

**THE REPUBLIC OF THE PHILIPPINES  
NATIONAL IRRIGATION  
ADMINISTRATION (NIA)**

**JAPAN INTERNATIONAL  
COOPERATION AGENCY  
(JICA)**

**FEASIBILITY STUDY ON  
THE UPLAND IRRIGATION AND  
RURAL DEVELOPMENT PROJECT  
IN SOUTHERN LUZON**

**VOLUME III  
DRAWINGS**

**March, 1995**

**NIPPON GIKEN INC.  
TOKYO, JAPAN  
NIPPON KOGI, CO., LTD.  
TOKYO, JAPAN**

<b>AFA</b>
<b>JR</b>
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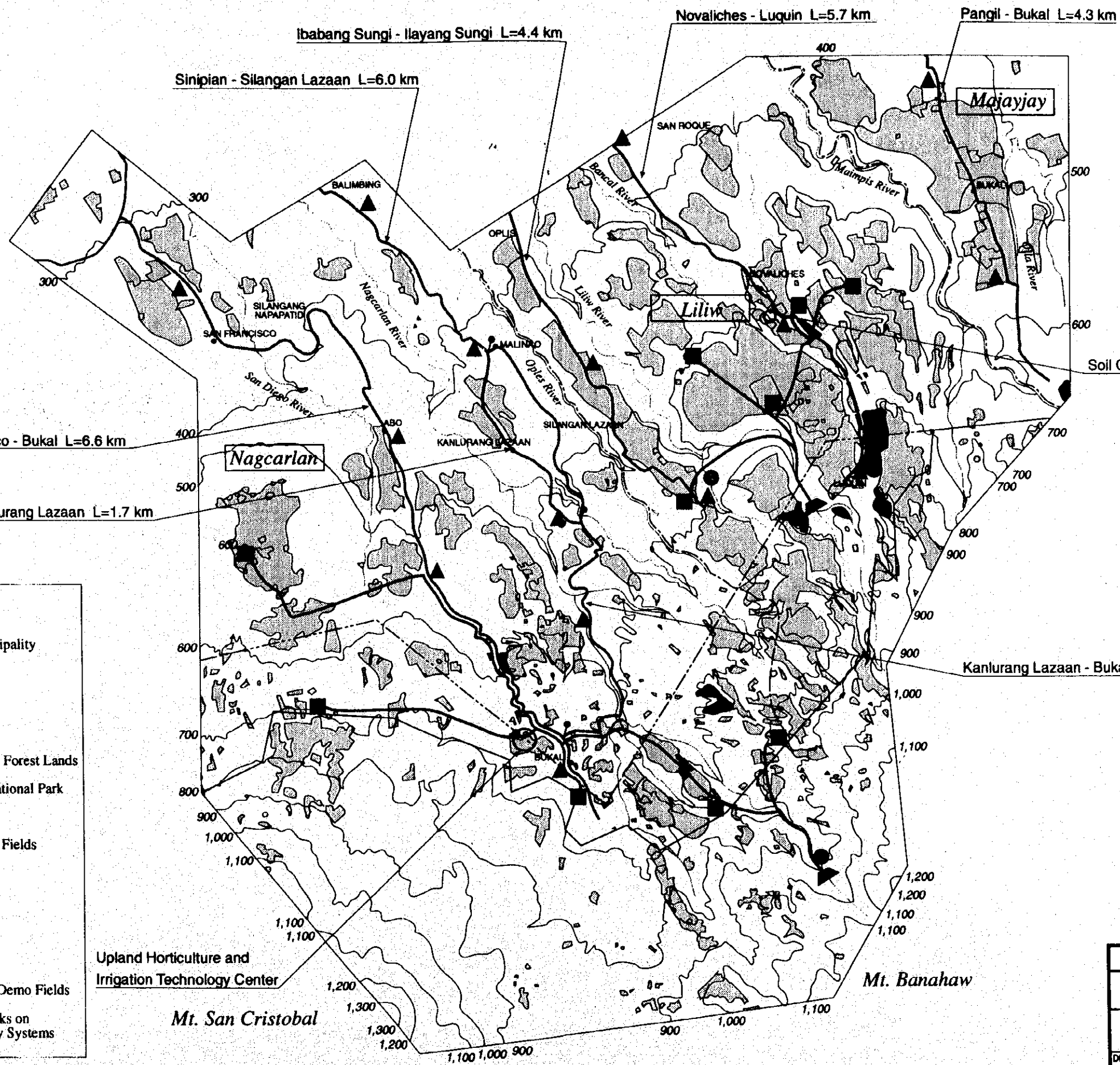
**NIPPON GIKEN INC.  
TOKYO, JAPAN  
NIPPON KOEI, CO., LTD.  
TOKYO, JAPAN**

国際協力事業団

27690

## List of Drawings

<i>Drawing No.</i>	<i>Title</i>	<i>nos</i>
1	<i>General plan of the Project</i>	1
2	<i>Plan of Intake Work</i>	2
3	<i>Plan of Farm Pond</i>	1
4	<i>Plan of Pressure Dissipating Tank</i>	1
5	<i>Plan of Appurtenant Structure for Pipeline</i>	1
6	<i>Standard Section of Road</i>	1
7	<i>Plan of Road Improvement</i>	15
8	<i>Plan of Bridge</i>	1
9	<i>Plan of Cross Drain (Type. 1) (Type. 2)</i>	2
10	<i>Plan of Trading Post</i>	1
11	<i>General Plan of Upland Horticulture and Irrigation Technology Center</i>	1
12	<i>Plan of Upland Horticulture and Irrigation Technology Center Building</i>	3
13	<i>Plan of Demonstration Farm</i>	3
14	<i>Plan of Soil Conservation Extension Center</i>	1
15	<i>Rehabilitation Work of Rural Water Supply Gawanang Springs</i>	1
<i>Total</i>		35



