社会開発協力部報告書

No. 8

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

STUDY REPORT
ON
PADANG AREA FLOOD CONTROL PROJECT

DRAWINGS

DECEMBER 1983

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

SDS
[redacted]
83－149

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

STUDY REPORT

ON

PADANG AREA FLOOD CONTROL PROJECT

DRAWINGS

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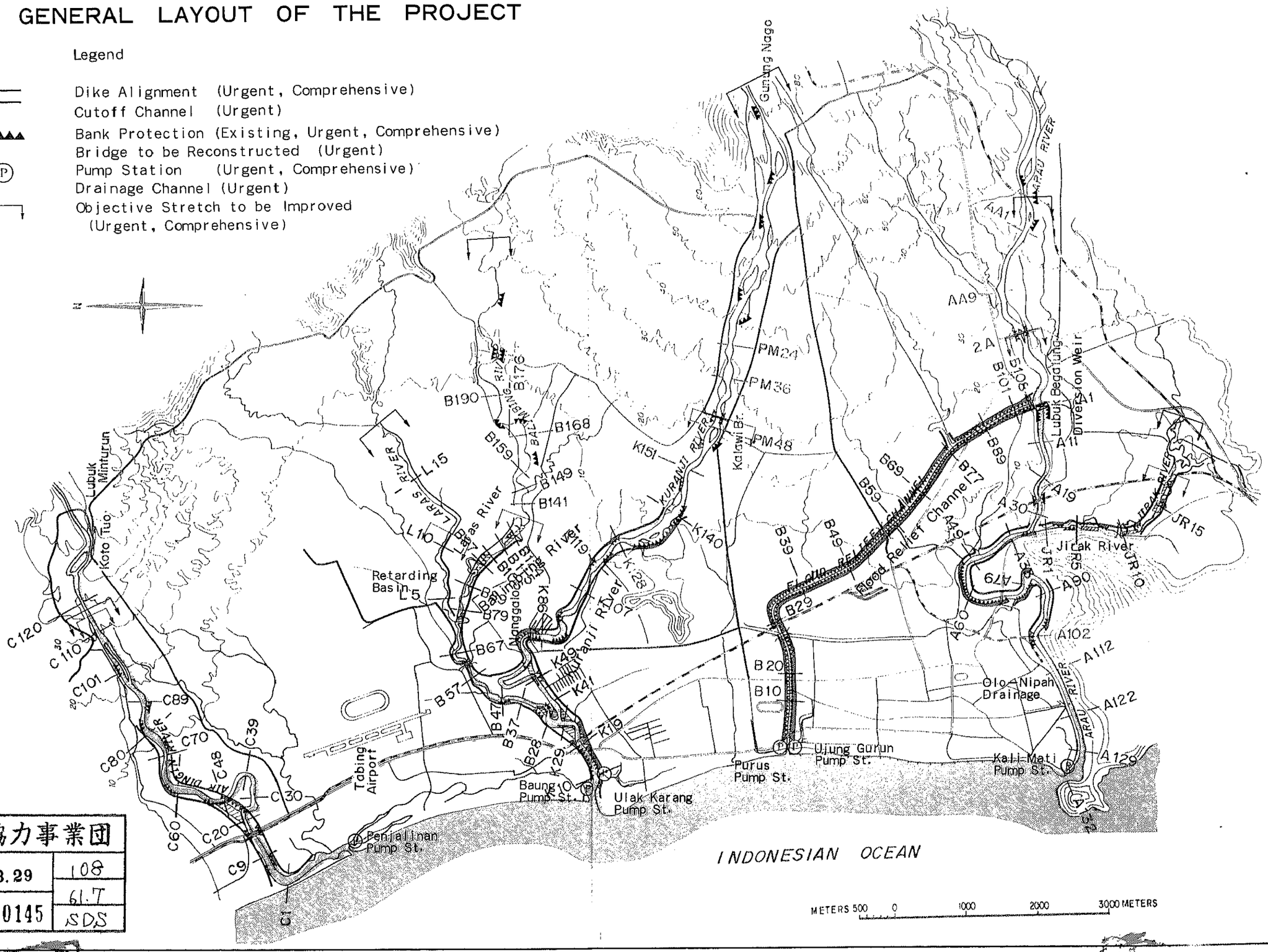
DECEMBER 1983

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

GENERAL LAYOUT OF THE PROJECT

Legend

- Dike Alignment (Urgent, Comprehensive)
- Cutoff Channel (Urgent)
- Bank Protection (Existing, Urgent, Comprehensive)
- Bridge to be Reconstructed (Urgent)
- Pump Station (Urgent, Comprehensive)
- Drainage Channel (Urgent)
- Objective Stretch to be Improved (Urgent, Comprehensive)



国際協力事業団

受入月日 '84. 3. 29	108
	61.7
登録No. 10145	SDS

マイクロフィルム作成

PADANG AREA FLOOD CONTROL PROJECT

LIST OF DRAWINGS

DRAWING NO.	TITLE
	I. RIVER CHANNEL IMPROVEMENT
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I - 2	PLAN OF PROJECT Arau River (2/3)
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I - 5	PROPOSED CROSS SECTION Arau River (1/2)
I - 6	PROPOSED CROSS SECTION Arau River (2/2)
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I - 8	PLAN OF PROJECT Jirak River
I - 9	PROPOSED PROFILE AND CROSS SECTION Jirak River
I - 10	PLAN OF PROJECT Flood Relief Channel (1/2)
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I - 14	PROPOSED CROSS SECTION Flood Relief Channel (2/2)
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I - 28	PLAN OF PROPOSED LARAS RETARDING BASIN
I - 29	PLAN OF PROJECT Air Dingin River (1/2)
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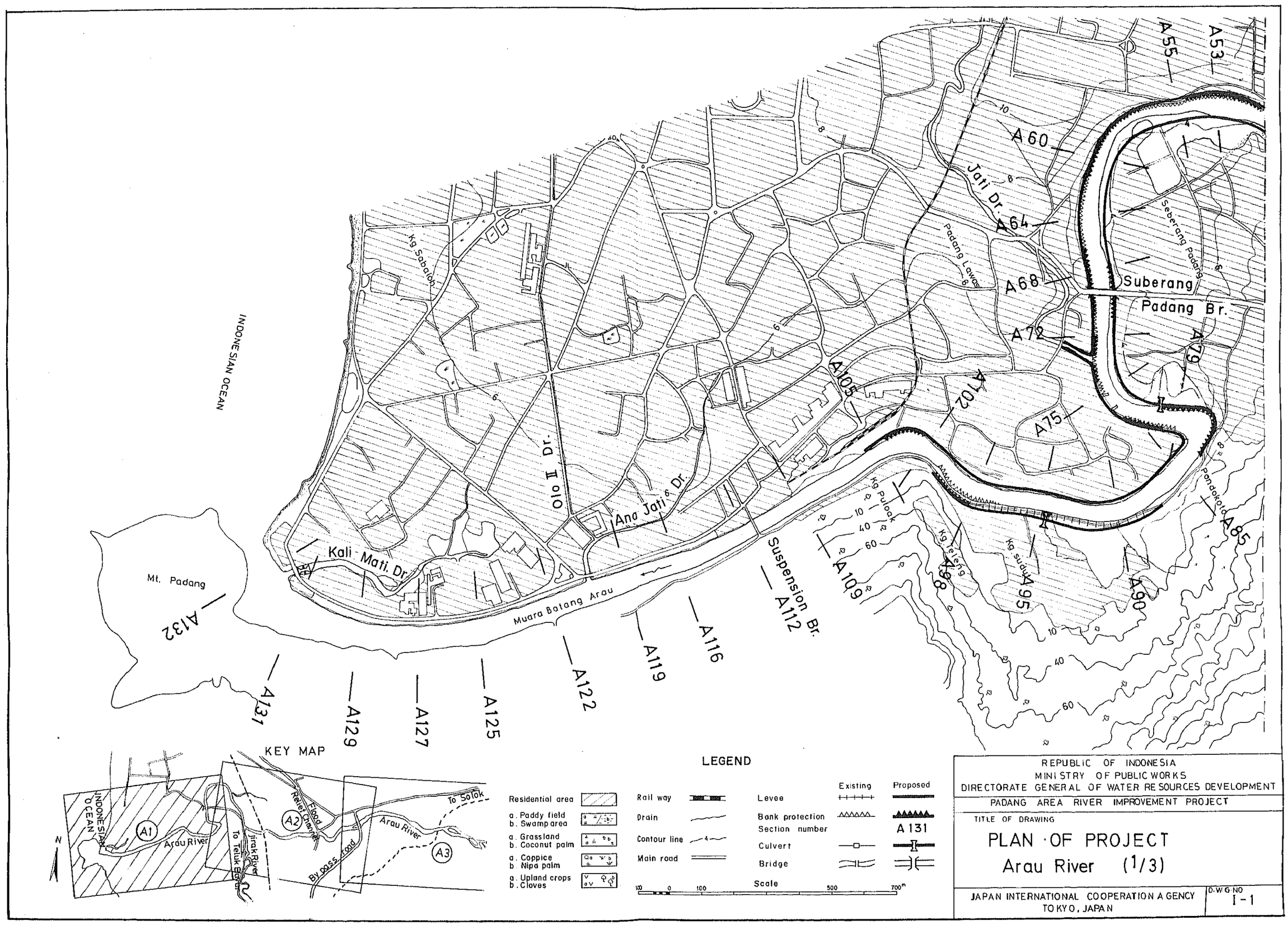
I - 32	PROPOSED CROSS SECTION Air Dingin River (1/2)
I - 33	PROPOSED CROSS SECTION Air Dingin River (2/2)
I - 34	PROPOSED DIVERSION WEIR
I - 35	BANK PROTECTION
I - 36	DRAINAGE CULVERT 1.5m × 1.5m ; 2.0m × 2.5m
I - 37	DRAINAGE CULVERT 2.0m × 2.5m × 2 ; 2.0m × 2.5m × 3
I - 38	DROP STRUCTURE AND SYPHON
I - 39	PROPOSED BRIDGE TYPE A Jati Bridge
I - 40	PROPOSED BRIDGE TYPE B Tunggul Hitam Bridge
	II. DRAINAGE CHANNEL IMPROVEMENT
II - 1	PLAN, PROFILE OF UJUNG GURUN AREA
II - 2	PROPOSED UJUNG GURUN PUMP STATION Flood Relief Channel
II - 3	PLAN, PROFILE OF OLO - NIPAH AREA
II - 4	PLAN, PROFILE OF PURUS AREA
II - 5	PROPOSED PURUS PUMP STATION Flood Relief Channel
II - 6	PLAN, PROFILE OF ULAK KARANG AREA
II - 7	PROPOSED ULAK KARANG PUMP STATION Kuranji River



REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

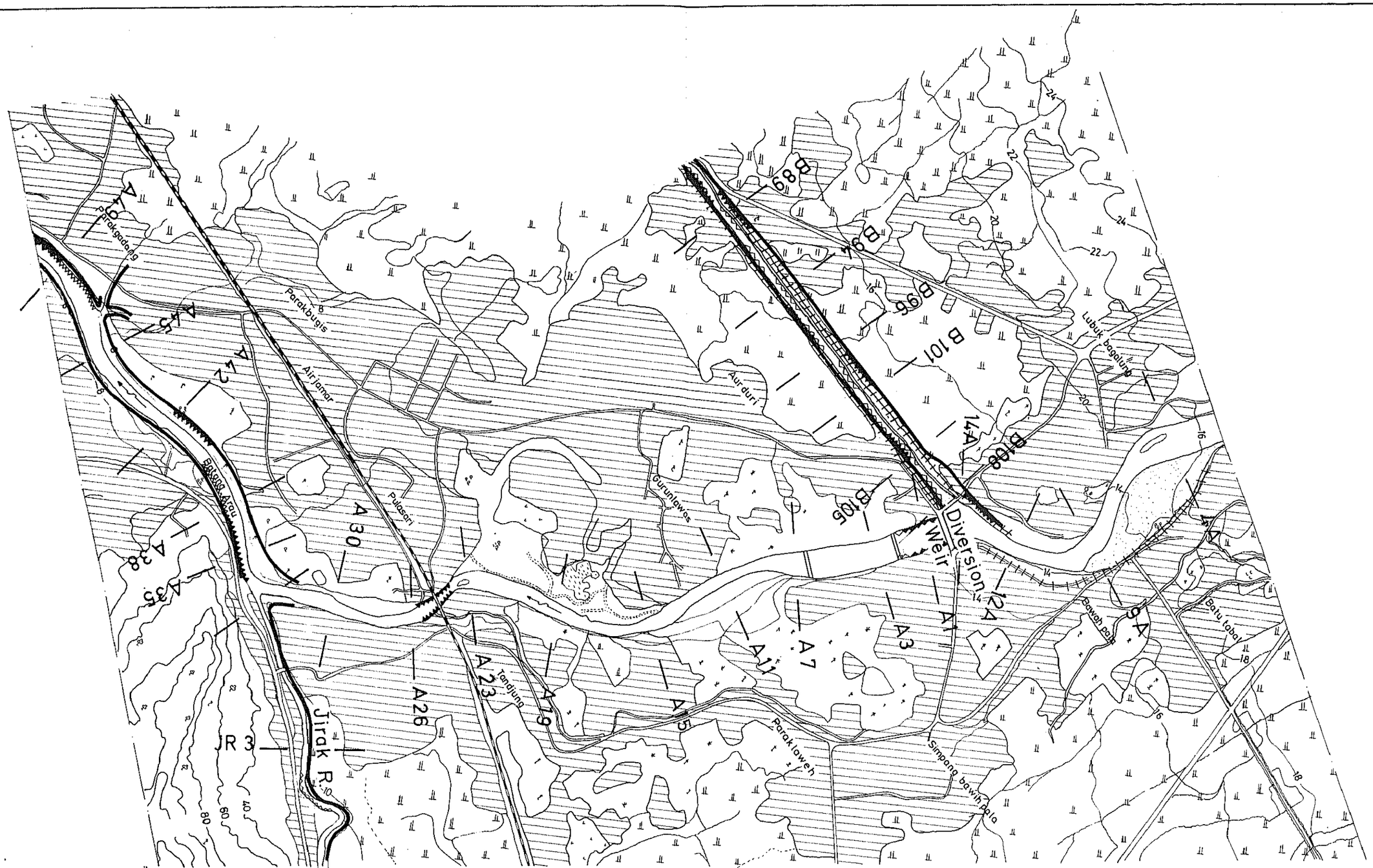
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

PLAN OF PROJECT
Arau River (1/3)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I-1



REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

PADANG AREA RIVER IMPROVEMENT PROJECT

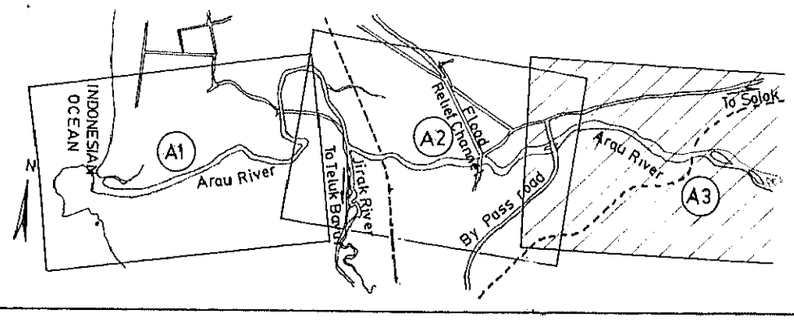
TITLE OF DRAWING

PLAN OF PROJECT
Arau River (2/3)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I-2

KEY MAP



LEGEND

					Existing	Proposed
Residential area		Rail way		Levee		
a. Paddy field b. Swamp area		Drain		Bank protection		
a. Grassland b. Coconut palm		Contour line		Section number		A 131
a. Coppice b. Nipa palm		Main road		Culvert		
a. Upland crops b. Claves				Bridge		

Scale 100 0 100 500 700m

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

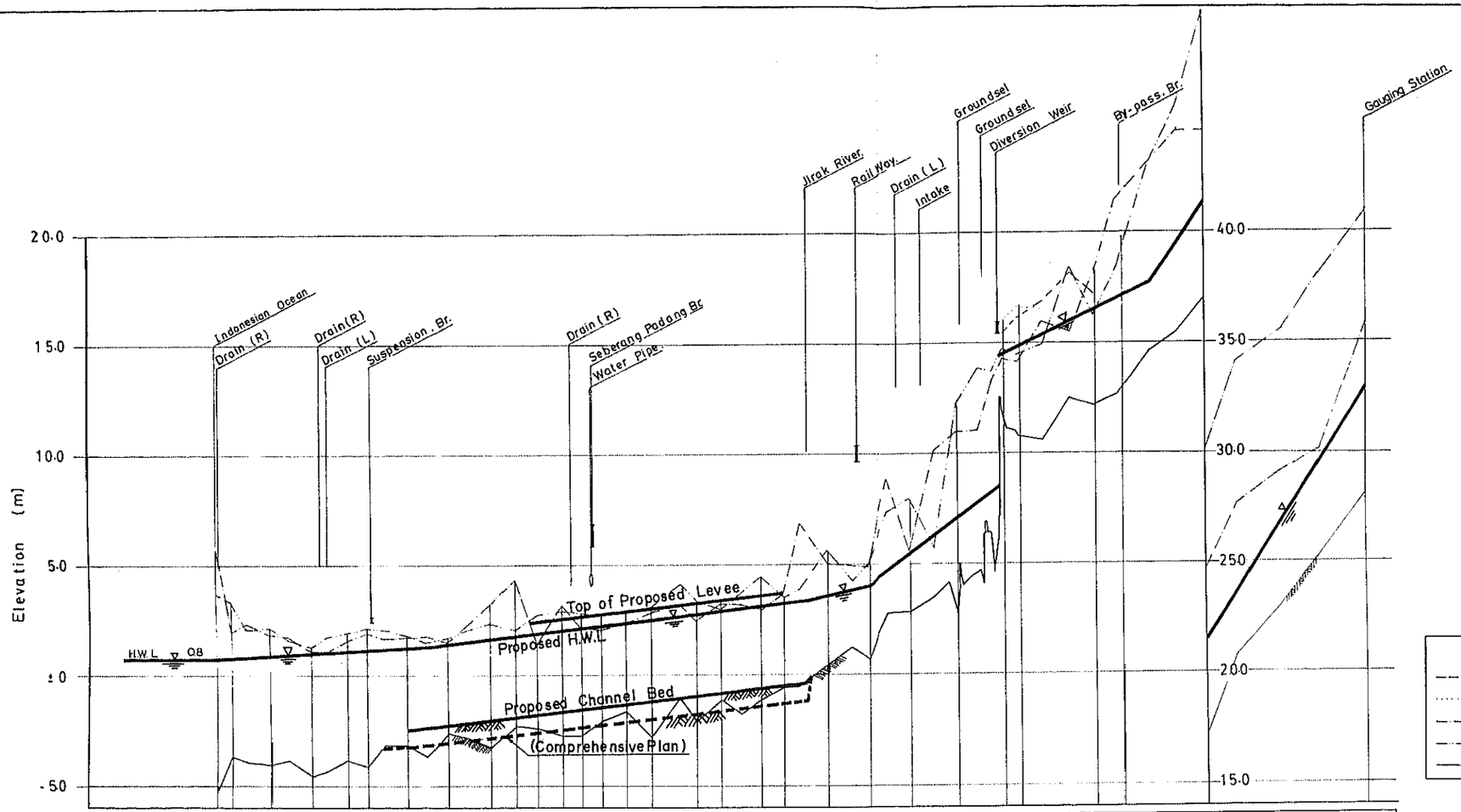
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

PLAN OF PROJECT
Arau River (3/3)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

DWG NO
I-3



Section No	Distance (m)	Top of Proposed Levee (El.m)	Proposed H.W.L (El.m)	Proposed Channel Bed (El.m)
A 132	0	-	0.80	-
A 131	137	-	0.84	-
A 127	496	-	0.93	-
A 122	893	-	1.03	-
A 116	1,223	-	1.11	-
A 112	1,403	-	1.16	-
A 105	1,774	1.77	1.26	-2.44
A 102	1,949	1.80	1.30	-2.40
A 98	2,149	-	1.41	-2.29
A 90	2,546	2.12	1.62	-2.08
A 85	2,783	2.22	1.77	-1.93
A 79	2,991	2.38	1.88	-1.82
A 75	3,225	2.51	2.01	-1.69
A 72	3,406	2.62	2.12	-1.56
A 68	3,592	2.72	2.22	-1.48
A 64	3,807	2.84	2.34	-1.36
A 60	4,052	2.98	2.48	-1.22
A 53	4,468	3.21	2.71	-0.99
A 49	4,694	3.34	2.84	-0.86
A 42	5,086	3.56	3.06	-0.64
A 38	5,287	3.67	3.17	-0.53
A 38 +233	5,520	3.80	3.30	-0.40
A 30	5,692	-	3.52	-
A 23	6,077	-	4.00	-
A 15	6,481	-	5.4	-
A 7	6,920	-	7.0	-
14 A	7,352	-	14.43	-
12 A	7,490	-	14.74	-
4 A	8,175	-	16.29	-
4 A +250	8,425	-	16.85	-
AA 14	8,670		17.70	
AA 12	8,920			
AA 6	9,485			
AA 3	9,895			
AA 0	10,240			
Kp Ba	10,660		32.70	

Design Flood Discharge (m^3/s): 400 — 350 — 200 — 700

Gradient of H.W.L: 1/3,900 — 1/1,780 — 1/790 — 1/300 — 1/40

Gradient of Channel Bed: 1/1,780

LEGEND

- Top of Existing Left Dike.
- Top of Existing Right Dike.
- Left Bank.
- Right Bank.
- Lowest River Bed.

