

APPENDIX J

DRAWINGS

APPENDIX J

DRAWINGS

LIST OF DRAWINGS

DRAWING No.

WATER CONVEYANCE

- | | |
|----|---|
| 1 | PLAN OF WATER CONVEYANCE |
| 2 | LONGITUDINAL SECTION OF WATER CONVEYANCE |
| 3 | SPILLWAY |
| 4 | TYPICAL SECTION AND NO.1 REGULATING RESERVOIR |
| 5 | NO.7 PUMPING STATION; LAYOUT & FACILITIES |
| 6 | NO.7 PUMPING STATION; PLAN |
| 7 | NO.7 PUMPING STATION; PROFILE & SECTION |
| 8 | ONE WAY SURGE TANK |
| 9 | NO.2 REGULATING RESERVOIR |
| 10 | WATER MANAGEMENT SYSTEM |

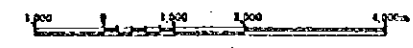
AGRICULTURAL INFRASTRUCTURE

- | | |
|----|--------------------------------------|
| 11 | MAIN IRRIGATION CANAL |
| 12 | BRANCH/DISTRIBUTION IRRIGATION CANAL |
| 13 | MAIN BRANCH DRAINAGE CANAL |
| 14 | ROAD STRUCTURE |
| 15 | DIVISION WORK |
| 16 | CHECK GATE |
| 17 | INTAKE STRUCTURE |
| 18 | TAIL-END SPILLWAY |
| 19 | SIPHON |

ON-FARM IRRIGATION AND DRAINAGE

- | | |
|----|-------------------------------|
| 20 | ON-FARM IRRIGATION PLAN (1/5) |
| 21 | ON-FARM IRRIGATION PLAN (2/5) |
| 22 | ON-FARM IRRIGATION PLAN (3/5) |
| 23 | ON-FARM IRRIGATION PLAN (4/5) |
| 24 | ON-FARM IRRIGATION PLAN (5/5) |
| 25 | ON-FARM DRAINAGE PLAN |

THE NORTH SINAI
INTEGRATED RURAL DEVELOPMENT PROJECT
(PHASE II)



NATIONAL HIGHWAY

EL Abd. Zone

No. 1 REGULATING RESERVOIR
No. 7 PUMP STATION

PRECEDING OPEN CANAL

OPEN CANAL L=8.7km

BOX CULVERT L=7.8km

OPEN CANAL L=6.5km

PIPE LINE L=23.0km (107.9km)

PIPE LINE L=15.6km

No. 2 P

OPEN

THE NORTH SINAI
INTEGRATED RURAL DEVELOPMENT PROJECT
(PHASE II)

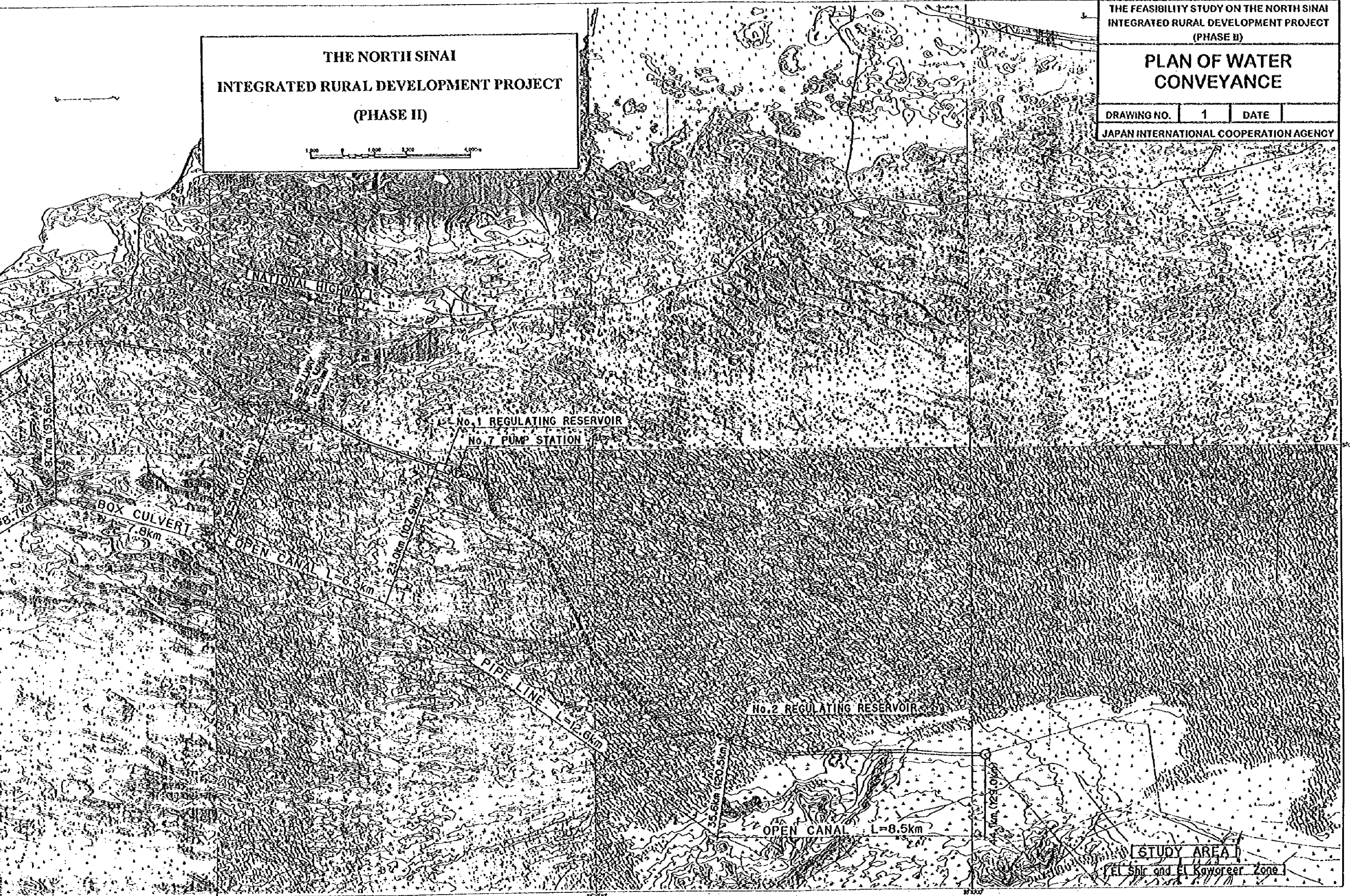


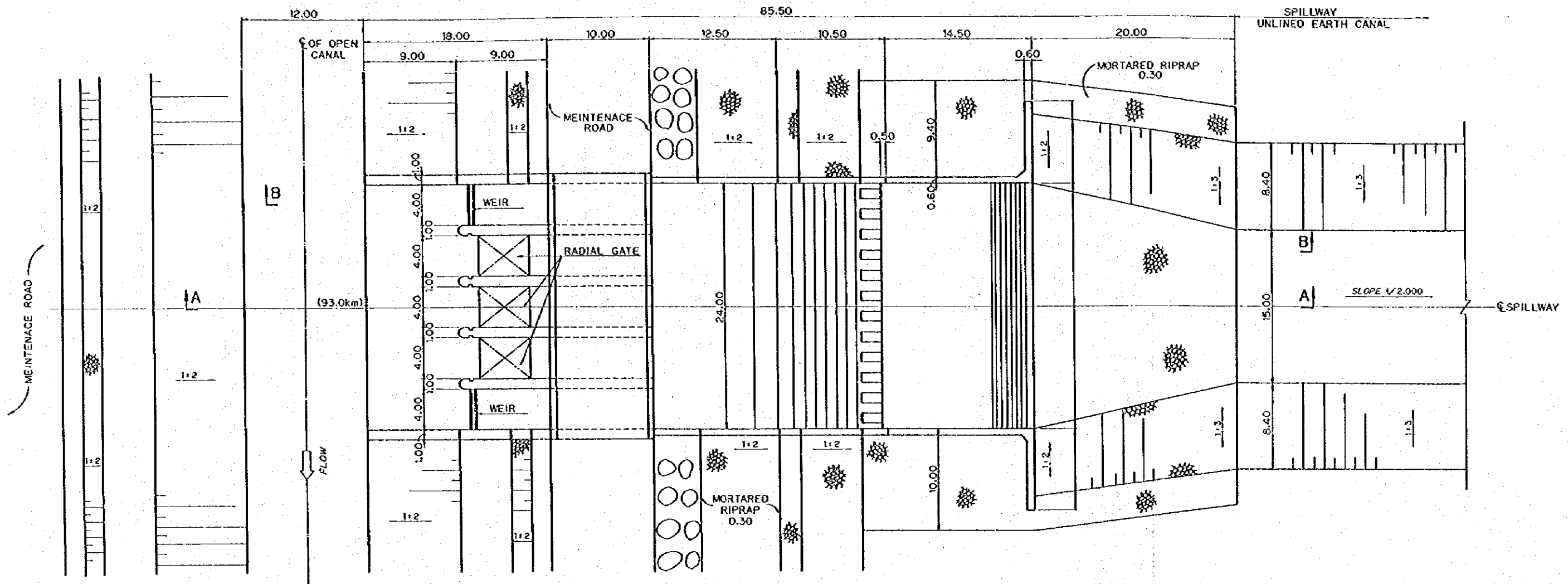
THE FEASIBILITY STUDY ON THE NORTH SINAI
INTEGRATED RURAL DEVELOPMENT PROJECT
(PHASE II)

PLAN OF WATER
CONVEYANCE

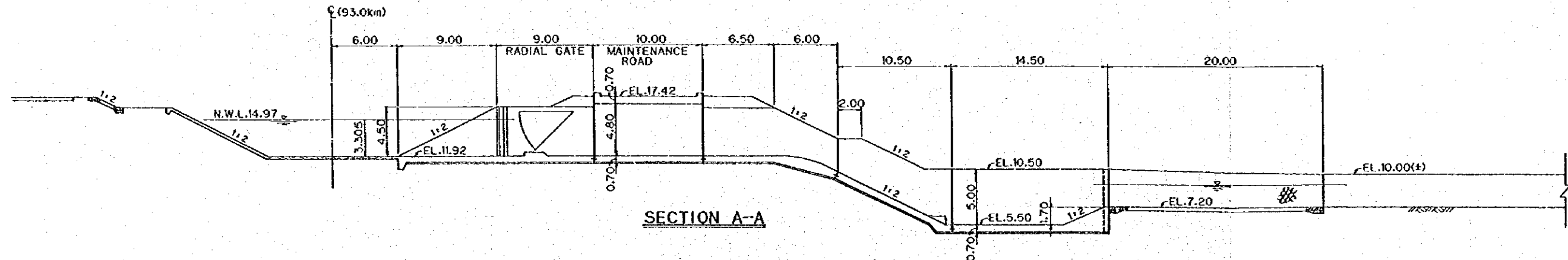
DRAWING NO. 1 DATE

JAPAN INTERNATIONAL COOPERATION AGENCY

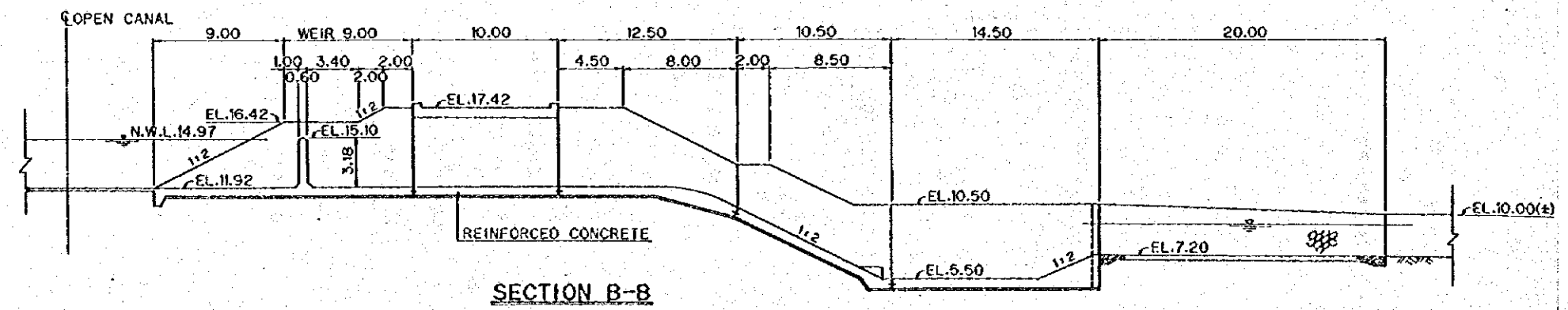




PLAN



SECTION A-A



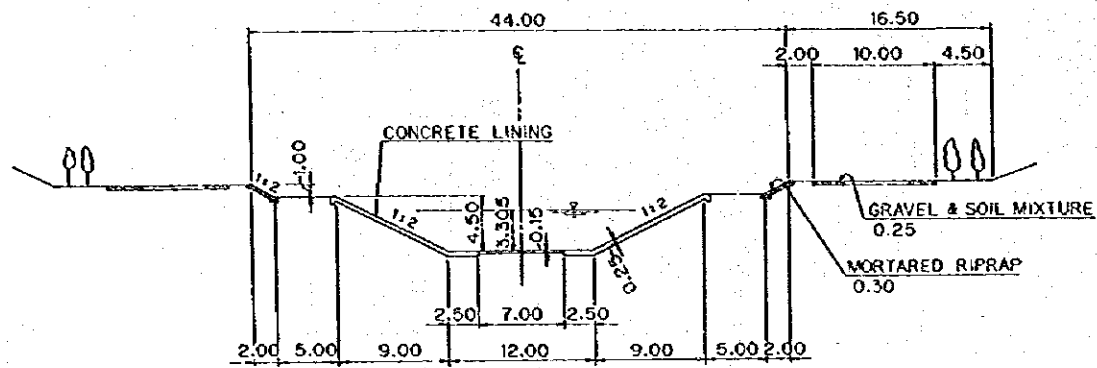
SECTION B-B

THE FEASIBILITY STUDY ON THE NORTH SINAI
 INTEGRATED RURAL DEVELOPMENT PROJECT
 (PHASE II)

