THE DEFINITE PLAN REPORT
ON THE
SAN MIGUEL-ALANGALANG RICE & CROPS
PRODUCTION CENTER IN THE PHILIPPINES

DRAWINGS

SEPTEMBER 1968

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

LIST OF DRAWINGS

DRAWING NO.	TITLE	
101	Location map.	
102	Layout map.	
D – 1	Diversion dams and Link canal.	General location.
D – 2	Diversion dam No. 1	Plan and profile.
D – 3	" " scouring sluice way.	Sections.
D – 4	" "	Reinforcement sheet (1)
D – 5	" "	" " (2)
D – 6	" " intake	Plan profile and sections.
D – 7	" "	Reinforcement sheet.
D – 8	" "	Details of hand rail and trash rack.
D – 9	" "	Install assembly of gates.
D – 10	" " retaining wall.	Reinforcement sheet.
D – 11	" No. 2	Plan and profile.
D – 12	" "	Sections.
D – 13	" " scouring sluice way.	Reinforcement sheet (1)
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D – 16	" "	Reinforcement sheet.
D – 17	" "	Detail of hand rail and trash rack.
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DRAWING NO.	TITLE	
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D – 26	Elevated flume.	Plan, profile and sections.
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A – 4	"	" (3)
A – 5	"	" (4)
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A – 8	"	" (2)
A – 9	"	" (3)
A – 10	Lateral B.	" (1)
A – 11	"	" (2)
A – 12	Lateral A.	Typical cross sections.
A – 13	Lateral A1 and B.	" "
A – 14	Small siphon No. 1.	Plan and sections.
A – 15	" No. 2.	"
A – 16	Division work No. 1.	Plan, profile and sections.
A – 17	" "	Sections.
A – 18	" No. 2.	Plan, profile and sections.
A – 19	" No. 3.	Plan and sections.
A – 20	" No. 3.	Reinforcement sheet.
A – 21	" No. 3.	Install assembly of gates.
A – 22	Drop type A.	Plan and sections.
A – 23	" B.	"
A – 24	" C.	"
A – 25	" D.	"
A – 26	" E and F.	"
A – 27	" G.	"
A – 28	" H.	"
A – 29	" I.	"

DRAWING NO.	TITLE	
A-30	Drop type J.	Plan and sections.
A-31	〃 K and L.	〃
A-32	Wasteway No. 1.	〃
A-33	No. 2.	〃
A-34	No. 3.	〃
A-35	No. 4.	〃
A-36	No. 5.	〃
A-37	No. 6.	〃
A-38	No. 7.	〃
A-39	Turnout type A and B.	Plan, profile and sections.
A-40	〃 C.	〃 〃
A-41	Access road I.	Profile.
A-42	〃 II.	〃
A-43	〃 III.	〃
A-44	Farm bridges.	Plan, profile and details.
A-45	Culvert No.1, No. 2 and No. 3	Plan and profile.
A-46	Culvert No. 4 and No. 5.	〃
A-47	Housing of rice processing center.	Plan and views.
A-48	〃 〃 〃 〃	Framing plan and elevation.
A-49	〃 〃 〃 〃	Details.
A-50	Generator room of rice processing center.	Plan and views.
S-1	Laterals.	General location.
S-2	Check gate.	General plan and section.
S-3	Check gate fixed weir and wooden mattress.	Plan and section.
S-4	Check gate sluice way.	〃
S-5	Check gate intake and retaining wall.	〃
S-6	Check gate retaining wall and intake.	Reinforcement sheet.
S-7	Check gate	Install assembly of gate.
S-8	〃	Excavation and embankment (1)
S-9	〃	〃 〃 (2)
S-10	〃	〃 〃 (3)

DRAWING NO.	TITLE	
S-11	Check gate.	Temporary works.
S-12	Lateral A.	Profile (1)
S-13	〃	〃 (2)
S-14	〃	〃 (3)
S-15	Lateral A_1	〃 (1)
S-16	〃	〃 (2)
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S-18	〃	〃 (2)
S-19	Lateral A, A_1, B and drainage canal.	Typical cross section.
S-20	Flume and transition.	Plan, section and details.
S-21	Division work No. 1.	Plan and section.
S-22	〃 〃	Reinforcement sheet.
S-23	〃 No. 2.	Plan and section.
S-24	〃 〃	Reinforcement sheet.
S-25	Lateral B siphon.	Plan, section and details.
S-26	Lateral A drop No.1, No.2.	Plan and section.
S-27	〃 〃	Reinforcement sheet.
S-28	〃 No.3.	Plan and section.
S-29	〃 No.3.	Reinforcement sheet.
S-30	〃 No.4.	Plan and section.
S-31	〃 No.4.	Reinforcement sheet.
S-32	Lateral B drop.	Plan and section.
S-33	Lateral A wastway No. 1.	〃
S-34	〃 No. 2.	〃
S-35	〃 No. 3.	〃
S-36	〃 No. 4.	〃
S-37	Lateral A_1 wastway No. 1.	〃
S-38	〃 No. 2.	〃
S-39	〃 No. 3.	〃
S-40	Lateral B wastway No. 1.	〃
S-41	〃 No. 2.	〃
S-42	Lateral A culvert No. 1.	〃
S-43	〃 No. 2.	〃
S-44	〃 No. 3.	〃
S-45	Lateral A_1 culvert No.1 and No. 2.	〃
S-46	Turnout	〃
S-47	〃	Install assembly of gates.

DRAWING NO.	TITLE	
S-48	Drinage canal.	Profile.
S-49	Drinage canal drop.	Plan and section.
S-50	〃 〃	Reinforcement sheet.
S-51	Access road Ⅰ.	Profile.
S-52	〃 Ⅱ.	〃
S-53	〃 Ⅲ.	〃 (1)
S-54	〃 Ⅲ.	〃 (2)
S-55	Access road Ⅱ bridge.	Plan and section.
S-56	Access road Ⅰ culvert.	〃

NOTES

D --------- General drawing.
A --------- Alangalang area.
S --------- San miguel area.

DRAWING NO.	TITLE

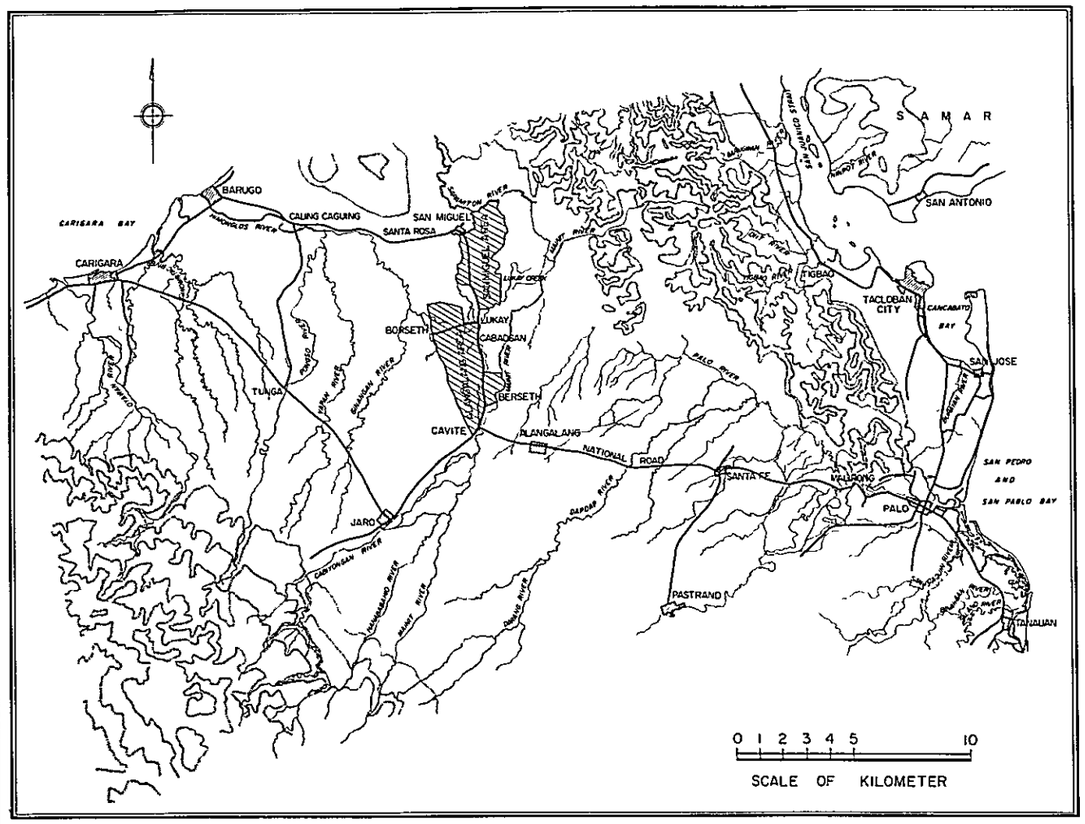
CARIGARA BAY
BARUGO
HIMONGLOS RIVER
CALINGCAGUING
CARIGARA
SANTA ROSA
SAN MIGUEL
SAPANITON RIVER
SAN MIGUEL AREA
MAINIT RIVER
LUKAY CREEK
BORSETH
LUKAY
CABADSAN
TUNGA
PONGSO RIVER
YAPAN RIVER
GINAGAN RIVER
ALANGALANG AREA
MAINIT RIVER
BERSETH
CAVITE
ALANGALANG
NATIONAL ROAD
JARO
CABIYONGAN RIVER
HANABABAHID RIVER
MANIT RIVER
DARANG RIVER
DAPDAP RIVER
SANTA FE
PASTRAND
PALO RIVER
BARUGWAN RIVER
SAN JUANICO STRAIT
SAMAR
NINIPOT RIVER
SAN ANTONIO
DIIT RIVER
TIGBAO RIVER
TIGBAO
TACLOBAN CITY
CANCABATO BAY
SAN JOSE
BURAYAN RIVER
MALIPONG
SAN PEDRO AND
SAN PABLO BAY
PALO
SANJOAQUIN RIVER
BINAHAHAN RIVER
SALAND RIVER
TANAUAN

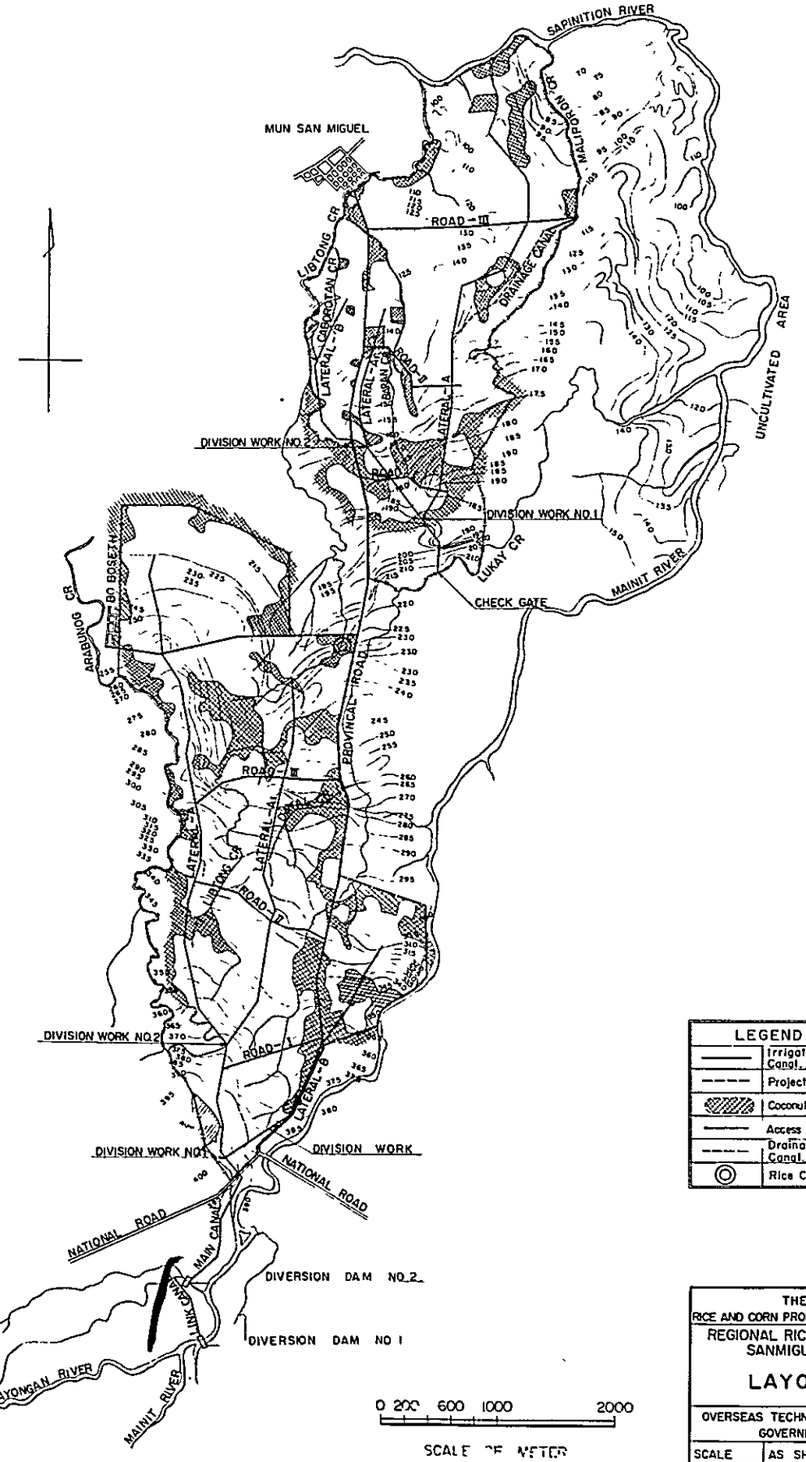
0 1 2 3 4 5
SCALE OF KILOMETER

KEY MAP
LUZON
MINDORO
PALAWAN
SAMAR
LEYTE
BOHOL
MINDANAO
Project Area
0 100 200 300 400
SCALE OF KILOMETER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL-ALANGALANG
LOCATION MAP
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO.	1 OF 1	DRAWING NO.	101





LEGEND	
———	Irrigation Canal
- - - -	Project Area
▨	Coconut Area
———	Access Road
- - - -	Drainage Canal
◎	Rice Center

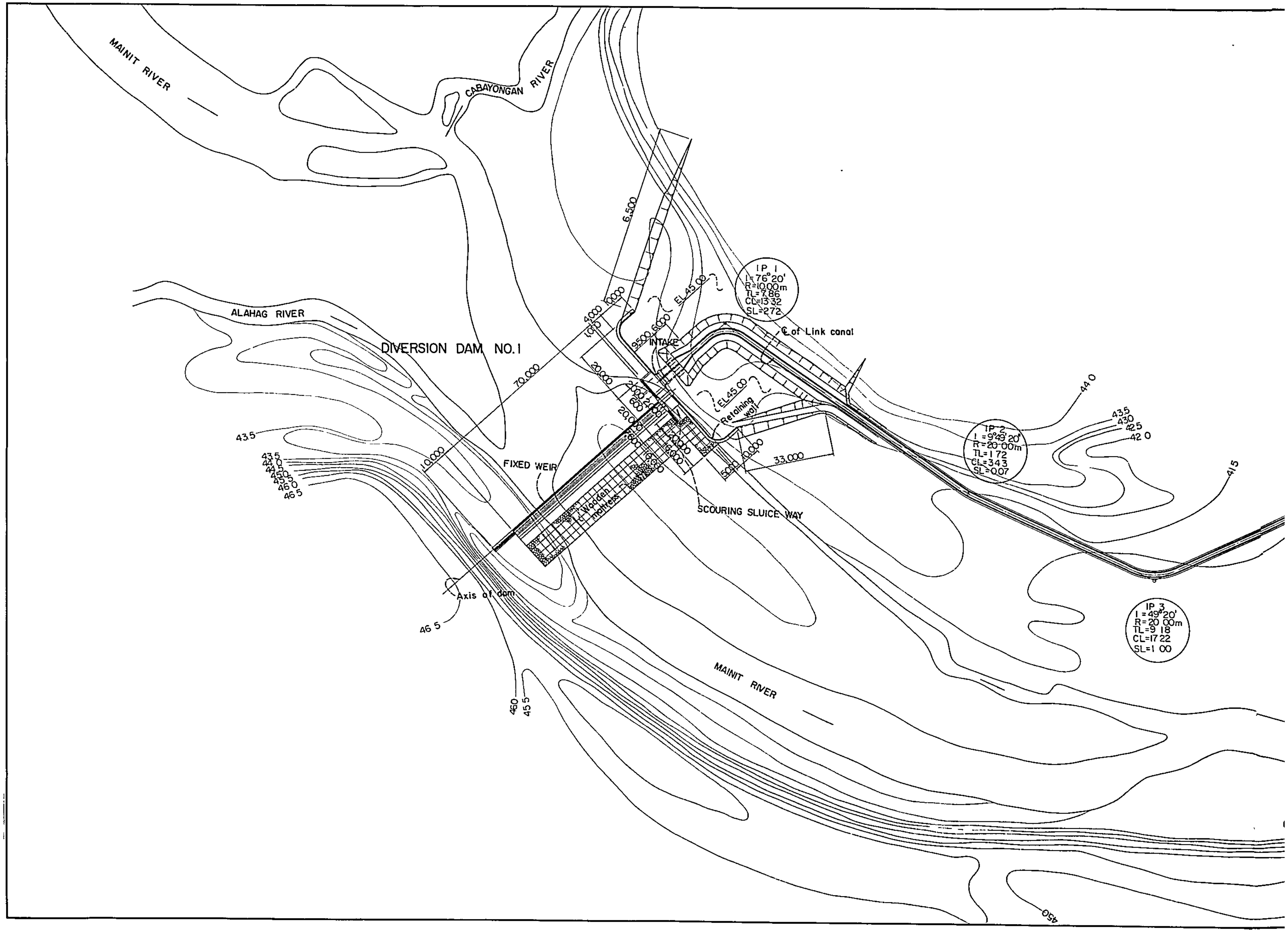
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL

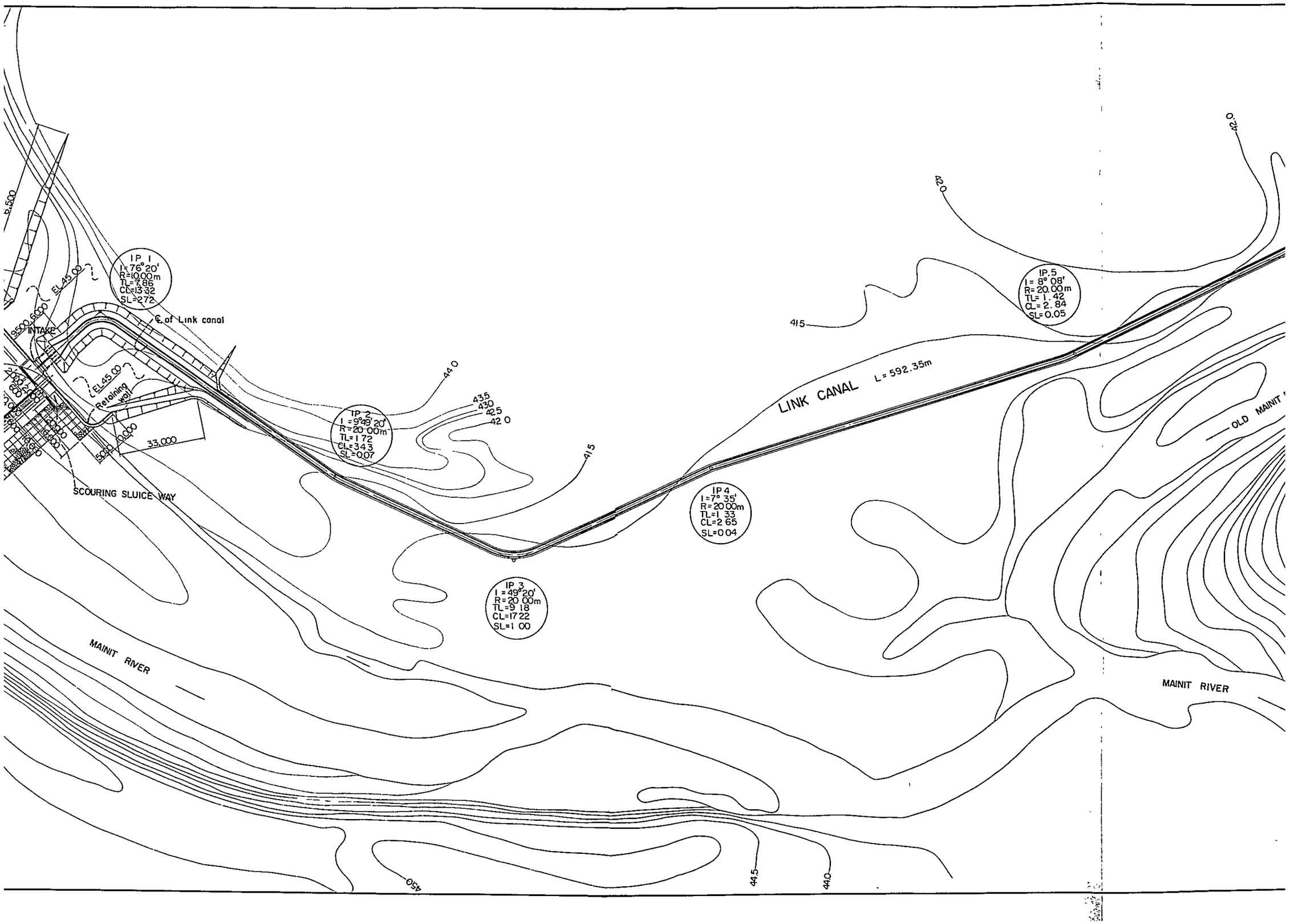
REGIONAL RICE PRODUCTION CENTER SANMIGUEL–ALANGALANG

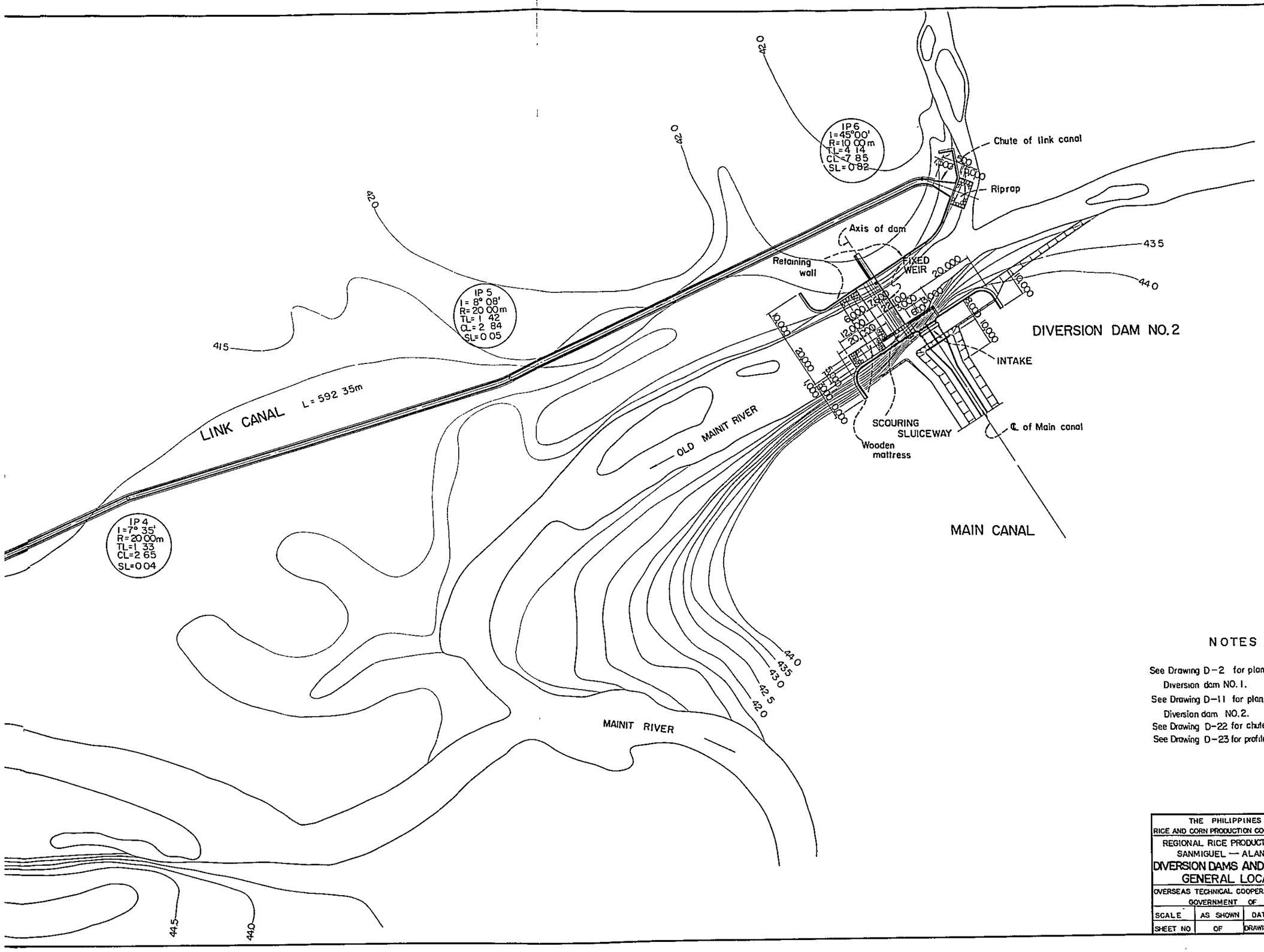
LAYOUT MAP

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO.	1 OF 1	DRAWING NO.	102


MAINIT RIVER
CABAYONGAN RIVER
ALAHAG RIVER
DIVERSION DAM NO.1
INTAKE
EL 45.00
EL45.00
Retaining wall
℄ of Link canal
FIXED WEIR
Wooden mattress
SCOURING SLUICE WAY
Axis of dam
IP 1
I=76°20'
R=10.00m
TL=7.86
CL=13.32
SL=2.72
IP 2
I=9°49'20'
R=20.00m
TL=1.72
CL=3.43
SL=0.07
IP 3
I=49°20'
R=20.00m
TL=9.18
CL=17.22
SL=1.00
6,500
70,000
10,000
33,000
MAINIT RIVER

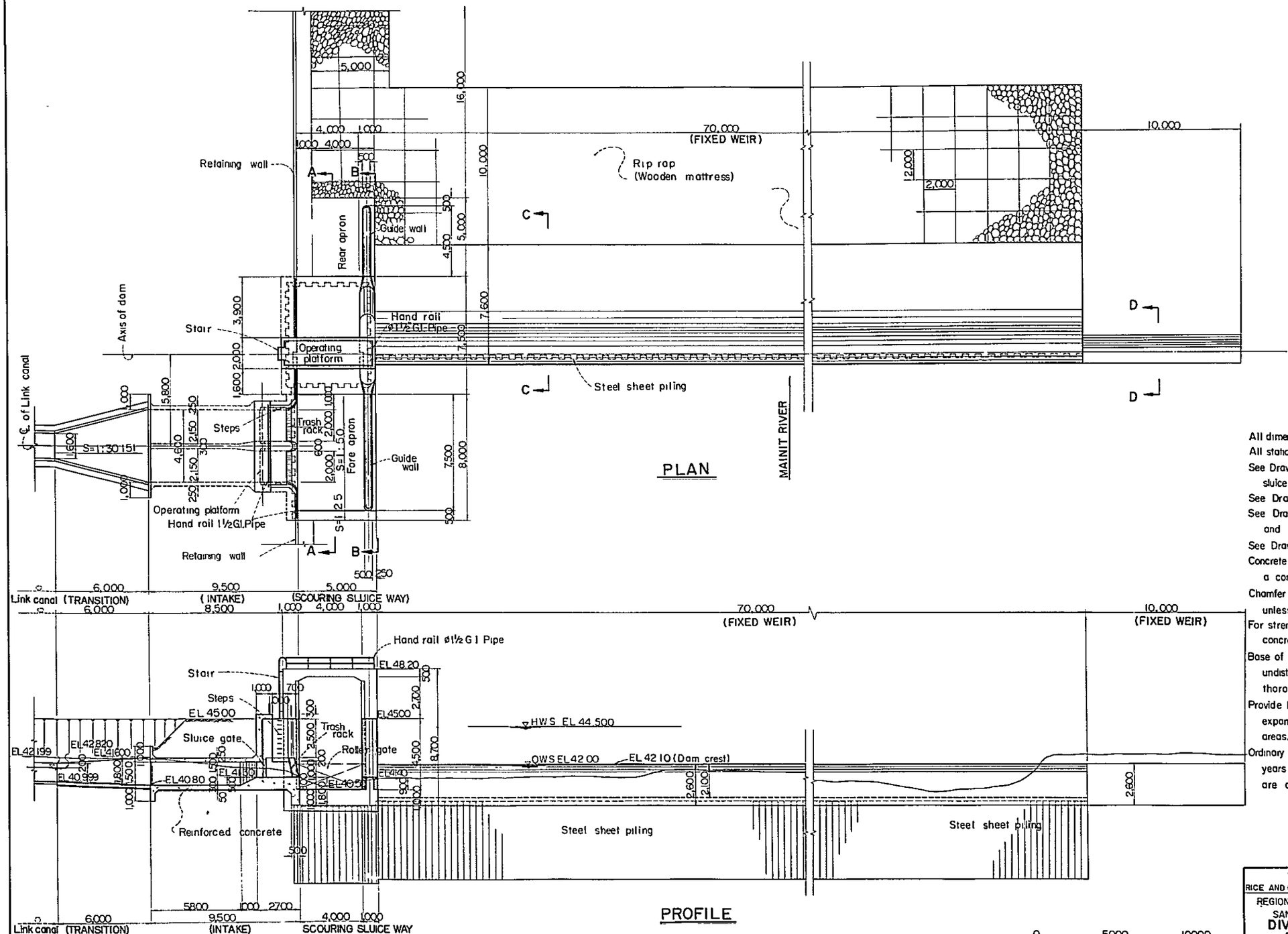

IP 1
I=76°20'
R=10.00m
TL=7.86
CL=13.32
SL=2.72
IP 2
I=9°49'20"
R=20.00m
TL=1.72
CL=3.43
SL=0.07
IP 3
I=49°20'
R=20.00m
TL=9.18
CL=17.22
SL=1.00
IP 4
I=7°35'
R=20.00m
TL=1.33
CL=2.65
SL=0.04
IP 5
I=8°08'
R=20.00m
TL=1.42
CL=2.84
SL=0.05
EL 45.00
INTAKE
℄ of Link canal
Retaining wall
33.000
SCOURING SLUICE WAY
LINK CANAL
L = 592.35m
OLD MAINIT
MAINIT RIVER
MAINIT RIVER
415
420
425
430
435
440
445
450



NOTES

See Drawing D-2 for plan and profile of Diversion dam NO. 1.
See Drawing D-11 for plan and profile of Diversion dam NO. 2.
See Drawing D-22 for chute of Link canal
See Drawing D-23 for profile of Link canal

THE PHILIPPINES RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER SANMIGUEL — ALANGALANG **DIVERSION DAMS AND LINK CANAL** **GENERAL LOCATION**			
OVERSEAS TECHNICAL COOPERATION AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO.	D-1



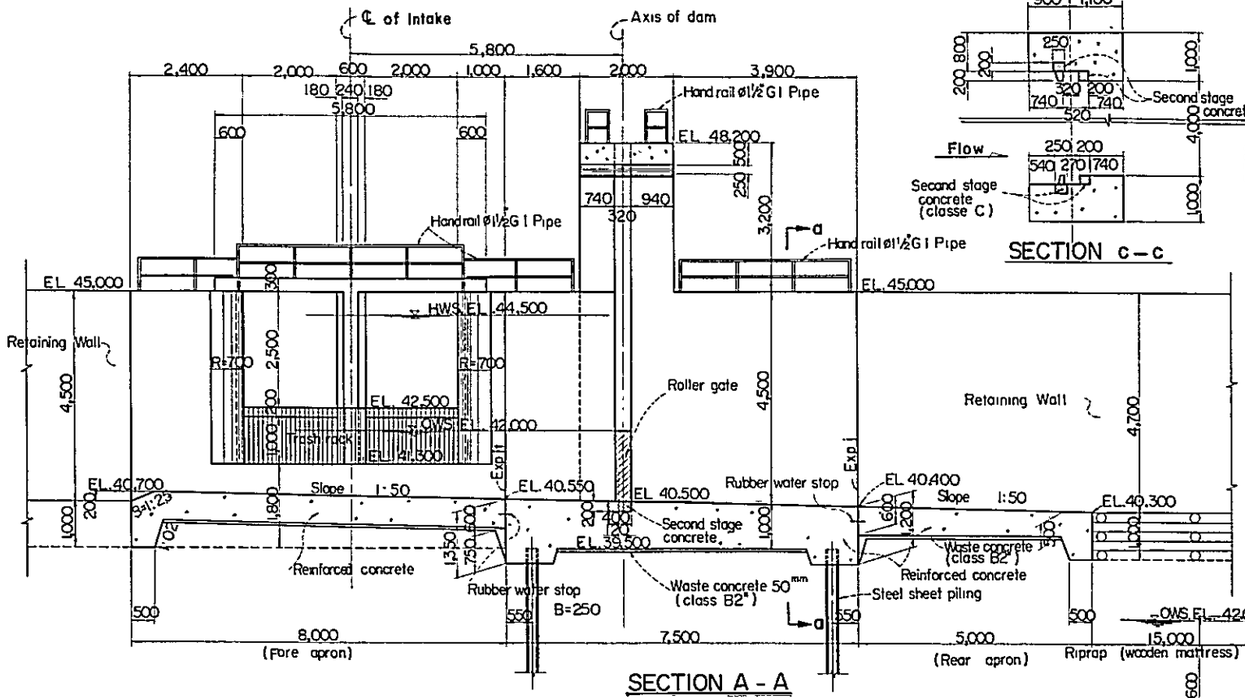
NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters
See Drawing D-3 for sections of scouring sluice way and weir.
See Drawing D-6 for sections of intake.
See Drawing D-8 for handrail, trash rack and stair.
See Drawing D-9 for details of gates.
Concrete design, except precast, based on a compressive strength of 80 kg/cm^2
Chamfer all exposed corners 20 mm, unless otherwise shown.
For strength and aggregate size of concrete, see specifications.
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
Provide 10mm~20mm elastic filler in all expansion joints at all concrete contact areas.
Ordinary flood anticipated once in about 10 years and elevation for ordinary floods are calculated on crest of dam at EL42.10

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
DIVERSION DAM NO.1
PLAN AND PROFILE

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO.	OF	DRAWING NO.	D-2



NOTES

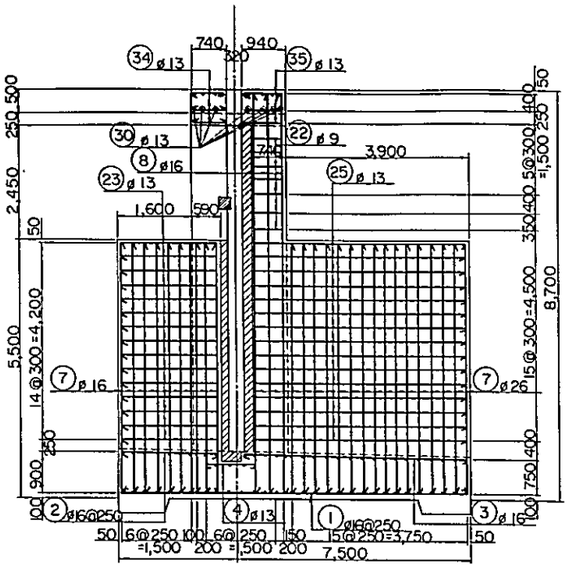
All dimensions are given in millimeters.
All stations and elevations are given in meters.
See plan and profile for the general location of Diversion dam NO.1.
See Drawing D-4 and D-5 for reinforcement.
See Drawing D-8 for handrail and trash rack.
See Drawing D-9 for details of gates.
See Drawing D-10 for retaining walls.
Class 'A' concrete to be placed at all portion unless otherwise shown.
Concrete design, except precast, based on a compressive strength of 80 kg/cm².
Chamfer all exposed corners 20 mm, unless otherwise shown
For strength and aggregate size of concrete, see specifications
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
Use 250mm rubber water stop.
Provide 10mm~20 mm elastic filler in all expansion joints at all concrete contact areas.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG

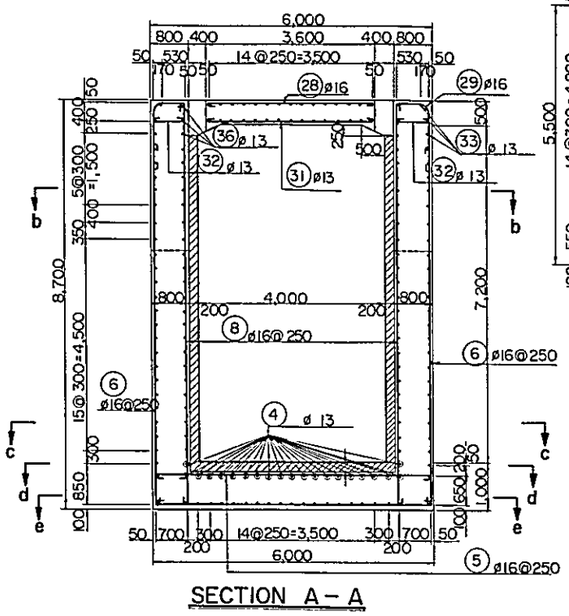
DIVERSION DAM NO. I SCOURING SLUICE WAY SECTIONS

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

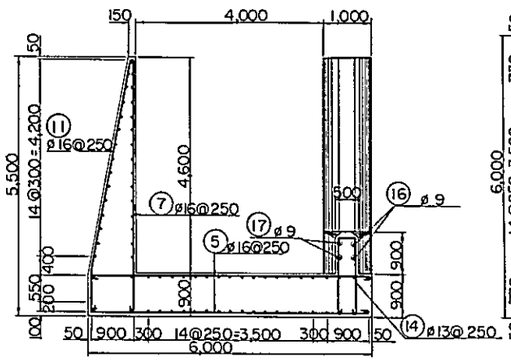
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D - 3



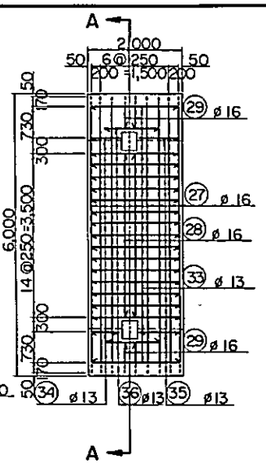
SECTION f – f



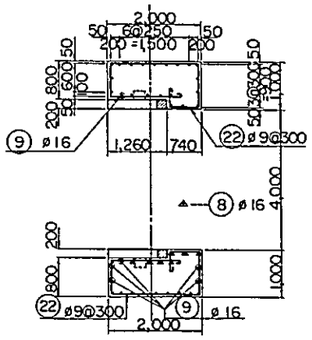
SECTION A – A



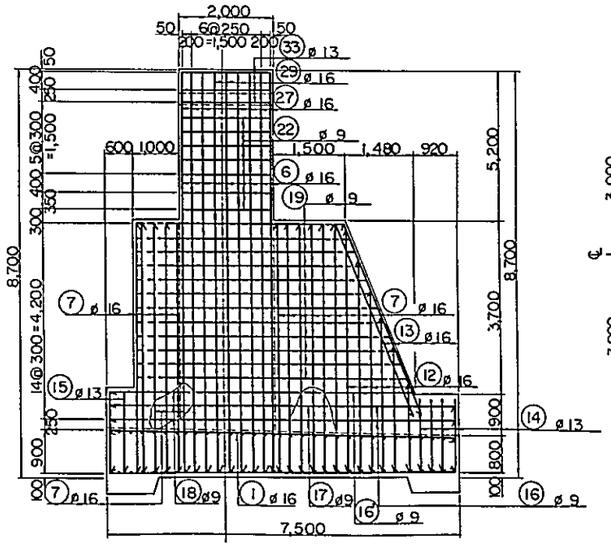
SECTION h – h



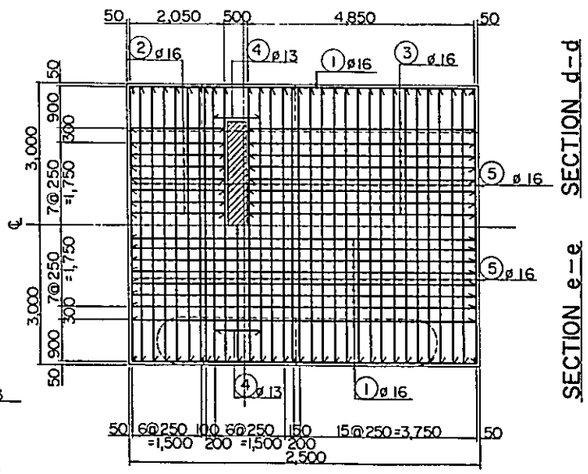
PLAN



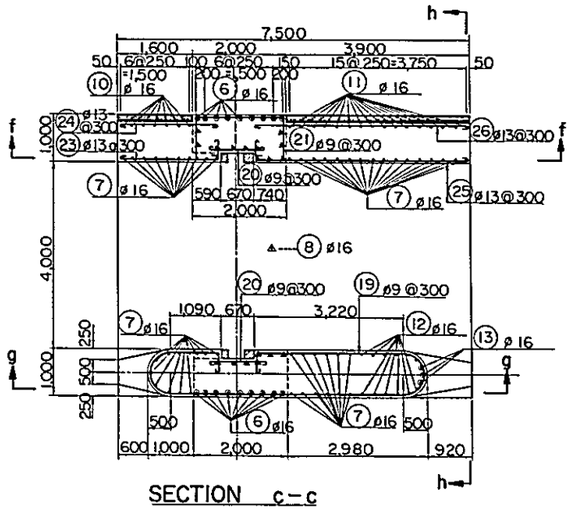
SECTION b – b



SECTION g – g



SECTION e – e SECTION d – d



SECTION c – c

0 1,000 3,000 5,000

SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters

See Drawing D-3 for plan and sections

Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth

Lap all bars 30 diameters at splices.

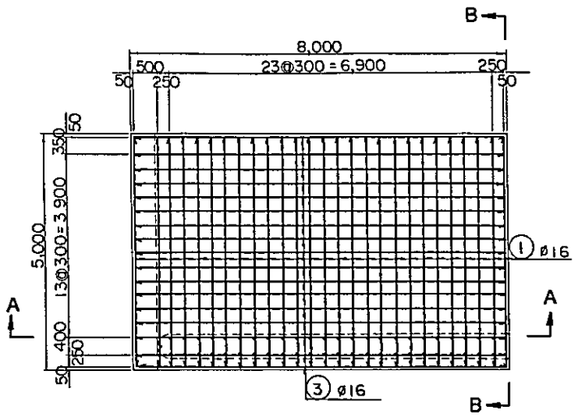
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.

Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.

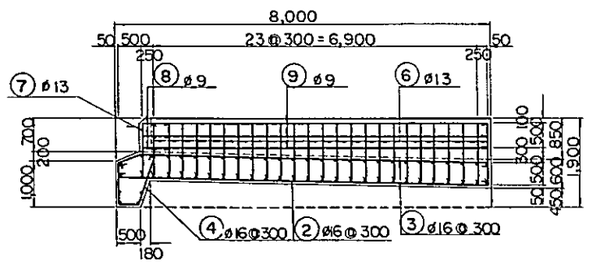
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen.

THE PHILPPINES RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER SANMIGUEL – ALANGALANG DIVERSION DAM NO.1 SCOURING SLUICE WAY REINFORCEMENT SHEET(1)			
OVERSEAS TECHNICAL COOPERATION AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 2	DRAWING NO	D – 4

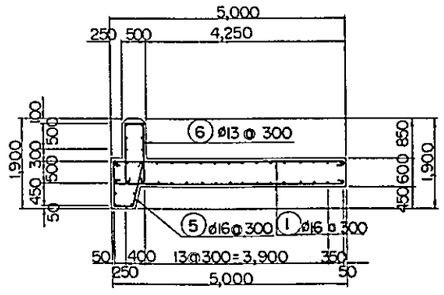
REINFORCEMENT OF FORE APRON



PLAN

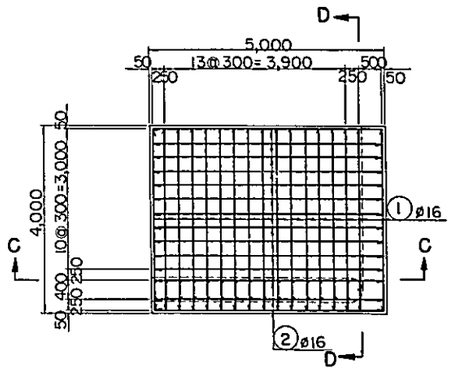


SECTION A-A

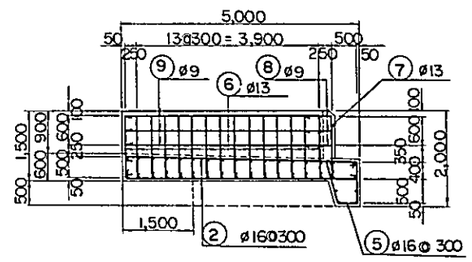


SECTION B-B

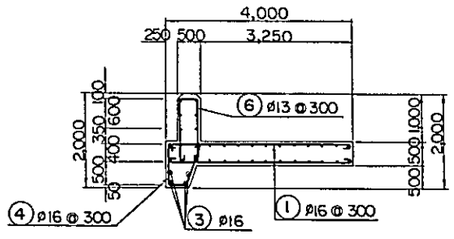
REINFORCEMENT OF REAR APRON



PLAN



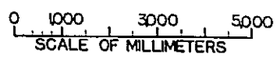
SECTION C-C



SECTION D-D

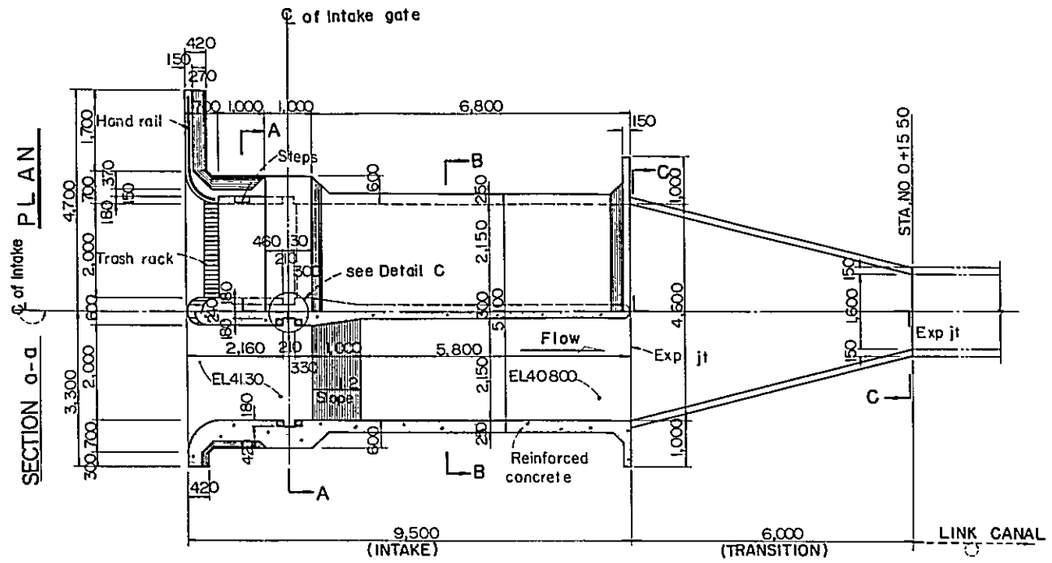
NOTES

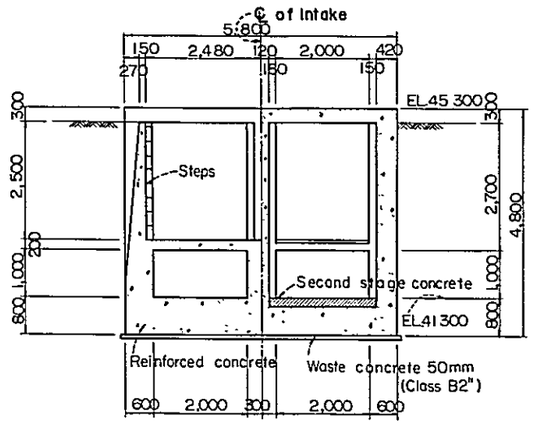
All dimensions are given in millimeters.
See Drawing D-2 for plan and profile and Drawing D-3 for sections.
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown



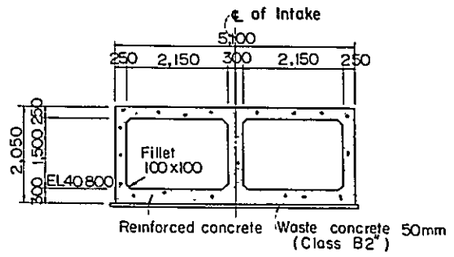
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
DIVERSION DAM NO. 1
SCOURING SLUICE WAY
REINFORCEMENT SHEET (2)
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO.	2 OF 2	DRAWING NO.	D-5

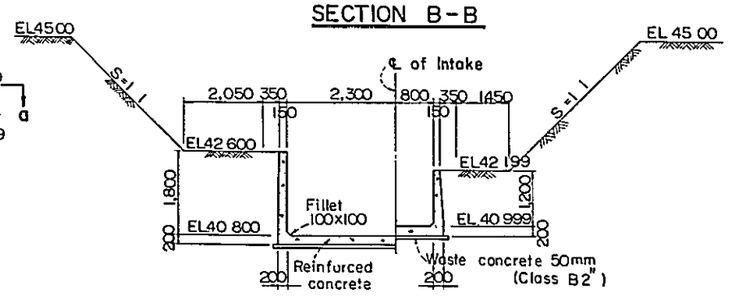


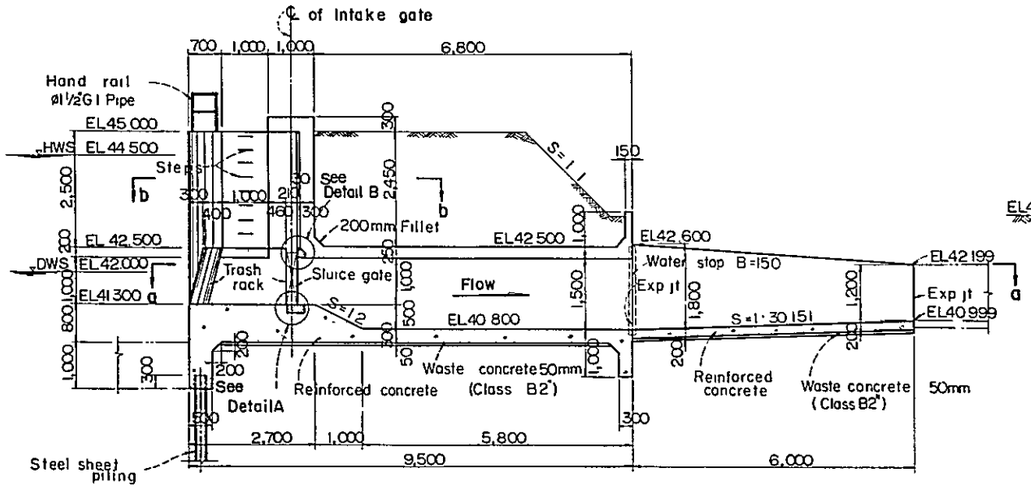


SECTION A-A

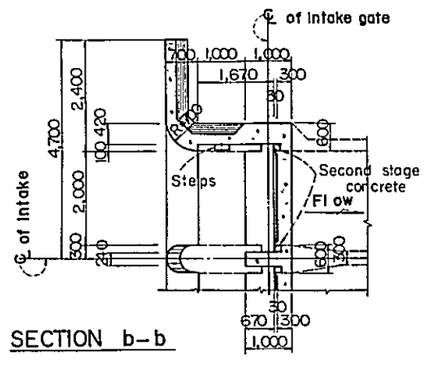


SECTION B-B

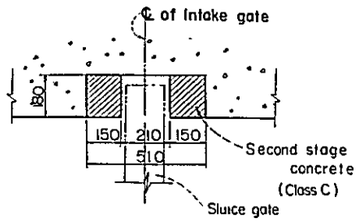




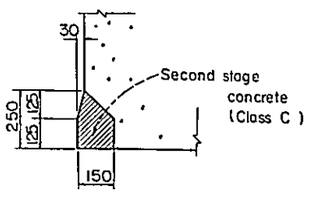
PROFILE



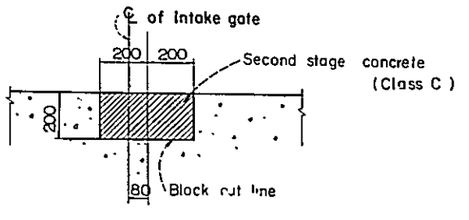
SECTION b-b



DETAIL C



DETAIL B



DETAIL A

0 500 SCALE OF MILLIMETERS

0 500 SCALE OF MILLIMETERS

0 500 SCALE OF MILLIMETERS

0 1000 3000 5000 SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters.
See Drawing D-7 for reinforcement.
Concrete design, except precast, based on a compressive strength of 80 kg/cm².
Chamfer all exposed corners 20mm, unless otherwise shown.
For strength and aggregate size of concrete, see specifications
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
Class "A" concrete to be placed at all portion, unless otherwise shown.
Use 250mm rubber water stop
Provide 10mm ~ 20mm elastic filler in all expansion joints at all concrete contact areas

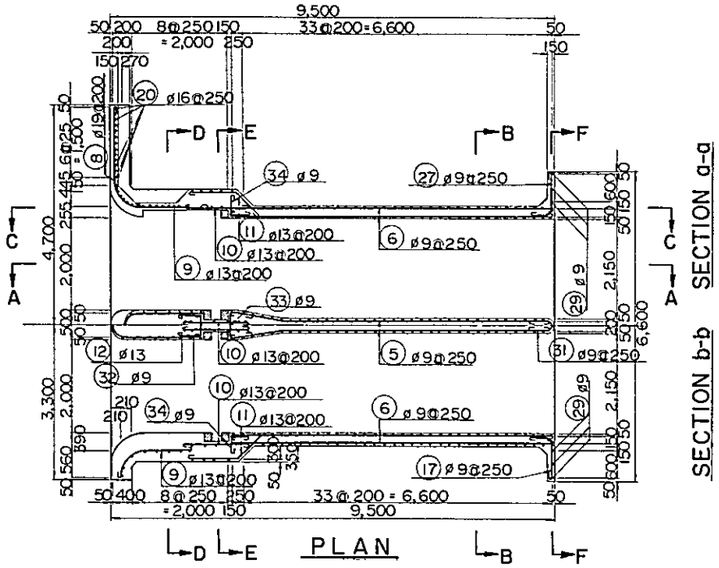
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL- ALANGALANG

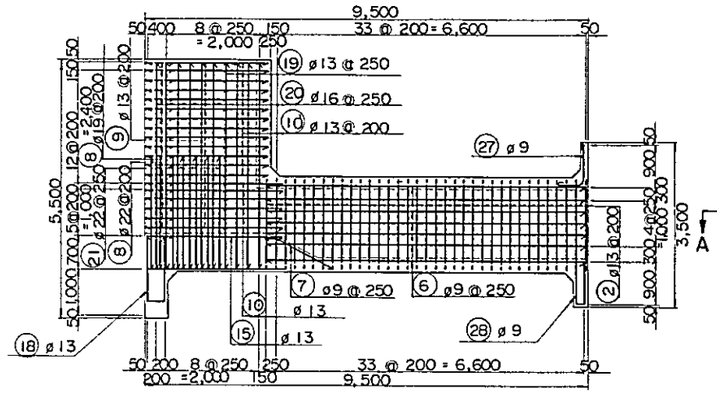
DIVERSION DAM NO.1 INTAKE PLAN, PROFILE AND SECTIONS

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

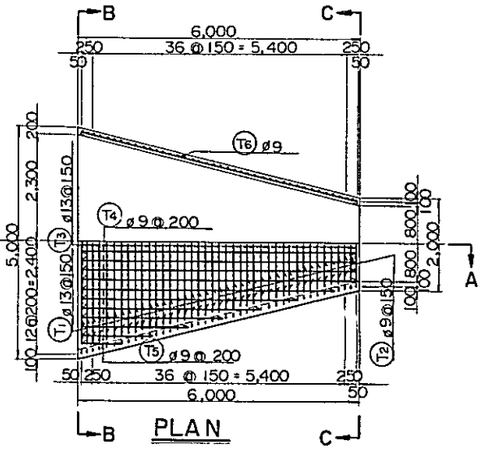
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D - 6

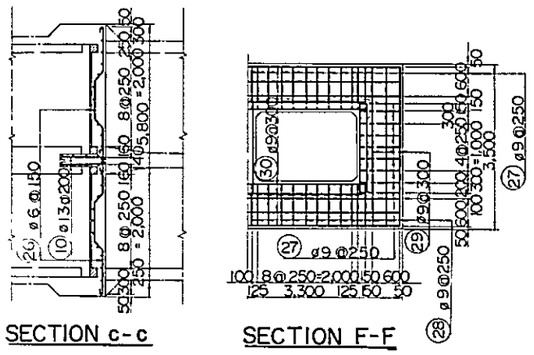
REINFORCEMENT OF INTAKE

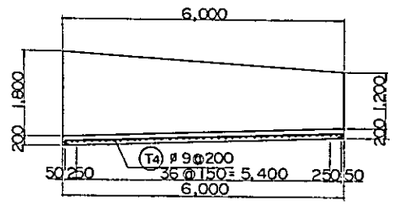


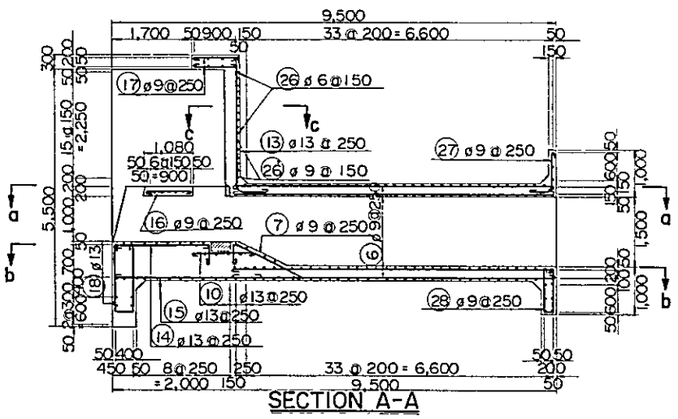


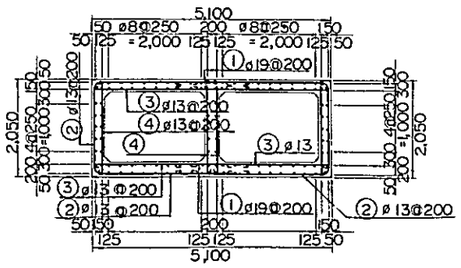
REINFORCEMENT OF TRANSITION

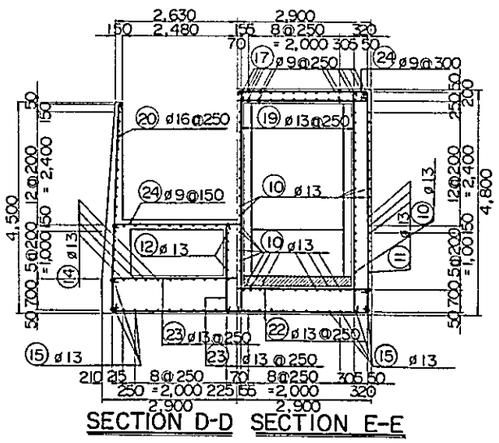


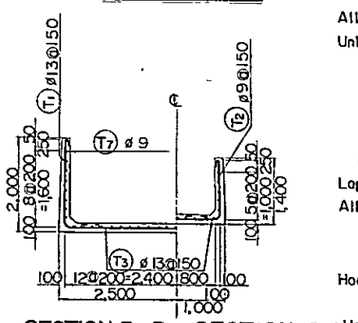












NOTES

All dimensions are given in millimeters.

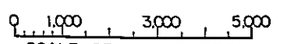
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth.

Lap all bars 30 diameters at splices.

All reinforcing steel to be plain bar with standard hook each end in addition to length shown

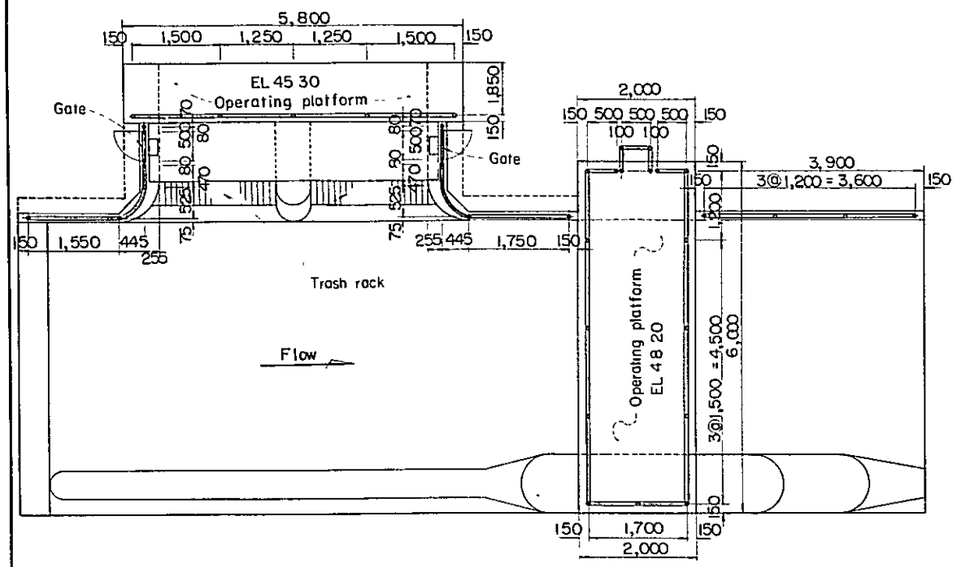
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown. Use 10 5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen.

See Drawing D – 6 for plan and profile



THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
DIVERSION DAM NO.1 INTAKE REINFORCEMENT SHEET
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF.	DRAWING NO	D – 7



PLAN OF HAND RAIL

0 2000

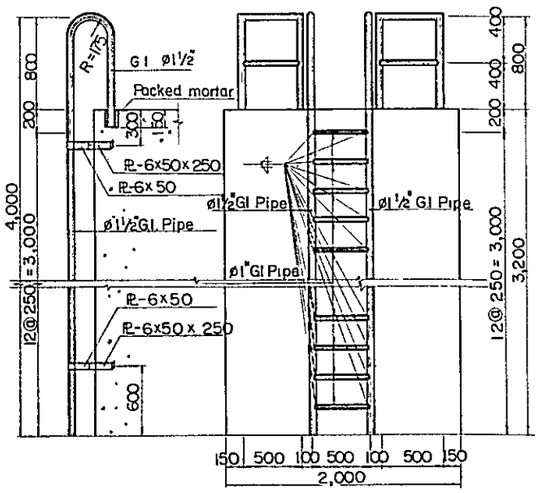
SCALE OF MILLIMETERS

DETAIL OF HAND RAIL

SECTION

0 1,000

SCALE OF MILLIMETERS



SIDE VIEW OF STAIR

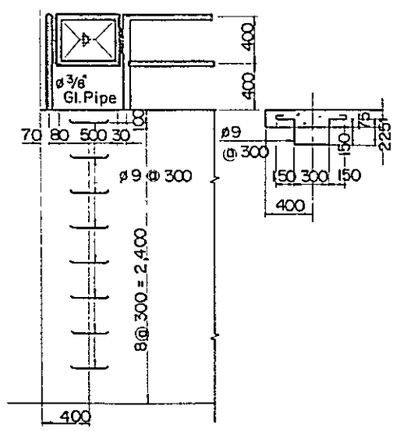
0 1,000

SCALE OF MILLIMETERS

FRONT VIEW OF STAIR

0 1,000

SCALE OF MILLIMETERS

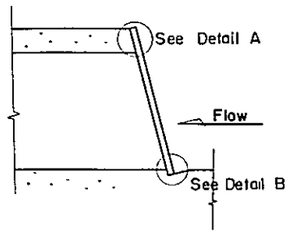


FRONT VIEW OF STEP AND GATE

0 1,000

SCALE OF MILLIMETERS

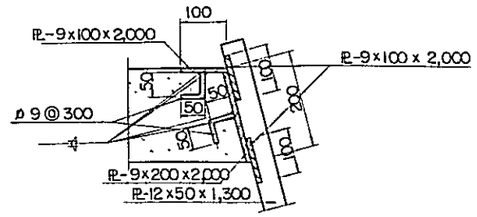
TRASH RACK



PROFILE

0 1,000

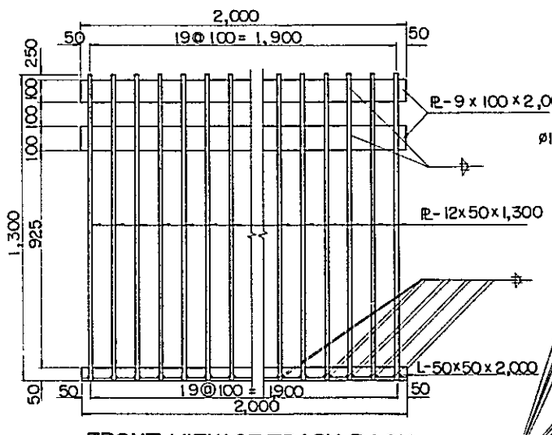
SCALE OF MILLIMETERS



DETAIL A

0 250

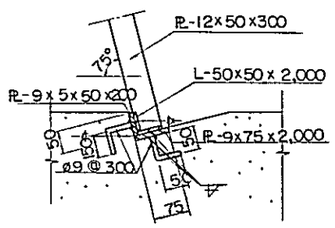
SCALE OF MILLIMETERS



FRONT VIEW OF TRASH RACK

0 500

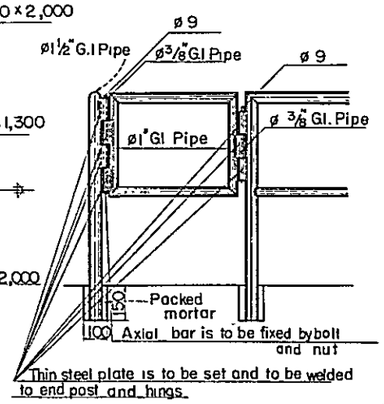
SCALE OF MILLIMETERS



DETAIL B

0 250

SCALE OF MILLIMETERS



DETAIL OF GATE

0 500

SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters.

All welds to be full penetration continuous. and smooth.

Non-corrosive studs and nuts.

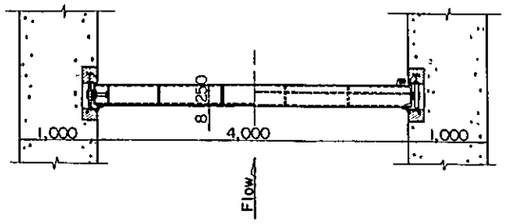
EXPLANATIONS

/F\; Edge-fillet welds.

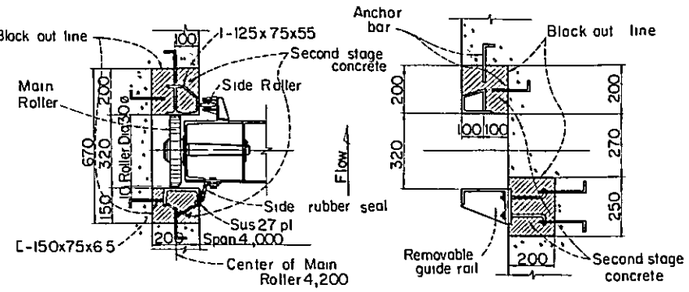
/V\; Single-V butt joint welds both side.

THE PHILIPPINES			
RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER SANMIGUEL-ALANGALANG			
DIVERSION DAM NO. I DETAILS OF HAND RAIL AND TRASH RACK			
OVERSEAS TECHNICAL COOPERATION AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D - 8

SCOURING SLUICE WAY GATE

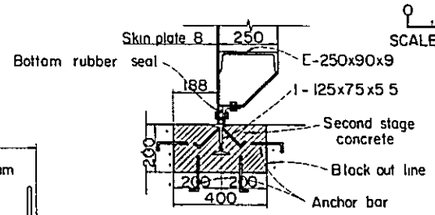


SECTION B–B



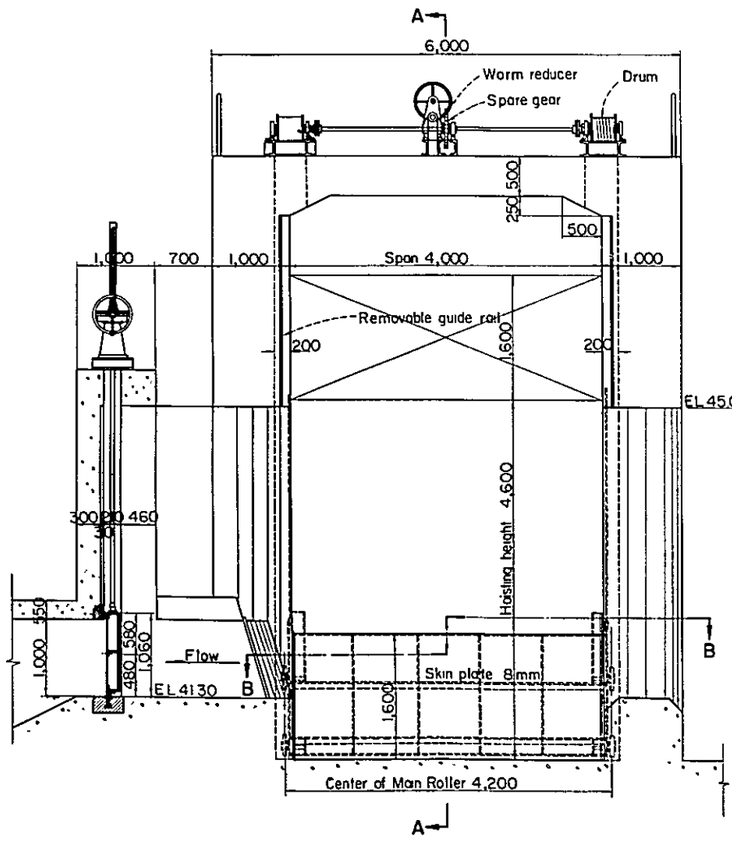
DETAIL OF SIDE SEAL

0 500
SCALE OF MILLIMETERS

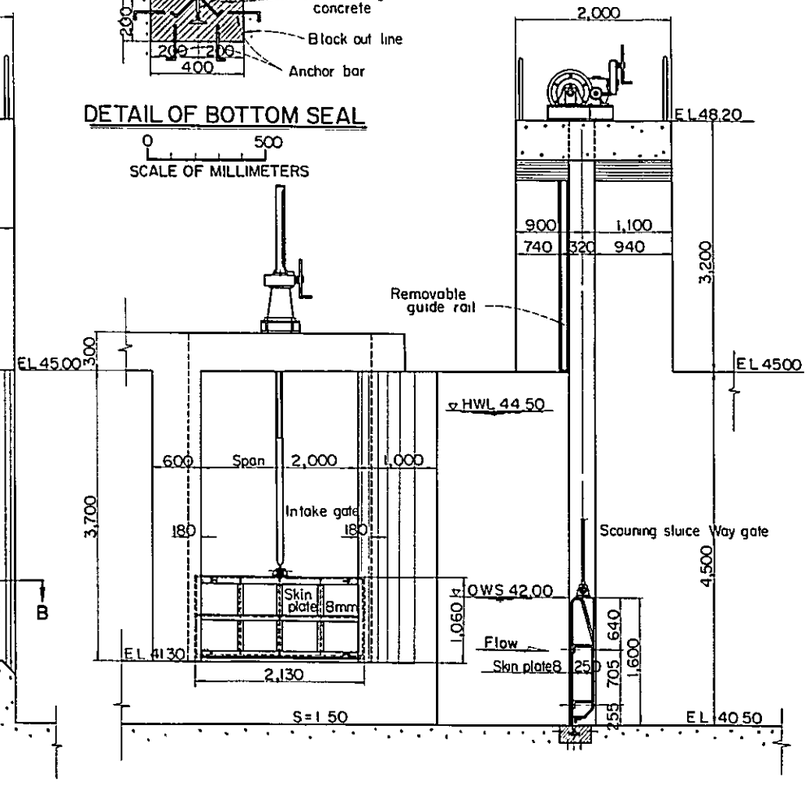


DETAIL OF BOTTOM SEAL

0 500
SCALE OF MILLIMETERS

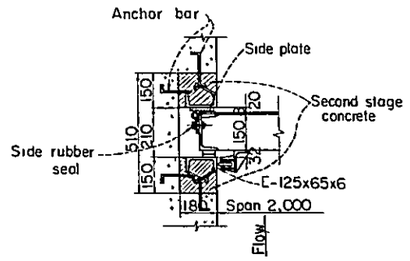


FRONT VILW OF SLUICE WAY GATE



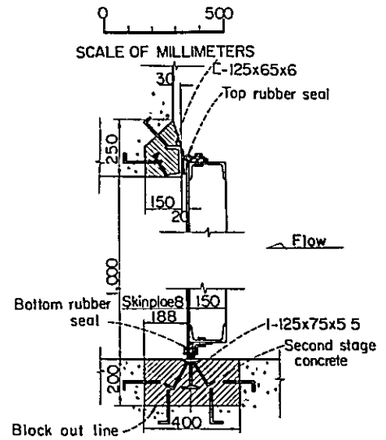
SECTION A–A

INTAKE GATE



DETAIL OF SIDE SEAL

0 500
SCALE OF MILLIMETERS



DETAIL OF TOP AND BOTTOM SEAL

0 500
SCALE OF MILLIMETERS

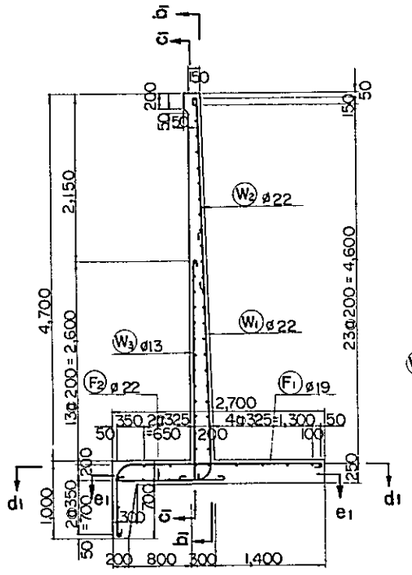
NOTES

All dimensions are given in millimeters
Allstations and elevations are givenin meters
All welds to be full penetration continuous and smooth
Welding H-beam and etc. shown in this drawing may be substituted by H-beam and etc with adeguate market size.

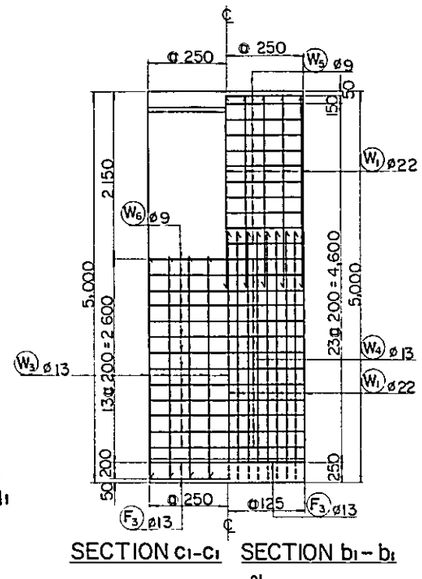
0 1,000 3,000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
DIVERSION DAM NO. I
INSTALL ASSEMBIY OF GATES
OVERSEASTECHNICAL COPERATION AGENCY
GOVERNMENT OF JAPAN

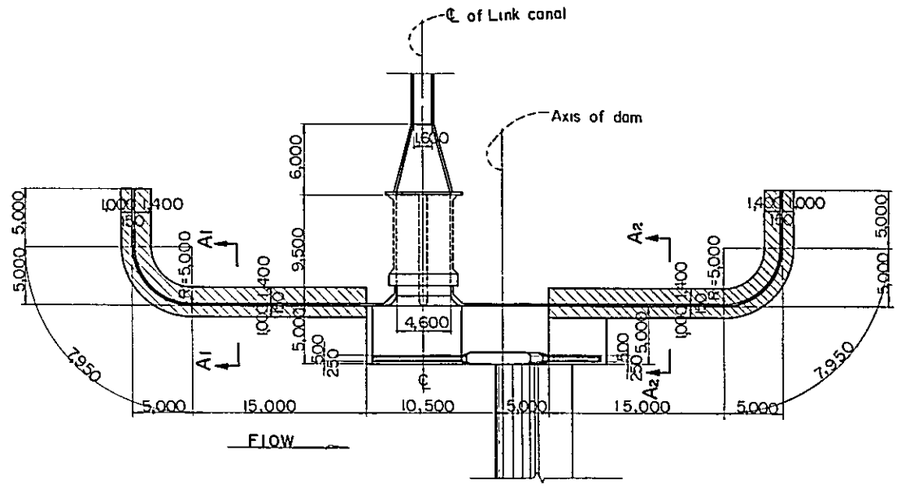
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D – 9



SECTION A1- A1



SECTION c1-c1 SECTION b1 – b1

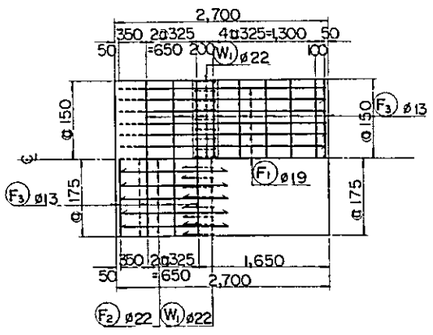


KEY PLAN

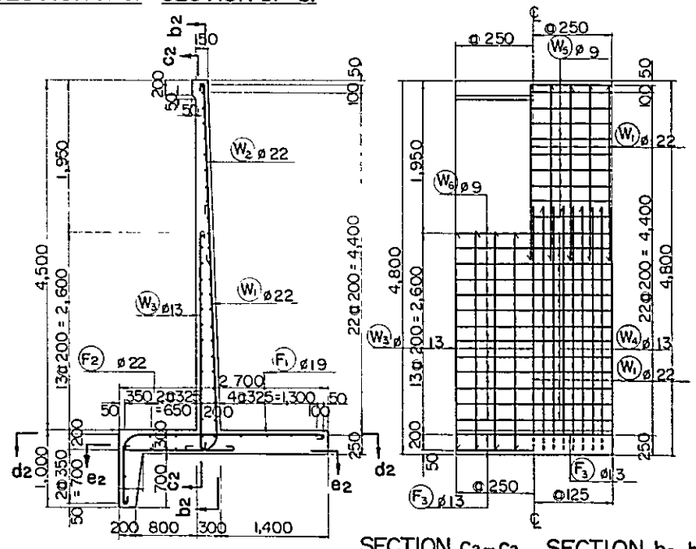
0 10,000
SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters
Reinforcements in the hatched portion are shown in this sheet
Concrete design, except precast, based on a compressive strength of 80kg/cm²
Chamfer all exposed corners 20mm, unless otherwise shown
For strength and aggregate size of concrete, see specifications
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
Provide 10mm ~ 20mm elastic filler in all expansion joints at all concrete contact areas
Use 10 5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen.

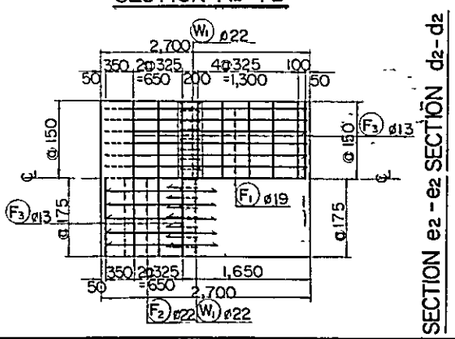


SECTION e1 – e1 SECTION d1-d1



SECTION A2- A2

SECTION c2 – c2 SECTION b2 – b2

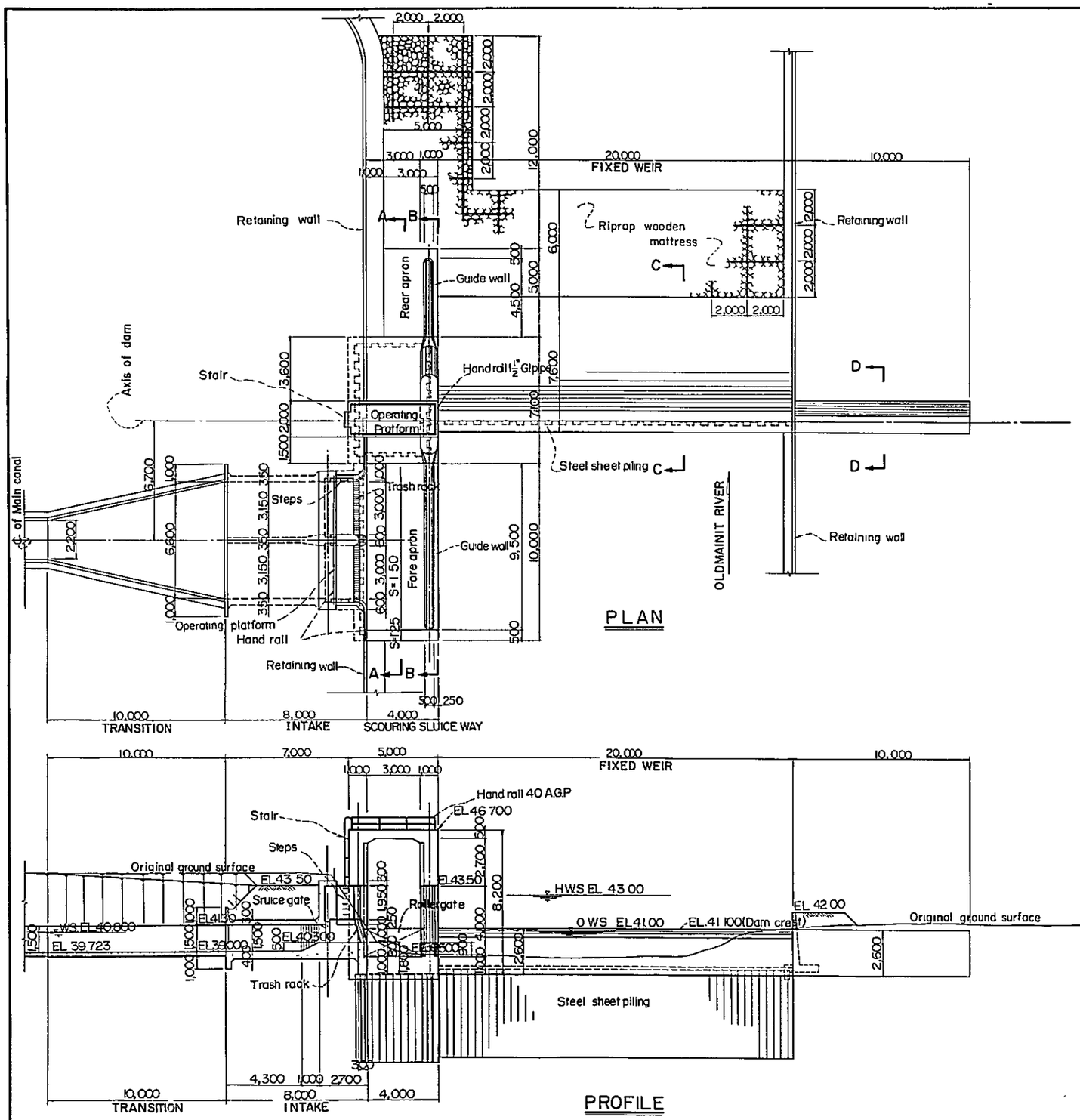


SECTION e2 - e2 SECTION d2- d2

0 1,000 3,000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTON CENTER
SANMIGUEL — ALANGALANG
DIVERSION DAM NO. I
RETAINING WALL
REINFORCEMENT SHEET
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO.	D – 10

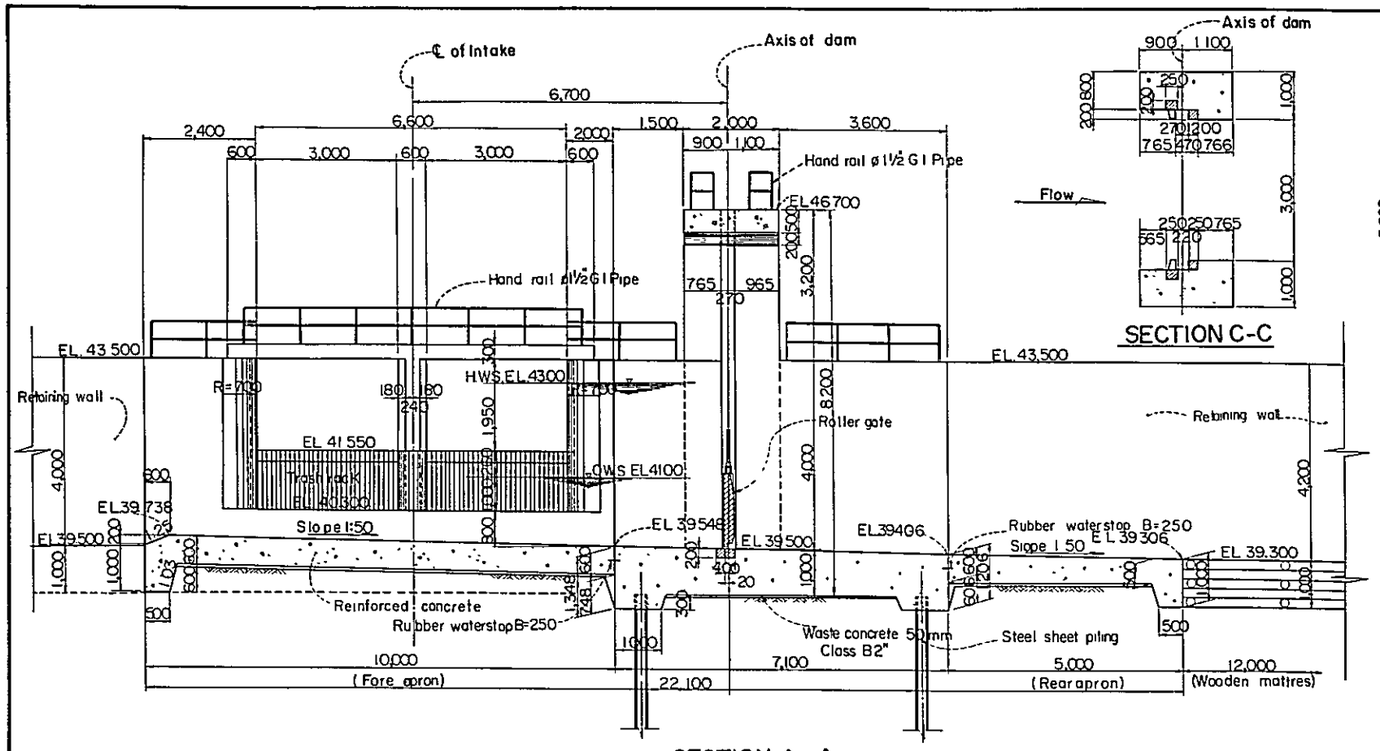


NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters
Concrete design, except precast, based on a compressive strength of 80 kg/cm²
Chamfer all exposed corners 20 mm, unless otherwise shown.
For strength and aggregate size of concrete, see specifications.
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
Class "A" concrete to be placed at all portion unless otherwise shown.
See Drawing D-12 for sections of scouring sluiceway and weir.
See Drawing D-15 for sections of intake.
See Drawing D-18 for details of gate
See Drawing D-17 for hand rail, stair and trash rack.
See Drawing D-19 and D-20 for retaining wall
Ordinary flood anticipated once in about 10 years and elevation for ordinary floods are calculated on crest of dam at EL. 41.10.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
DIVERSION DAM NO. 2
PLAN AND PROFILE
OVERSEAS TECHNICAL COOPERATION AGECY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D - 11

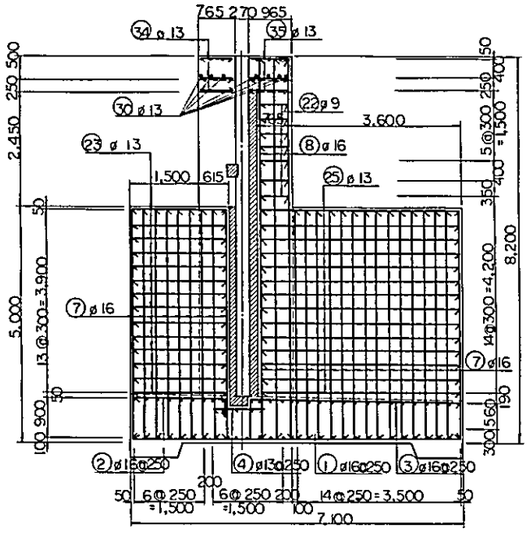


NOTES

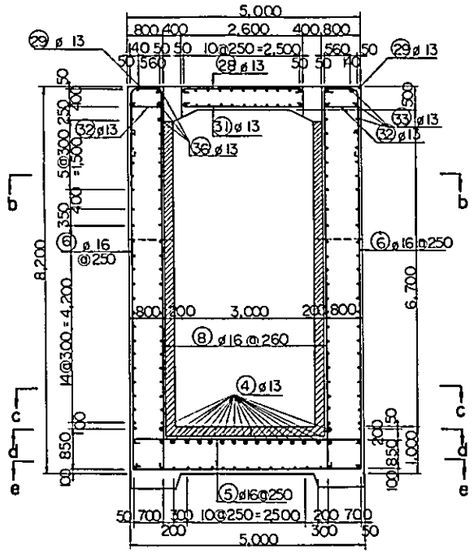
All dimensions are given in millimeters.
All stations and elevations are given in meters
See plan and profile for the general location of Diversion dam NO. 2.
See Drawing D – 13 and D – 14 for reinforcement.
See Drawing D-17 for hand rail and trash rack.
See Drawing D-18 for details of gates
See Drawing D-19,20 for retaining walls
Class A concrete to be placed at all portion unless otherwise shown.
Concrete design, except precast, based on a compressive strength of 80kg/cm^2
Chamfer all exposed corners 20mm unless otherwise shown.
For strength and aggregate size of concrete, see specifications.
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
Use 250mm rubber water stop
Provide 10mm~20mm elastic filler in all expansion joints at all concrete contact areas.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
DIVERSION DAM NO.2
SCOURING SLUICE WAY
SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

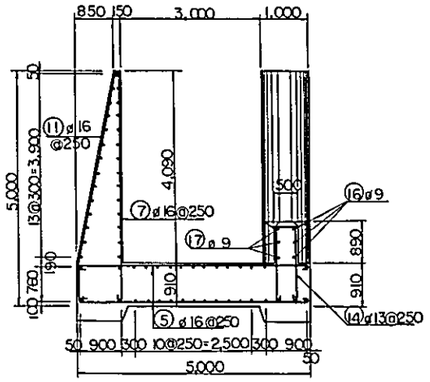
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D – 12



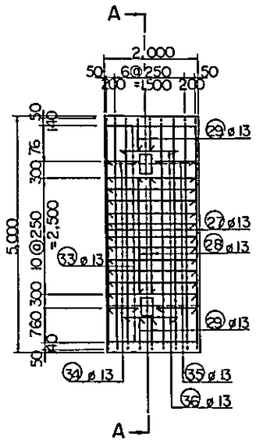
SECTION f-f



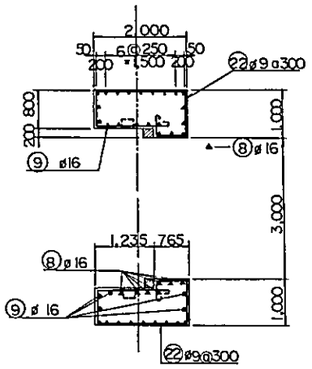
SECTION A-A



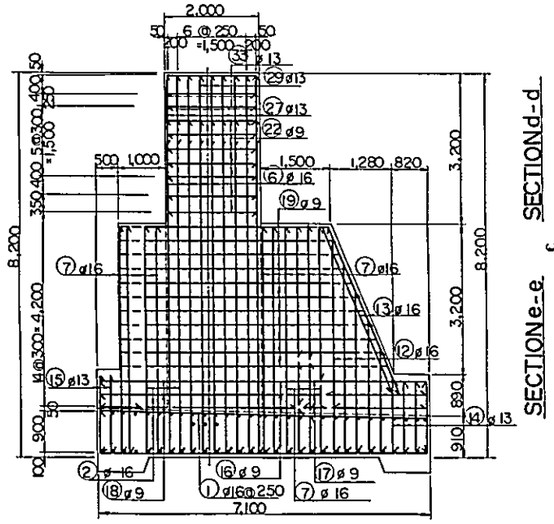
SECTION h-h



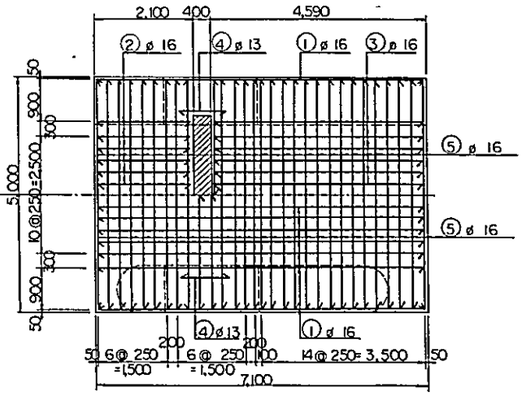
PLAN



SECTION b-b

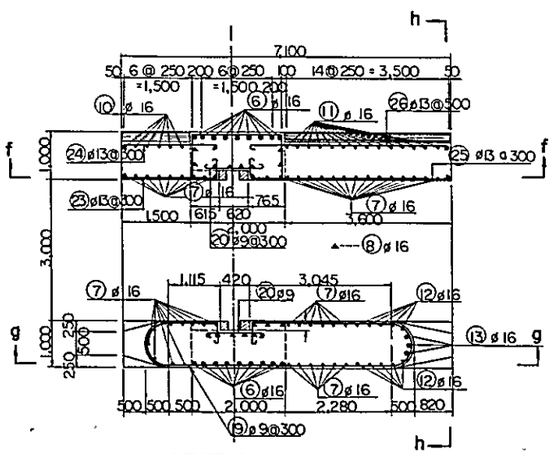


SECTION g-g



SECTION d-d

SECTION e-e



SECTION C-C

0 1,000 3,000 5,000

SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters.
See Drawing D-12 for plan and profile
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of ngid flame or Rahmen.

