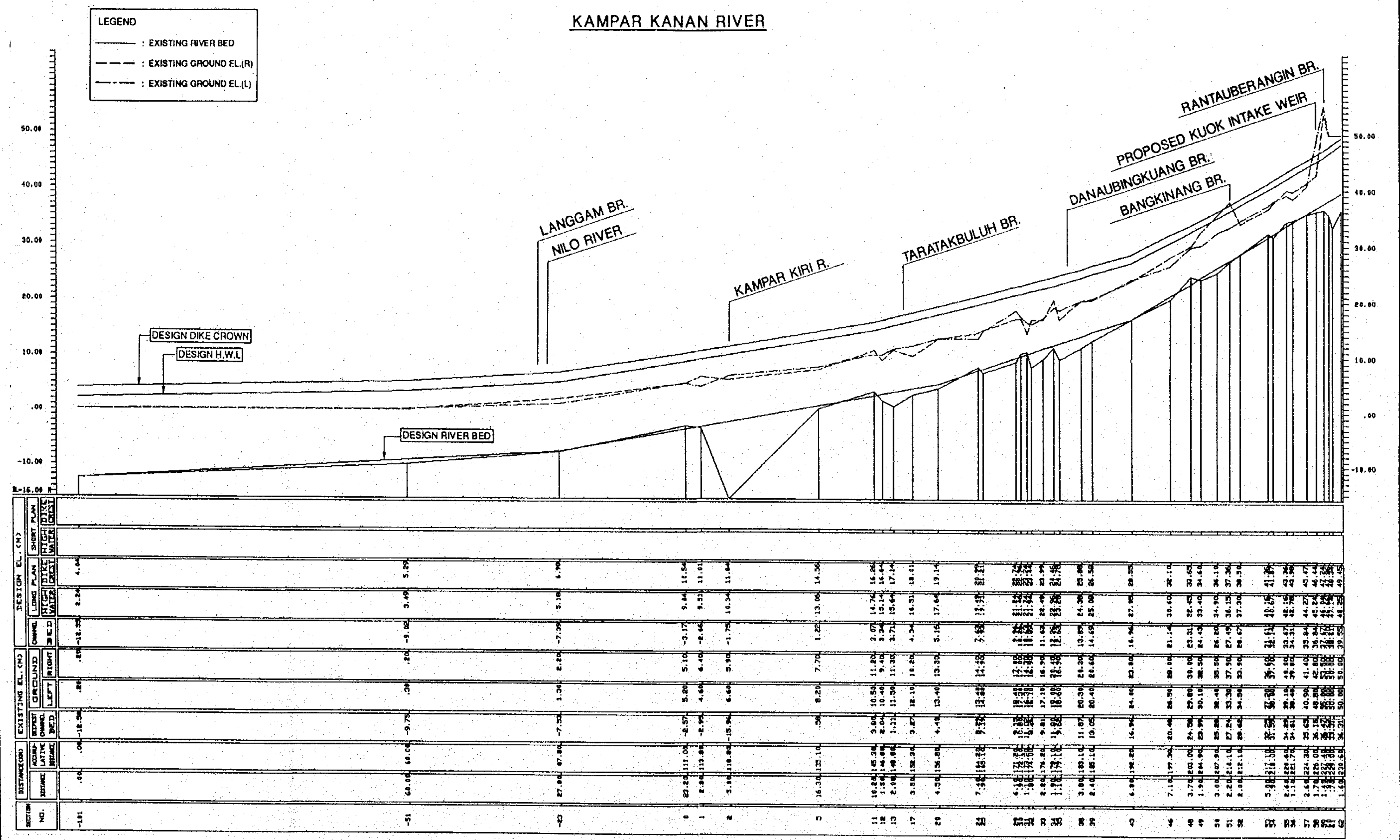
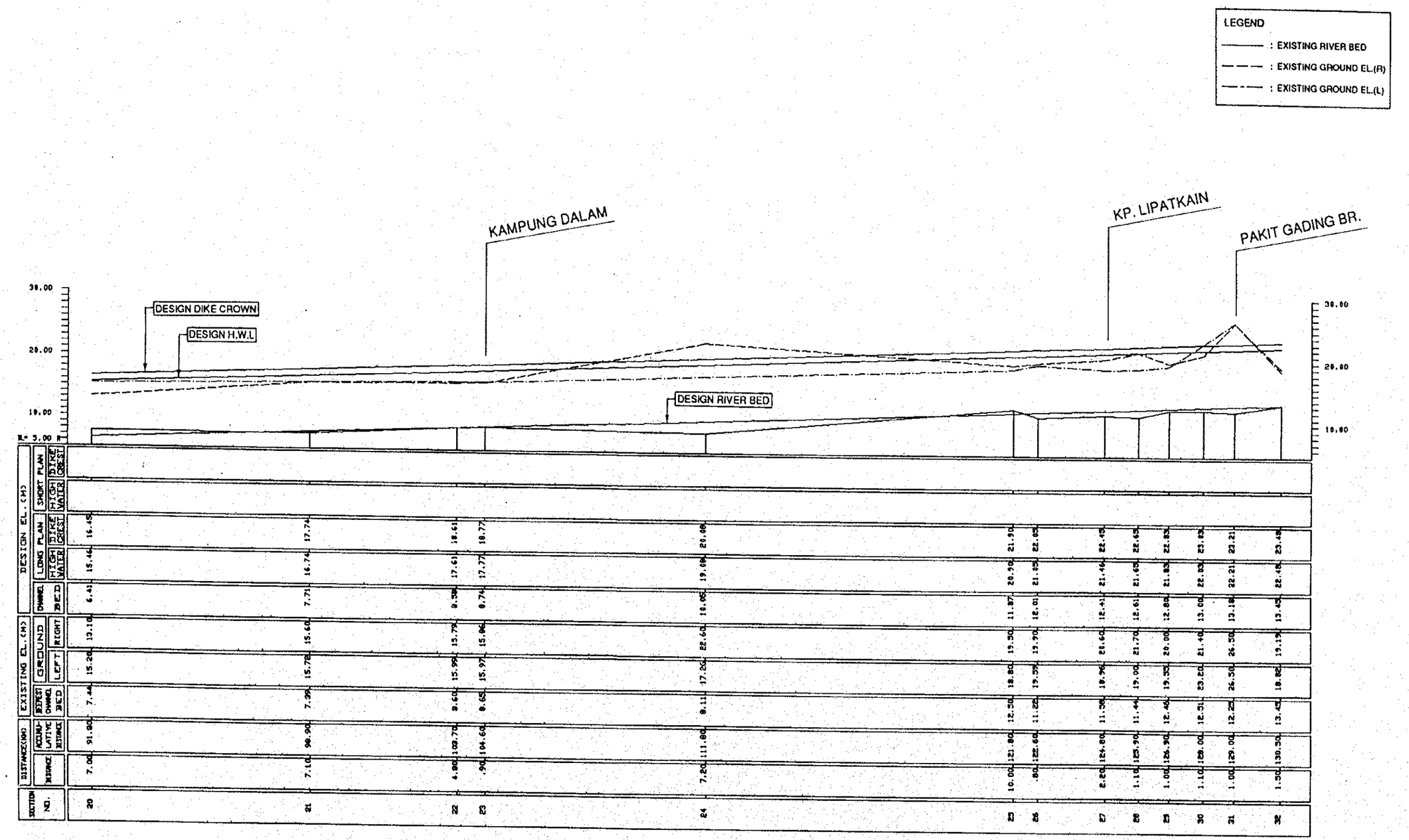


THE STUDY ON
KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT
IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. VI.5.9 (1/2) PROPOSED LONGITUDINAL PROFILE FOR KAMPAR RIVER SYSTEM

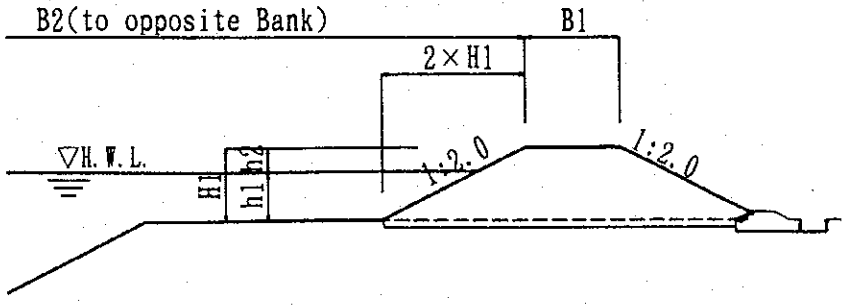
KAMPAR KIRI RIVER



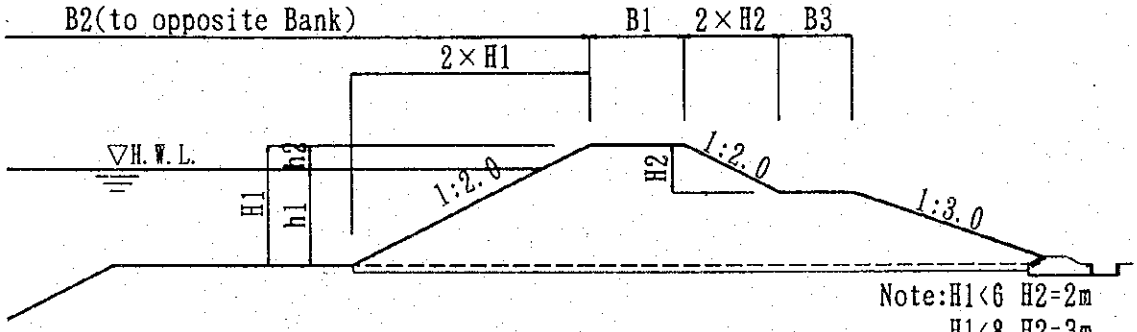
SECTION NO.	DISTANCE	ACCUMULATIVE DISTANCE	EXISTING EL.(M) LEFT CHANNEL BED	RIGHT CHANNEL BED	LEFT GROUND	RIGHT GROUND	DESIGN EL.(M) CHANNEL BED	LONG PLAN HIGH WATER	LONG PLAN DIKE CREST	SHORT PLAN HIGH WATER	SHORT PLAN DIKE CREST
20	7.00	91.90	7.44	15.20	15.20	13.10	6.41	15.46	16.45		
21	7.10	98.90	7.99	15.78	15.78	15.60	7.71	16.74	17.74		
22	4.80	103.70	8.60	15.99	15.99	15.79	8.38	17.61	18.61		
23	.90	104.60	8.65	15.97	15.97	15.86	8.74	17.77	18.77		
24	7.20	111.80	8.11	17.26	17.26	22.60	10.05	19.08	20.08		
25	10.00	121.80	12.50	18.80	19.50	19.50	11.87	20.50	21.50		
26	.80	122.60	11.22	19.53	19.90	19.90	12.01	21.05	22.05		
27	2.20	124.80	11.38	18.96	21.60	21.60	12.41	21.46	22.45		
28	1.10	125.90	11.44	19.00	21.70	21.70	12.61	21.65	22.65		
29	1.00	126.90	12.46	19.33	20.00	20.00	12.80	21.83	22.83		
30	1.10	128.00	12.51	23.20	21.40	21.40	13.00	22.03	23.03		
31	1.00	129.00	12.22	26.50	26.50	19.10	13.19	22.21	23.21		
32	1.50	130.50	13.42	18.82	19.19	19.19	13.42	22.46	23.46		

THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA	Fig. VI.5.9 PROPOSED LONGITUDINAL PROFILE (2/2) FOR KAMPAR RIVER SYSTEM
JAPAN INTERNATIONAL COOPERATION AGENCY	

TYPE-A CROSS SECTION



TYPE-B CROSS SECTION



Note:H1<6 H2=2m
H1<8 H2=3m
H1>8 H2=4m

Unit: m

River	No.	Accm. Distance (km)	Type	B1	B2	B3	h2
Kampar Kanan ~ Kampar	No.-101	0.0					
	No.-23	87.8	B	6.0	-	3.0	1.8
	No. 0	111.0	B	5.0	600	3.0	1.5
	No. 2	118.8	B	5.0	600	3.0	1.5
	No. 17	152.3	B	5.0	400	3.0	1.5
	No. 46	198.7	B	5.0	300	3.0	1.5
	No. 61	224.9	A	5.0	300	-	1.2
Kampar Kiri	No. 20	91.8					
	No. 32	130.5	A	4.0	-	-	1.0

THE STUDY ON
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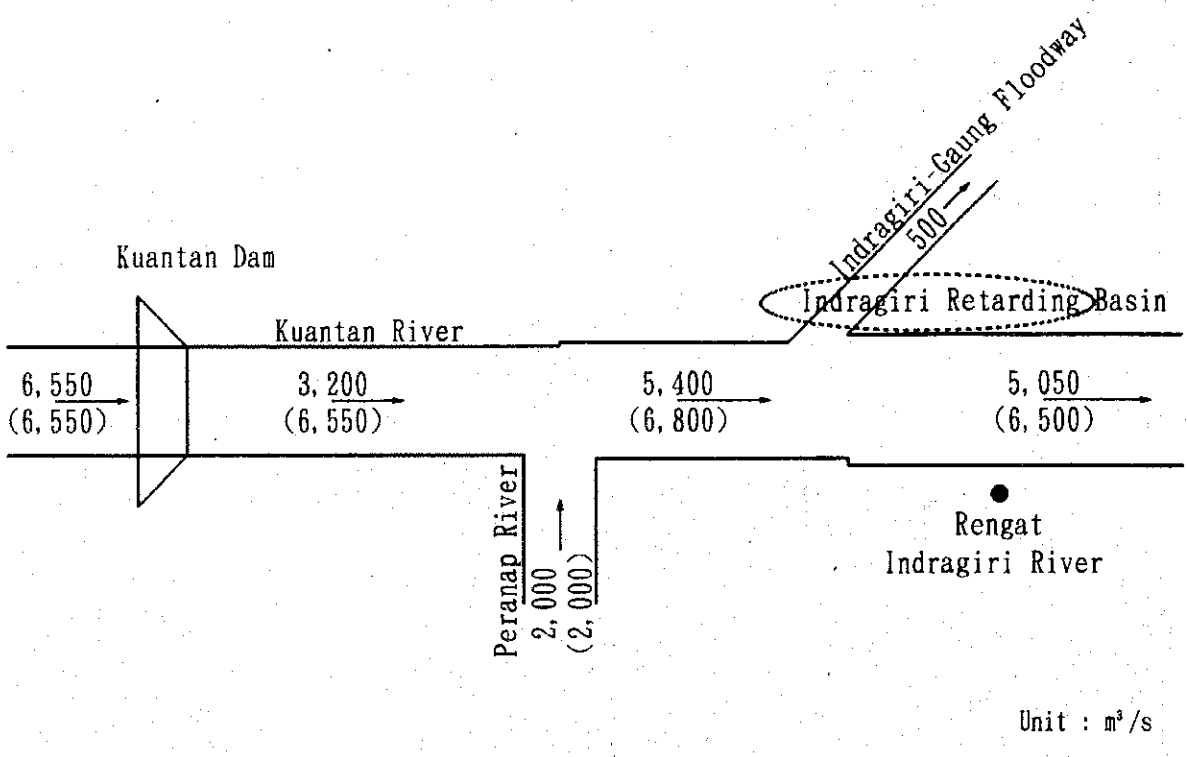
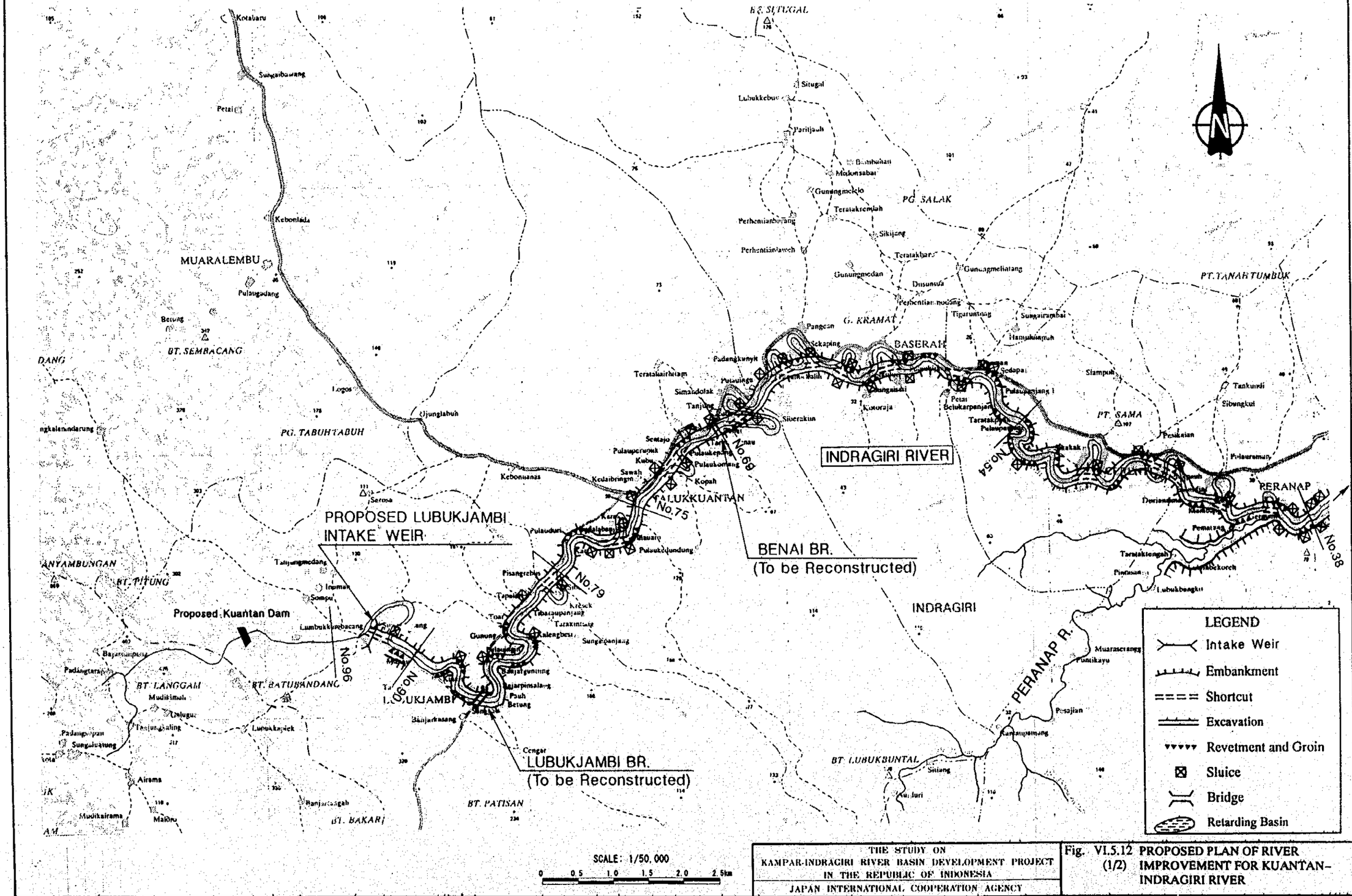
Fig. VI.5.10 PROPOSED CROSS SECTIONS FOR KAMPAR RIVER SYSTEM

Middle and Lower Reaches of Indragiri River



Note : Design Scale: 50-year Return Period
Figures in Parentheses are standard design discharges.

THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. VI.5.11 DISTRIBUTION OF DESIGN DISCHARGES FOR KUANTAN-INDRAGIRI RIVER



THE STUDY ON
KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT
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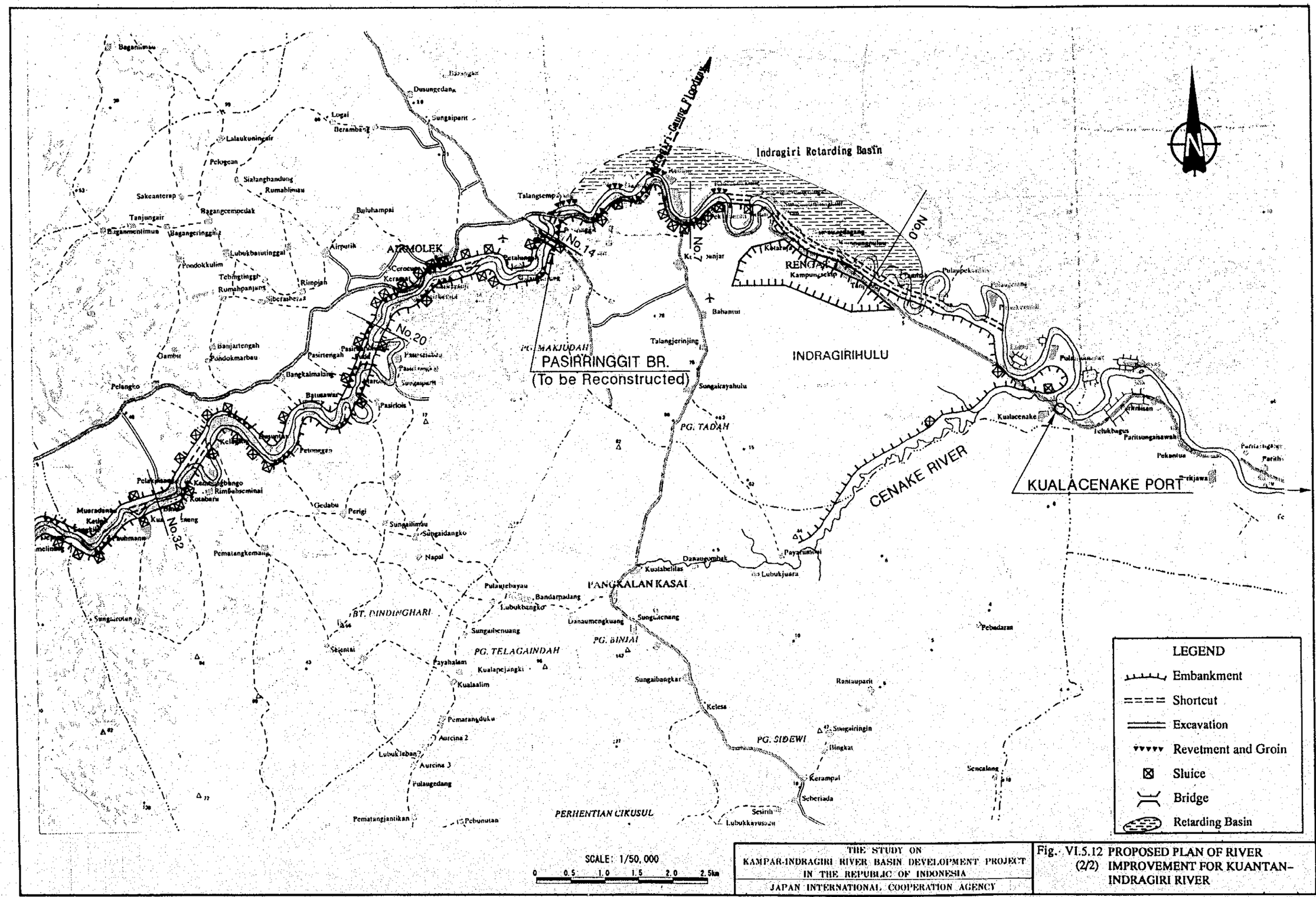
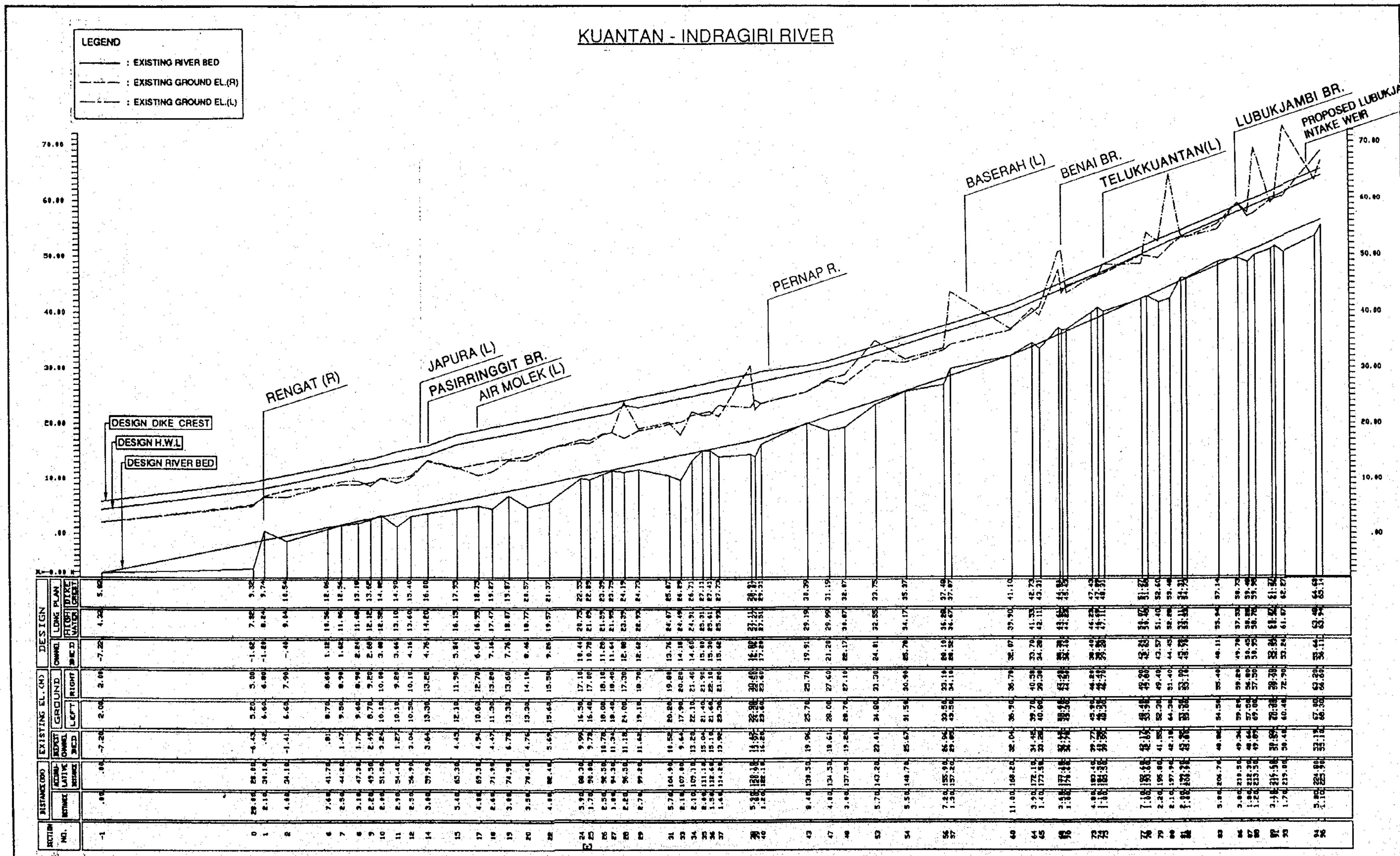
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. VI.5.12 (1/2) PROPOSED PLAN OF RIVER IMPROVEMENT FOR KUANTAN–INDRAGIRI RIVER



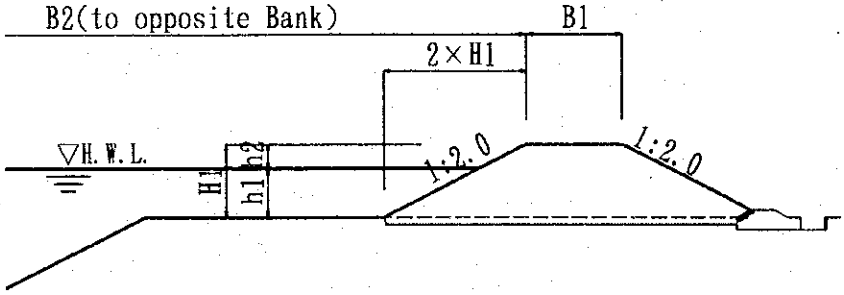
THE STUDY ON
KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT
IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. VI.5.12 PROPOSED PLAN OF RIVER IMPROVEMENT FOR KUANTAN-INDRAGIRI RIVER (2/2)

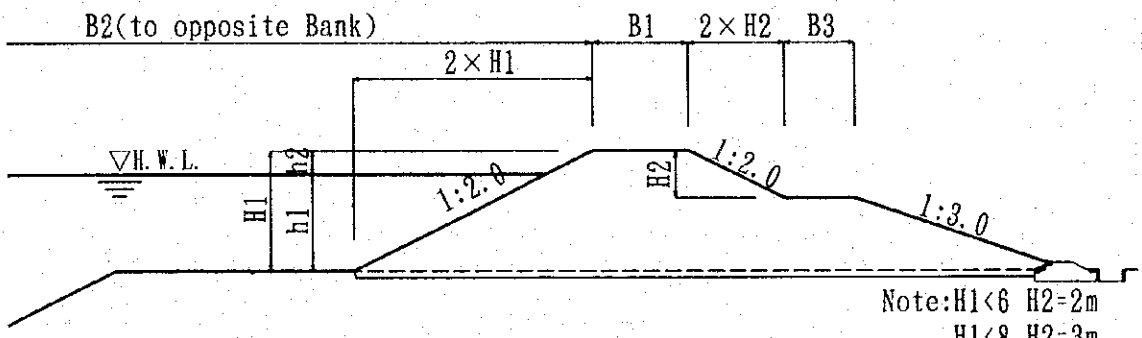


THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA	Fig. VI.5.13 PROPOSED LONGITUDINAL PROFILE FOR KUANTAN-INDRAGIRI RIVER
JAPAN INTERNATIONAL COOPERATION AGENCY	

TYPE-A CROSS SECTION



TYPE-B CROSS SECTION



Note:H1<6 H2=2m
H1<8 H2=3m
H1>8 H2=4m

Unit: m

River	No.	Accm. Distance (km)	Type	B1	B2	B3	h2
Indragiri	-1	0.0					
	No. 14	59.9	B	6.0	–	3.0	1.8
	No. 40	122.1	B	6.0	600	3.0	1.8
	No. 93	219.0	A	5.0	300	–	1.2

THE STUDY ON
KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT
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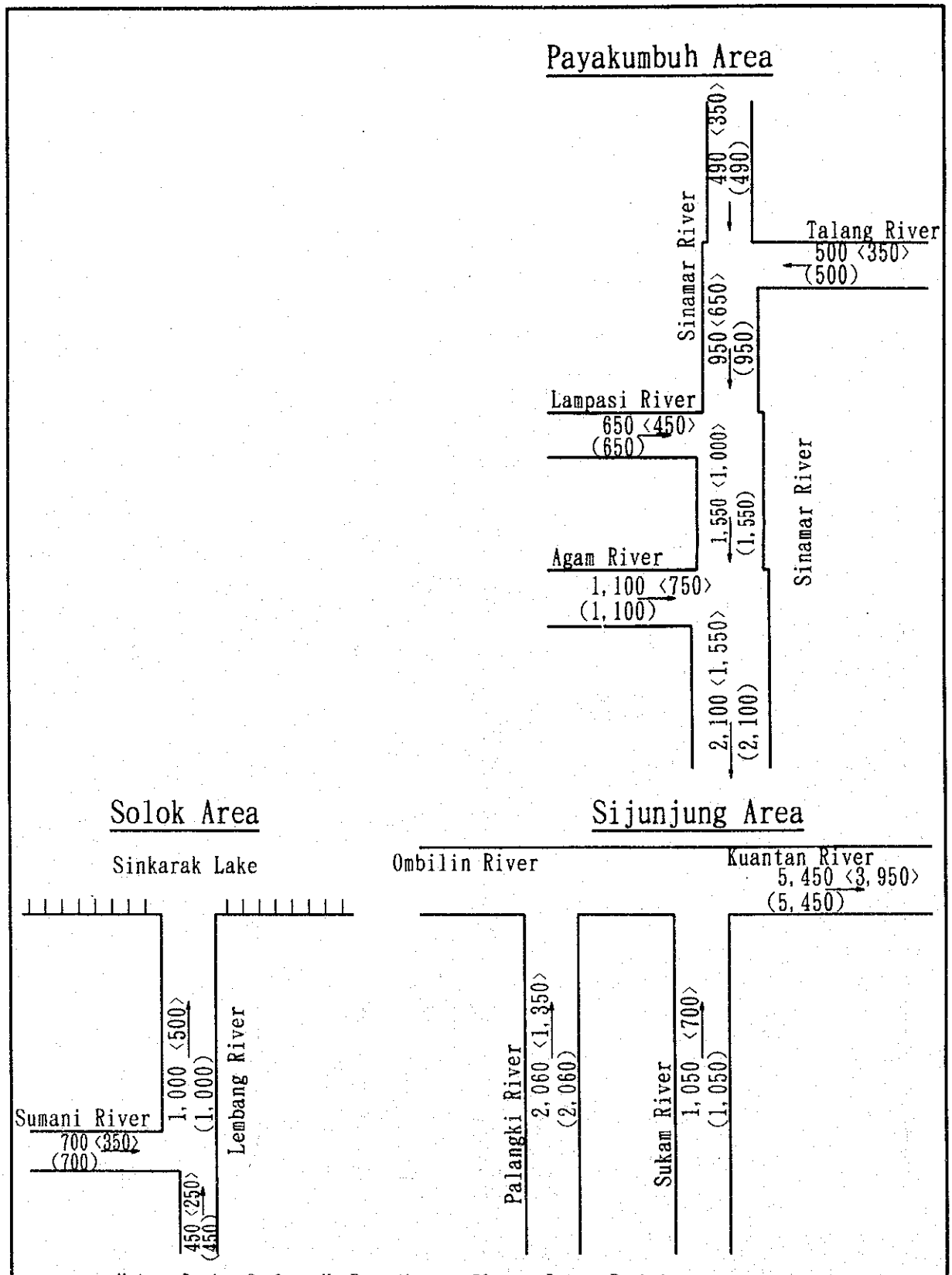
Fig. VI.5.14 PROPOSED CROSS SECTIONS FOR KUANTAN-INDRAGIRI RIVER

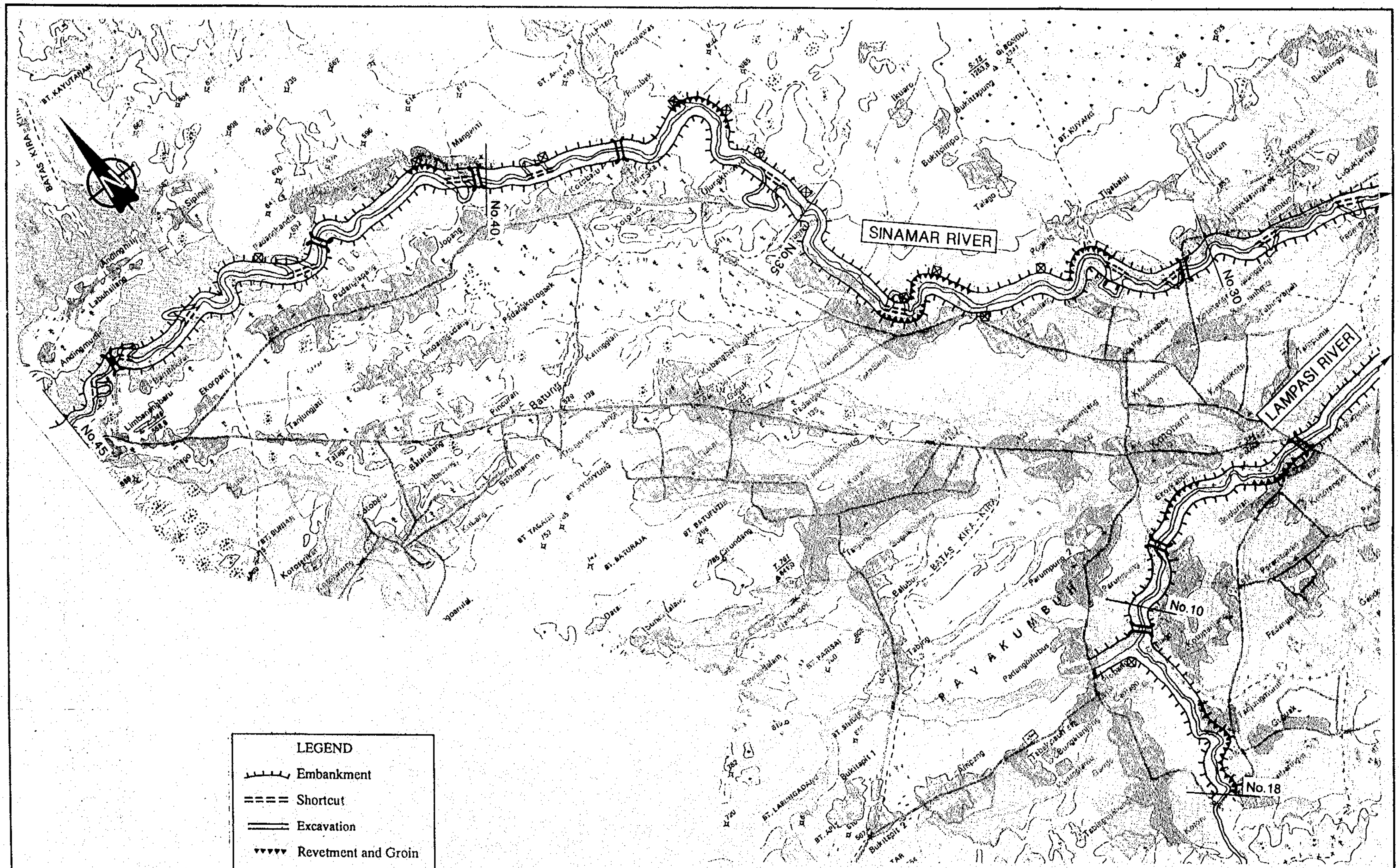


Note : Design Scale: -No Parentheses: 50-year Return Period
-〈 〉: 10-year Return Period