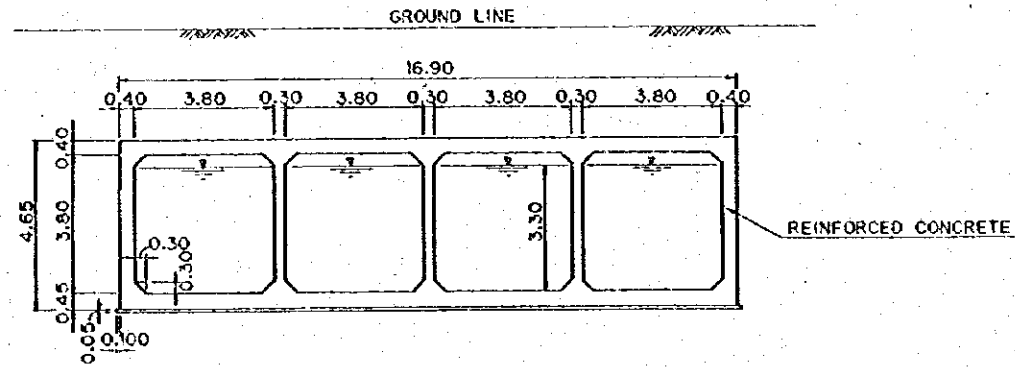
SPILLWAY

DRAWING NO. 3 DATE

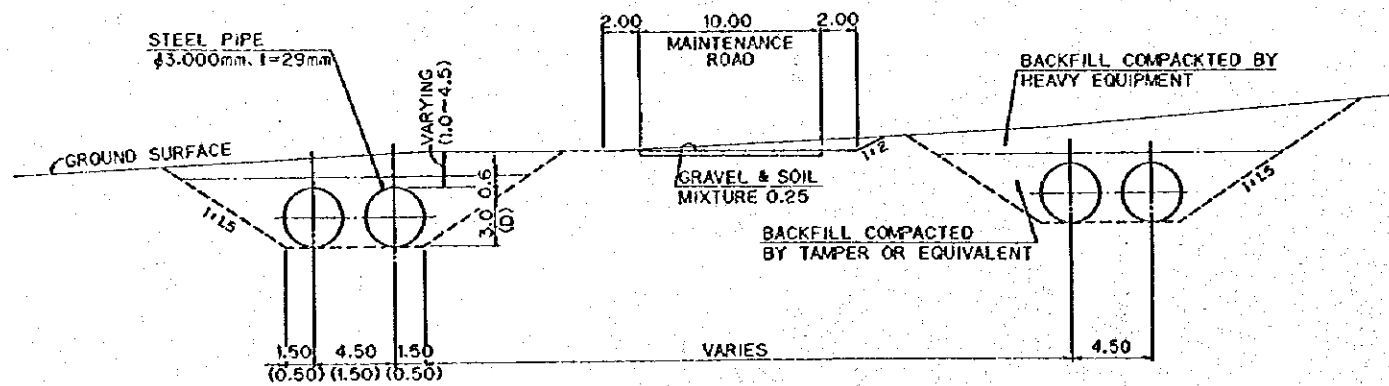
JAPAN INTERNATIONAL COOPERATION AGENCY



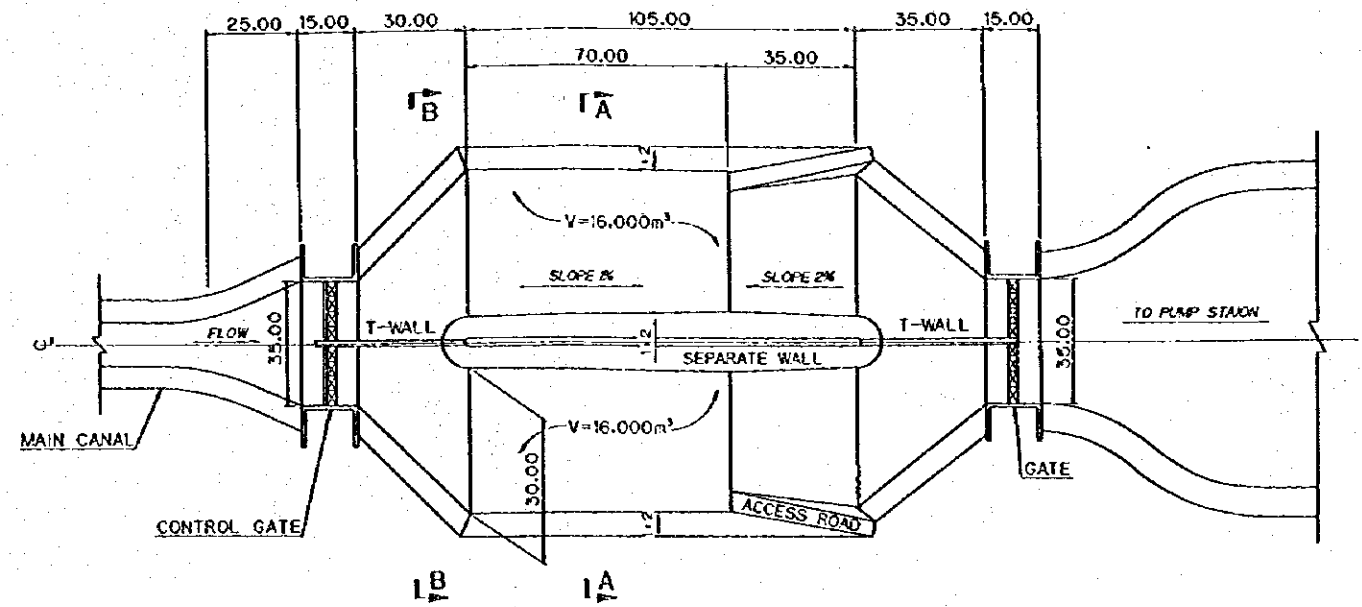
TYPICAL SECTION OF THE OPEN CANAL



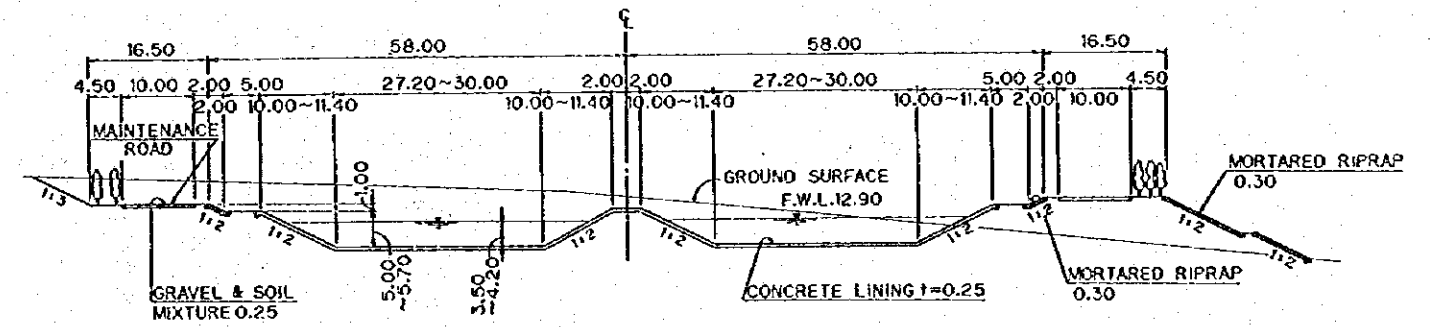
TYPICAL SECTION OF THE BOX CULVERT



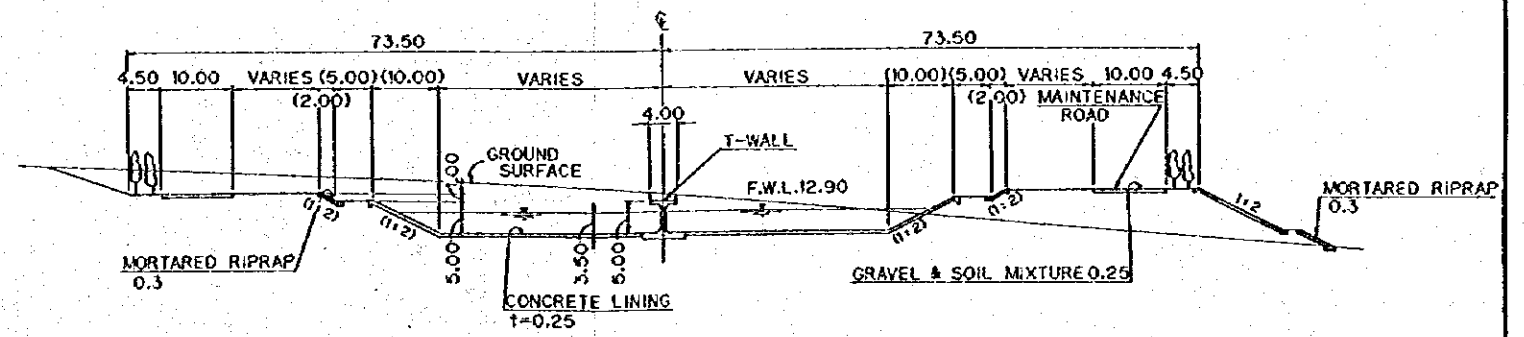
TYPICAL SECTION OF THE PIPELINE



PLAN



SECTION A-A



SECTION B-B

LAYOUT OF THE No.1 REGULATING RESERVOIR

NOTE

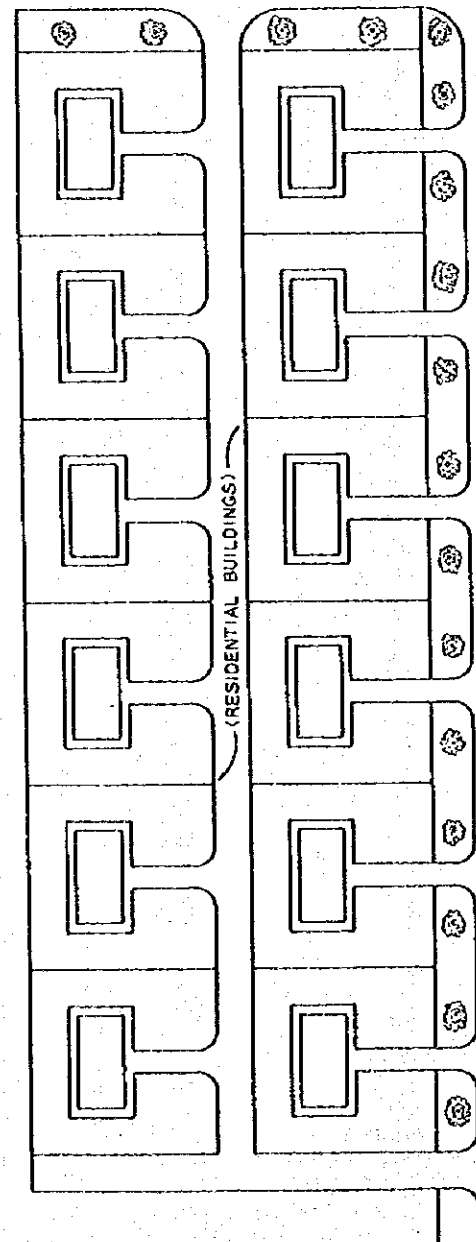
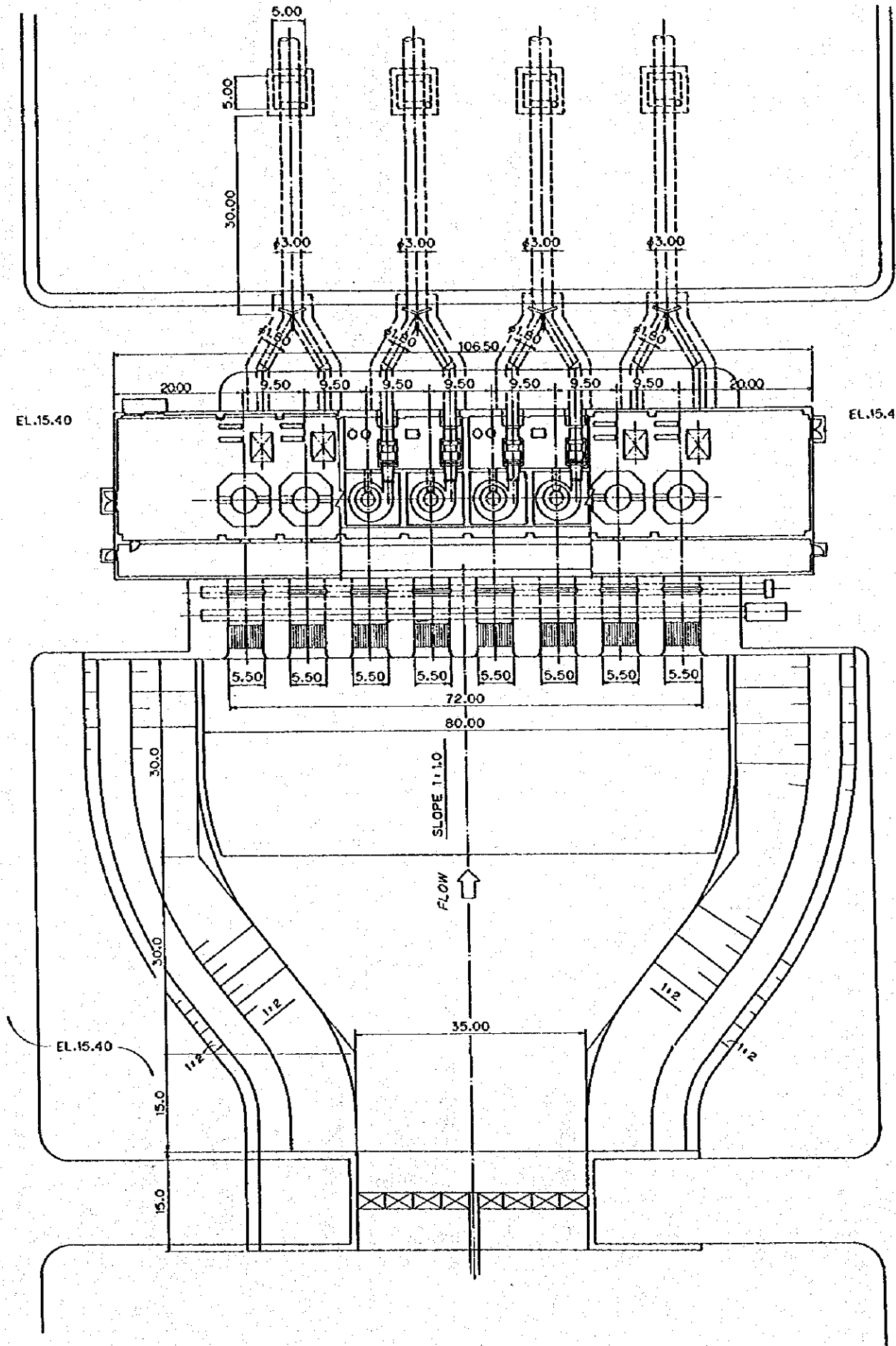
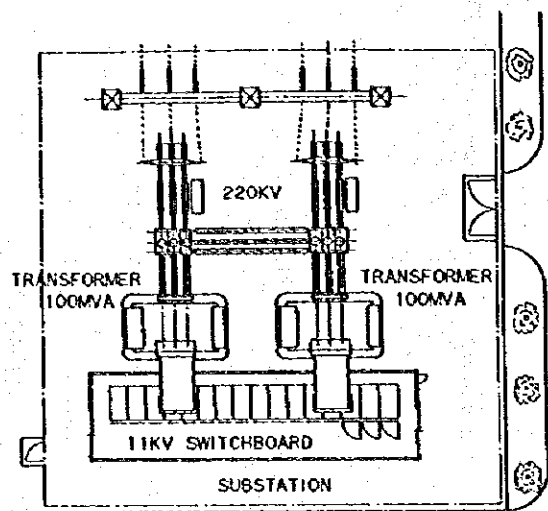
- 1. UNIT IS METER.
- 2. NOT TO SCALE.

THE FEASIBILITY STUDY ON THE NORTH SINAI
INTEGRATED RURAL DEVELOPMENT PROJECT
(PHASE B)

TYPICAL SECTION
AND
NO.1 REGULATING RESERVOIR

DRAWING NO. 4 DATE

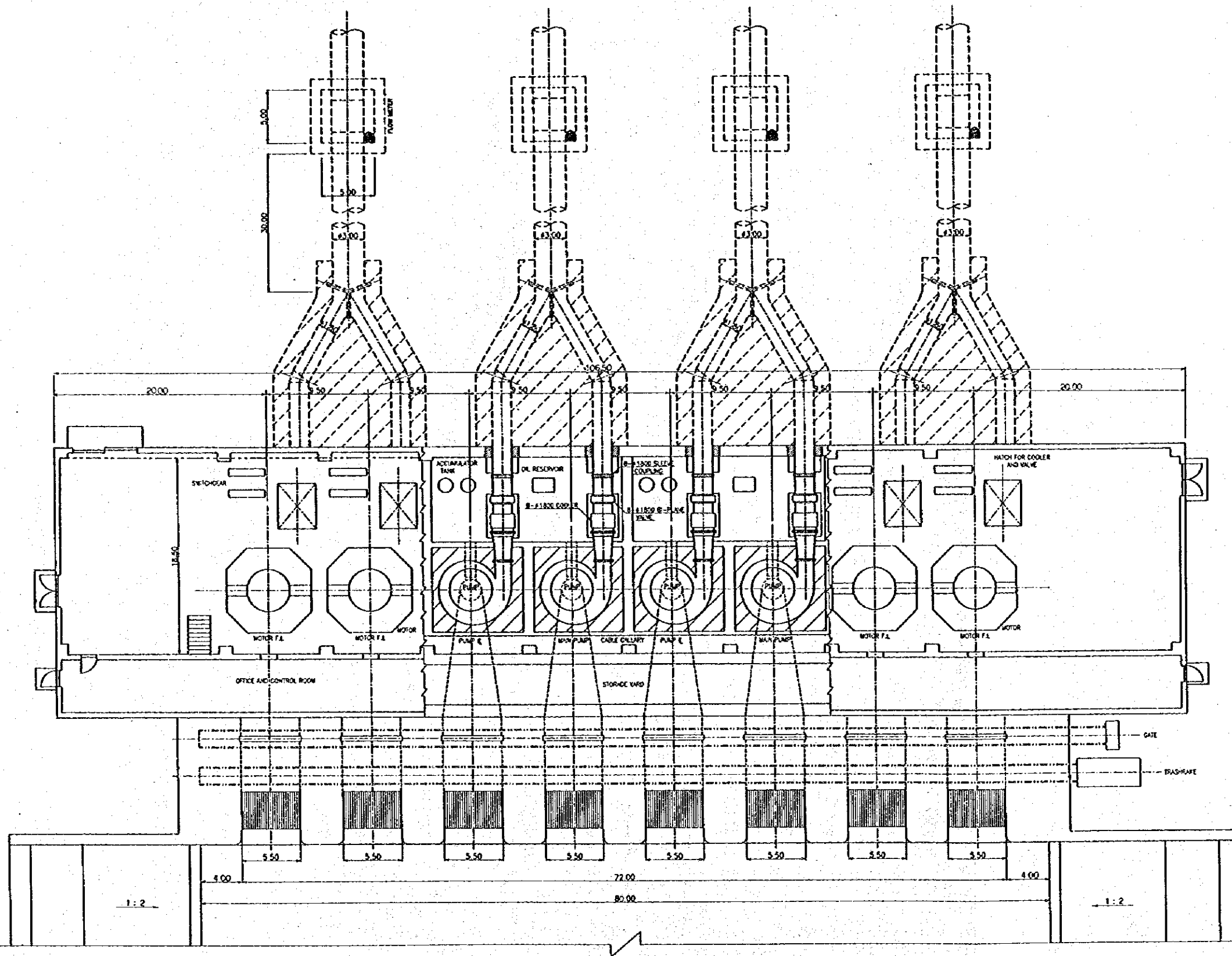
JAPAN INTERNATIONAL COOPERATION AGENCY



THE FEASIBILITY STUDY ON THE NORTH SINAI
INTEGRATED RURAL DEVELOPMENT PROJECT
(PHASE II)

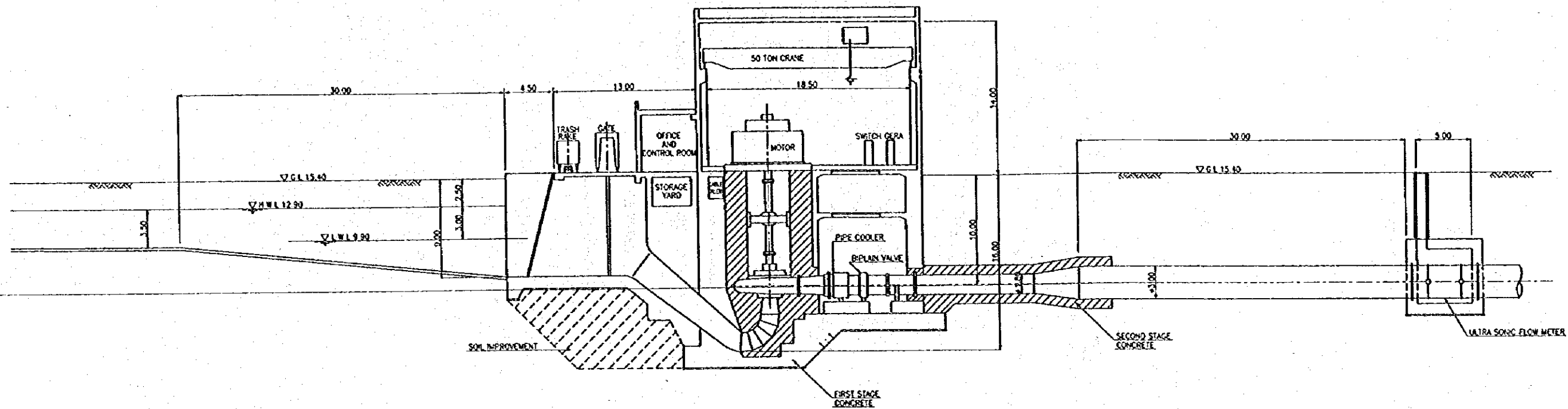
**NO.7 PUMPING STATION
LAYOUT & FACILITIES**

DRAWING NO.	5	DATE
JAPAN INTERNATIONAL COOPERATION AGENCY		

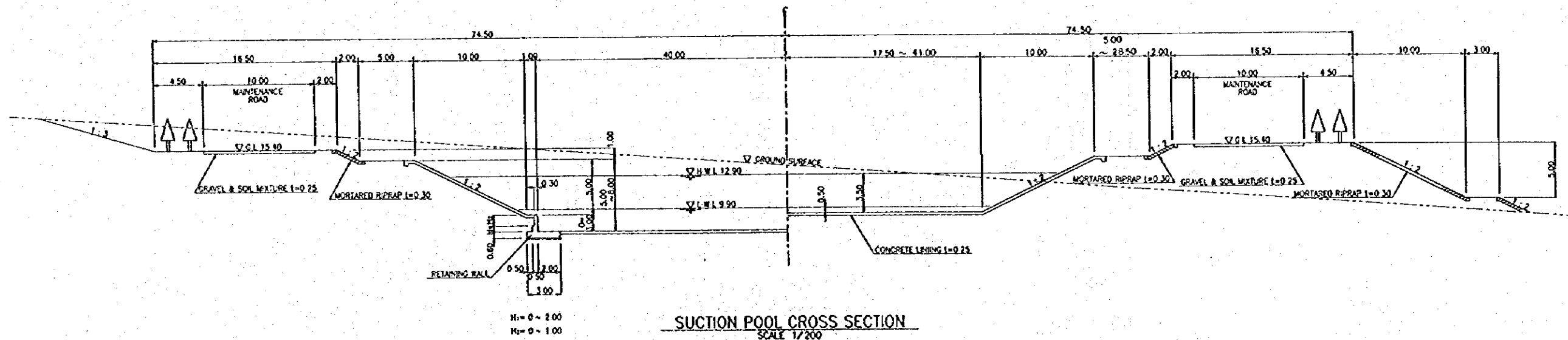


THE FEASIBILITY STUDY ON THE NORTH SINAI
 INTEGRATED RURAL DEVELOPMENT PROJECT
 (PHASE II)
**NO.7 PUMPING STATION
 PLAN**

