



GOVERNMENT OF THE REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HUMAN SETTLEMENTS

URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA
TENDER DOCUMENTS FOR

PACKAGE - 2

CONTRACT NO :

TANJUNGAN DRAINAGE CHANNEL
PIK JUNCTION DRAINAGE CHANNEL

VOLUME IV

DRAWINGS

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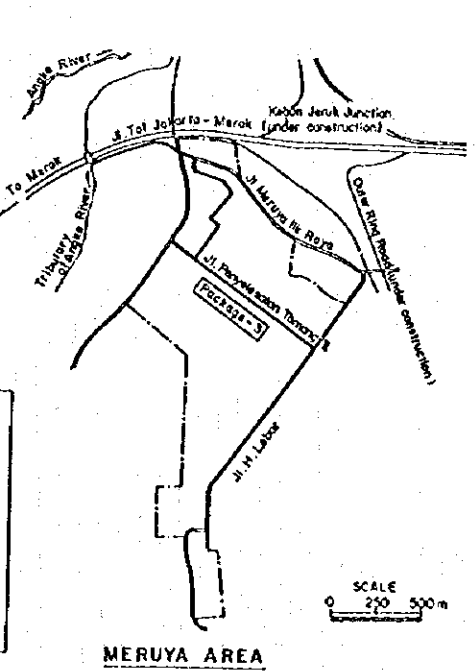
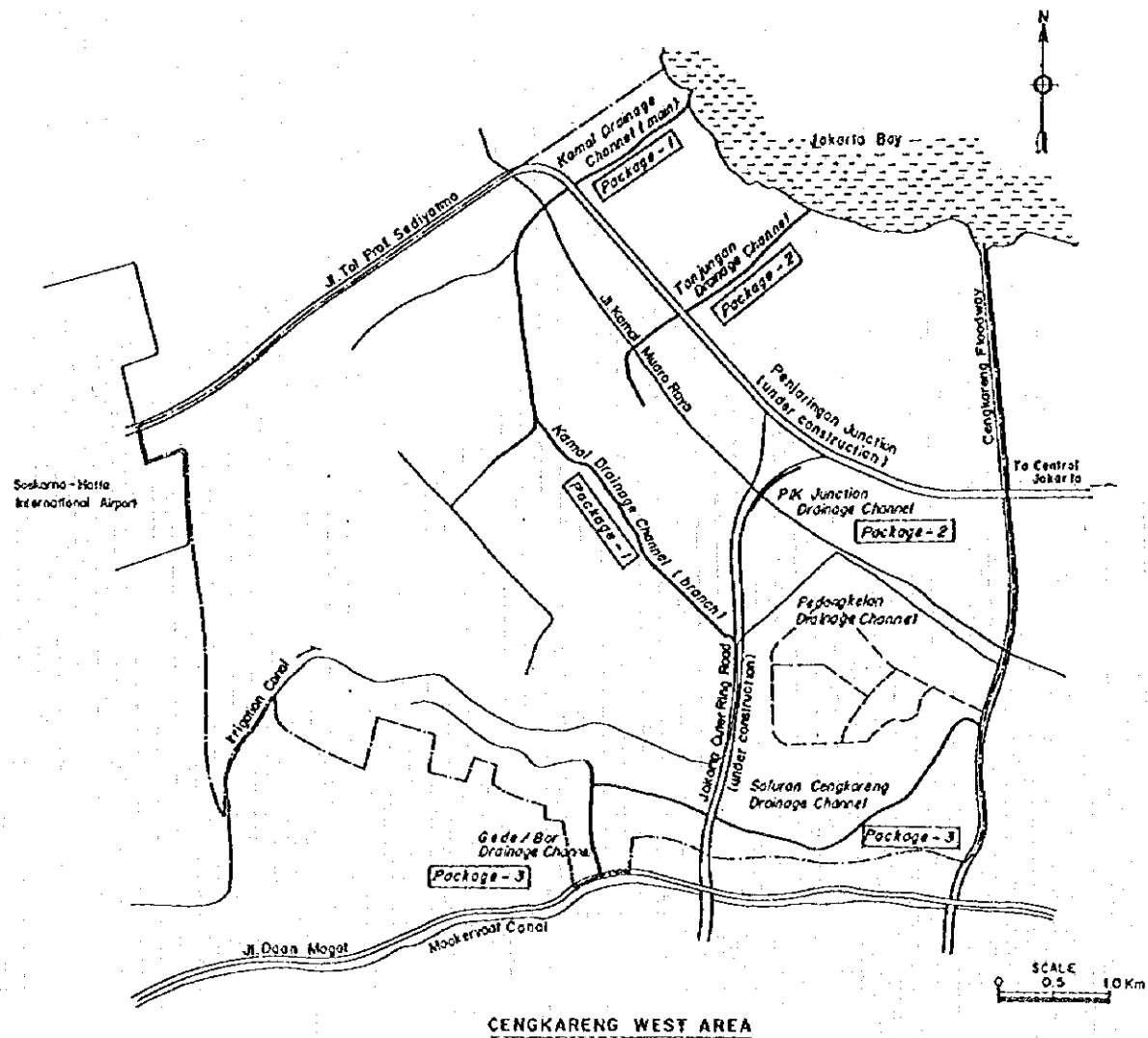
DRAWINGS

DECEMBER 1997

LIST OF DRAWINGS (1/2)

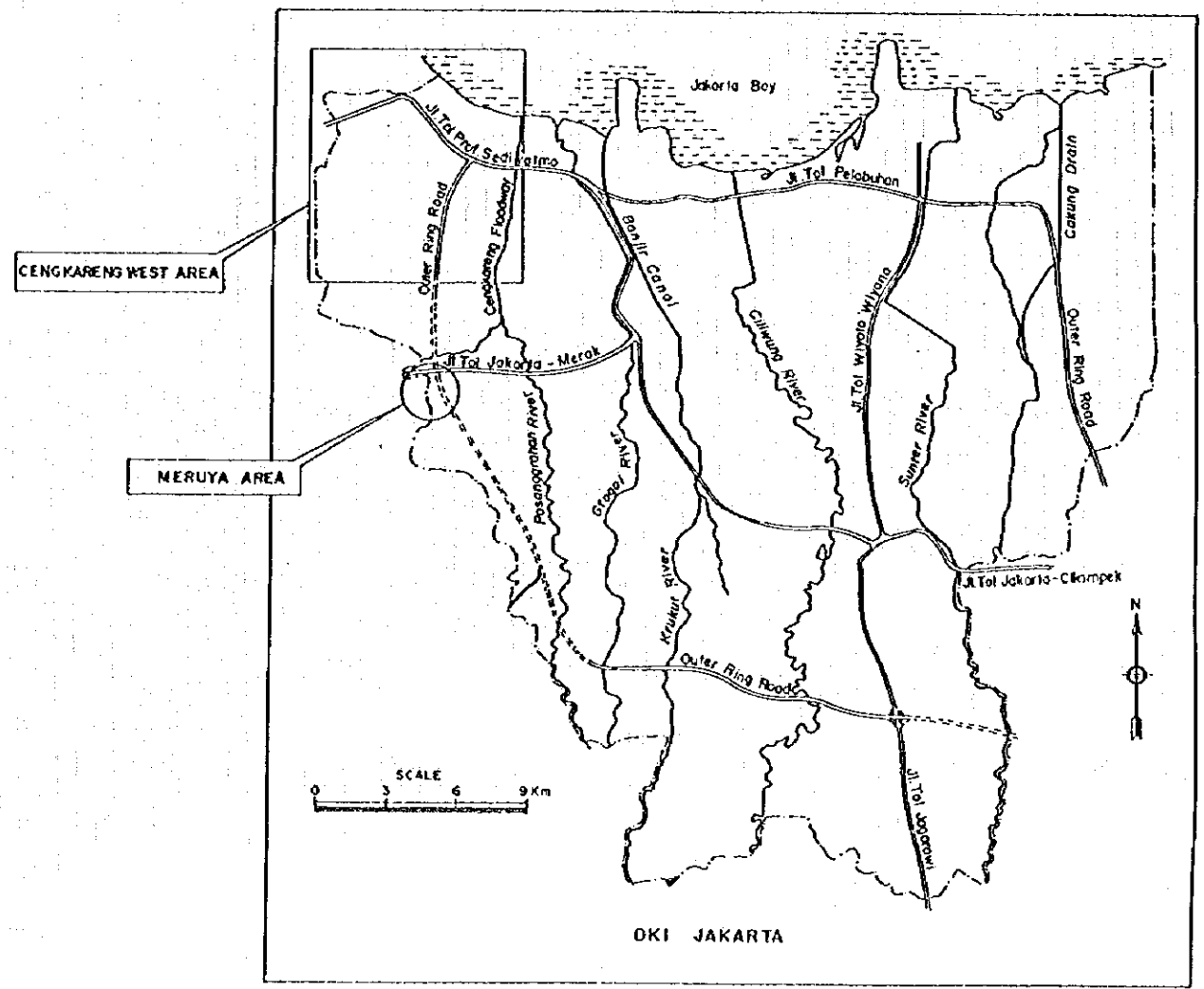
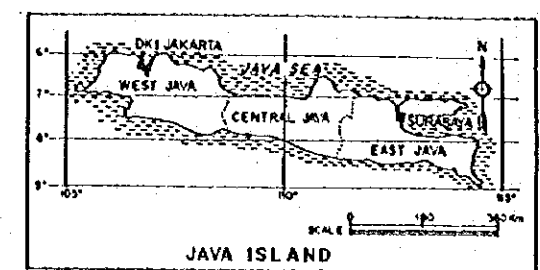
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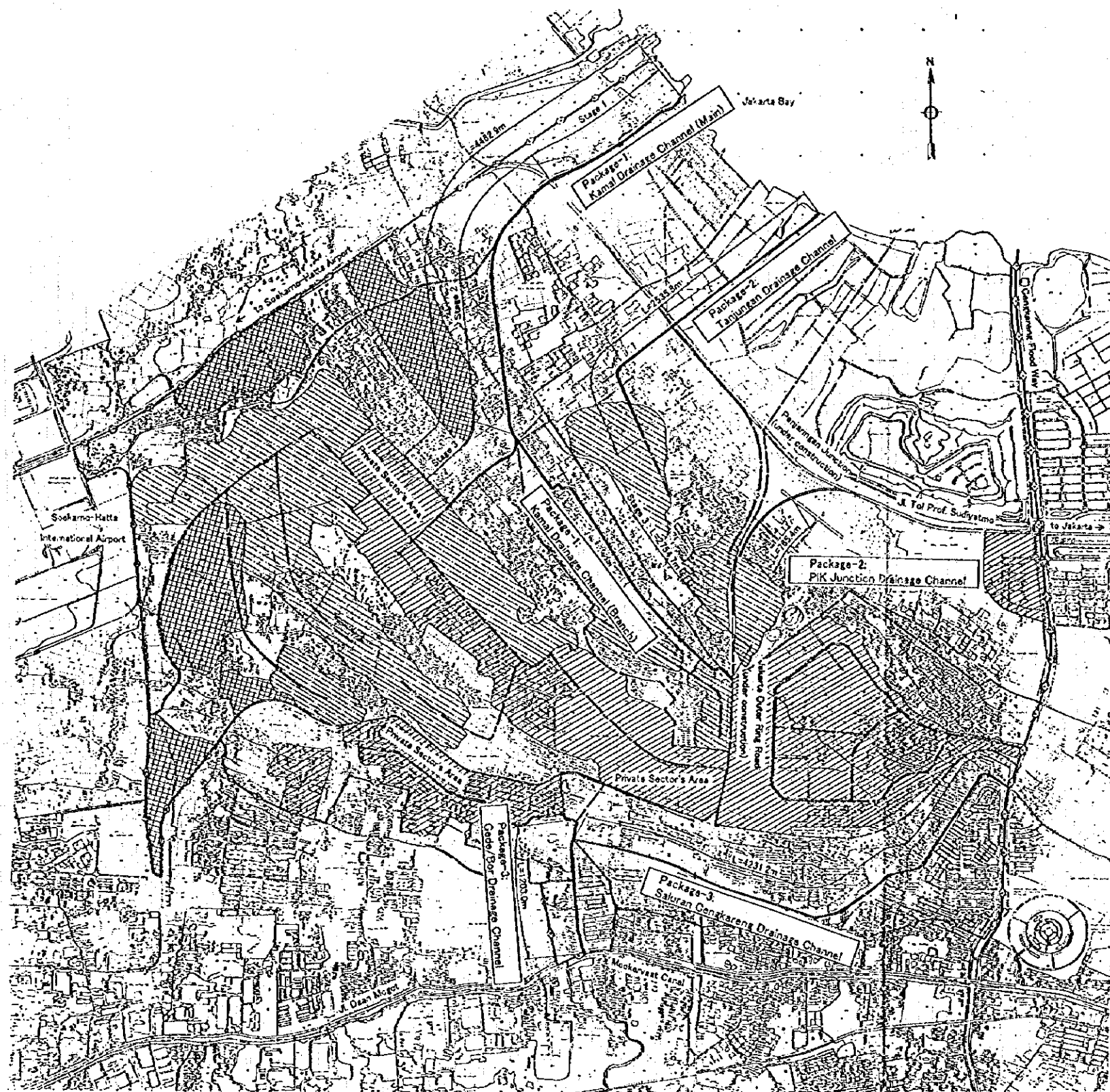


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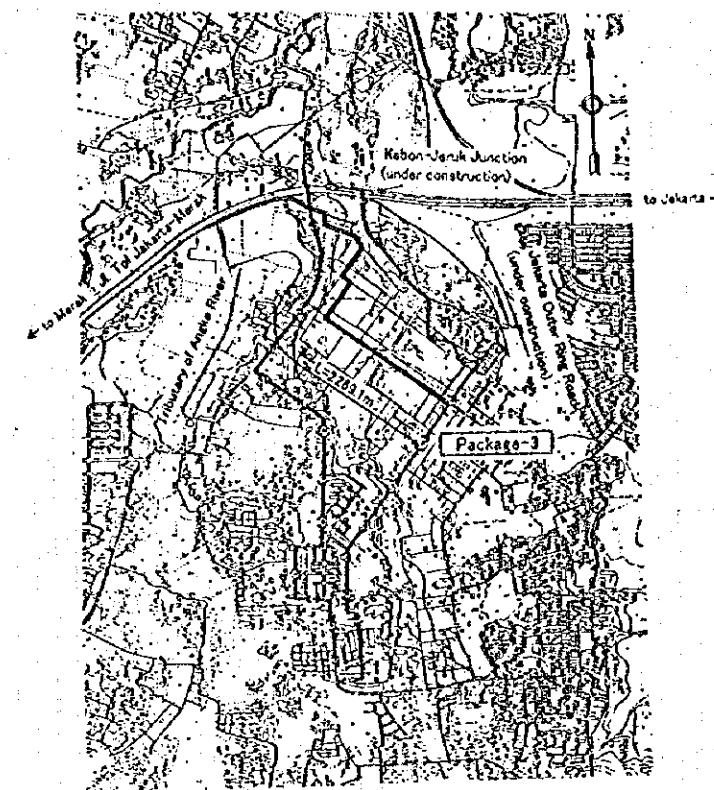
- - - - - : Project boundary
- : Drainage channel/design stretch in the project
- : Drainage channel/irrigation canal
- - - - - : Drainage channel/under construction by PERUM PERUMNAS (National Urban Development Corporation)



REFERENCE	DWG NO.	DATE	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING LOCATION MAP	APPROVED
			CHECKED.....		DWG NO.	DATE
			SUBMITTED.....		J-00-00-001	



CENKARENG WEST AREA



MERUYA AREA

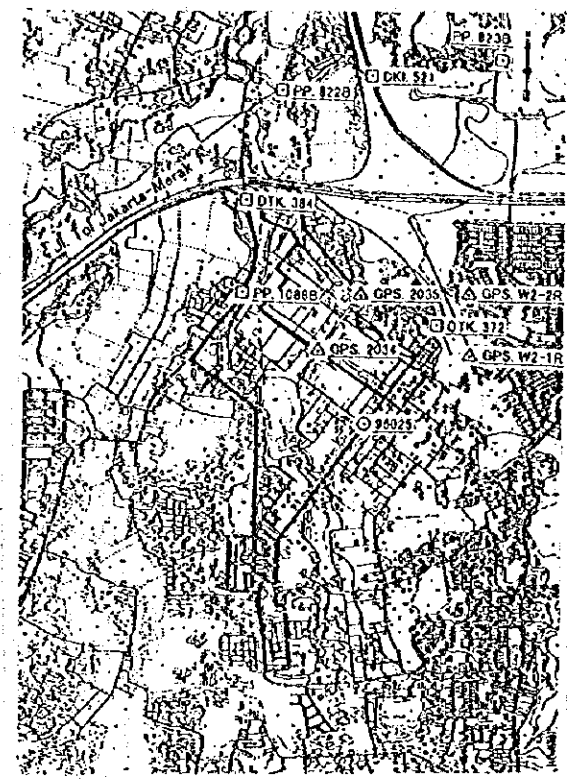
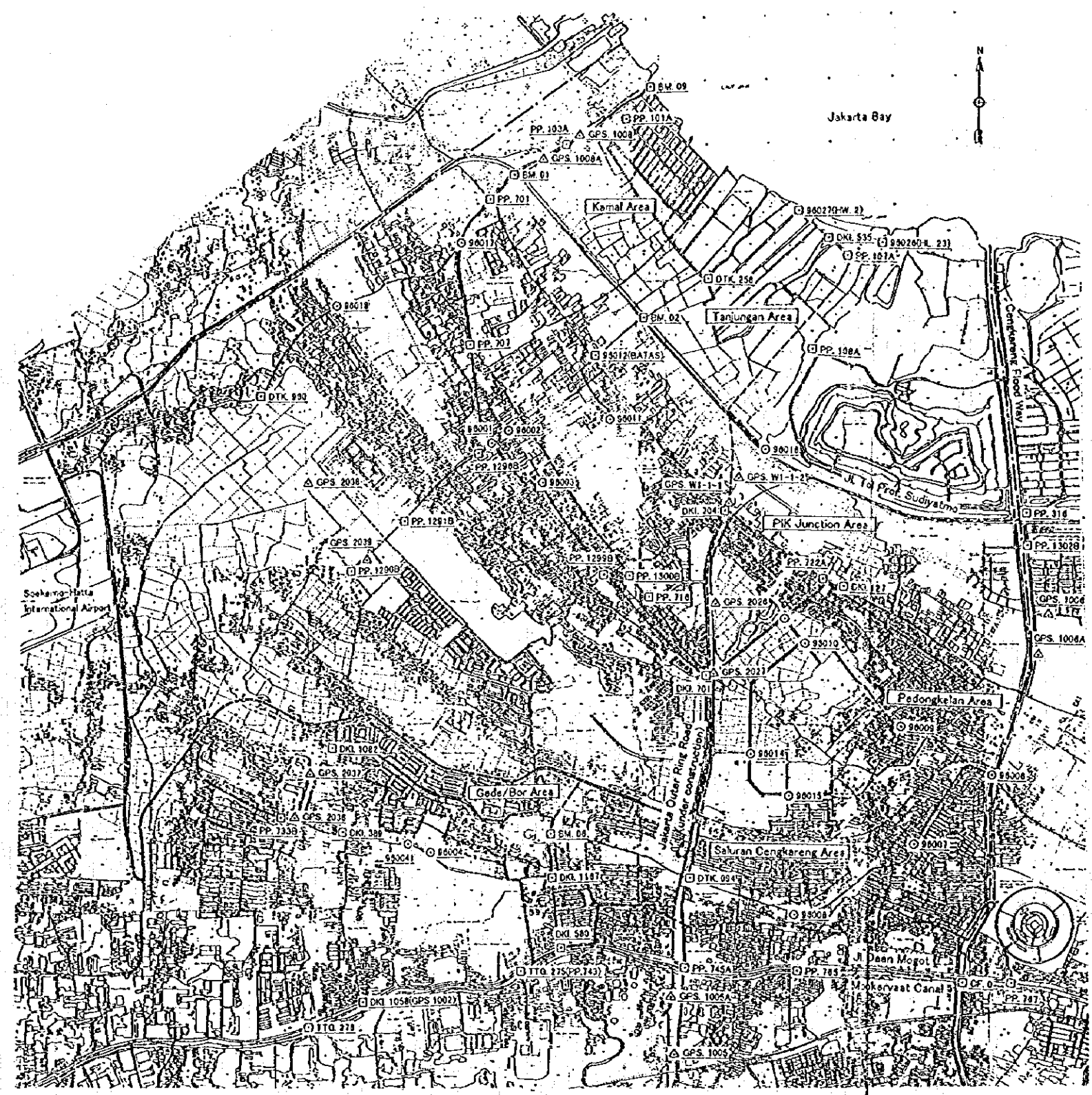
SUMMARY OF DRAINAGE CHANNEL IMPROVEMENT