Soil Conservation Extension Center

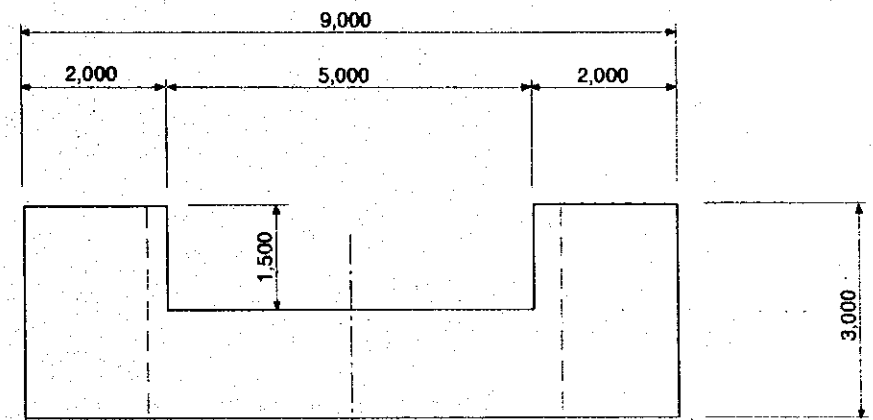
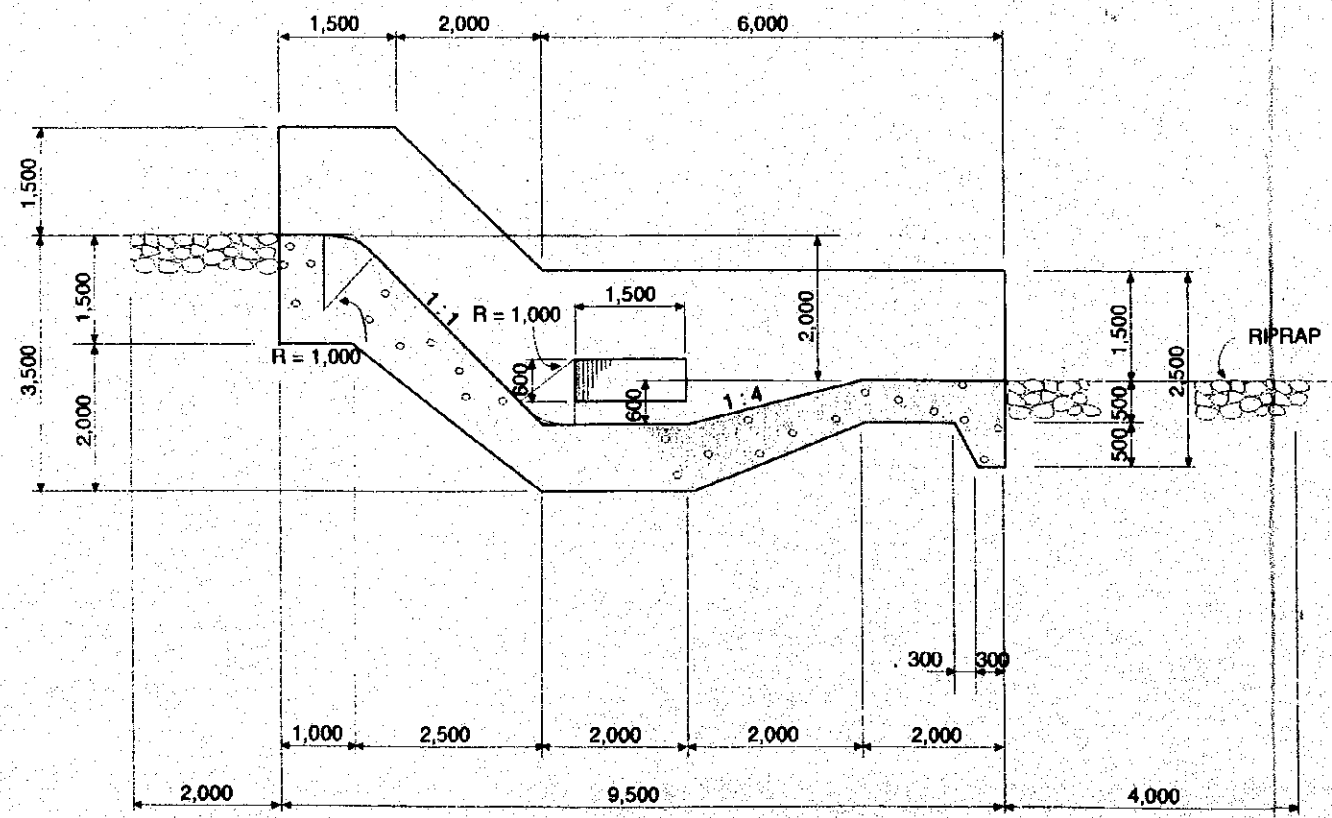
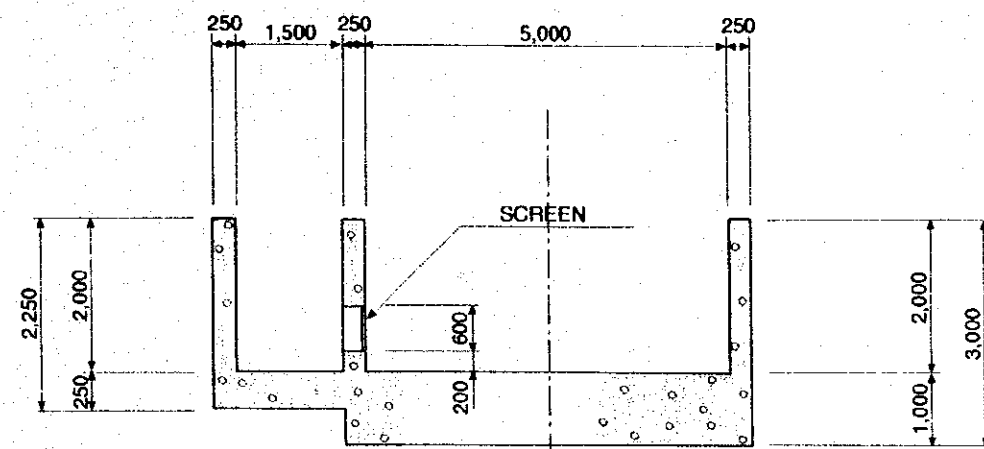
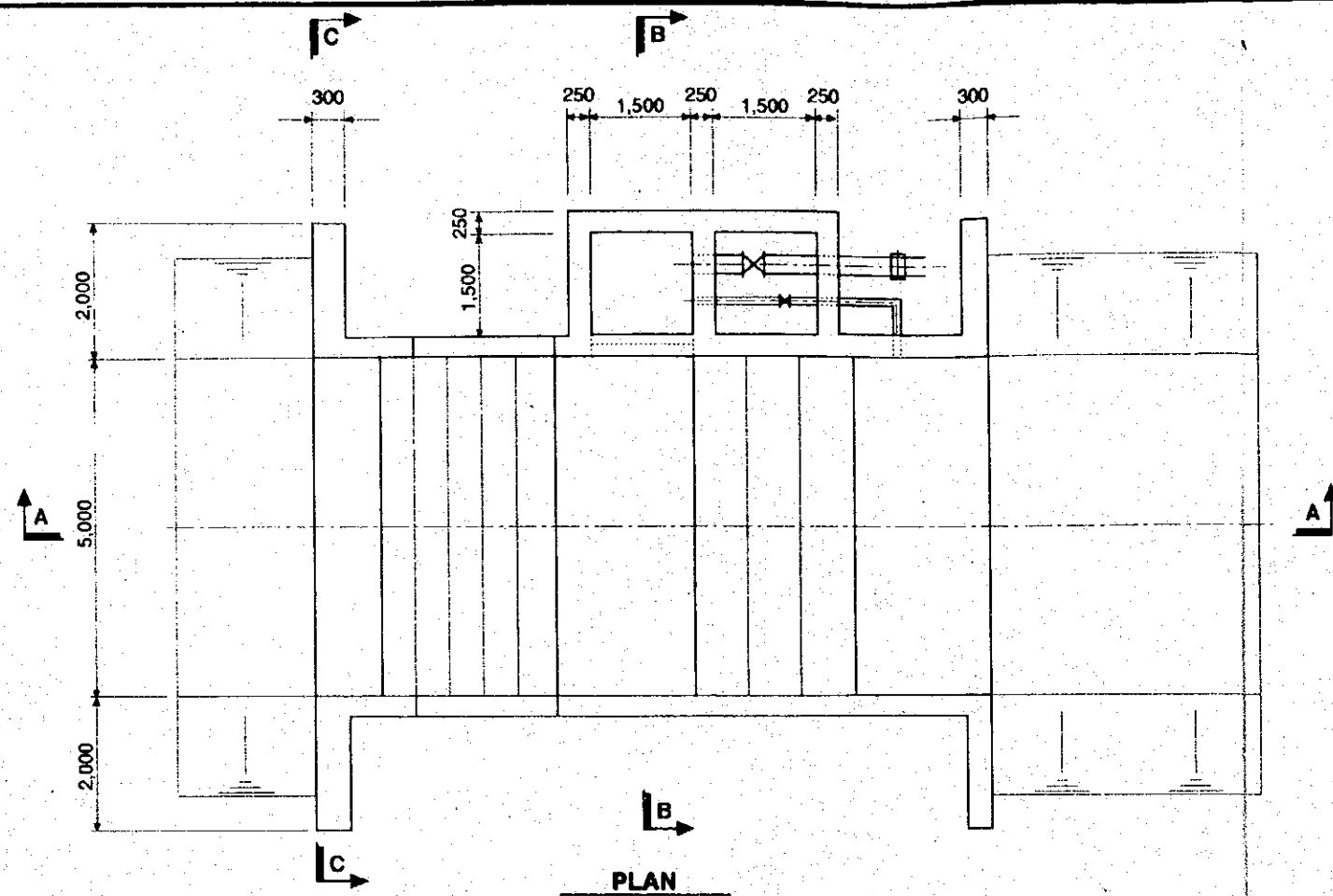
Kanlurang Lazaan - Bukal L=2.1 km

**Legend**

- Boundary of Municipality
- Contour in Meter
- Rivers
- Road Improvement
- Boundary of Public Forest Lands
- Boundary of the National Park
- Wet Paddy Fields
- Vegetable Cropped Fields
- Intake Weirs
- Farm Ponds
- Pipe Lines
- Trading Posts
- Soil Conservation Demo Fields
- Rehabilitation Works on Rural Water Supply Systems



