

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-1-3 (3)	slope protection excavation common soil concrete	cum "	4.4 4.4	35 1,100	154 4,840 55,687 55,600	(B) (B) round off

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-2-1	Construction of swine raising form			(B)	(B)	
1)	Piggery					実施設計どおり
	• Base	cum	45.70	10	457	
	• Embankment common soil	"	10.90	40	436	
	• Excavation common soil	"	10.00	180	1,800	
	• Sand	"	10.00	25	250	
	• Hauling L = 20m	"	41.00	25	1,025	
	• Compaction	"	8.0	1,100	8,800	
	• Plain concrete	"	--	--	300	
	• Material for pouring + curing	--				
	• Installation of concrete block					
	• Concrete block	sqm	13.00	45	585	
	• Mortar	cum	3.00	900	2,700	
	• Carpentry					
	• Column (wood) 4" x 4" x 2.50m	pieces	12	310	3,720	
	• Wooden Form + Wooden + Structure	cum	1.70	12,000	20,400	
	• Steel bar φ 6 mm	ton	0.18	12,650	2,277	

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
	• Feed box			(B)	(B)	
	Concrete pipe $\phi 0.50 \times 1.00m$	pieces	10	100	1,000	
	Plain concrete	cum	1	1,100	1,100	
	Sand		1.50	180	270	資材変更
	• Roofing					
	Grass (yahka) roofing	sqm	73	35	2,555	
	Galvanized sheet	pieces	2	90	180	
	Bolt + Nut $\phi 3/8" \times 5"$	"	30	5	150	
	Nail	kg	18	20	360	
	• Labour cost	--	--	--	23,000	
	sub total				71,365	
	$\times 2$				142,730	(1)
	• Installation of fence					
	Column (wood) $4" \times 4" \times 2.50m$	pieces	82	125	10,250	
	Fence	roll	13	120	1,560	
	Gate	set	1	2,700	2,700	
	sub total				14,510	(2)
	Total			Round off	157,240	(3) = (1) + (2)
					157,200	

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BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-2-1 (1)	.feed box	pieces	30	3.3	99	(B)
	concrete block 0.39*0.19*0.07	cum	1.25	1,100	1,375	
	plain concrete	"	1.0	900	900	
	mortar					
	.roofing					
	grass (Yahka) roofing	sqm	73	35	2,555	
	galvanize sheet	pieces	2	90	180	
	bolt + nut 3/8" 5"	"	30	5	150	
	nail	kg	18	20	360	
	.labour cost				23,000	
	sub total				71,369	
	*2				142,738	(1)
	.Installation of fence					
	column (concrete) 4" * 4" * 2.50m	pieces	82	150	12,300	
	fence wire	roll	13	120	1,560	
	gate	set	1	2,700	2,700	
	sub total				16,560	(2)
	total				159,298	(1)+(2)
					159,200	round off

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-2-1 2)	Compost barnyard			(B)	(B)	実施設計どおり
	• Base Embankment	cum	8.80	10	88	
	Compaction	"	8.80	25	220	
	Plain concrete	"	0.16	1,100	176	
	• Carpentry					
	Column 4" x 4" x 3.00m	pieces	6	375	2,250	
	Wooden structure	cum	0.74	12,000	8,880	
	• Roofing					
	Grass roofing	sqm	57.60	35	2,016	
	Galvanized sheet	pieces	2	90	180	
	Nail + Bolt + Others	---	---	---	120	
	• Labour cost	---	---	---	4,200	
	Total			Round off	18,130	
					18,100	

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-2-1 3)	Water tank			(B)	(B)	
	• Water tank 1,500 litre	pieces	2	3,500	7,000	設計変更
	• Base					
	• Column (wood) 4"×4"×2.50m	pieces	6	310	1,860	
	• Wooden structure	cum	0.50	12,000	6,000	
	• Nail + Bolt	--	--	--	180	
	• Others					
	• Check Valve φ 2"	pieces	2	990	1,980	
	• Steel Pipe φ 2"	m	3	90	270	
	• " Elbow φ 2"	pieces	2	48	96	
	• Labour cost	--	--	--	3,000	
	Total				20,386	
				Round off	20,300	

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BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-2-1	water tank	pieces	8	500	4,000	
3)	• water tank concrete	"	360	4.50	1,620	
	• base	cum	0.5	900	450	
	concrete block (0.39*0.19*0.09)	cum	3.2	150	480	
	mortar					
	laterite					
	• others					
	• labour cost	set	8	500	4,000	
	total				4,000	
					14,550	
					14,500	round off

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-2-1	Urine Treatment Basin & Drain			(B)	(B)	実施設計どおり
4)	Excavation common soil	cum	1.4	35	49	
	Embankment	"	5.8	26.25	152	
	Compaction	"	5.8	26.25	152	
	Plain concrete	"	5.0	1.100	5.500	
	Wooden form	"	1.0	12.000	12.000	
	Plywood (1.20×2.40×0.01m)	sheet	6	420	2.520	
	Embankment	cum	1.5	26.25	39	
	Compaction	"	1.5	26.25	39	
	RC - Pipe φ 0.40×1.00m	pieces	5	150	750	
	Sealant	tin	3	100	300	
	Labour cost	--			13.650	
	Total			Round off	35.151	
					35.100	



BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks	
1-2-1	Well			(B)	(B)	実施設計どおり	
5)							
		Excavation	cum	3.3	35		116
		Embankment	"	5.7	26.25		150
		Compaction	"	5.7	26.25		150
		RC - Pipe $\phi$ 1,000mm/m	pieces	14	150		2,100
		Plain concrete Labour cost	cum	0.50	1,100		550
	Total			Round off	2,460		
					5,526		
					5,500		

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-2-2	Construction of canal			(B)	(B)	
1)	• Earth works of canal					
	Excavation common soil	cum	15.800	15.2	240.160	
	Loading	"	7.400	15.2	112.480	
	Houling L = 500m	"	7.400	3.5	25.900	
	Spreading	"	8.400	7.0	81.200	計画設計変更
	Compaction	"	8.400	25.0	290.000	
	Gravel	"	204.0	250	51.000	
	Drainage by pump	days	30	329	9.870	
	Miscellaneous	%	2		16.212	
	Total			Round off	826.822	
					826.800	

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BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price (¥)	Price (¥)	Remarks
1-2-2 1)	construction of canal . earth works of canal excavation common soil spreading compaction gravel drainage by pump total	cum " " " days	15,800 15,800 15,800 250 60	15.2 7.0 25.0 250 329	240,160 110,600 395,000 62,500 19,740 828,000	

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-2-2				(B)	(B)	
2)	Appendant structure					
	• Pipe works					
	Excavation common soil	cum	4.3	35	151	実施設計どおり
	Spreading common soil	"	2.8	26.25	224	
	Compaction common soil	"	2.8	26.25	224	
	Smoothing face	sqm	4.8	1.4	7	
	RC - pipe $\phi$ 400mm/m	m	10	160	1,600	
	Plain concrete	cum	0.50	1,100	550	
	Steel $\phi$ 6 mm	kg	8.80	13	114	
	Labour cost				400	
	sub total				3,270	
					29,430	
				Round off	29,400	①

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BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-2-2 2)	Water division • Earth works			(B)	(B)	
	Excavation common soil	cum	41.3	35	1,446	
	Spreading common soil	"	183.7	7.0	1,286	
	Compaction common soil	"	183.7	25.0	4,593	
	Gravel $\phi$ 5~20 m/m	"	2.0	250	500	
	Boulder of slope protection	"	12.3	250	3,075	
	Mortal protection	"	8.2	1,000	8,200	
	RC - pipe $\phi$ 1.200m/m	m	11	1,200	13,200	
	• Concrete works					
	Plain concrete	cum	30.1	1,250	37,625	
	Wooden form	"	86.6	415.0	35,939	
	R - steel bar	t	1.650	13,500	22,275	
	Wire for bidding	"	0.165	20,000	3,300	
	Miscellaneous	%	2		2,628	
	sub total			Round off	134,067	
					268,134	
					268,100	②

**BILL OF QUANTITIES**

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-2-2	water division					
2)	• earth work				(B)	
	excavation common soil	cum	41.3	35	1,446	
	spreading common soil	"	183.7	7.0	1,286	
	compaction common soil	"	183.7	25.0	4,593	
	gravel	"	3.0	250	750	
	concrete	"	20.5	1,100	22,550	
	HC-pipe $\phi$ 1200mm*1.00m	pieces	11	1,200	13,200	
	•concrete work					
	plain concrete	cum	30.1	1,100	33,110	
	wooden form	"	86.6	415.0	35,939	
	steel bar	t	1.65	13,500	22,275	
	wire for bidding	kg	165	20	3,300	
	total				138,449	
	#2				276,898	
					276,800	round off ②

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks	
1-2-2 2)	• Cross road			(B)	(B)		
	Excavation common soil	cum	16.8	35	588		
	Spreading common soil	"	256.2	7.0	1,793		
	Compaction common soil	"	256.2	25.0	6,405		
	Gravel	"	2.0	250	500		
	RC - pipe $\phi$ 1,200mm/m	m	17	1,200	20,400		
	Boulder of slope protection	cum	10.1	250	2,525	資材変更	
	Mortal protection	"	6.7	1,000	6,700		
	Miscellaneous	%	2		778		
	sub total					39,689	
						119,067	
					Round off	119,000	③
	• Gate 1.2 m x 1.2m	set	2	20,000	40,000	④	
	total					456,500	⑤ = ① + ② + ③ + ④

**BILL OF QUANTITIES**

Item No.	Description	Unit	Quantity	Unit Price (₪)	Price (₪)	Remarks
1-2-2	• cross road					
2)	excavation common soil	cum	16.8	35	588	
	spreading common soil	"	256.2	7.0	1,793	
	compaction common soil	"	256.2	25.0	6,405	
	gravel	"	2.0	250	500	
	RC-pipe $\phi$ 1,200 mm * 1.00m	pieces	17	1,200	20,400	
	concrete slope protection	cum	16.8	1,100	18,480	
	sub total				48,166	
					144,498	
					144,400	round off ③
	• gate 1.2 m* 1.2 m	set	2	20,000	40,000	④
	total				490,600	①②③④



BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-2-3	Installation of Vegetable Farm			(B)	(B)	実施設計どおり
	Steel pipe 1"	pieces	42	250	10,500	
	Wire sling 3.0m/m	m	300	3	900	
	" 4.5m/m	"	410	4	1,640	
	Clamping	pieces	42	5	210	
	Pull clamping	"	42	15	630	
	Coupling	"	42	20	840	
	Nylon mesh sheet	m <sup>2</sup>	1,000	8	8,000	
	Transportation	%	10		2,272	
	Concrete + Clamp	pieces	44	20	880	
	sub total				25,872	
	Labour	md	35	70	2,450	
	Total × 3				28,322	
					84,966	
				Round off	84,900	

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-2-2 3)	Construction of pond			(B)	(B)	
	• Earth works					
	Excavation common soil	cum	756	11.4	8,618	
	Spreading	"	238	7.0	1,666	
	Embankment	"	354	15.2	5,380	
	Compaction	"	354	7.0	2,478	
	Soothinging face	sqm	1,297	1.4	1,815	
	• Pipe works					
	RC - Pipe $\phi$ 400m/m	m	13.4	100	1,340	
	Excavation common soil	cum	4.8	35	168	
	Spreading common soil	"	3.1	26.25	81	
	Compaction common soil	"	3.1	26.25	81	
	Soothinging face	sqm	8.0	1.4	11	
	• Slope protection					
	Excavation common soil	cum	4.0	35	140	
	Stone Boulder	"	2.4	250	600	
	Concrete	"	1.6	1,000	1,600	資材変更
	Miscellaneous	%	2		479	
	Total				24,457	
					146,742	
				Round off	146,700	

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BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price (₪)	Price (₪)	Remarks
1-2-2	construction of pond					
3)	•earth work					
	excavation common soil	cum	756	11.4	8,618	
	spreading	"	402	7.0	2,814	
	embankment	"	354	15.2	5,380	
	compaction	"	354	7.0	2,478	
	smoothing face	sqm	1,297	1.4	1,815	
	•pipe work					
	RC-pipe 400mm *1.00m	pieces	10	160	1,600	
	excavation common soil	cum	4.8	35	168	
	spreading common soil	"	3.1	26.25	81	
	compaction common soil	"	3.1	26.25	81	
	•slope protection					
	excavation common soil	cum	4.0	35	140	
	concrete	"	4.0	1,100	4,400	
	total				27,575	
	* 6				165,450	
					165,400	round off

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price	Price	Remarks
1-2-2 4)	Lateral canal			(B)	(B)	
	Excavation common soil	sum	180	35	6,300	
	Embankment	"	180	26.25	4,725	
	Miscellaneous	%	2		220	
	Total			Round off	11,245 11,200	

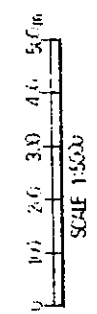
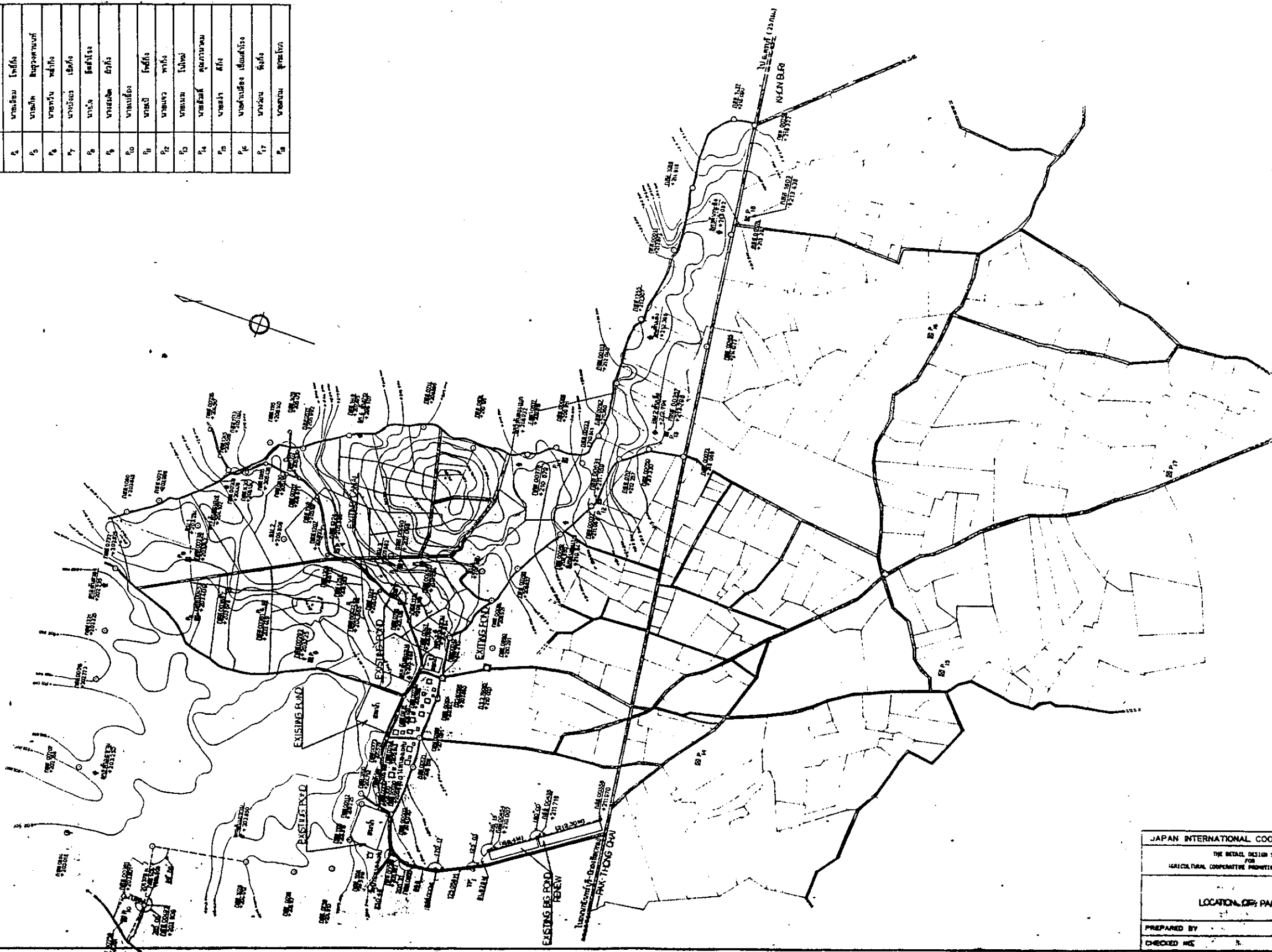
実施設計どおり

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price (₱)	Price (₱)	Remarks
1-2-2 (4)	lateral canal excavation common soil embankment	cum "	180 180	35 26.25	6,300 4,725 11,025 11,000	round off

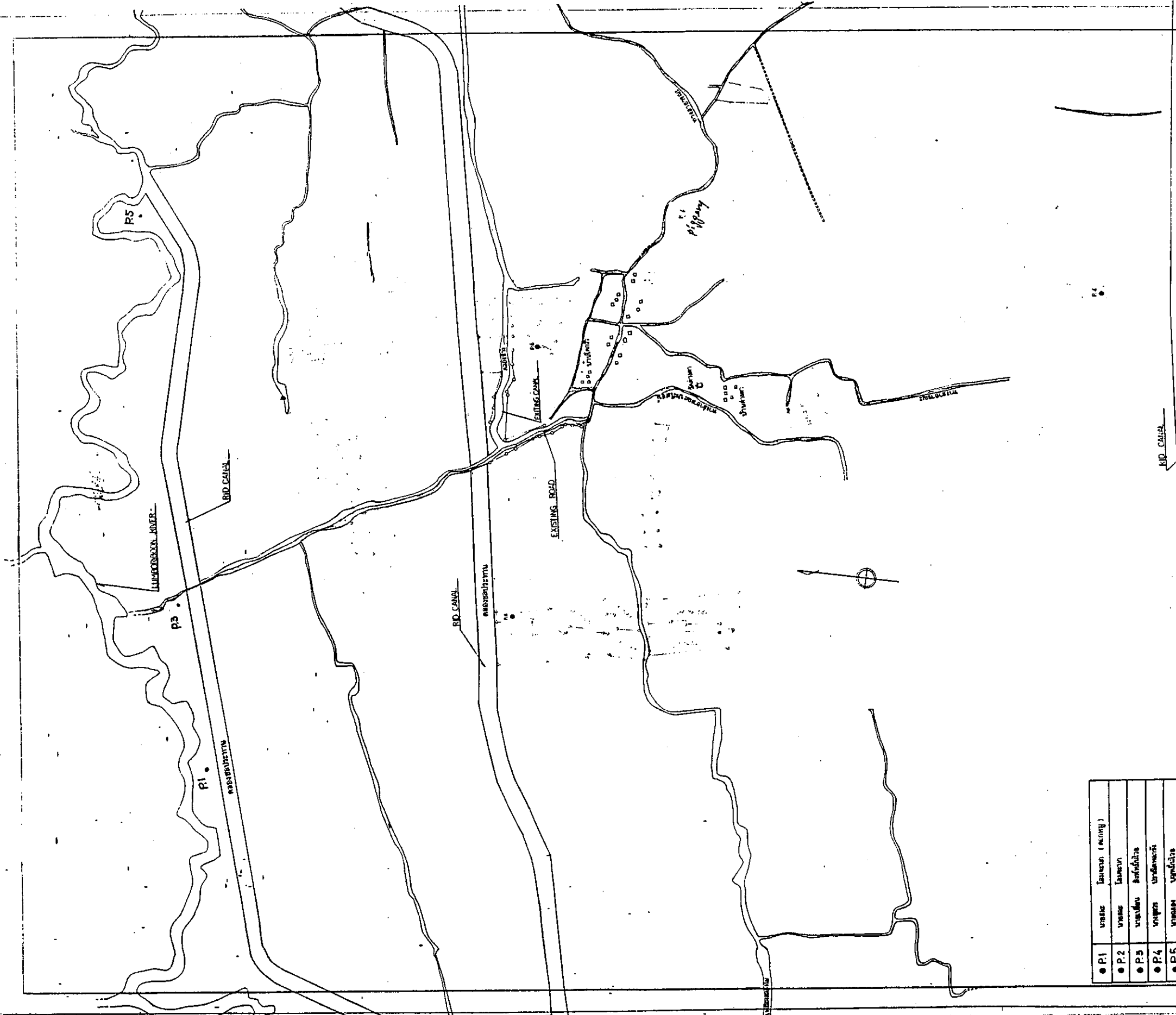
6-3-7 竣工図面

1	วสันต	๒๕/๕
2	วสันต	๒๕/๕
3	วสันต	๒๕/๕
4	วสันต	๒๕/๕
5	วสันต	๒๕/๕
6	วสันต	๒๕/๕
7	วสันต	๒๕/๕
8	วสันต	๒๕/๕
9	วสันต	๒๕/๕
10	วสันต	๒๕/๕
11	วสันต	๒๕/๕
12	วสันต	๒๕/๕
13	วสันต	๒๕/๕
14	วสันต	๒๕/๕
15	วสันต	๒๕/๕
16	วสันต	๒๕/๕
17	วสันต	๒๕/๕
18	วสันต	๒๕/๕



LOCATION OF PAK-THONG-CHAI

JAPAN INTERNATIONAL COOPERATION AGENCY  
 THE METAL DESIGN SURVEY  
 FOR  
 AGRICULTURAL COOPERATIVE PROMOTION PROJECT IN THAILAND  
 LOCATION OF PAK-THONG-CHAI  
 PREPARED BY  
 CHECKED BY  
 DRAWING NO.