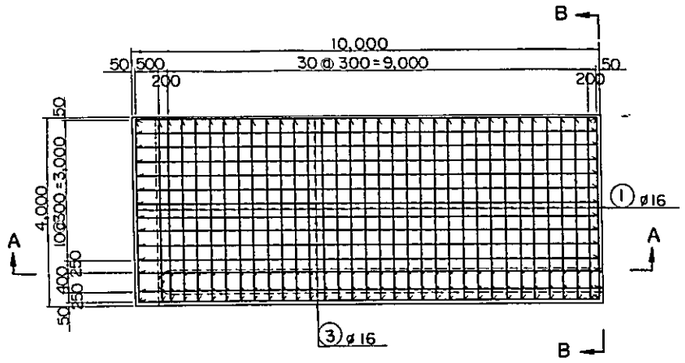
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG

DIVERSION DAM NO.2 SCOURING SLUICE WAY REINFORCEMENT SHEET (1)

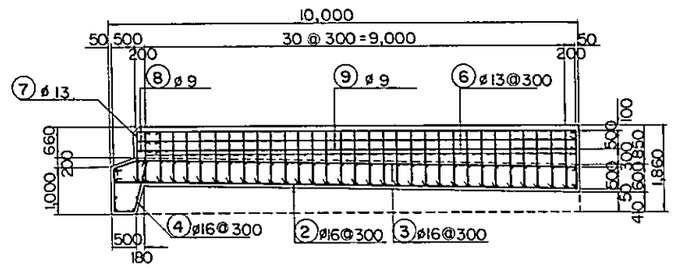
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO.	1 OF 2	DRAWING NO.	D.- 13

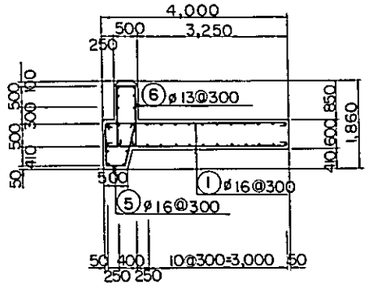
REINFORCEMENT OF FORE APRON



PLAN

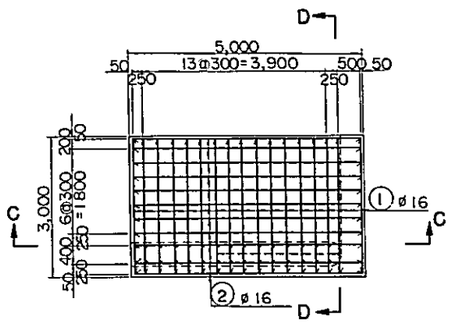


SECTION A-A

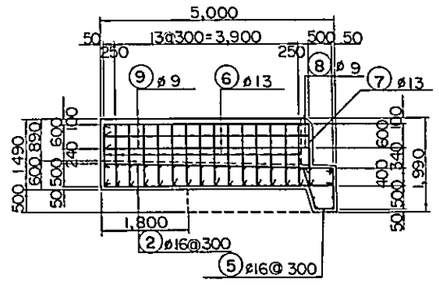


SECTION B-B

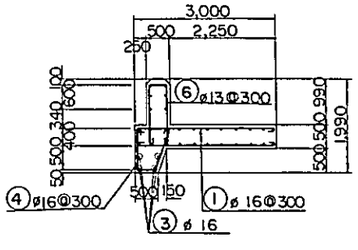
REINFORCEMENT OF REAR APRON



PLAN



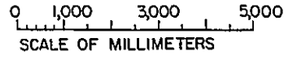
SECTION C-C



SECTION D-D

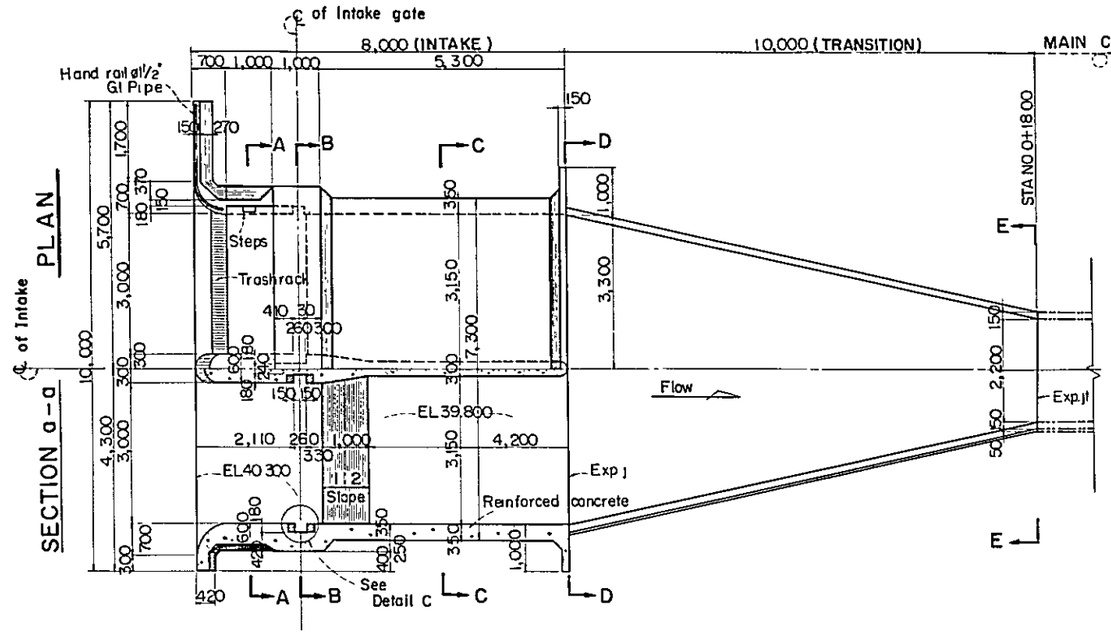
NOTES

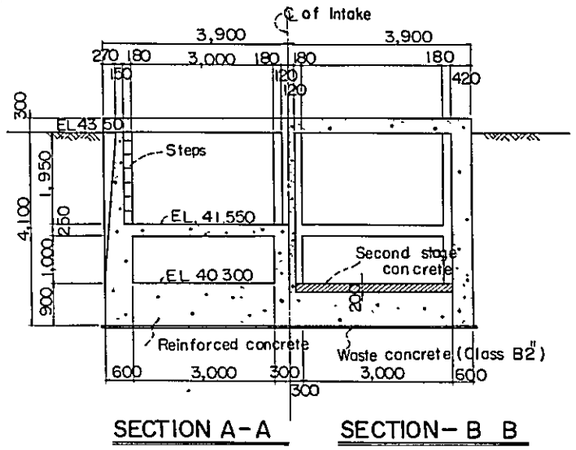
All dimensions are given in millimeters
See Drawing D-11 for plan and profile and Drawing D-12 for sections.
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown
Hook with 180°bends, lengths of 10 bar diameters to be provided where shown.

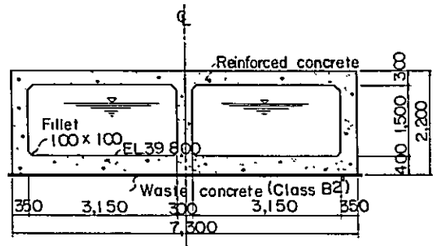


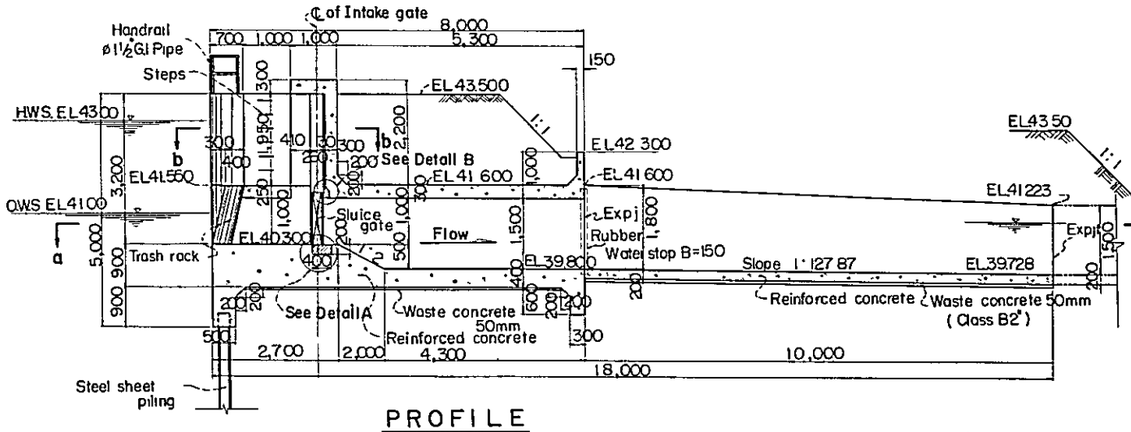
THE PHILIPPINES
RICE AND CORN PRODUCTION CORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
DIVERSION DAM: NO.2
SCOURING SLUICE WAY
REINFORCEMENT SHEET (2)
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

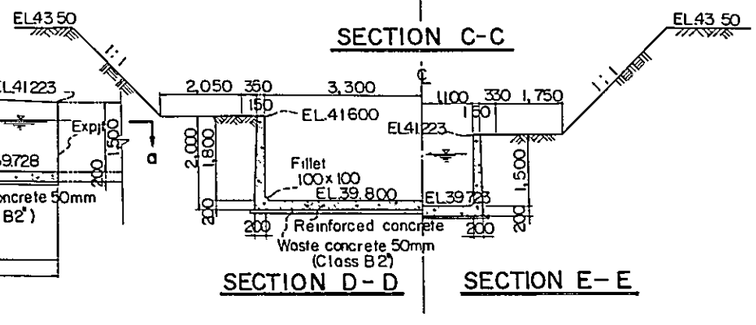
SCALE	AS SHOWN	DATE	
SHEET NO	2 OF 2	DRAWING NO	D – 14

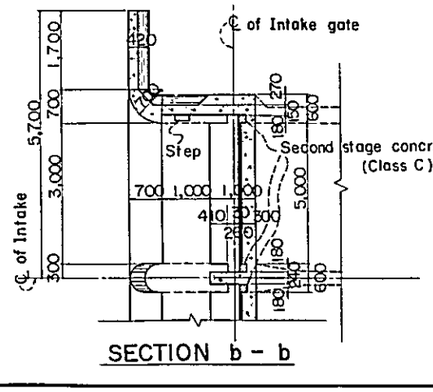


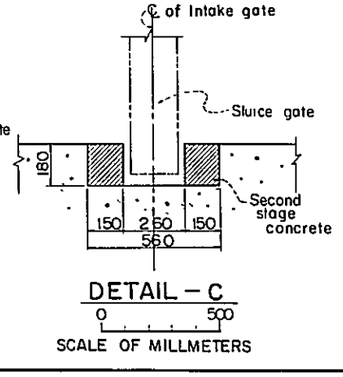


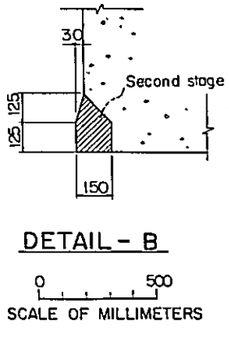


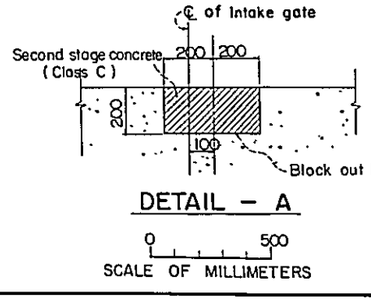












0 1,000 3,000 5,000
SCALE OF MILLIMETERS

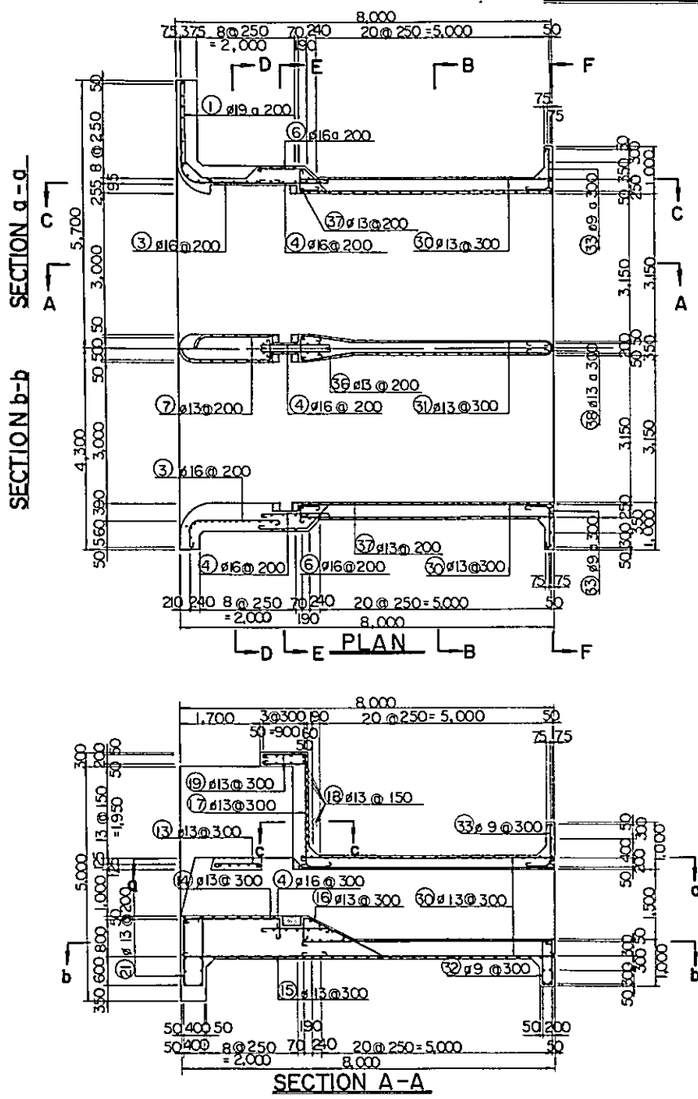
NOTES

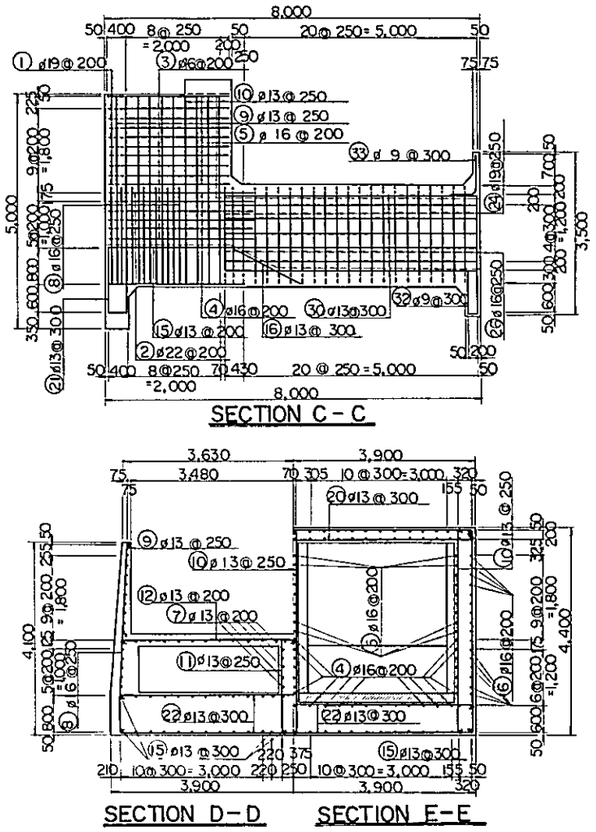
All dimensions are given in millimeters
All stations and elevations are given in meters.
Concrete design, except precast, based on a compressive strength of 80 kg/cm²
Chamfer all exposed corners 20 mm, unless otherwise shown.
For strength and aggregate size of concrete, see specifications.
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
Use 250 mm rubber water stop.
Provide 10 mm~20 mm elastic filler in all expansion joints at all concrete contact areas
Class 'A' concrete to be placed at all portion unless otherwise shown.
See Drawing D-11 for the general location of intake
See Drawing D-16 for reinforcement

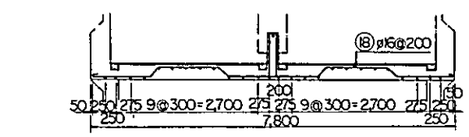
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
DIVERSION DAM NO.2 INTAKE PLAN, PROFILE AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

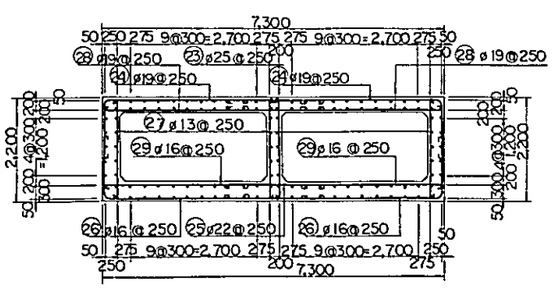
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D - 15

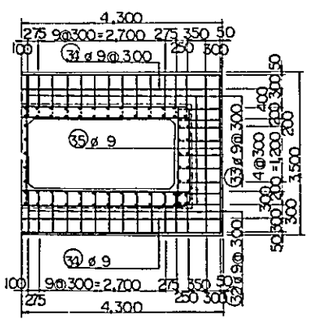
REINFORCEMENT OF INTAKE



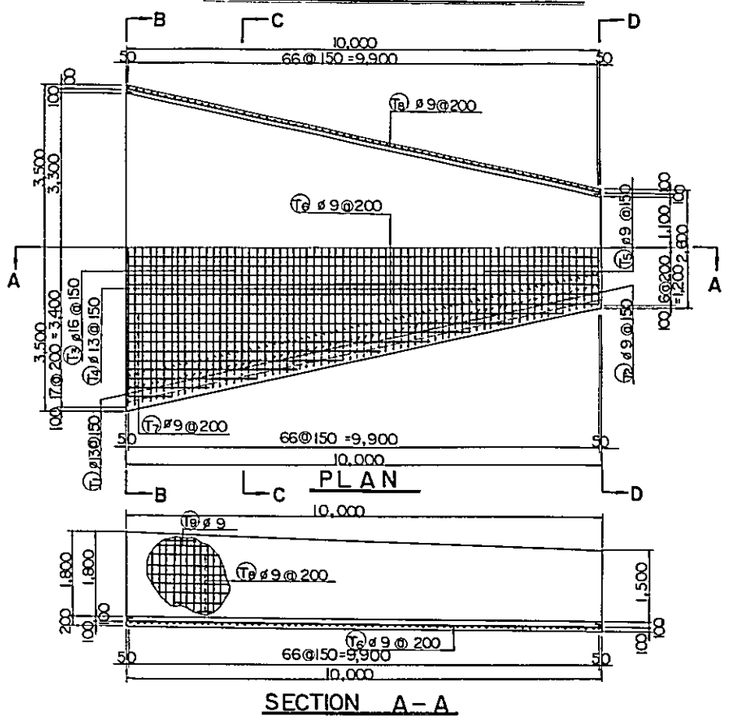


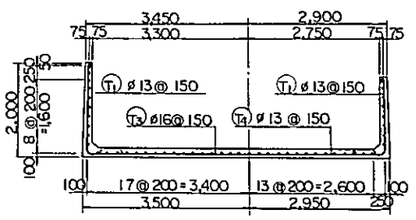


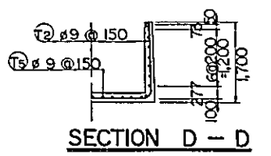




REINFORCEMENT OF TRANSITION







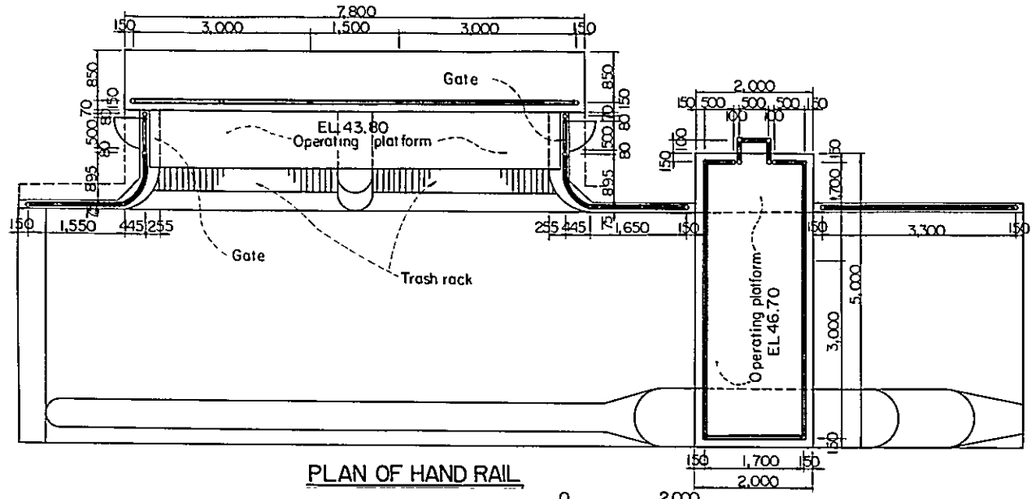
SCALE OF MILLIMETERS 0 1,000 5,000

NOTES

All dimensions are given in millimeters
See Drawing D-15 for plan and profile.
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth
Lap all bars 30 diameters at splices
All reinforcing steel to be plain bar with standard hook each end in addition to length shown
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
DIVERSION DAM NO. 2 INTAKE REINFORCEMENT SHEET
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

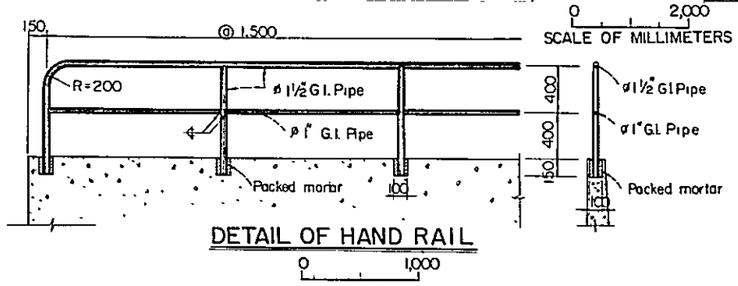
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D-16



PLAN OF HAND RAIL

0 2,000

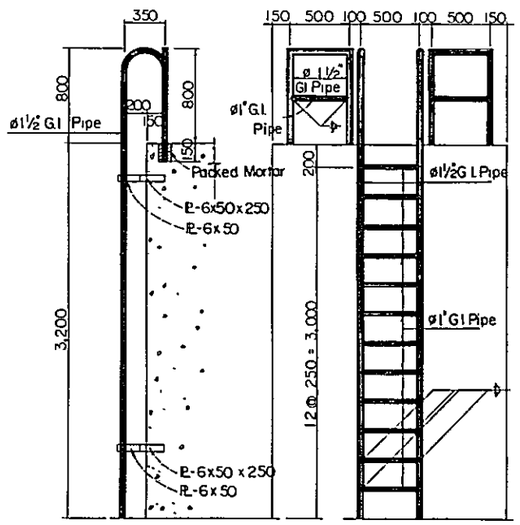
SCALE OF MILLIMETERS



DETAIL OF HAND RAIL

0 1,000

SCALE OF MILLIMETERS



SIDE VIEW OF STAIR

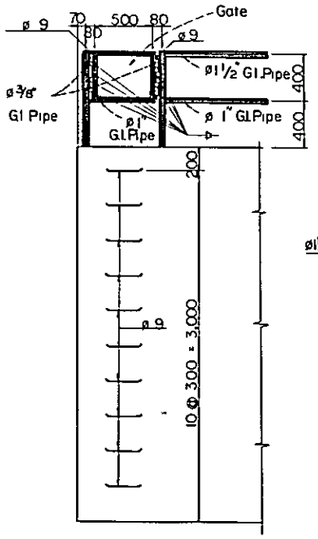
0 1,000

SCALE OF MILLIMETERS

FRONT VIEW OF STAIR

0 1,000

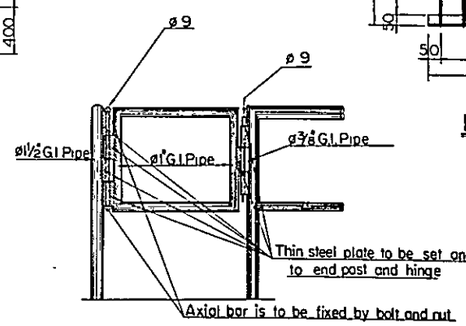
SCALE OF MILLIMETERS



FRONT VIEW OF STEPS AND GATE

0 1,000

SCALE OF MILLIMETERS

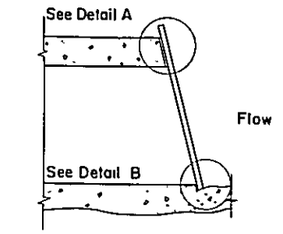


DETAIL OF GATE

0 500

SCALE OF MILLIMETERS

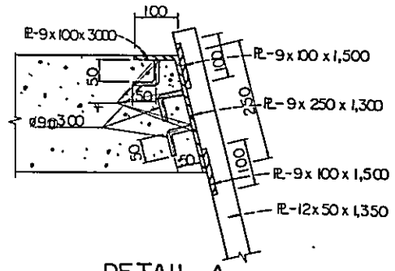
TRASH RACK



PROFILE

0 1,000

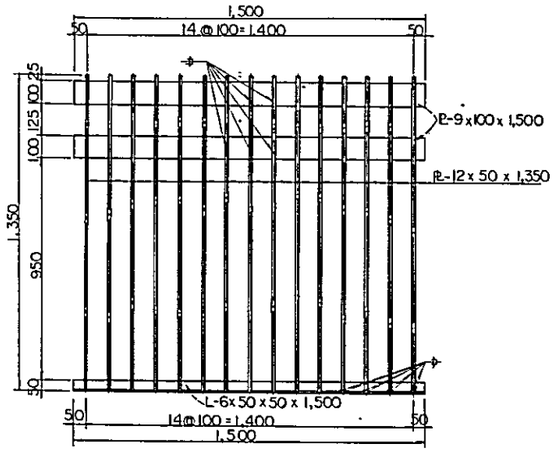
SCALE OF MILLIMETERS



DETAIL A

0 100 300

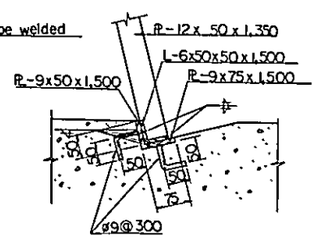
SCALE OF MILLIMETERS



FRONT VIEW OF TRASH RACK

0 500

SCALE OF MILLIMETERS



DETAIL B

0 300

SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters.

All welds to be full penetration continuous and smooth.

Non- corrosive studs and nuts

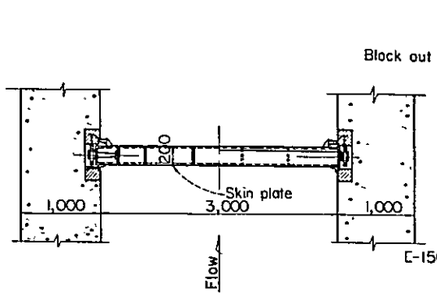
EXPLANATIONS

: Edge-fillet welds.

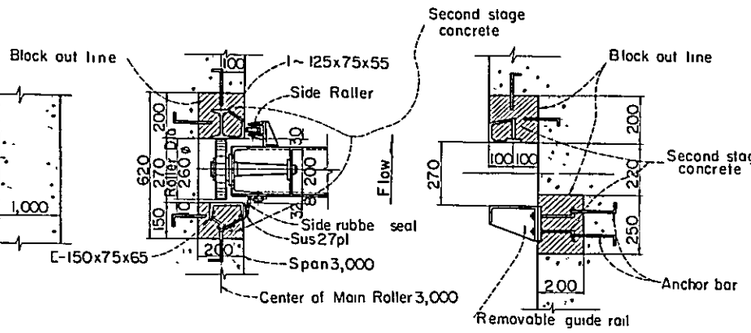
: Single-V butt joint welds both side.

THE PHILIPPINES RICE AND CORN PRODUCTION COORDINATING COUNCIL REGIONAL RICE PRODUCTION CENTER SANMIGUEL - ALANGALANG DIVERSION DAM NO.2 DETAILS OF HAND RAIL AND TRASH RACK OVERSEAS TECHNICAL COOPERATION AGECY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D - 17

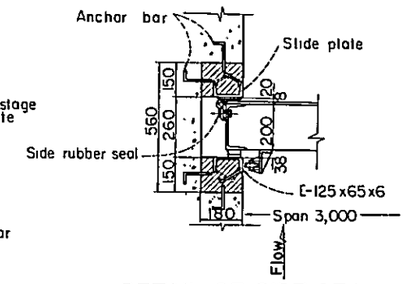
SCOURING SLUICEWAY GATE



SECTION B–B



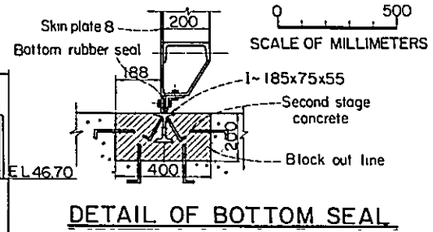
DETAIL OF SIDE SEAL



DETAIL OF SIDE SEAL

0 500

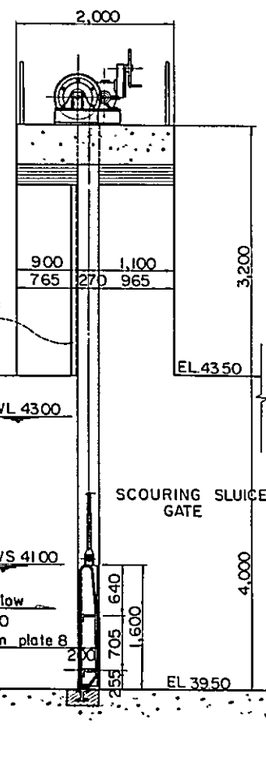
SCALE OF MILLIMETERS

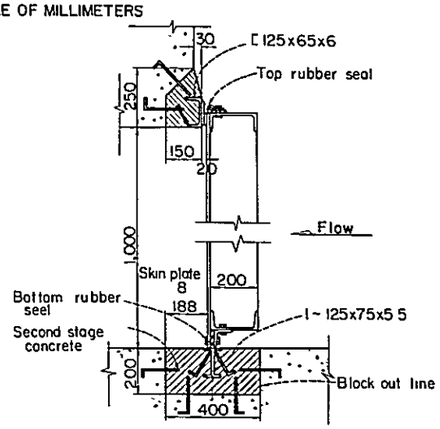


DETAIL OF BOTTOM SEAL

0 500

SCALE OF MILLIMETERS

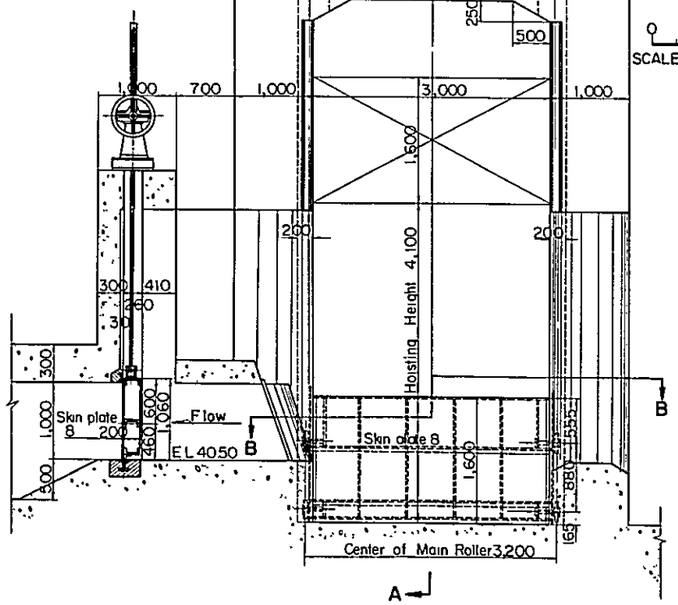




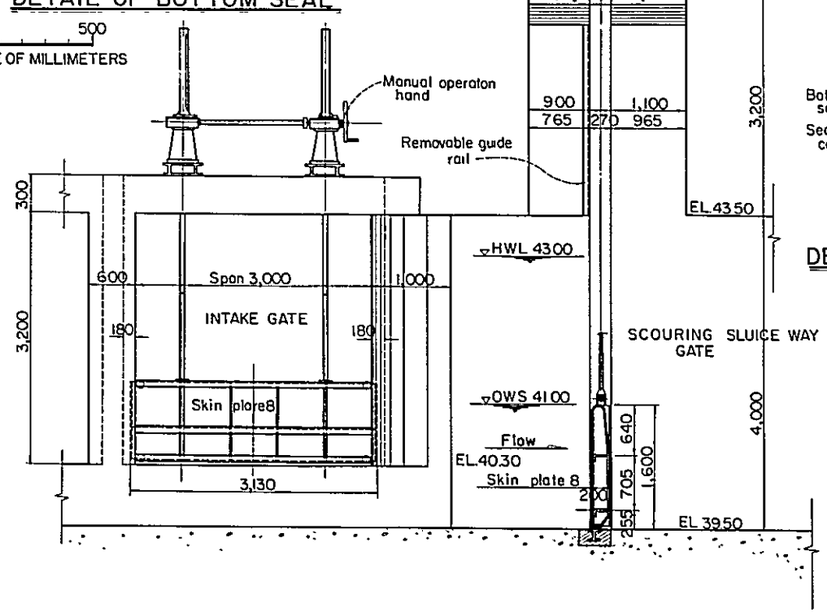
DETAIL OF TOP AND BOTTOM SEAL

0 500

SCALE OF MILLIMETERS



FRONT VIEW OF SLUICEWAY GATE



SECTION A–A

NOTES

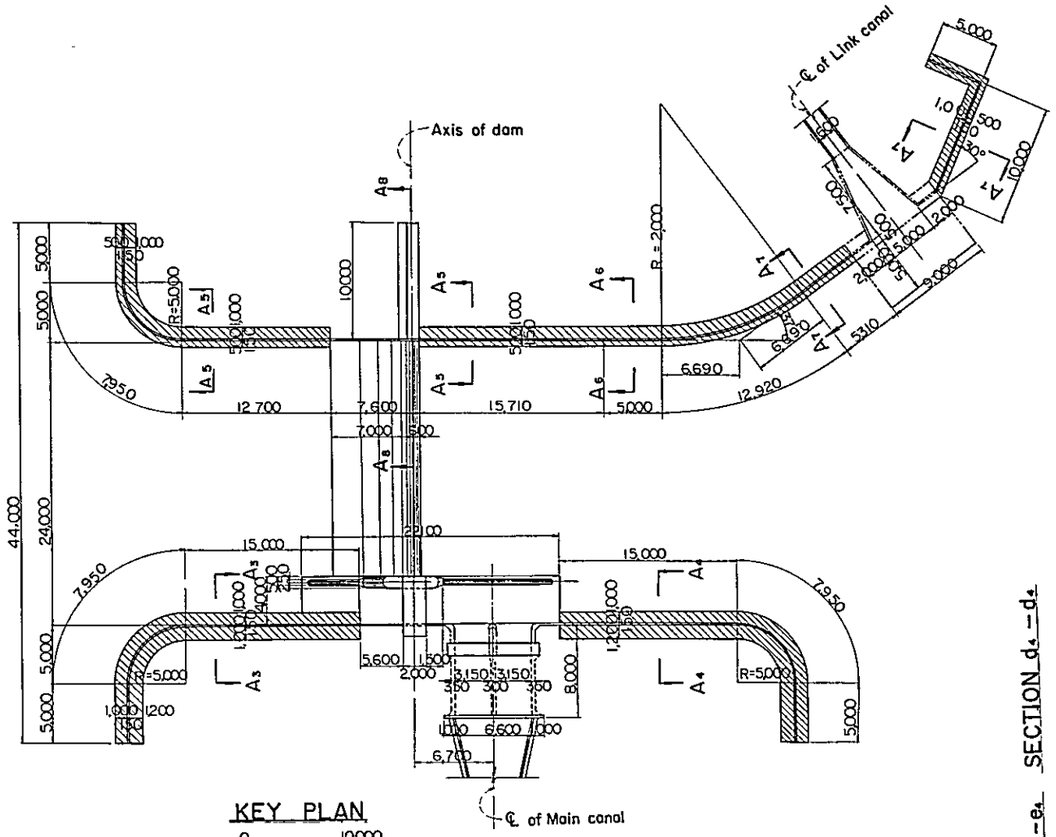
All dimensons are given in millimeters
Allstations and elevations are given in meters
Welding H-beam and ete. shownin this drawing may be substituted by H-beam and etc. with adeguate market size.
All welds to be full penetration continuous and smooth

0 1,000 3,000

SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
DIVERSION DAM NO. 2
INSTALL ASSEMBIY OF GATES
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

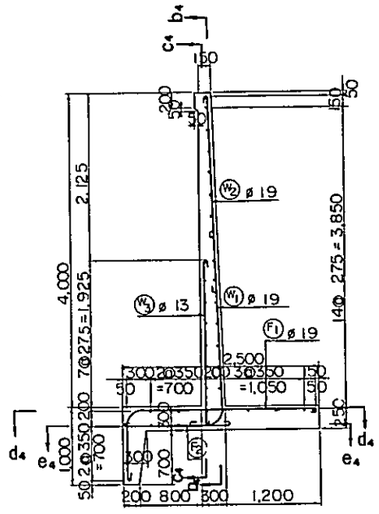
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D – 18

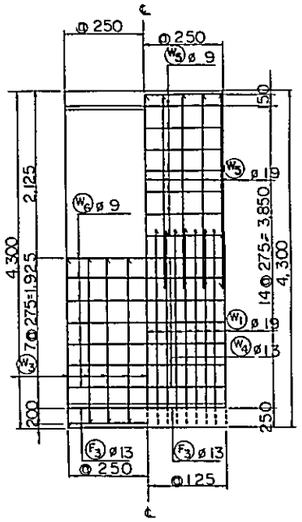


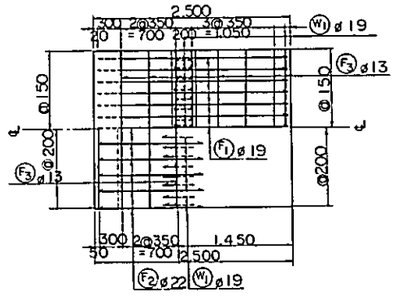
KEY PLAN

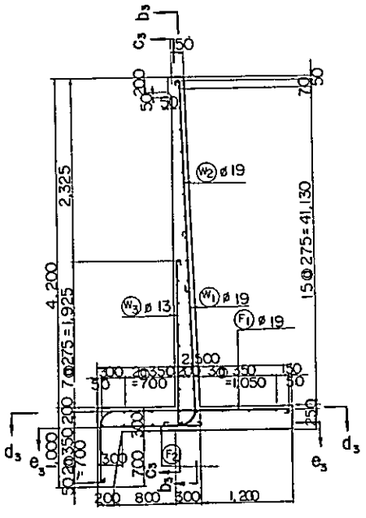
0 10,000

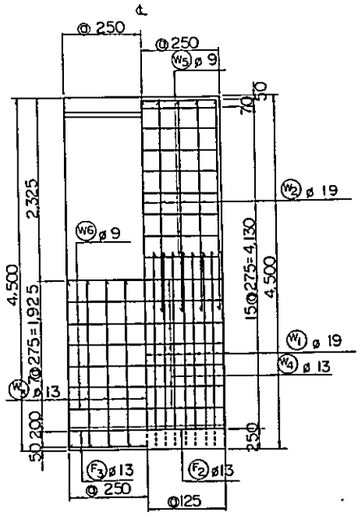
SCALE OF MILLIMETERS

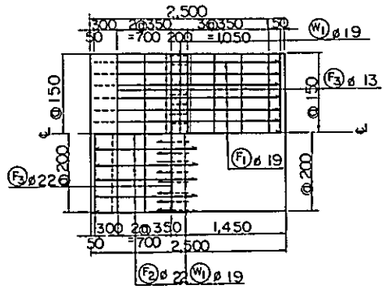


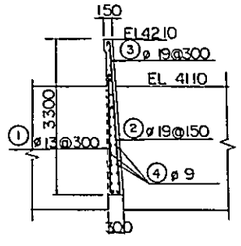












SECTION A8 – A8

0 1,000 3,000

SCALE OF MILLIMETERS

0 1,000 3,000

SCALE OF MILLIMETERS

NOTES

1. All dimensions are given in millimeters.
2. Reinforcements in the hatched portion are shown in this sheet.
3. Concrete design, except precast, based on a compressive strength of 80kg/cm².
4. Chamfer all exposed corners 20mm, unless otherwise shown
5. For strength and aggregate size of concrete, see specifications
6. Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
7. See Drawing D-20 for other section
8. Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50 mm except provide a clear distance of 100 mm from face of concrete placed against earth
9. Lap all bars 30 diameters at splices
10. All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
11. Hook with 180° bends, lengths of 10 bar diameters to be provided where shown
12. Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen
13. Provide 10mm~20mm elastic filler in all expansion joints at all concrete contact areas.

THE PHILIPPINES

RICE AND CORN PRODUCTION COORDINATING COUNCIL

REGIONAL RICE PRODUCTION CENTER

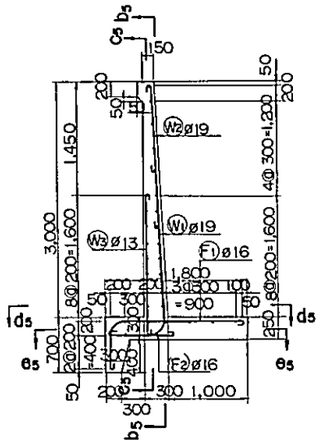
SANMIGUEL — ALANGALANG

DIVERSION DAM NO.2 RETAINING WALL REINFORCEMENT SHEET (I)

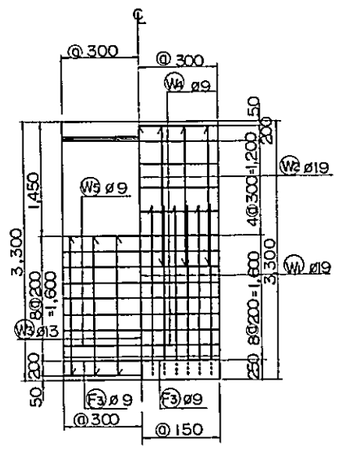
OVERSEAS TECHNICAL COOPERATION AGENCY

GOVERNMENT OF JAPAN

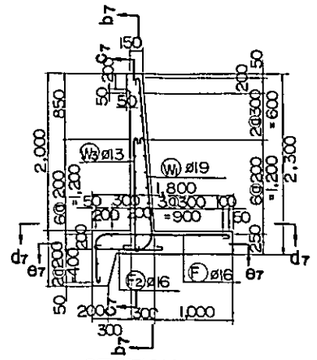
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 2	DRAWING NO	D — 19



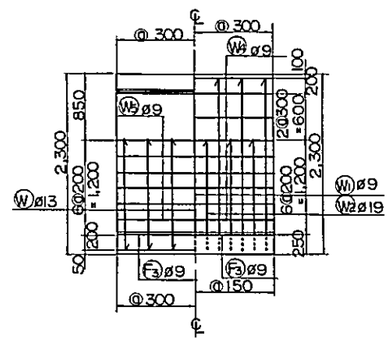
SECTION A5 – A5



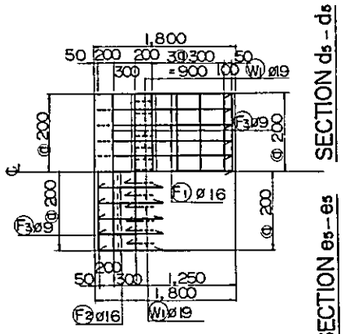
SECTION c5–c5 SECTION b5–b5



SECTION A7–A7

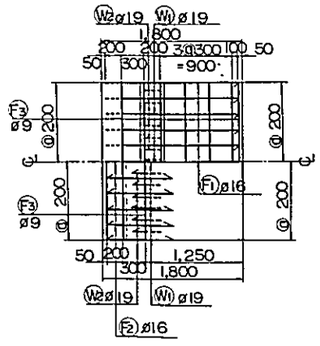


SECTION c7–c7 SECTION b7–b7



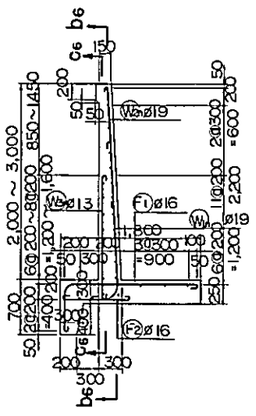
SECTION d5 – d5

SECTION e5–e5

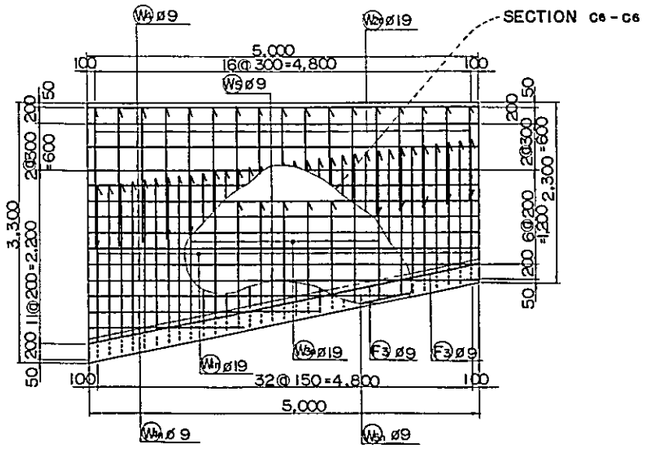


SECTION d7–d7

SECTION e7–e7



SECTION A6 – A6



SECTION b6 – b6

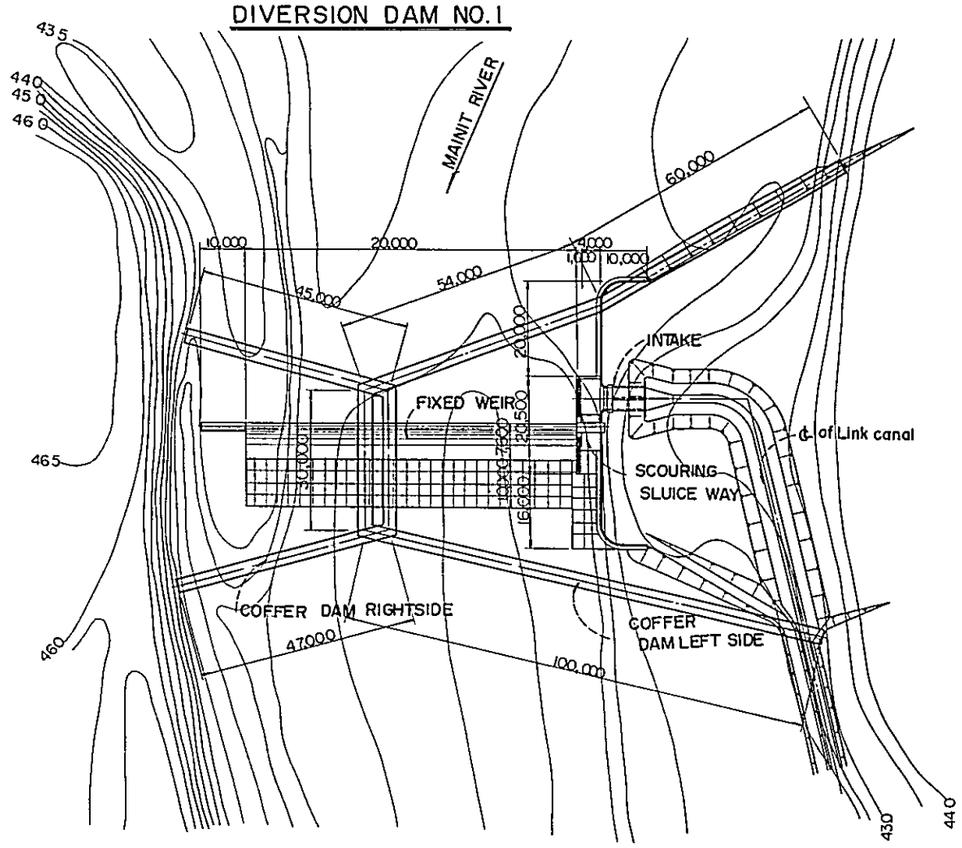
0 1,000 3,000
SCALE OF MILLIMETERS

NOTES

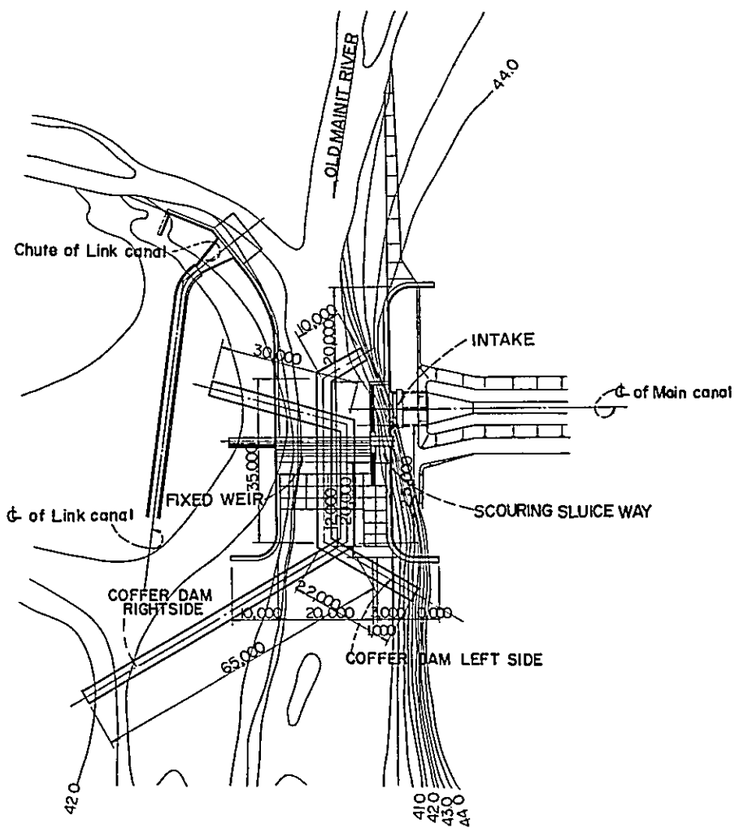
All dimensions are given in millimeters.
See Drawing D-19 for key plan.
Concrete design, except precast, based on a compressive strength of 80 kg/cm².
Chamfer all exposed corners 20 mm, unless otherwise shown
For strength and aggregate size of concrete, see specifications
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50 mm except provide a clear distance of 100 mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill
Provide 10mm–20mm elastic filler in all expansion joints at all concrete contact areas.
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen

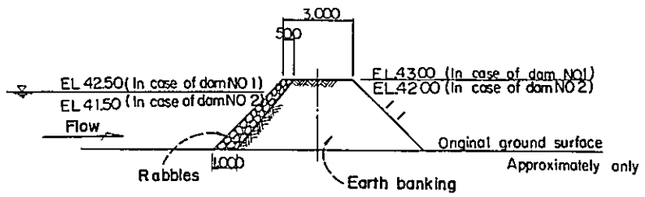
THE PHILIPPINES			
RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER SANMIGUEL – ALANGALANG			
DIVERSION DAM NO. 2 RETAINING WALL REINFORCEMENT SHEET (2)			
OVERSEAS TECHNICAL COOPERATON AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO	2 OF 2	DRAWING NO	D – 20

DIVERSION DAM NO.1



DIVERSION DAM NO.2





TYPICAL SECTION OF COFFER DAM

0 5,000 10,000
SCALE OF MILLIMTERS

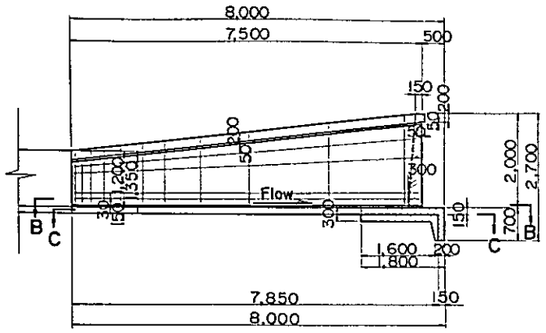
0 10 20 30 40 50
SCALE OF METERS

NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters.

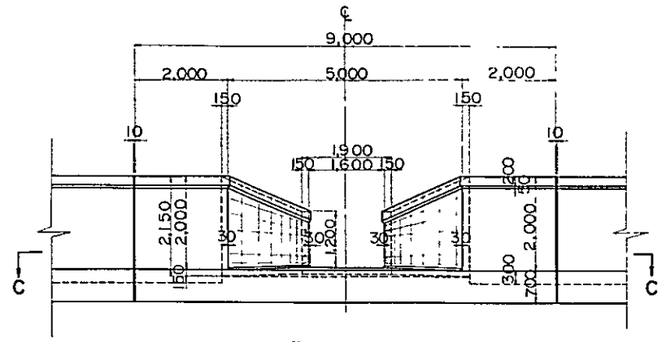
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
DIVERSION DAMS
PLAN OF CONSTRUCTION WORK
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D ~ 21



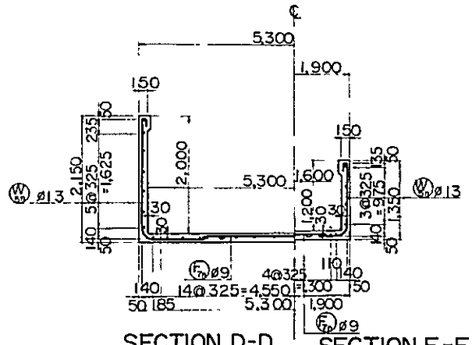
PROFILE

0 3,000
SCALE OF MILLIMETERS



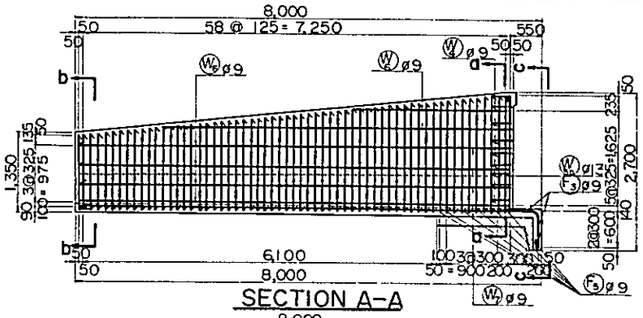
FRONT VIEW

0 2,000
SCALE OF MILLIMETERS

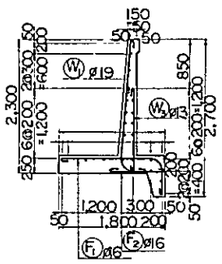


SECTION D-D

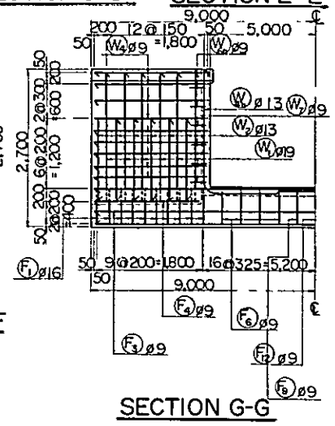
SECTION E-E



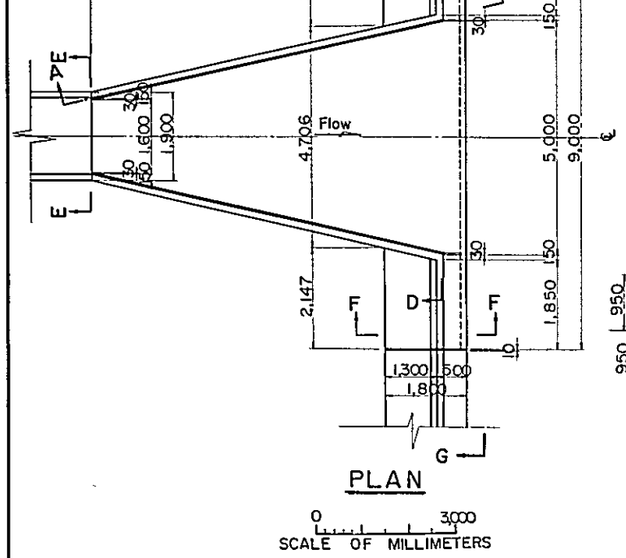
SECTION A-A



SECTION F-F

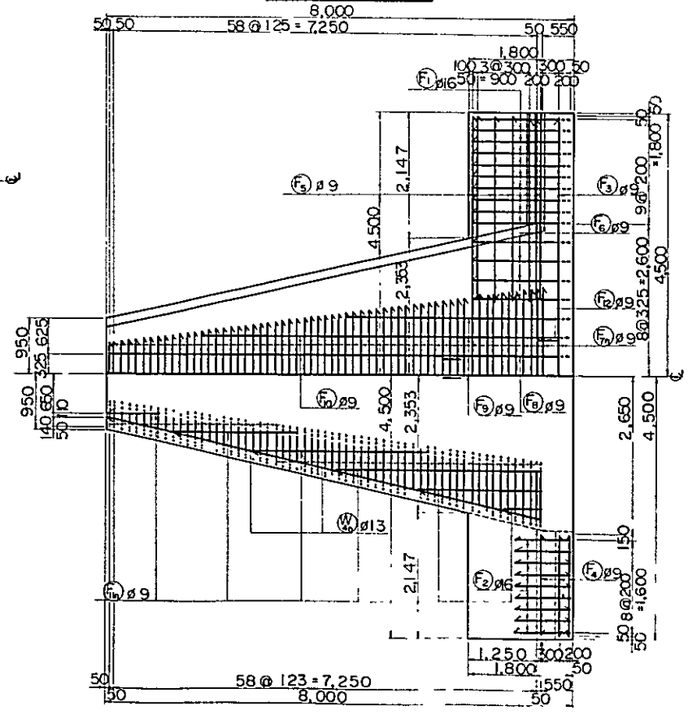


SECTION G-G



PLAN

0 3,000
SCALE OF MILLIMETERS



SECTION B-B

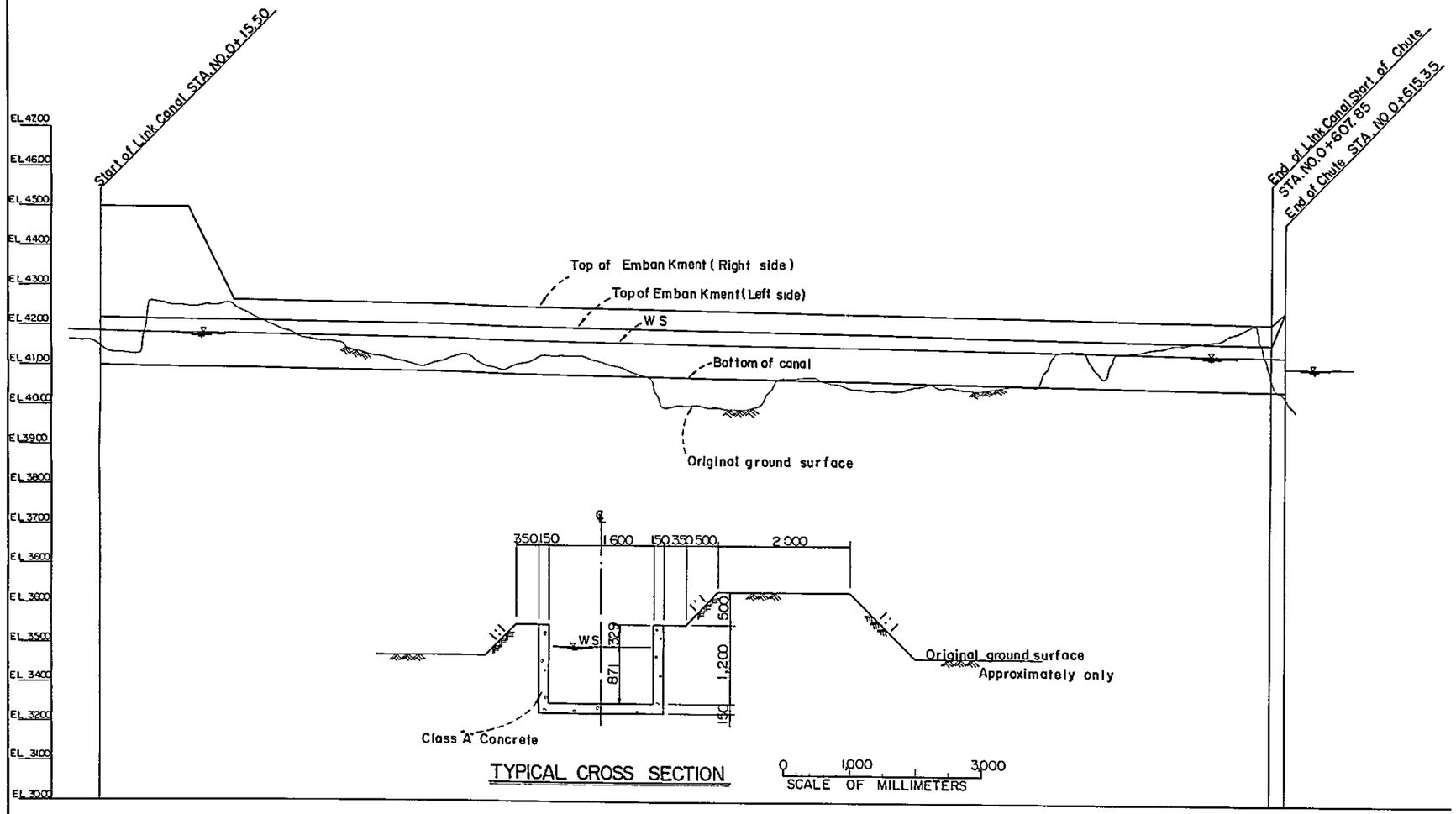
SECTION C-C

0 1,000 4,000
SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters.
See Drawing D – 1 for the general location of chute of Link canal
Concrete design, except precast, based on a compressive strength of 80kg/cm².
Chamfer all exposed corners 20mm, unless otherwise shown.
For strength and aggregate size of concrete, see specifications.
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen.
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
Class 'A' concrete to be placed at all portion unless otherwise shown.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL- ALANGALANG
CHUTE OF LINK CANAL
PLAN, PROFILE AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN
SCALE AS SHOWN DATE
SHEET NO OF DRAWING NO D – 22



GRADI: INTAKE OF DIVERSION DAM NO.1 — ℓ = 1:50 — LINK CANAL i = 1/100 ℓ = 592.35 — CHUTE ℓ = 7.50

S T A.	DIST. between S T A.	ACCUM DIST.	GROUND ELEV.	BOTTOM of CANAL	ELEV. of W.S.	DEPTH of EXCA	HEIGHT of EMBA
NO 0	0.00	0.00	41.66		42.000		
+10.00	10.00	10.00	41.65				
+15.50	5.50	15.50	41.48	40.999	41.870	0.631	
+20.00	4.50	20.00	41.35	40.995	41.866	0.506	
+35.00	15.00	35.00	41.30	40.980	41.851	0.470	
+40.00	5.00	40.00	42.62	40.975	41.846	1.795	
+60.00	20.00	60.00	42.49	40.955	41.826	1.685	
+80.00	20.00	80.00	42.57	40.935	41.806	1.785	
+100.00	20.00	100.00	42.07	40.915	41.786	1.305	
+120.00	20.00	120.00	41.68	40.895	41.766	0.935	
+138.00	18.00	138.00	41.58	40.877	41.748	0.853	
+140.00	2.00	140.00	41.44	40.875	41.746	0.715	
+160.00	20.00	150.00	41.22	40.855	41.726	0.515	
+180.00	20.00	180.00	40.98	40.835	41.706	0.295	
+200.00	20.00	200.00	41.29	40.815	41.686	0.625	
+211.00	11.00	211.00	41.01	40.804	41.675	0.356	
+220.00	9.00	220.00	40.89	40.795	41.666	0.245	
+240.00	20.00	240.00	41.27	40.775	41.640	0.645	
+260.00	20.00	260.00	41.26	40.755	41.626	0.655	
+280.00	20.00	280.00	40.97	40.735	41.606	0.385	
+295.00	15.00	295.00	40.68	40.720	41.591	0.110	
+300.00	5.00	300.00	40.00	40.715	41.586		0.565
+320.00	20.00	320.00	40.04	40.695	41.566		0.505
+340.00	20.00	340.00	39.89	40.675	41.546		0.635
+350.00	10.00	350.00	39.99	40.665	41.536		0.525
+360.00	10.00	360.00	40.69	40.655	41.526	0.185	
+380.00	20.00	380.00	40.72	40.635	41.506	0.235	
+400.00	20.00	400.00	40.44	40.615	41.486		0.025
+420.00	20.00	420.00	40.39	40.595	41.466		0.055
+437.00	17.00	437.00	40.58	40.578	41.449	0.152	
+440.00	3.00	440.00	40.32	40.575	41.446	0.085	
+460.00	20.00	460.00	40.40	40.555	41.426		0.005
+480.00	20.00	480.00	40.56	40.535	41.406	0.175	
+490.00	10.00	490.00	40.51	40.525	41.396	0.135	
+500.00	10.00	500.00	41.38	40.515	41.386	1.015	
+515.00	15.00	515.00	41.41	40.500	41.371	1.060	
+520.00	5.00	520.00	40.95	40.495	41.366	0.605	
+525.00	5.00	525.00	40.73	40.490	41.361	0.390	
+530.00	5.00	530.00	41.33	40.485	41.356	0.995	
+540.00	10.00	540.00	41.39	40.475	41.346	1.065	
+560.00	20.00	560.00	41.60	40.455	41.326	1.295	
+580.00	20.00	580.00	41.67	40.435	41.306	1.385	
+600.00	20.00	600.00	42.10	40.415	41.285	1.835	
+607.85	7.85	607.85	40.75	40.407	41.278	0.493	
+610.00	2.15	610.00	40.51				
+615.00	5.00	615.00	40.33				
+615.35	0.35	615.35					
+621.00	5.65	621.00	39.91				

CURVE: IP1 IP2 IP3 IP4 IP5 IP6

NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters

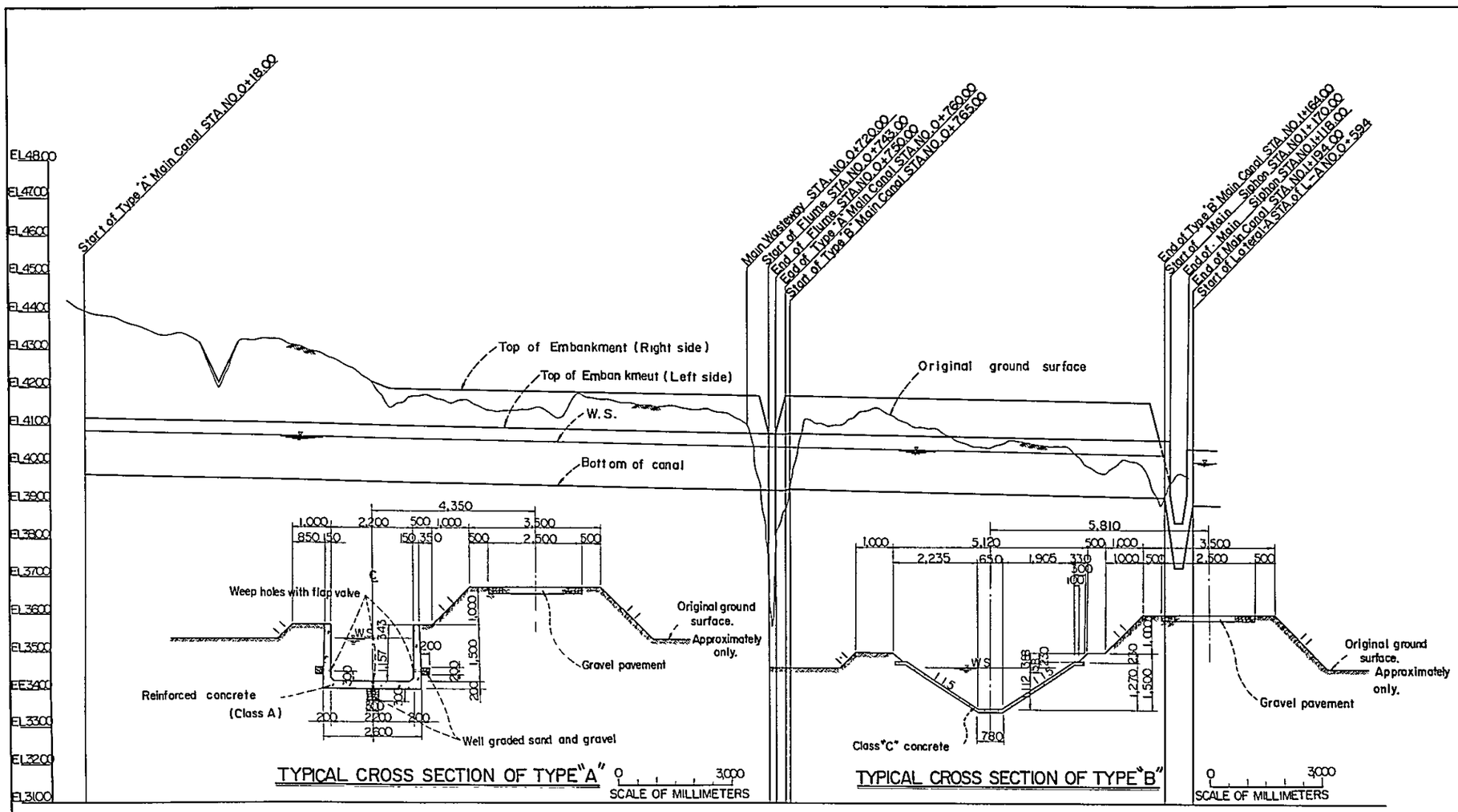
Horizontal scale 0 50 SCALE OF METERS
Vertical scale 0 1 2 SCALE OF METERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG

LINK CANAL
PROFILE

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO.	OF	DRAWING NO.	D – 23



TYPICAL CROSS SECTION OF TYPE "A"

0 3000
SCALE OF MILLIMETERS

TYPICAL CROSS SECTION OF TYPE "B"

0 3000
SCALE OF MILLIMETERS

CURVE	S T A.	DIST. between STA	ACCUM DIST.	GROUND ELEV.	BOTTOM OF CANAL	ELEV. of W S.	DEPTH of EXCA	HEIGH of EMBA	GRADL
	NO. 0	0 00	0.00	44.29		41 000			INTAKE OF DAM No.2
	+18.00	18.00	18.00	44.03	39723	40880	4 507		ℓ=180
	+20.00	2.00	20.00	44.02	39722	40879	4 498		
	+40.00	2000	4000	43 92	39.711	40868	4409		MAIN CANAL TYPE "A" I=1/1800 ℓ=725 00
	+60.00	20.00	6000	43 76	39 700	40.857	4 260		
	+80.00	20.00	80.00	43 58	39689	40.846	4 091		
	+100.00	20.00	10000	43.41	39.677	40834	3 823		
	+120.00	2000	120.00	43 47	39666	40 823	4 004		
	+140.00	20.00	14000	43 21	39655	40812	3 755		
	+160.00	2000	16000	42 00	39644	40801	2 556		
	+180.00	20.00	18000	43 21	39633	40790	2.777		
	+200.00	2000	200.00	43.28	39622	40779	3 858		
	+220.00	2000	22000	43.33	39611	40.768	3 919		
	+240.00	2000	240.00	43 15	39600	40757	3 750		
	+260.00	20.00	26000	43 01	39589	40.746	3 621		
	+280.00	2000	28000	42 80	39577	40734	3423		
	+300.00	20.00	300.00	42 54	39566	40723	3 174		
	+320.00	20.00	32000	42 18	39555	40712	2 825		
	+340.00	2000	340.00	41 51	39544	40701	2 166		
	+360.00	2000	36000	41 76	39533	40.690	2 447		
	+380.00	20 00	38000	41 85	39522	40679	2 528		
	+400.00	2000	400 00	41 65	39.511	40668	2 339		
	+420.00	2000	42000	41 71	39500	40657	2410		
	+440.00	2000	44000	41 46	39 489	40 646	2 171		
	+460.00	2000	46000	41,40	39477	40634	2 123		
	+480.00	2000	48000	41 43	39466	40623	2 164		
	+500.00	2000	50000	41 51	39455	40612	2 255		
	+520.00	20.00	52000	41 19	39444	40601	1 946		
	+540.00	2000	54000	41 87	39433	40590	2 637		
	+560.00	2000	560.00	41 71	39422	40579	2 488		
	+580.00	20.00	580 00	41 68	39411	40568	2 469		
	+600.00	2000	60000	41 61	39400	40557	2 410		
	+620.00	20 00	62000	41 54	39389	40546	2 351		
	+640.00	20 00	64000	41 56	39 377	40.534	2 383		
	+660.00	20 00	66000	41 44	39366	40523	2 274		
	+680.00	20.00	68000	41 45	39355	40512	2 295		
	+700.00	20.00	70000	41.34	39344	40501	2 196		
	+720.00	20 00	72000	41 05	39333	40490	1 917		
	+740.00	20 00	74000	38 38	39322	40479		0 742	FLUME
	+747.00	7 00	74700	35 70	39320	40477			
	+750.00	13 00	75000	38 17					TRANSITION
	+760.00	10.00	76000	38 81	39.311	40.468			
	+765.00	5.00	76500	39.41	39.353	40465	0.057		
	+780.00	15.00	78000	41 16	39345	40457	1 815		MAIN CANAL TYPE "B" I=1/800 ℓ=399 00
	+800.00	20 00	80000	41 06	39.334	40 446	1 726		
	+820.00	20.00	82000	41 03	39322	40434	1708		
	+840.00	20 00	84000	41 38	39311	40423	2069		
	+860.00	20.00	86000	41 48	39300	40 412	2180		
	+880.00	20.00	88000	41 19	39289	40401	1 901		
	+900.00	2000	90000	40.96	39 278	40390	1 682		
	+920.00	20.00	92000	40.95	39267	40379	1 683		
	+940.00	20 00	94000	4066	39256	40368	1 404		
	+960.00	20 00	96000	4046	39245	40357	1 215		
	+980.00	20.00	98000	4044	39234	40346	1 206		
	NO.1	20 00	1 00000	4064	39222	40 334	1418		
	+20.00	20.00	1 02000	4056	39211	40323	1.349		
	+40.00	20.00	104000	4048	39.200	40.312	1.280		
	+60.00	2000	1 06000	4048	39 189	40301	1.291		
	+80.00	2000	1 08000	3998	39.178	40 290	0802		
	+100.00	20.00	1 100.00	3973	39 167	40 279	0.563		
	+120.00	2000	1.12000	40.13	39.156	40268	0.974		
	+140.00	20.00	1140.00	3998	39145	40257	0 835		
	+160.00	20.00	1 160.00	38 89	39 134	40 246		0 244	MAIN SIPHON
	+164.00	4 00	1 164.00	39 10	39 131	40 243		0 031	ℓ=3000
	+170.15	6 13	1 170 15	39 53					
	+180.00	9 85	1 180.00	39 77					
	+194.00	14 00	1 194.00		38 940	40 052			

NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters

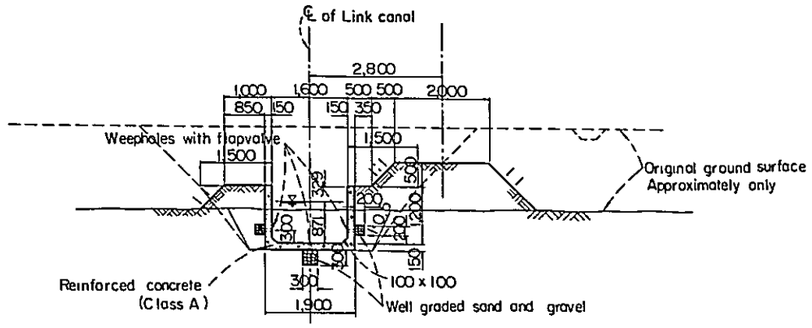
Horizontal scale 0 50 100 SCALE OF METERS
Vertical scale 0 1 2 SCALE OF METERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG

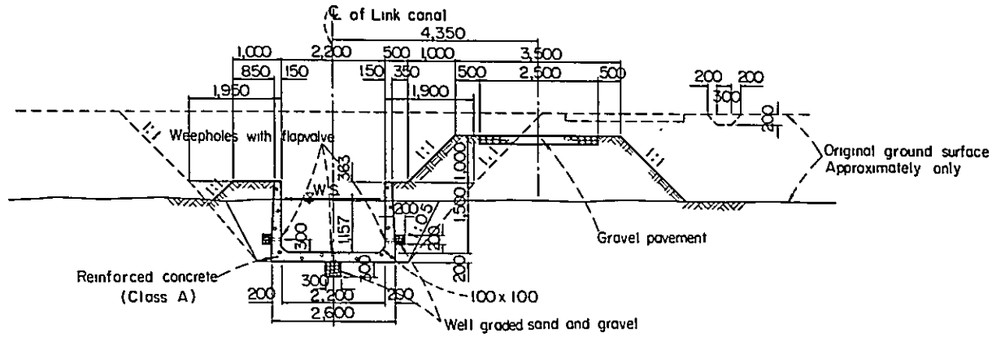
MAIN CANAL PROFILE

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

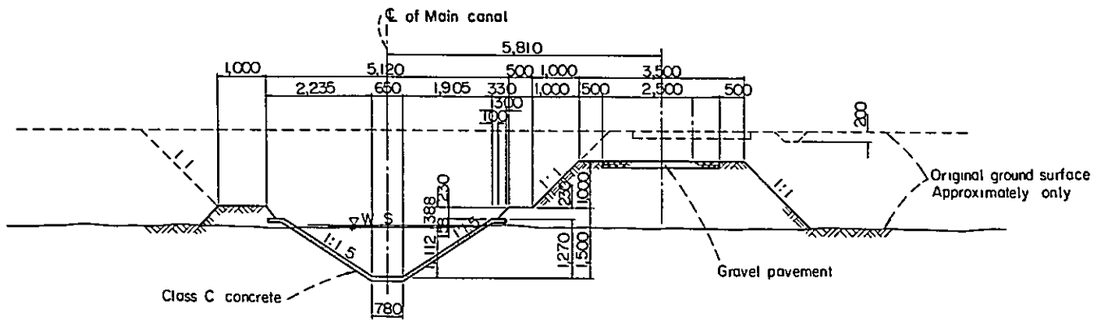
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D – 24



TYPICAL CROSS SECTION OF LINK CANAL



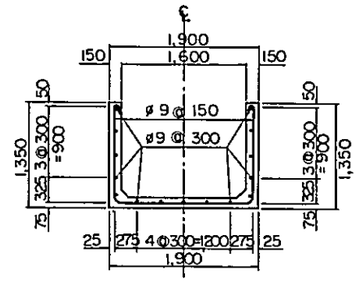
TYPICAL CROSS SECTION OF MAIN CANAL TYPE "A"



TYPICAL CROSS SECTION OF MAIN CANAL TYPE "B"

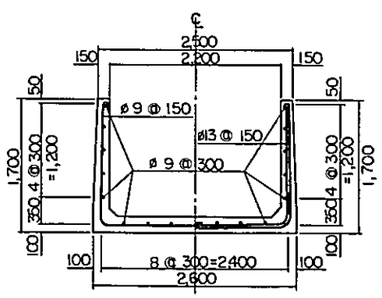
TABLE OF HYDRAULIC PROPERTIES

NAME OF CANAL	HYDRAULIC DEPTH	HYDRAULIC GRADIENT	SIDE SLOPE	BOTTOM WIDTH	VELOCITY	DIS-CHARGE	REMARKS
LINK CANAL	0 871	1/1,800	1 : 0	1.600	1,177	1,640	
MAIN CANAL TYPE "A"	1 157	1/1,800	1 : 0	2 200	1,073	2,730	
" " TYPE "B"	1 112	1/1,800	1 : 1.5	0 650	1, 059	2,730	



REINFORCEMENT OF LINK CANAL

0 1,000 2,000
SCALE OF MILLIMETERS



REINFORCEMENT OF MAIN CANAL

0 1,000 2,000
SCALE OF MILLIMETERS

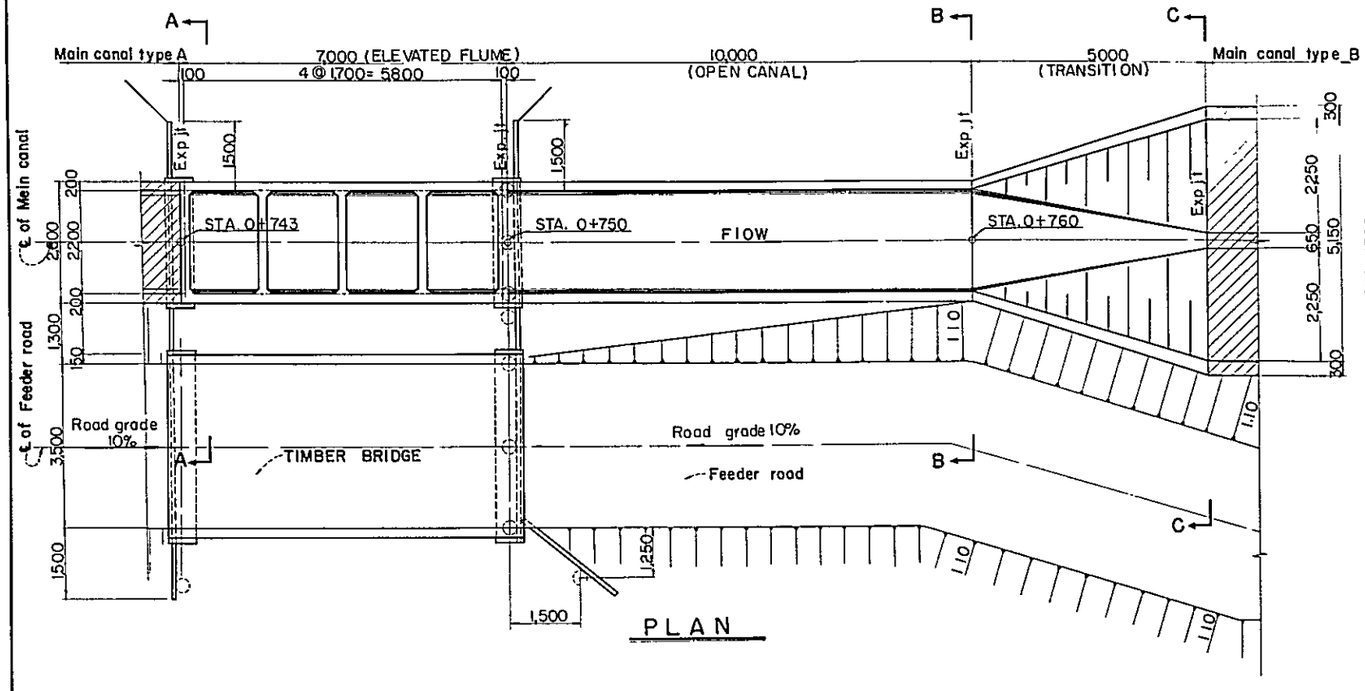
NOTES

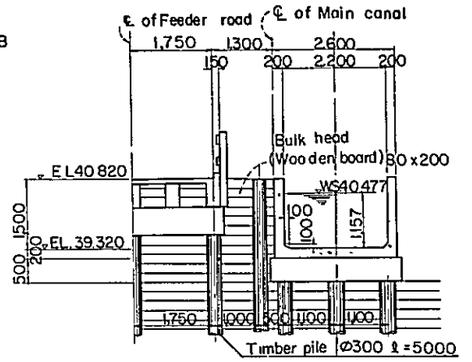
All dimensions are given in millimeters
Concrete design, except precast, based on a compressive strength of 80kg/cm²
Chamfer all exposed corners 20 mm, unless otherwise shown
For strength and aggregate size of concrete, see specifications.
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill
Provide 10mm~20 mm elastic filler in all expansion joints at all concrete contact areas
Non corrosive studs and nuts on flapvalves.
Transverse joints consist of contraction joint (cj) and expansion joint (Exp.jt) the former is to be used at every meter and the later is to be used at every meter

0 1,000 5,000
SCALE OF MILLIMETERS

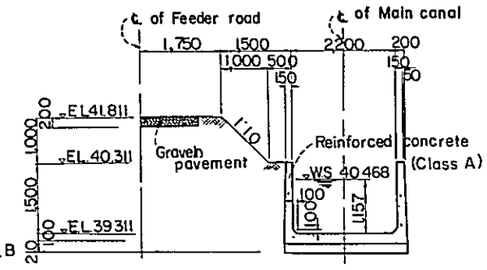
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
LINK AND MAIN CANAL TYPICAL CROSS SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D – 25

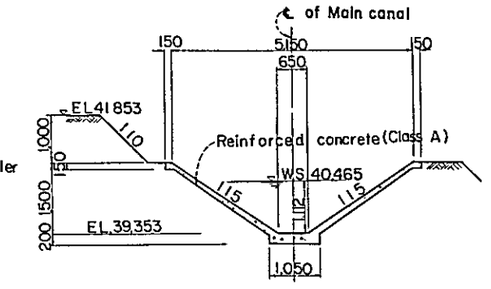




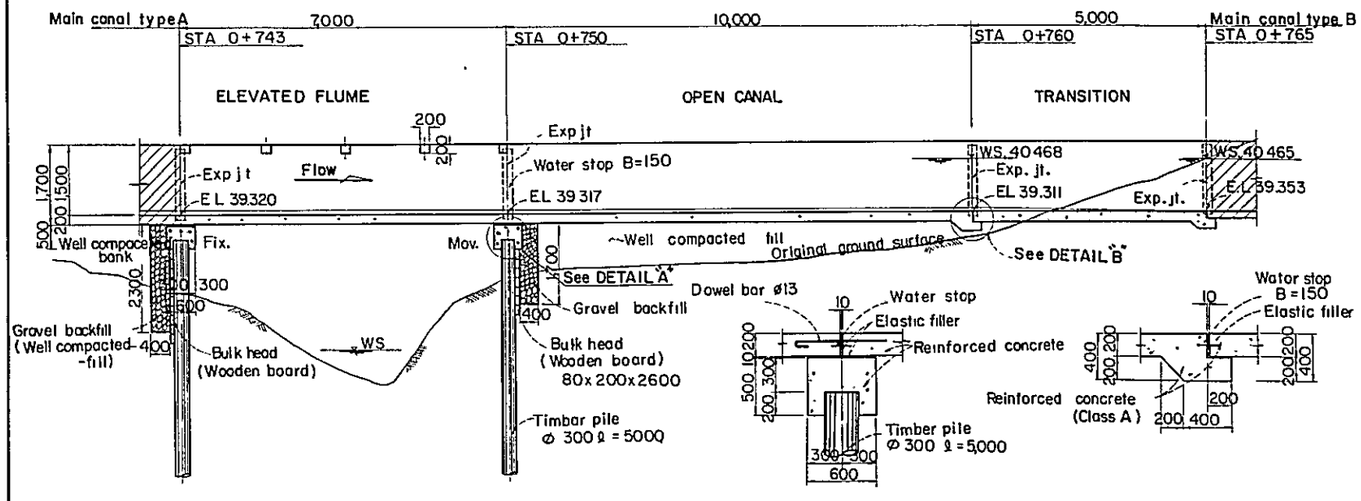
SECTION A-A



SECTION B-B



SECTION C-C



PROFILE

DETAIL A

DETAIL B

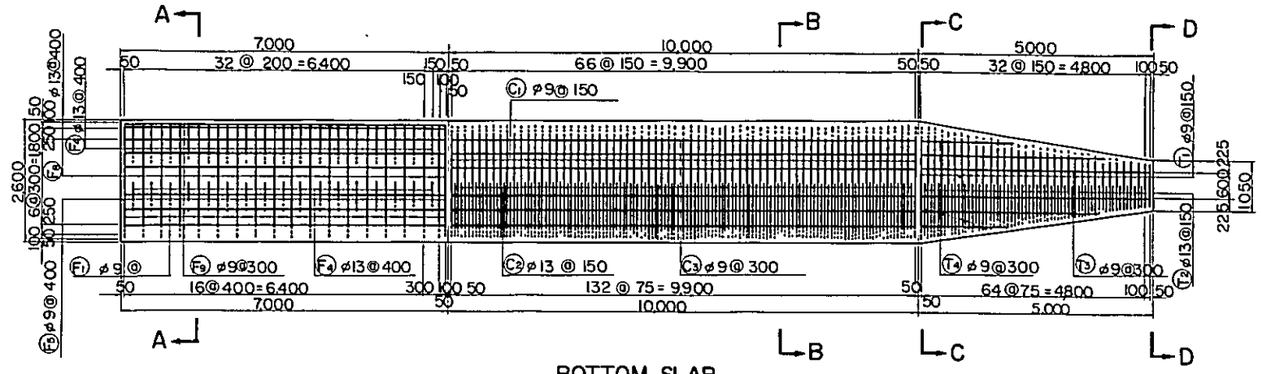
SCALE OF MILLIMETERS

NOTES

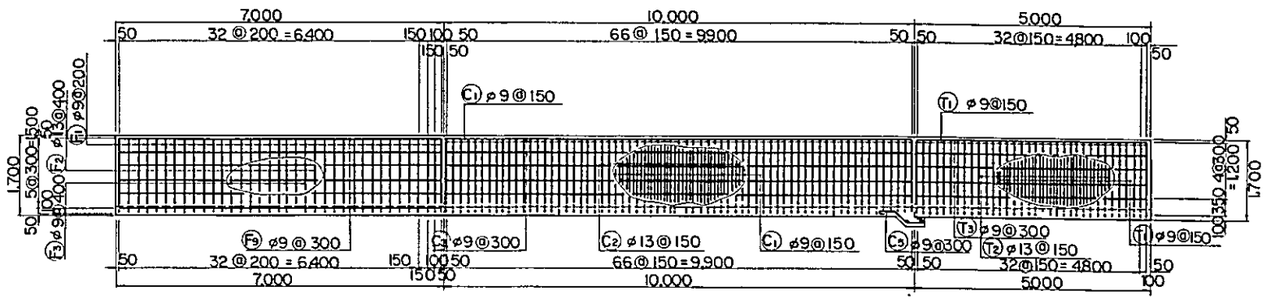
All dimensions are given in millimeters.
All stations and elevations are given in meters.
See Drawing D-27 for reinforcement.
See Drawing D-28 for TIMBER BRIDGE.
Concrete design, except precast, based on a compressive strength of 80kg/cm².
Chamfer all exposed corners, 20 mm, unless otherwise shown.
For strength and aggregate size of concrete, see specifications.
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
Use 150mm rubber water stop
Provide 10mm~20mm elastic filler in all expansion joints at all concrete contact areas

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL- ALANGALANG
ELEVATED FLUME
PLAN, PROFILE AND SECTONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

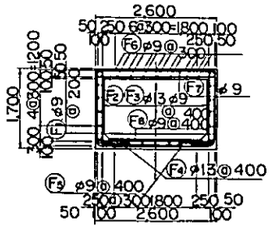
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D-26



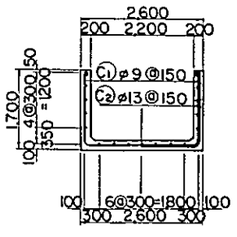
BOTTOM SLAB



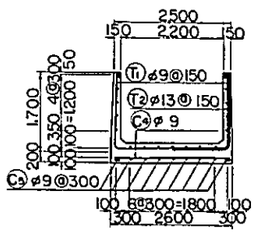
SIDE WALL



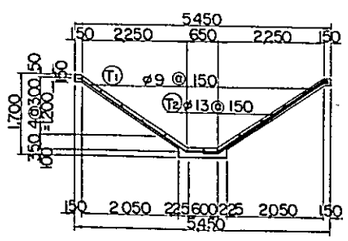
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

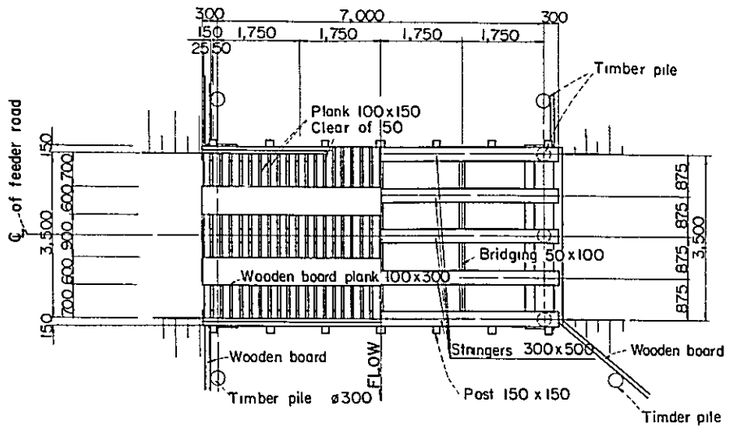
0 1,000 3,000 5,000
SCALE OF MILLIMETERS

NOTES

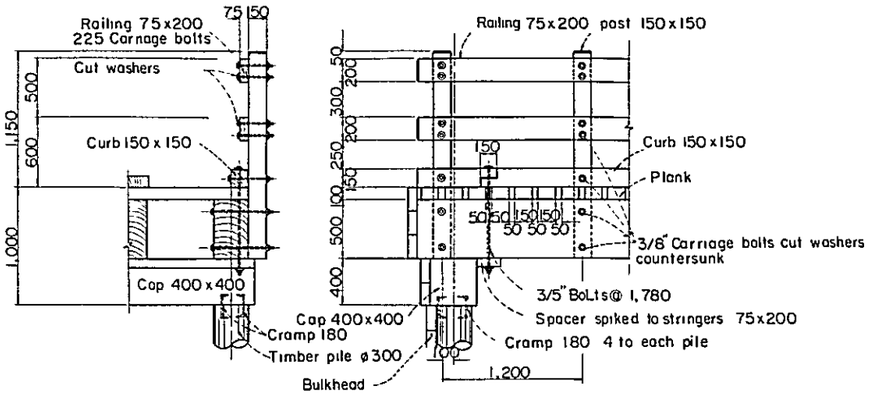
All dimensions are given in millimeters
See Drawing D-26 for plan and sections.
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provice a clear distance of 100mm from face of concrete placed against earth
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
ELEVATED FLUME REINFORCEMENT SHEET
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D - 27



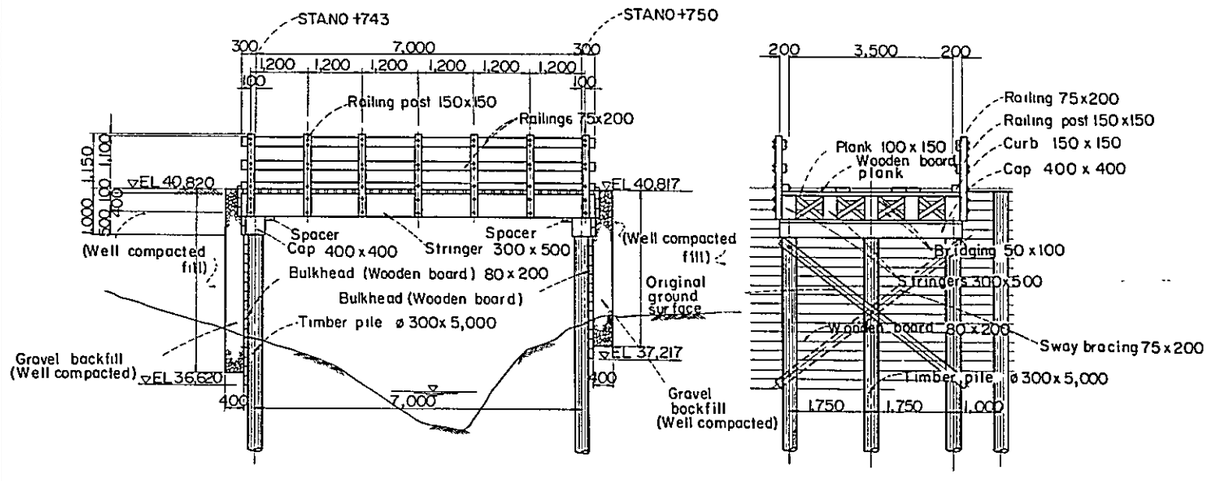
PLAN



RAILING-BULKHEAD-PILE ABUTMENT

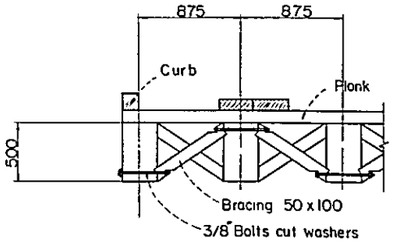
0 1000

SCALE OF MILLIMETERS



RROFILE

SECTION A-A



DETAIL OF BRIDGING

0 1,000

SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters
Allstations and elevations are given in meters
Bridge desighed for one lane of T-6 loading
All lumber to be treated.
Unit stress of timber and lumber

Bending	90 kg/cm²
Compression (columns)	70 kg/cm²
Bearing	20 kg/cm²
Horizontal shear	8 kg/cm²

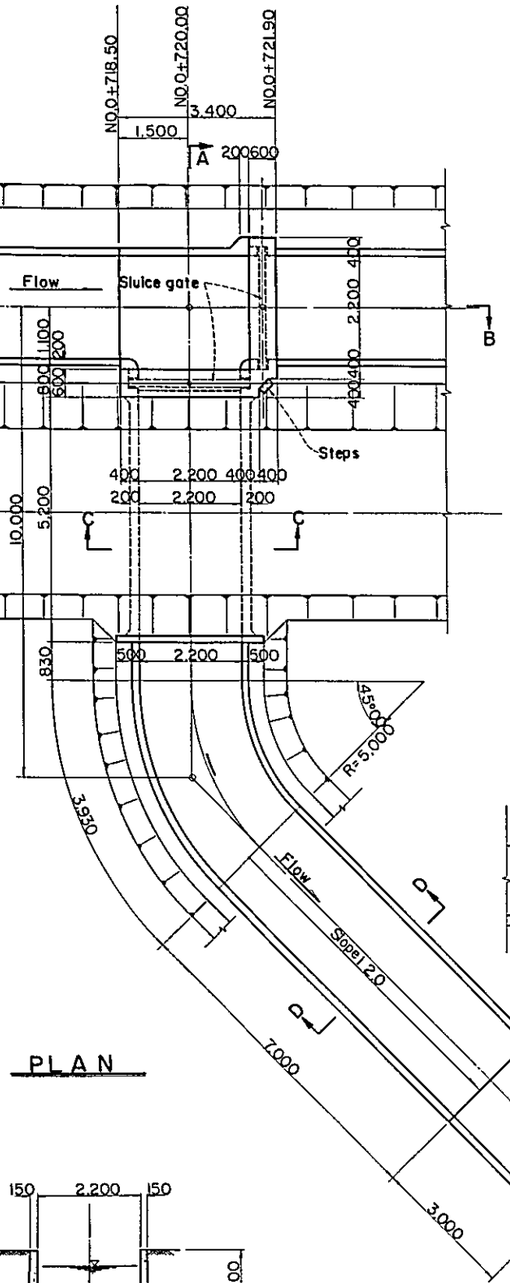
Non-corrosive studs and nuts

0 1,000 3,000 5,000

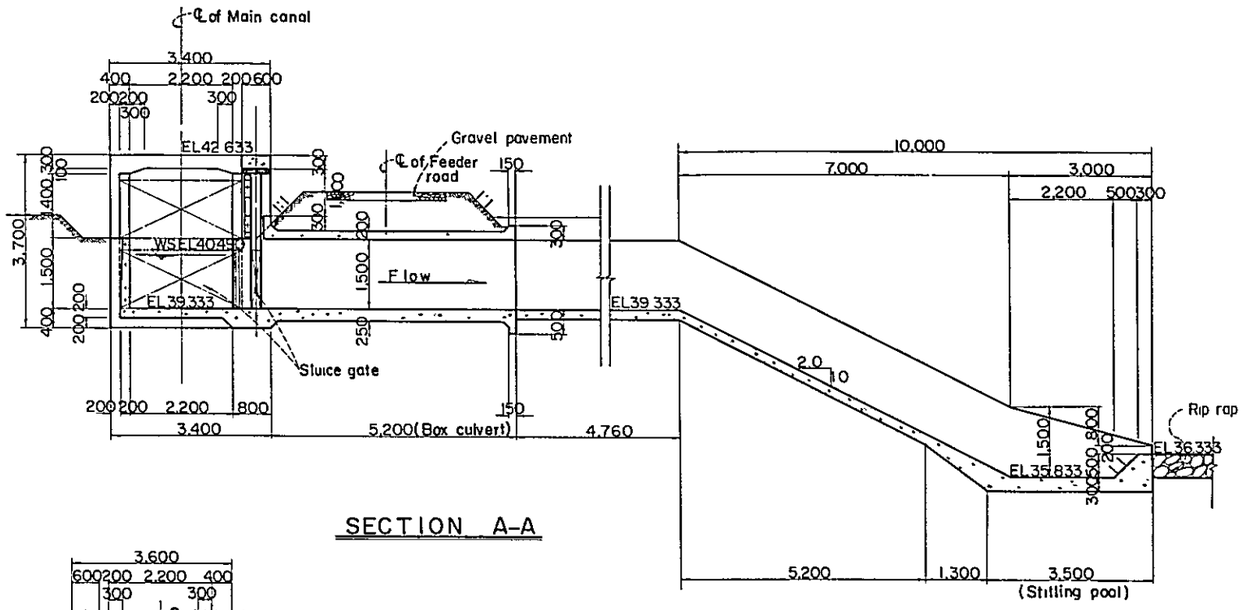
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
MAINTENANCE BRIDGE
PLAN, PROFILE AND DETAILS
OVERSEAS TECHNICAL COOPERATION AGECY
GOVERNMENT OF JAPAN

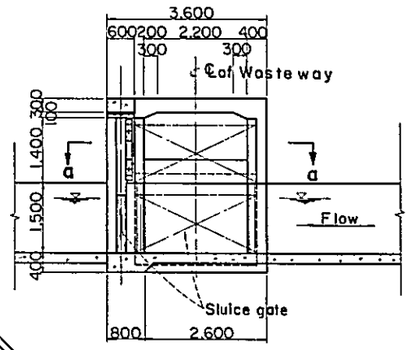
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO.	D – 28



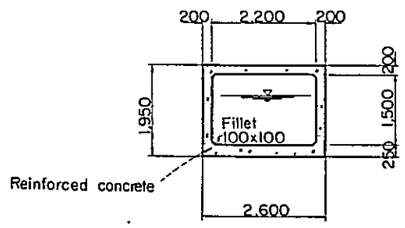
PLAN



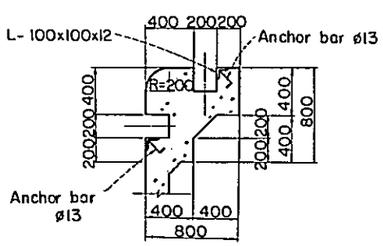
SECTION A-A



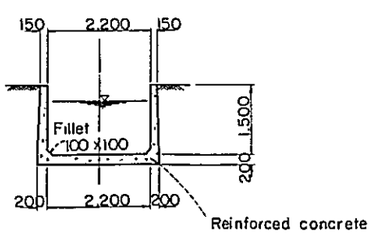
SECTION B-B



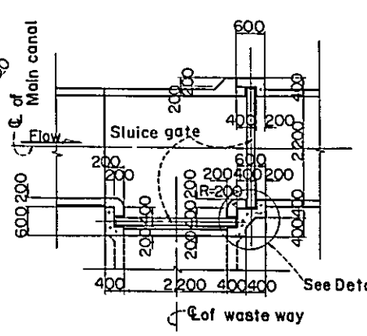
SECTION C-C



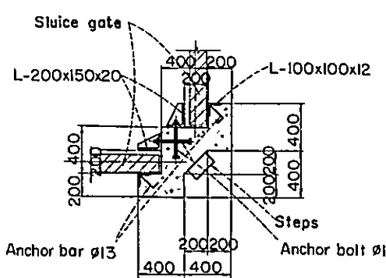
DETAIL B



SECTION D-D



SECTION a-a



DETAIL A

0 1000
SCALE OF MILLIMETERS

0 1000 3000 5000
SCALE OF MILLIMETERS

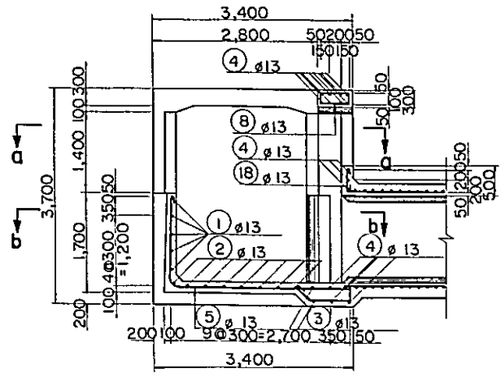
0 1000
SCALE OF MILLIMETERS

NOTES

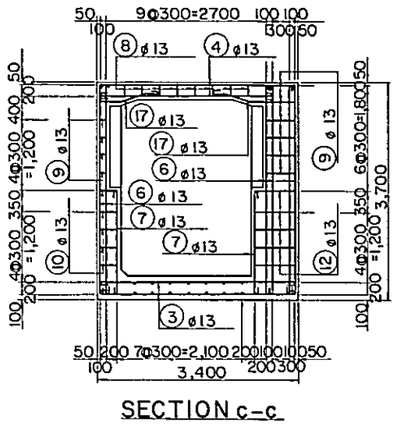
All dimensions are given in millimeters
All stations and elevations are given in meters
See Drawing D-30 for reinforcement.
Concrete design, except precast, based on a compressive strength of 80 kg/cm².
Chamfer all exposed corners 20mm, unless otherwise shown.
For strength and aggregate size of concrete, see specifications
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill
All welds to be full penetration continuous and smooth.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
MAIN WASTE WAY
PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

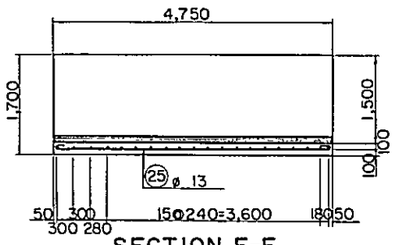
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO.	D-29



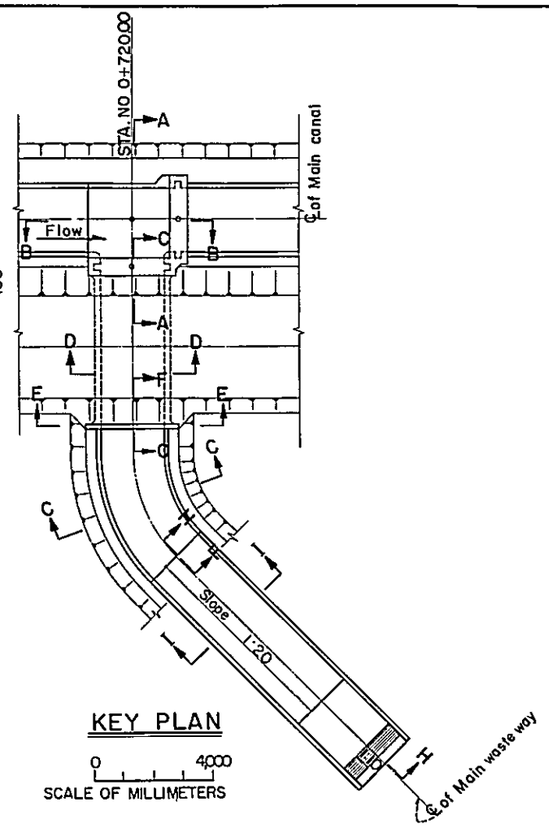
SECTION A-A



SECTION c-c



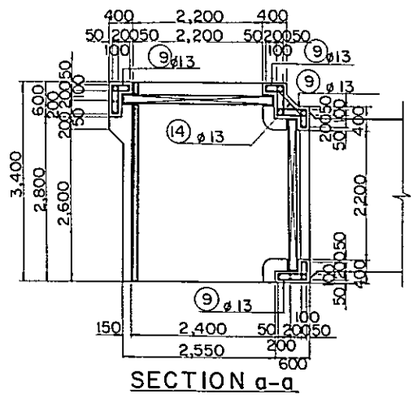
SECTION F-F



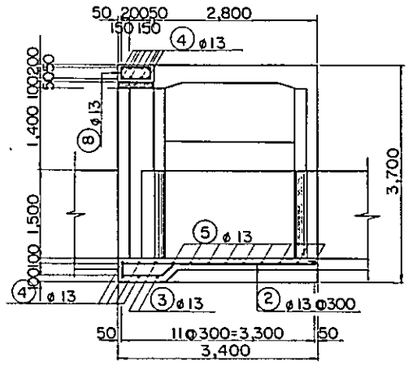
KEY PLAN

0 4,000

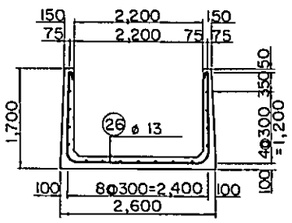
SCALE OF MILLIMETERS



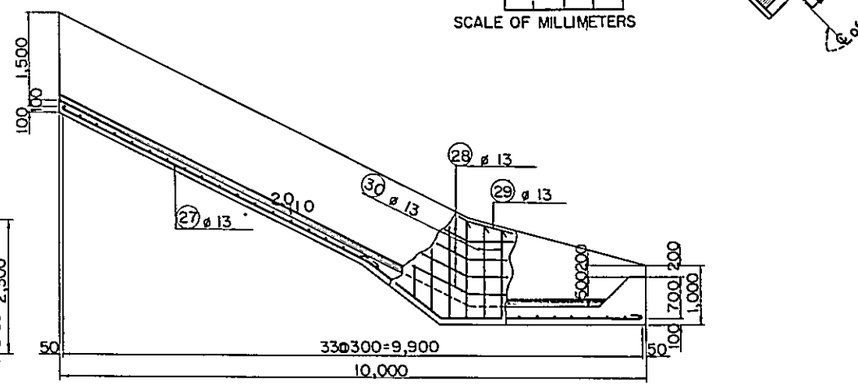
SECTION a-a



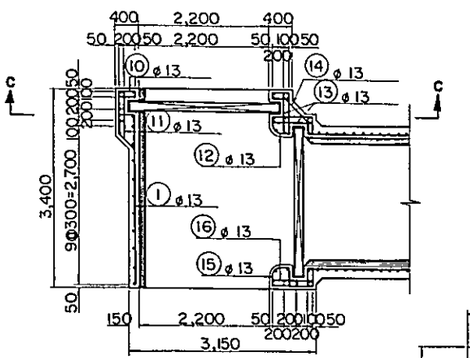
SECTION B-B



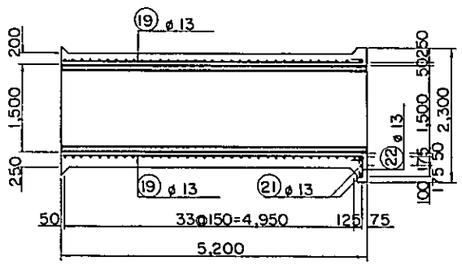
SECTION G-G



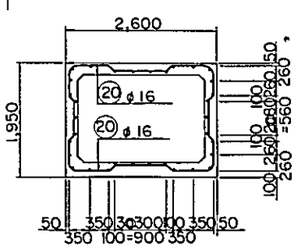
SECTION H-H



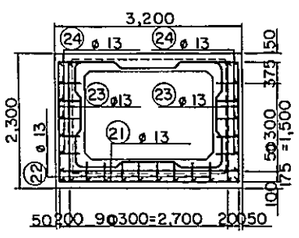
SECTION b-b



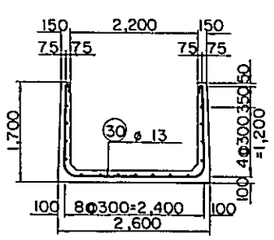
SECTION C-C



SECTION D-D



SECTION E-E



SECTION I-I

0 1,000 4,000

SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters

Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth

Lap all bars 30 diameters at splices

All reinforcing steel to be plain bar with standard hook each end in addition to length shown.

Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.

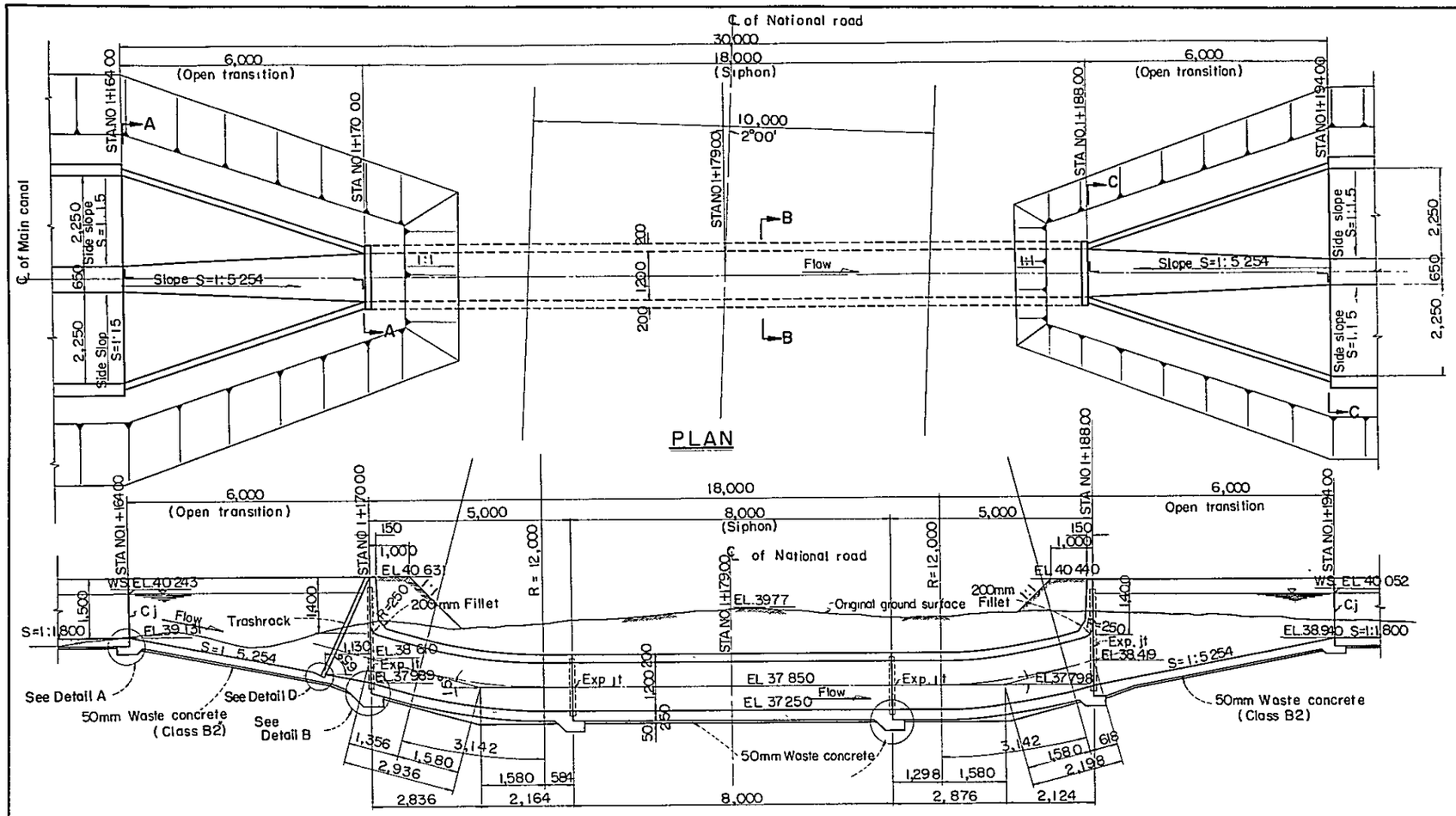
Use 10 5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen

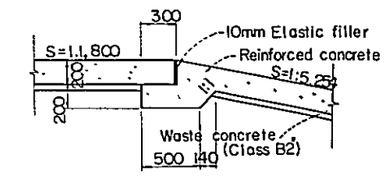
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG

MAIN WASTE WAY REINFORCEMENT SHEET

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D – 30

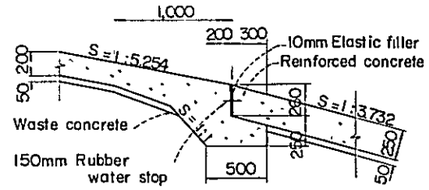




DETAIL A

0 1,000

SCALE OF MILLIMETERS



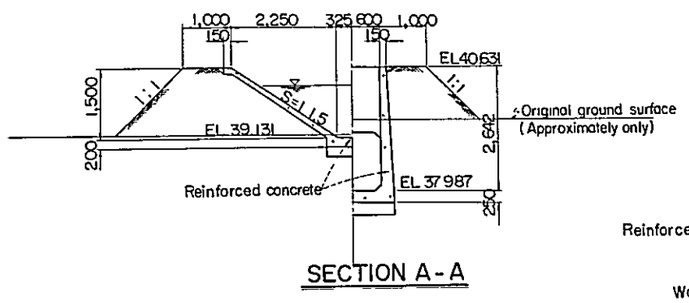
DETAIL B

0 1,000

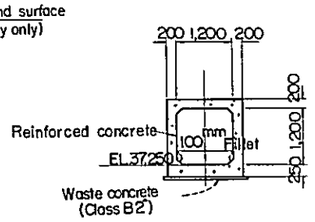
SCALE OF MILLIMETERS

NOTES

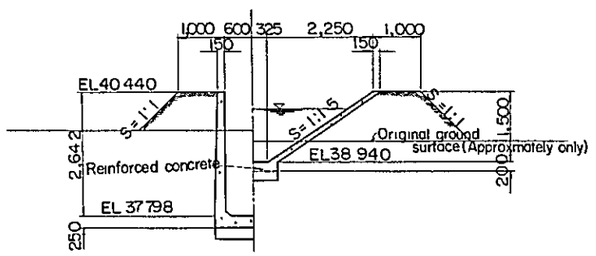
All dimensions are given in millimeters
All stations and elevations are given in meters
See Drawing D-32 for reinforcement
Concrete design, except precast, based on a compressive strength of 80kg/cm²
Chamfer all exposed corners 20mm, unless otherwise shown
For strength and aggregate size of concrete, see specifications
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill
Provide 10mm~20 mm elastic filler in all expansion joints at all concrete contact areas
Class "A" concrete to be placed at all portion unless otherwise shown
Use 150mm rubber water stop



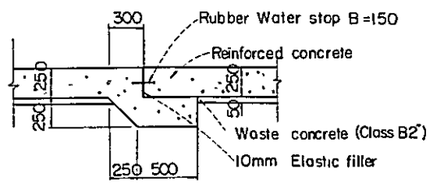
SECTION A-A



PROFILE



SECTION C - C

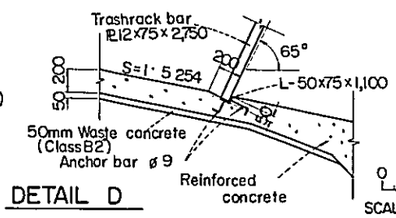


0 1,000

SCALE OF MILLIMETERS

DETAIL C

SECTION B - B



DETAIL D

0 1,000

SCALE OF MILLIMETERS

0 1000 3000 5000

SCALE OF MILLIMETERS

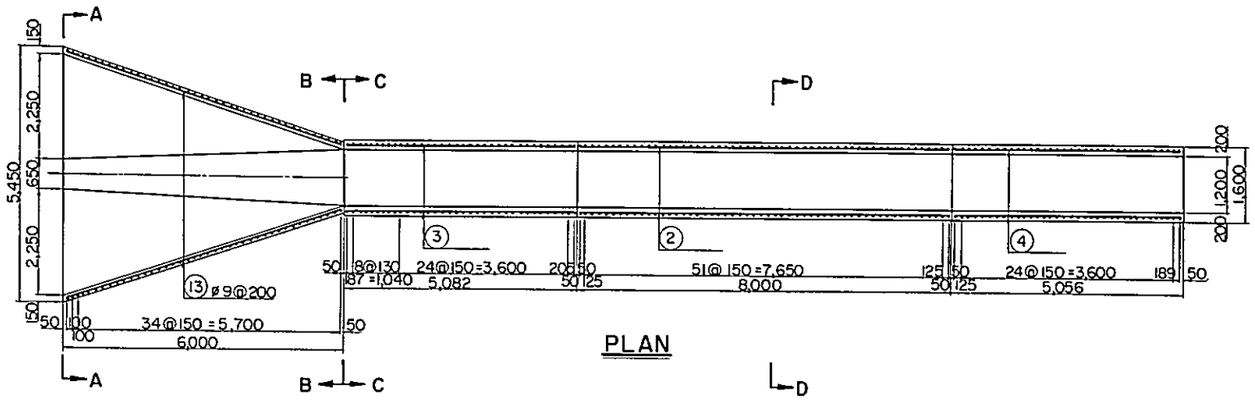
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG

MAIN SIPHON

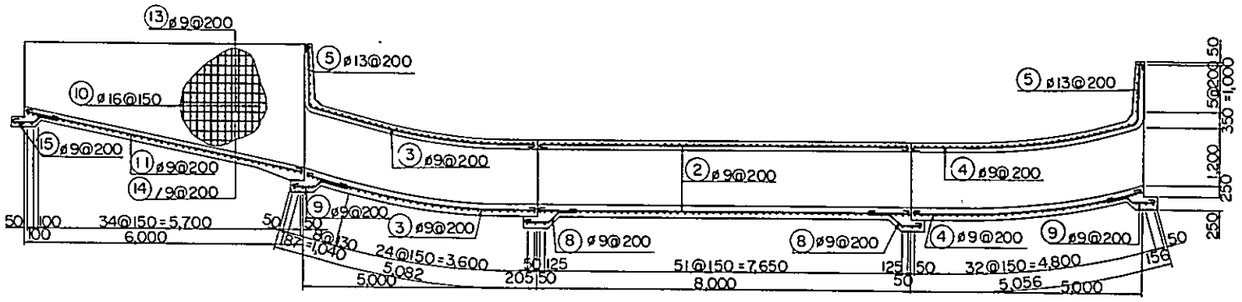
PLAN, PROFILE AND SECTIONS

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D-31



PLAN



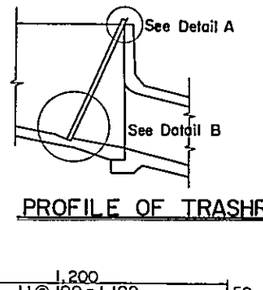
PROFILE

SECTION A-A

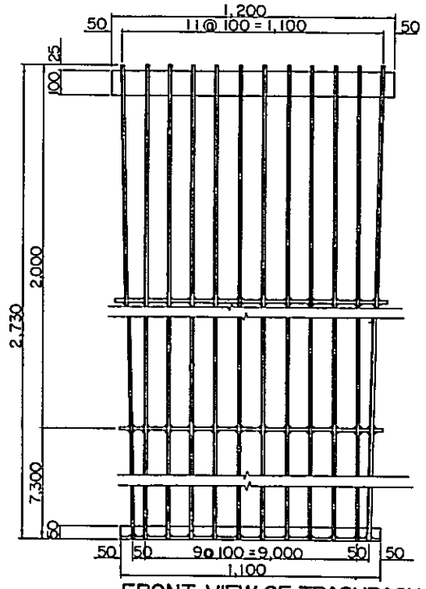
SECTION B-B

SECTION C-C

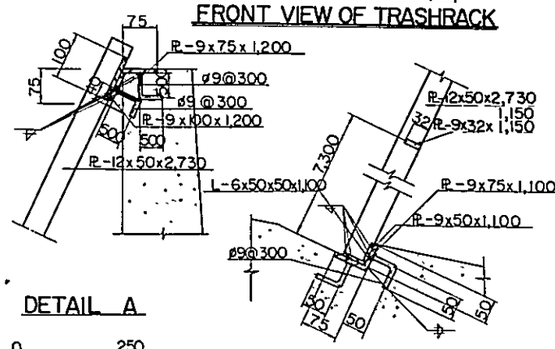
SECTION D-D



PROFILE OF TRASHRACK



FRONT VIEW OF TRASHRACK



DETAIL A

0 250

SCALE OF MILLIMETERS

DETAIL B

0 250

SCALE OF MILLIMETERS

0 1,000 3,000 5,000

SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters.

Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth

Lap all bars 30 diameters at splices

All reinforcing steel to be plain bar with standard hook each end in addition to length shown.

Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.

Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen

For the fan reinforcement, all transverse steel to be placed in fanlike, so that spacing of bar not exceed the design pitch at outside.

All welds to be full penetration continuous and smooth

THE PHILIPPINES			
RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER			
SANMIGUEL – ALANGALANG			
MAIN SIPHON			
REINFORCEMENT SHEET			
OVERSEAS TECHNICL COOPERATION AGENCY			
GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	D – 32

N

NATIONAL ROAD
SIPHON
MAIN CANAL
MAINIT RIVER
DIVISION WORK NO.1
DIVISION WORK NO.3
HILLS
LATERAL A
LATERAL B
LATERAL A1
ACCESS ROAD I
ACCESS ROAD II
ACCESS ROAD III
WASTEWAY NO.1
WASTEWAY NO.2
WASTEWAY NO.5
WASTEWAY NO.7
SIPHON NO.2
ARABUNOG RIVER
LIBTONG CR
DATAL CR
LUKAY CR
PROVINCIAL ROAD

A-I 1R (6.40ha)
A-II 1R (9.40ha)
A-II 2R (21.80ha)
A-III 1L (17.30ha)
A-III 1R (10.00ha)
A-II 2R (12.50 ha)
A-III 1L (9.80ha)
A-II 3R (5.50ha)
A-II 2L (6.70ha)
A-II 4R (7.70ha)
A-III 5R (6.10ha)
A-III 6R (6.60ha)
A-III 3L (10.80ha)
A-III 7R (16.10ha)
A-IV 1L (16.50ha)
A-IV 1R (13.00ha)
A-I 6L (9.00ha)
A-II 5L (9.50ha)
A1-I 1L (11.60ha)
A1-I 2L (13.10ha)
A1-I 1R (16.00ha)
A1-I 2R (7.00ha)
A1-I 3R (10.40ha)
A1-II 1L (6.50ha)
A1-II 1R (8.20ha)
A1-II 2R (12.60ha)
A1-I 4R (6.50ha)
A1-II 2L (5.70ha)
A1-II 3L (5.40ha)
A1-II 4L (7.20ha)
A1-II 3R (20.50ha)
A1-II 4R (5.50ha)
A1-I 5R (16.00ha)
A1-II 7L (11.70ha)
A1-I 6R (18.30ha)
B-1L (14.80ha)
B-1R (5.00ha)
B-2L (5.60ha)
B-2R (17.50ha)
B-3L (13.00ha)
B-3R (5.50ha)
B-4L (10.50ha)

T.NO.1 T.NO.2 T.NO.3 T.NO.4 T.NO.5 T.NO.6 T.NO.7 T.NO.8 T.NO.9 T.NO.10 T.NO.11 T.NO.12 T.NO.13 T.NO.15 T.NO.16 T.NO.18 T.NO.19 T.NO.20 T.NO.21 T.NO.22 T.NO.23 T.NO.24 T.NO.25 T.NO.26 T.NO.27 T.NO.28 T.NO.29 T.NO.30 T.NO.31 T.NO.32 T.NO.33 T.NO.34 T.NO.35 T.NO.36 T.NO.37 T.NO.38 T.NO.40 T.NO.41 T.NO.42 T.NO.43 T.NO.44 T.NO.45 T.NO.46 T.NO.47 T.NO.48 T.NO.49 T.NO.50 T.NO.51 T.NO.52 T.NO.53 T.NO.54 T.NO.55 T.NO.56 T.NO.57 T.NO.58 T.NO.59 T.NO.62

C.NO.1 C.NO.2 C.NO.3 C.NO.4 C.NO.5

D.NO.1 D.NO.2 D.NO.3 D.NO.4 D.NO.5 D.NO.6 D.NO.7 D.NO.8 D.NO.9 D.NO.10 D.NO.18 D.NO.19 D.NO.20 D.NO.21 D.NO.22 D.NO.23 D.NO.24 D.NO.25 D.NO.26 D.NO.27 D.NO.28 D.NO.29 D.NO.30 D.NO.31 D.NO.32 D.NO.33 D.NO.34 D.NO.35 D.NO.36 D.NO.37

N

ARABUNOG RIVER

LATERAL A

LATERAL A1

ACCESS ROAD II

ACCESS ROAD III

PROVINCIAL ROAD

WASTEWAY NO.2

WASTEWAY NO.3

WASTEWAY NO.4

WASTEWAY NO.5

WASTEWAY NO.6

WASTEWAY NO.7

SIPHON NO.1

LIBTONG CR.

DATAL CR.

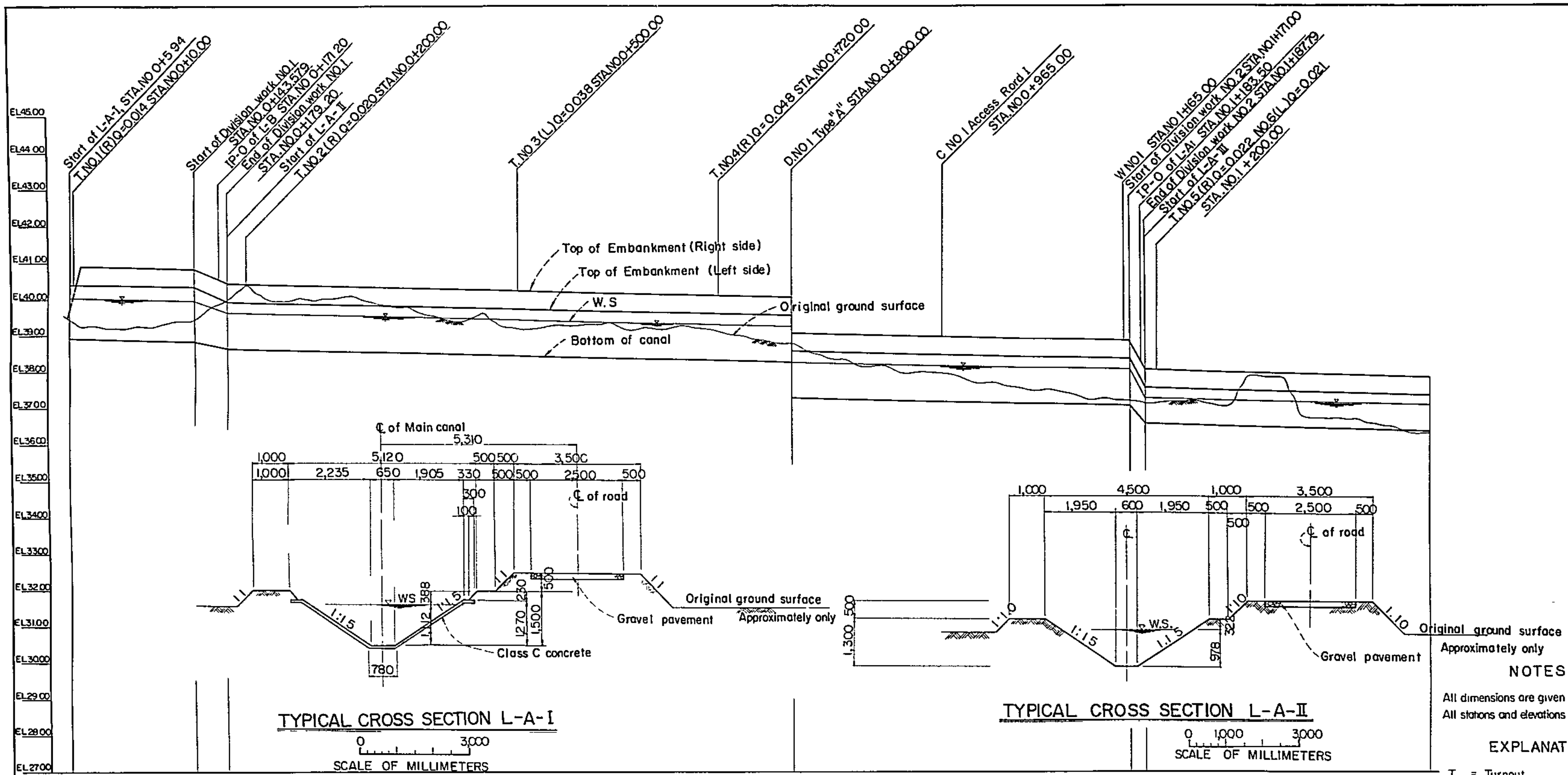
LUKAY CR.

A-III 1L (9.80ha)
A-III 2L (6.70ha)
A-III 3L (10.80ha)
A-III 1R (10.00ha)
A-III 2R (12.50 ha)
A-III 3R (5.50ha)
A-III 4R (7.70ha)
A-III 5R (6.10ha)
A-III 6R (6.60 ha)
A-III 7R (16.10ha)
A-IV 1L (16.50ha)
A-IV 1R (13.00ha)
A-IV 2R (38.00ha)
A-V 1L (8.10ha)
A-V 2L (7.50ha)
A-V 3L (10.00ha)
A-V 4L (12.00ha)
A-V 1R (5.00ha)
A-V 2R (8.10ha)
A-V 3R (11.00ha)
A-V 4R (14.00ha)
A-VI 1L (7.00ha)
A-VI 2L (6.00ha)
A-VI 3L (16.50ha)
A-VI 1R (5.00ha)
A-VI 2R (17.00ha)
A-VI 3R (15.00ha)
A1-I 1L (11.60ha)
A1-I 2L (13.10ha)
A1-I 3R (10.40ha)
A1-I 2R (7.00ha)
A1-II 1L (6.50ha)
A1-II 1R (8.20ha)
A1-II 2L (5.70ha)
A1-II 2R (12.60ha)
A1-II 3L (5.40ha)
A1-II 3R (20.50ha)
A1-II 4L (7.20ha)
A1-II 4R (5.50ha)
A1-II 5L (9.50ha)
A1-II 5R (16.00ha)
A1-II 6R (18.30ha)
A1-II 7L (11.70ha)
A1-II 7R (10.00ha)
A1-II 8L (7.00ha)
A-I 6L (9.00ha)
A1-I 4R (6.50ha)
B-1 R (5.00ha)
B-2 L (5.60ha)
B-2 R (17.50ha)
B-3 L (13.00ha)
B-3 R (5.50ha)
B-4 L (10.50ha)

0 500
SCALE OF METERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
LATERALS GENERAL LOCATION
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO.	A - 1



NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters

EXPLANATIONS

T = Turnout
(R) = Right side of Lateral
(L) = Left side of Lateral
D = Drop
W = Waste way
C = Culvert
Q = Discharge through turnout pipe.

Horizontal scale 0 50 100 SCALE OF METERS
Vertical scale 0 1 2 SCALE OF METERS

GRADE: L-A-1 ℓ = 137.639, I = 1/1800 — DIVISION WORK NO 1 ℓ = 35.521 — L-A-II ℓ = 992.00, I = 1/1,700 — DIVISION WORK NO 2 ℓ = 16.25 — L-A-III ℓ = 2,565.72, I = 1/1400

CURVE: IP 1 45° 52' — IP2 19° 45' — IP3 22° 45' — IP4 48° 11'

STA.	DIST. between STA.	ACCUM DIST.	GROUND ELEV.	BOTTOM of CANAL	ELEV. of W.S.	DEPTH of EXCA.	HEIGHT of EMBA.
NO 0	0.00	0.00	39.55				
+5.94	5.94	5.94	39.45	38.940	40.052	0.510	
+20.00	14.06	20.00	39.24	38.932	40.044	0.308	
+40.00	20.00	40.00	39.25	38.921	40.033	0.329	
+60.00	20.00	60.00	39.19	38.910	40.022	0.280	
+80.00	20.00	80.00	39.27	38.899	40.011	0.371	
+100.00	20.00	100.00	39.26	38.888	40.000	0.372	
+120.00	20.00	120.00	39.38	38.877	39.989	0.503	
+140.00	20.00	140.00	39.41	38.866	39.978	0.544	
+143.579	3.579	143.579		38.864	39.975		
+160.00	16.421	160.00	39.76				
+179.20	19.20	179.20		38.663			
+180.00	0.80	180.00	40.01	38.662	39.641	1.348	
+200.00	20.00	200.00	40.39	38.651	39.629	1.739	
+220.00	20.00	220.00	40.06	38.639	39.617	1.421	
+240.00	20.00	240.00	39.94	38.627	39.605	1.313	
+260.00	20.00	260.00	40.03	38.615	39.592	1.415	
+280.00	20.00	280.00	39.98	38.604	39.582	1.376	
+300.00	20.00	300.00	40.03	38.592	39.570	1.438	
+320.00	20.00	320.00	40.08	38.580	39.558	1.500	
+340.00	20.00	340.00	39.90	38.568	39.546	1.332	
+360.00	20.00	360.00	39.81	38.557	39.535	1.253	
+380.00	20.00	380.00	39.76	38.545	39.523	1.215	
+400.00	20.00	400.00	39.55	38.533	39.511	1.017	
+420.00	20.00	420.00	39.44	38.521	39.499	0.919	
+440.00	20.00	440.00	39.38	38.510	39.488	0.870	
+460.00	20.00	460.00	39.62	38.498	39.476	1.122	
+480.00	20.00	480.00	39.27	38.486	39.464	0.784	
+500.00	20.00	500.00	39.18	38.474	39.452	0.706	
+520.00	20.00	520.00	39.18	38.463	39.446	0.717	
+540.00	20.00	540.00	39.29	38.451	39.429	0.839	
+560.00	20.00	560.00	39.28	38.439	39.417	0.841	
+580.00	20.00	580.00	39.32	38.427	39.405	0.893	
+600.00	20.00	600.00	39.36	38.415	39.393	0.945	
+620.00	20.00	620.00	39.15	38.404	39.382	0.746	
+640.00	20.00	640.00	39.24	38.392	39.370	0.848	
+660.00	20.00	660.00	39.15	38.380	39.358	0.770	
+680.00	20.00	680.00	39.26	38.368	39.346	0.892	
+700.00	20.00	700.00	39.19	38.357	39.335	0.833	
+720.00	20.00	720.00	39.12	38.345	39.323	0.775	
+740.00	20.00	740.00	39.01	38.333	39.311	0.677	
+760.00	20.00	760.00	38.89	38.321	39.299	0.569	
+780.00	20.00	780.00	38.82	38.310	39.288	0.510	
+800.00	20.00	800.00	38.81	38.298 (37.298)	39.276 (38.276)	0.512	
+820.00	20.00	820.00	38.52	37.286	38.264	1.234	
+840.00	20.00	840.00	38.37	37.274	38.252	1.096	
+860.00	20.00	860.00	38.33	37.263	38.241	1.067	
+880.00	20.00	880.00	38.12	37.251	38.229	0.869	
+900.00	20.00	900.00	38.19	37.239	38.217	0.951	
+920.00	20.00	920.00	37.97	37.227	38.205	0.743	
+940.00	20.00	940.00	38.00	37.216	38.194	0.784	
+960.00	20.00	960.00	37.98	37.204	38.182	0.776	
+980.00	20.00	980.00	37.90	37.192	38.170	0.708	
NO 1	20.00	1,000.00	37.69	37.180	38.158	0.510	
+20.00	20.00	1,020.00	37.70	37.169	38.147	0.531	
+40.00	20.00	1,040.00	37.61	37.156	38.134	0.454	
+60.00	20.00	1,060.00	37.51	37.145	38.123	0.365	
+80.00	20.00	1,080.00	37.52	37.133	38.111	0.387	
+100.00	20.00	1,100.00	37.43	37.122	38.100	0.308	
+120.00	20.00	1,120.00	37.28	37.110	38.088	0.170	
+140.00	20.00	1,140.00	37.26	37.098	38.076	0.162	
+160.00	20.00	1,160.00	37.22	37.086	38.064	0.134	
+171.20	11.20	1,171.20		37.089	38.067		
+180.00	8.80	1,180.00	37.18				
+187.79	7.79	1,187.79		36.579	37.296		
+200.00	12.21	1,200.00	37.14	36.570	37.283	0.570	
+220.00	20.00	1,220.00	37.17	36.556	37.269	0.614	
+240.00	20.00	1,240.00	37.19	36.542	37.255	0.648	
+250.00	20.00	1,260.00	37.08	36.527	37.240	0.563	
+280.00	20.00	1,280.00	37.04	36.513	37.226	0.527	
+300.00	20.00	1,300.00	37.88	36.499	37.212	1.381	
+320.00	20.00	1,320.00	37.84	36.485	37.198	1.355	
+340.00	20.00	1,340.00	37.83	36.470	37.183	1.360	
+360.00	20.00	1,360.00	36.76	36.456	37.169	0.304	
+380.00	20.00	1,380.00	36.74	36.442	37.155	0.298	
+400.00	20.00	1,400.00	36.74	36.427	37.140	0.313	
+420.00	20.00	1,420.00	36.71	36.413	37.126	0.297	
+440.00	20.00	1,440.00	36.55	36.399	37.112	0.151	
+460.00	20.00	1,460.00	36.49	36.385	37.098	0.105	
+480.00	20.00	1,480.00	36.30	36.370	39.083		0.070
+500.00	20.00	1,500.00	36.30	36.356	37.069		0.056

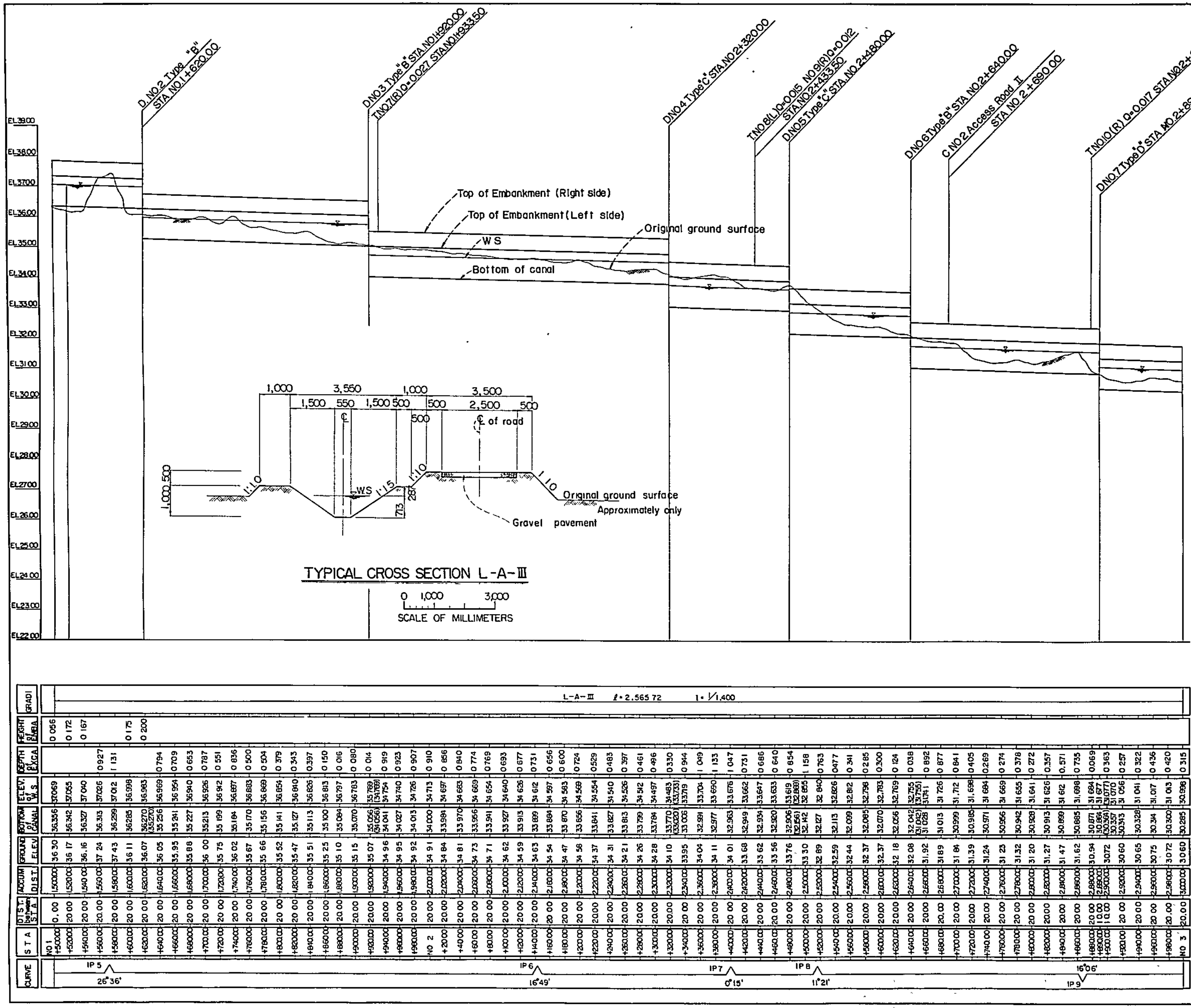
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL

REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG

LATERAL A PROFILE (1)

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 5	DRAWING NO	A – 2



NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters

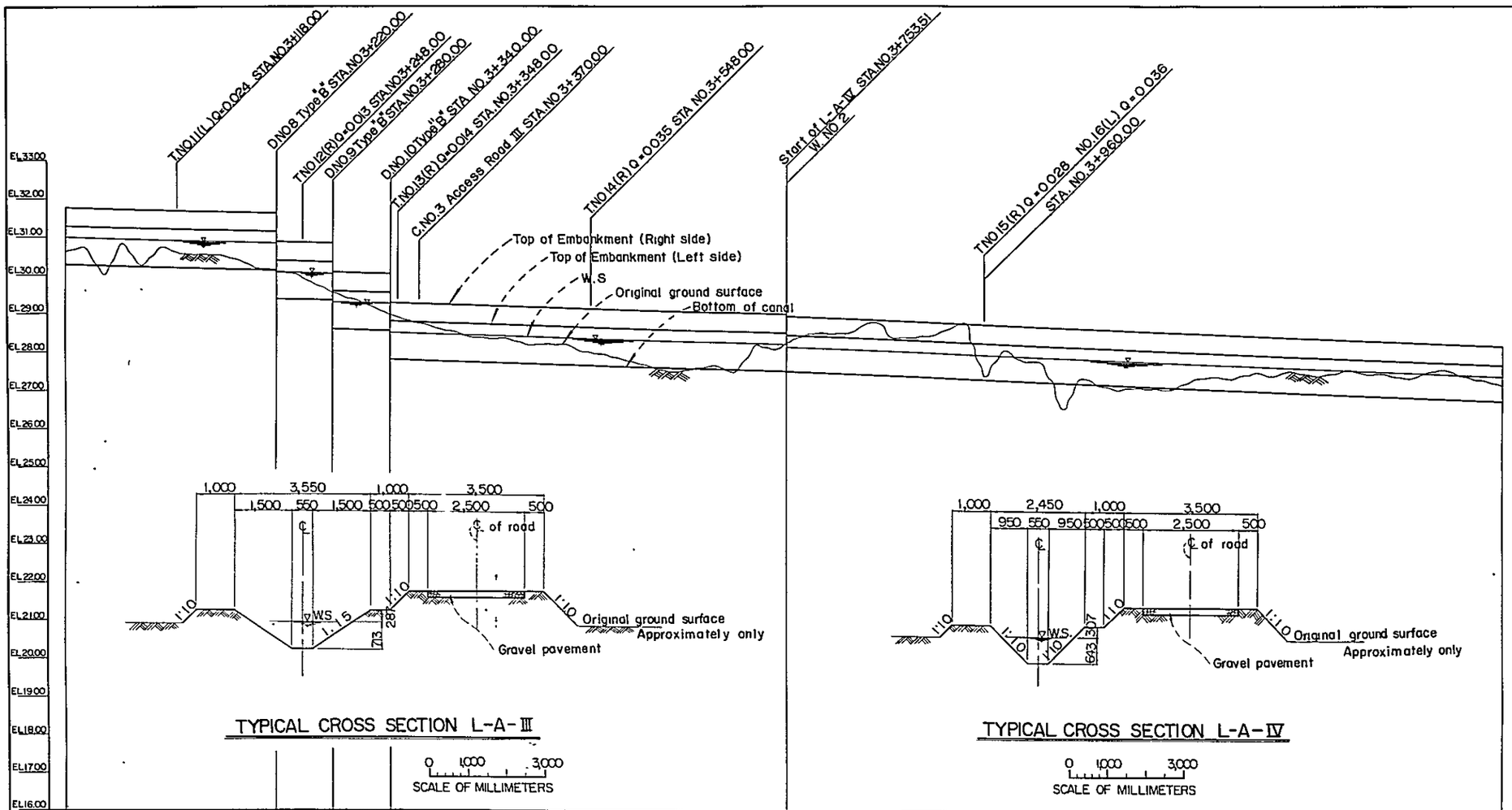
EXPLANATIONS

T = Turnout
(R) = Right side of Lateral
(L) = Left side of Lateral
D = Drop
W = Waste way
C = Culvert
Q = Discharge through turnout pipe

Horizontal scale 0 50 100 SCALE OF METERS
Vertical scale 0 1 2 SCALE OF METERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANGS
LATERAL A
PROFILE (2)
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	2 OF 5	DRAWING NO	A-3



NOTES

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All stations and elevations are given in meters

EXPLANATIONS

T = Turn out
(R) = Right side of Lateral
(L) = Left side of Lateral
D = Drop
W = Waste way
C = Culvert
Q = Discharge through turnout pipe

Horizontal scale 0 50 100 SCALE OF METERS
Vertical scale 0 1 2 SCALE OF METERS

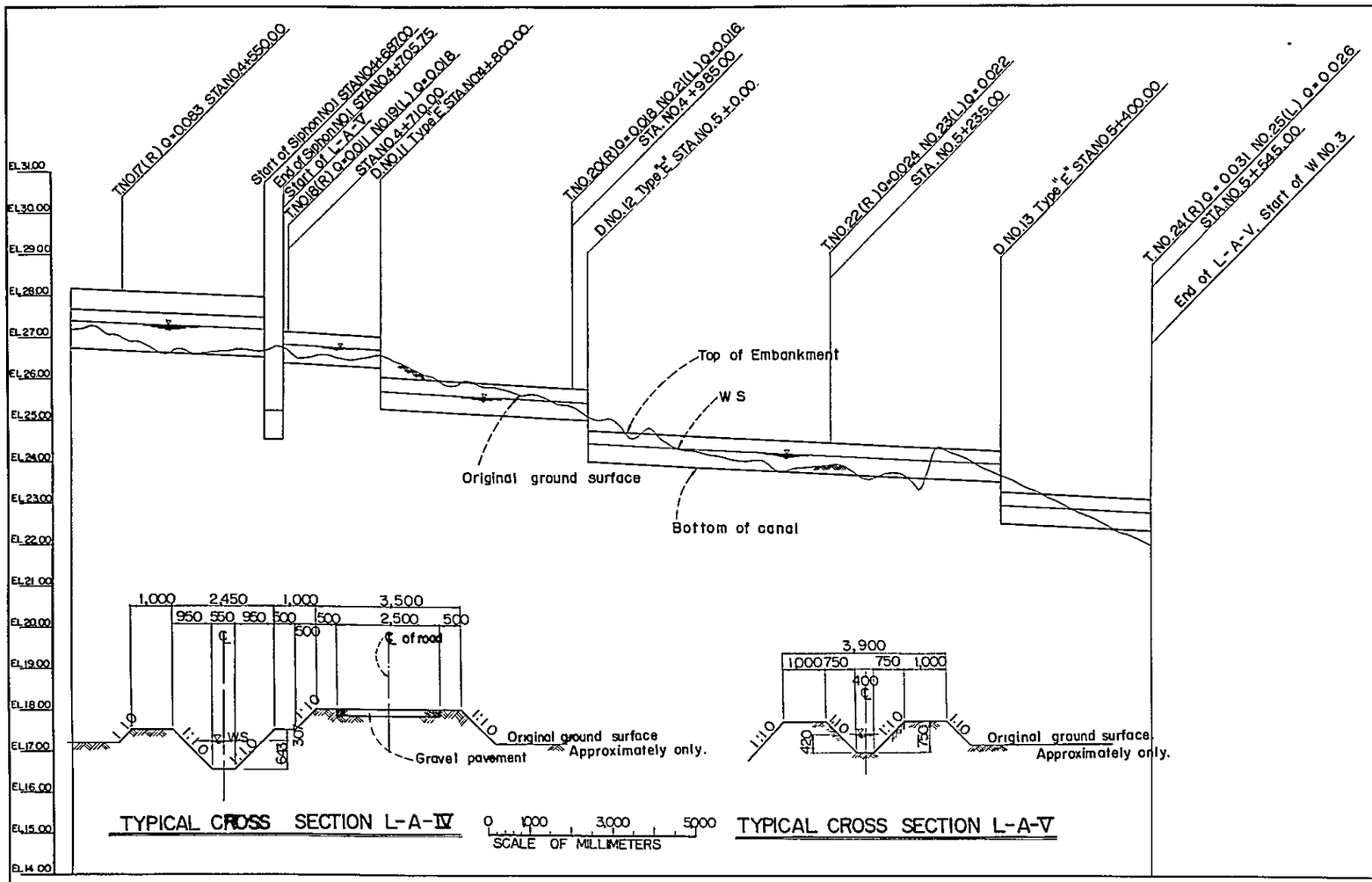
L-A-III ℓ = 2,565 72 I = 1/1,400
L-A-IV ℓ = 933 49 I = 1/1,100

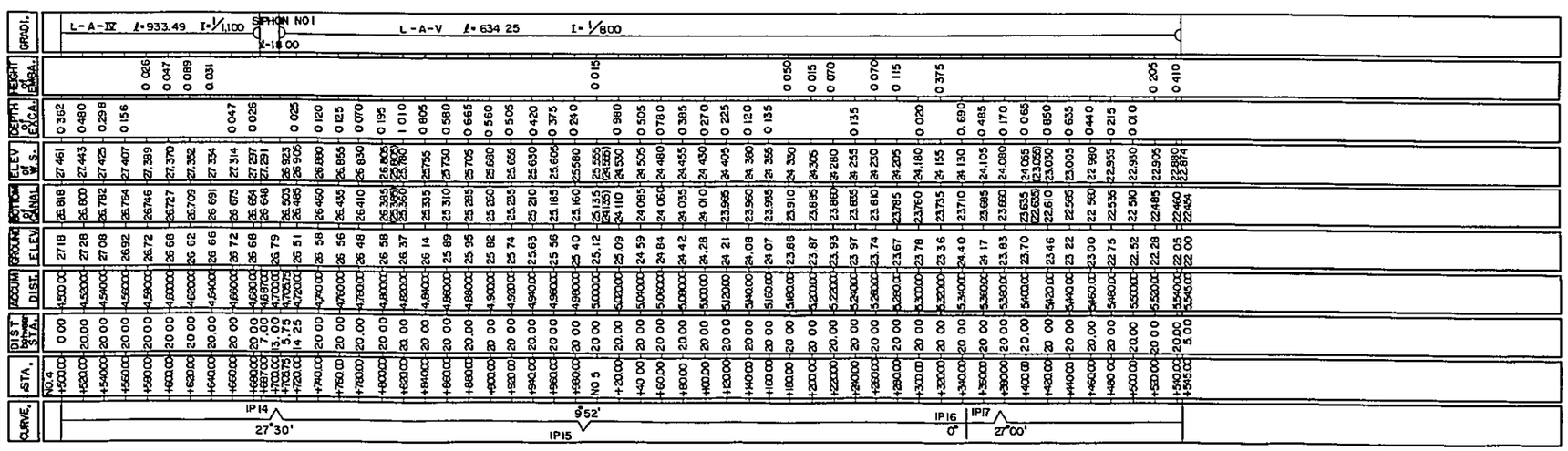
STA.	DIST. ACCUM.	GROUND ELEV.	BOTTOM CANAL	W.S. ELEV.	DEPTH EXCA.	HEIGHT EMBA.	GRADI.	CURVE
NO 3	0 00	30 60	30 285	30 998	0 315			
+20 00	20 00	30 75	30 271	30 984	0 479	0 246		
+40 00	20 00	30 01	30 256	30 969	0 608			
+60 00	20 00	30 85	30 242	30 955	0 608			
+80 00	20 00	30 24	30 228	30 941	0 012			
+100 00	20 00	30 74	30 214	30 927	0 526			
+120 00	20 00	30 57	30 199	30 912	0 371			
+140 00	20 00	30 55	30 185	30 898	0 365			
+160 00	20 00	30 52	30 171	30 884	0 349			
+180 00	20 00	30 41	30 156	30 869	0 254			
+200 00	20 00	30 17	30 142	30 855	0 028			
+220 00	20 00	30 08	30 128 (23.378)	30 841 (30.091)	0 656	0 048		
+240 00	20 00	30 02	29 364	30 077	0 431			
+260 00	20 00	29 78	29 349	30 062	0 195			
+280 00	20 00	29 53	29 335 (28.585)	30 048 (28.298)	0 799			
+300 00	20 00	29 37	29 284	29 284	0 614			
+320 00	20 00	29 17	28 556	29 269	0 408			
+340 00	20 00	28 95	28 542 (27.792)	29 255 (28.503)	1 022			
+360 00	20 00	28 80	27 778	28 491	0 927			
+380 00	20 00	28 69	27 763	28 476	0 791			
+400 00	20 00	28 54	27 749	28 462	0 665			
+420 00	20 00	28 40	27 735	28 448	0 619			
+440 00	20 00	28 34	27 721	28 434	0 654			
+460 00	20 00	28 36	27 706	28 419	0 528			
+480 00	20 00	28 22	27 692	28 405	0 522			
+500 00	20 00	28 20	27 678	28 391	0 557			
+520 00	20 00	28 22	27 663	28 376	0 351			
+540 00	20 00	28 00	27 649	28 362	0 315			
+560 00	20 00	27 95	27 635	28 348	0 229			
+580 00	20 00	27 65	27 621	28 334	0 104			
+600 00	20 00	27 71	27 606	28 319		0 042		
+620 00	20 00	27 55	27 592	28 306		0 108		
+640 00	20 00	27 47	27 578	28 291	0 007			
+660 00	20 00	27 57	27 563	28 276	0 101			
+680 00	20 00	27 65	27 549	28 262	0 659	0 075		
+700 00	20 00	27 46	27 535	28 248	0 544			
+720 00	20 00	28 18	27 521	28 234	0 825			
+740 00	20 00	28 05	27 506	28 219	1 017			
+753.51	13 51	28 32	27 497	28 210 (28.210)	1 015			
+760 00	6 49	28 49	27 491	28 204 (28.204)	1 053			
+780 00	20 00	28 47	27 473	28 116	1 362			
+800 00	20 00	28 47	27 455	28 098	1 050			
+820 00	20 00	28 49	27 437	28 080	0 988			
+840 00	20 00	28 78	27 418	28 061	1 056			
+860 00	20 00	28 43	27 400	28 043	1 234			
+880 00	20 00	28 37	27 382	28 025	1 453			
+900 00	20 00	28 42	27 364	28 007	0 061			
+920 00	20 00	28 58	27 346	27 989	0 759			
+940 00	20 00	28 78	27 327	27 970	0 507			
+960 00	20 00	27 37	27 309	27 952	0 506	0 697		
+980 00	20 00	27 14	27 291	27 934	0 112	0 060		
NO 4	20 00	27 78	27 273	27 916		0 132		
+ 20 00	20 00	27 76	27 255	27 898		0 034		
+40 00	20 00	26 54	27 237	27 880		0 066		
+60 00	20 00	27 33	27 218	27 861	0 231	0 037		
+80 00	20 00	27 14	27 200	27 843	0 309			
+100 00	20 00	27 05	27 182	27 825	0 287			
+120 00	20 00	27 13	27 164	27 807	0 445			
+140 00	20 00	27 08	27 146	27 789	0 393			
+160 00	20 00	27 09	27 127	27 770	0 532			
+180 00	20 00	27 34	27 109	27 752	0 440			
+200 00	20 00	27 40	27 091	27 734	0 488			
+220 00	20 00	27 36	27 073	27 716	0 636			
+240 00	20 00	27 50	27 055	27 698	0 534			
+260 00	20 00	27 43	27 037	27 680	0 533			
+280 00	20 00	27 55	27 018	27 661	0 441			
+300 00	20 00	27 44	27 000	27 643	0 599			
+320 00	20 00	27 47	26 982	27 625	0 697			
+340 00	20 00	27 60	26 964	27 607	0 565			
+360 00	20 00	27 48	26 946	27 589	0 483			
+380 00	20 00	27 46	26 927	27 570	0 362			
+400 00	20 00	27 35	26 909	27 552				
+420 00	20 00	27 49	26 891	27 534				
+440 00	20 00	27 57	26 873	27 516				
+460 00	20 00	27 42	26 855	27 498				
+480 00	20 00	27 32	26 837	27 480				
+500 00	20 00	27 18	26 818	27 461				

IP 10 11°08'
IP 11 20°39'
IP 12 21°10'
IP 13 19°44'

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
PEGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
LATERAL A
PROFILE (3)
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	3 OF 5	DRAWING NO	A – 4





NOTES

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All stations and elevations are given in meters.

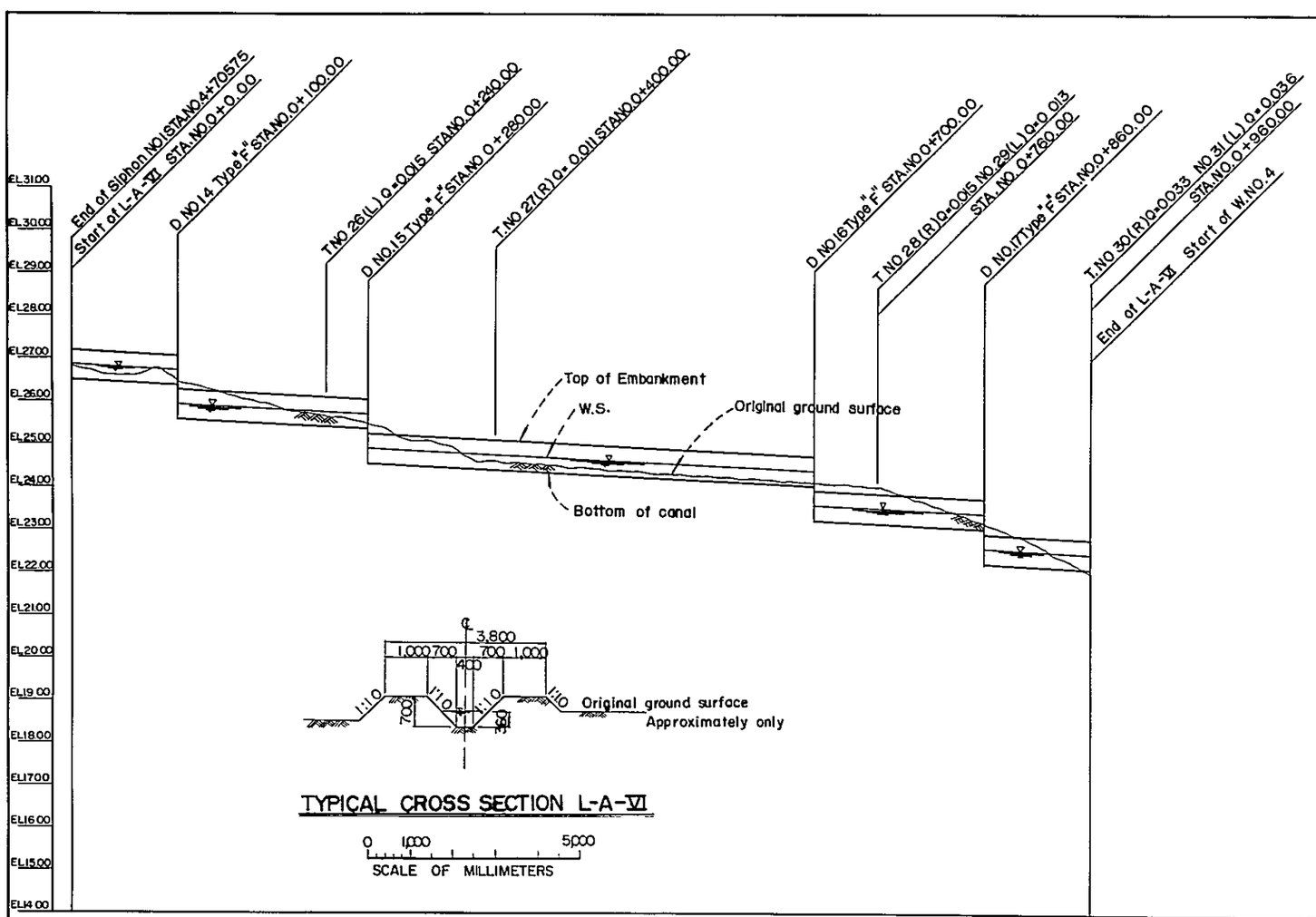
EXPLANATIONS

T = Turnout
(R) = Right side of Lateral
(L) = Left side of Lateral
D = Drop
W = Waste way
C = Culvert
Q = Discharge through turnout pipe

Horizontal scale 0 50 100 SCALE OF METERS
Vertical scale 0 1 2 SCALE OF METERS

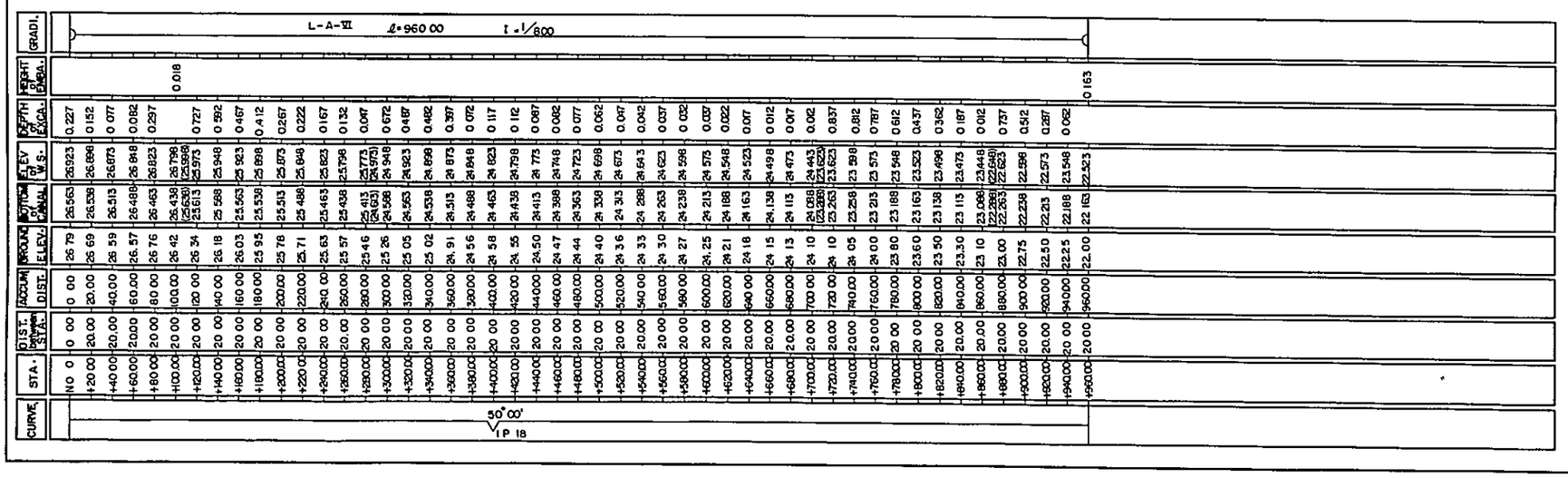
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
LATERAL A
PROFILE (4)
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	4 OF 5	DRAWING NO	A - 5



TYPICAL CROSS SECTION L-A-VI

0 1000 5000
SCALE OF MILLIMETERS



NOTES

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EXPLANATIONS

T = Turnout
(R) = Right side of Lateral
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D = Drop
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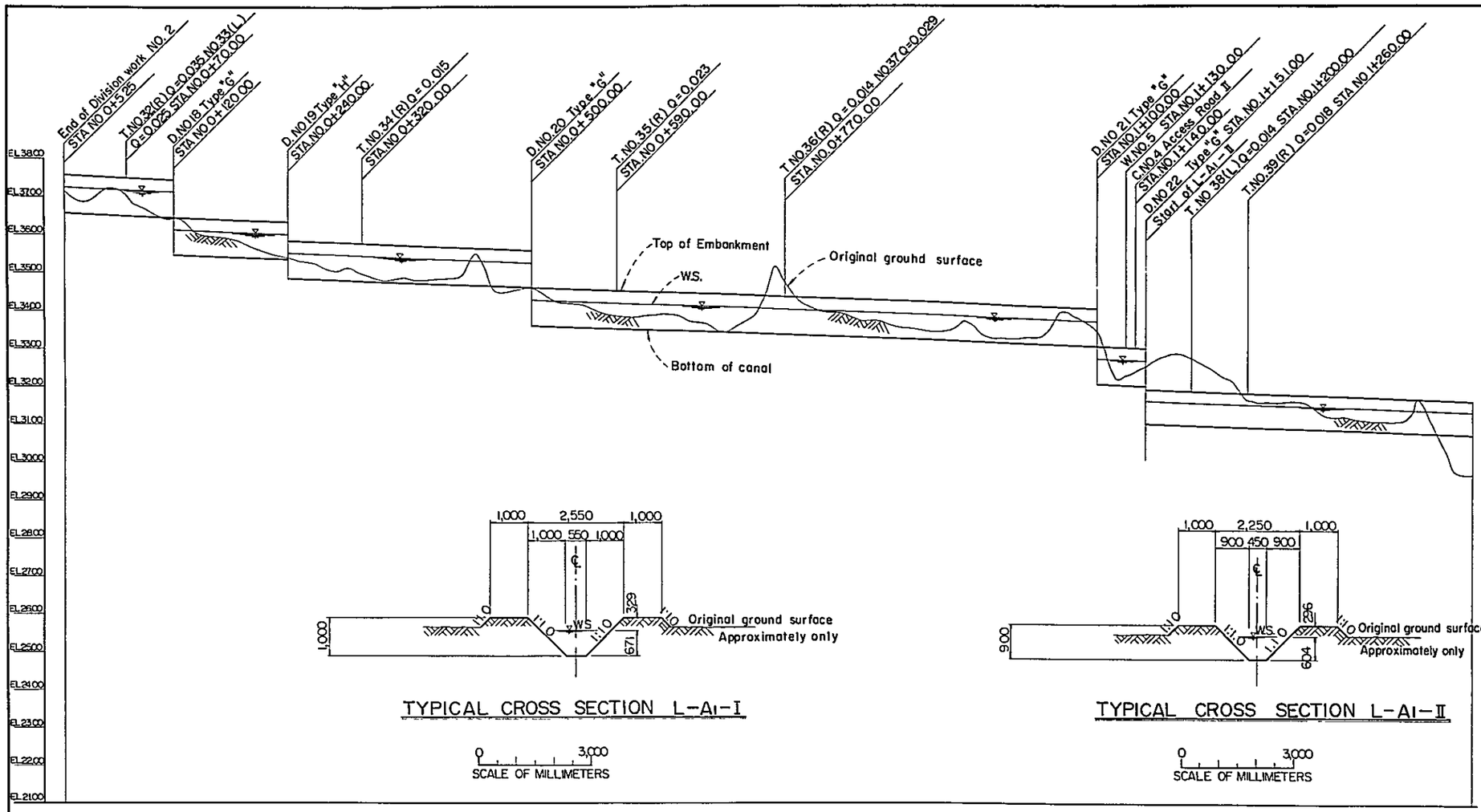
Q = Discharge through turnout pipe

Horizontal scale 0 50 100 SCALE OF METERS
Vertical scale 0 1 2 SCALE OF METERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTIO CENTER
SANMIGUEL - ALANGALANG
LATERAL A PROFILE (5)
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	5 OF 5	DRAWING NO	A - 6



TYPICAL CROSS SECTION L-A1-I

0 3,000
SCALE OF MILLIMETERS

TYPICAL CROSS SECTION L-A1-II

0 3,000
SCALE OF MILLIMETERS

NOTES

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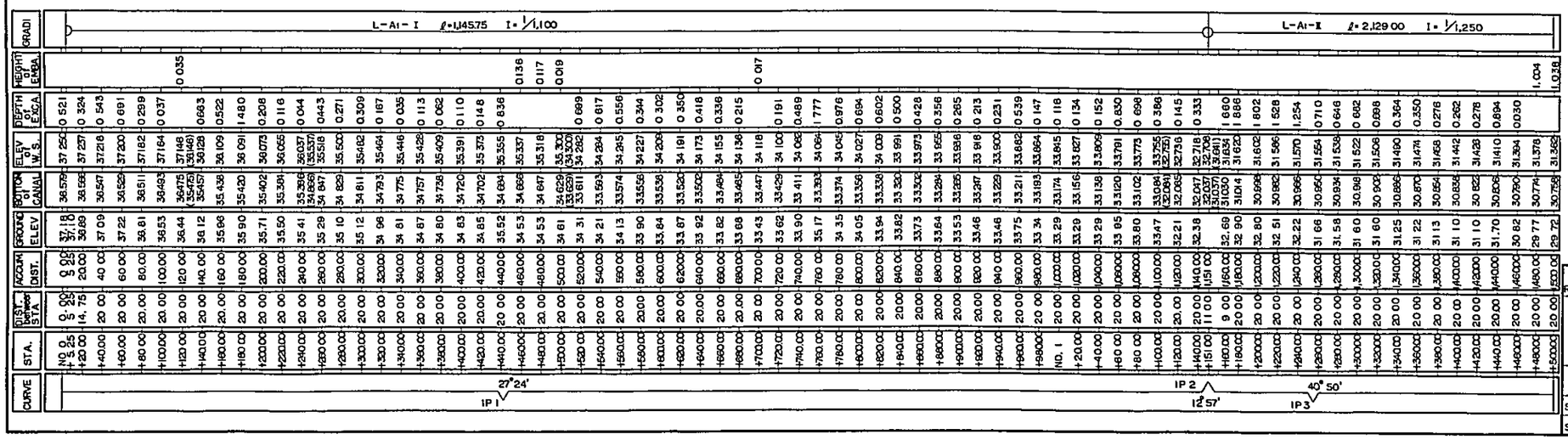
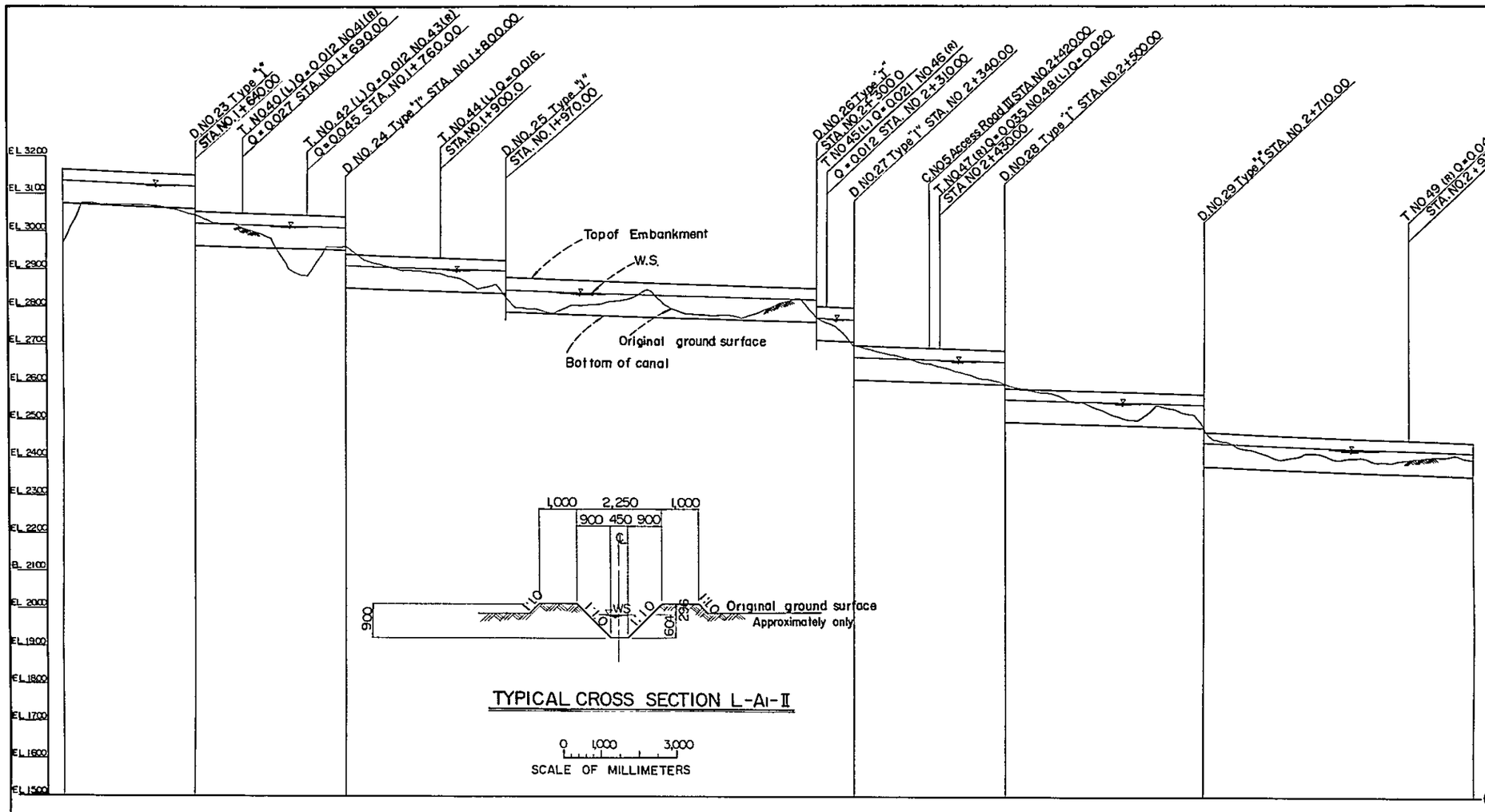
(R) = Right side of Lateral
(L) = Left side of Lateral
D = Drop
W = Waste way
C = Culvert
Q = Discharge through turnout pipe

Horizontal scale 0 50 100 SCALE OF METERS
Vertical scale 0 1 2 SCALE OF METERS



THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
LATERAL A1 PROFILE (1)
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 3	DRAWING NO	A - 7



TYPICAL CROSS SECTION L-AI-II

0 1,000 3,000
SCALE OF MILLIMETERS

NOTES

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EXPLANATIONS

T = Turnout
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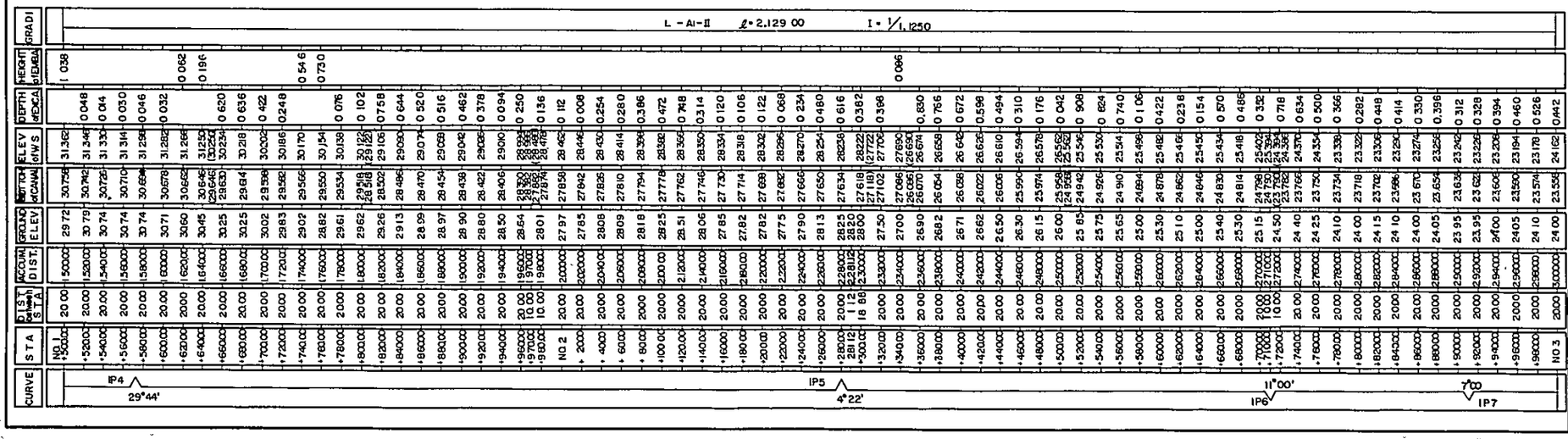
(L) = Left side of Lateral
D = Drop
W = Waste way
C = Culvert
Q = Discharge through turnout pipe

Horizontal scale 0 50 100 SCALE OF METERS
Vertical scale 0 1 2 SCALE OF METERS



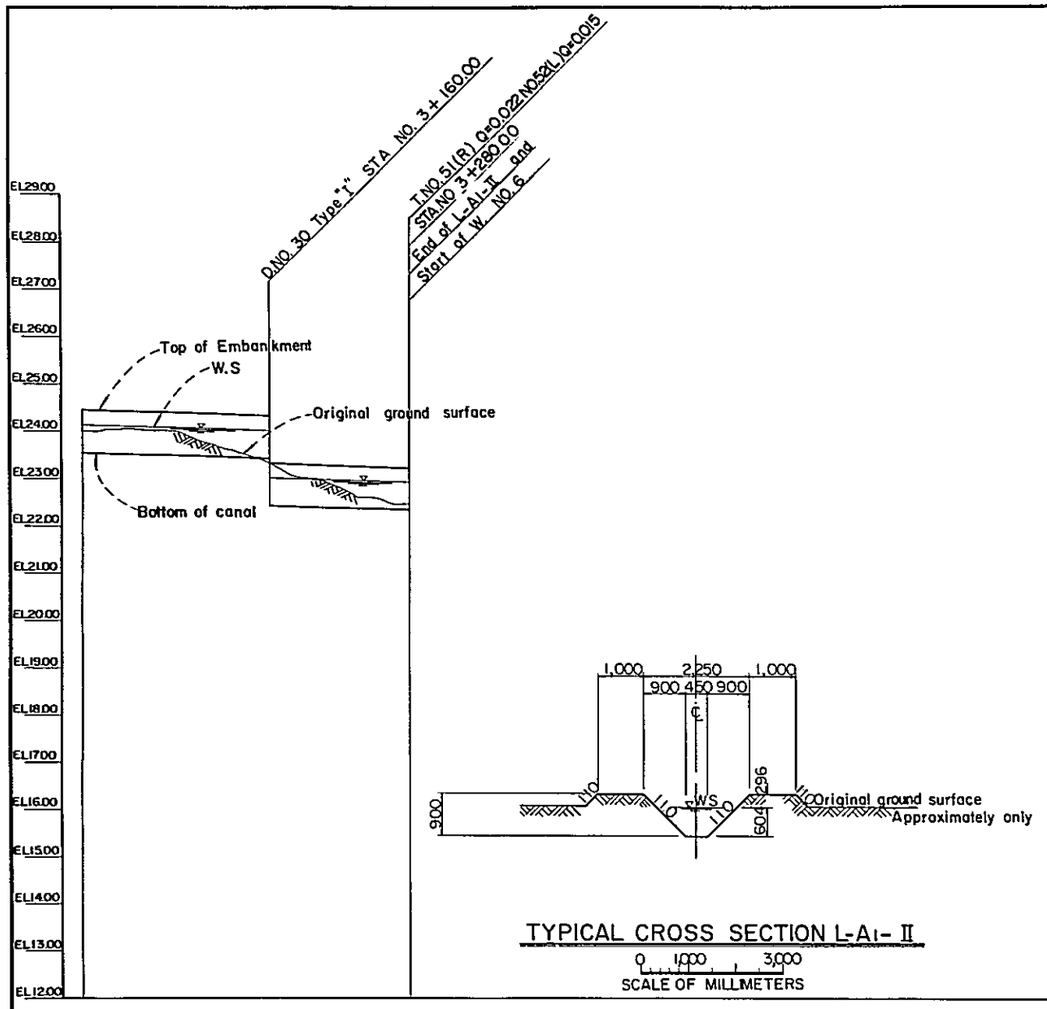
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL

REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG

LATERAL AI PROFILE (2)

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	2 OF 3	DRAWING NO	A — 8



TYPICAL CROSS SECTION L-A1- II

0 1,000 3,000
SCALE OF MILLIMETERS

GRADI.	L-A1-II ℓ=2,129.0 I=1/1250														
HEIGHT OF EMBA.									0.080						
DEPTH OF EXCA.	0.442	0.508	0.544	0.510	0.506	0.322	0.188	0.054		0.636	0.607	0.418	0.234	0.150	0.116
ELEV. OF W.S.	24.162	24.146	24.130	24.114	24.098	24.082	24.066	24.050	24.034 23.034	23.018	23.002	23.986	22.970	22.964	22.938
BOTTOM OF CANAL	23.558	23.542	23.526	23.510	23.494	23.478	23.462	23.446	23.430 (22.430	22.414	22.398	22.382	22.366	22.350	22.334
GROUND ELEV.	24.00	24.05	24.07	24.02	24.00	23.80	23.65	23.50	23.35	23.05	23.00	22.80	22.60	22.50	22.45
ACCUM. DIST	3,000.00	3,020.00	3,040.00	3,060.00	3,080.00	3,100.00	3,120.00	3,140.00	3,160.00	3,180.00	3,200.00	3,220.00	3,240.00	3,260.00	3,280.00
DIST. between STA.	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
STA.	NO 3	+20.00	+40.00	+60.00	+80.00	+100.00	+120.00	+140.00	+160.00	+180.00	+200.00	+220.00	+240.00	+260.00	+280.00
CURVE															

NOTES

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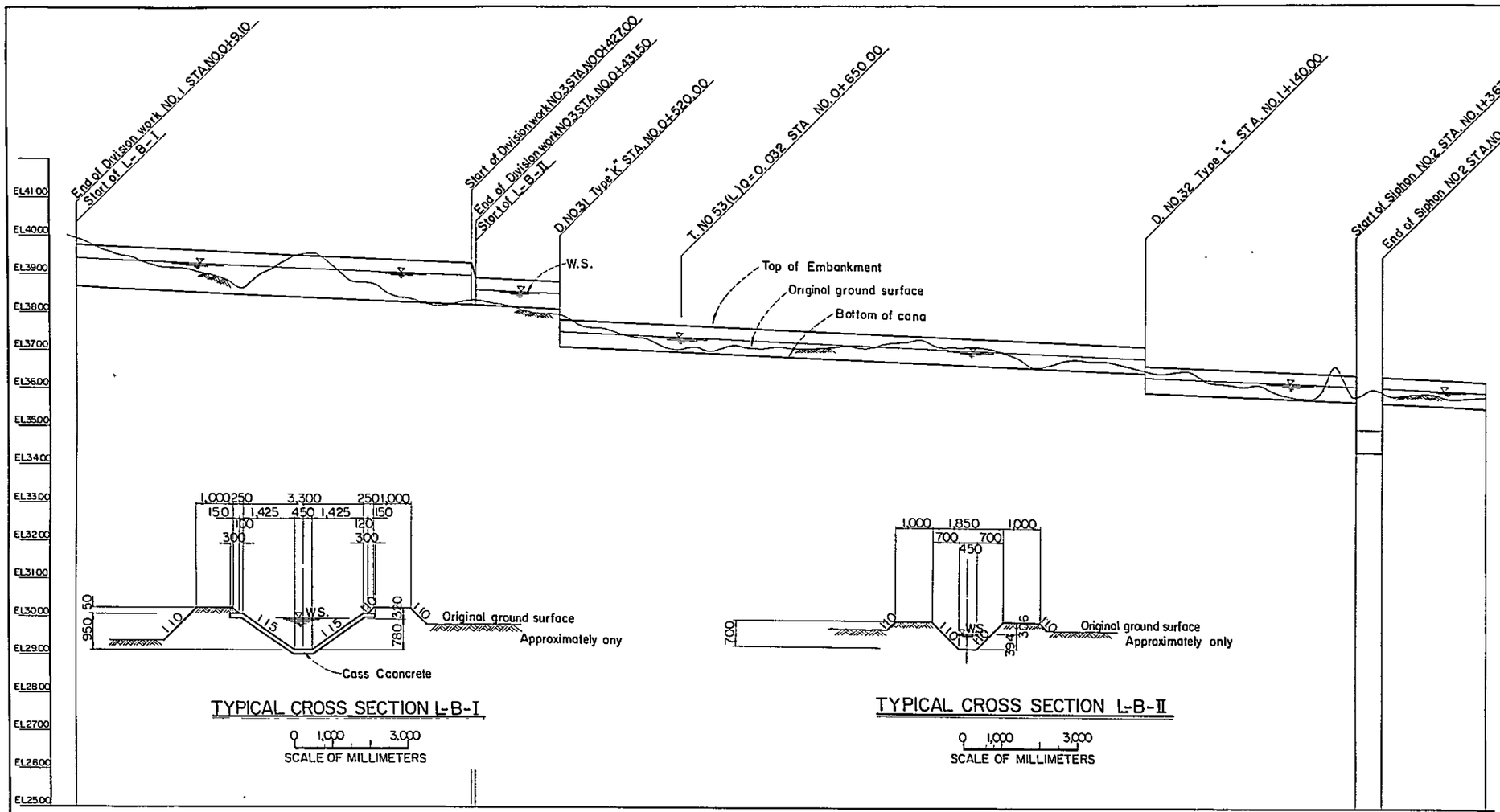
Horizontal scale 0 50 100 SCALE OF METERS

Vertical scale 0 1 2 SCALE OF METERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
LATERAL A1
PROFILE (3)
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	3 OF 5	DRAWING NO	A – 9



NOTES

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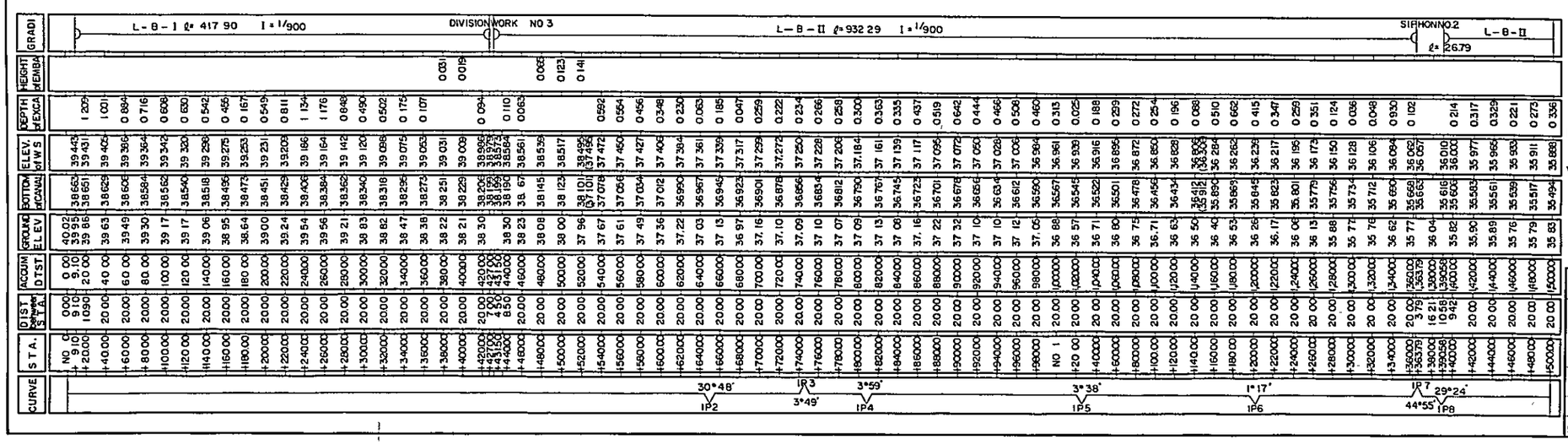
EXPLANATIONS

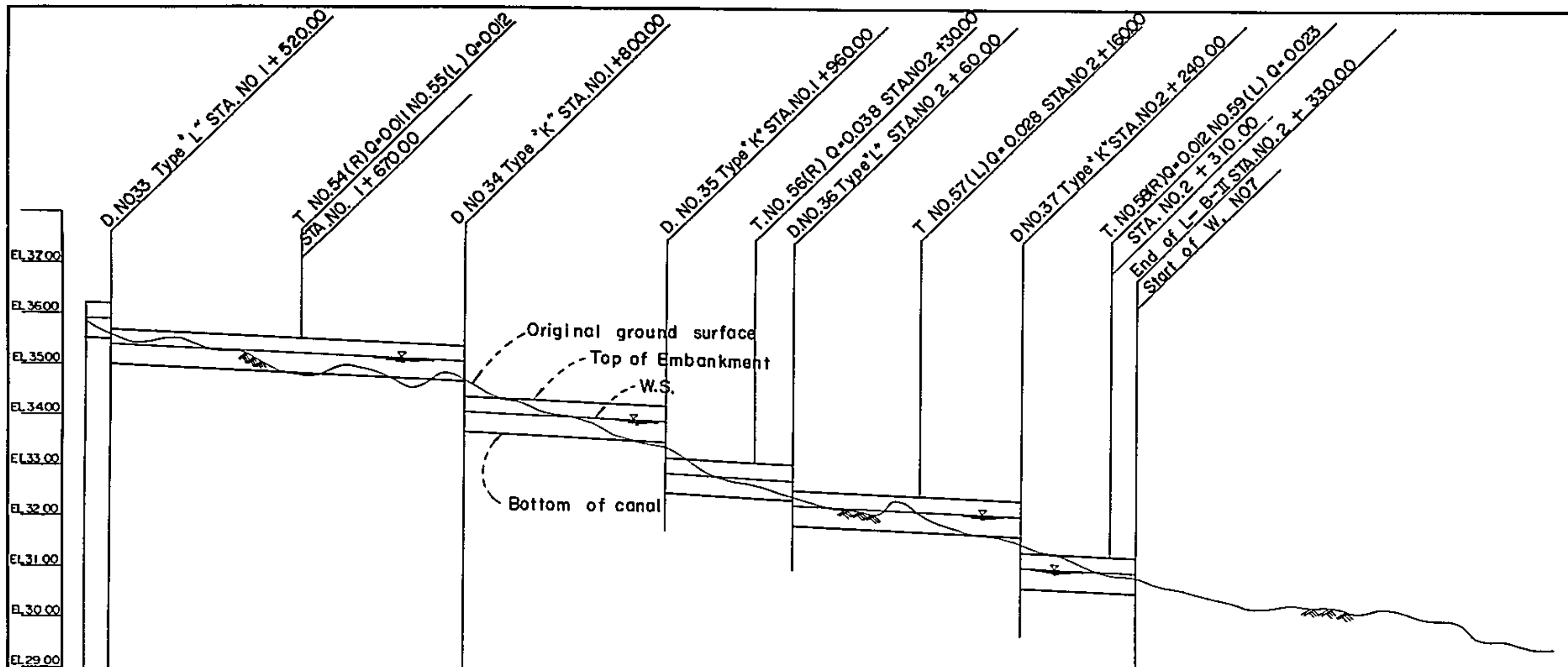
T = Turnout
(R) = Right side of Lateral
(L) = Left side of Lateral
D = Drop
W = Waste way
C = Culvert
Q = Discharge through turnout

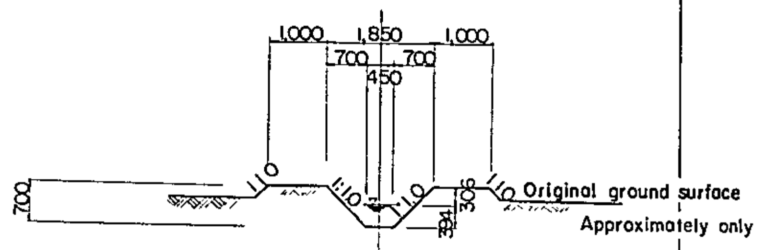
Horizontal scale 0 50 100 SCALE OF METERS
Vertical scale 0 1 2 SCALE OF METERS



THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
LATERAL B
PROFILE (I)
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 2	DRAWING NO	A – 10





TYPICAL CROSS SECTION L-B-II

0 3000
SCALE OF MILLIMETERS

GRADI.: L-B-II ℓ = 1269.42 I = 1/900

CURVE: IP9 10°11'; IP10 6°38'

STA.	DIST. between STA.	ACCUM DIST.	GROUND ELEV.	BOTTOM OF CANAL	ELEV. OF W.S.	DEPTH OF EXCA.	HEIGHT OF EMBA.
NO 1 +500.00	20.00	1500.00	35.83	35.494	35.888	0.336	
+520.00	20.00	1520.00	35.59	35.472 (34.972)	35.866 (35.366)	0.118	
+540.00	20.00	1540.00	35.40	34.952	35.346	0.448	
+560.00	20.00	1560.00	35.50	34.930	35.324	0.570	
+580.00	20.00	1580.00	35.46	34.908	35.302	0.552	
+600.00	20.00	1600.00	35.27	34.886	35.280	0.384	
+620.00	20.00	1620.00	35.27	34.863	35.257	0.407	
+640.00	20.00	1640.00	35.04	34.841	35.235	0.199	
+660.00	20.00	1660.00	34.82	34.819	35.213	0.001	
+680.00	20.00	1680.00	34.77	34.798	35.192		0.028
+700.00	20.00	1700.00	34.97	34.775	35.169	0.195	
+720.00	20.00	1720.00	34.93	34.753	35.147	0.177	
+740.00	20.00	1740.00	34.76	34.734	35.128	0.026	
+760.00	20.00	1760.00	34.53	34.708	35.102		0.178
+780.00	20.00	1780.00	34.82	34.686	35.080	0.134	
+800.00	20.00	1800.00	34.72	34.661 (33.661)	35.055 (34.055)	0.059	
+820.00	20.00	1820.00	34.41	33.639	34.033	0.771	
+840.00	20.00	1840.00	34.31	33.617	34.011	0.693	
+860.00	20.00	1860.00	34.09	33.595	33.989	0.495	
+880.00	20.00	1880.00	34.01	33.573	33.967	0.437	
+900.00	20.00	1900.00	33.89	33.550	33.944	0.340	
+920.00	20.00	1920.00	33.63	33.528	33.922	0.102	
+940.00	20.00	1940.00	33.52	33.506	33.900	0.014	
+960.00	20.00	1960.00	33.40	33.483 (32.483)	33.877 (32.877)		0.083
+980.00	20.00	1980.00	33.10	32.461	32.855	0.639	
NO 2	20.00	2000.00	32.84	32.438	32.832	0.402	
+20.00	20.00	2020.00	32.72	32.416	32.810	0.304	
+40.00	20.00	2040.00	32.61	32.394	32.788	0.216	
+60.00	20.00	2060.00	32.44	32.372 (31.872)	32.766 (32.266)	0.068	
+80.00	20.00	2080.00	32.28	31.850	32.244	0.430	
+100.00	20.00	2100.00	32.21	31.828	32.222	0.382	
+120.00	20.00	2120.00	32.11	31.806	32.200	0.304	
+140.00	20.00	2140.00	32.39	31.784	32.178	0.606	
+160.00	20.00	2160.00	32.13	31.761	32.155	0.369	
+180.00	20.00	2180.00	31.90	31.739	32.133	0.161	
+200.00	20.00	2200.00	31.75	31.717	32.111	0.033	
+220.00	20.00	2220.00	31.68	31.695	32.089		0.015
+240.00	20.00	2240.00	31.54	31.672 (30.672)	32.066 (31.066)		0.132
+260.00	20.00	2260.00	31.37	30.650	31.044	0.720	
+280.00	20.00	2280.00	31.24	30.628	31.022	0.612	
+300.00	20.00	2300.00	31.02	30.606	31.000	0.414	
+320.00	20.00	2320.00	30.91	30.584	30.978	0.326	
+330.00	10.00	2330.00		30.584	30.978		
+340.00	10.00	2340.00	30.80				
+360.00	20.00	2360.00	30.68				
+380.00	20.00	2380.00	30.57				
+400.00	20.00	2400.00	30.45				
+420.00	20.00	2420.00	30.34				
+440.00	20.00	2440.00	30.33				
+460.00	20.00	2460.00	30.36				
+480.00	20.00	2480.00	30.35				
+500.00	20.00	2500.00	30.26				
+520.00	20.00	2520.00	30.30				
+540.00	20.00	2540.00	30.27				
+560.00	20.00	2560.00	30.12				
+580.00	20.00	2580.00	30.10				
+600.00	20.00	2600.00	29.74				
+620.00	20.00	2620.00	29.72				
+640.00	20.00	2640.00	29.58				
+660.00	20.00	2660.00	29.57				

NOTES

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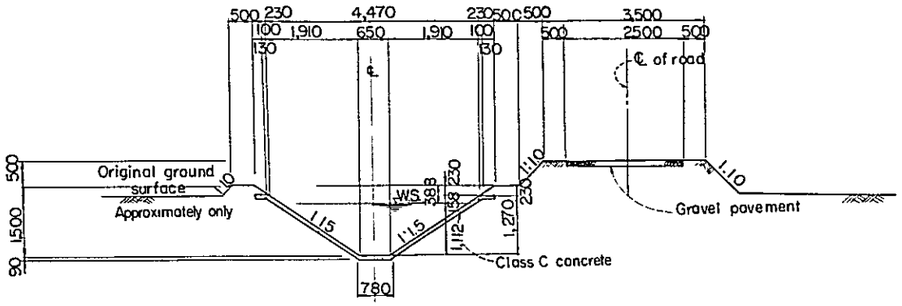
EXPLANATIONS

T = Turnout
(R) = Right side of Lateral
(L) = Left side of Lateral
D = Drop
W = Waste way
C = Culvert
Q = Discharge through turnout pipe

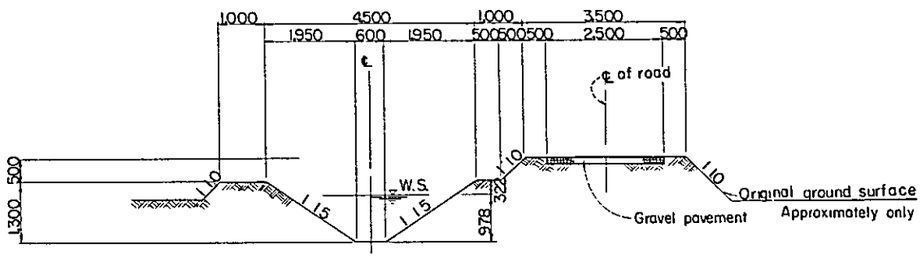
Horizontal scale 0 50 100 SCALE OF METERS
Vertical scale 0 1 2 SCALE OF METERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL-ALANGALANG
LATERAL B
PROFILE (2)
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

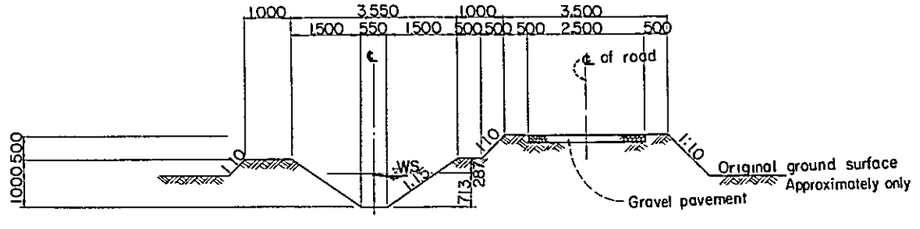
SCALE	AS SHOWN	DATE	
SHEET NO	2 OF 2	DRAWING NO	A - 11



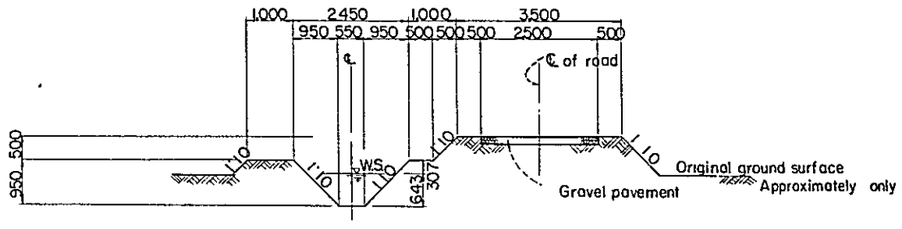
LATERAL-A-I



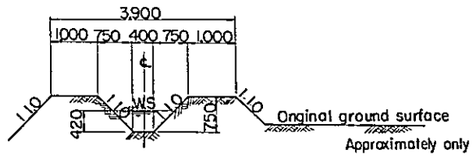
LATERAL-A-II



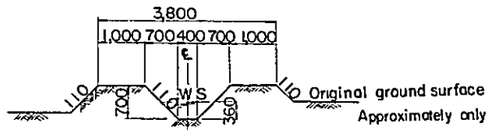
LATERAL-A-III



LATERAL-A- Ⅳ



LATERAL-A-Ⅴ



LATERAL-A-Ⅵ

TABLE OF HYDRAULIC PROPERTIES

NAME OF CANAL	HYDRAULIC DEPTH	HYDRAULIC GRADIENT	SIDE SLOPE	BOTTOM WIDTH	VELOCITY	DISCHARGE	REMARKS
LATERAL A-Ⅰ	1.112	1/1,800	1:1.5	0.650	1.059	2.730	
LATERAL A-Ⅱ	0.978	1/1,700	1:1.5	0.600	0.602	1.215	
LATERAL A-Ⅲ	0.713	1/1,400	1:1.5	0.550	0.550	0.635	
LATERAL A-Ⅳ	0.643	1/1,100	1:1.0	0.550	0.568	0.435	
LATERAL A-Ⅴ	0.420	1/800	1:1.0	0.400	0.497	0.166	
LATERAL A-Ⅵ	0.360	1/800	1:1.0	0.400	0.450	0.122	

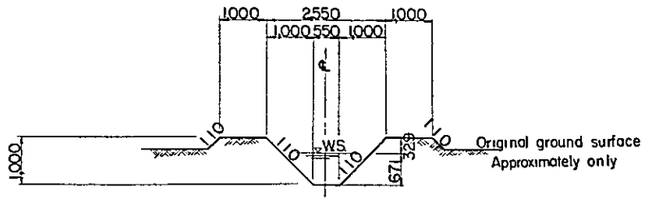
NOTE

All dimensions are given in millimeters.