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

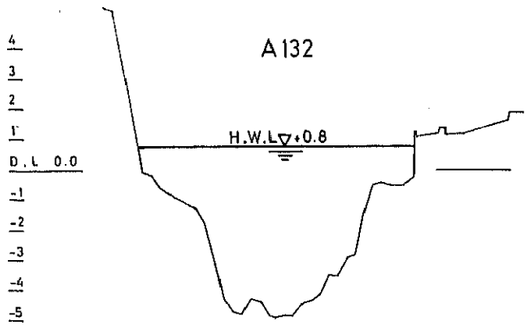
PADANG AREA RIVER IMPROVEMENT PROJECT

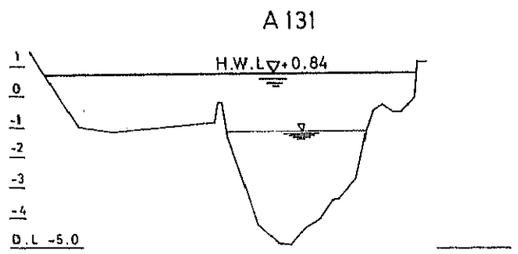
TITLE OF DRAWING

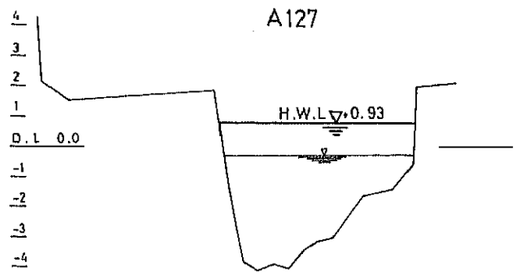
PROPOSED PROFILE
Arau River

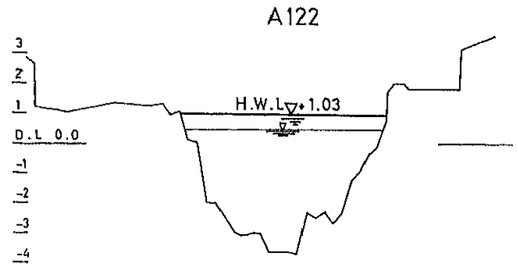
JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

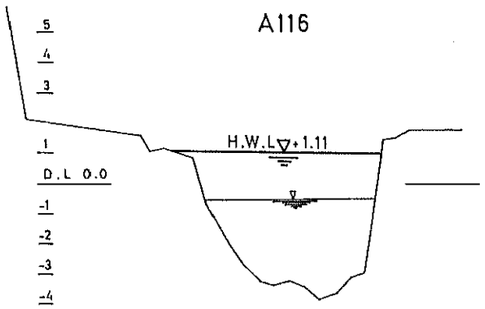
DWG NO 1-4

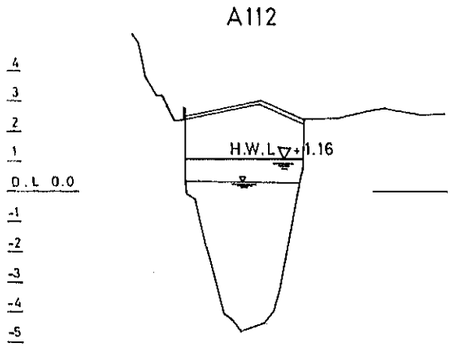


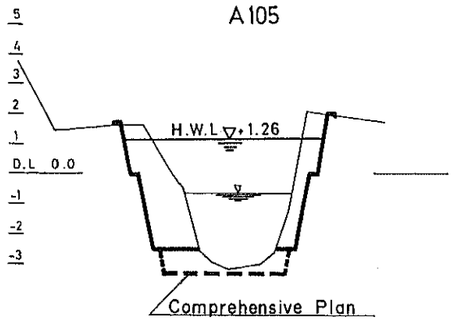


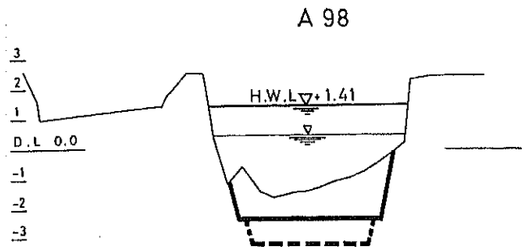


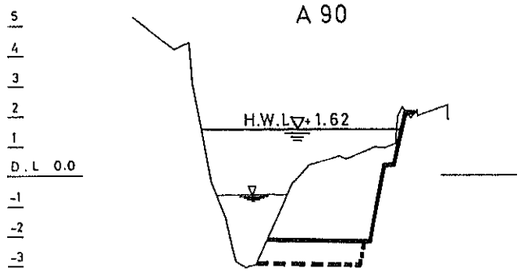


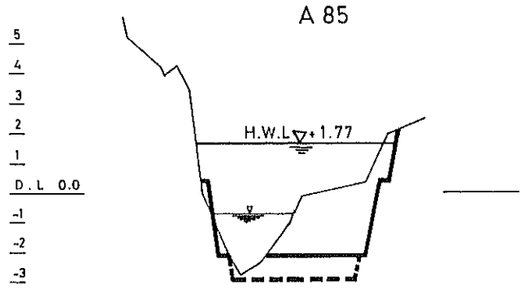


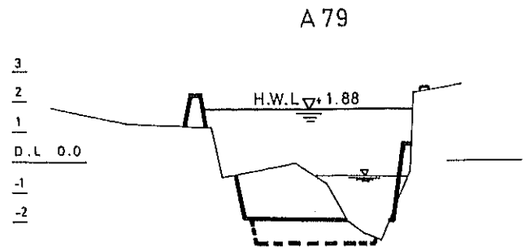


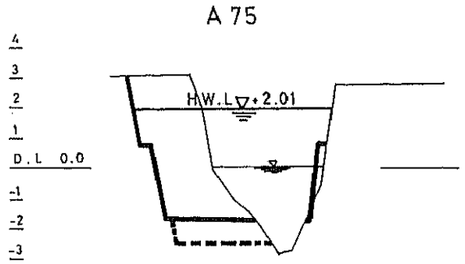


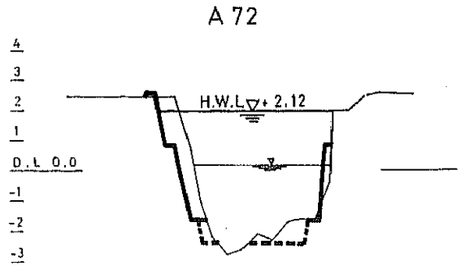




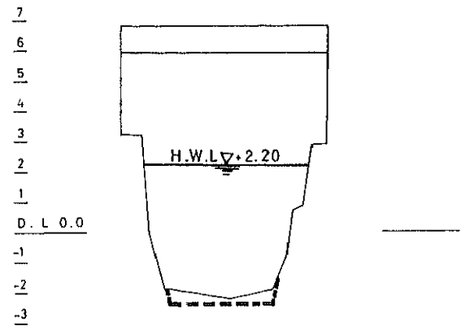








Seberang Padang Br.
A 72+150m



LEGEND
——— : EXISTING
– – – : COMPREHENSIVE PLAN
▬▬▬ : URGENT PLAN

Scale
0 10 20 30 40 50 100 150 200m

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

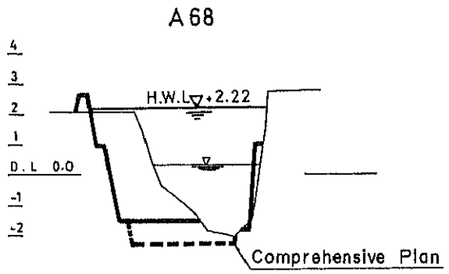
PADANG AREA RIVER IMPROVEMENT PROJECT

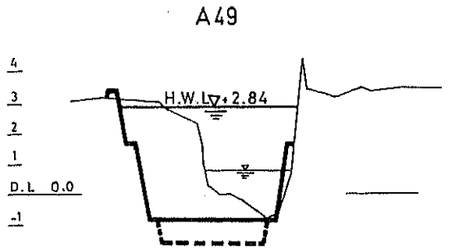
TITLE OF DRAWING

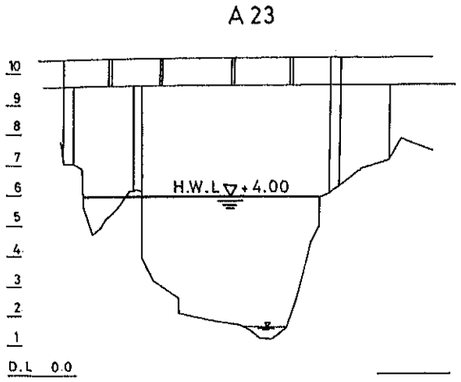
PROPOSED CROSS SECTION
Arau River (1/2)

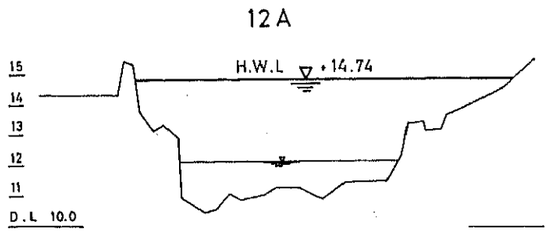
JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

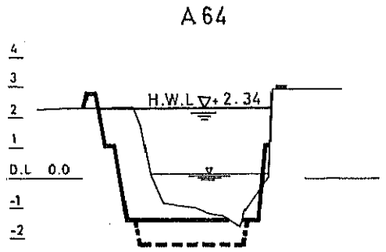
D.W.G NO
I-5

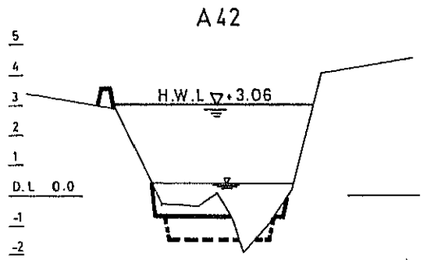


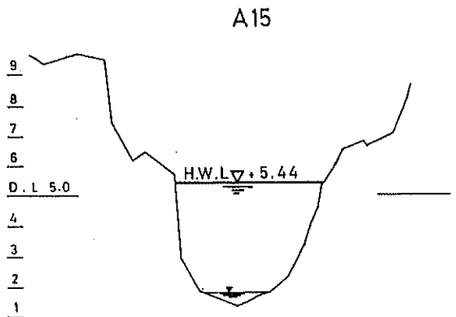


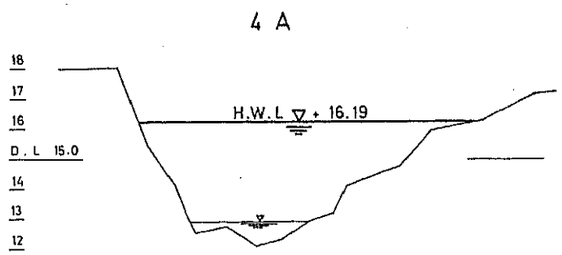


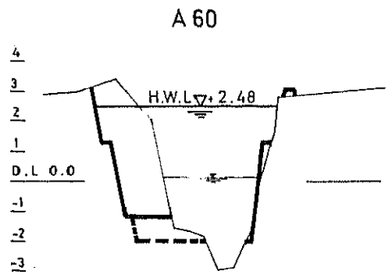


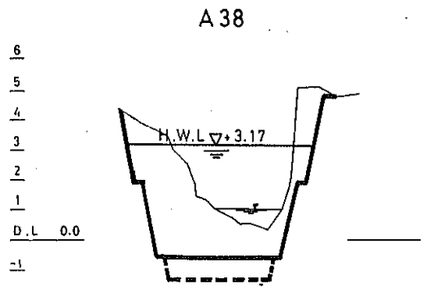


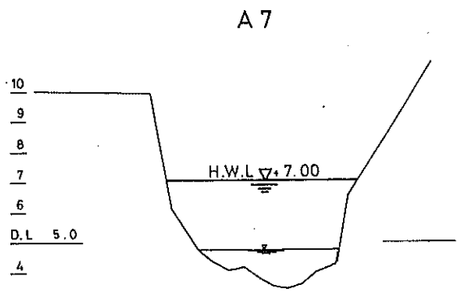


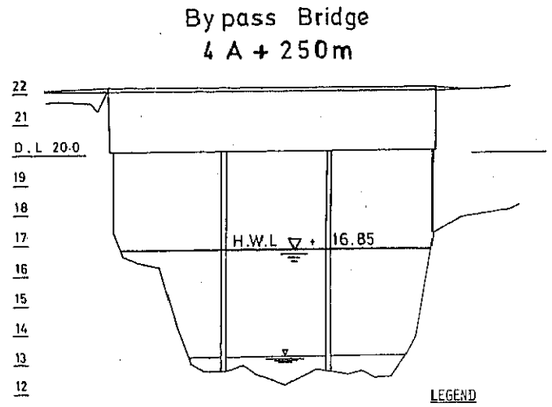


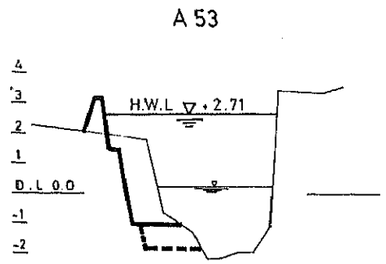


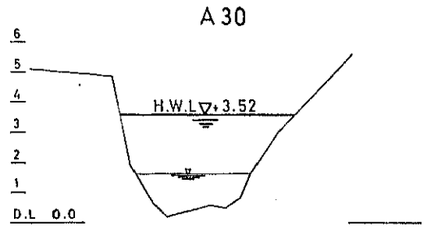


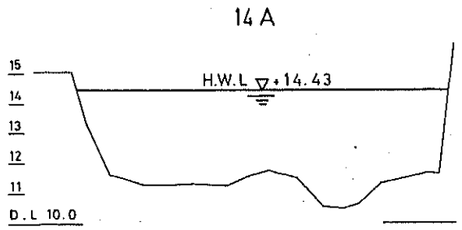






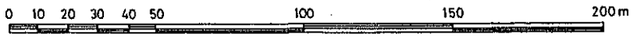






LEGEND
- ——— : EXISTING
- - - - : COMPREHENSIVE PLAN
- ——— : URGENT PLAN

Scale



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DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

PADANG AREA RIVER IMPROVEMENT PROJECT

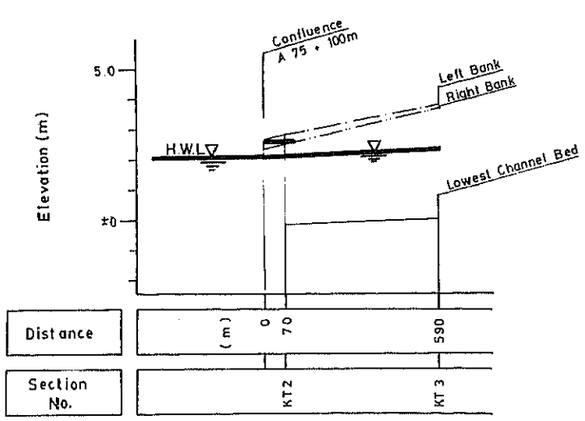
TITLE OF DRAWING

PROPOSED CROSS SECTION
Arau River (2/2)

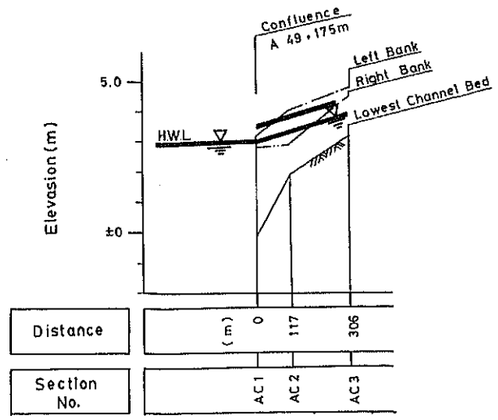
JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I-6

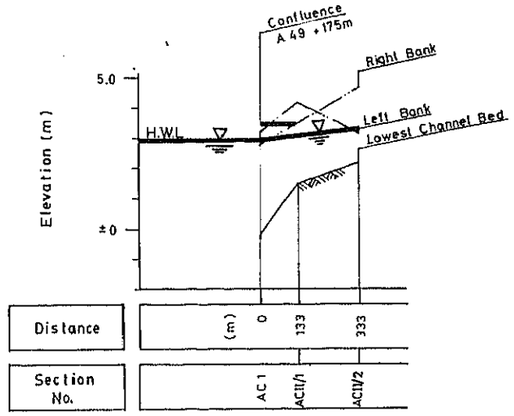
Jati Channel



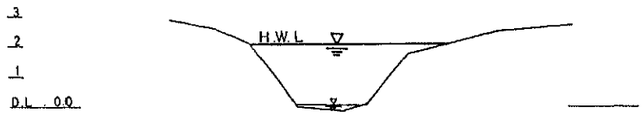
Air Camar Channel



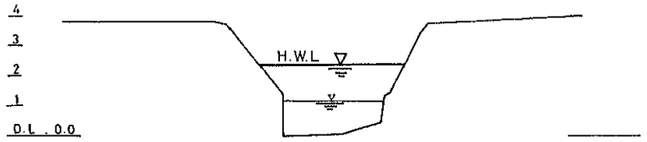
Air Camar II Channel



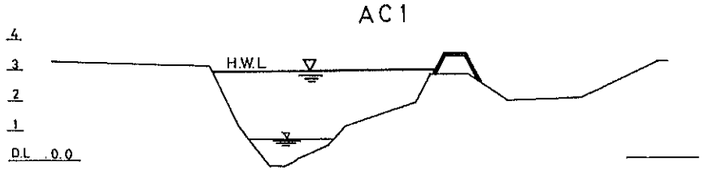
KT 2



KT 3



AC 1



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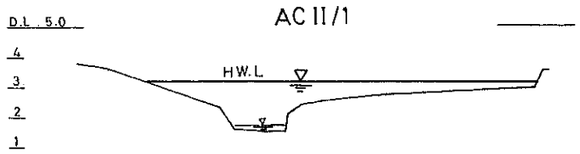

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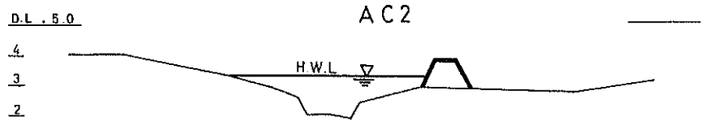

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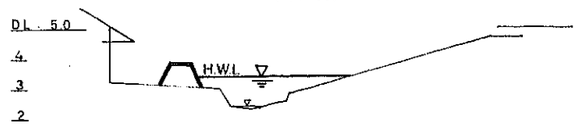
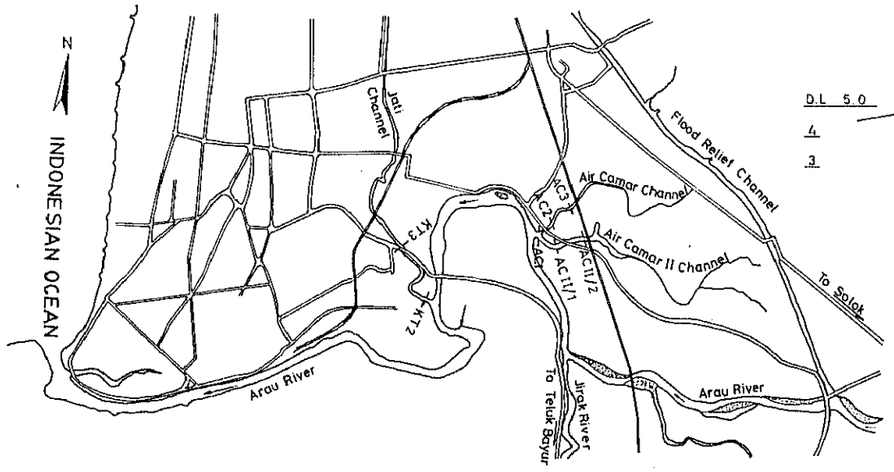


AC 3

LEGEND
- ——— : EXISTING
- - - - : COMPREHENSIVE PLAN
- ▬▬▬ : URGENT PLAN

Location Map



Scale

0 2 4 6 8 10 20 30 m

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

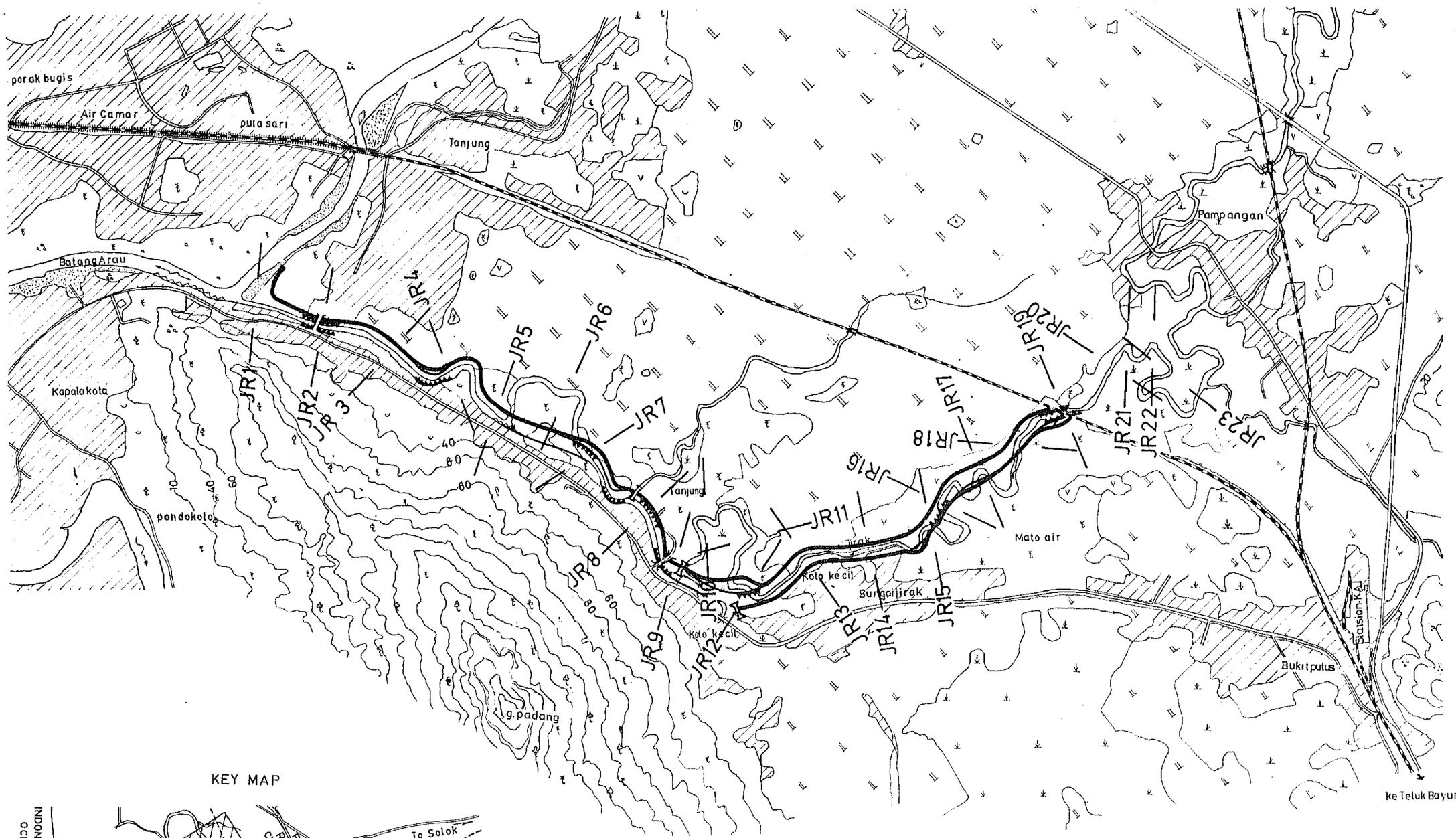
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

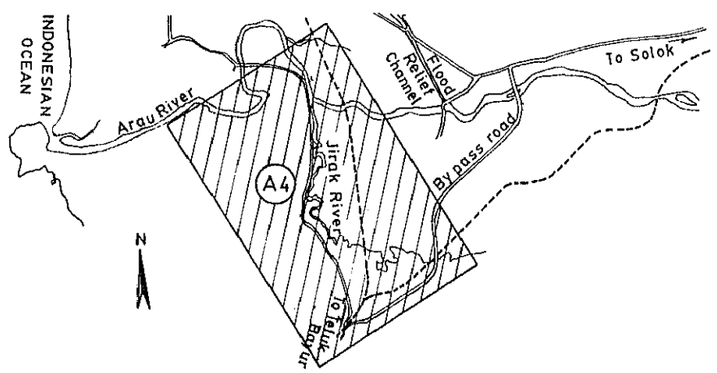
PROPOSED BACK WATER LEVEE
Arau River

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO JAPAN

D.W.G. NO
I-7



KEY MAP



LEGEND

					Existing	Proposed
Residential area		Rail way		Levee		
a. Paddy field b. Swamp area		Drain		Bank protection		
a. Grassland b. Coconut palm		Contour line	4	Section number		A 131
a. Coppice b. Nipa palm		Main road		Culvert		
a. Upland crops b. Cloves				Bridge		