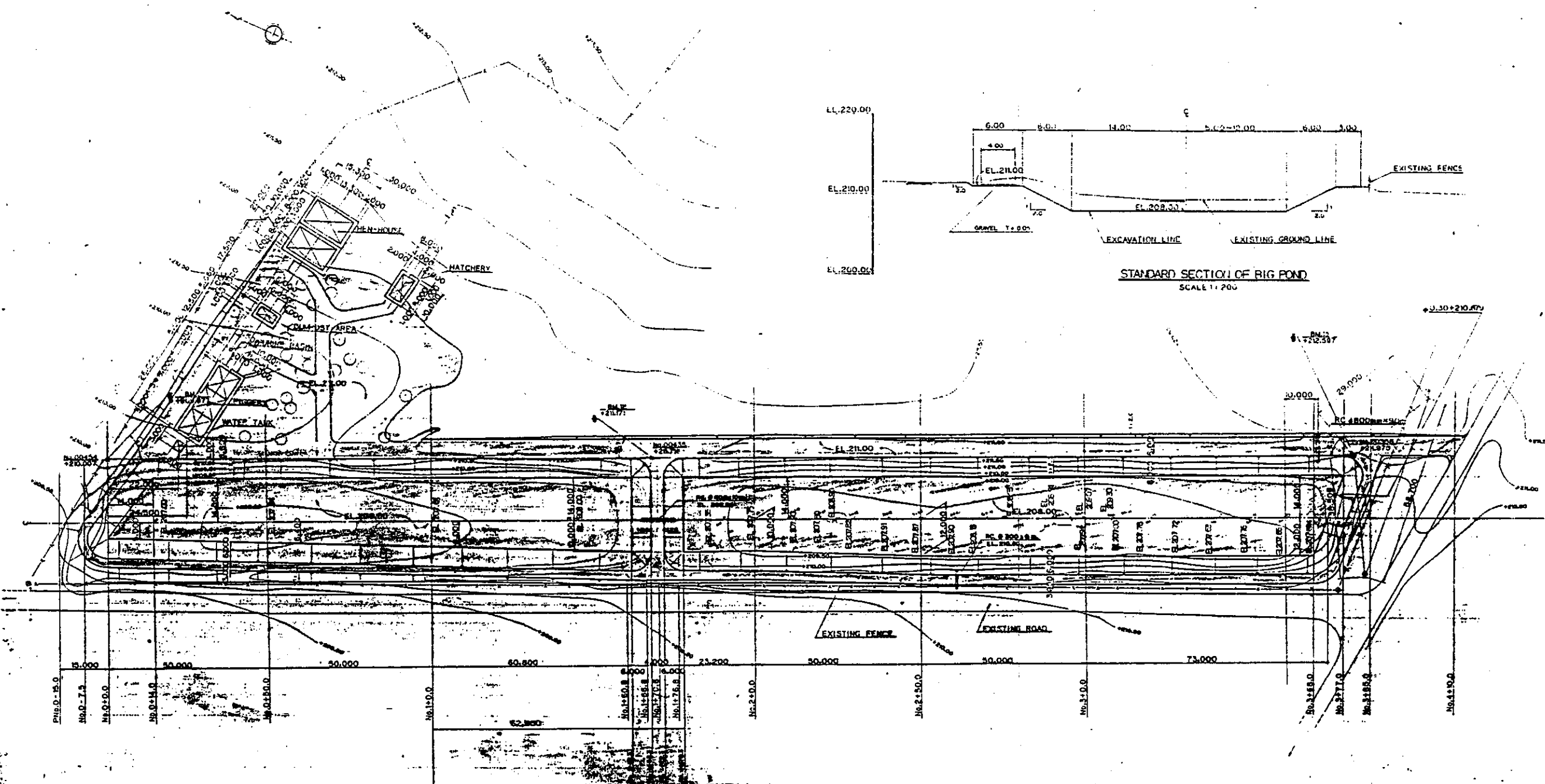
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● P2	unsteril	laurensii
● P3	unsteril	herfordiae
● P4	unsteril	unsteril
● P5	unsteril	unsteril
● P6	unsteril	unsteril
● P7	unsteril	unsteril

JAPAN INTERNATIONAL COOPERATION AGENCY  
 THE DETAIL DESIGN SURVEY  
 AGRICULTURAL COOPERATIVE PROMOTION PROJECT IN LAOS  
 LOCATION OF MUANG  
 PREPARED BY \_\_\_\_\_ DRAWING NO. 2  
 CHECKED NO. \_\_\_\_\_

0 100 200 300 400 500m  
 SCALE 1:5000

LOCATION OF MUANG



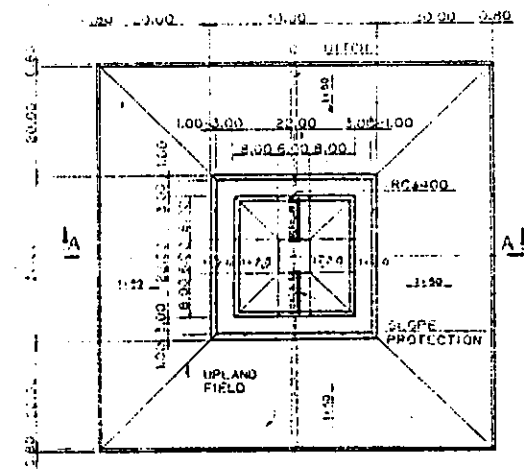


PLANE OF BIG POND & LIVESTOCK FACILITIES  
SCALE 1:500

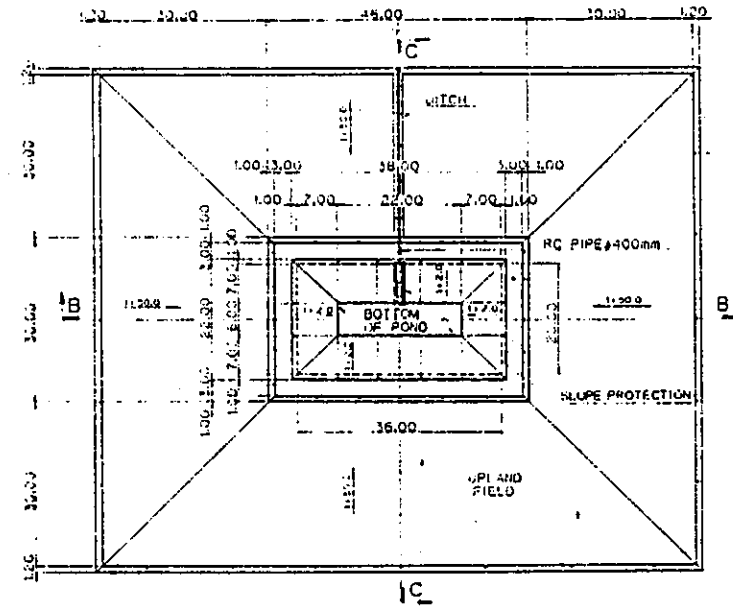
NOTE: 1. ALL DIMENSIONS ARE SHOWN IN MALAYSIAN METERS UNLESS OTHERWISE INDICATED.  
2. INVESTIGATION AND STUDY BY THE CONSULTANTS.  
3. DESIGN & CONSTRUCTION BY THE CONTRACTOR.

JAPAN INTERNATIONAL COOPERATION AGENCY  
THE SEAR, SEASID, SINGAPORE  
INTERNATIONAL COOPERATION PROGRAMME IN THAILAND

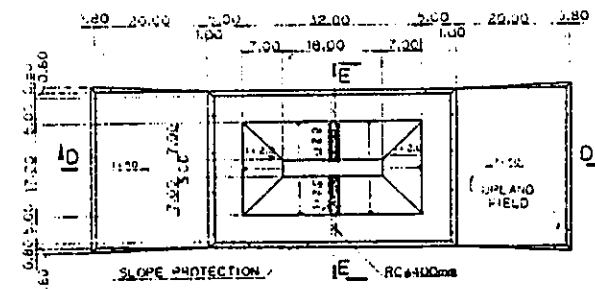
PLAN OF BIG POND & LOCATION OF LIVESTOCK FACILITIES



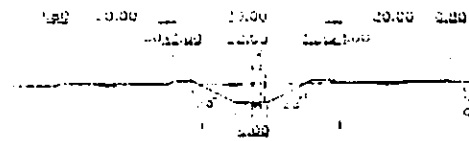
PLANE OF POND TYPE A  
SCALE 1:500  
(PAC-THONG-CHAI)



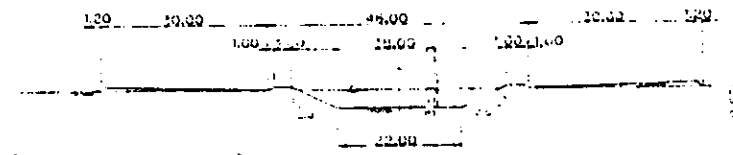
PLANE OF POND TYPE B  
SCALE 1:500  
(PAC-THONG-CHAI)



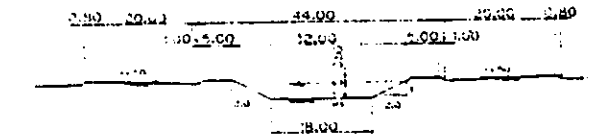
PLANE OF POND  
SCALE 1:500  
(MUANG)



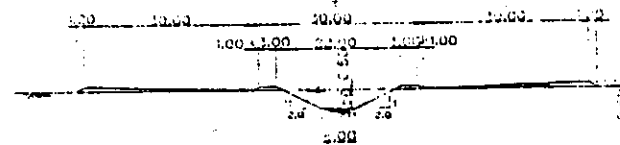
SECTION A-A  
SCALE 1:500



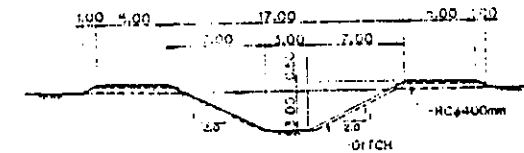
SECTION B-B  
SCALE 1:500



SECTION D-D  
SCALE 1:500



SECTION C-C  
SCALE 1:500



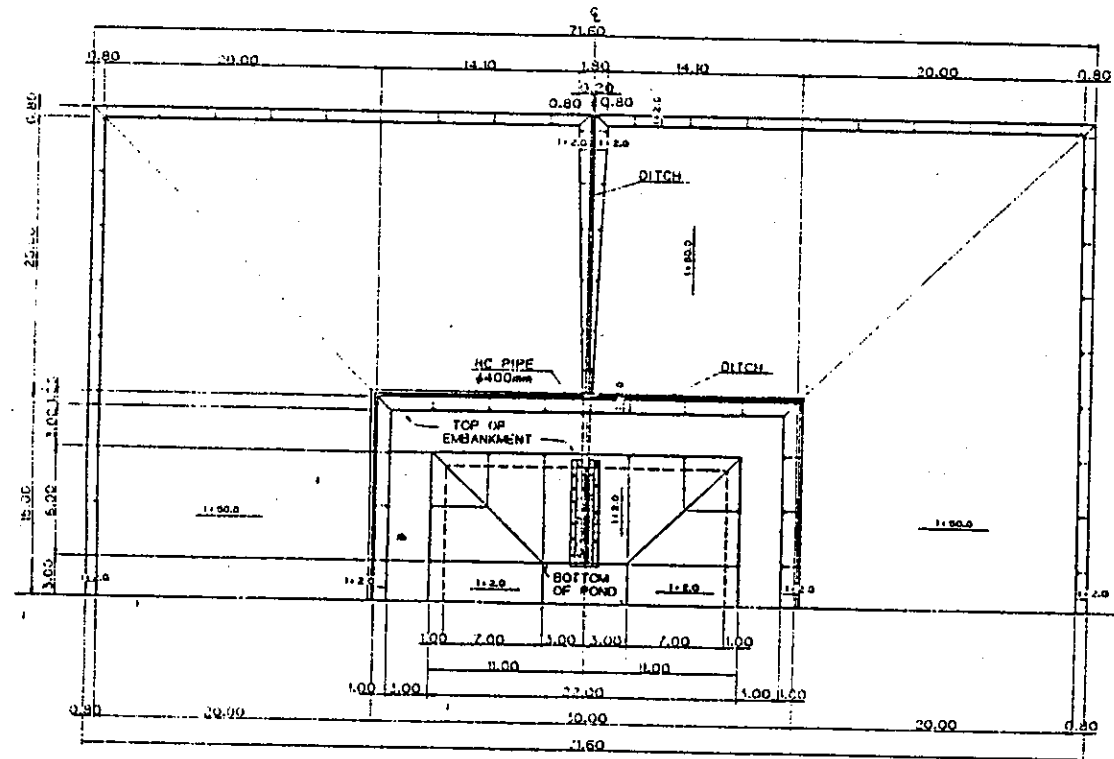
SECTION E-E  
SCALE 1:500

PAK-THONG-CHAI

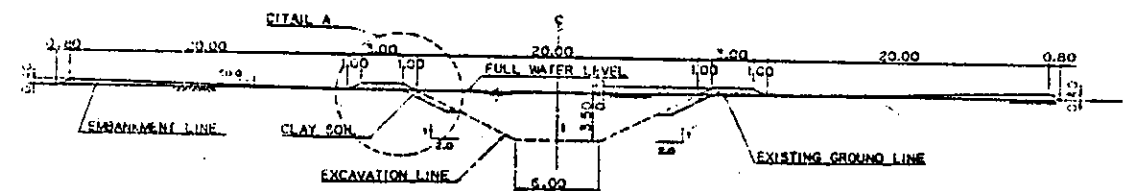
MUANG

NOTE : 1. ALL DIMENSIONS ARE SHOWN IN METERS  
UNLESS OTHERWISE INDICATED  
2. ABBREVIATION AND SYMBOL  
E : CENTER LINE  
EL : ELEVATION

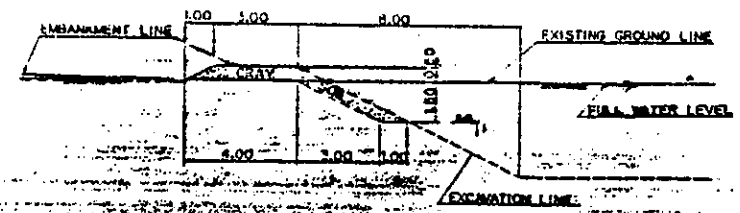
JAPAN INTERNATIONAL COOPERATION AGENCY	
THE DETAIL DESIGN SURVEY	
NATIONAL COOPERATIVE PROMOTION PROJECT IN THAILAND	
PLAN OF POND-STANDARD	
PREPARED BY	DRAWING NO.
CHECKED NO.	4



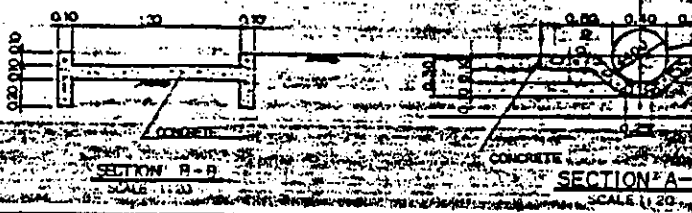
PLANE OF POND TYPE A (PAK-THONG-CHAI)  
SCALE 1:200



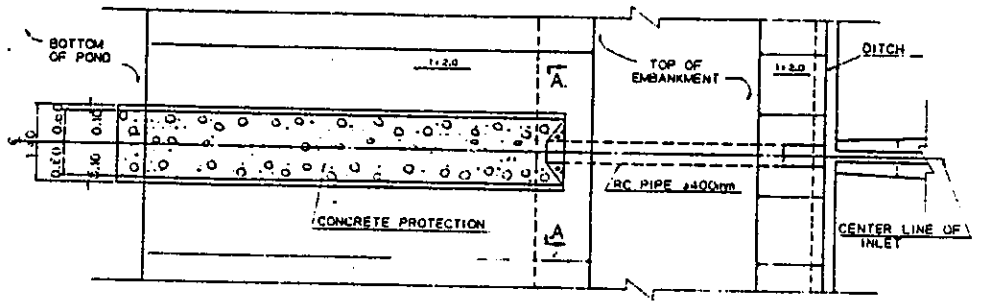
STANDARD SECTION OF POND (PAK-THONG-CHAI)  
SCALE 1:200



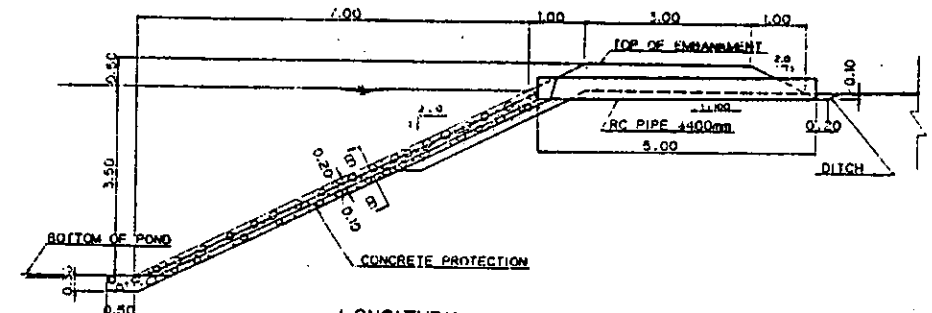
DETAIL A  
SCALE 1:100



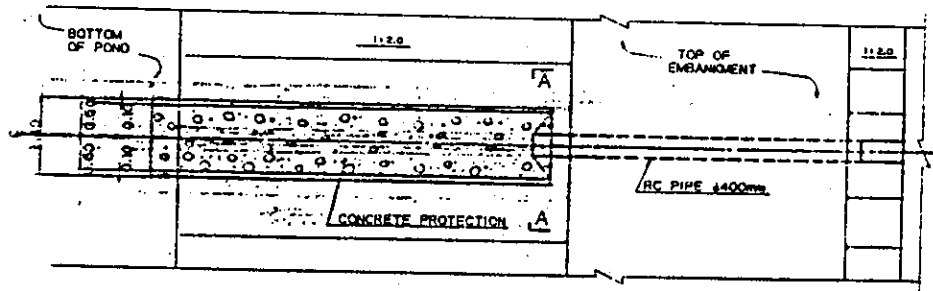
SECTION B-B  
SCALE 1:20



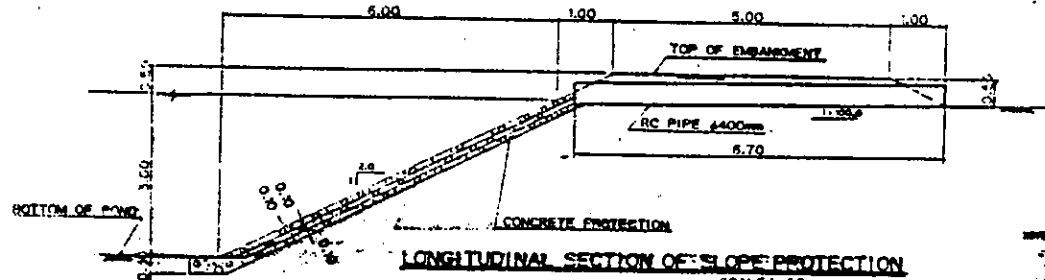
PLANE OF SLOPE PROTECTION  
SCALE 1:50



LONGITUDINAL SECTION OF SLOPE PROTECTION  
PAK THONG CHAI  
SCALE 1:50



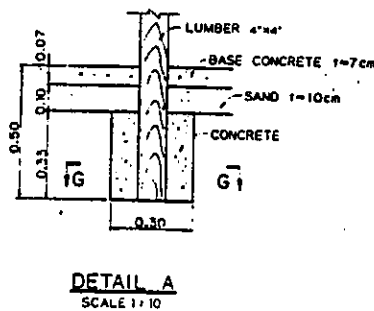
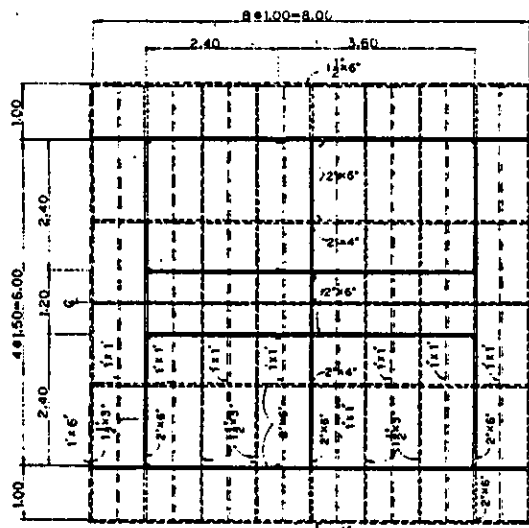
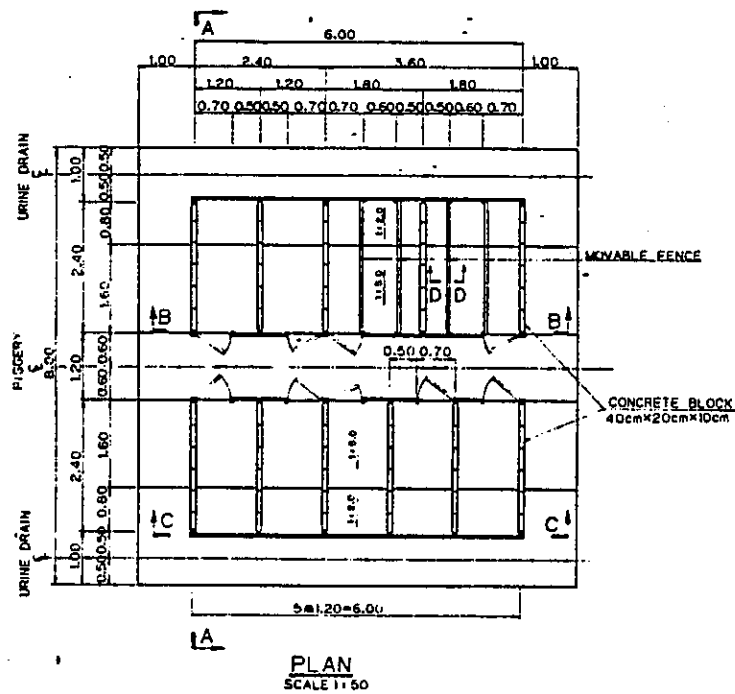
PLANE OF SLOPE PROTECTION  
SCALE 1:50