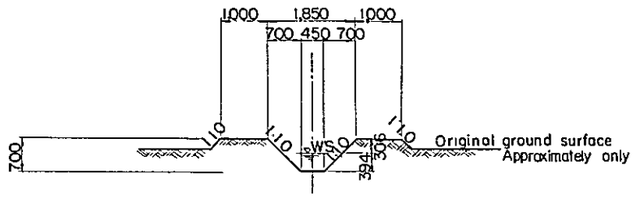
0 1000 3000 5000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
LATERAL A
TYPICAL CROSS SECTIONS
OVERSEAS TECHNICAL COOPERATON AGENCY
GOVERNMENT OF JAPAN

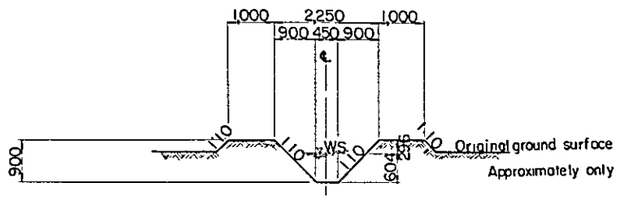
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A – 12



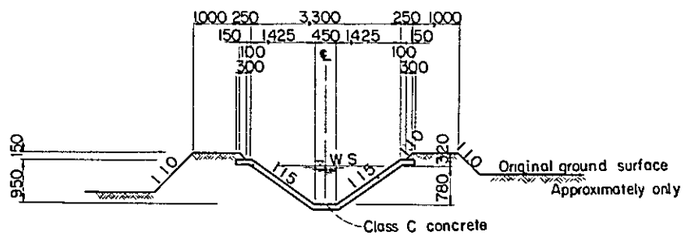
LATERAL-A_1-I



LATERAL-B-II



LATERAL-A_1-II



LATERAL-B-I

TABLE OF HYDRAULIC PROPERTIES

NAME OF CANAL	HYDRAULIC DEPTH	HYDRAULIC GRADIENT	SIDE SLOPE	BOTTOM WIDTE	VELOCITY	DISCHARGE	REMARKS
LATERAL A_1 - I	0 671	1/1,100	1 10	0 550	0 580	0 474	
LATERAL A_1 - II	0 604	1/1250	1 10	0 450	0 500	0 318	
LATERAL B - I	0 780	1/900	1 15	0 600	1 187	1 501	
LATERAL B - II	0 394	1/900	1 10	0 450	0 476	0 157	

NOTE

All dimensions are given in millimeters

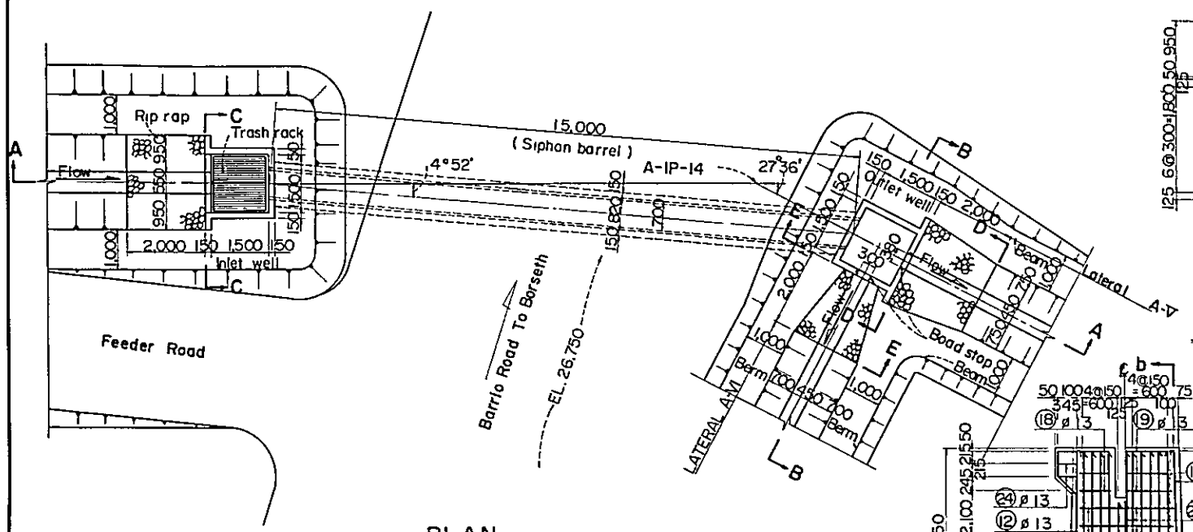
0 1000 3000 5000

SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
LATERAL AI AND B
TYPICAL CROSS SECTIONS
OVERSEAS TECHNICAL COPERATION AGENCY
GOVERNMENT OF JAPAN

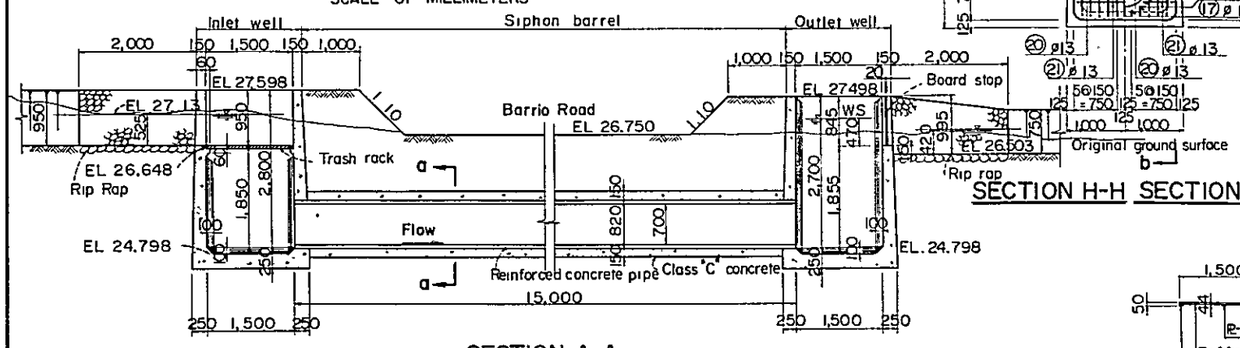
SCALE	AS SHOWN	DATE	
SHET NO	OF	DRAWINGNO	A – 13

(Inlet Well)



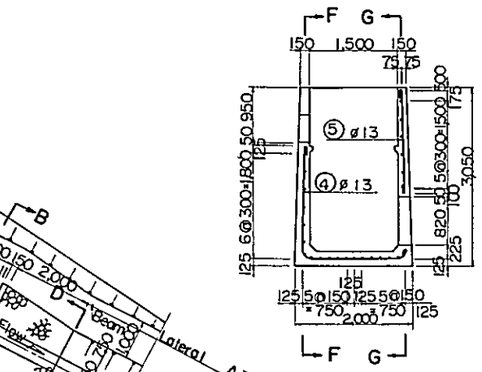
PLAN

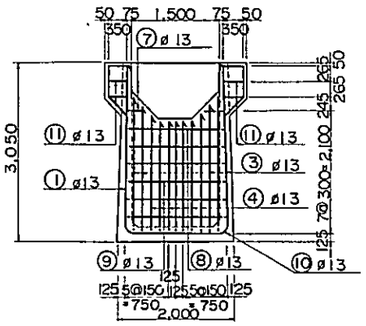
0 3,000
SCALE OF MILLIMETERS

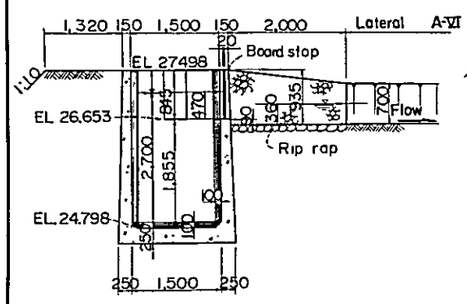


SECTION A-A

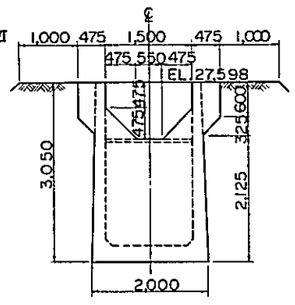
SECTION H-H SECTION I-I



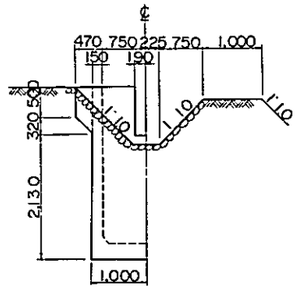




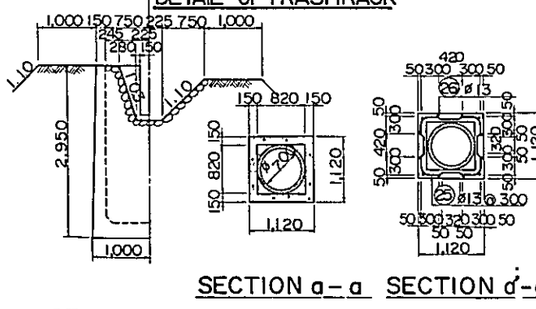
SECTION B-B

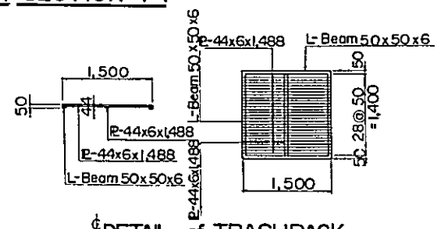


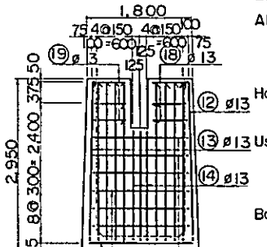
SECTION C-C



SECTION D-D







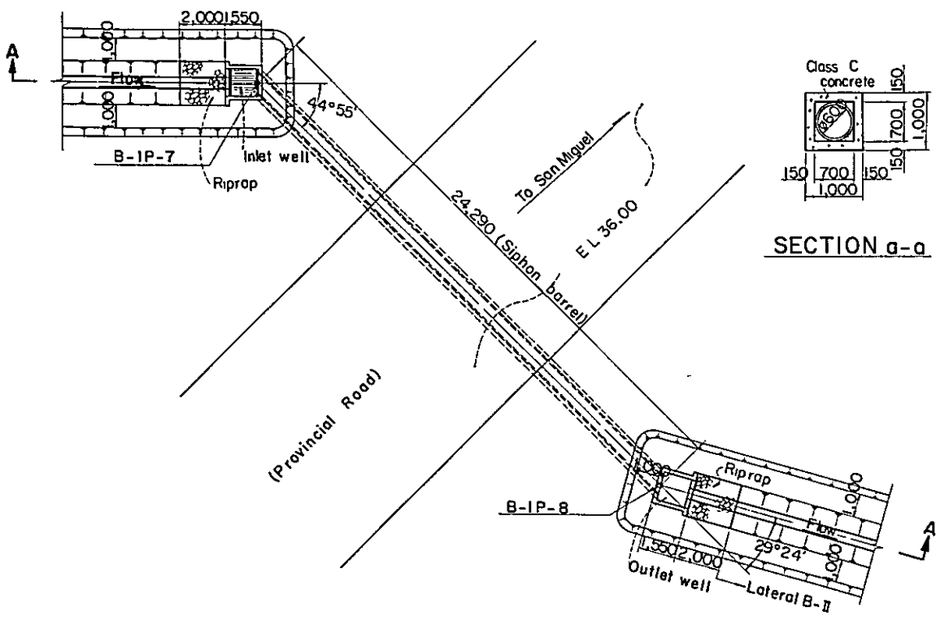
0 1,000 4,000
SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters.
Concrete design, except precast, based on a compressive strength of 80kg/cm².
Chamfer all exposed corners 20mm, unless otherwise shown.
For strength and aggregate size of concrete, see specifications.
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen.
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
All welds to be full penetration continuous and smooth.
Class 'A' concrete to be placed at all portion unless otherwise shown.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
SMALL SIPHON NO. I
PLAN AND SECTONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

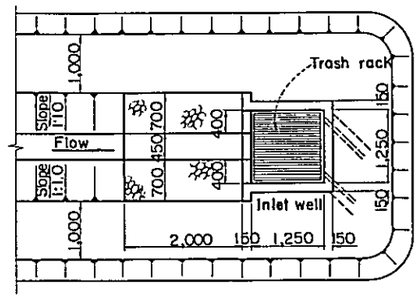
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A – 14



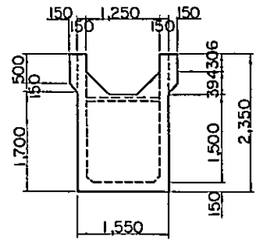
PLAN

0 5000
SCALE OF MILLIMETERS

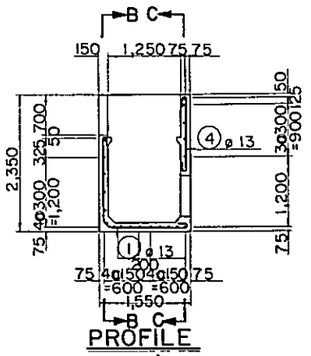
SECTION a-a



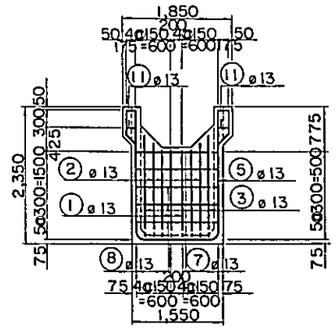
SECTION b-b



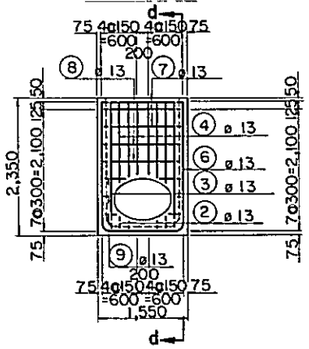
SECTION c-c



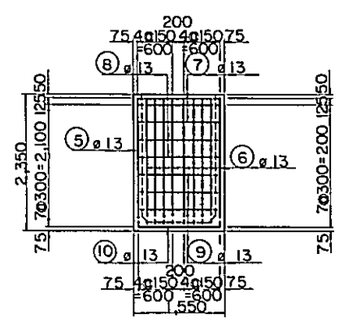
PROFILE



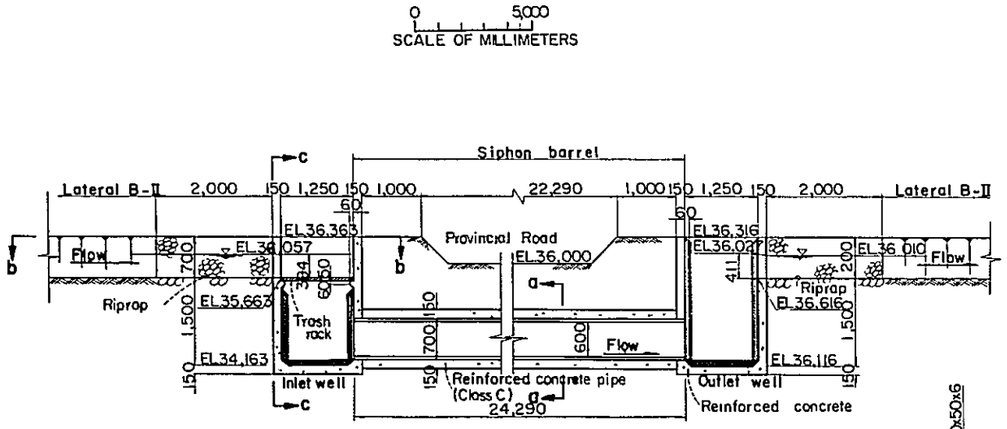
SECTION B-B



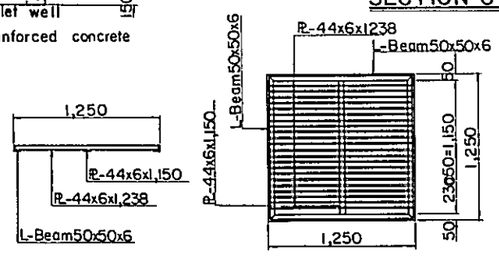
SECTION C-C



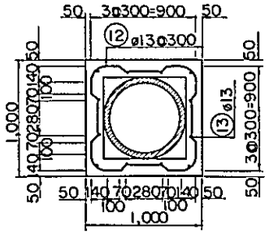
SECTION d-d



SECTION A-A



DETAIL OF TRASHRACK



SECTION a'-a'

0 1,000
SCALE OF MILLIMETERS

0 1,000
SCALE OF MILLIMETERS

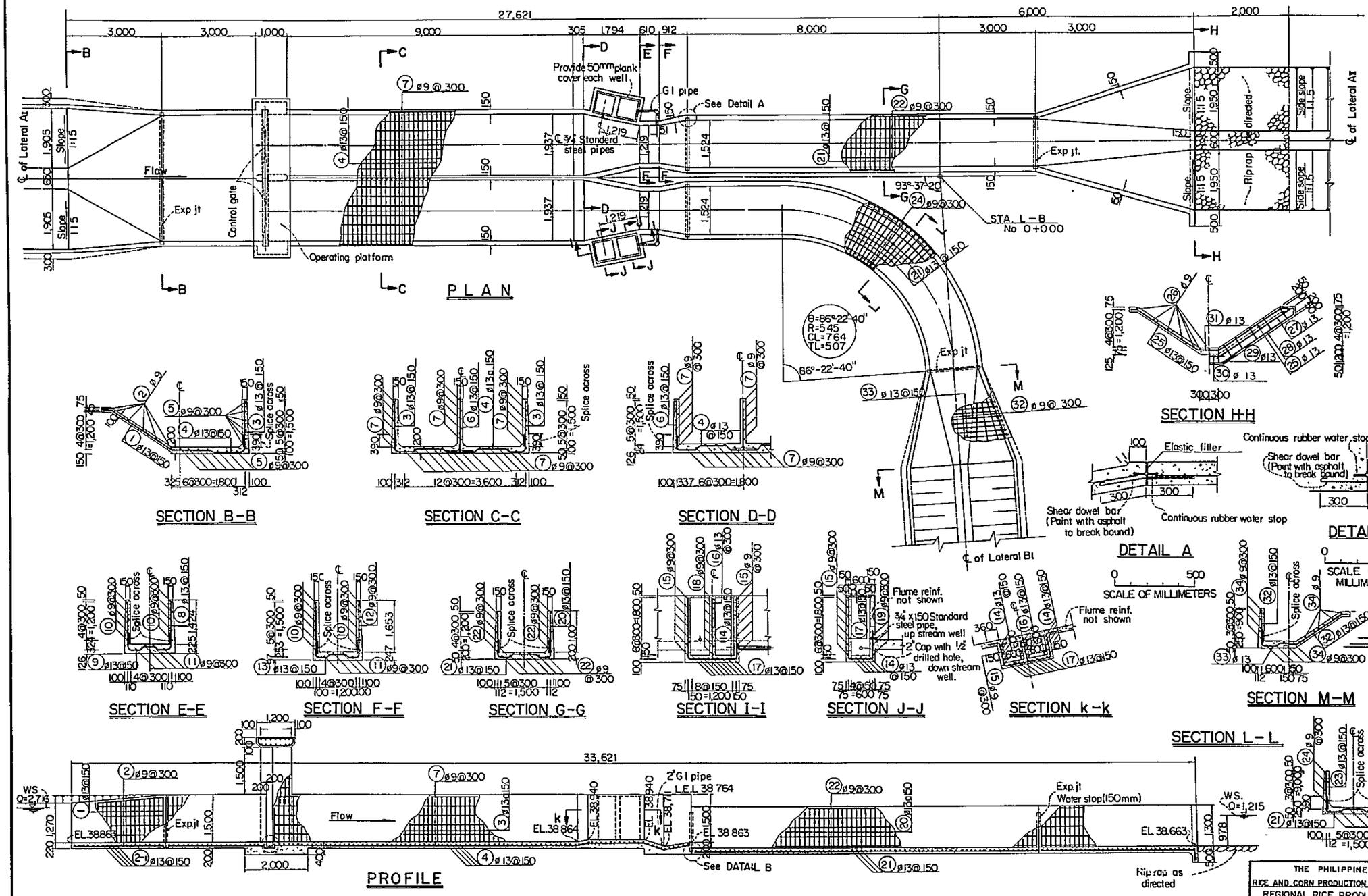
0 1,000 4,000
SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters
Concrete design, except precast, based on a compressive strength of 80 kg/cm².
Chamfer all exposed corners 20 mm, unless otherwise shown
For strength and aggregate size of concrete, see specifications.
Unless otherwise shown, placed reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
Class "A" concrete to be placed at all portion unless otherwise shown.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGAL ANG
SMALL SIPHON NO.2
PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A – 15

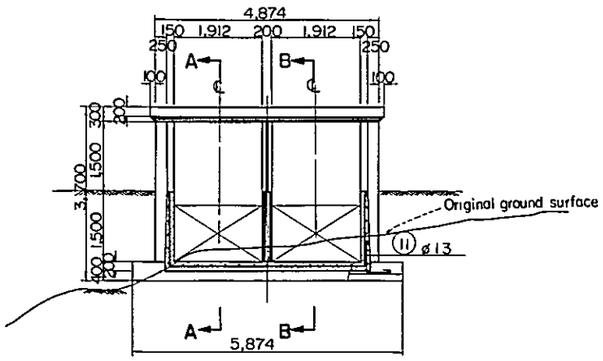


NOTE

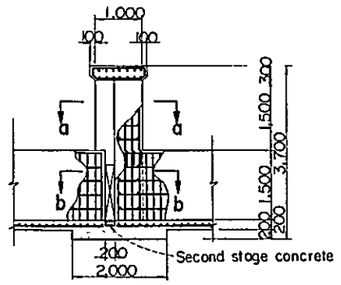
See Drawing A-17 for other sections and notes

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
DIVISION WORK NO. I
PLAN, PROFILE AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

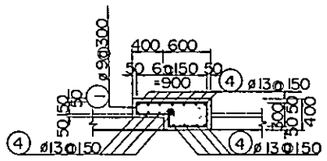
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A - 16



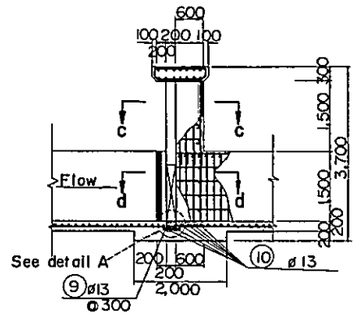
FRONT VEW OF CONTROL GATE



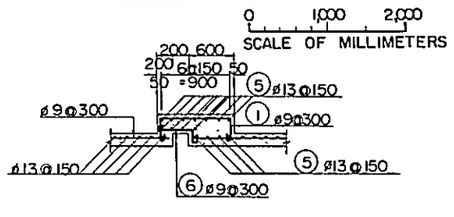
SECTION A-A



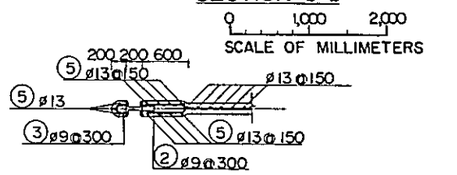
SECTION a-a



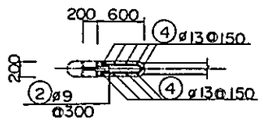
SECTION B-B



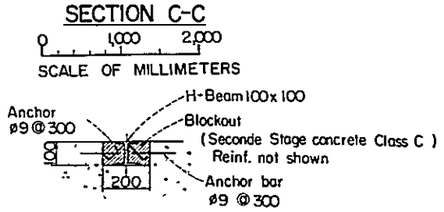
SECTION b-b



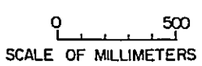
SECTION d-d

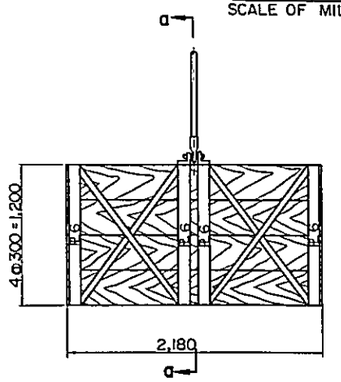


SECTION C-C

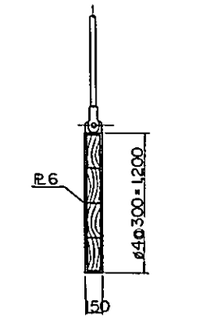


DETAIL A

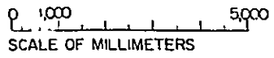




FRONT VIEW OF GATE



SECTION a-a



NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters.
See Drawing A-16 for plan and profile
Concrete design, except precast, based on a compressive strength of 80kg/cm².
Chamfer all exposed corners 20mm, unless otherwise shown.
For strength and aggregate size of concrete, see specifications
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50 mm except provide a clear distance of 100mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices
All reinforcing steel to be plain bar with standard hook each end in addition to length shown
Hook with 180°bends, lengths of 10 bar diameters to be provided where shown
Use 10 5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahman.
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
Use 150mm rubber water stop.
Welding H-beam shown in this drawing may be substituted by H-beam with adequate market size
All welds to be full penetration continuous and smooth
Water gauge (staff) shall be made of steel plate (10mm in thickness).
Class 'A' concrete to be placed at all portion, unless otherwise shown

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
DIVISION WORK NO. I
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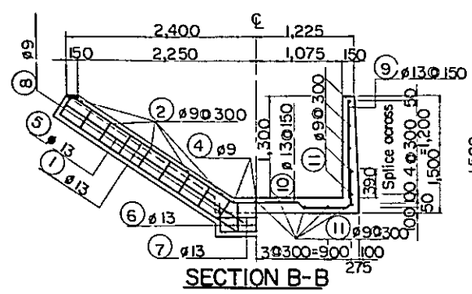
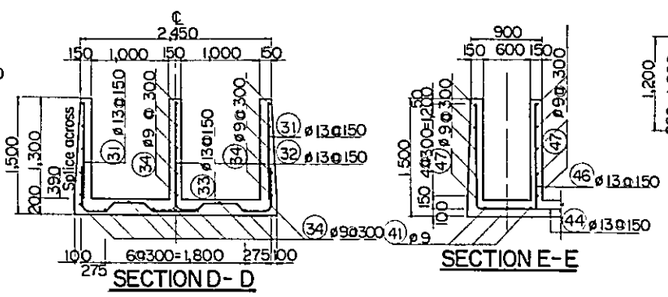
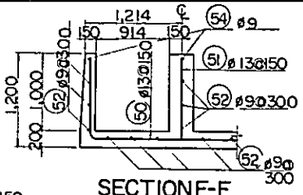
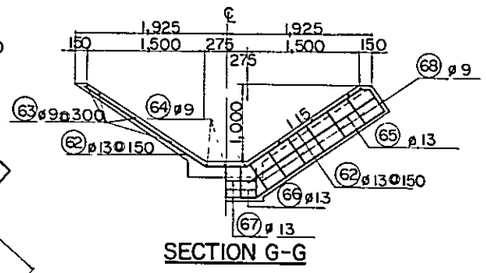
GOVERNMENT OF JAPAN

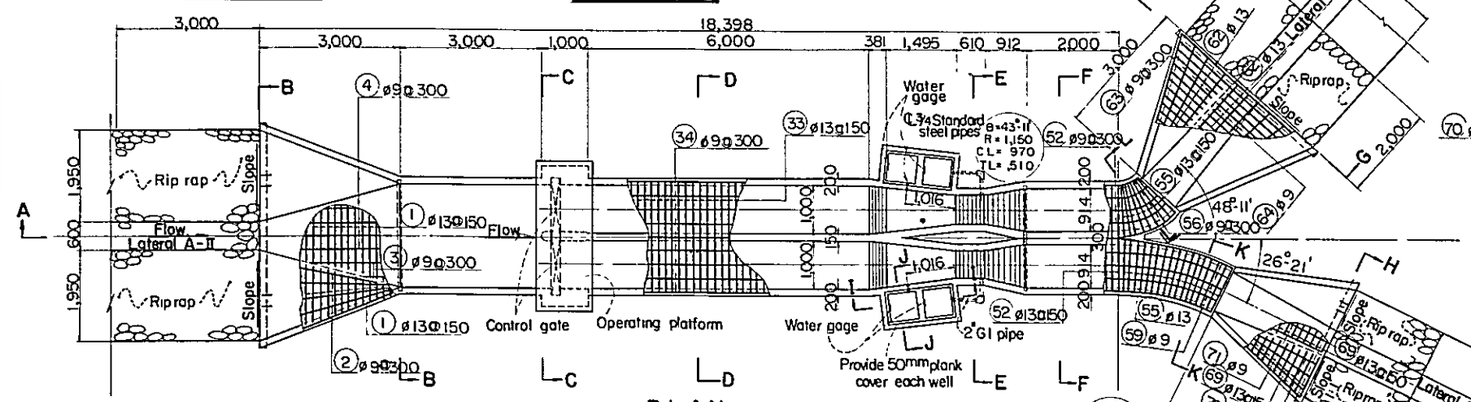
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A — 17

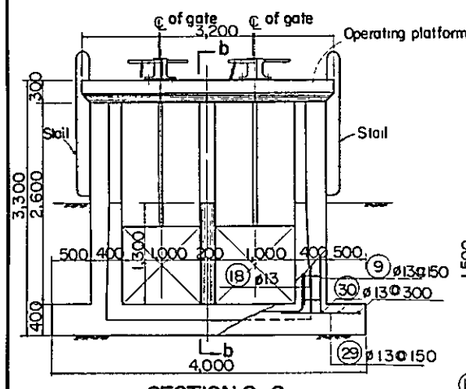


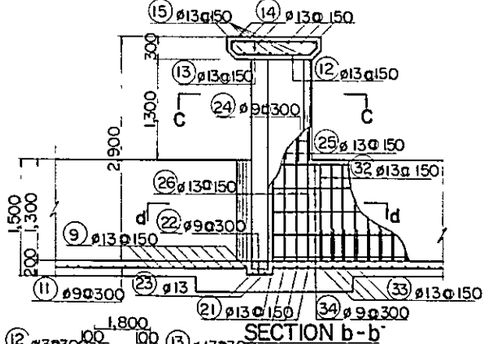


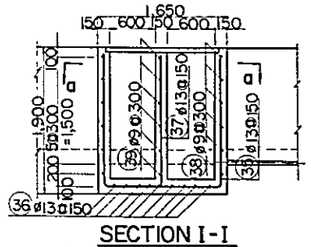


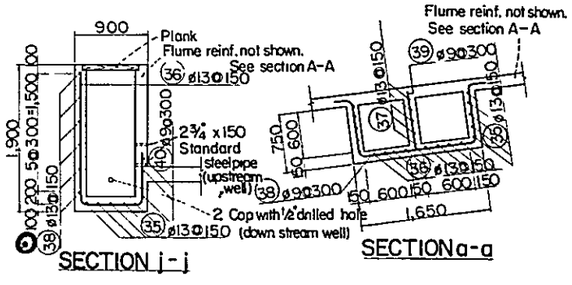


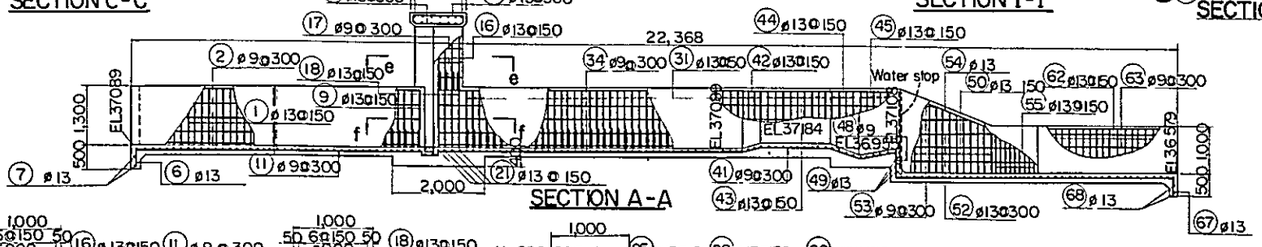


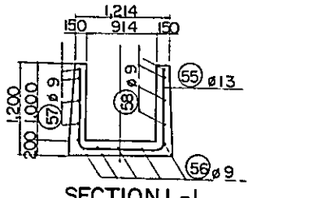


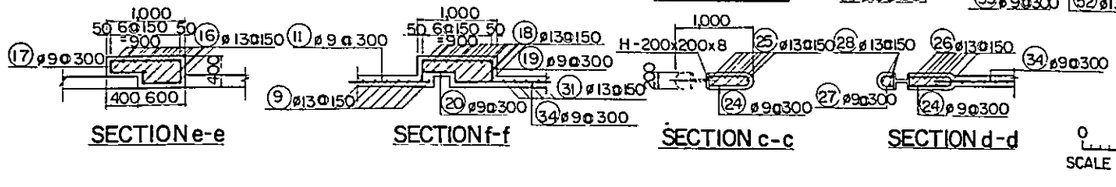










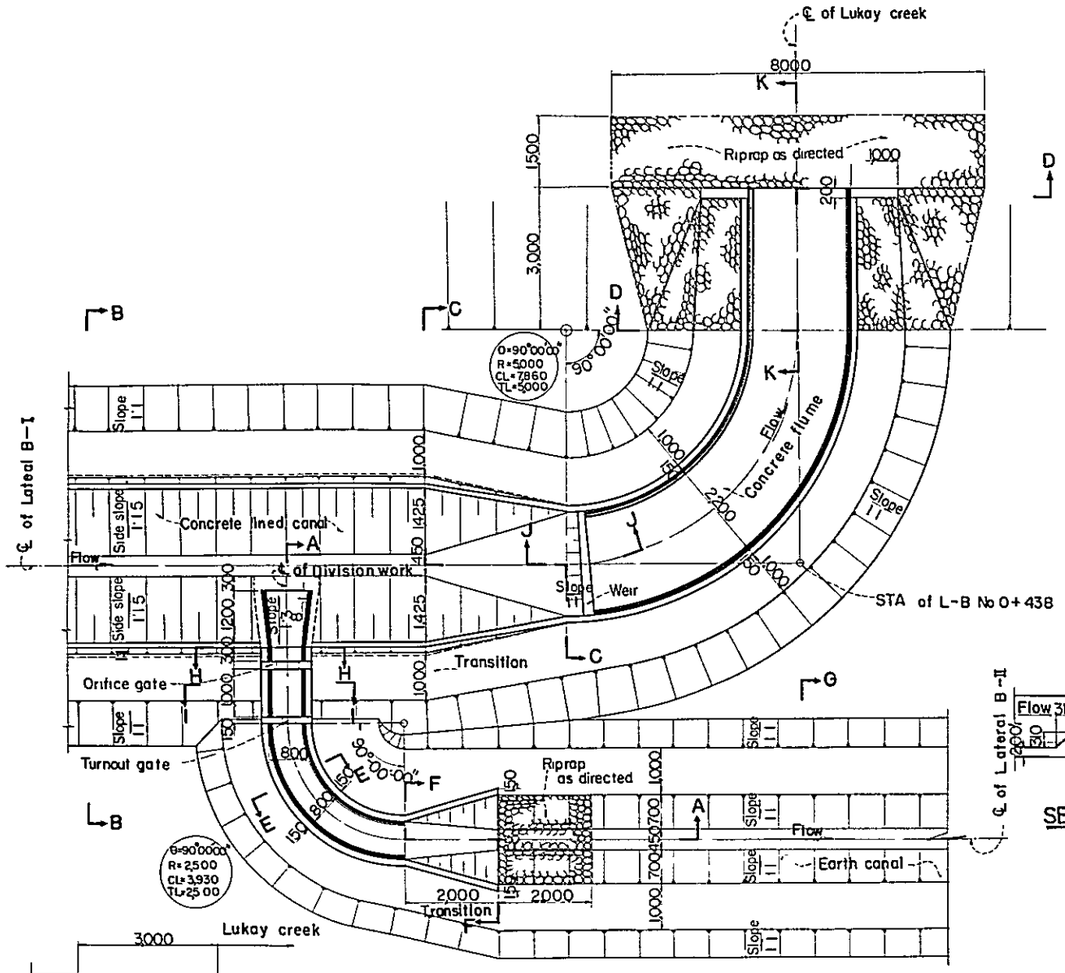


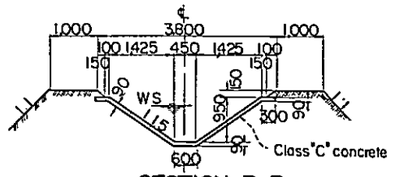
NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters.
Concrete design, except precast, based on a compressive strength of 80 kg/cm²
Chamfer all exposed corners 20 mm, unless otherwise shown
For strength and aggregate size of concrete see specifications
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from of concrete placed against earth.
Lap all bars 30 diameters at splices.
All reinforcing steel to be plan bar with standard hook each end in addition to length shown
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fil.
Use 150mm rubber water stop
Provide 10mm~20mm elastic filler in all expansion joints at all concrete contact areas
Welding H-beam shown in this drawing may be substituted by H-beam with adequate market size
Water gauge (staff) shall be made of steel plate (10mm in thickness).
All lumber to be treated
Class "A" concrete to be placed at all portion unless otherwise shown

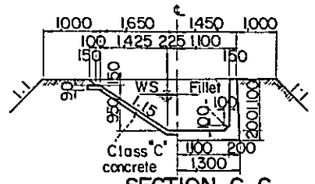
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
DIVISION WORK NO.2
PLAN, PROFILE AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A ~ 18

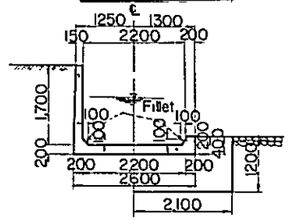




SECTION B-B



SECTION C-C



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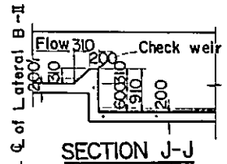
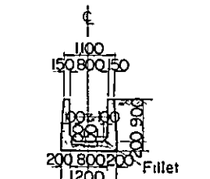
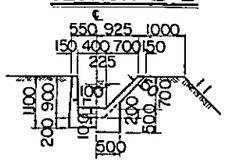


SECTION J-J



SECTION E-E



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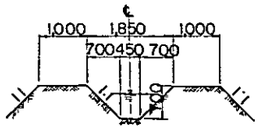

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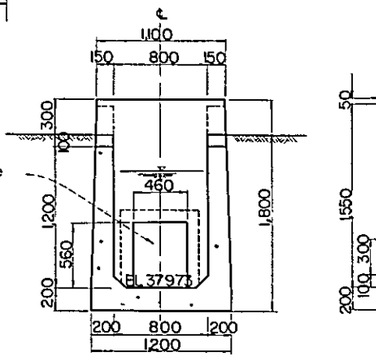
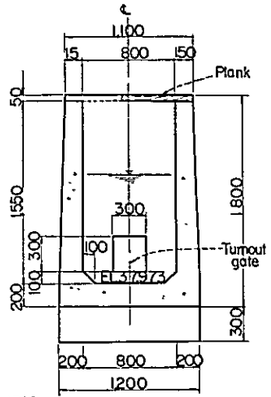
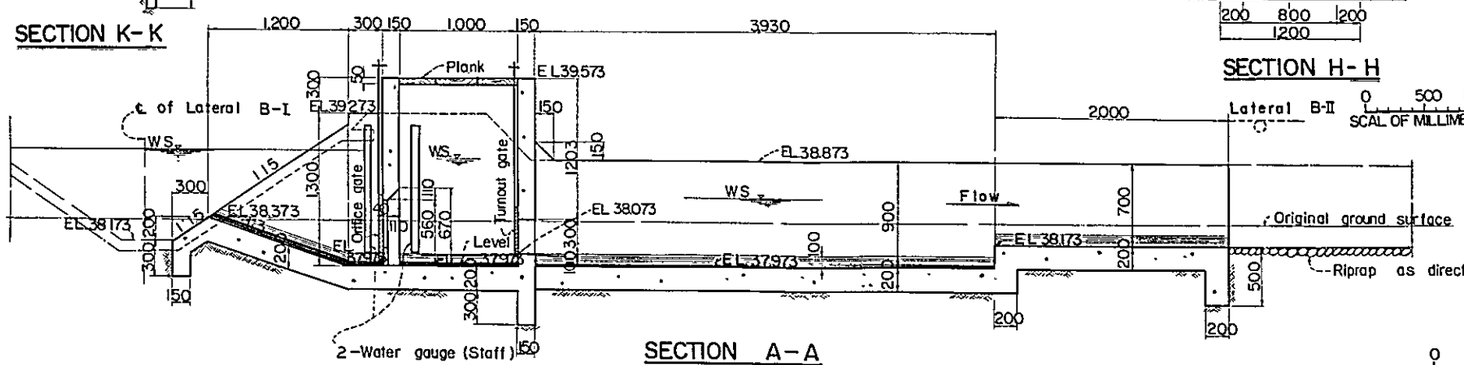


SECTION H-H



SECTION I-I



SECTION A-A

SECTION K-K

0 500 1,000
SCALE OF MILLIMETERS

0 1,000
SCALE OF MILLIMETERS

0 1,000 5,000
SCALE OF MILLIMETERS

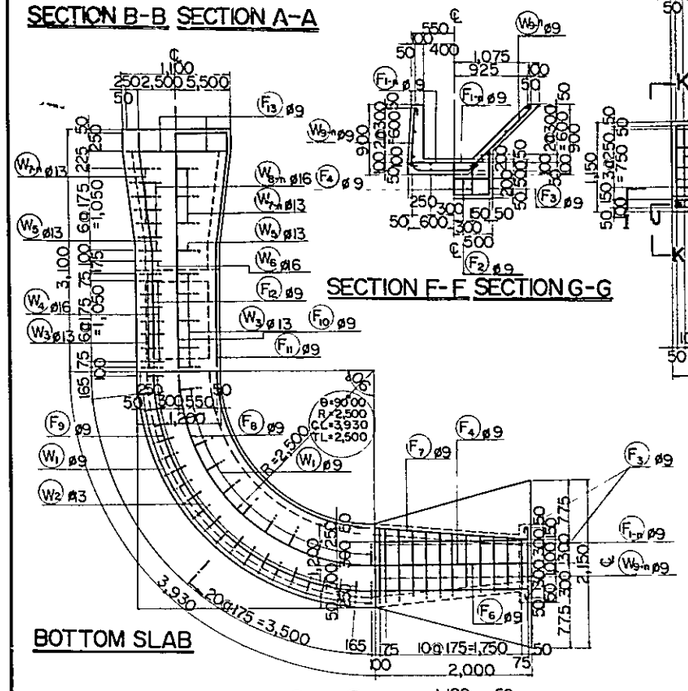
NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters.
Class "A" concrete to be placed at all portion unless otherwise shown
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill
See Drawing A-21 for detail of gates
See Drawing A-20 for reinforcement
Concrete design, except precast, based on a compressive strength of 80kg/cm²
Chamfer all exposed corners 20mm, unless otherwise shown.
For strength and aggregate size of concrete see specifications
Water gauge (staff) shall be made of steel plate (10mm in thickness).

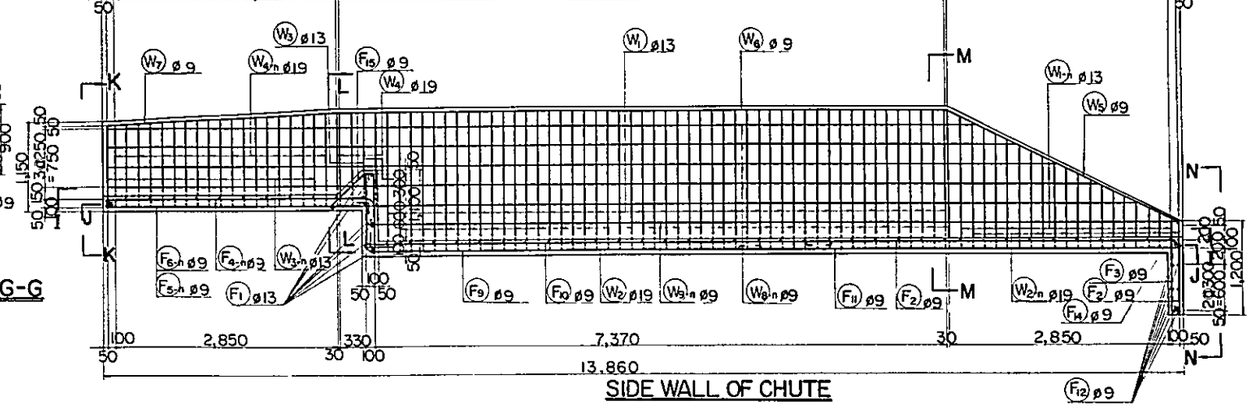
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL-ALANGALANG
DIVISION WORK NO.3
PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A-19

SECTION B-B SECTION A-A

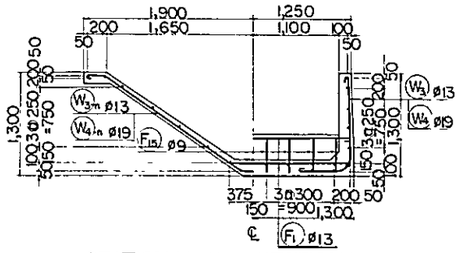


SECTION F-F SECTION G-G

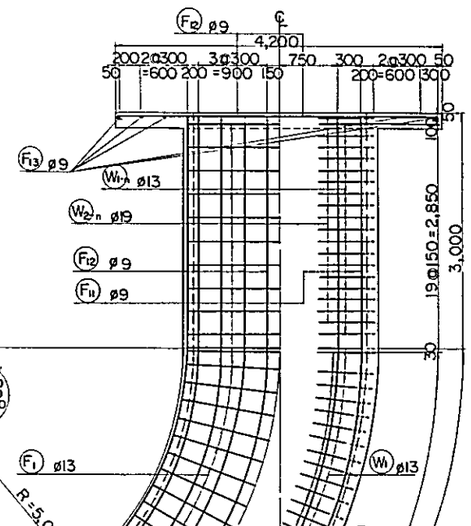


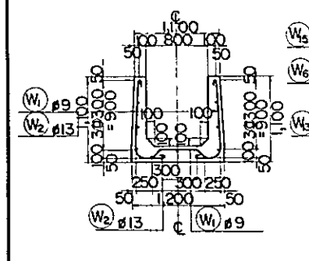
SIDE WALL OF CHUTE

BOTTOM SLAB

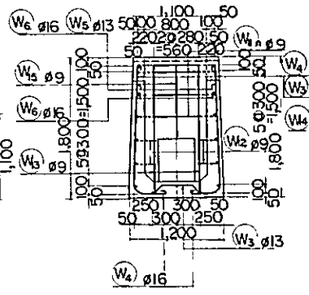


SECTION K-K SECTION L-L

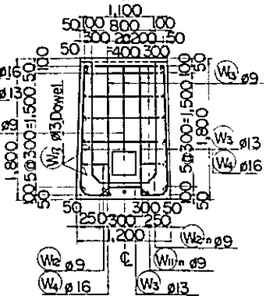




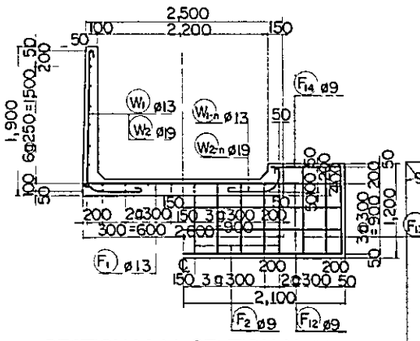
SECTION E-E



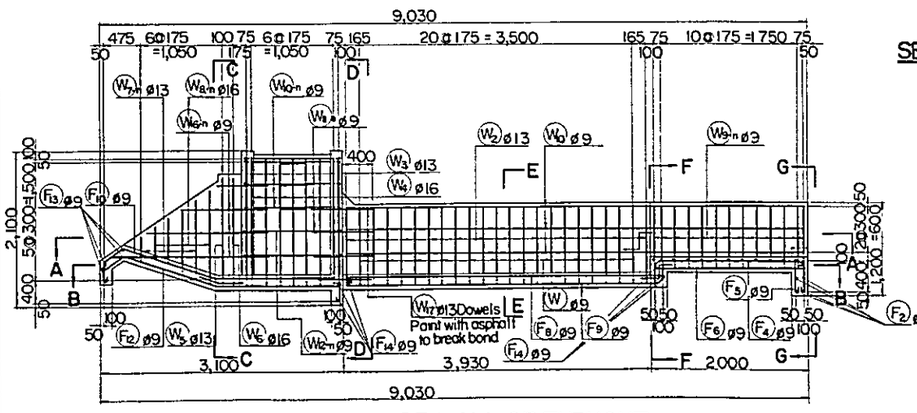
SECTION C-C



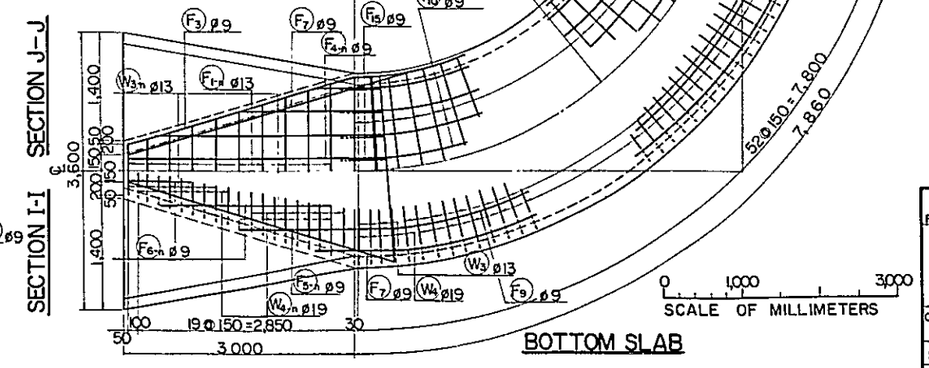
SECTION D-D



SECTION M-M SECTION N-N



SIDE WALL OF TURNOUT



SECTION J-J

SECTION I-I

BOTTOM SLAB

SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters

See Drawing A-19 for general plan and profile

Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth

Lap all bars 30 diameters at splices

All reinforcing steel to be plan bar with standard hook each end in addition to length shown

Hook with 180°bends, lengths of 10 bar diameters to be provided where shown.

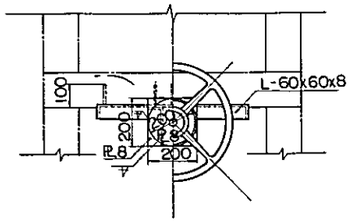
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG

DIVISION WORK NO.3
REINFORCEMENT SHEET

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

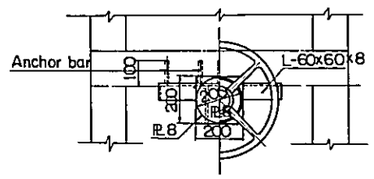
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A - 20



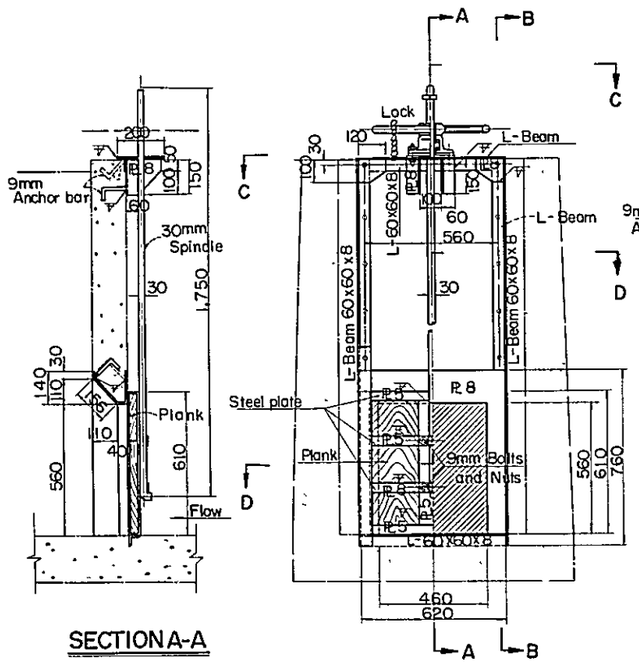
SECTIONC-C

DIMENSION OF GATE

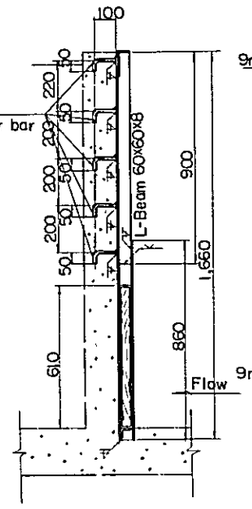
	ORIFICE	TURNOUT
WIDTH	600mm	480mm
HIGHT	610	450



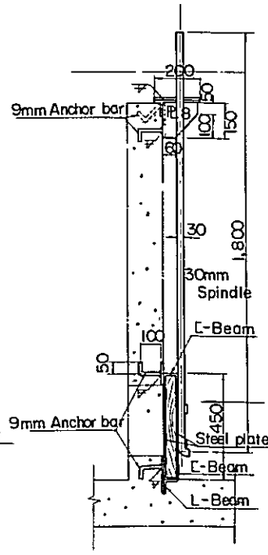
SECTION C-C



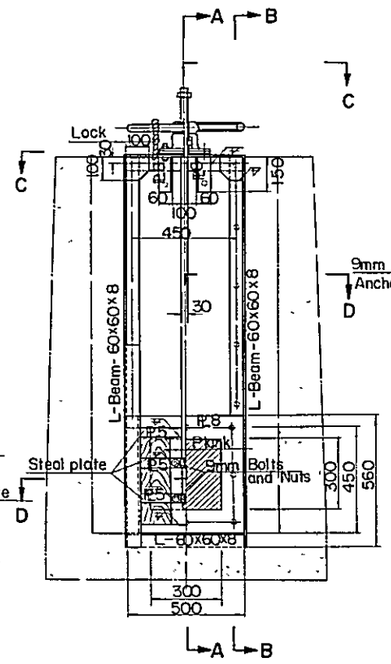
SECTION A-A



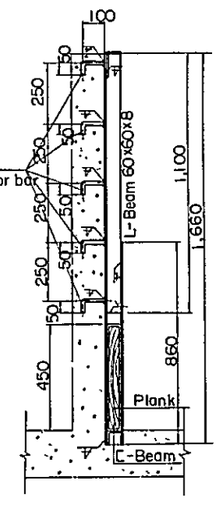
SECTION B-B



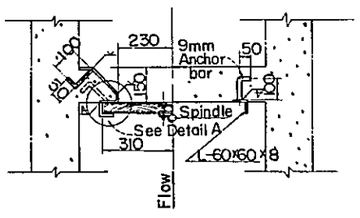
SECTION A-A



SECTION C-D

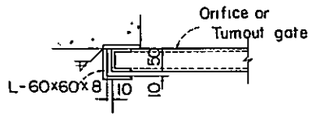


SECTION B-B



SECTION D-D

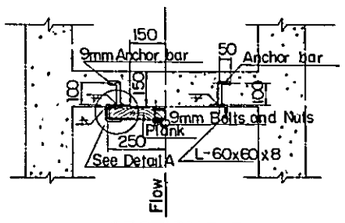
ORIFICE GATE



DETAIL A

0 300

SCALE OF MILLIMETERS



SECTION D-D

TURNOUT GATE

0 500 1,000

SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters

See Drawing A-19 for the general location of each gate.

Welding H-beam shown in this drawing may be substituted by H-beam with adequate market size.

All welds to be full penetration continuous and smooth.

Non-corrosive studs and nuts on flap valve.

Malleable iron washers to be used unless otherwise shown.

EXPLANATIONS

; Edge-fillet welds

; Single-V buttjoint weld both sides

; Steel plate

THE PHILIPPINES

RICE AND CORN PRODUCTION COORDINATING COUNCIL

REGIONAL RICE PRODUCTION CENTER

SANMIGUEL — ALANGALANG

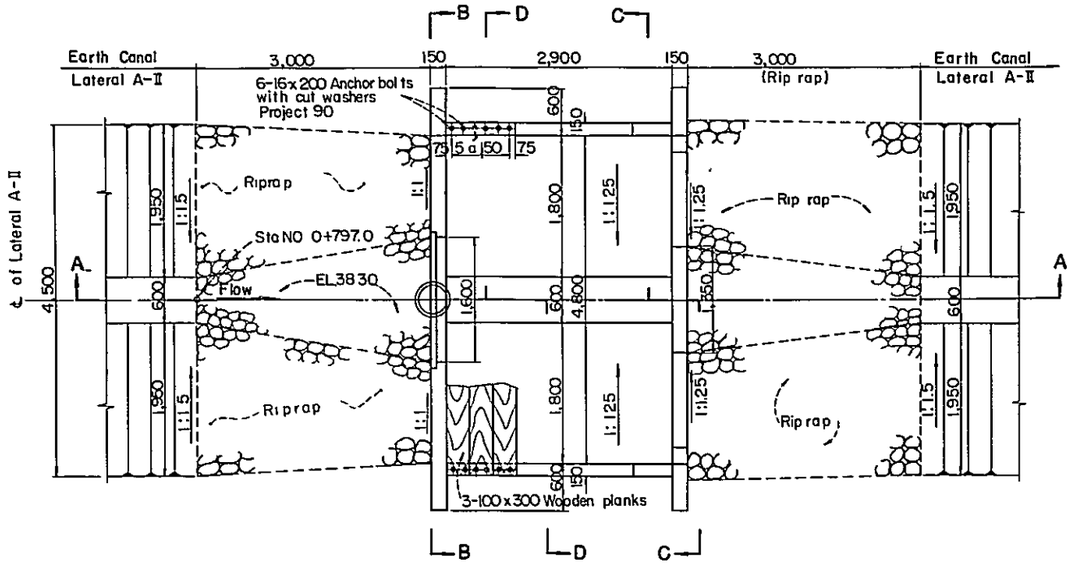
DIVISION WORK NO.3

INSTALL ASSEMBLY OF GATES

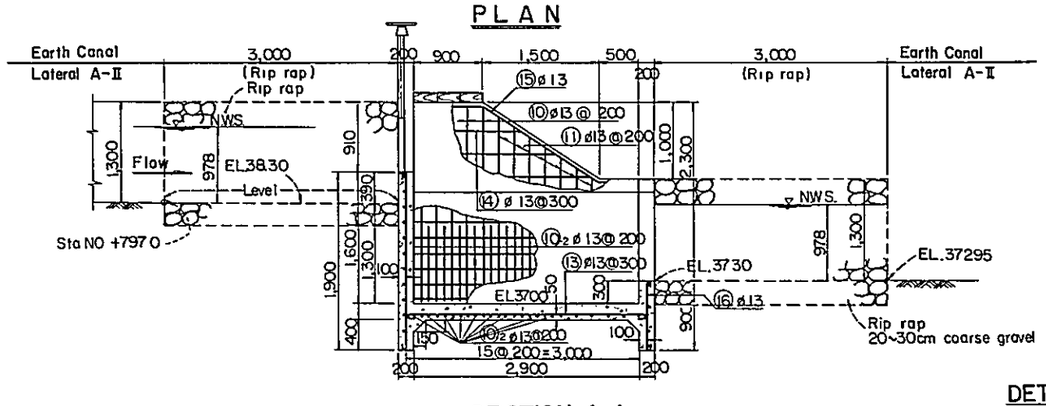
OVERSEAS TECHNICAL COOPERATION AGENCY

GOVERNMENT OF JAPAN

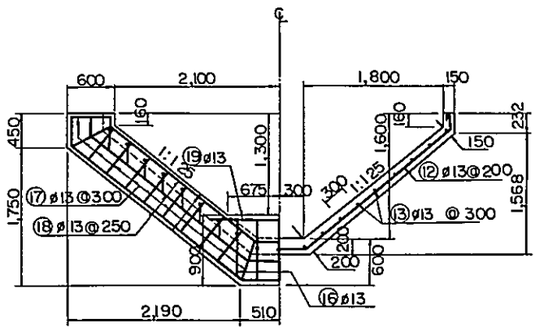
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A-21



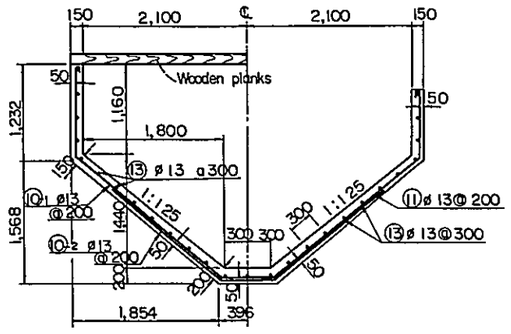
PLAN



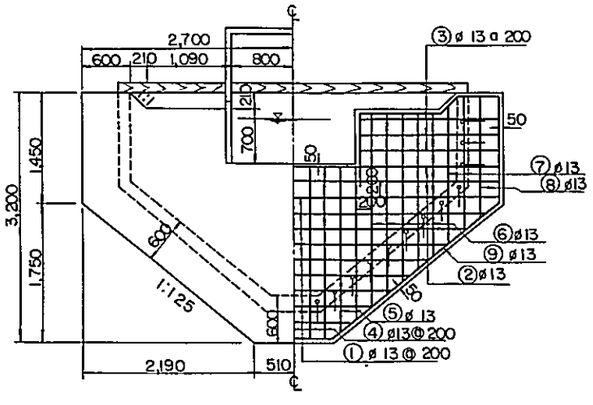
SECTION A-A



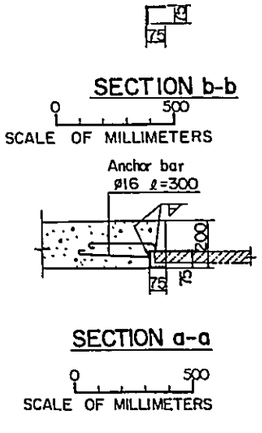
SECTION C-C



SECTION D-D



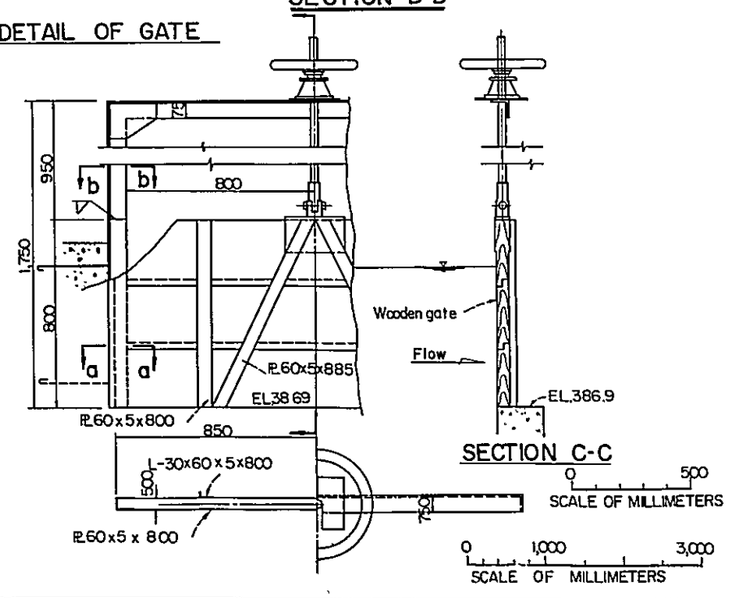
SECTION B-B



SECTION a-a

0 500
SCALE OF MILLIMETERS

DETAIL OF GATE



SECTION C-C

0 500
SCALE OF MILLIMETERS

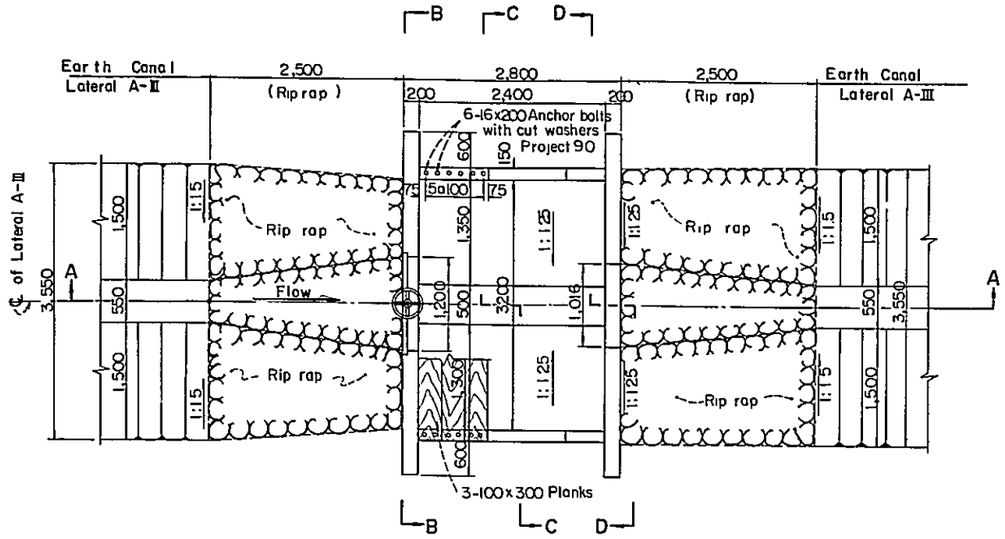
0 1,000 3,000
SCALE OF MILLIMETERS

NOTES

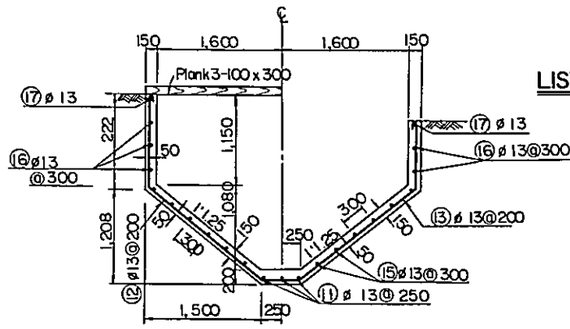
All dimensions are given in millimeters
All stations and elevations are give in meters
Chamfer all exposed corners 20 mm, unless otherwise shown.
For strength and aggregate size of concrete, see specifications
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth
Lap all bars 30 diameters at splices
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.
Use 10 5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen
Class 'A' concrete to be placed at all portion, unless otherwise shown.
All welds to be full penetration continuous and smooth
Non-corrosive studs and nuts on flapvalves

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
DROP TYPE 'A'
PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	A-22
SHEET NO	OF	DRAWING NO	



PLAN



SECTION C-C

LIST OF LATERAL A-III DROP 1000

STATION	EL-ⓐ	EL-ⓑ	EL-ⓒ	REMARKS
No1+617.5	36270	35040	35270	
No1+917.5	35056	32826	34056	
No2+6375	32042	30812	31042	

NOTES

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Chamfer all exposed corners 20 mm, unless otherwise shown.
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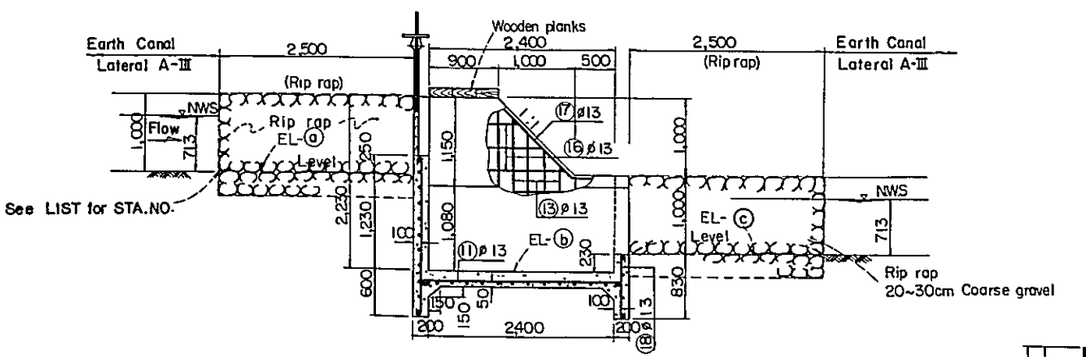
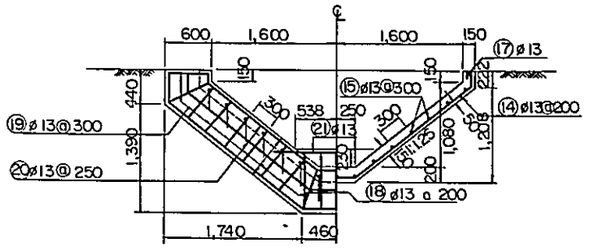
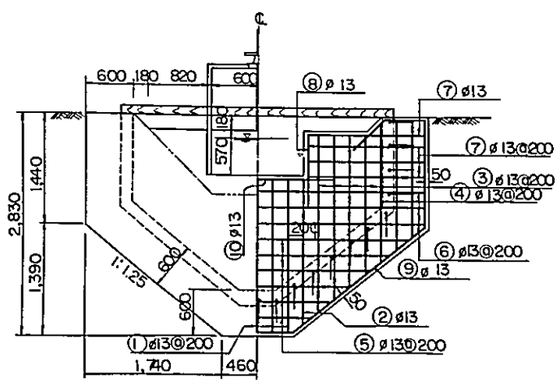
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid frame or Rahmen.
Class 'A' concrete to be placed at all portion, unless otherwise shown.
All welds to be full penetration continuous and smooth.
Non-corrosive studs and nuts on flap valves.



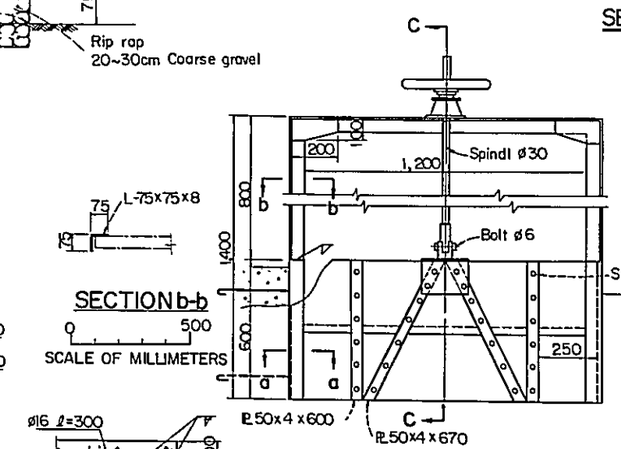
SECTION A-A



SECTION D-D



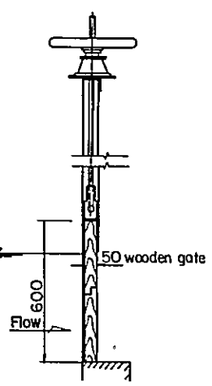
SECTION B-B



SECTION b-b
0 500
SCALE OF MILLIMETERS

SECTION a-a
0 500
SCALE OF MILLIMETERS

DETAIL OF GATE

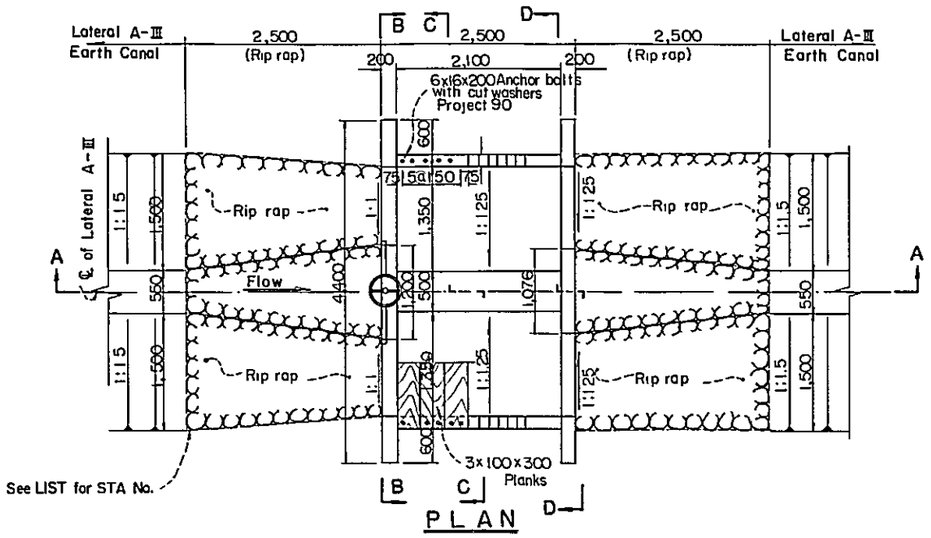


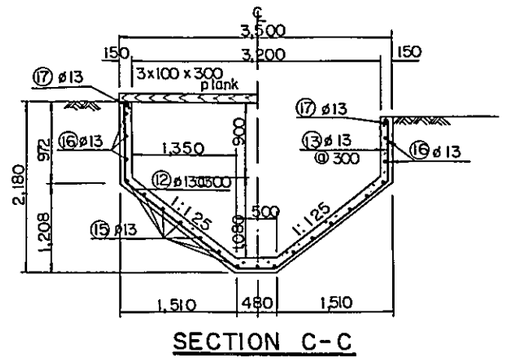
SECTION c-c
0 500
SCALE OF MILLIMETERS

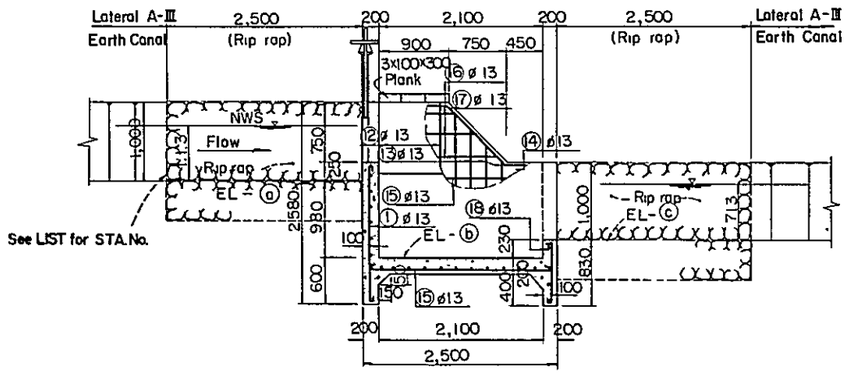
0 1,000 3,000
SCALE OF MILLIMETERS

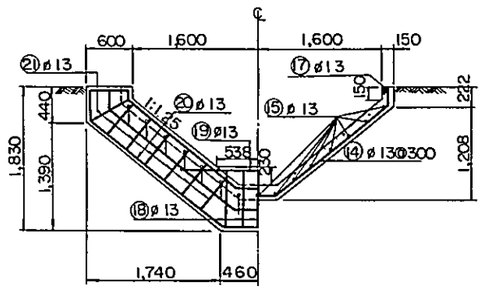
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SAN MIGUEL — ALANGALANG
DROP TYPE "B"
PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

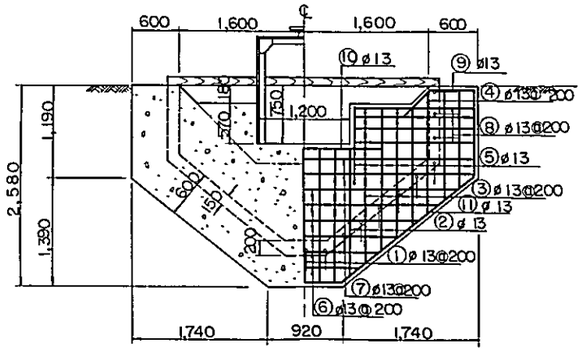
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A-23











LIST OF LATERAL A-II DROP 750

(TYPE C)

Sta-NO	EL- ⓐ	EL- ⓑ	EL- ⓒ	REMARKS
NO 2 +32.5	33 770	32790	33 020	
2 +47.5	32.906	31 926	32 156	
3 +2.5	32.128	23 148	29 378	
3 +27.5	29 335	28 335	28 585	
3 +33.5	28 542	27 562	27 792	

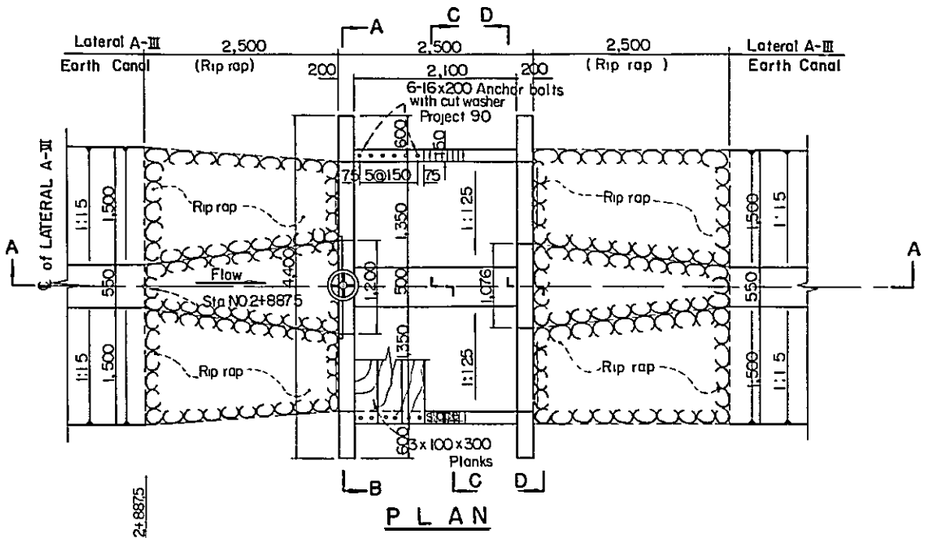
0 1,000 3,000
SCALE OF MILLIMETERS

NOTES

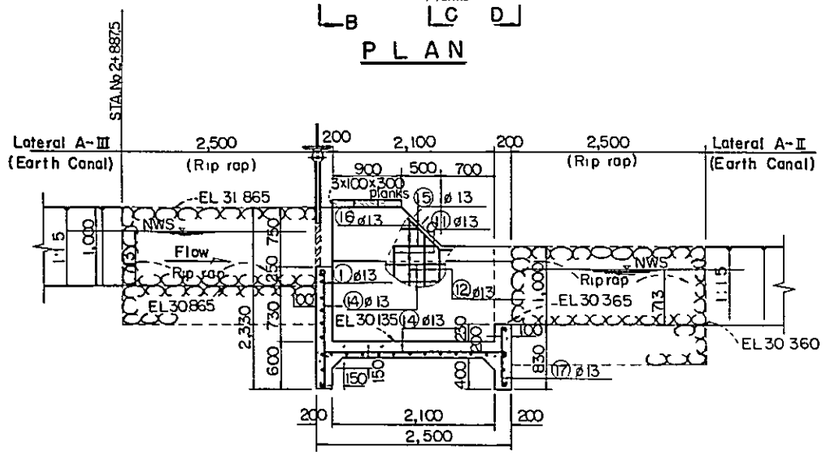
All dimensions are given in millimeters
All stations and elevations are given in meters
Chamfer all exposed corners 20 mm, unless otherwise shown
For strength and aggregate size of concrete, see specifications
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50 mm except provide a clear distance of 100 mm from face of concrete placed against earth
Lap all bars 30 diameters at splices
All reinforcing steel to be plain bar with standard hook each end in addition to length shown
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen
Class "A" concrete to be placed at all portion, unless otherwise shown.
All welds to be full penetration continuous and smooth.
Non-corrosive studs and nuts on flap valves.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
DROP TYPE "C"
PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

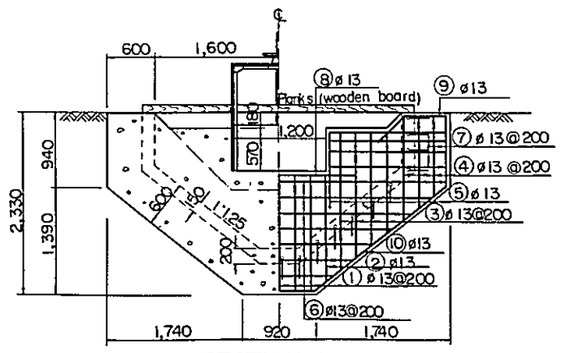
SCALE	AS SHOWN	DATE	A-24
SHEET NO	OF	DRAWING NO	



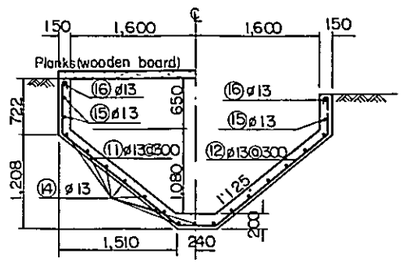
PLAN



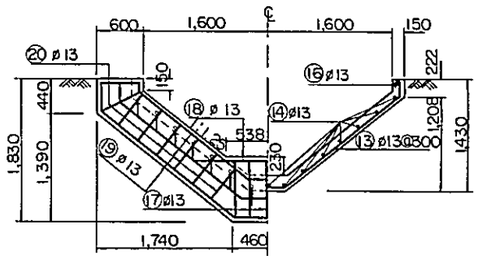
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters.
Chamfer all exposed corners 20 mm, unless otherwise shown
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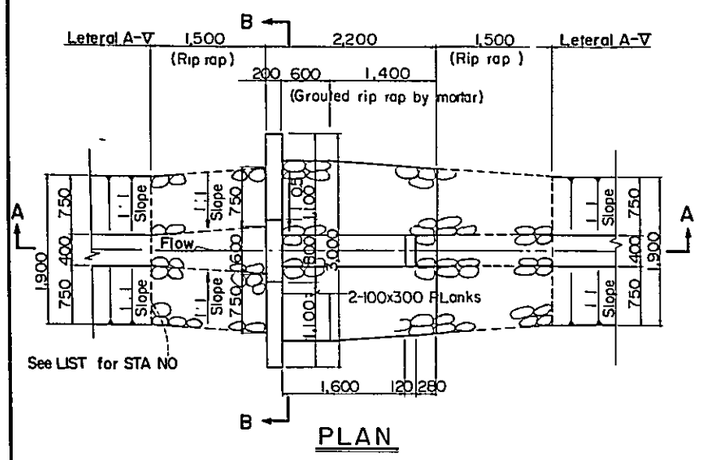
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50 mm except provide a clear distance of 100 mm from face of concrete placed against earth
Lap all bars 30 diameters at splices
All reinforcing steel to be plain bar with standard hook each end in addition to length shown
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown
Use 10 5 bar diameter radii for bends of main reinforcement at the corner of rigid frame or Rahmen.
Class "A" concrete to be placed at all portion, unless otherwise shown
All welds to be full penetration continuous and smooth
Non-corrosive studs and nuts on flap valves.