	Name of Drainage Channel	Drainage Channel (m)	Shulceway (sites)	Bridge/Culvert (sites)
Package-1	Kamal (Main)	4482.9	15	9
	Kamal (Branch)	2754.7	8	18
Package-2	Tanjung	2535.8	7	5
	PIK Junction	765.4	1	4
Package-3	Gede/Box	1203.0	5	12
	Sahran Cengkareng	4231.2	15	10
	Meruya	2269.1	0	18

LEGEND	
	: Project boundary
	: Boundary of drainage area
	: Drainage channel/design stretch in the project
	: Drainage channel/already constructed
	: Drainage channel/to be constructed by private sector
	: Area already acquired by private sector
	: Swampy/depression areas already acquired by private sector
	: Paddy field



PREPARED.....	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
CHECKED.....	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	OVERALL PLAN	
SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO.	DATE
DATE.....	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	J-00-00-002	
REFERENCE	IN THE CITY OF JAKARTA		



MERUYA AREA

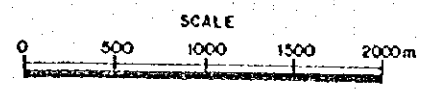
LIST OF BENCH MARKS

Bench Mark No	Elevation (TTG.m)	Remarks	GPS Point No	Coordinates		Height (m)	Remarks	Bench Mark No	Elevation (TTG.m)	Remarks	GPS Point No	Coordinates		Height (m)	Remarks	
				North (m)	East (m)							North (m)	East (m)			
PP. 101A	1.348	Rev	GPS 1008	8328.087.42	840.431.20	0.26	Ref	Saluran Cengkareng Area	DTK 694	2.350	Rev					
PP. 101A	0.837	Rev	GPS 2038	8328.301.80	838.023.13	2.25			84307	2.452	Est					
PP. 1299B	3.014	Rev	GPS 2038	8328.785.50	840.578.89	2.26			84307	1.547	Est					
PP. 107	2.254	Rev	GPS 1008A	8328.562.77	840.179.97	0.10			84308	0.861	Est					
PP. 1290B	3.140	Rev						Pedongkelan Area	84309	1.343	Est	GPS 2027	8321.833.04	841.433.24	1.18	
PP. 1291B	3.149	Rev							84310	1.848	Est					
PP. 1295B	3.282	Rev							84314	2.074	Est					
PP. 1300B	3.022	Rev							84315	1.850	Est					
PP. 718	3.152	Rev						PIK Junction Area	PP. 122A	2.847	Rev	GPS 2028	8322.281.24	841.443.37	1.33	
DKL 301	3.118	Rev							DKL 127	3.029	Rev	GPS W1-1-2	8329.247.85	841.678.05	-0.31	Ad.
EM 01	1.702	Rev							84318	1.833	Est					
EM 08	0.841	Rev														
85001	1.874	Est						Meruya Area	PP. 1058B	11.868	Rev	GPS 2034	8314.878.85	841.355.41	0.26	
85002	1.878	Est							DTK 384	10.264	Rev	GPS 2038	8314.878.80	841.344.48	10.87	
85003	2.178	Est							84319	11.180	Est					
85013	0.853	Est						Other	TTG 178	8.184	Rev	GPS 1002	8318.222.72	848.829.84	3.54	
85018	3.220	Est							TTG 215 (PP 743)	3.503	Rev	GPS 1008	8318.745.17	841.122.74	1.00	
Tanjungan Area			GPS W1-1-1	8327.208.91	841.592.25	-0.52	Rev		PP. 1058A	1.926	Rev	GPS 1008	8318.254.90	841.141.35	0.82	
PP. 107A	0.732	Rev							PP. 1201B	3.243	Rev	GPS 1005A	8318.225.24	841.958.07	0.82	
DKL 525	1.034	Rev							PP. 316	0.012	Rev	GPS 1004A	8321.038.82	844.058.50	0.78	
DKL 704	2.472	Rev							PP. 745A	4.153	Rev	GPS W2-1R	8314.878.14	841.783.87	0.78	
DKL 704	0.402	Rev							PP. 745	2.484	Rev	GPS W2-2R	8314.878.80	841.889.70	7.40	
EM 02	0.574	Rev							PP. 767	3.067	Rev					
85018	0.913	Est							PP. 825B	6.454	Rev					
85018 (BATA3)	0.618	Rev							PP. 121B	8.774	Rev					
85022 (DKL 2)	1.418	Rev							DKL 102B	4.803	Rev	(OSP 1002)				
Gede/Bor Area			GPS 2038	8320.701.80	847.841.89	3.73			DKL 289	8.788	Rev					
PP. 733B	2.250	Rev							DKL 321	5.910	Rev					
DKL 109B	4.219	Rev	GPS 2037	8321.080.50	844.117.23	4.10			DTK 372	8.489	Rev					
DKL 118B	3.213	Rev							CF. 8	2.418	Est					
DKL 390	4.323	Rev							84324	2.810	Est					
EM 08	3.254	Rev							84324	4.194	Est					
									84028 (DKL 23)	1.906	Rev					

Note: * Height of GPS points is indirect level calculated using the earth ellipsoid (WGS-84)

Rev: Recovered point
 Ref: Reference point
 Est: Established point
 Ad: Additional point

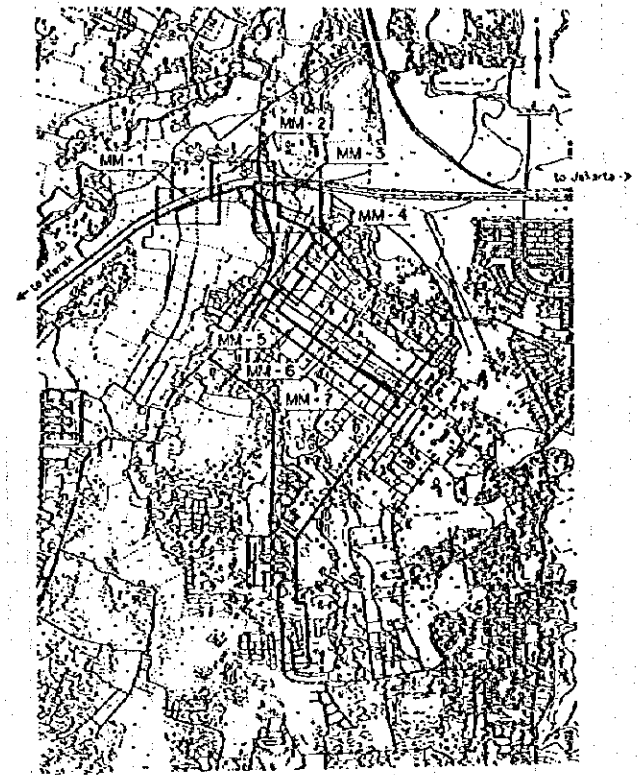
LEGEND
 ○ Recovered Bench Marks
 △ Established Bench Marks
 ⊙ GPS Points



PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING LOCATION MAP OF BENCH MARKS	APPROVED
CHECKED.....	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	OWG NO. J-00-00-003	DATE
SUBMITTED.....			
REFERENCE	D.S. NO.		
	DATE		

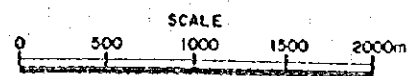


GENGKARENG WEST AREA

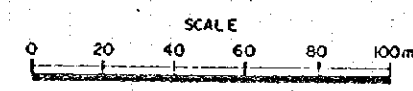
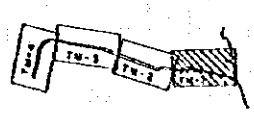
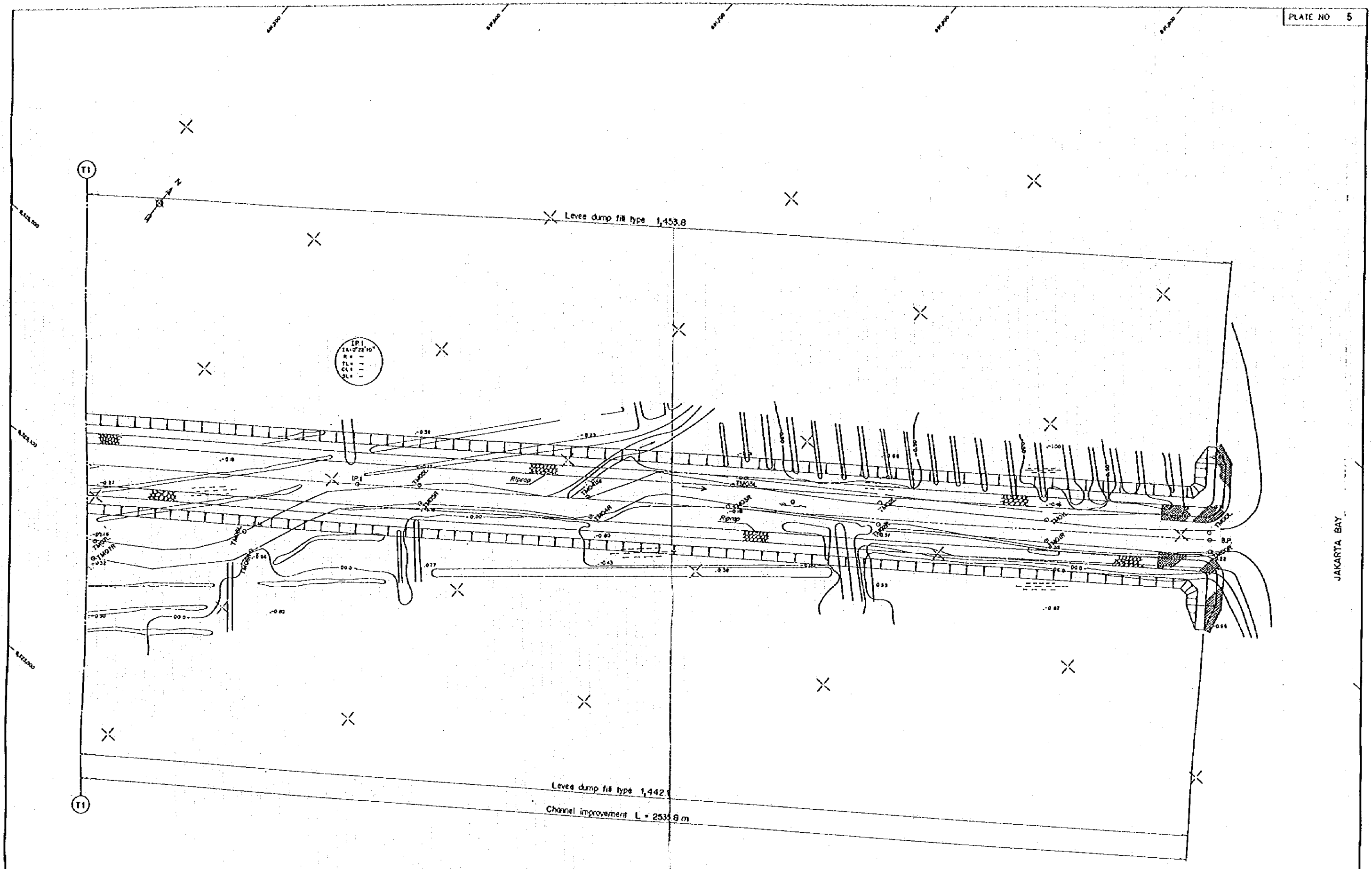


MERUYA AREA

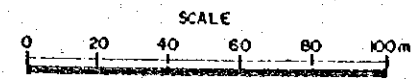
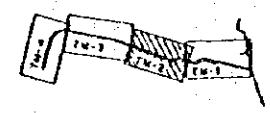
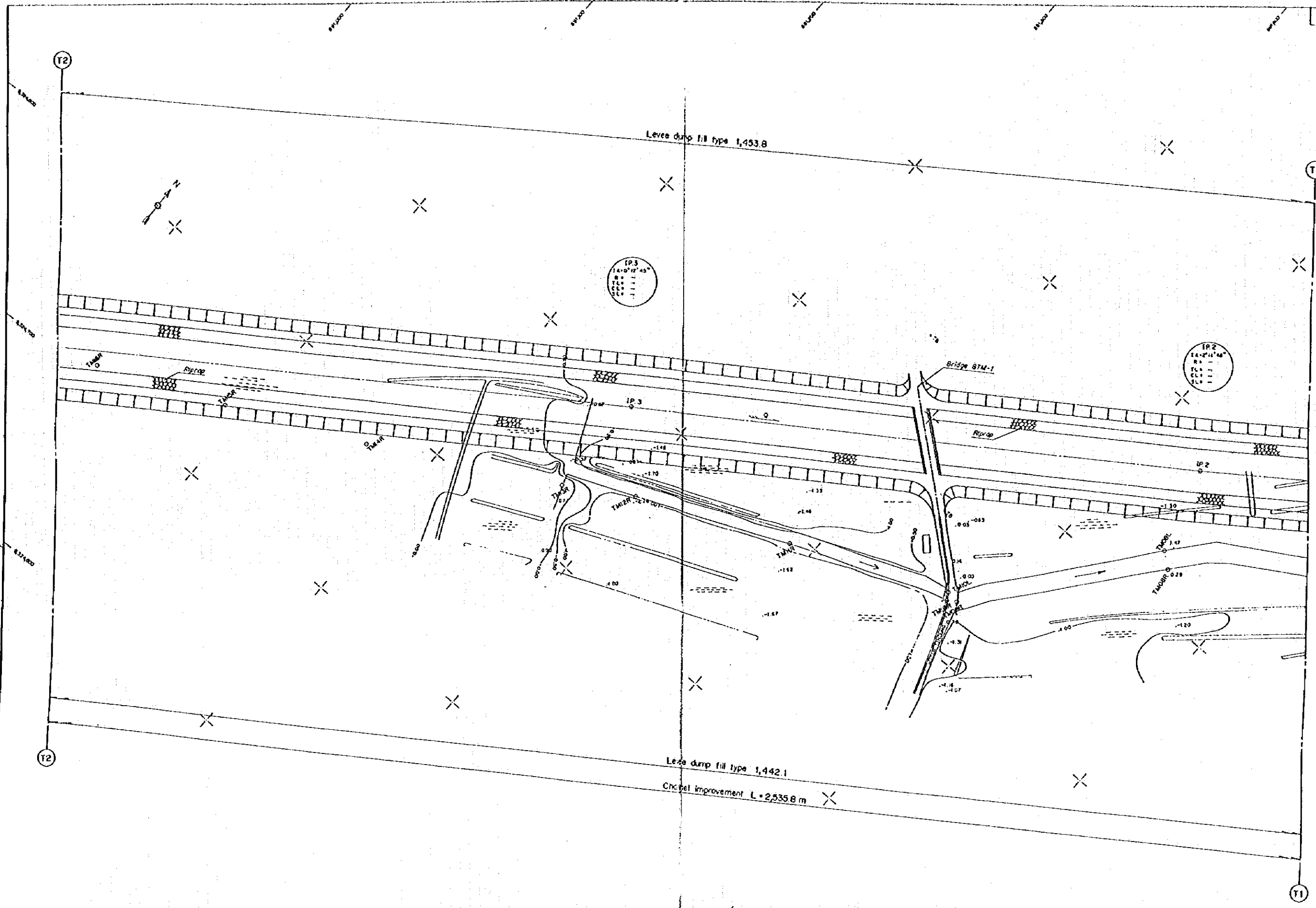
LEGEND	
—*—*	: Project boundary
— — — —	: Boundary of drainage area
— — — —	: Drainage channel
KM	: Kamal drainage channel (main)
KE	: Kamal drainage channel (branch)
TM	: Tanjung drainage channel
NM	: PIK Junction drainage channel
GM	: Gede/Bor drainage channel
CM	: Saluran Cengkareng drainage channel
MM	: Meruya area