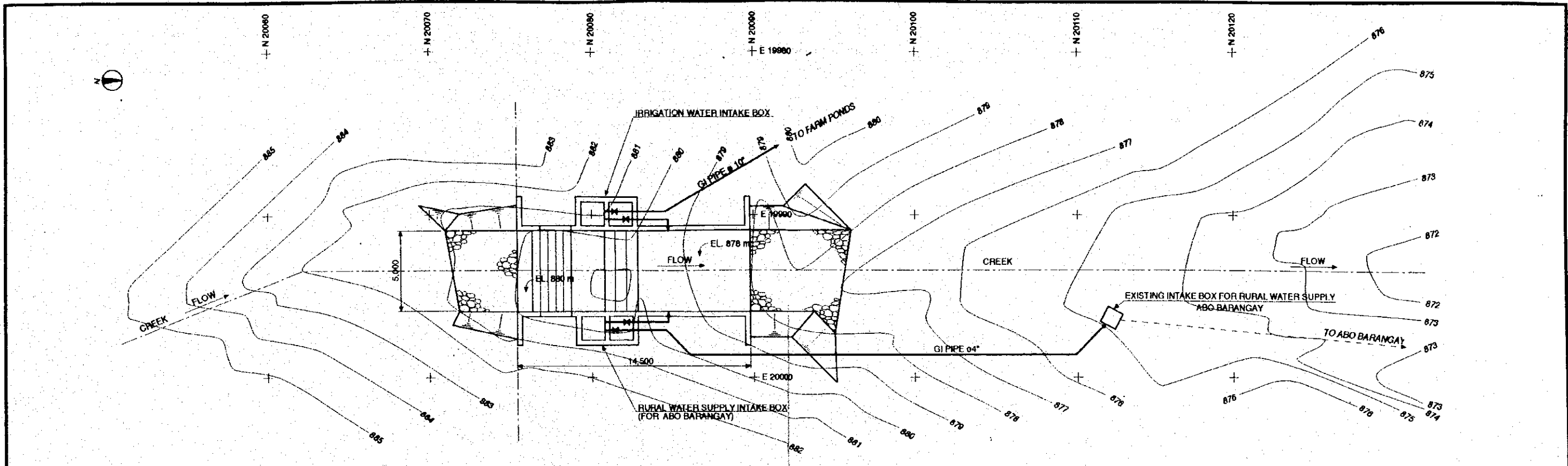
THE REPUBLIC OF THE PHILIPPINES	
THE UPLAND IRRIGATION AND RURAL DEVELOPMENT PROJECT IN SOUTHERN LUZON	
GENERAL PLAN OF THE PROJECT	
DRAWING NO.	SHEET 1 OF 1
1	PAGE 1
JAPAN INTERNATIONAL COOPERATION AGENCY	



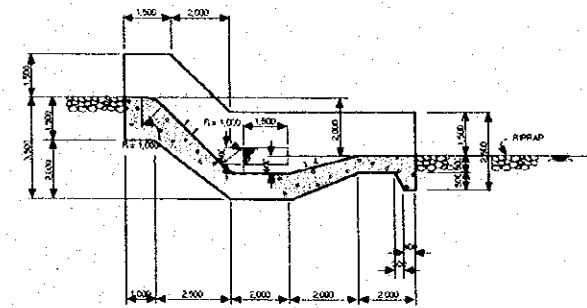
**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
2. A COMPRESSIVE STRENGTH OF 210 kg/cm<sup>2</sup> IS REQUIRED FOR A REINFORCED CONCRETE.
3. RIPRAP OF THE UPSTREAM AND DOWNSTREAM SHALL BE GROUTED.
4. ALL MATERIALS (SCREEN, COVER, STEP) MADE OF STEEL SHALL BE PLATED WITH HOT DIP GALVANIZING.

THE REPUBLIC OF THE PHILIPPINES	
THE UPLAND IRRIGATION AND RURAL DEVELOPMENT PROJECT IN SOUTHERN LUZON	
PLAN OF INTAKE WORK	
DRAWING NO. 2	SHEET 1 OF 2
	PAGE 2
JAPAN INTERNATIONAL COOPERATION AGENCY	



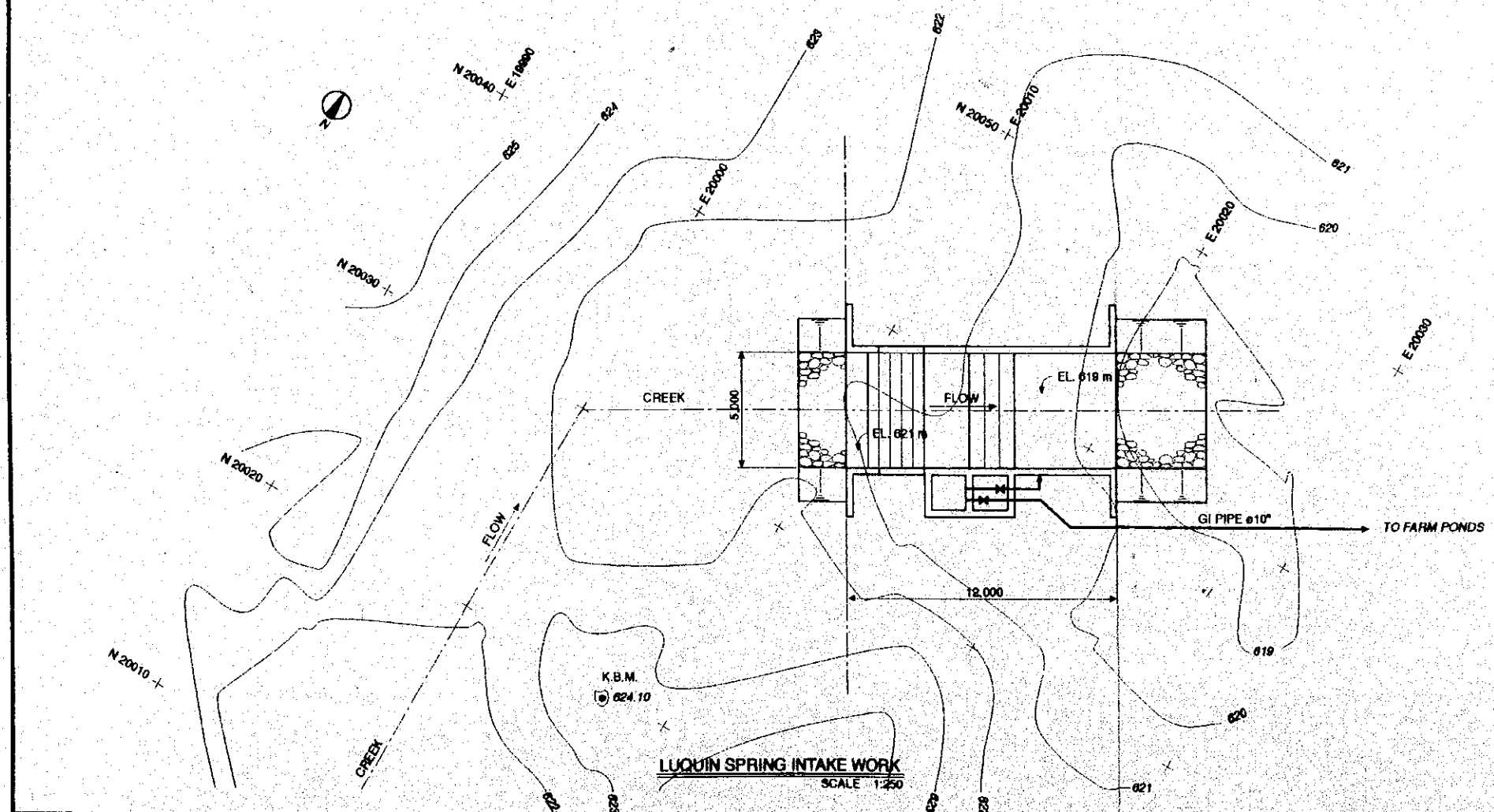
**BUKAL SPRING INTAKE WORK**  
SCALE 1:250



**SECTION**

NOTE: 1. ALL DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.

