

CONSULTANTS	DATE	SIGNATURE
	Jul-1988	<i>[Signature]</i>
	8-1988	<i>[Signature]</i>
	8-1988	<i>[Signature]</i>

REPUBLIC OF THE PHILIPPINES
 DEPARTMENT OF
 PUBLICWORKS AND HIGHWAYS

PROJECT ENGINEER	DATE	SIGNATURE
		<i>[Signature]</i>
PROJECT MANAGER	DATE	SIGNATURE
		<i>[Signature]</i>

DATE	SIGNATURE
	<i>[Signature]</i>
	<i>[Signature]</i>

CROSS SECTION
 TIPAS RIVER
 ST. 2+100 - 4+240

SCALE	DRWG. NO.
HORIZONTAL 1:250	2/2
VERTICAL 1:50	

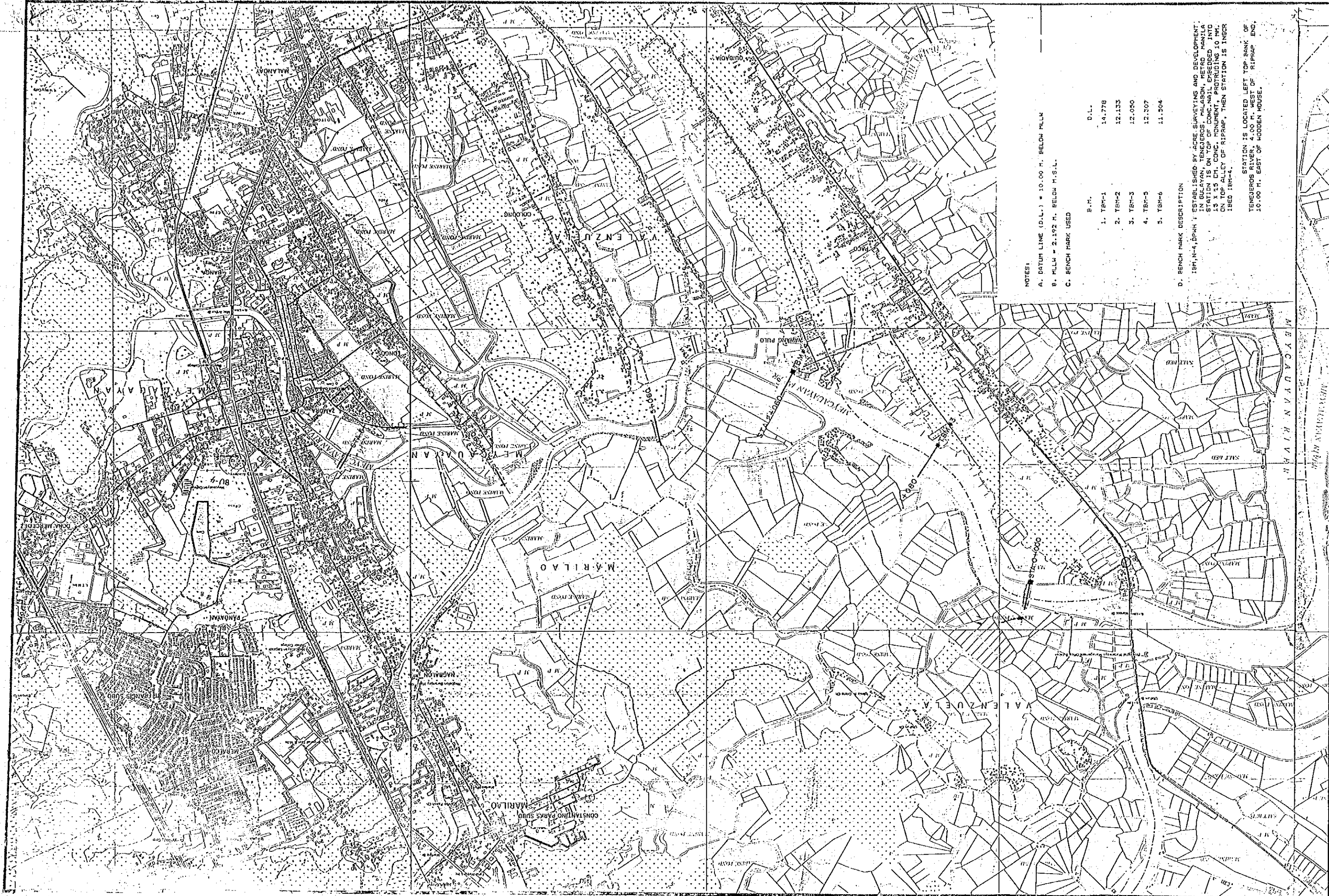
Mastpiece
 Printed in Japan

A-12 MEYCAUAYAN RIVER

INDEX MAP (1 SHEET)

LONGITUDINAL PROFILE (1 SHEET)

CROSS SECTION (1 SHEET)



NOTES:

A. DATUM LINE (D.L.) = 10.00 M. BELOW MLLA

B. MLLA = 2.192 M. BELOW M.S.L.

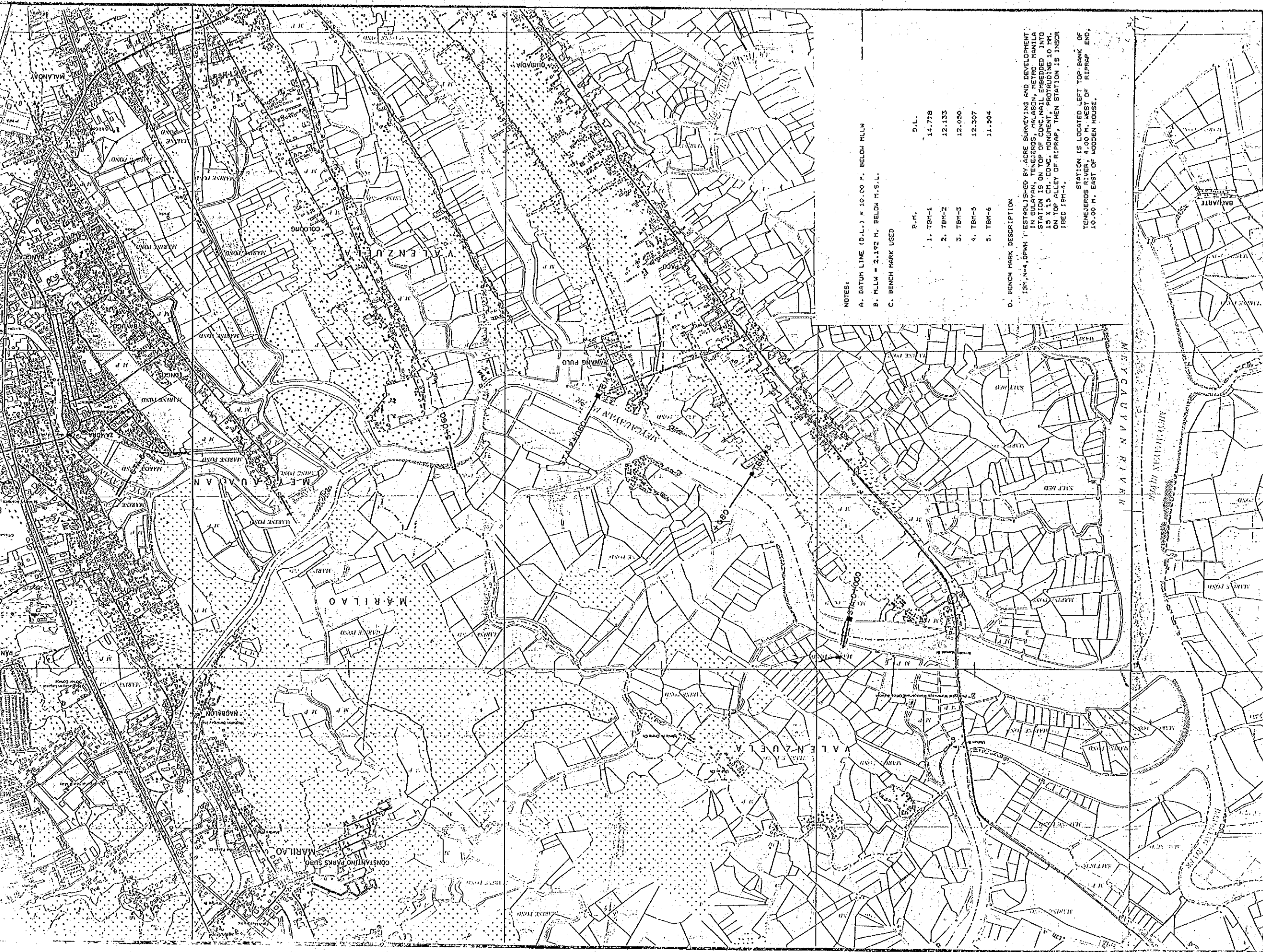
C. BENCH MARK USED

B.M.	D.L.
1. TBM-1	14.778
2. TBM-2	12.133
3. TBM-3	12.050
4. TBM-5	12.307
5. TBM-6	11.504

D. BENCH MARK DESCRIPTION

TBM-1, 2, 3, 5, 6: ESTABLISHED BY ACCESS SURVEYING AND DEVELOPMENT IN BULAYAN TENGARAS, MELANAU, WEST PAPUA. STATION IS ON TOP OF CONCRETE EMBEDDED INTO 15 X 15 CM. CONC. MONUMENT, PROJECTING 10 MM. ON TOP ALLEY OF RIPRAP, THEN STATION IS INSCRIBED TBM-1.

STATION IS LOCATED LEFT TOP BANK OF TENGARAS RIVER 4.00 M. WEST OF RIPRAP END, 10.00 M. EAST OF WOODEN HOUSE.



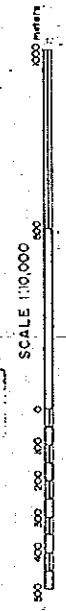
NOTES:
 A. DATUM LINE (D.L.) = 10.00 M. BELOW MLLW
 B. MLLW = 2.192 M. BELOW T.S.L.L.
 C. BENCH MARK USED

B.M.	D.L.
1. TBM-1	14.778
2. TBM-2	12.133
3. TBM-3	12.030
4. TBM-5	12.207
5. TBM-6	11.904

D. BENCH MARK DESCRIPTION

TBM N-4, DPMH ESTABLISHED BY ACRE SURVEYING AND DEVELOPMENT IN GULAYAN, TENERGOS, PALARON, METRO MANILA. STATION IS ON TOP OF CONCRETE EMBEDDED INTO 15 X 15 CM. CONC. MONUMENT, PROTRUDING 10 MM. ON TOP ALLEY OF RIPRAP, THEN STATION IS INScribed TBM-4.

STATION IS LOCATED LEFT TOP BANK OF TENERGOS RIVER, EAST OF WOODEN HOUSE, 10.00 M. EAST OF RIPRAP END.