0 1,000 3,000
SCALE OF MILLIMETERS

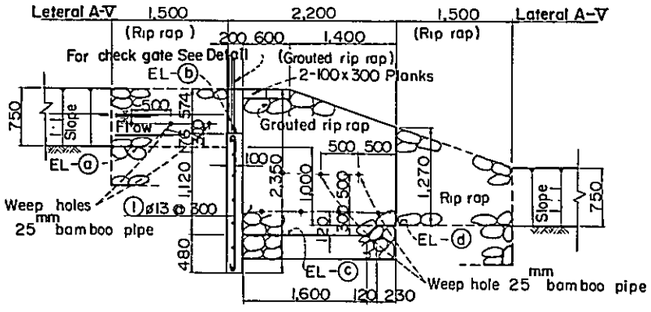
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
DROP TYPE "D" PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	A – 25
SHEET NO	OF	DRAWING NO	

Drop 1,000

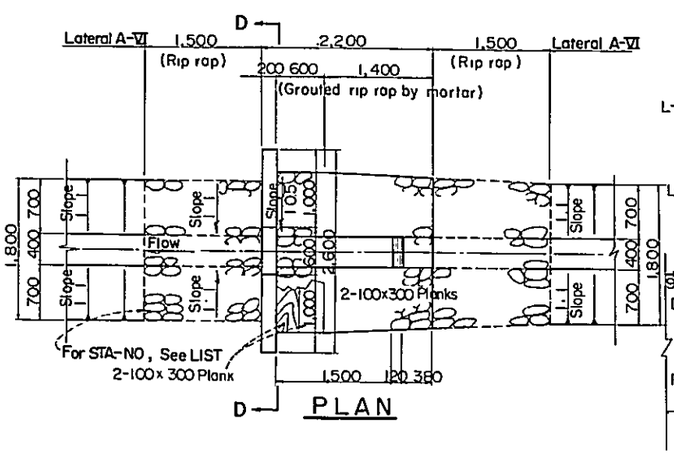


PLAN

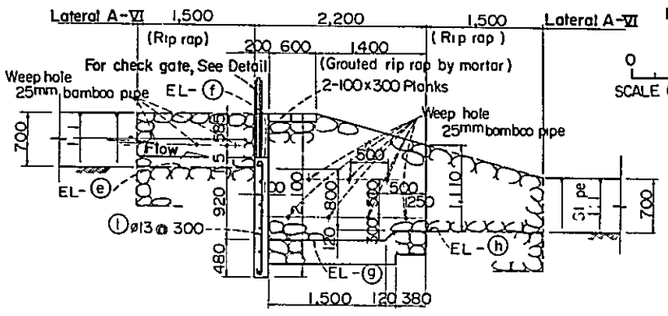


SECTION A-A

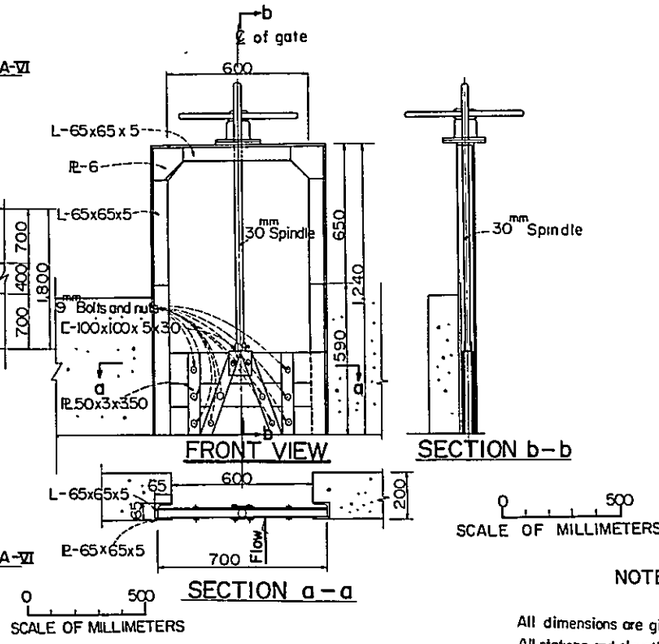
Drop 800



PLAN



SECTION C-C



LIST OF LATERAL A-VI DROP 800

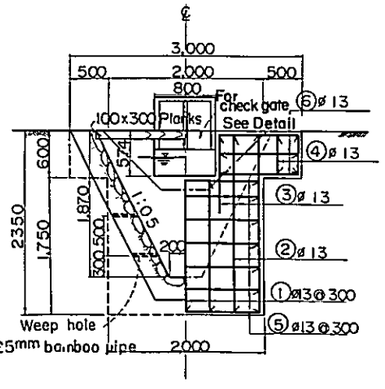
(TYPE - F)

Sta-No	EL-ⓔ	EL-ⓕ	EL-ⓖ	EL-ⓗ
No0+965	26,438	26553	25,518	25,638
0+2785	25,413	25,528	24,493	24,613
0+6985	24,088	24,203	23,168	23,288
0+8585	23,088	23,203	22,168	22,288

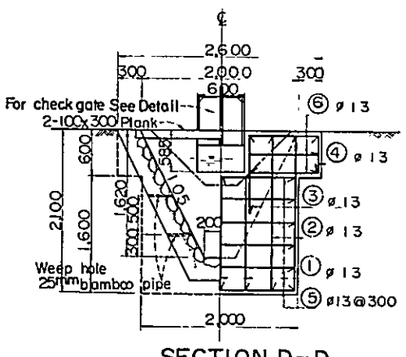
LIST OF LATERAL A-V DROP 1,000

(TYPE - E)

Sta-No	EL-ⓐ	EL-ⓑ	EL-ⓒ	EL-ⓓ
No4+ 798.5	26,385	26561	25,265	25,385
4+998.5	25,135	25,311	24,015	24,135
No5+ 3.985	23,635	23,811	22,515	22,635



SECTION B-B



SECTION D-D

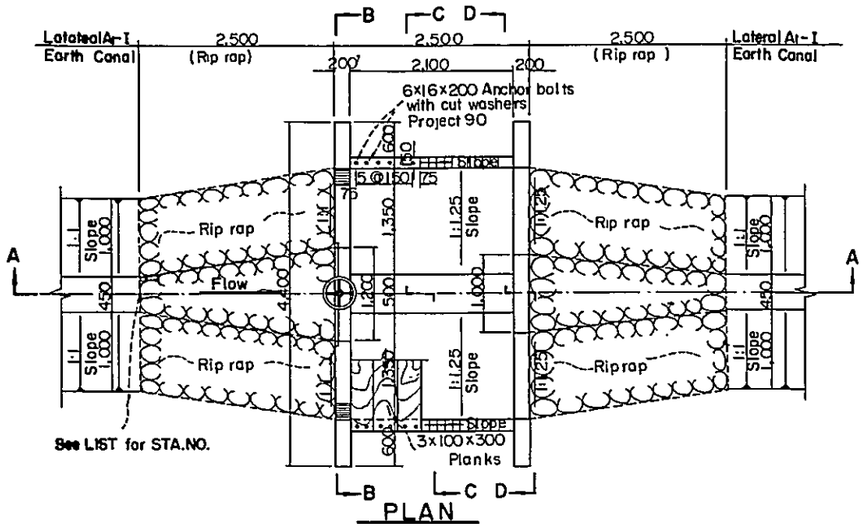
0 1,000 3,000
SCALE OF MILLIMETERS

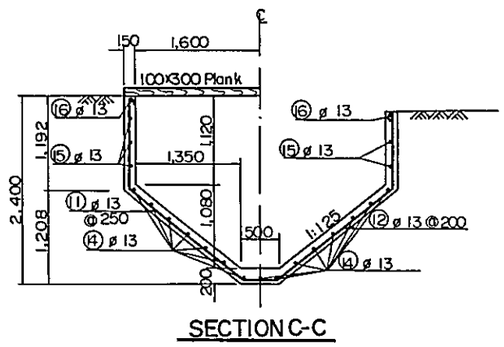
NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters.
Chamfer all exposed corners 20 mm, unless otherwise shown
For strength and aggregate size of concrete, see specifications.
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50 mm except provide a clear distance of 100mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen.
Class "A" concrete to be placed at all portion, unless otherwise shown
All welds to be full penetration continuous and smooth.
Non-corrosive studs and nuts on flap valves.

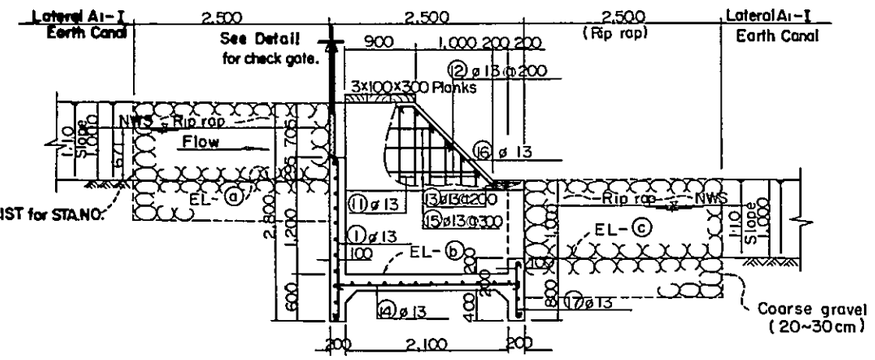
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
DROP TYPE 'E' AND 'F' PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A - 26

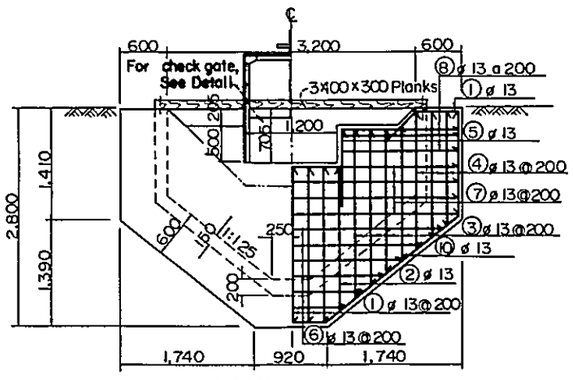




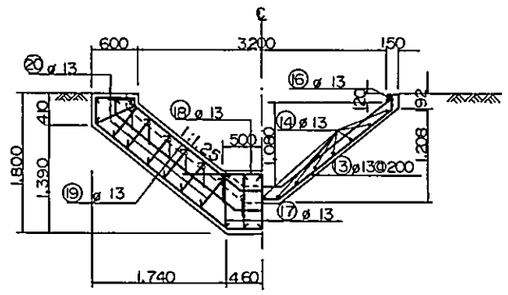
SECTION C-C



SECTION A-A



SECTIONB-B



SECTION D-D

LIST OF DROPS

Sta No	EL-ⓐ	EL-ⓑ	EL-ⓒ	REMARKS
No0+175	36.475	35.275	35.475	
0+975	34.629	33.429	33.629	
1+975	33.084	31.884	32.084	
1+148.5	32.037	30.837	31.037	

0 1,000 3,000
SCALE OF MILLIMETERS

NOTES

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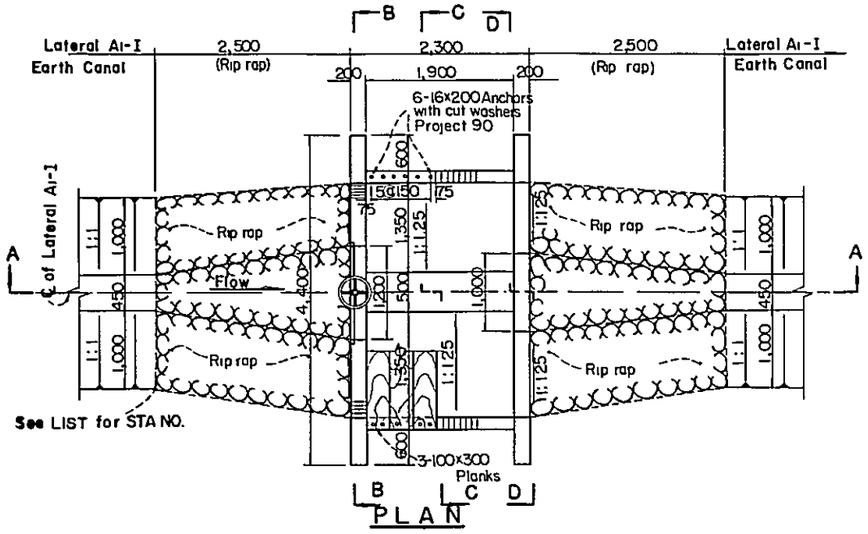
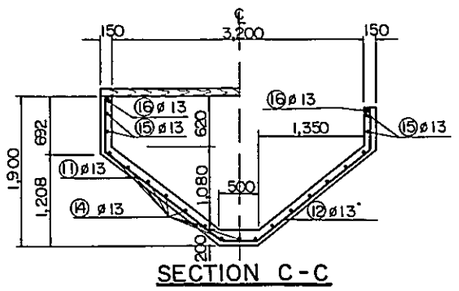
Use 10 5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen.
Class 'A' concrete to be placed at all portion unless otherwise shown
All welds to be full penetration continuous and smooth.
Non-corrosive studs and nuts on flap valves.

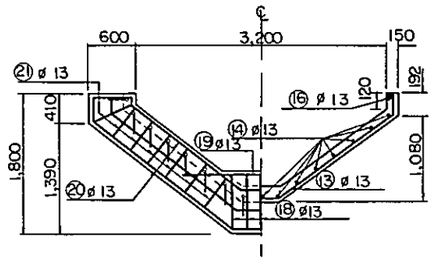
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
DROP TYPE "G"
PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A — 27





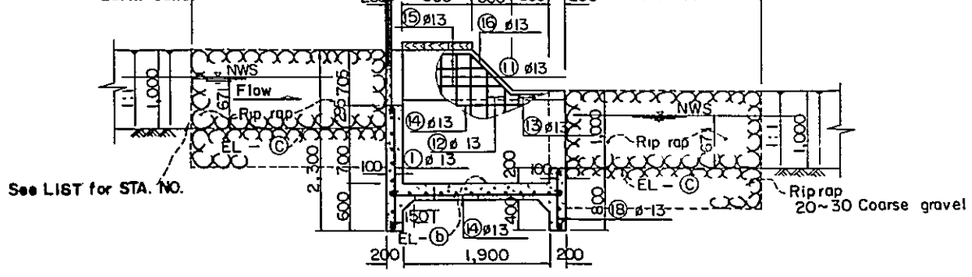
SECTION C-C



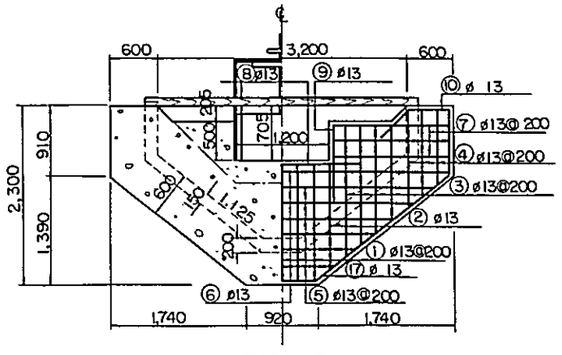
SECTION D-D

LIST OF LATERAL A1-I DROP 500

Sta-NO	EL- ⓐ	EL- ⓑ	EL- ⓒ	REMARKS
NO0+237.5	35 366	34 666	34.866	



SECTION A-A



SECTION B-B

NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters
Chamfer all exposed corners 20 mm, unless otherwise shown.
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Use 10 5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen.
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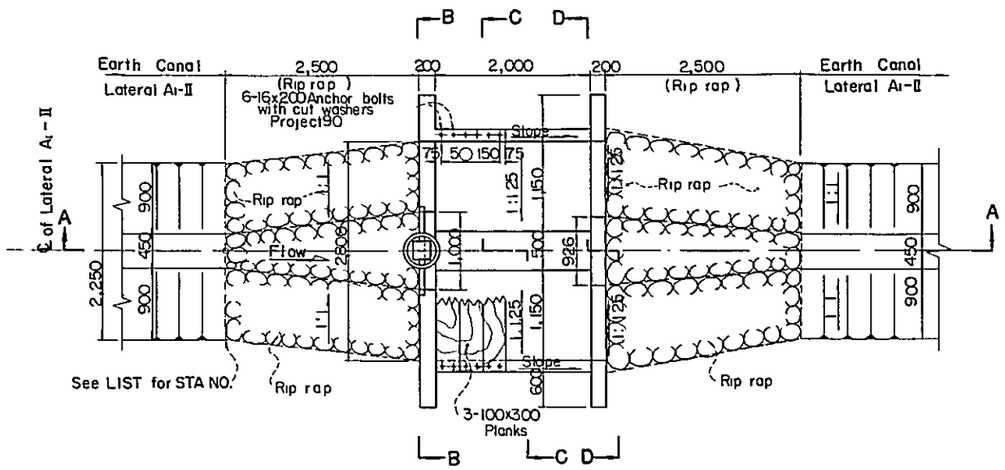
All welds to be full penetration continuous and smooth.
Non-corrosive studs and nuts on flap valves.

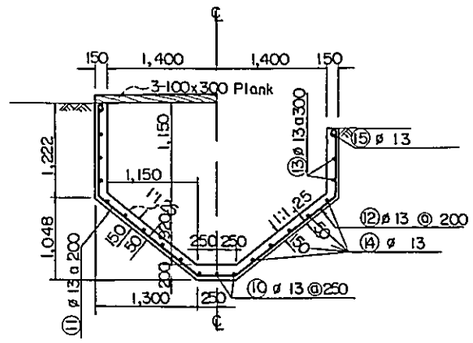
0 1,000 3,000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
DROP TYPE "H" PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

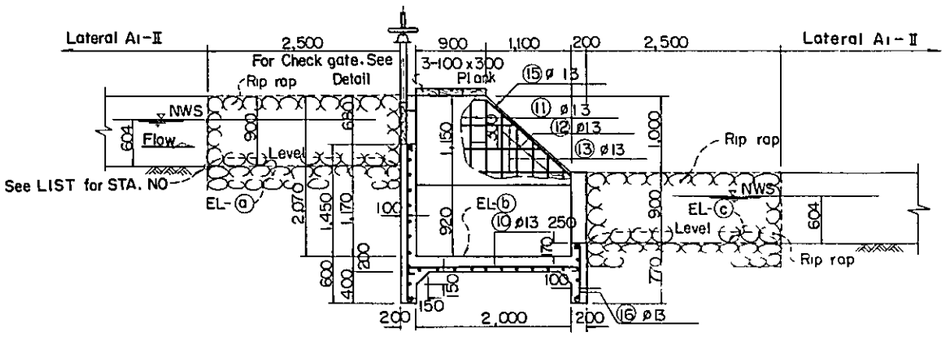
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A - 28



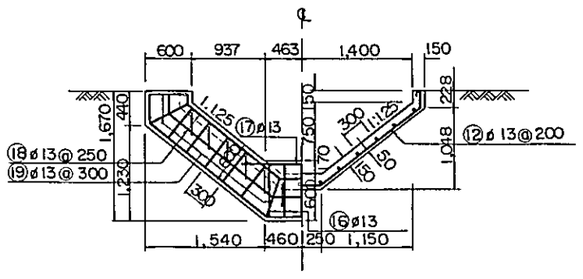
PLAN



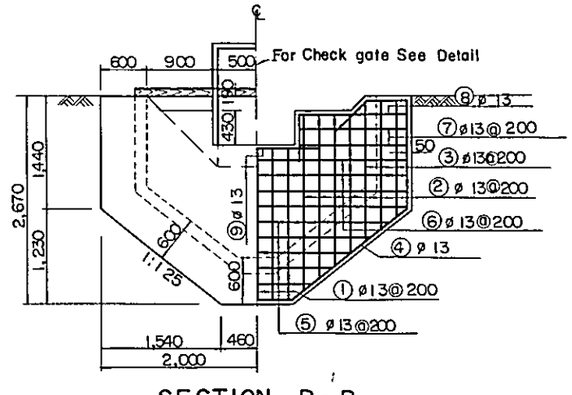
SECTION C-C



SECTION A-A



SECTION D-D



SECTION B-B

LIST OF LATERAL A1-II DROP 1,000

TYPE I

STA NO	EL-ⓐ	EL-ⓑ	EL-ⓒ	REMARKS
NO 1+637.5	30.646	29.476	29.646	
1+797.5	29.518	28.348	28.518	
2+337.5	27.086	25.916	26.066	
2+497.5	25.958	24.782	24.958	
2+707.5	24.790	23.620	23.790	
3+157.5	23.430	22.260	22.430	

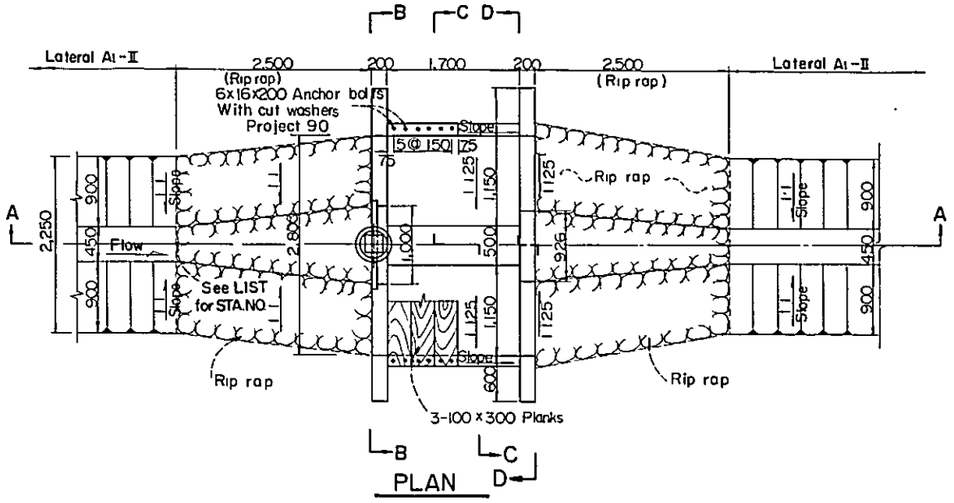
0 1,000 3,000
SCALE OF MILLIMETERS

NOTES

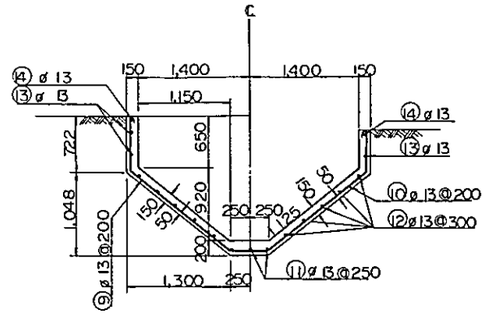
All dimensions are given in millimeters
All stations and elevations are given in meters
Chamfer all exposed corners 20 mm, unless otherwise shown
For strength and aggregate size of concrete see specifications
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50 mm except provide a clear distance of 100 mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown
Use 10 5 bar diameter radii for bends of main reinforcement at the corner of rigid frame or Rahmen
Class "A" concrete to be placed at all portion, unless otherwise shown.
All welds to be full penetration continuous and smooth
Non-corrosive studs and nuts on flapvalves.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
DROP TYPE "I"
PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A – 29



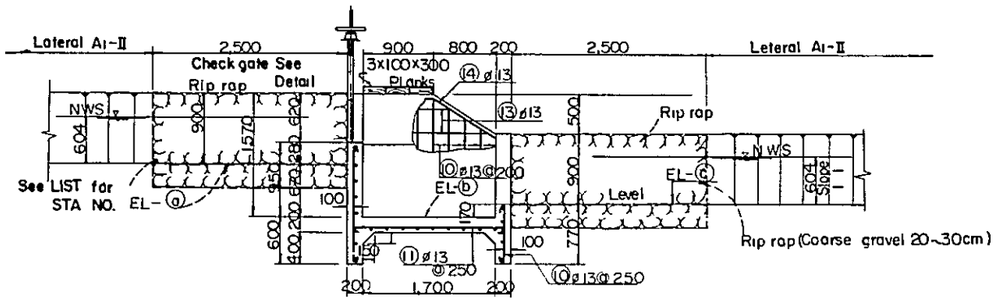
PLAN



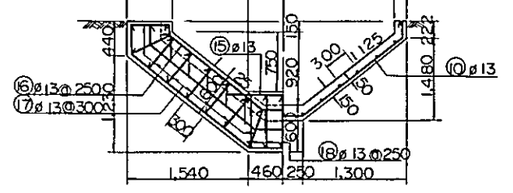
SECTION C- C

LIST OF LATERAL A1-II DROP 500 (TYPE J)

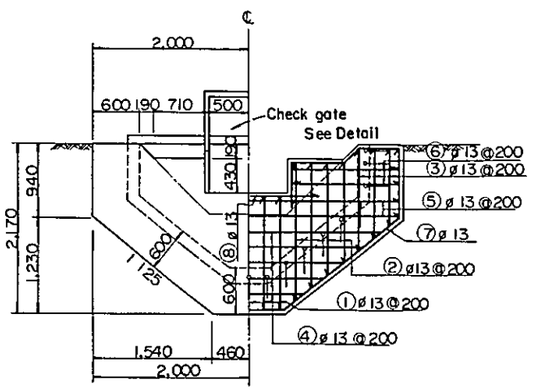
Sta No	EL-ⓐ	EL-ⓑ	EL-ⓒ
1+9675	38372	37712	37882
2+2975	27618	26.948	27118



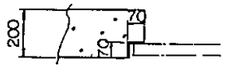
SECTION A-A



SECTION D-D



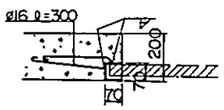
SECTION B-B



SECTIONa- a

0 500

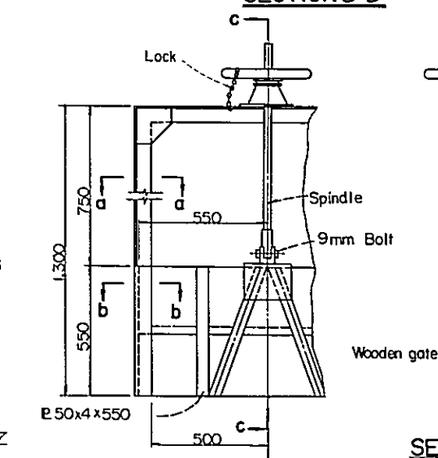
SCALE OF MILLIMETERS



SECTION b-b

0 500

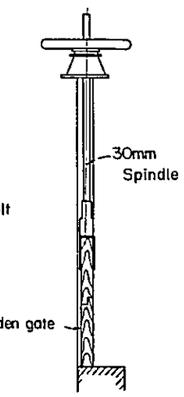
SCALE OF MILLIMETERS



0 500

SCALE OF MILLIMETERS

DETAIL OF GATE



SECTION C-C

0 500

SCALE OF MILLIMETERS

0 1,000 3,000

SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters
Chamfer all exposed corners 20 mm, unless otherwise shown
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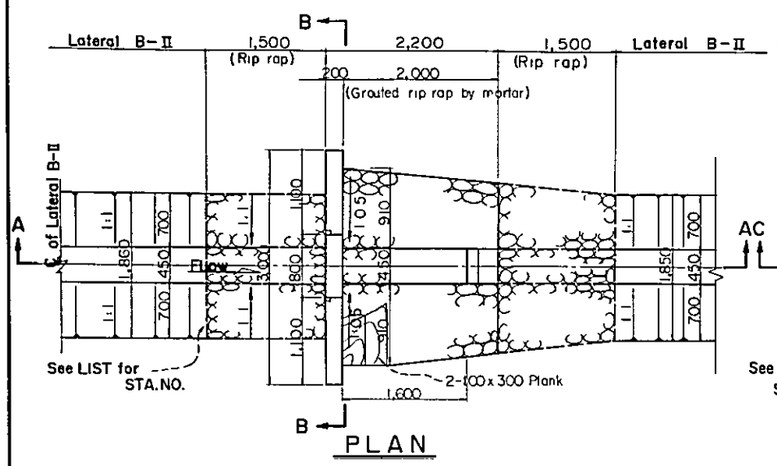
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50 mm except provide a clear distance of 100mm from face of concrete placed against earth
Lap all bars 30 diameters at splices
All reinforcing steel to be plain bar with standard hook each end in addition to length shown
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.
Use 10 5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen.
Class "A" concrete to be placed at all portion, unless otherwise shown
All welds to be full penetration continuous and smooth
Non-corrosive studs and nuts on flap valves

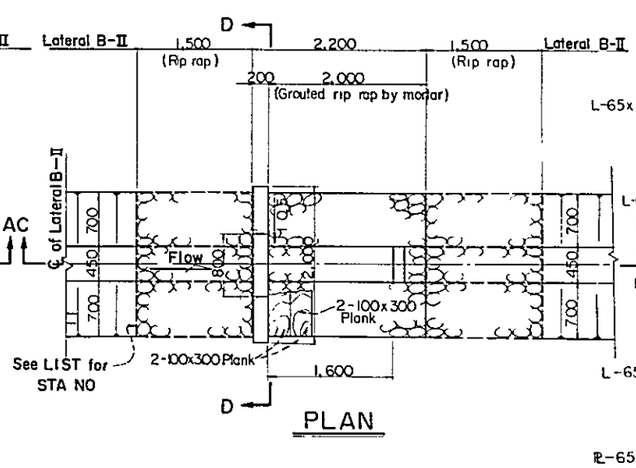
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG

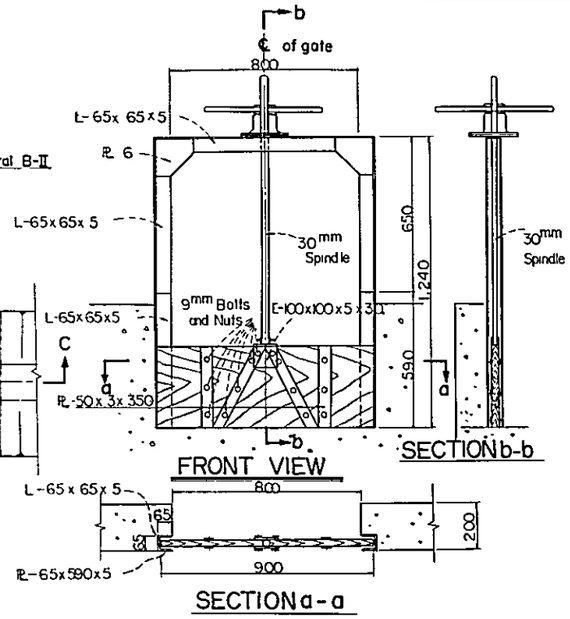
DROP TYPE J
PLAN AND SECTIONS

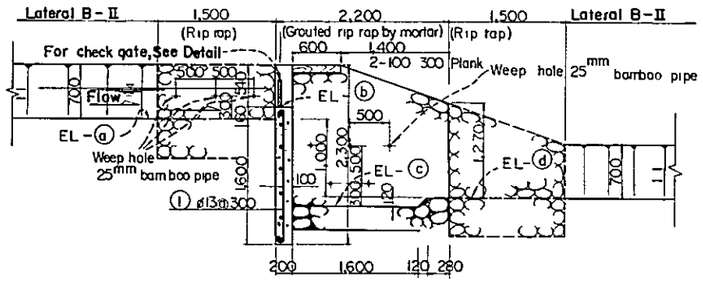
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

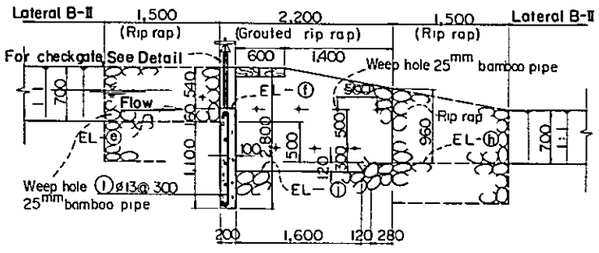
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A — 3.0

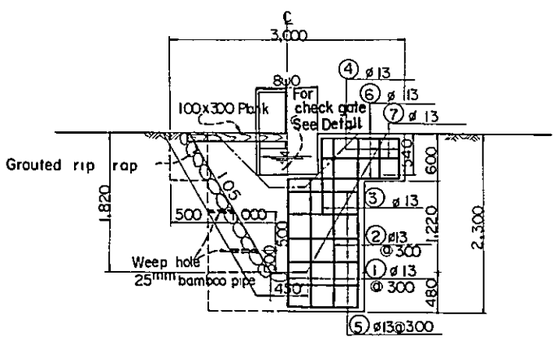


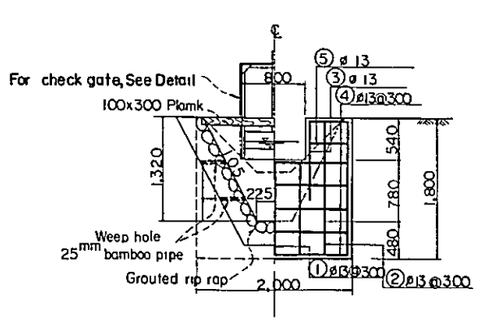












LIST OF LATERAL B-II DROP 1.000

TYPE K

Sta. No.	EL-ⓐ	EL-ⓑ	EL-ⓒ	EL-ⓓ
No 0+585	38.101	38.261	36.981	37.101
1+785	34.661	34.821	33.541	33.661
1+985	33.483	33.643	32.363	32.483
2+385	31.672	31.832	30.552	30.672

LIST OF LATERAL B-II DROP 500

TYPE L

Sta No.	EL-ⓔ	EL-ⓕ	EL-ⓖ	EL-ⓗ
No 1+385	36.412	36.572	35.792	35.912
1+585	35.472	35.632	34.852	34.972
2+585	32.372	32.532	31.752	31.872
2+585	30.338	30.498	29.718	29.838

0 500
SCALE OF MILLIMETERS

0 1,000 3,000
SCALE OF MILLIMETERS

NOTES

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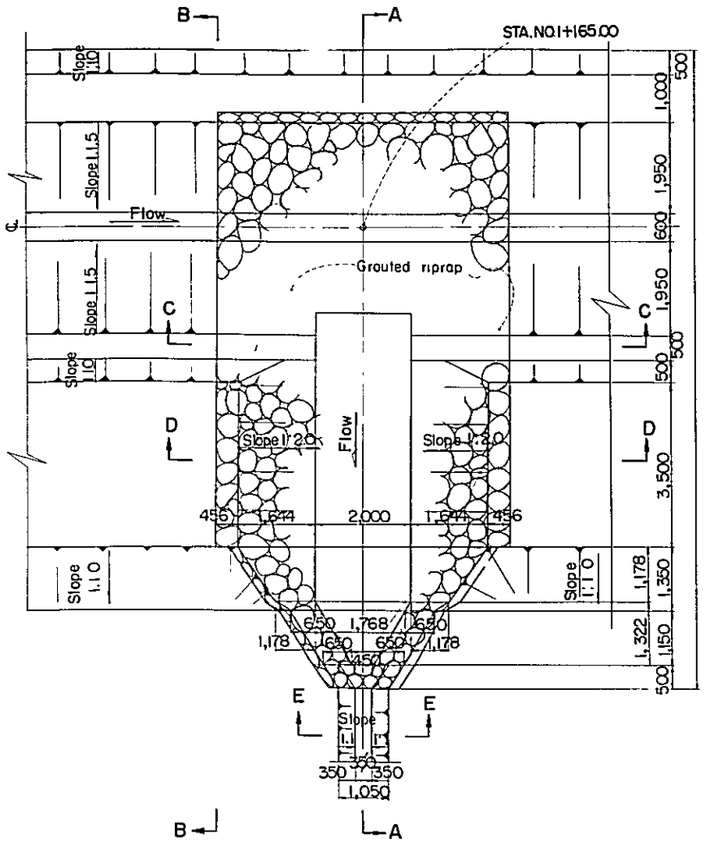
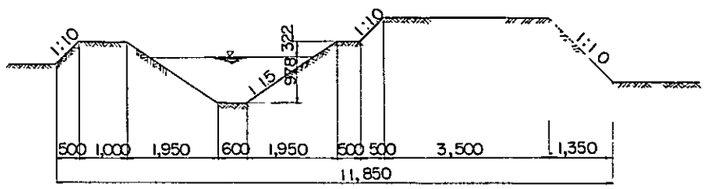
Use 10 5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen
Class "A" concrete to be placed at all portion, unless otherwise shown
All welds to be full penetration continuous and smooth.
Non-corrosive studs and nuts on flap valves

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
DROP TYPE "K" AND "L"
PLANS AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

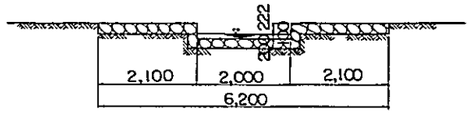
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A — 31



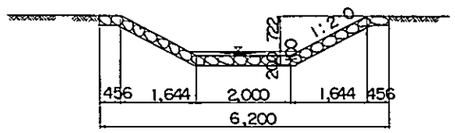
PLAN OF WASTE WAY NO.1



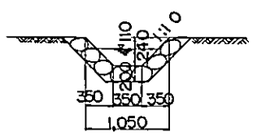
SECTION B-B



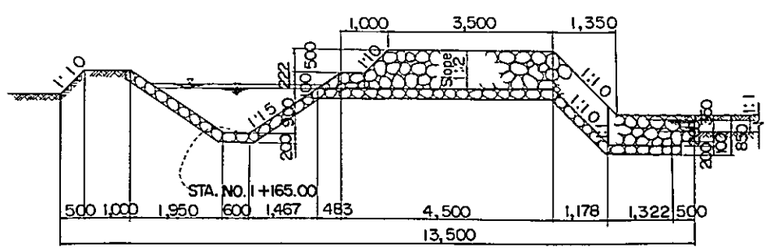
SECTION C-C



SECTION D-D



SECTION E-E



SECTION A-A

NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters.

0 1,000 3,000 5,000
SCALE OF MILLIMETERS

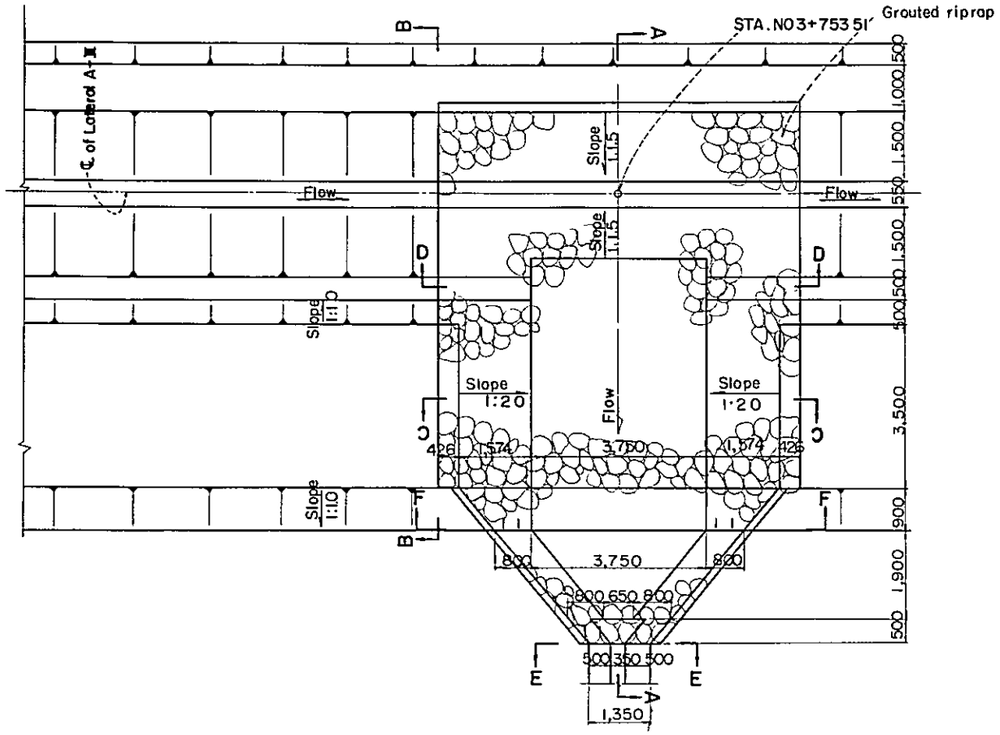
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL

REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — AL ANGAL ANG

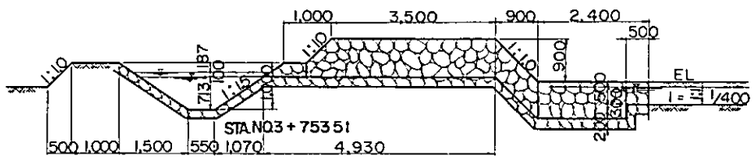
WASTE WAY NO. 1
PLAN AND SECTIONS

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

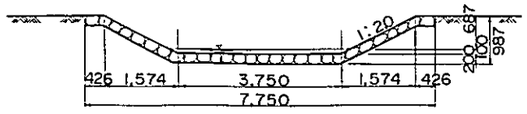
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A – 32



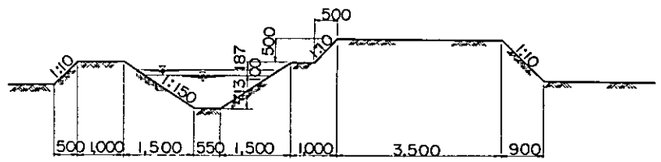
WASTE WAY PLAN STA. NO. 3+753.51



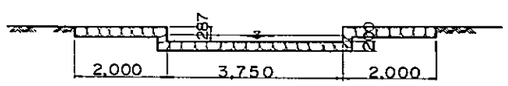
SECTION A — A



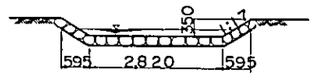
SECTION C — C



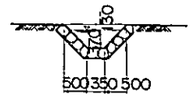
SECTION B — B



SECTION D — D



SECTION F — F



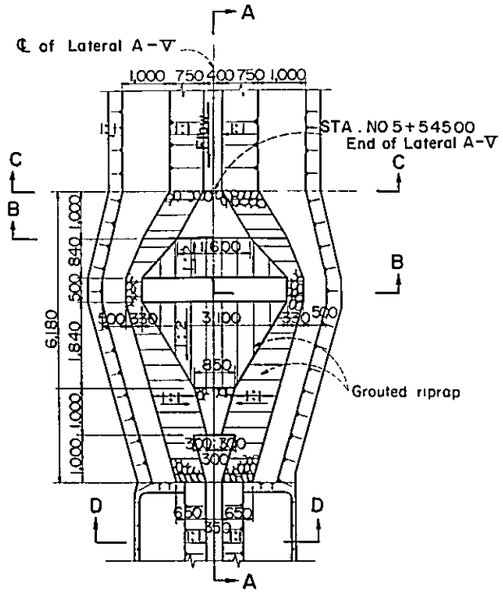
SECTION E — E

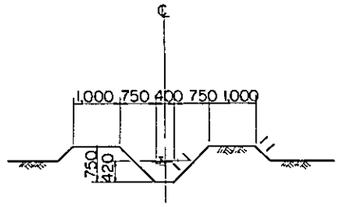
NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters

0 1,000 3,000 5000
SCALE OF MILLIMETERS

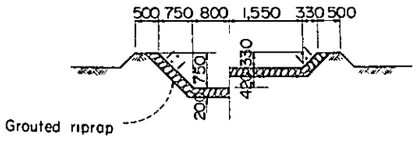
THE PHILIPPINES			
RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER SANMIGUEL — ALANGALANG			
WASTE WAY NO. 2 PLAN AND SECTIONS			
OVERSEAS TECHNICAL COOPERATION AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A — 33



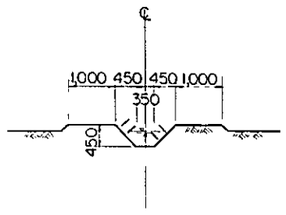


SECTION C – C

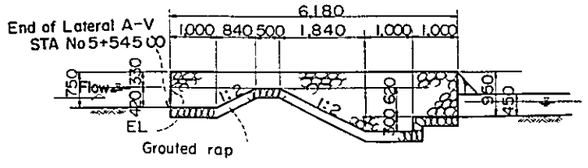
WASTEWAY PLAN STA.NO.5 + 545.00



SECTION B–B



SECTION D – D



SECTION A – A

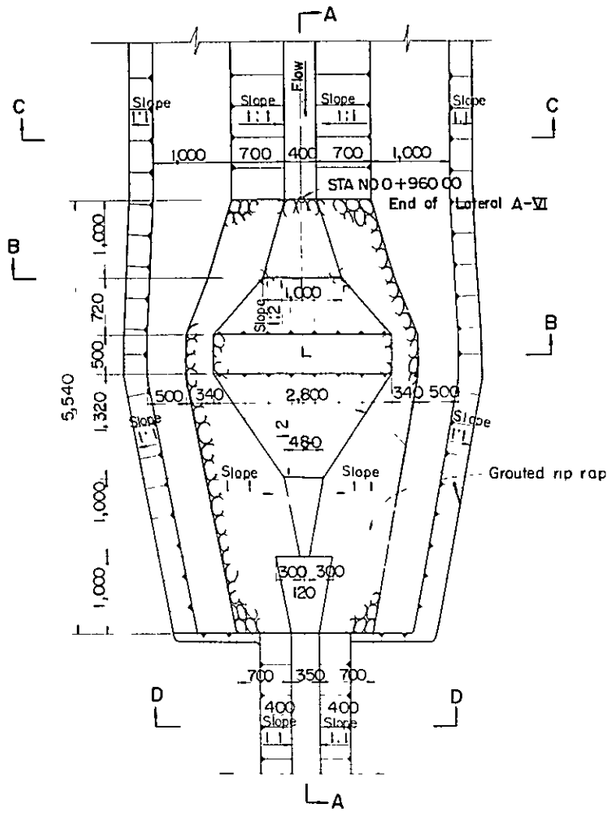
NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters.

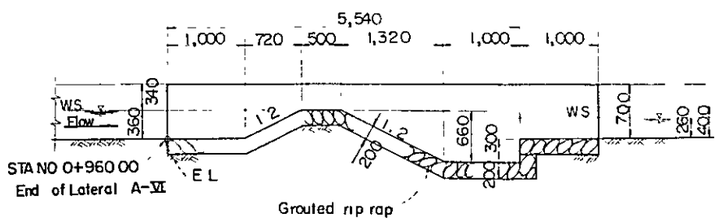
0 1,000 3,000 5,000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
WASTE WAY NO.3
PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

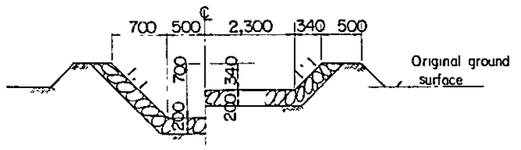
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A – 34



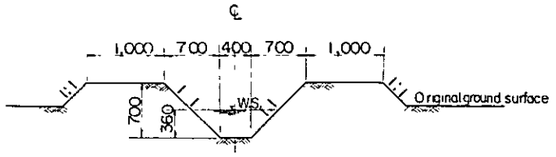
PLAN



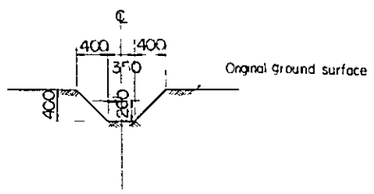
SECTION A- A



SECTION B-B



SECTION C-C



SECTION D-D

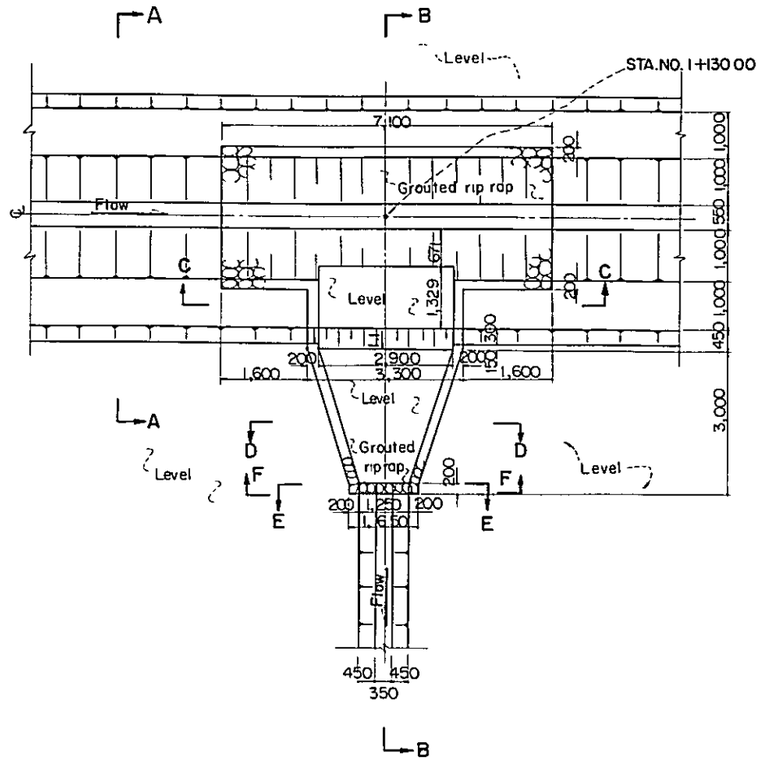
NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters.

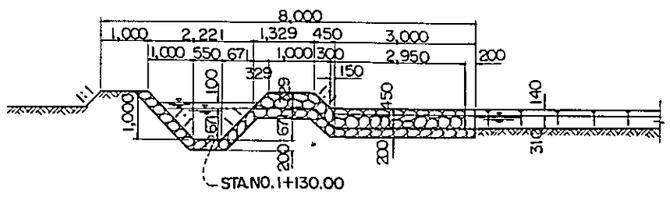
0 1,000 3,000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
WASTE WAY NO. 4
PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

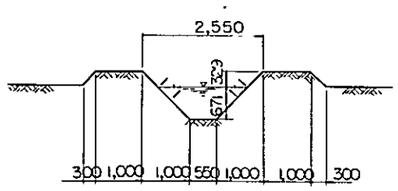
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A – 35



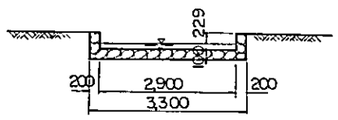
WASTEWAY PLAN STA.NO 1+130.00



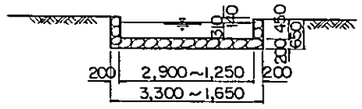
SECTION B – B



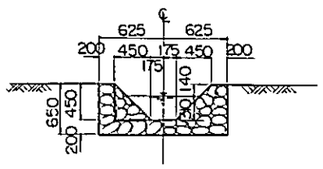
SECTION A – A



SECTION C – C



SECTION D–D



SECTION E – E | SECTION F–F

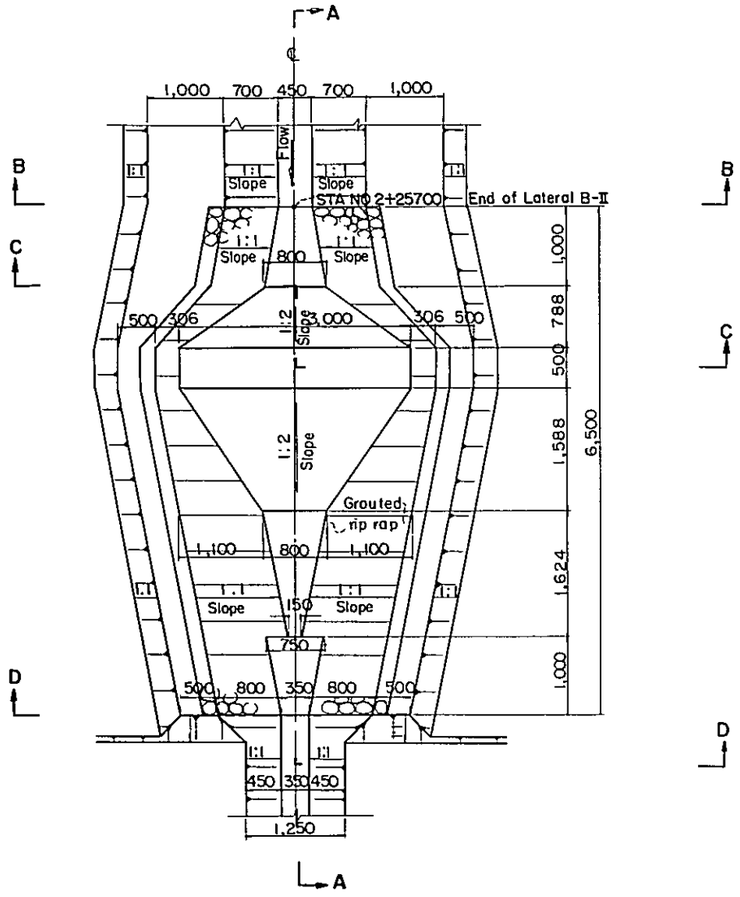
NOTE

All dimensions are given in millimeters

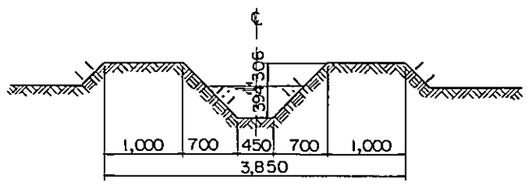
0 1,000 5,000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
WASTE WAY NO. 5
PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

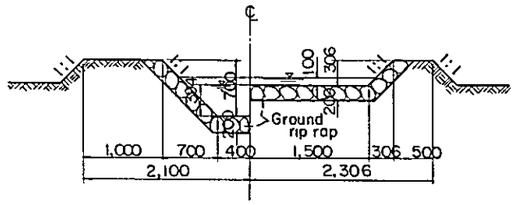
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A-36



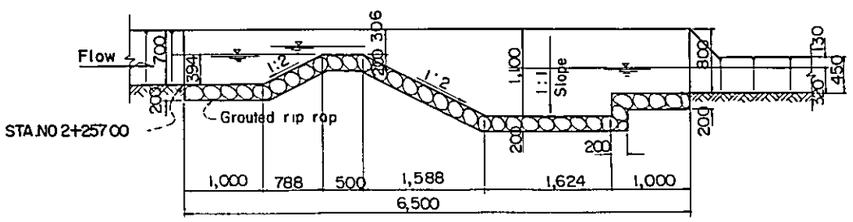
WASTE WAY PLAN STA.NO.2+257.00



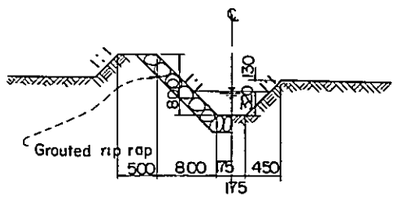
SECTION B-B



SECTION C-C



SECTION A-A



SECTION D-D

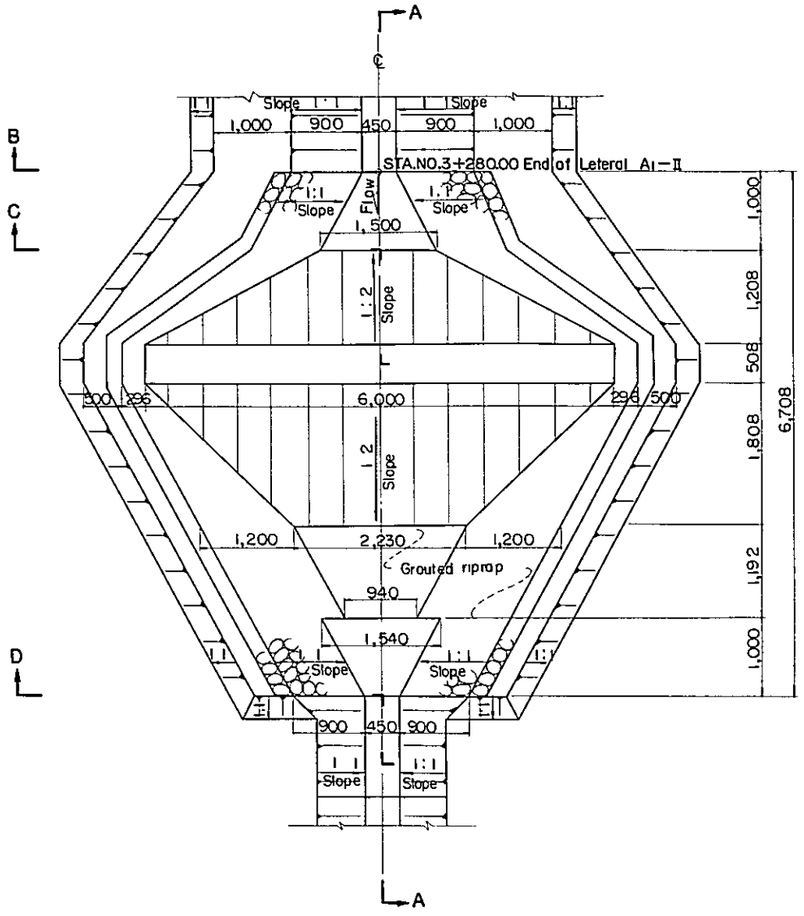
NOTE

All dimensions are given in millimeters

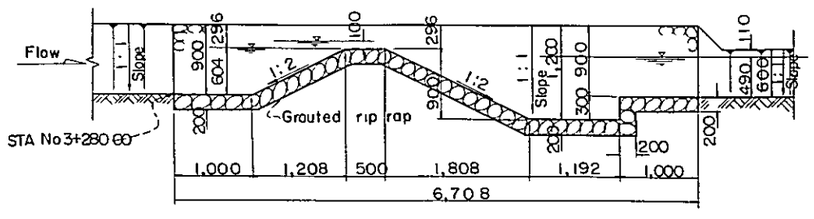
0 1,000 3,000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
WASTE WAY NO. 6
PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

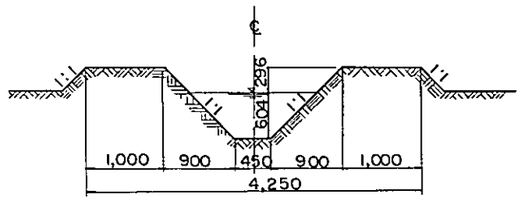
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO.	A-37



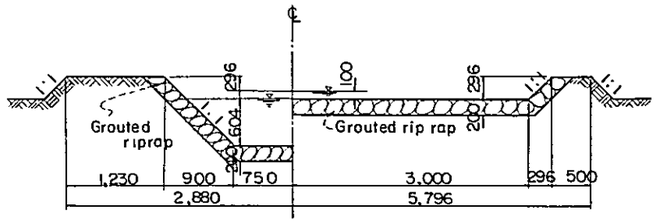
WASTEWAY PLAN STA.NO.3+280 00



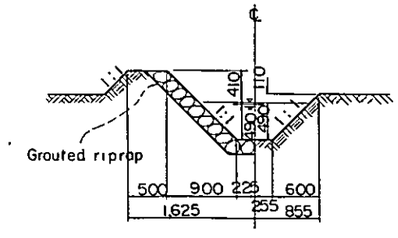
SECTION A—A



SECTION B—B



SECTION C—C



SECTION D—D

0 1,000 3,000
SCALE OF MILLIMETERS

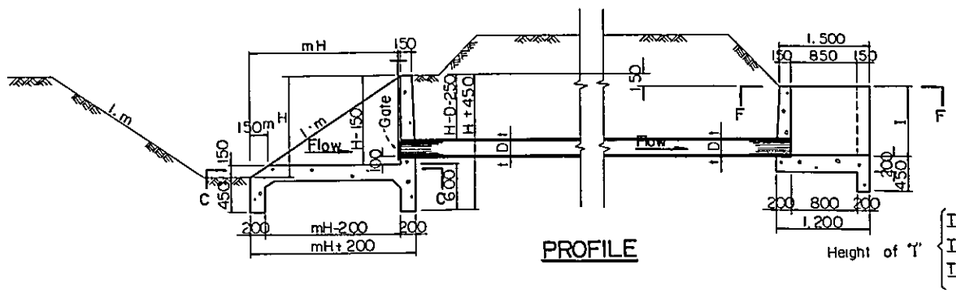
NOTE

All dimensions are given in millimeters

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL-ALANGALANG
WASTE WAY NO. 7
PLAN AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A — 38

TYPE A



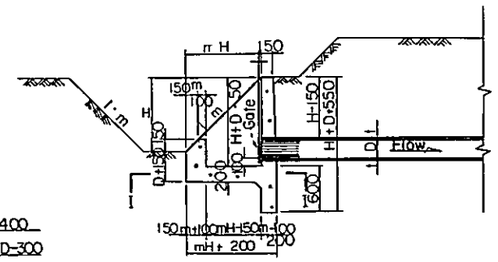
PROFILE

OUTLET

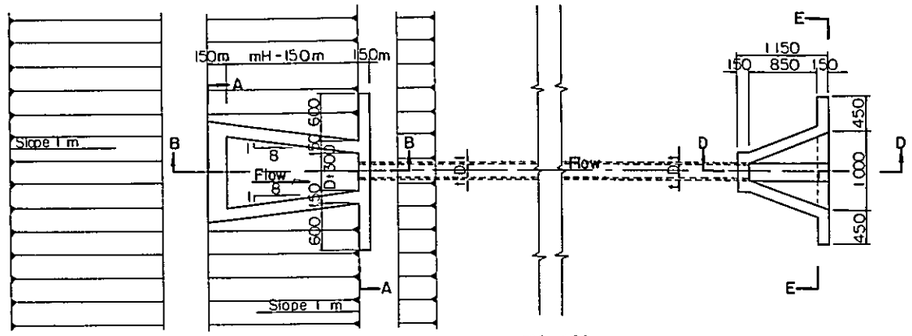
Height of "I"

TYPE A. H-400
TYPE B. H+D-300
TYPE C. D+450

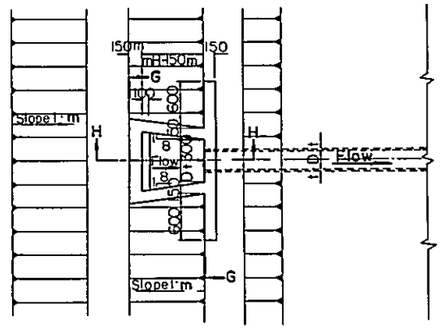
TYPE B



PROFILE



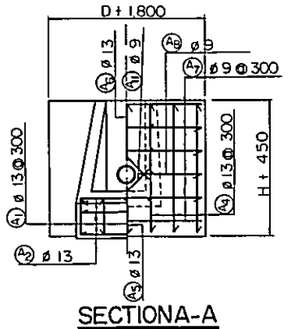
PLAN



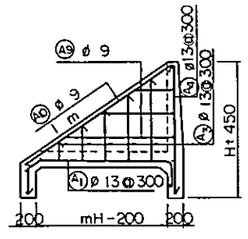
PLAN

NOTES

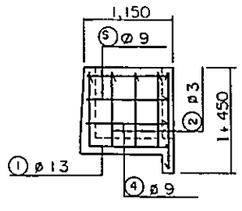
All dimensions are given in millimeters
See Drawing A-40 for Type "C" and the gate
Concrete design, except precast, based on a compressive strength of 80kg/cm²
Chamfer all exposed corners 20mm, unless otherwise shown.
For strength and aggregate size of concrete, see specifications
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters to be provided where shown.
Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen.
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
All turnouts not to require the use of trashrack
Maximum velocity through the pipe shall not be greater than 10 m/sec.
Class "A" concrete to be placed at all portion unless otherwise shown



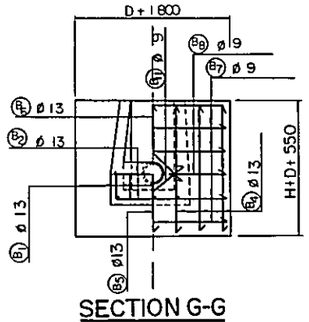
SECTION A-A



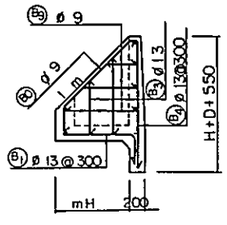
SECTION B-B



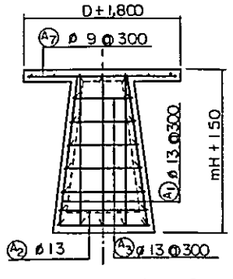
SECTION D-D



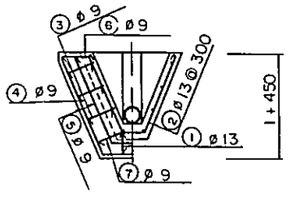
SECTION G-G



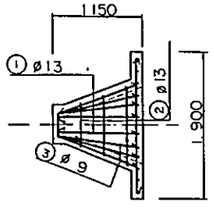
SECTION H-H



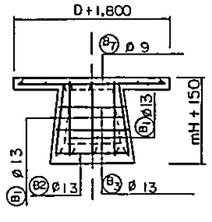
SECTION C-C



SECTION F-F



SECTION F-F



SECTION T-T

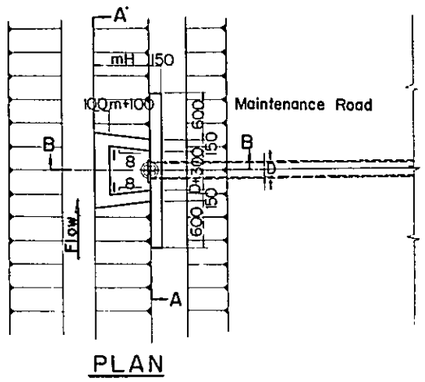
0 1000 3000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG

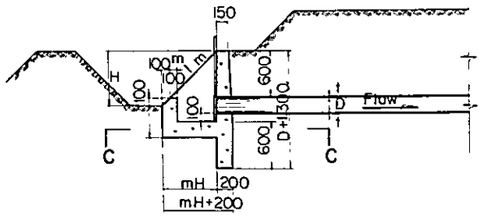
TURNOUT. TYPE "A" AND "B" PLAN, PROFILE AND SECTIONS

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

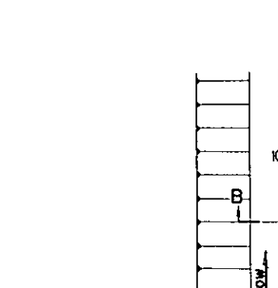
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A-39



PLAN

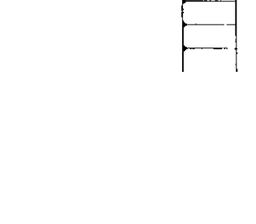


PROFILE

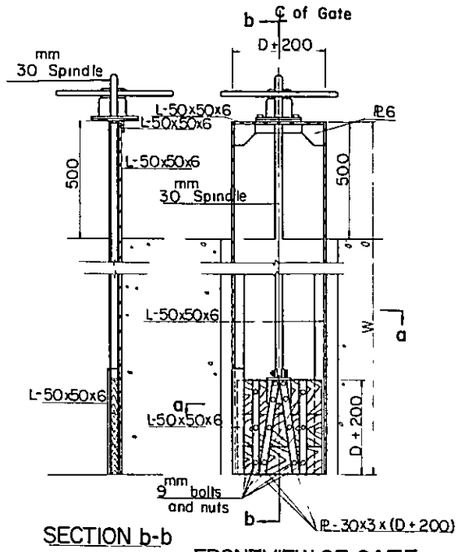


SECTION A-A

SECTION B-B

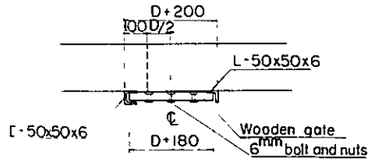


SECTION C-C



SECTION b-b

FRONTVIEW OF GATE



SECTION a-a

0 500

SCALE OF MILLIMETERS

EXPLANATION

Length of "W" to be equal to H+350 at TYPE "A" and TYPE "B" and b+1,200 at TYPE "C"

LIST OF TURNOUTS

	NO	NAME OF TURNOUTS	STATION NO	CONTROL AREA	DISCHARGE	DIAMETER OF PIPE	t	H	m	l	W	LENGTH OF PIPE
TYPE A	(1)	A-I I R	NO +10.00	6.40	0.014	ø 150	25	1,500	1.5	1,100	1,850	5,300
	(2)	A-II R	+20.00	9.40	0.020	ø 200	25	1,300	"	900	1,650	5,300
	(3)	" 1L	+500.00	17.30	0.038	ø 250	30	"	"	"	"	1,300
	(4)	" 2R	+720.00	21.80	0.048	ø 250	30	"	"	"	"	5,300
	(5)	A-III R	NO +200.00	10.00	0.022	ø 200	25	1,000	1.5	900	1,350	5,300
	(6)	1L	+200.00	9.80	0.021	ø 200	25	"	"	"	"	1,300
	(7)	" 2R	+9.00.00	12.50	0.027	ø 200	25	"	"	"	"	5,300
	(8)	" 3L	NO.+400.00	6.70	0.015	ø 150	25	"	"	850	"	1,300
	(9)	" 3R	+433.00	5.50	0.012	ø 150	25	"	"	"	"	5,300
	(11)	" 3L	NO +118.00	10.80	0.024	ø 200	25	"	"	900	"	1,300
	(10)	" 4R	NO.+187.00	7.70	0.017	ø 150	25	"	"	850	"	5,300
	(12)	" 5R	NO.+248.00	6.10	0.013	ø 150	25	"	"	"	"	5,300
	(13)	" 6R	+348.00	6.60	0.014	ø 150	25	"	"	"	"	5,300
	(14)	" 7R	+548.00	16.10	0.035	ø 250	25	"	"	950	"	5,300
	(15)	A-IV K	+9.60.00	13.00	0.028	ø 200	25	950	1.0	850	1.300	5,300
	(16)	" 1L	+960.00	16.50	0.036	ø 250	30	"	"	900	"	1,300
	(17)	" 2R	NO.+550.00	38.00	0.083	ø 350	30	"	"	1,000	"	5,300
	(33)	AI-I I R	NO.+70.00	16.00	0.035	ø 250	30	1,000	"	900	1,350	1,300
TYPE B	(63)	" 1L	+70.00	11.60	0.025	ø 200	25	"	"	900	"	1,300
	(64)	" 2R	+320.00	7.00	0.015	ø 150	25	"	"	800	"	1,300
	(37)	" 2L	+770.00	13.10	0.029	ø 200	25	"	"	900	"	1,300
	(66)	" 3R	+590.00	10.40	0.023	ø 200	25	"	"	"	"	1,300
	(38)	" 4R	+700.00	6.50	0.014	ø 150	25	"	"	850	"	1,300
	(39)	AI-III L	NO.+200.00	6.50	0.014	ø 150	25	900	"	750	1,250	1,300
	(40)	" 2L	+690.00	5.70	0.012	ø 150	25	"	"	"	"	1,300
	(69)	" 1R	+260.00	8.20	0.018	ø 200	25	"	"	800	"	1,300
	(42)	" 3L	+760.00	5.40	0.012	ø 150	25	"	"	750	"	1,300
	(41)	" 2R	+690.00	12.60	0.027	ø 200	25	"	"	900	"	1,300
	(44)	" 4L	+1900.00	7.20	0.016	ø 150	25	"	"	750	"	1,300
	(43)	" 3R	+760.00	20.50	0.045	ø 250	30	"	"	850	"	1,300
	(45)	" 5L	NO.+31.000	9.50	0.021	ø 200	25	"	"	800	"	1,300
	(46)	" 4R	+3.10.00	5.50	0.012	ø 150	25	"	"	750	"	1,300
	(47)	" 5R	+430.00	16.00	0.035	ø 250	30	"	"	850	"	1,300
	(48)	" 6L	+430.00	9.00	0.020	ø 200	25	"	"	800	"	1,300
	(49)	" 6R	+930.00	18.30	0.040	ø 250	30	"	"	850	"	1,300
	(50)	" 7L	+930.00	11.70	0.026	ø 200	25	"	"	800	"	1,300
	(51)	" 7R	NO.+280.00	10.00	0.022	ø 200	25	"	"	"	"	1,300
	(52)	" 8L	NO.+280.00	7.00	0.015	ø 150	25	"	"	750	"	1,300
TYPE C	(15)	A-V I R	NO.+7.10.00	5.00	0.011	ø 150	25	750	1.0	600	1,350	1,300
	(19)	" 1L	+7.10.00	8.10	0.018	ø 200	25	"	"	650	1,400	5,300
	(20)	" 2R	+980.00	8.10	0.018	ø 200	25	"	"	"	"	1,300
	(21)	" 2L	+985.00	7.90	0.016	ø 150	25	"	"	600	1,350	5,300
	(22)	" 3R	NO.2235.00	11.00	0.024	ø 150	25	"	"	"	"	1,300
	(23)	" 3L	+235.00	10.90	0.022	ø 200	25	"	"	650	1.400	5,300
	(24)	" 4R	+545.00	14.00	0.031	ø 200	25	"	"	"	"	1,300
	(25)	" 4L	+545.00	12.00	0.026	ø 200	25	"	"	"	"	5,300
	(27)	A-VII R	NO.+400.00	5.00	0.011	ø 150	25	700	"	600	1,350	5,300
	(28)	" 1L	+240.00	7.00	0.015	ø 150	25	"	"	"	"	1,300
	(29)	" 2R	+760.00	7.00	0.015	ø 150	25	"	"	"	"	5,300
	(29)	" 2L	+760.00	6.00	0.013	ø 150	25	"	"	"	"	1,300
	(30)	" 3R	+960.00	15.00	0.033	ø 250	30	"	"	700	1.450	5,300
	(31)	" 3L	+960.00	16.50	0.036	ø 250	30	"	"	"	"	1,300
	(54)	B-II R	NO.+670.00	5.00	0.011	ø 150	25	"	"	600	1,350	1,300
	(53)	" 1L	NO.+650.00	14.90	0.032	ø 200	25	"	"	650	1,400	1,300
	(56)	" 2R	NO. +30.00	17.50	0.038	ø 250	30	"	"	700	1,450	1,300
	(55)	" 2L	NO.+670.00	3.60	0.012	ø 150	25	"	"	600	1,350	1,300
	(58)	" 3R	NO.+3.10.00	5.50	0.012	ø 150	25	"	"	"	"	1,300
	(57)	" 3L	+160.00	13.00	0.028	ø 200	25	"	"	650	1,400	1,300
	(59)	" 4L	+3.10.00	10.50	0.023	ø 200	25	"	"	650	1,400	1,300

NOTES

All dimensions are given in millimeters

See Drawing A-39 for TYPE "A" and TYPE "B"

Concrete design, except precast, based on a compressive strength of 80kg/cm²

Chamfer all exposed corners 20 mm, unless otherwise shown

For strength and aggregate size of concrete, see specifications

Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth

Lap all bars 30 diameters at splices.

All reinforcing steel to be plain bar with standard hook each end in addition to length shown.

Hook with 180° bends, lengths of 10 bar diameters to be provided where shown

Use 10.5 bar diameter radii for bends of main reinforcement at the corner of rigid flame or Rahmen

Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.

All welds to be full penetration continuous and smooth

Non corrosive studs and nuts on flap valves

All turnouts not to require the use of trashrack.

Maximum velocity through the pipe shall not be greater than 1.0 m/sec.

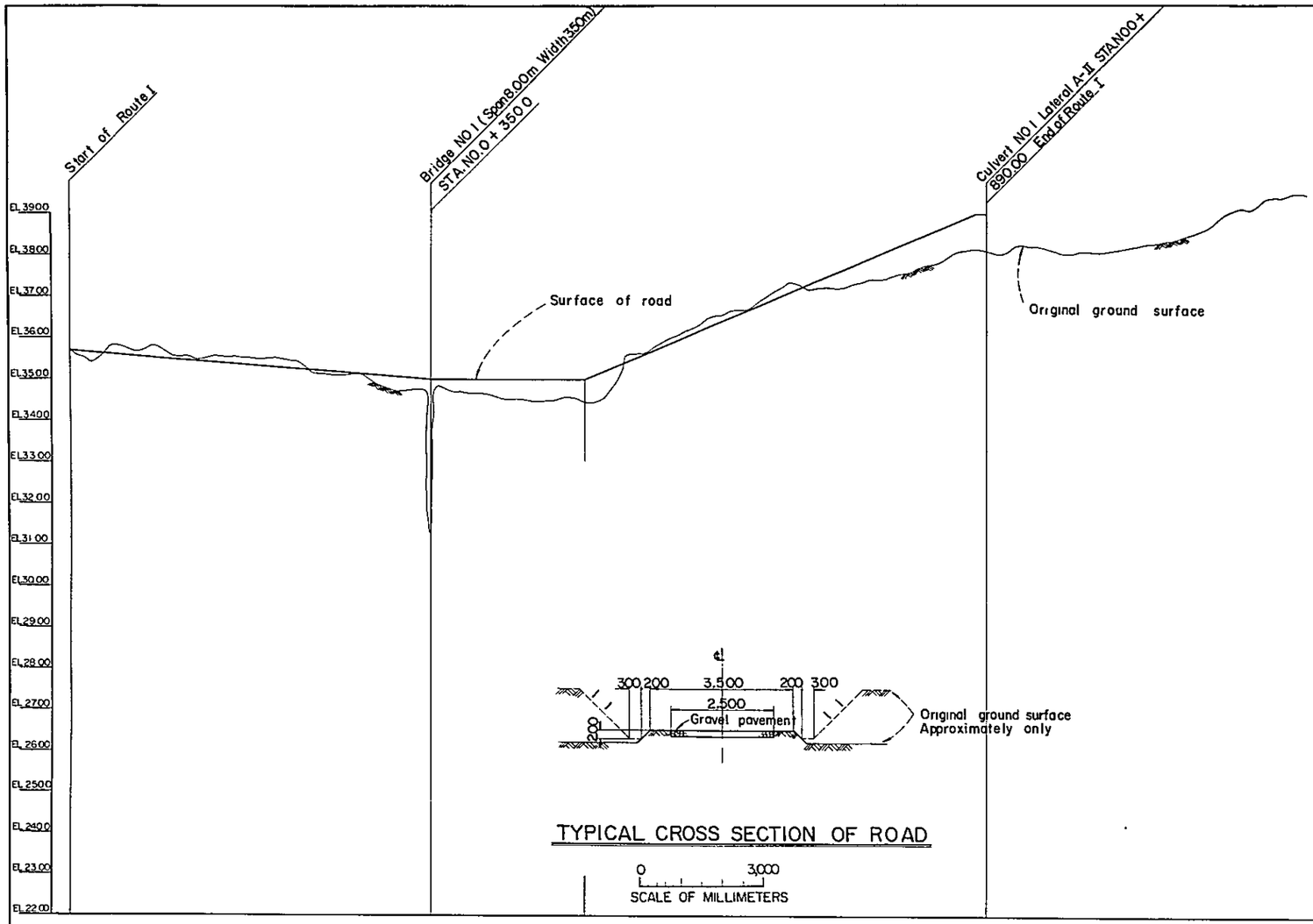
Malleable iron washers to be used unless otherwise shown.

0 1,000 3,000

SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
TURNOUT TYPE "C"
PLAN, PROFILE AND SECTIONS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A-40



TYPICAL CROSS SECTION OF ROAD

0 3,000
SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters
Pit-run gravel to be distributed evenly on operating berm

Horizontal scale 0 50 100 SCALE OF METERS
Vertical scale 0 1 2 SCALE OF METERS

GRADE.	0.20 %												
HEIGHT of EMBA.	0.010	0.270											0.080
CUTTING DEPTH			0.210	0.100	0.300	0.060	0.040	0.160	0.160	0.160	0.210	0.180	
PROPOSED HEIGHT	35.70	35.66	35.62	35.58	35.54	35.50	35.46	35.42	35.38	35.34	35.30	35.26	35.22
GROUND ELEV.	36.69	36.39	35.83	35.68	35.84	35.56	35.50	35.58	35.54	35.50	35.51	35.44	35.14
ACCUM. DIST.	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00
DIST. between STA.	0.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
STA.	NO 0	+20.00	+40.00	+60.00	+80.00	+100.00	+120.00	+140.00	+160.00	+180.00	+200.00	+220.00	+240.00
CURVE													

GRADE.						Level							
HEIGHT of EMBA.	0.100	0.000	0.240	0.340	0.260		0.180	0.310	0.340	0.480	0.490	0.520	0.430
CUTTING DEPTH													
PROPOSED HEIGHT	35.18	35.14	35.10	35.06	35.02	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
GROUND ELEV.	35.08	35.14	34.86	34.72	34.76		34.82	34.69	34.66	34.52	34.51	34.48	34.57
ACCUM. DIST.	260.00	280.00	300.00	320.00	340.00	350.00	360.00	380.00	400.00	420.00	440.00	460.00	480.00
DIST. between STA.	20.00	20.00	20.00	20.00	20.00	10.00	10.00	20.00	20.00	20.00	20.00	20.00	20.00
STA.	+260.00	+280.00	+300.00	+320.00	+340.00	+350.00	+360.00	+380.00	+400.00	+420.00	+440.00	+460.00	+480.00
CURVE													

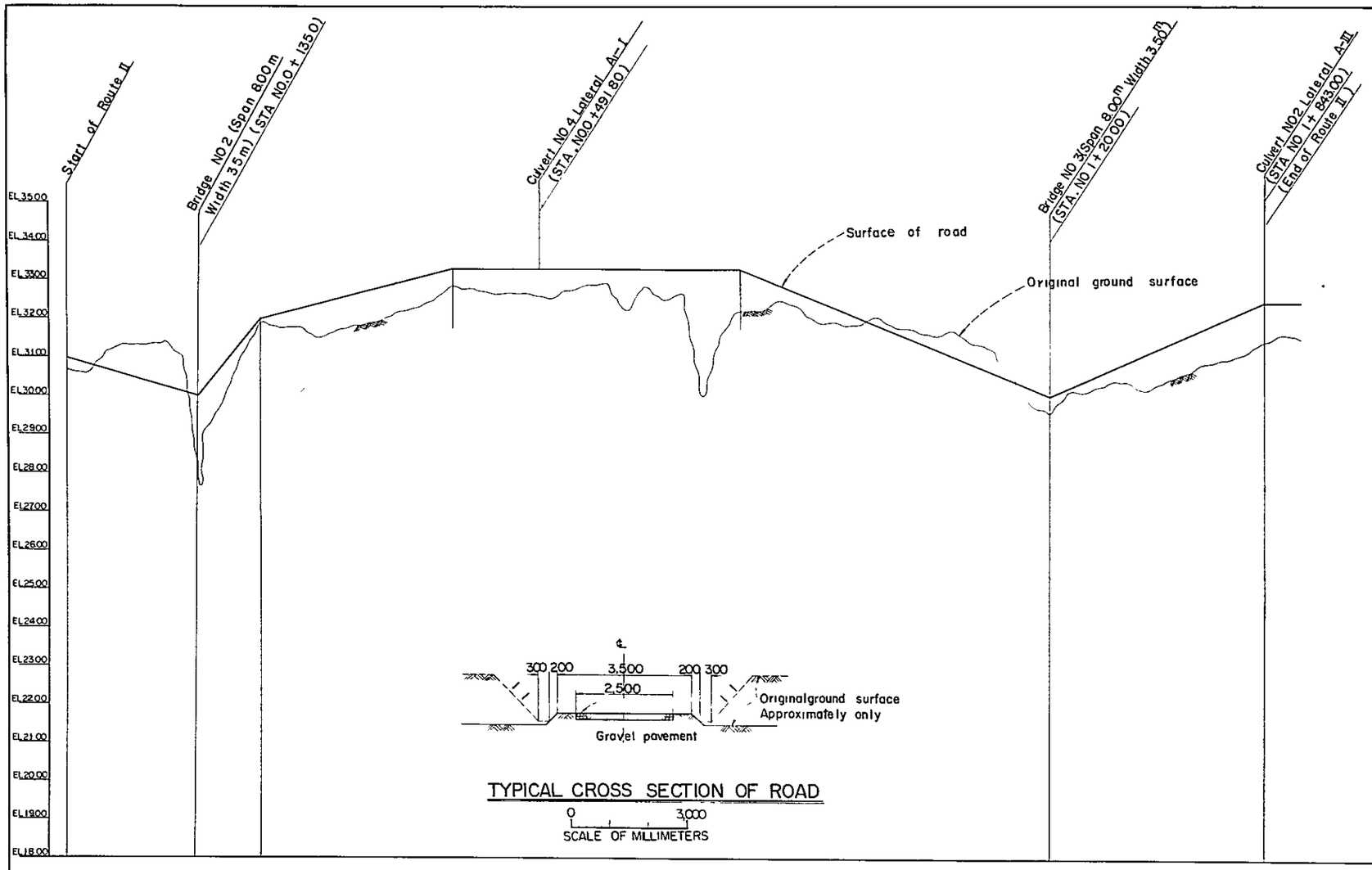
GRADE.	1.05 %												
HEIGHT of EMBA.	0.550	0.650										0.130	0.280
CUTTING DEPTH			0.150	0.040	0.130	0.130	0.210	0.160	0.030	0.160	0.260		
PROPOSED HEIGHT	35.00	35.21	35.42	35.63	35.84	36.05	36.26	36.47	36.68	36.89	37.10	37.31	37.52
GROUND ELEV.	34.45	34.56	35.57	35.67	35.97	36.18	36.47	36.63	36.71	37.05	37.36	37.18	37.24
ACCUM. DIST.	500.00	520.00	540.00	560.00	580.00	600.00	620.00	640.00	660.00	680.00	700.00	720.00	740.00
DIST. between STA.	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
STA.	+500.00	+520.00	+540.00	+560.00	+580.00	+600.00	+620.00	+640.00	+660.00	+680.00	+700.00	+720.00	+740.00
CURVE													

GRADE.													
HEIGHT of EMBA.	0.450	0.530	0.660	0.730	0.790	0.730	0.870						
CUTTING DEPTH													
PROPOSED HEIGHT	37.74	37.95	38.16	38.37	38.58	38.79	39.00	39.00					
GROUND ELEV.	37.29	37.42	37.50	37.64	37.79	38.06	38.13		38.04	38.24	38.21	38.06	38.08
ACCUM. DIST.	760.00	780.00	800.00	820.00	840.00	860.00	880.00	890.00	900.00	920.00	940.00	960.00	980.00
DIST. between STA.	20.00	20.00	20.00	20.00	20.00	20.00	20.00	10.00	10.00	20.00	20.00	20.00	20.00
STA.	+760.00	+780.00	+800.00	+820.00	+840.00	+860.00	+880.00	+890.00	+900.00	+920.00	+940.00	+960.00	+980.00
CURVE													

GRADE.											
HEIGHT of EMBA.											
CUTTING DEPTH											
PROPOSED HEIGHT											
GROUND ELEV.	38.06	38.14	38.22	38.32	38.44	38.61	38.98	39.12	39.36	39.42	39.44
ACCUM. DIST.	1000.00	1020.00	1040.00	1060.00	1080.00	1100.00	1120.00	1140.00	1160.00	1180.00	1200.00
DIST. between STA.	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
STA.	NO. 1	+20.00	+40.00	+60.00	+80.00	+100.00	+120.00	+140.00	+160.00	+180.00	+200.00
CURVE											

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL ALANGALANG
ACCESS ROAD I
PROFILE
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A − 41



TYPICAL CROSS SECTION OF ROAD

STA	DIST between STA	ACCUM DIST	GROUND ELEV	PROPOSED HEIGHT	CUTTING DEPTH	HEIGHT of EMBA	GRADE	CURVE
NO0	0.00	0.00	30.67	31.00		0.330	0.75 %	
+20.00	20.00	20.00	30.58	30.85		0.270		
+40.00	20.00	40.00	31.15	30.70	0.450			
+60.00	20.00	60.00	31.36	30.55	0.810			
+80.00	20.00	80.00	31.32	30.40	0.920			
+100.00	20.00	100.00	31.39	30.25	1.140			
+120.00	20.00	120.00	30.98	30.10	0.880			
+132.50	12.50	132.50	28.82	30.00			2.96 %	
+140.00	7.50	140.00	29.03	30.22		1.190		
+160.00	20.00	160.00	29.77	30.81		1.040		
+180.00	20.00	180.00	31.03	31.41		0.380		
+200.00	20.00	200.00	31.92	32.00		0.080	0.65 %	
+220.00	20.00	220.00	31.78	32.13		0.350		
+240.00	20.00	240.00	31.78	32.26		0.480		
+260.00	20.00	260.00	31.50	32.39		0.890		
+280.00	20.00	280.00	31.71	32.52		0.810		
+300.00	20.00	300.00	31.83	32.65		0.820		
+320.00	20.00	320.00	31.91	32.78		0.870		
+340.00	20.00	340.00	32.13	32.91		0.780		
+360.00	20.00	360.00	32.27	33.04		0.770		
+380.00	20.00	380.00	32.46	33.17		0.710		
+400.00	20.00	400.00	32.86	33.30		0.440	Level	
+420.00	20.00	420.00	32.80	33.30		0.500		
+440.00	20.00	440.00	32.67	33.30		0.630		
+460.00	20.00	460.00	32.67	33.30		0.630		
+480.00	20.00	480.00	32.66	33.30		0.640		
+500.00	20.00	500.00	32.53	33.30		0.770		
+520.00	20.00	520.00	32.73	33.30		0.570		
+540.00	20.00	540.00	32.87	33.30		0.430		
+560.00	20.00	560.00	32.93	33.30		0.370		
+580.00	20.00	580.00	32.23	33.30		1.070		
+600.00	20.00	600.00	32.85	33.30		0.450		
+620.00	20.00	620.00	32.49	33.30		0.810		
+640.00	20.00	640.00	32.67	33.30		0.630		
+660.00	20.00	660.00	30.02	33.30		3.280		
+680.00	20.00	680.00	31.61	33.30		1.690		
+700.00	20.00	700.00	32.22	33.30		1.080	1.03 %	
+720.00	20.00	720.00	32.20	33.09		0.890		
+740.00	20.00	740.00	32.49	32.89		0.400		
+760.00	20.00	760.00	32.32	32.69		0.370		
+780.00	20.00	780.00	31.90	32.48		0.580		
+800.00	20.00	800.00	31.90	32.27		0.370		
+820.00	20.00	820.00	31.82	32.06		0.240		
+840.00	20.00	840.00	32.05	31.86	0.190			
+860.00	20.00	860.00	31.79	31.65	0.140			
+880.00	20.00	880.00	31.74	31.45	0.290			
+900.00	20.00	900.00	31.56	31.24	0.320			
+920.00	20.00	920.00	31.71	31.03	0.680			
+940.00	20.00	940.00	31.36	30.83	0.530			
+960.00	20.00	960.00	31.22	30.62	0.600			
+980.00	20.00	980.00	30.59	30.42	0.170			
NO 1	20.00	1000.00	29.81	30.21		0.400		
+20.00	20.00	1020.00	29.58	30.00		0.420	1.10 %	
+40.00	20.00	1040.00	30.15	30.22		0.070		
+60.00	20.00	1060.00	30.12	30.44		0.320		
+80.00	20.00	1080.00	30.33	30.66		0.330		
+100.00	20.00	1100.00	30.41	30.88		0.470		
+120.00	20.00	1120.00	30.15	31.10		0.950		
+140.00	20.00	1140.00	30.40	31.32		0.920		
+160.00	20.00	1160.00	30.60	31.54		0.940		
+180.00	20.00	1180.00	30.86	31.76		0.900		
+200.00	20.00	1200.00	30.96	31.98		1.020		
+220.00	20.00	1220.00	31.09	32.20		1.110		
+240.00	20.00	1240.00	31.41	32.40		0.990		
+243.00	3.00	1243.00		32.45				
+260.00	17.00	1260.00	31.64					
+280.00	20.00	1280.00	31.52					

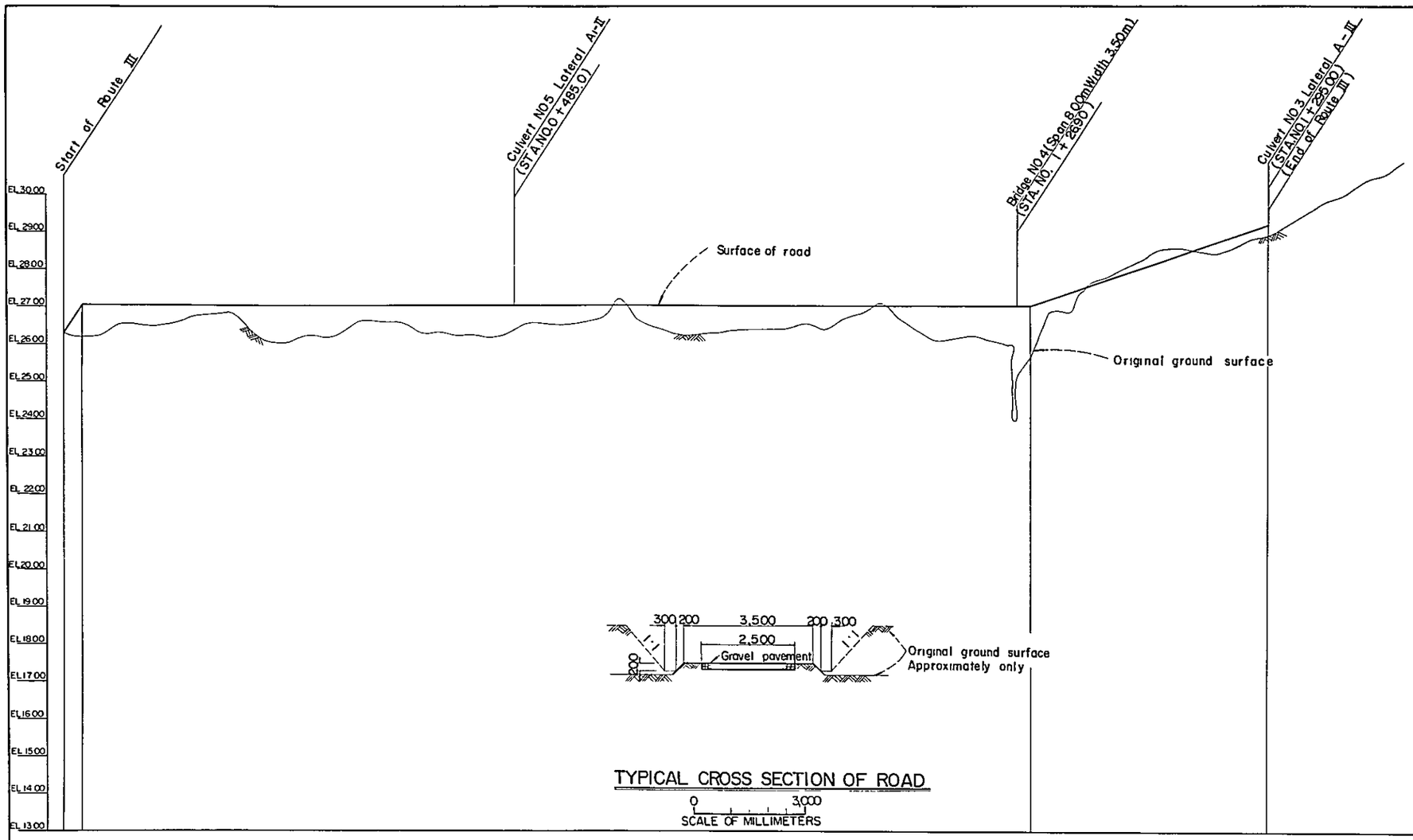
NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters.
Pit-run gravel to be distributed evenly on operating berm.

Horizontal scale 0 50 100 SCALE OF METERS
Vertical scale 0 1 2 SCALE OF METERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTR
SANMIGUEL – ALANGALANG
ACCESS ROAD II
PROFILE
OVER SEAS TECHNICAL COOPERATON AGEICY
GOVERNMENT OF JAPA

SCALLE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A -42



TYPICAL CROSS SECTION OF ROAD

CURVE	STA.	DIST. between STA.	ACCUM DIST.	GROUND ELEV.	PROPOSED HEIGHT	CUTTING DEPTH	HEIGHT of EMBA.	GRADE
	NO 0	0 00	0 00	26 29	26 30		0 010	385 %
	+20 00	20 00	20 00	26 20	27 07		0 870	Level
	+40 00	20 00	40 00	26 25	27 07		0 820	
	+60 00	20 00	60 00	26 56	27 07		0 510	
	+80 00	20 00	80 00	26 54	27 07		0 530	
	+100 00	20 00	100 00	26 51	27 07		0 560	
	+120 00	20 00	120 00	26 58	27 07		0 490	
	+140 00	20 00	140 00	26 77	27 07		0 300	
	+160 00	20 00	160 00	26 82	27 07		0 250	
	+180 00	20 00	180 00	26 88	27 07		0 190	
	+200 00	20 00	200 00	26 41	27 07		0 660	
	+207 61	7 61	207 61	26 26	27 07		0 810	
	+220 00	12 39	220 00	26 09	27 07		0 980	
	+240 00	20 00	240 00	26 06	27 07		1 010	
	+260 00	20 00	260 00	26 25	27 07		0 820	
	+280 00	20 00	280 00	26 20	27 07		0 870	
	+300 00	20 00	300 00	26 34	27 07		0 730	
	+320 00	20 00	320 00	26 65	27 07		0 420	
	+340 00	20 00	340 00	26 63	27 07		0 440	
	+360 00	20 00	360 00	26 62	27 07		0 450	
	+380 00	20 00	380 00	26 37	27 07		0 700	
	+400 00	20 00	400 00	26 34	27 07		0 730	
	+420 00	20 00	420 00	26 27	27 07		0 800	
	+440 00	20 00	440 00	26 28	27 07		0 790	
	+460 00	20 00	460 00	26 20	27 07		0 870	
	+480 00	20 00	480 00	26 32	27 07		0 750	
	+500 00	20 00	500 00	26 58	27 07		0 490	
	+520 00	20 00	520 00	26 58	27 07		0 490	
	+540 00	20 00	540 00	26 55	27 07		0 520	
	+560 00	20 00	560 00	26 60	27 07		0 470	
	+580 00	20 00	580 00	26 71	27 07		0 360	
	+600 00	20 00	600 00	27 25	27 07	0 180		
	+620 00	20 00	620 00	26 67	27 07		0 400	
	+640 00	20 00	640 00	26 46	27 07		0 610	
	+660 00	20 00	660 00	26 30	27 07		0 770	
	+680 00	20 00	680 00	26 28	27 07		0 790	
	+700 00	20 00	700 00	26 32	27 07		0 750	
	+720 00	20 00	720 00	26 40	27 07		0 670	
	+740 00	20 00	740 00	26 43	27 07		0 640	
	+760 00	20 00	760 00	26 44	27 07		0 630	
	+780 00	20 00	780 00	26 46	27 07		0 610	
	+800 00	20 00	800 00	26 60	27 07		0 470	
	+820 00	20 00	820 00	26 43	27 07		0 640	
	+840 00	20 00	840 00	26 72	27 07		0 350	
	+860 00	20 00	860 00	26 86	27 07		0 210	
	+880 00	20 00	880 00	27 15	27 07	0 080		
	+900 00	20 00	900 00	26 73	27 07		0 340	
	+920 00	20 00	920 00	26 38	27 07		0 690	
	+940 00	20 00	940 00	26 14	27 07		0 930	
	+960 00	20 00	960 00	26 20	27 07		0 870	
	+980 00	20 00	980 00	26 27	27 07		0 800	
	NO 1	20 00	1000 00	26 13	27 07		0 940	
	+ 20 00	20 00	1020 00	26 05	27 07		0 570	
	+ 26 90	6 90	1026 90	25 22	27 07		1 850	
	+40 00	13 10	1040 00	25 65	27 07		1 420	0 8 6 %
	+60 00	20 00	1060 00	26 92	27 24		0 320	
	+80 00	20 00	1080 00	26 84	27 42		0 580	
	+100 00	20 00	1100 00	27 66	27 59	0 070		
	+120 00	20 00	1120 00	27 81	27 76	0 050		
	+140 00	20 00	1140 00	28 09	27 93	0 160		
	+160 00	20 00	1160 00	28 31	28 11	0 200		
	+180 00	20 00	1180 00	28 61	28 18	0 430		
	+200 00	20 00	1200 00	28 63	28 45	0 180		
	+220 00	20 00	1220 00	28 52	28 62		0 100	
	+240 00	20 00	1240 00	28 46	28 80		0 340	
	+260 00	20 00	1260 00	28 66	28 97		0 310	
	+280 00	20 00	1280 00	28 91	29 14		0 230	
	+295 00	15 00	1295 00					
	+300 00	5 00	1300 00	29 03	29 27			
	+320 00	20 00	1320 00	29 31				
	+340 00	20 00	1340 00	29 61				
	+360 00	20 00	1360 00	29 91				
	+380 00	20 00	1380 00	30 08				
	+400 00	20 00	1400 00	30 43				
	+420 00	20 00	1420 00	30 60				
	+440 00	20 00	1440 00	30 92				

NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters.
Pit-run gravel to be distributed evenly on operating berm.