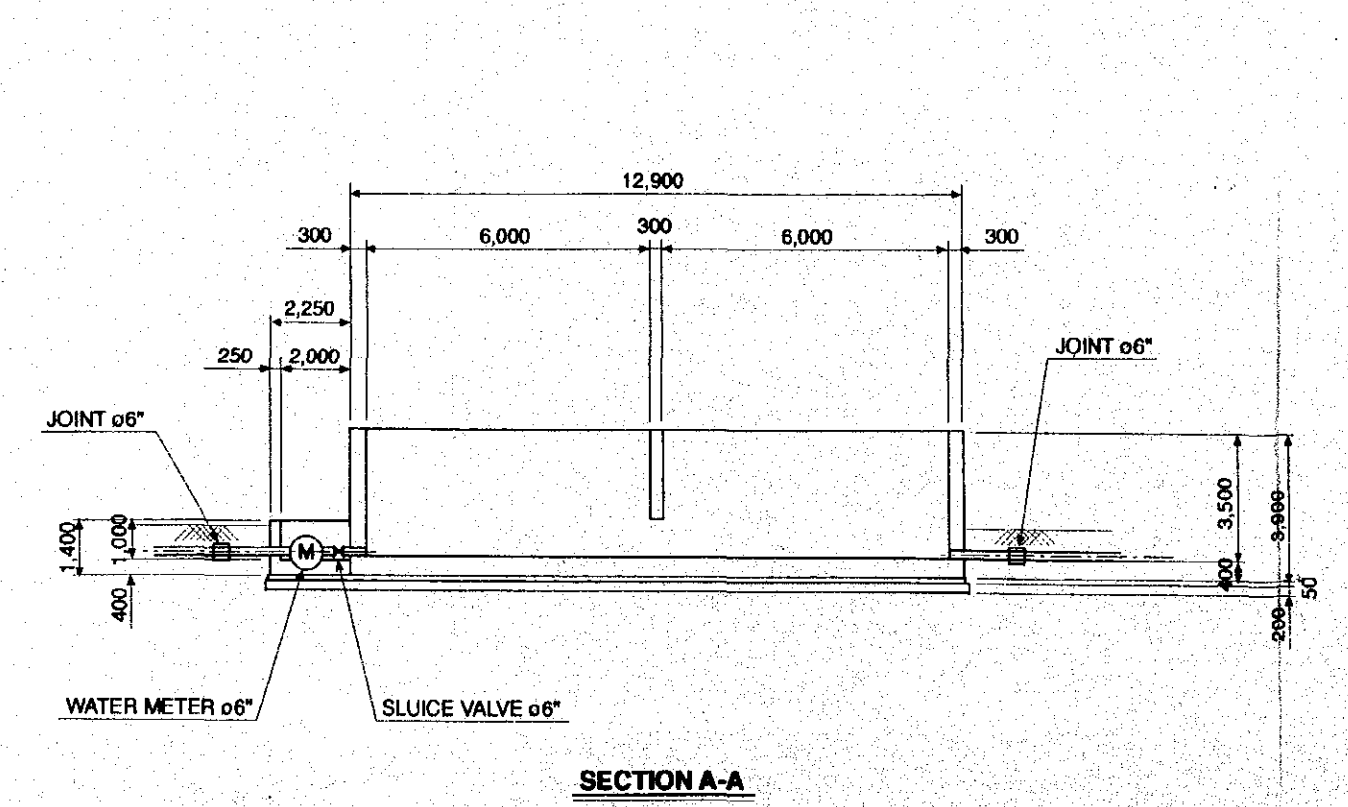
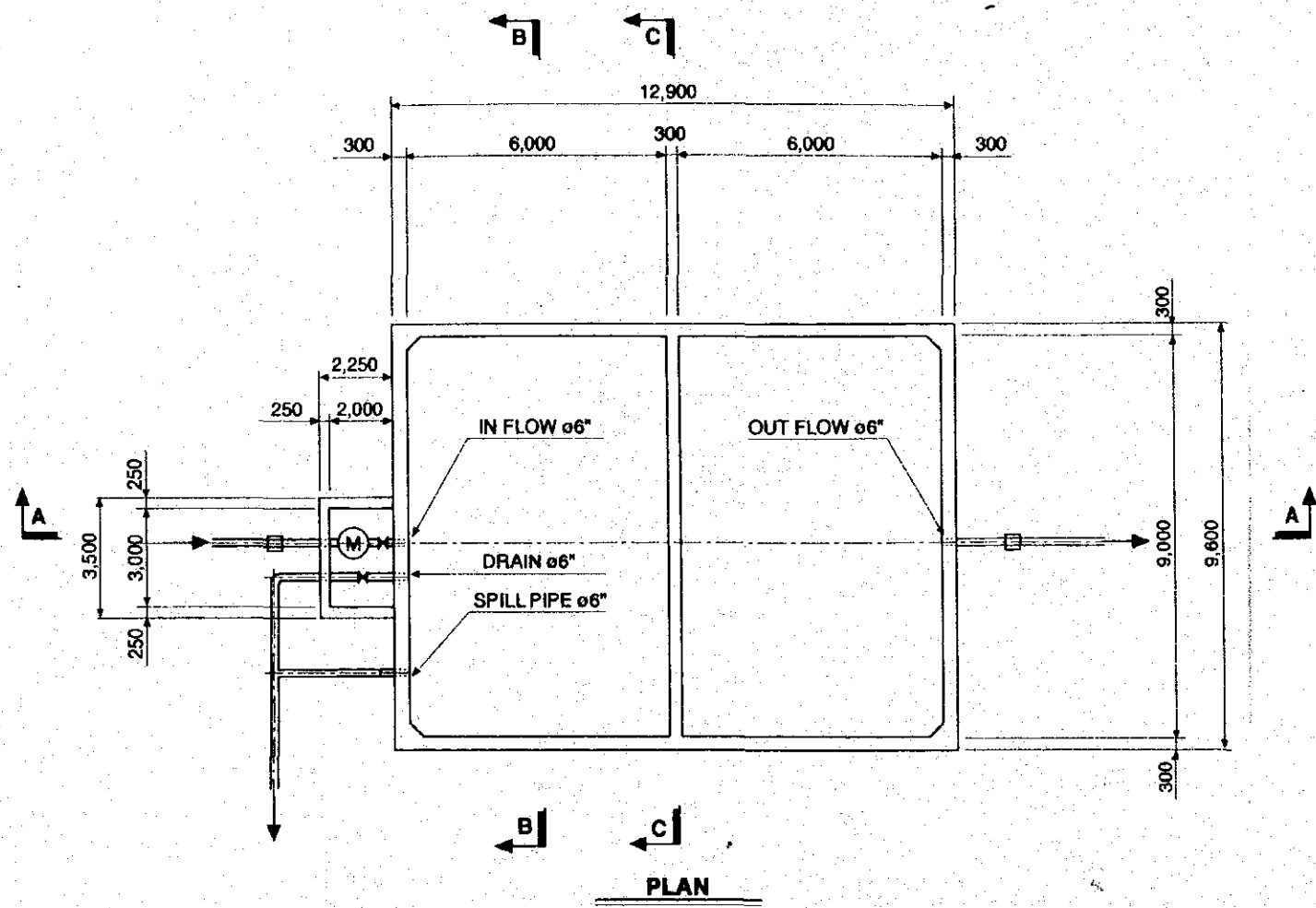
0 1 2 3 4 5 m  
SCALE 1:250



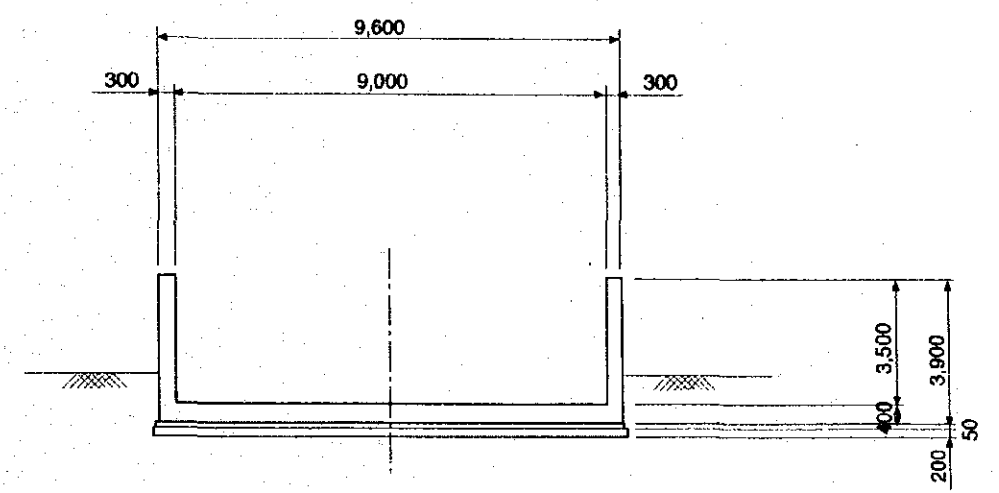
**LUQUIN SPRING INTAKE WORK**  
SCALE 1:250