ACRE SURVEYING & DEVELOPMENT



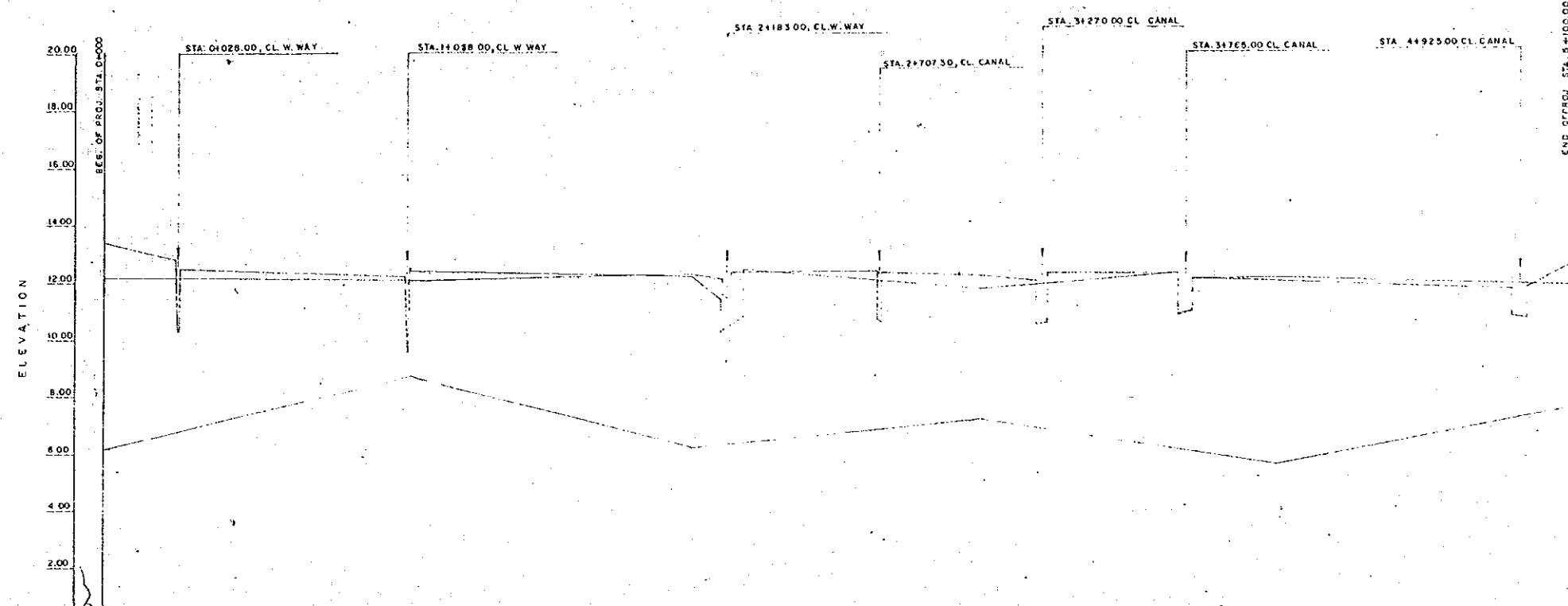
CONSULTANT'S	
SURVEYED BY	SIGNATURE
CHECKED BY	
PROJECT MANAGER	

INDEX MAP

MEYCUBAYAN RIVER

DEPARTMENT OF PUBLIC WORKS & HIGHWAYS	
DATE	SIGNATURE
PROJECT ENGINEER	
PROJECT MANAGER	

MEYCAUAYAN RIVER



STATION NO.	EXISTING ELEVATION		PROPOSED ELEVATION	
	RIGHT LEVEE	LEFT LEVEE	RIVER BED	HIGH WATER LEVEE
0+000	15.72	11.15	8.00	
0+200	15.72	11.15	8.00	
0+400				
0+600				
0+800				
1+000				
1+200				
1+400				
1+600				
1+800				
2+000				
2+200				
2+400				
2+600				
2+800				
3+000				
3+200				
3+400				
3+600				
3+800				
4+000				
4+200				
4+400				
4+600				
4+800				
5+000				

ACRE SURVEYING & DEVELOPMENT

CONSULTANTS

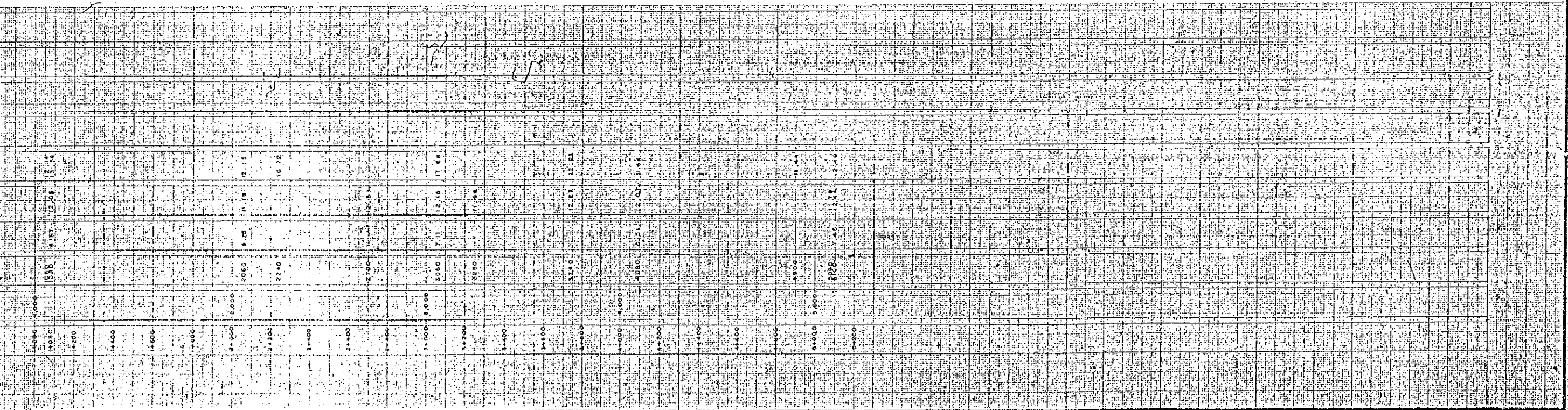
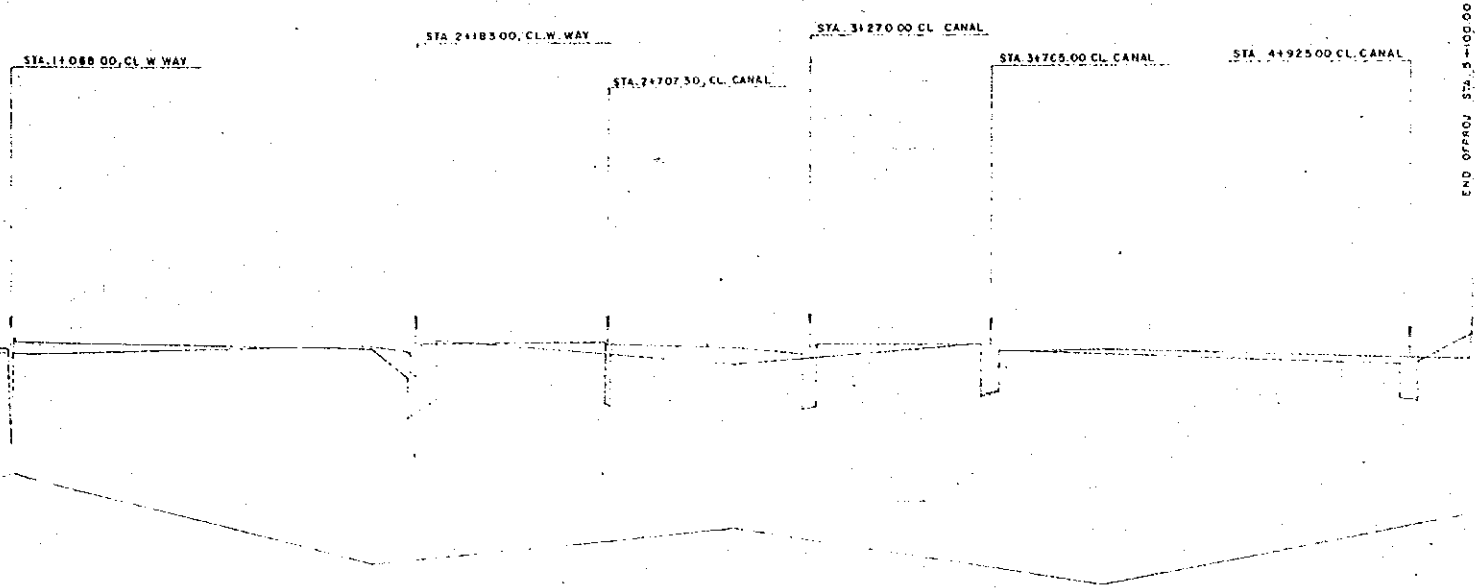
DATE	SIGNATURE
6-15-88	<i>[Signature]</i>
8-13-88	<i>[Signature]</i>
8-14-88	<i>[Signature]</i>