DRAWING NO.	6	DATE
JAPAN INTERNATIONAL COOPERATION AGENCY		

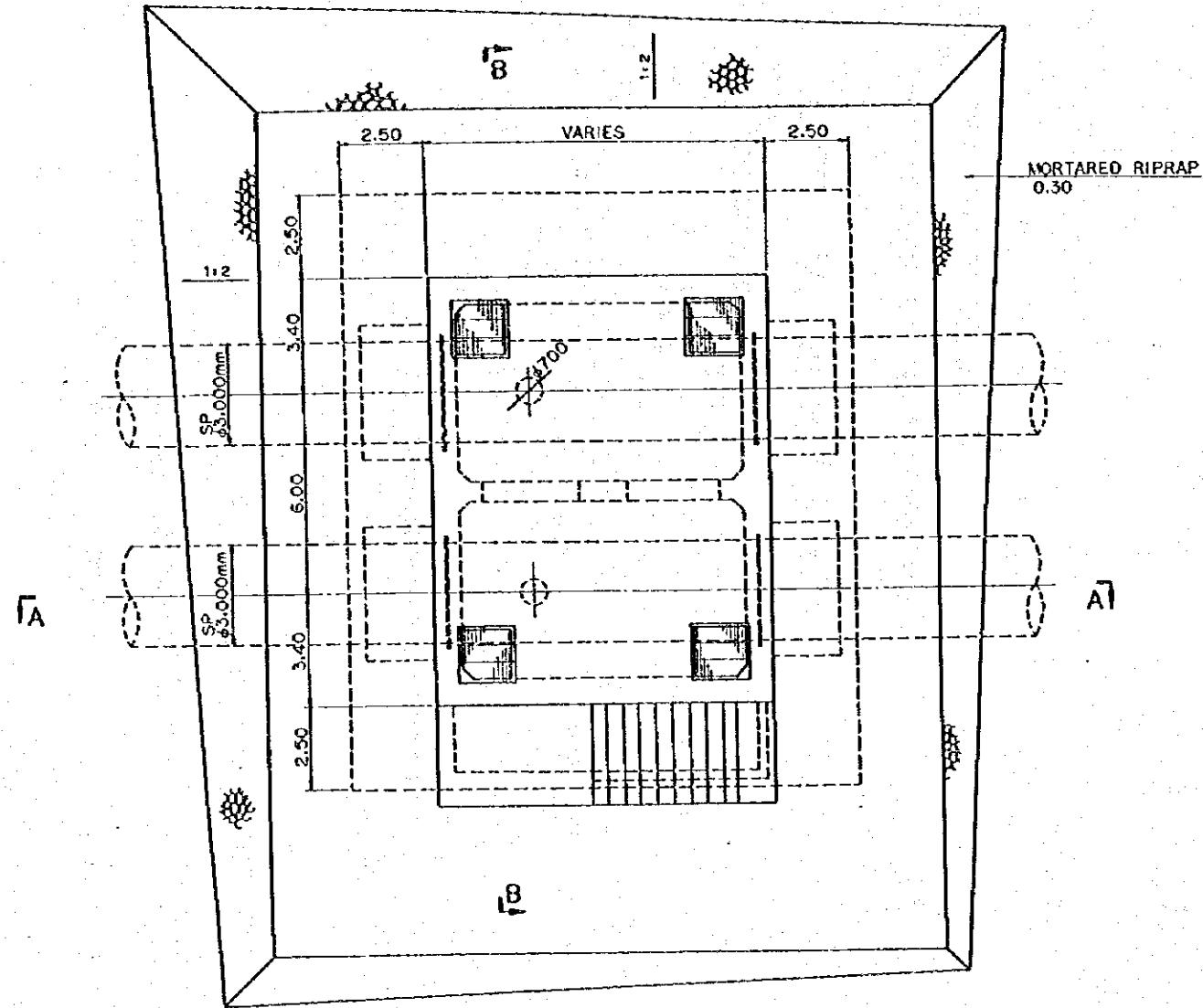


No. 7 PUMPING STATION PROFILE
SCALE 1/200

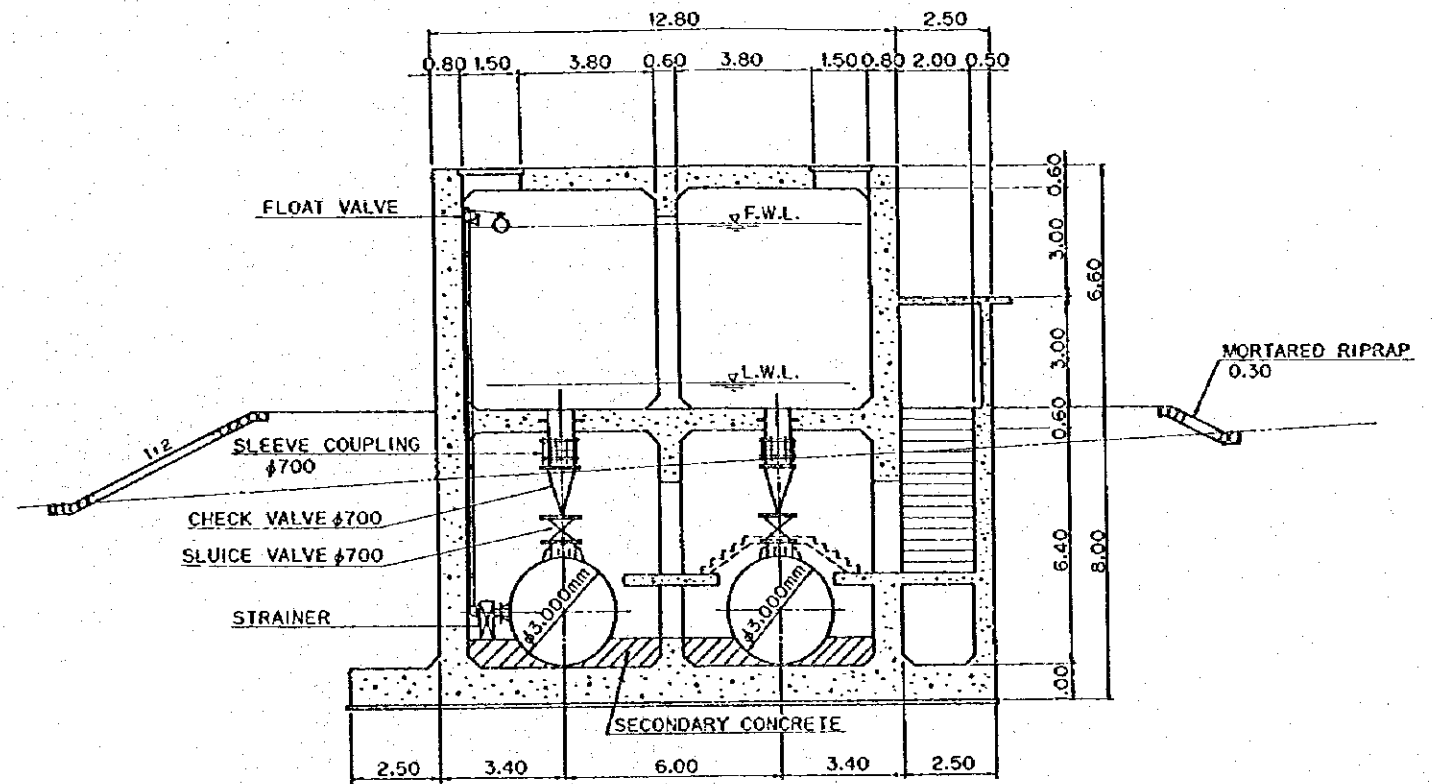


SUCTION POOL CROSS SECTION
SCALE 1/200

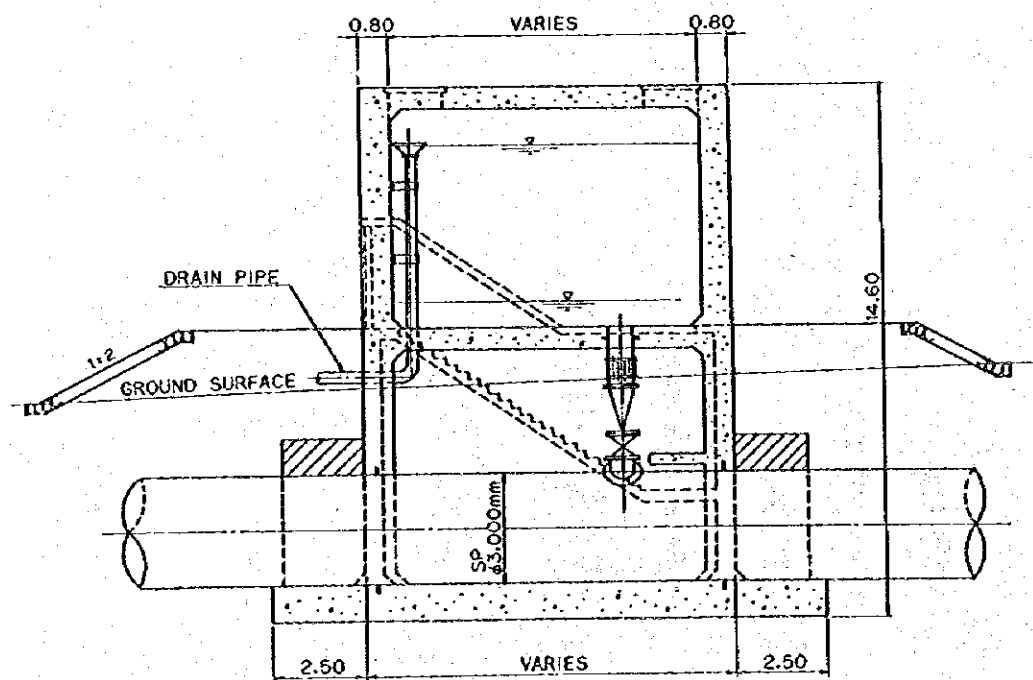
THE FEASIBILITY STUDY ON THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE II)			
NO. 7 PUMPING STATION PROFILE & SECTION			
DRAWING NO.	7	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			



PLAN



SECTION B-B



SECTION A-A

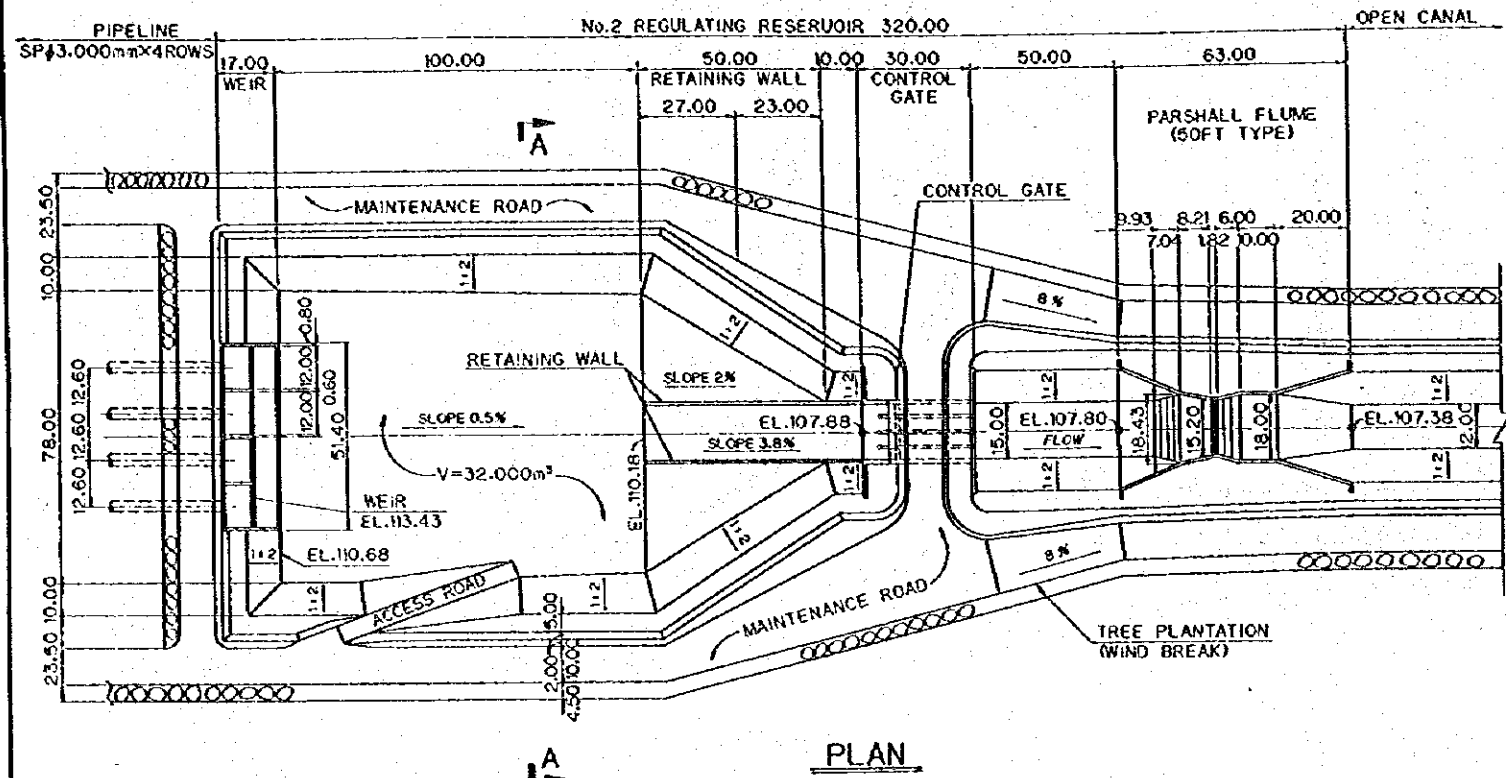
NOTE

1. UNIT IS METER.
2. NOT TO SCALE.
3. SURGE TANK ONLY FOR TWO ROWS OF PIPELINE IS SHOWN.

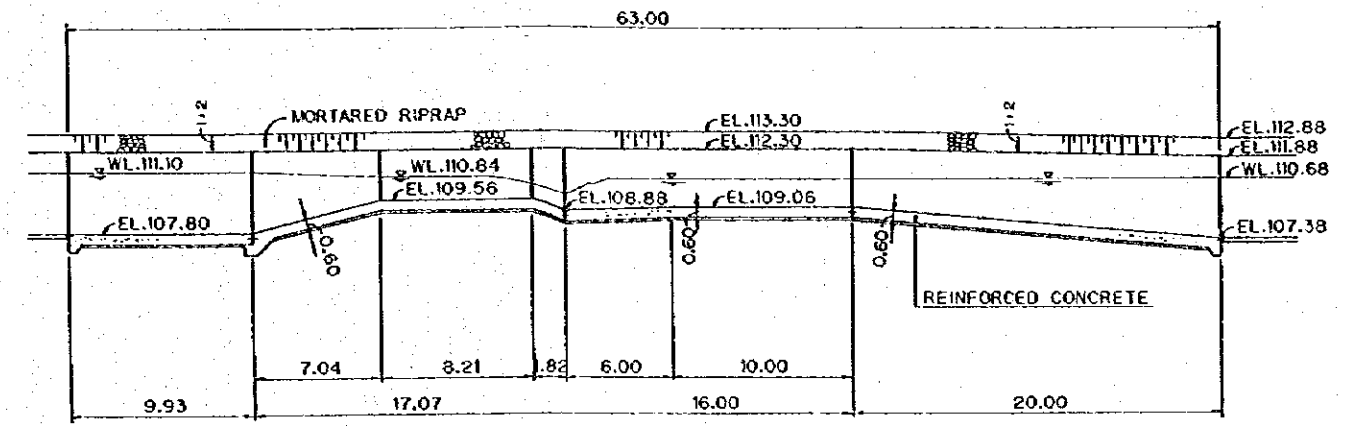
THE FEASIBILITY STUDY ON THE NORTH SINAI
INTEGRATED RURAL DEVELOPMENT PROJECT
(PHASE II)

