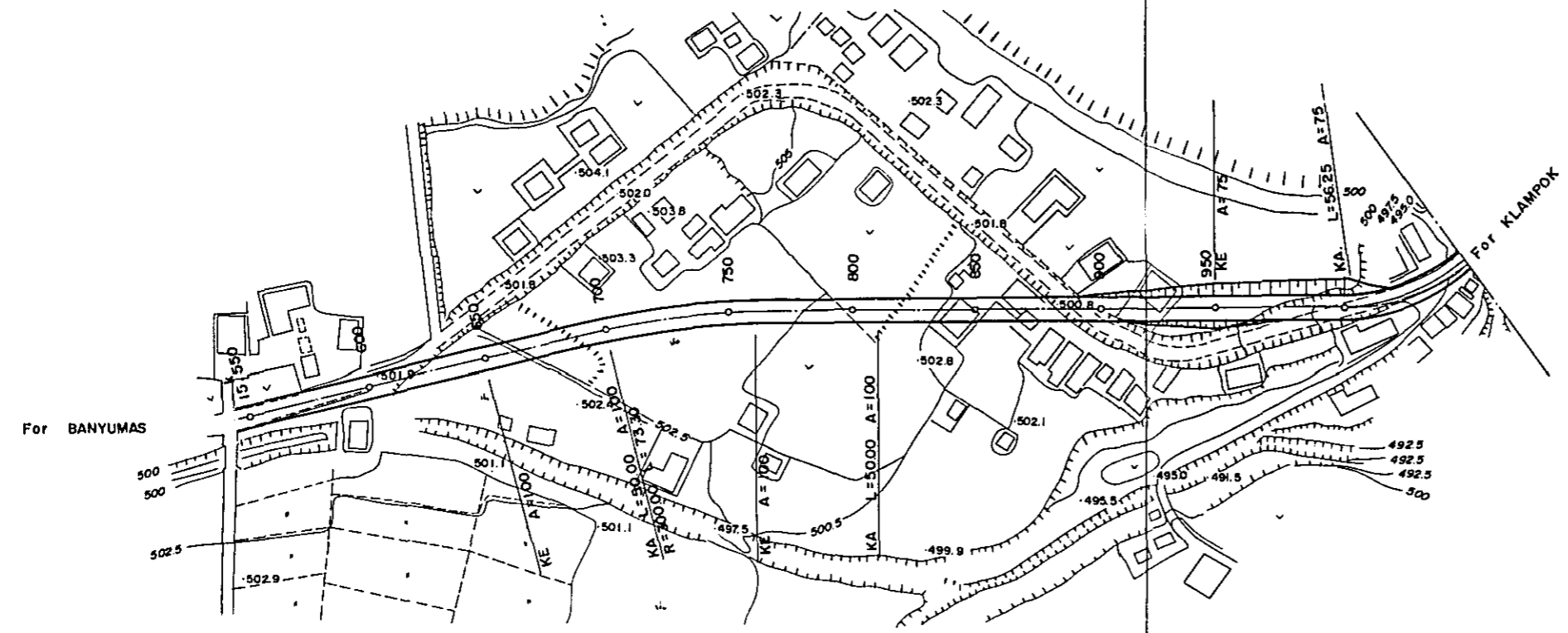


SECTION OF VERTICAL GRADE TO BE IMPROVED (REALIGNMENT A-9)
(WITHIN LINK NO. 203 OF ROUTE 1)



GRADE	PROPOSED HEIGHT	GROUND HEIGHT	STATION
			45+700 962.50
			45+650 961.55
			45+600 958.87
			45+550 956.63
			45+500 952.56
			45+450 950.08
			45+400 949.27
			45+350 951.04
			45+300 954.39
			45+250 958.66
			45+200 963.56
			45+150 965.76
			45+100 967.38
			45+050 967.67
			45+000 968.83
			44+950 971.99
			44+900 976.35
			44+850 981.39
			44+800 989.00
			44+750 992.69
			44+700 995.69
			44+650 999.29
			44+600 1002.37
			44+550 1006.07
			44+500 1011.87
			44+450 1015.17
			44+400 1021.46
			44+350 1025.68
			44+300 1024.16
			44+250 1024.81
			44+200 1025.55
			44+150 1026.33

REALIGNMENT B-1 (WITHIN Link NO. 214 OF ROUTE I)



REALIGNMENT B - 10
(WITHIN Link No. 109 OF ROUTE I)