Scale 100 0 100 500 700m

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

PADANG AREA RIVER IMPROVEMENT PROJECT

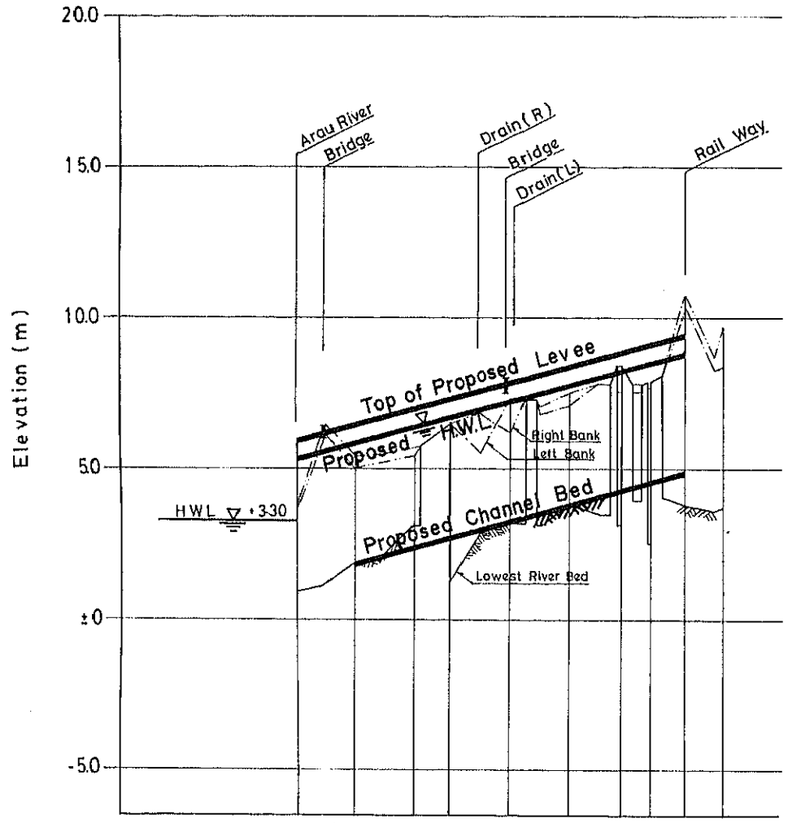
TITLE OF DRAWING

PLAN OF PROJECT
Jirak River

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

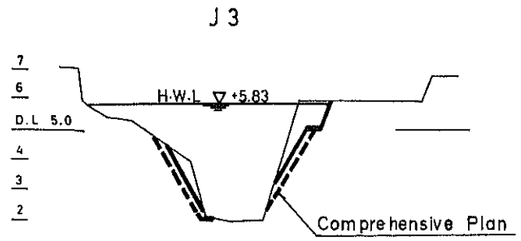
D.W.G. NO
I-8

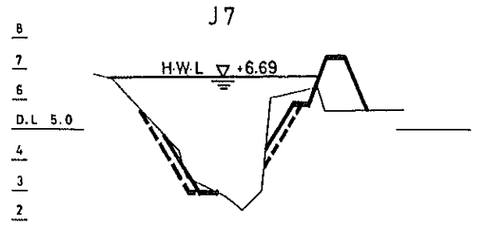
PROFILE

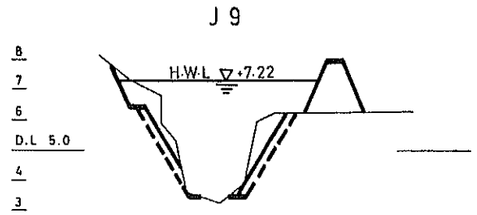


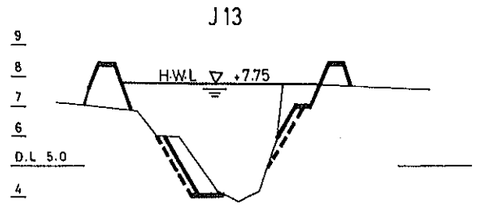
Design Flood Discharge (m^3/s)	150									
Gradient of H.W.L	1/750									
Gradient of Channel Bed	1/750									
Top of Proposed Levee (El. m)	5.90	6.43	6.97	7.29	7.82	8.35	8.83	9.10	9.42	—
Proposed H.W.L (El.m)	5.30	5.83	6.37	6.69	7.22	7.75	8.23	8.50	8.82	—
Proposed Channel Bed (El.m)	—	1.93	2.47	2.79	3.32	3.85	4.33	4.60	4.92	—
Distance (m)	0	400	800	1.040	1.440	1.8640	2.200	2.408	2.640	2.980
Section No.	J 1	J 3	J 5	J 7	J 9	J 13	J 15	J 17	J 19	J 21

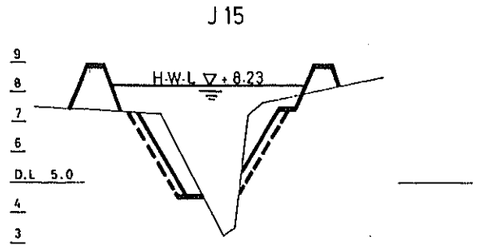
CROSS SECTION

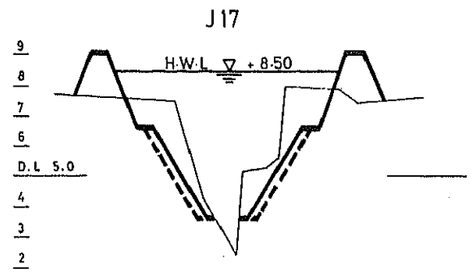


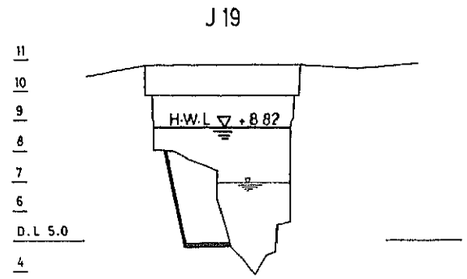


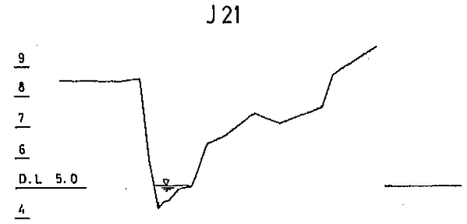












LEGEND
- : EXISTING
- : COMPREHENSIVE PLAN
- : URGENT PLAN

Scale
0 5 10 15 20 25 50 75 100 m

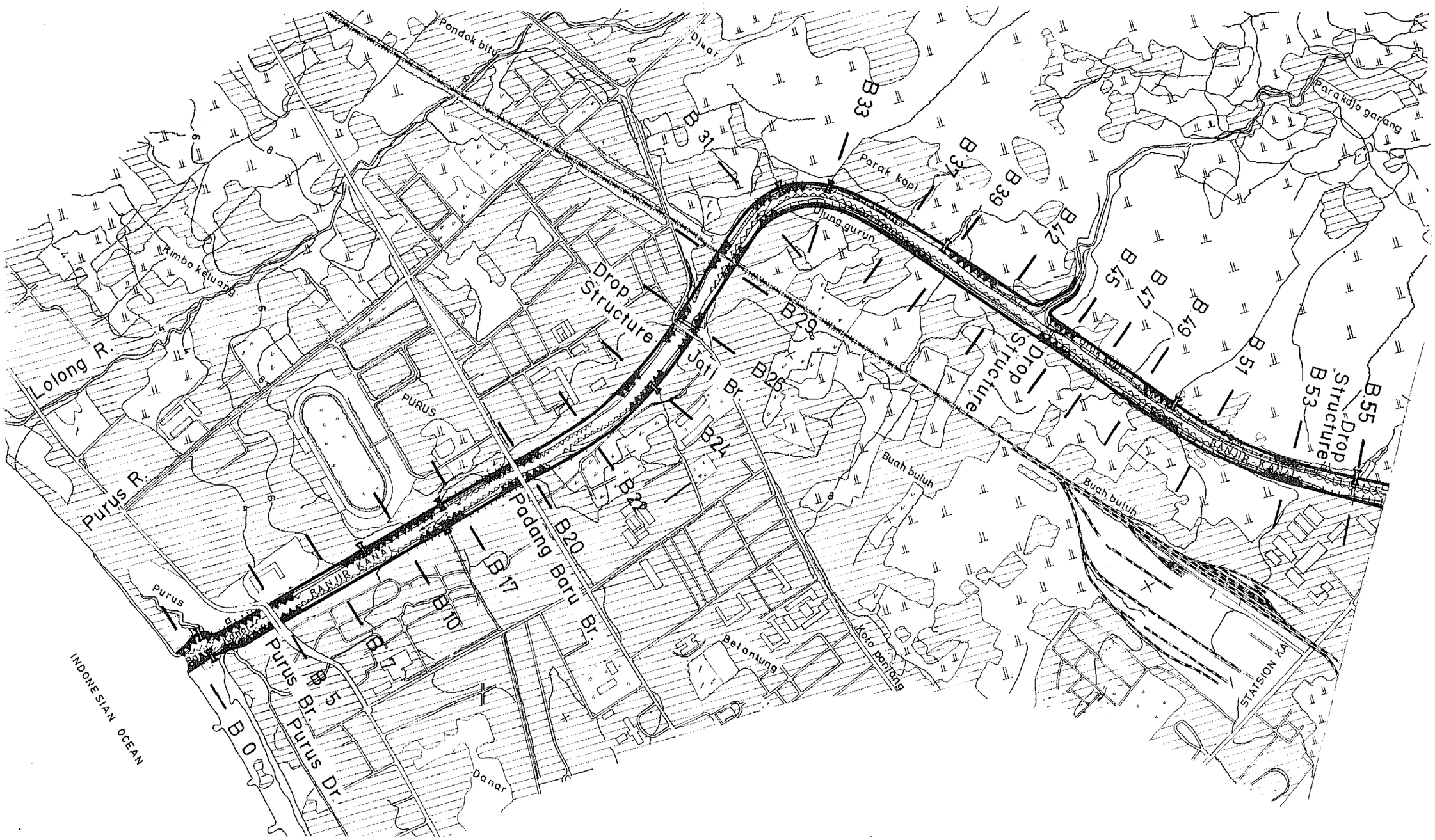
REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

PROPOSED PROFILE AND CROSS SECTION Jirak River

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I-9



REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

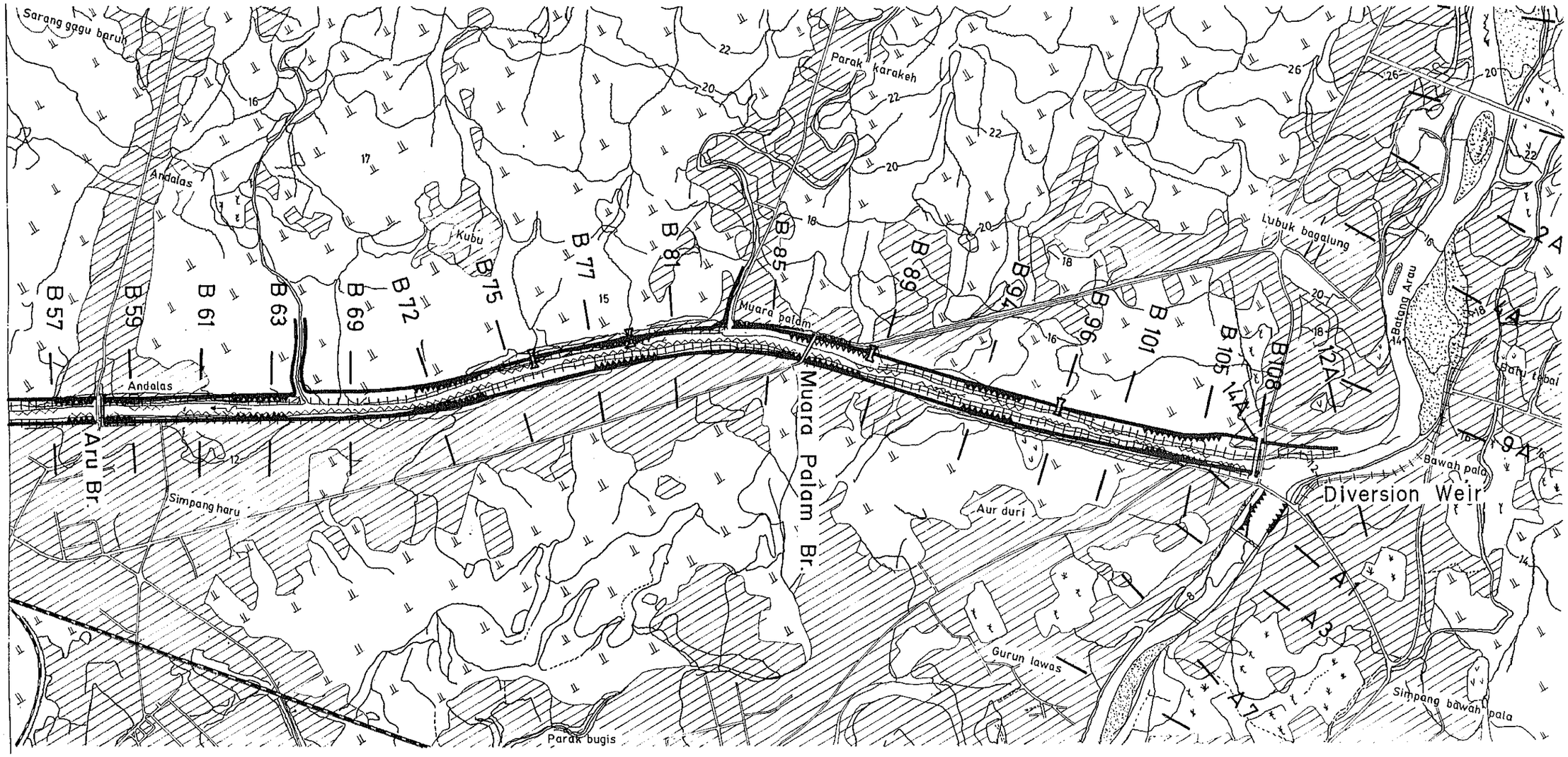
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

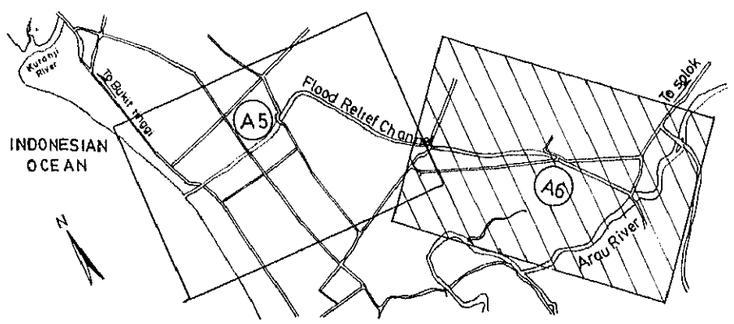
PLAN OF PROJECT
Flood Relief Channel (1/2)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
1-10



KEY MAP



LEGEND

					Existing	Proposed
Residential area		Rail way		Levee		
a. Paddy field b. Swamp area		Drain		Bank protection		
a. Grassland b. Coconut palm		Contour line	4	Section number		A 131
a. Coppice b. Nipa palm		Main road		Culvert		
a. Upland crops b. Cloves				Bridge		

Scale 100 0 100 500 700m

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

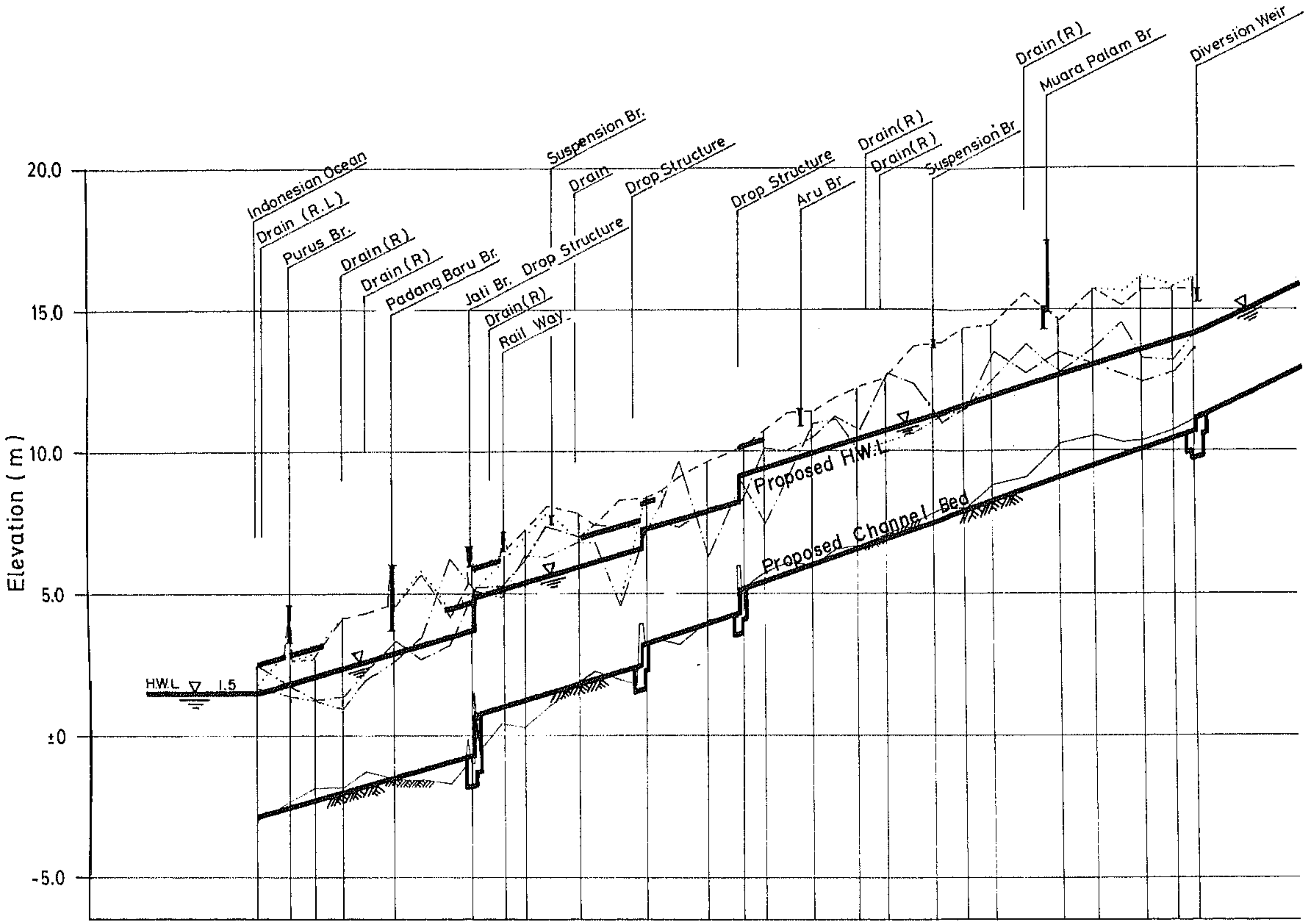
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

PLAN OF PROJECT
Flood Relief Channel (2/2)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I – 11



Design Flood Discharge (m³/s)	600					550						
Gradient of H.W.L	1/720					1/700				1/680		1/660
Gradient of Channel Bed	1/720					1/700				1/680		1/550
Top of Proposed Levee (El.m)	2.50	–	3.09	3.38	–	– –	–	–	–	7.59 8.30	9.01	9.34 10.24
Proposed H.W.L (El.m)	1.50	1.88	2.09	2.38	2.86	3.73 4.90	5.04	5.38	5.92	6.59 7.30	8.01	8.34 9.24
Proposed Channel Bed (El.m)	-2.80	-2.42	-2.21	-1.93	-1.44	-0.57 +0.80	0.94	1.28	1.82	2.49 3.30	4.01	4.34 5.20
Distance (m)	0	275	425	630	980	1.605	1.705	1.940	2.320	2.788	3.273	3.493
Section No	B 0	B 0 +275	B 7	B 10	B 10 +350	B 10 +975	B 10 +1075	B 31	B 37	B 42 +150	B 51	B 51 +220

Design Flood Discharge (m³/s)				500								
Gradient of H.W.L												
Gradient of Channel Bed												
Top of Proposed Levee (El.m)	10.52	–	11.56	11.85	–	–	–	–	–	–	–	–
Proposed H.W.L (El.m)	9.52	10.06	10.56	10.85	11.38	11.77	12.07	12.80	13.17	13.68	14.01	14.25
Proposed Channel Bed (El.m)	5.46	6.06	6.62	6.70	7.54	7.98	8.31	9.13	9.55	10.12	10.48	10.80
Distance (m)	3.683	4.035	4.365	4.560	4.910	5.165	5.365	5.845	6.092	6.432	6.642	6.802
Section No	B 55	B 59	B 63	B 69	B 69 +350	B 77	B 81	B 89	B 94	B 101	B 105	B 108

LEGEND

- – – – – –: Top of Existing Left Dike
- ··········: Top of Existing Right Dike
- –·–·–·–: Left Bank
- –··–··–: Right Bank
- ————: Lowest River Bed

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

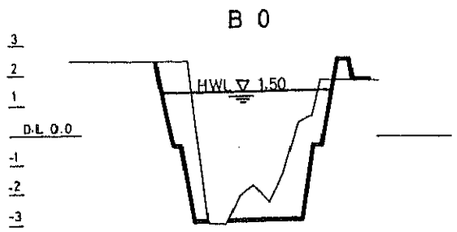
PADANG AREA RIVER IMPROVEMENT PROJECT

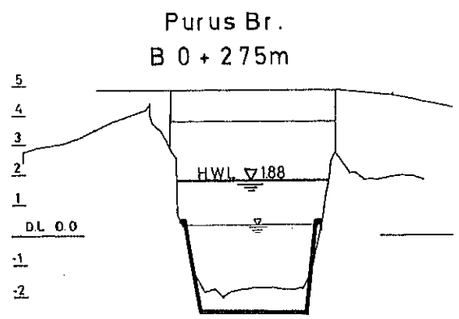
TITLE OF DRAWING

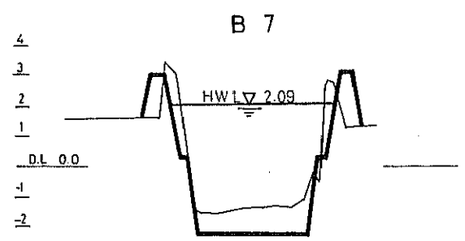
PROPOSED PROFILE
Flood Relief Channel

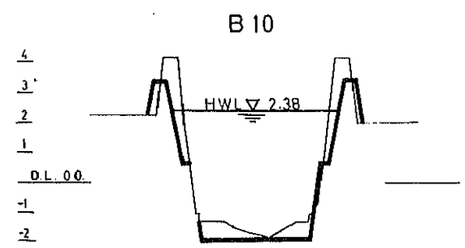
JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO , JAPAN