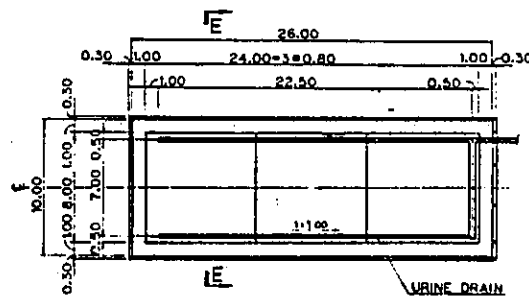
LONGITUDINAL SECTION OF SLOPE PROTECTION  
MUANG  
SCALE 1:50

NOTE: 1. ALL DIMENSIONS ARE SHOWN IN METERS UNLESS OTHERWISE INDICATED.  
2. ABBREVIATION AND SYMBOLS:  
C: CENTER LINE  
EL: ELEVATION

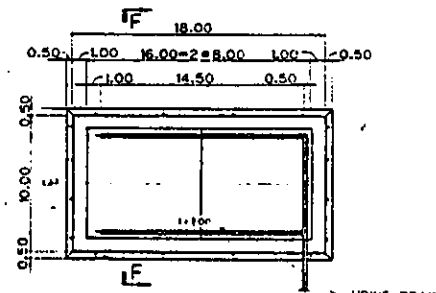
JAPAN INTERNATIONAL COOPERATION AGENCY	
THE ENGINEERING DIVISION	
CONSTRUCTION ENGINEERING DIVISION	
PREPARED BY: [Name]	
DRAWING NO.: [Number]	



**SECTION G-G**  
SCALE 1:10



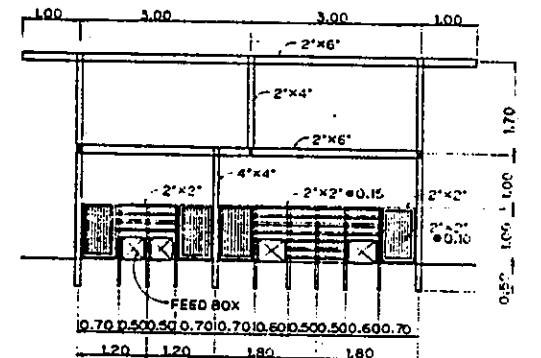
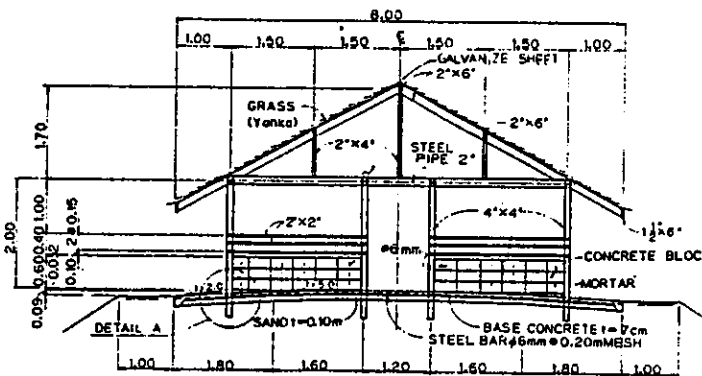
**PAK-THONG-CHAI**  
SCALE 1:200



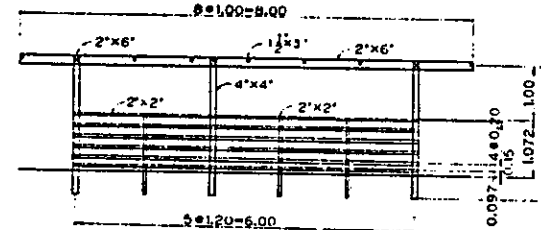
**MUANG**  
SCALE 1:200

**SECTION E-E**  
SCALE 1:100

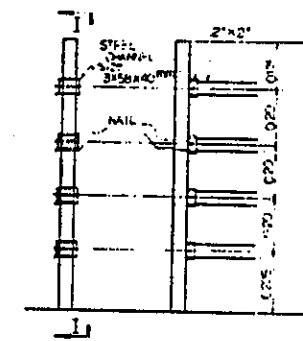
**SECTION F-F**  
SCALE 1:100



**SECTION B-B**  
SCALE 1:50

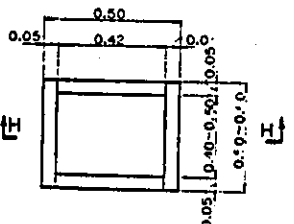


**SECTION C-C**  
SCALE 1:50

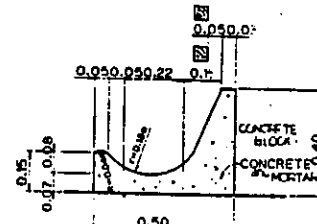


**SECTION D-D SECTION I-I**  
SCALE 1:10

**MOVABLE FENCE**  
SCALE 1:10



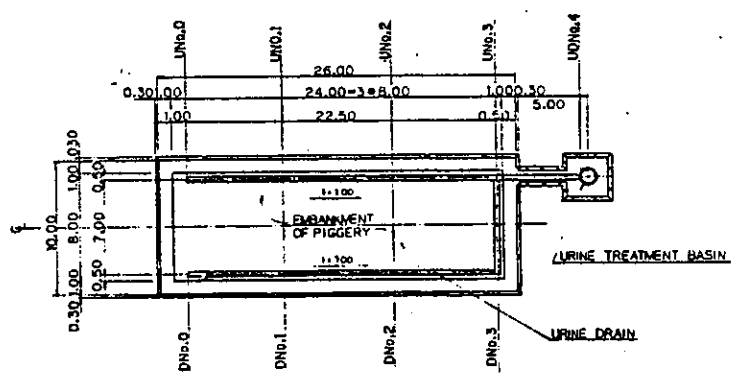
**FEED BOX**  
SCALE 1:10



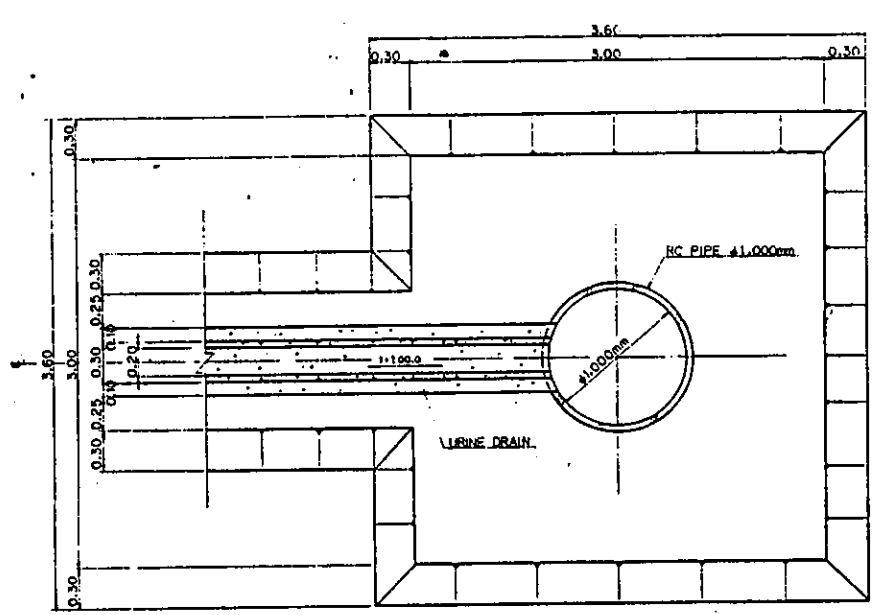
**SECTION H-H**  
SCALE 1:10

NOTE: 1. ALL DIMENSIONS ARE SHOWN IN METERS UNLESS OTHERWISE INDICATED.  
2. ABBREVIATION AND SYMBOL  
E: CENTER LINE  
EL: ELEVATION

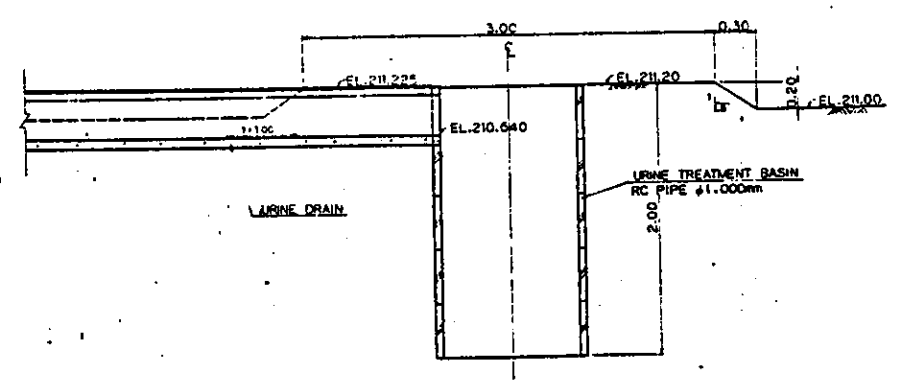
JAPAN INTERNATIONAL COOPERATION AGENCY	
THE DETAIL DESIGN SURVEY	
AGRICULTURAL COOPERATIVE PROMOTION PROJECT IN THAILAND	
<b>PLAN OF PIGGERY</b>	
PREPARED BY	DRAWING NO.
CHECKED NO.	6



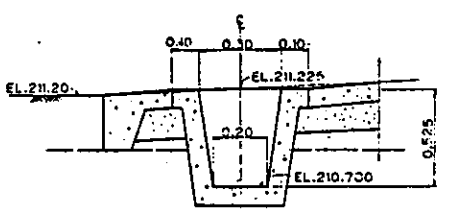
PLAN OF URINE DRAIN PAK THONG CHAI  
SCALE 1:200



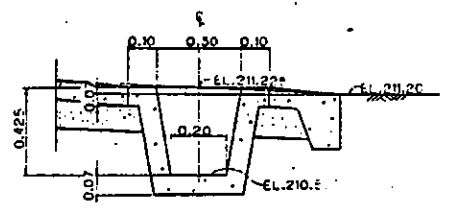
PLAN OF URINE TREATMENT BASIN  
SCALE 1:20



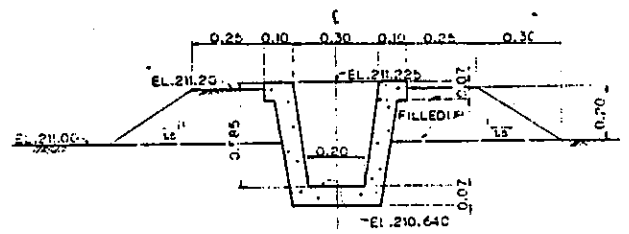
LONGITUDINAL SECTION OF URINE DRAIN & TREATMENT BASIN  
SCALE 1:20



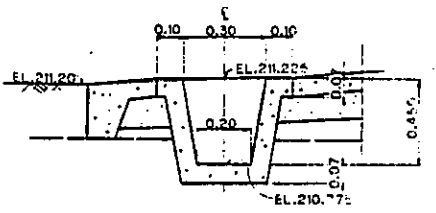
UNO.3  
SCALE 1:10



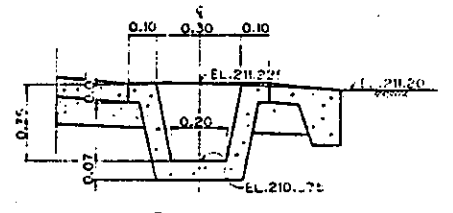
DNO.3  
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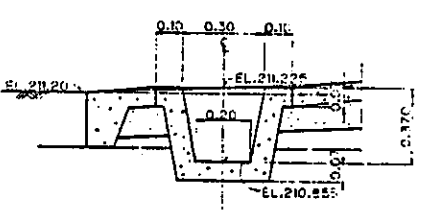
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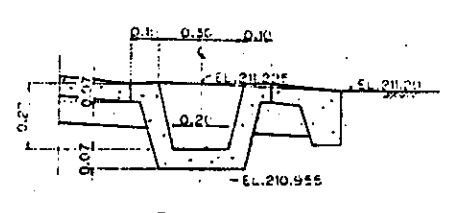
UNO.2  
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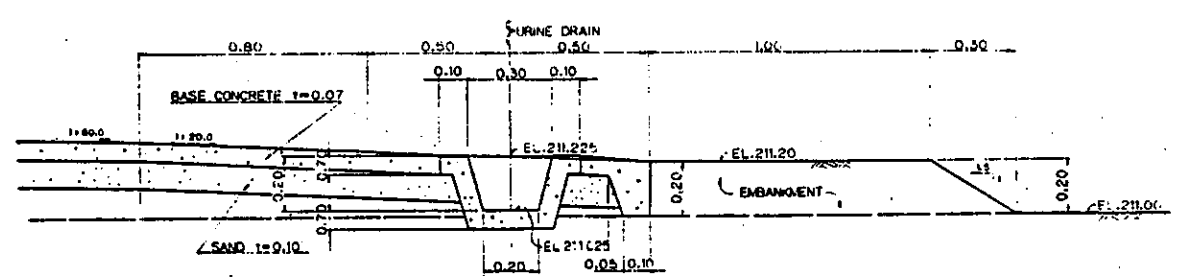
DNO.2  
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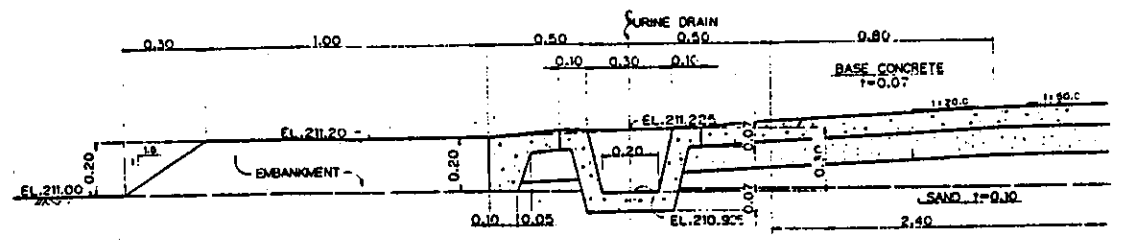
UNO.1  
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DNO.1  
SCALE 1:10