Figures in Parentheses are standard design discharges.

unit : m³/s

THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. VI.5.15 DISTRIBUTION OF DESIGN DISCHARGES FOR UPPER INDRAGIRI RIVERS



LEGEND

- Embankment
- Shortcut
- Excavation
- Revetment and Groin
- Sluice
- Bridge
- Retarding Basin

THE STUDY ON
KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT
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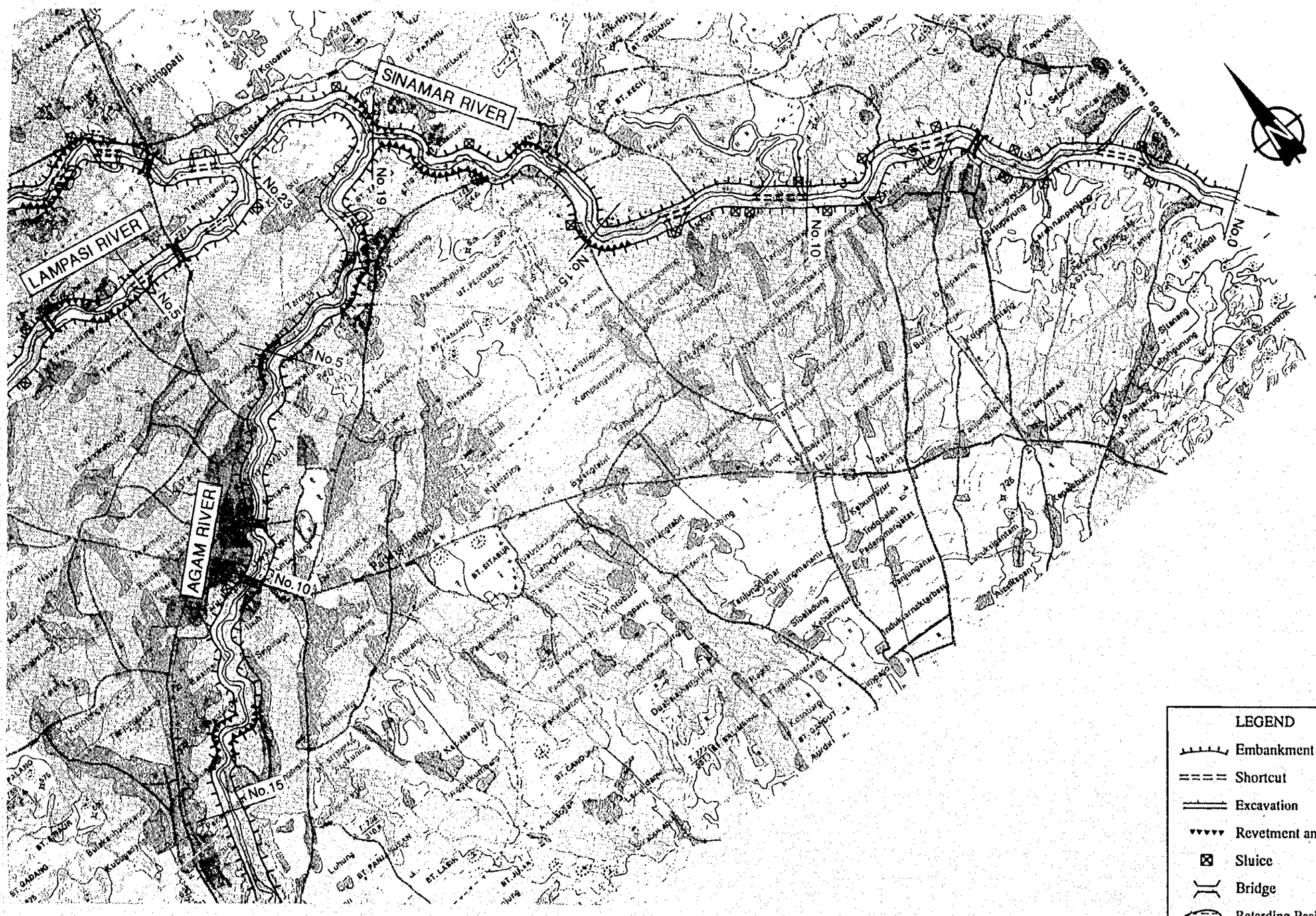
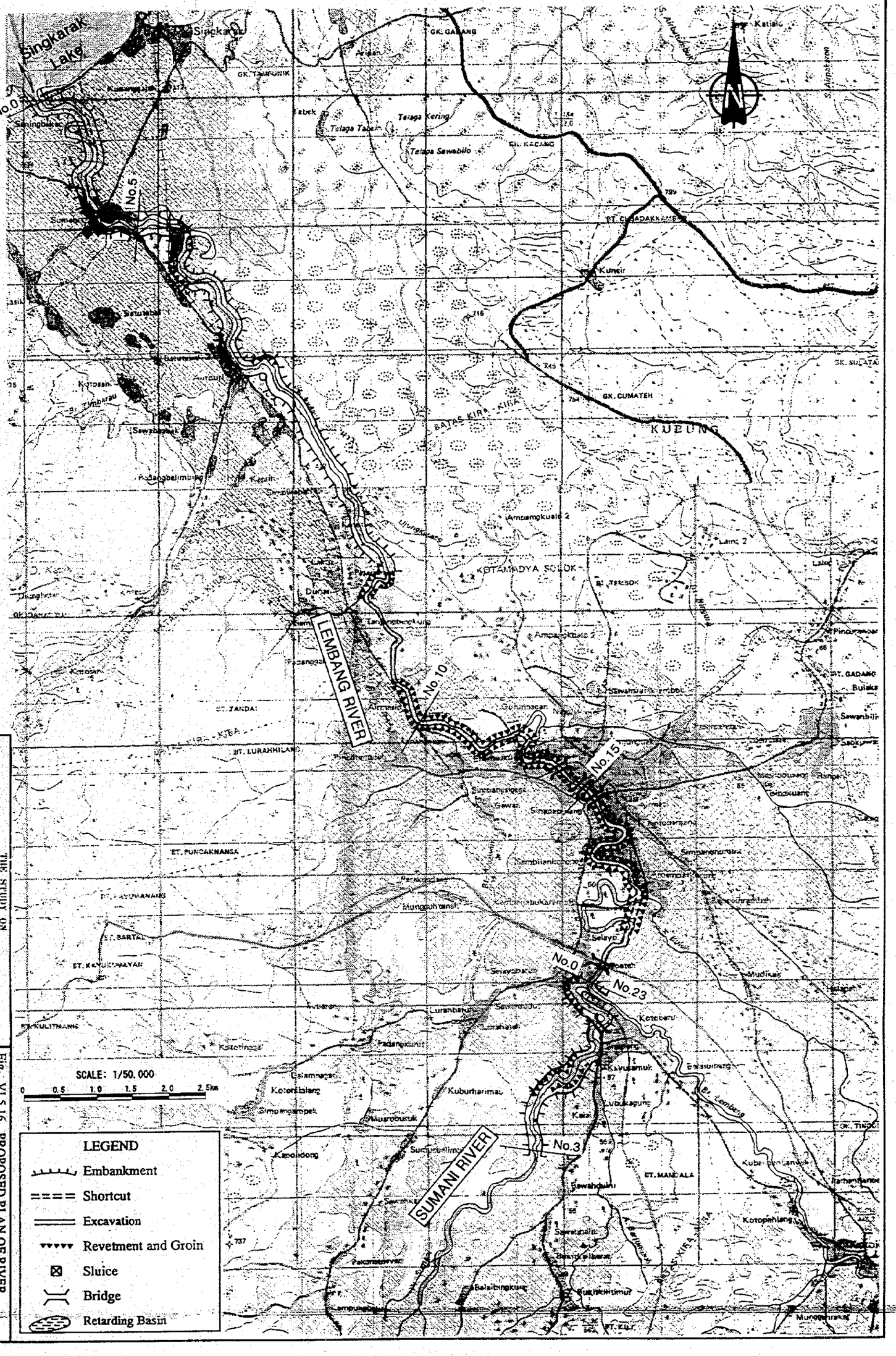
Fig. VI.5.16 (1/4) PROPOSED PLAN OF RIVER IMPROVEMENT FOR UPPER INDRAGIRI RIVERS



THE STUDY ON
KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT
IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. VI.5.16 (2/4) PROPOSED PLAN OF RIVER IMPROVEMENT FOR UPPER INDRAGIRI RIVERS



THE STUDY ON
KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT
IN THE REPUBLIC OF INDONESIA
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Fig. VI.5.16 PROPOSED PLAN OF RIVER IMPROVEMENT FOR UPPER INDRAGIRI RIVERS (3/4)

THE STUDY ON
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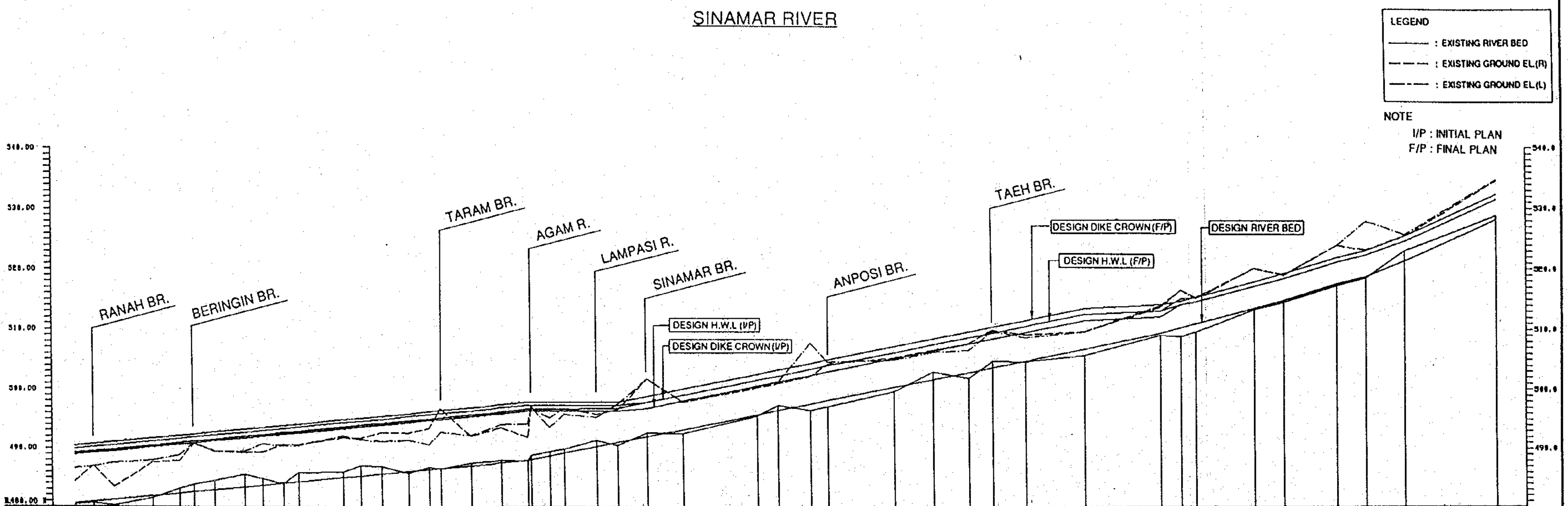
JAPAN INTERNATIONAL COOPERATION AGENCY

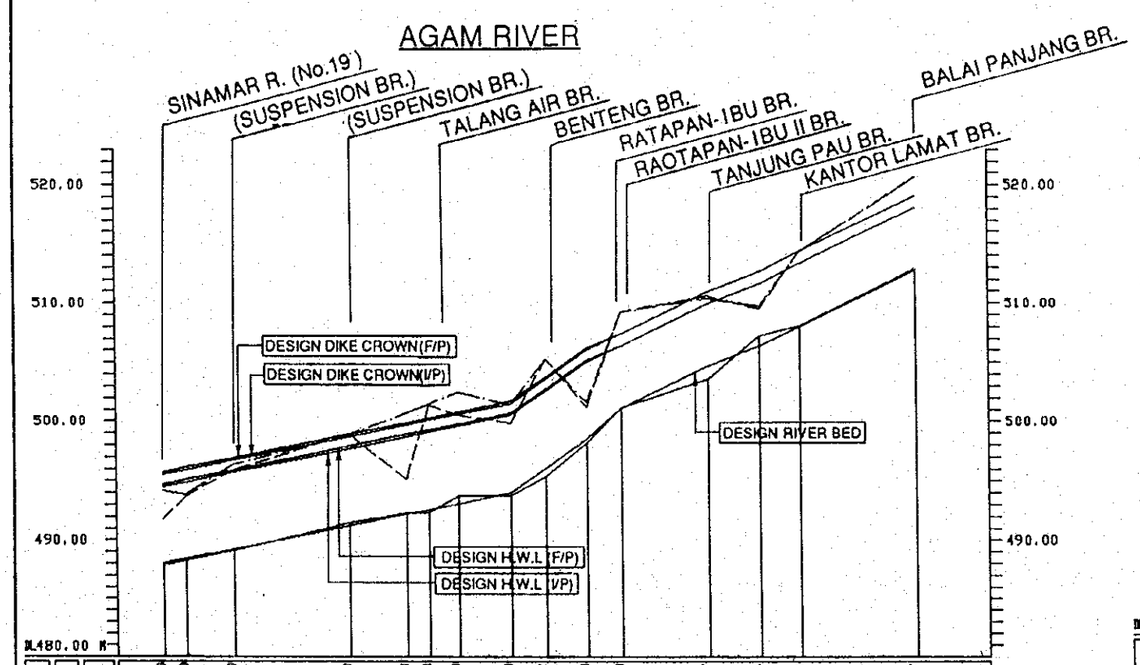
Fig. VI.5.16 (4/4) PROPOSED PLAN OF RIVER IMPROVEMENT FOR UPPER INDRAGIRI RIVERS



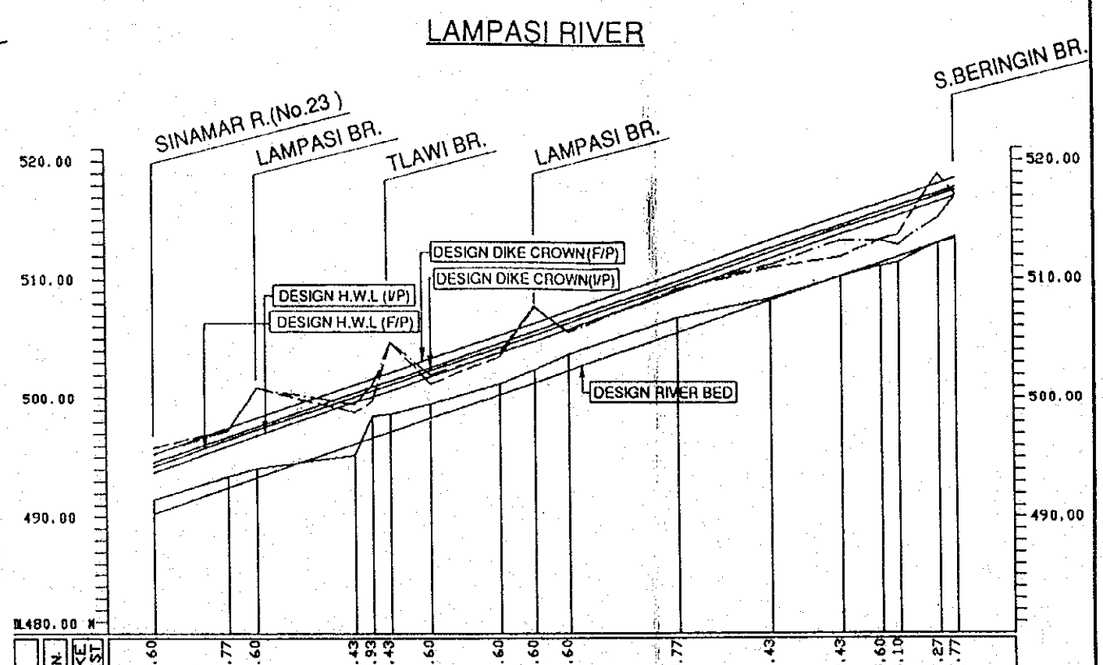
SECTION NO.	DISTANCE (KM) DISTANCE	DISTANCE (KM) ACCUMULATIVE DISTANCE	EXISTING EL. (M) DEEPEST CHANNEL BED	EXISTING EL. (M) GROUND LEFT	EXISTING EL. (M) GROUND RIGHT	DESIGN EL. (M) CHANNEL BED	DESIGN EL. (M) LONG PLAN HIGH WATER	DESIGN EL. (M) LONG PLAN DIKE CREST	DESIGN EL. (M) SHORT PLAN HIGH WATER	DESIGN EL. (M) SHORT PLAN DIKE CREST
0	.00	.00	480.58	486.58	484.40	480.59	489.19	490.39	488.89	489.89
1	.60	.60	480.72	486.97	487.03	480.86	489.40	490.65	489.10	490.10
2	.70	1.30	480.15	487.30	493.35	481.22	489.85	491.05	489.32	490.32
3	1.30	2.60	481.50	488.02	487.62	481.05	490.45	491.65	490.15	491.15
4	.90	3.50	480.10	488.85	487.91	482.27	490.87	492.07	490.37	491.37
5	.50	4.00	480.82	490.84	490.79	482.54	491.14	492.34	490.84	491.84
6	.70	4.70	484.50	489.30	489.50	482.80	491.40	492.60	491.10	492.10
7	1.00	5.70	485.34	489.41	489.25	483.37	491.97	493.17	491.67	492.67
8	.60	6.30	484.73	490.71	489.32	483.66	492.26	493.46	491.96	492.96
9	.70	7.00	483.97	490.40	490.61	484.00	492.60	493.80	492.30	493.30
10	.50	7.50	485.78	490.41	490.65	484.24	492.84	494.04	492.54	493.54
11	1.50	9.00	485.96	492.12	491.75	484.98	493.58	494.78	493.28	494.28
12	.60	9.60	487.03	491.31	491.67	485.27	493.87	495.07	493.57	494.57
13	.70	10.30	486.91	491.11	492.67	485.61	494.21	495.41	493.91	494.91
14	.90	11.20	485.68	491.39	492.55	486.05	494.65	495.85	494.35	495.34
15	.70	11.90	486.86	490.64	493.33	486.39	494.99	496.19	494.69	495.69
16	.40	12.30	486.44	490.72	496.72	486.59	495.19	496.39	494.89	495.89
17	1.00	13.30	487.49	496.19	496.07	487.07	495.67	496.87	495.37	496.37
18	1.00	14.30	488.05	490.99	493.51	487.56	496.16	497.36	495.80	496.80
19, 20	[illegible]	15.30	[illegible]	[illegible]	[illegible]	[illegible]	496.60	497.80	496.30	497.30
21	.60	15.90	489.51	490.56	495.21	489.70	496.60	497.80	496.30	497.30
22	.50	16.40	489.89	495.76	496.68	489.20	496.60	497.80	496.30	497.30
23	1.10	17.50	491.42	495.30	495.80	490.30	496.80	497.80	496.30	497.30
24	.70	18.20	490.49	497.50	496.35	491.00	496.80	497.80	496.30	497.30
25	1.00	19.20	492.61	501.70	501.70	492.00	497.90	498.90	496.80	497.80
26	1.20	20.40	492.34	497.83	497.85	493.20	499.00	500.00	498.00	499.00
27	2.50	22.90	495.49	500.36	500.21	495.70	501.50	502.50	500.50	501.50
28	.70	23.60	497.22	501.13	500.96	496.40	502.20	503.20	501.20	502.20
29	1.10	24.70	496.44	507.66	502.09	497.50	503.30	504.30	502.30	503.30
30	.60	25.30	497.09	504.50	504.15	498.10	503.90	504.90	502.90	503.90
31	2.20	27.50	499.61	504.87	505.23	500.30	506.10	507.10	505.10	506.10
32	1.30	28.80	502.95	506.19	506.40	501.60	507.40	508.40	506.40	507.40
33	1.20	30.00	501.91	506.51	507.65	502.80	508.60	509.60	507.60	508.60
34	.80	30.80	504.64	509.70	509.91	503.60	509.40	510.40	508.40	509.40
35	1.10	31.90	504.54	508.61	509.09	504.70	510.50	511.50	509.50	510.50
36	2.00	33.90	505.67	509.54	509.67	506.70	512.50	513.50	511.50	512.50
37	2.60	36.50	508.98	513.70	513.89	509.30	513.10	514.10	512.10	513.10
38	.70	37.20	508.79	516.29	516.43	510.22	514.10	514.42	514.10	515.10
39	.50	37.70	509.60	515.03	515.24	510.90	514.50	515.30	514.50	515.30
40	1.90	39.60	513.24	520.04	520.01	513.43	517.03	517.83	517.03	517.83
41	1.00	40.60	514.42	518.92	519.00	514.77	518.37	519.17	518.37	519.17
42	2.00	42.40	517.16	523.85	523.85	517.43	521.03	521.83	521.03	521.83
43	.90	43.40	518.42	527.90	523.10	518.63	522.23	523.03	522.23	523.03
44	1.20	44.70	522.96	525.70	525.40	521.30	524.60	525.40	524.60	525.40
45	3.10	47.80	528.86	534.75	534.34	528.19	531.45	532.25	531.45	532.25

THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA	Fig. VI.5.17 (1/4) PROPOSED LONGITUDINAL PROFILE FOR UPPER INDRAGIRI RIVERS
JAPAN INTERNATIONAL COOPERATION AGENCY	

AGAM RIVER



LAMPASI RIVER



SECTION NO.	DISTANCE(KM) DISTANCE	DISTANCE(KM) ACCUMULATIVE DISTANCE	EXISTING EL.(M) DEEPEST CHANNEL BED	EXISTING EL.(M) GROUND LEFT	EXISTING EL.(M) GROUND RIGHT	DESIGN EL.(M) CHANNEL BED	DESIGN EL.(M) LONG PLAN HIGH WATER	DESIGN EL.(M) LONG PLAN DIKE CREST	DESIGN EL.(M) SHORT PLAN HIGH WATER	DESIGN EL.(M) SHORT PLAN DIKE CREST
0	.00	.00	487.84	494.15	491.85	488.00	494.70	495.70	494.50	495.50
1	.40	.40	488.25	493.85	493.68	488.40	495.10	496.10	494.90	495.90
2	.80	1.20	489.09	496.36	495.89	489.20	495.90	496.90	495.70	496.70
3	2.00	3.20	491.50	498.85	498.91	491.20	497.90	498.90	497.70	498.70
4	1.00	4.20	492.37	500.70	495.17	492.20	498.90	499.90	498.70	499.70
5	.40	4.60	492.31	501.50	501.34	492.60	499.30	500.30	499.10	500.10
6	.50	5.10	493.80	502.47	500.50	493.10	499.80	500.80	499.60	500.60
7	.90	6.00	493.74	501.45	499.83	494.00	500.70	501.70	500.50	501.50
8	.60	6.60	495.38	505.31	505.30	496.07	502.77	503.77	502.57	503.57
9	.70	7.30	498.22	501.59	501.20	498.48	505.18	506.18	504.98	505.98
13	.60	7.90	501.16	509.25	509.23	501.10	506.40	507.40	506.40	507.40
14	1.50	9.40	503.55	510.40	510.60	504.67	509.97	510.97	509.97	510.97
15	.70	10.30	507.24	509.73	509.52	506.34	511.64	512.64	511.64	512.64
16	.70	11.00	508.03	514.28	514.34	508.01	513.31	514.31	513.31	514.31
17	2.00	13.00	512.89	520.65	520.65	512.77	518.07	519.07	518.07	519.07

SECTION NO.	DISTANCE(KM) DISTANCE	DISTANCE(KM) ACCUMULATIVE DISTANCE	EXISTING EL.(M) DEEPEST CHANNEL BED	EXISTING EL.(M) GROUND LEFT	EXISTING EL.(M) GROUND RIGHT	DESIGN EL.(M) CHANNEL BED	DESIGN EL.(M) LONG PLAN HIGH WATER	DESIGN EL.(M) LONG PLAN DIKE CREST	DESIGN EL.(M) SHORT PLAN HIGH WATER	DESIGN EL.(M) SHORT PLAN DIKE CREST
0	.00	.00	491.49	495.30	495.80	490.30	494.30	495.30	493.80	494.60
1	1.30	1.30	493.45	497.24	497.37	492.47	496.47	497.47	495.97	496.77
2	.50	1.80	494.08	500.87	500.87	493.30	497.30	498.30	496.80	497.60
3	1.70	3.50	495.18	499.48	498.80	496.13	500.13	501.13	499.63	500.43
4	.30	3.80	498.51	501.08	499.78	496.63	500.63	501.63	500.13	500.93
5	.30	4.10	498.64	504.66	504.69	497.13	501.13	502.13	500.63	501.43
6	.70	4.80	499.49	501.94	501.23	498.30	502.30	503.30	501.80	502.60
7	1.20	6.00	501.18	503.82	503.51	500.30	504.30	505.30	503.80	504.60
8	.60	6.60	502.38	507.70	507.64	501.30	505.30	506.30	504.80	505.60
9	.60	7.20	503.70	505.49	505.63	502.30	506.30	507.30	505.80	506.60
10	1.90	9.10	506.75	509.14	509.08	505.47	509.47	510.47	508.97	509.77
11	1.60	10.70	508.32	511.10	510.91	508.13	512.13	513.13	511.63	512.43
12	1.20	11.90	510.17	513.17	511.78	510.13	514.13	515.13	513.63	514.43
13	.70	12.60	510.98	513.14	513.20	511.30	515.30	516.30	514.80	515.60
14	.30	12.90	511.39	512.86	513.65	511.80	515.80	516.80	515.30	516.10
15	.70	13.60	512.93	515.11	516.89	512.97	516.97	517.97	516.47	517.27
16	.30	13.90	513.32	516.96	517.12	513.47	517.47	518.47	516.97	517.77

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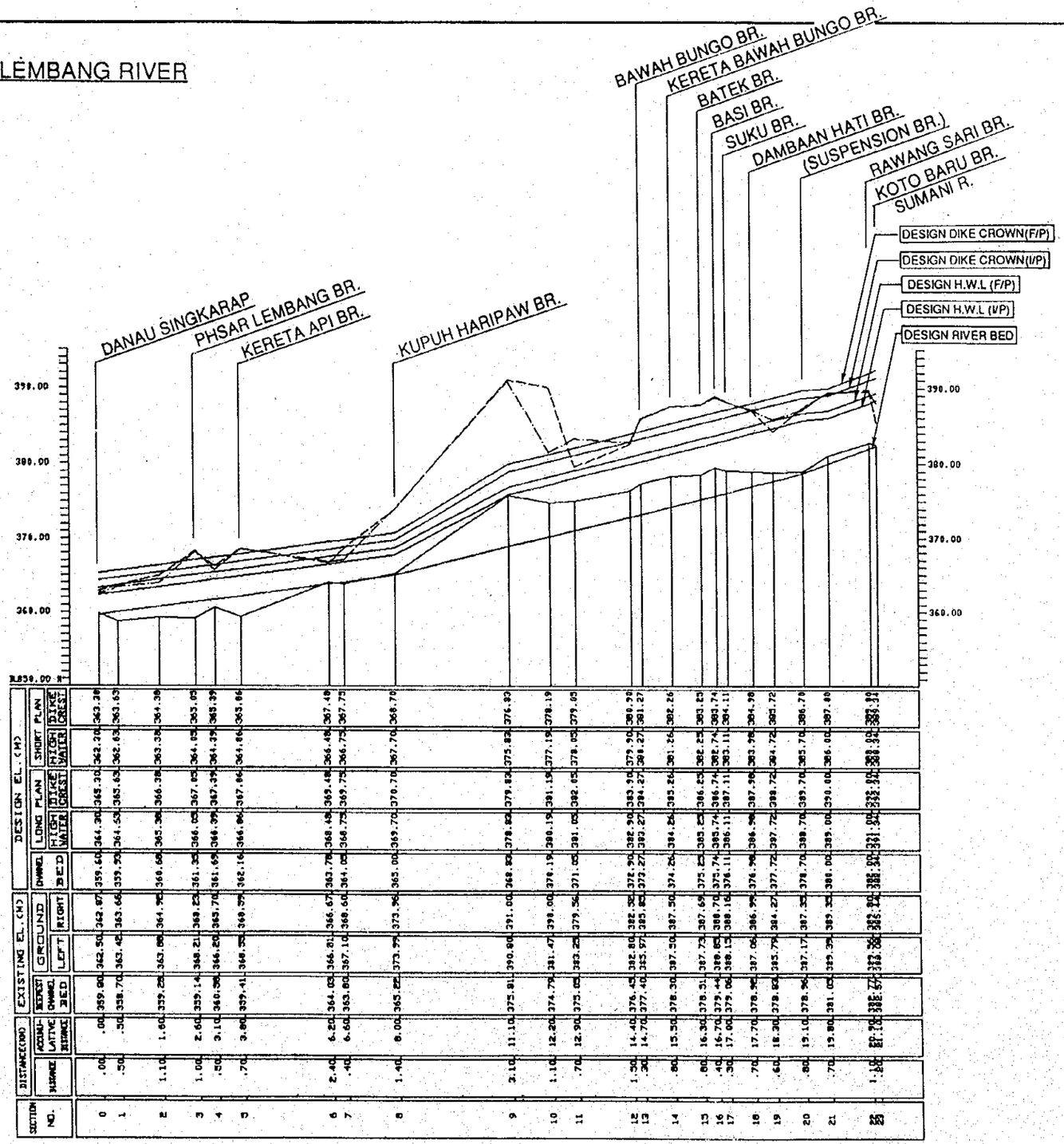
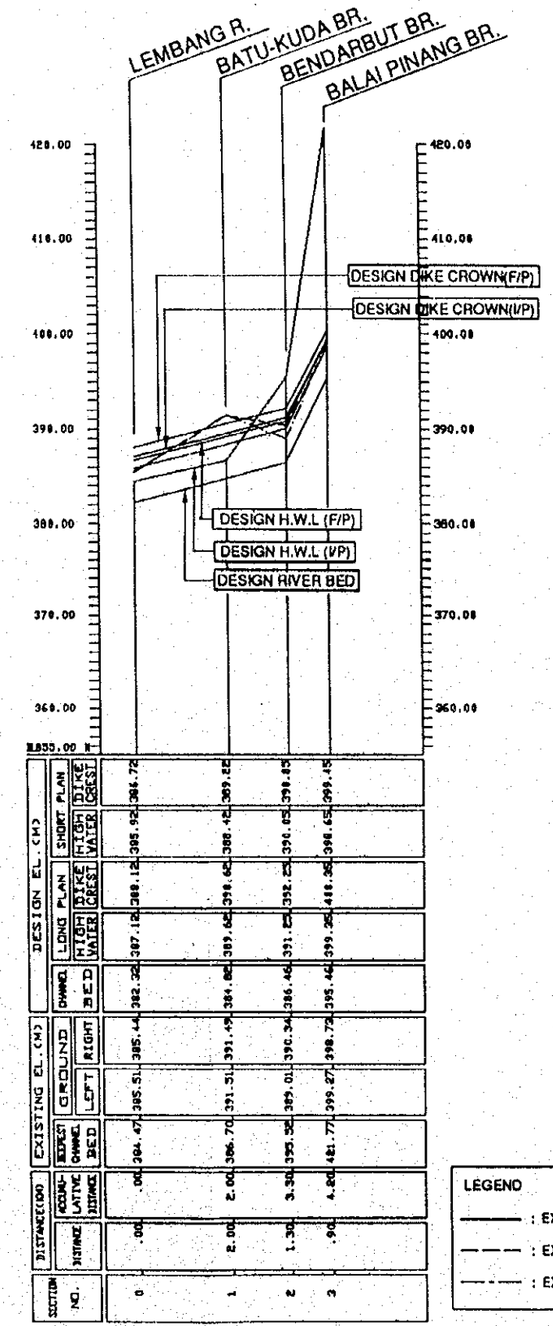
Fig. VI.5.17 (2/4) PROPOSED LONGITUDINAL PROFILE FOR UPPER INDRAGIRI RIVERS

LEMBANG RIVER



SUMANI RIVER



LEGEND

——— : EXISTING RIVER BED

– – – : EXISTING GROUND EL.(R)

—·—·— : EXISTING GROUND EL.(L)

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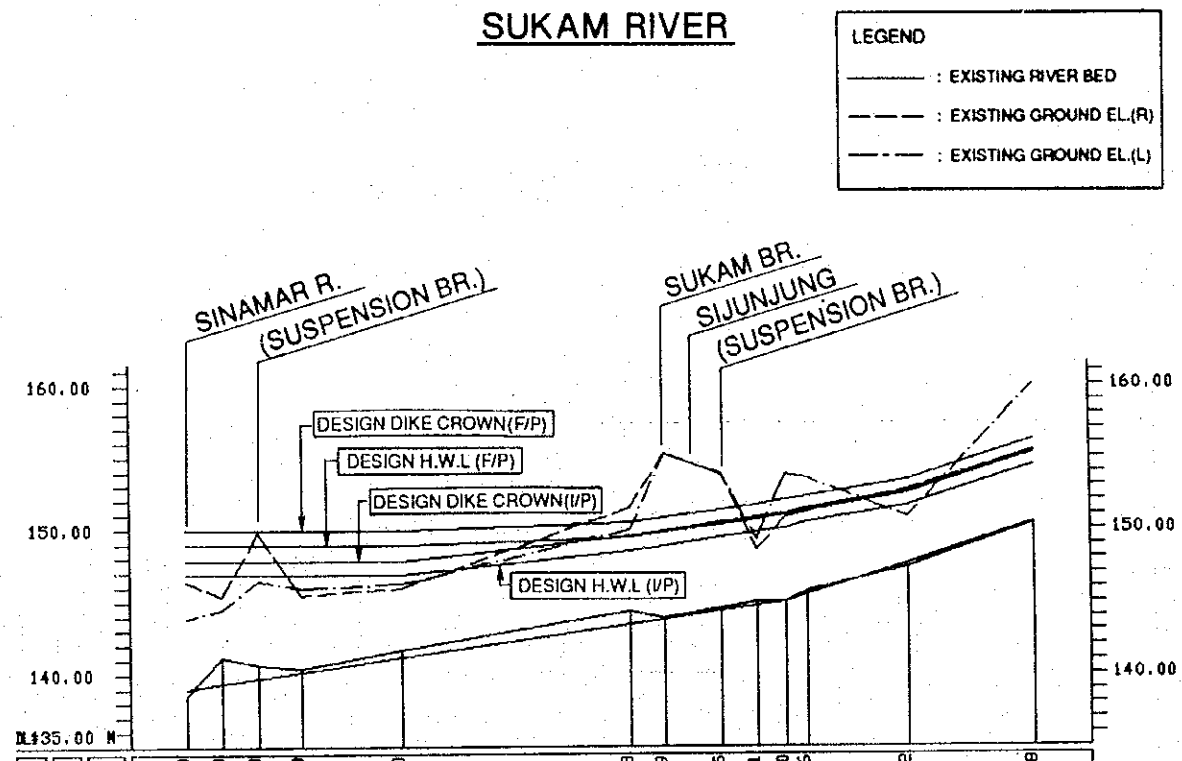
Fig. VI.5.17 (3/4) PROPOSED LONGITUDINAL PROFILE FOR UPPER INDRAGIRI RIVERS

SUKAM RIVER



SECTION NO.	DISTANCE(KM) DISTANCE	DISTANCE(KM) ACCUMULATIVE DISTANCE	EXISTING EL.(M) DEEPEST CHANNEL BED	EXISTING EL.(M) GROUND LEFT	EXISTING EL.(M) GROUND RIGHT	DESIGN EL.(M) LONG PLAN CHANNEL BED	DESIGN EL.(M) LONG PLAN HIGH WATER	DESIGN EL.(M) LONG PLAN DIKE CREST	DESIGN EL.(M) SHORT PLAN HIGH WATER	DESIGN EL.(M) SHORT PLAN DIKE CREST
0	.00	.00	138.49	143.90	146.40	139.00	149.00	150.00	146.90	147.90
1	.50	.50	141.20	144.50	145.40	139.36	149.00	150.00	146.90	147.90
2	.50	1.00	140.71	146.50	149.80	139.71	149.00	150.00	146.90	147.90
3	.60	1.60	140.38	146.00	145.50	140.14	149.00	150.00	146.90	147.90
4	1.40	3.00	141.71	146.30	146.00	141.14	149.00	150.00	146.90	147.90
5	3.20	6.20	144.38	150.00	151.50	143.43	149.43	150.43	148.53	149.53
6	.50	6.70	143.91	155.20	155.20	143.79	149.79	150.79	148.89	149.89
7	.80	7.50	144.53	153.90	153.80	144.36	150.36	151.36	149.46	150.46
8	.50	8.00	144.99	149.30	148.60	144.71	150.71	151.71	149.81	150.81
9	.40	8.40	144.99	153.80	150.80	145.00	151.00	152.00	150.10	151.10
10	.30	8.70	145.76	153.50	151.20	145.46	151.26	152.26	150.46	151.46
11	1.40	10.10	147.36	150.60	152.70	147.62	152.42	153.42	151.62	152.62
12	1.80	11.90	150.33	160.00	155.30	150.39	155.19	156.19	154.39	155.38