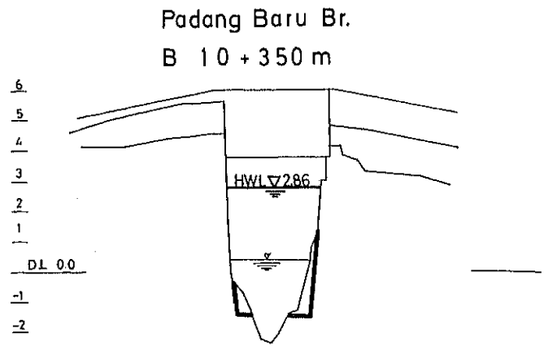
D.W.G. NO I-12

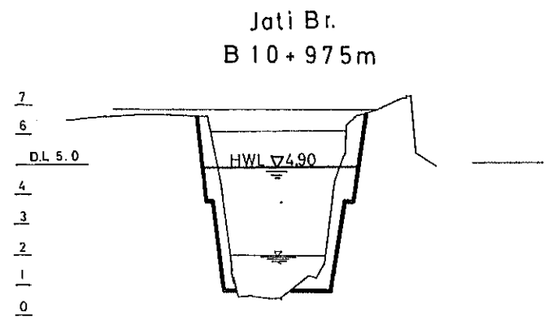


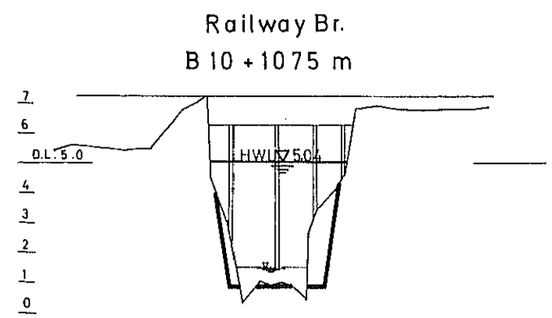


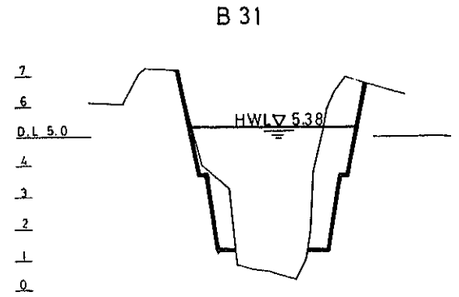


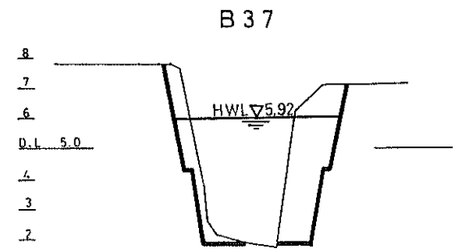


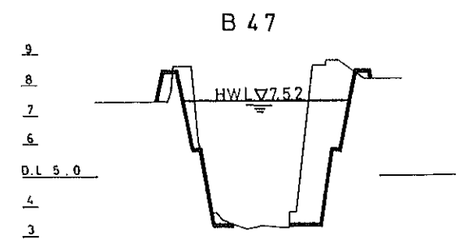


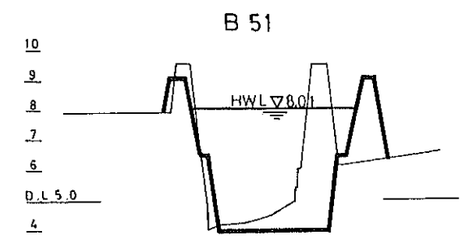


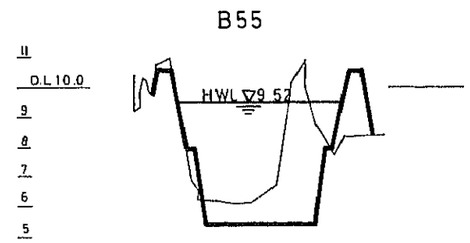


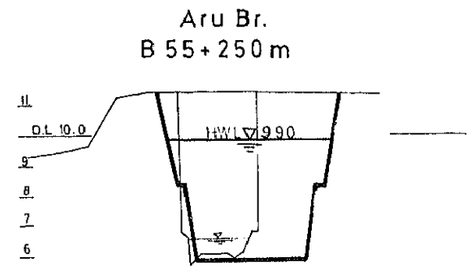


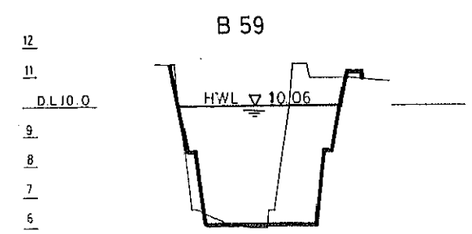












LEGEND
- ——— : EXISTING
- - - - : COMPREHENSIVE PLAN
- ——— : URGENT PLAN

Scale

0 10 20 30 40 50 100 150 200 m

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

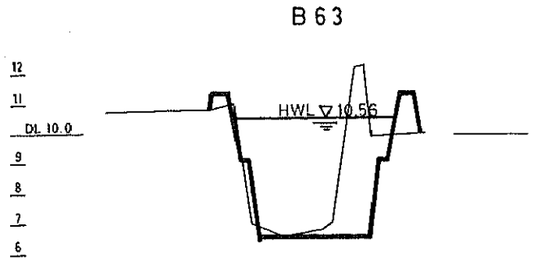
PADANG AREA RIVER IMPROVEMENT PROJECT

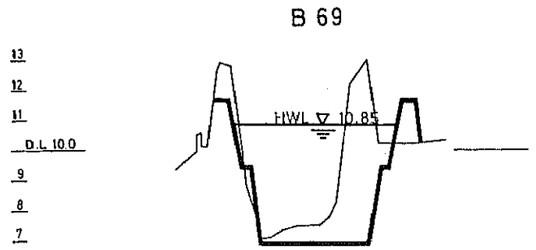
TITLE OF DRAWING

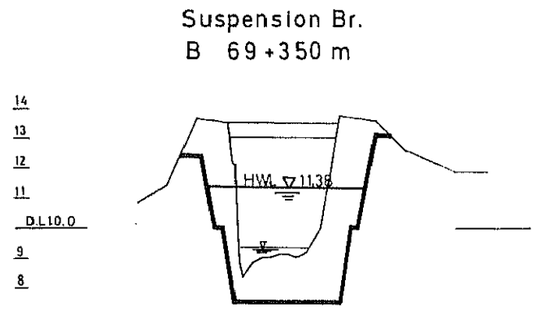
PROPOSED CROSS SECTION
Flood Relief Channel (1/2)

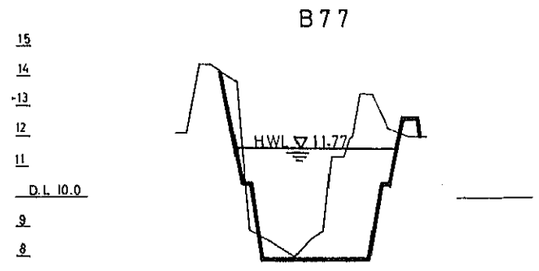
JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

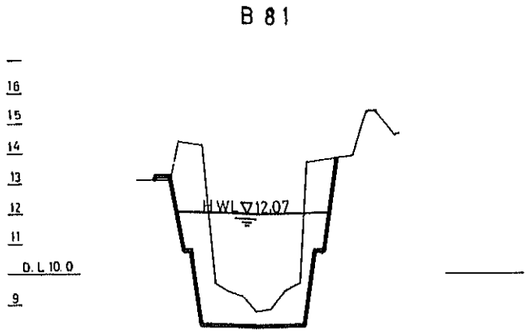
D.W.G. NO. I-13

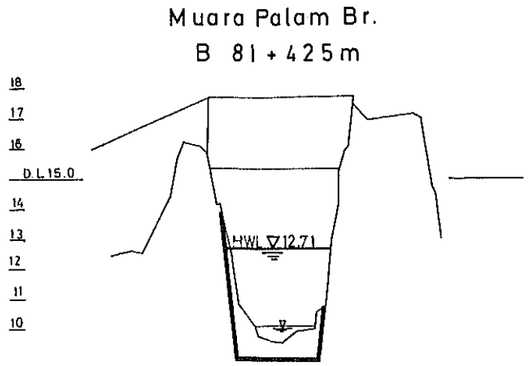


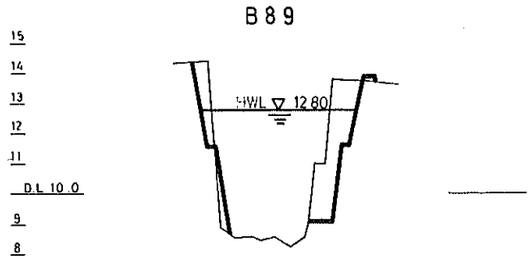


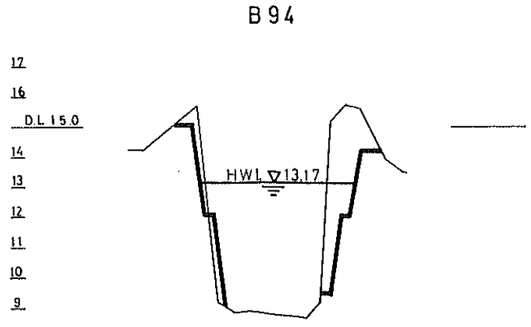


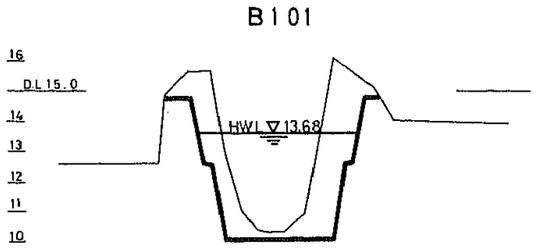


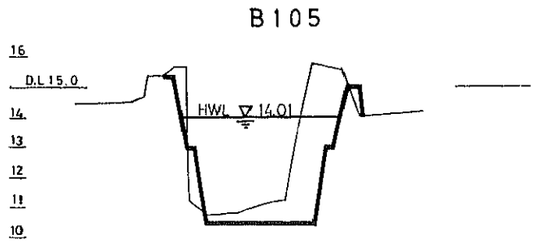


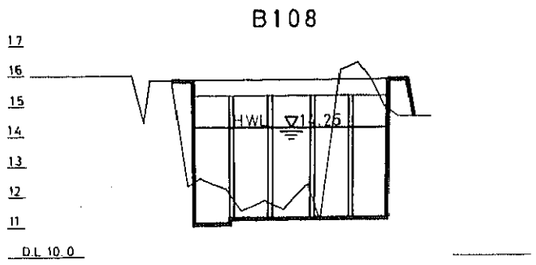












LEGEND
- : EXISTING
- : COMPREHENSIVE PLAN
- : URGENT PLAN

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

PADANG AREA RIVER IMPROVEMENT PROJECT

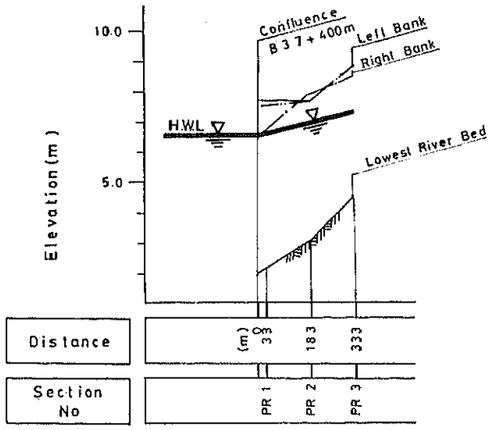
TITLE OF DRAWING

PROPOSED CROSS SECTION
Flood Relief Channel (2/2)

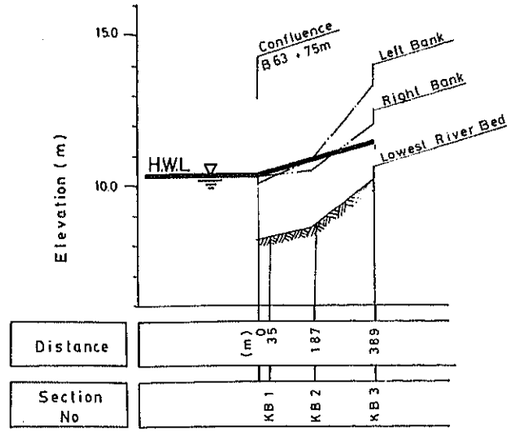
JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO JAPAN

D.W.G. NO
I-14

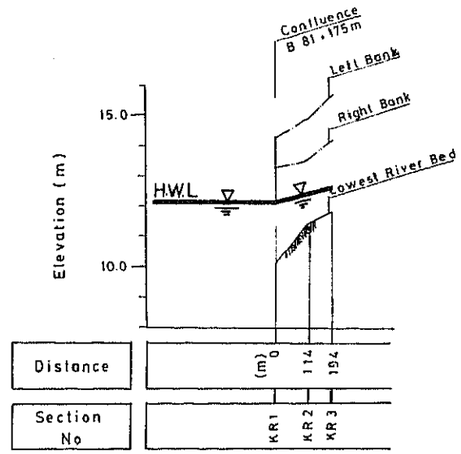
Parakopi Channel

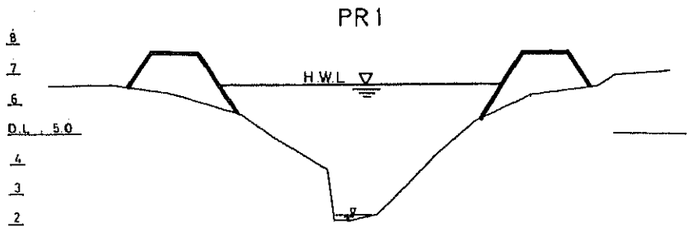


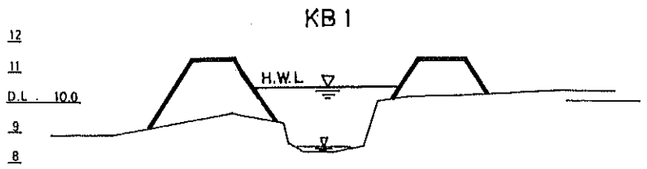
Kubu Channel

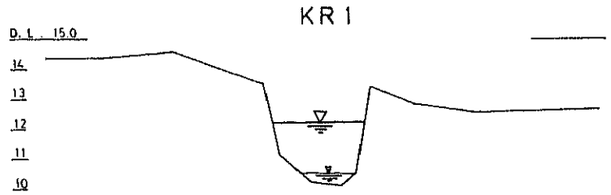


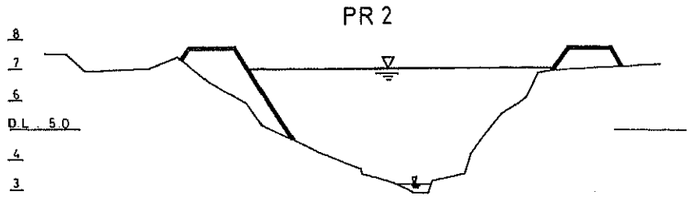
Kapura Channel

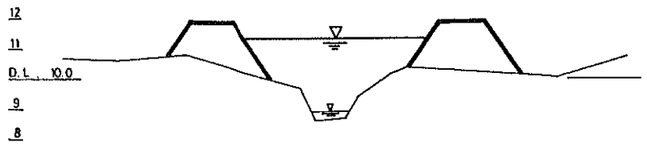


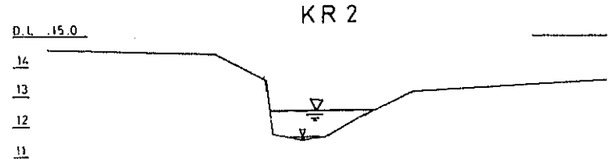


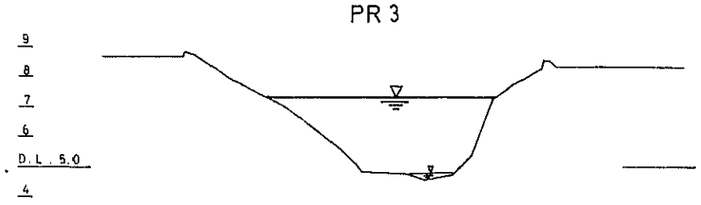


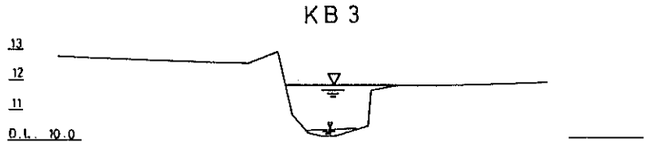


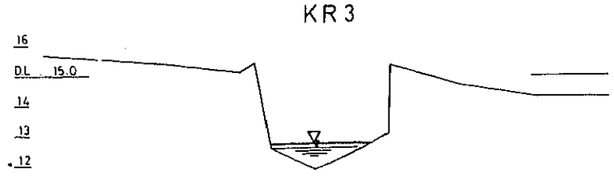








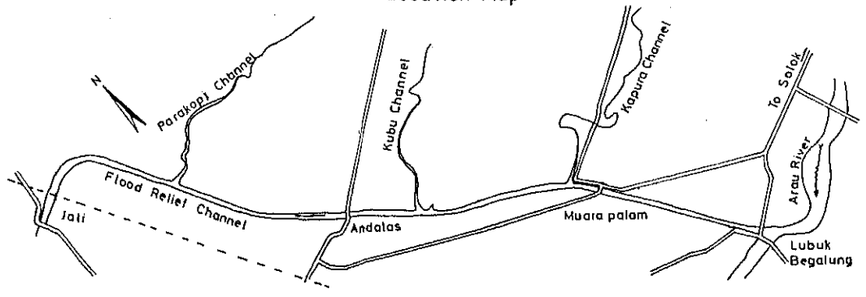




LEGEND
- ——— : EXISTING
- — — — : COMPREHENSIVE PLAN
- ━━━ : URGENT PLAN

Scale

Location Map



REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

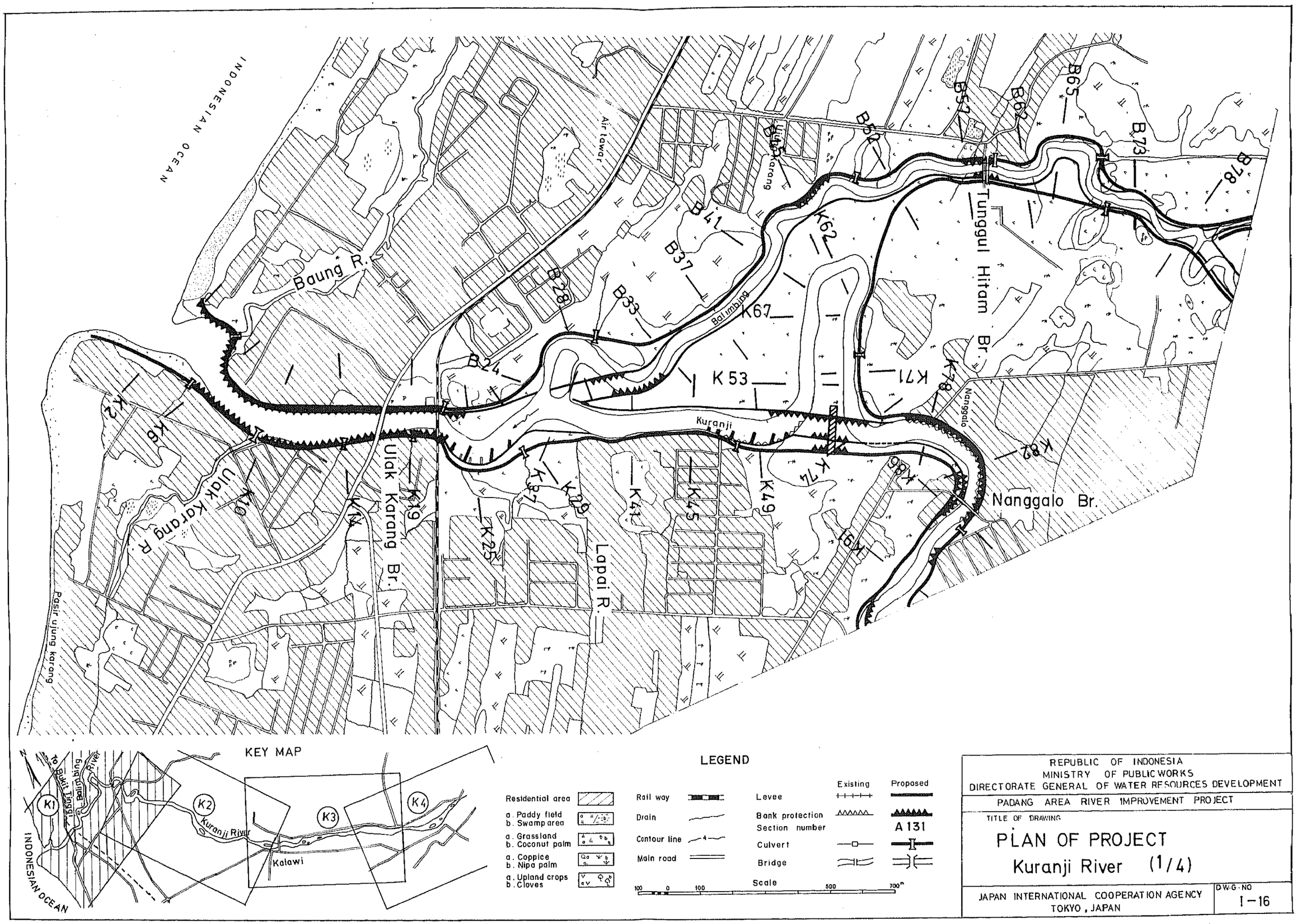
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

PROPOSED BACK WATER LEVEE
Flood Relief Channel

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I-15



REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

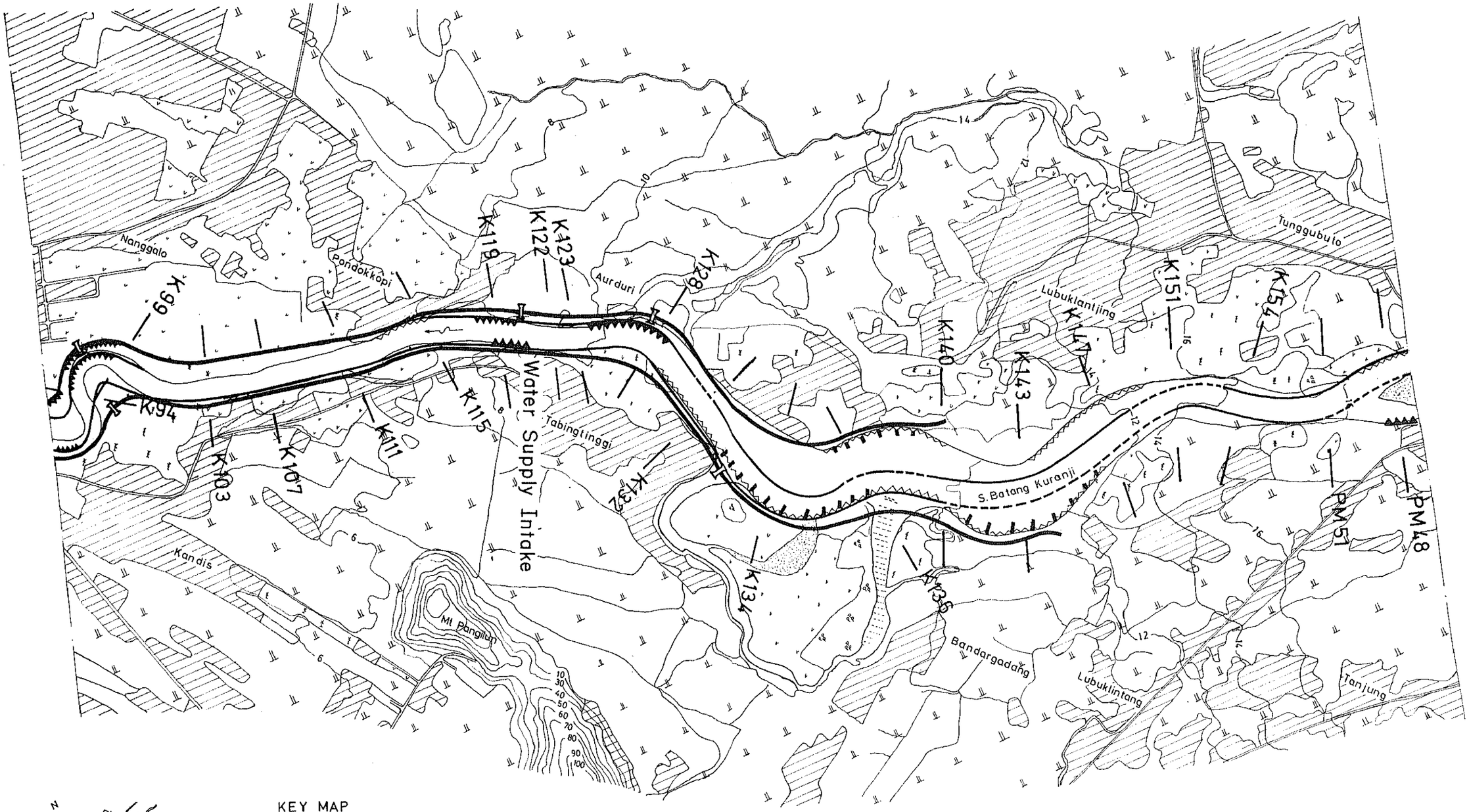
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

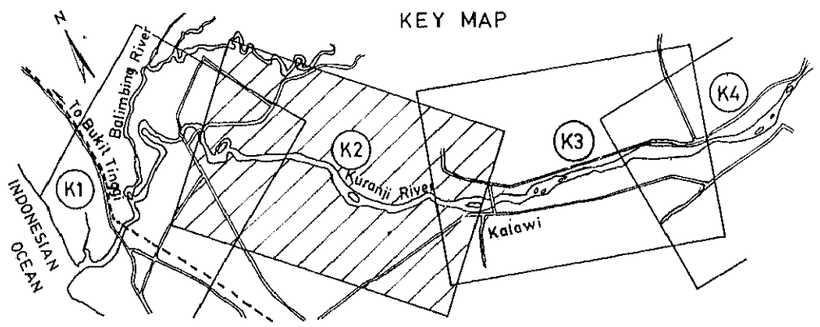
PLAN OF PROJECT
Kuranji River (1/4)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I-16



KEY MAP



LEGEND

					Existing	Proposed
Residential area		Rail way		Levee		
a. Paddy field b. Swamp area		Drain		Bank protection		
a. Grassland b. Coconut palm		Contour line	4	Section number		A 131
a. Coppice b. Nipa palm		Main road		Culvert		
a. Upland crops b. Cloves				Bridge		