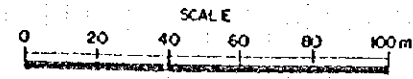
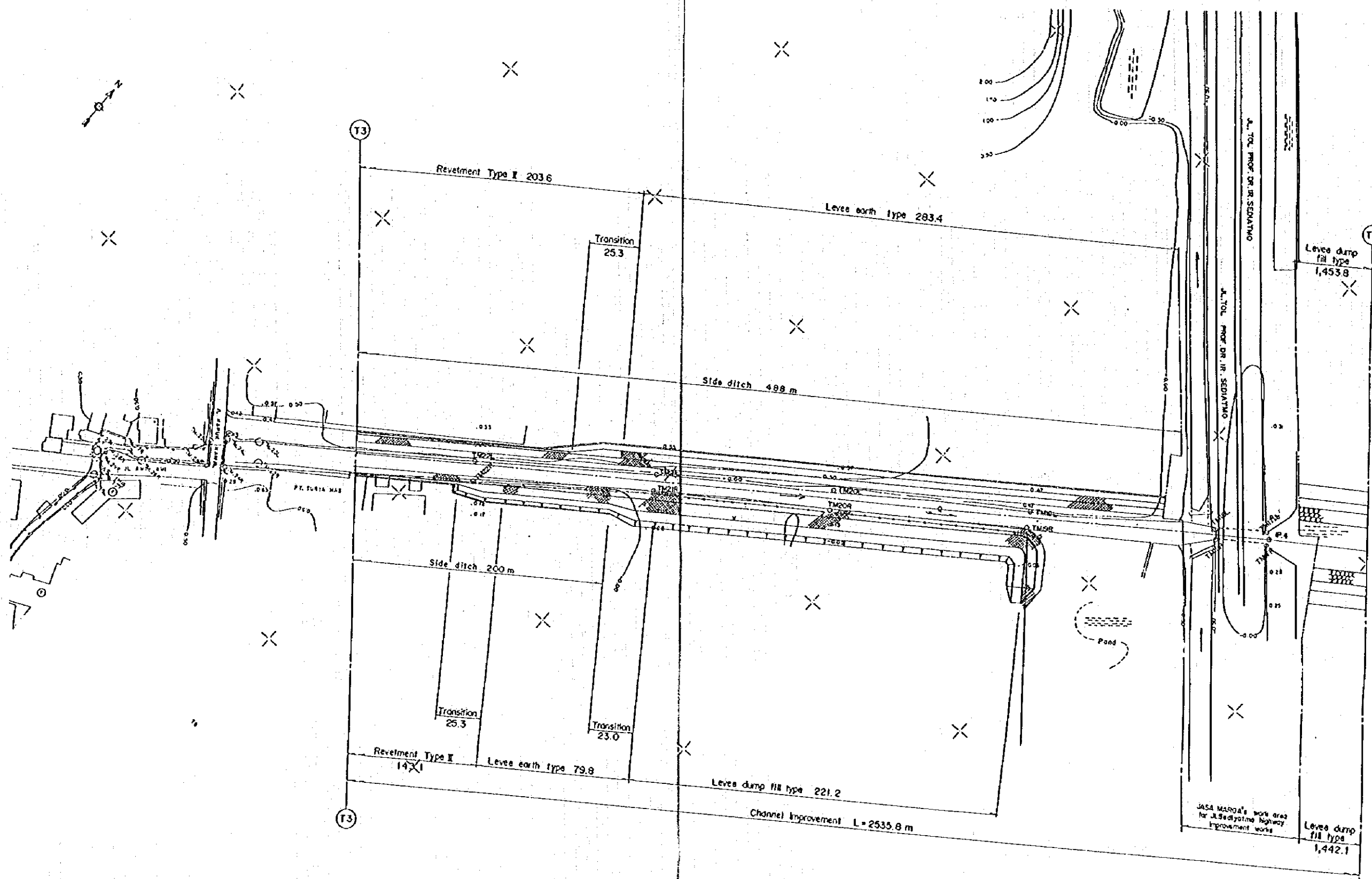
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			CHECKED.....		DWG NO.	DATE
			SUBMITTED.....		J-10-10-001	



REFERENCE	DWG NO.	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING	APPROVED
		CHECKED.....		DRAINAGE CHANNEL, PLAN, TANJUNGAN DRAINAGE CHANNEL (1/4)	
		SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	DWG NO.	DATE
		DATE.....		J-10-10-301	



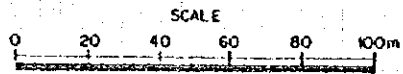
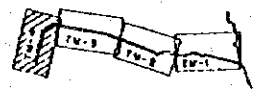
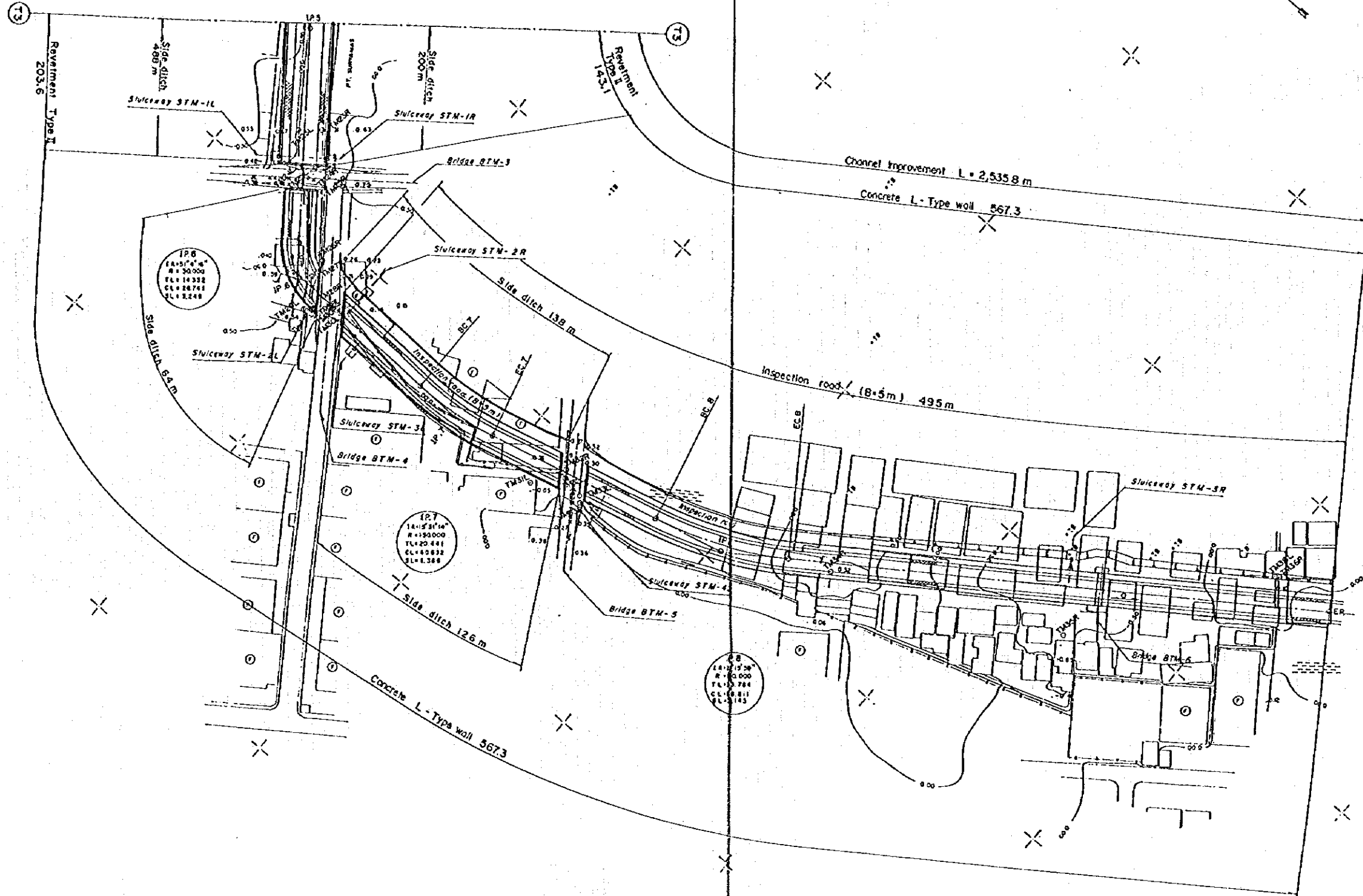
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			CHECKED	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	OWG NO. J - 10 - 10 - 302	DATE
			SUBMITTED			



REFERENCE	DWS NO.	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING	APPROVED
		CHECKED.....		DRAINAGE CHANNEL, PLAN, TANJUNGAN DRAINAGE CHANNEL (3/4)	
DATE	DATE	SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	DWG NO.	DATE
		DATE		J-10-10-303	

1:250
 1:500
 1:1000
 1:2000

JASA MARGA's work area
 for J.Sedayotno highway
 improvement works



REFERENCE	NO. NO.	PREPARED	DATE
		CHECKED	
		SUBMITTED	

MINISTRY OF PUBLIC WORKS
 DIRECTORATE GENERAL OF HUMAN SETTLEMENTS

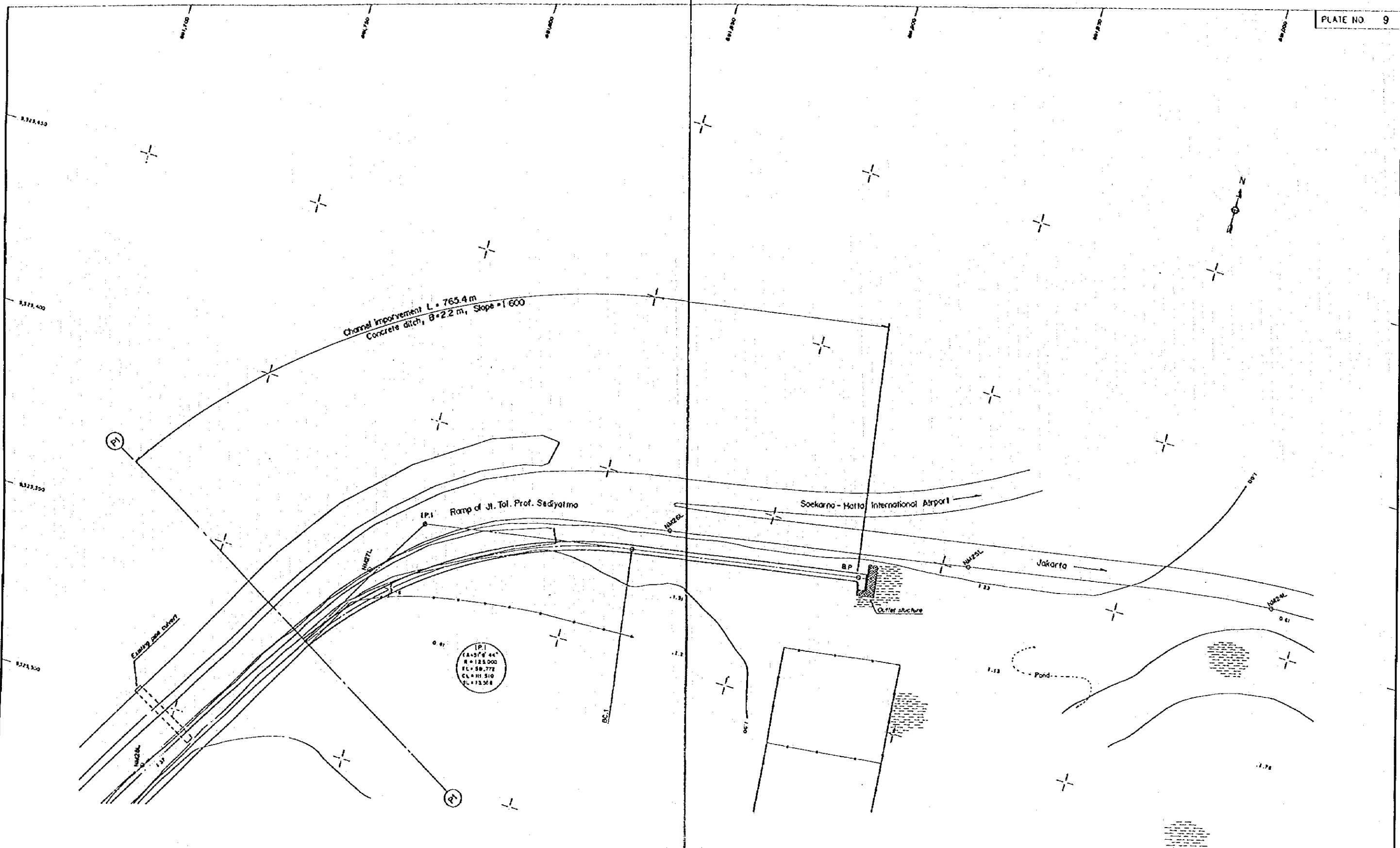
JAPAN INTERNATIONAL COOPERATION AGENCY
 THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT
 IN
 THE CITY OF JAKARTA

TITLE OF DRAWING
 DRAINAGE CHANNEL, PLAN,
 TANJUNGAN DRAINAGE CHANNEL (4/4)

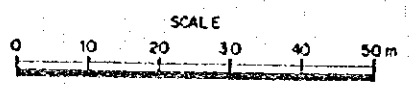
DWG NO. J-10-10-304

APPROVED

DATE



IP. N	Coordinate	
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BP	9,323,393.8	69,928.3
IP.1	9,323,370.8	69,804.6



REFERENCE	ENG NO.	DATE	PREPARED	CHECKED	SUBMITTED

MINISTRY OF PUBLIC WORKS
 DIRECTORATE GENERAL OF HUMAN SETTLEMENTS

JAPAN INTERNATIONAL COOPERATION AGENCY
 THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT
 IN
 THE CITY OF JAKARTA

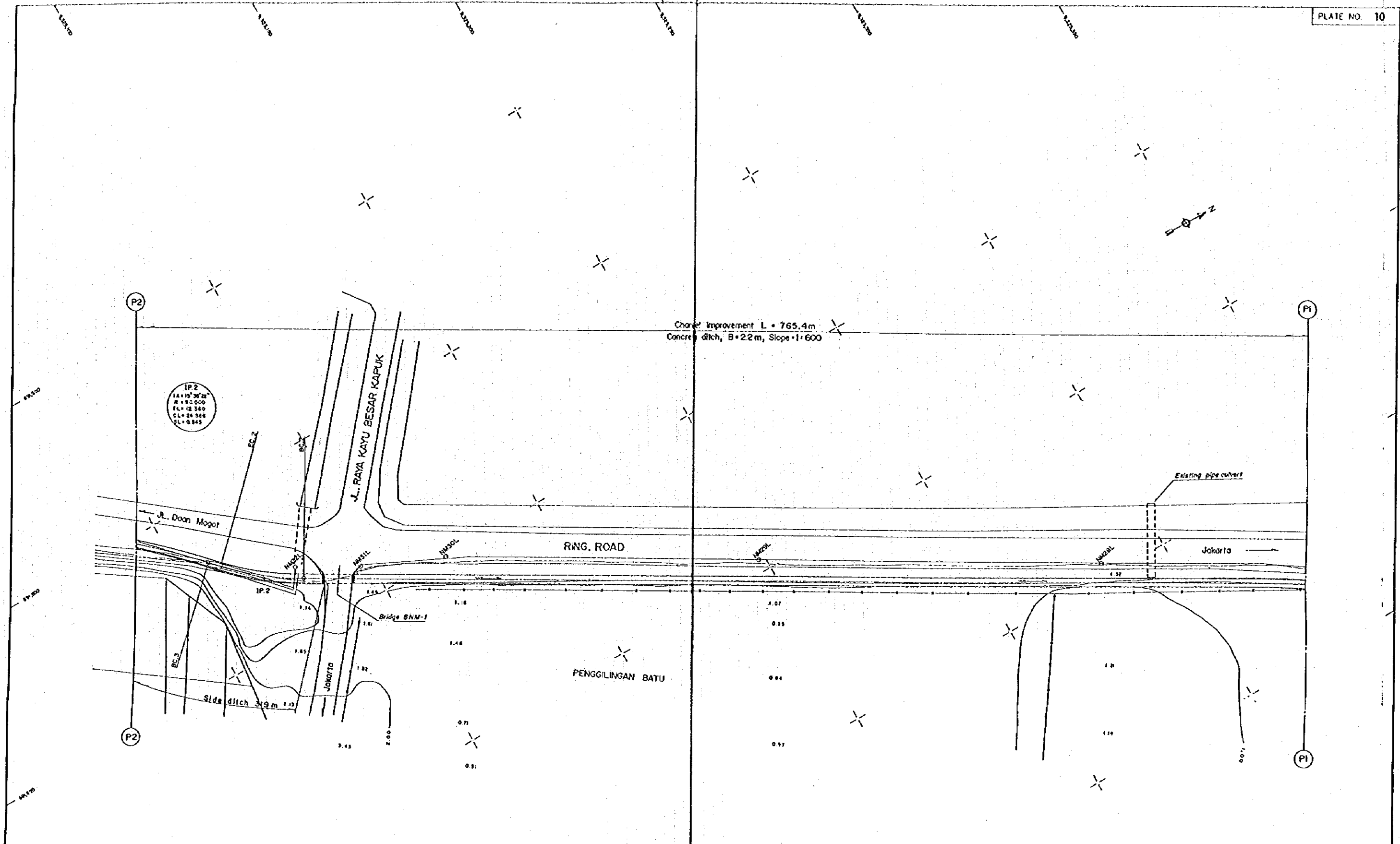
TITLE OF DRAWING
 DRAINAGE CHANNEL, PLAN,
 PIK JUNCTION DRAINAGE CHANNEL (1/3)