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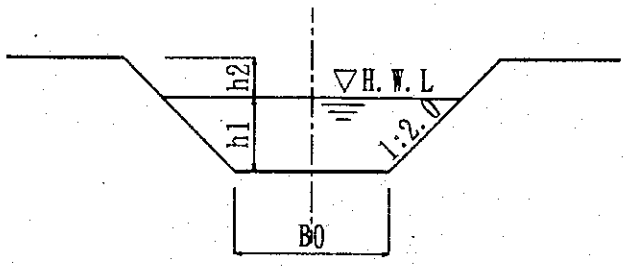
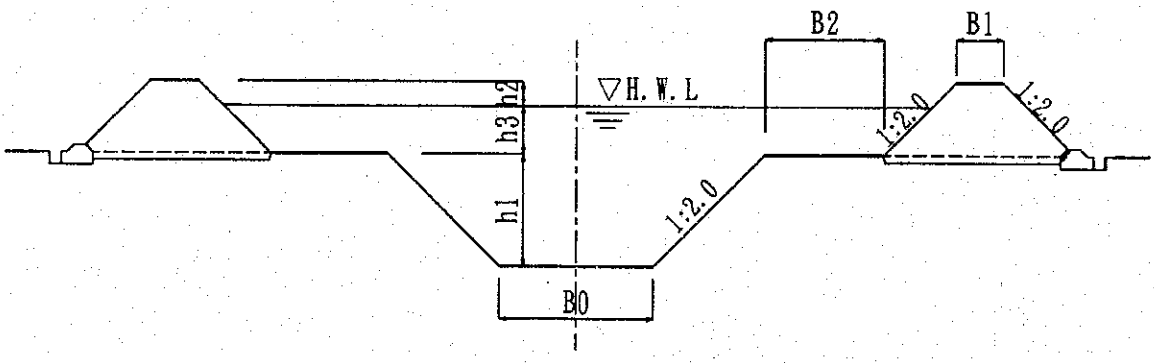
Fig. VI.5.17 (4/4) PROPOSED LONGITUDINAL PROFILE FOR UPPER INDRAGIRI RIVERS

Payakumbuh Area

TYPE-A CROSS SECTION



TYPE-B CROSS SECTION



Unit: m

River	No.	Accm. Distance (km)	Type	B0	B1	B2	h1	h2	h3
Sinamar	No. 0	0.0							
	No. 19	15.2	B	80	4.0	10	6.0	1.2	2.6
	No. 23	17.5	B	70	4.0	10	5.5	1.0	1.3
	No. 37	36.5	B	50	4.0	10	4.5	1.0	1.3
	No. 43	43.5	A	50	–	–	3.6	0.8	–
	No. 45	47.8	A	45	–	–	3.3	0.8	–
Agam	No. 0	0.0							
	No. 10	7.5	A	40	–	–	5.7	1.0	–
	No. 17	13.3	A	40	–	–	4.3	1.0	–
Lampasi	No. 0	0.0							
	No. 16	14.6	B	30	4.0	10	3.5	1.0	1.5

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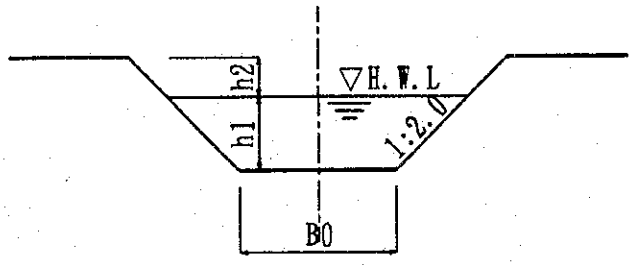
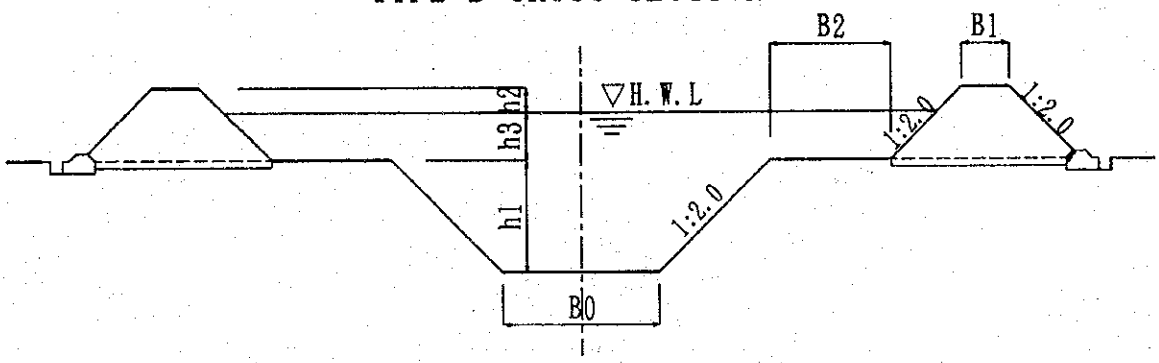
Fig. VI.5.18 (1/3) PROPOSED CROSS SECTIONS FOR UPPER INDRAGIRI RIVERS

Solok Area

TYPE-A CROSS SECTION



TYPE-B CROSS SECTION



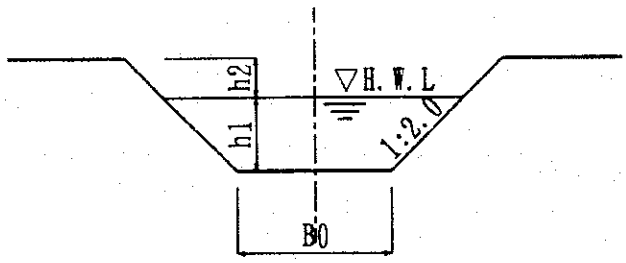
Unit: m

River	No.	Accm. Distance (km)	Type	B0	B1	B2	h1	h2	h3
Lembang	No. 0	0.0	B	70	4.0	10	4.5	1.0	1.2
	No. 8	8.0	A	20	—	—	7.7	1.0	—
	No. 23	22.2							
Sumani	No. 0	0.0	A	25	4.0	10	3.5	1.0	1.3
	No. 3	4.2							

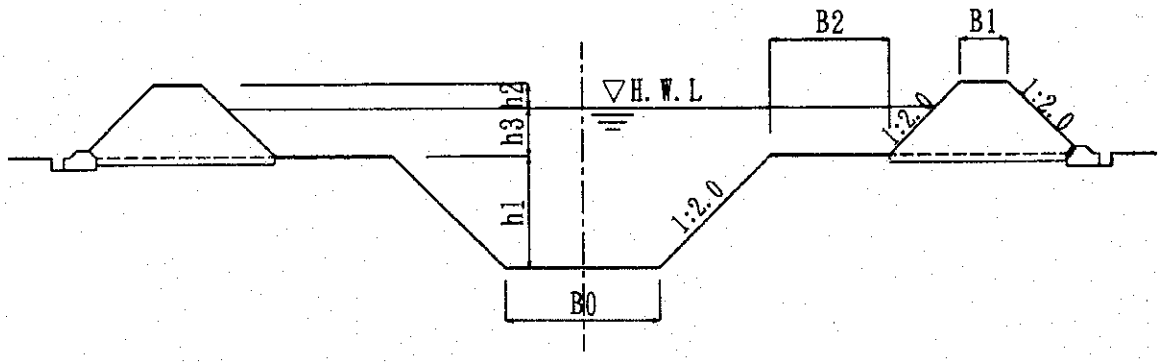
THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. VI.5.18 (2/3) PROPOSED CROSS SECTIONS FOR UPPER INDRAGIRI RIVERS

Sijunjung Area

TYPE-A CROSS SECTION



TYPE-B CROSS SECTION



Unit: m

River	No.	Accm. Distance (km)	Type	B0	B1	B2	h1	h2	h3
Sukam	No. 0	0.0							
	No. 9	8.4	B	60	4.0	10	3.0	1.0	1.8
	No. 12	11.9	B	40	4.0	10	4.5	1.0	2.5
Palangki	No. 0	0.0							
	No. 18	18.0	B	90	4.0	10	5.5	1.2	2.1

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Fig. VI.5.18 (3/3) PROPOSED CROSS SECTIONS FOR UPPER INDRAGIRI RIVERS

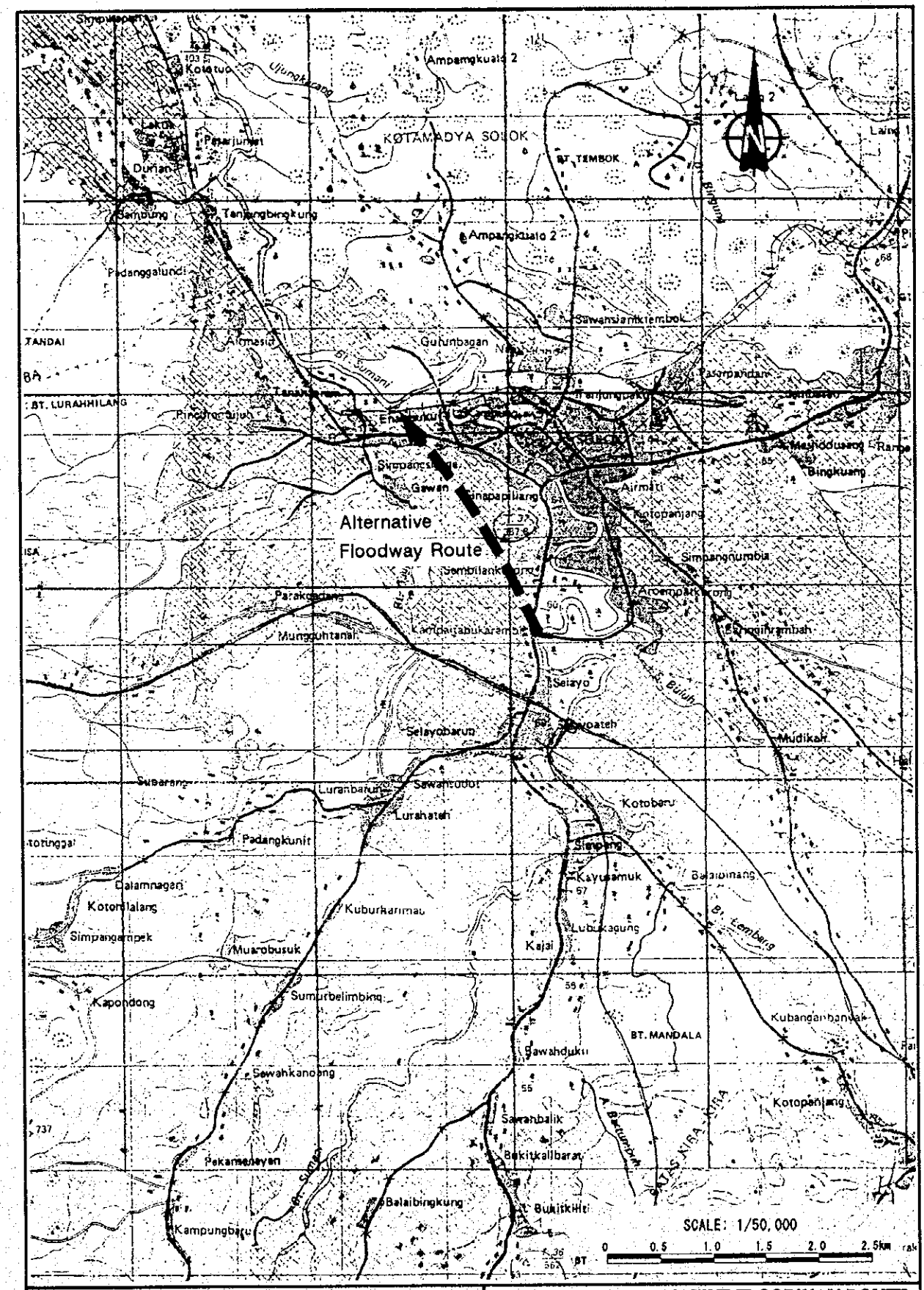

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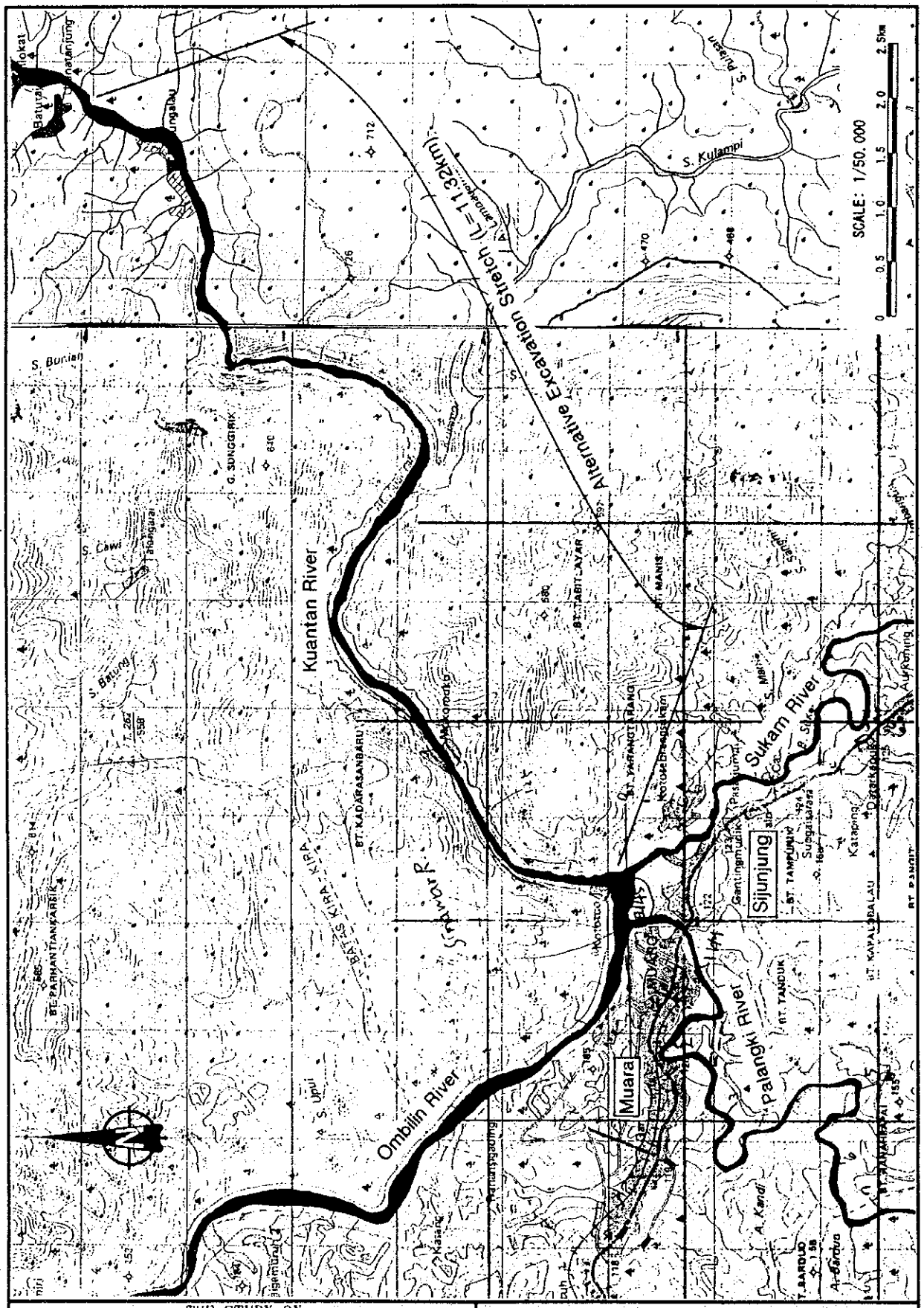
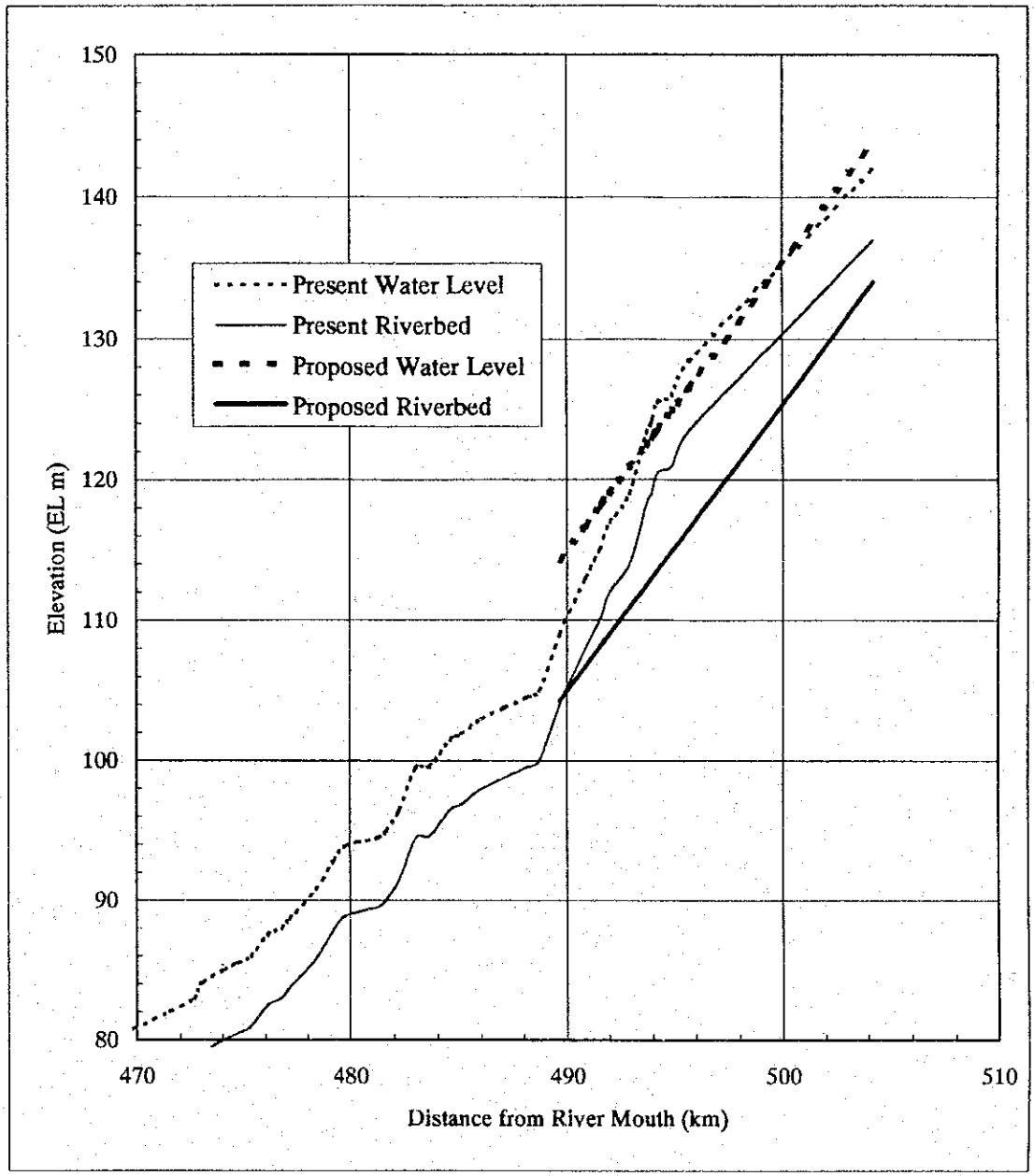
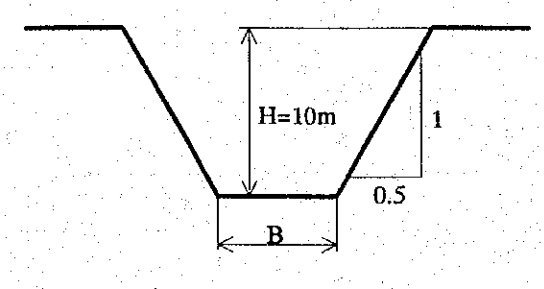
Fig. VI.5.19 ALTERNATIVE FLOODWAY ROUTE FOR SOLOK AREA RIVER IMPROVEMENT PLAN



THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA JAPAN INTERNATIONAL COOPERATION AGENCY	**Fig. VI.5.20 ALTERNATIVE EXCAVATION PLAN FOR SIJUNJUNG/MUARA AREA RIVER IMPROVEMENT PLAN**





Return Period	Discharge (m^3/s)	B (m)
50-Year	5,400	95.5
10-Year	3,900	70.0

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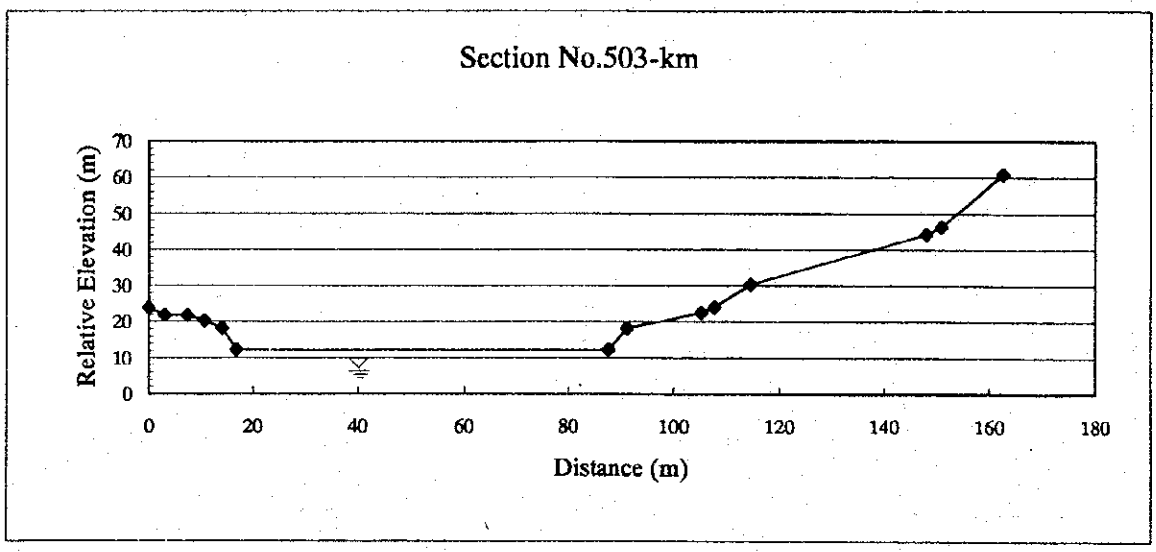
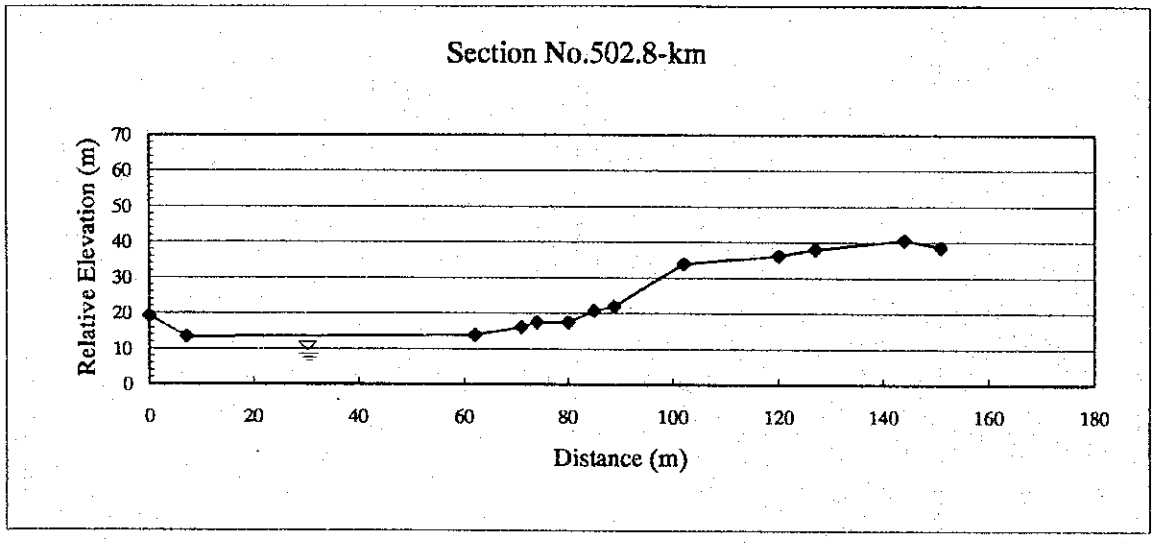
Fig.VI.5.21 LONGITUDINAL PROFILE AND PROPOSED CROSS SECTIONS OF KUANTAN RIVER UPSTREAM STRETCHES





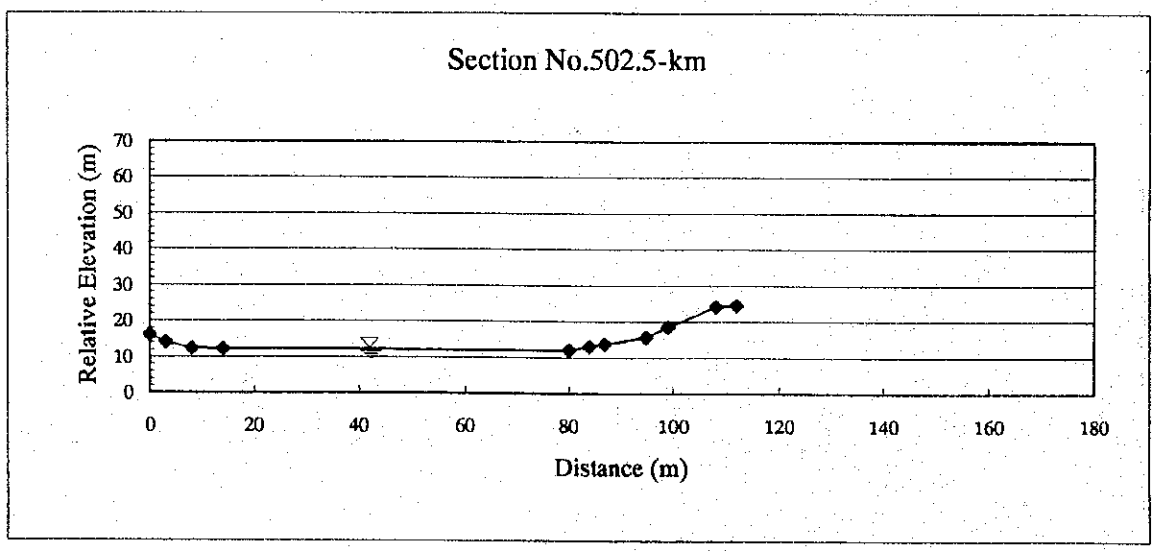


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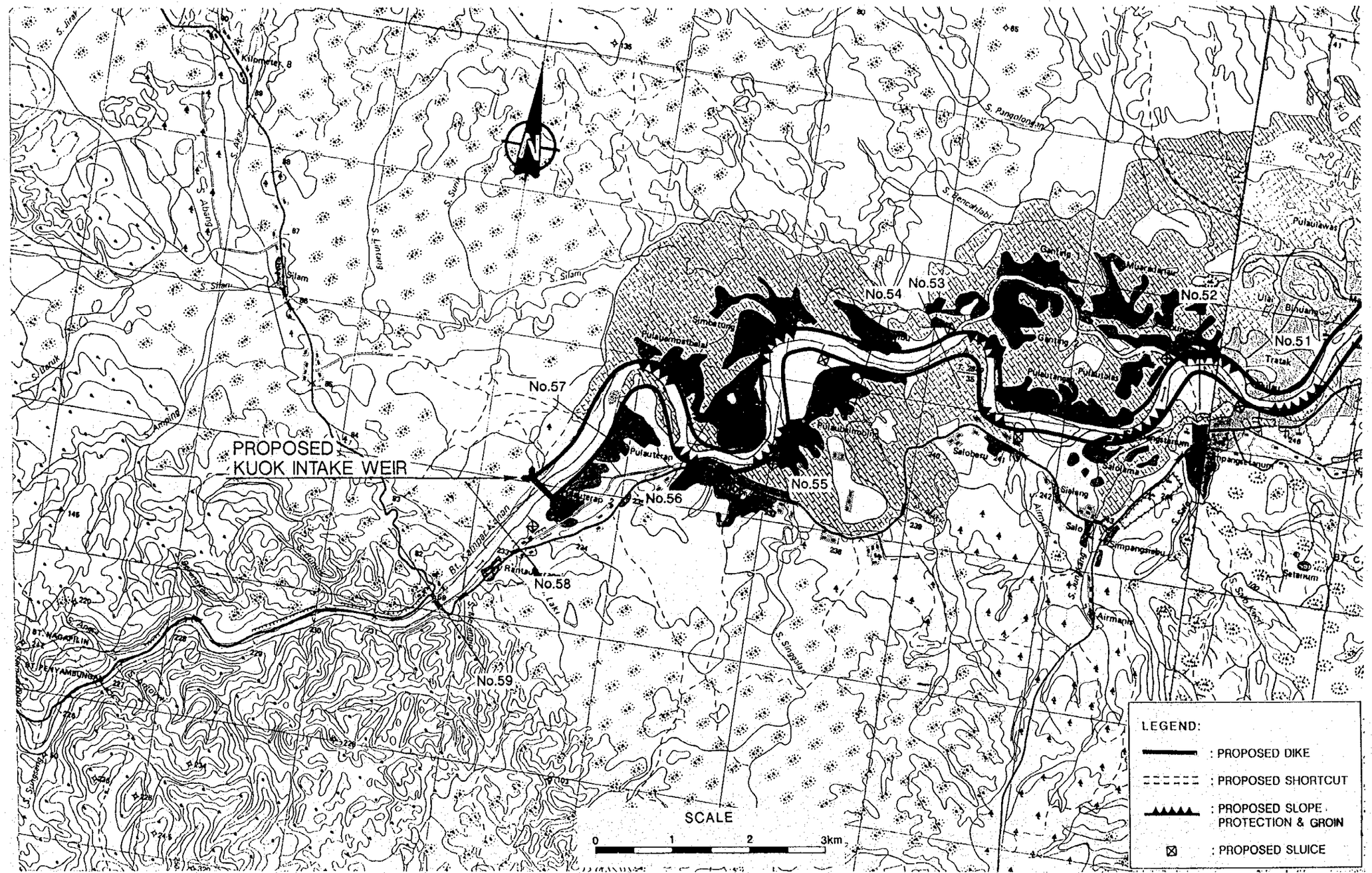
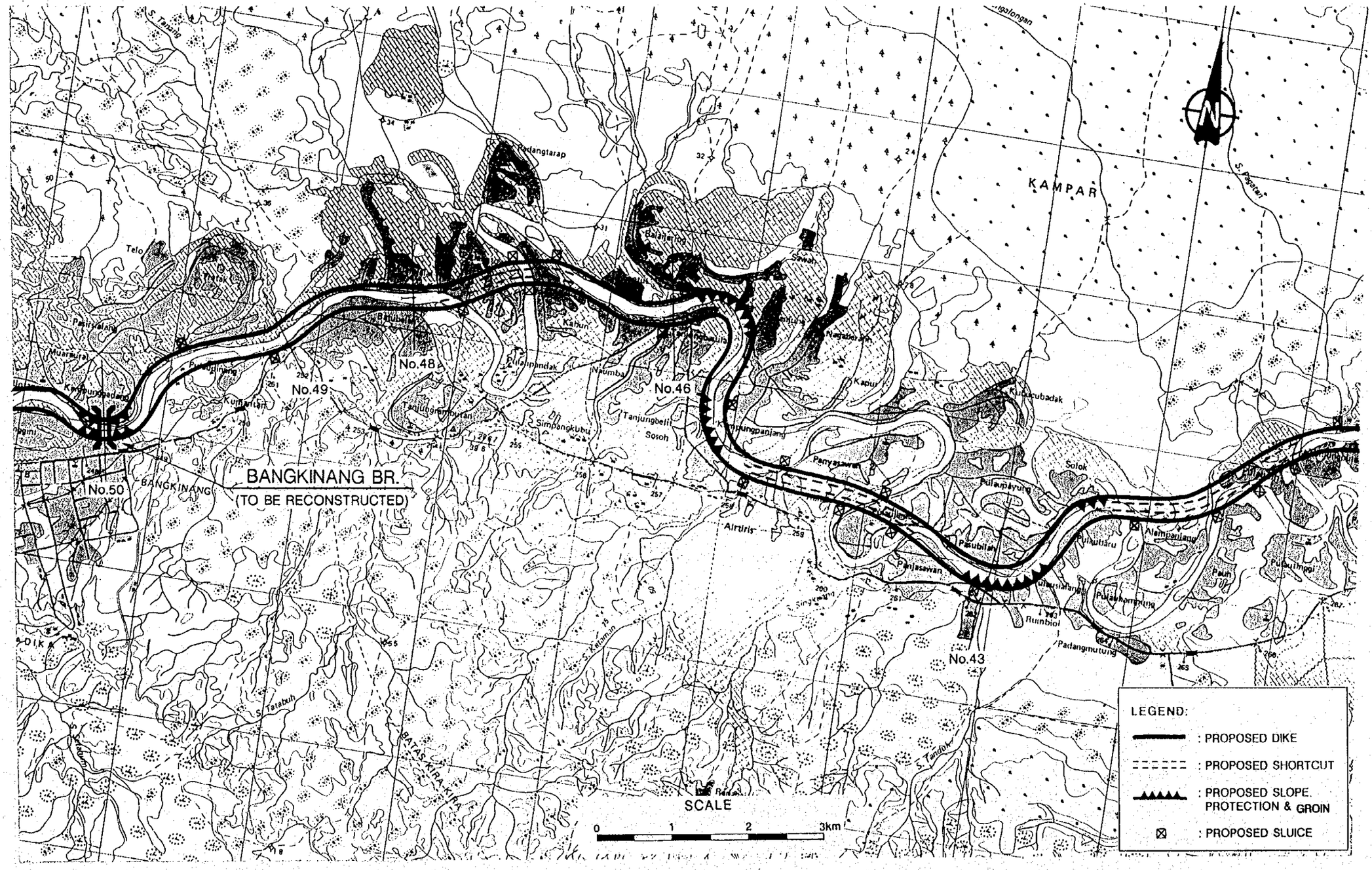
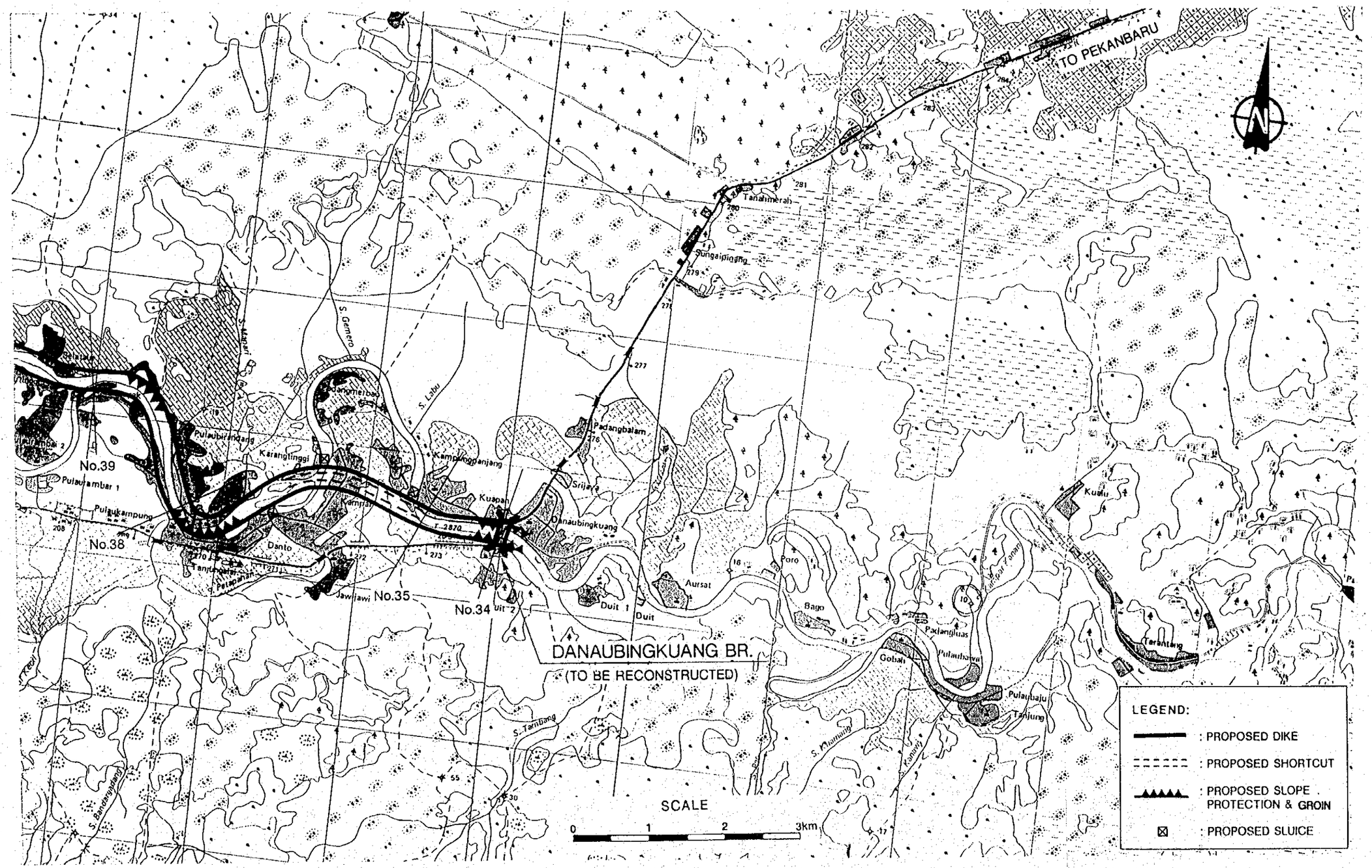
Fig.VI.5.22 CROSS SECTIONS OF PRESENT RIVER CHANNEL OF KUANTAN RIVER UPSTREAM STRETCHES