Horizontal scale 0 50 100 SCALE OF METERS

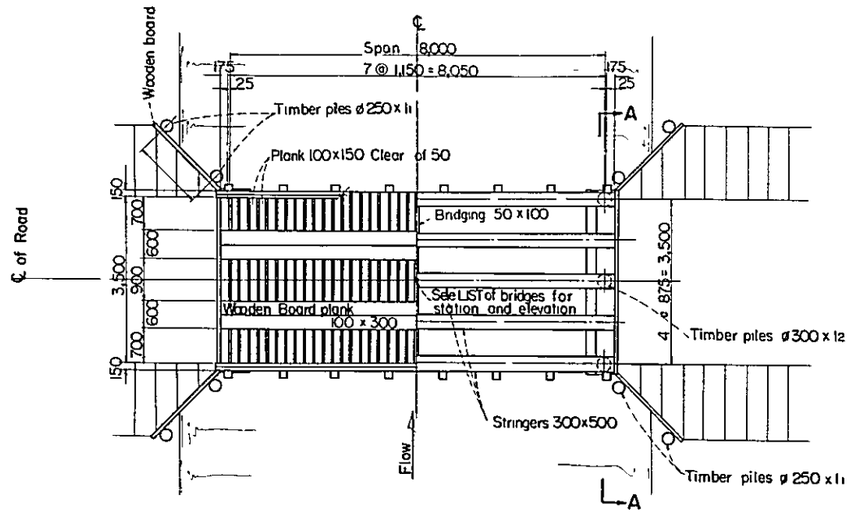
Vertical scale 0 1 2 SCALE OF METERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG

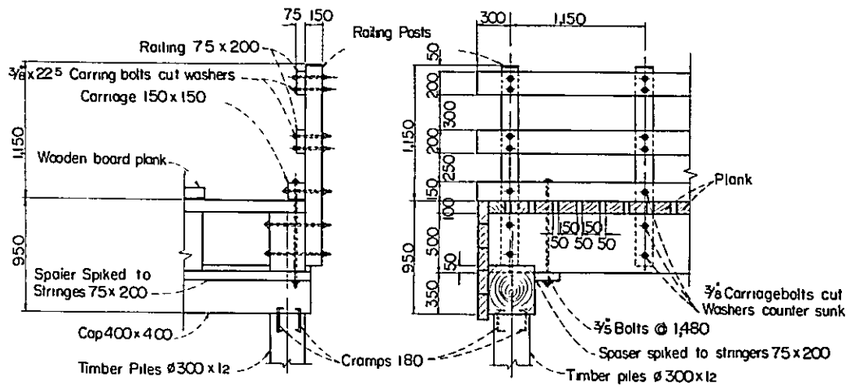
ACCESS ROAD III
PROFILE

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A-43

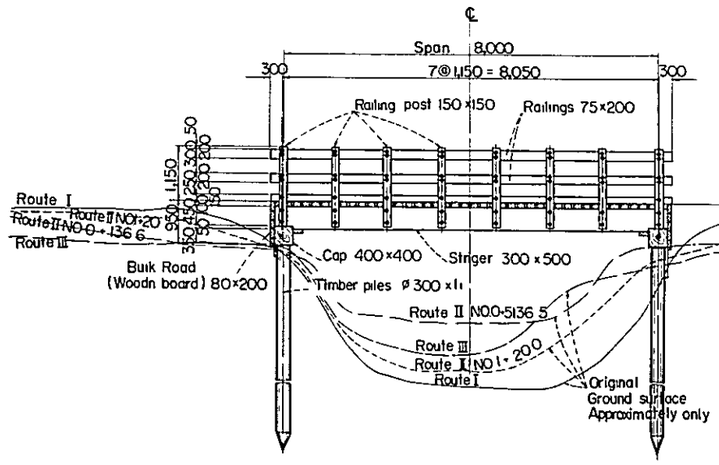


PLAN

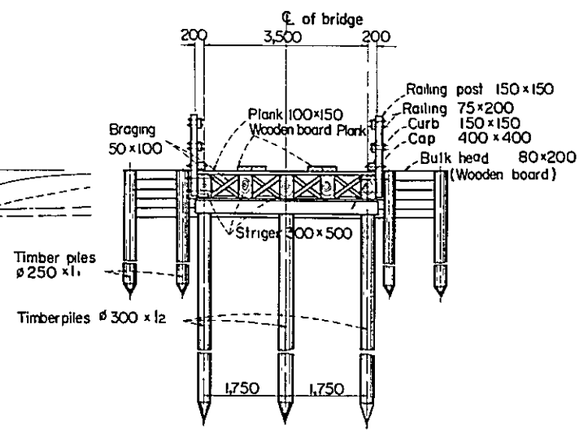


RAILING-BULKHEAD-PILE ABUTMENT

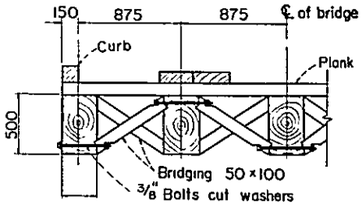
0 1,000
SCALE OF MILLIMETERS



PROFILE



SECTIONA-A



DETAIL OF BRIDGING

0 1,000
SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters
Non-corrosive studs and nuts on flap valves
Malleable iron washers to be used unless otherwise shown
All lumber to be treated
Unit stress of timber and lumber
- Bending ---------- 90kg/cm²
- Compression (columns)---- 70kg/cm²
- Bearing ---------- 20kg/cm²
- Horizontal shear --------- 8kg/cm²

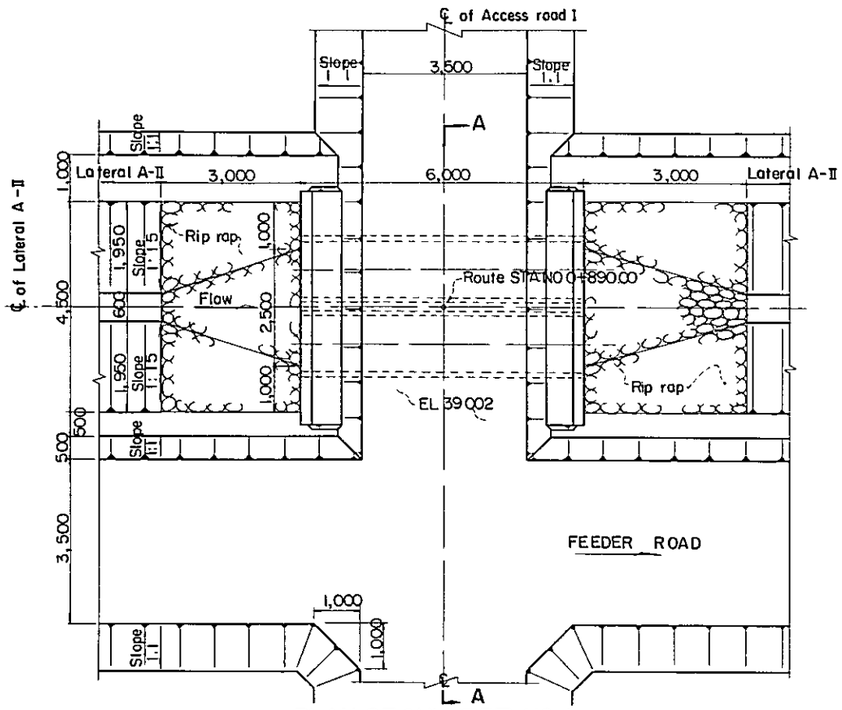
LIST OF BRIDGE

ROUTE	STATION	EL. A	l1	l2	L	REMARKS
I	NO0+350	35.00	3.00	5.00	150	
II	NO0+136 5	30 00	"	"	"	
II	NO1+ 20 0	30 00	"	"	"	
III	NO1+ 26 0	27 07	"	"	"	

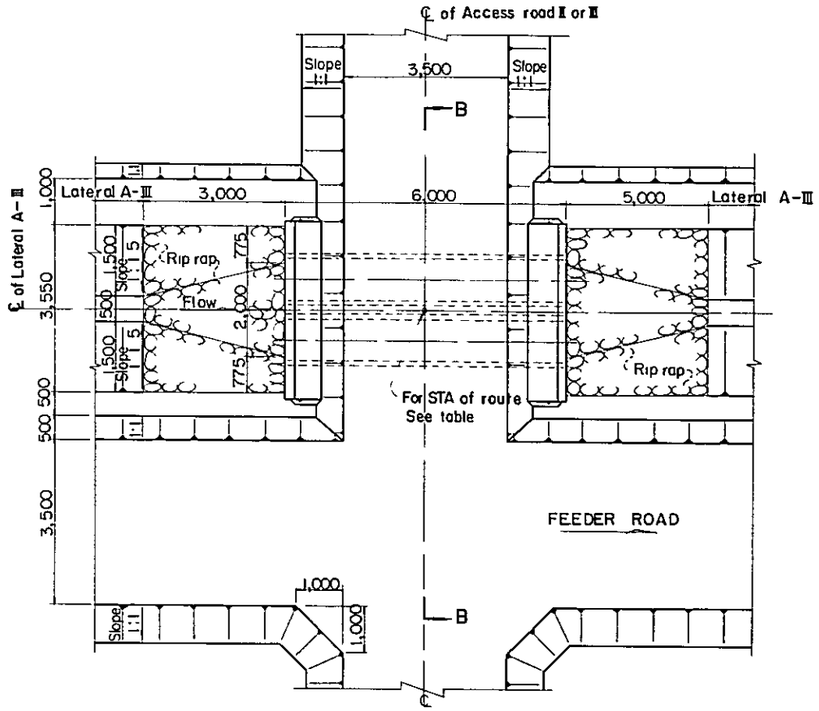
0 1,000 5,000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
FARM BRIDGES
PLAN, PROFILE AND DETAILS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

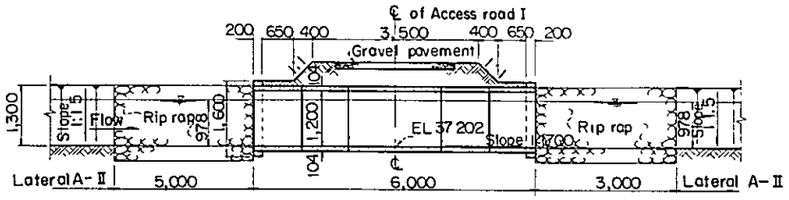
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A – 44



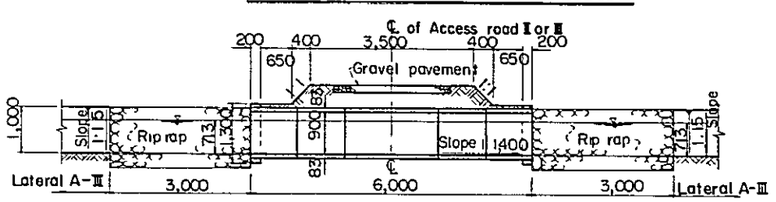
PLAN OF CULVERT NO. I



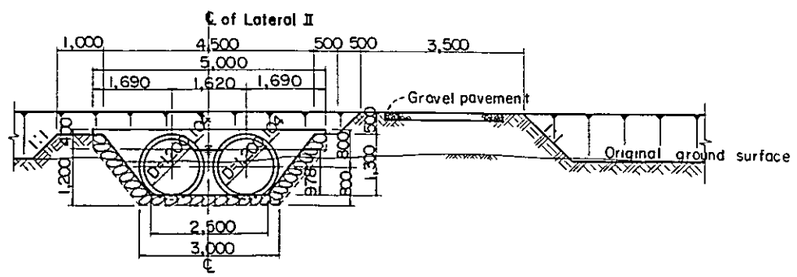
PLAN OF CULVERT NO2 AND NO.3



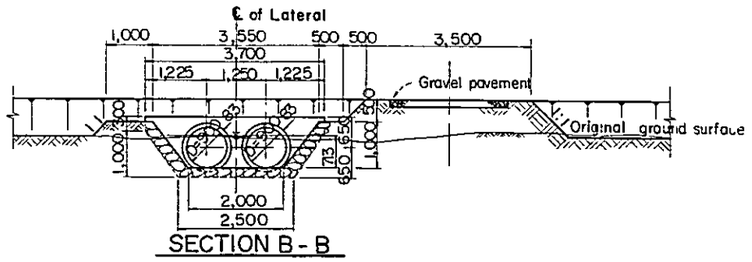
PROFILE



PROFILE



SECTION A - A



SECTION B - B

TABLE OF STA. AND EL.

Route STA.	ROAD SURFACE	PIPE BOTTOM	REMARKS
II-NO1+84300	32 506	31 006	
III-NO1+295 00	29 270	27770	

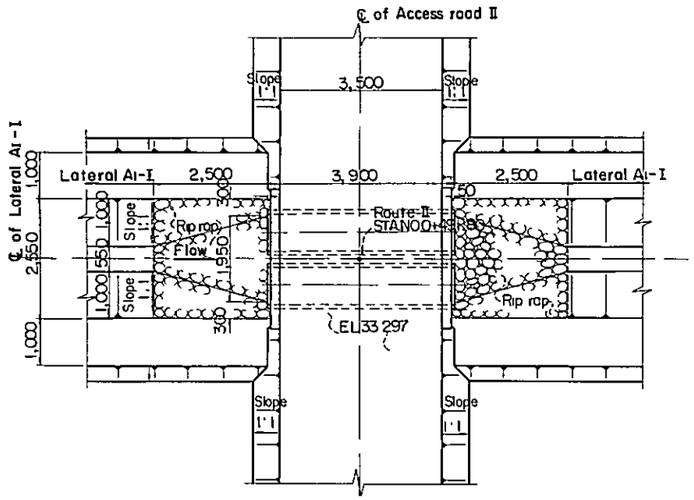
0 1,000 3000 5,000
SCALE OF MILLIMETERS

NOTES

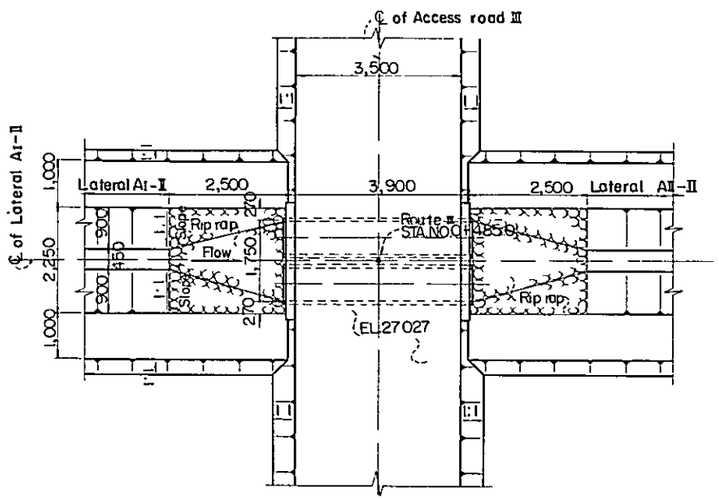
All dimensions are given in millimeters.
All stations and elevations are given in meters.
Concrete design, except precast, based on a compressive strength of 80kg/cm².
Chamfer all exposed corners 20mm, unless otherwise shown.
For strength and aggregate size of concrete, see specifications.
Class "C" concrete to be placed at all portion unless otherwise shown.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
CULVERT NO1, NO.2 AND NO.3 PLAN, AND PROFILE
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

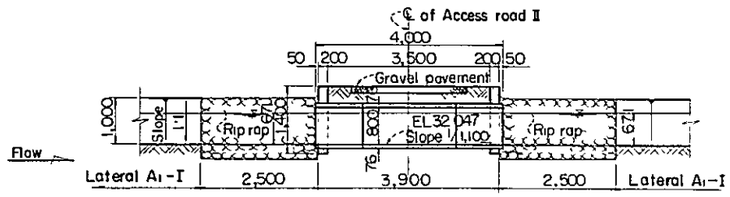
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A – 45



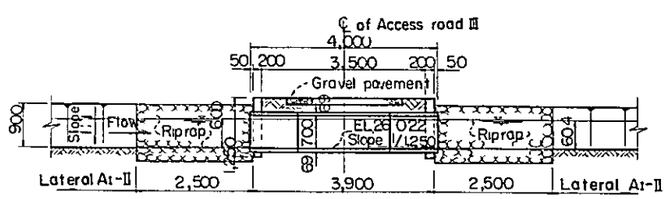
PLAN OF CULVERT NO 4



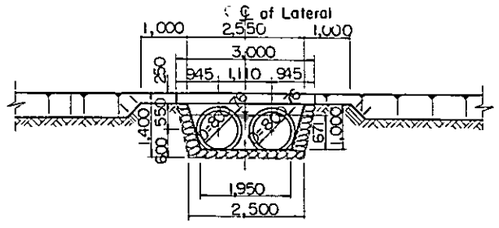
PLAN OF CULVERT NO. 5



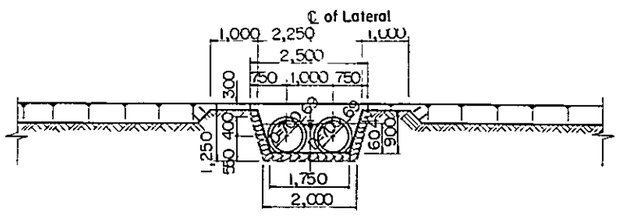
PROFILE



PROFILE



SECTION A-A



SECTION B-B

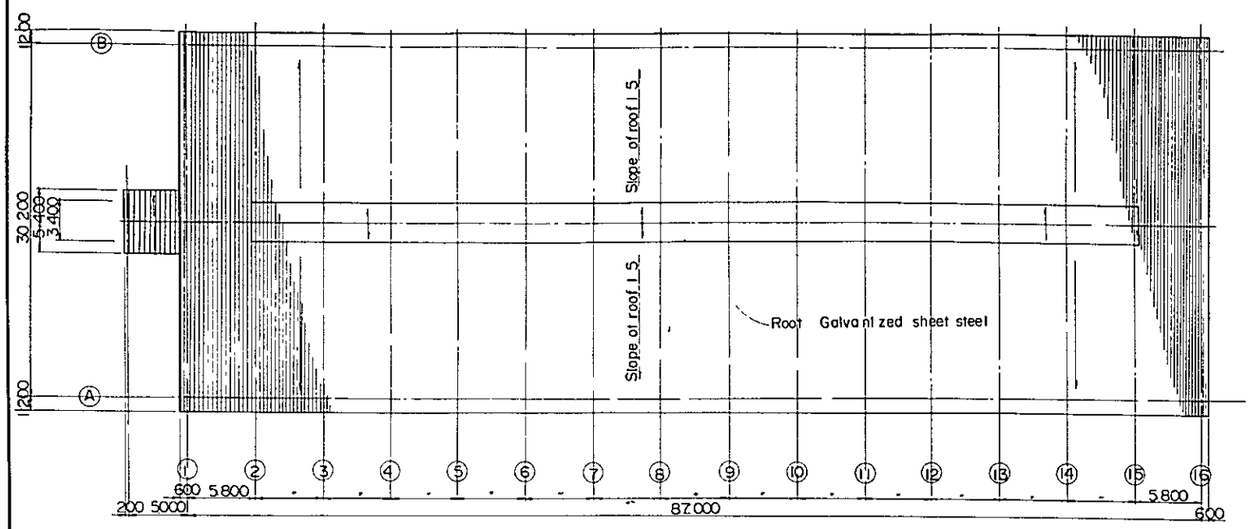
NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters.
Chamfer all exposed corners 20 mm, unless otherwise shown
For strength and aggregate size of concrete, see specifications.
Pit-run gravel to be distributed evenly on operating berm.
Class "C" concrete to be placed at all portion unless otherwise shown

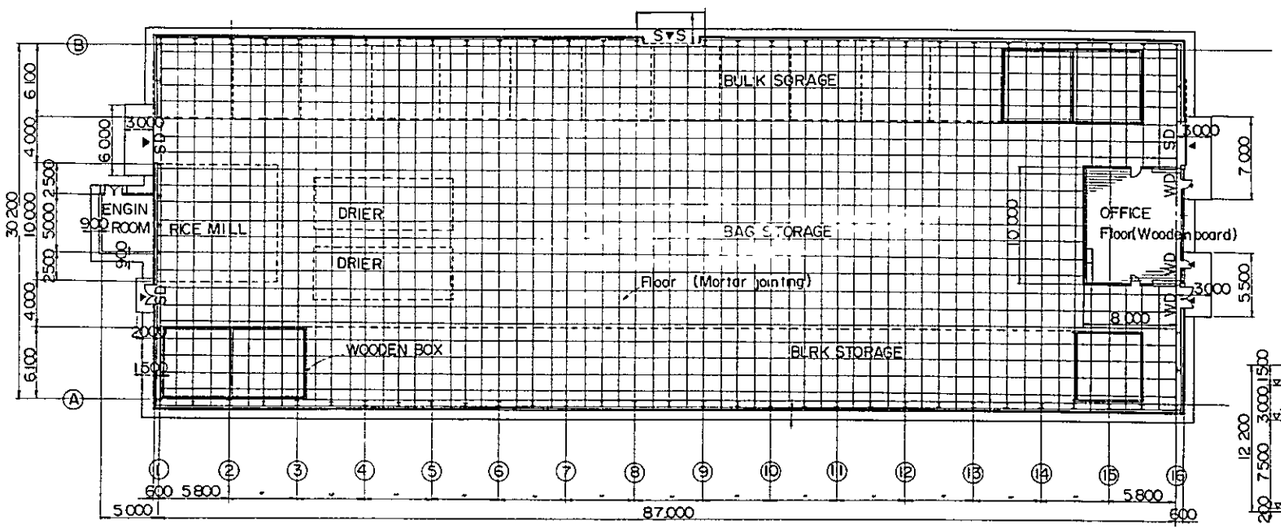
0 1,000 3,000 5,000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
CULVERT NO.4 AND NO.5
PLAN AND PROFILE
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

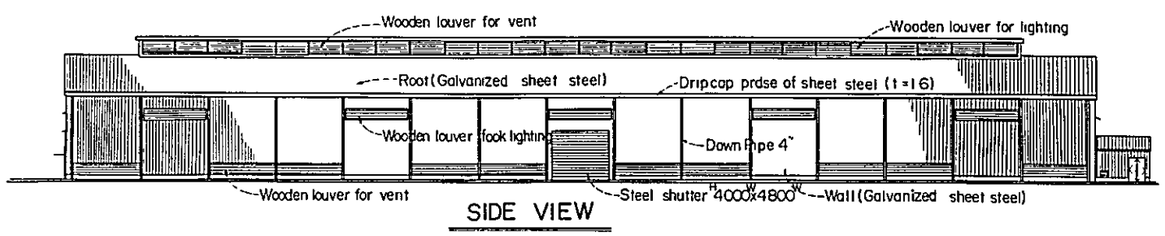
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A — 46



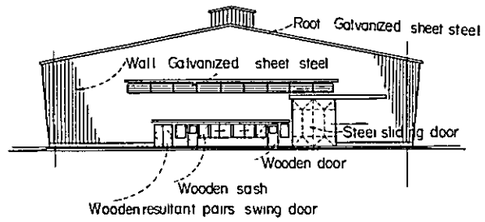
ROOF PLAN



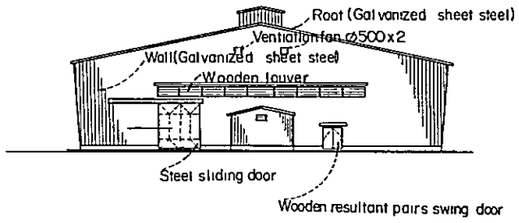
I. FLOOR PLAN



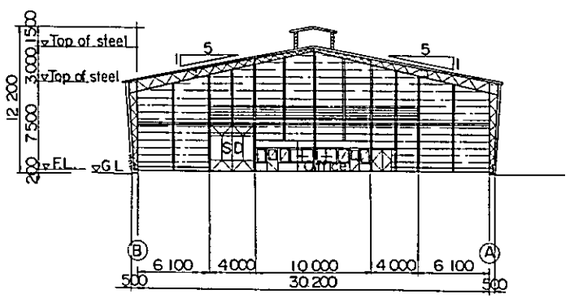
SIDE VIEW



FRONT VIEW



LOOKING FROM BACK VIEW



SECTION

NOTES

All dimensions are given in millimeters
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill

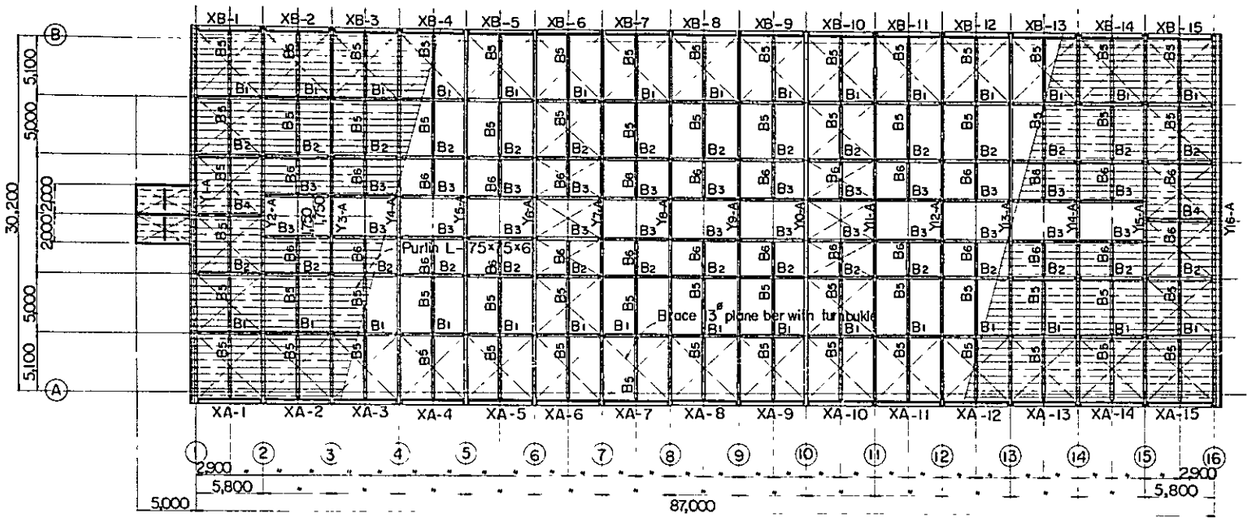
EXPLANATIONS

F.L ; Floor line
G.L ; Ground line
S.D , Steel door
S S ; Steel shutter
W D ; Wooden door

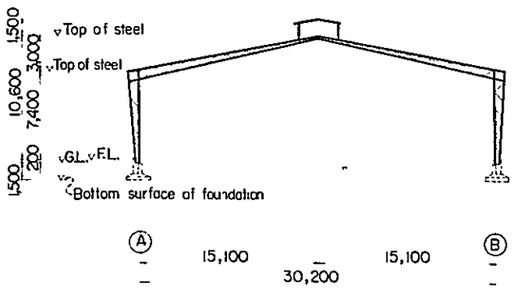
0 10.000 20.000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
HOUSING OF RICE PROCESSING CENTER
PLAN AND VIEWS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

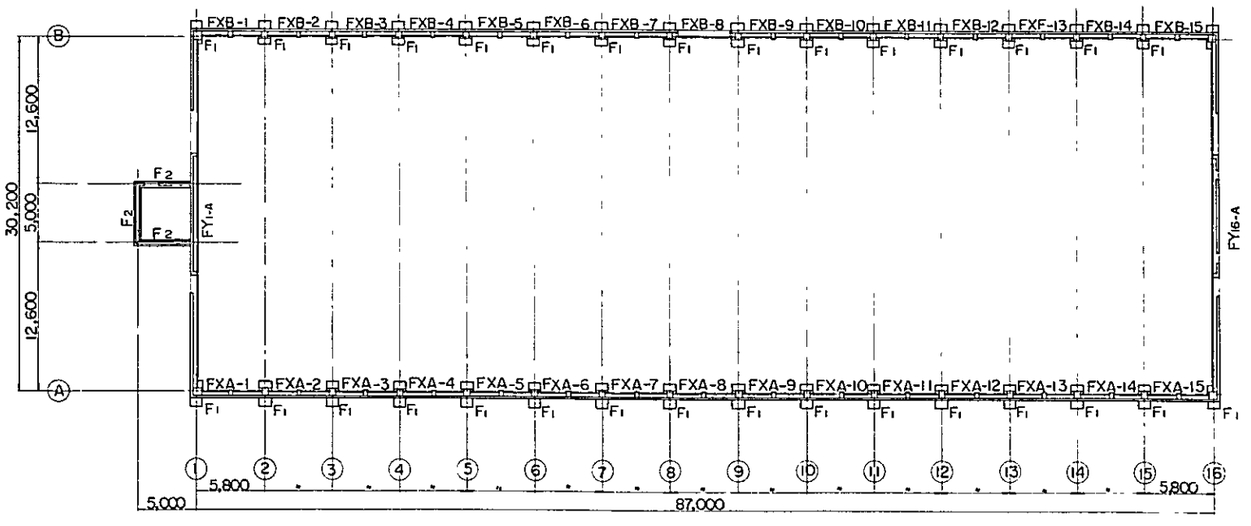
SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A — 47



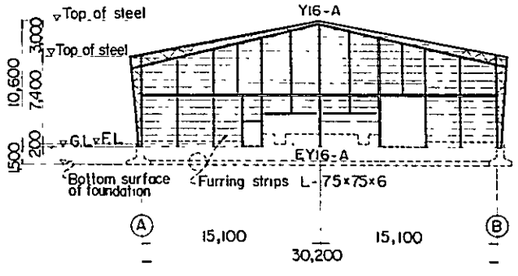
PLAN OF STEEL ROOF



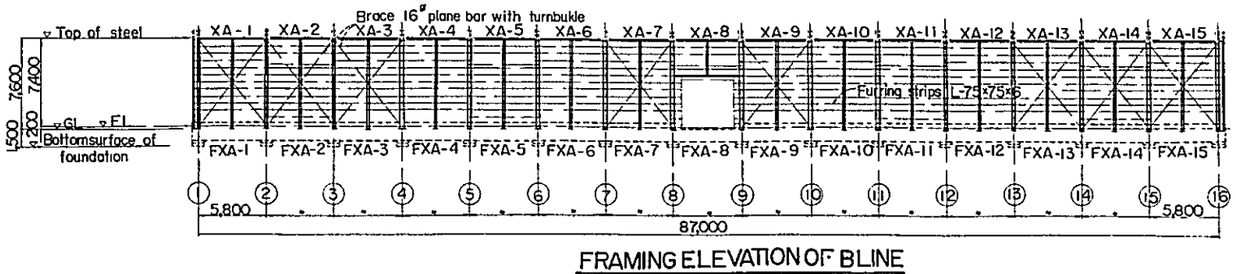
FRAMING ELEVATION FLOM 2LINE TO15LINE



PLAN OF FOUNDATION



FRAMING ELEVITON OF 16LINE



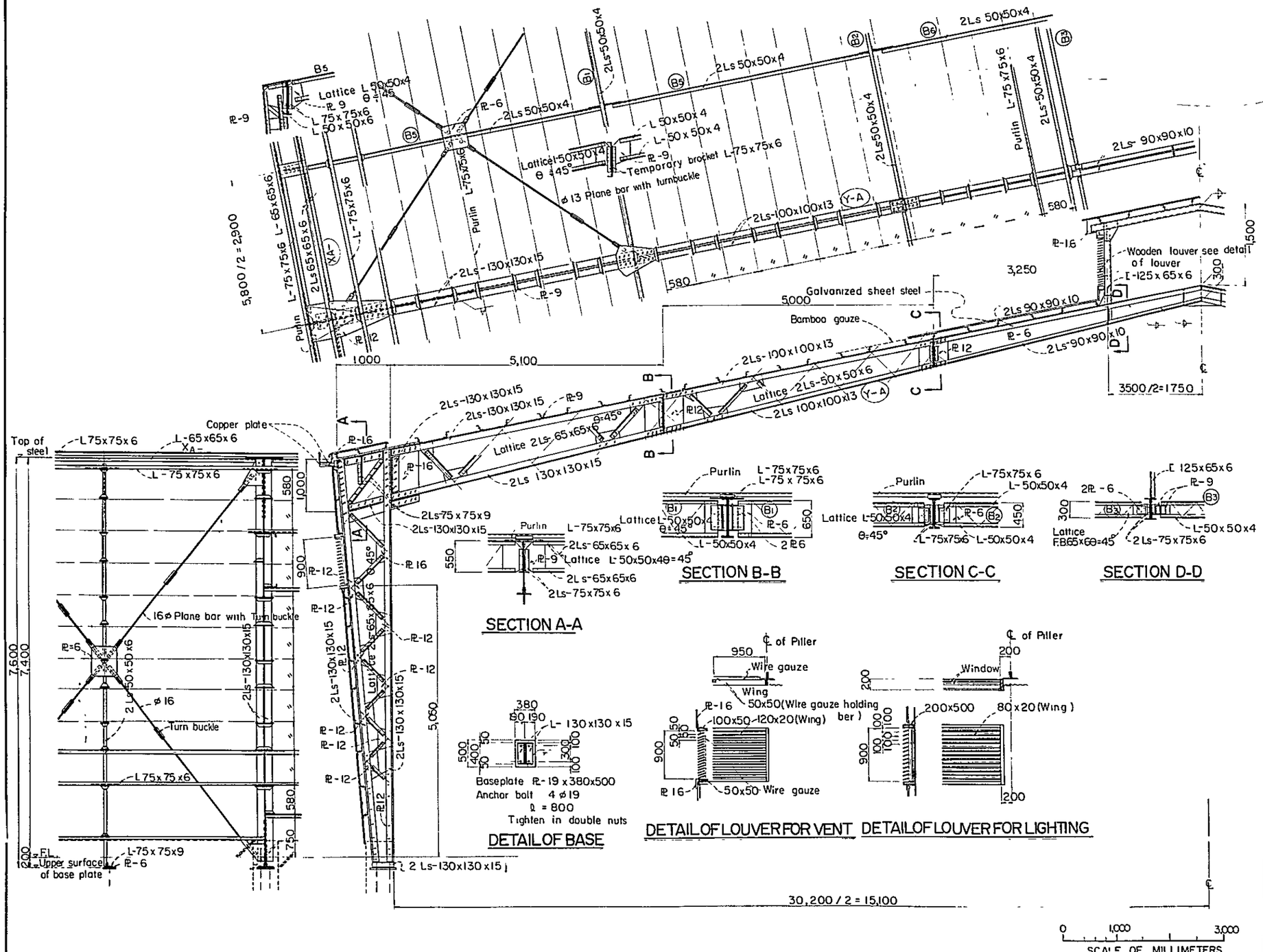
FRAMING ELEVATION OF BLINE

0 10,000 20,000
SCALE OF MILLIMETERS

NOTES

All dimensions are given in millimeters
See Drawng A-50 for the general location of plan.
See Drawng A-49 for detail.
See Drawng A-47 for plan and views.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
HOUSING OF RICE PROCESSING CENTER
FRAMING PLAN AND ELEVATION
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN
SCALE AS SHOWN DATE
SHEET NO OF DRAWING NO. A – 48



NOTES

All dimensions are given in millimeters.

All welds to be full penetration continuous and smooth.

Allowable stress of material.
Steel; F.c.= F.t.=1,400kg/cm².
Rivet; F.f.=1,600kg/cm²
Fs=1200kg/cm²
* 22ø + 19ø
Bracing; F.t.=1,400kg/cm².

Gusset plate PL-6 to be used unless otherwise shown.

All welds to be done at plant.

EXPLANATIONS

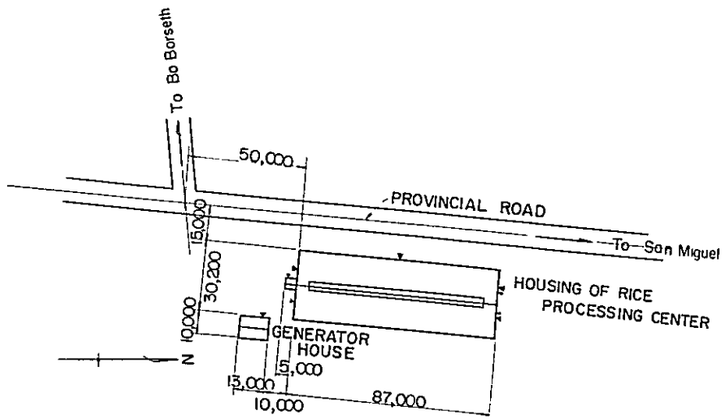
F.B. ; Flat bar
F.L. ; Floor line
▽ ; Edge-fillet welds

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG

HOUSING OF RICE PROCESSING CENTER DETAILS

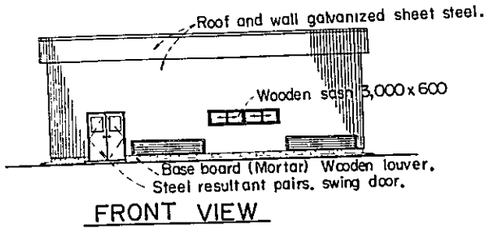
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A-49

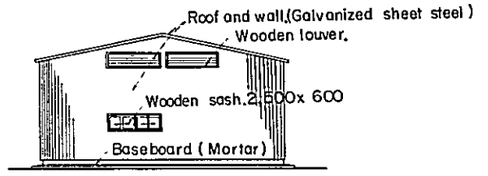


BLOCK PLAN OF RICE CENTER

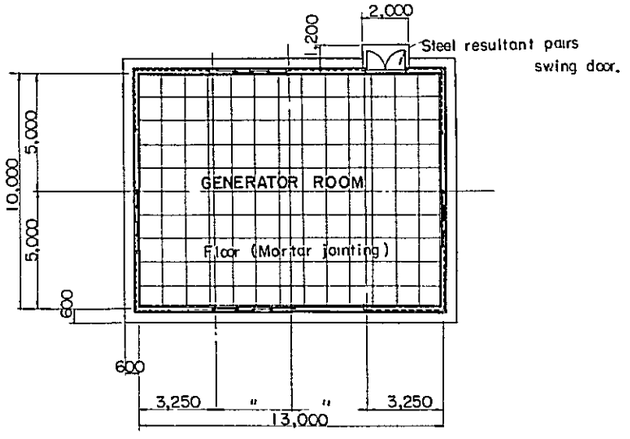
0 50
SCALE OF METERS



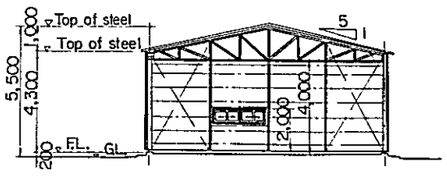
FRONT VIEW



SIDE VIEW



PLAN



SECTION

NOTES

All dimensions are given in millimeters.
Base of concrete structure to be placed on undisturbed natural foundation or thoroughly compacted fill.
See Drowing A-47 for housing of rice processing center.

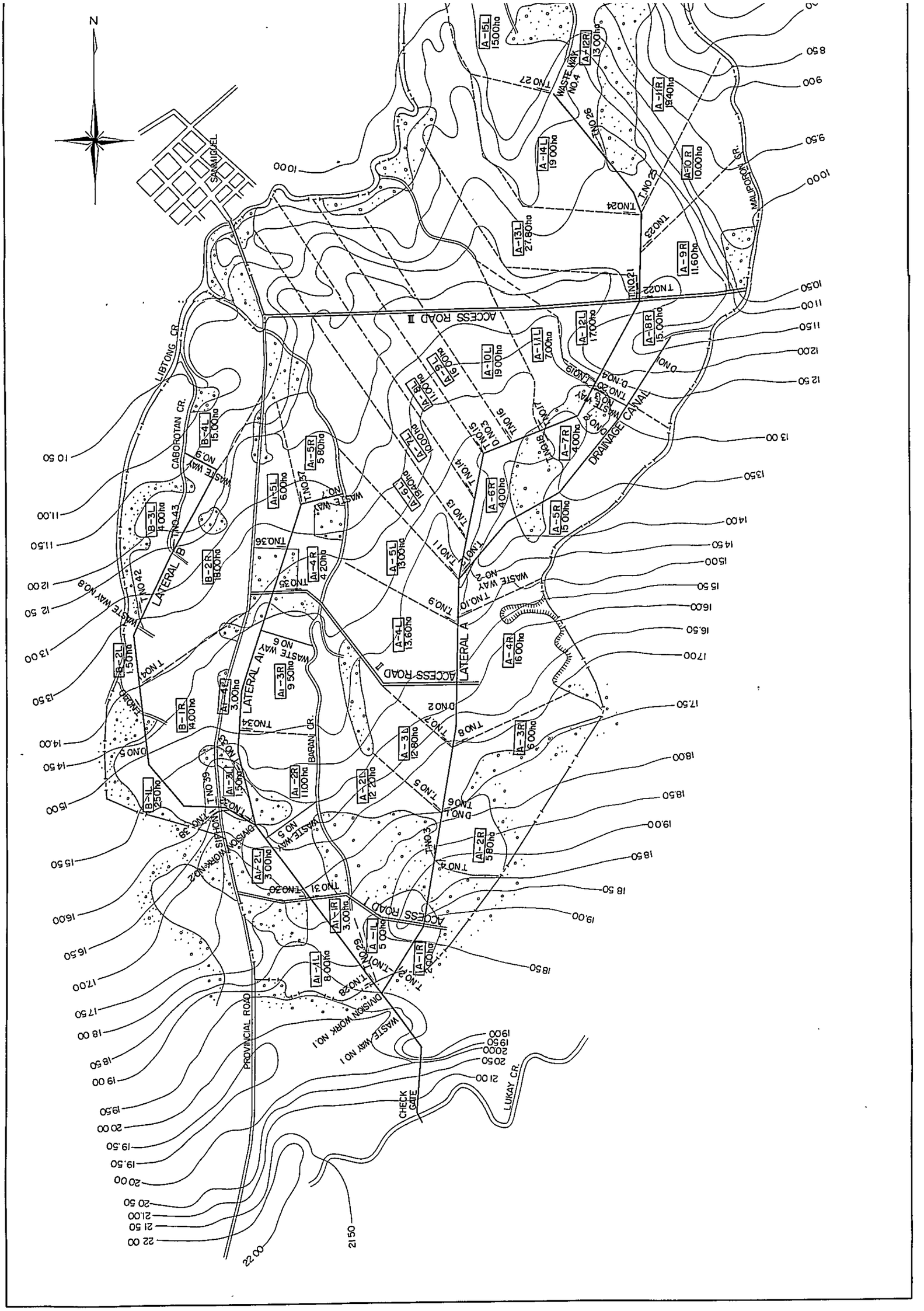
EXPLANATIONS

F.L. ; Floor line
G.L. ; Ground line

0 5000 10,000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
GENERATOR ROOM OF RICE PROCESSING CENENTER
PLAN AND VIEWS
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	OF	DRAWING NO	A - 50


N
SAN MIGUEL
LIBTONG CR.
CABOTOTAN CR.
LATERAL B
LATERAL A
LATERAL A1
ACCESS ROAD III
ACCESS ROAD II
ACCESS ROAD I
DRAINAGE CANAL
MALIPOROM CR.
BARANI CR.
LUKAY CR.
PROVINCIAL ROAD
CHECK GATE
DIVISION WORK NO.1
DIVISION WORK NO.2
WASTE WAY NO.1
WASTE WAY NO.2
WASTE WAY NO.3
WASTE WAY NO.4
WASTE WAY NO.5
WASTE WAY NO.6
WASTE WAY NO.7
WASTE WAY NO.8
WASTE WAY NO.9
A-1L 7.00ha
A-2L 17.00ha
A-3L 12.80ha
A-4L 13.60ha
A-5L 13.00ha
A-6L 19.00ha
A-7L 10.00ha
A-8L 11.00ha
A-9L 19.00ha
A-10L 19.00ha
A-11L 5.00ha
A-12L 8.00ha
A-13L 27.80ha
A-14L 19.00ha
A-15L 15.00ha
A-1R 3.40ha
A-2R 5.80ha
A-3R 6.00ha
A-4R 16.00ha
A-5R 15.00ha
A-6R 4.00ha
A-7R 4.00ha
A-8R 15.00ha
A-9R 11.60ha
A-10R 10.00ha
A-11R 13.00ha
A-12R
A1-1L 8.00ha
A1-1R 2.00ha
A1-2L 3.00ha
A1-2R 5.80ha
A1-3L 1.50ha
A1-3R 9.50ha
A1-4L 3.00ha
A1-4R 4.20ha
A1-5R 5.80ha
B-1L 2.50ha
B-1R 14.00ha
B-2L 1.50ha
B-2R 18.00ha
B-3L 4.00ha
B-4L 15.00ha
T.NO.1
T.NO.2
T.NO.3
T.NO.4
T.NO.5
T.NO.6
T.NO.7
T.NO.8
T.NO.9
T.NO.10
T.NO.11
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T.NO.43
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D.NO.3
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D.NO.5
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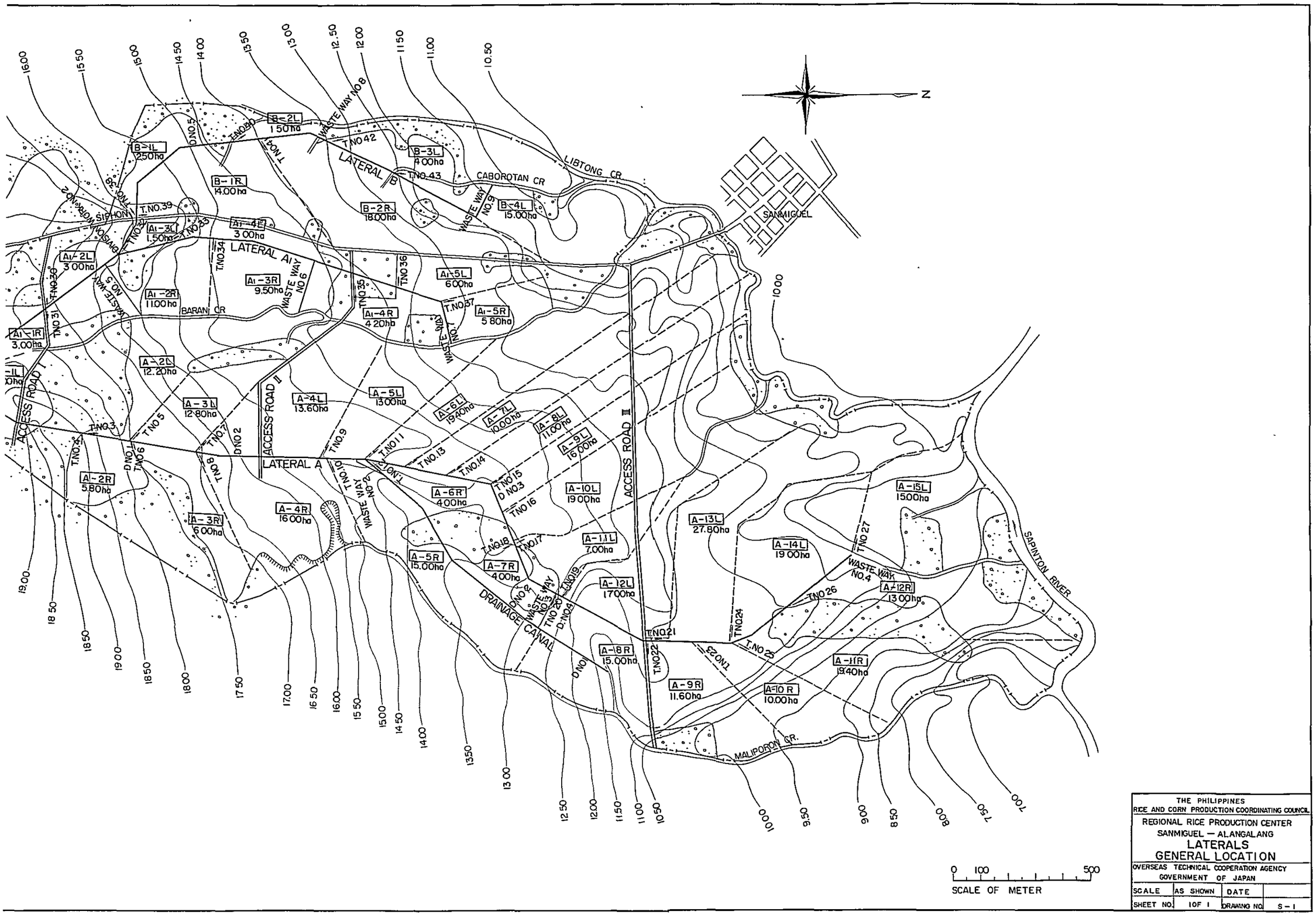
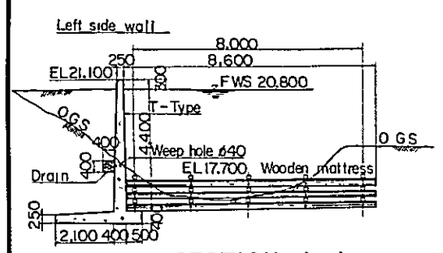
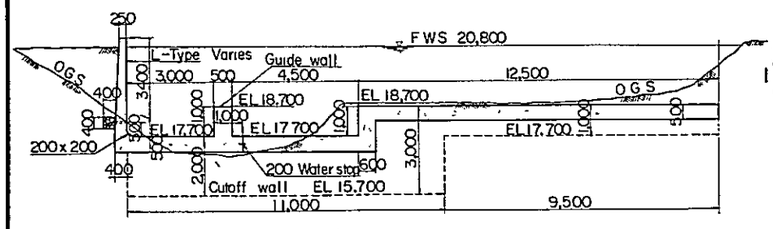


THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
LATERALS GENERAL LOCATION
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

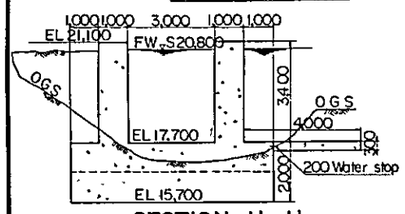
SCALE	AS SHOWN	DATE	
SHEET NO.	1OF 1	DRAWING NO.	S-1



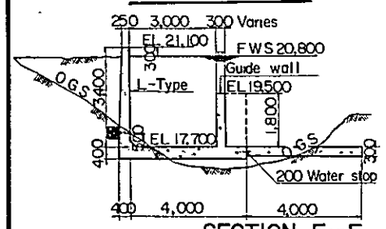
SECTION J–J



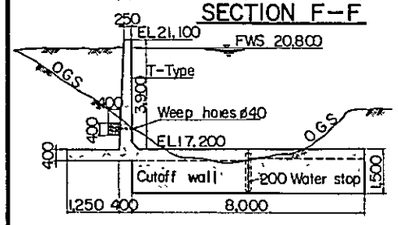
SECTION I–I



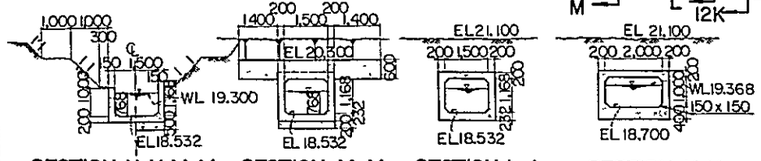
SECTION H–H



SECTION F–F

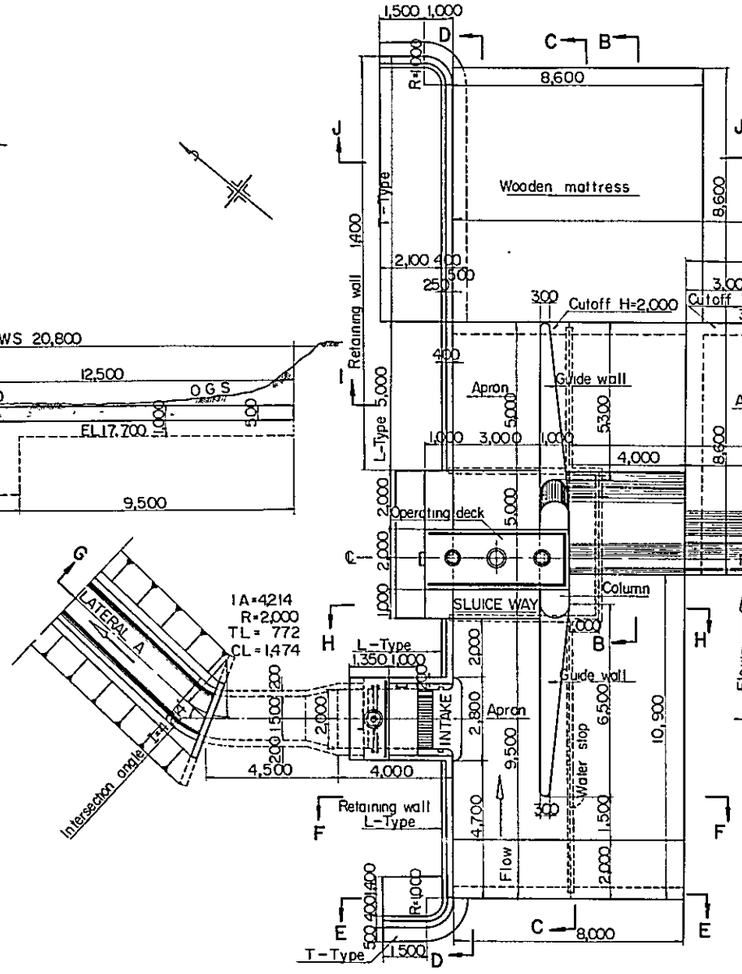


SECTION E–E

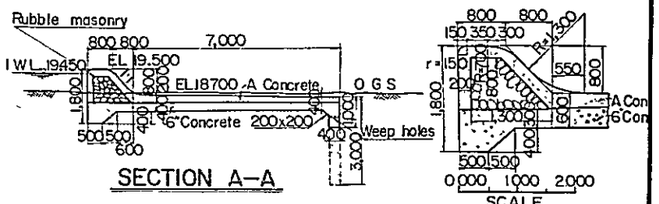


SECTION N-N M-M SECTION M-M SECTION L-L SECTION K-K

CROSS-SECTION OF INTAKE

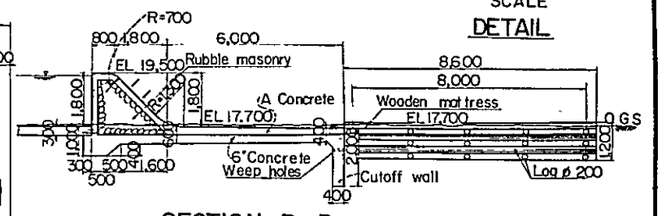


GENERAL PLAN

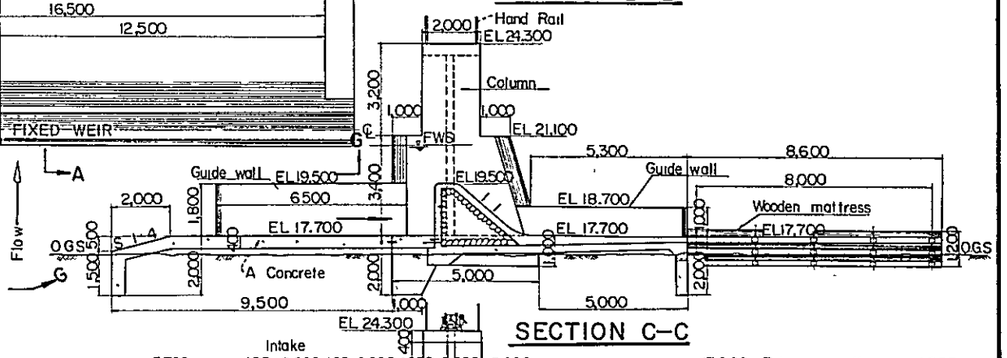


SECTION A–A

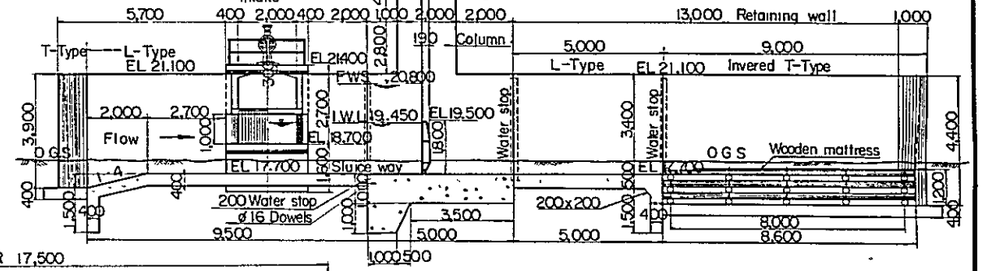
DETAIL



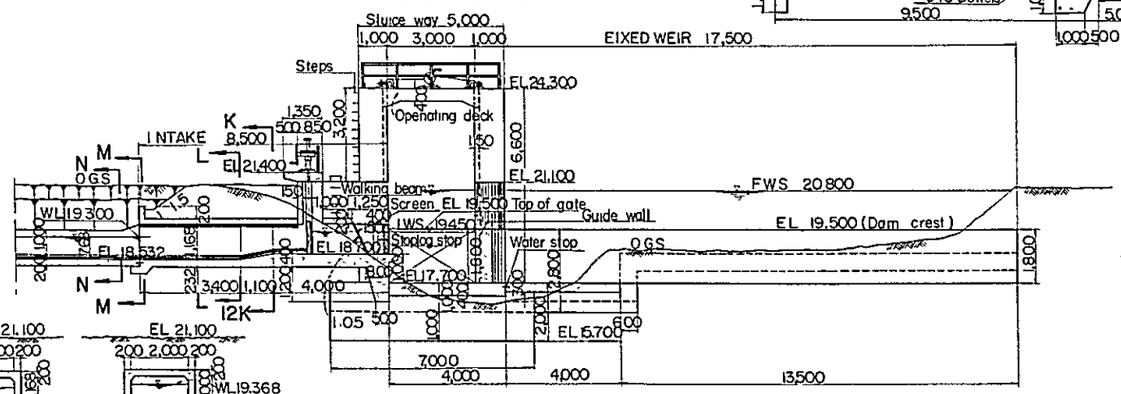
SECTION B–B



SECTION C–C



SECTION D–D



SECTION G–G

General Notes

1 All dimensions are given in millimeters and all elevations are given in meters

2 Detail of structure be refer to Dwg S-3, S-4, S-5 and S-6

3 Concrete design based on a compressive strength of 80kg/cm²

4 For Gate and Hoist installation, see Dwg. S-7

1,000 0,00 1,000 3,000 5,000 8,000

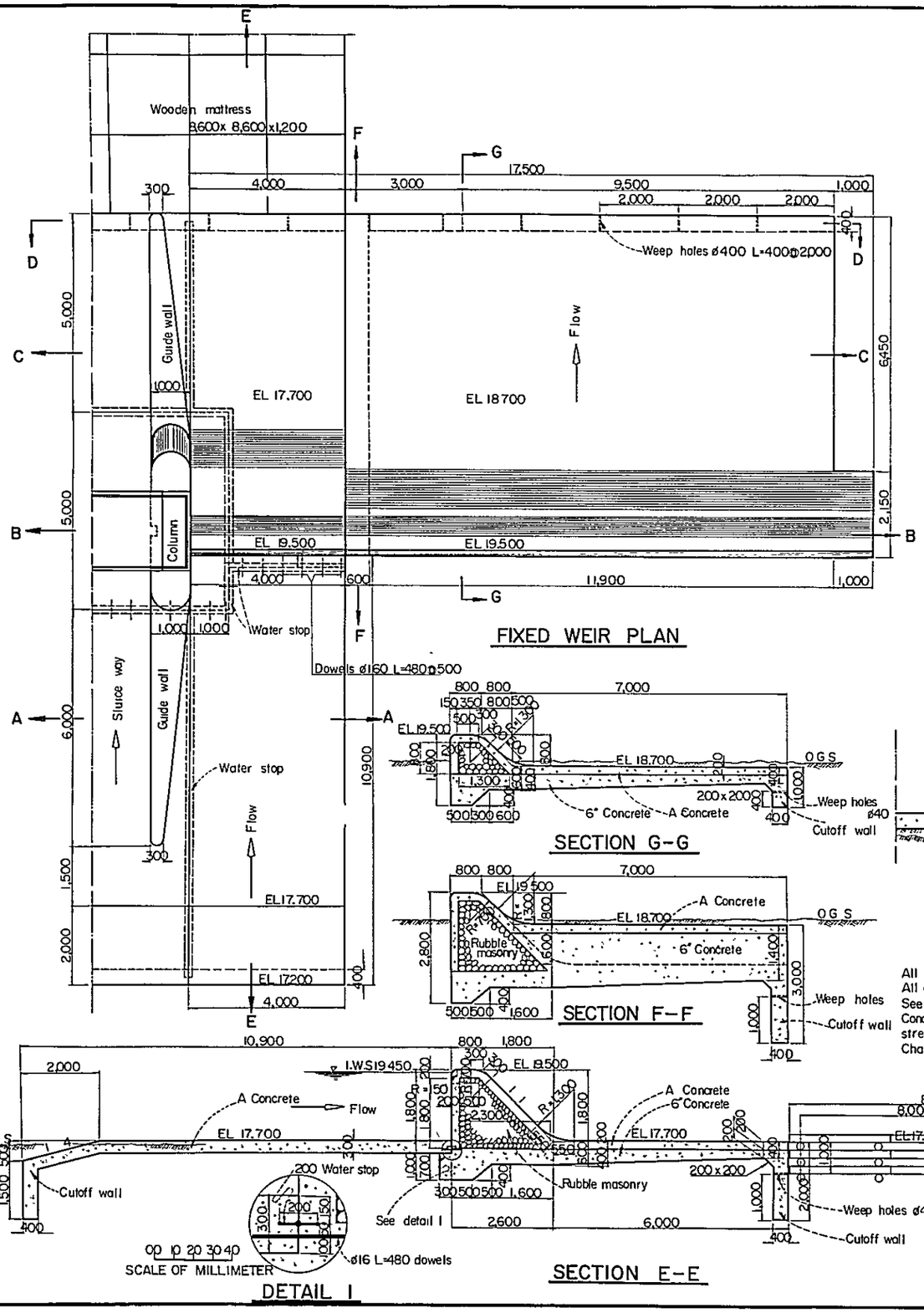
SCALE OF MILLIMETER

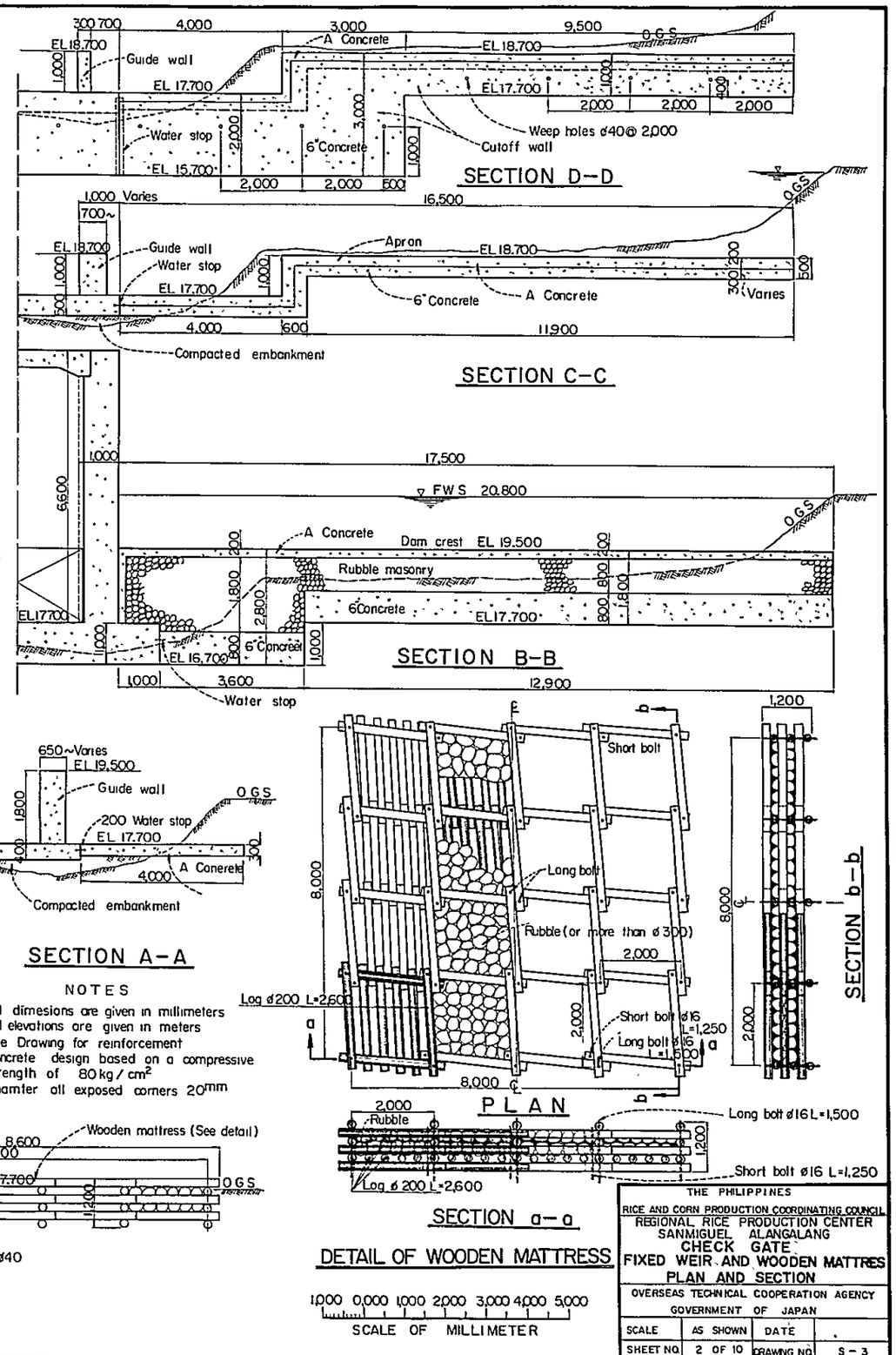
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG

CHECK GATE
GENERAL PLAN AND SECTION

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

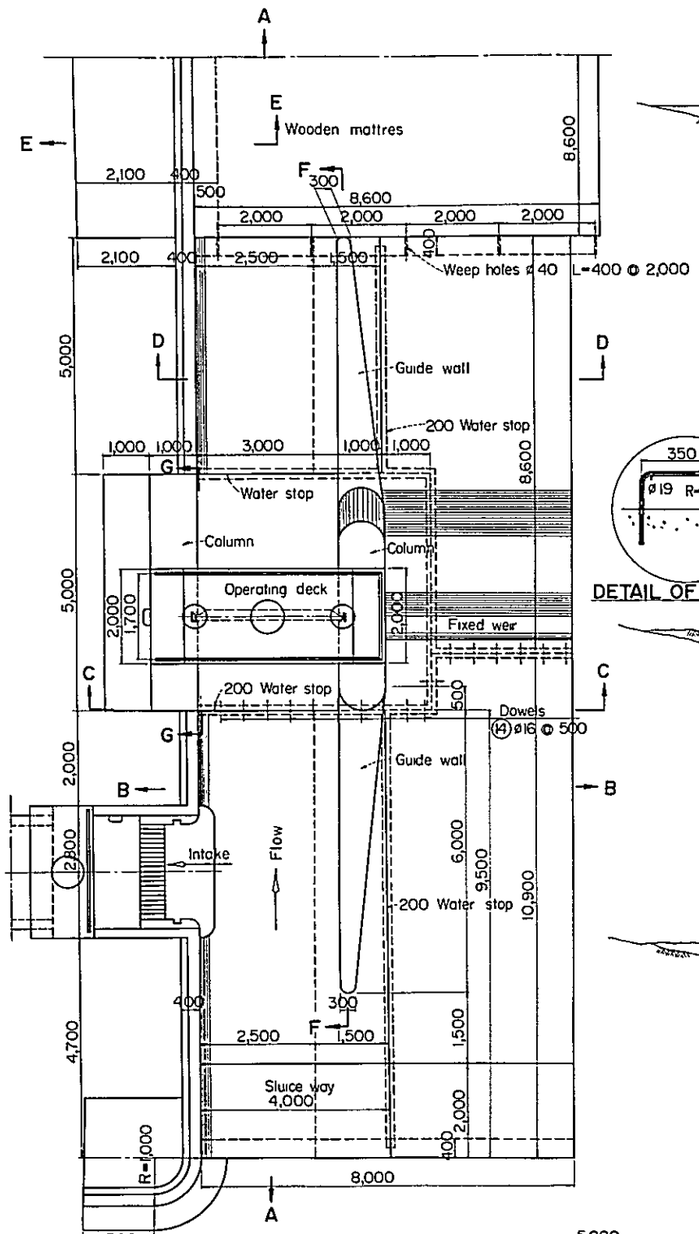
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 10	DRAWING NO	S – 2



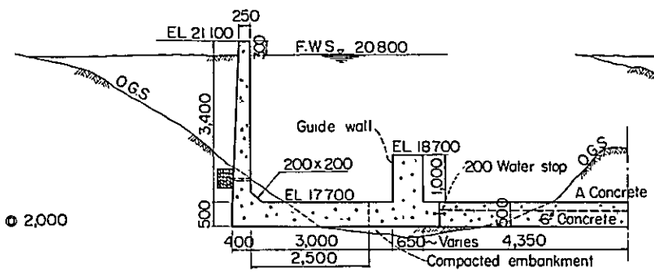


THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL ALANGALANG
CHECK GATE
FIXED WEIR AND WOODEN MATTRES PLAN AND SECTION
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

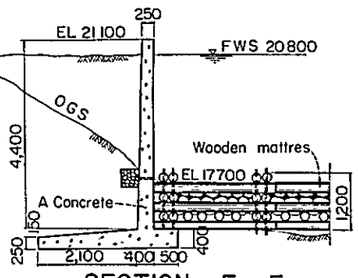
SCALE	AS SHOWN	DATE	
SHEET NO.	2 OF 10	DRAWING NO.	S - 3



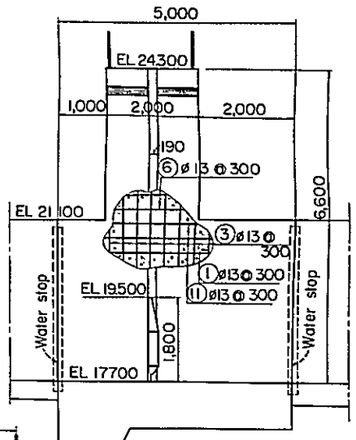
SLUICE WAY PLAN



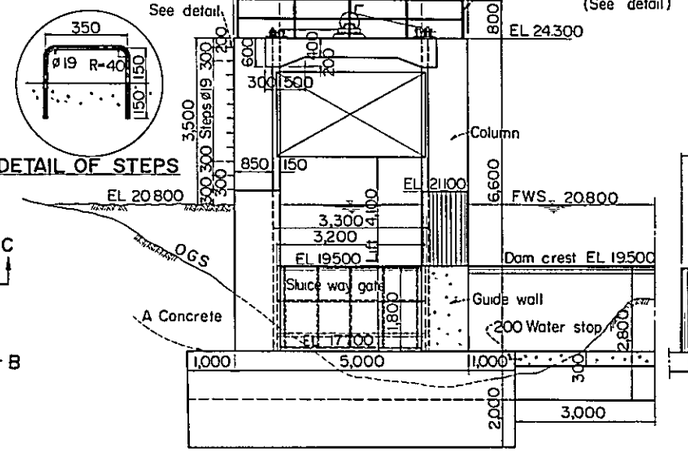
SECTION D-D



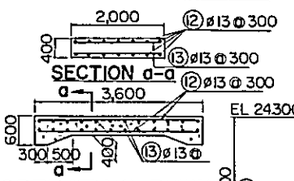
SECTION E-E

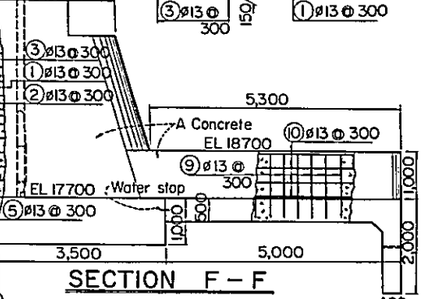


SECTION G-G

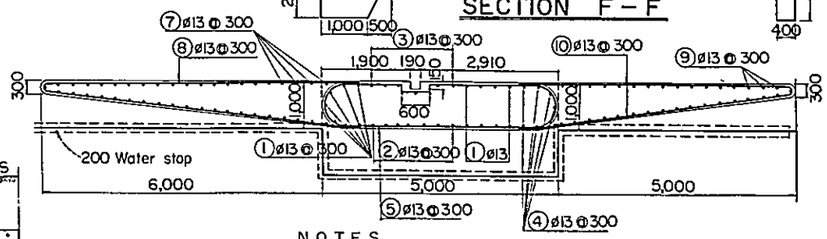


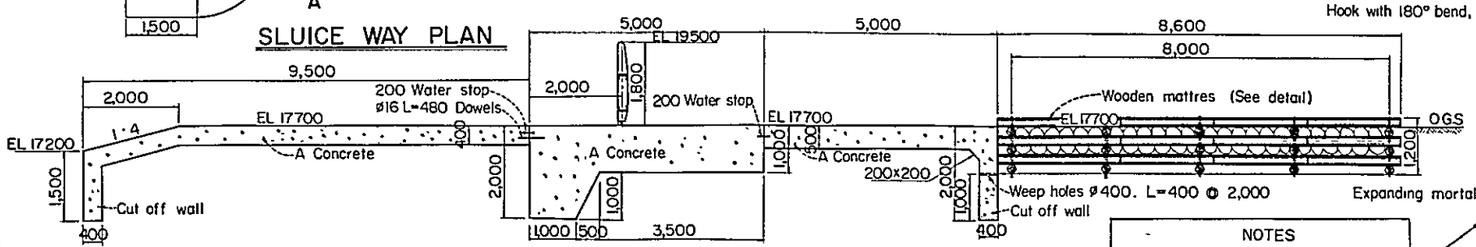
SECTION C-C





SECTION F-F





SECTION A-A

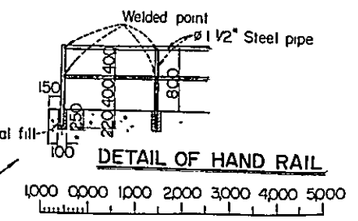
NOTES

All dimension are given in millimeters
All elevations are given in meters
See Drawing for plan and section
Lap all bars 30 diameters at spliced
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bend, length of 10 bar diameters.

Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth

NOTES

Steel pipe to be seamless & pipe joints shoud be carefully welded and ground smooth



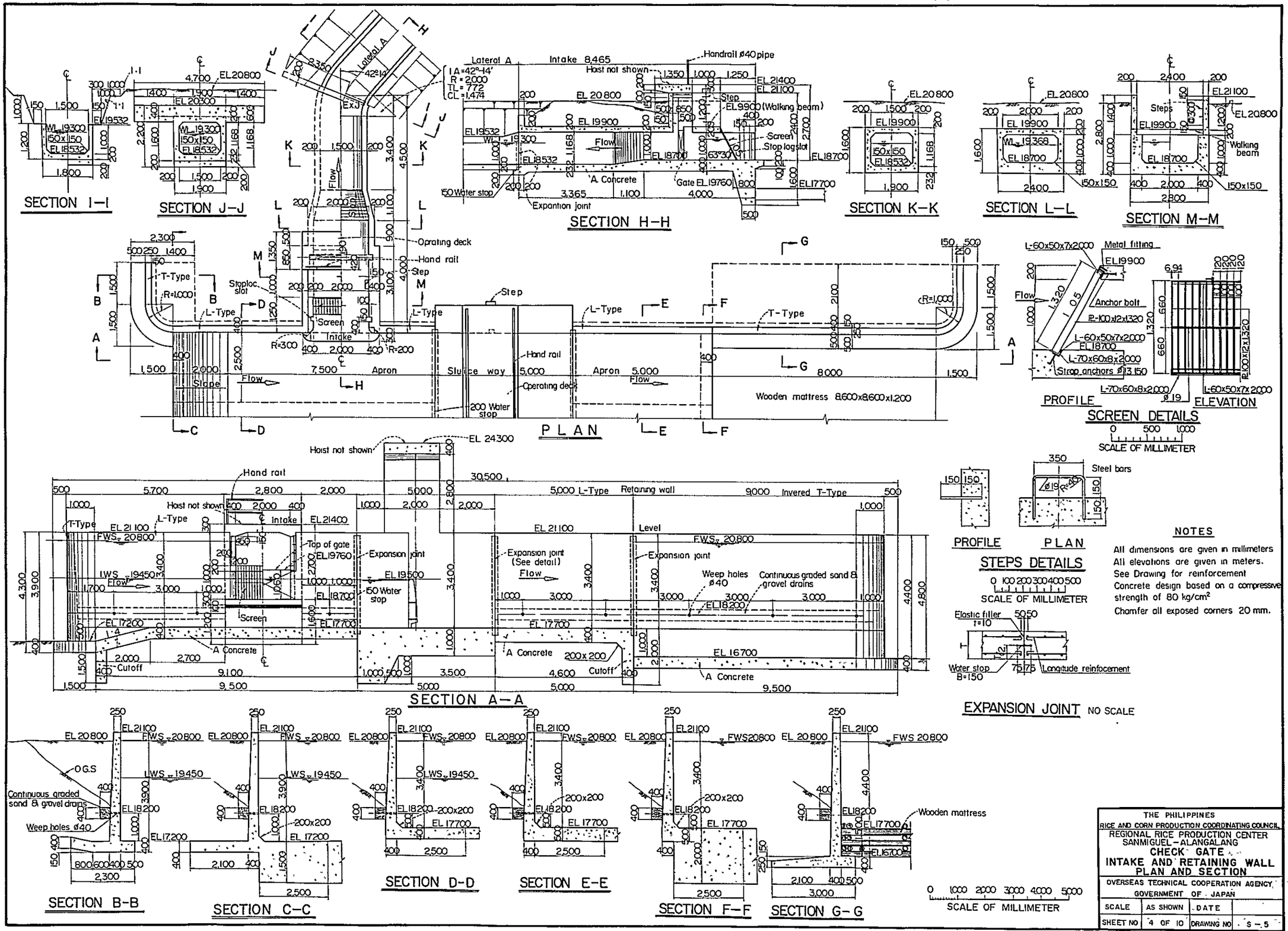
DETAIL OF HAND RAIL

1,000 0,000 1,000 2,000 3,000 4,000 5,000

SCALE OF MILLIMETER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
CHECK GATE
SLUICE WAY
PLAN AND SECTION
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

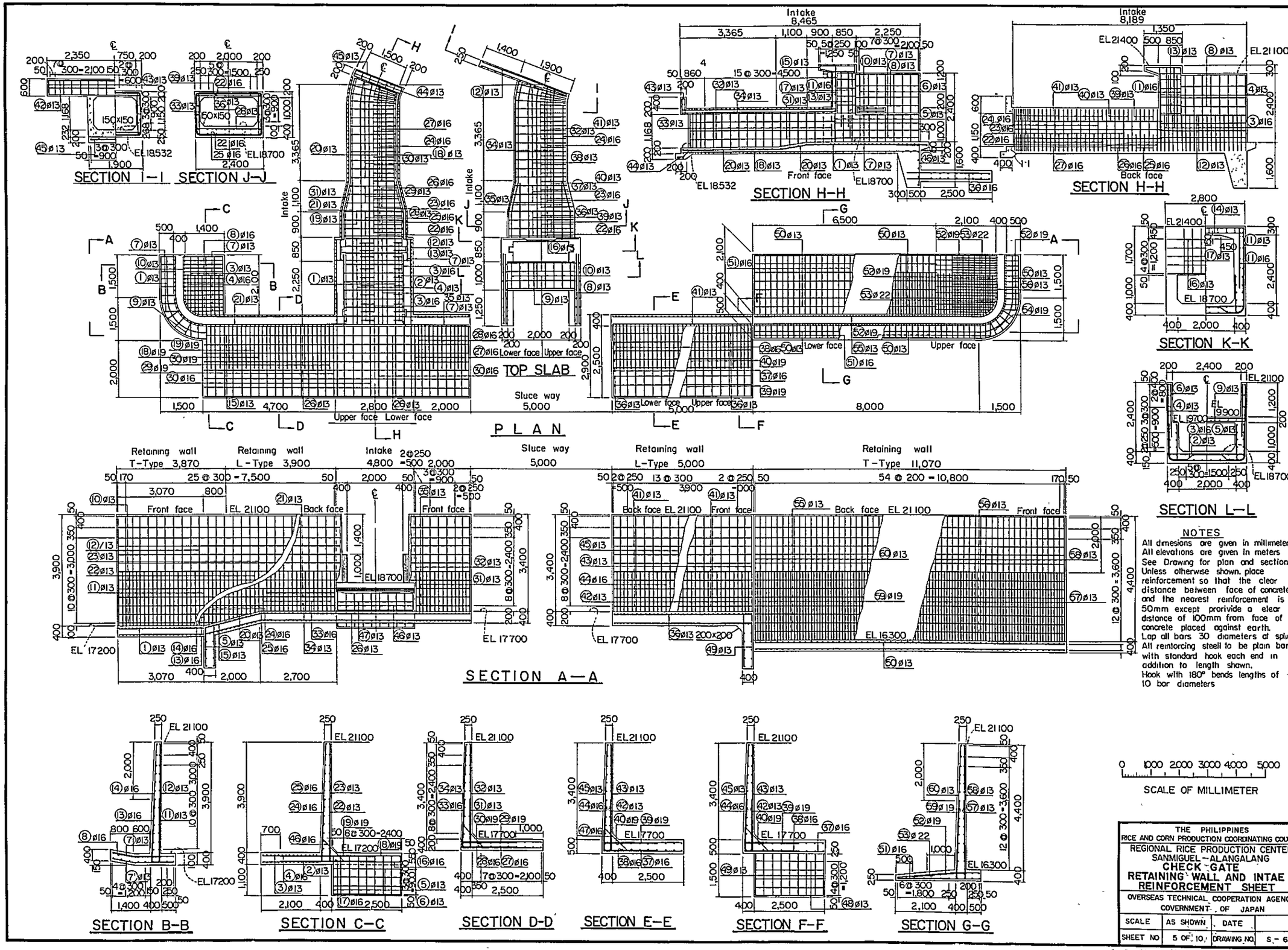
SCALE	AS SHOWN	DATE	
SHEET NO.	3 OF 10	DRAWING NO.	S-4



NOTES

All dimensions are given in millimeters
All elevations are given in meters.
See Drawing for reinforcement
Concrete design based on a compressive strength of 80 kg/cm²
Chamfer all exposed corners 20 mm.