DWG NO.
 J-10-10-401

APPROVED

DATE

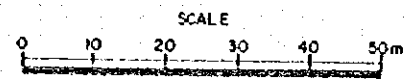




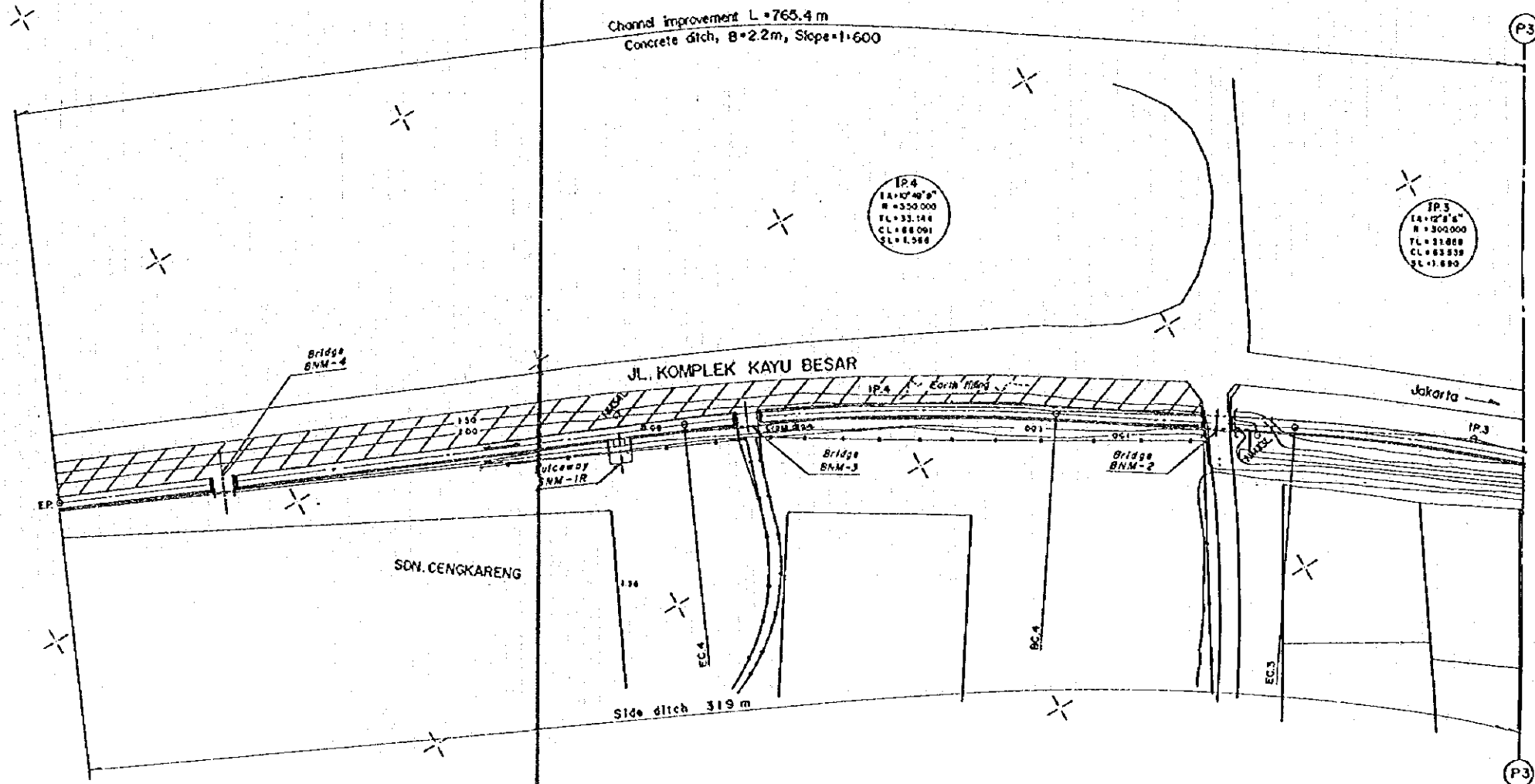
Channel Improvement L = 765.4m
 Concrete ditch, B = 2.2 m, Slope = 1:600

IP.2
 1A+13'26.22
 R=82.000
 FL=12.340
 CL=24.946
 SL=0.845

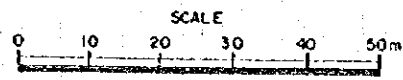
IP.	Coordinate	
	N	E
IP.2	9,323,070.4	691,629.7



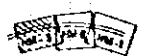
REFERENCE	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING	APPROVED
	CHECKED.....		DRAINAGE CHANNEL, PLAN, PIK JUNCTION DRAINAGE CHANNEL (2/3)	
	SUBMITTED.....		DWG NO.	
	DATE.....		J-10-10-402	
		JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA		DATE

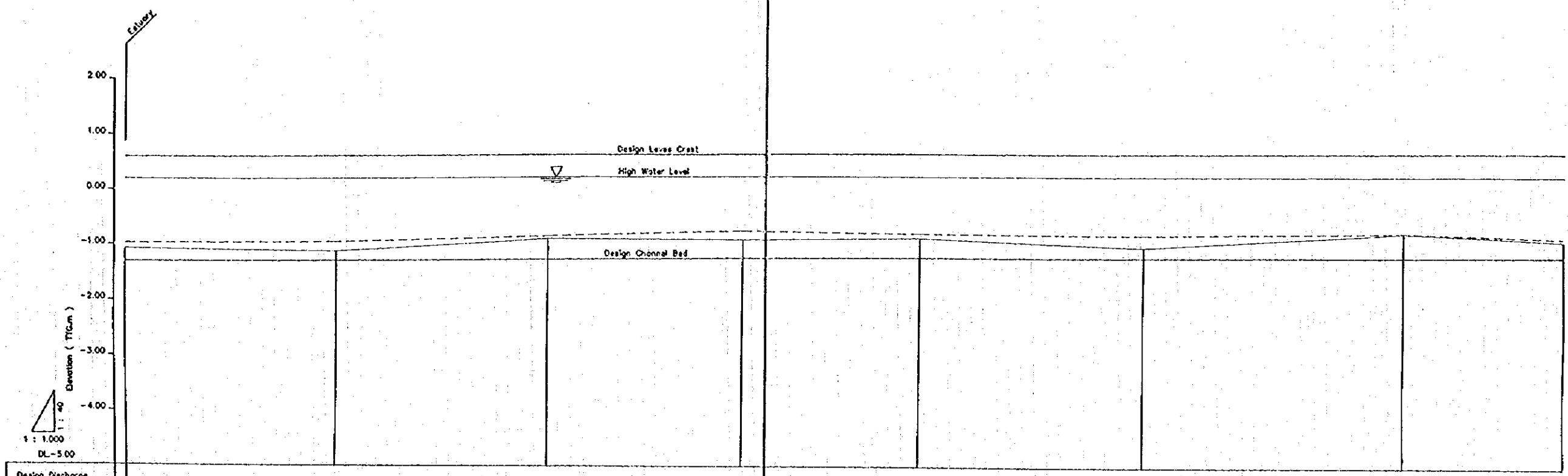


IP. No.	Coordinates	
	N	E
IP.3	9,323,036.8	69,595.1
IP.4	9,322,947.9	69,355.8
E.P.	9,322,813.4	69,478.8



REFERENCE	DWG NO.	DATE	PREPARED..... CHECKED..... SUBMITTED..... DATE.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, PLAN, PIK JUNCTION DRAINAGE CHANNEL (3/3) DWG NO. J-10-10-403	APPROVED DATE
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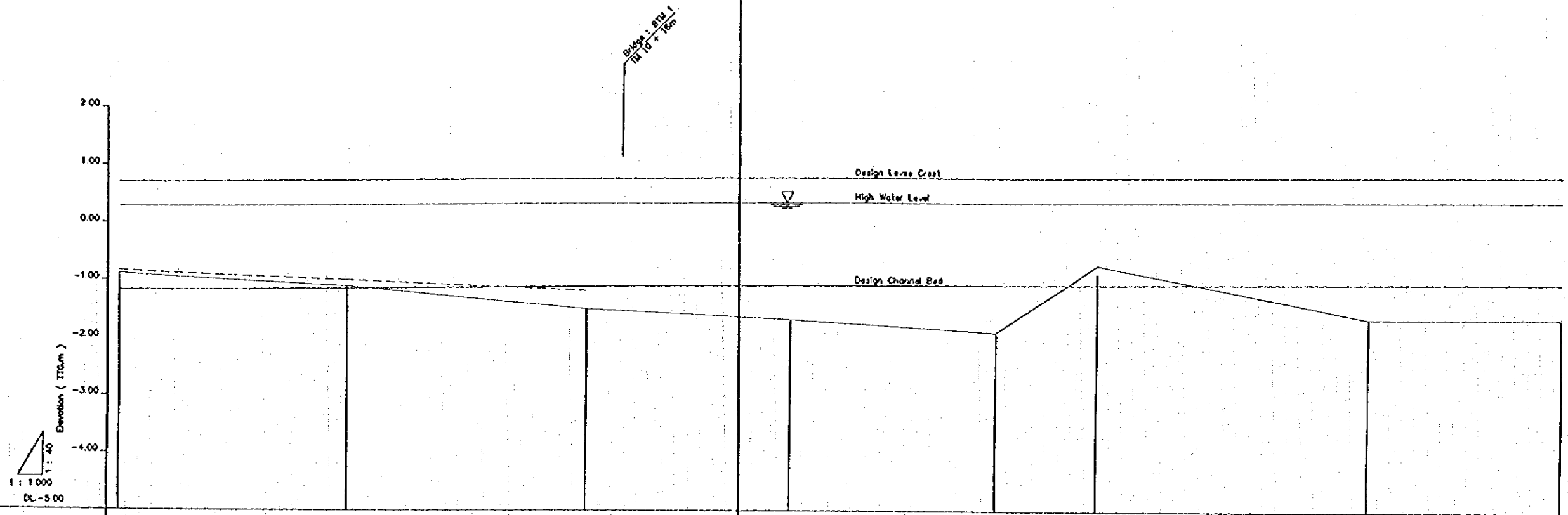




Design Discharge (m ³ /s)	19.0											
Design Level Crest Slope	1:5.505											
Design Channel Bed Slope	1:5.000											
Design Elevation (m)	Level Crest	0.600	0.615	0.630	0.643	0.656	0.671	0.689	0.701			
	High Water Level	0.200	0.211	0.223	0.234	0.244	0.257	0.272	0.282			
	Channel Bed	-1.300	-1.281	-1.262	-1.244	-1.227	-1.207	-1.184	-1.169	-1.150		
Present Elevation (m)	Left Bank											
	Right Bank											
	Mean Channel Bed	-0.97	-0.94	-0.84	-0.75	-0.79	-0.80	-0.74	-0.83			
	Lowest Bottom	-1.07	-1.03	-0.89	-0.91	-0.87	-0.80	-0.75	-0.86			
Cumulative Distance (m)	0.0	95.3	192.3	281.2	363.7	464.7	581.7	654.3				
Distance (m)		95.3	97.0	88.9	82.5	101.0	117.0	72.6				
Cross Section No.	TM00 (BR)	TM01	TM02	TM03	TM04	TM05	TM06	TM07				

- NOTES:
- (1) Datum Level : Mean Sea Level (TTC)
 - (2) Left Bank Profile : -----
 - (3) Right Bank Profile : -----
 - (4) Mean Channel Bed : -----
 - (5) Lowest Bottom : -----

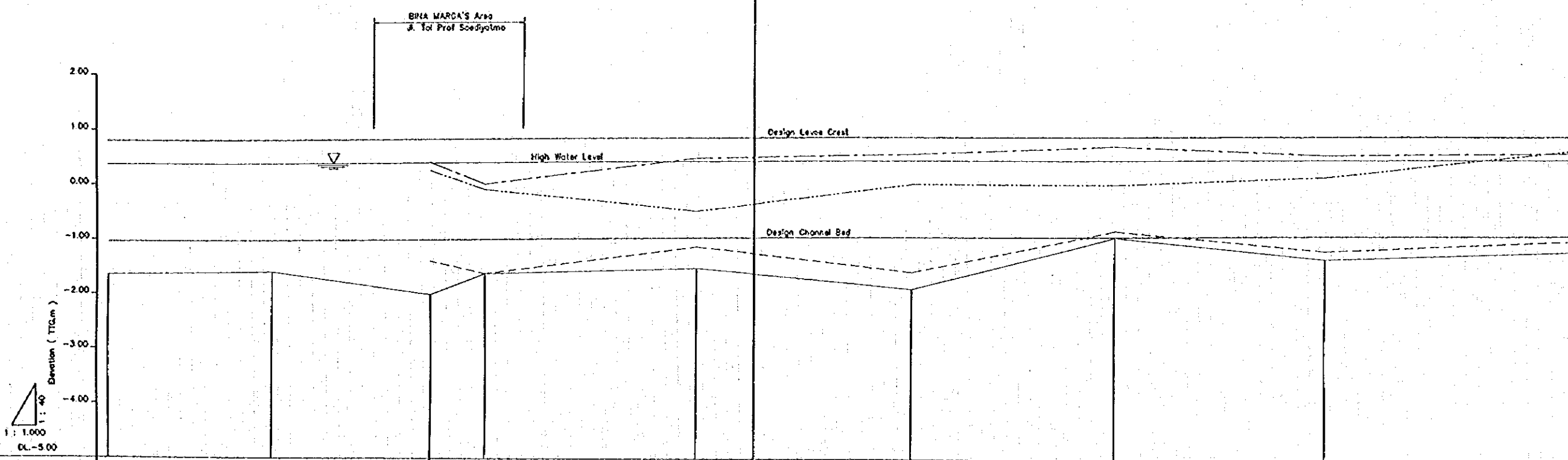
PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
CHECKED		DRAINAGE CHANNEL, PROFILE, TANJUNGAN DRAINAGE CHANNEL (1/4)	
SUBMITTED		DWG NO.	DATE
DATE		J-10-20-301	
REFERENCE		C/DG NO.	



Design Discharge (m ³ /s)	19.0																						
Design Levee Crest Slope	1:6,503																						
Design Channel Bed Slope	1:3,000																						
Design Elevation (m)	Levee Crest	0.701			0.716			0.732			0.746			0.760			0.766			0.784			0.797
	High Water Level	0.282			0.285			0.309			0.322			0.334			0.340			0.357			0.369
	Channel Bed	-1.169			-1.148			-1.128			-1.110			-1.092			-1.083			-1.060			-1.044
Present Elevation (m)	Left Bank																						
	Right Bank																						
	Mean Channel Bed	-0.83			-1.00			-1.20			-1.70			-1.91			-0.74			-1.66			-1.68
Lowest Bottom	-0.86			-1.11			-1.52			-1.70			-1.91			-0.74			-1.66			-1.68	
Cumulative Distance (m)	654.3			754.1			856.2			949.5			1039.6			1082.6			1196.3			1281.2	
Distance (m)		99.8			104.1			91.3			90.1		43.0		115.7				82.9				
Cross Section No.	TM07			TM08			TM10			TM11			TM12			TM13			TM14			TM15	

- NOTES:
- (1) Datum Level : Mean Sea Level (TTG)
 - (2) Left Bank Profile : - - - - -
 - (3) Right Bank Profile : - - - - -
 - (4) Mean Channel Bed : - - - - -
 - (5) Lowest Bottom : - - - - -

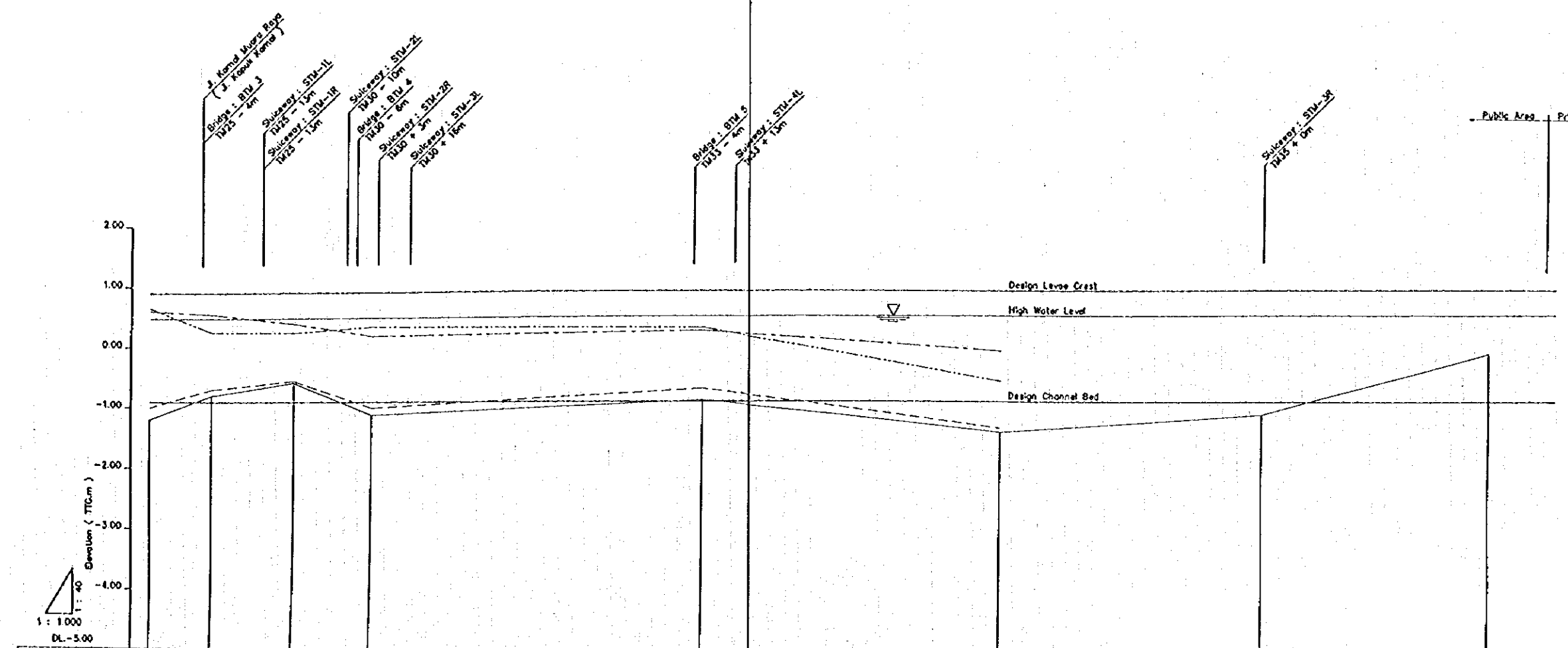
PREPARED		MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, PROFILE, TAHJUNGAN DRAINAGE CHANNEL (2/4)	APPROVED
CHECKED			DWG NO. J-10-20-302	DATE
SUBMITTED				
DATE				
REFERENCE	DWG NO.			