**ONE WAY
SURGE TANK**

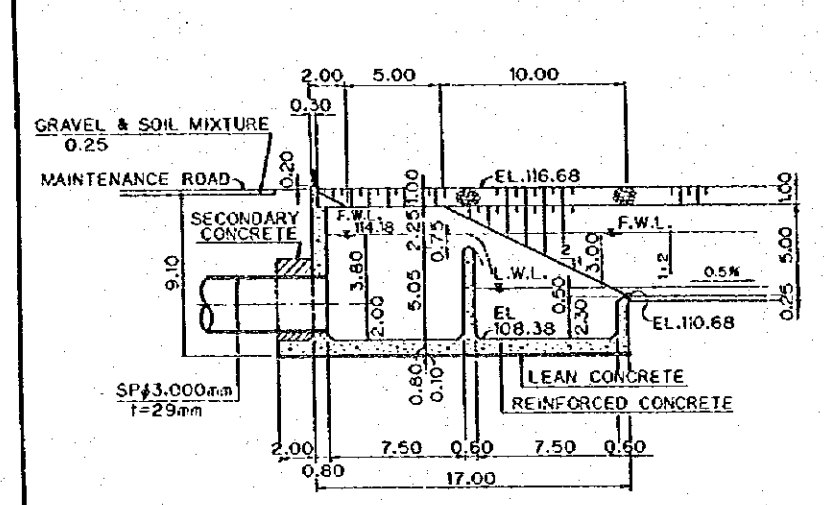
DRAWING NO.	8	DATE
JAPAN INTERNATIONAL COOPERATION AGENCY		



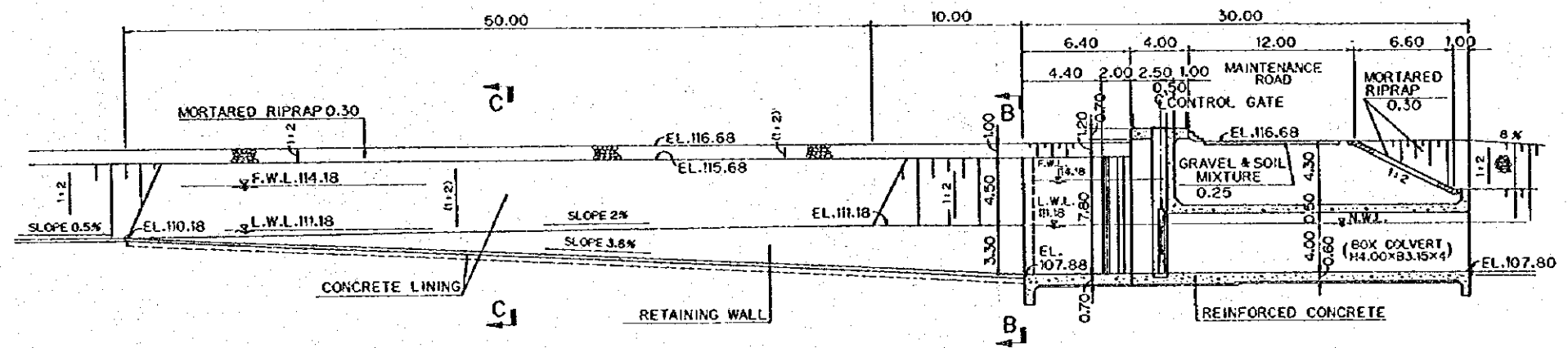
PLAN



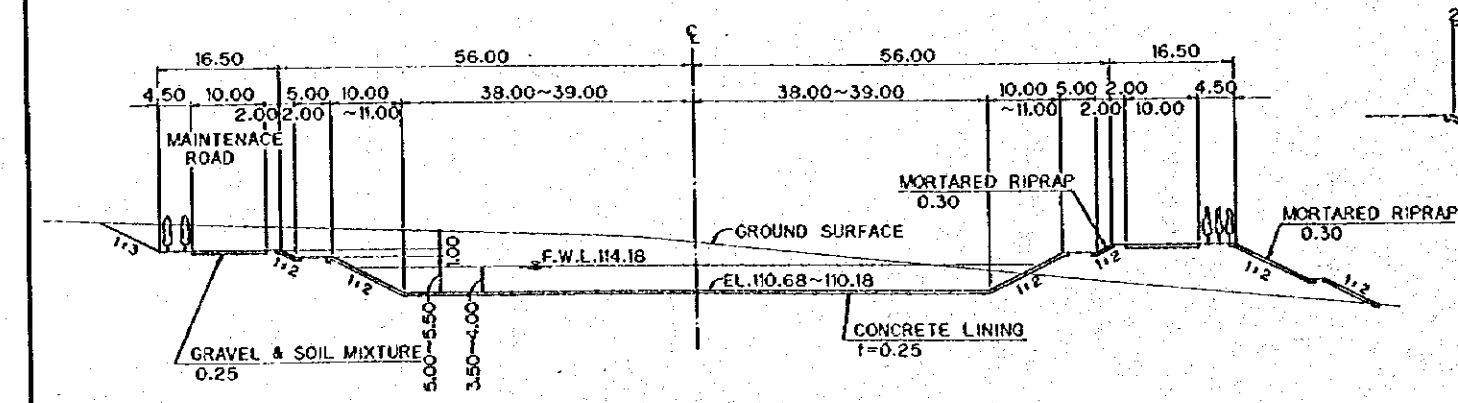
PARSHALL FLUME PROFILE



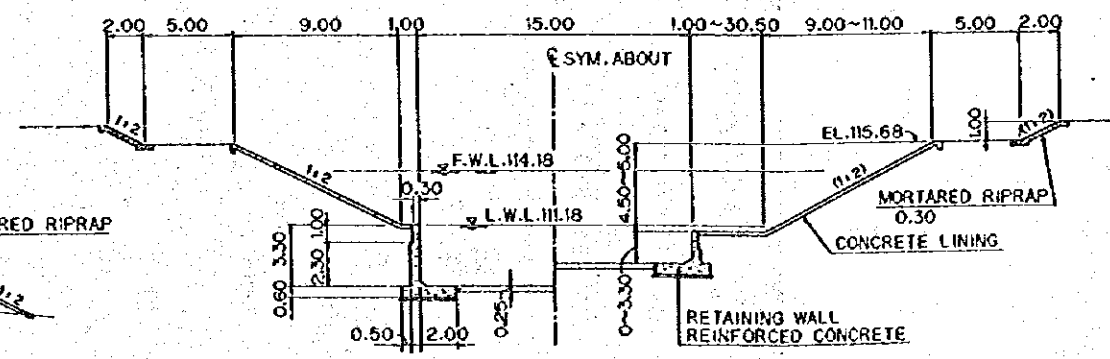
WEIR PROFILE



RETAINING WALL & CONTROL GATE PROFILE



SECTION A-A

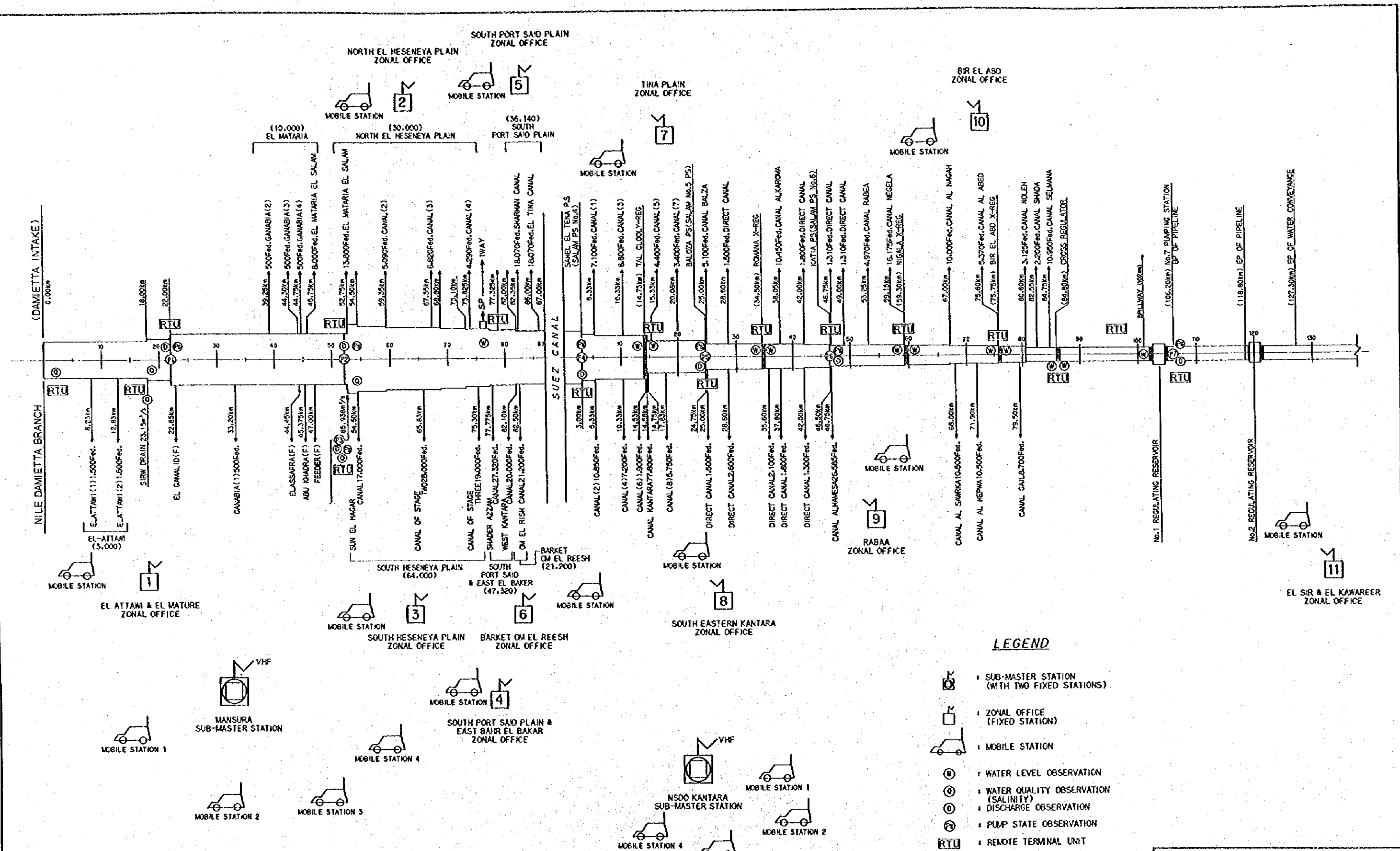


SECTION B-B(C-C)

THE FEASIBILITY STUDY ON THE NORTH SINAI
INTEGRATED RURAL DEVELOPMENT PROJECT
(PHASE B)

NO.2 REGULATING
RESERVOIR

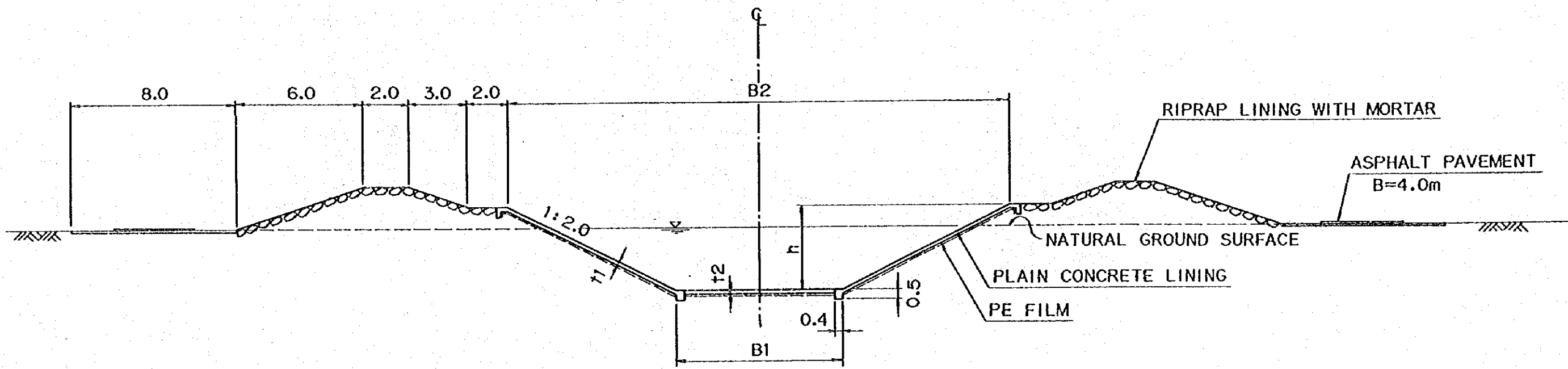
DRAWING NO. 9 DATE
JAPAN INTERNATIONAL COOPERATION AGENCY



LEGEND

- SUB-MASTER STATION (WITH TWO FIXED STATIONS)
- ZONAL OFFICE (FIXED STATION)
- MOBILE STATION
- WATER LEVEL OBSERVATION
- WATER QUALITY OBSERVATION (SALINITY)
- DISCHARGE OBSERVATION
- PUMP STATE OBSERVATION
- REMOTE TERMINAL UNIT

THE FEASIBILITY STUDY ON THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE II)		
WATER MANAGEMENT SYSTEM		
DRAWING NO.	10	DATE
JAPAN INTERNATIONAL COOPERATION AGENCY		



TYPICAL CROSS SECTION OF MAIN IRRIGATION CANAL
S=1:200

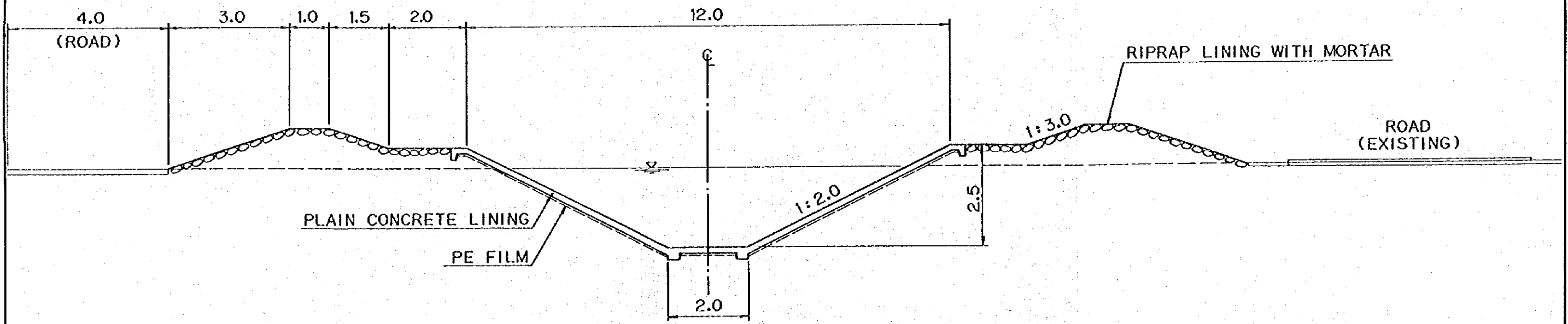
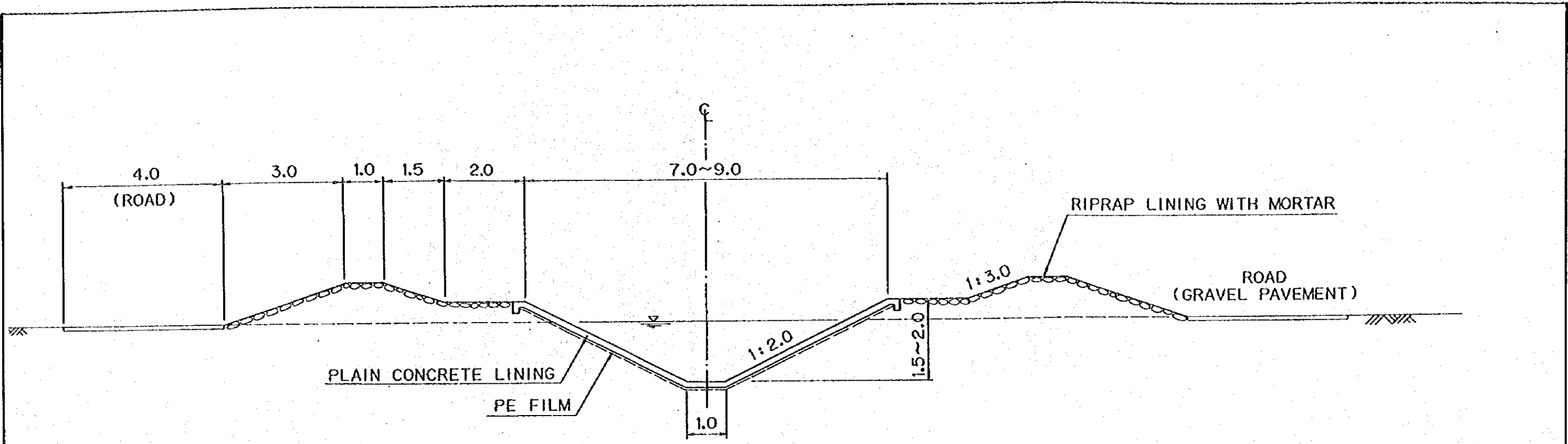
B1 (m)	h (m)	B2 (m)	t1 (m)	t2 (m)
12.0	4.0	28.0	0.25	0.20
11.5	4.0	27.5	0.25	0.20
11.0	4.0	27.0	0.25	0.20
9.0	4.0	25.0	0.25	0.20
5.5	4.0	21.5	0.25	0.15
5.0	4.0	21.0	0.25	0.15
4.5	4.0	20.5	0.25	0.15
4.0	3.5	18.0	0.20	0.15
3.5	3.5	17.5	0.20	0.15
3.0	3.5	17.0	0.20	0.15
2.0	3.5	16.0	0.20	0.15

THE FEASIBILITY STUDY ON THE NORTH SINAI
INTEGRATED RURAL DEVELOPMENT PROJECT
(PHASE II)

AGRICULTURAL INFRASTRUCTURE
MAIN IRRIGATION CANAL

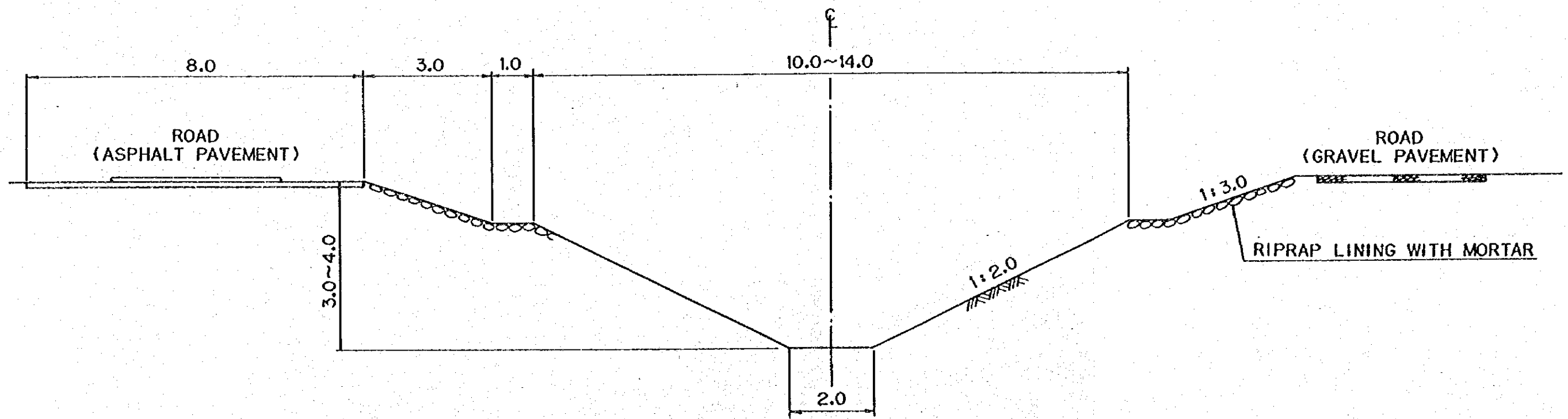
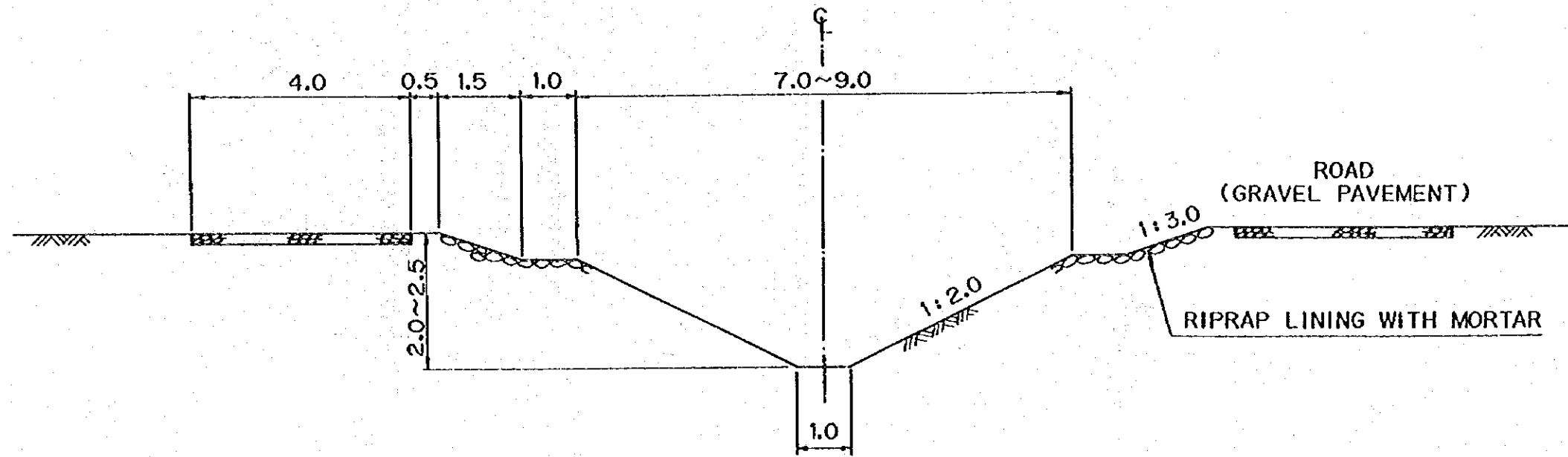
DRAWING NO.	11	DATE	
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JAPAN INTERNATIONAL COOPERATION AGENCY