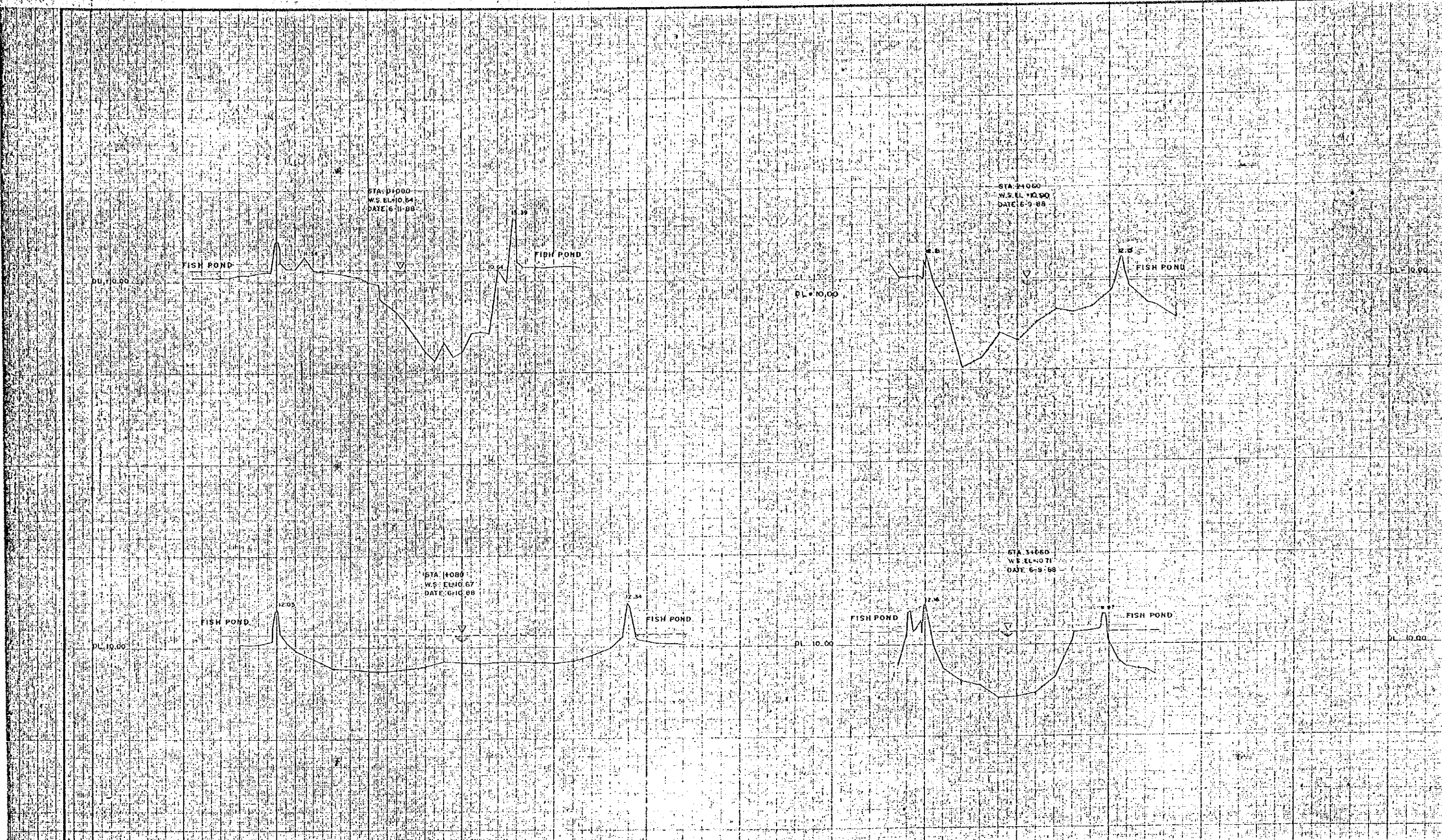
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

PROJECT ENGINEER	<i>[Signature]</i>
PROJECT MANAGER	<i>[Signature]</i>

DATE	SIGNATURE
	<i>[Signature]</i>
	<i>[Signature]</i>



SULTANTS DATE: 7-15-88 SIGNATURE: <i>[Signature]</i> DATE: 8-14-88 SIGNATURE: <i>[Signature]</i>		REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS		DATE: <i>[Date]</i> SIGNATURE: <i>[Signature]</i> PROJECT ENGINEER: ROBERTO TIANO PROJECT MANAGER: EUGENIO ALONSO		PLAN AND PROFILE MEYCAUAYAN RIVER STA. 0+000 - 5+100		SCALE: HORIZONTAL 1"=10,000 VERTICAL 1"=100		DRWG. NO.
---	--	---	--	--	--	--	--	--	--	-----------



W
**ACRE SURVEYING
 & DEVELOPMENT**

CONSULTANTS

SURVEYED BY	DATE	SIGNATURE
M. N. S.	8-16-88	<i>[Signature]</i>
CHECKED BY	8-17-88	<i>[Signature]</i>
PROJECT MANAGER	8-17-88	<i>[Signature]</i>