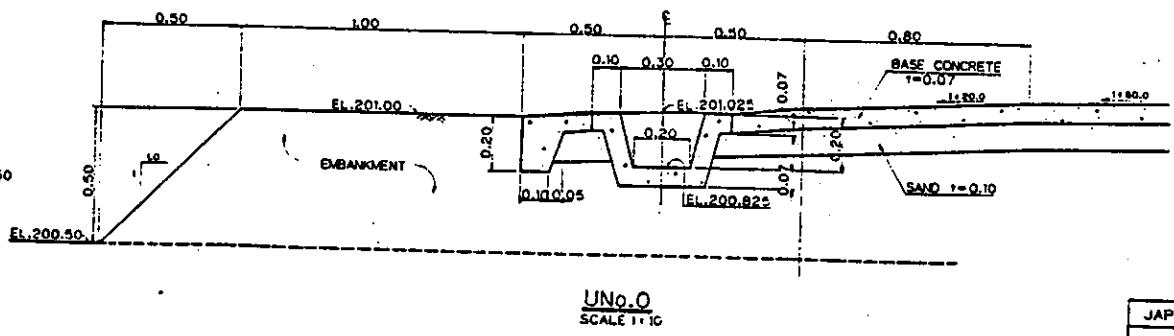
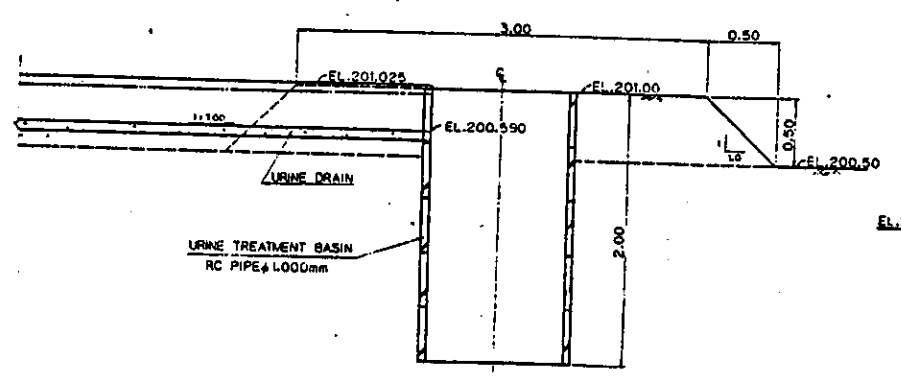
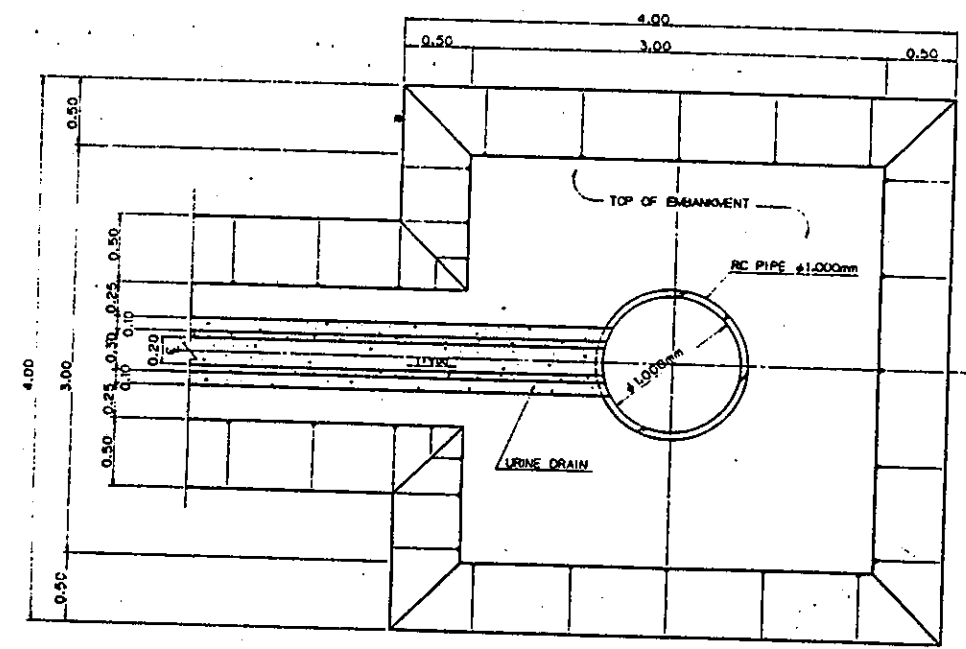
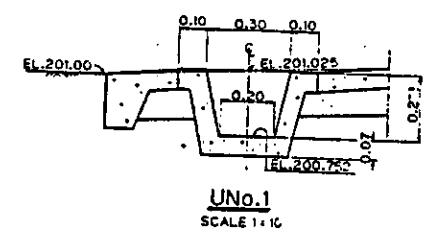
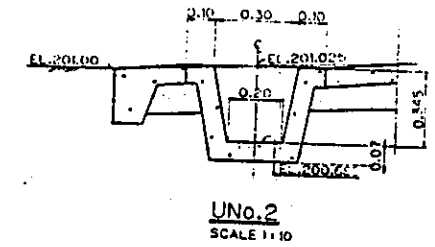
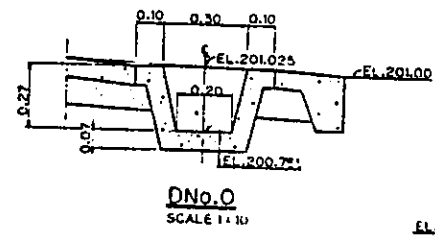
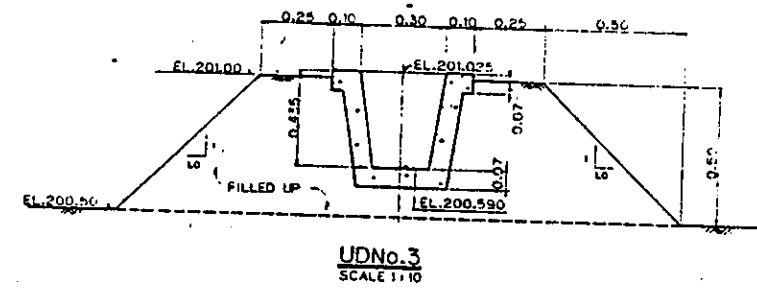
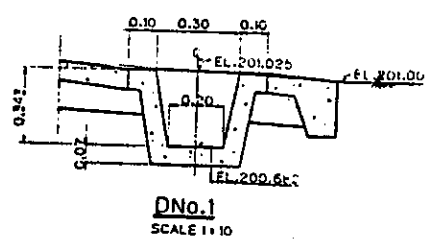
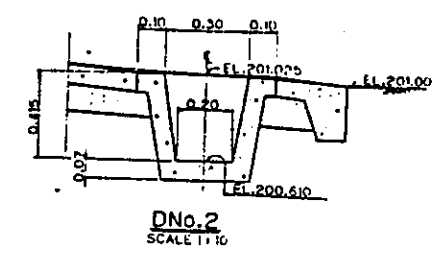
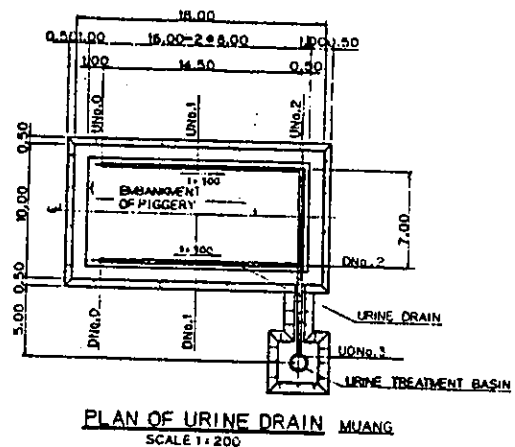
DNO.0  
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UNO.0  
SCALE 1:10

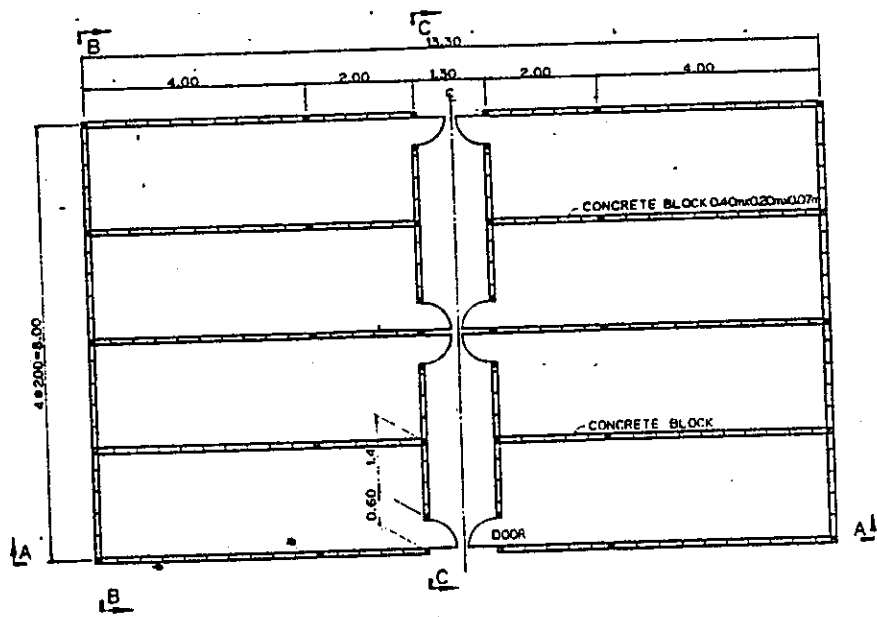
NOTE : 1. ALL DIMENSIONS ARE SHOWN IN METERS.  
UNLESS OTHERWISE INDICATED.  
2. ABBREVIATION AND SYMBOL  
C : CENTER LINE  
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JAPAN INTERNATIONAL COOPERATION AGENCY	
THE DETAILED DESIGN SURVEY FOR AGRICULTURAL COOPERATIVE PROMOTION PROJECT IN THAILAND	
URINE DRAIN CROSS SECTION (PAK-THONG-CHAI)	
PREPARED BY:	DRAWING NO.:
CHECKED NO.:	

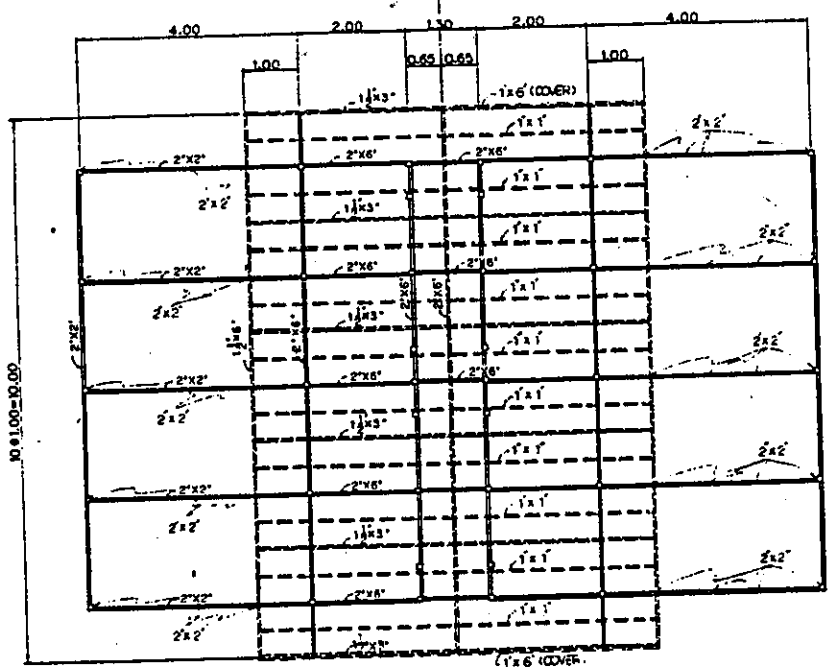


NOTE: 1. ALL DIMENSIONS ARE SHOWN IN METERS UNLESS OTHERWISE INDICATED  
 2. ABBREVIATION AND SYMBOL  
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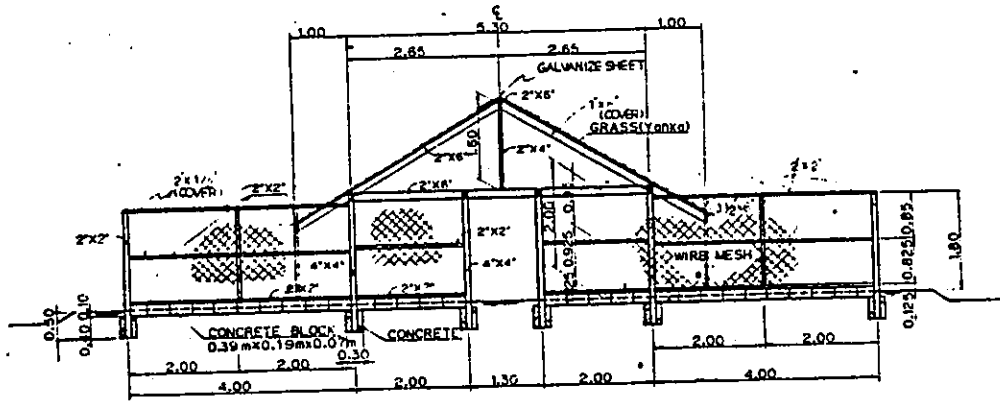
JAPAN INTERNATIONAL COOPERATION AGENCY	
THE DETAIL DESIGN SURVEY FOR AGRICULTURAL COOPERATIVE PROMOTION PROJECT IN THAILAND	
URINE DRAIN-CROSS SECTION (MUANG)	
PREPARED BY	DRAWING NO.
CHECKED NO.	E



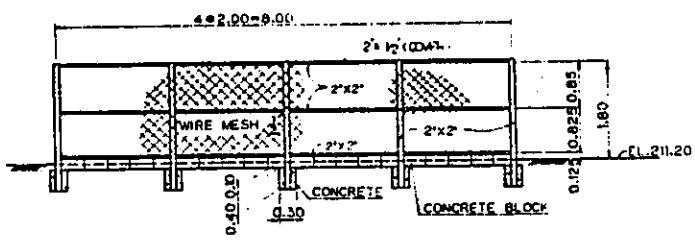
PLAN OF HEN HOUSE  
SCALE 1:50  
BREEDING



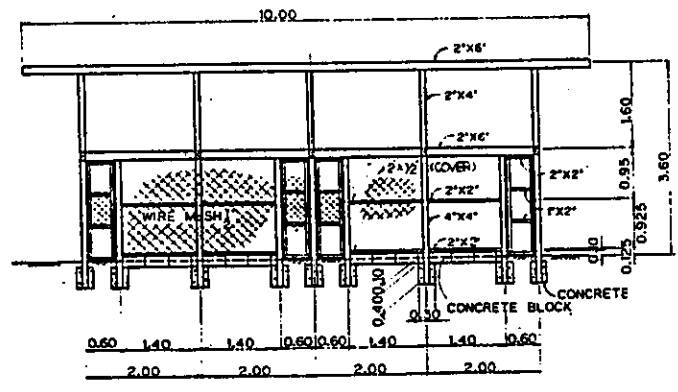
PLAN OF ROOF  
SCALE 1:50



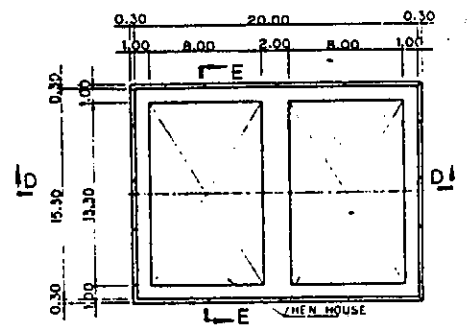
SECTION A-A  
SCALE 1:50



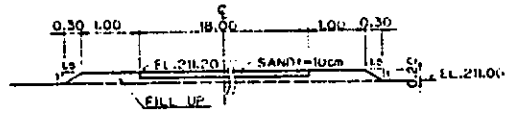
SECTION B-B  
SCALE 1:50



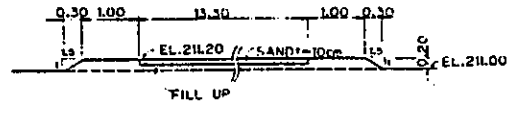
SECTION C-C  
SCALE 1:50



LOCATION OF HEN HOUSE  
SCALE 1:50



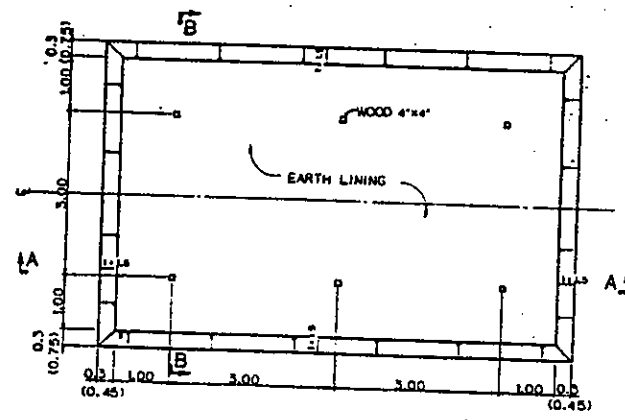
SECTION D-D  
SCALE 1:50



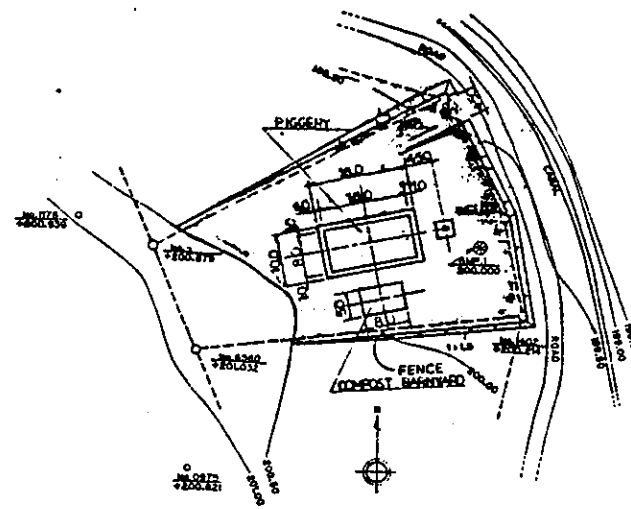
SECTION E-E  
SCALE 1:50

NOTE: 1. ALL DIMENSIONS ARE SHOWN IN METERS UNLESS OTHERWISE INDICATED.  
2. ABBREVIATION AND SYMBOL  
C : CENTER LINE  
EL : ELEVATION

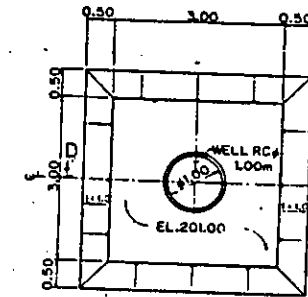
JAPAN INTERNATIONAL COOPERATION AGENCY	
THE DETAIL DESIGN SURVEY FOR AGRICULTURAL COOPERATIVE PROMOTION PROJECT IN THAILAND	
PLAN OF HEN HOUSE Breeding	
PREPARED BY	DRAWING NO.
CHECKED NO.	9



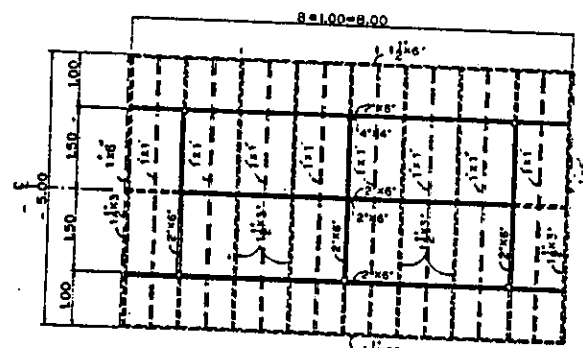
PLAN OF COMPOST BARNYARD  
SCALE 1:50



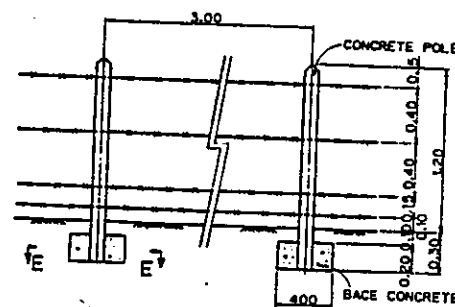
LOCATION OF PIGGERY  
SCALE 1:500  
MUANG



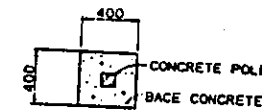
PLAN OF WELL & WATER TANK BASE (MUANG)  
SCALE 1:50



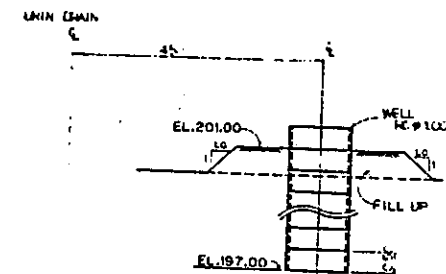
ROOF OF COMPOST BARNYARD  
SCALE 1:50



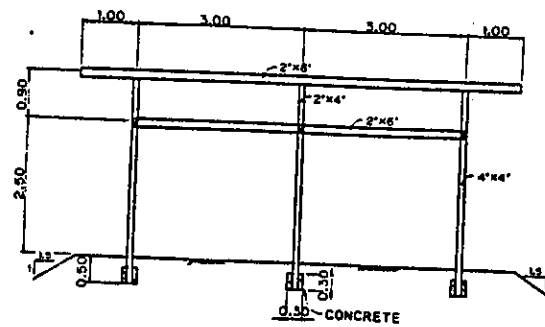
PLAN OF FENCE  
SCALE 1:20



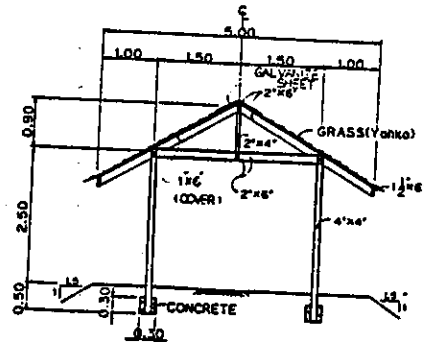
SECTION C-C  
SCALE 1:20



SECTION D-D  
SCALE 1:50



SECTION A-A  
SCALE 1:50

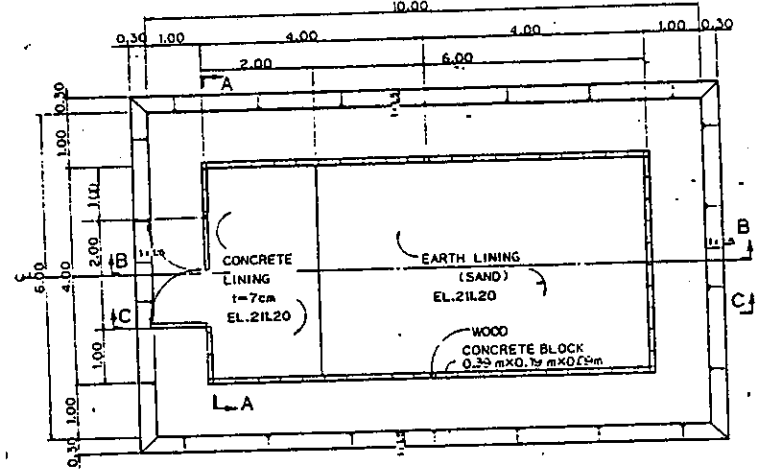


SECTION B-B  
SCALE 1:50

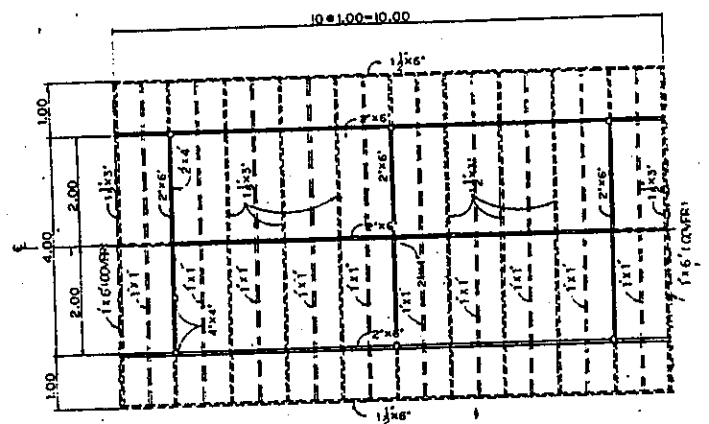
NOTE: 1. ALL DIMENSIONS ARE SHOWN IN METERS UNLESS OTHERWISE INDICATED  
2. ABBREVIATION AND SYMBOL  
C = CENTER LINE  
EL. = ELEVATION