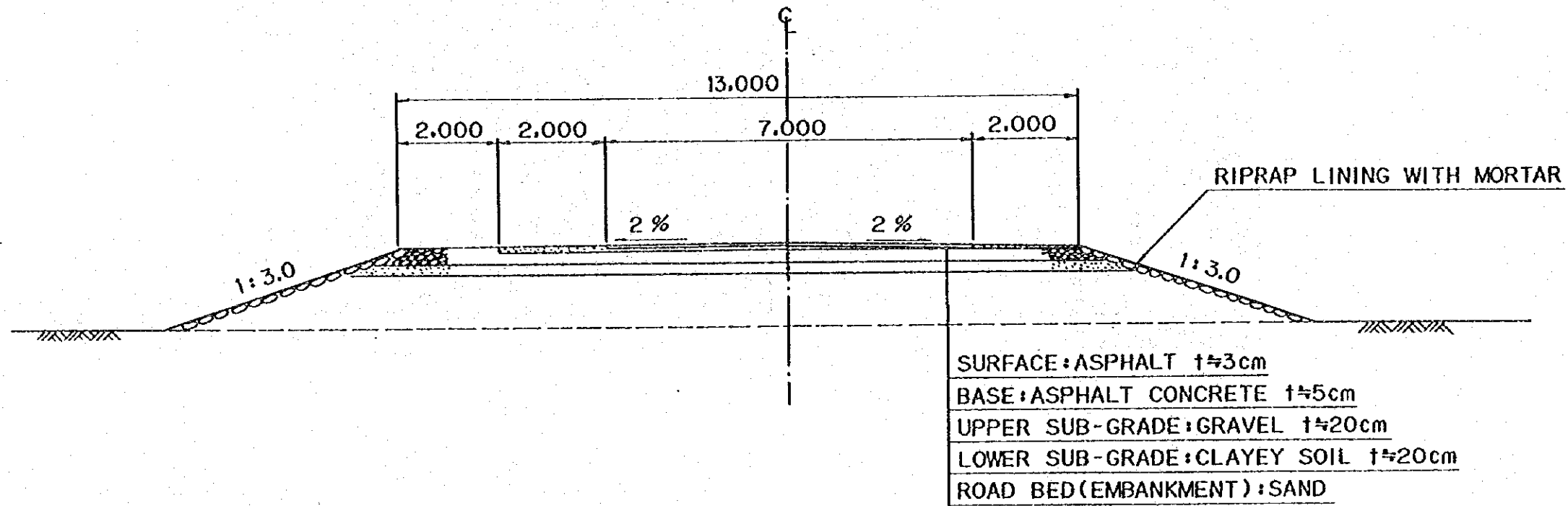
TYPICAL CROSS SECTION OF BRANCH/DISTRIBUTION IRRIGATION CANAL
S=1:100

THE FEASIBILITY STUDY ON THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE II)			
AGRICULTURAL INFRASTRUCTURE BRANCH/DISTRIBUTION IRRIGATION CANAL			
DRAWING NO.	12	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			

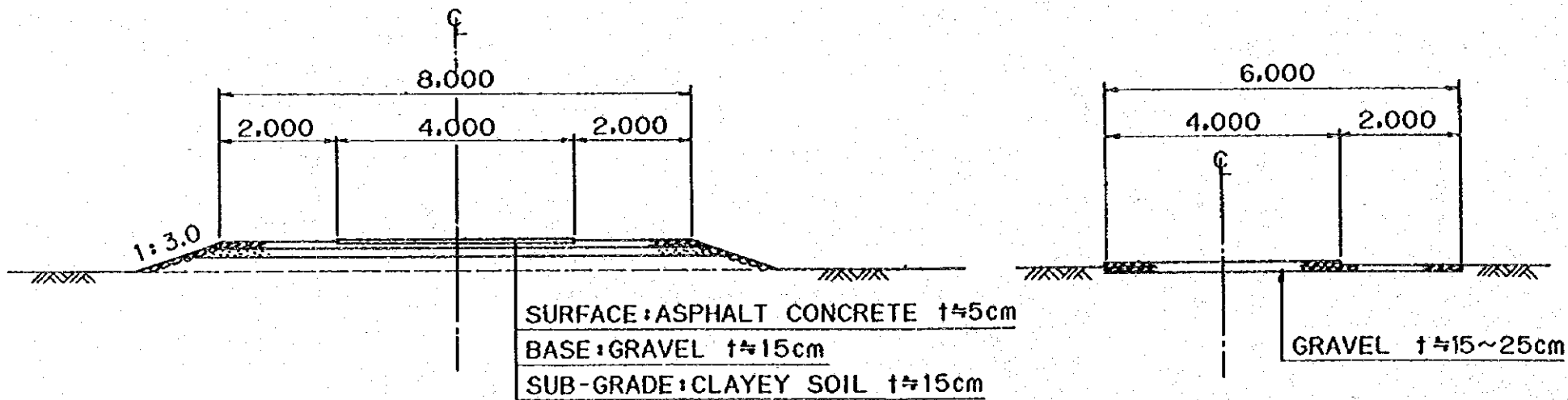


TYPICAL CROSS SECTION OF MAIN/BRANCH DRAINAGE CANAL
S=1:100

THE FEASIBILITY STUDY ON THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE II)			
AGRICULTURAL INFRASTRUCTURE MAIN/BRANCH DRAINAGE CANAL			
DRAWING NO.	13	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			



TRUNK ROAD



BRANCH ROAD

FARM ROAD

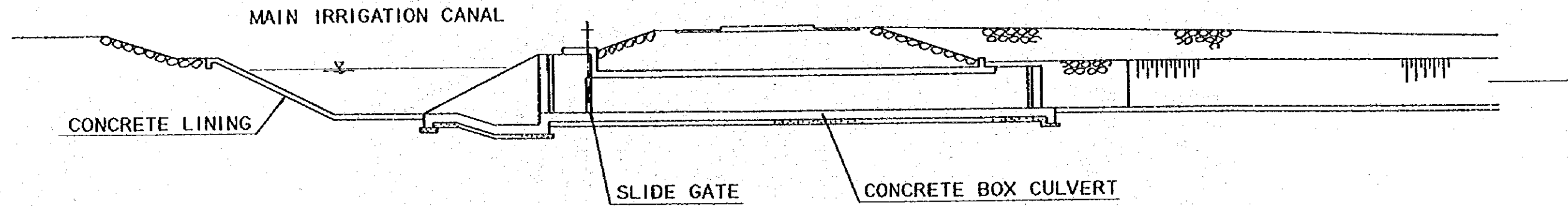
TYPICAL CROSS SECTION OF ROAD STRUCTURE

S=1:100

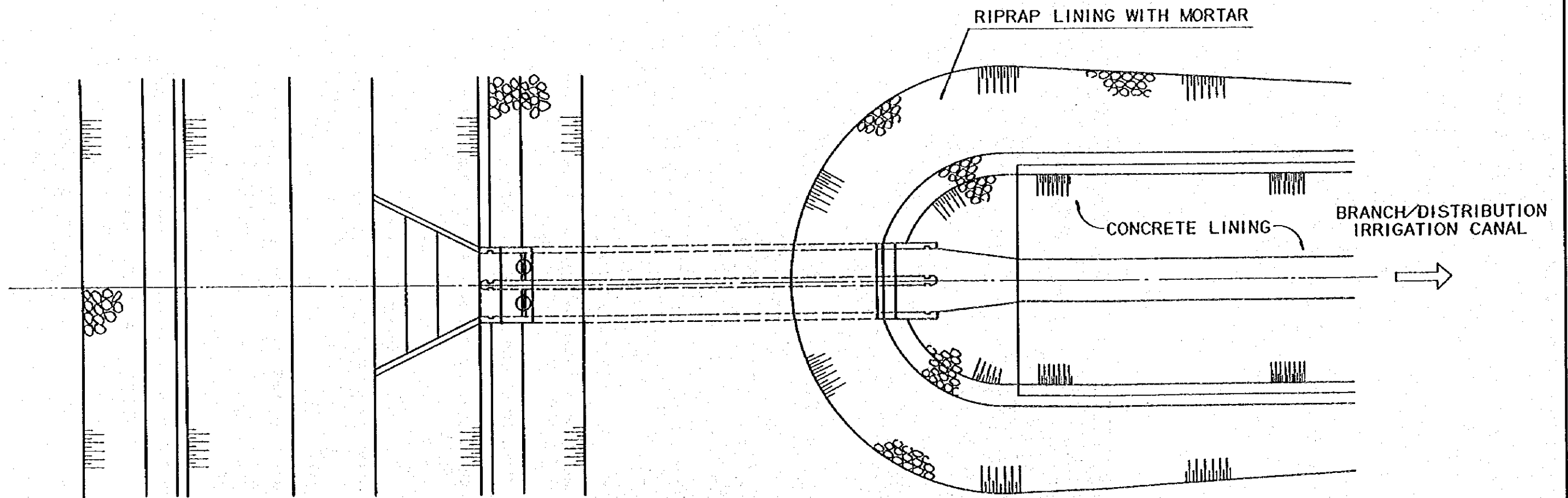
THE FEASIBILITY STUDY ON THE NORTH SINAI
 INTEGRATED RURAL DEVELOPMENT PROJECT
 (PHASE II)

AGRICULTURAL INFRASTRUCTURE
 ROAD STRUCTURE

DRAWING NO.	14	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			



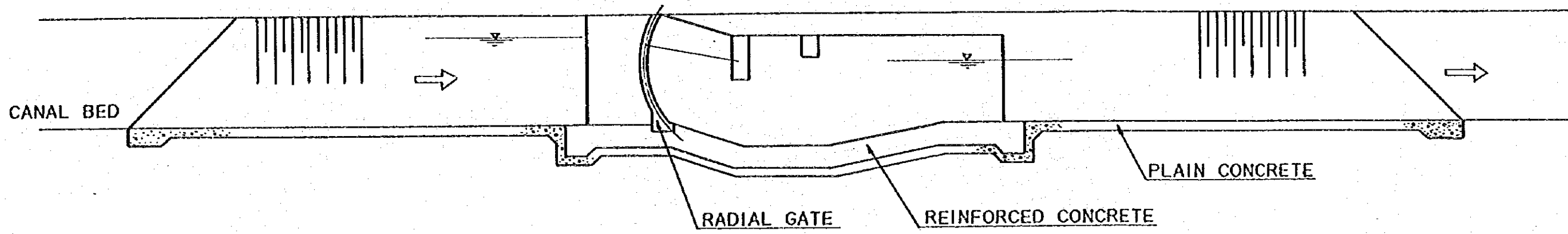
SECTION



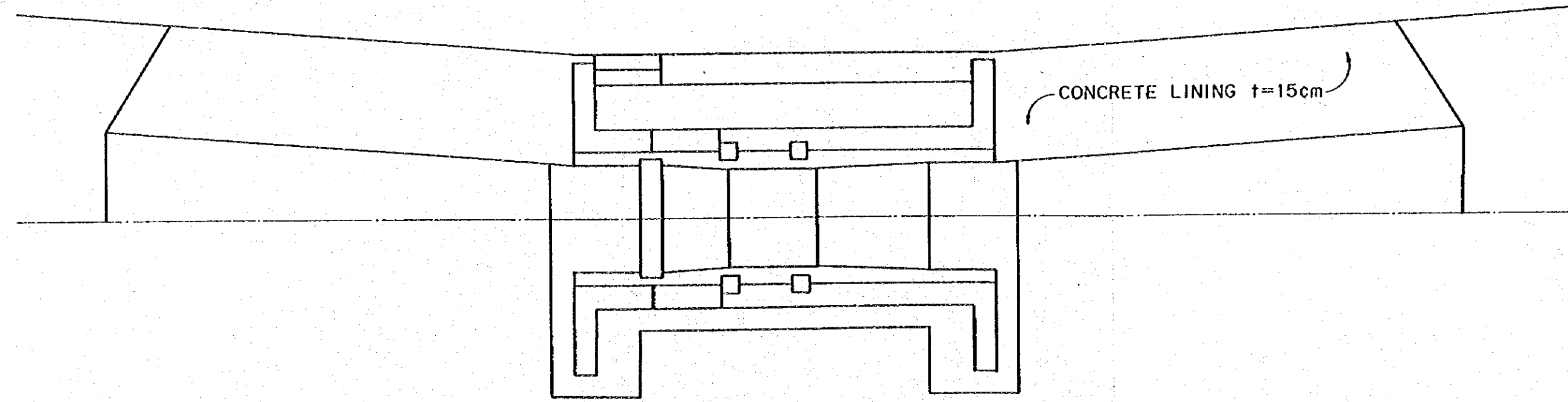
PLAN

TYPICAL LAYOUT OF DIVISION WORK
S=1:200

THE FEASIBILITY STUDY ON THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE II)			
AGRICULTURAL INFRASTRUCTURE DIVISION WORK			
DRAWING NO.	15	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			



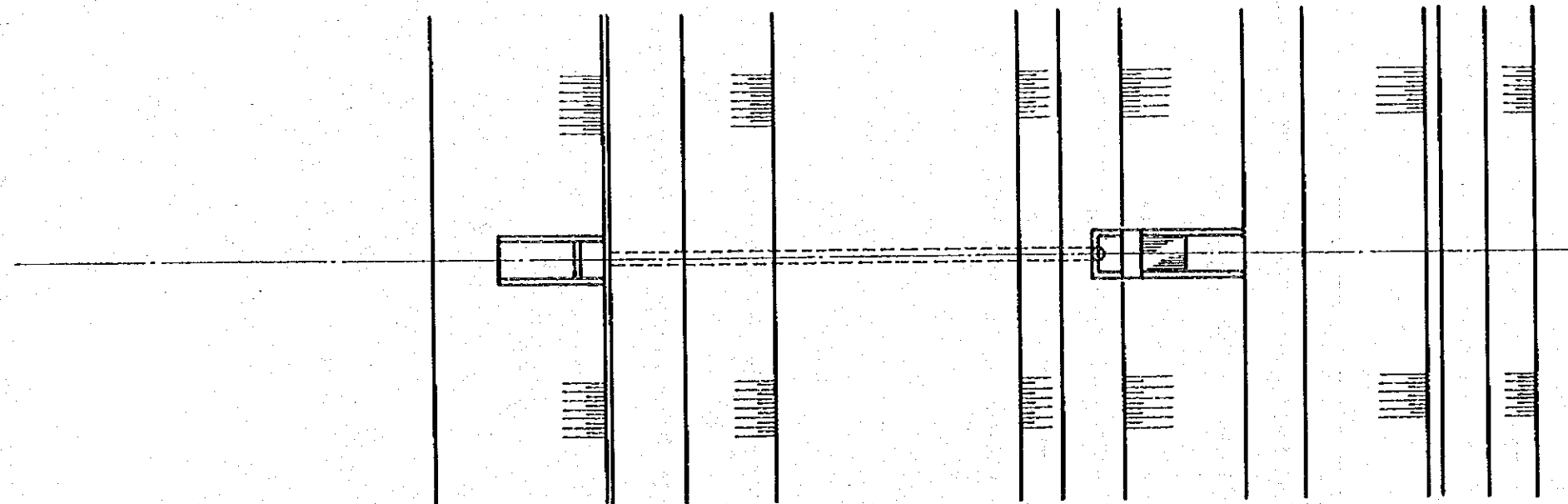
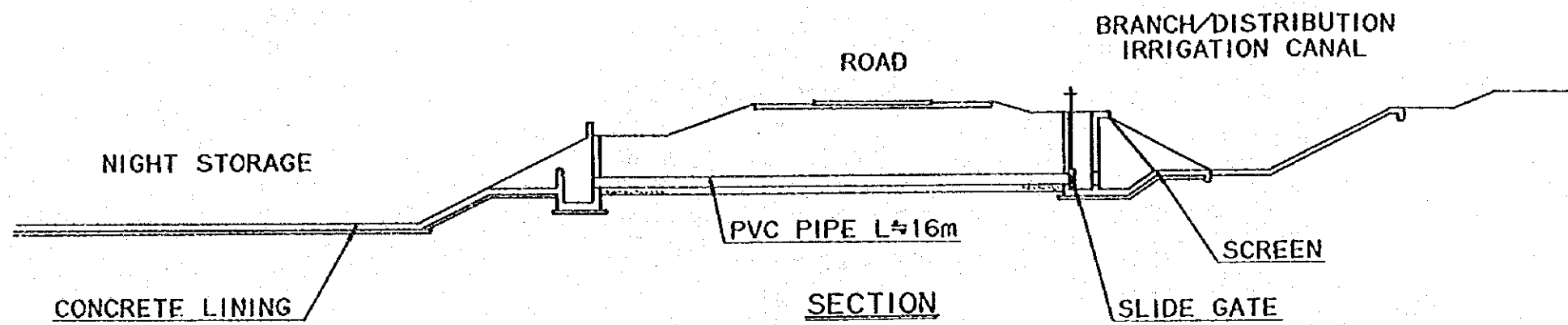
SECTION



PLAN HALF EARTH REMOVED

TYPICAL LAYOUT OF CHECK GATE (VENT)
S=1:100

THE FEASIBILITY STUDY ON THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE II)			
AGRICULTURAL INFRASTRUCTURE CHECK GATE			
DRAWING NO.	16	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			