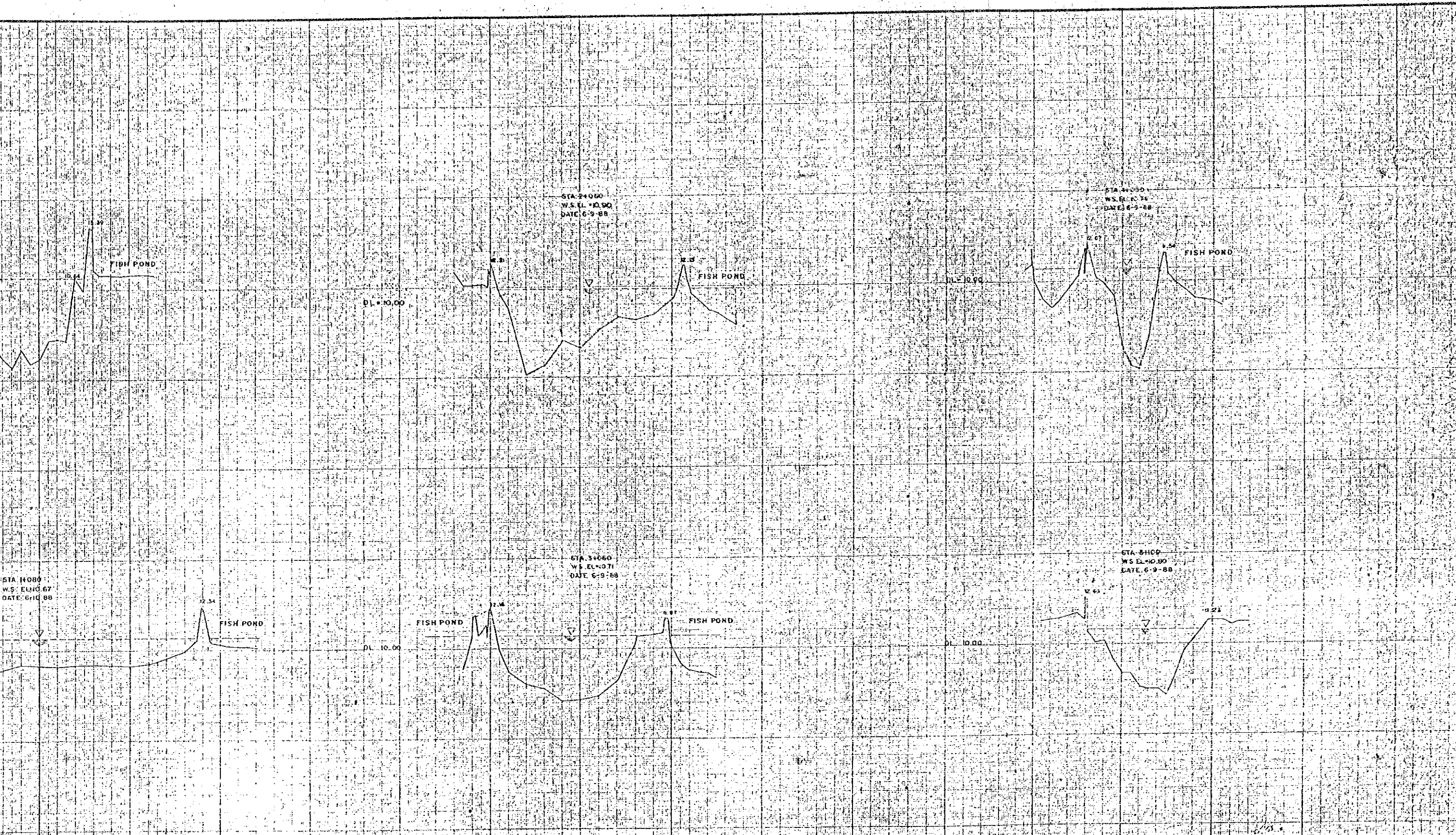
REPUBLIC OF THE PHILIPPINES
**DEPARTMENT OF
 PUBLIC WORKS AND HIGHWAYS**

PROJECT ENGINEER	DATE	SIGNATURE
MONITO P. FAND	8-17-88	<i>[Signature]</i>
PROJECT MANAGER		EUGENIO P. MANALO

Masterpiece
 Printed in Japan

Masterpiece
 Printed in Japan

199



CONSULTANTS		REPUBLIC OF THE PHILIPPINES		DATE		SCALE		DRWG. NO.	
DATE	SIGNATURE	DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS		PROJECT ENGINEER	DATE	HORIZONTAL 1"=100'		VERTICAL 1"=10'	
11-16-88	<i>[Signature]</i>			PROJECT MANAGER	11-16-88	CROSS SECTION		171	
8-14-88	<i>[Signature]</i>			 NONITO P. FANDO EUGENIO M. BALAL	MEYCAUAYAN RIVER	STA 0+000 - STA 5+100	A-12-3		