JAPAN INTERNATIONAL COOPERATION AGENCY	
THE DETAIL DESIGN SURVEY FOR AGRICULTURAL COOPERATIVE PROMOTION PROJECT IN THAILAND	
PLAN OF COMPOST BARNYARD & WELL-WATER TANK LOCATION OF PIGGERY (MUANG)	
PREPARED BY	DRAWING NO.
CHECKED NO.	10

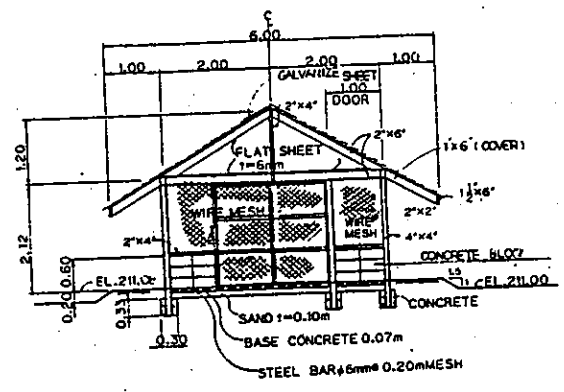




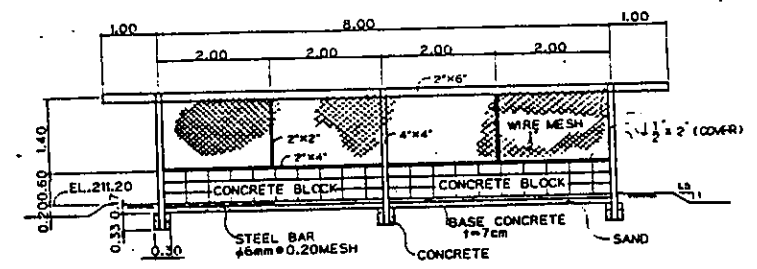
PLAN OF HATCHERY  
SCALE 1:50



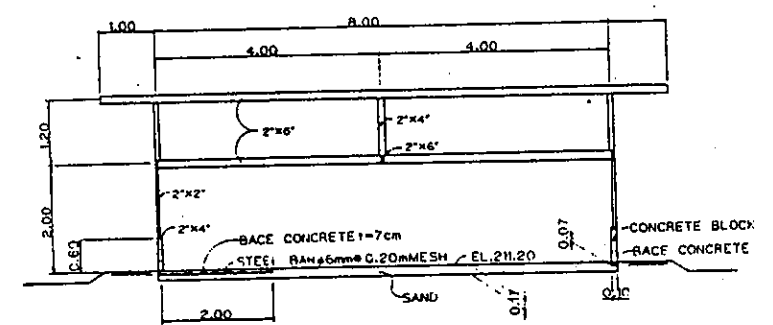
ROOF OF HATCHERY  
SCALE 1:50



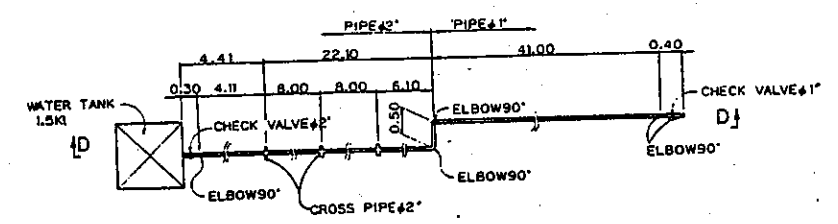
SECTION A-A  
SCALE 1:50



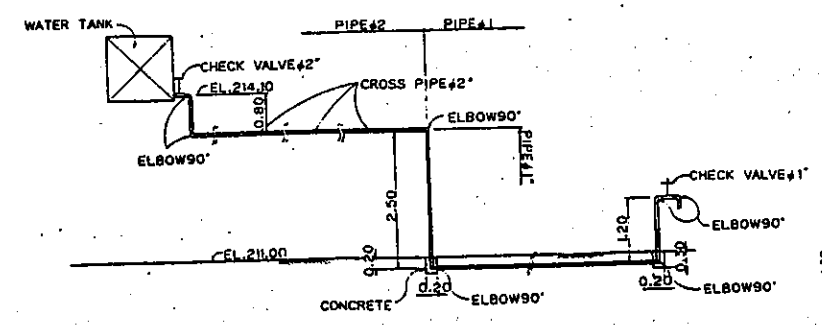
SECTION B-B  
SCALE 1:50



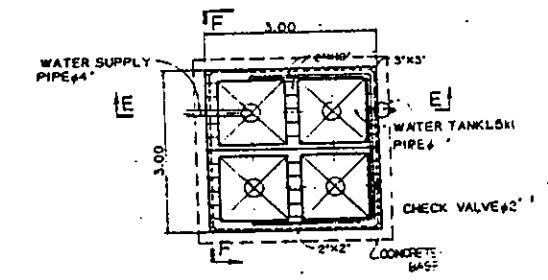
SECTION C-C  
SCALE 1:50



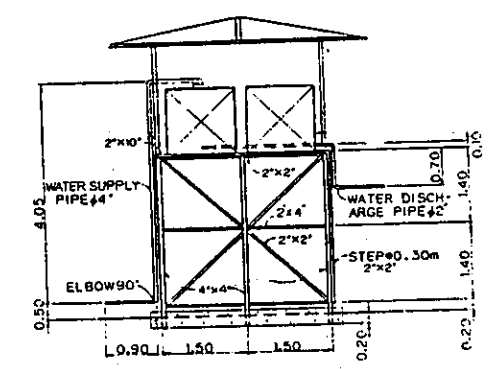
PLAN OF DISCHARGE PIPE  
SCALE 1:50



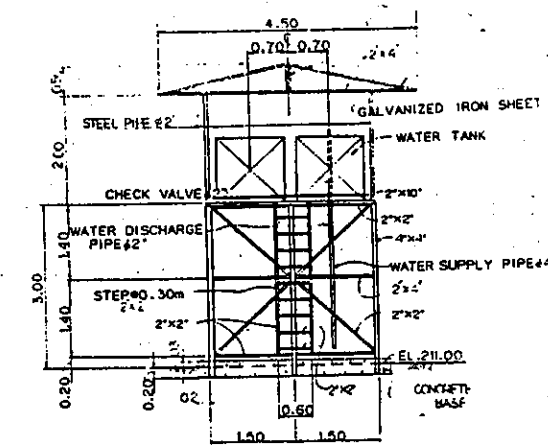
SECTION D-D  
SCALE 1:50



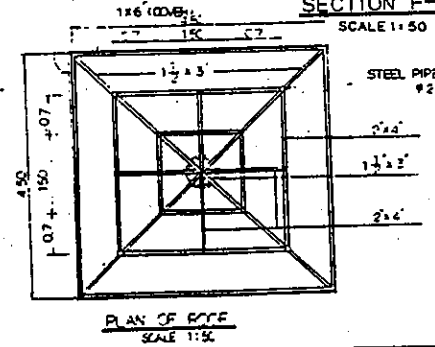
PLAN OF WATER TANK BASE  
PAKTHONGCHAI SCALE 1:50



SECTION E-E  
SCALE 1:50



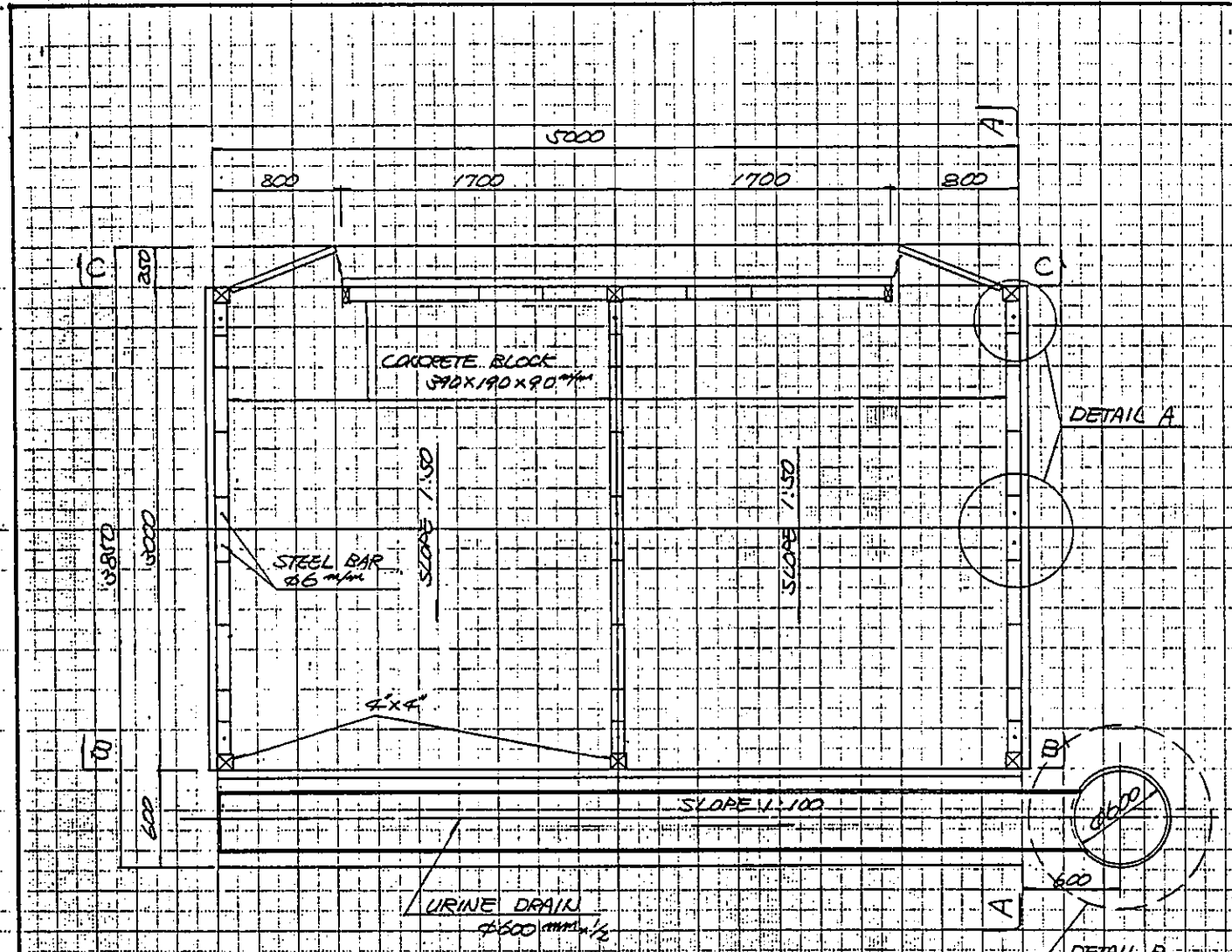
SECTION F-F  
SCALE 1:50



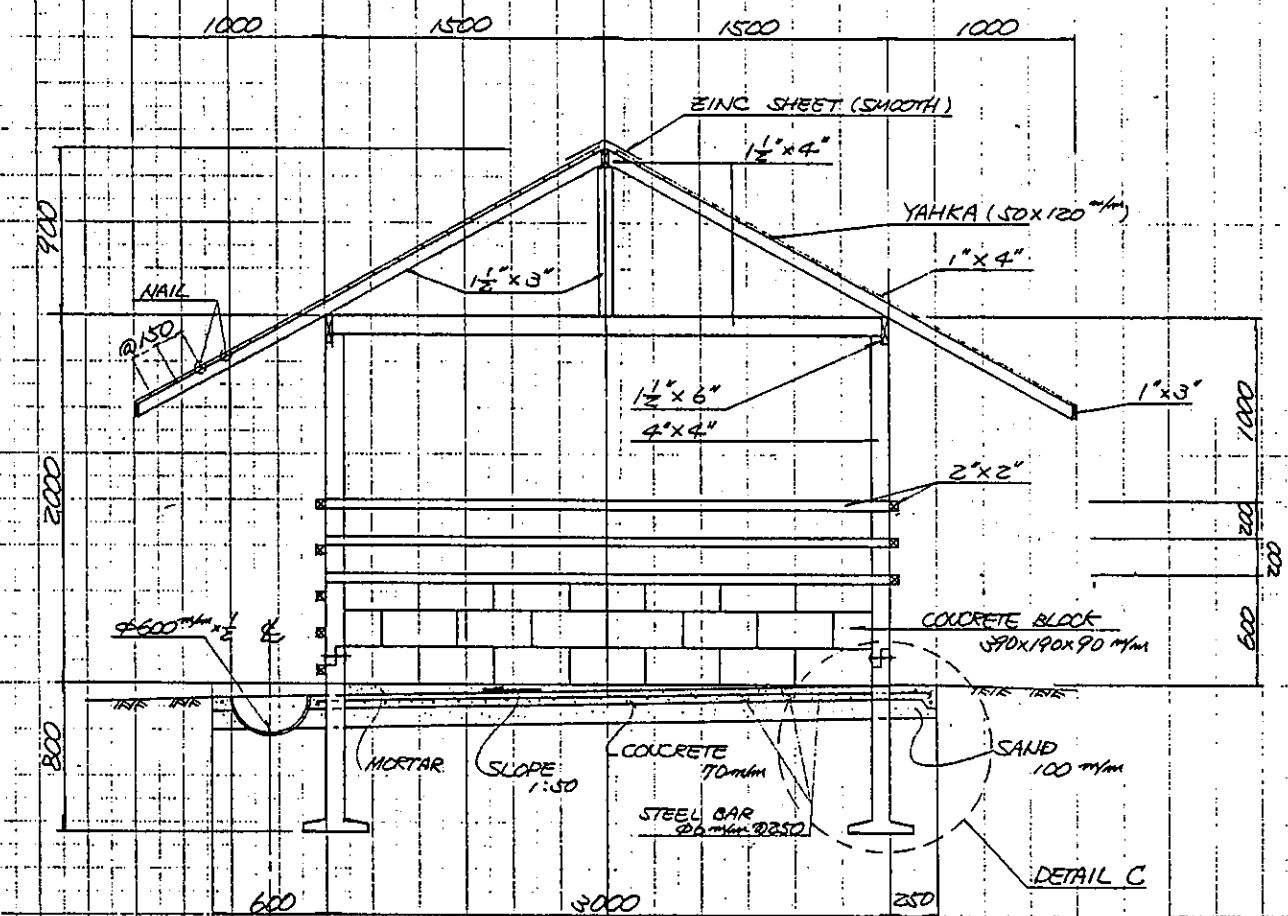
PLAN OF ROOF  
SCALE 1:50

NOTE: 1. ALL DIMENSIONS ARE SHOWN IN METERS UNLESS OTHERWISE INDICATED.  
2. ABBREVIATION AND SYMBOL:  
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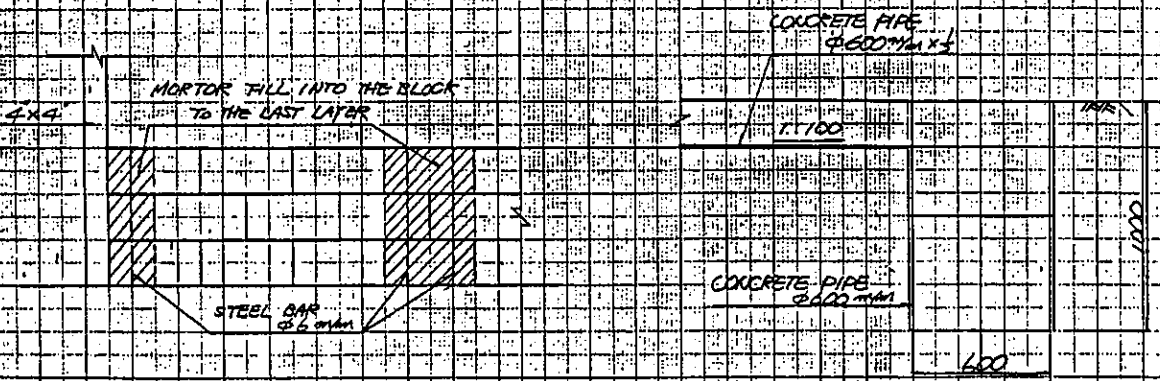
JAPAN INTERNATIONAL COOPERATION AGENCY	
THE DETAIL DESIGN SURVEY FOR AGRICULTURAL COOPERATIVE PROMOTION PROJECT IN THAILAND	
PLAN OF HATCHERY & WATER TANK	
PREPARED BY	DRAWING NO.
CHECKED NO.	17