Scale 100 0 100 500 700m

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

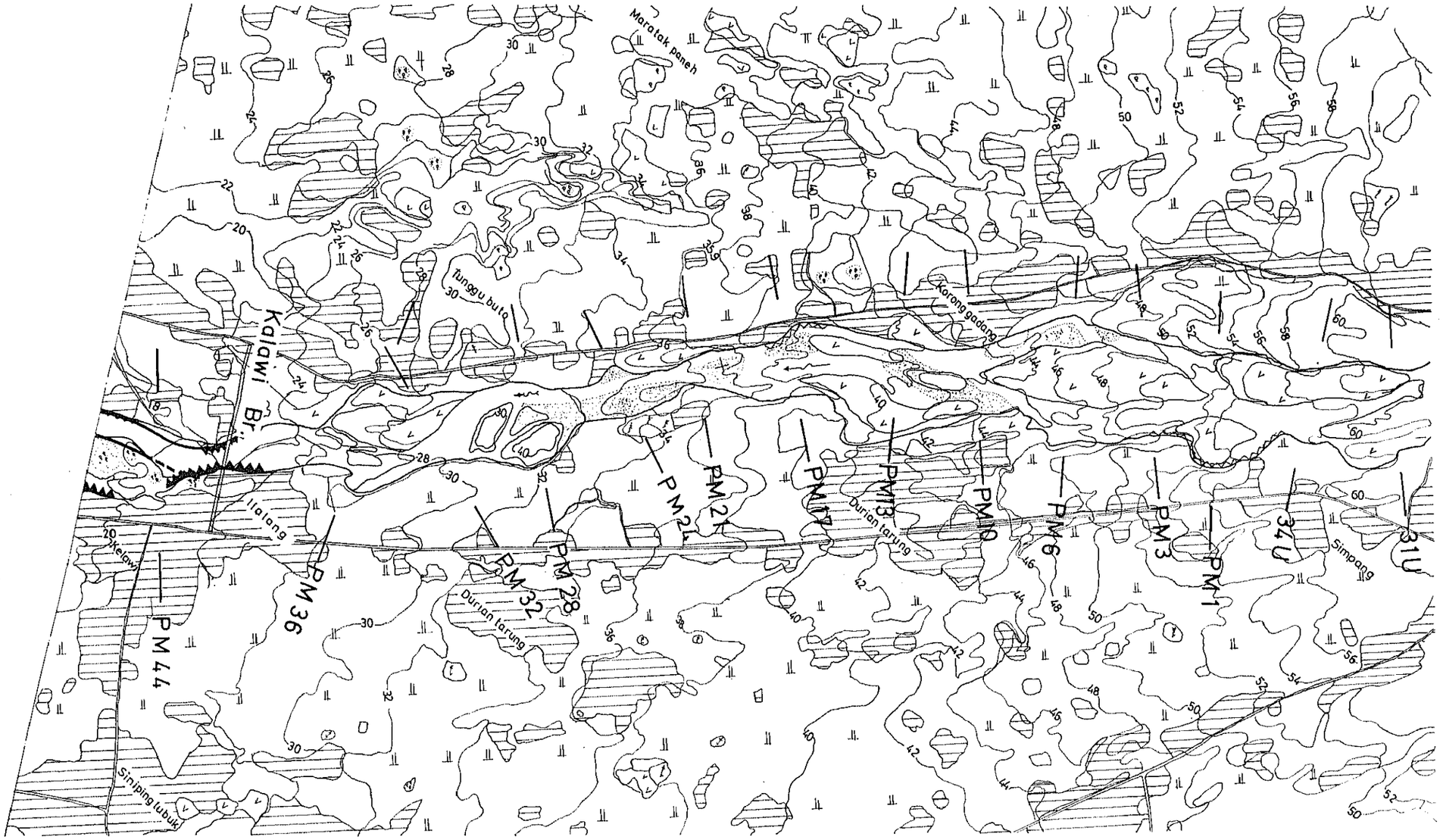
PADANG AREA RIVER IMPROVEMENT PROJECT

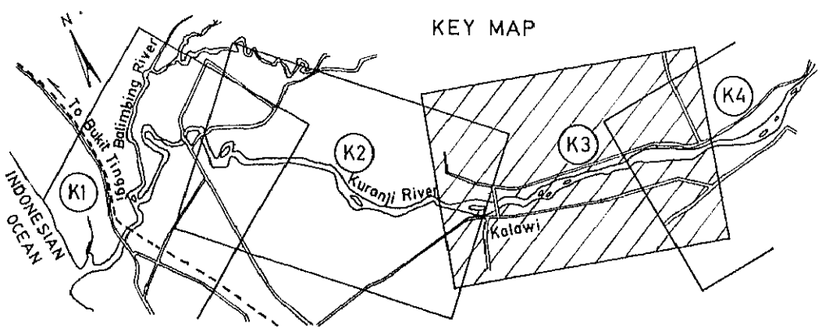
TITLE OF DRAWING

PLAN OF PROJECT
Kuranji River (2/4)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I-17





LEGEND

- Residential area
- a. Paddy field / b. Swamp area
- a. Grassland / b. Coconut palm
- a. Coppice / b. Nipa palm
- a. Upland crops / b. Cloves
- Rail way
- Drain
- Contour line
- Main road
- Levee (Existing / Proposed)
- Bank protection (Existing / Proposed)
- Section number — A 131
- Culvert (Existing / Proposed)
- Bridge (Existing / Proposed)

Scale: 100 0 100 500 700m

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

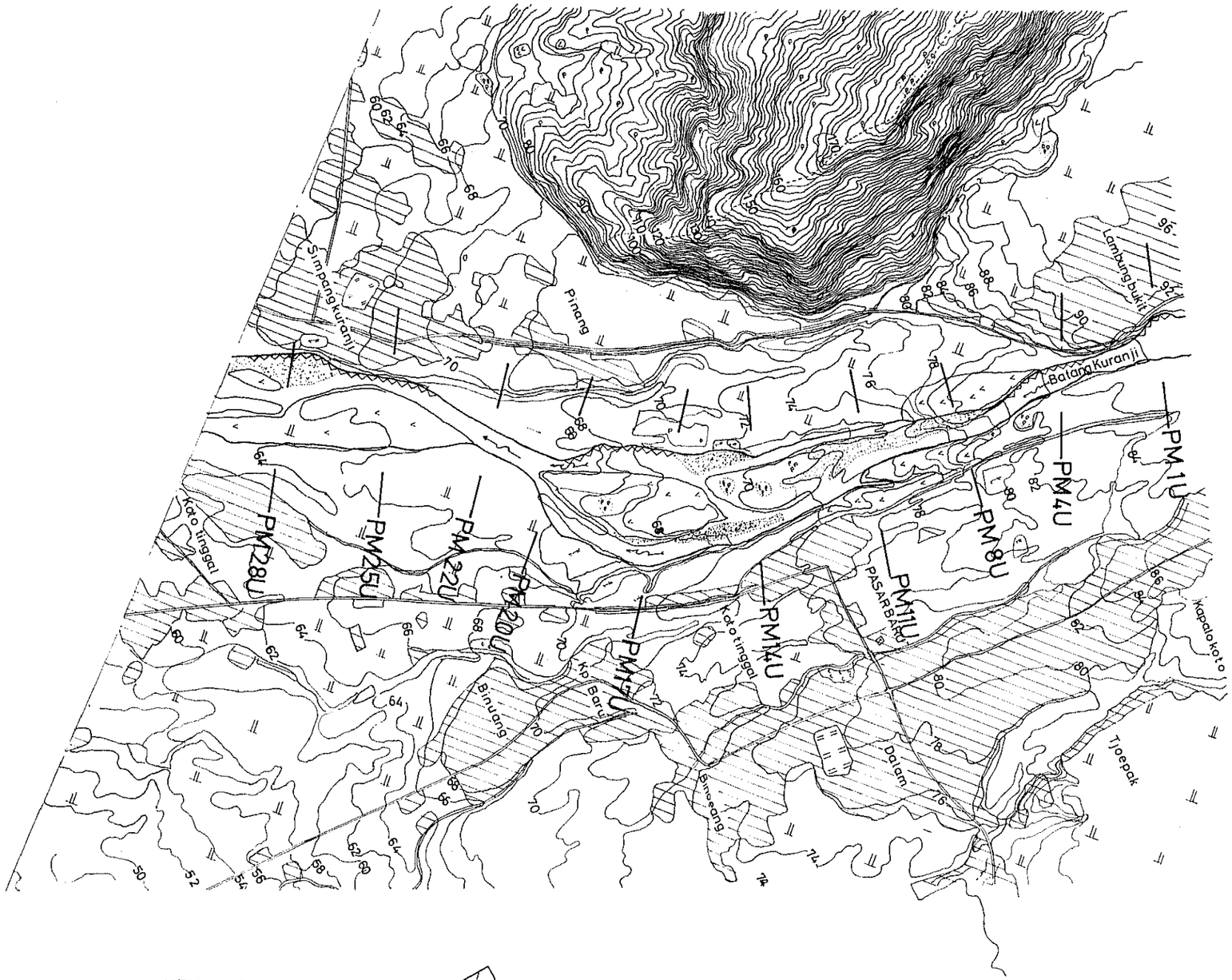
PADANG AREA RIVER IMPROVEMENT PROJECT

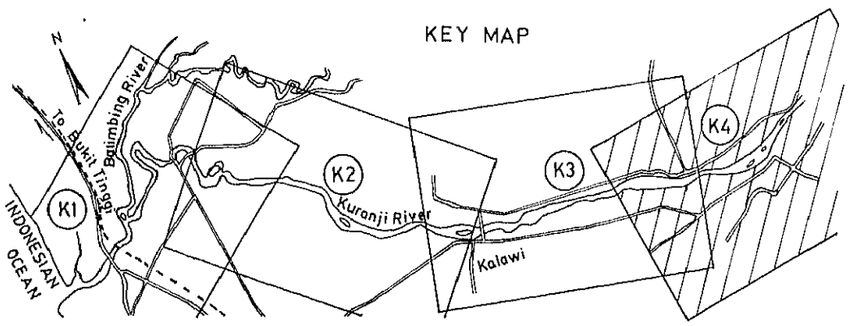
TITLE OF DRAWING

PLAN OF PROJECT
Kuranji River (3/4)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I – 18





LEGEND

					Existing	Proposed
Residential area		Rail way		Levee		
a. Paddy field b. Swamp area		Drain		Bank protection		
a. Grassland b. Coconut palm		Contour line		Section number		A 131
a. Coppice b. Nipa palm		Main road		Culvert		
a. Upland crops b. Cloves				Bridge		

Scale 100 0 100 500 700m

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

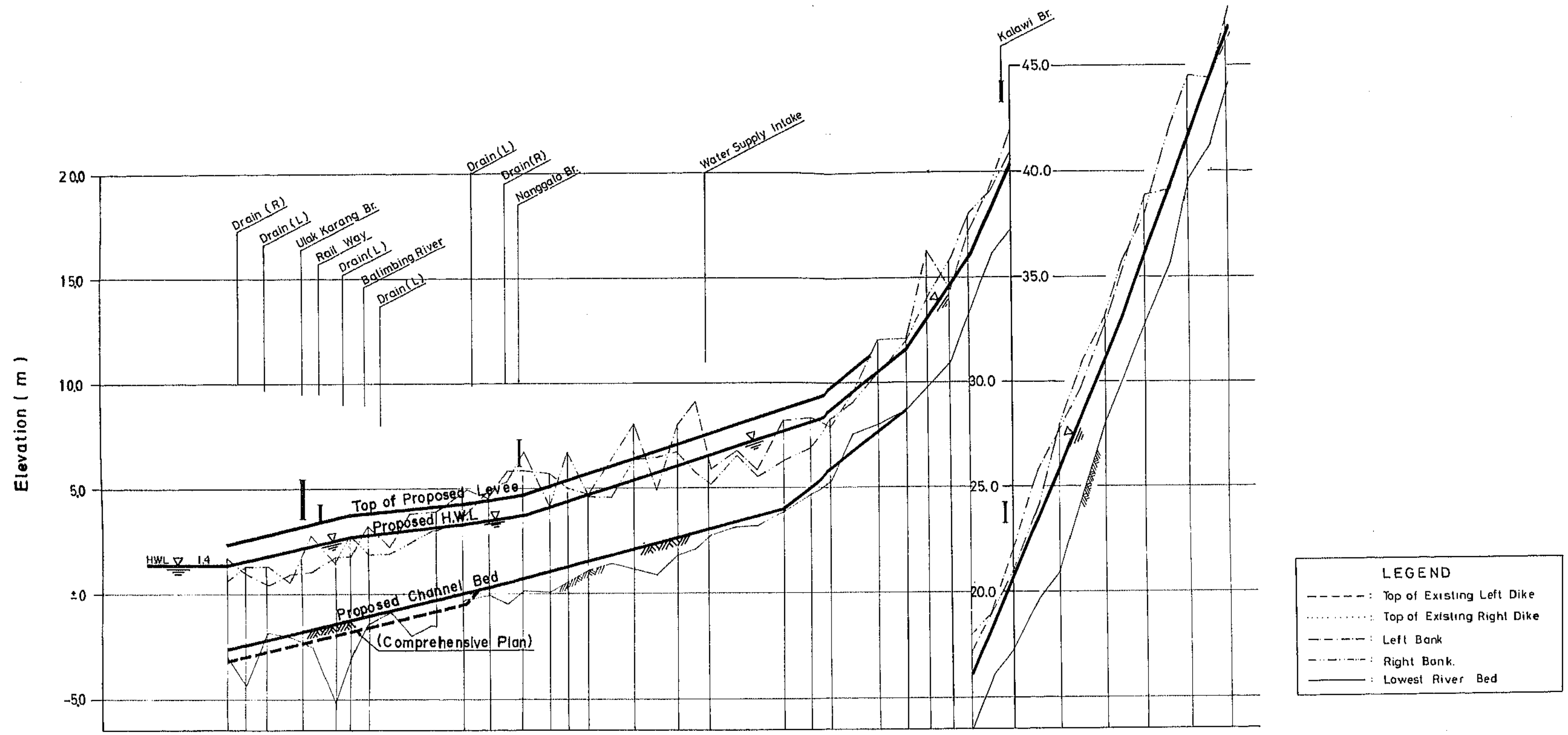
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

PLAN OF PROJECT
Kuranji River (4/4)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

DWG. NO
I-19



Item	Range	Value
Design Flood Discharge (m3/s)	K 2 – K 74	870
Design Flood Discharge (m3/s)	K 74 – PM48+300	600
Gradient of H.W.L	K 2 – K 29	1/880
Gradient of H.W.L	K 29 – K 74	1/2000
Gradient of H.W.L	K 74 – K 86	1/400
Gradient of H.W.L	K 86 – K140	1/770
Gradient of H.W.L	K140 – K151	1/260
Gradient of H.W.L	K151 – PM48	1/130
Gradient of H.W.L	PM48 – PM48+300	1/85
Gradient of Channel Bed	K 2 – K 74	1/880
Gradient of Channel Bed	K 74 – K 134	1/770
Gradient of Channel Bed	K 134 – K151	1/260

Section No.	Distance	Top of Proposed Levee (El.m)	Proposed H.W.L. (El.m)	Proposed Channel Bed (El.m)
K 2	0	2.40	1.40	-2.60
K 6	173	2.60	1.60	-2.40
K 10	383	2.84	1.84	-2.16
K 10 +350	733	-	2.24	-1.76
K 25	1048	3.59	2.59	-1.41
K 29	1203	3.77	2.77	-1.23
K 37	1368	3.85	2.85	-1.04
K 74	2283	4.31	3.31	0.00
K 78	2528	4.91	3.91	0.32
K 86	2873	5.76	4.76	0.77
K 91	3118	6.08	5.08	1.08
K 94	3293	6.31	5.31	1.31
K 99	3503	6.58	5.58	1.58
K 107	3933	7.18	6.14	2.14
K 115	4353	7.69	6.69	2.69
K 122	4683	8.11	7.11	3.11
K 134	5388	9.03	8.03	4.03
K 136	5653	9.37	8.37	5.04
K140	5893	9.76	8.76	5.96
K147	6363	11.55	10.55	7.75
K151	6638	12.60	11.60	8.80
K154	6833	-	13.02	-
PM51	7063	-	14.70	-
PM48	7243	-	16.02	-
PM48 +300	7543	-	19.55	-
PM 32	8070			
PM24	8513			
PM 21	8693		33.0	
PM17	8913			
PM10	9333			
PM 3	9713		46.7	

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

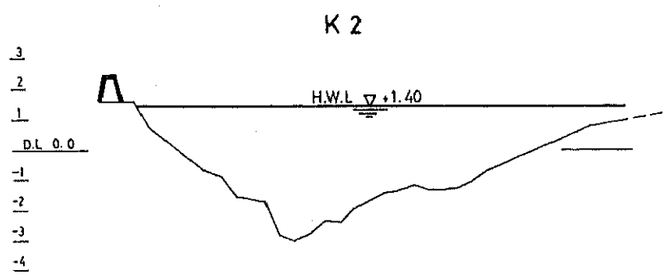
PADANG AREA RIVER IMPROVEMENT PROJECT

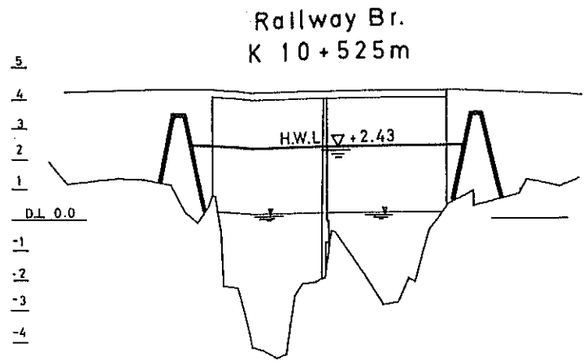
TITLE OF DRAWING

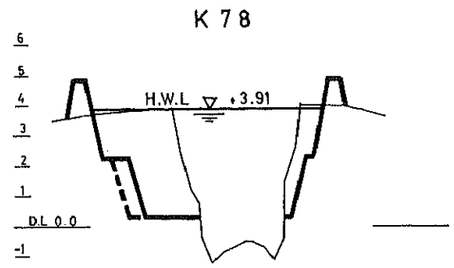
PROPOSED PROFILE
Kuranji River

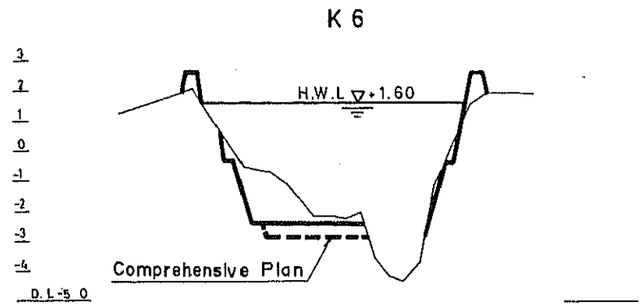
JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN.

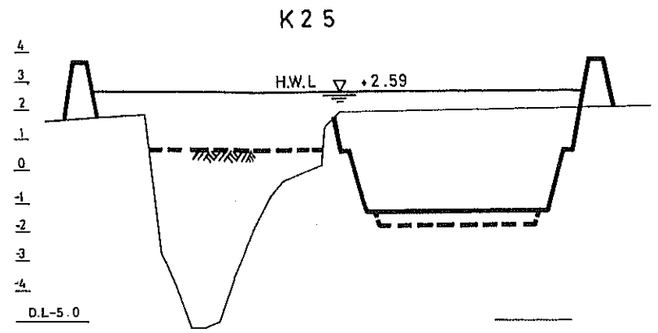
D.W.G. NO I-20

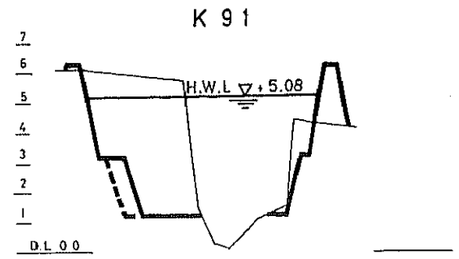


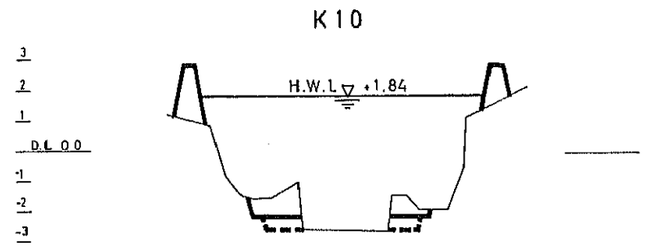


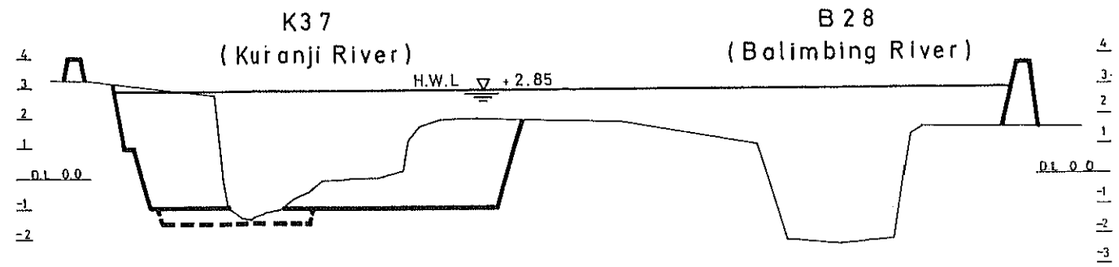


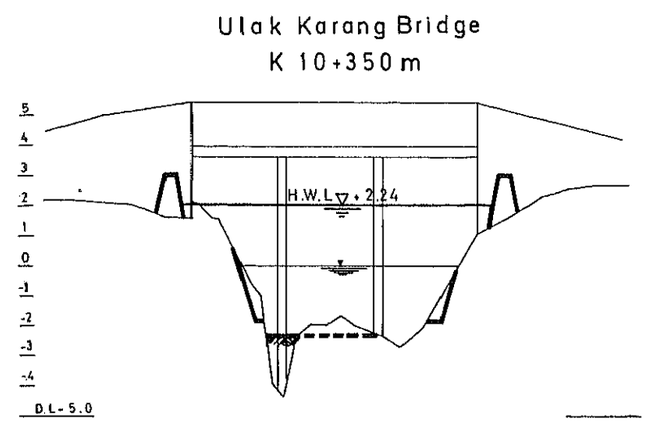


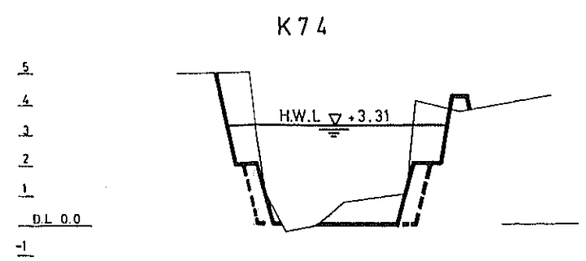












LEGEND
- EXISTING
- COMPREHENSIVE PLAN
- URGENT PLAN

Scale
0 10 20 30 40 50 100 150 200 m

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

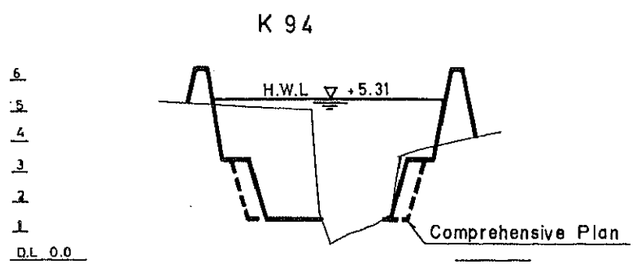
PADANG AREA RIVER IMPROVEMENT PROJECT

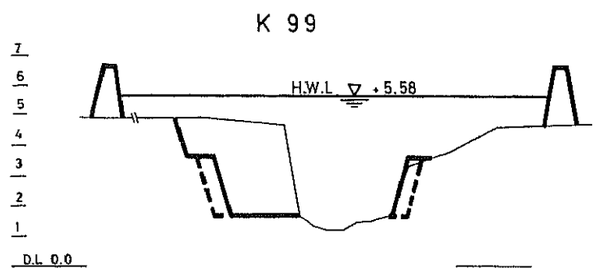
TITLE OF DRAWING

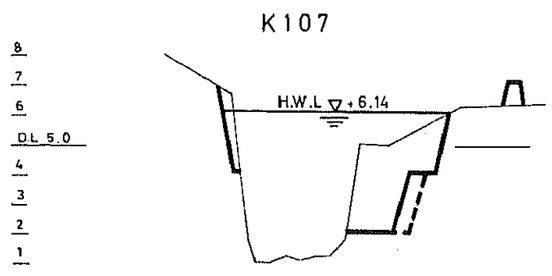
PROPOSED CROSS SECTION
Kuranji River (1/2)