Design Discharge (m ³ /s)	19.0					16.1				
Design Levee Crest Slope						1:1/8,565				
Design Channel Bed Slope						1:1/3,000				
Design Elevation (m)	Levee Crest	0.797	0.809	0.820	0.824	0.839	0.854	0.860	0.863	0.890
	High Water Level	0.369	0.380	0.391	0.394	0.409	0.426	0.442	0.457	0.475
	Channel Bed	-1.044	-1.029	-1.014	-1.009	-0.989	-0.969	-0.951	-0.932	-0.910
Present Elevation (m)	Left Bank	0.40	0.25	0.00	0.00	0.47	0.55	0.70	0.55	0.60
	Right Bank									
	Mean Channel Bed	-1.40	-1.40	-1.63	-1.63	-1.15	-1.60	-0.84	-1.20	-1.00
Lowest Bottom	-1.65	-1.60	-2.01	-1.63	-1.54	-1.91	-0.96	-1.35	-1.20	-1.20
Cumulative Distance (m)	1281.2	1357.3	1430.0	1455.3	1552.7	1652.8	1746.1	1840.4	1952.3	
Distance (m)	76.1	72.7	25.3	97.4	100.1	93.3	94.3	111.9		
Cross Section No.	TM15	TM16	TM17	TM18	TM19	TM20	TM21	TM22	TM23	

- NOTES:
- (1) Datum Level : Mean Sea Level (TIG)
 - (2) Left Bank Profile :
 - (3) Right Bank Profile :
 - (4) Mean Channel Bed :
 - (5) Lowest Bottom :

PREPARED		MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL PROFILE, TANJUNGAN DRAINAGE CHANNEL (3/4)	APPROVED
CHECKED			DWG NO. J-10-20-303	DATE
SUBMITTED				
DATE				
REFERENCE	DWG NO.			

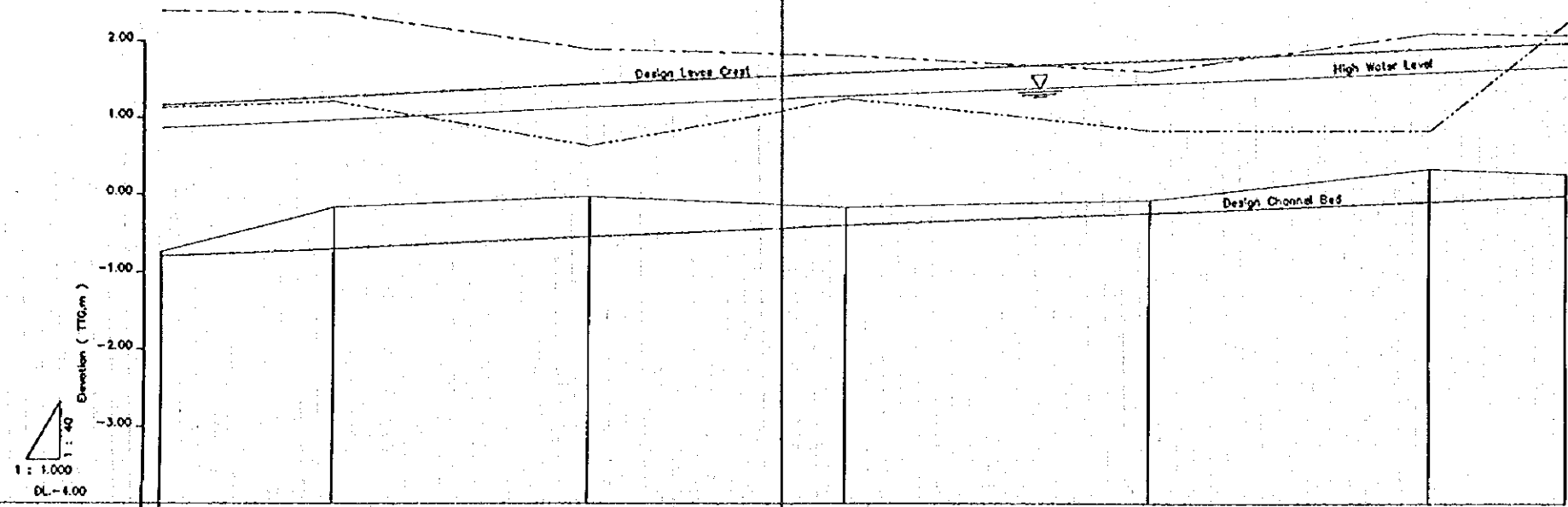


Design Discharge (m ³ /s)	18.1		13.4									
Design Levee Crest Slope	0.900		1/3.727									
Design Channel Bed Slope			1/5.000									
Design Elevation (m)	Levee Crest	0.900	0.907	0.916	0.925	0.962	0.995	1.024	1.057	1.087	1.087	1.087
	High Water Level	0.476	0.479	0.490	0.499	0.540	0.577	0.608	0.641	0.641	0.641	0.641
Present Elevation (m)	Channel Bed	-0.910	-0.904	-0.896	-0.891	-0.864	-0.839	-0.817	-0.793	-0.793	-0.793	-0.793
	Left Bank	0.60	0.55	0.40	0.20	0.30	0.00	0.00	-0.793	0.633	1.049	1.087
Present Elevation (m)	Right Bank	0.65	0.25	0.25	0.35	0.35	-0.50	-0.50	0.608	1.049	1.087	1.087
	Mean Channel Bed	-1.00	-0.70	-0.55	-0.09	-0.65	-1.27	-0.817	-0.793	-0.793	-0.793	-0.793
Present Elevation (m)	Lowest Bottom	-1.20	-0.80	-0.58	-1.11	-0.64	-1.34	-1.03	-0.793	-0.793	-0.793	-0.793
	Cumulative Distance (m)	1952.3	1977.7	2011.9	2043.8	2101.2	2306.4	2415.0	2508.7	2535.6	2535.6	2535.6
Distance (m)		25.4	34.2	31.9	137.4		125.2	100.6	93.2	27.6		
Cross Section No.	TM25	TM25	TM26	TM30	TM33	TM34	TM35	TM36	DP			

- NOTES:
- (1) Datum Level : Mean Sea Level (TTG)
 - (2) Left Bank Profile : -----
 - (3) Right Bank Profile : -----
 - (4) Mean Channel Bed : -----
 - (5) Lowest Bottom : -----

PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, PROFILE, TANJUNGAN DRAINAGE CHANNEL (4/4)	APPROVED
CHECKED.....		DWG NO.	DATE
SUBMITTED.....		J-10-20-304	
DATE.....			
REFERENCE		DWG NO.	

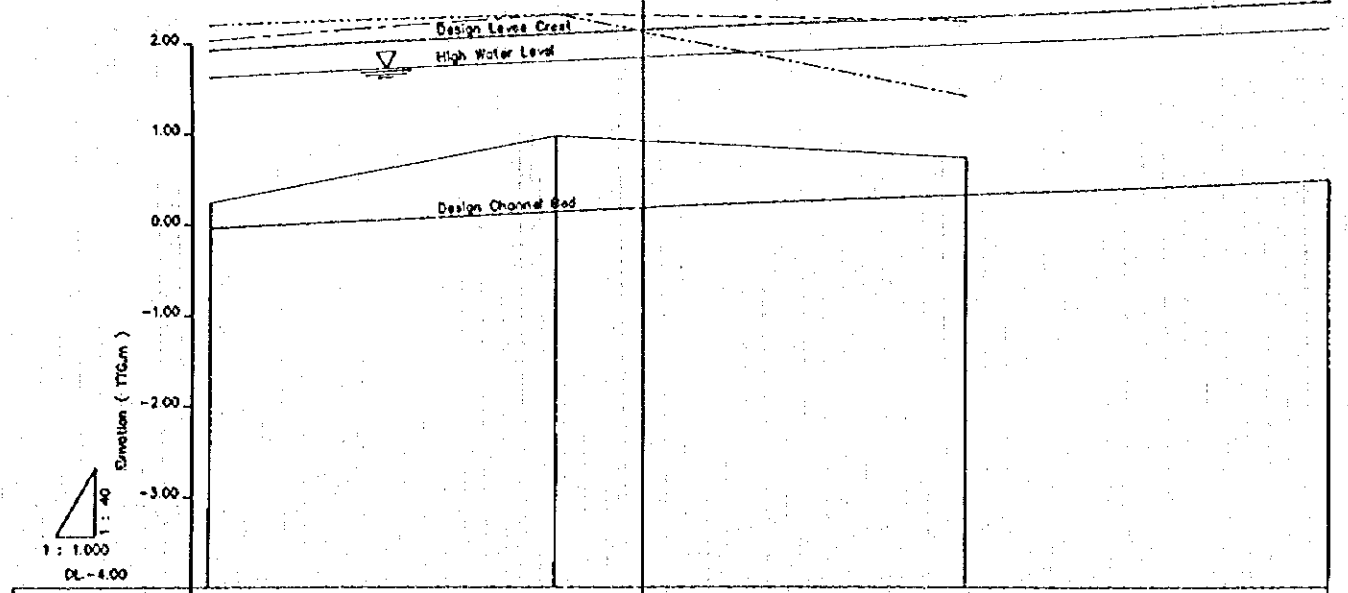
J. Kuntal Muboro Ropo
 Bridge - Blau
 NUS 27 - 12m



Design Discharge (m ³ /s)	7.1									
Design Level Crest Slope	1:165					1:1/600				
Design Channel Bed Slope	0:000					1:1/600				
Design Elevation (m)	Level Crest	1.165	1.256	1.396	1.537	1.700	1.851	1.924		
	High Water Level	0.865	0.956	1.096	1.237	1.399	1.550	1.624		
	Channel Bed	-0.800	-0.707	-0.509	-0.428	-0.266	-0.114	-0.041	-0.041	1.924
Present Elevation (m)	Left Bank	2.39	2.35	1.85	1.76	1.56	2.05	2.03		
	Right Bank	1.13	1.20	0.60	1.20	0.80	0.80	2.20		
	Lowest Bottom	-0.74	-0.17	-0.05	-0.20	-0.10	0.31	0.24		
Cumulative Distance (m)	0.0	55.6	138.6	223.2	320.7	411.6	455.4			
Distance (m)		55.6	83.0	84.4	97.5	90.9	42.8			
Cross Section No.	BP	NM26	NM27	NM28	NM29	NM30	NM32			

- NOTES:
- (1) Datum Level : Mean Sea Level (TTG)
 - (2) Left Bank Profile : _____
 - (3) Right Bank Profile : _____
 - (4) Lowest Bottom : _____

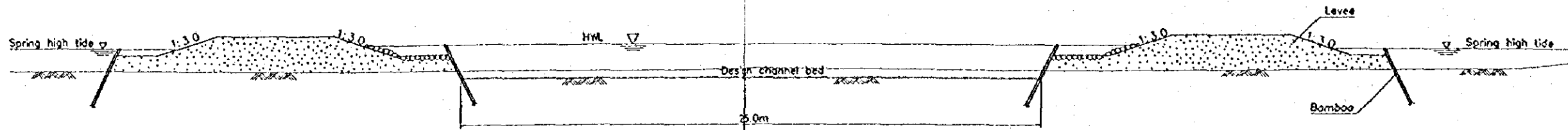
PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, PROFILE, PIK JUNCTION DRAINAGE CHANNEL (1/2)	APPROVED
CHECKED.....		DWG NO.	DATE
SUBMITTED.....		J-10-20-401	
DATE.....			
REFERENCE	DWG NO.		



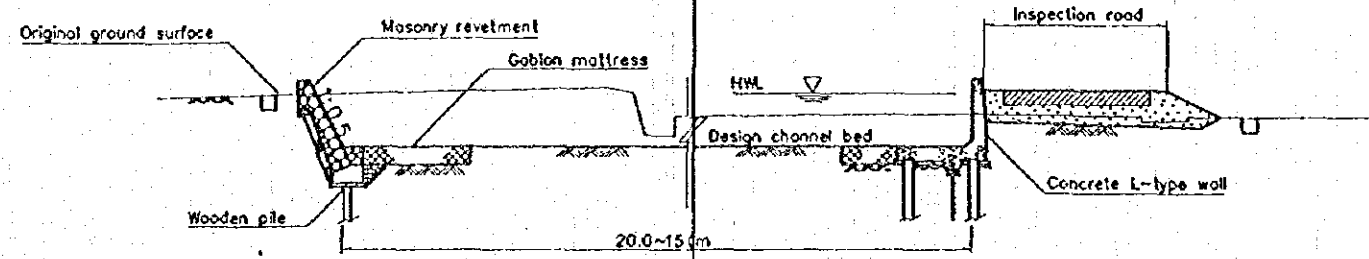
Design Discharge (m ³ /s)	7.1			
Design Level Crest Slope	1:1/600			
Design Channel Bed Slope	1:1/500			
Design Elevation (m)	Level Crest	1.924	2.003	2.274
	High Water Level	1.624	1.762	1.973
	Channel Bed	-0.041	-0.118	-0.306
Present Elevation (m)	Left Bank	2.03	2.30	2.23
	Right Bank	2.20	2.30	1.40
	Lowest Bottom	0.24	0.95	0.72
Cumulative - Distance (m)	455.4	560.7	665.1	765.4
Distance (m)	99.3		114.4	100.3
Cross Section No.	NM32	NM33	NM34	D

- NOTES:
- (1) Datum Level : Mean Sea Level (TIG)
 - (2) Left Bank Profile : _____
 - (3) Right Bank Profile : _____
 - (4) Lowest Bottom : _____

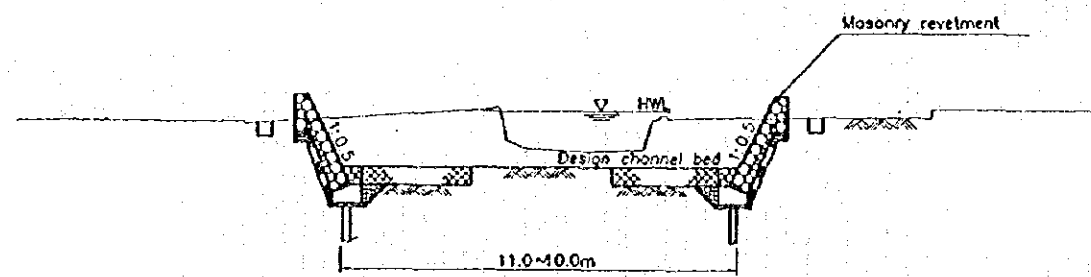
REFERENCE	DWG NO.	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING	APPROVED
		CHECKED.....		DRAINAGE CHANNEL, PROFILE, PIK JUNCTION DRAINAGE CHANNEL (2/2)	
		SUBMITTED.....		DWG NO.	
		DATE.....		J-10-20-402	
		JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT BY THE CITY OF JAKARTA		DATE	



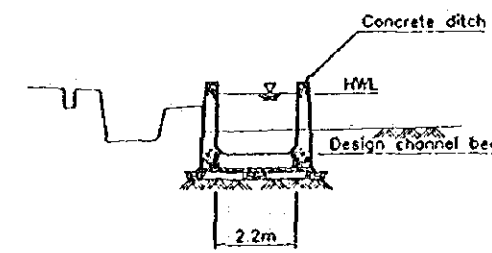
(a) Downstream of Jl. Tol Prof Sedyatmo



(b) Downstream of Jl. Tol Prof. Sedyatmo
(3) Tanjung Draigé Channel



(4) Gede/Bar Drainage Channel

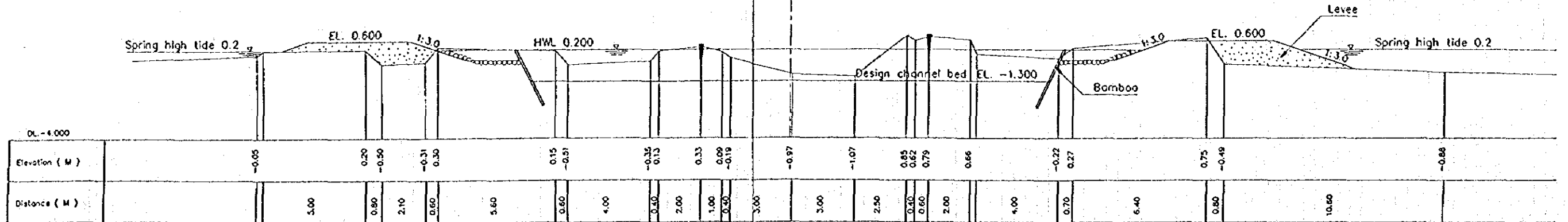


(5) PIK Junction Drainage Channel

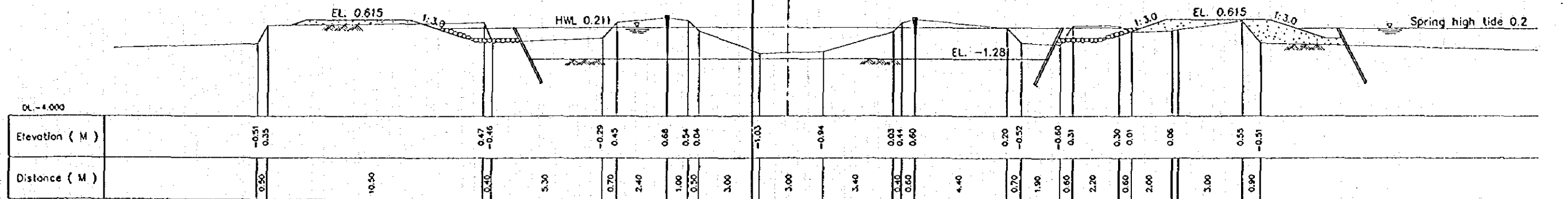


PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, TYPICAL CROSS SECTION (2/3)	APPROVED
CHECKED.....		DWG NO.	DATE
SUBMITTED.....		J-10-30-002	
DATE.....			
REFERENCE	ENG. NO.		