THE PHILIPPINES	
RICE AND CORN PRODUCTION COORDINATING COUNCIL	
REGIONAL RICE PRODUCTION CENTER SANMIGUEL–ALANGALANG	
CHECK GATE	
INTAKE AND RETAINING WALL PLAN AND SECTION	
OVERSEAS TECHNICAL COOPERATION AGENCY, GOVERNMENT OF JAPAN	
SCALE: AS SHOWN	DATE:
SHEET NO: 4 OF 10	DRAWING NO: S–5

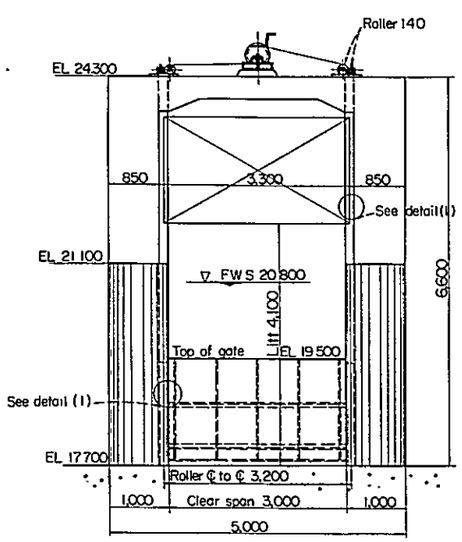


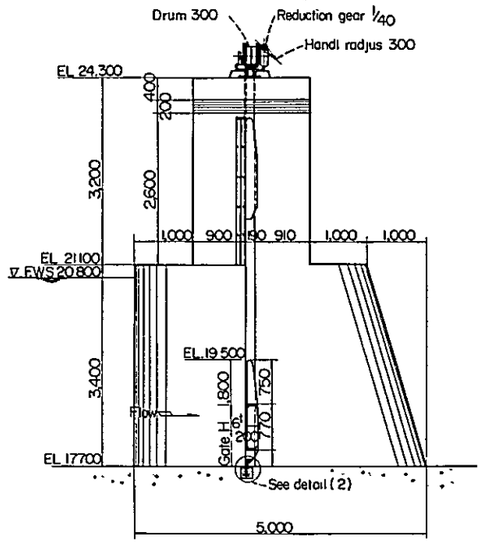
NOTES

All dimesions are given in millimeters.
All elevations are given in meters
See Drawing for plan and section.
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except prorivide a clear distance of 100mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices
All reintorcing steell to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends lengths of 10 bar diameters

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL—ALANGALANG
CHECK GATE
RETAINING WALL AND INTAE
REINFORCEMENT SHEET
OVERSEAS TECHNICAL COOPERATION AGENCY
COVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	5 OF 10	DRAWING NO.	S-6



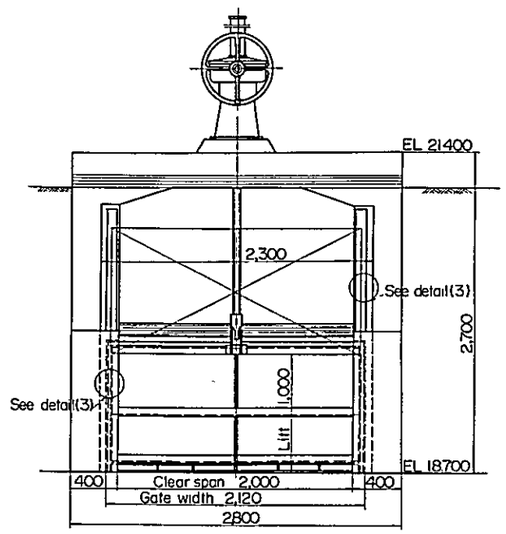


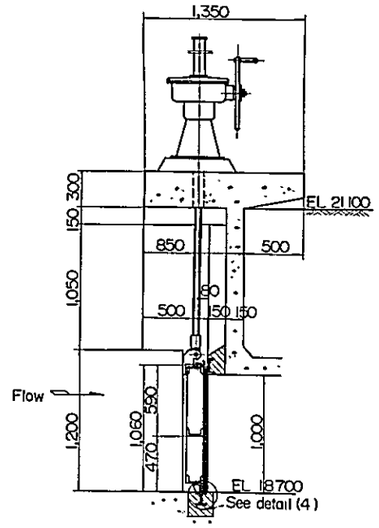
ELEVATION OF SLUICE WAY GATE

PROFILE OF SLUICE WAY GATE

1,000 0,000 1,000 2,000 3,000 4,000

SCALE OF MILLIMETER



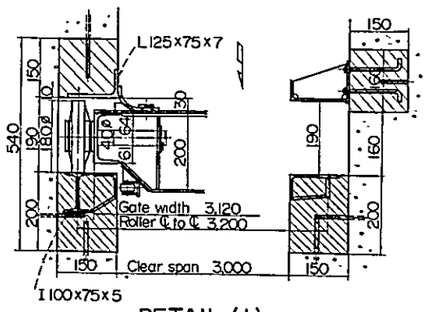


ELEVATION OF INTAKE GATE

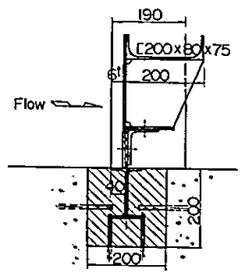
PROFILE OF INTAKE GATE

1,000 0,000 1,000 2,000

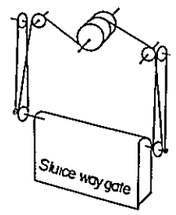
SCALE OF MILLIMETER



DETAIL (1)



DETAIL (2)



WIRE RING

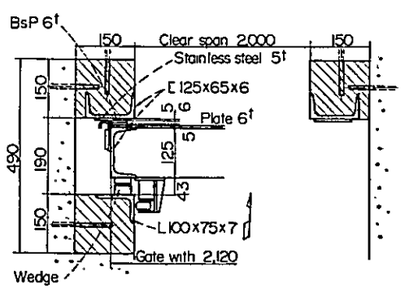
NO SCAL

300 200 100 000 100 200 300 400 500

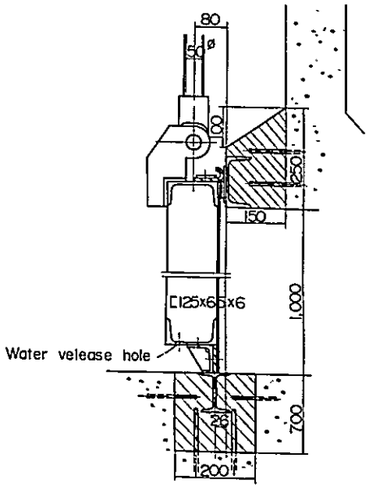
SCALE OF MILLIMETER

Point of design

Type	; Steel roller gate
Clear x High	; 3,000 x1,800
Number of gate required	; 1
Depth for design	; 2100 (30 over)
Method of watev-tight	; Three side water-tight
Lift	; 4,100
Hoist	; Manual winch type



DETAIL (3)



DETAIL (4)

300 200 100 000 100 200 300 400 500 600

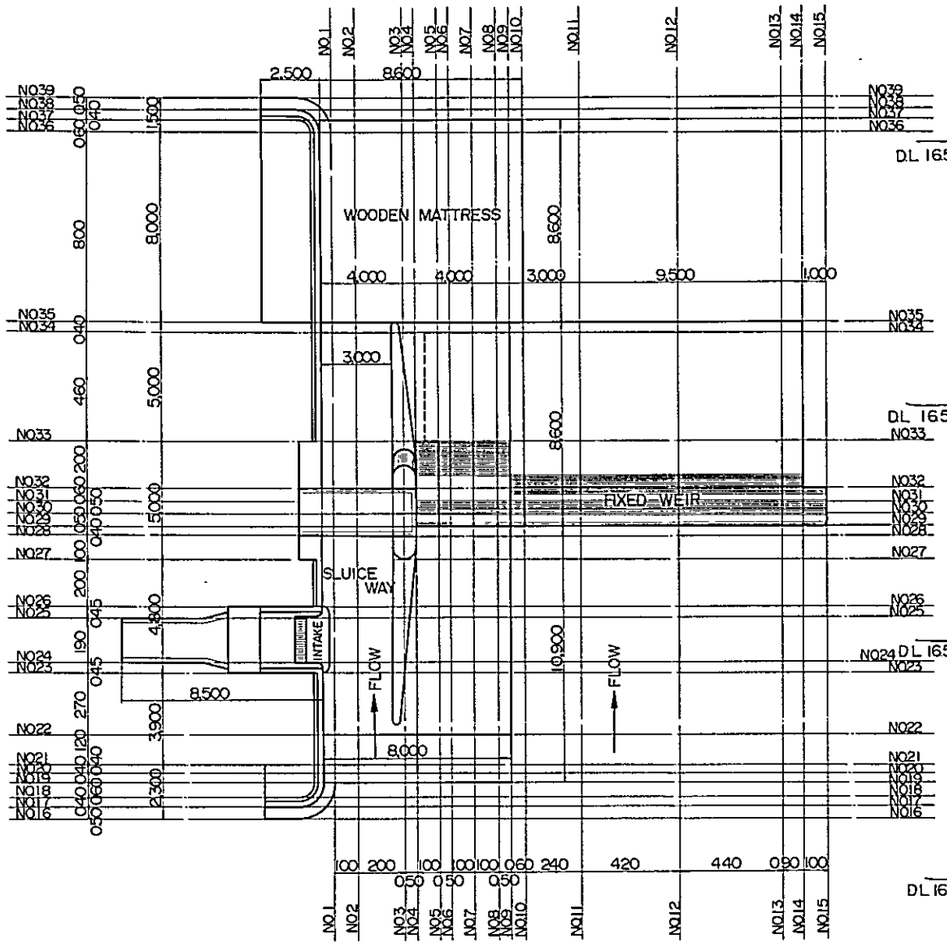
SCALE OF MILLIMEETER

Point of design

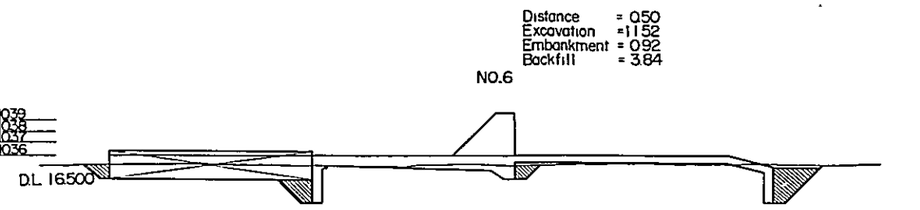
Type	; Steel sluice gate
Clear x High	; 2,000 x1,000
Number of gat required	; 1
Depth for design	; 2100
Method of water-tight	; All water-tight
Lift	; 1,000
Hoist	; Manual spindle type

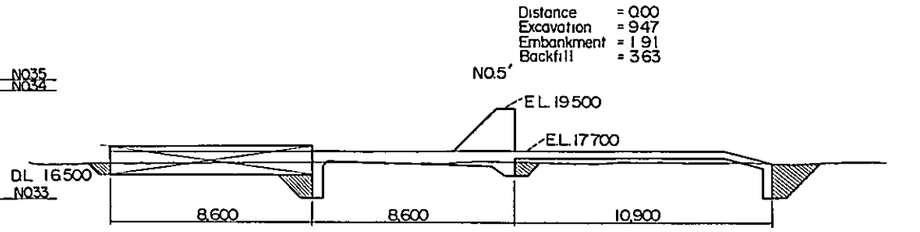
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL– ALANGALANG
CHECK GATE
INSTALL ASSEMBLY OF GATES
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

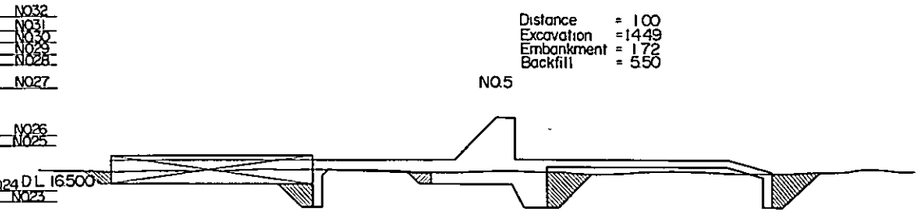
SCALE	AS SHOWN	DATE	
SHEET NO.	6 OF 10	DRAWING NO.	S – 7

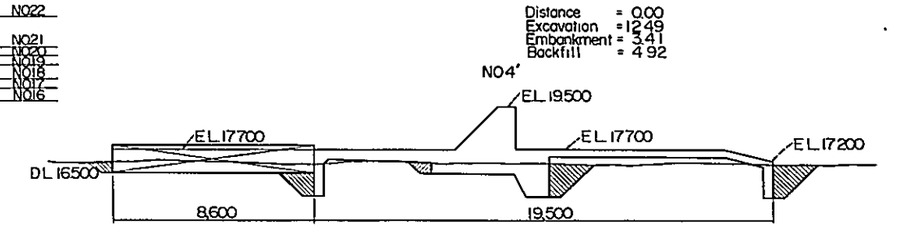


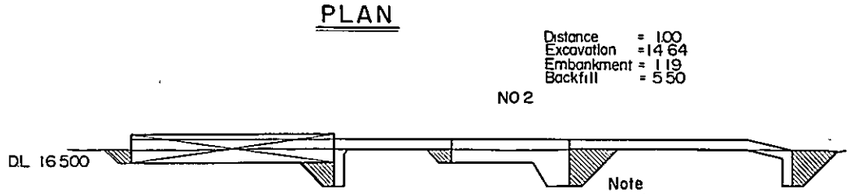
PLAN

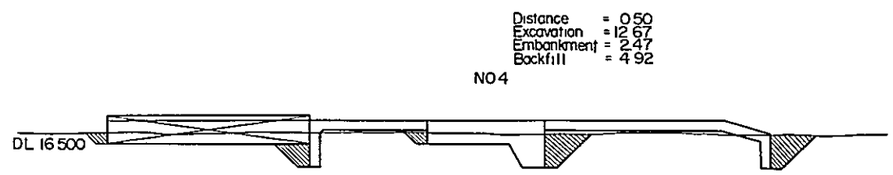


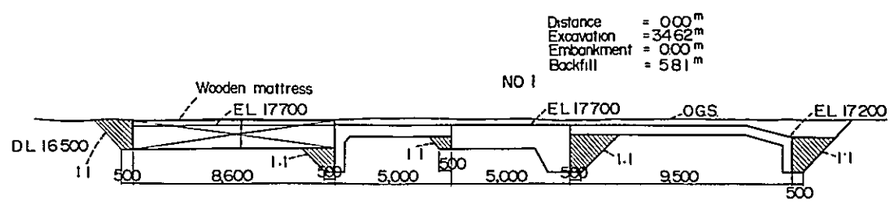


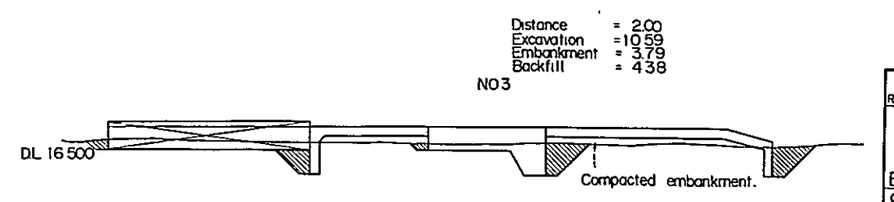










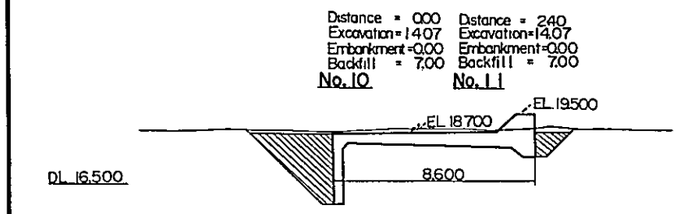


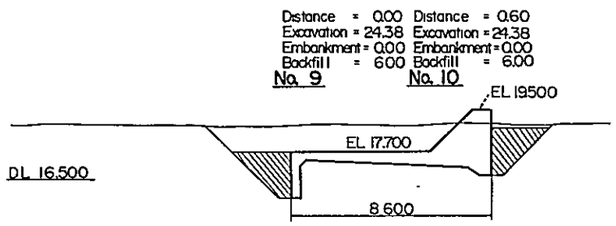
LONGITUDINAL SECTION

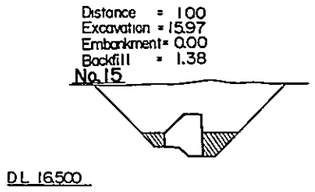
0 10 20 30 40 50 60 70 80 90 100m
SCALE OF METER

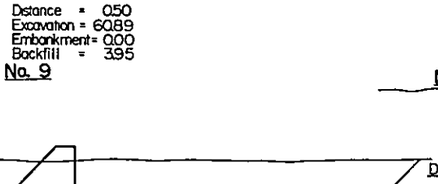
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
CHECK GATE
EXCAVATION AND EMBANMENT(I)
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

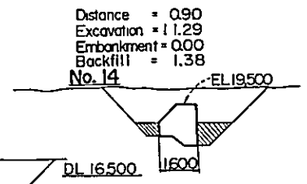
SCALE	AS SHOWN	DATE	
SHEET NO.	7 OF 10	DRAWING NO.	S – 8

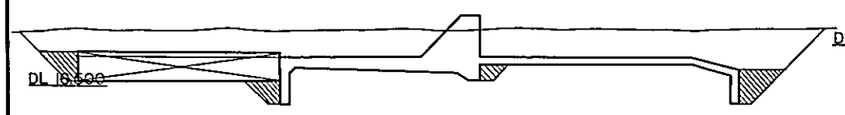


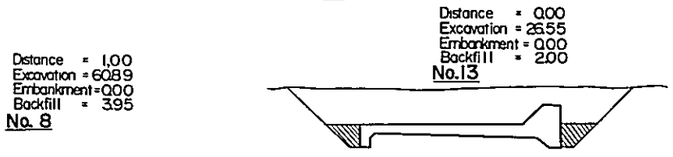


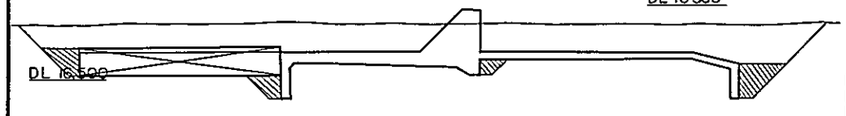


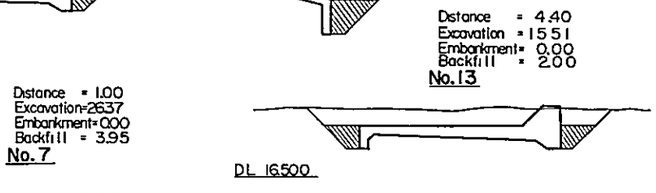


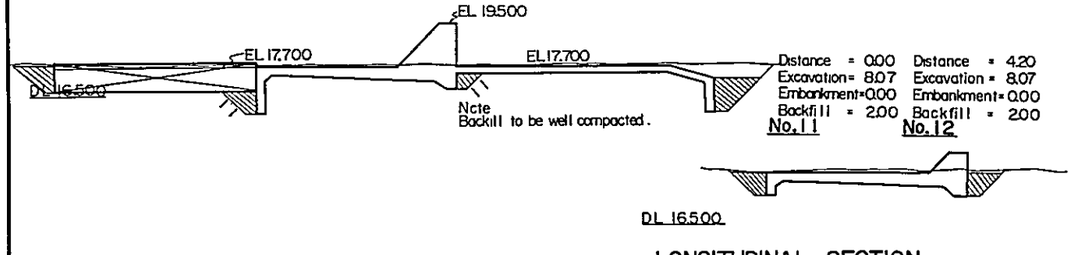




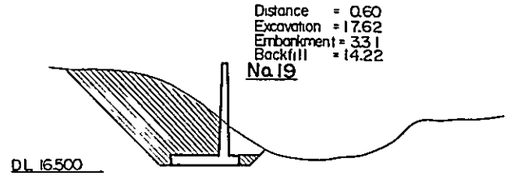


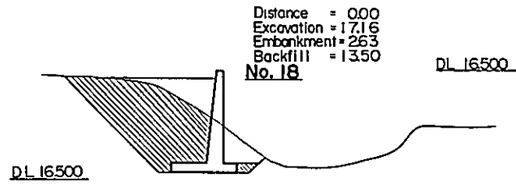


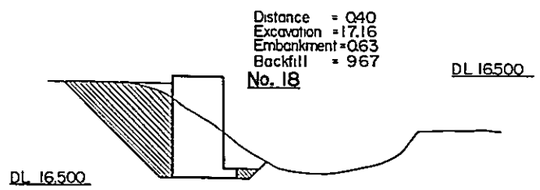


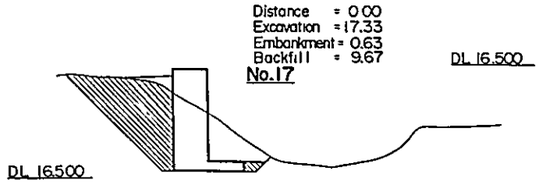


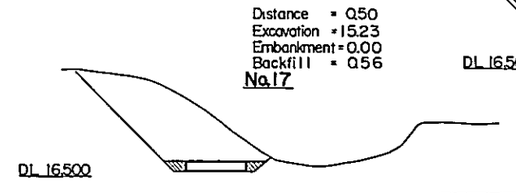
LONGITUDINAL SECTION

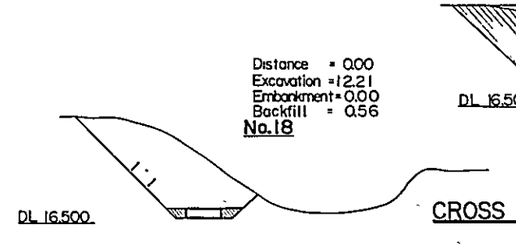


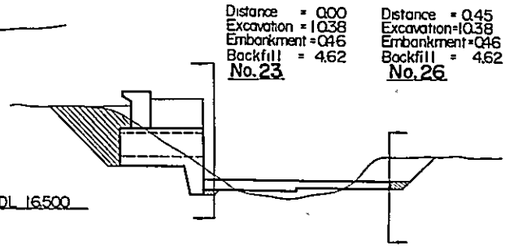


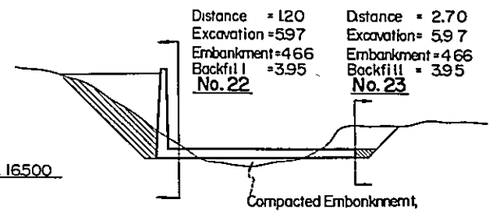


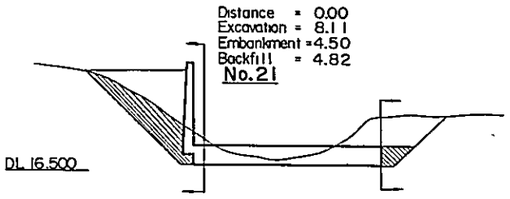


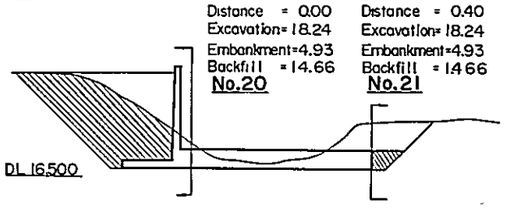


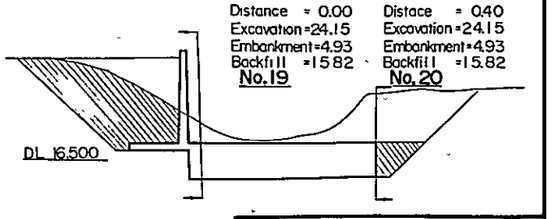








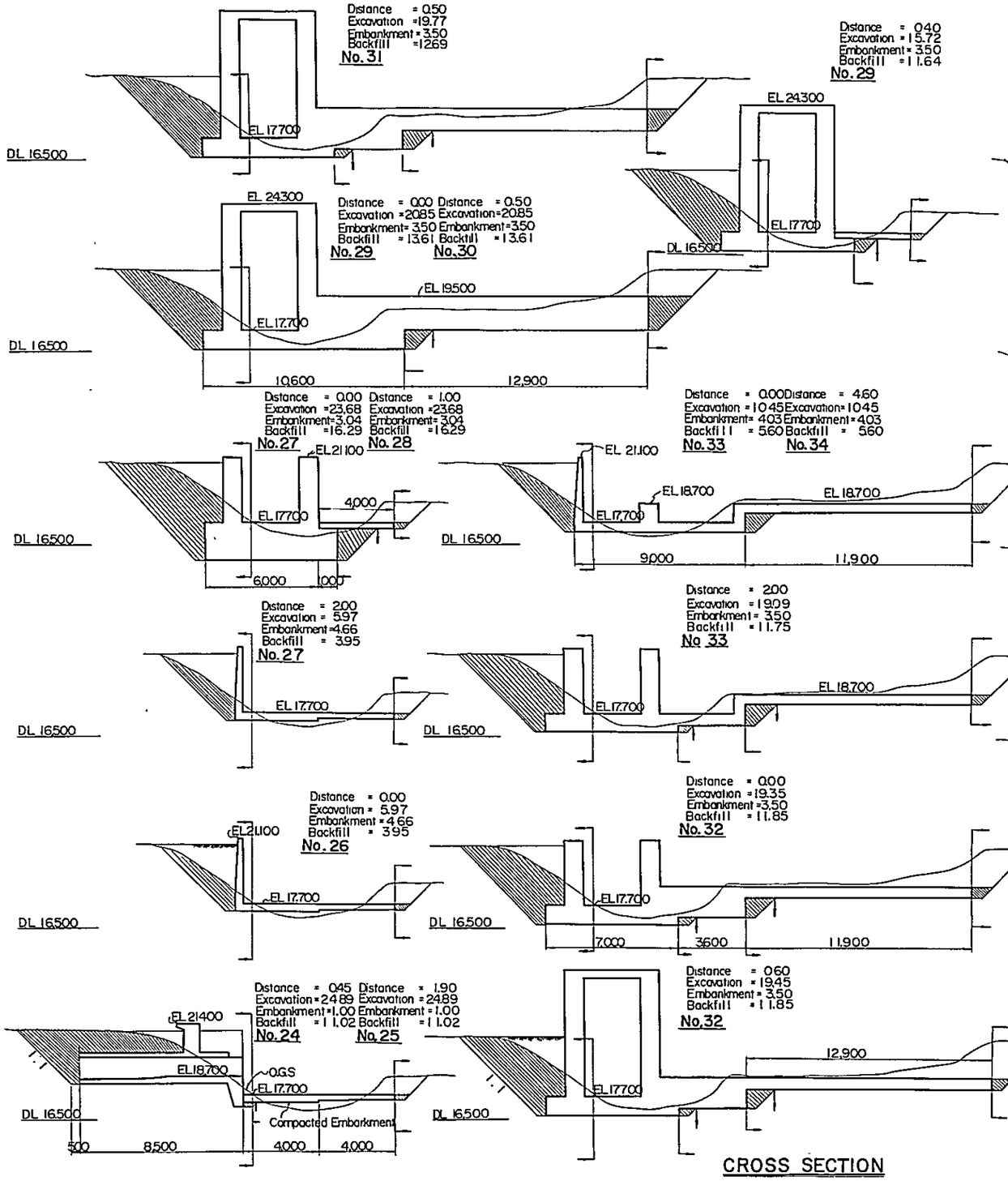




CROSS SECTION

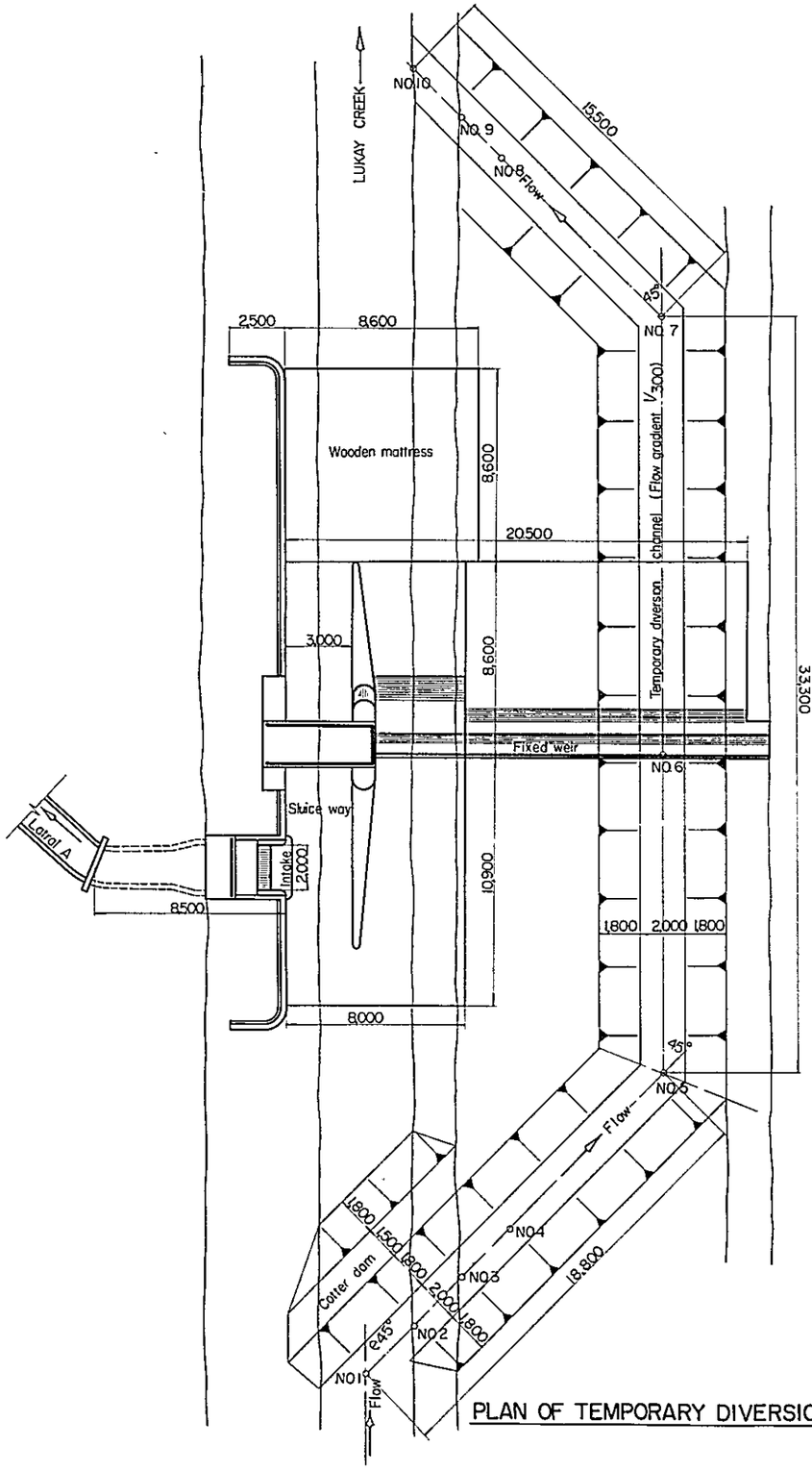
0 2000 4000 6000 8000 10000
SCALE MILLIMETER

THE PHILIPPINES	
RICE AND CORN PRODUCTION COORDINATING COUNCIL	
REGIONAL RICE PRODUCTION CENTER SANMIGUEL - ALANGALANG	
CHECK GATE	
EXCAVATION AND EMBANKMENT (2)	
OVERSEAS TECHNICAL COOFARATION AGENCY GOVERNMENT OF JAPAN	
SCALE AS SHOWN	DATE
SHEET NO 8 OF 10	DRAWING NO S-9

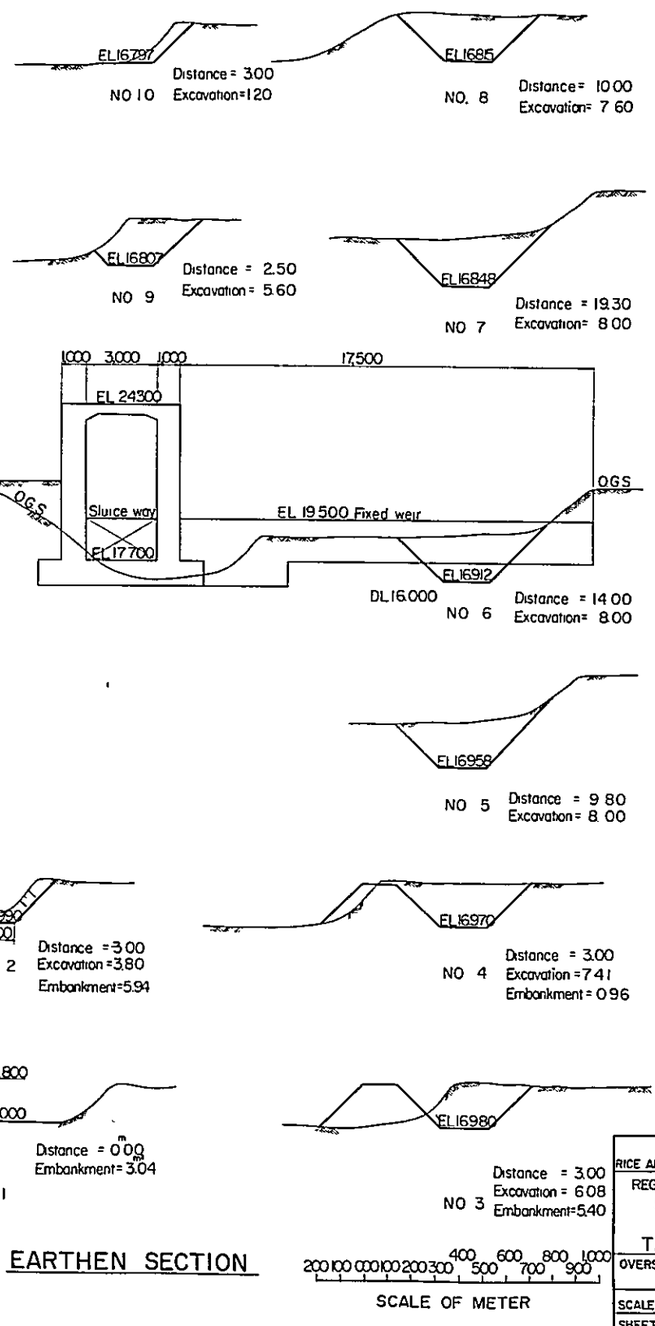


THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
CHECK GATE
EXCAVATION AND ENBANKMENT (3)
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET. NO.	9 OF 10	DRAWING NO.	S - 10



PLAN OF TEMPORARY DIVERSION CHANNEL

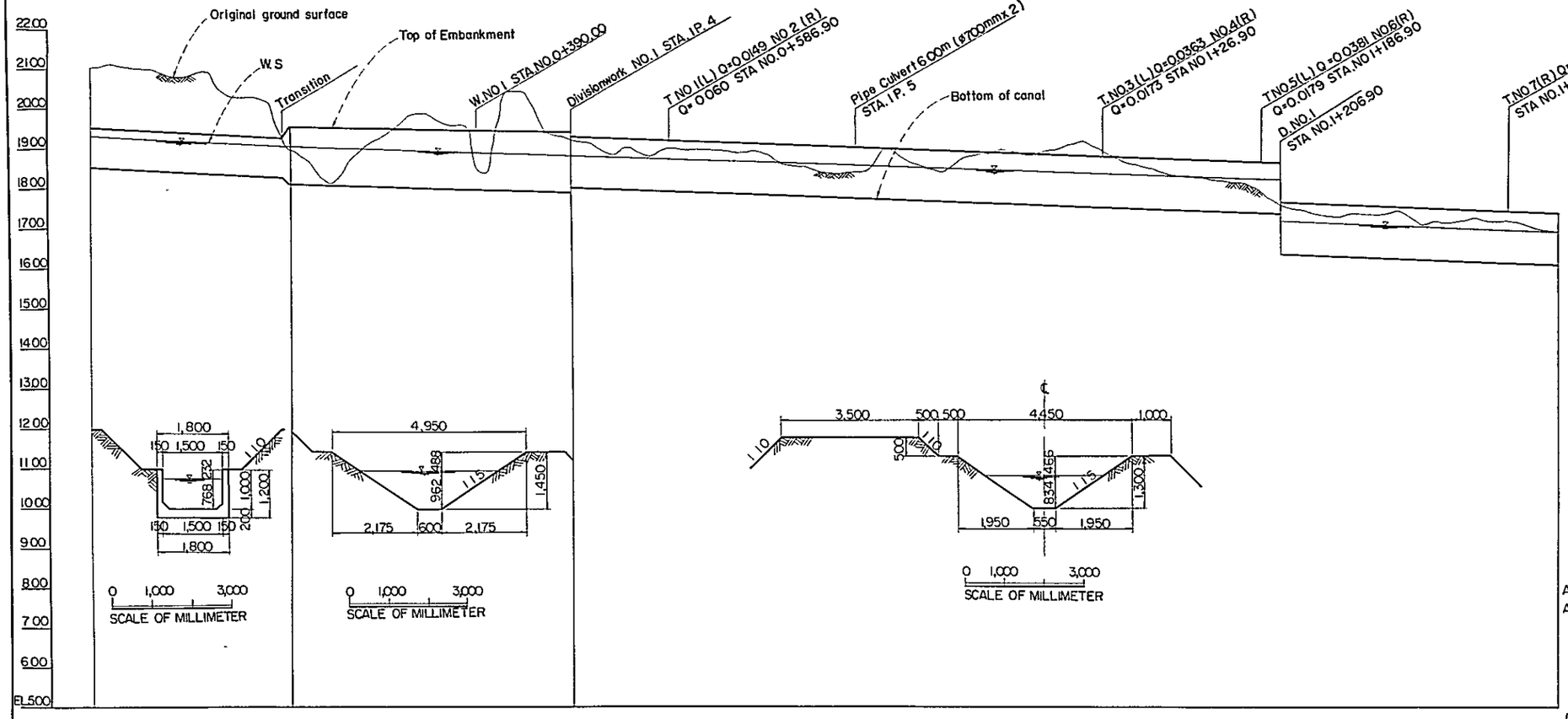


EARTHEN SECTION

200 100 000 100 200 300 400 500 600 700 800 900 1000

SCALE OF METER

THE PHILIPPINES			
RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER			
SANMIGUEL – ALANGALANG			
CHECK GATE			
TEMPORARY WORKS			
OVERSEAS TECHNICAL COOPERATION AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO.	10 OF 10	DRAWING NO.	S-11



NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters

EXPLANATIONS

T = Turnout
(R) = Right side of Lateral
(L) = Left side of Lateral
D = Drop
W = Waste way
Q = Discharge through turnout pipe

Horizontal scale 0 50 100 SCALE OF METER

Vertical scale 0 1 2 3 SCALE OF METER

GRADI: L-A-I ℓ=200.00 I=1/900 | L-A-II ℓ=286.90 I=1/1,300 | L-A-II ℓ=1,569.10 I=1/1,100

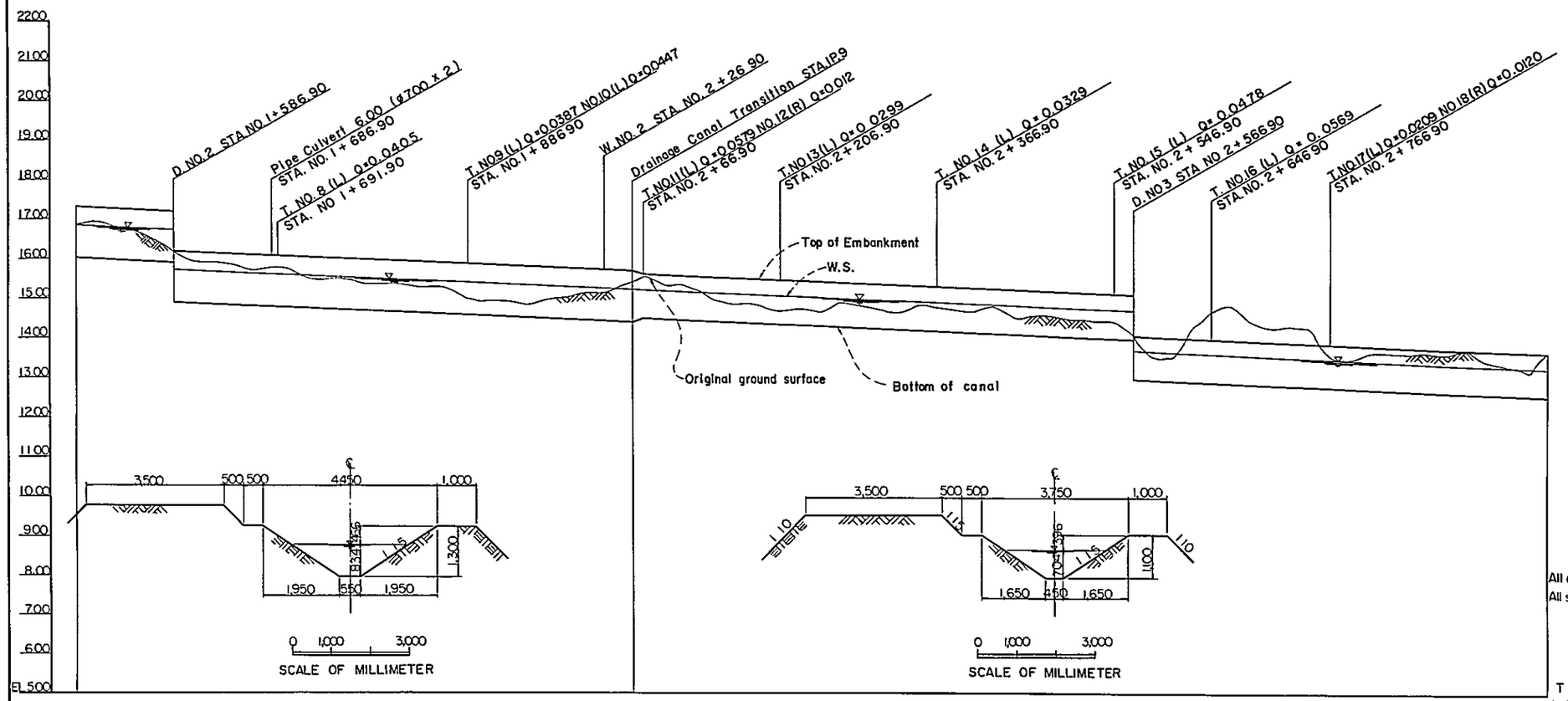
STA.	ACCUM. DIST.	GROUND ELEV.	BOTTOM OF CANAL	ELEV. OF W.S.	DEPTH OF EXCA.	HEIGHT OF EMBA.	CURVE
NO. 0	0.00	20.99	18.532	19.300	2.458		
+20.00	20.00	21.08	18.510	19.278	2.570		
+40.00	40.00	21.00	18.488	19.256	2.512		
+60.00	60.00	20.94	18.465	19.233	1.707		
+80.00	80.00	20.78	18.443	19.211	2.337		
+100.00	100.00	20.80	18.421	19.189	2.379		
+120.00	120.00	20.87	18.399	19.167	2.471		
+140.00	140.00	20.31	18.377	19.145	1.933		
+160.00	160.00	20.27	18.354	19.122	1.916		
+180.00	180.00	20.10	18.332	19.100	1.768		
+194.00	194.00	19.32	18.316	19.084	1.004		
+200.00	200.00	18.90	19.072	19.072	0.870		
+220.00	220.00	18.67	18.095	19.057	0.575		
+240.00	240.00	18.13	18.078	19.041	0.051		
IP 1 +244.41	244.41	18.15	18.076	19.038	0.055		141°49'
+260.00	260.00	18.71	18.064	19.026	0.074		
+280.00	280.00	19.10	18.048	19.010	0.062		
+300.00	300.00	19.41	18.033	18.995	1.377		
+320.00	320.00	19.81	18.018	18.980	1.792		
+340.00	340.00	19.85	18.032	18.964	1.848		
+360.00	360.00	19.59	17.987	18.949	1.603		
IP 2 +370.40	370.40	19.57	17.978	18.941	1.591		179°51'
+380.00	380.00	19.55	17.971	18.933	1.579		
+390.00	390.00	19.41	17.963	18.918	0.454		
+400.00	400.00	18.41	17.959	18.918	1.502		
IP 3 +409.70	409.70	19.45	17.948	18.910	2.469		179°55'
+420.00	420.00	20.41	17.941	18.902			
+440.00	440.00	20.36	17.925	18.887	2.455		
+460.00	460.00	19.42	17.910	18.872	1.510		
+480.00	480.00	19.28	17.894	18.856	1.366		
IP 4 +488.90	488.90	19.17	17.889	18.851	1.281		112°16'
+500.00	500.00	19.10	17.997	18.831	1.103		
+520.00	520.00	18.85	17.977	18.811	0.873		
+540.00	540.00	19.00	17.957	18.791	1.043		
+560.00	560.00	18.77	17.937	18.771	0.833		
+580.00	580.00	19.01	17.917	18.751	1.095		
+600.00	600.00	18.93	17.897	18.731	1.033		
+620.00	620.00	18.93	17.877	18.711	1.053		
+640.00	640.00	18.91	17.857	18.691	1.053		
+660.00	660.00	18.91	17.837	18.671	1.073		
+680.00	680.00	18.80	17.817	18.651	0.983		
+700.00	700.00	18.55	17.797	18.631	0.753		
+720.00	720.00	18.47	17.777	18.611	0.693		
+740.00	740.00	18.35	17.757	18.591	0.593		
+760.00	760.00	18.34	17.737	18.571	0.603		
IP 5 +774.40	774.40	18.35	17.750	18.564	0.630		157°31'
+780.00	780.00	18.39	17.717	18.551	0.673		
+800.00	800.00	19.00	17.697	18.531	1.303		
+820.00	820.00	18.70	17.677	18.511	1.023		
+840.00	840.00	18.47	17.657	18.491	0.813		
+860.00	860.00	18.40	17.637	18.471	0.763		
+880.00	880.00	18.74	17.614	18.445	1.123		
+900.00	900.00	18.82	17.597	18.431	1.223		
+920.00	920.00	18.93	17.577	18.411	1.353		
+940.00	940.00	18.81	17.557	18.391	1.253		
+960.00	960.00	18.87	17.537	18.371	1.333		
+980.00	980.00	18.99	17.517	18.351	1.473		
+1000.00	1000.00	19.14	17.497	18.331	1.843		
NO.1 + 6.90	1006.90	19.91	17.477	18.311	1.433		
+20.00	1020.00	19.63	17.457	18.291	1.236		15°6
+40.00	1040.00	19.63	17.457	18.291	1.173		178°58'
+46.90	1046.90	18.52	17.437	18.271	1.083		
+60.00	1060.00	18.38	17.417	18.251	0.963		
+80.00	1080.00	18.25	17.397	18.231	0.853		
+100.00	1100.00	18.22	17.377	18.211	0.843		
+120.00	1120.00	18.15	17.357	18.191	0.793		
+140.00	1140.00	18.11	17.317	18.151	0.773		
+160.00	1160.00	17.84	17.307	18.141	0.523		
IP 7 +186.90	1186.90	17.68	17.313	18.131	0.373		179°57'
+200.00	1200.00	17.55	16.297	17.131	0.253		
+220.00	1220.00	17.39	16.277	17.111	1.117		
+240.00	1240.00	17.31	16.251	17.091	1.053		
+260.00	1260.00	17.23	16.237	17.071	0.993		
+280.00	1280.00	17.30	16.217	17.051	1.083		
+300.00	1300.00	17.29	16.237	17.031	1.093		
+320.00	1320.00	17.37	16.117	17.011	1.195		
+340.00	1340.00	17.08	16.157	16.791	0.903		
+360.00	1360.00	17.11	16.137	16.971	0.973		
+380.00	1380.00	17.12	16.117	16.951	1.003		
+400.00	1400.00	17.20	16.097	16.931	1.103		
+420.00	1420.00	17.10	16.077	16.911	1.023		
+440.00	1440.00	17.10	16.057	16.891	1.043		
+446.90	1446.90	16.93	16.037	16.871	0.893		
+460.00	1460.00	16.83	16.017	16.851	0.813		

THE PHILLIPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL—ALANGALANG

LATERAL A PROFILE (I)

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 3	DRAWING NO	S-12



NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters.

EXPLANATIONS

T = Turnout
(R) = Right side of Lateral
(L) = Left side of Lateral
D = Drop
W = Waste way
Q = Discharge through turnout pipe

Horizontal scale 0 50 100 SCALE OF METER

Vertical scale 0 1 2 3 SCALE OF METER

GRADI.: L-A-III ℓ=1,569.10 I = 1/1,100 | L-A-IV ℓ=970.90 I = 1/900

STA.	DIST. between STA	ACCUM DIST	GROUND ELEV.	BOTTOM of CANAL	ELEV. of W.S.	DEPTH of EXCA.
NO 1 +486.90	20.00	1,486.90	16.83	16.017	16.851	0.813
+506.90	20.00	1,506.90	16.92	15.997	16.831	0.923
IP 8	7.00	1,513.90	16.90	15.990	16.824	0.910
+526.90	13.00	1,526.90	16.79	15.977	16.811	0.818
+546.90	20.00	1,546.90	16.68	15.957	16.791	0.723
+566.90	20.00	1,566.90	16.47	15.937	16.771	0.533
+586.90	20.00	1,586.90	16.17	15.917 14.917	16.751 15.751	0.253 1.253
+606.90	20.00	1,606.90	15.96	14.897	15.731	1.063
+626.90	20.00	1,626.90	15.93	14.877	15.711	1.053
+646.90	20.00	1,646.90	15.86	14.857	15.691	1.003
+666.90	20.00	1,666.90	15.69	14.837	15.671	0.853
+686.90 +691.90	20.00	1,686.90	15.78	14.817	15.651	0.963
+706.90	20.00	1,706.90	15.72	14.797	15.631	0.923
+726.90	20.00	1,726.90	15.50	14.777	15.611	0.723
+746.90	20.00	1,746.90	15.49	14.757	15.591	0.733
+766.90	20.00	1,766.90	15.48	14.737	15.571	0.743
+786.90	20.00	1,786.90	15.38	14.717	15.551	0.663
+806.90	20.00	1,806.90	15.39	14.697	15.531	0.693
+826.90	20.00	1,826.90	15.34	14.677	15.511	0.663
+846.90	20.00	1,846.90	15.31	14.657	15.491	0.653
+866.90	20.00	1,866.90	15.24	14.637	15.471	0.603
+886.90	20.00	1,886.90	15.01	14.617	15.451	0.393
+906.90	20.00	1,906.90	14.94	14.597	15.431	0.343
+926.90	20.00	1,926.90	14.94	14.577	15.411	0.363
+946.90	20.00	1,946.90	14.84	14.557	15.391	0.283
+966.90	20.00	1,966.90	15.01	14.537	15.371	0.473
+986.90	20.00	1,986.90	15.05	14.517	15.351	0.533
NO 2 + 6.90	20.00	2,006.90	15.13	14.497	15.331	0.633
+ 26.90	20.00	2,026.90	15.15	14.477	15.311	0.673
+ 46.90	20.00	2,046.90	15.37	14.457	15.291	0.913
IP 9	9.10	2,056.00	15.43	14.448	15.282	0.982
+ 66.90	10.90	2,066.90	15.59	14.566	15.270	1.024
+ 86.90	20.00	2,086.90	15.37	14.544	15.248	0.826
+106.90	20.00	2,106.90	15.38	14.522	15.226	0.858
+126.90	20.00	2,126.90	15.17	14.499	15.203	0.671
+146.90	20.00	2,146.90	14.94	14.477	15.181	0.463
+166.90	20.00	2,166.90	14.91	14.455	15.159	0.455
+186.90	20.00	2,186.90	14.82	14.433	15.137	0.387
+206.90	20.00	2,206.90	14.72	14.410	15.114	0.310
+226.90	20.00	2,226.90	14.74	14.388	15.092	0.352
+246.90	20.00	2,246.90	14.68	14.366	15.070	0.314
+266.90	20.00	2,266.90	14.92	14.344	15.048	0.576
+286.90	20.00	2,286.90	14.86	14.322	15.026	0.538
+306.90	20.00	2,306.90	14.74	14.299	15.003	0.441
+326.90	20.00	2,326.90	14.66	14.277	14.981	0.383
+346.90	20.00	2,346.90	14.84	14.255	14.959	0.585
+366.90	20.00	2,366.90	14.82	14.233	14.937	0.587
+386.90	20.00	2,386.90	14.72	14.210	14.914	0.510
+406.90	20.00	2,406.90	14.70	14.188	14.892	0.512
+426.90	20.00	2,426.90	14.82	14.166	14.870	0.654
+446.90	20.00	2,446.90	14.53	14.144	14.848	0.386
+466.90	20.00	2,466.90	14.59	14.122	14.826	0.468
+486.90	20.00	2,486.90	14.58	14.099	14.803	0.481
+506.90	20.00	2,506.90	14.48	14.077	14.781	0.403
IP 10	19.60	2,526.50	14.45	14.055	14.759	0.395
+526.90	0.40	2,526.90	14.45	14.054	14.758	0.396
+546.90	20.00	2,546.90	14.46	14.033	14.737	0.427
+566.90	20.00	2,566.90	14.12	14.010 13.010	14.714 13.714	0.110 1.110
+586.90	20.00	2,586.90	13.57	12.988	13.692	0.582
+606.90	20.00	2,606.90	13.52	12.966	13.670	0.554
+626.90	20.00	2,626.90	14.25	12.944	13.648	1.306
+646.90	20.00	2,646.90	14.69	12.922	13.626	1.768
+666.90	20.00	2,666.90	14.82	12.899	13.603	1.921
+686.90	20.00	2,686.90	14.42	12.877	13.581	1.543
+706.90	20.00	2,706.90	14.27	12.855	13.559	1.415
+726.90	20.00	2,726.90	14.31	12.833	13.537	1.477
+746.90	20.00	2,746.90	14.27	12.810	13.514	1.460
+766.90	20.00	2,766.90	13.55	12.788	13.492	0.762
+786.90	20.00	2,786.90	13.47	12.766	13.470	0.704
+806.90	20.00	2,806.90	13.65	12.744	13.448	0.906
+826.90	20.00	2,826.90	13.66	12.722	13.426	0.938
+846.90	20.00	2,846.90	13.62	12.699	13.403	0.921
+866.90	20.00	2,866.90	13.65	12.677	13.381	0.977
+886.90	20.00	2,886.90	13.59	12.655	13.359	0.935
IP 11	4.10	2,891.00	13.63	12.650	13.354	0.980
+906.90	15.96	2,906.90	13.72	12.633	13.337	1.087
+926.90	20.00	2,926.90	13.40	12.610	13.314	0.790
+946.90	20.00	2,946.90	13.29	12.588	13.292	0.702
+966.90	20.00	2,966.90	13.17	12.566	13.270	0.604
+986.90	20.00	2,986.90	13.63	12.544	13.248	1.086

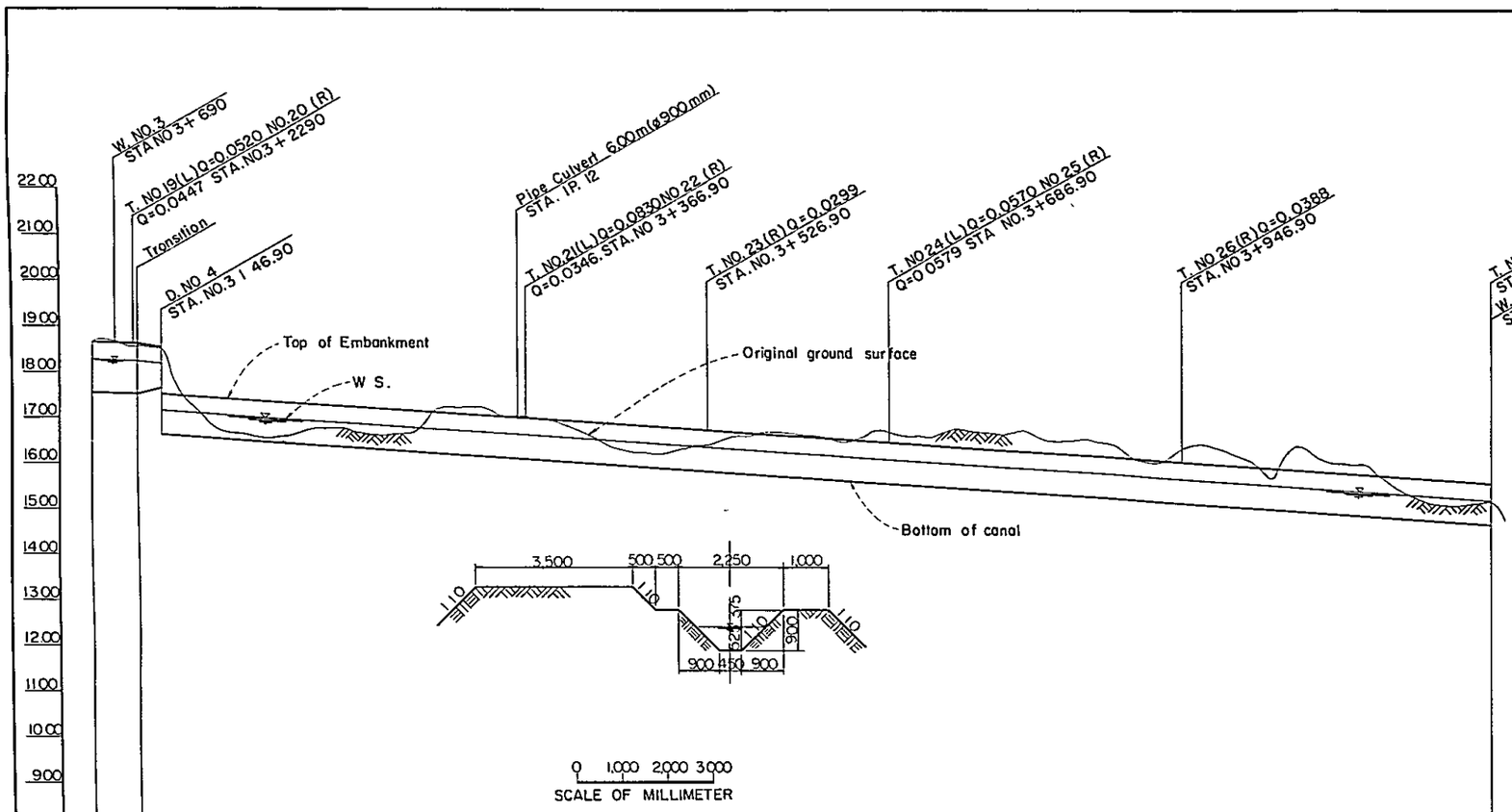
CURVE: 171°29' IP 8 | IP 9 169°26' | IP 10 123°10' | 139°19' IP 11

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG

LATERAL A
PROFILE (2)

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	2 OF 3	DRAWING NO	S — 13



NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters.

EXPLANATIONS

T = Turnout
(R) = Right side of Lateral
(L) = Left side of Lateral
D = Drop
W = Waste way
Q = Discharge through turnout pipe

Horizontal scale 0 50 100 SCALE OF METER

Vertical scale 0 1 2 3 SCALE OF METER

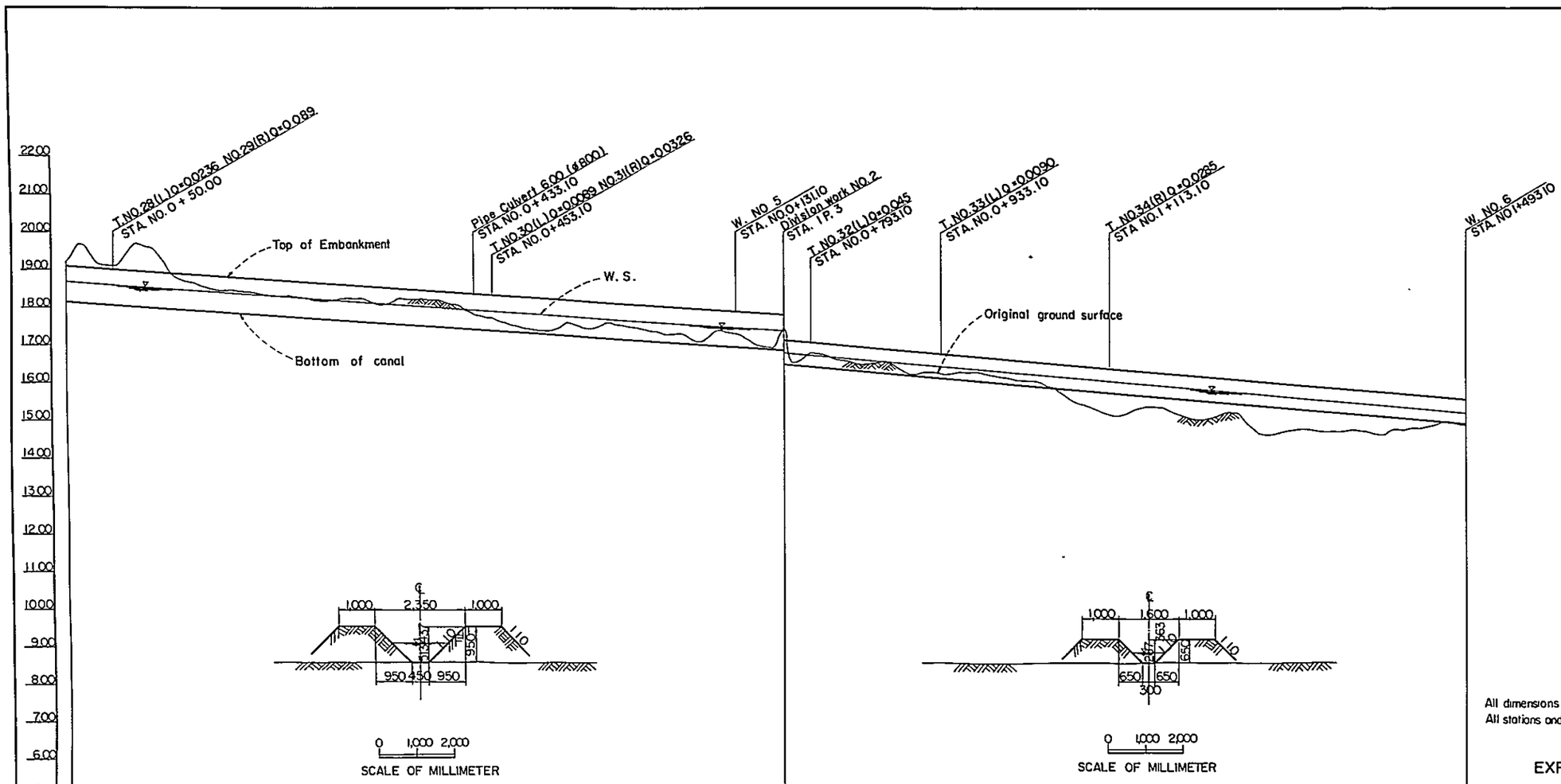
STA.	DIST. from STA.	ACCUM DIST.	GROUND ELEV.	BOTTOM CANAL	ELEV W.S.	DEPTH EXCA.	HEIGHT FROM EMBA.
NO 2	20 00	20 000	13 63	12.544	13 248	1.086	
+9869	20 00	20 000	13. 64	12 522	13226	1 118	
NO.3	20 00	20 000	13 52	12 499	13203	1 029	
+ 69	20 00	20 000	13 48	12 645	12 170	0 835	
+ 229	20 00	20 000	13 48	11 645	12 170	0 835	
+ 269	20 00	20 000	12 39	11 612	12 137	1 778	
+ 469	20 00	20 000	11 93	11 578	12 103	0 352	
+ 669	20 00	20 000	11 65	11 545	12020	0 105	
+ 869	20 00	20 000	11 57	11 512	12037	0 058	
+ 1069	20 00	20 000	11 56	11 478	12003	0 082	
+ 1269	20 00	20 000	11 66	11 445	11 970	0 215	
+ 1469	20 00	20 000	11 73	11 412	11 937	0 318	
+ 1669	20 00	20 000	11 72	11 378	11 903	0 342	
+ 1869	20 00	20 000	11 60	11 349	11 874	0 251	
+ 2069	20 00	20 000	11 58	11 312	11 837	0 368	
+ 2269	20 00	20 000	11 63	11 278	11 803	0 352	
+ 2469	20 00	20 000	12 16	11 245	11 770	0 915	
+ 2669	20 00	20 000	12 21	11 212	11 737	0 998	
+ 2869	20 00	20 000	12 23	11 178	11 703	1 052	
+ 3069	20 00	20 000	11 99	11 145	11 670	0 845	
+ 3269	20 00	20 000	12 05	11 126	11 651	0 924	
+ 3469	20 00	20 000	12 00	11 112	11 637	0 868	
+ 3669	20 00	20 000	11 95	11 078	11 603	0 872	
+ 3869	20 00	20 000	11 79	11 045	11 670	0 745	
+ 4069	20 00	20 000	11 53	11 012	11 537	0 518	
+ 4269	20 00	20 000	11 31	10978	11503	0 332	
+ 4469	20 00	20 000	11 23	10945	11 470	0 285	
+ 4669	20 00	20 000	11 19	10912	11 437	0 278	
+ 4869	20 00	20 000	11 30	10878	11 403	0 422	
+ 5069	20 00	20 000	11 40	10845	11 370	0 555	
+ 5269	20 00	20 000	11 58	10812	11337	0 768	
+ 5469	20 00	20 000	11 60	10788	11 303	0 822	
+ 5669	20 00	20 000	11 69	10745	11 270	0945	
+ 5869	20 00	20 000	11 63	10712	11237	0 918	
+ 6069	20 00	20 000	11 59	10678	11203	0 912	
+ 6269	20 00	20 000	11. 46	10645	11 170	0 815	
+ 6469	20 00	20 000	11 60	10612	11 137	0 988	
+ 6669	20 00	20 000	11 23	10 600	11 125	1 130	
+ 6869	20 00	20 000	11 71	10578	11 105	1 132	
+ 7069	20 00	20 000	11. 60	10545	11 080	1 055	
+ 7269	20 00	20 000	11 57	10512	11 037	1 058	
+ 7469	20 00	20 000	11 75	10 478	11 003	1 273	
+ 7669	20 00	20 000	11 69	10 445	10970	1.245	
+ 7869	20 00	20 000	11 63	10 412	10937	1 218	
+ 8069	20 00	20 000	11 72	10 378	10903	1 342	
+ 8269	20 00	20 000	11 49	10345	10870	1.145	
+ 8468	20 00	20 000	11 48	10312	10837	1 168	
+ 8669	20 00	20 000	11. 49	10 278	10803	1.212	
+ 8869	20 00	20 000	11 38	10245	10770	1.135	
+ 9069	20 00	20 000	11 05	10 212	10737	0 838	
+ 9269	20 00	20 000	10 99	10 178	10704	0 812	
+ 9469	20 00	20 000	11 34	10 145	10670	1 195	
+ 9669	20 00	20 000	11. 41	10 112	10 637	1 298	
+ 9869	20 00	20 000	11 24	10078	10603	1 162	
NO.4	6.9	20 006	11. 06	10.045	10570	1 015	
+ 69	20 00	20 026	10 65	10012	10537	0 638	
+ 269	20 00	20 026	11. 40	9978	10503	1 422	
+ 469	20 00	20 046	11 12	9945	10470	1 175	
+ 669	20 00	20 066	11 00	9912	10437	1 088	
+ 869	20 00	20 086	10 99	9878	10403	1 112	
+ 1069	20 00	20 106	10. 62	9845	10370	0775	
+ 1269	20 00	20 126	10 33	9812	10337	0518	
+ 1469	20 00	20 146	10 11	9778	10303	0332	
+ 1669	20 00	20 166	10 07	9745	10270	0325	
+ 1869	20 00	20 186	10 07	9712	10237	0288	
+ 2069	20 00	20 206	10 00	9712	10237	0288	
IP 15	12 50	21 950	9. 95	9691	10216	0259	

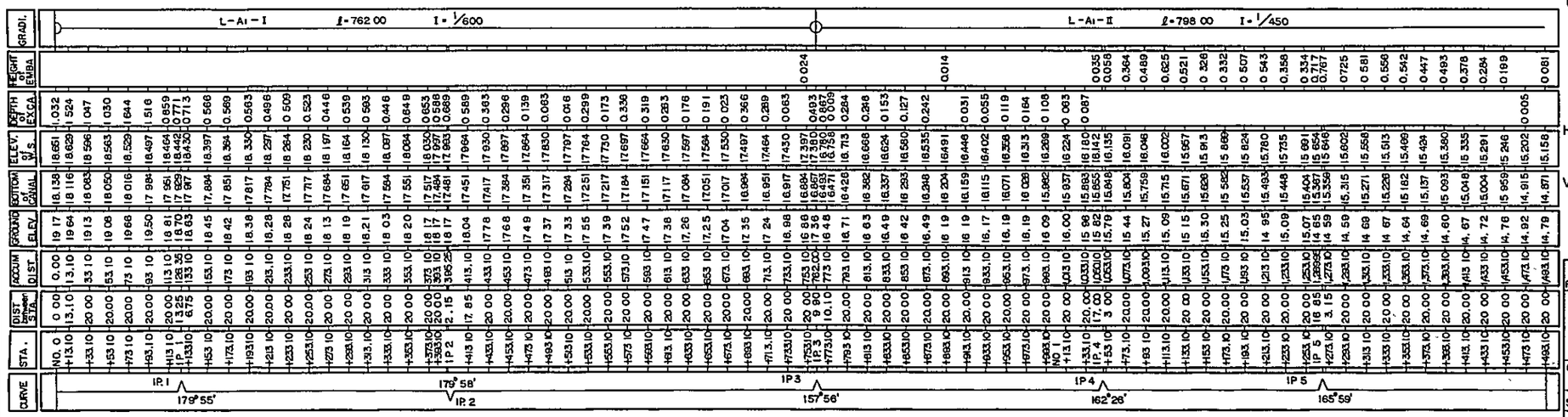
GRADI. I=1/600 L–A–V =1 192.50 I=1/600

CURVE: 154°33' (IP 12); 159° 21' (IP 13); 160° 17' (IP 14)

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
LATERAL A
PROFILE (3)
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	3 OF 3	DRAWING NO.	S – 14





NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters

EXPLANATIONS

T = Turnout
(R) = Right side of Lateral
(L) = Left side of Lateral
W = Waste way
Q = Discharge through turnout pipe

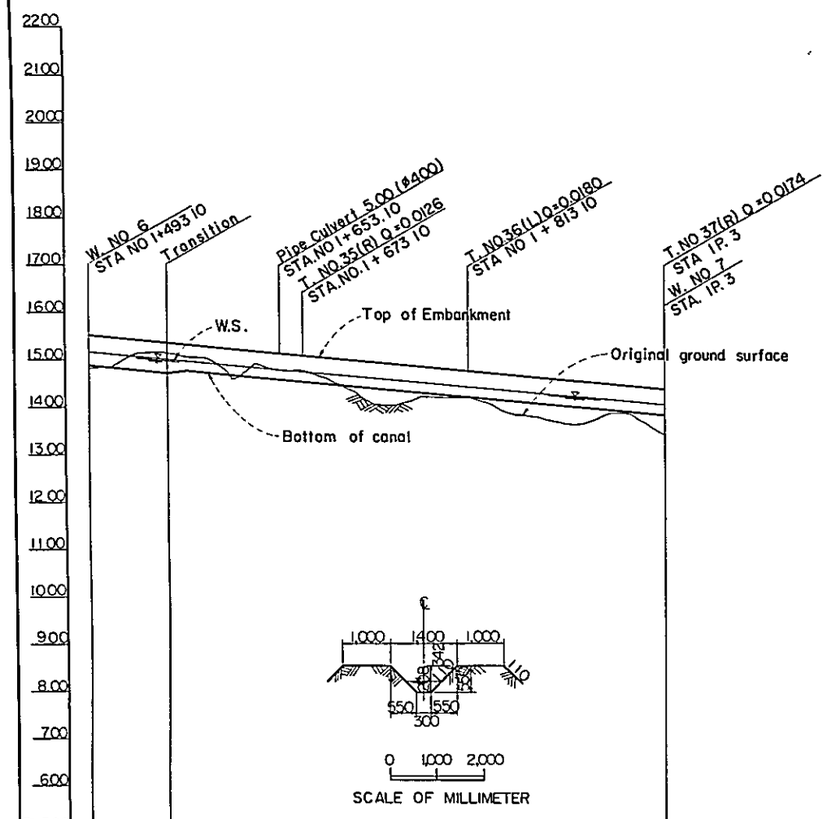
Horizontal scale 0 50 100 SCALE OF METER
Vertical scale 0 1 2 3 SCALE OF METER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALAG

LATERAL A1
PROFILE (2)

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 2	DRAWING NO.	S – 15



GRADI.	I = 1/450				L - A1 - III ℓ = 420.22 I = 1/450																						
HEIGHT of EMBA	0.081							0.123					0.110	0.288	0.342	0.117	0.105	0.048	0.164	0.346	0.345	0.421	0.366	0.122	0.127	0.393	0.208
DEPTH of EXCA		0.014	0.328	0.413	0.398	0.278	0.263		0.268	0.166	0.190	0.075															
ELEV of W.S.	15.158	15.113	15.069	15.024	15.009	14.980	14.935	14.891	14.846	14.802	14.758	14.713	14.669	14.624	14.580	14.535	14.491	14.446	14.402	14.358	14.313	14.269	14.224	14.180	14.135	14.091	14.073
BOTTOM of CANAL	14.871	14.826	14.782	14.737	14.722	14.772	14.727	14.683	14.638	14.594	14.550	14.505	14.461	14.416	14.372	14.327	14.283	14.238	14.194	14.150	14.105	14.061	14.016	13.972	13.927	13.883	13.865
GROUND ELEV	14.79	14.84	15.11	15.15	15.12	15.05	14.99	14.56	14.90	14.76	14.74	14.58	14.35	14.03	14.03	14.21	14.18	14.19	14.03	13.81	13.76	13.64	13.65	13.85	13.80	13.49	13.40
ACCUM DIST.	1,493.10	1,513.10	1,533.10	1,553.10	1,560.00	1,573.10	1,593.10	1,613.10	1,633.10	1,653.10	1,673.10	1,693.10	1,713.10	1,733.10	1,753.10	1,773.10	1,793.10	1,813.10	1,833.10	1,853.10	1,873.10	1,893.10	1,913.10	1,933.10	1,953.10	1,973.10	1,980.22
DIST. between STA.	20.00	20.00	20.00	20.00	6.90	13.10	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	7.12
STA.	+493.10	+513.10	+533.10	+553.10	IP 6	+573.10	+593.10	+613.10	+633.10	+653.10	+673.10	+693.10	+713.10	+733.10	+753.10	+773.10	+793.10	+813.10	+833.10	+853.10	+873.10	+893.10	+913.10	+933.10	+953.10	+973.10	IP 7
CURVE					179°25' IP 6																						

NOTES

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All stations and elevations are given in meters

EXPLANATIONS

T = Turnout
(R) = Right side of Lateral
(L) = Left side of Lateral
W = Waste way
Q = Discharge through turnout pipe

Horizontal scale 0 50 100 SCALE OF METER

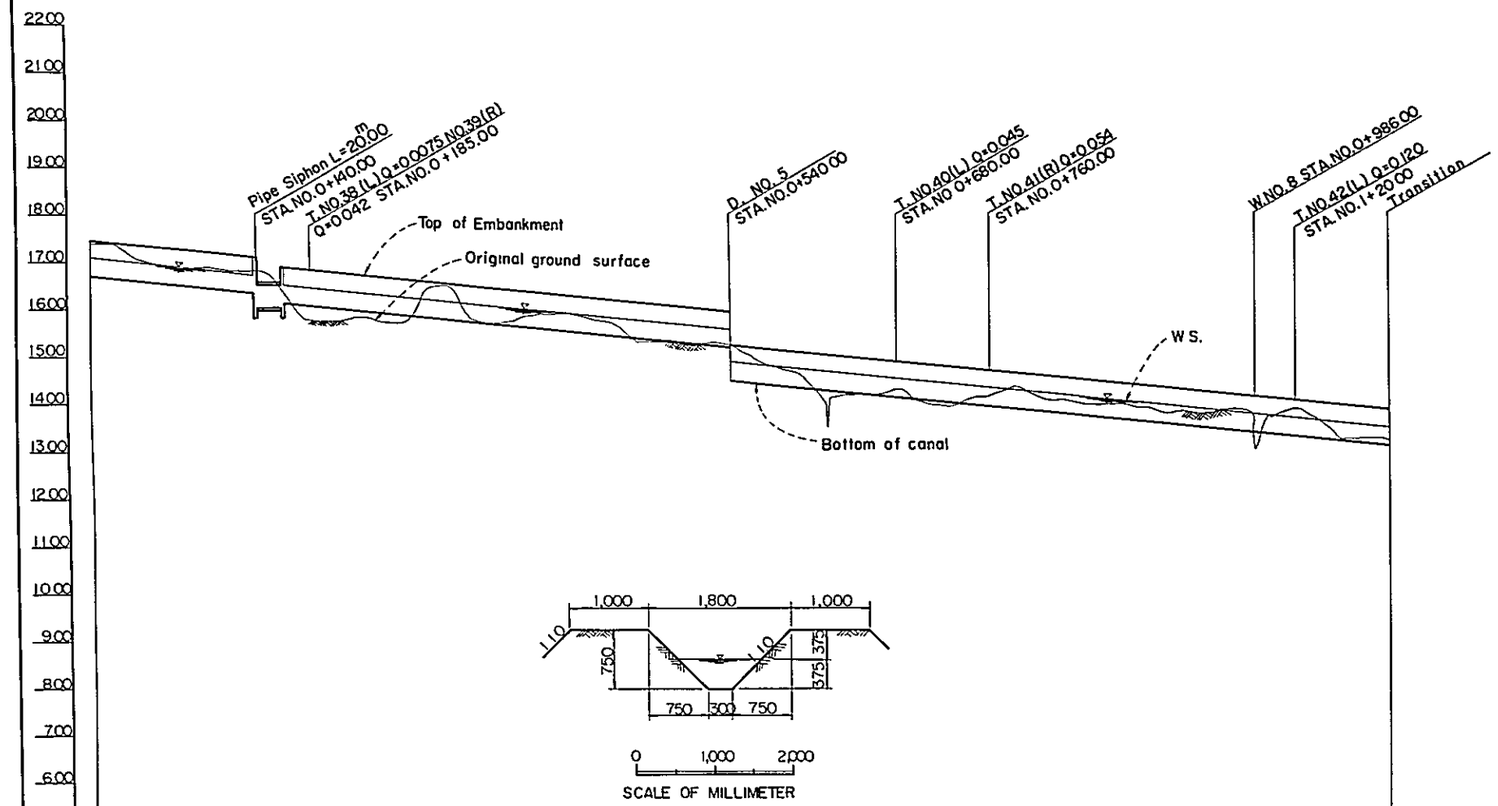
Vertical scale 0 1 2 3 SCALE OF METER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL

REGIONAL RICE PRODUCTION CENTER
SANMIGUEL— ALANGALANG
LATERAL A1
PROFILE (2)

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	2 OF 2	DRAWING NO.	S – 16



NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters.

EXPLANATIONS

T = Turnout
(R) = Right side of Lateral
(L) = Left side of Lateral
D = Drop
W = Waste way
Q = Discharge through turnout pipe

Horizontal scale 0 50 100 SCALE OF METER

Vertical scale 0 1 2 3 SCALE OF METER

STA.	DIST. between STA.	ACCUM DIST.	GROUND ELEV.	BOTTOM of CANAL	ELEV. of W.S.	DEPTH of EXCA.	HEIGHT of EMBA.
NO 0	0.00	0.00	17.36	16.805	17.180	0.555	
+20.00	20.00	20.00	17.35	16.755	17.130	0.595	
+40.00	20.00	40.00	17.03	16.705	17.080	0.325	
+60.00	20.00	60.00	16.91	16.655	17.030	0.255	
+80.00	20.00	80.00	16.83	16.606	16.980	0.225	
+100.00	20.00	100.00	16.66	16.555	16.930	0.305	
+120.00	20.00	120.00	16.79	16.505	16.880	0.285	
IP 1	6.94	126.94	16.80	16.458	16.883	0.312	
+140.00	13.06	140.00	16.82	16.455	16.830	0.365	
+150.00	10.00	150.00	16.74				
+160.00	10.00	160.00	16.42	16.235	16.610	0.185	
+180.00	20.00	180.00	15.76	16.185	16.580		0.425
+200.00	20.00	200.00	15.71	16.135	16.510		0.425
+220.00	20.00	220.00	15.79	16.085	16.460		0.295
+240.00	20.00	240.00	15.75	16.035	16.410		0.285
+260.00	20.00	260.00	15.68	15.986	16.360		0.305
IP 2	18.60	278.60	15.639	16.314		0.281	
+280.00	1.40	280.00	16.37	15.935	16.310	0.435	
+300.00	20.00	300.00	16.48	15.886	16.260	0.595	
+320.00	20.00	320.00	15.73	15.835	16.210		0.105
+340.00	20.00	340.00	15.67	15.785	16.160		0.115
+360.00	20.00	360.00	15.78	15.235	16.110	0.045	
+380.00	20.00	380.00	15.86	15.685	16.060	0.175	
+400.00	20.00	400.00	15.88	15.635	16.010	0.245	
+420.00	20.00	420.00	15.79	15.585	15.980	0.205	
+440.00	20.00	440.00	15.69	15.535	15.910	0.155	
+460.00	20.00	460.00	15.29	15.485	15.860		0.195
IP 3	17.29	477.29	15.27	15.442	15.817		0.172
+480.00	2.71	480.00	15.37	15.435	15.810		0.125
+500.00	20.00	500.00	15.23	15.385	15.760		0.155
+520.00	20.00	520.00	15.27	15.335	15.710		0.065
+540.00	20.00	540.00	15.23	15.285	15.660		0.055
+560.00	20.00	560.00	14.83	14.535	14.910	0.395	
+580.00	20.00	580.00	14.73	14.485	14.860	0.245	
+600.00	20.00	600.00	14.60	14.435	14.810	0.165	
+620.00	20.00	620.00	14.03	14.385	14.760		0.355
+640.00	20.00	640.00	14.17	14.335	14.750		0.890
IP 4	16.00	656.00					0.275
+660.00	20.00	676.00	14.17	14.285	14.710		0.165
+680.00	20.00	696.00	14.28	14.233	14.660	0.115	
+700.00	20.00	716.00	14.04	14.185	14.610	0.045	
+720.00	20.00	736.00	13.93	14.135	14.560		0.145
+740.00	20.00	756.00	14.05	14.085	14.510		0.205
+760.00	20.00	776.00	14.13	14.035	14.460		0.035
+780.00	20.00	796.00	14.38	13.985	14.410	0.095	
+800.00	20.00	816.00	14.13	13.935	14.360	0.375	
+820.00	20.00	836.00	14.05	13.885	14.310	0.185	
+840.00	20.00	856.00	13.97	13.835	14.260	0.185	
+860.00	20.00	876.00	13.96	13.785	14.210	0.135	
+880.00	20.00	896.00	13.95	13.735	14.160	0.175	
+900.00	20.00	916.00	13.88	13.685	14.060	0.215	
+920.00	20.00	936.00	13.80	13.635	14.010	0.175	
+940.00	20.00	956.00	13.77	13.585	13.960	0.185	
IP 4	3.79	959.79	13.82	13.551	13.820	0.269	
+960.00	6.21	966.00	13.85	13.535	13.910	0.315	
+980.00	20.00	986.00	13.84	13.485	13.820	0.335	
+1000.00	20.00	1006.00	13.84	13.435	13.795	0.360	
+1020.00	20.00	1026.00	13.81	13.385	13.770	0.385	
+1040.00	20.00	1046.00	13.75	13.335	13.645	0.310	
+1060.00	20.00	1066.00	13.68	13.285	13.550	0.265	
+1080.00	20.00	1086.00	13.65	13.235	13.500	0.265	
+1100.00	20.00	1106.00	13.24	13.185	13.200	0.015	

CURVE	GRADI.
IP 1 156°06'	L-B-I I=1/40 I=20.00 SIPHON
IP 2 132°44'	L-B-I R=1,080.00 I=1/400
IP 3 146°46'	
IP 4 148°36'	

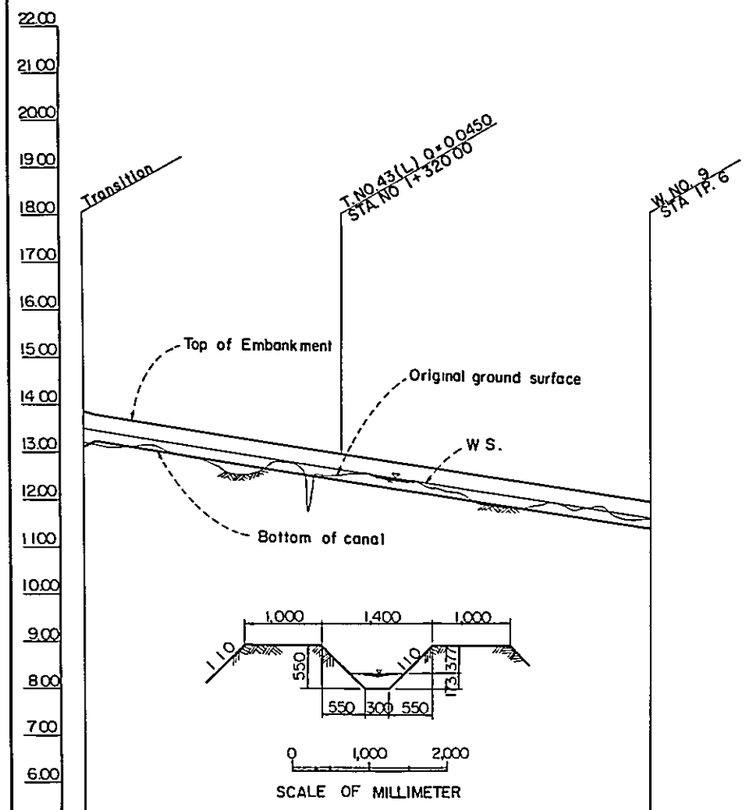
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL

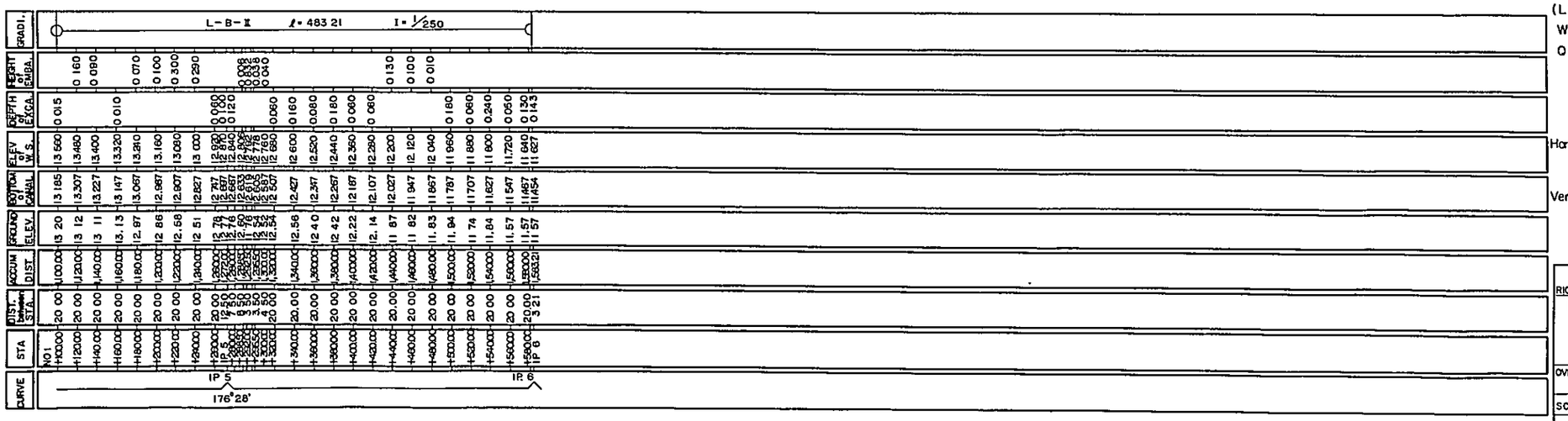
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG

LATERAL B
PROFILE (I)

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO.	1 OF 2	DRAWING NO.	S – 17





NOTES

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EXPLANATIONS

T = Turnout
(L) = Left side of Lateral
W = Waste way
O = Discharge through turnout pipe

Horizontal scale 0 50 100 SCALE OF METER

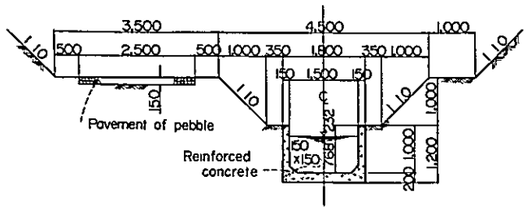
Vertical scale 0 1 2 3 SCALE OF METER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG

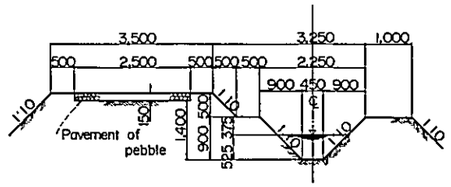
LATERAL B PROFILE (2)

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

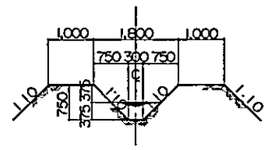
SCALE	AS SHOWN	DATE	
SHEET NO	2 OF 2	DRAWING NO	S – 18



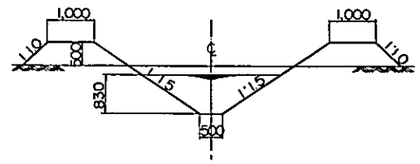
TYPICAL CROSS SECTION
of LATERAL A – I



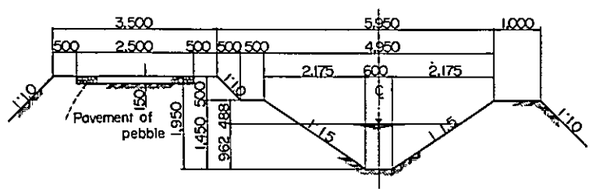
TYPICAL CROSS SECTION
of LATERAL A-V



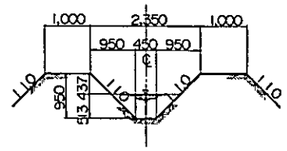
TYPICAL CROSS SECTION
of LATERAL B – I



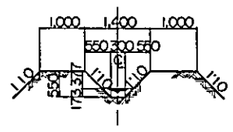
TYPICAL CROSS SECTION
of DRAINAGE CANAL



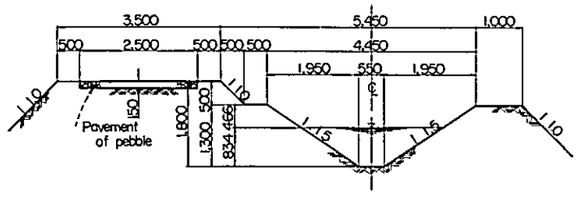
TYPICAL CROSS SECTION
of LATERAL A – II



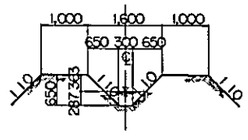
TYPICAL CROSS SECTION
of LATERAL A1 – I



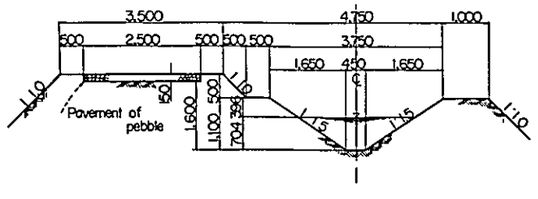
TYPICAL CROSS SECTION
of LATERAL B – II



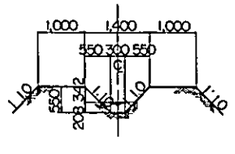
TYPICAL CROSS SECTION
of LATERAL A – III



TYPICAL CROSS SECTION
of LATERAL A1 – II



TYPICAL CROSS SECTION
of LATERAL A-IV



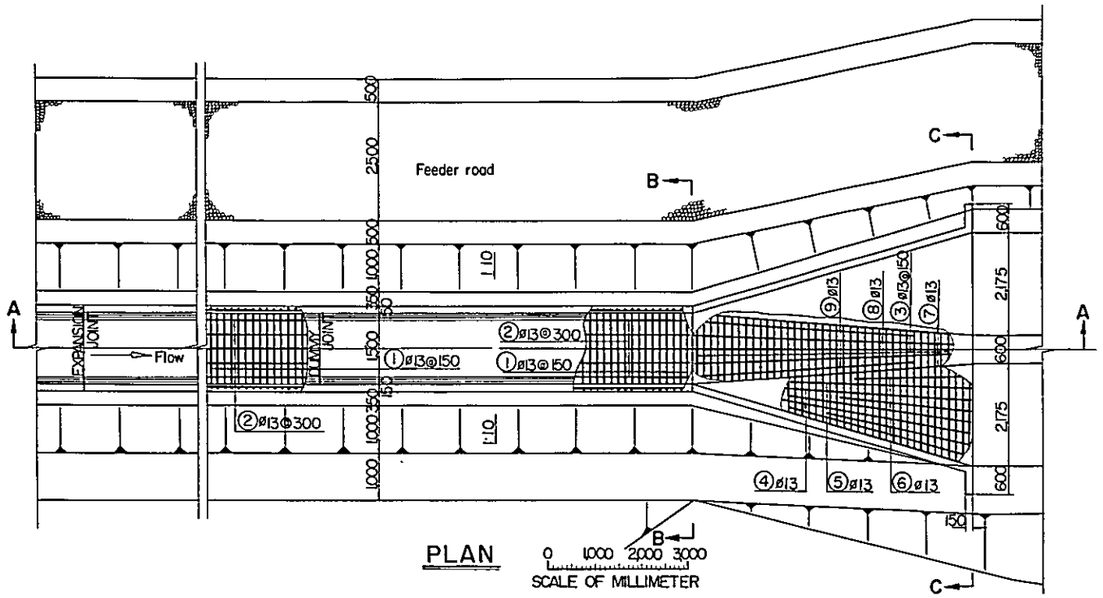
TYPICAL CROSS SECTION
of LATERAL A1 – III

NAME of CANAL	BOTTOM WIDTH	DEPTH of CANAL	SIDE SLOPE	HYDRAULIC GRADIENT	ROAD	DISCHARGE	TYPE of LINING
LATERAL A – I	1,500	1,000	1.0.0	900	3,500	1,344	CONCRETE LINING
LATERAL A – II	600	1,450	1.1.5	1,300	3,500	1,344	EARTH CANAL
LATERAL A – III	550	1,300	1.1.5	1,100	3,500	1,015	EARTH CANAL
LATERAL A – IV	450	1,100	1.1.5	900	3,500	0.713	EARTH CANAL
LATERAL A – V	450	900	1.1.0	600	3,500	0.346	EARTH CANAL
LATERAL A1 – I	450	950	1.1.0	600	1,000	0.329	EARTH CANAL
LATERAL A1 – II	300	650	1.1.0	450	1,000	0.090	EARTH CANAL
LATERAL A1 – III	300	550	1.1.0	450	1,000	0.048	EARTH CANAL
LATERAL B – I	300	750	1.1.0	400	1,000	0.165	EARTH CANAL
LATERAL B – II	300	550	1.1.0	250	1,000	0.045	EARTH CANAL
DRAINAGE CANAL	500	—	1:1.5	1,100	1,000	1,000	EARTH CANAL

0 1,000 2,000 3,000 4,000 5,000
SCALE OF MILLIMETER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
LATERAL A, A1, B AND DRAINAGE CANAL
TYPICAL CROSS SECTION
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

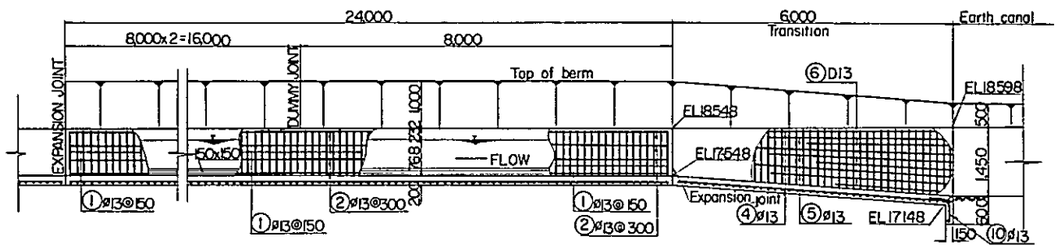
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO	S – 19



PLAN

0 1000 2000 3000

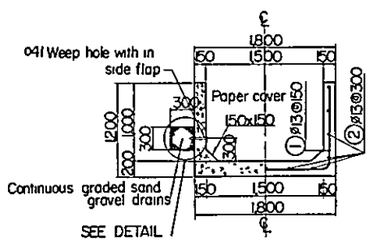
SCALE OF MILLIMETER



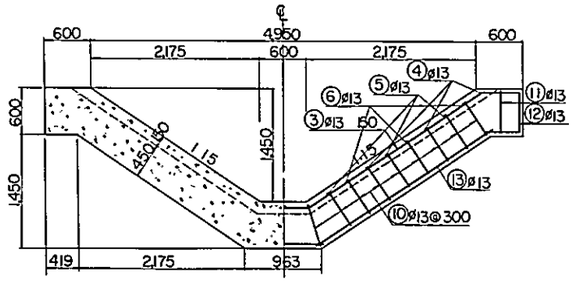
SECTION A-A

0 1000 2000 3000

SCALE OF MILLIMETER



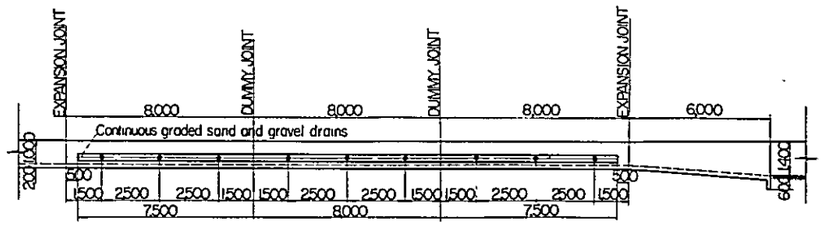
SECTION B-B



SECTION C-C

0 500 1000 2000

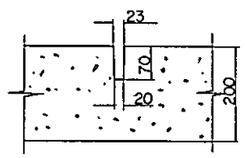
SCALE OF MILLIMETER



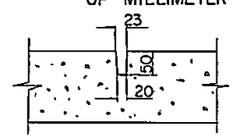
WEEP HOLES AND SAND GRAVEL DRAINS

0 2000 4000 6000

SCALE OF MILLIMETER



BASE

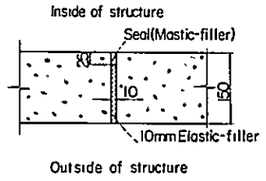


SIDE WALL

DUMMY JOINT DETAILS

0 100 200 300 400

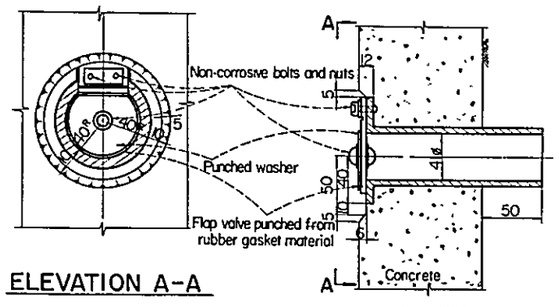
SCALE OF MILLIMETER



EXPANSION JOINT DETAIL

0 100 200 300 400

SCALE OF MILLIMETER



ELEVATION A-A

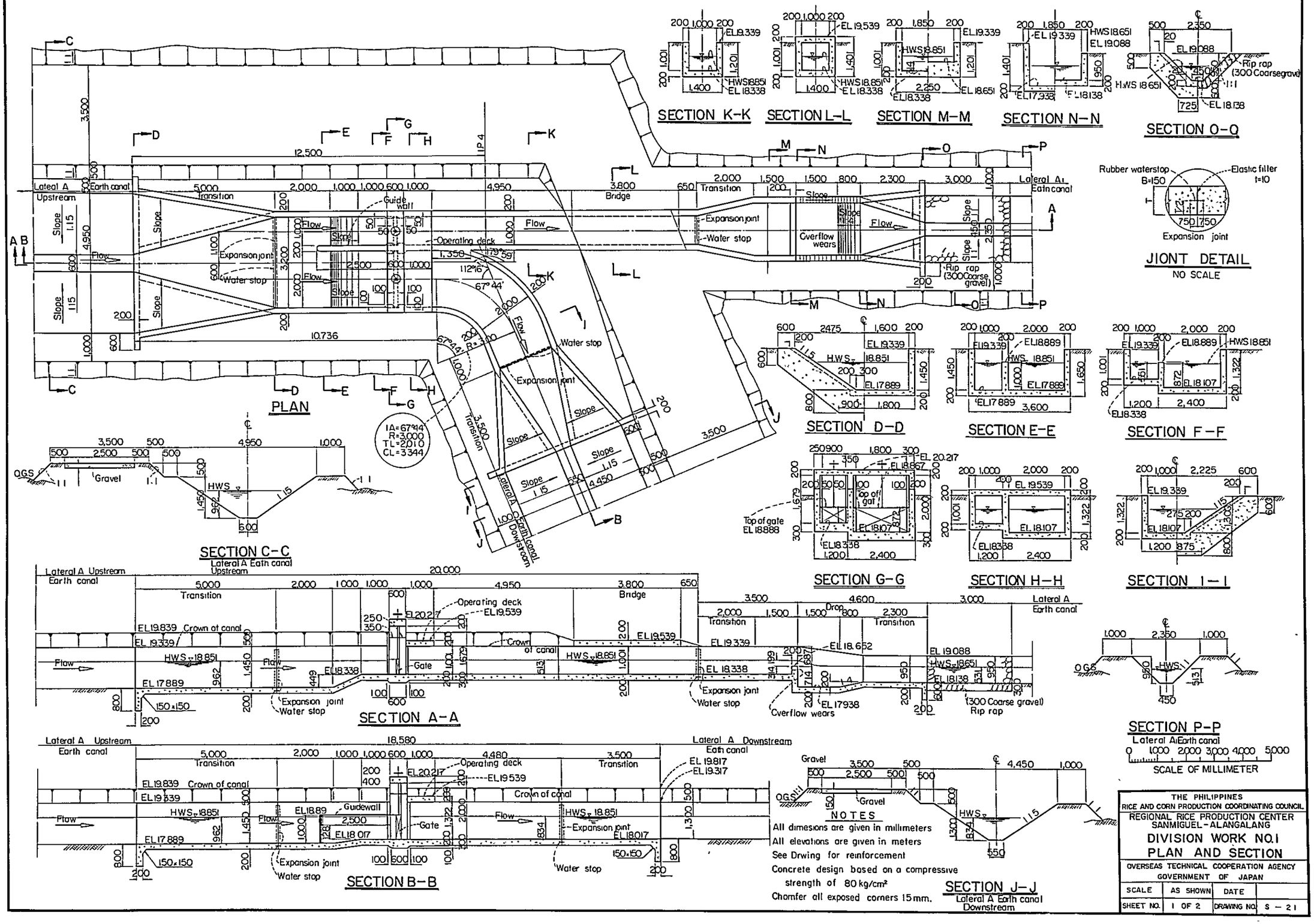
SECTION

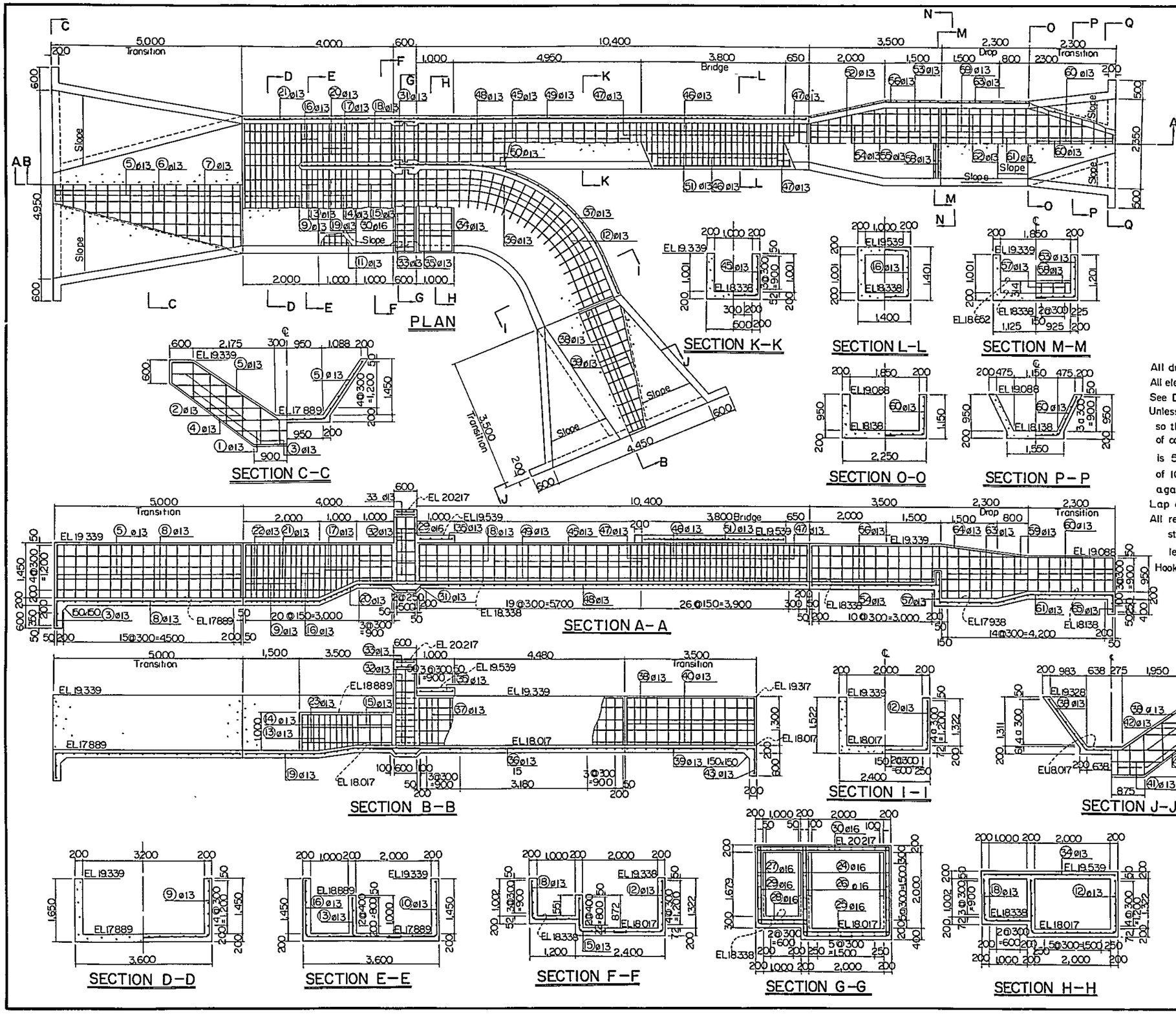
WEEP HOLE DETAIL

NOTES

All dimesions are given in millimeters.
All elevations are given in meters
Concrete design, except precast concrete pipe, based on a compressive strength of 80 kg/cm².
Chamfar all exposed corners 15mm
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm, except provide a clear distance of 100mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, length to 10 bar diameters.

THE PHILIPPINES			
RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER			
SANMIGUEL– ALANGALANG			
FLUME AND TRANSITION			
PLAN, SECTION AND DETAILS			
OVERSEAS TECHNICAL COOPERATION AGENCY			
GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO.	1 OF 1	DRAWING NO.	S – 20


PLAN
SECTION K-K
SECTION L-L
SECTION M-M
SECTION N-N
SECTION O-Q
JIONT DETAIL
NO SCALE
SECTION D-D
SECTION E-E
SECTION F-F
SECTION C-C
SECTION G-G
SECTION H-H
SECTION I-I
SECTION A-A
SECTION B-B
SECTION P-P
SECTION J-J
Lateral A Earth canal Downstream
SCALE OF MILLIMETER
NOTES
All dimesions are given in millimeters
All elevations are given in meters
See Drwing for reinforcement
Concrete design based on a compressive strength of 80 kg/cm²
Chamfer all exposed corners 15mm.
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL-ALANGALANG
DIVISION WORK NO.1
PLAN AND SECTION
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN
SCALE AS SHOWN DATE
SHEET NO. 1 OF 2 DRAWING NO. S - 21



PLAN

SECTION C-C

SECTION K-K

SECTION L-L

SECTION M-M

SECTION O-O

SECTION P-P

SECTION N-N

SECTION Q-Q

NOTES

All dimesions are given in millimeters.