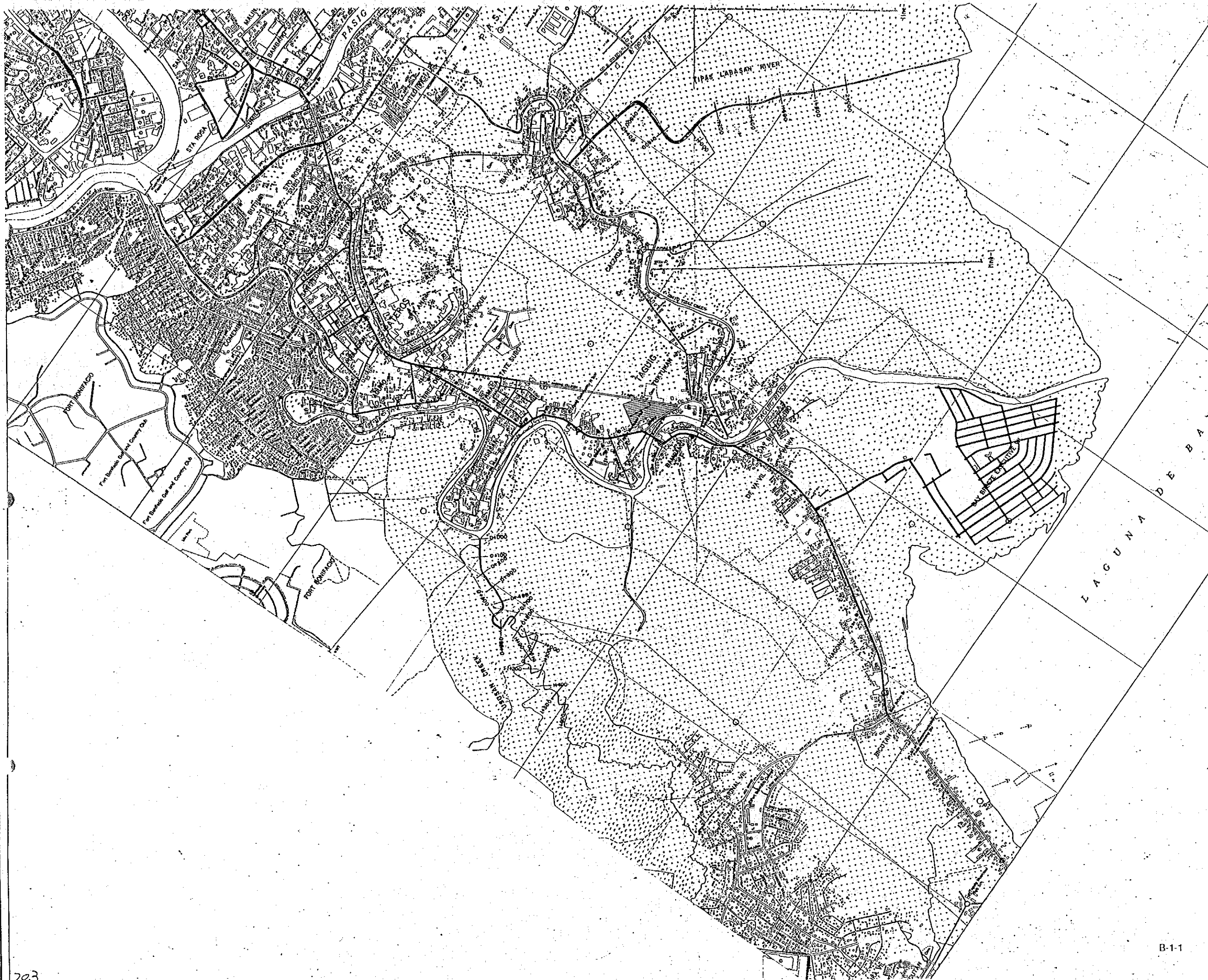
Masterpiece
Printed in Japan

Masterpiece
Printed in Japan

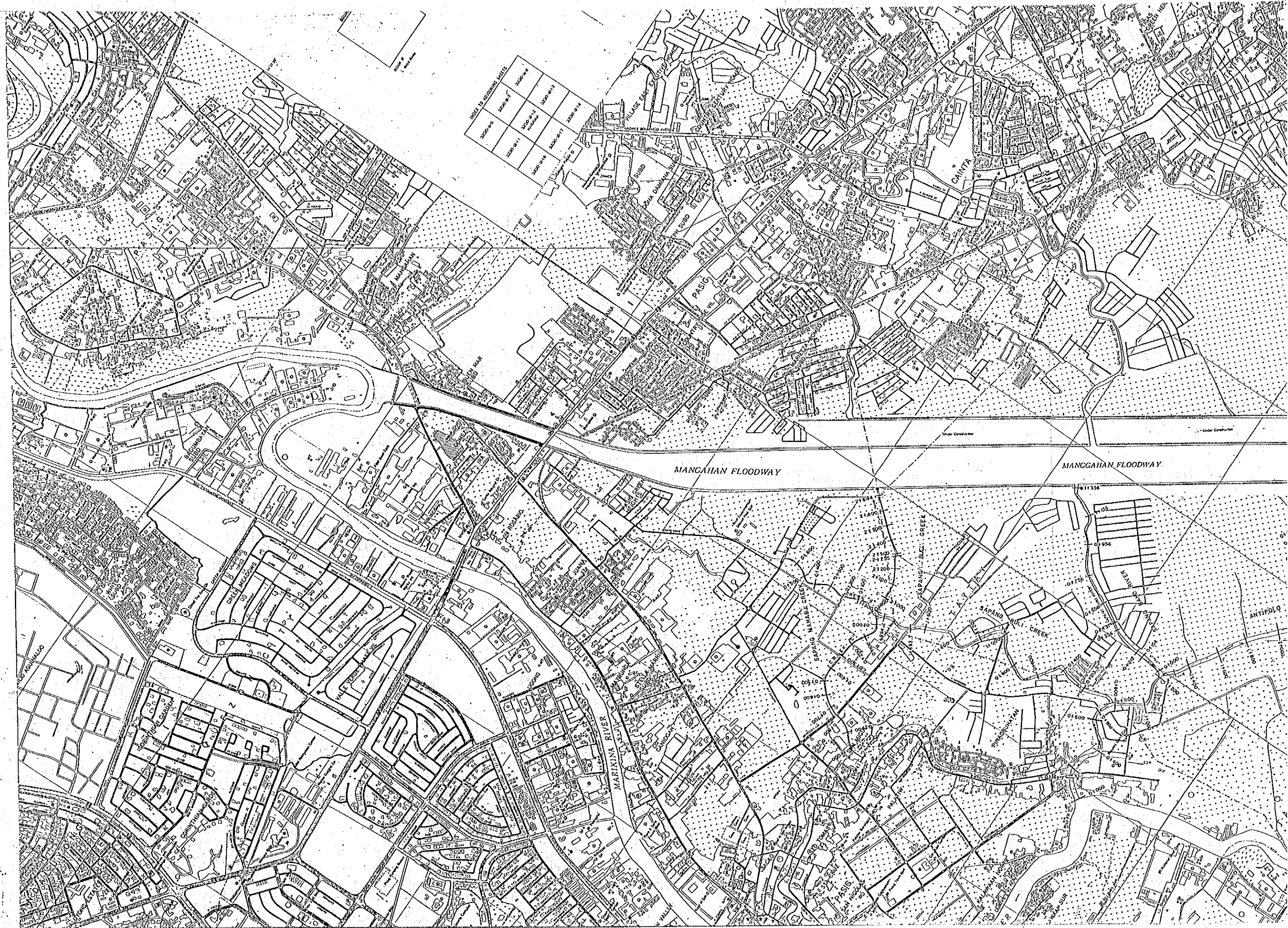
B. FEASIBILITY STUDY STAGE

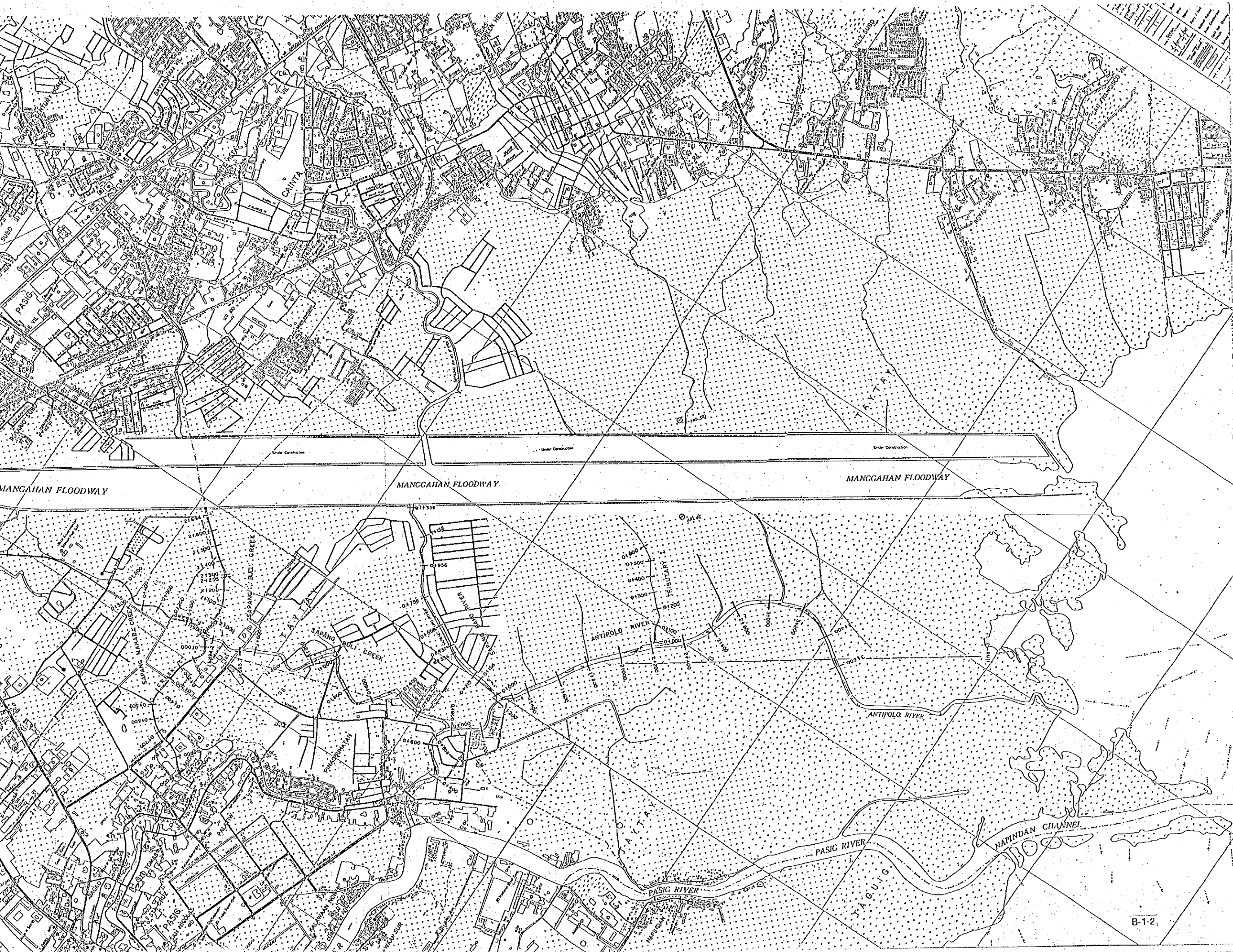
B-1 EAST AND WEST OF MANGAHAN FLOODWAY

B-1-1 INDEX MAP (2 SHEET)



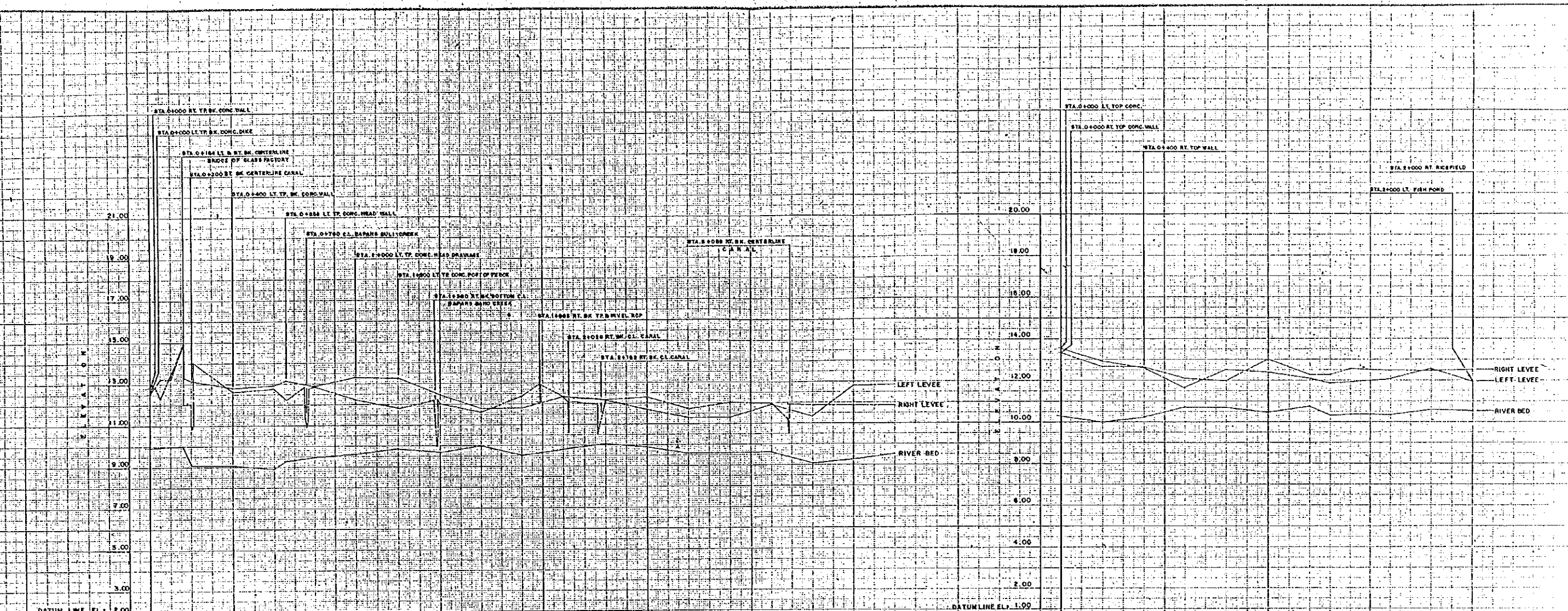
<p>ENGINEER</p> <p>JAPAN INTERNATIONAL COOPERATION AGENCY</p> <p>(J I C A)</p>	<p>CONTRACTOR</p> <p>ACRE SURVEYING AND DEVELOPMENT</p>	<p>TITLE OF DRAWING</p> <p>INDEX MAP EAST AND WEST OF MANGGAHAN FLOODWAY AREA</p>	<p>SCALE</p> <p>1:10,000</p>	<p>DRAWING No.</p> <p>1 / 2</p>
--	---	---	------------------------------	---------------------------------