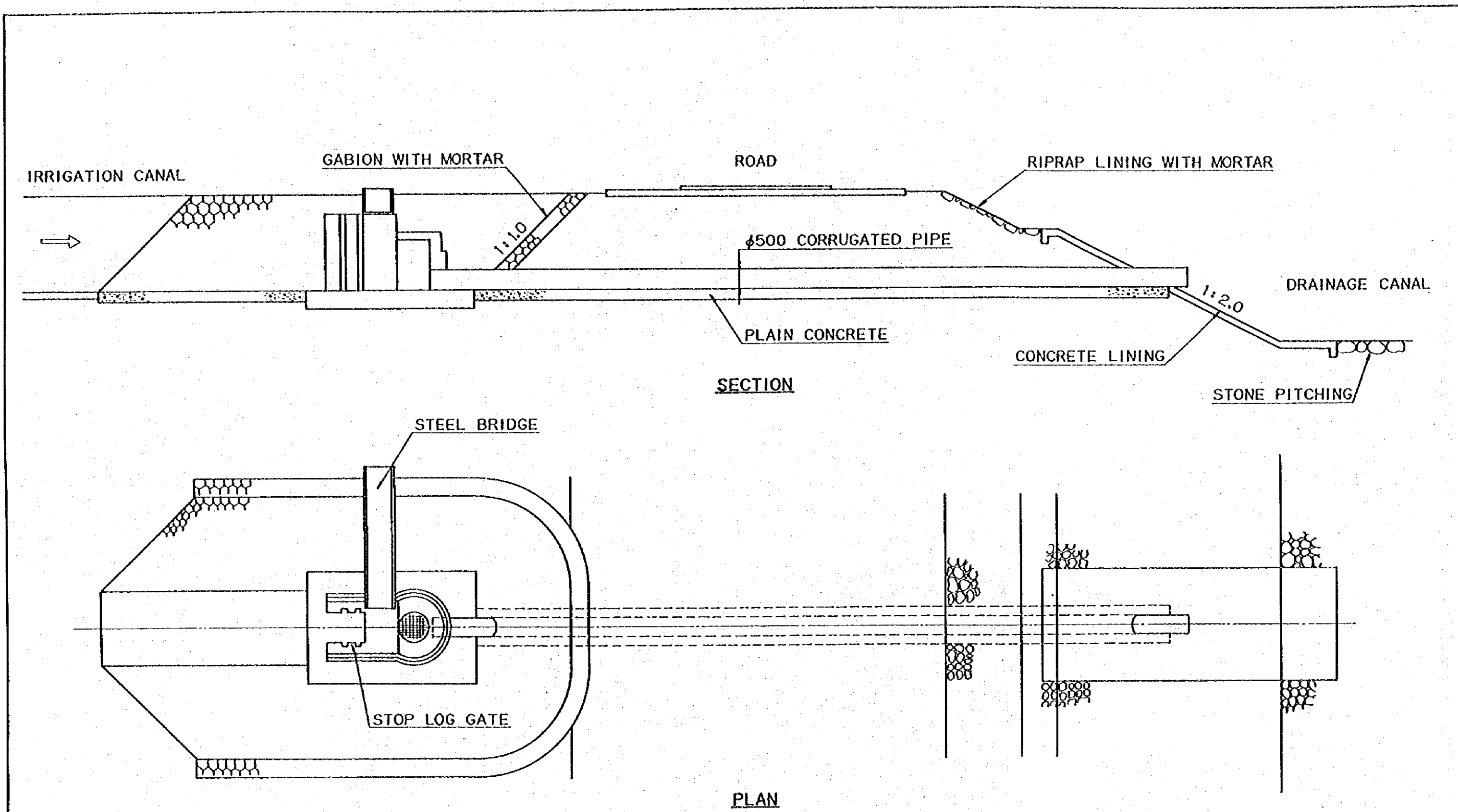


PLAN

TYPICAL LAYOUT OF INTAKE STRUCTURE

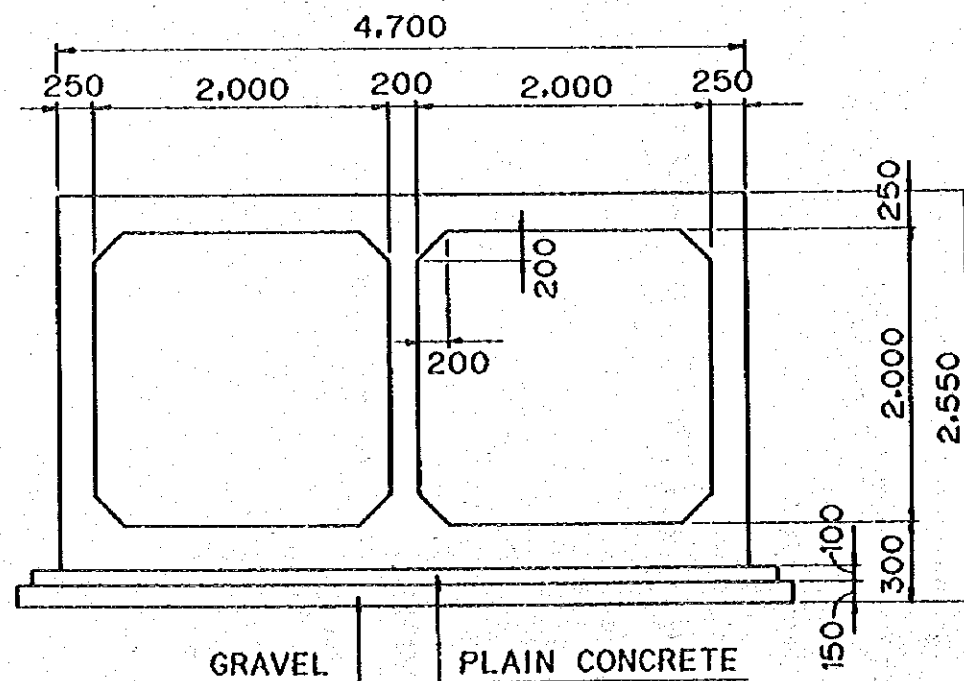
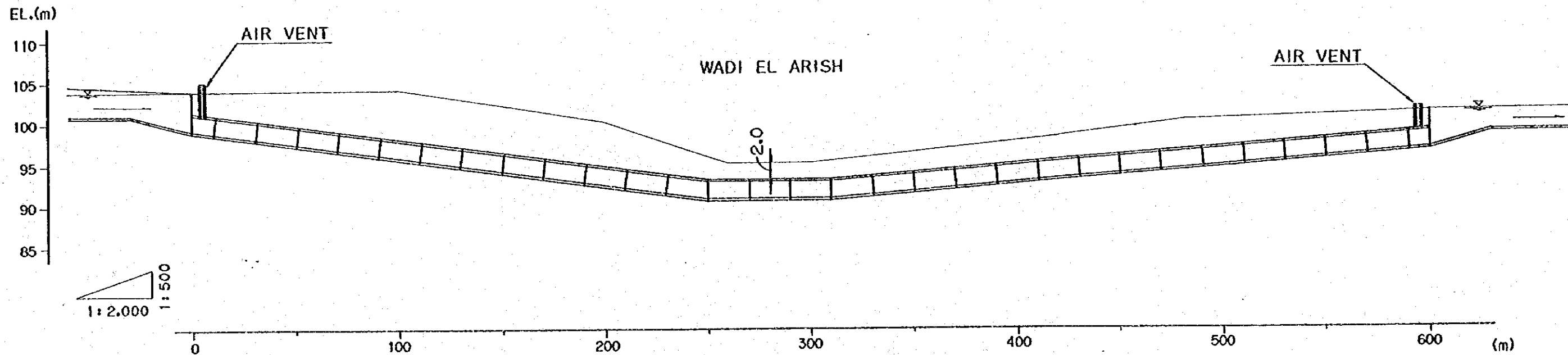
S=1:200

THE FEASIBILITY STUDY ON THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE II)			
AGRICULTURAL INFRASTRUCTURE INTAKE STRUCTURE			
DRAWING NO.	17	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			



TYPICAL LAYOUT OF TAIL-END SPILLWAY
S=1:100

THE FEASIBILITY STUDY ON THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE II)		
AGRICULTURAL INFRASTRUCTURE TAIL-END SPILLWAY		
DRAWING NO.	18	DATE
JAPAN INTERNATIONAL COOPERATION AGENCY		



CROSS SECTION

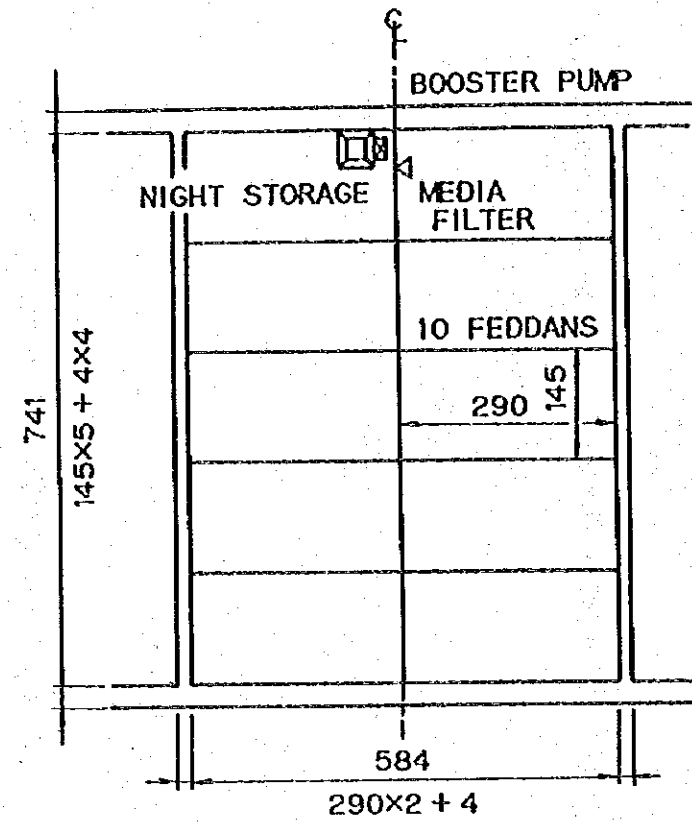
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THE FEASIBILITY STUDY ON THE NORTH SINAI
INTEGRATED RURAL DEVELOPMENT PROJECT
(PHASE II)

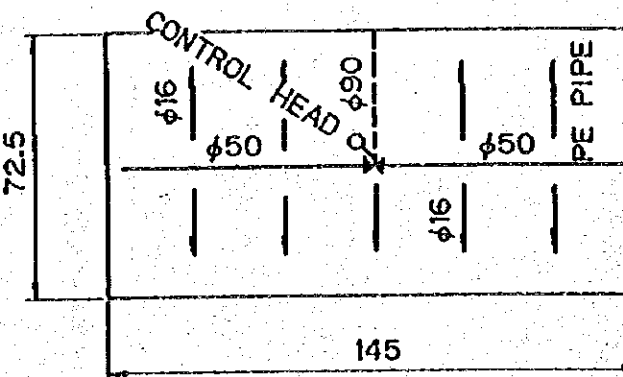
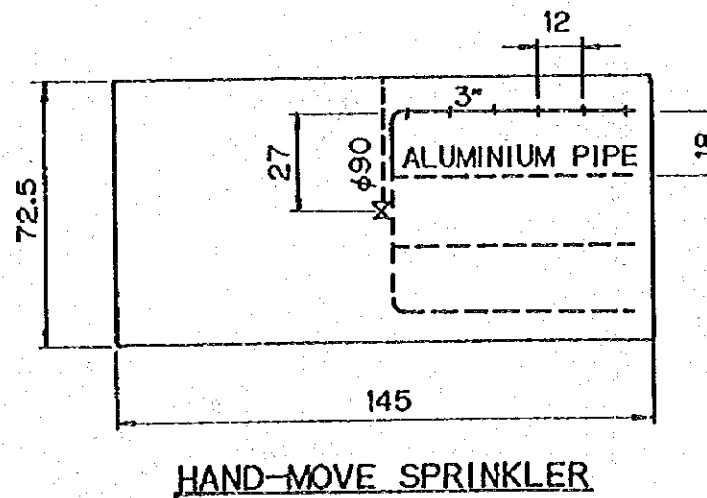
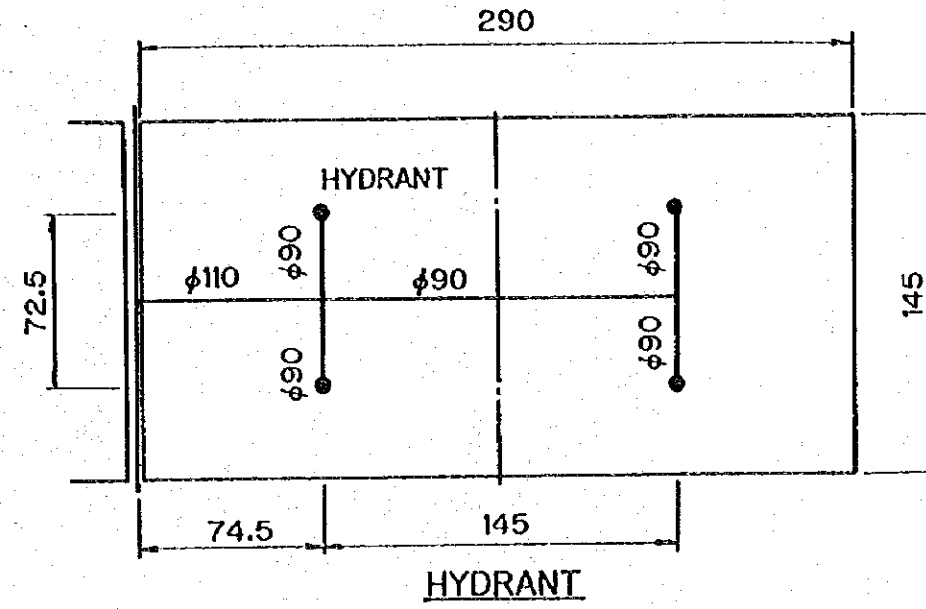
AGRICULTURAL INFRASTRUCTURE
SIPHON

DRAWING NO.	19	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			

SMALL SCALE & GRADUATE



TYPICAL LAYOUT OF DISTRIBUTION PIPES FOR SMALL SCALE & GRADUATE



TYPICAL LAYOUT OF IRRIGATION PLOT FOR SMALL SCALE & GRADUATE

4th	1st Day
3rd	2nd

IRRIGATION ROTATION

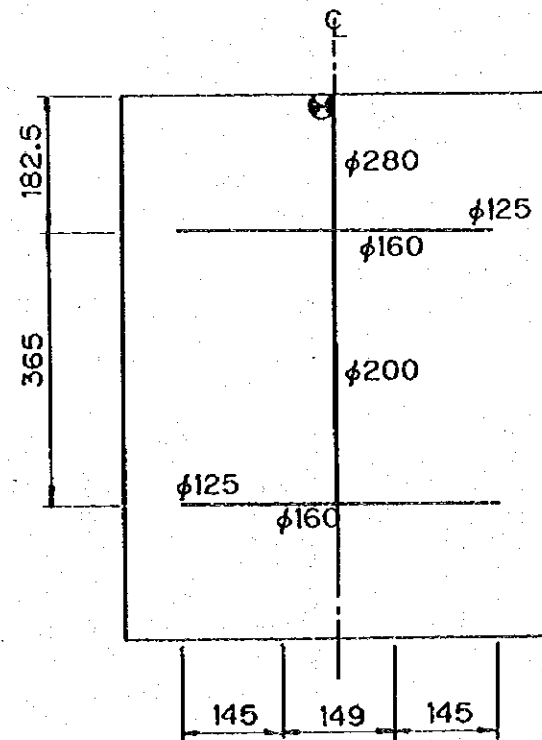
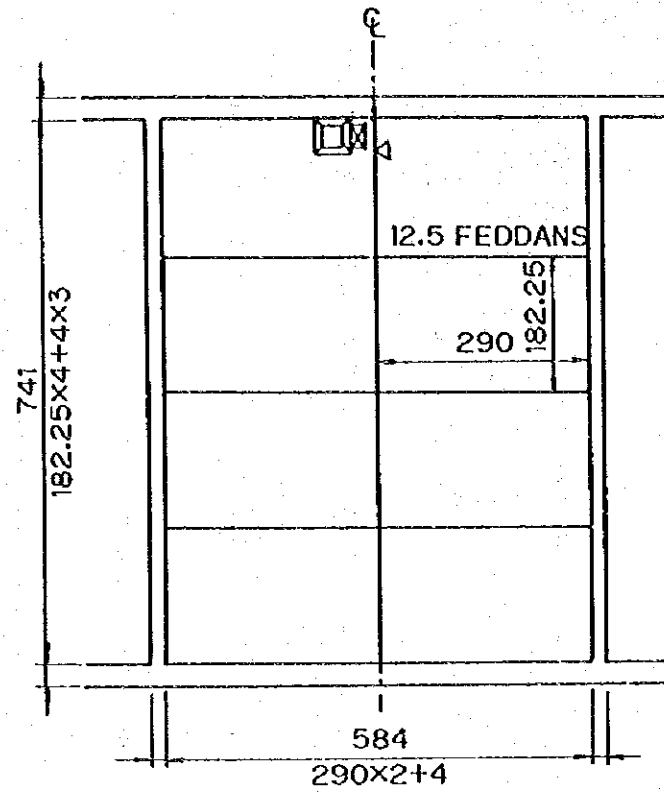
UNIT: meter & mm

THE FEASIBILITY STUDY ON THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE II)

ON-FARM IRRIGATION PLAN (1/5)

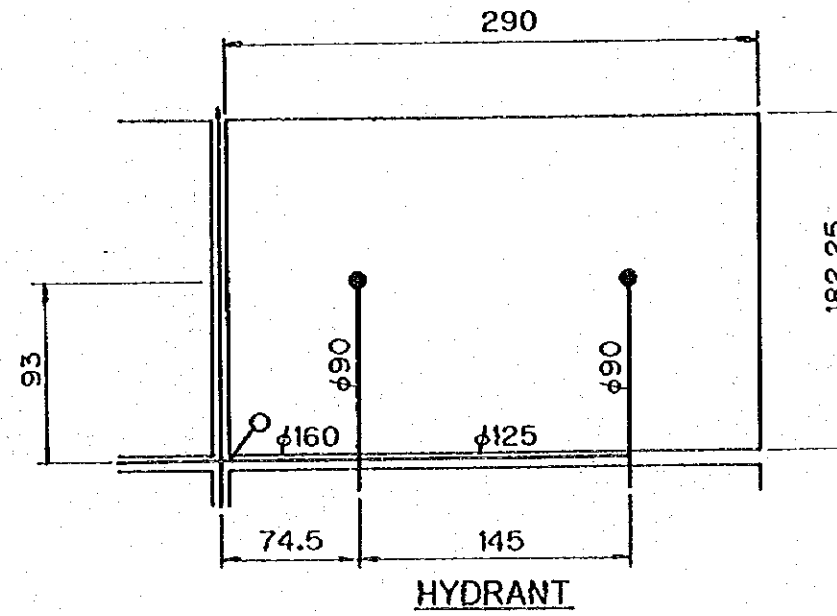
DRAWING NO.	20	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			

SMALL SCALE INVESTORS

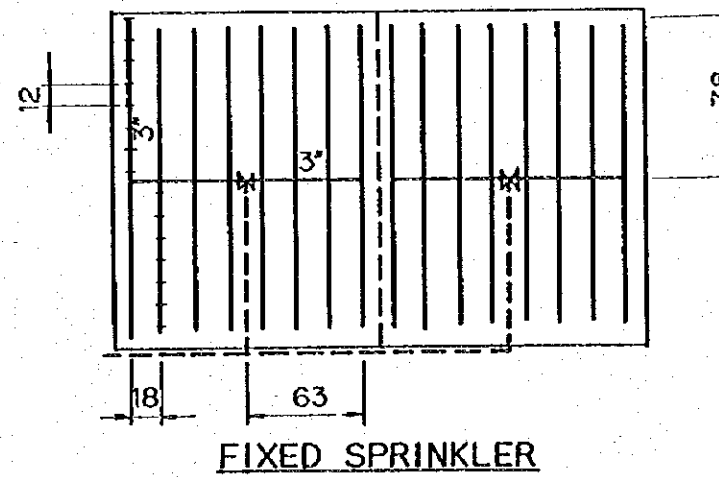


TYPICAL LAYOUT OF DISTRIBUTION PIPES FOR SMALL SCALE INVESTORS

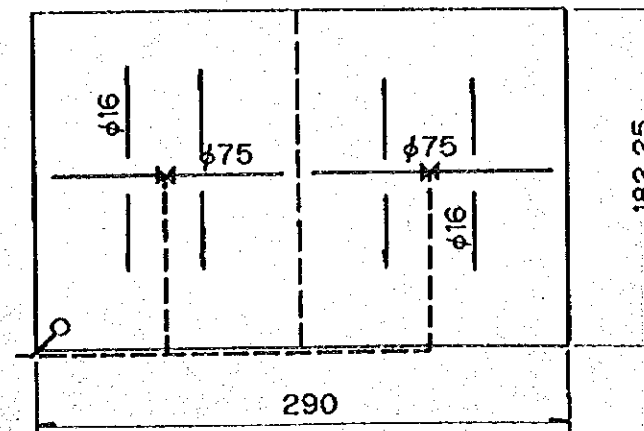
NOTE: THIS APPLIES TO VEGETABLE + BEEF CATTLE GROWERS.