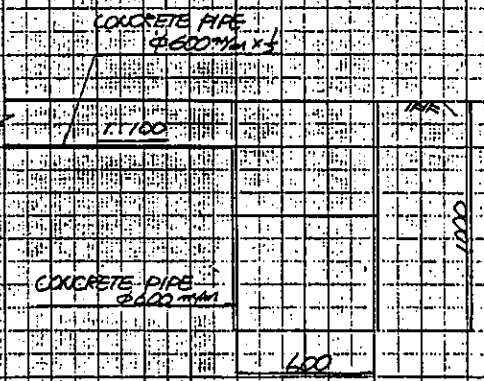
PLAN  
SCALE 1:25



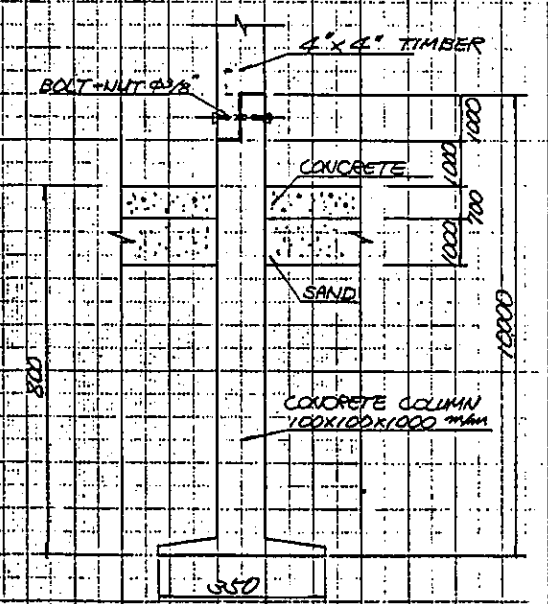
SECTION A-A  
SCALE 1:25



DETAIL A  
SCALE 1:20

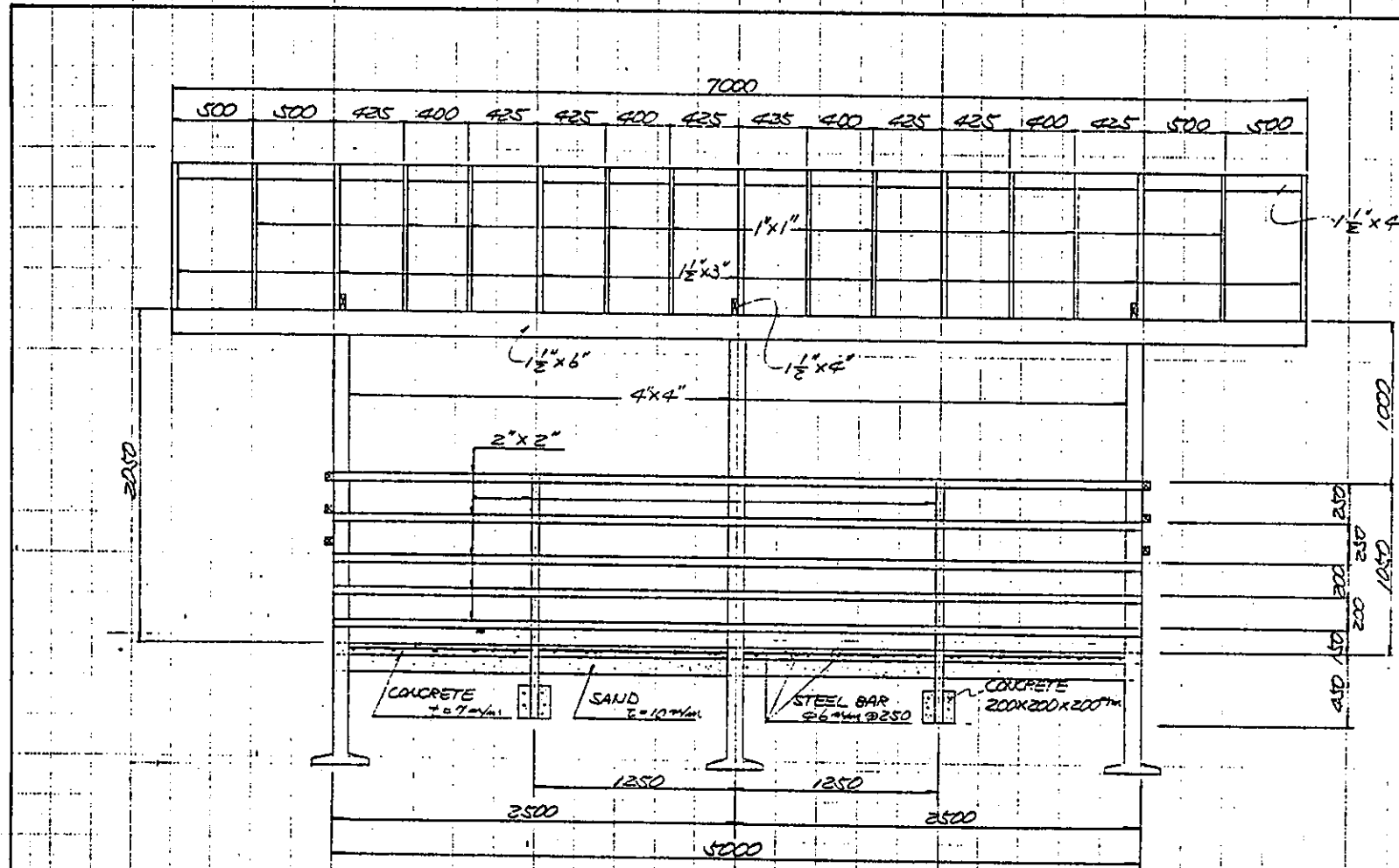


DETAIL B  
SCALE 1:20

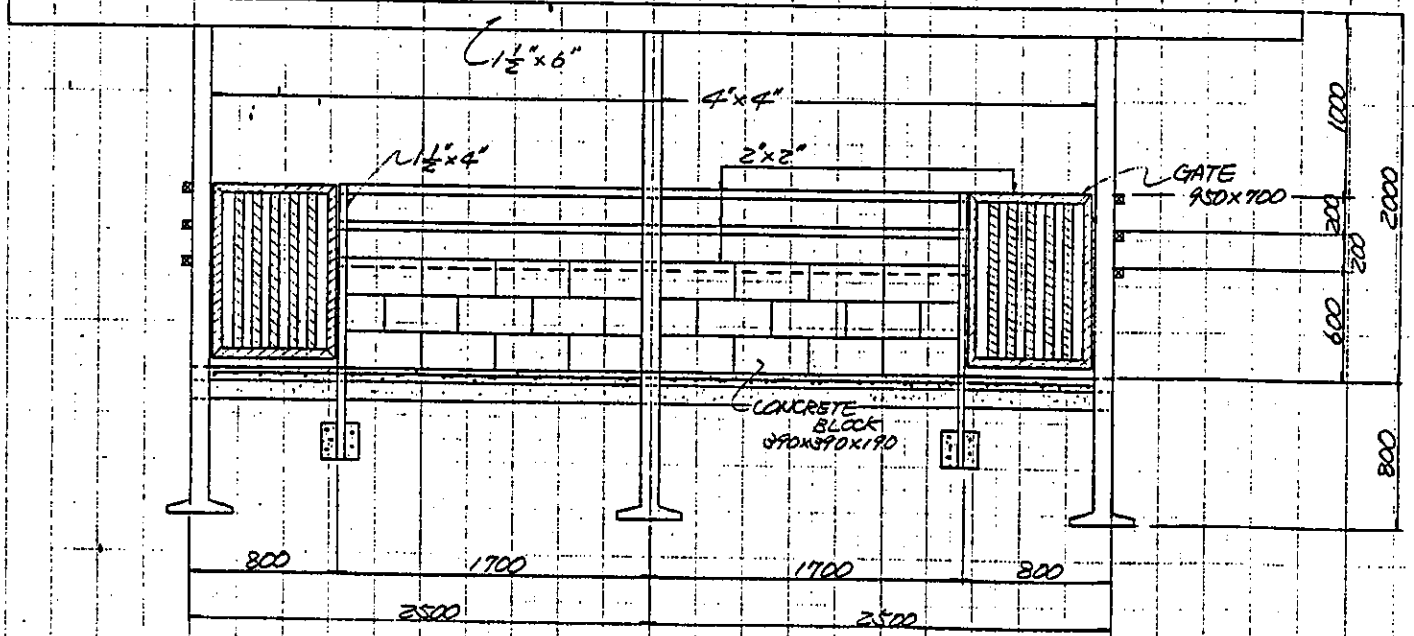


DETAIL C  
SCALE 1:10

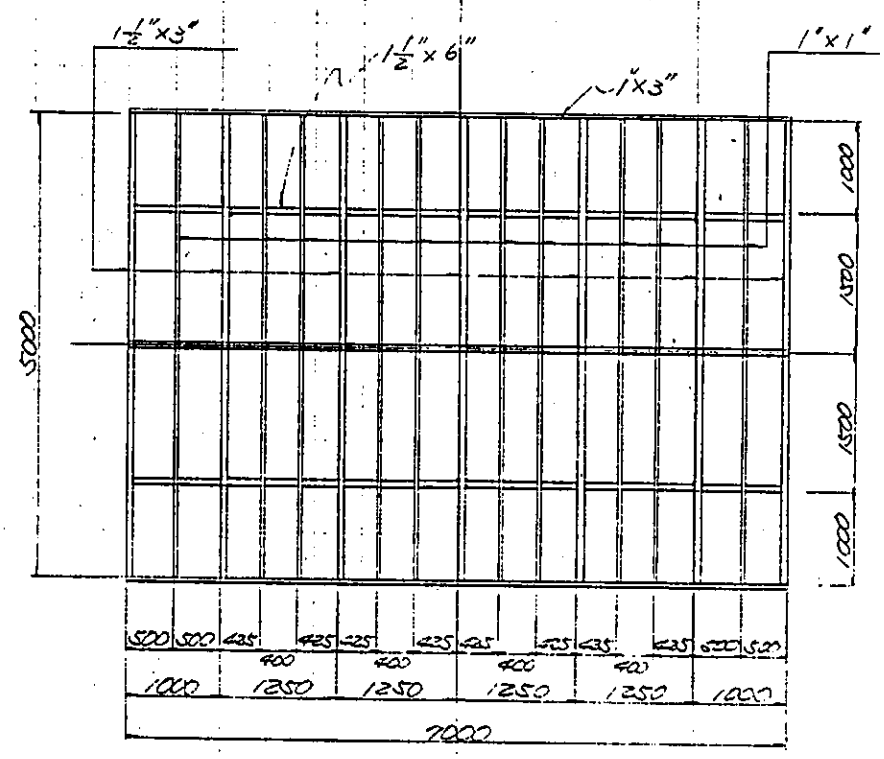
JAPAN INTERNATIONAL COOPERATION AGENCY	
THE DETAIL DESIGN FOR AGRICULTURAL COOPERATIVE PROMOTION PROJECT IN THAILAND	
PLAN OF PIGGERY (MATERIAL) PAK - THONG - CHAI	
PREPARED BY:	DRAWING NO. 12-1
CHECKED NO.	



SECTION R-B  
SCALE 1:25



SECTION C-C  
SCALE 1:25



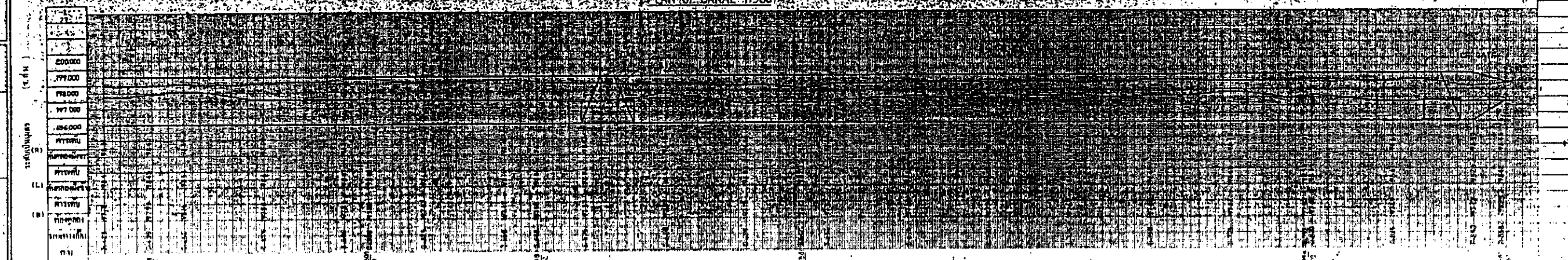
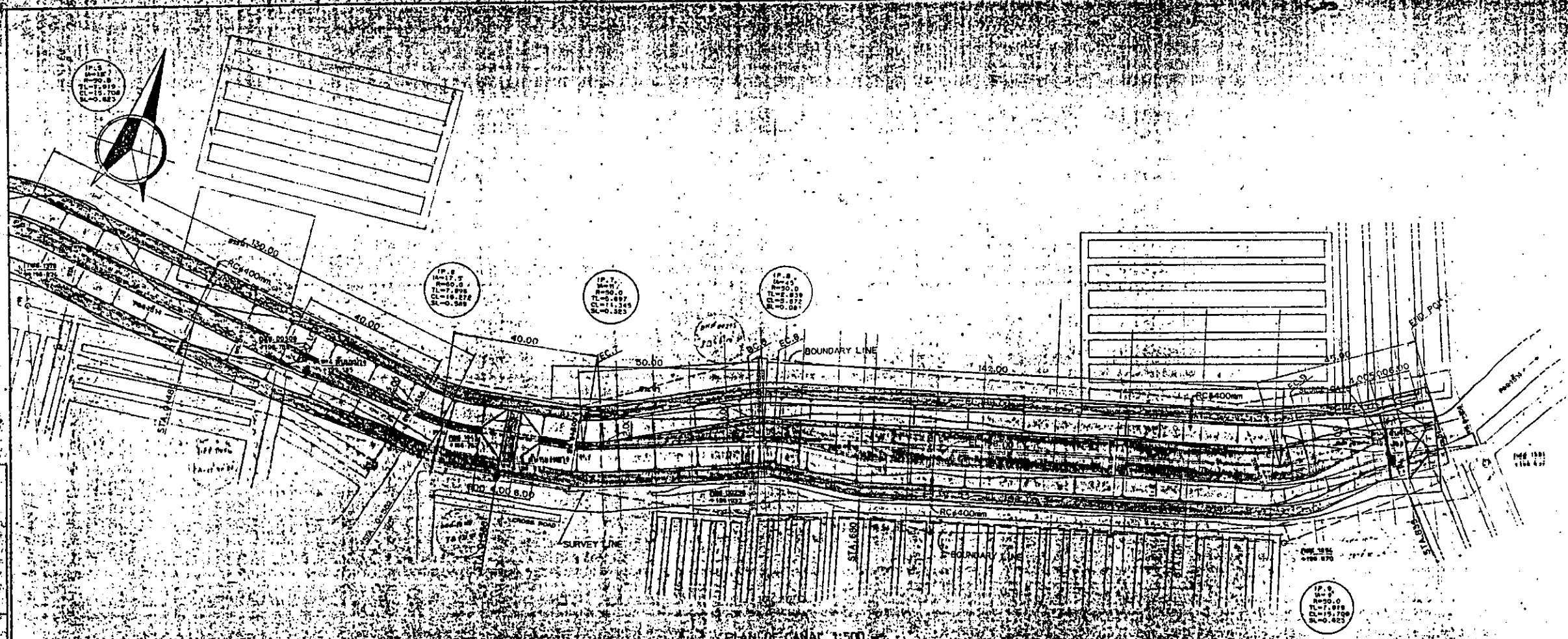
ROOF PLAN  
SCALE 1:50

JAPAN INTERNATIONAL COOPERATION AGENCY	
THE DETAIL DESIGN FOR AGRICULTURAL COOPERATIVE PROMOTION PROJECT IN THAILAND	
PLAN OF PIGGERY (MATERIAL) PAK-THONG-CHAI	
PREPARED BY	DRAWING NO.
CHECKED NO.	12-2

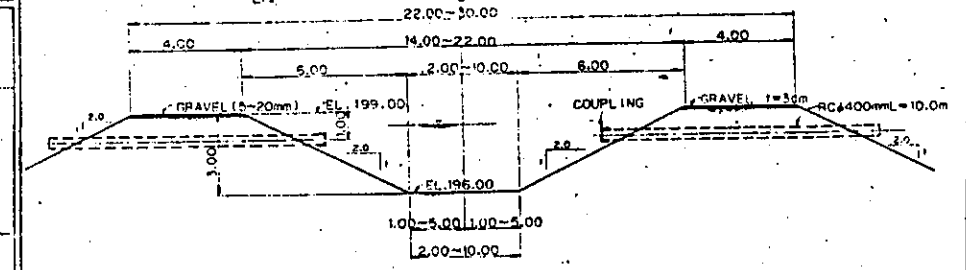




STATION NO.	CH. NO.	START POINT	END POINT	ELEVATION
1878	8			188.752
00526	7	30	20	188.752
1842	8	156	26	188.752
00738	9	173	28	188.752
1894	10	171	38	188.752
1584	11			188.752



SURVEY LINE PROFILE



TYPICAL SECTION SCALE 1:50

DATE	REVISION	DESCRIPTION

- NOTE 1. ALL DIMENSIONS ARE SHOWN IN METERS UNLESS OTHERWISE INDICATED
- 2. ABBREVIATIONS AND SYMBOLS:
  - E : CENTER LINE
  - EL : ELEVATION

JAPAN INTERNATIONAL COOPERATION AGENCY  
 THE DETAIL DESIGN STUDY  
 AGRICULTURAL COOPERATIVE DEVELOPMENT PROJECT IN THAILAND

PLAN OF CANAL (2)