THE REPUBLIC OF THE PHILIPPINES	
THE UPLAND IRRIGATION AND RURAL DEVELOPMENT PROJECT IN SOUTHERN LUZON	
PLAN OF INTAKE WORK	
DRAWING NO.	SHEET 2 OF 2
2	PAGE 3
JAPAN INTERNATIONAL COOPERATION AGENCY	

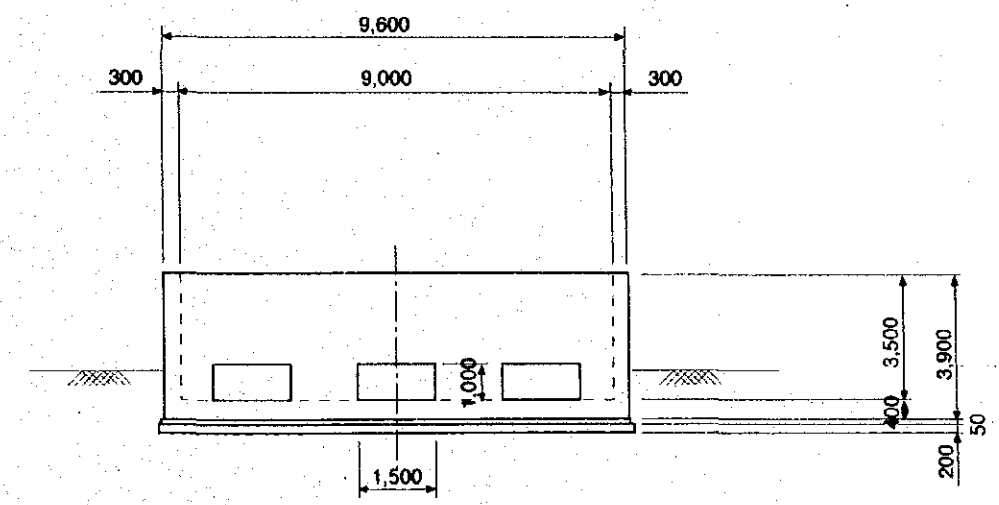




**SECTION A-A**



**SECTION B-B**

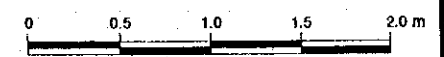
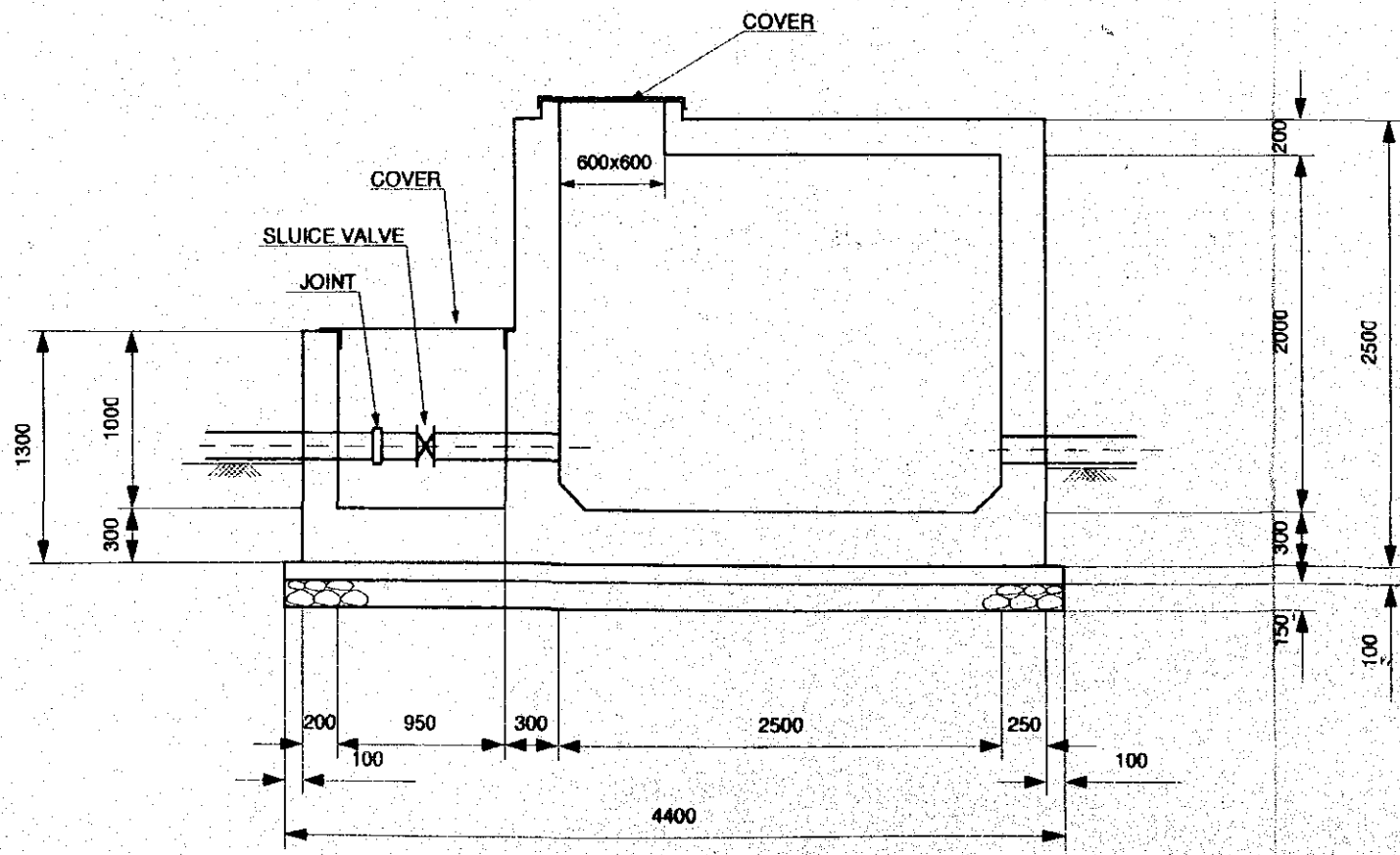
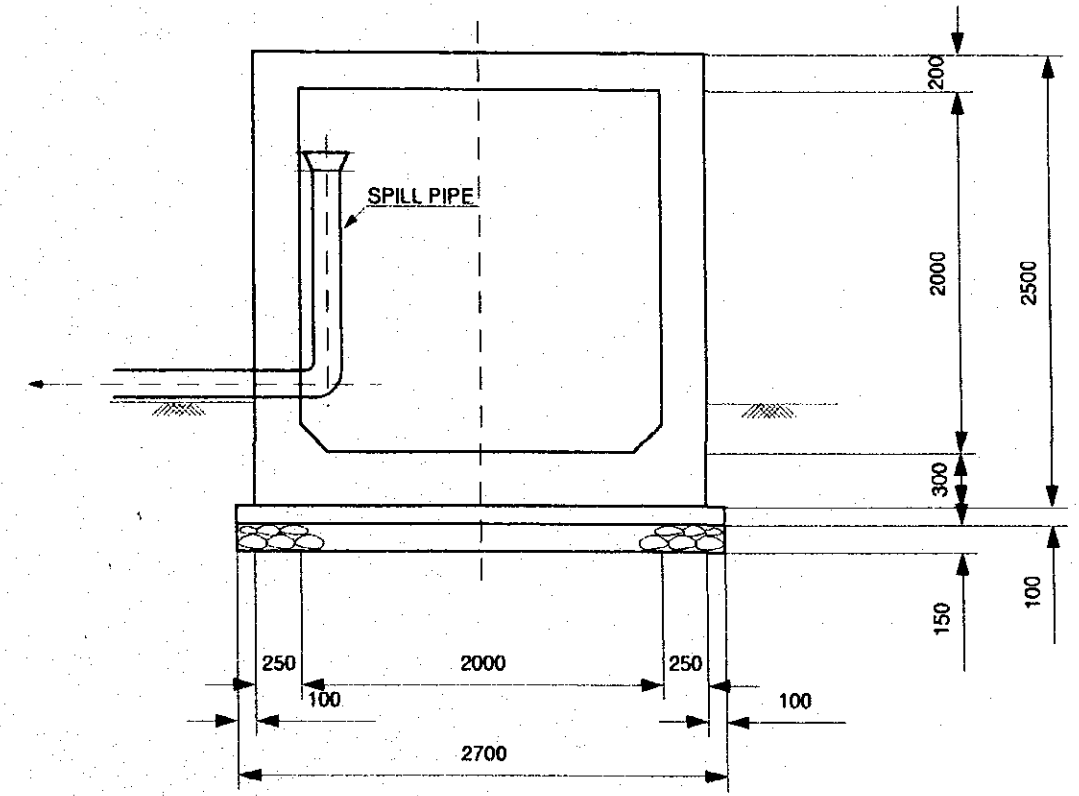
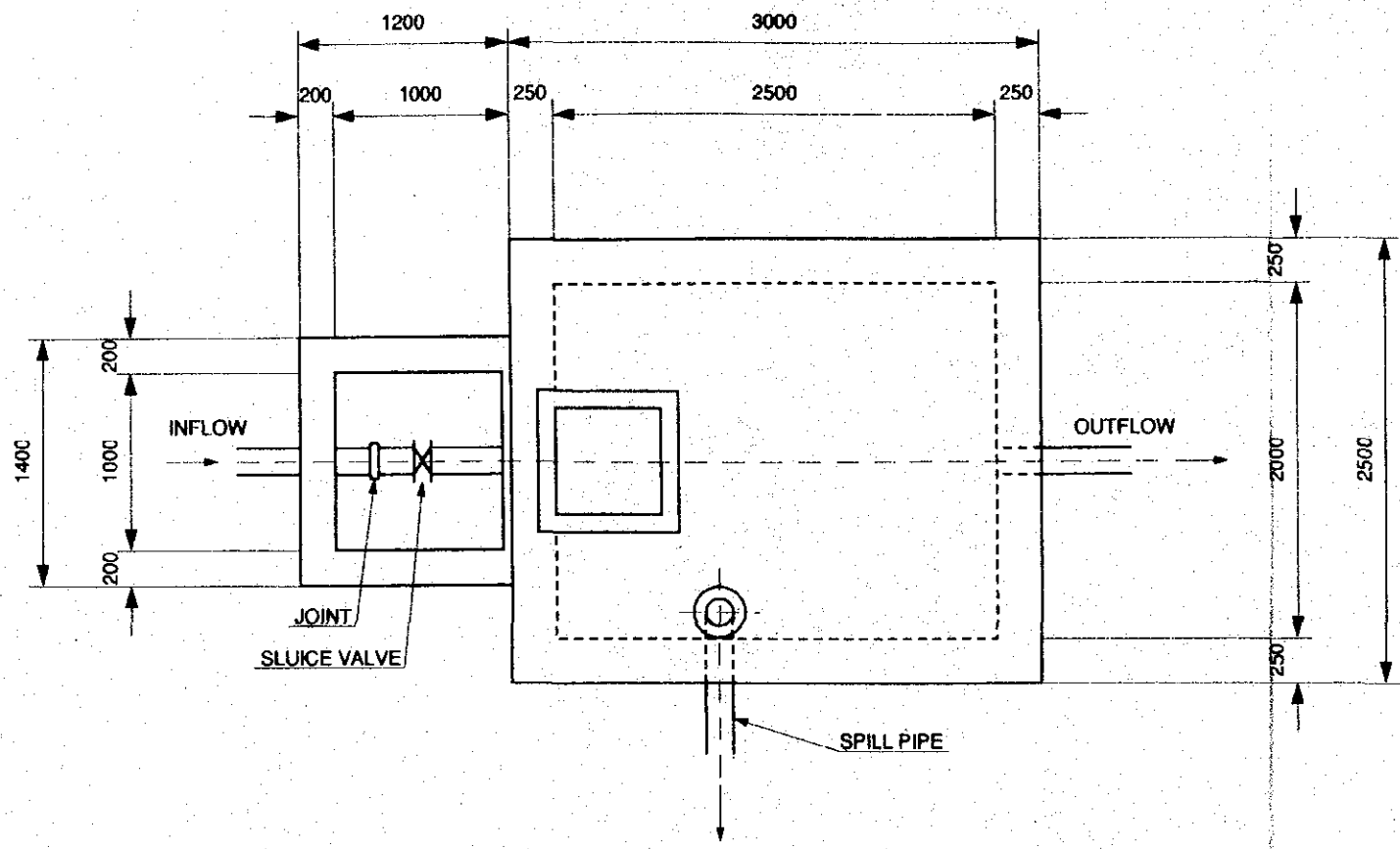