HYDRANT



FIXED SPRINKLER



DRIP IRRIGATION

TYPICAL LAYOUT OF IRRIGATION PLOT FOR SMALL SCALE INVESTORS

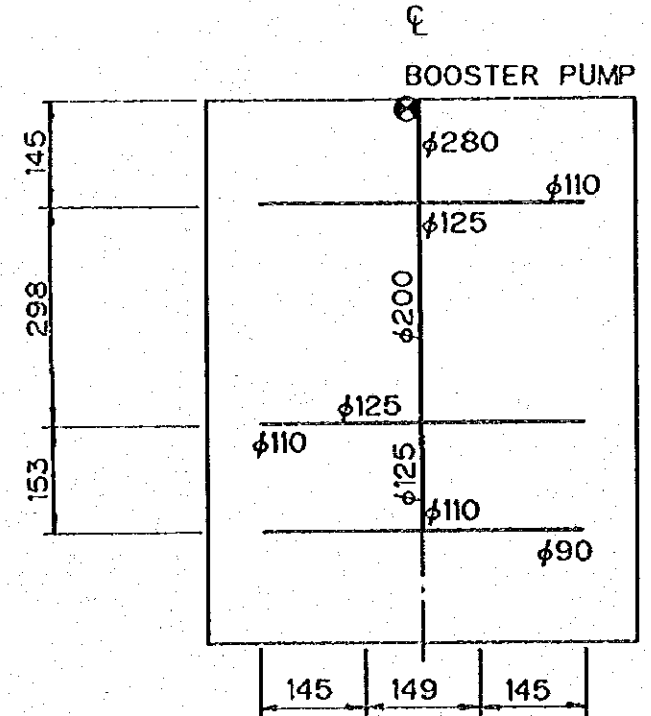
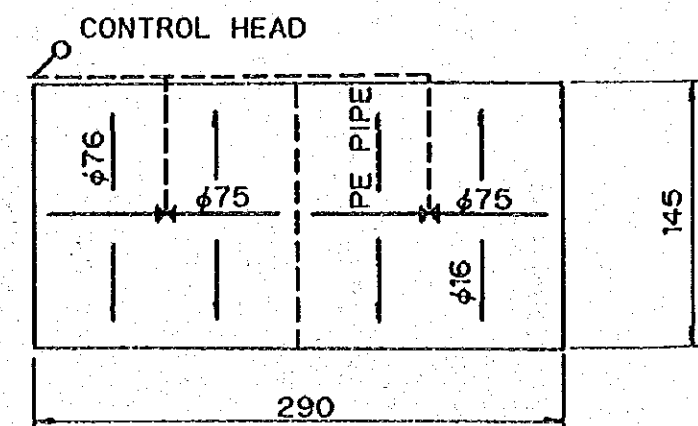
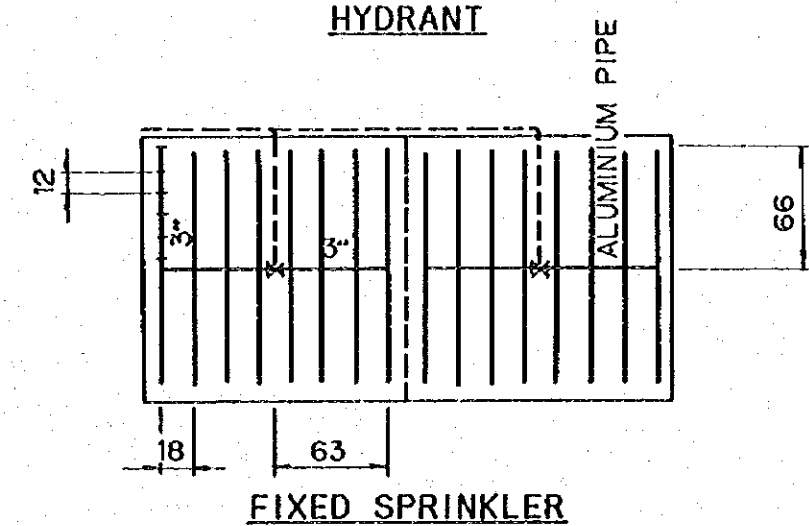
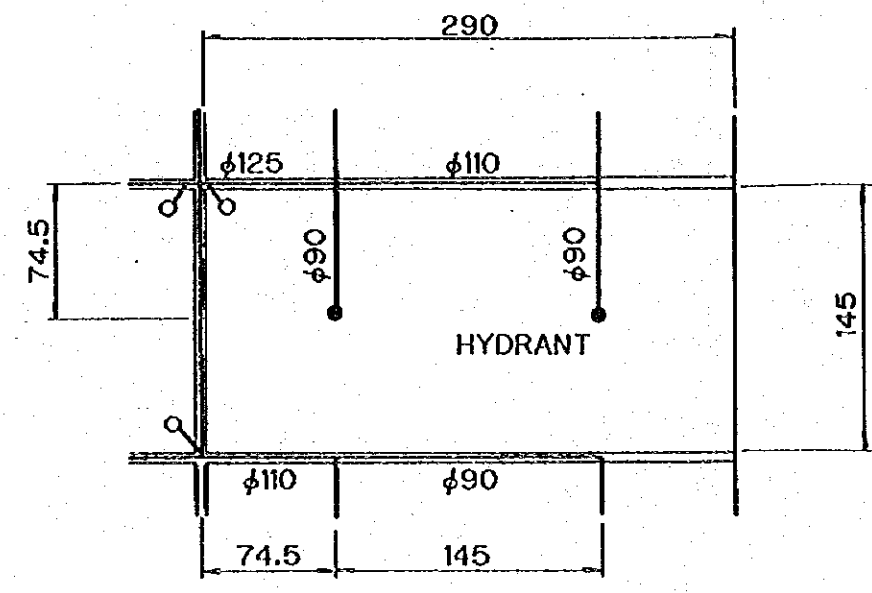
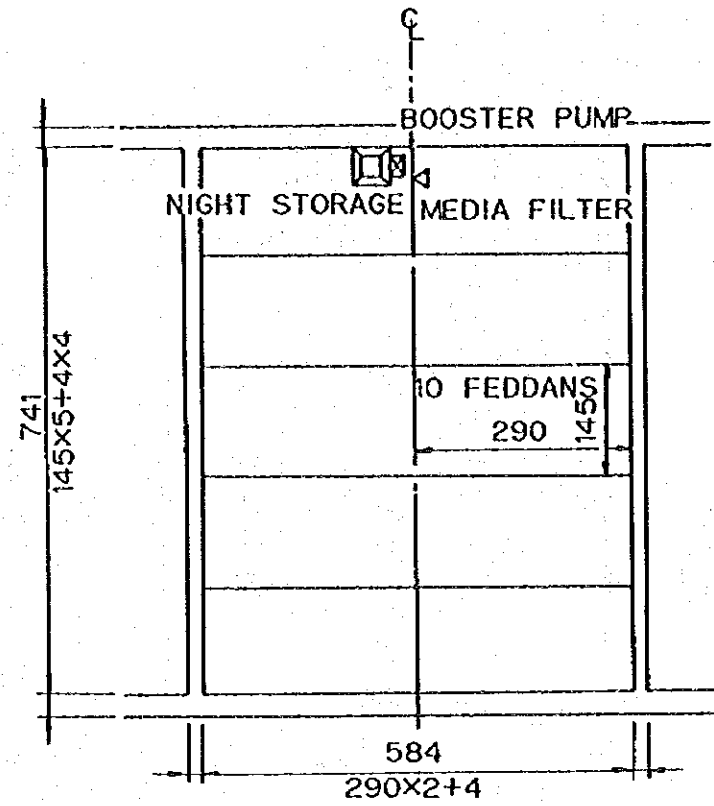
UNIT: meter & mm

THE FEASIBILITY STUDY ON THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE II)

ON-FARM IRRIGATION PLAN (2/5)

DRAWING NO.	21	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			

SMALL SCALE INVESTORS



TYPICAL LAYOUT OF DISTRIBUTION PIPES FOR SMALL SCALE INVESTORS

NOTE: THIS APPLIES TO VEGETABLE + FRUITS GROWERS.

TYPICAL LAYOUT OF IRRIGATION PLOT FOR SMALL SCALE INVESTORS

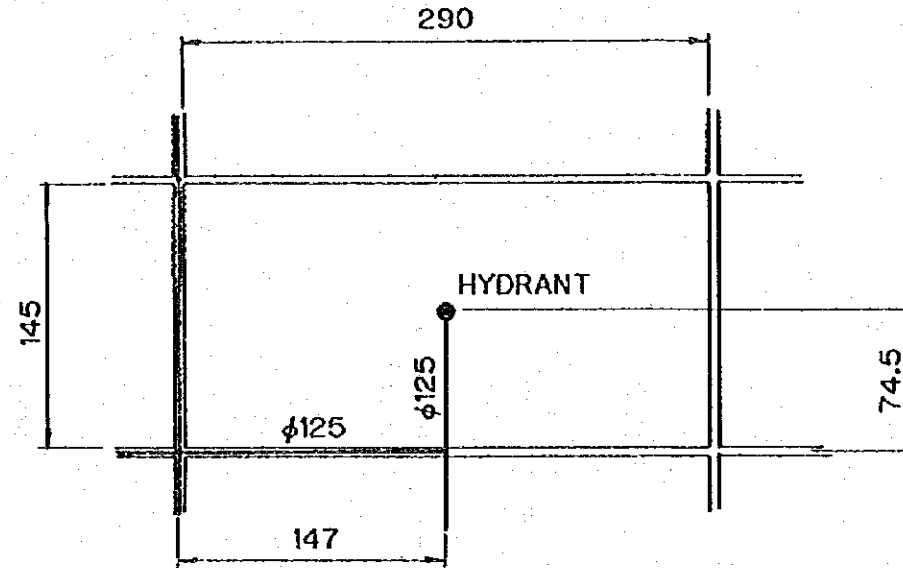
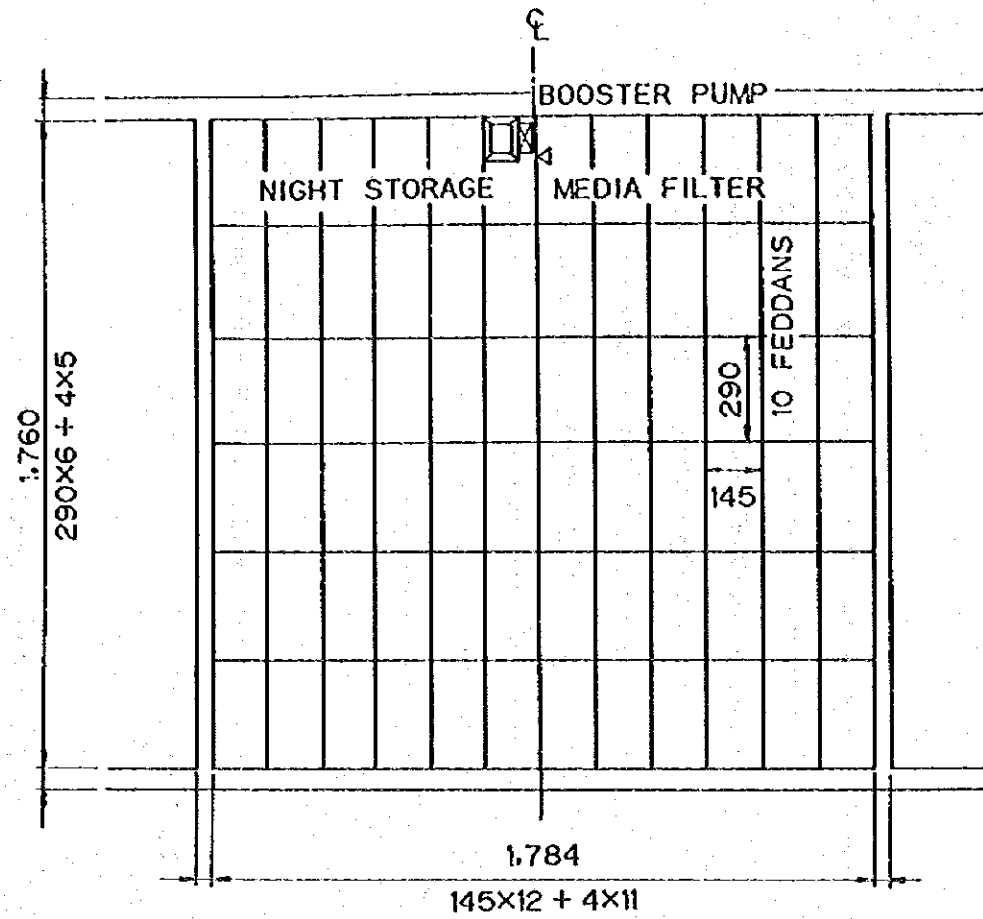
UNIT: meter & mm

THE FEASIBILITY STUDY ON THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE II)

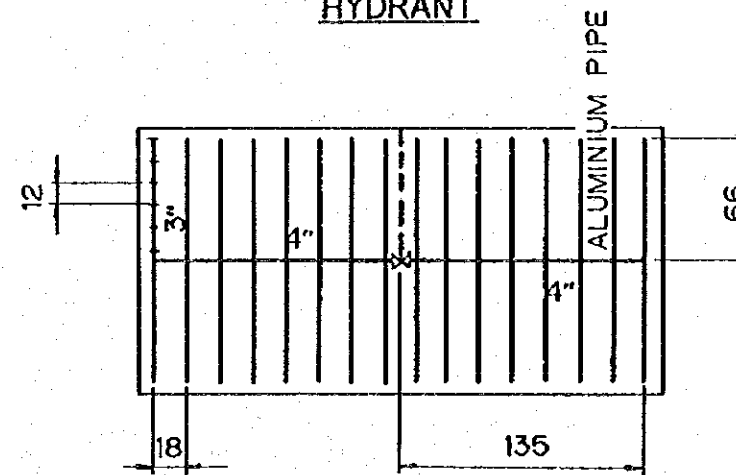
ON-FARM IRRIGATION PLAN (3/5)

DRAWING NO.	22	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			

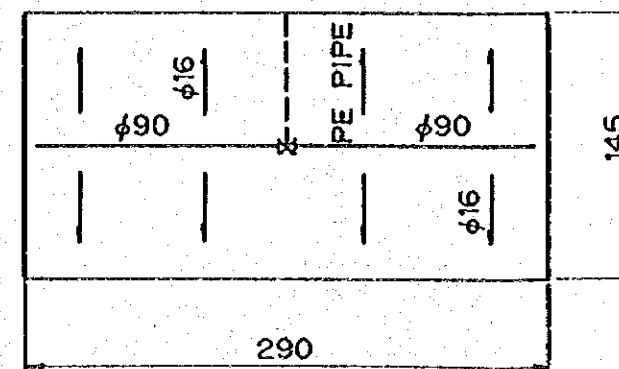
LARGE SCALE INVESTORS



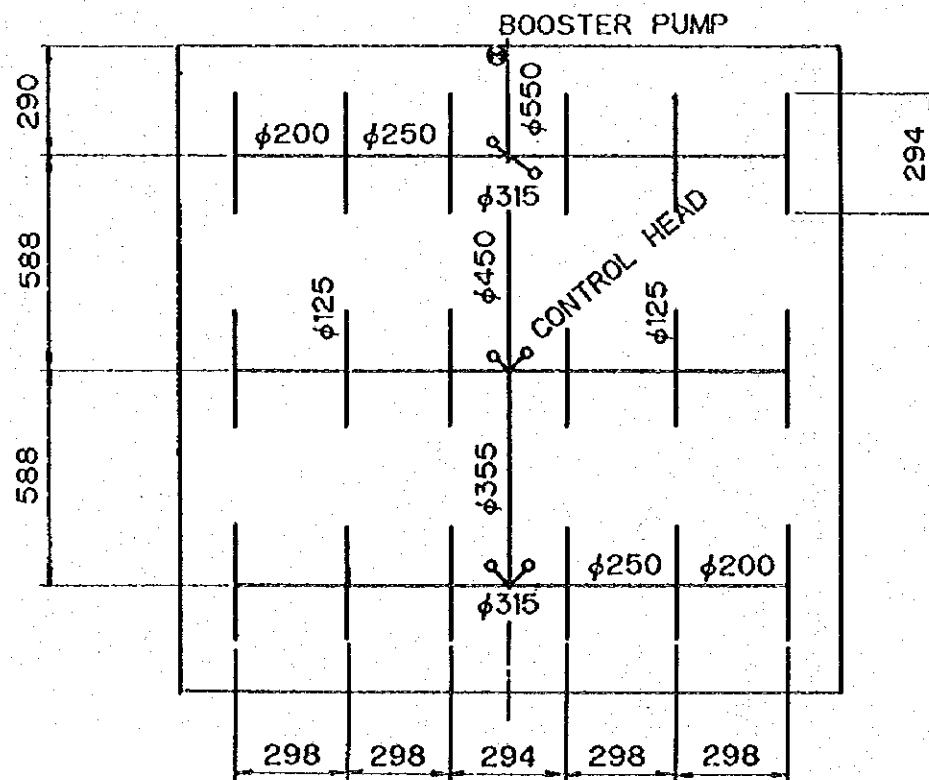
HYDRANT



FIXED SPRINKLER



DRIP IRRIGATION



TYPICAL LAYOUT OF DISTRIBUTION PIPES FOR LARGE SCALE INVESTORS

NOTE: THIS APPLIES TO CONVENTIONAL SPRINKLER AND/OR DRIP IRRIGATION.