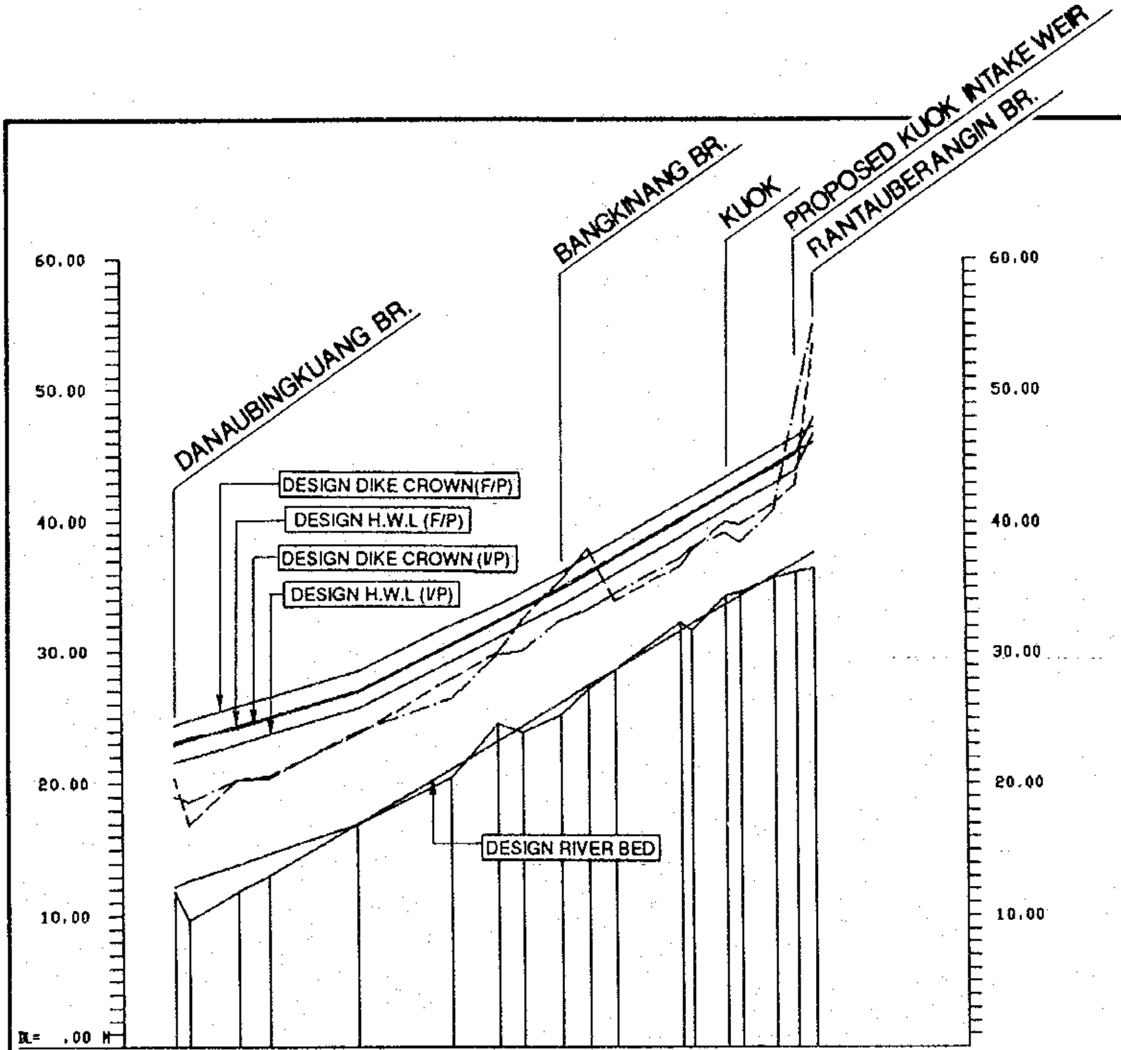
THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. VI.6.1 PROPOSED PLAN (INITIAL PHASE) (1/3) OF RIVER IMPROVEMENT FOR KAMPAR KANAN RIVER (BANGKINANG AREA)



THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. VI.6.1 (2/3) PROPOSED PLAN (INITIAL PHASE) OF RIVER IMPROVEMENT FOR KAMPAR KANAN RIVER (BANGKINANG AREA)



THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. VI.6.1 PROPOSED PLAN (INITIAL PHASE) (3/3) OF RIVER IMPROVEMENT FOR KAMPAR KANAN RIVER (BANGKINANG AREA)



SECTION NO.	DISTANCE (KM) DISTANCE	DISTANCE (KM) ACCUMULATIVE DISTANCE	EXISTING EL. (M) DEEPEST CHANNEL BED	EXISTING EL. (M) GROUND LEFT	EXISTING EL. (M) GROUND RIGHT	DESIGN EL. (M) CHANNEL BED	DESIGN EL. (M) LONG PLAN HIGH WATER	DESIGN EL. (M) LONG PLAN DIKE CREST	DESIGN EL. (M) SHORT PLAN HIGH WATER	DESIGN EL. (M) SHORT PLAN DIKE CREST
34	.00	.00	11.80	19.00	20.40	12.26	22.96	24.46	21.61	23.11
35	1.10	1.10	9.62	18.60	16.90	12.63	23.28	24.78	21.93	23.43
38	3.80	4.90	11.87	20.30	20.30	13.89	24.38	25.88	23.03	24.23
39	2.40	7.30	13.05	20.40	20.60	14.69	25.08	26.58	23.73	24.93
43	6.80	14.10	16.96	24.00	23.80	16.96	27.05	28.55	25.70	26.90
46	7.10	21.20	20.48	26.50	28.00	21.14	30.60	32.10	29.25	30.45
48	3.70	24.90	24.58	29.80	30.00	23.31	32.45	33.65	31.10	32.30
49	1.90	26.80	23.99	30.10	32.50	24.43	33.40	34.60	32.05	33.25
50	3.00	29.80	25.28	32.40	35.50	26.20	34.90	36.10	33.55	34.75
51	2.20	32.00	27.24	33.30	37.90	27.49	36.15	37.36	34.80	36.00
52	2.00	34.00	28.62	34.50	33.90	28.67	37.30	38.50	35.95	37.15
53	5.00	39.00	32.23	37.20	36.50	31.61	40.16	41.35	38.80	40.00
54	.90	39.90	31.59	38.00	37.70	32.14	40.67	41.87	39.32	40.52
55	2.60	42.50	34.29	39.10	40.00	33.67	42.16	43.36	40.80	42.00
56	1.10	43.60	34.61	38.40	39.80	34.31	42.78	43.98	41.43	42.63
57	2.60	46.20	35.63	40.90	41.40	35.84	44.27	45.47	42.92	44.12
58	1.70	47.90	36.18	48.80	42.80	36.84	45.24	46.44	43.89	45.09
59	1.40	49.30	36.47	55.00	53.50	37.67	46.04	47.24	46.66	47.86

LEGEND
- ———— : EXISTING RIVER BED
- — — — : EXISTING GROUND EL.(R)
- —·—·— : EXISTING GROUND EL.(L)

THE STUDY ON
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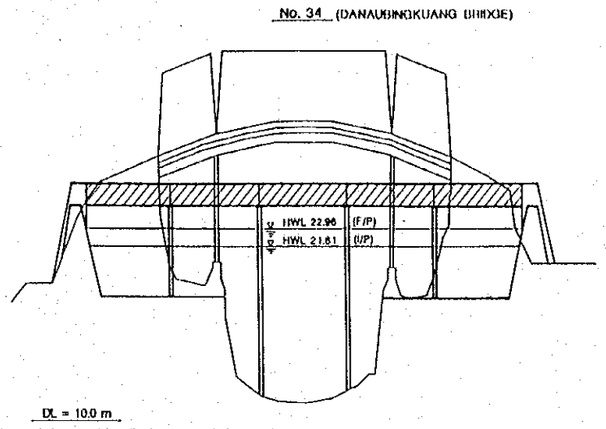
Fig. VI.6.2 PROPOSED LONGITUDINAL PROFILE (INITIAL PHASE) OF RIVER IMPROVEMENT FOR KAMPAR KANAN RIVER (BANGKINANG AREA)



NOTE :

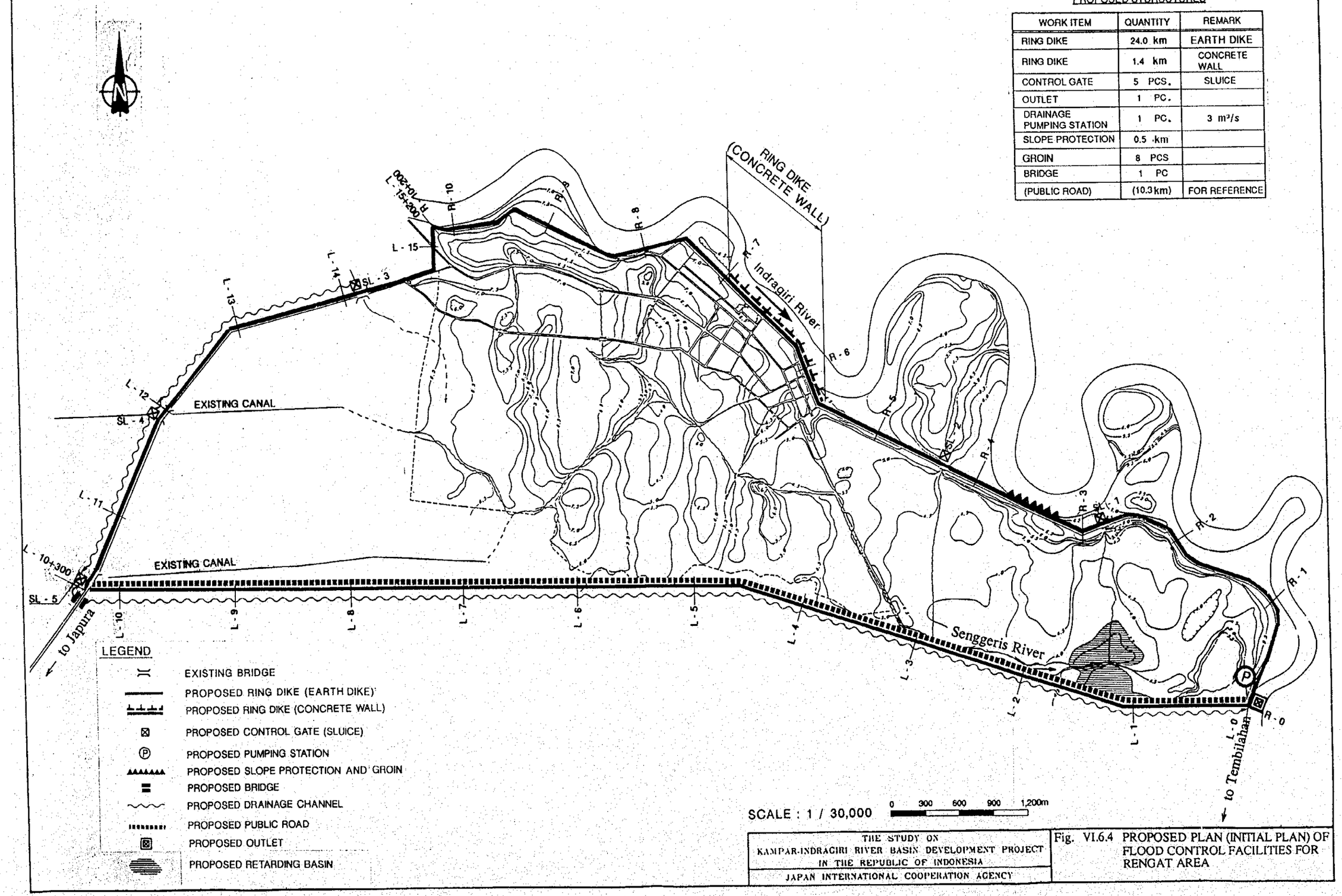
(1) EXPRESSED H.W.L IS SHOWN IN CASE OF INITIAL PHASE

(2) DL=DATUM LEVEL
I/P=INITIAL PHASE
F/P=FINAL PHASE

THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. VI.6.3 PROPOSED CROSS SECTIONS (INITIAL PHASE) OF RIVER IMPROVEMENT FOR KAMPAR KANAN RIVER (BANGKINANG AREA)

PROPOSED STURUCTURES

WORK ITEM	QUANTITY	REMARK
RING DIKE	24.0 km	EARTH DIKE
RING DIKE	1.4 km	CONCRETE WALL
CONTROL GATE	5 PCS.	SLUICE
OUTLET	1 PC.	
DRAINAGE PUMPING STATION	1 PC.	3 m³/s
SLOPE PROTECTION	0.5 km	
GROIN	8 PCS	
BRIDGE	1 PC	
(PUBLIC ROAD)	(10.3km)	FOR REFERENCE



THE STUDY ON
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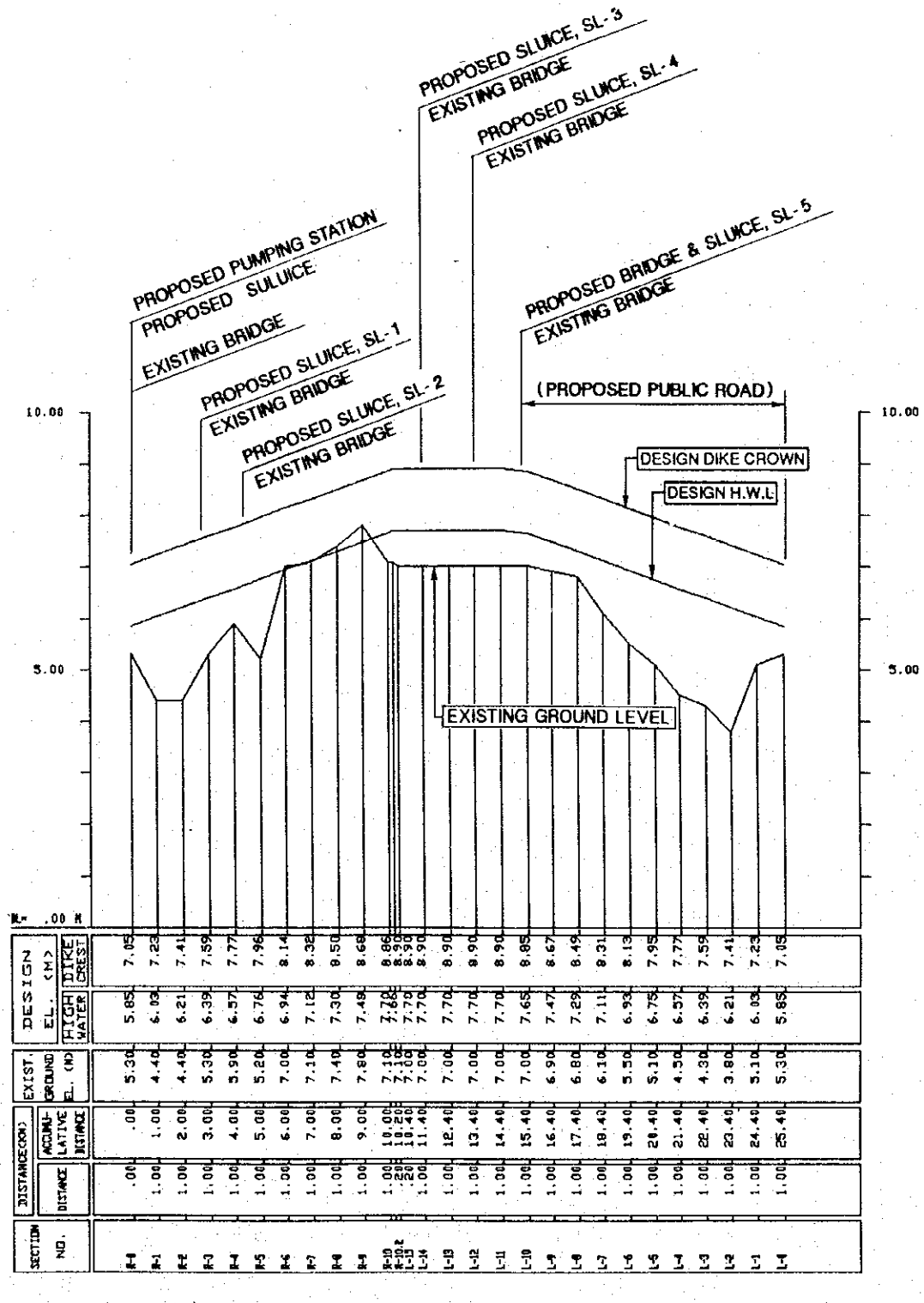
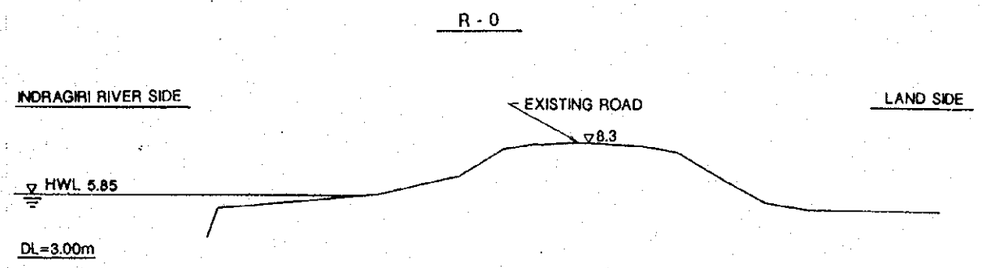
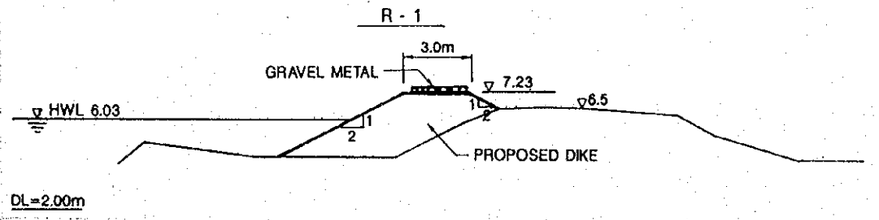
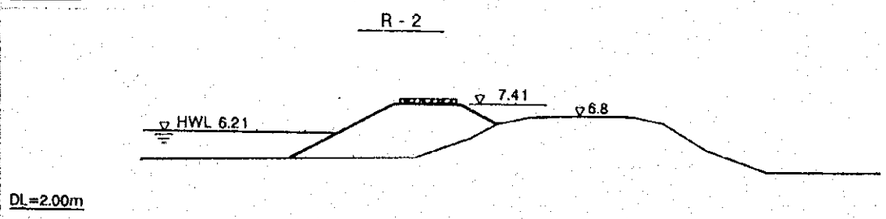
Fig. VI.6.4 PROPOSED PLAN (INITIAL PLAN) OF FLOOD CONTROL FACILITIES FOR RENGAT AREA