PREPARED BY: \_\_\_\_\_ DRAWING NO. 12  
 CHECKED IN: \_\_\_\_\_





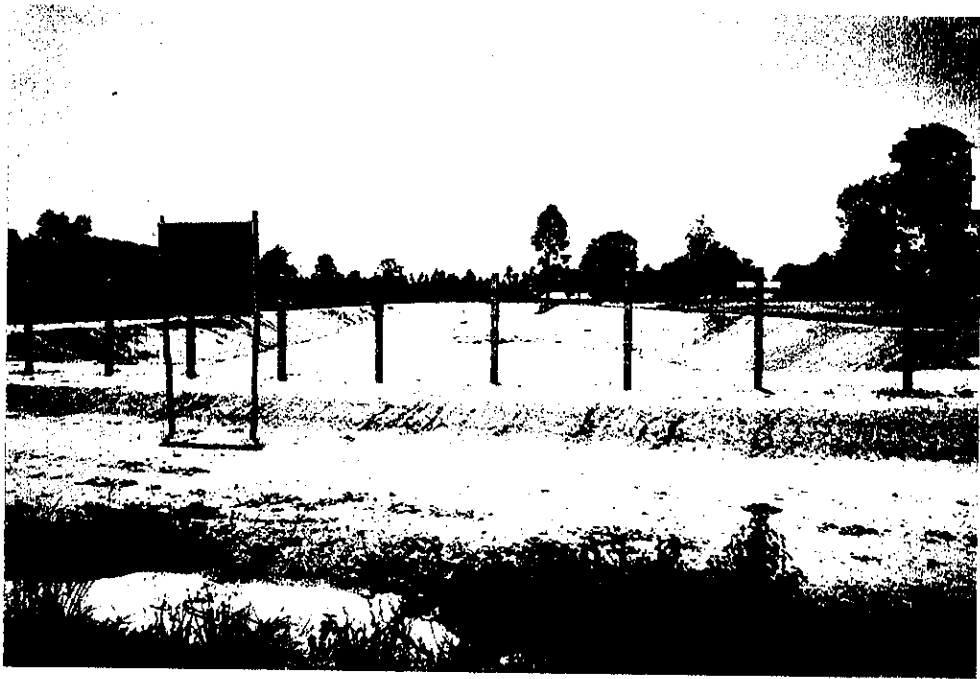


6-3-8 現場写真



パクトンチャイ地区・共同飼育施設

施工写真



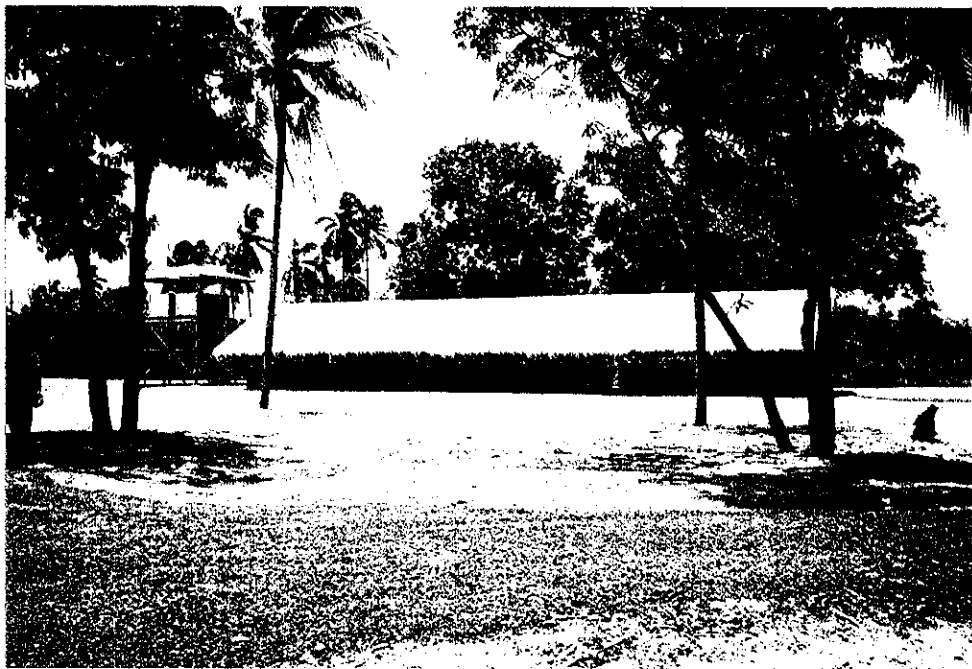
ハクトンチャイ・BIG POND  
共同飼育施設を望む



追加工事砂利舗装



BIG POND・流入工



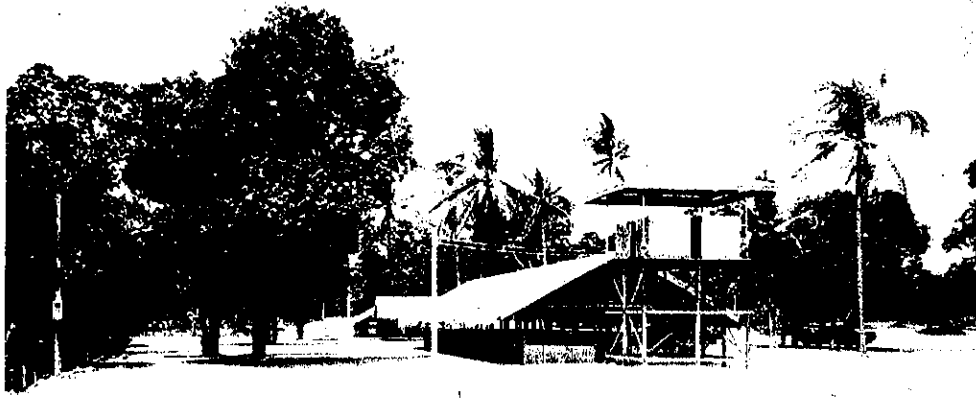
PIGGERY・給水施設



左・COMPOST BARNYARD  
右・HEN HOUSE BREEDING



手前・HATCHERY  
奥・HEN HOUSE BREEDING



BIG POND



パクトンチャイ地区・溜池 施工写真



P-1 施工開始



P-1 のり面形成



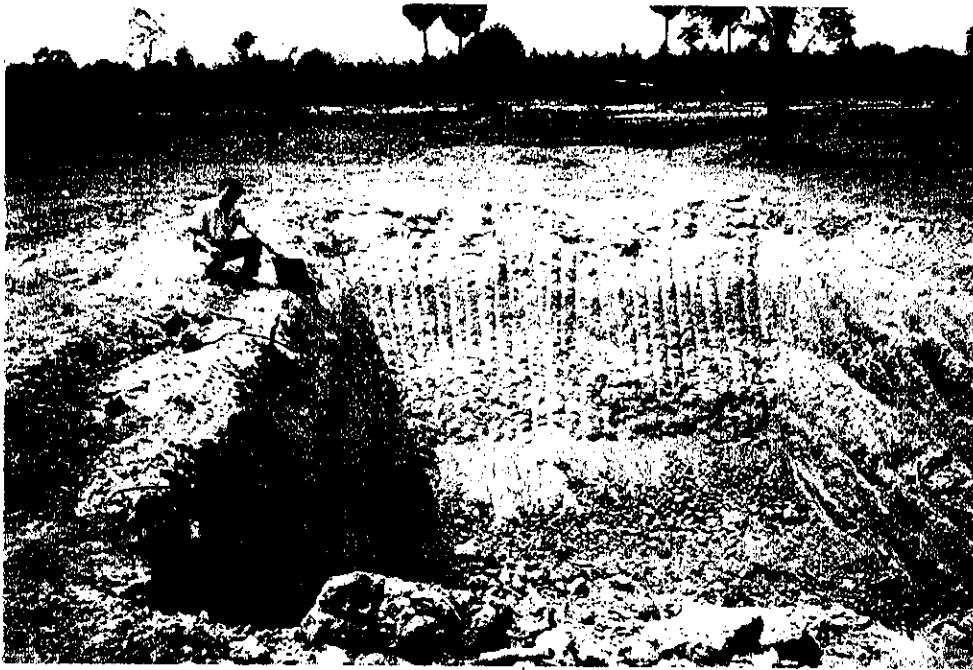
P-1 施工後湛水状態



P-1 豚舎建設状況



P-1 豚舎建設完了



P-2 施工開始



P-2 施工開始



P-2 施工後湛水状態





P-3 施工開始

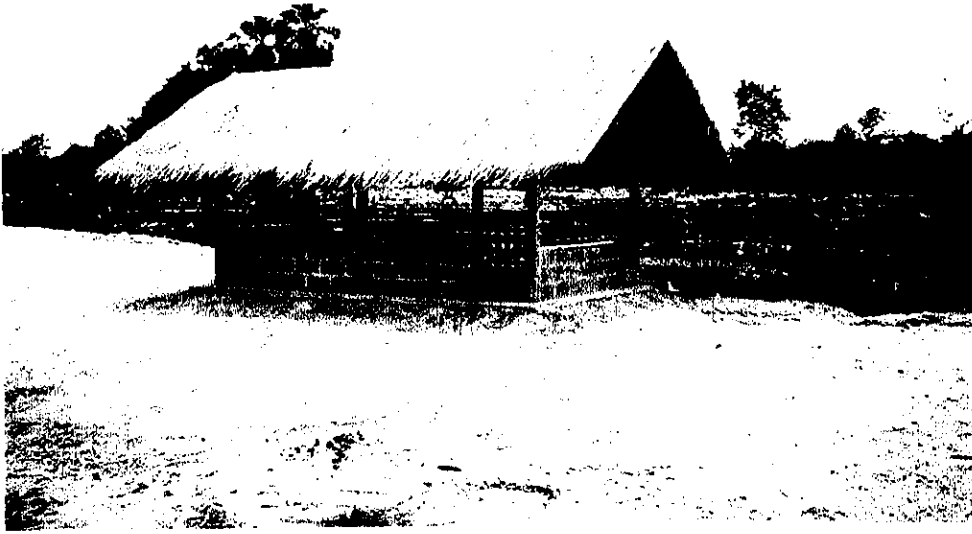


P-3 のり面形成



P-3 施工後湛水状態

P-2 豚舎建設完了



P-3 豚舎建設完了





P-4 施工開始



P-4 のり面粘性土置掛



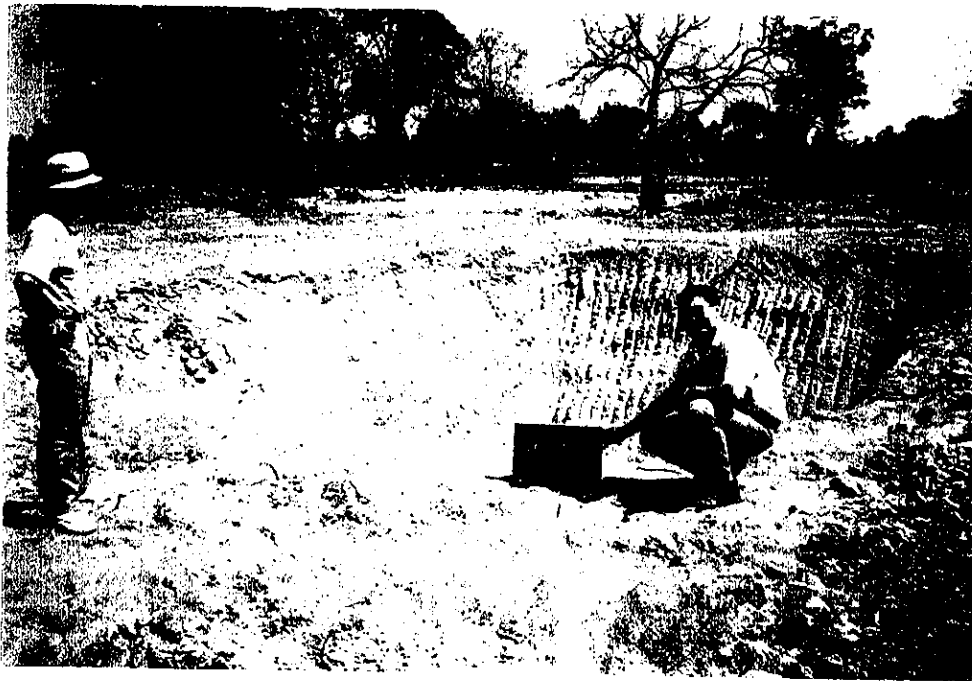
P-4 スローププロテクション  
施工中



P-4 施工後湛水状態



P-4 豚舎建設中



P-5 施工開始



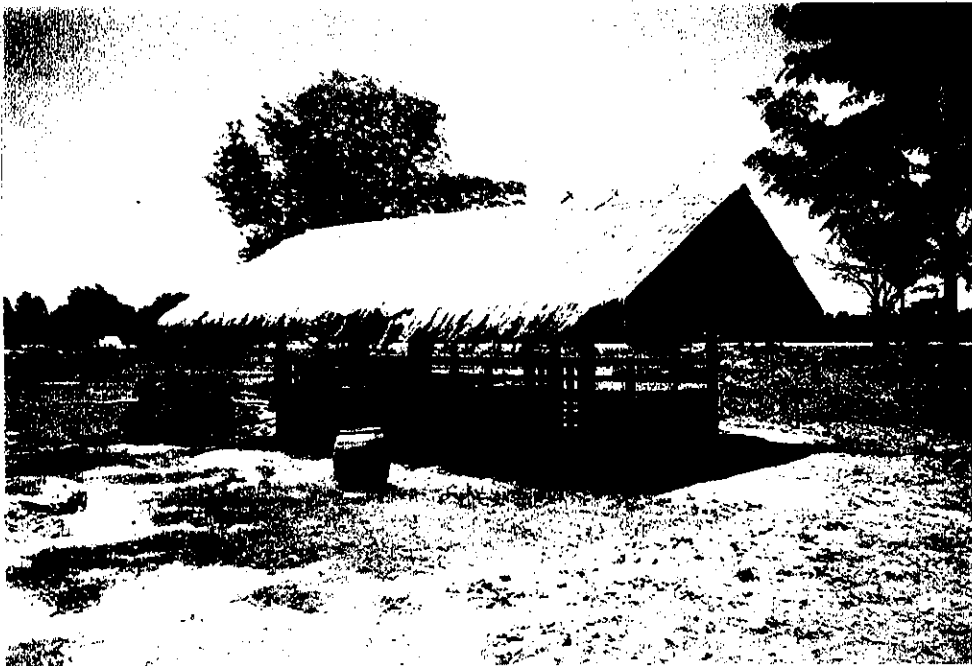
P-5 施工開始



P-5 施工後湛水状態



P-5 豚舎建設中



P-5 豚舎建設完了



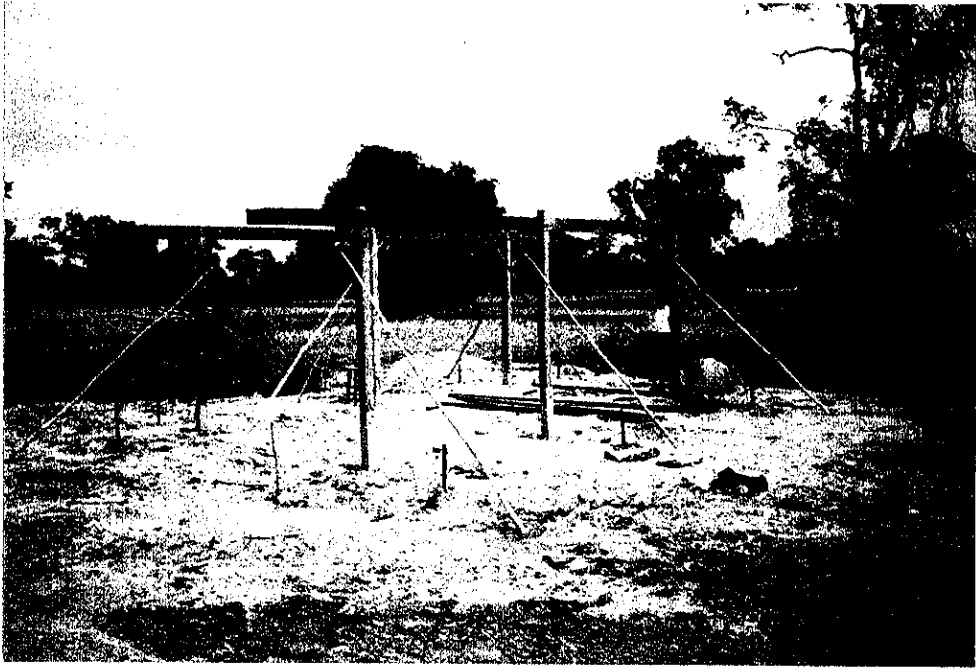
P-6 施工開始



P-6 のり面形成  
盛土敷均し



P-6 施工後湛水状態



P-6 豚舎建設中



P-6 豚舎建設完了





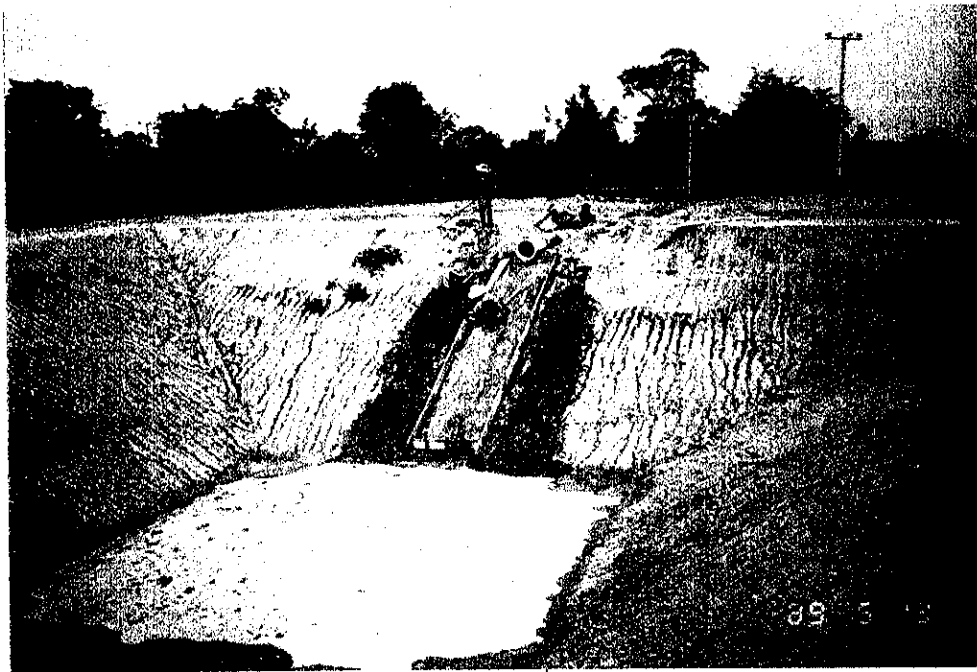
P-7 施工開始



P-7 のり面形成



P-7 施工後湛水状態



P-8 入ロ-7°7°ロテクシヨソ  
施工中



P-8 施工後湛水状態  
豚舎建設中



P-7 豚舎建設ほぼ完了



P-9 施工開始



P-9 のり面形成中



P-9 施工後湛水状態



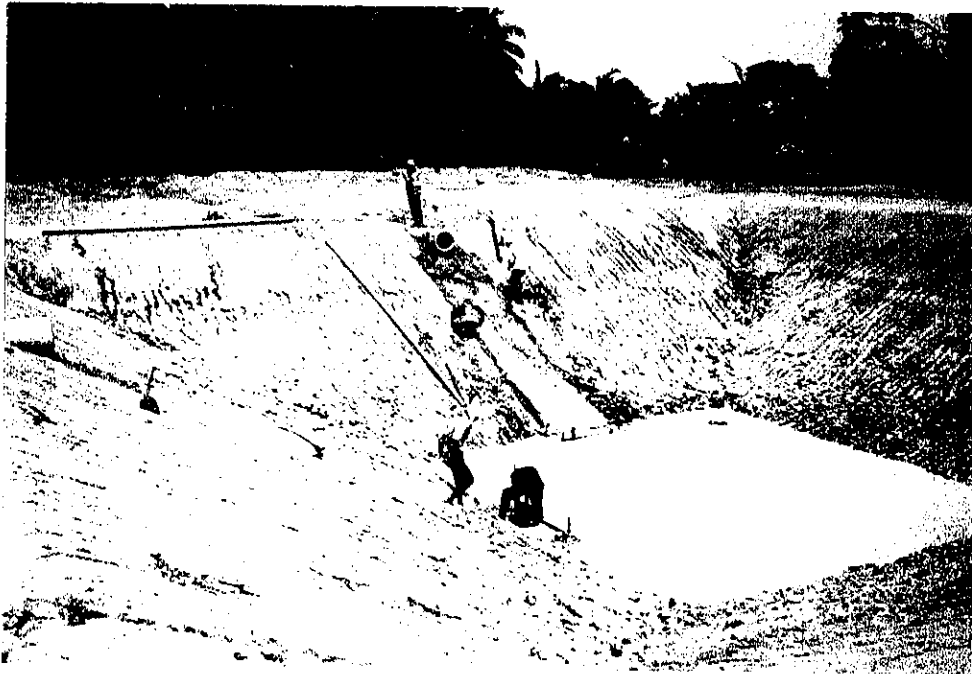
P-9 豚舎建設完了



P-10 豚舎建設途中



P-10 施工開始前



P-10 スローププロテクション  
施工中



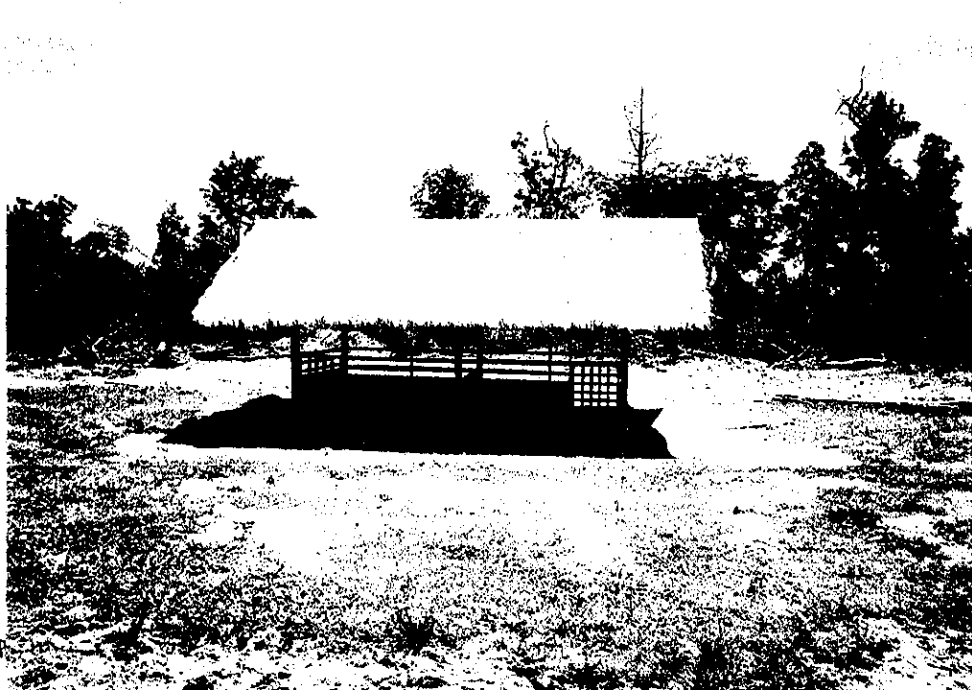
P-10 施工後湛水状態



P-11 施工開始前



P-11 施工後湛水状態



P-11 豚舎建設完了



P-12 施工開始



P-12 施工開始

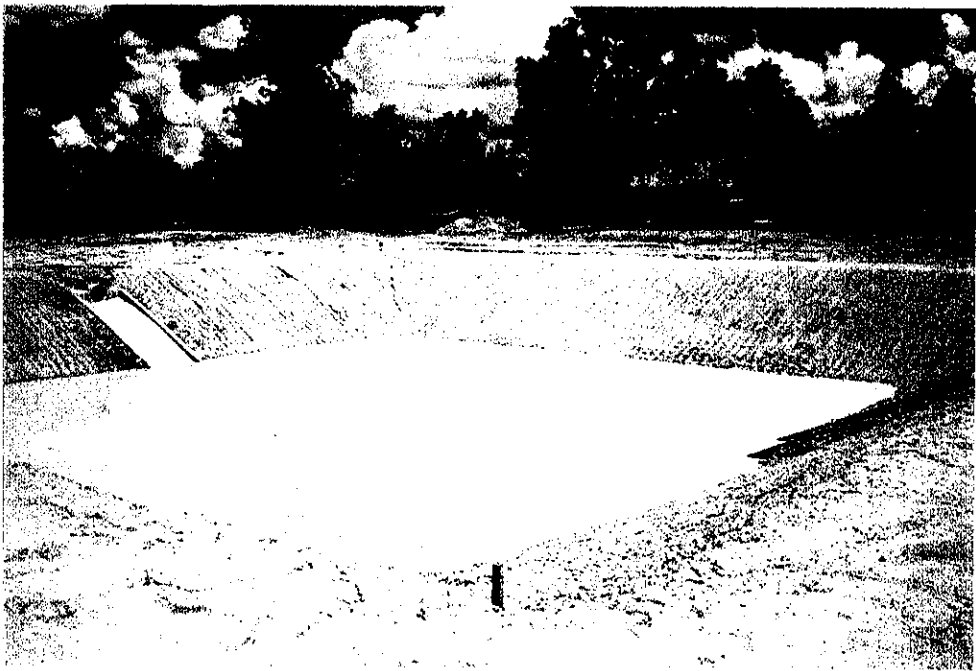


P-12 施工後湛水状態





P-13 のり面形成  
敷均し・転圧