**SECTION C-C**

**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
2. A COMPRESSIVE STRENGTH OF 210 kg/cm<sup>2</sup> IS REQUIRED FOR A REINFORCED CONCRETE, 135 kg/cm<sup>2</sup> FOR LEVELLING CONCRETE.
3. THE MAXIMUM SIZE OF AGGREGATES FOR CAST-IN-PLACE CONCRETE SHALL NOT BE LARGER THAN 25 MILLIMETERS.
4. ALL MATERIALS (SCREEN, COVER, STEP) MADE OF STEEL SHALL BE PLATED WITH HOT DIP GALVANIZING.

THE REPUBLIC OF THE PHILIPPINES	
THE UPLAND IRRIGATION AND RURAL DEVELOPMENT PROJECT IN SOUTHERN LUZON	
PLAN OF FARM POND	
DRAWING NO.	SHEET 1 OF 1
3	PAGE 4
JAPAN INTERNATIONAL COOPERATION AGENCY	

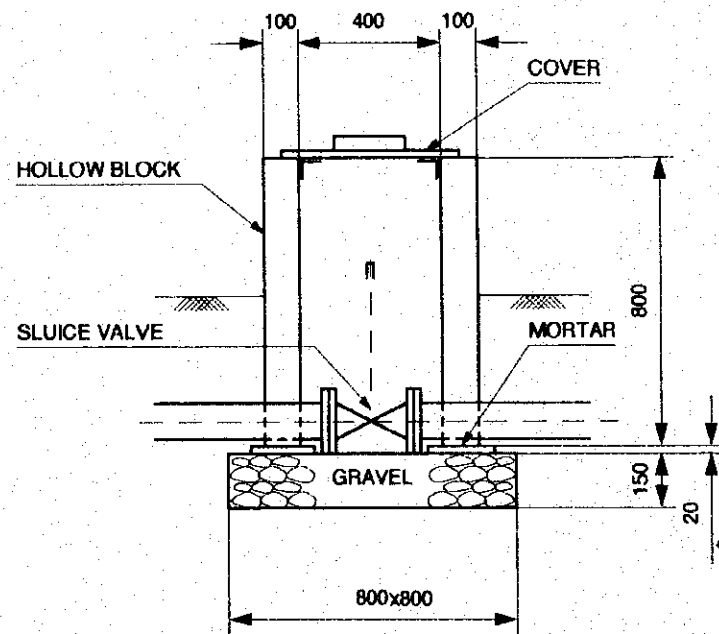
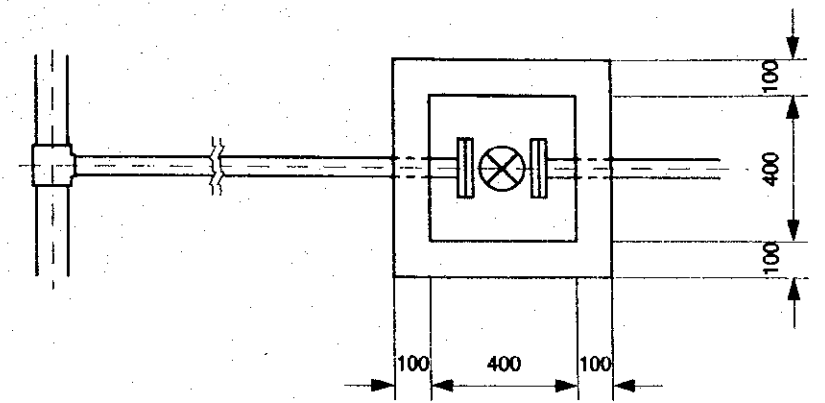
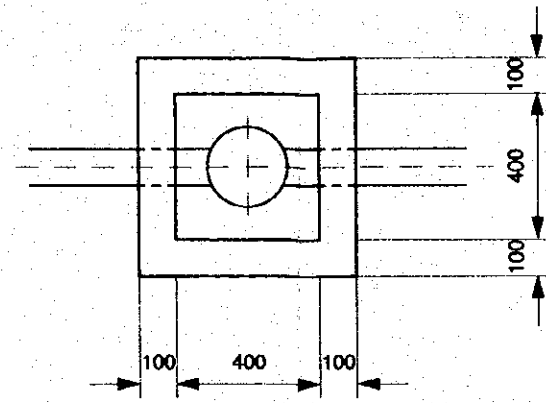
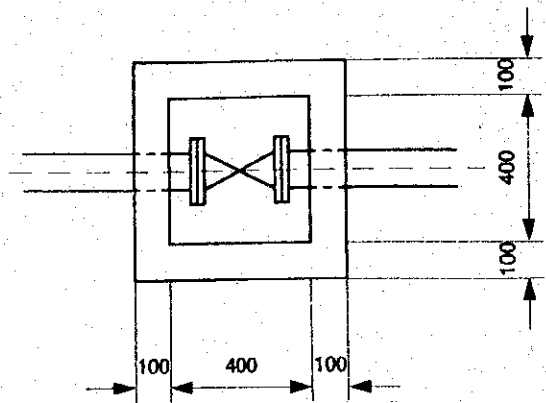