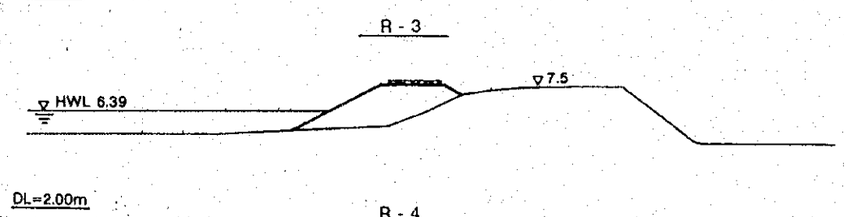


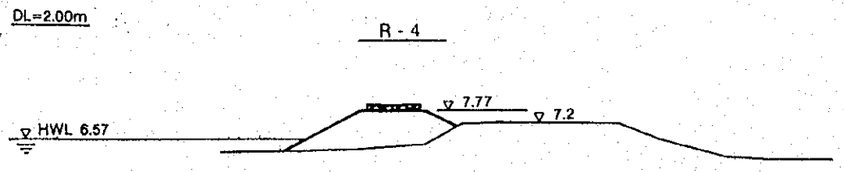
THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. VI.6.5 PROPOSED LONGITUDINAL PROFILE (INITIAL PLAN) OF RING DIKE FOR RENGAT AREA

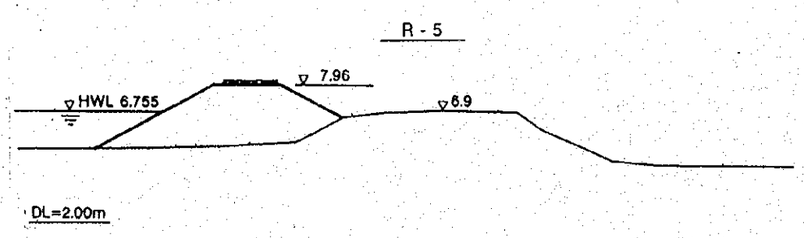


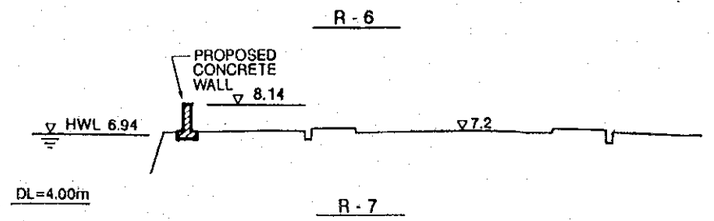


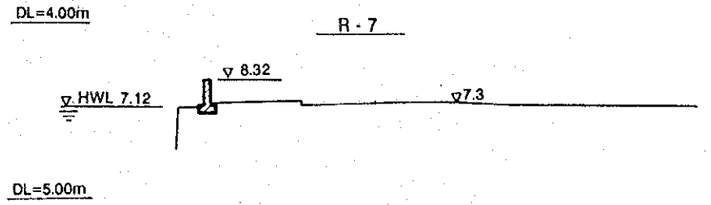


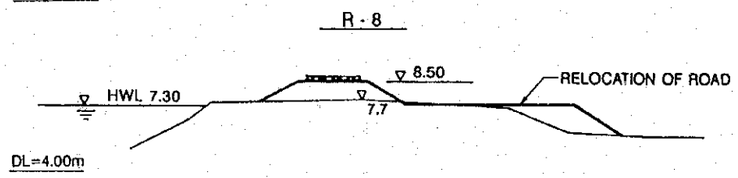


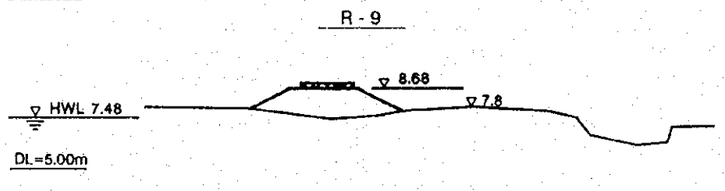


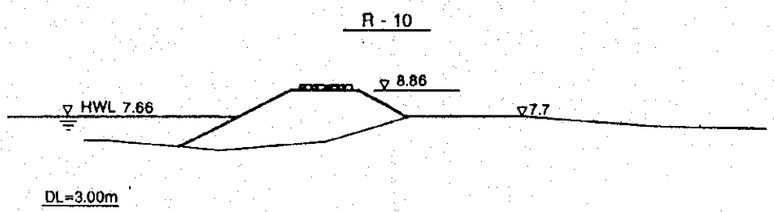


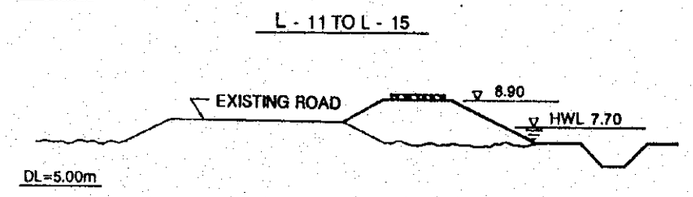


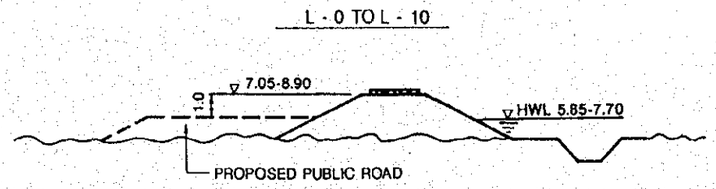












SCALE
0 2 4 6 8 m

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Fig. VI.6.6 PROPOSED CROSS SECTIONS (INITIAL PLAN) OF RING DIKE FOR RENGAT AREA

Inundated Elevation (EL m)	Volume ($\times 10^6$ m^3)
2.8	0.000
3.0	0.013
3.3	0.059
3.4	0.081
3.9	0.675
4.1	1.275
4.4	2.709
4.9	5.572

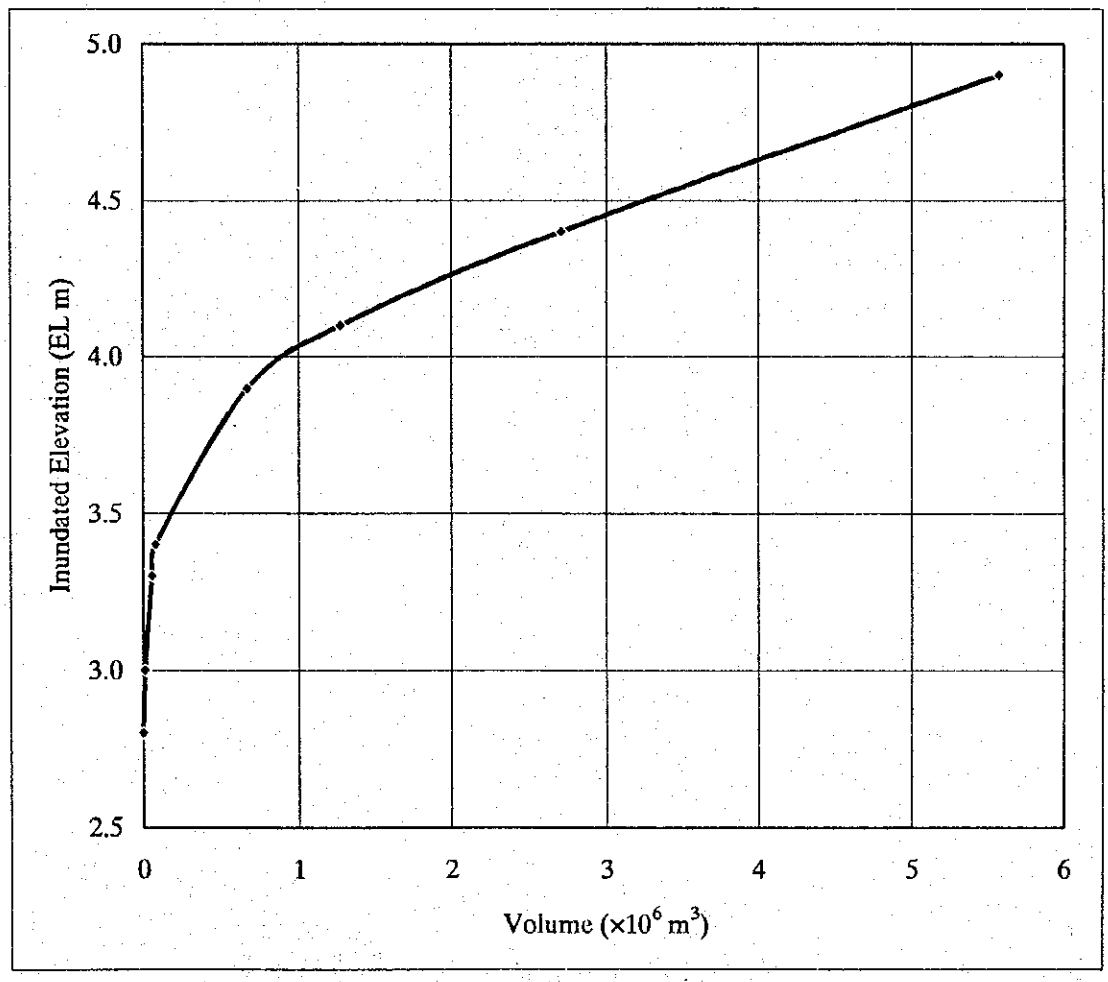

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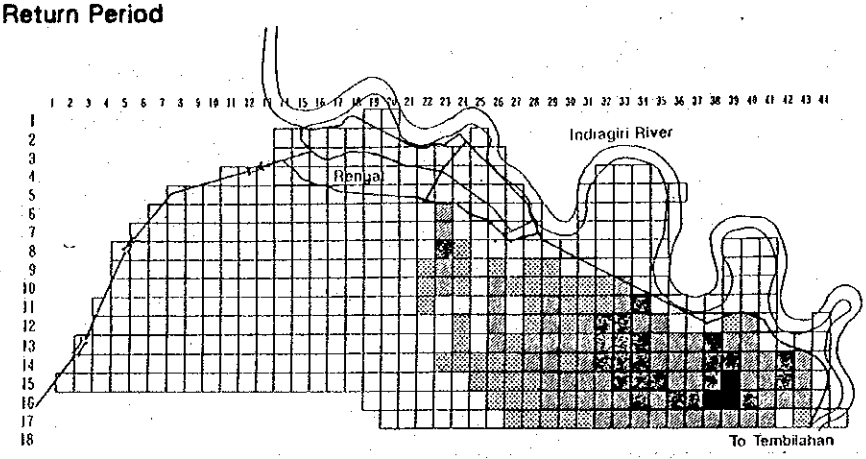
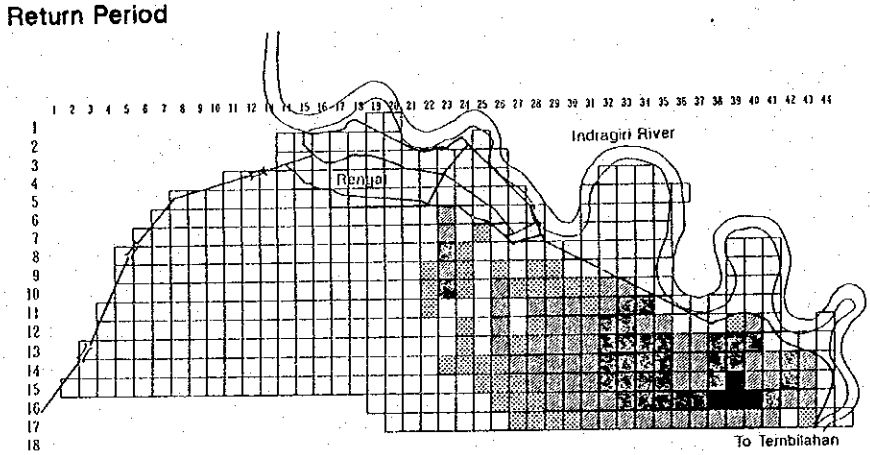
Fig.VI.6.7 INUNDATION ELEVATION-VOLUME CURVE FOR RENGAT INTERIOR DRAINAGE AREA

2-year Return Period



5-year Return Period



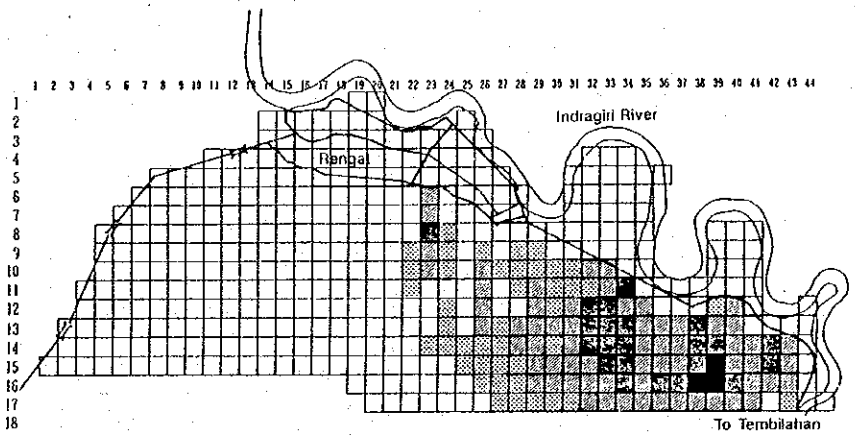
SCALE 1 : 100,000

LEGEND Inundation depth : H

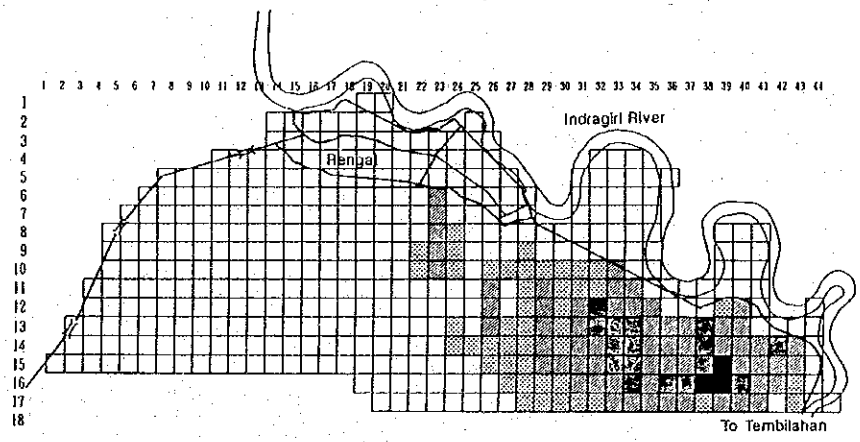
H=0m H<0.5m 0.5m<H<1m 1m<H<1.5m 1.5m<H<2m

THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. VI.6.8 INUNDATION DEPTH FOR EACH RETURN PERIOD

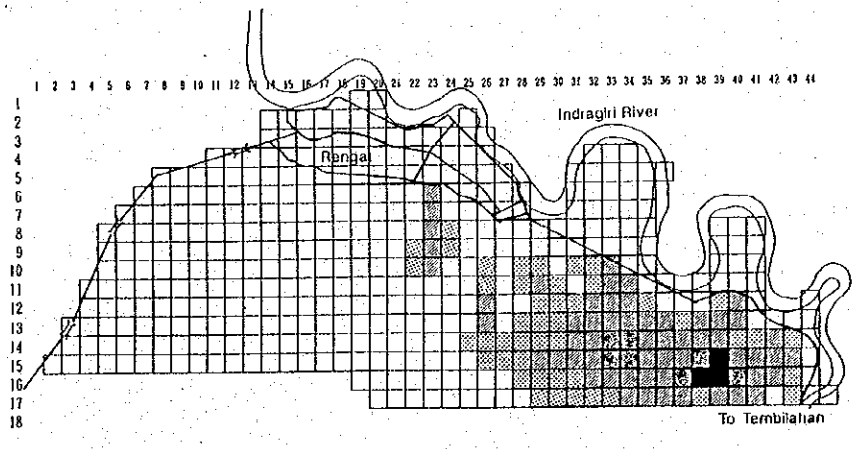
Inundation Elevation of 4.7m : Pump capacity of 1m³/s at 5-year return period



Inundation Elevation of 4.6m : Pump capacity of 1m³/s at 2-year return period and 3m³/s at 10-year return period



Inundation Elevation of 4.5m : Pump capacity of 3m³/s at 5-year return period and 5m³/s at 5 and 10year return periods



SCALE 1 : 100,000

LEGEND Inundation depth : H

H=0m | H<0.5m | 0.5m<H<1m | 1m<H<1.5m | 1.5m<H<2m

THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. VI.6.9 INUNDATION DEPTH FOR (1/3) DIFFERENT PUMP CAPACITY AT EACH RETURN PERIOD