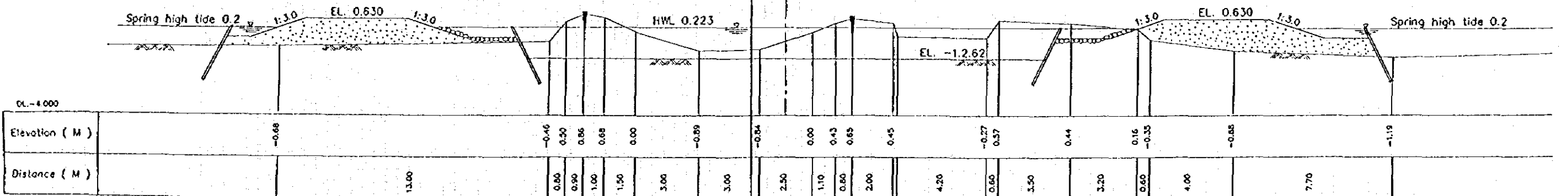
TM - 00



TM - 01

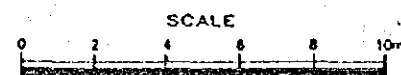


TM - 02



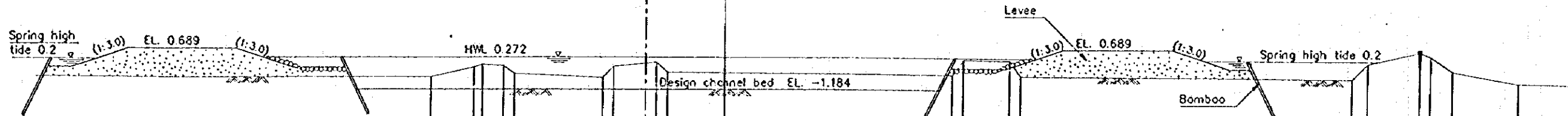
NOTE :

Datum Level : Mean Sea Level (TIG)



PREPARED	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
CHECKED	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	DRAINAGE CHANNEL, CROSS SECTION,	
SUBMITTED	JAPAN INTERNATIONAL COOPERATION AGENCY	TANJUNGAN DRAINAGE CHANNEL (1/9)	DATE
DATE	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	DWG NO.	
REFERENCE	IN THE CITY OF JAKARTA	J-10-30-301	

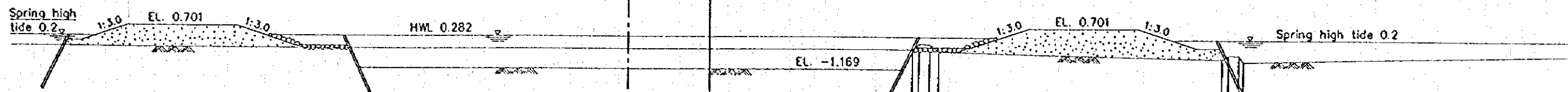
TM - 06



DL-4.000

Elevation (M)		-0.18	-0.06	-0.12	-0.47	-0.65	-0.14	0.04	-0.41		-0.50	0.20	0.16	-0.52		-0.62	0.09	0.63	0.44	-0.23	-0.74
Distance (M)		2.00	0.50	1.00	0.50	4.10	0.50	2.00	0.50		13.10	0.50	2.10	0.50		15.20	0.70	2.40	0.50	1.00	3.00

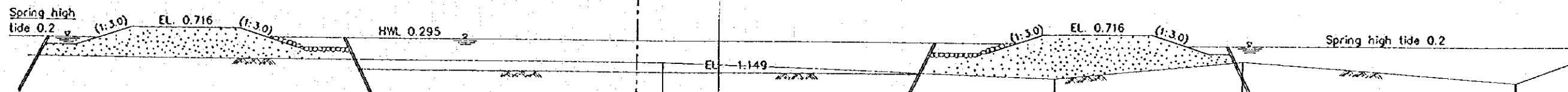
TM - 07



DL-4.000

Elevation (M)																					
Distance (M)																					

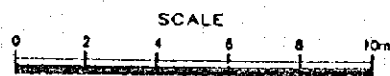
TM - 08



DL-4.000

Elevation (M)																					
Distance (M)																					

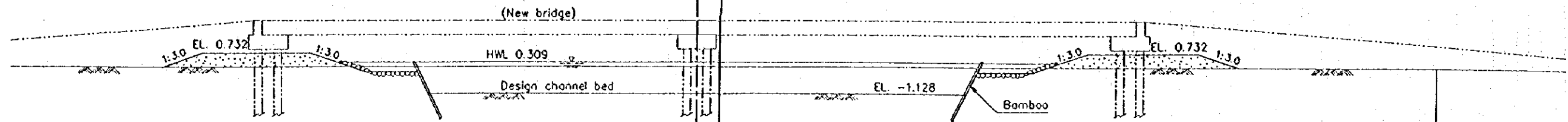
NOTE :
Datum Level : Mean Sea Level (ITG)



PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, CROSS SECTION, TANJUNGAN DRAINAGE CHANNEL (3/9) DWG NO. J-10-30-303	APPROVED
CHECKED.....			DATE
SUBMITTED.....			
DATE.....			
REFERENCE			DWG NO.

TM - 10

⊕

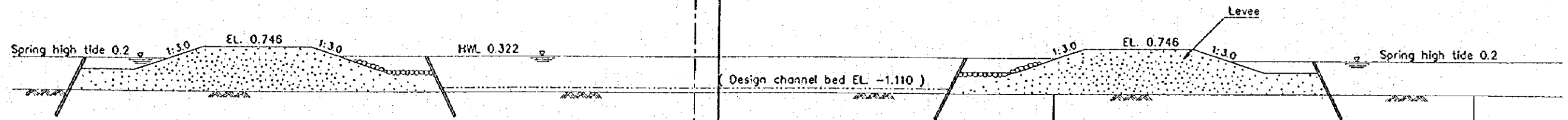


DL - 4.000

Elevation (M)	
Distance (M)	

TM - 11

⊕

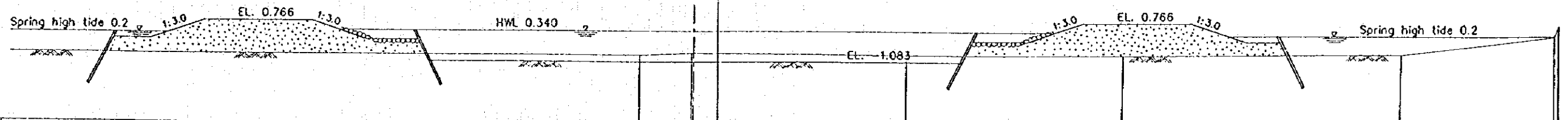


DL - 4.000

Elevation (M)	
Distance (M)	19.40

TM - 13

⊕



DL - 4.000

Elevation (M)		-0.07	-0.74	-0.73	-0.66	0.16
Distance (M)	2.40	10.00	10.00	12.90	7.10	

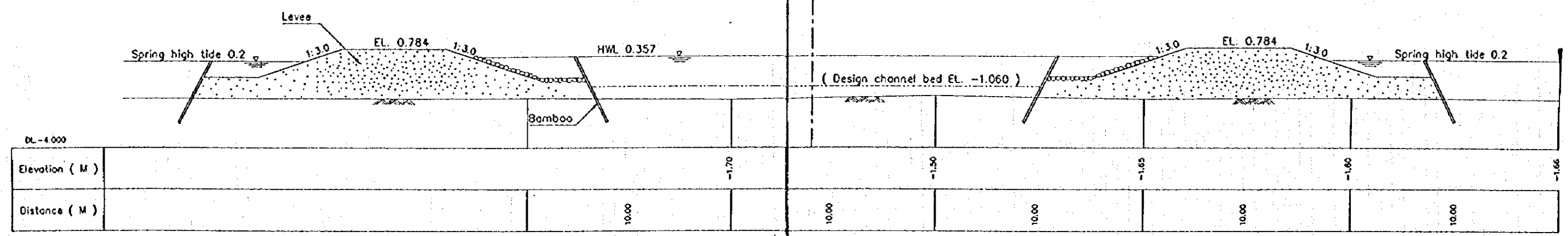
NOTE :

Datum Level : Mean Sea Level (TIG)

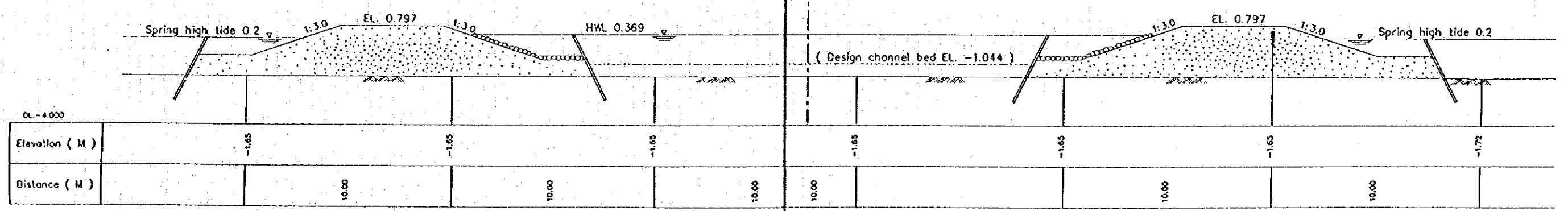


PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
CHECKED.....		DRAINAGE CHANNEL, CROSS SECTION, TANJUNGAN DRAINAGE CHANNEL (4/9)	
SUBMITTED.....		DWG NO.	DATE
DATE.....		J-10-30-304	
REFERENCE	DWG NO.		

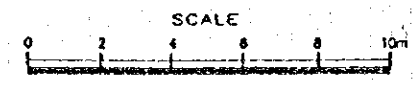
M - 14



M - 15

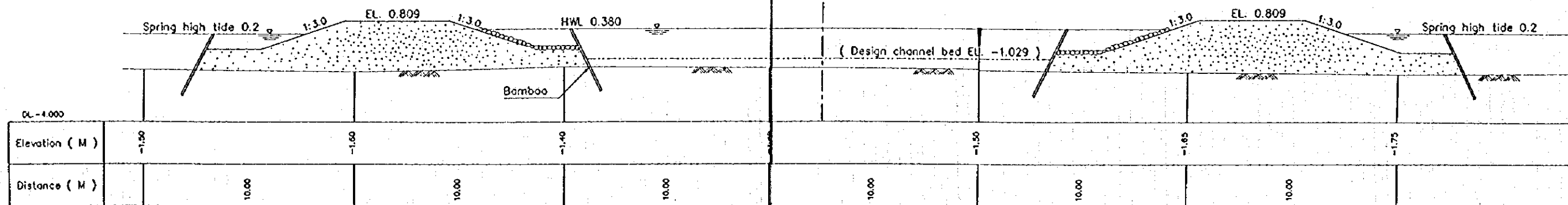


NOTE :
Datum Level : Mean Sea Level (TIG)

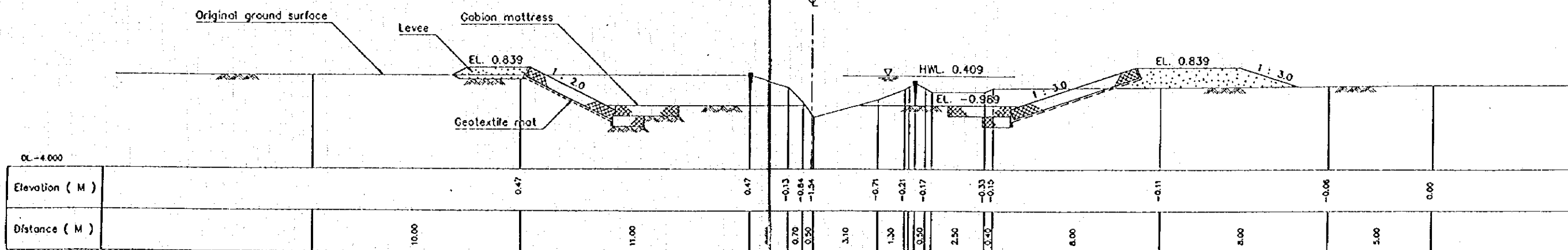


PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, CROSS SECTION, TANJUNGAN DRAINAGE CHANNEL (5/9)	APPROVED
CHECKED.....		DWG NO. J-10-30-305	DATE
SUBMITTED.....			
DATE.....			
REFERENCE	DWG NO.		

TM - 16



TM - 19

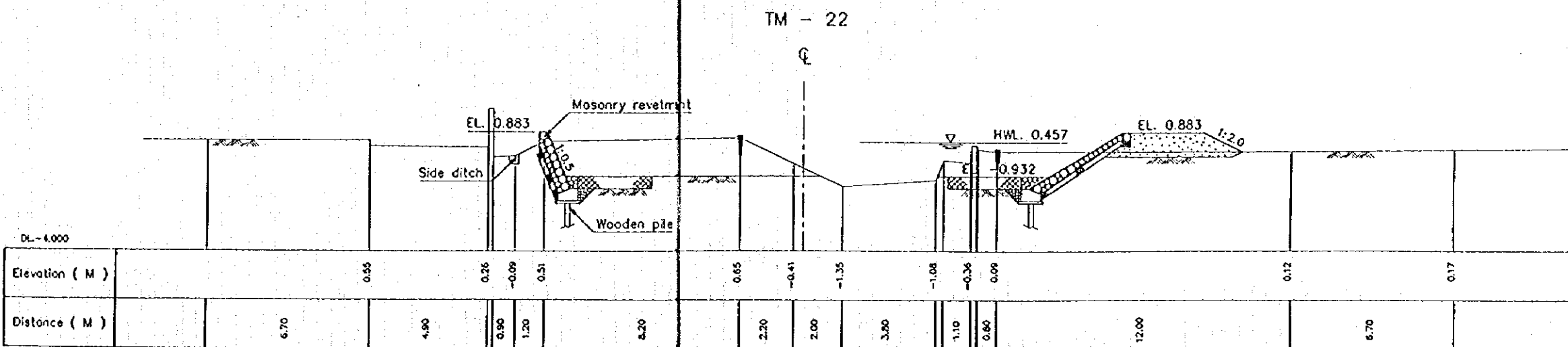
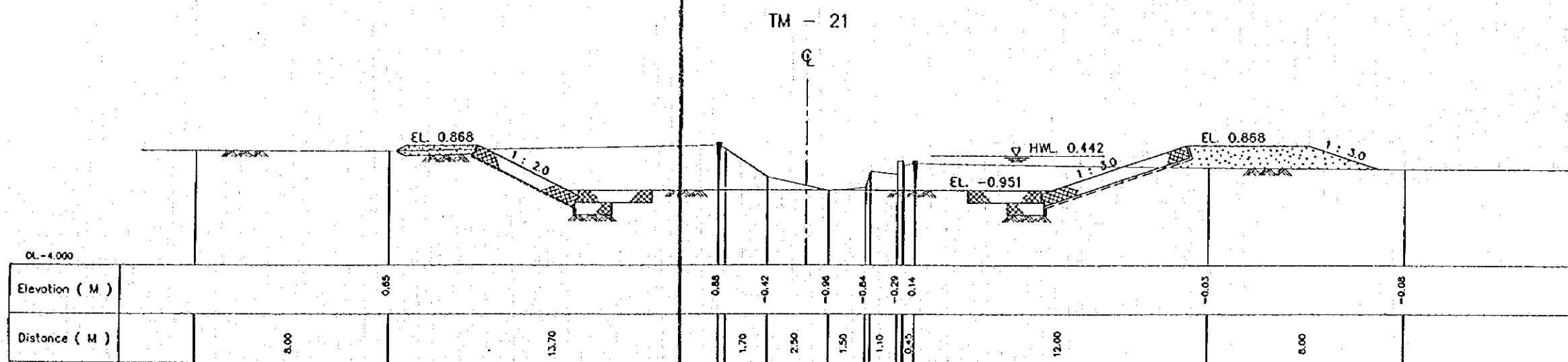
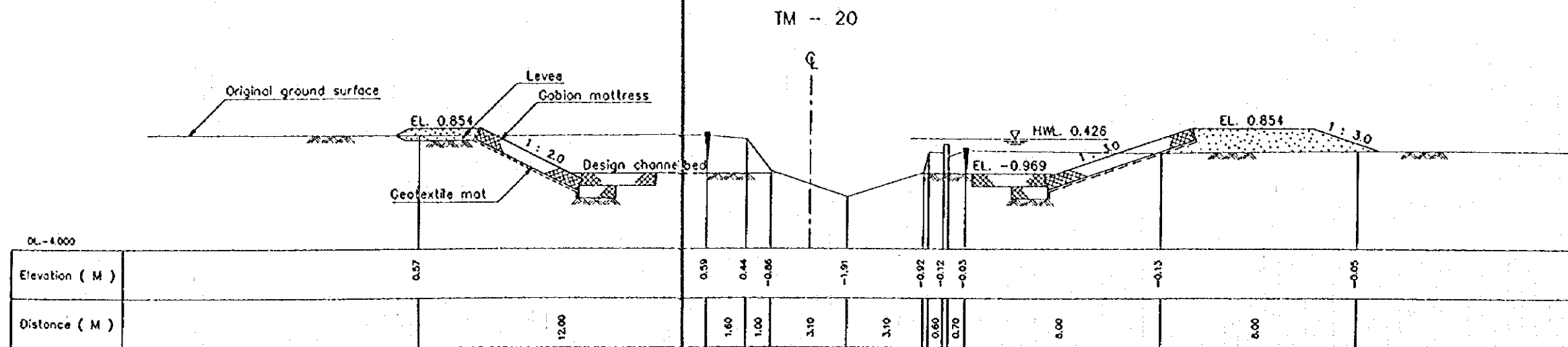


NOTE :

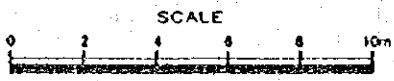
Datum Level : Mean Sea Level (TIG)



PREPARED.....	MINISTRY OF PUBLIC WORK DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, CROSS SECTION, TANJUNGAN DRAINAGE CHANNEL (8/8)	APPROVED
CHECKED.....		OWG NO.	DATE
SUBMITTED.....		J-10-30-306	
DATE.....			
REFERENCE		OWG NO.	