TYPICAL LAYOUT OF IRRIGATION PLOT FOR LARGE SCALE INVESTORS

UNIT : meter & mm

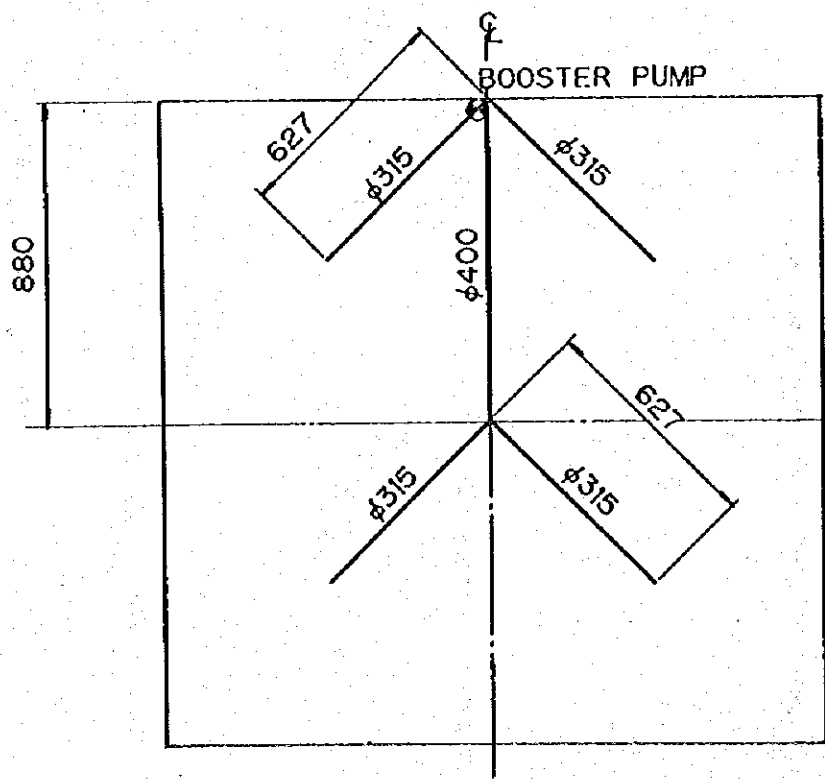
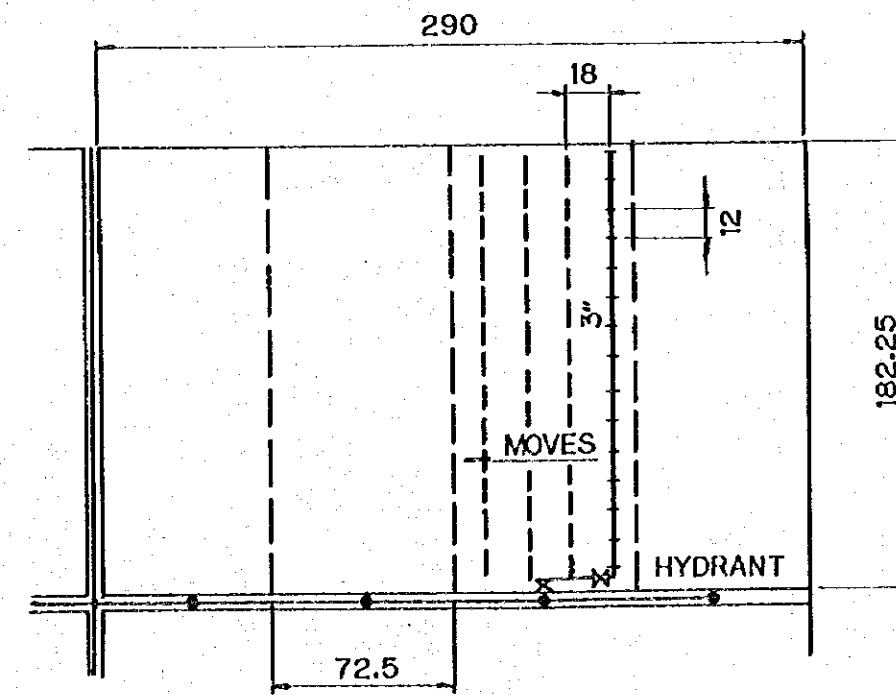
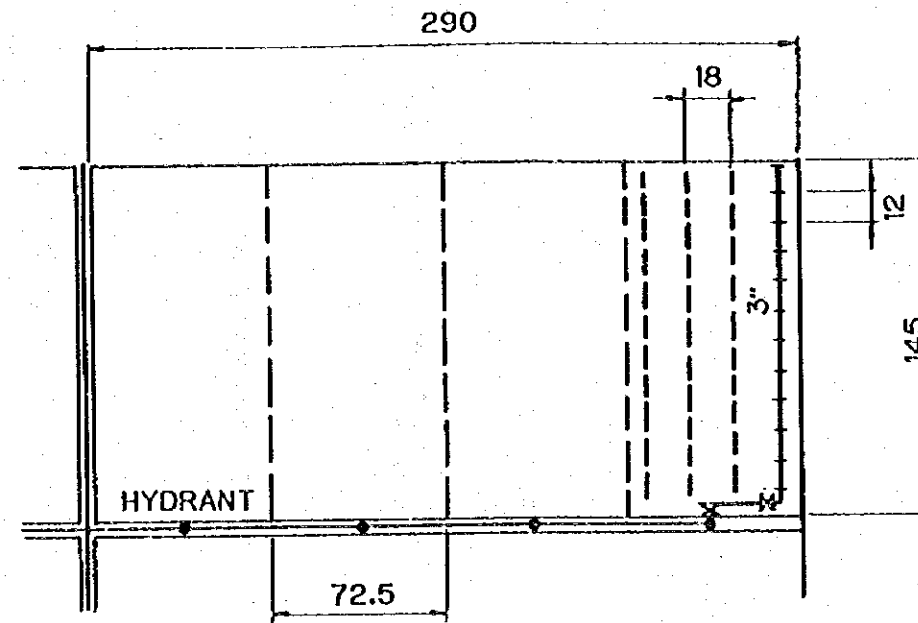
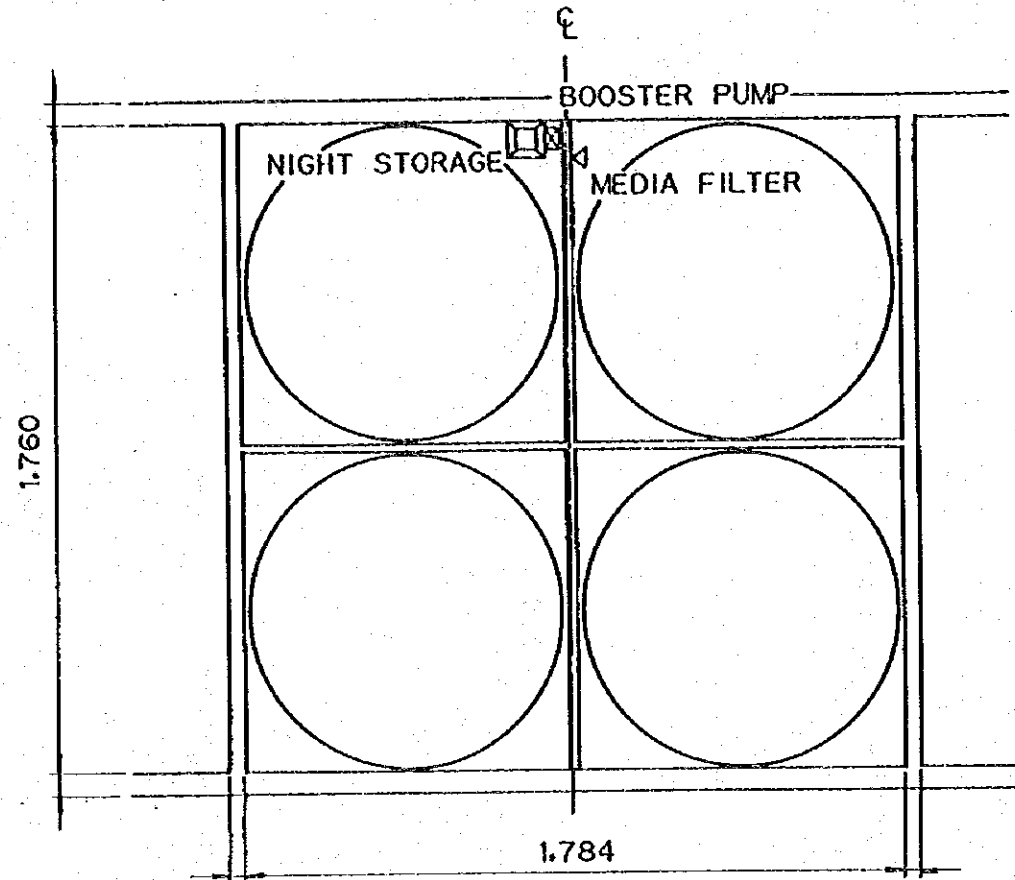
THE FEASIBILITY STUDY ON THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE II)

ON-FARM IRRIGATION PLAN (4/5)

DRAWING NO.	23	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			

LARGE SCALE INVESTORS

MEDIUM SCALE FARMS



TYPICAL LAYOUT OF CENTER PIVOT SPRINKLER FOR LARGE SCALE INVESTORS

TYPICAL LAYOUT OF SIDE ROLL SPRINKLER

NOTE: THIS IS A REFERENCE FOR SIDE ROLL SPRINKLER WHICH MAY BE USED FOR MEDIUM SCALE FARMS.

UNIT: meter & mm

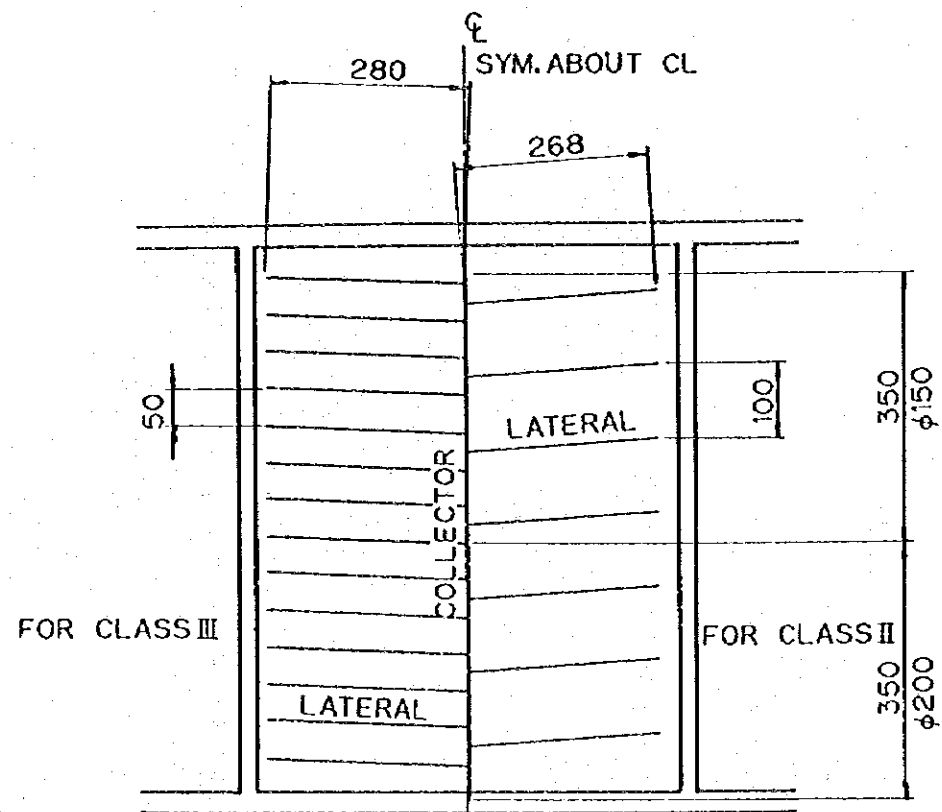
4th	3rd	2nd	1st
			day

IRRIGATION ROTATION

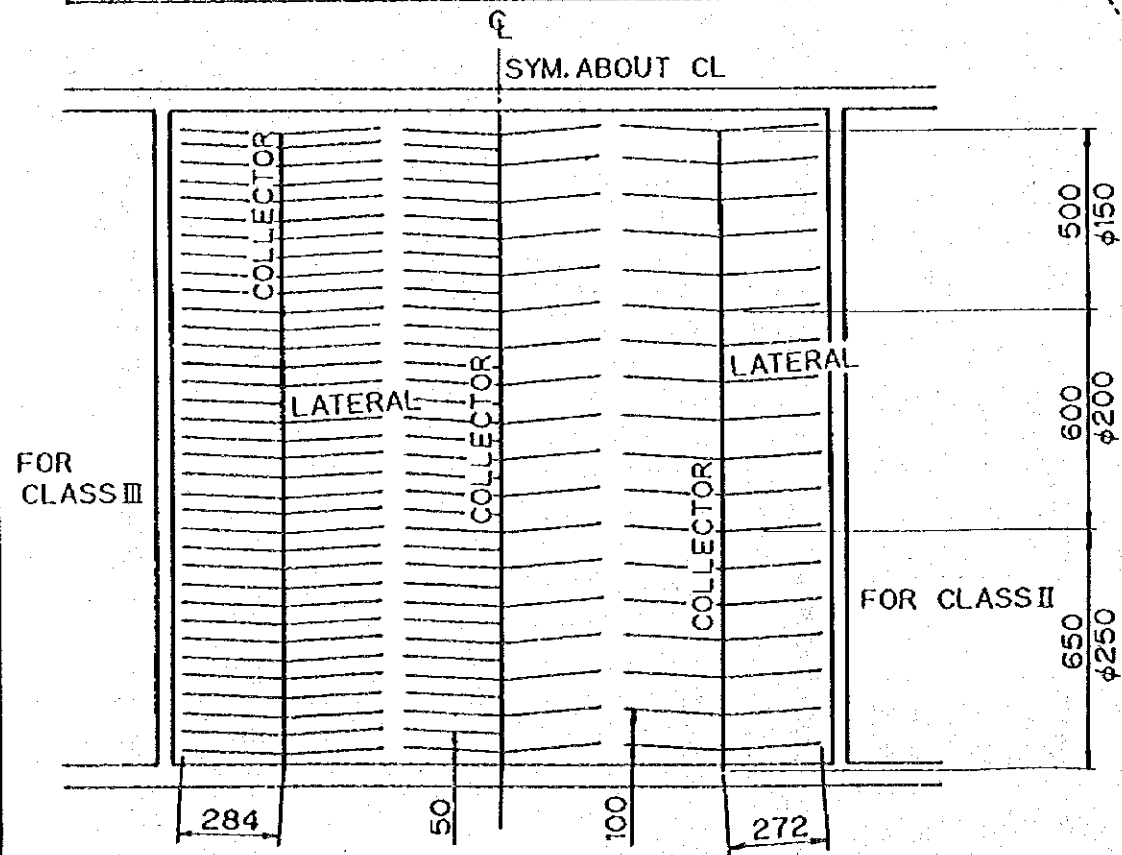
THE FEASIBILITY STUDY ON THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE II)

ON-FARM IRRIGATION PLAN (5/5)

DRAWING NO.	24	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			



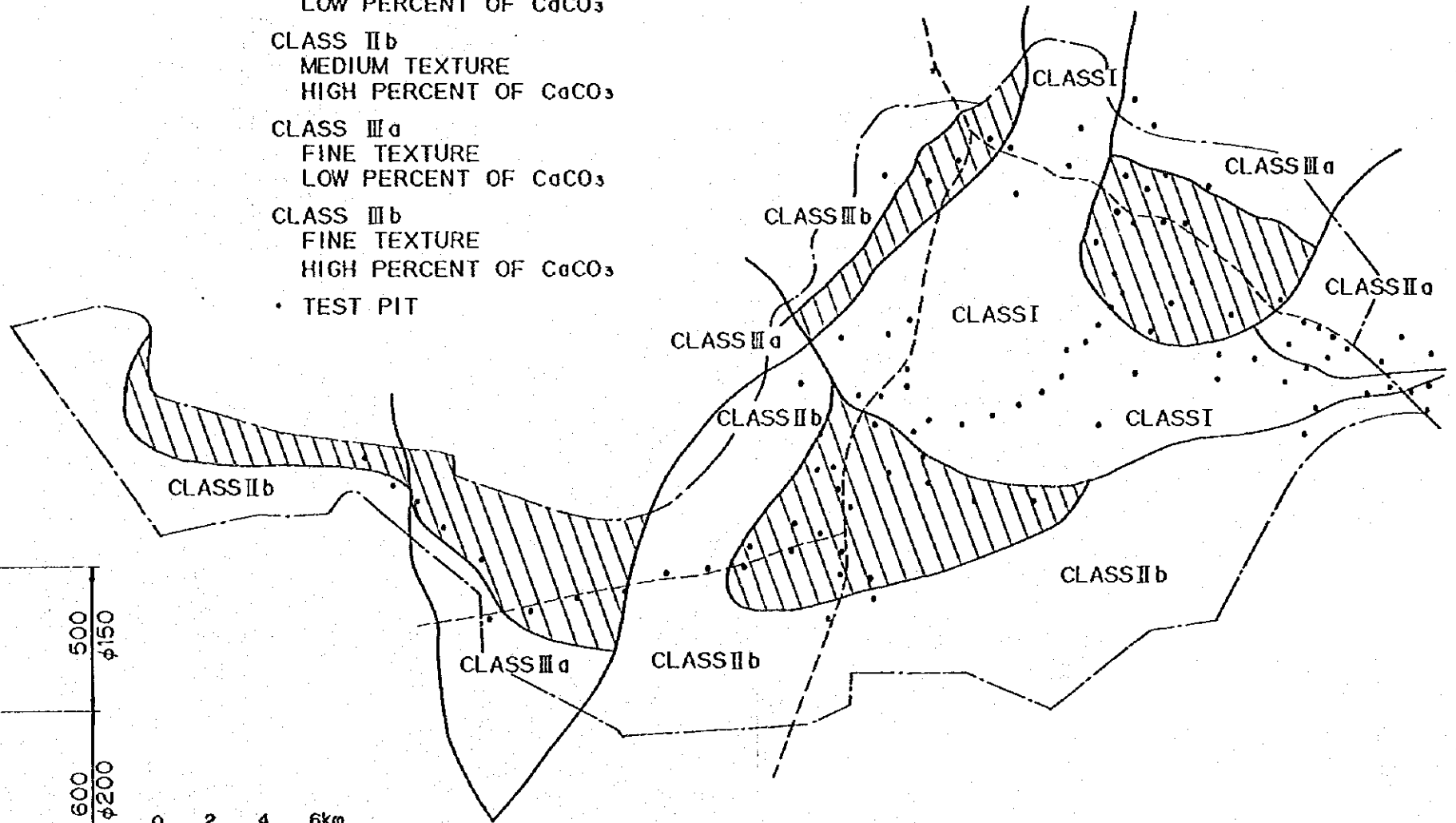
ON-FARM DRAINAGE LAYOUT FOR 100 FEDDANS UNIT



ON-FARM DRAINAGE LAYOUT FOR LARGE SCALE INVESTORS

LEGEND

- CLASS I
COARSE TEXTURE
LOW PERCENT OF CaCO₃
- CLASS II_a
MEDIUM TEXTURE
LOW PERCENT OF CaCO₃
- CLASS II_b
MEDIUM TEXTURE
HIGH PERCENT OF CaCO₃
- CLASS III_a
FINE TEXTURE
LOW PERCENT OF CaCO₃
- CLASS III_b
FINE TEXTURE
HIGH PERCENT OF CaCO₃
- TEST PIT



AREAS TO BE PROVIDED WITH ON-FARM DRAINAGES

NOTE: HATCHED ZONE IS PROVIDED WITH DRAINAGE.

THE FEASIBILITY STUDY ON THE NORTH SINAI
INTEGRATED RURAL DEVELOPMENT PROJECT
(PHASE II)

**ON-FARM
DRAINAGE PLAN**

DRAWING NO.	25	DATE	
JAPAN INTERNATIONAL COOPERATION AGENCY			

JICA