SCALE 1 : 40

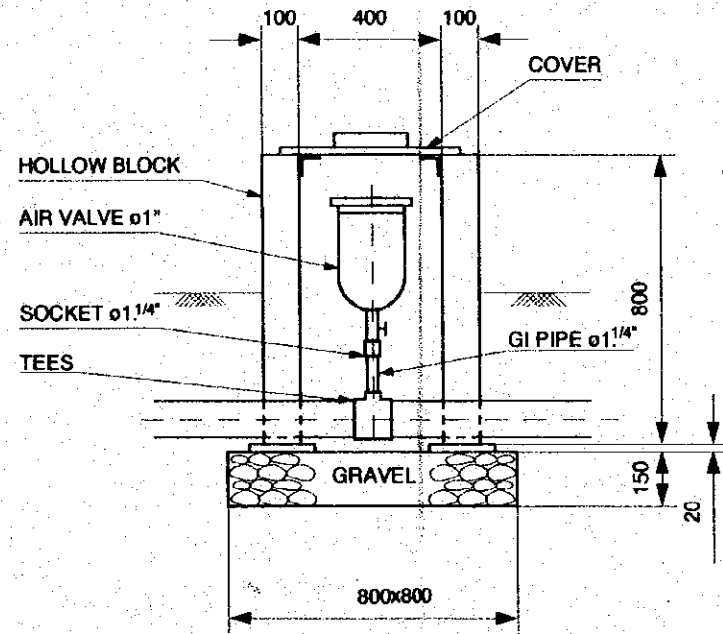
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
2. A COMPRESSIVE STRENGTH OF 210 kg/cm<sup>2</sup> IS REQUIRED FOR A REINFORCED CONCRETE, 135 kg/cm<sup>2</sup> FOR LEVELLING CONCRETE.
3. THE MAXIMUM SIZE OF AGGREGATES FOR CAST-IN-PLACE CONCRETE SHALL NOT BE LARGER THAN 25 MILLIMETERS.
4. ALL MATERIALS (SCREEN, COVER, STEP) MADE OF STEEL SHALL BE PLATED WITH HOT DIP GALVANIZING.

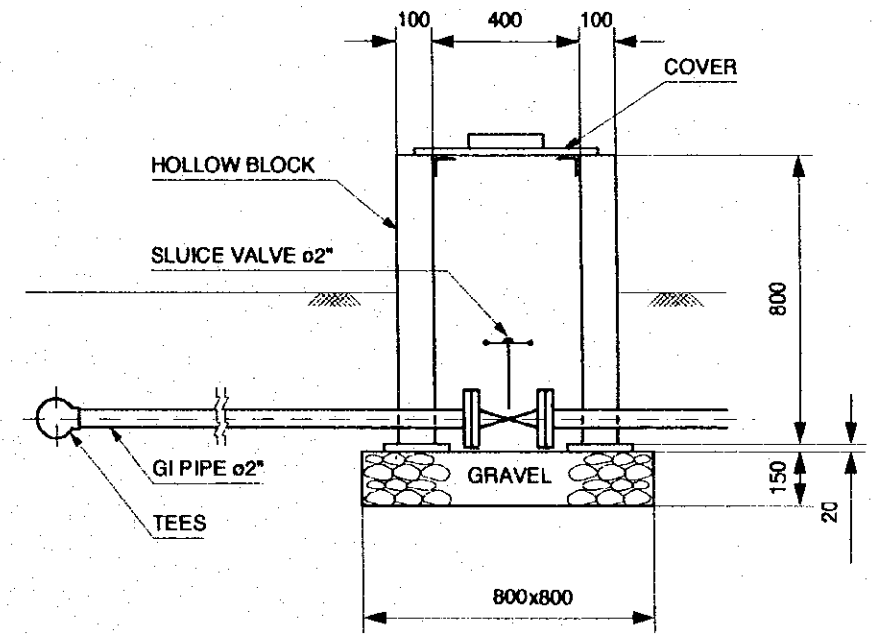
THE REPUBLIC OF THE PHILIPPINES	
THE UPLAND IRRIGATION AND RURAL DEVELOPMENT PROJECT IN SOUTHERN LUZON	
PLAN OF PRESSURE DISSIPATING TANK	
DRAWING NO.	SHEET 1 OF 1
4	PAGE 5
JAPAN INTERNATIONAL COOPERATION AGENCY	