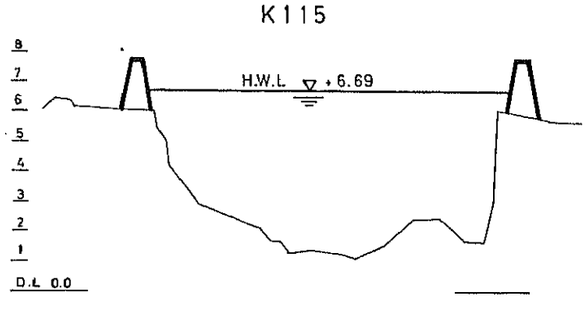
JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

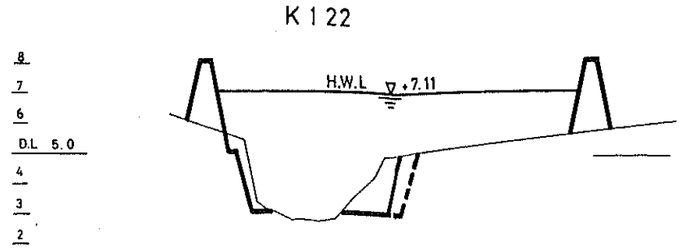
DWG NO
I-21

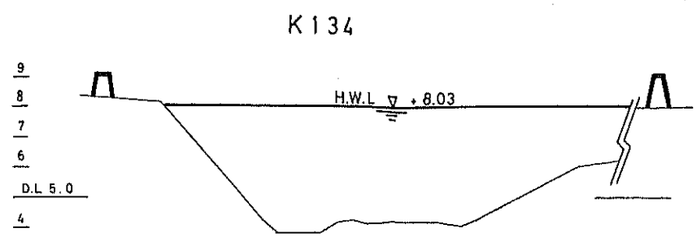


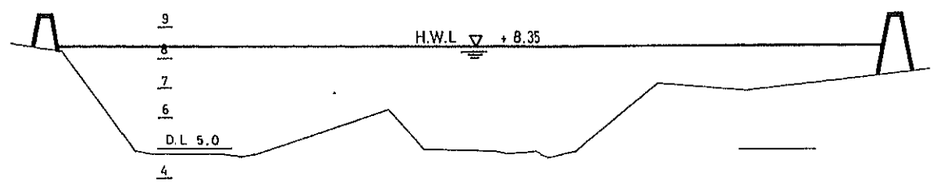


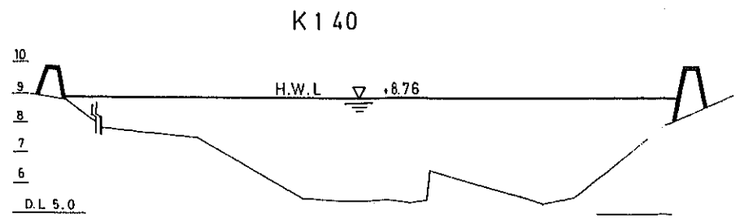


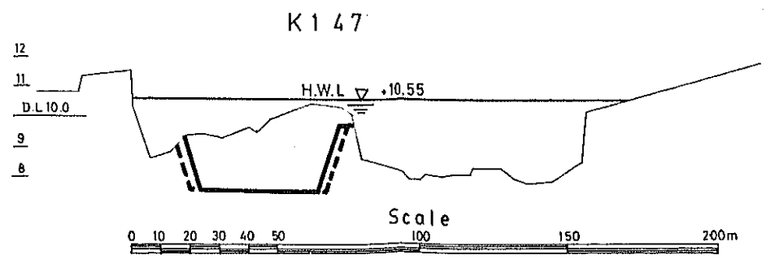


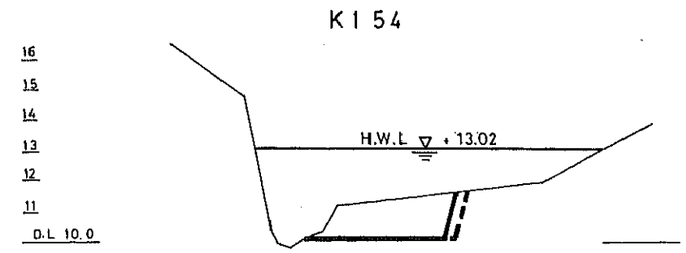


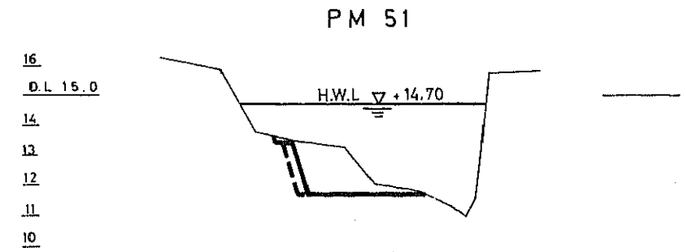


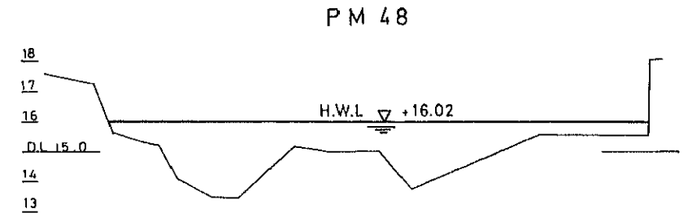


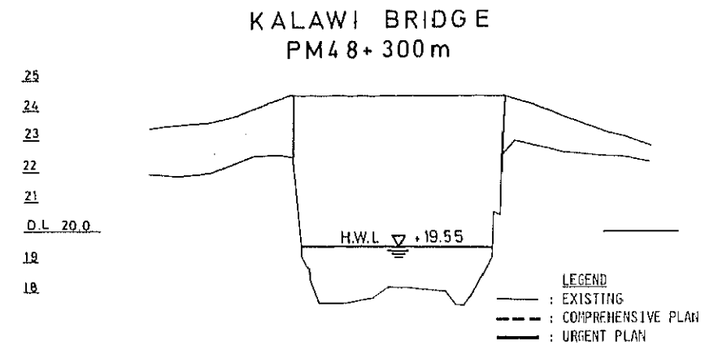












REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

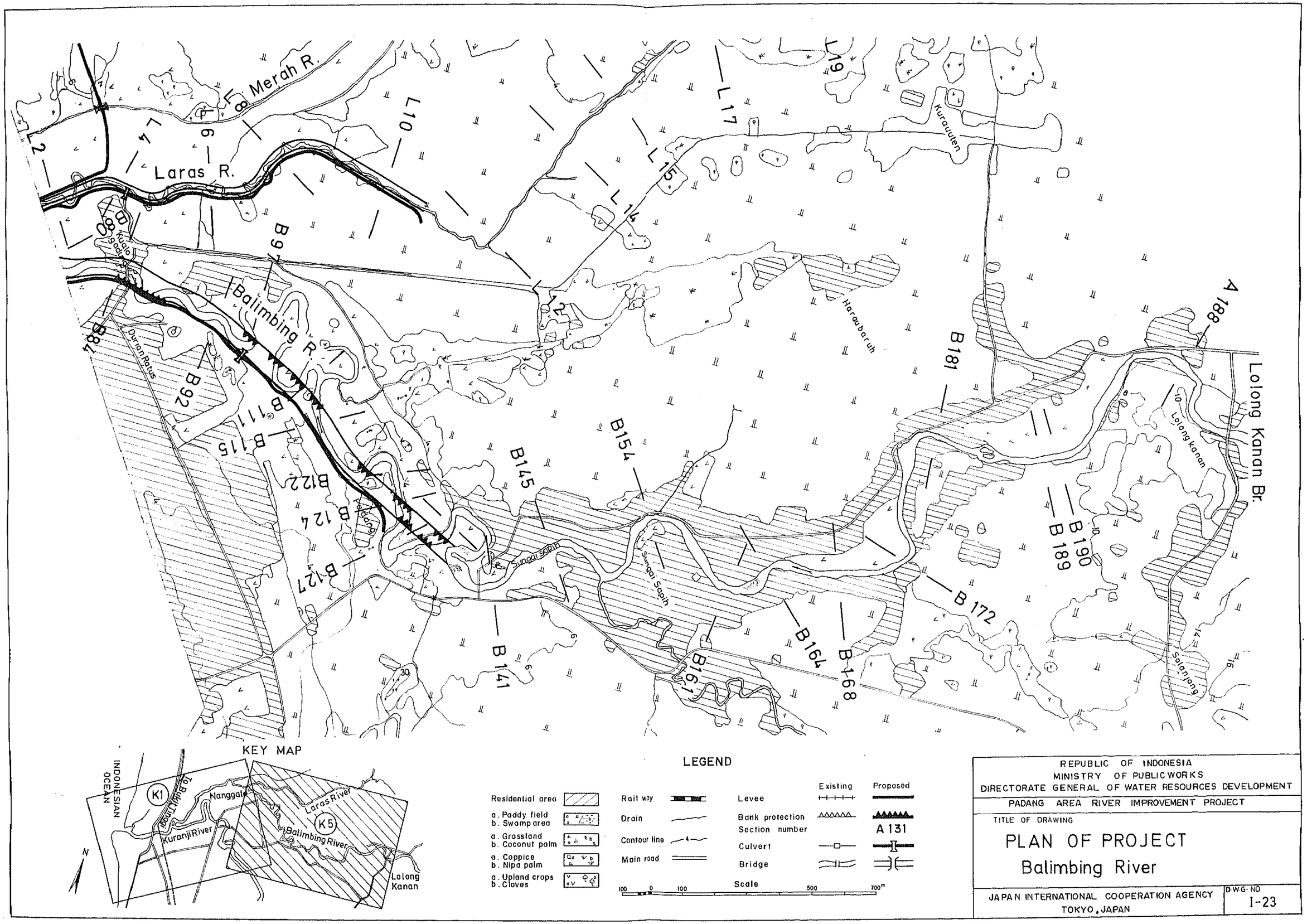
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

PROPOSED CROSS SECTION
Kuranji River (2/2)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I-22



REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

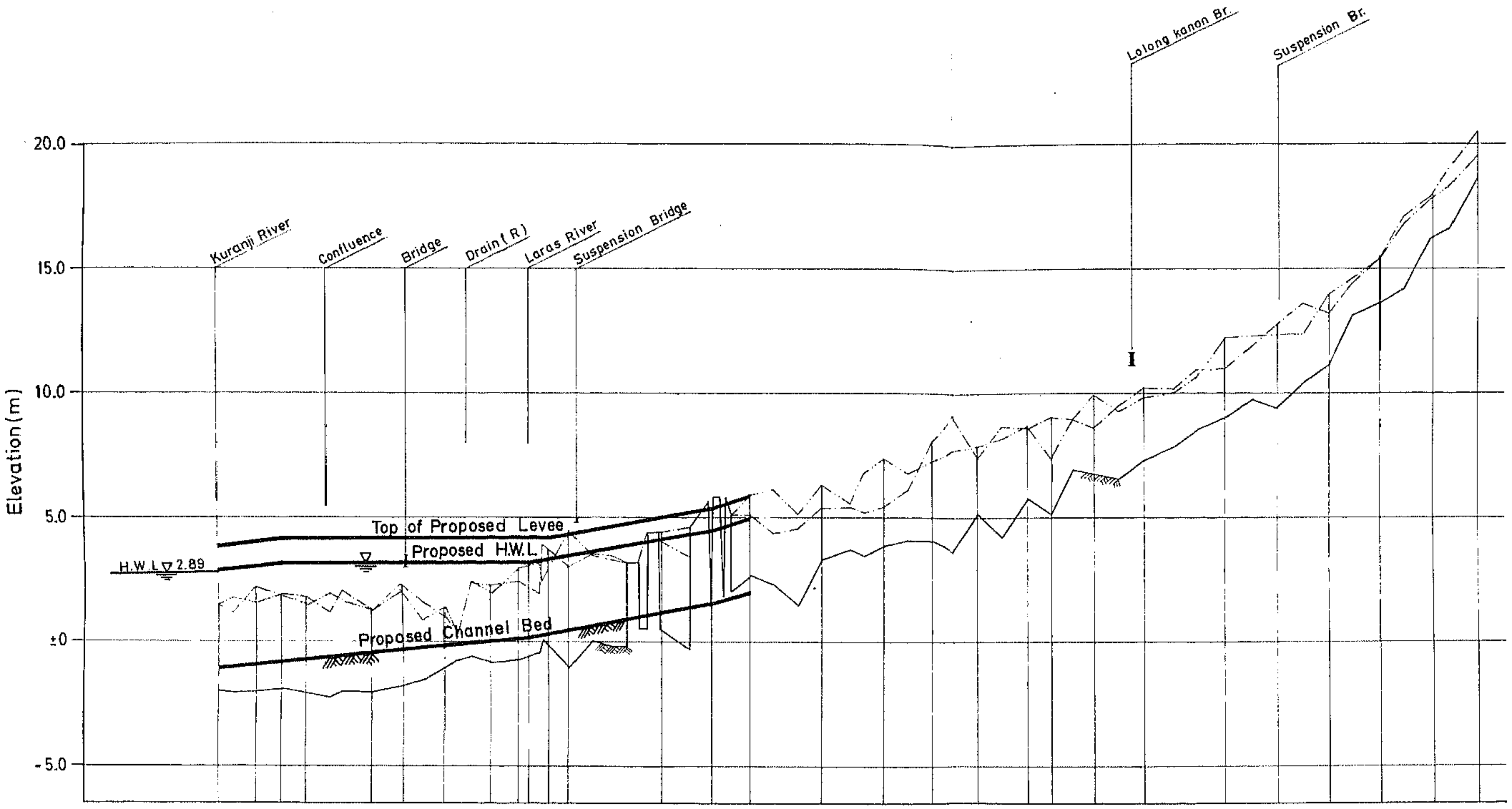
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

PLAN OF PROJECT
Balimbing River

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I-23



Design Flood Discharge (m³/s)	270					260				220					
Gradient of H.W.L	1/2,420	Level							1/1,170					1/630	
Gradient of Channel Bed	1/2,180								1/1,170					1/630	
Top of Proposed Levee (El.m)	3.89	4.06	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.28	4.96	5.30	5.81
Proposed H.W.L (El.m)	2.89	3.06	3.16	3.16	3.16	3.16	3.16	3.16	3.16	3.20	3.36	3.48	4.16	4.50	5.01
Proposed Channel Bed (El.m)	-1.01	-0.86	-0.77	-0.68	-0.42	-0.28	-0.13	-0.05	0.16	0.20	0.36	0.48	1.16	1.50	1.01
Distance (m)	0	300	485	690	1,230	1,505	1,835	2,210	2,435	2,515	2,702	2,845	3,635	4,035	4,355
Section No	B 33 -300	B 33	B 37	B 41	B 52	B 52 +275	B 65	B 73	B 78	B78+80	B78+267	B 84	B 115	B115+400	B 141

Design Flood Discharge (m³/s)														
Gradient of H.W.L														
Gradient of Channel Bed														
Top of Proposed Levee (El.m)														
Proposed H.W.L (El.m)						9.10								
Proposed Channel Bed (El.m)						6.10								
Distance (m)	4,945	5,460	5,860	6,310	6,730	6,930	7,270	7,670	8,325	8,745	9,175	9,585	10,005	10,345
Section No	B 154	B 164	B 172	B 181	B 189	+200	A 188	A 196	A 209	A 217	A 227	A 234	A 243	A 249

LEGEND

- — — — — : Top of Existing Left Dike
- ··········· : Top of Existing Right Dike
- —·—·—·— : Left Bank
- —··—··— : Right Bank
- ———— : Lowest River Bed

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

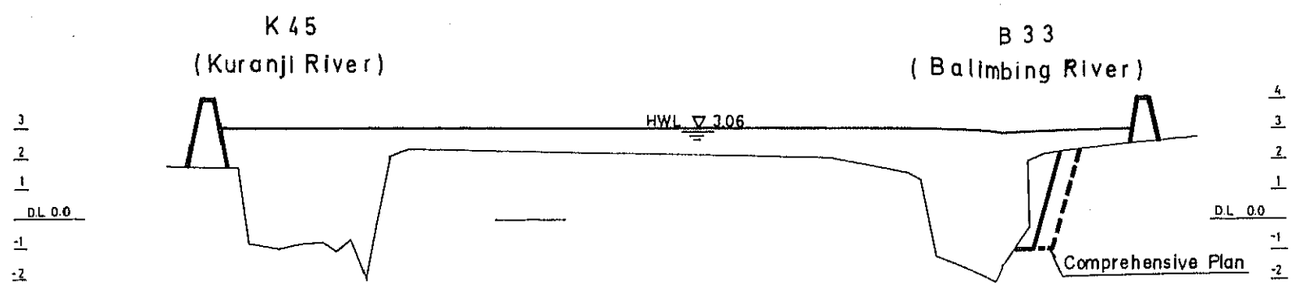
PADANG AREA RIVER IMPROVEMENT PROJECT

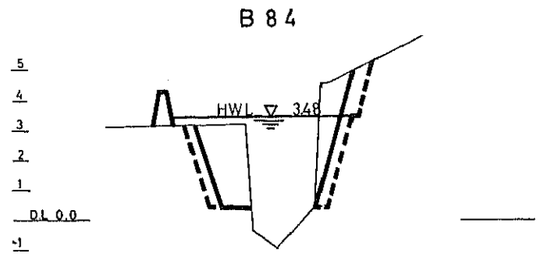
TITLE OF DRAWING

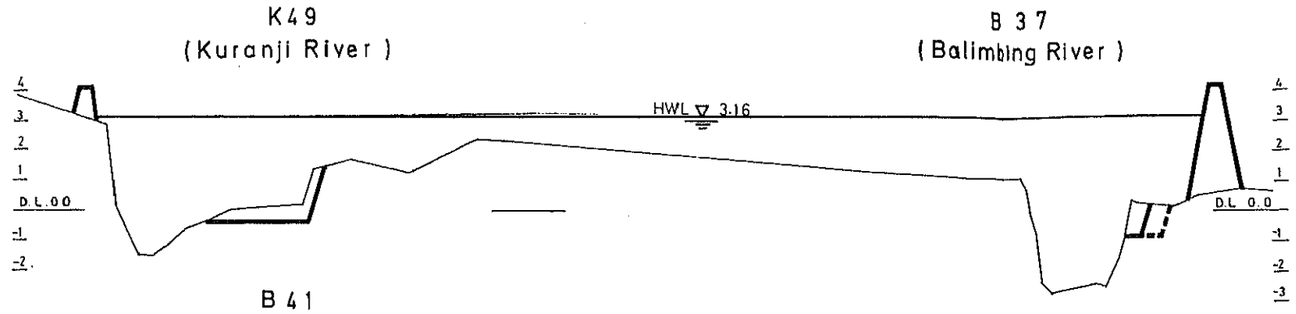
PROPOSED PROFILE
Balimbing River

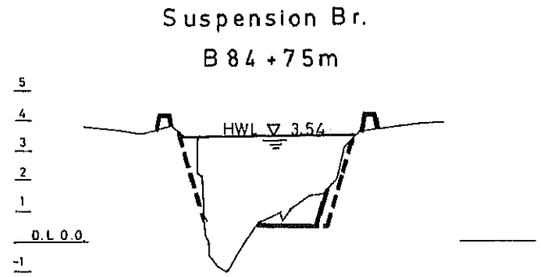
JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

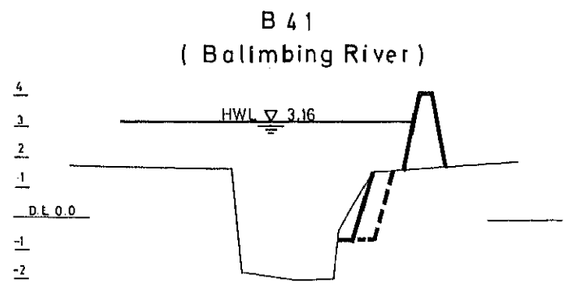
D.W.G. NO I-24

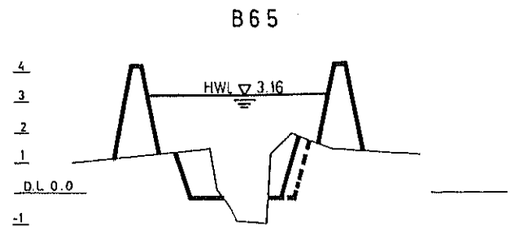


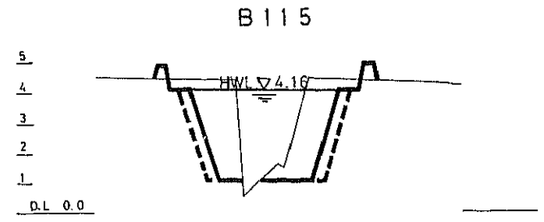


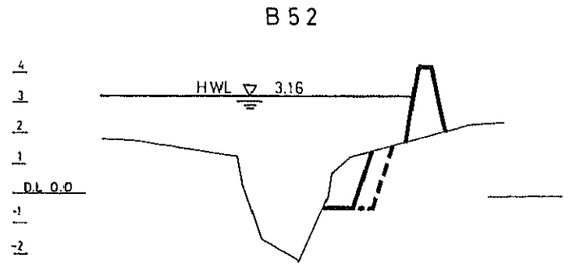


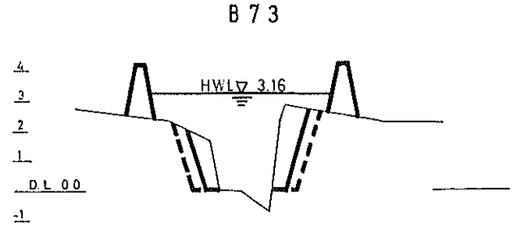


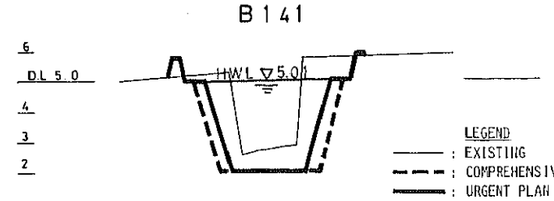




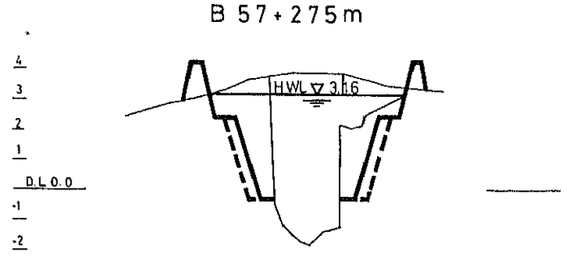


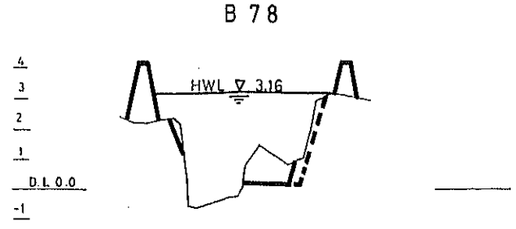






LEGEND
- ——— : EXISTING
- - - - : COMPREHENSIVE PLAN
- ▬▬▬ : URGENT PLAN





REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

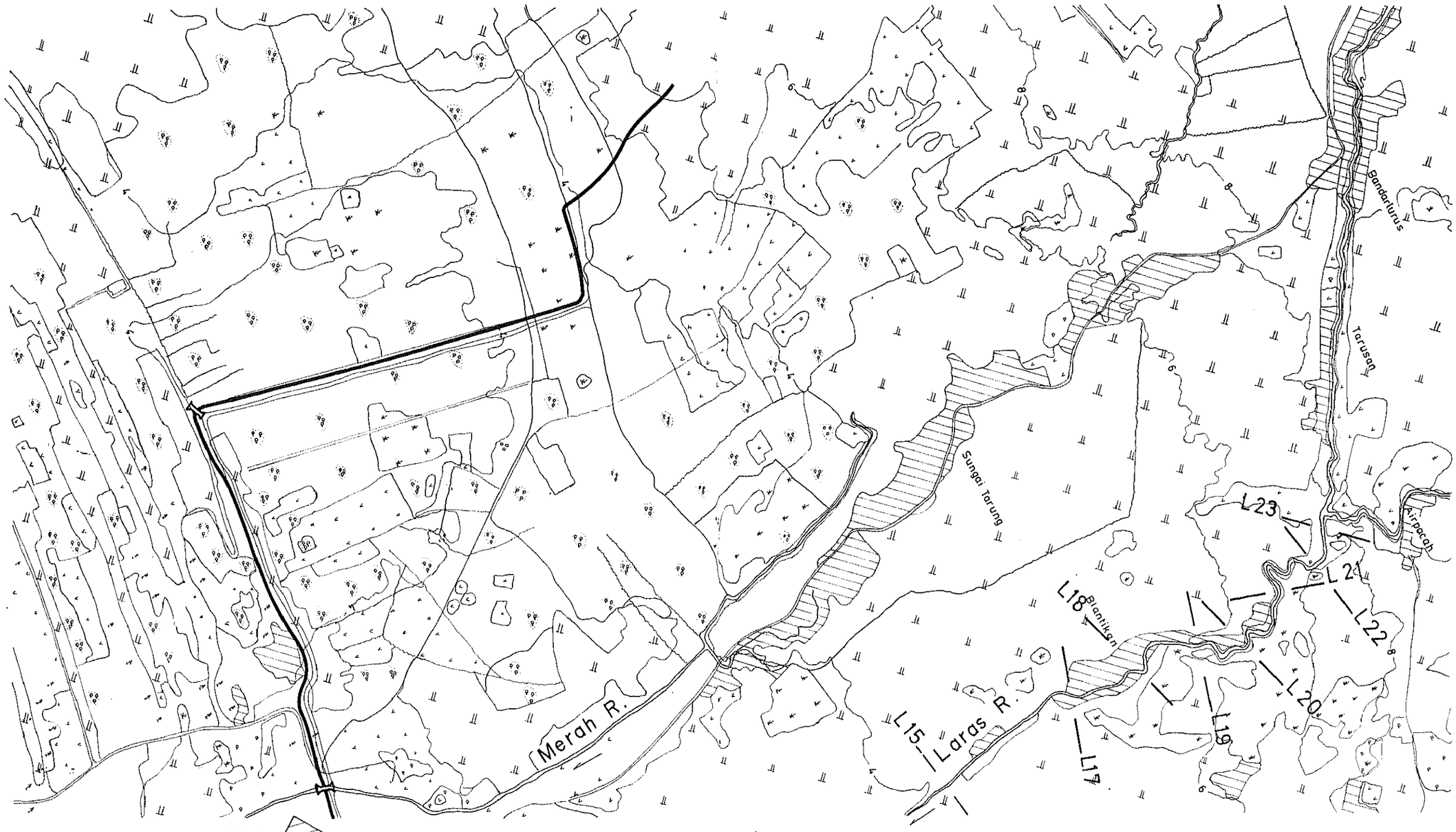
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