P-13 施工後湛水状態



P-13 畑の作付け状況





P-13 豚舎建設完了



P-14 豚舎建設完了



P-12 豚舎建設完了



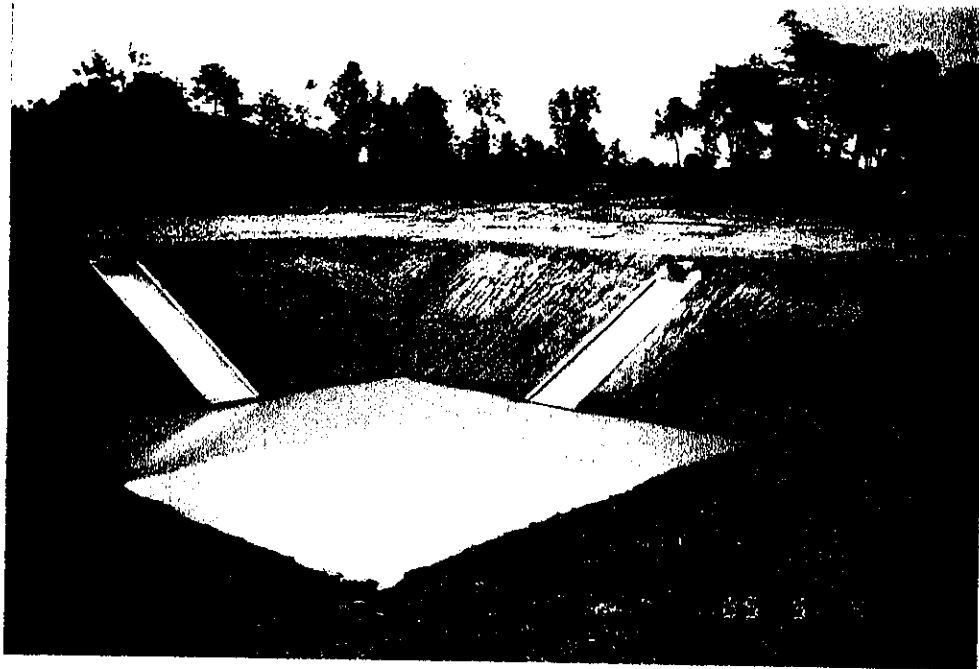
P-14 施工開始



P-14 のり面形成



P-14 施工後湛水状態



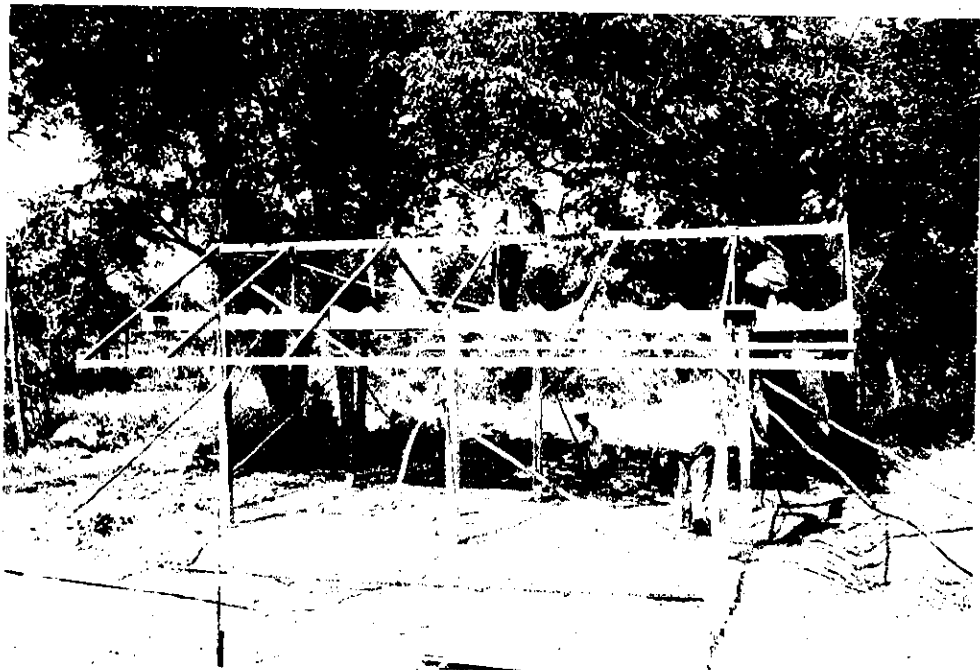
P-15 施工後湛水状態



P-15 施工後湛水状態



P-17 豚舎建設完了



P-15 豚舍建設中



P-15 豚舍建設完了



P-16 豚舍建設完了

P-16 施工開始前



P-16 流入ハ°イ°布設



P-16 施工後湛水状態





P-17 施工開始



P-17 敷均し・転圧

P-17 のり面形成



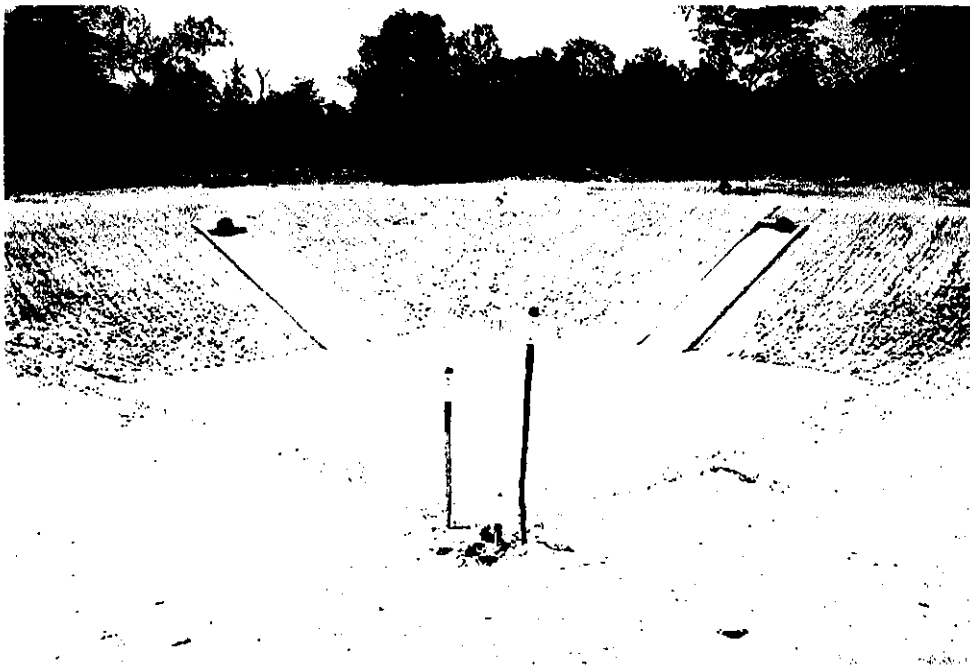
P-17 施工後湛水状態



P-18 施工開始



敷均し・転圧



P-18 施工後湛水状態



P-18 豚舎建設開始



P-18 豚舎建設ほぼ完了



P-18 施工後湛水状態



パクトンチャイ地区・水路 施工写真



ハクトンチャイ水路掘削開始



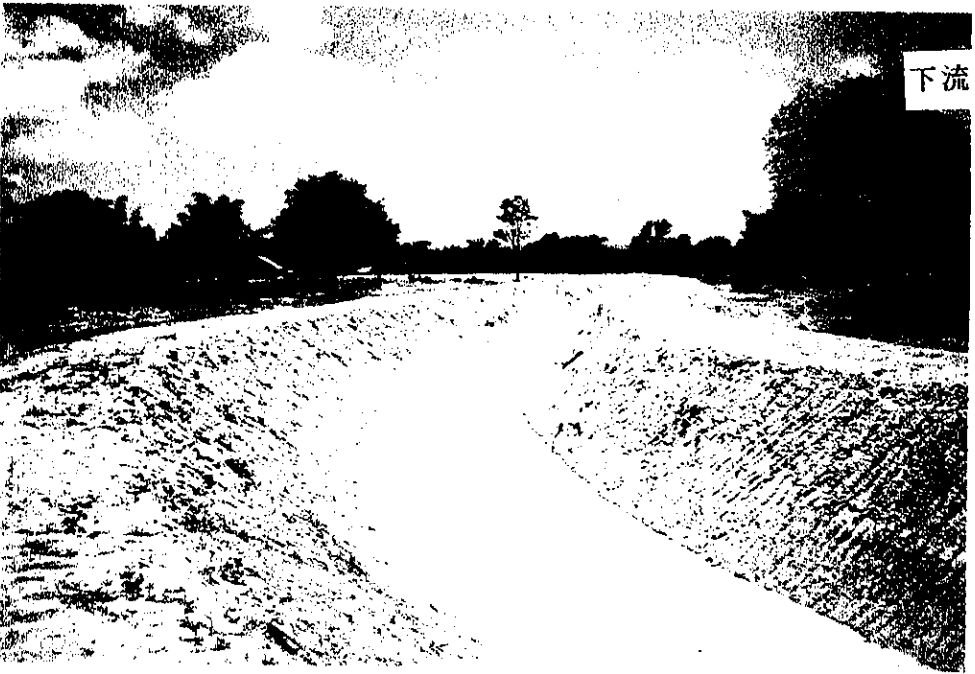
中間点施工中



末端ゲート部分施工後



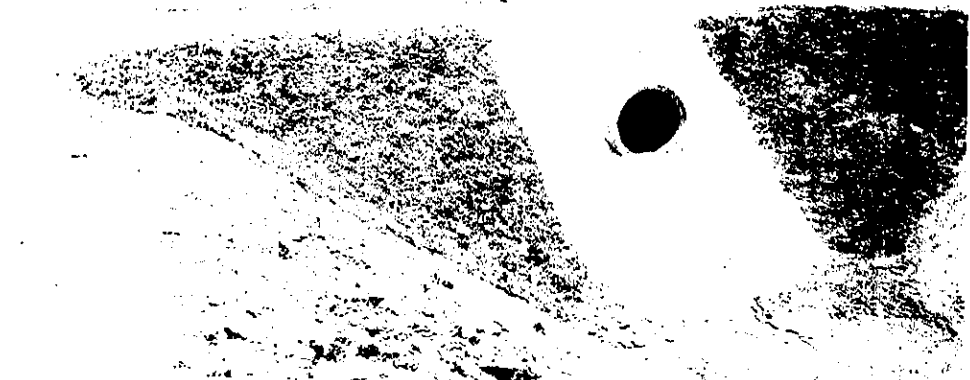
末端ゲート方向を望む



下流より中間点方向を望む



中間点 $17^{\circ}$ 布設後  
上流部湛水状態



始点部より下流方向を望む



始点部ゲート方向を望む



ムアン地区・水路 施工写真



A77・水路建設開始  
伐開作業中



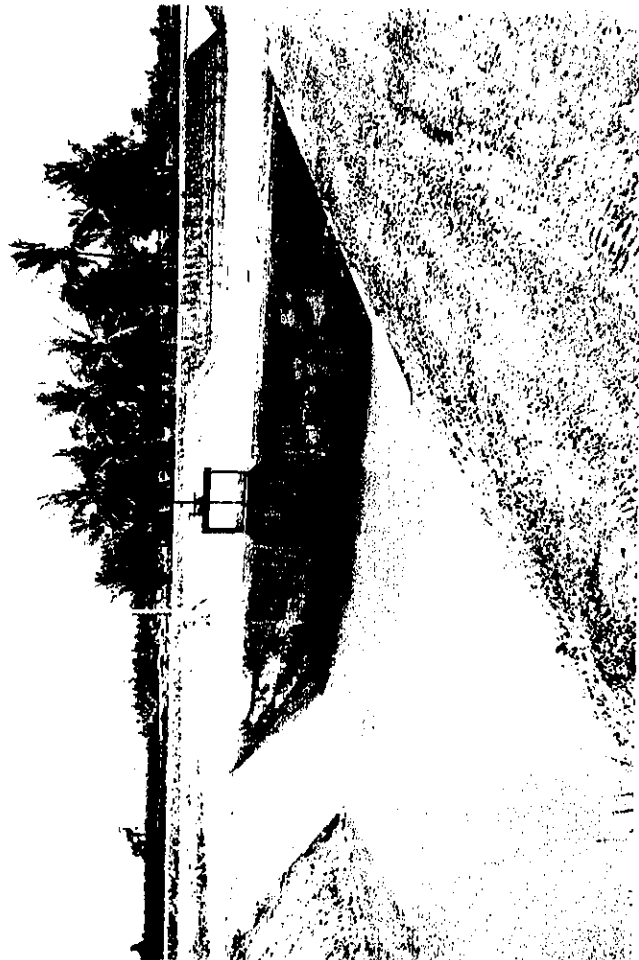
掘削開始前  
敷均し状態



水路敷掘削後  
のり面形成開始



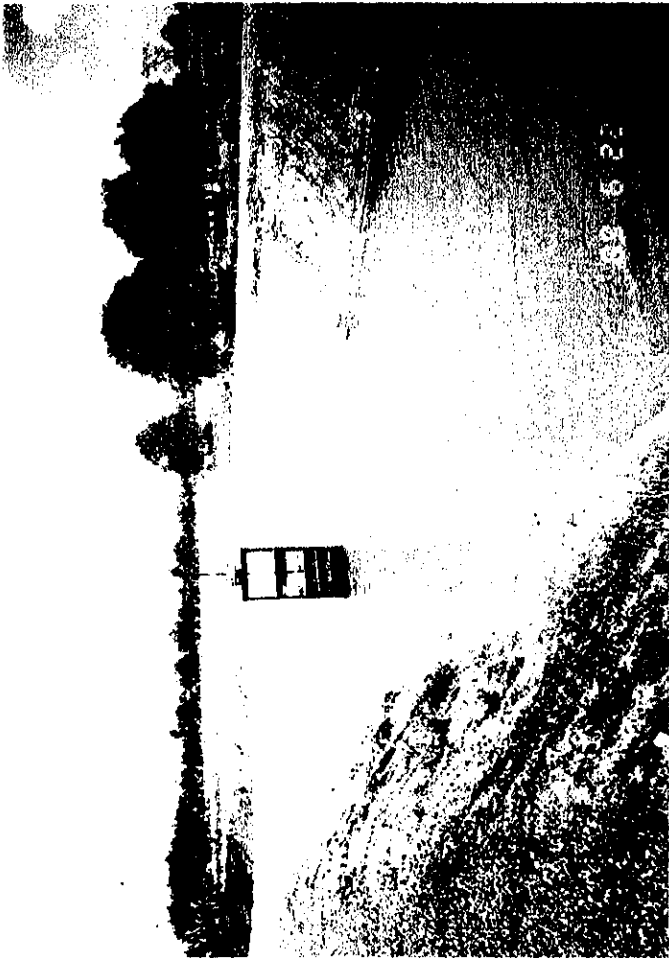
上流ゲート部より下流方向を望む



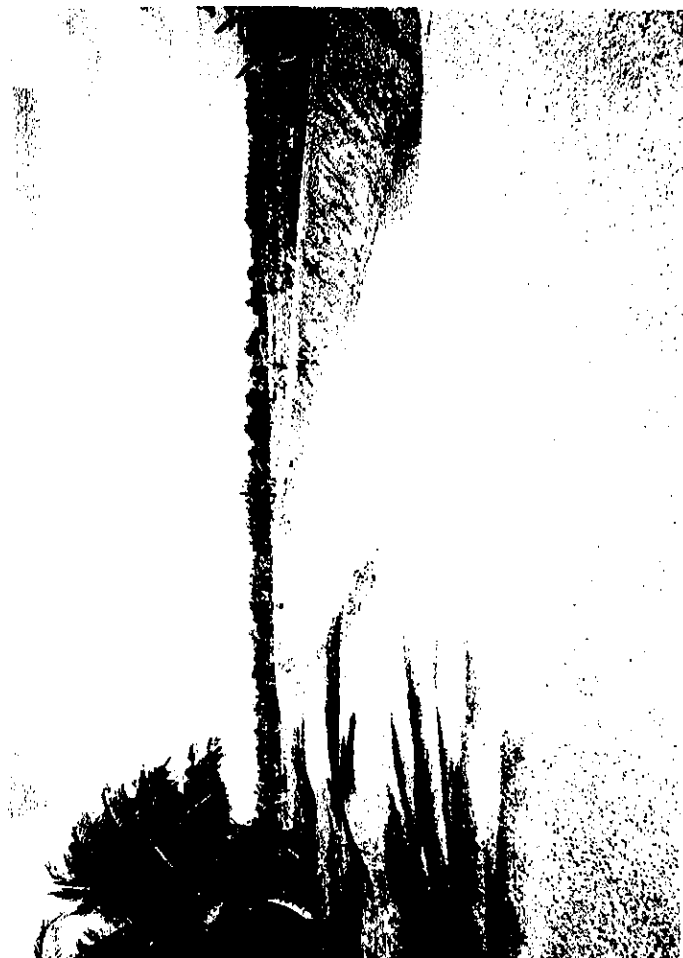
アソノ水路上流部ゲート施工後



上右・下流より上流方向を望む



上左・下流部ゲート施工後



下・CROSS ROADより下流ゲート方向を望む



ムアン地区 共同飼育施設 施工写真

共同飼育施設・PIGGERYを望む



PIGGERYA・給水施設



COMPOST BARNYARD

URINE DRAIN・BASIN



ムアン地区・溜池 施工写真



P-1 施工後湛水状態



P-2 施工後畑耕うん後の状況



P-3 施工後湛水状態

P-4 施工後湛水狀態



P-5 施工後湛水狀態

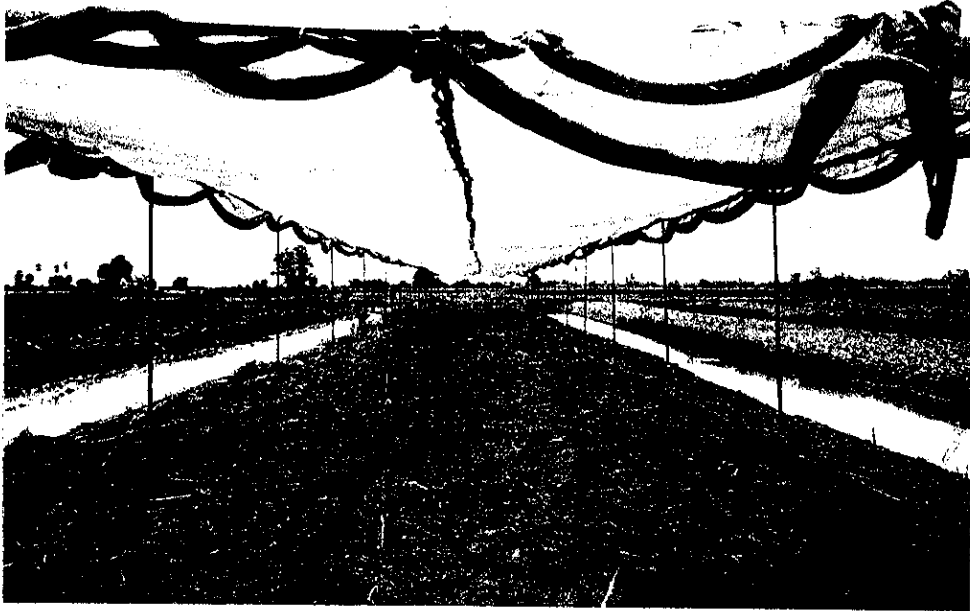


P-6 施工後湛水狀態

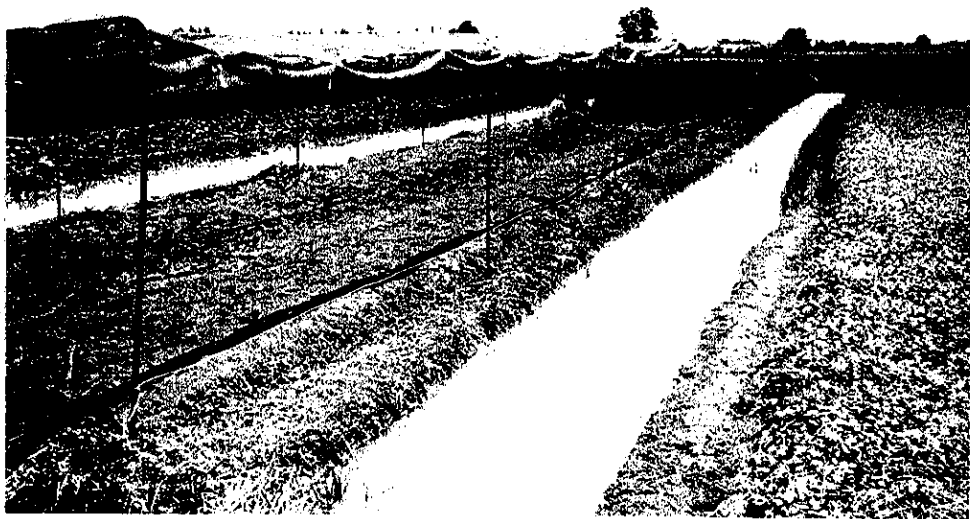


ムアン地区・野菜圃場ネット施設 施工写真

防虫ネット施設施工状況(1)



防虫ネット施設施工状況(1)



防虫ネット施設施工状況(2)



防虫ネット施設施工状況(2)



葉っぱを食い荒らす幼虫・虫



防虫ネット施設施工状況(3)





防虫ネット施設施工状況(4)



防虫ネット施設施工状況(5)



LATERAL CANAL 施工状況