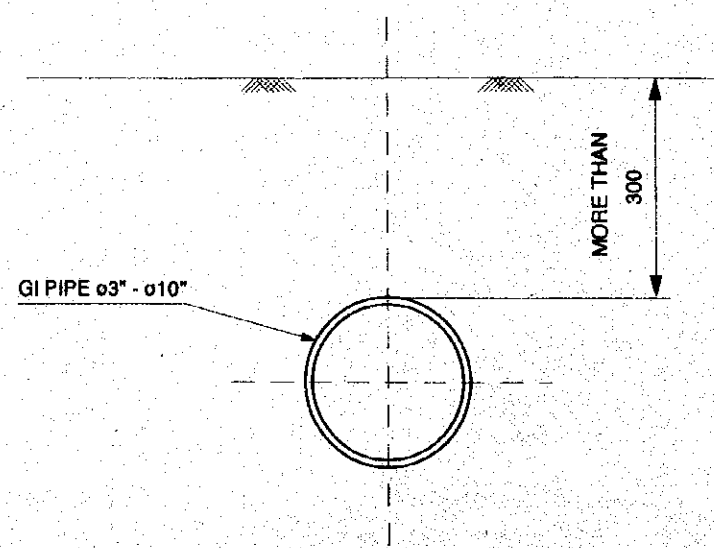
SLUICE VALVE STAND  
SCALE 1 : 20



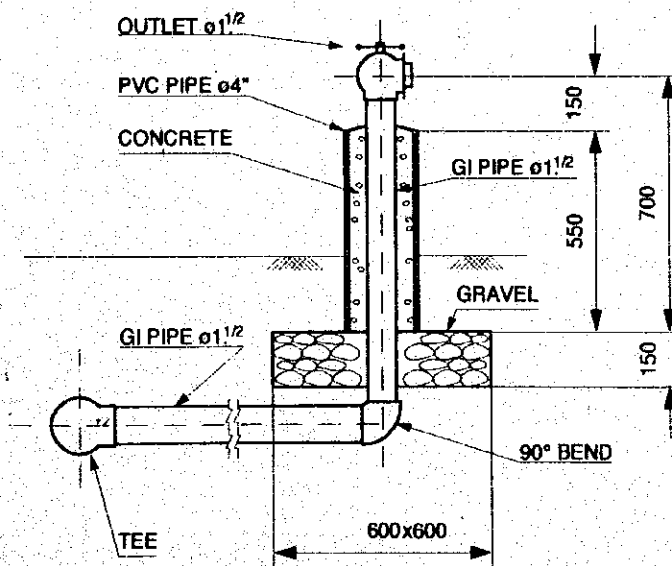
AIR VALVE STAND  
SCALE 1 : 20



BLOW OFF STAND  
SCALE 1 : 20



STANDARD SECTION OF PIPELINE  
SCALE 1 : 10

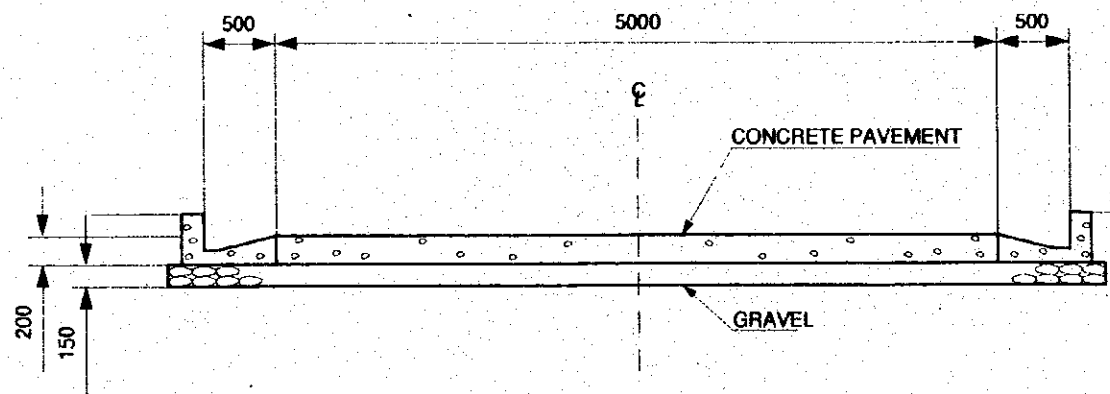


COMMON HYDRANT  
SCALE 1 : 20

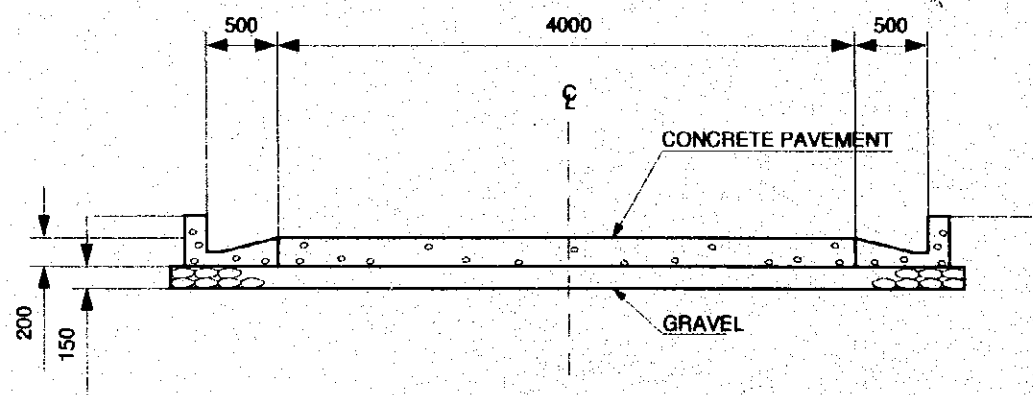
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
2. ALL MATERIALS (SCREEN, COVER, STEP) MADE OF STEEL SHALL BE PLATED WITH HOT DIP GALVANIZING.

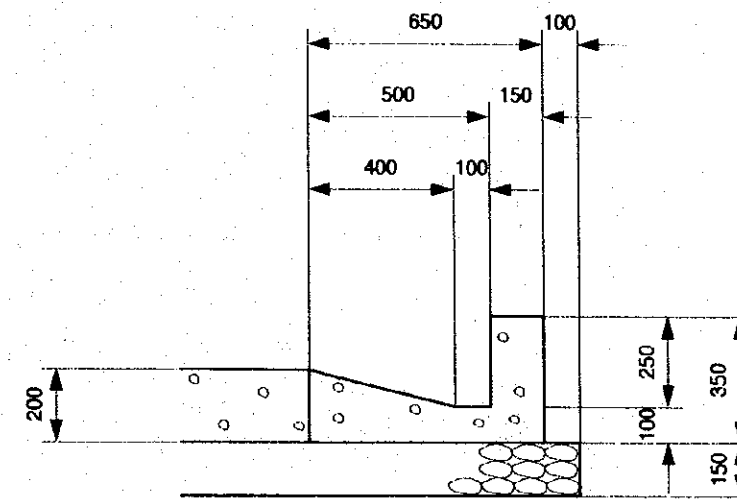
THE REPUBLIC OF THE PHILIPPINES	
THE UPLAND IRRIGATION AND RURAL DEVELOPMENT PROJECT IN SOUTHERN LUZON	
PLAN OF APPURTENANT STRUCTURE FOR PIPELINE	
DRAWING NO.	SHEET 1 OF 1
5	PAGE 6
JAPAN INTERNATIONAL COOPERATION AGENCY	



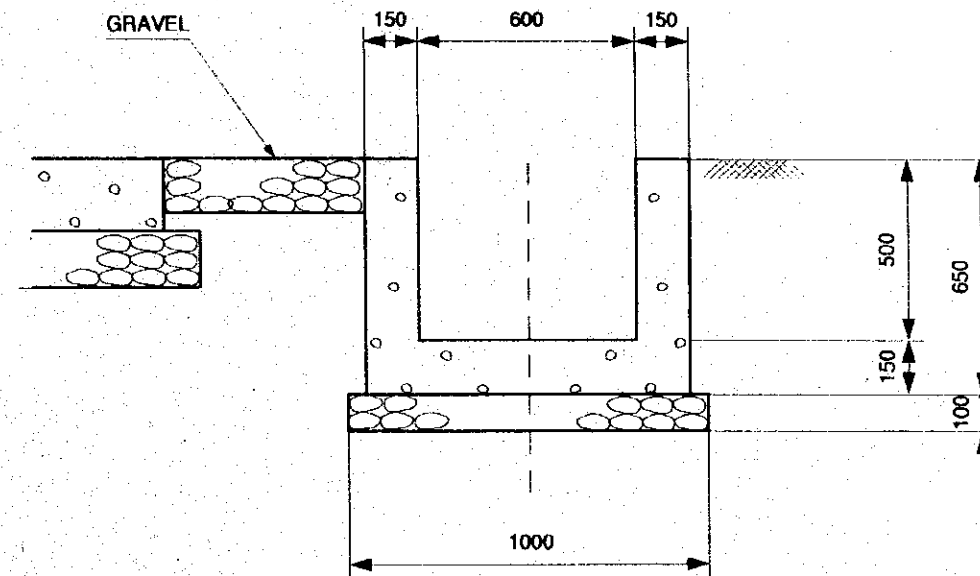
TYPE.1  
SCALE 1 : 50



TYPE.2  
SCALE 1 : 50

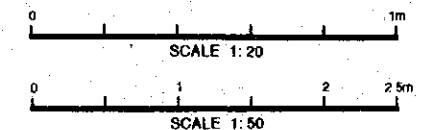


TYPE.1



TYPE.2

DETAIL OF DRAINAGE  
SCALE 1 : 20



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
2. CONTRACTION JOINT SHALL BE PLANNED. THE INTERVAL OF CONTRACTION JOINT SHALL BE LESS THAN 10 METERS. EXPANSION JOINT SHALL BE PLANNED WITH INTERVAL OF LESS THAN 30 METERS.

THE REPUBLIC OF THE PHILIPPINES  
THE UPLAND IRRIGATION AND  
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IN SOUTHERN LUZON

STANDARD SECTION OF ROAD

DRAWING NO.	SHEET 1 OF 1
6	PAGE 7

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