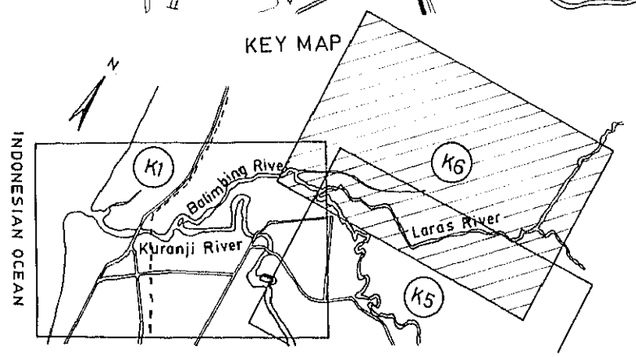
PROPOSED CROSS SECTION
Balimbing River

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I – 25



KEY MAP



LEGEND

					Existing	Proposed
Residential area		Rail way		Levee		
a. Paddy field b. Swamp area		Drain		Bank protection		
a. Grassland b. Coconut palm		Contour line		Section number	A 131	
a. Coppice b. Nipa palm		Main road		Culvert		
a. Upland crops b. Cloves				Bridge		

Scale 100 0 100 500 700m

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

PADANG AREA RIVER IMPROVEMENT PROJECT

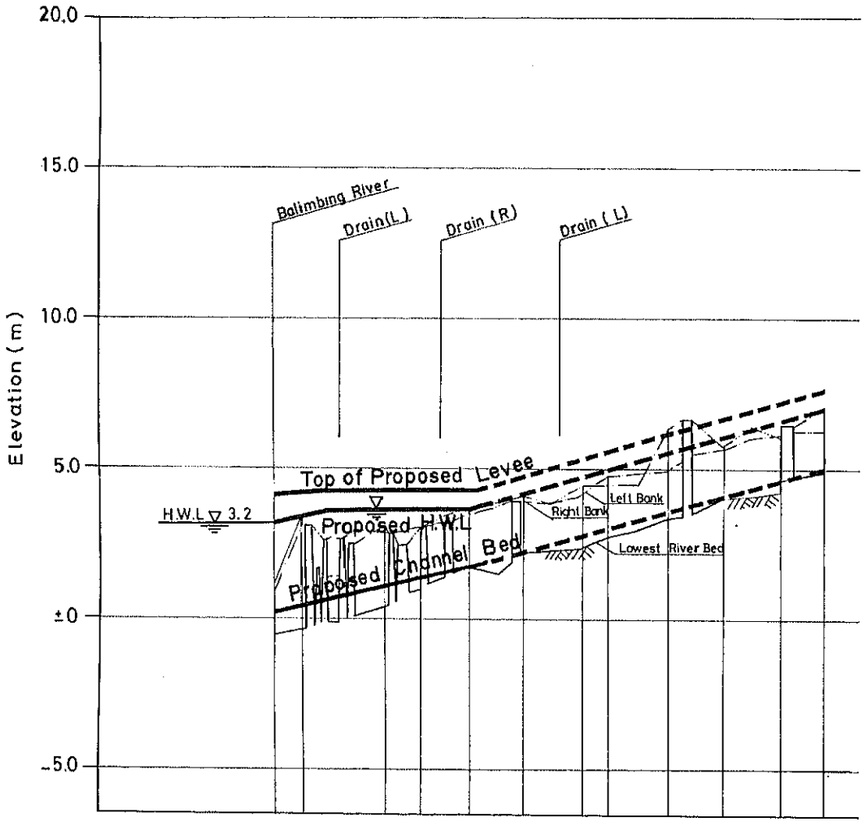
TITLE OF DRAWING

PLAN OF PROJECT
Laras River

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

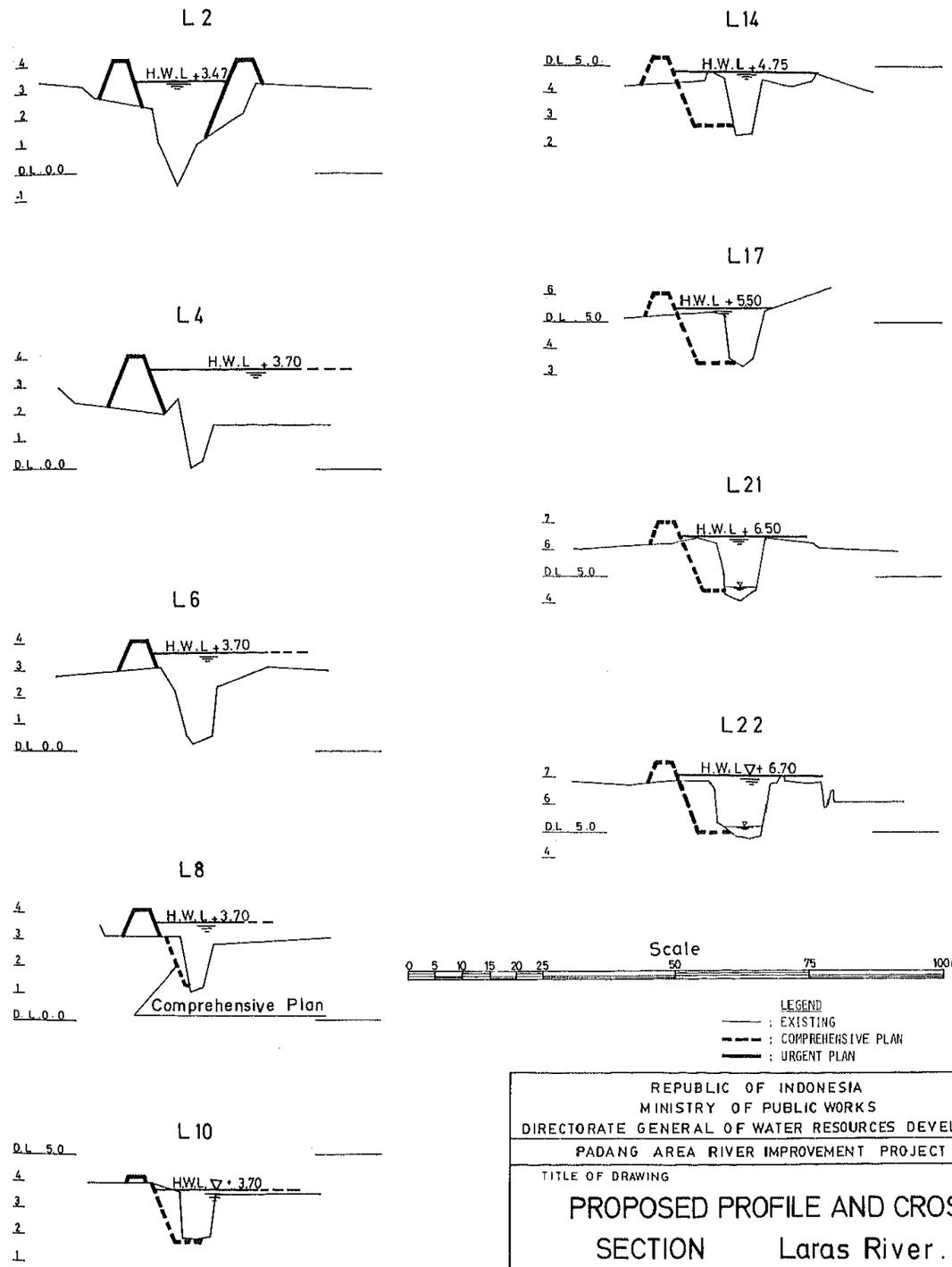
D.W.G. NO
I-26

PROFILE



Design Flood Discharge (m^3/s)	40												80
Gradient of H.W.L	1/140				Level								1/800
Gradient of Channel Bed					1/850								1/800
Top of Proposed Levee (El.m)	4.16	4.24	4.30 4.30	4.30	4.30	4.30	4.85	5.35	5.60	6.10	6.60	7.10	7.60
Proposed H.W.L (El.m)	3.20	3.47	3.70 3.70	3.70	3.70	3.70	4.25	4.75	5.00	5.50	6.00	6.50	7.00
Proposed Channel Bed (El.m)	0.20	0.44	0.64 0.69	1.09	1.38	1.75	2.25	2.75	3.00	3.50	4.00	4.50	5.00
Distance (m)	0	200	370 420	760	1,000	1,320	1,680	2,080	2,280	2,680	3,040	3,440	3,740
Section No.	L 1	L 2	+170 L 4	L 6	L 8	L 10	L 12	L 14	L 15	L 17	L 19	L 21	L 23

CROSS SECTION



REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

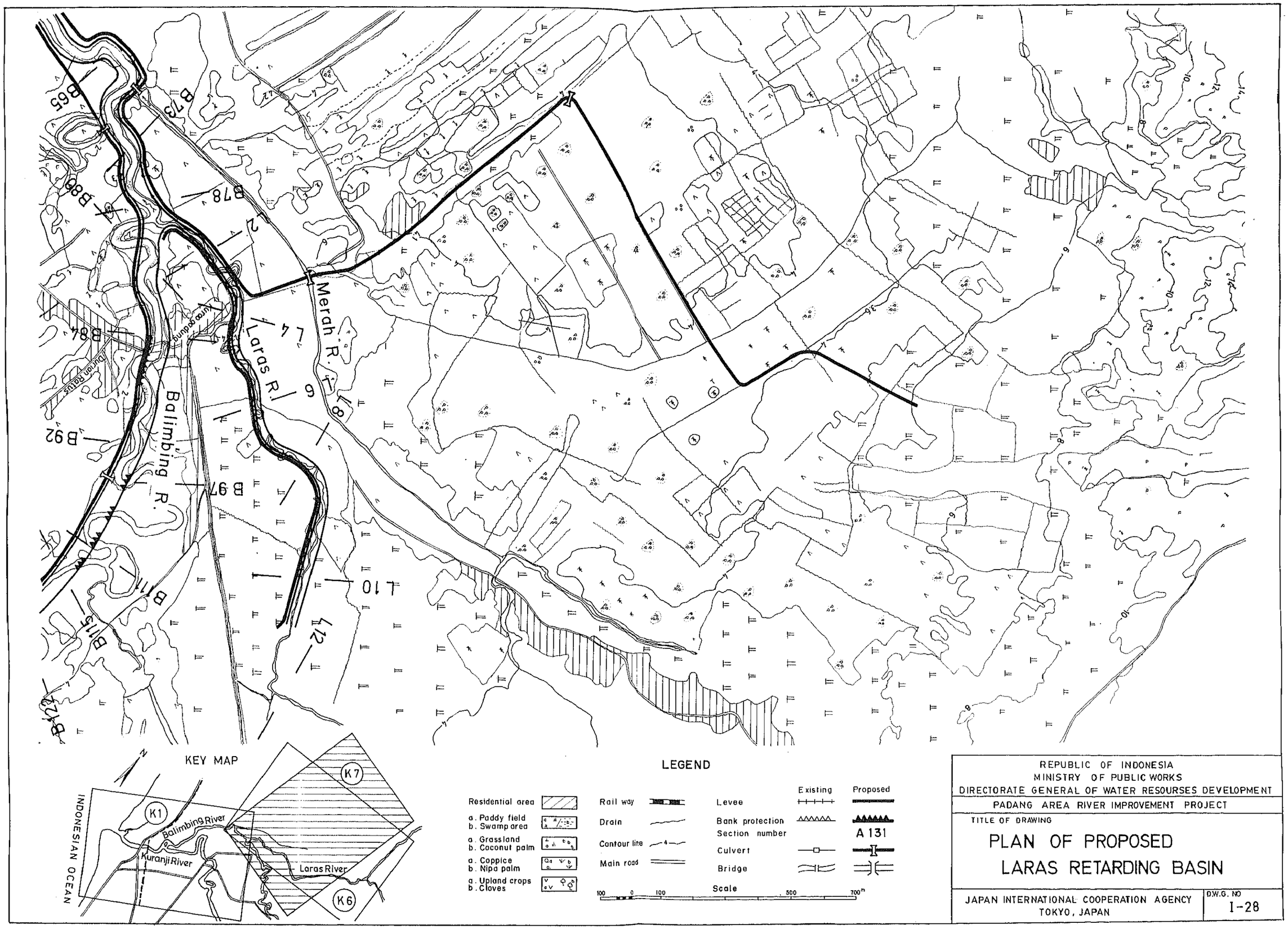
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

PROPOSED PROFILE AND CROSS SECTION Laras River.

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G NO
I-27



REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURSES DEVELOPMENT

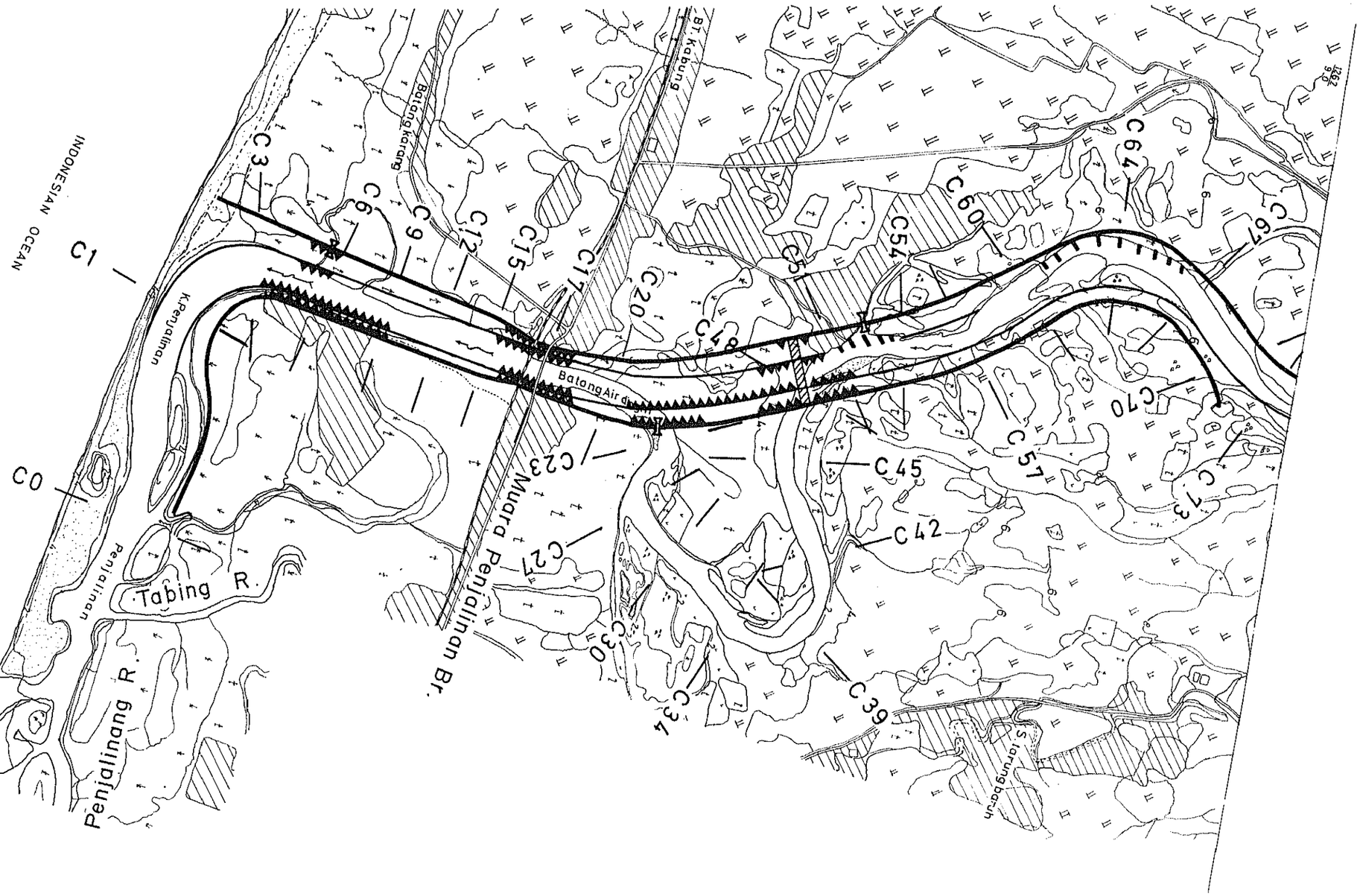
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

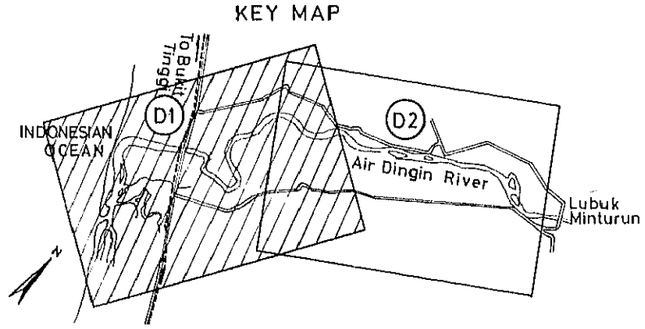
PLAN OF PROPOSED LARAS RETARDING BASIN

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I-28



KEY MAP



LEGEND

					Existing	Proposed
Residential area		Rail way		Levee		
a. Paddy field b. Swamp area		Drain		Bank protection		
a. Grassland b. Coconut palm		Contour line		Section number		A 131
a. Coppice b. Nipa palm		Main road		Culvert		
a. Upland crops b. Cloves				Bridge		

Scale 100 0 100 500 700m

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

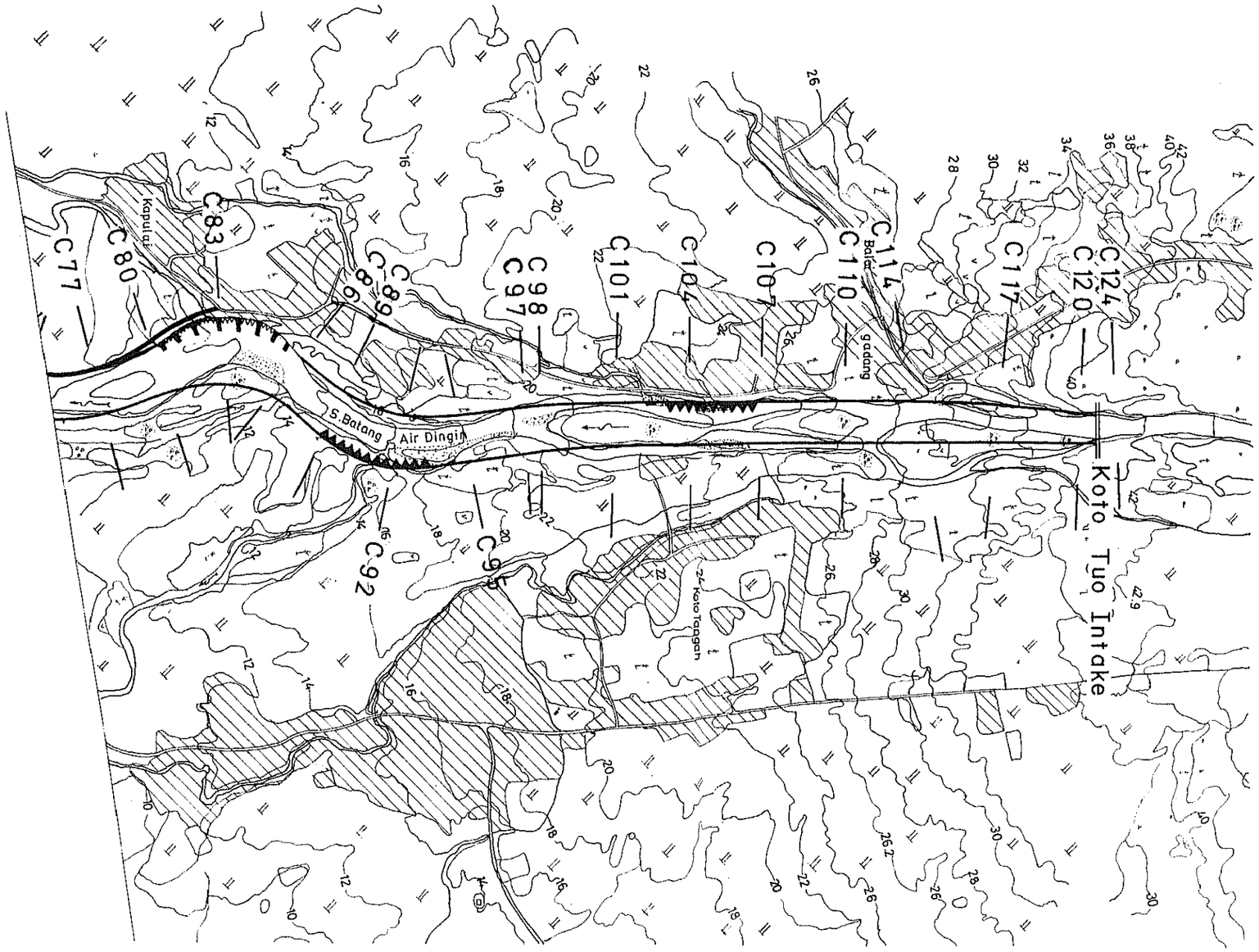
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

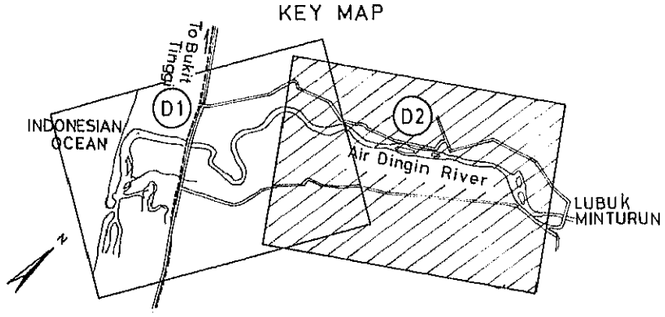
PLAN OF PROJECT
Air Dingin River (1/2)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I - 29