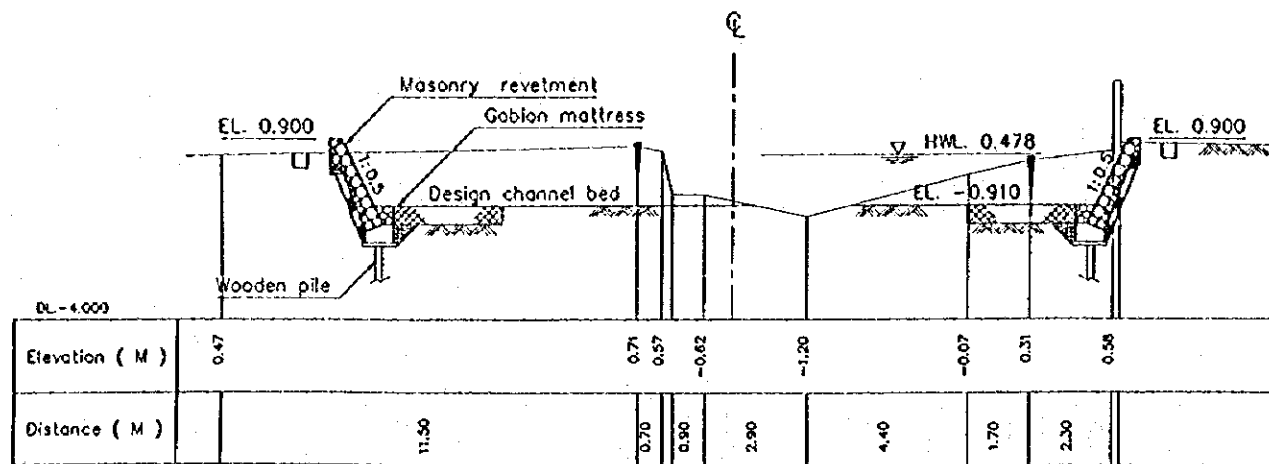


NOTE : Datum Level : Mean Sea Level (TTC)

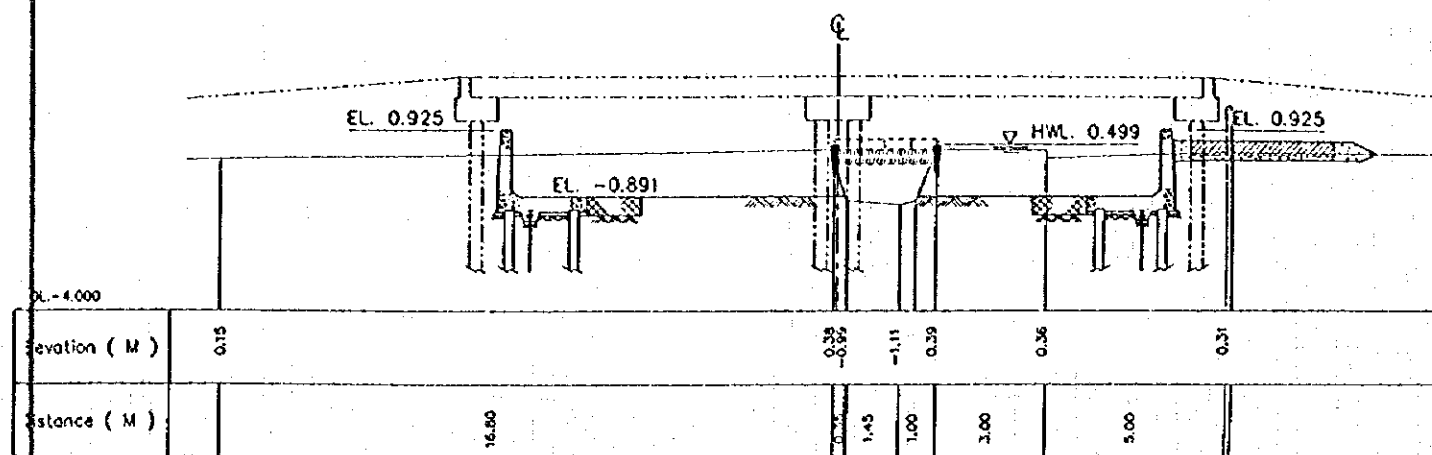


PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	DRAINAGE CHANNEL, CROSS SECTION, TANJUNGAN DRAINAGE CHANNEL (7/9)	APPROVED
CHECKED		DWG NO.		DATE
SUBMITTED		J-10-30-307		
DATE				
REFERENCE		C/DG NO.		

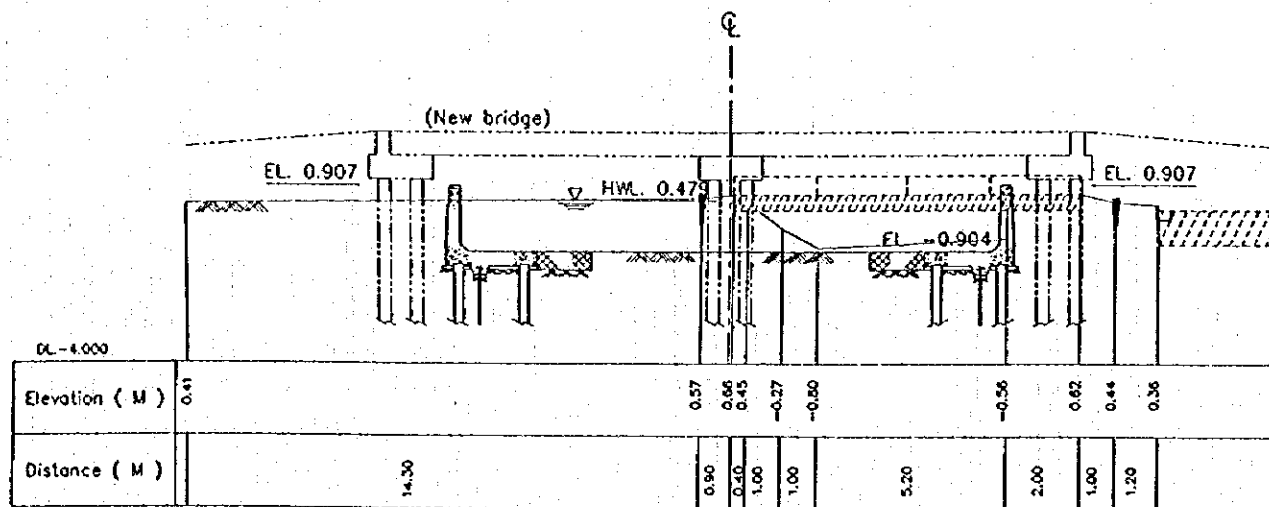
TM - 23



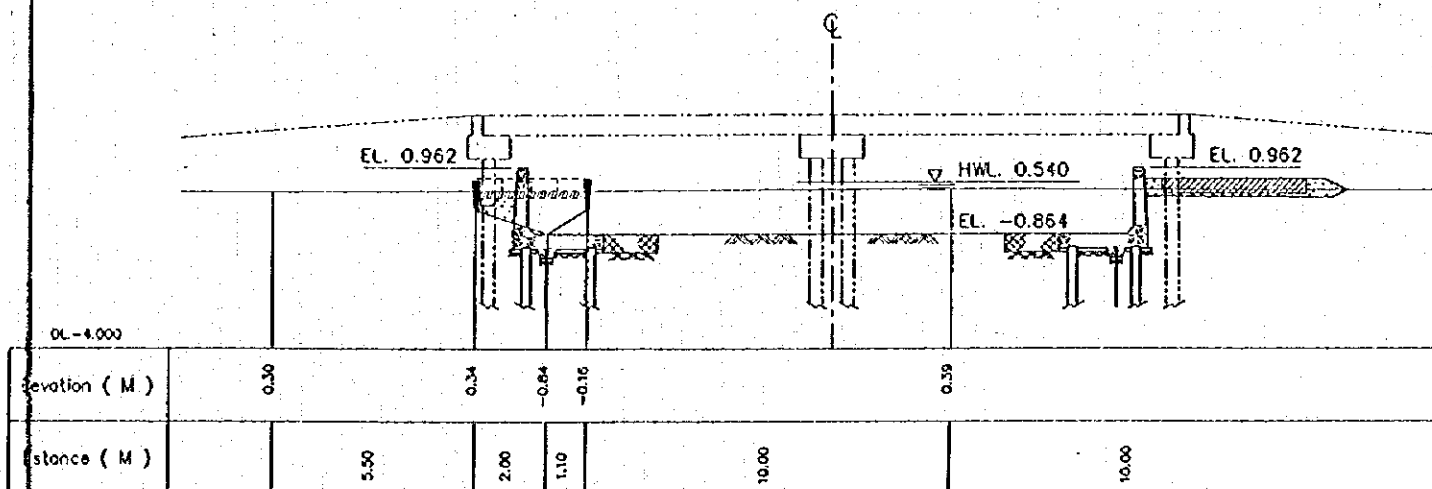
TM - 30



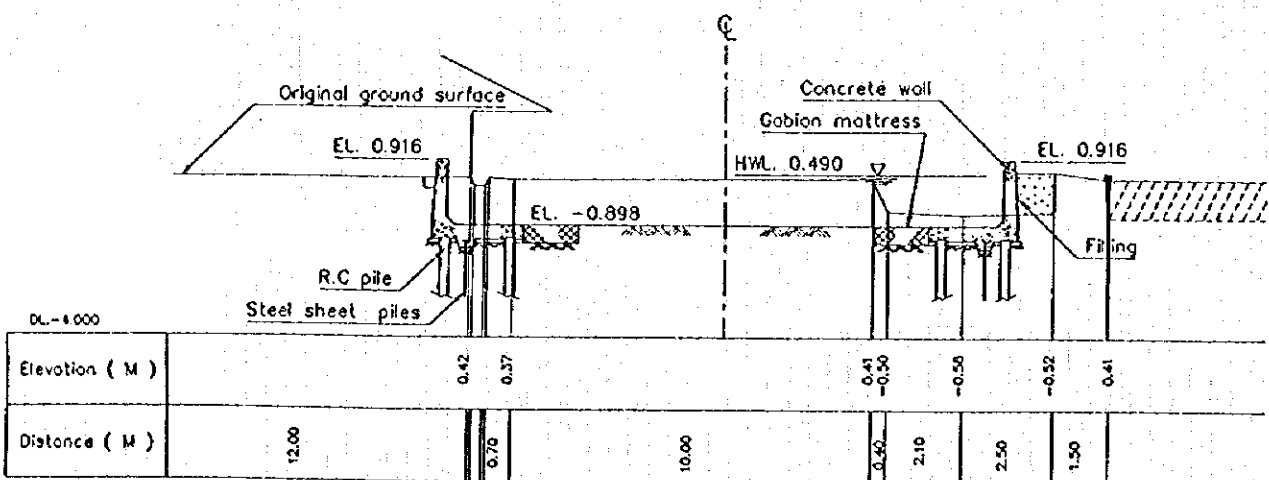
TM - 25



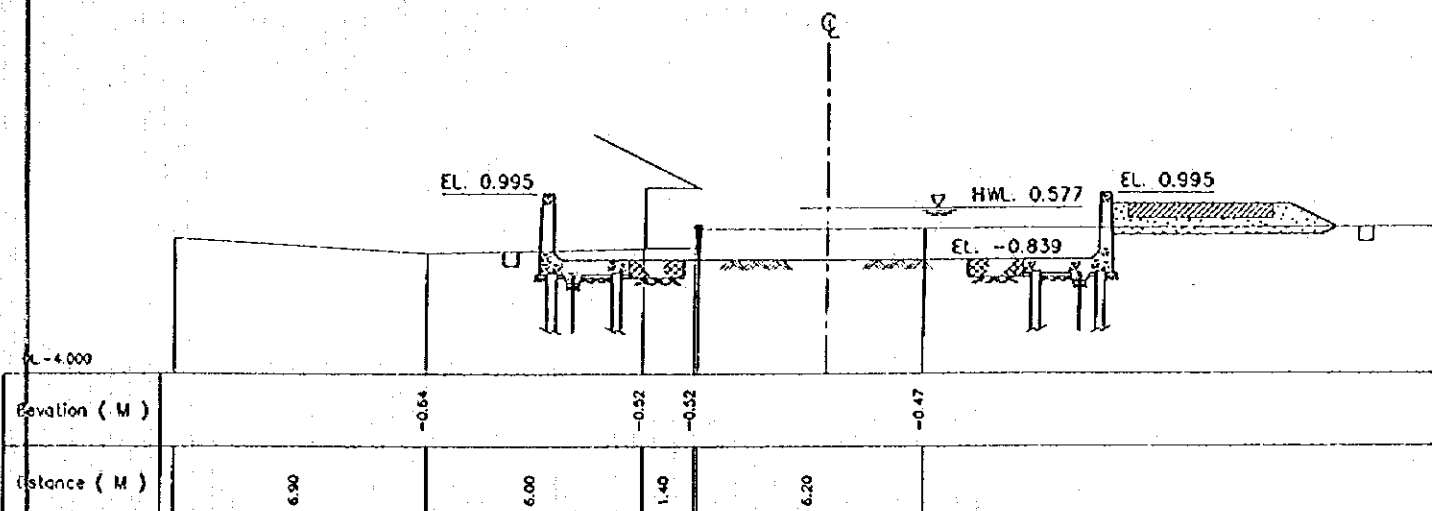
TM - 33



TM - 26



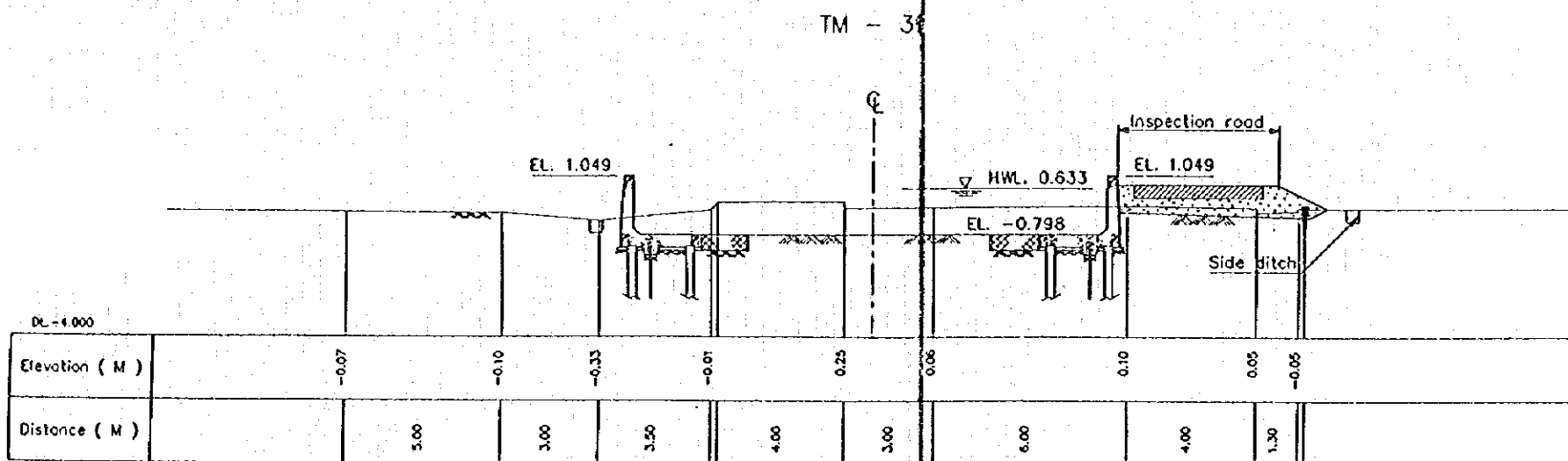
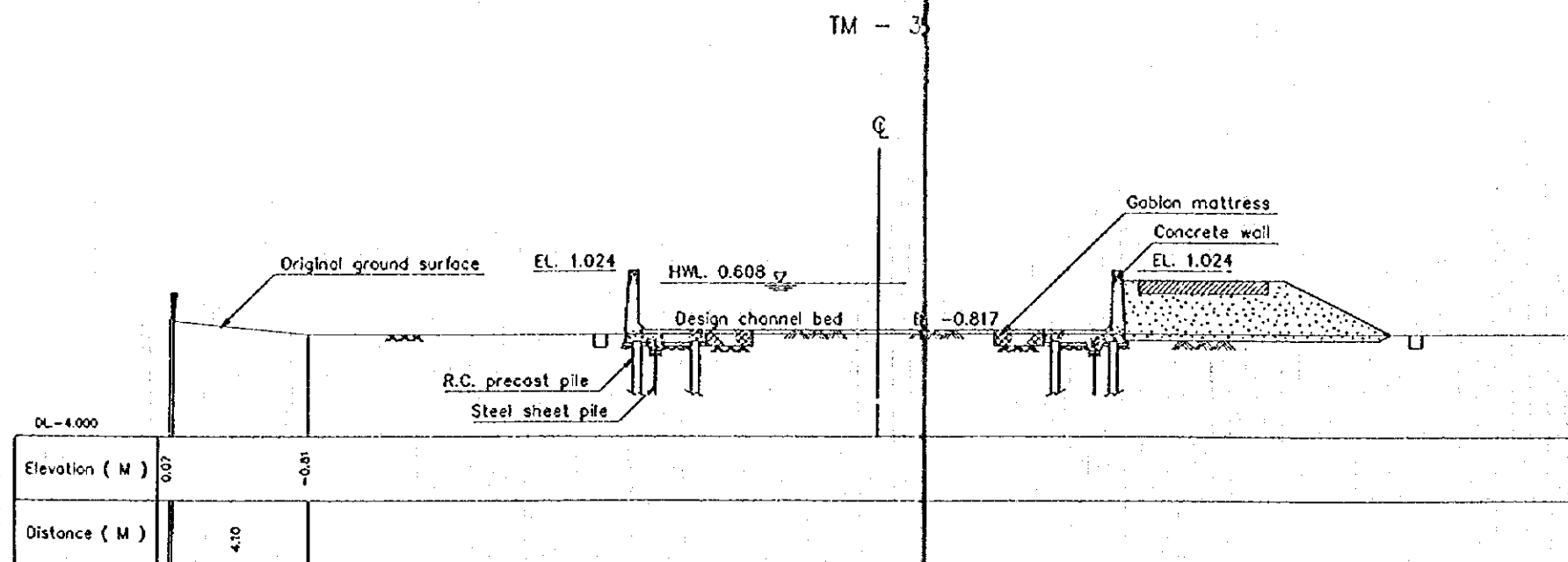
TM - 34