ENGINEER		CONTRACTOR		DRAWING No.	
JAPAN INTERNATIONAL COOPERATION AGENCY (J I C A)		ACRE SURVEYING AND DEVELOPMENT		1:10,000	
TITLE OF DRAWING		SCALE		DRAWING No.	
THE STUDY ON FLOOD CONTROL AND DRAINAGE PROJECT IN METRO MANILA.		1:10,000		2 / 2	
INDEX MAP		OF MANGGAHAN FLOODWAY AREA			
EAST AND WEST					

B-1-2 LONGITUDINAL PROFILE (3 SHEET)



STATION NO.	DISTANCE		EXISTING ELEVATION			PROPOSED ELEVATION		
	RIGHT LEVEE	LEFT LEVEE	RIVER BED	HIGH WATER LEVEL	BANK LEVEL	RIVER BED GRADIENT	RIVER BED	
0+000	12.83	12.72	9.93					
0+100	12.72	12.61	9.93					
0+200	12.61	12.50	9.93					
0+300	12.50	12.39	9.93					
0+400	12.39	12.28	9.93					
0+500	12.28	12.17	9.93					
0+600	12.17	12.06	9.93					
0+700	12.06	11.95	9.93					
0+800	11.95	11.84	9.93					
0+900	11.84	11.73	9.93					
1+000	11.73	11.62	9.93					
1+100	11.62	11.51	9.93					
1+200	11.51	11.40	9.93					
1+300	11.40	11.29	9.93					
1+400	11.29	11.18	9.93					
1+500	11.18	11.07	9.93					
1+600	11.07	10.96	9.93					
1+700	10.96	10.85	9.93					
1+800	10.85	10.74	9.93					
1+900	10.74	10.63	9.93					
2+000	10.63	10.52	9.93					
2+100	10.52	10.41	9.93					
2+200	10.41	10.30	9.93					
2+300	10.30	10.19	9.93					
2+400	10.19	10.08	9.93					
2+500	10.08	9.97	9.93					
2+600	9.97	9.86	9.93					
2+700	9.86	9.75	9.93					
2+800	9.75	9.64	9.93					
2+900	9.64	9.53	9.93					
3+000	9.53	9.42	9.93					
3+100	9.42	9.31	9.93					
3+200	9.31	9.20	9.93					
3+300	9.20	9.09	9.93					
3+400	9.09	8.98	9.93					
3+500	8.98	8.87	9.93					
3+600	8.87	8.76	9.93					
3+700	8.76	8.65	9.93					
3+800	8.65	8.54	9.93					
3+900	8.54	8.43	9.93					
4+000	8.43	8.32	9.93					
4+100	8.32	8.21	9.93					
4+200	8.21	8.10	9.93					
4+300	8.10	7.99	9.93					
4+400	7.99	7.88	9.93					
4+500	7.88	7.77	9.93					
4+600	7.77	7.66	9.93					
4+700	7.66	7.55	9.93					
4+800	7.55	7.44	9.93					
4+900	7.44	7.33	9.93					
5+000	7.33	7.22	9.93					
5+100	7.22	7.11	9.93					
5+200	7.11	7.00	9.93					
5+300	7.00	6.89	9.93					
5+400	6.89	6.78	9.93					
5+500	6.78	6.67	9.93					
5+600	6.67	6.56	9.93					
5+700	6.56	6.45	9.93					
5+800	6.45	6.34	9.93					
5+900	6.34	6.23	9.93					
6+000	6.23	6.12	9.93					
6+100	6.12	6.01	9.93					
6+200	6.01	5.90	9.93					
6+300	5.90	5.79	9.93					
6+400	5.79	5.68	9.93					
6+500	5.68	5.57	9.93					
6+600	5.57	5.46	9.93					
6+700	5.46	5.35	9.93					
6+800	5.35	5.24	9.93					
6+900	5.24	5.13	9.93					
7+000	5.13	5.02	9.93					
7+100	5.02	4.91	9.93					
7+200	4.91	4.80	9.93					
7+300	4.80	4.69	9.93					
7+400	4.69	4.58	9.93					
7+500	4.58	4.47	9.93					
7+600	4.47	4.36	9.93					
7+700	4.36	4.25	9.93					
7+800	4.25	4.14	9.93					
7+900	4.14	4.03	9.93					
8+000	4.03	3.92	9.93					
8+100	3.92	3.81	9.93					
8+200	3.81	3.70	9.93					
8+300	3.70	3.59	9.93					
8+400	3.59	3.48	9.93					
8+500	3.48	3.37	9.93					
8+600	3.37	3.26	9.93					
8+700	3.26	3.15	9.93					
8+800	3.15	3.04	9.93					
8+900	3.04	2.93	9.93					
9+000	2.93	2.82	9.93					
9+100	2.82	2.71	9.93					
9+200	2.71	2.60	9.93					
9+300	2.60	2.49	9.93					
9+400	2.49	2.38	9.93					
9+500	2.38	2.27	9.93					
9+600	2.27	2.16	9.93					
9+700	2.16	2.05	9.93					
9+800	2.05	1.94	9.93					
9+900	1.94	1.83	9.93					
10+000	1.83	1.72	9.93					

PROJECT		ENGINEER		CONTRACTOR		TITLE OF DRAWING		SCALE	DRAWING No.
THE STUDY ON FLOOD CONTROL AND DRAINAGE PROJECT IN METRO MANILA		JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)		ACRE SURVEYING & DEVELOPMENT		PROFILE		HORIZONTAL 1:10,000	1/1
		PROJECT-EXPERT		SURVEYED BY		DATE		VERTICAL 1:100	
		PROJECT LEADER		CHECKED BY		SIGNATURE			
				PROJECT-MANAGER		DATE		ANTIPOLO RIVER STA.0+1000-3+800 TIPAS LABASAN RIVER STA.0+1000-2+1000	