KEY MAP



LEGEND

					Existing	Proposed
Residential area		Rail way		Levee		
a. Paddy field b. Swamp area		Drain		Bank protection		
a. Grassland b. Coconut palm		Contour line		Section number		A 131
a. Coppice b. Nipa palm		Main road		Culvert		
a. Upland crops b. Cloves				Bridge		

Scale 100 0 100 500 700m

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

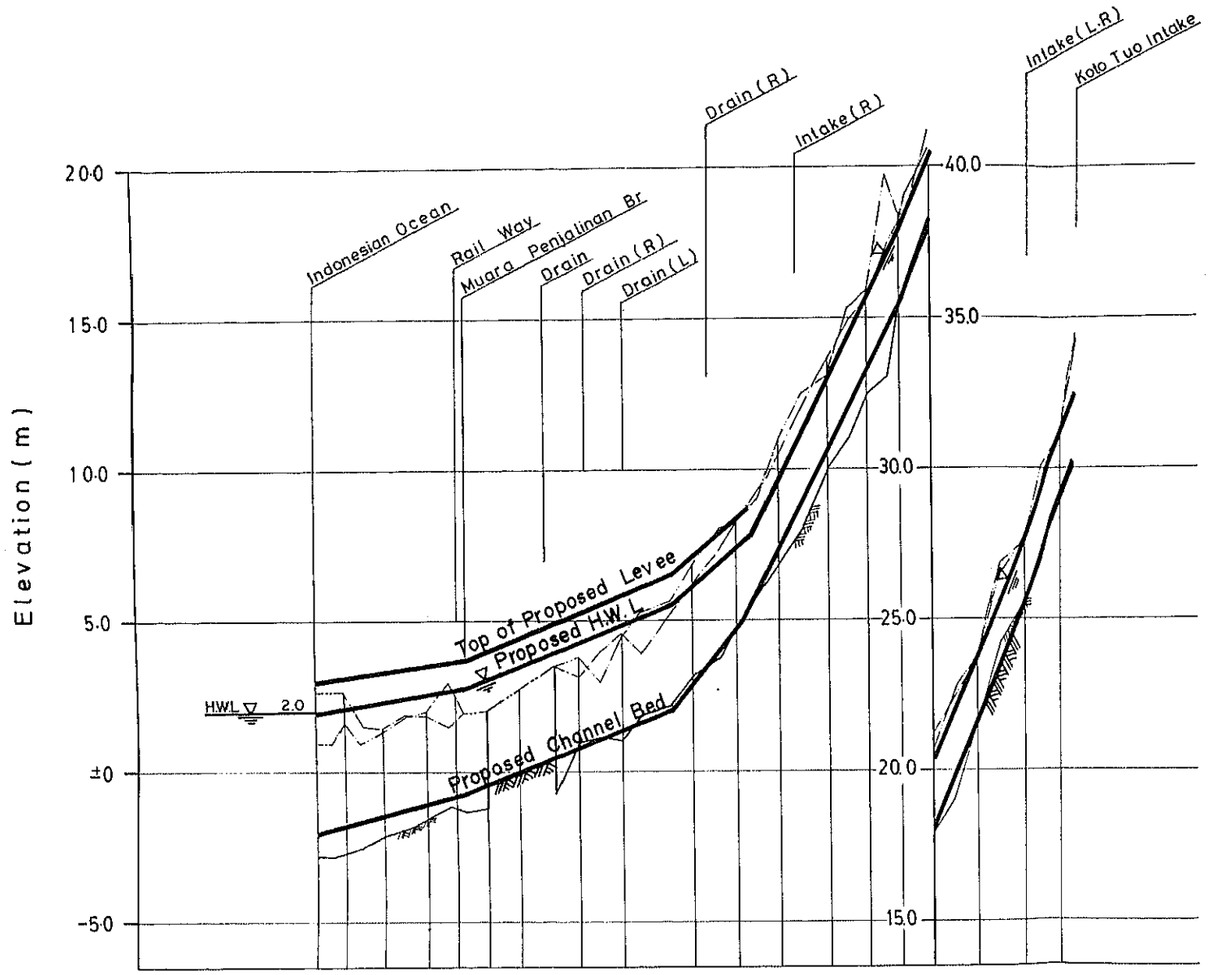
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

PLAN OF PROJECT
Air Dingin River (2/2)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
I-30



Design Flood Discharge(m^3/s)	650 / 550
Gradient of H.W.L	1/1350 / 1/510 / 1/225 / 1/105 / 1/85
Gradient of Channel Bed	1/810 / 1/510 / 1/150 / 1/105 / 1/85

Section No	Distance (m)	Top of Proposed Levee (El.m)	Proposed H.W.L (El.m)	Proposed Channel Bed (El.m)
C 0	0	3.00	2.00	-2.00
C 2	196	3.15	2.15	-1.76
C 6	461	3.34	2.34	-1.43
C 12	751	3.56	2.56	-1.07
C 17 +200	1.011	3.75	2.75	-0.75
C 20	1.166	4.05	3.05	-0.45
C 20 +225	1.391	3.49	3.49	-0.01
C 51	1.786	5.26	4.26	0.76
C 57	2.081	5.84	4.84	1.34
C 64	2.421	6.50	5.50	2.00
C 67	2.571	7.11	6.11	2.89
C 73	2.871	8.50	7.50	5.90
C 80	3.156	—	10.18	7.71
C 86	3.491	—	13.30	10.89
C 92	3.756	—	15.83	12.41
C 97	3.976	—	17.90	15.50
C 101	4.191	—	20.43	18.03
C 107	4.491	—	23.96	21.56
C 114	4.821	—	27.84	25.44
C 120	5.126	—	31.43	29.03
C 121	5.231	—	32.7	30.3

LEGEND

- Top of Existing Left Dike
- Top of Existing Right Dike
- Left Bank
- Right Bank
- Lowest River Bed

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

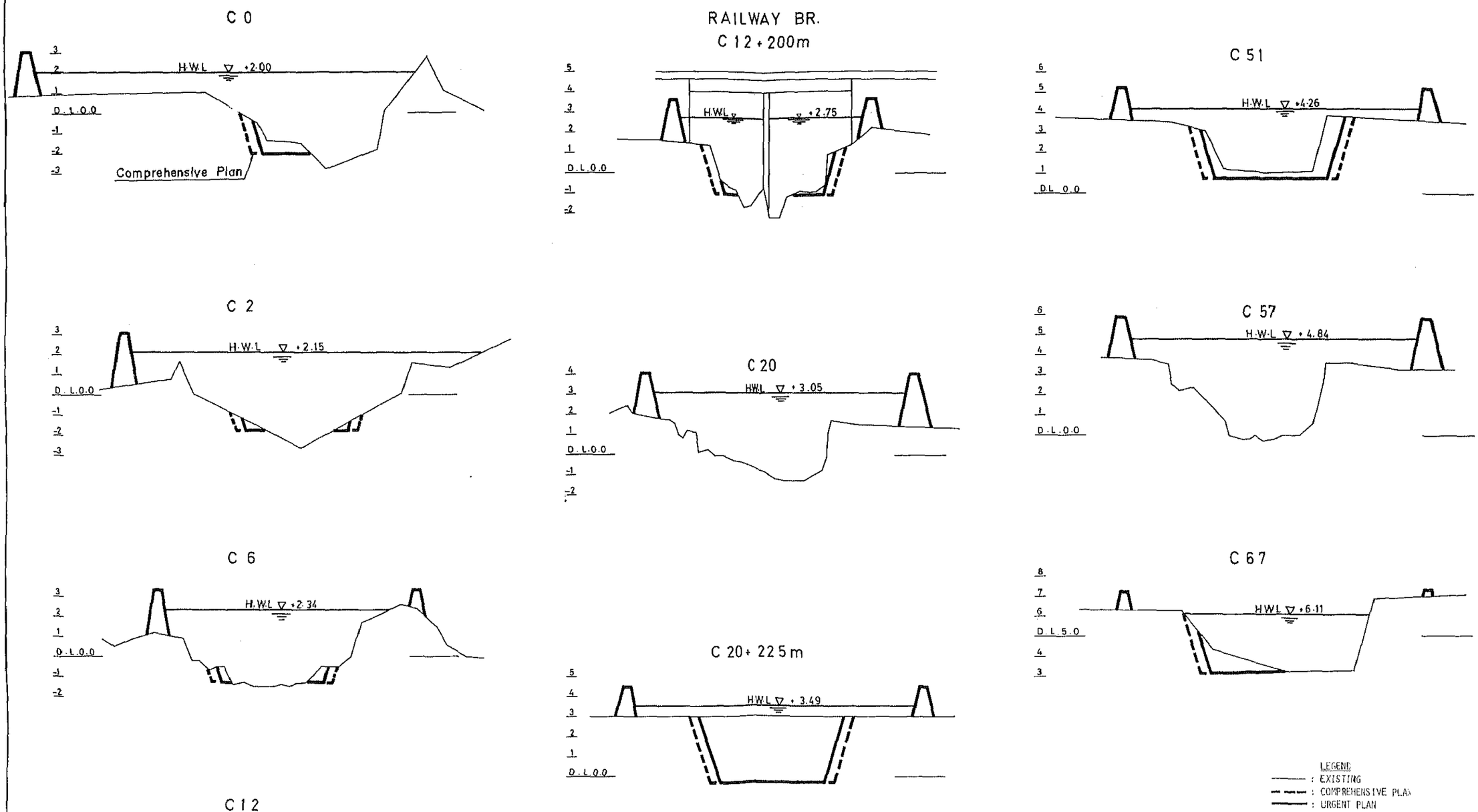
PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

PROPOSED PROFILE
Air Dingin River

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO JAPAN

D.W.G. NO
I – 31



REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

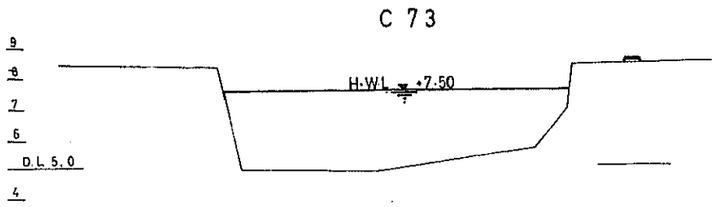
PADANG AREA RIVER IMPROVEMENT PROJECT

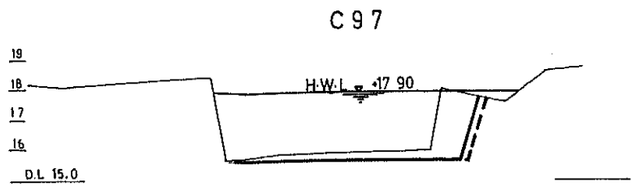
TITLE OF DRAWING

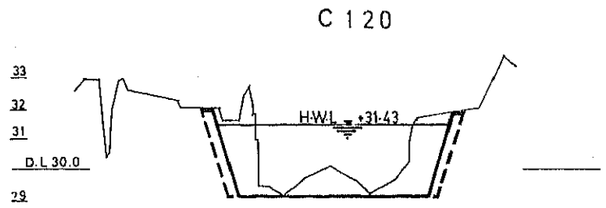
PROPOSED CROSS SECTION
Air Dingin River (1/2)

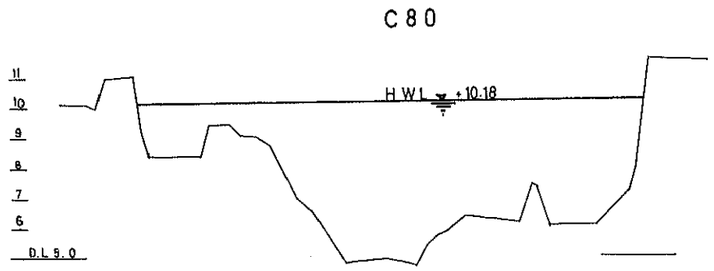
JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

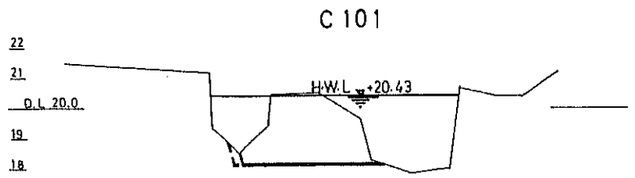
D.W.G NO
I-32

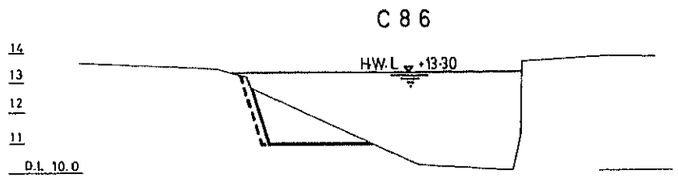


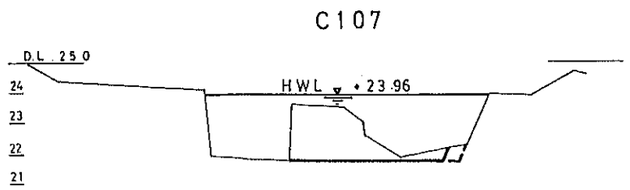


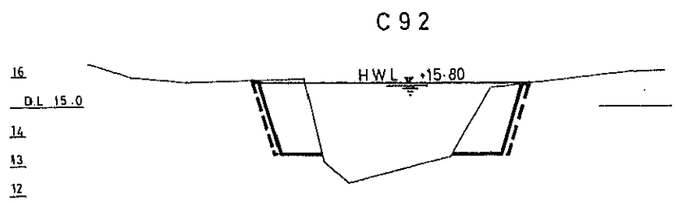


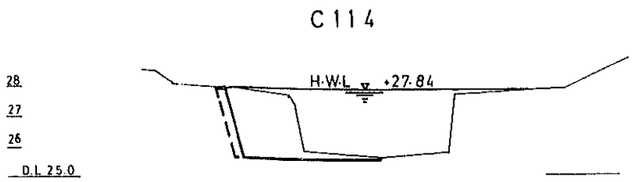


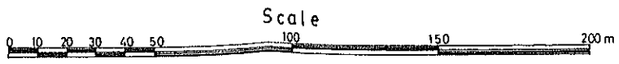












LEGEND
——— : EXISTING
— — — : COMPREHENSIVE PLAN
▬▬▬ : URGENT PLAN

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

PROPOSED CROSS SECTION
Air Dingin River (2/2)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO, JAPAN

D.W.G. NO
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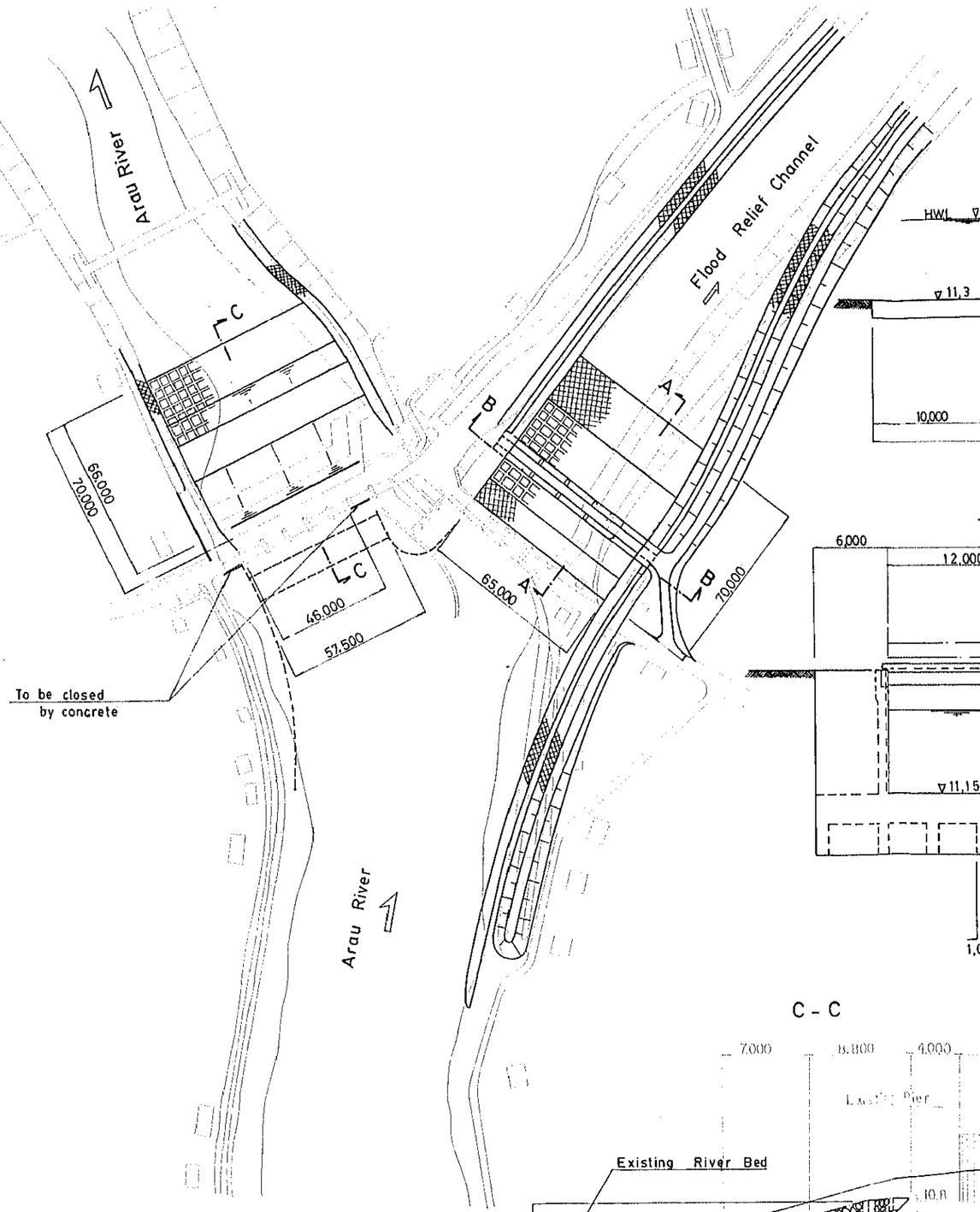
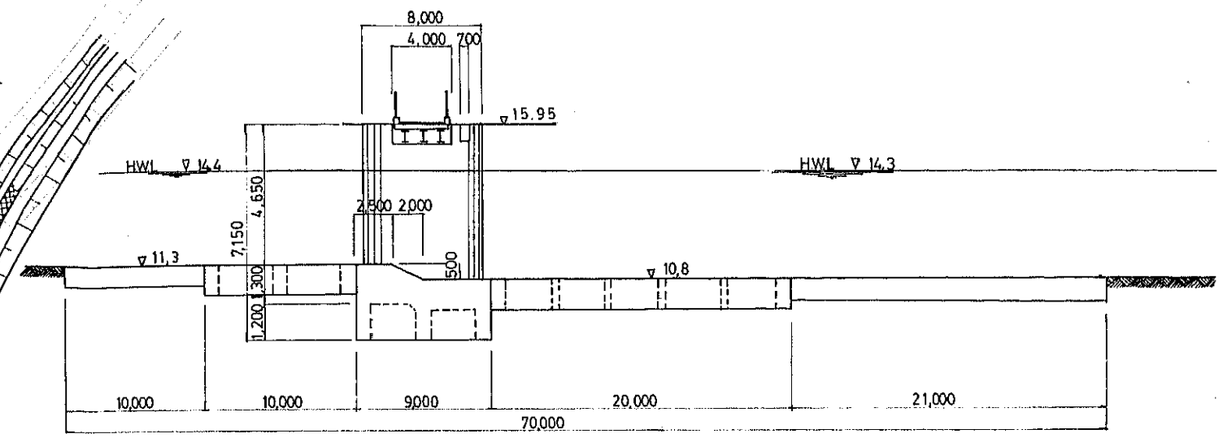
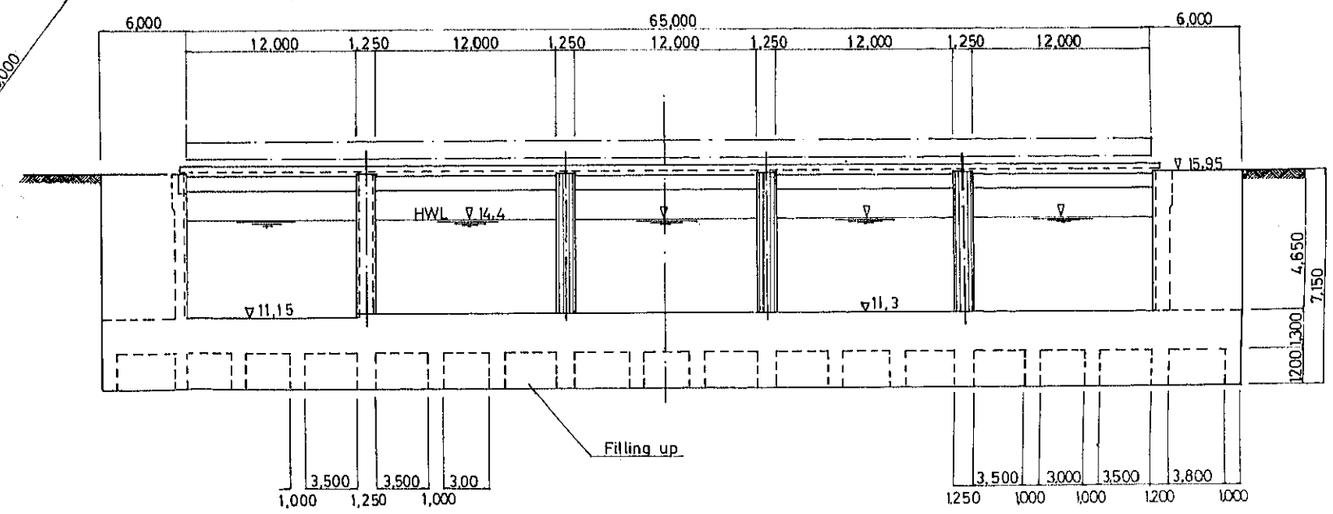


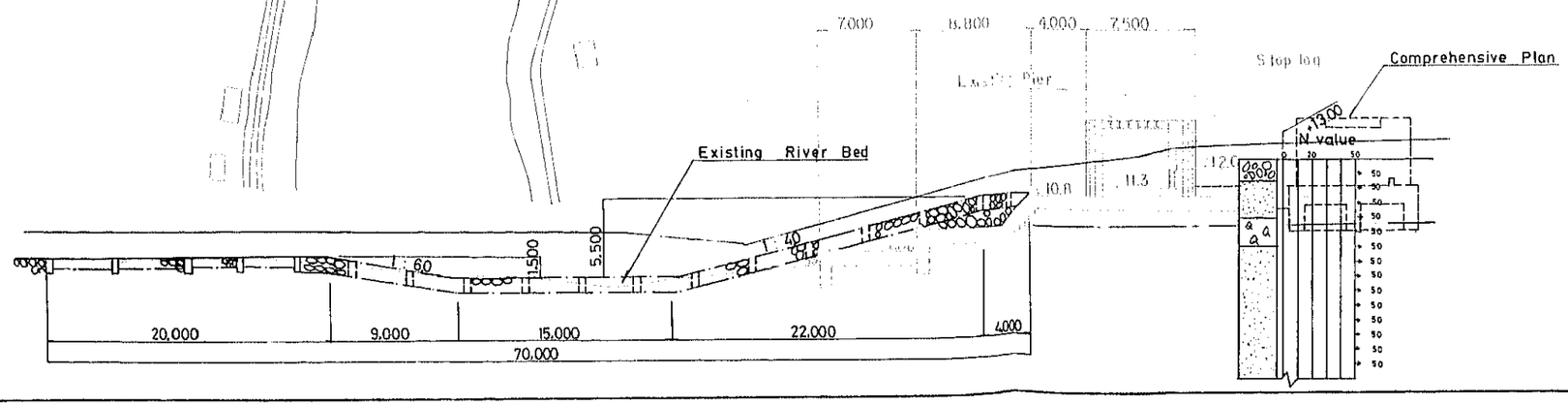
A - A



B - B



C - C



REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

PADANG AREA RIVER IMPROVEMENT PROJECT

TITLE OF DRAWING

PROPOSED DIVERSION WEIR

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO JAPAN

D.W.G. NO
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