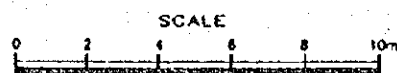
NOTE:
Datum Level : Mean Sea Level (TIG)



PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
CHECKED		DRAINAGE CHANNEL, CROSS SECTION, TANJUNGAN DRAINAGE CHANNEL (B/9)	
SUBMITTED		DWG NO.	
DATE		J-10-30-308	
REFERENCE	ENG NO.	DATE	

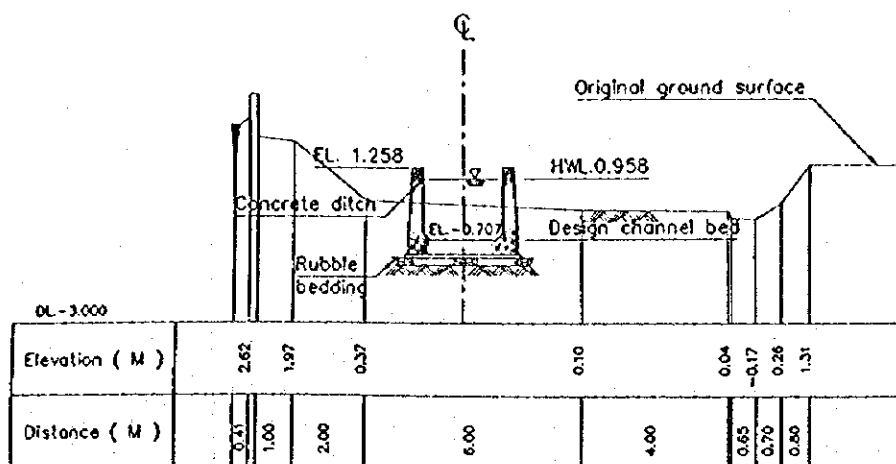


NOTE :
 Datum Level : Mean Sea Level (TIG)

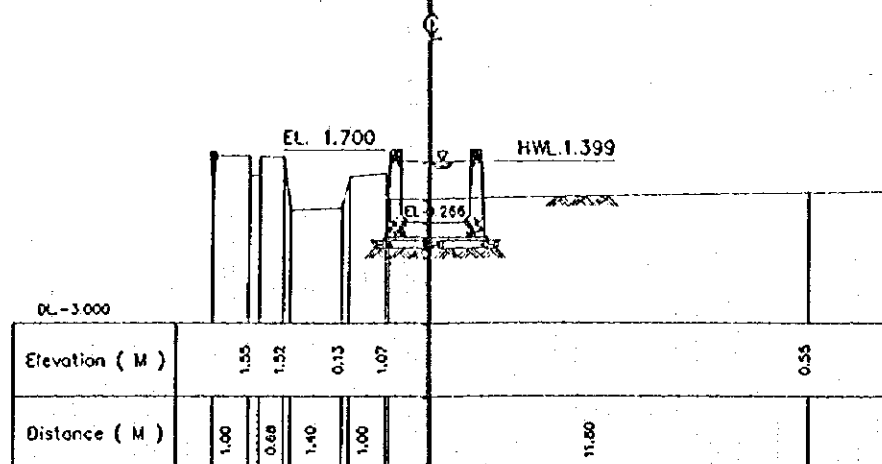


PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
CHECKED.....		DRAINAGE CHANNEL, CROSS SECTION, TANJUNGAN DRAINAGE CHANNEL (9/9)	
SUBMITTED.....		OWG NO.	DATE
DATE.....		J-10-30-309	
REFERENCE	DWG NO.		

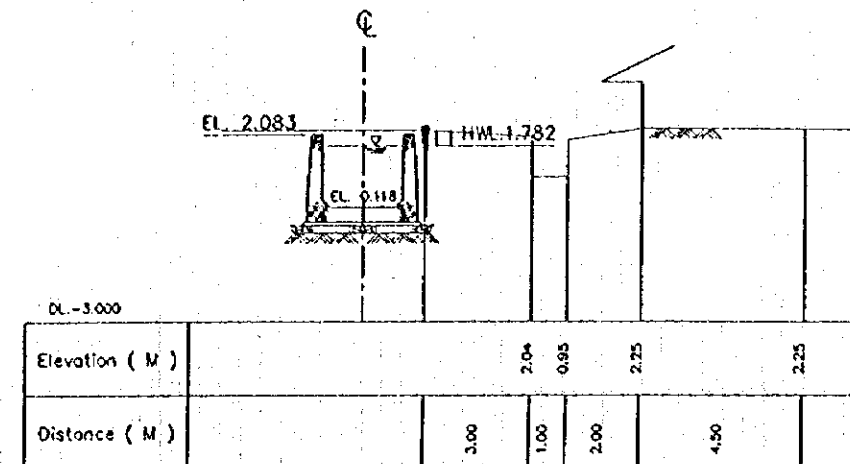
NM - 26



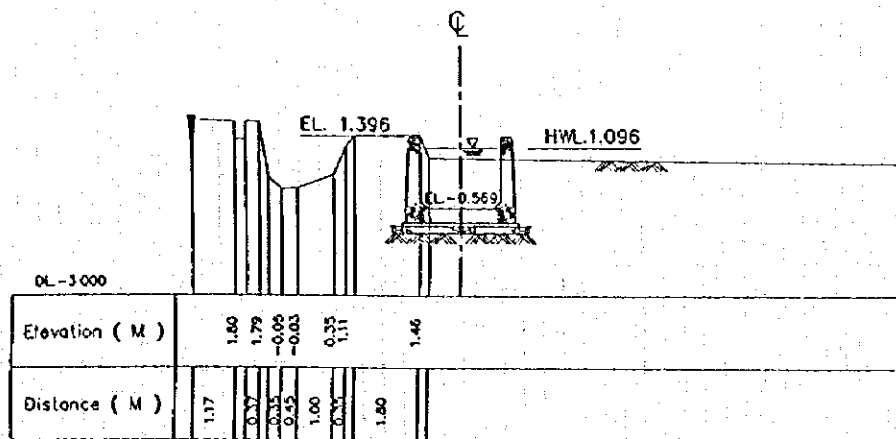
NM - 29



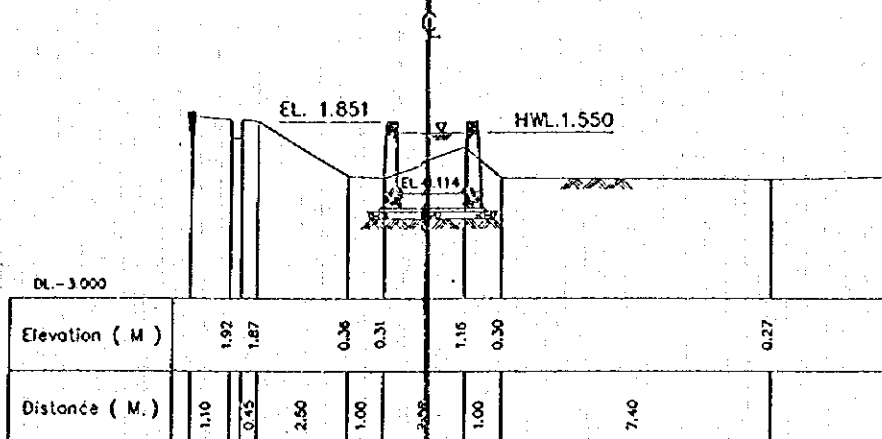
NM - 33



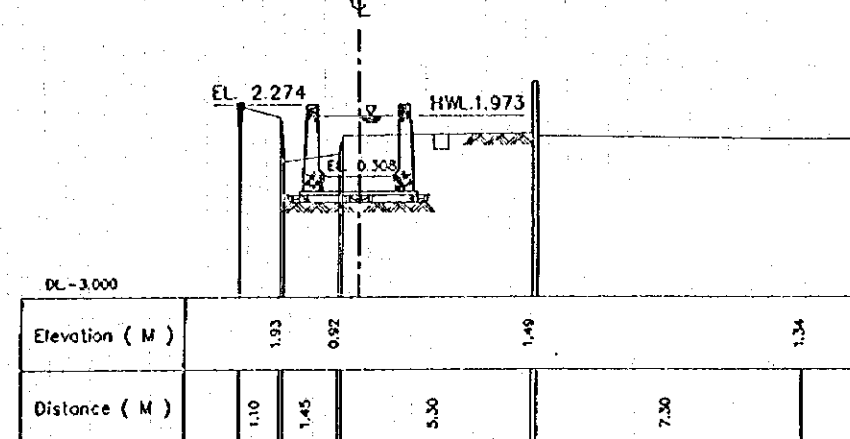
NM - 27



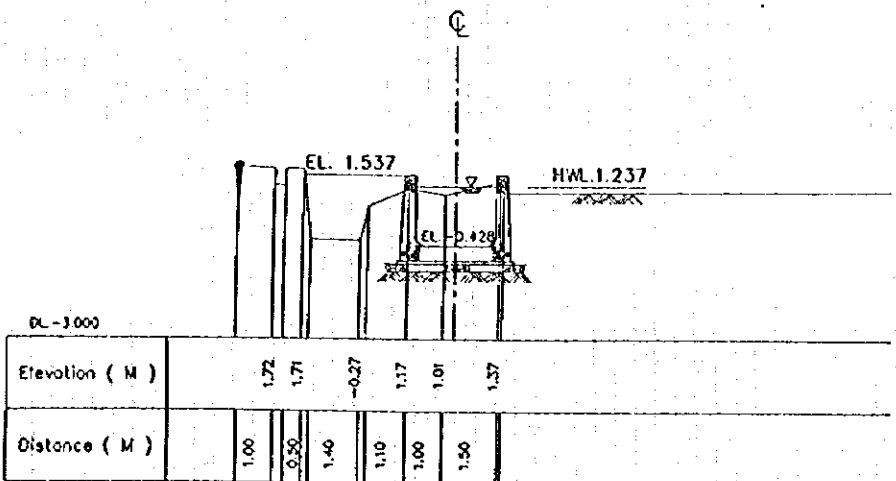
NM - 30



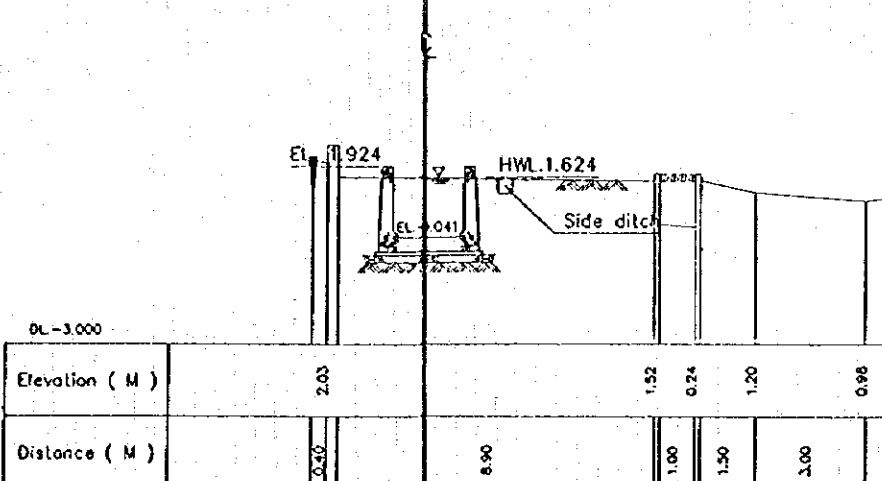
NM - 34



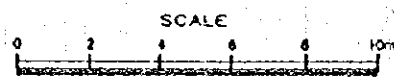
NM - 28



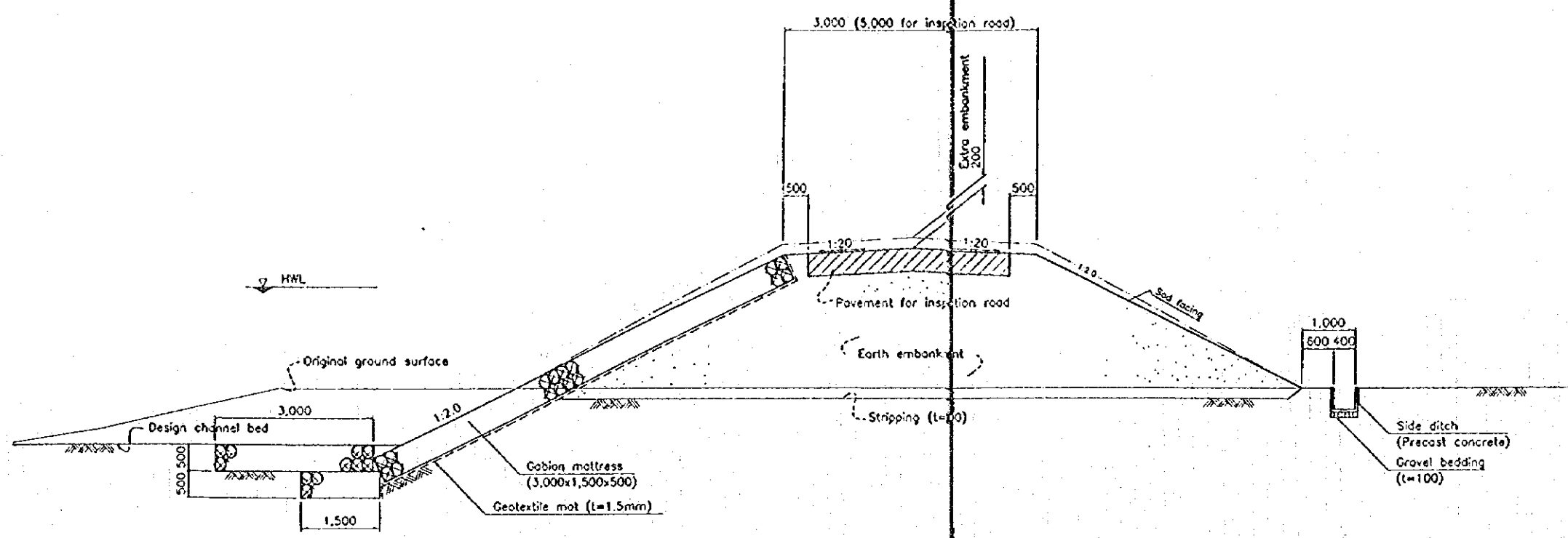
NM - 32



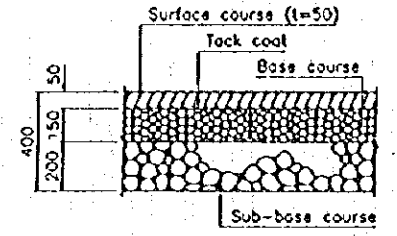
N.O.T.E:
Datum Level : Mean Sea Level (TTC)



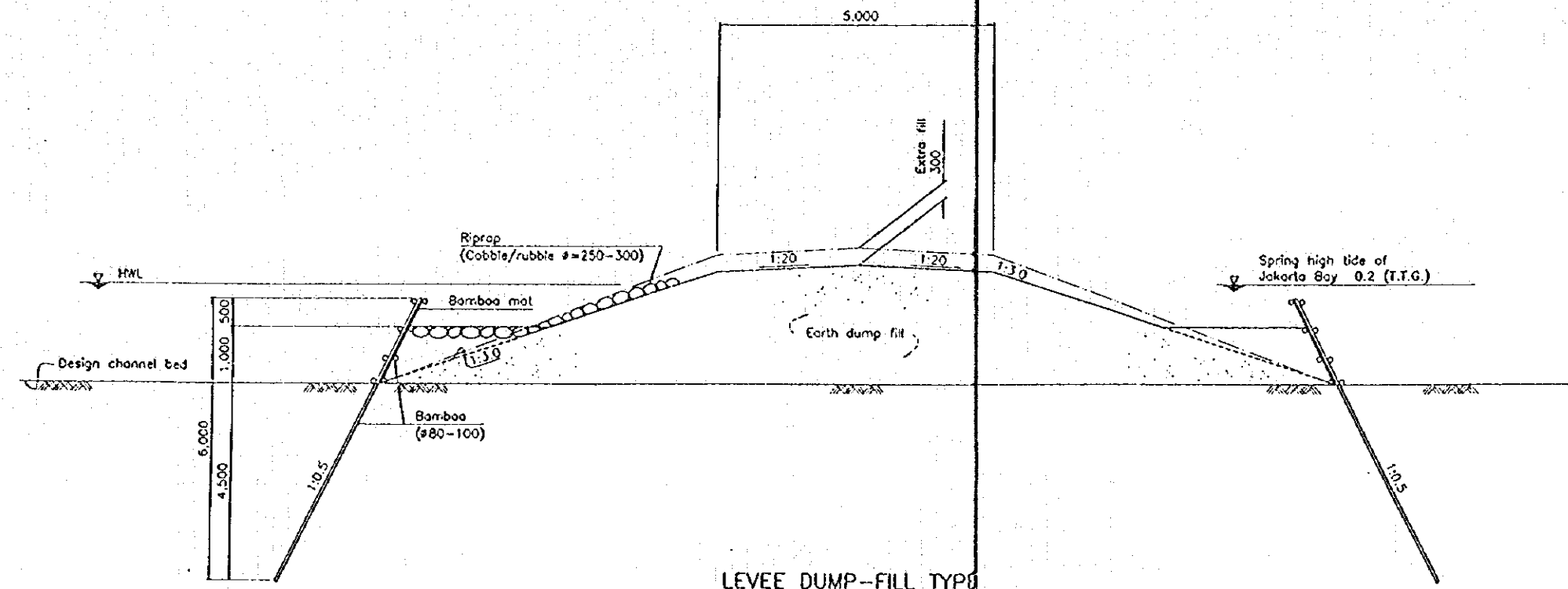
PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT OF THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, CROSS SECTION, PIK JUNCTION DRAINAGE CHANNEL	APPROVED
CHECKED.....		DWG NO. J-10-30-401	DATE
SUBMITTED.....			
DATE.....			
REFERENCE	ENG NO.		



LEVEE EARTH TYPE



PAVEMENT



LEVEE DUMP-FILL TYPE

PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING CHANNEL STRUCTURES, LEVEE, TYPICAL CROSS SECTIONS	APPROVED
CHECKED.....	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	DWG NO. J-20-10-001	DATE
SUBMITTED.....			
DATE.....			
REFERENCE	DWG NO.		