All elevations are given in meters.

See Drawing for plan and section

Unless otherwise shown place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth

Lap all bars 30 diameters at splices

All reinforcing steel to be plain bar with standard hook each end in addition to length shown

Hook with 180° bends lengths of 10 bar diameters.

SECTION A-A

SECTION B-B

SECTION I-I

SECTION J-J

SECTION D-D

SECTION E-E

SECTION F-F

SECTION G-G

SECTION H-H

0 1,000 2,000 3,000 4,000 5,000

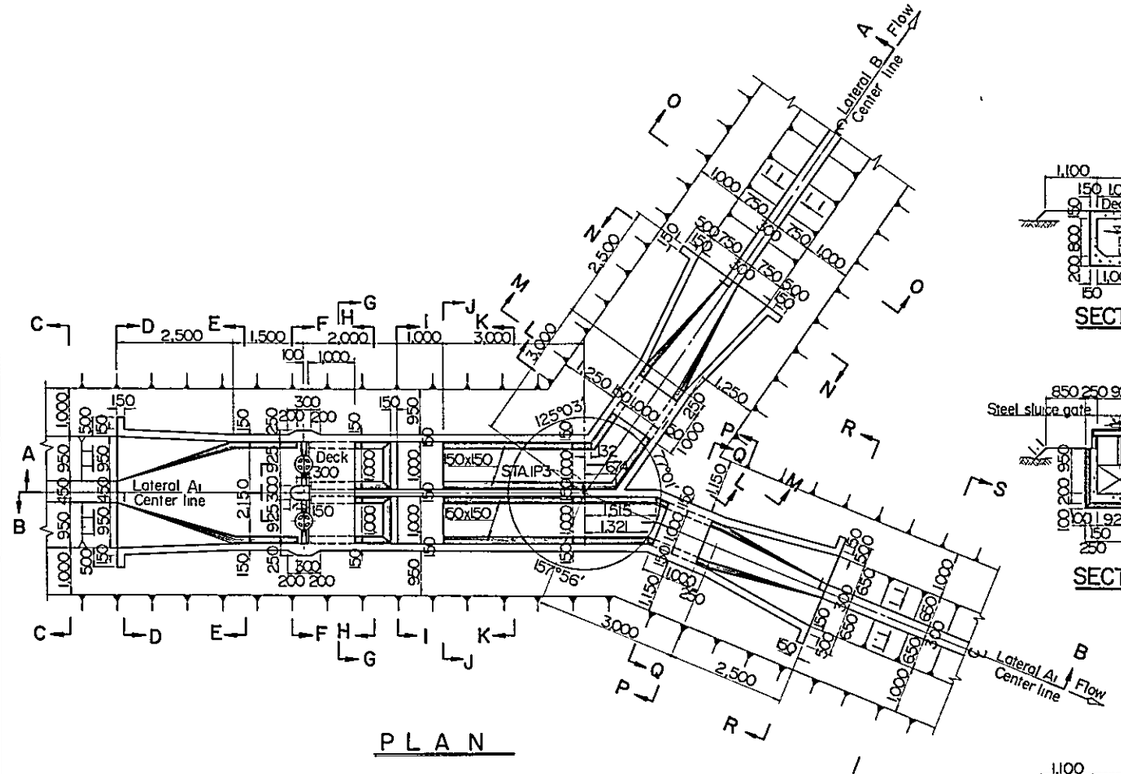
SCALE OF MILLIMETER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG

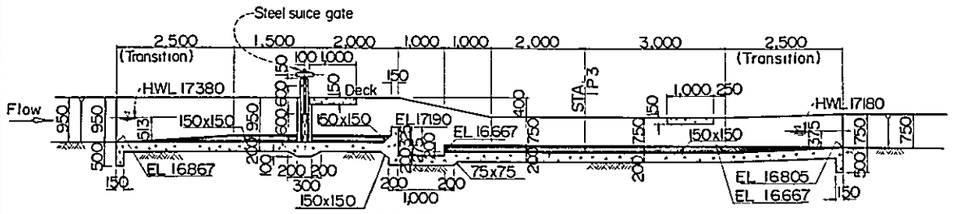
DIVISION WORK NO.1
REINFORCEMENT SHEET

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

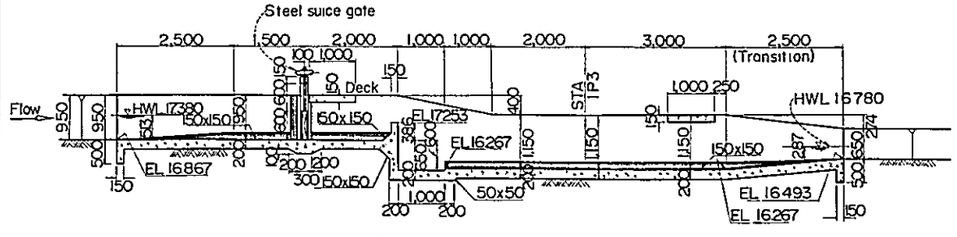
SCALE	AS SHOWN	DATE	
SHEET NO	2 OF 2	DRAWING NO	S - 22



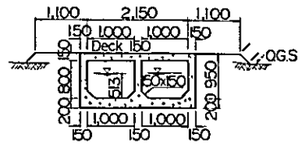
PLAN



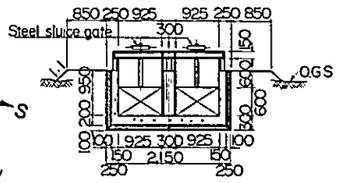
SECTION A–A
(Lateral B)



SECTION B–B
(Lateral A1)

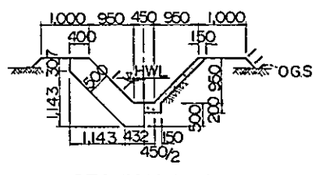


SECTION G–G

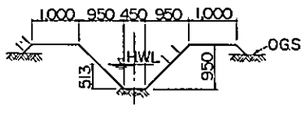


SECTION F–F

SECTION E–E



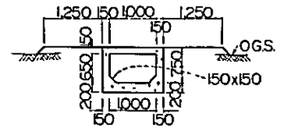
SECTION D–D



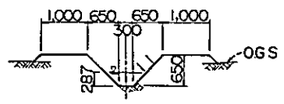
SECTION C–C

NOTES

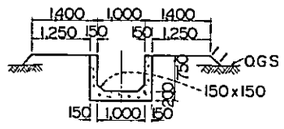
All dimesions are given in millimeters.
All elevations are given in meters
See drawing for reinforcement.
Concrete design based on a compressive strength of 80 kg/cm²
Chamfer all exposed corners 15 mm.



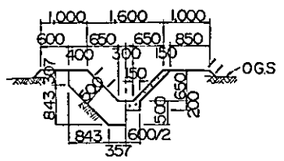
SECTION M–M



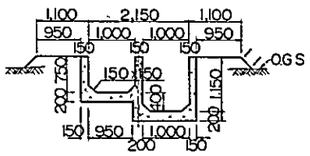
SECTION S–S



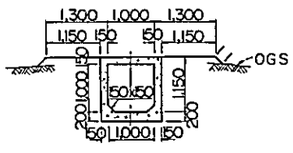
SECTION L–L



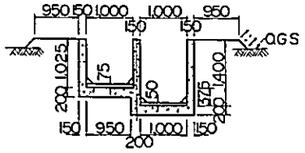
SECTION R–R



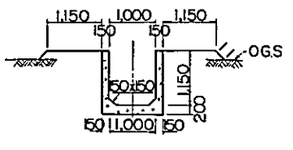
SECTION K–K



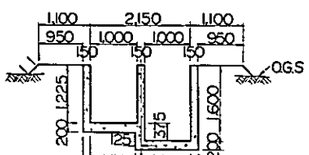
SECTION Q–Q



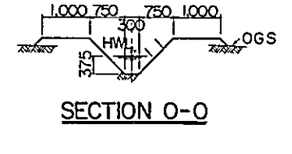
SECTION J–J



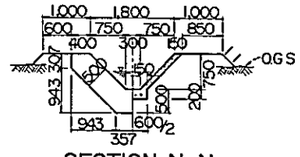
SECTION P–P



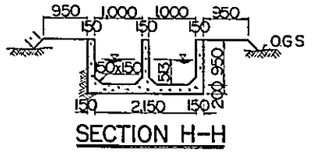
SECTION I–I



SECTION O–O



SECTION N–N



SECTION H–H

1,000 500 0 500 1,000 2,000 3,000 4,000

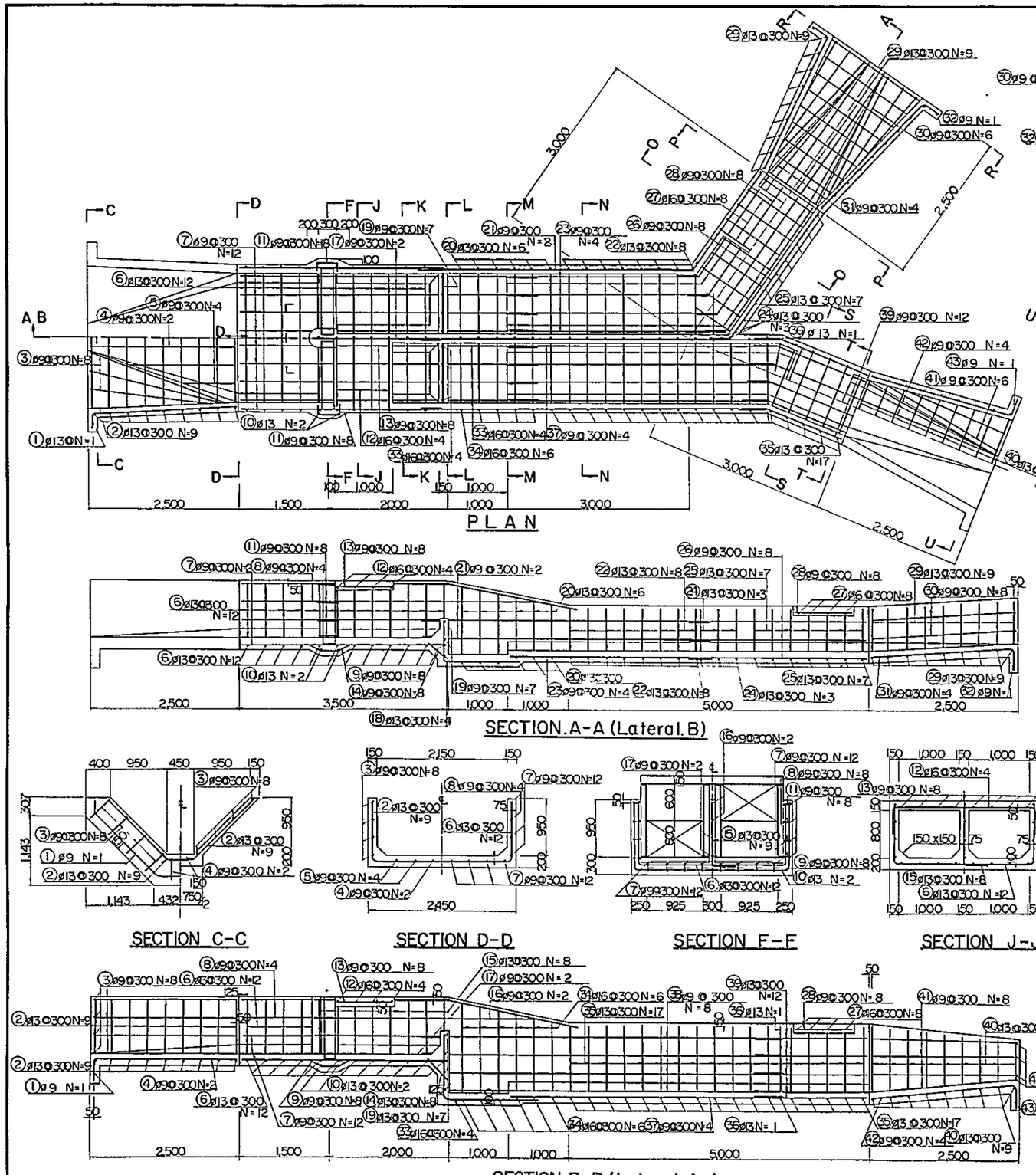
SCALE OF MILLIMETER

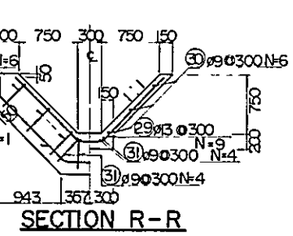
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG

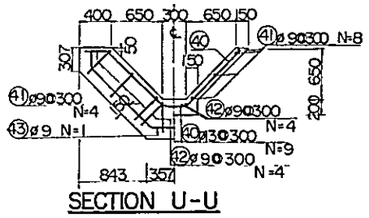
DIVISION WORK NO.2
PLAN AND SECTION

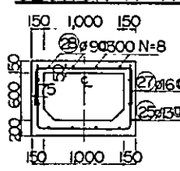
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

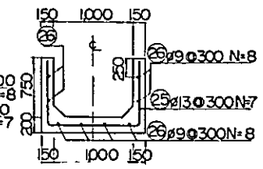
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 2	DROWING NO	S–23

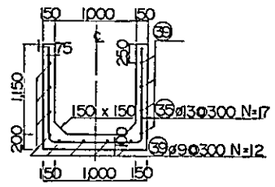


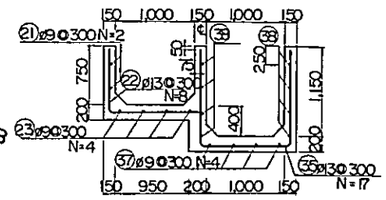


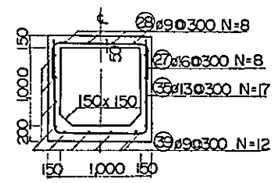


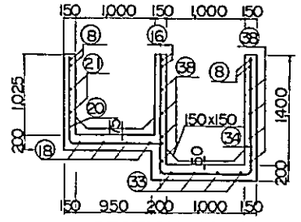


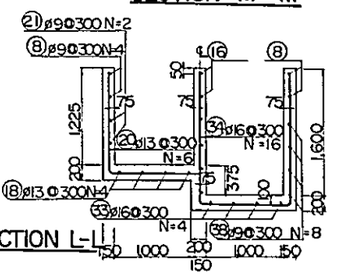


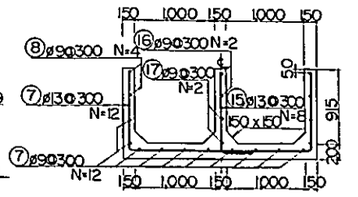












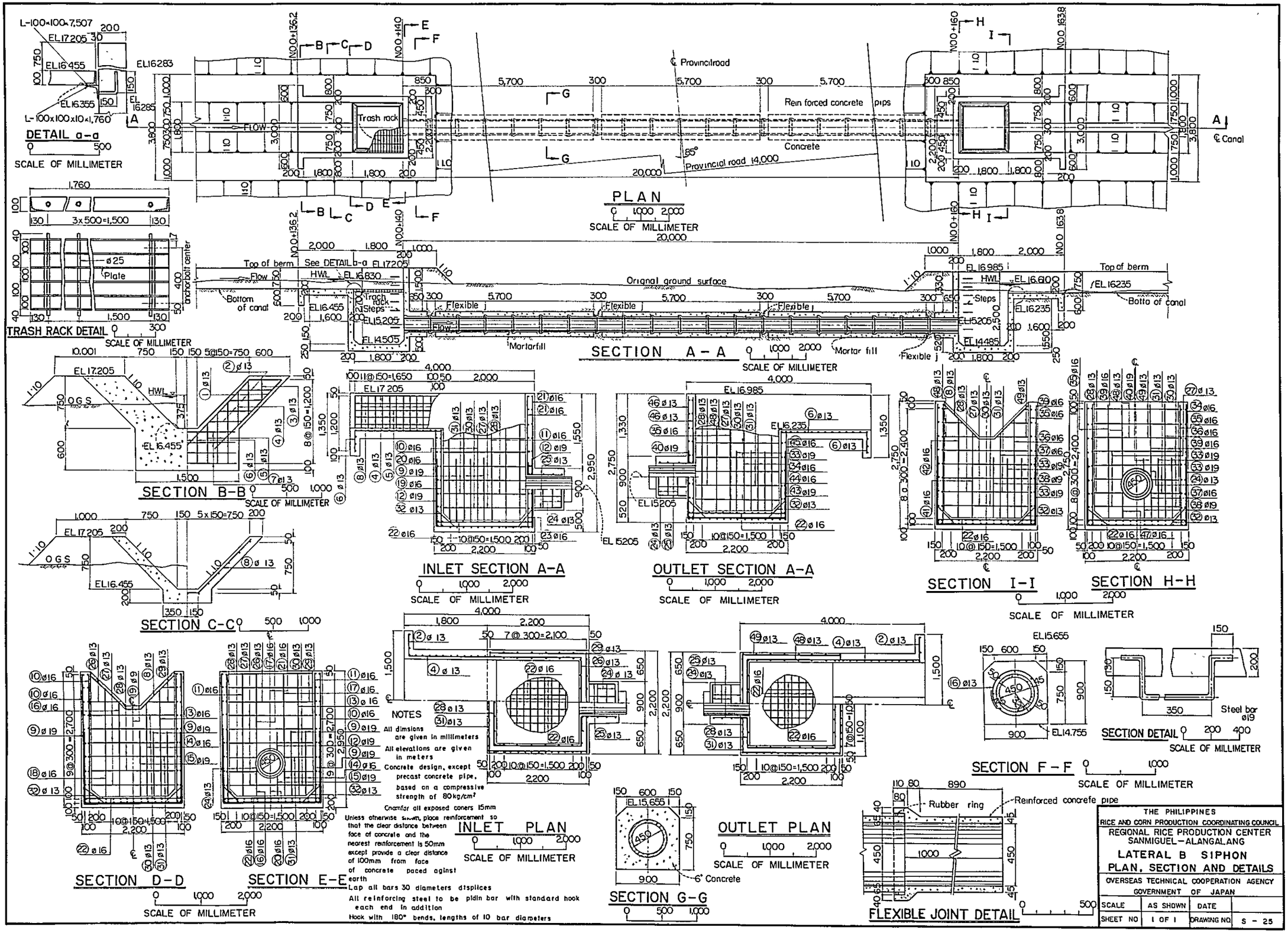
NOTES

All dimesions are given in millimeters
All elevations are given in meters.
See drawing for plan and section.
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar diameters.

SCALE OF MILLIMETER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
DIVISION WRK NO. 2
REINFORCEMENT SHEET
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO.	2 OF 2	DRAWING NO.	S-24

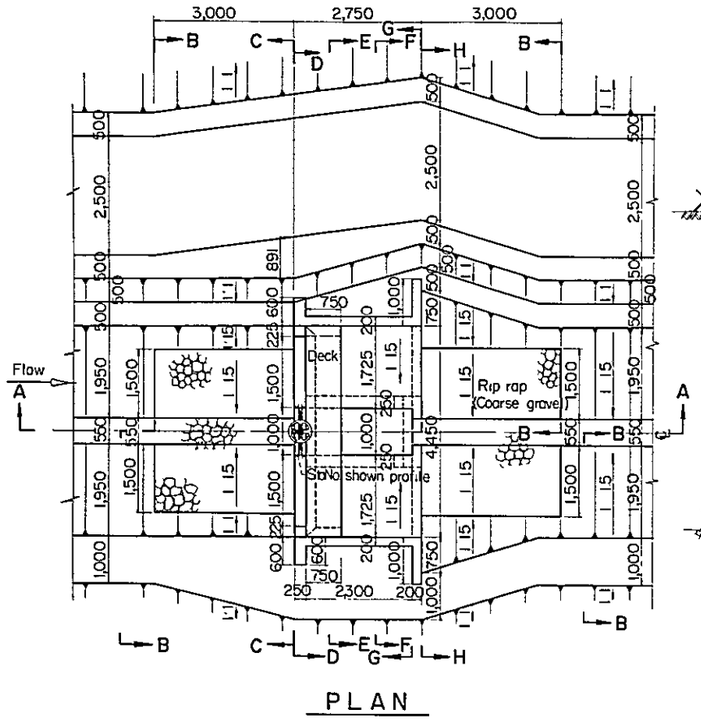


THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL-ALANGALANG

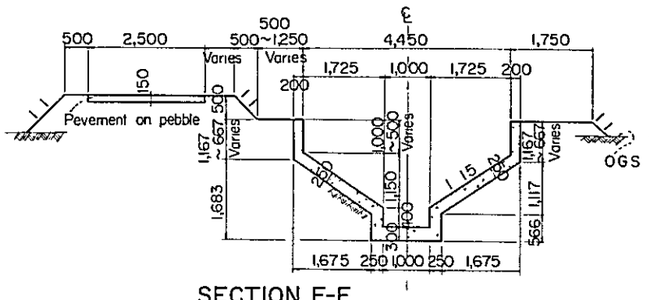
LATERAL B SIPHON
PLAN, SECTION AND DETAILS

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

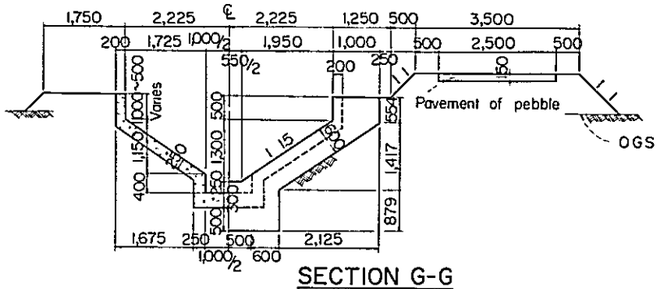
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO.	S - 25



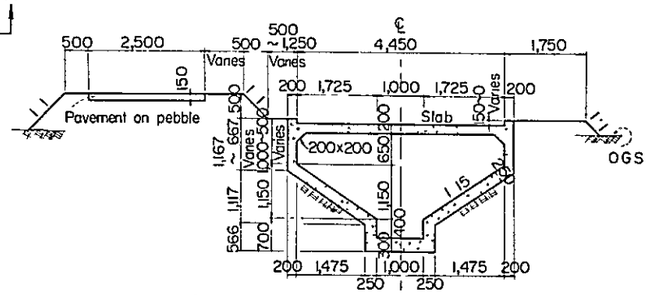
PLAN



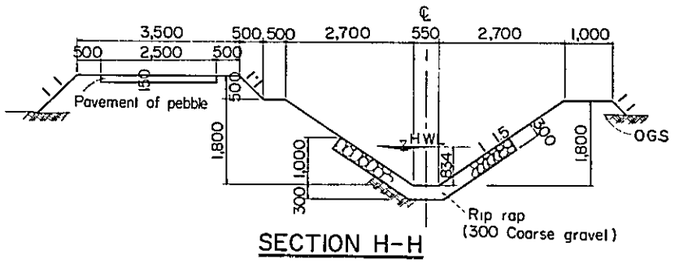
SECTION F-F



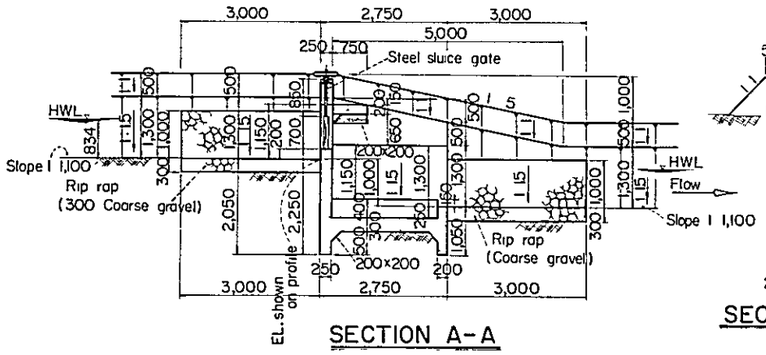
SECTION G-G



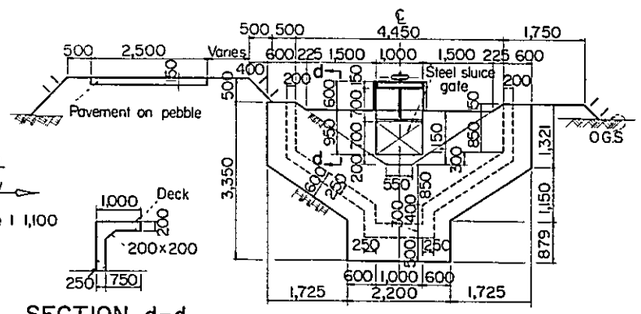
SECTION E-E



SECTION H-H

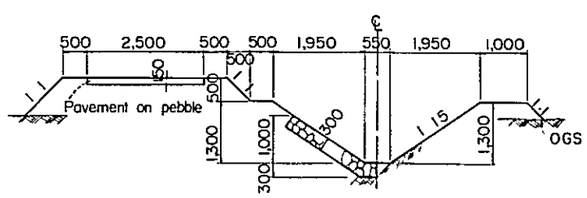


SECTION A-A

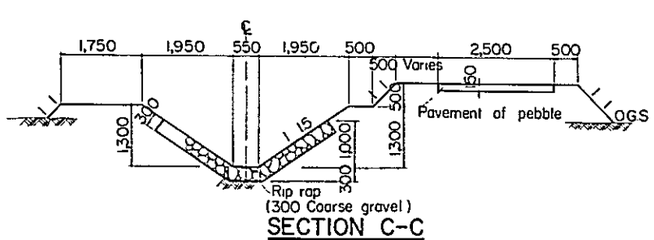


SECTION d-d

SECTION D-D



SECTION B-B



SECTION C-C

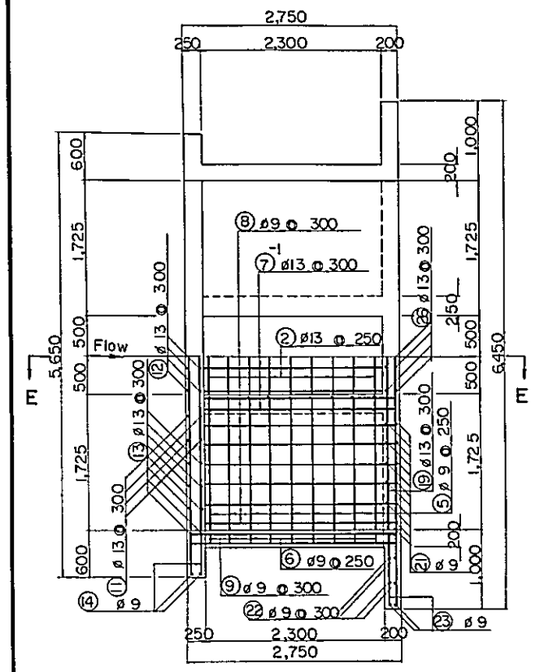
NOTES

All dimesons are given in millimeters.
See drawing for reinforcement.
Concrete design based on a compressive strength of 80kg/cm²
Chamfer all exposed Corners 15 mm

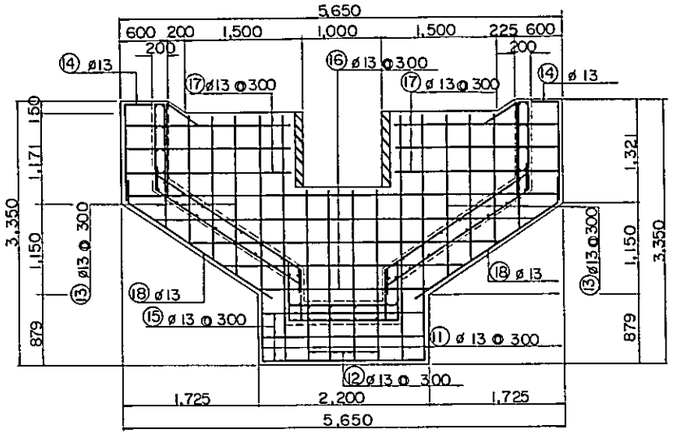
1,000 0 1,000 2,000 3,000 4,000

SCALE OF MILLIMETER

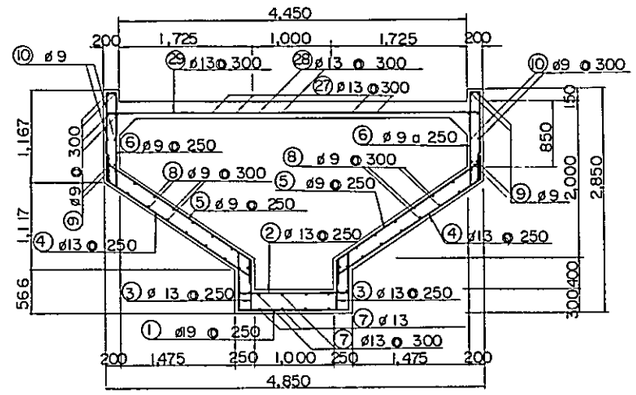
THE PHILIPPINES RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER SANMIGUEL – ALANGALANG			
LATERAL A DROP NO.1, NO.2 PLAN AND SECTION			
OVERSEAS TECHNICAL COOPERATION AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO.	1. OF 2	DRAWING NO.	S – 26



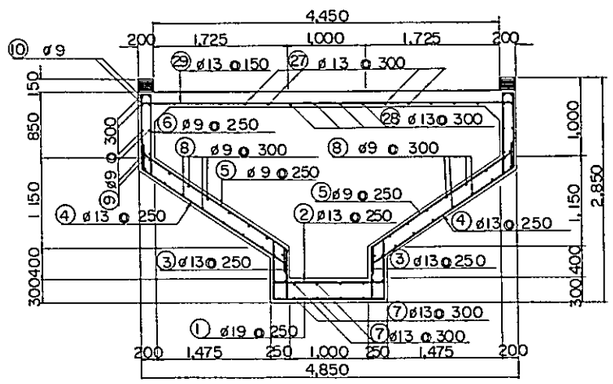
P L A N



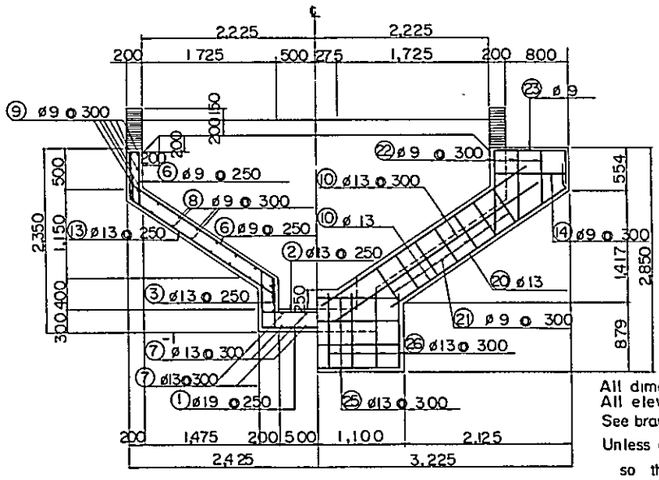
SECTION A—A



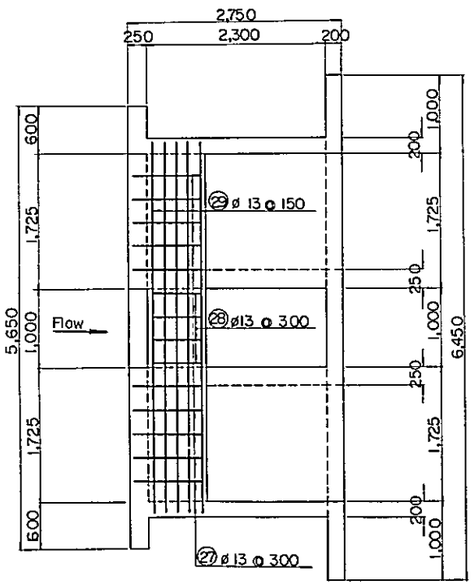
SECTION B—B



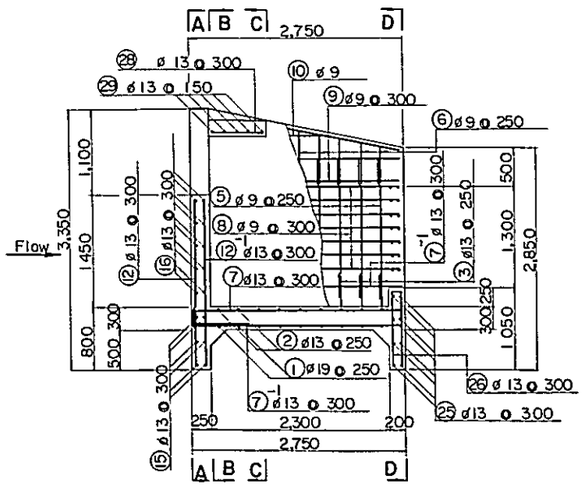
SECTION C—C



SECTION D—D



PLAN OF DECK REINFORCEMENT



SECTION E—E

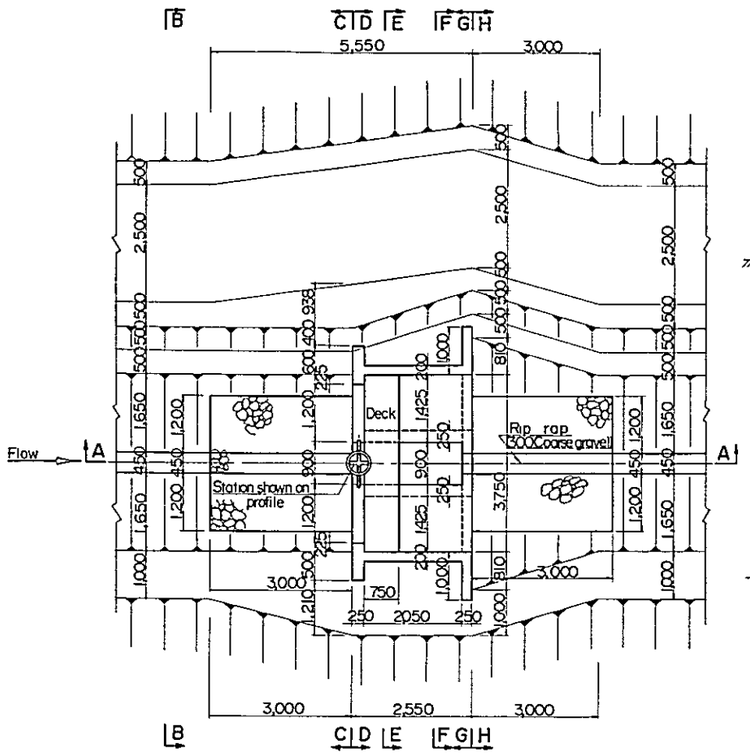
NOTES

All dimesions are given in millmers
All elevations are given meters
See brawing for plan and section
Unless otherwise shown place reintorcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm exccpt provide a clear distance of 100mm from face of concrete placed againct certh
Lap all bars 30 diameters at splices
All Teinforcing steel to be plain bar with standard hook each end in adaition to length shown
Hook with 180° bends lengths of 10 bar diameters.

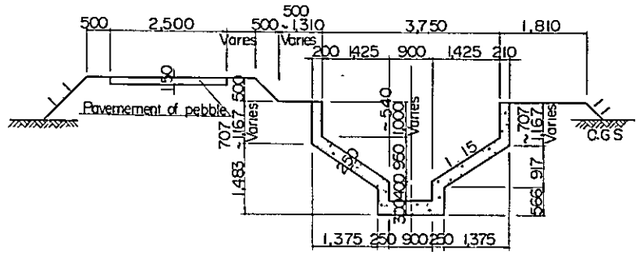
1,000 0,000 1,000 2000 3,000
SCALE OF MILLIMETERS

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
LATERAL A DROP NO.1, NO.2
REINFORCEMENT SHEET
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

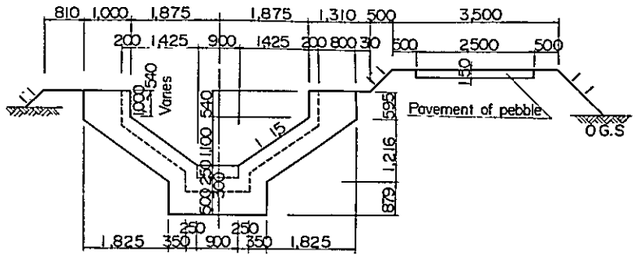
SCALE		DATE	
SHEET NO.	2 OF 2	DRAWING NO.	S - 27



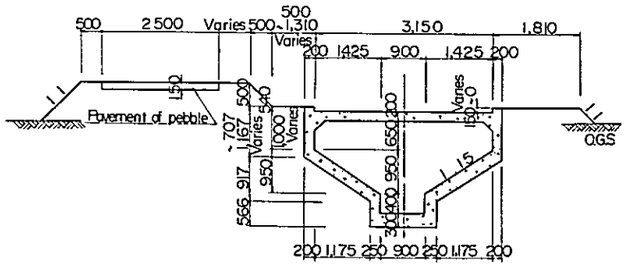
PLAN



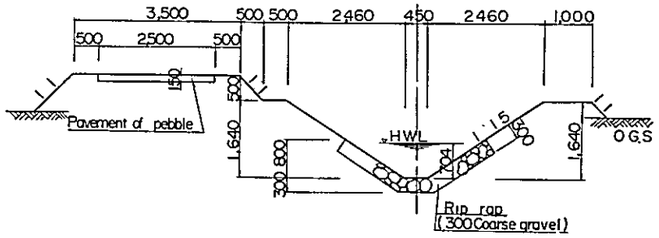
SECTION F-F



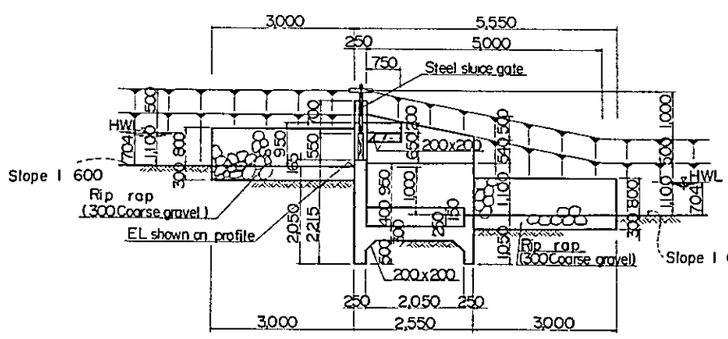
SECTION G-G



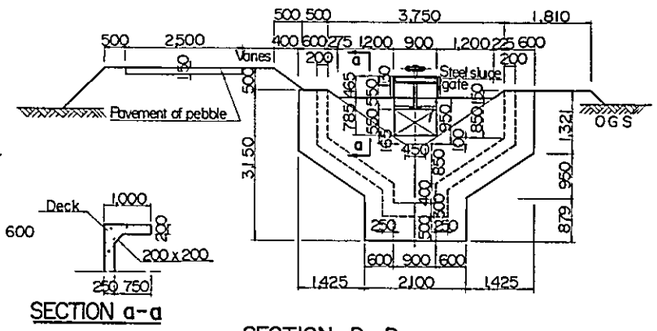
SECTION E-E



SECTION H-H

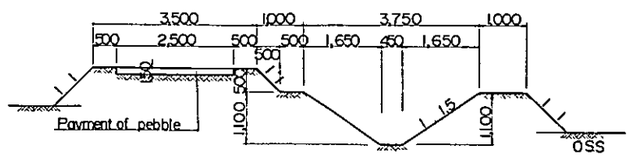


SECTION A-A

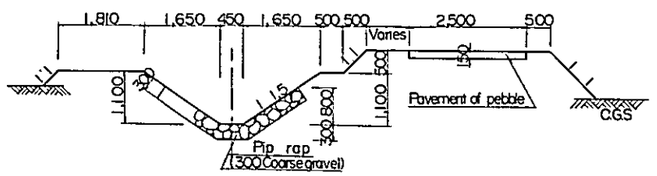


SECTION a-a

SECTION D-D



SECTION B-B



SECTION C-C

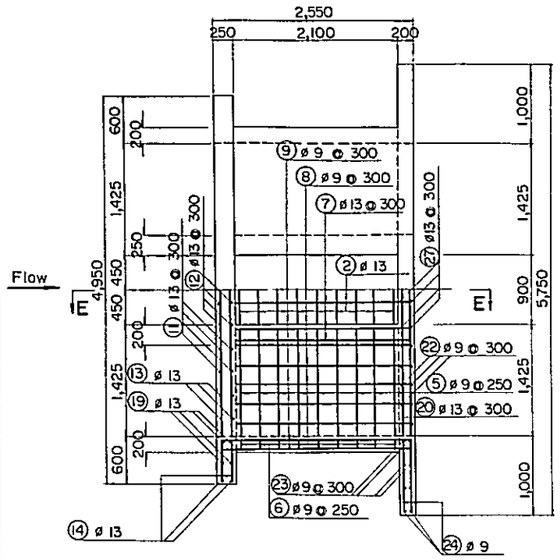
SECTION H-H

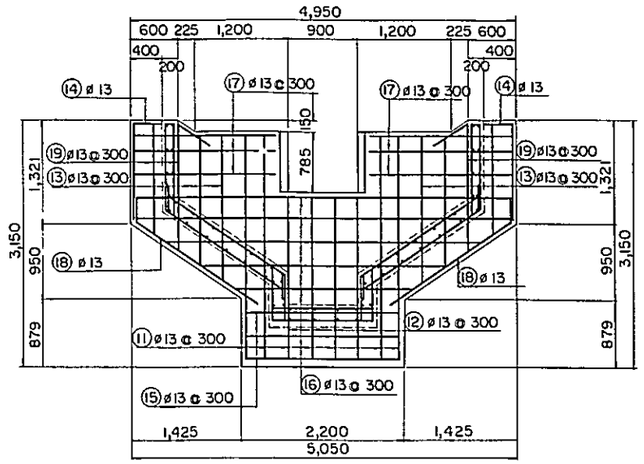
NOTES

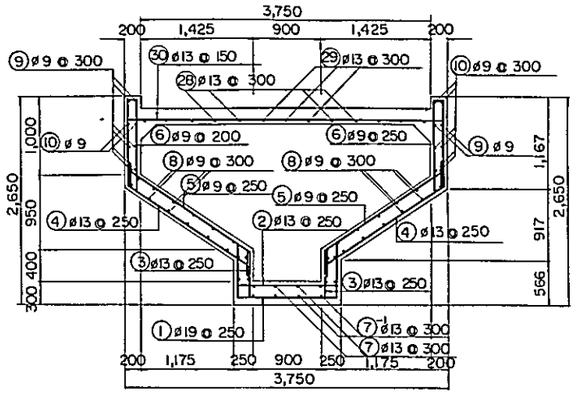
All dimesions are given in millimeters
See drawing for reinforcement
Concrete design based on a compressive strength of 80 kg/cm².
Chamfer all exposed corners 15 mm.

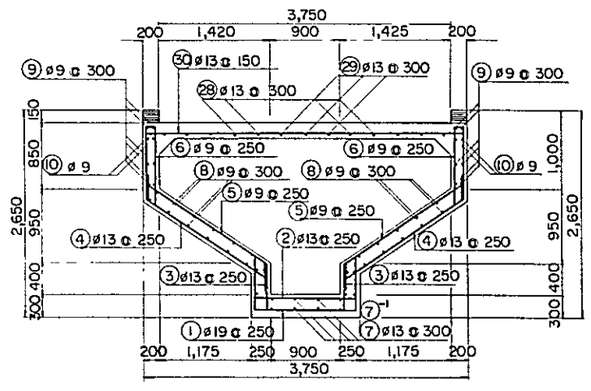
1000 0 1000 2000 3000 4000
SCALE OF MILLIMETER

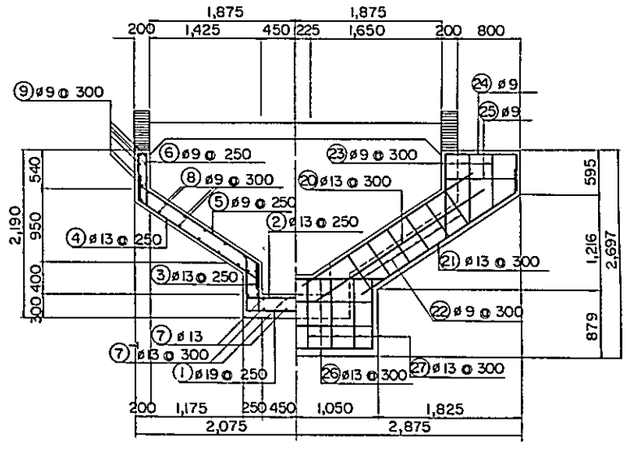
THE PHILIPPINES			
RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER SANMIGUEL – ALANGALANG			
LATERAL A DROP NO.3 PLAM ND SECTION			
OVERSEAS TECHNICAL COOPERATION AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO.	1 OF 2	DRAWING NO.	S- 28

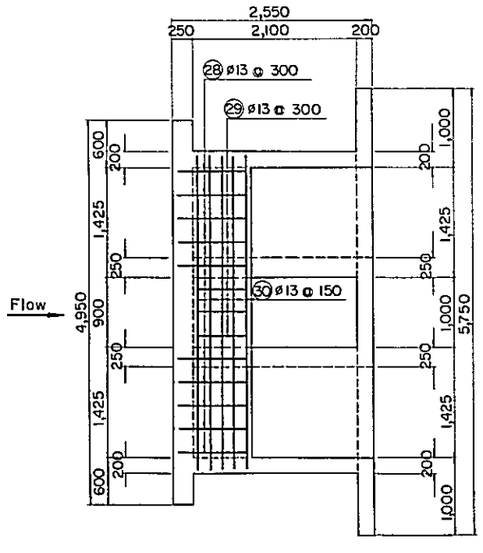


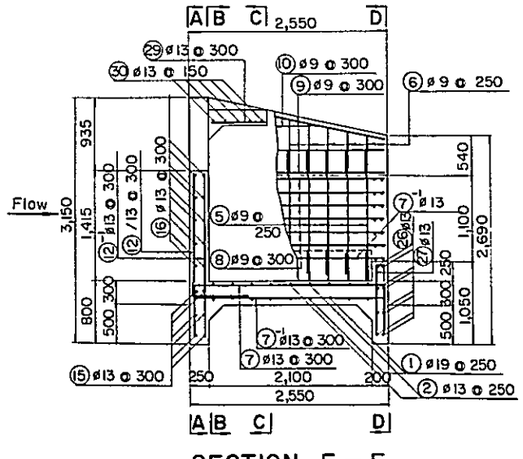












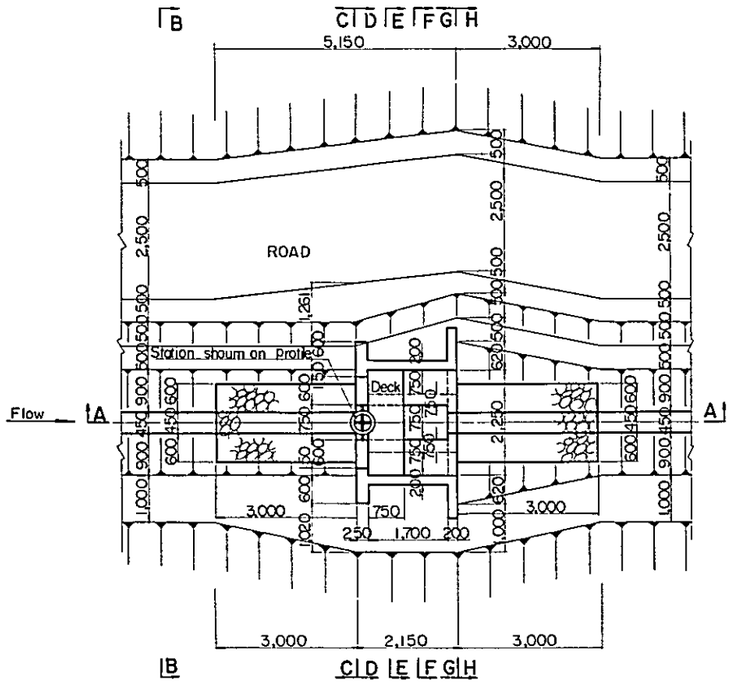
NOTES

All dimesions are given in millimeters
See Drawing for plan and section
Unless otherwise shown place reinforcement so that the clear disnce between face of concrete and the the nerest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth.

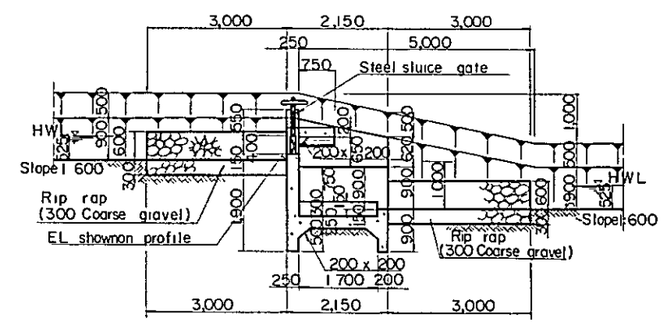
Lap all bars 30 diameters at splices
All reinforcing steel to be plain bar with standard hook each end in addition to length shown
Hook with 180° bends, lengths of 10 bar diameters.

1,000 0,000 1,000 2,000 3,000
SCALE OF MILLIMETERS

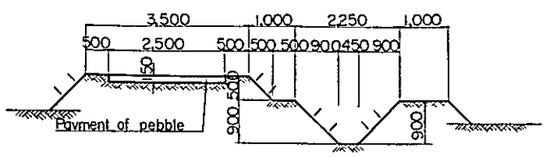
THE PHILIPPINES			
RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER SANMIGUEL – ALANGALANG			
LATERAL A DROP NO 3 RFINFORCEMENT SHEET			
OVERSEAS TECHNICAL COOFARATION AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO	2 OF 2	DRAWING NO	S – 29



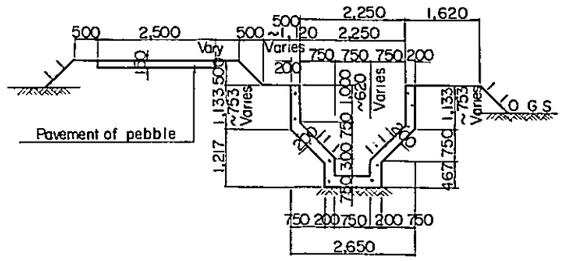
PLAN



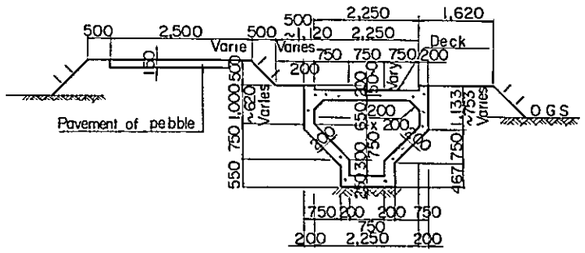
SECTION A-A



SECTION B-B



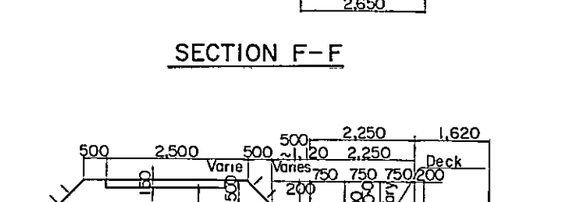
SECTION F-F



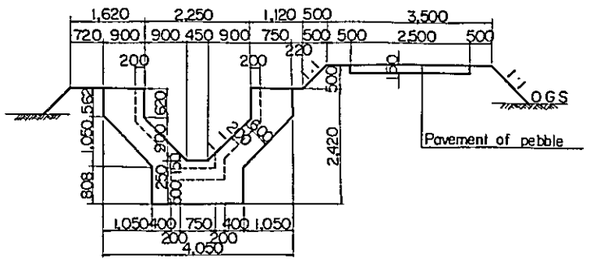
SECTION E-E

SECTION d-d

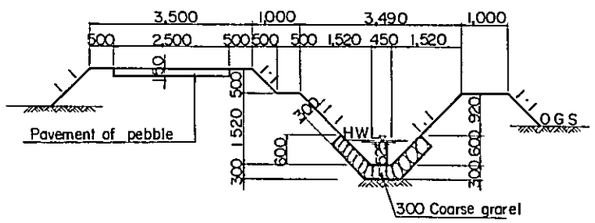
SECTION D-D



SECTION C-C



SECTION G-G



SECTION H-H

NOTES

All dimesion are given in millimeters.

See Drawing for plan and section

Unless otherwise shown, place reinforcement so that the clear distance between face of concret and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth

Lap all bars 30 diameters at splices

All reinforcing steel to be plain bar with standard hook each end in addition to length shown

Hook with 180° bends, lengths of 10 bar diameters

1,000 0 1,000 2,000 3,000 4,000

SCALE OF MILLIMETER

THE PHILIPPINES

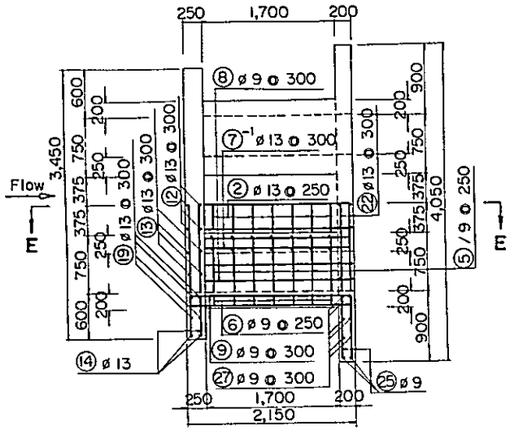
RICE AND CORN PRODUCTION COORDINATING COUNCIL

REGIONAL RICE PRODUCTION CENTER
SANMIGUEL ALANGALANG

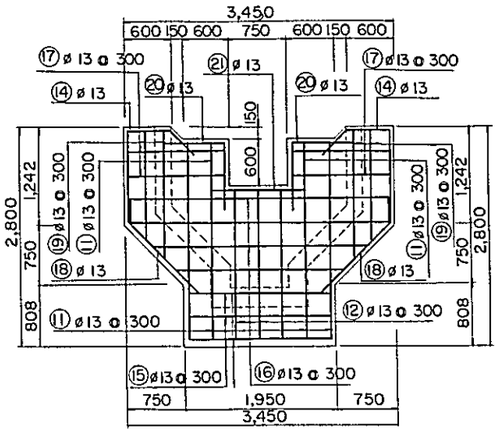
LATERAL A DROP NO.4
PLAN AND SECTION

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

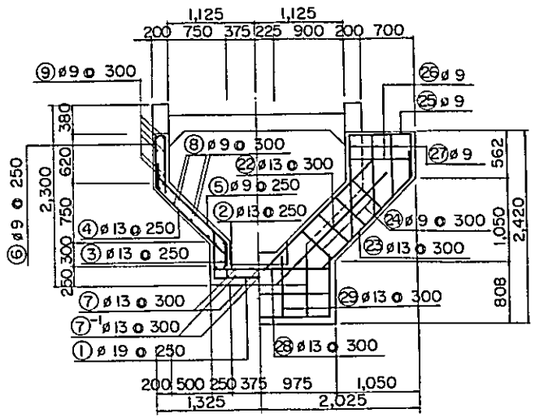
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 2	DRAWING NO	S - 30



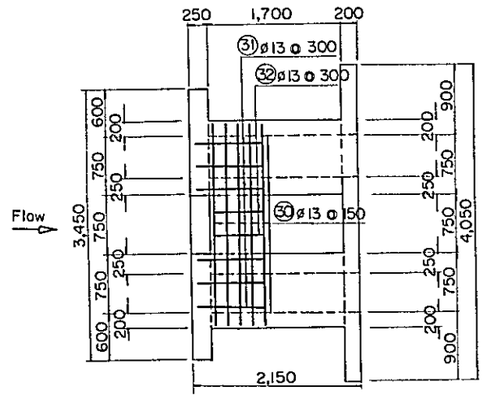
PLAN



SECTION A – A

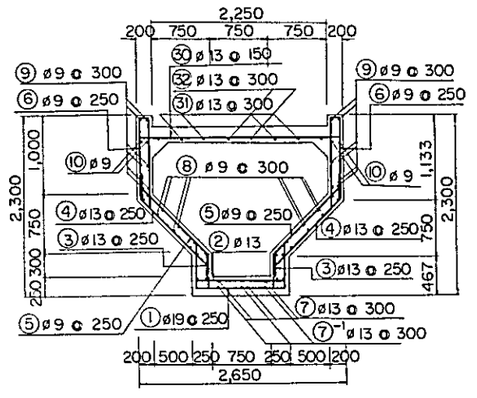


SECTION D – D

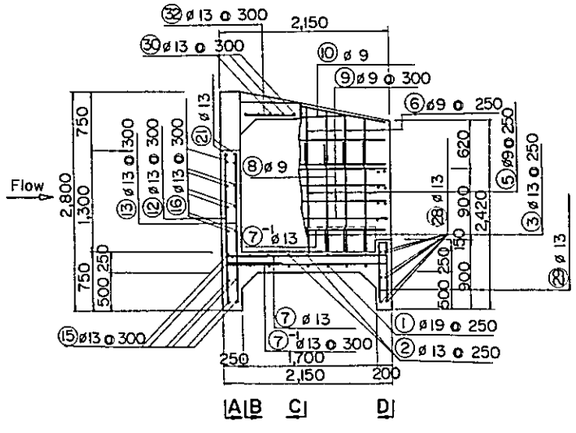


PLAN OF DECK REINFORCEMENT

A B C D

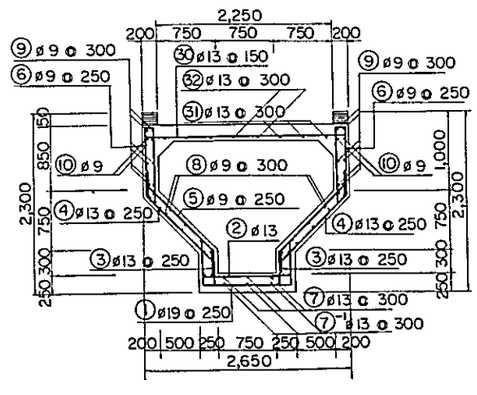


SECTION B – B



A B C D

SECTION E – E



SECTION C – C

NOTES

All dimesions are given in millimeters.
See drawing for plan and section
Unless otherwise shown place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180°beds, lengths of 10 bar diameters.

1,000 0,000 1,000 2,000 3,000

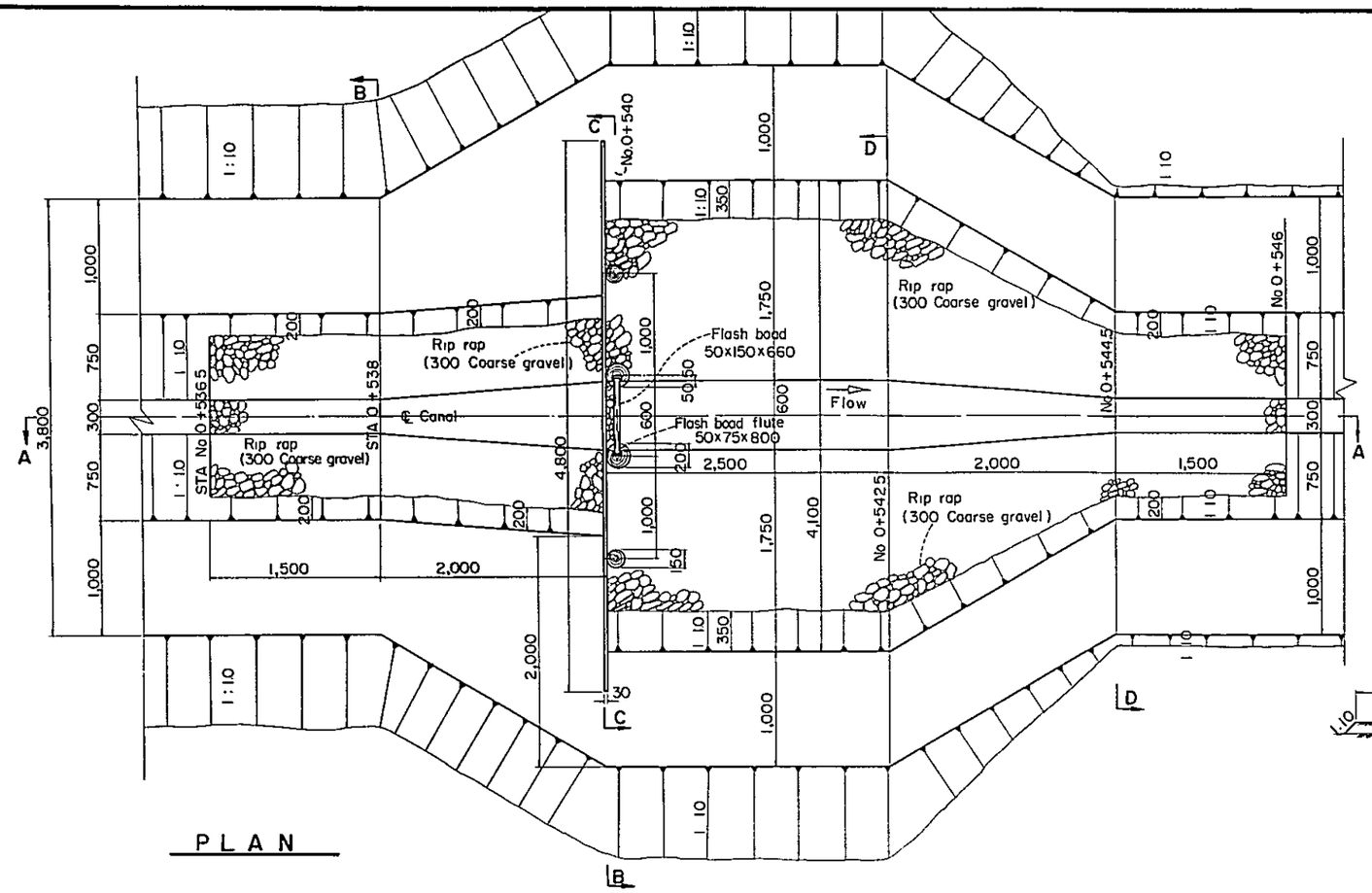
SCALE OF MILLIMETER

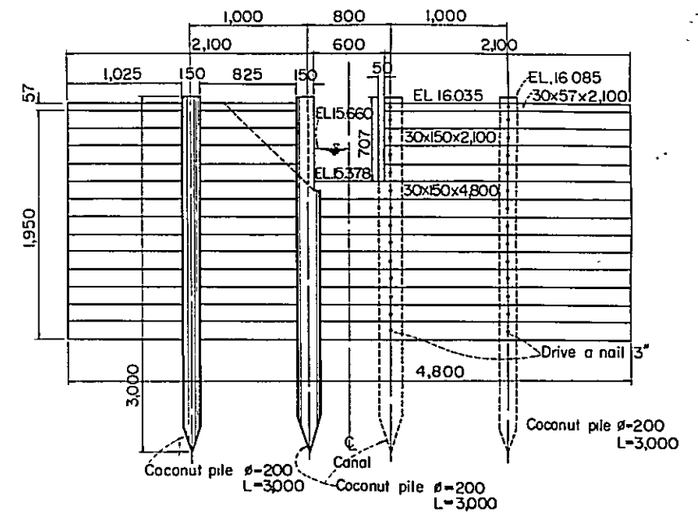
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG

LATERAL A DROP NO4
REINFORCEMENT SHEET

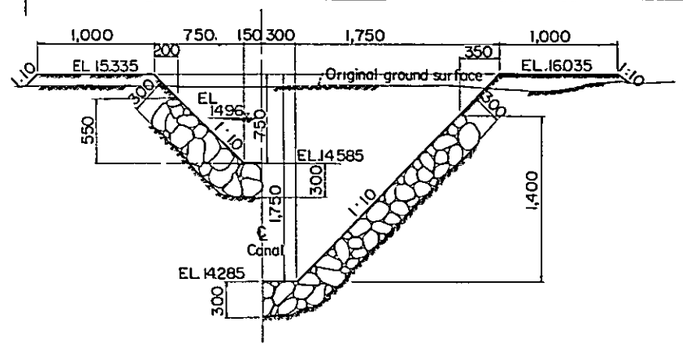
OVERSEAS TECHNICAL COOFARATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO.	2 OF 2	DRAWING NO.	S – 31



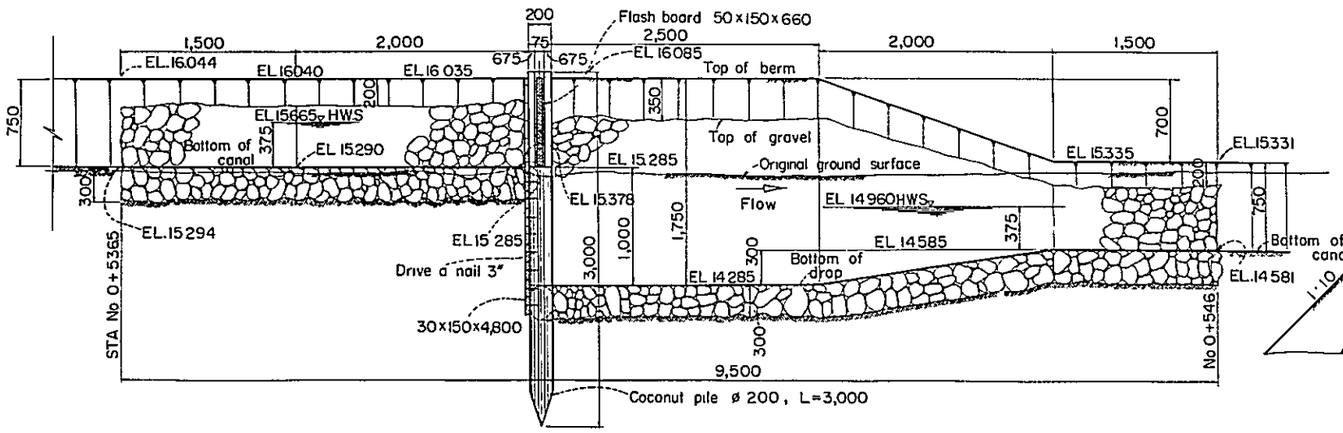


ELEVATION C-C

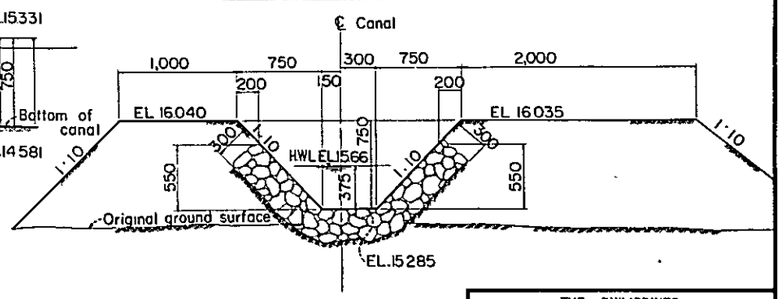


SECTION C-C

SECTION D-D



SECTION A-A



SECTION B-B

NOTES

All dimensions are given in millimeters.

All stations and elevations are given in meters

0 1,000 2,000 3,000

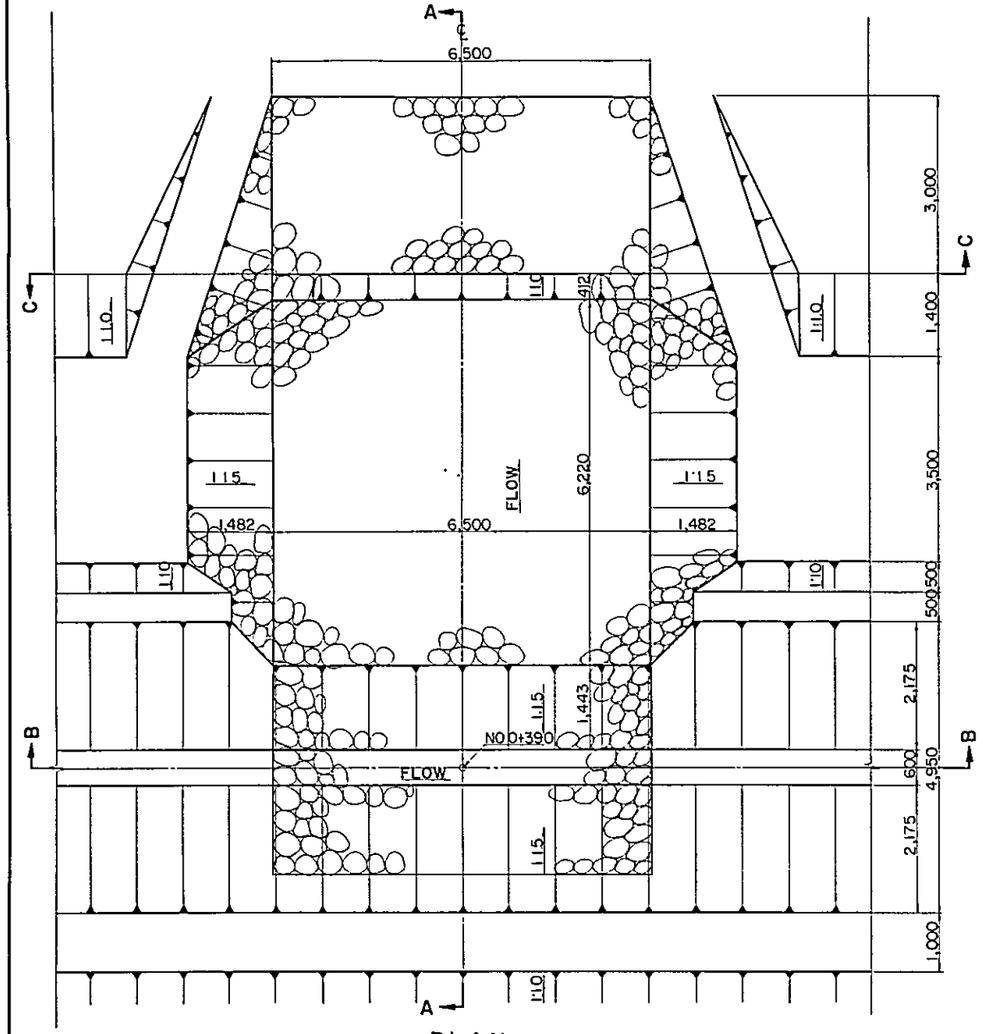
SCALE OF MILLIMETER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG

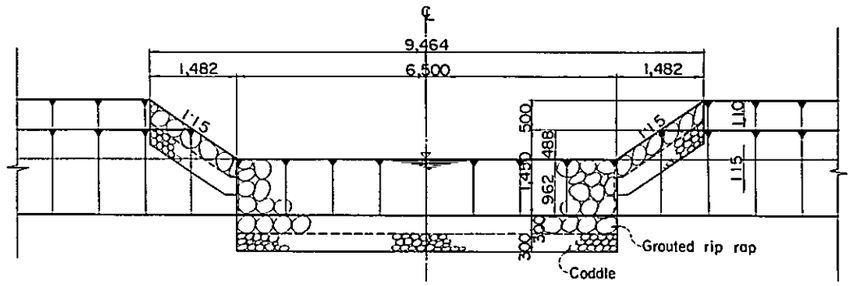
LATERAL B DROP
PLAN AND SECTION

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

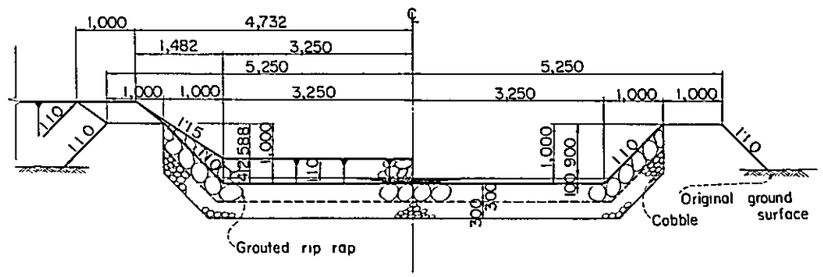
SCALE	AS SHOWN	DATE	
SHEET NO.	1 OF 1	DRAWING NO.	S – 32



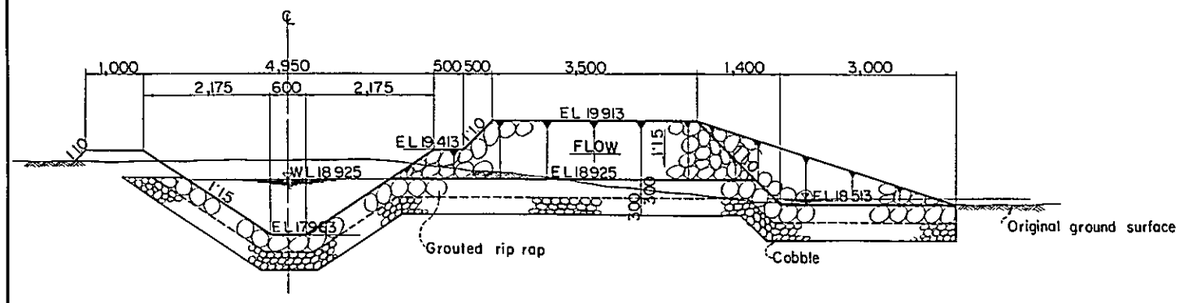
PLAN



SECTION B-B



SECTION C-C



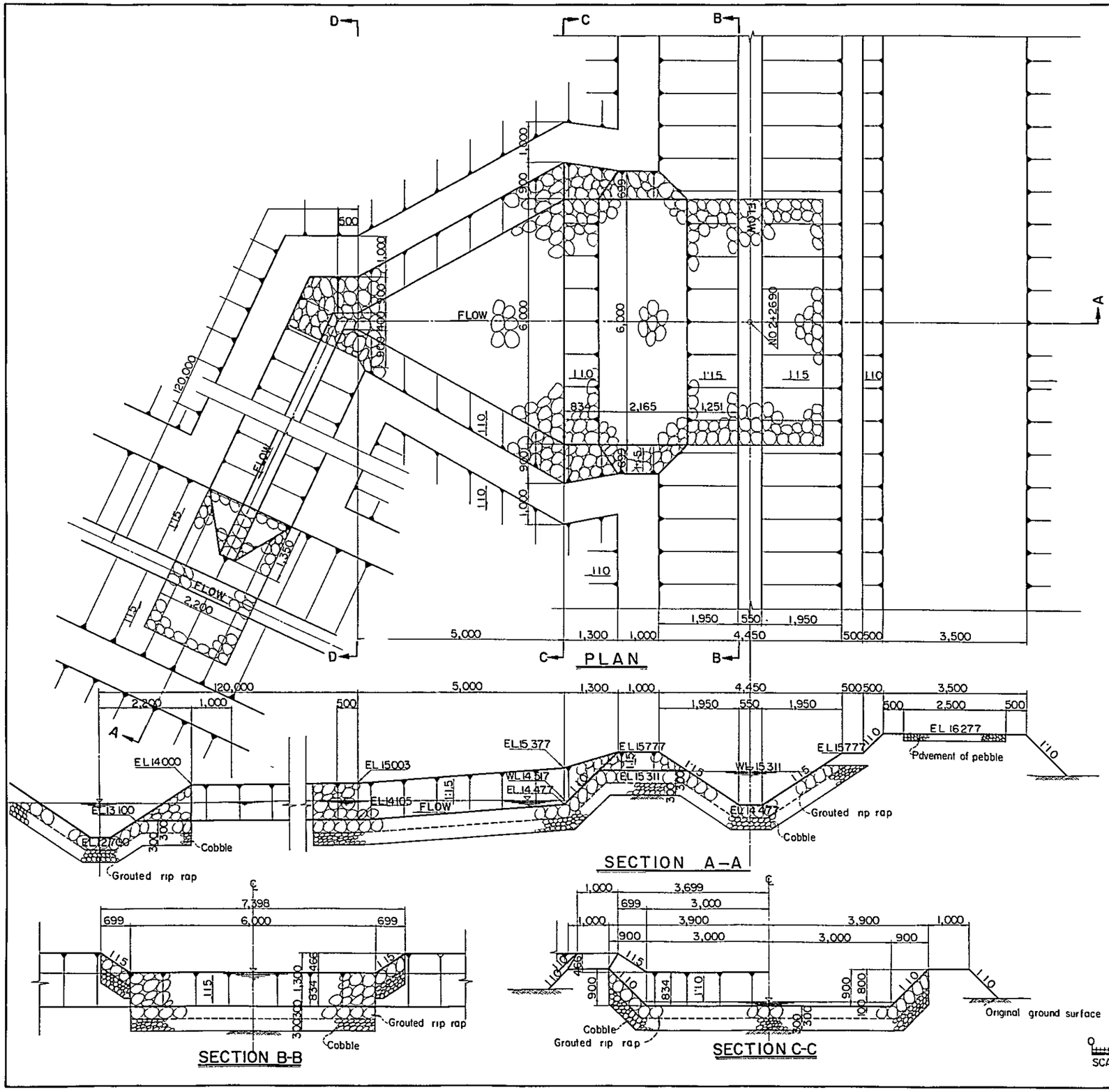
SECTION A-A

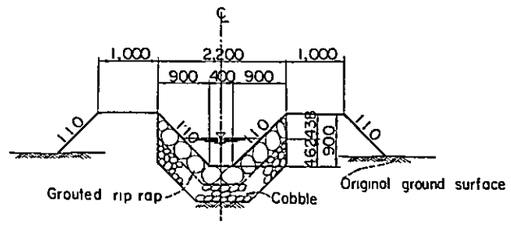
NOTES

All dimensions are given in millimeters
All elevations are given in meters

0 1,000 2,000 3,000
SCALE OF MILLIMETER

THE PHILIPPINES RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER SANMIGUEL — ALANGALANG			
LATERAL A WASTEWAY NO. I PLAN AND SECTION			
OVERSEAS TECHNICAL COOPERATION AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO	S-33





SECTION D-D

SECTION B-B

SECTION C-C

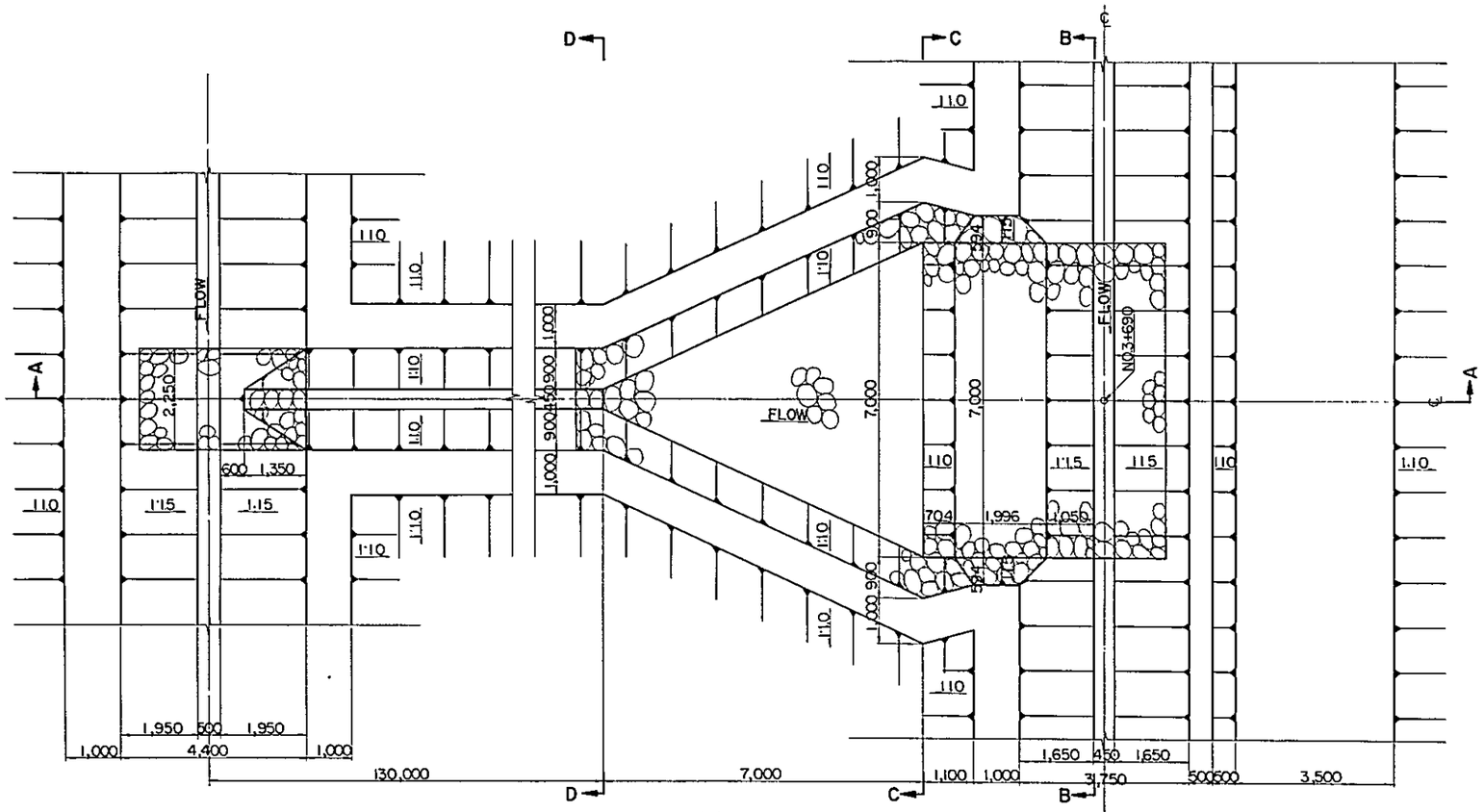
0 1,000 2,000 3,000
SCALE OF MILLIMETER

NOTES

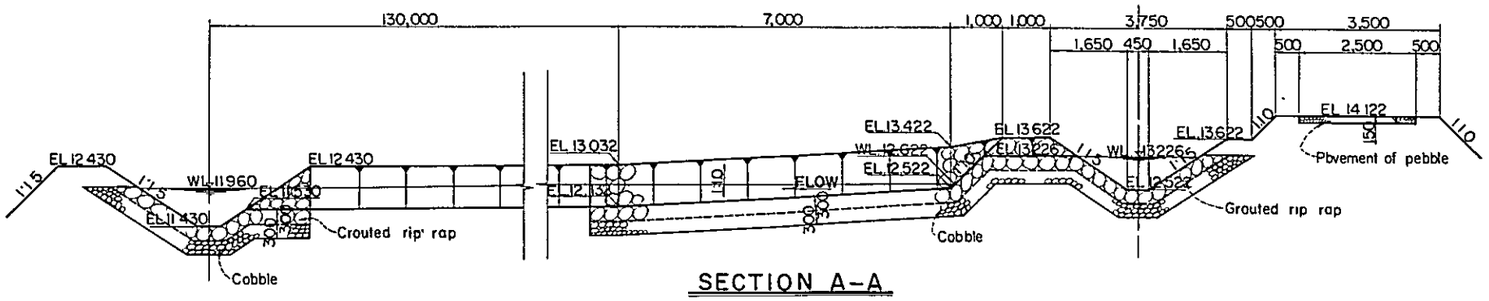
All dimensions are given in millimeters
All elevations are given in meters.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
LATERAL A WASTEWAY NO. 2
PLAN AND SECTION
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

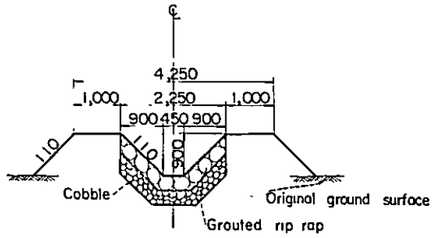
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO	S-34



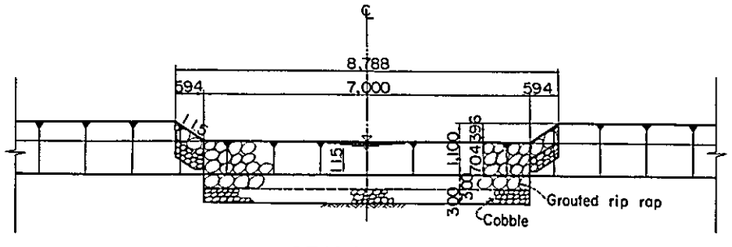
PLAN



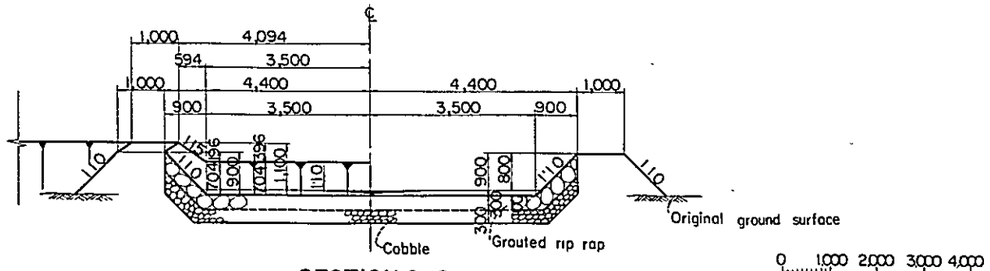
SECTION A-A



SECTION D-D



SECTION B-B



SECTION C-C

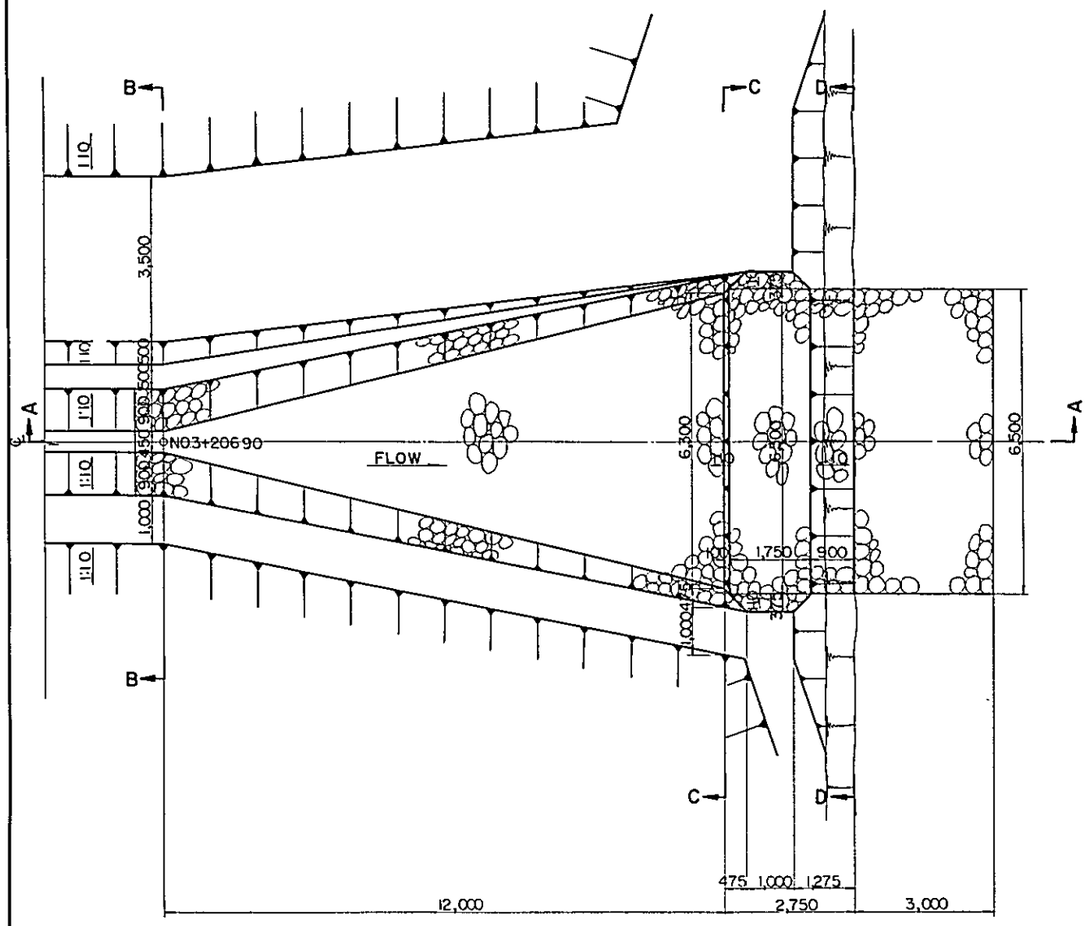
0 1,000 2,000 3,000 4,000
SCALE OF MILLIMETER

NOTES

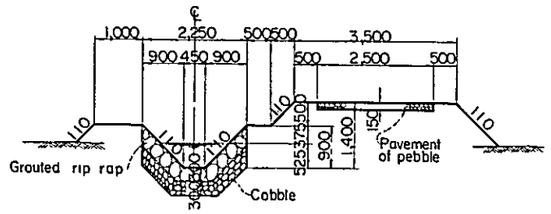
All dimensions are given in millimeters
All elevations are given in meters.

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
LATERAL A WASTEWAY NO.3
PLAN AND SECTION
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

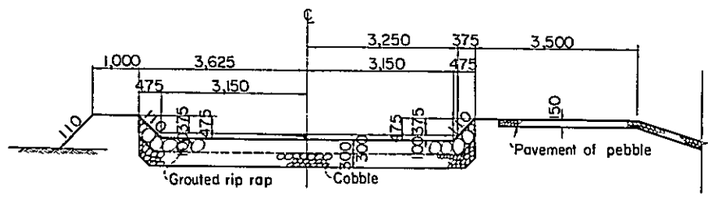
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO	S – 35



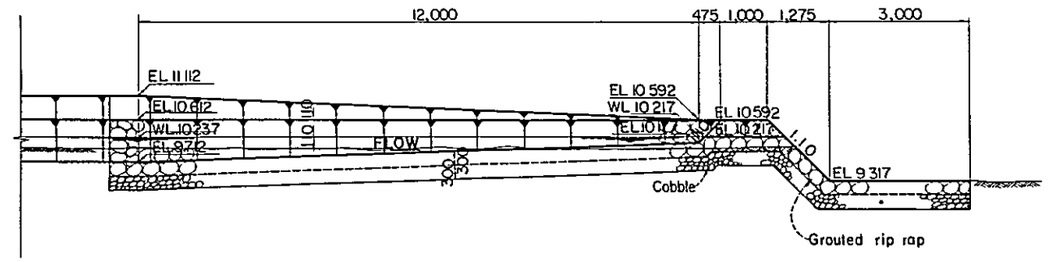
PLAN



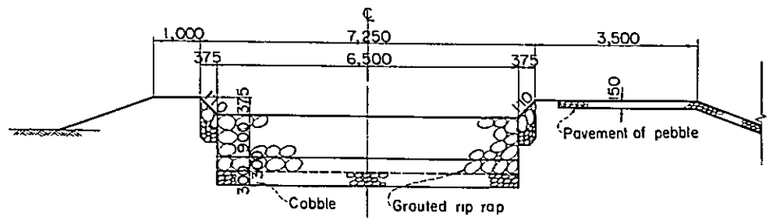
SECTION B-B



SECTION C-C



SECTION A-A



SECTION D-D

NOTES

All dimensions are given in millimeters
All elevations are given in meters.

0 1,000 2,000 3,000 4,000
SCALE OF MILLIMETER

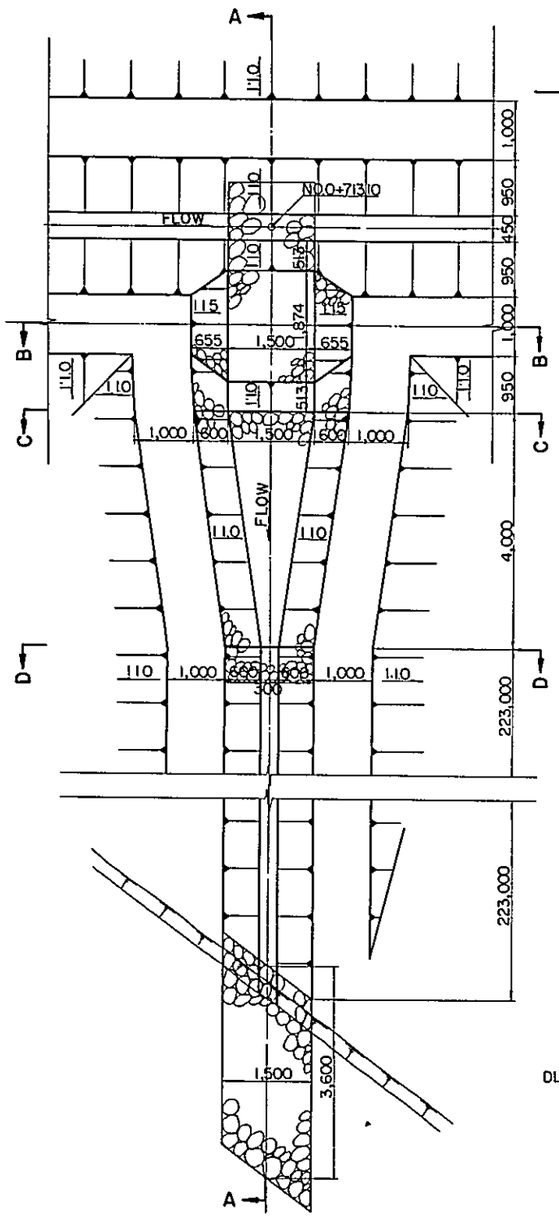
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL

REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG

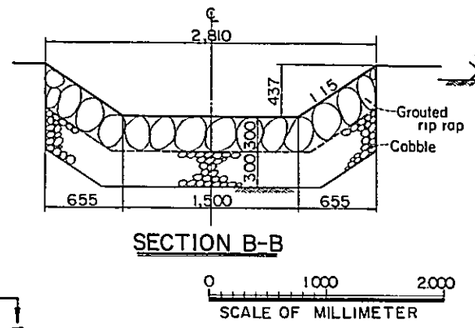
LATERAL A WASTEWAY NO.4 PLAN AND SECTION

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO	S — 36

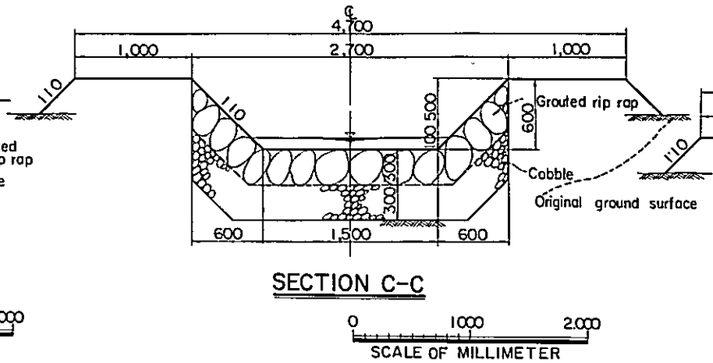


PLAN



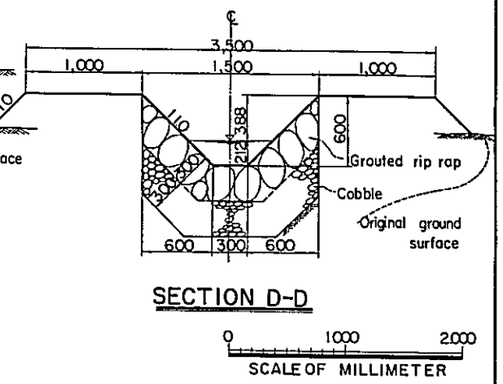
SECTION B-B

0 1000 2000
SCALE OF MILLIMETER



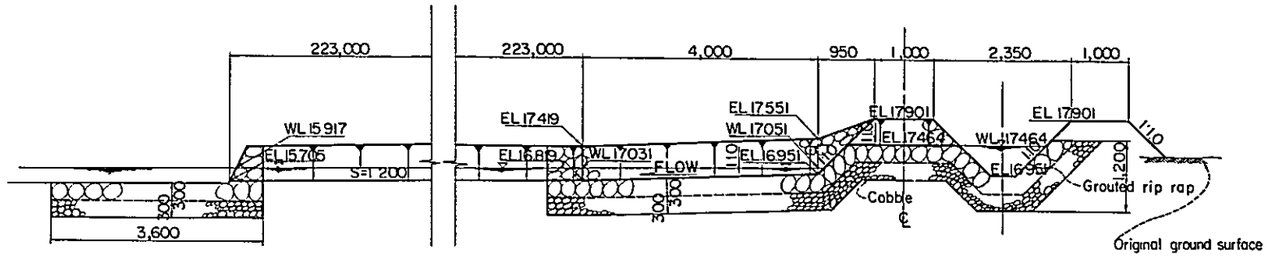
SECTION C-C

0 1000 2000
SCALE OF MILLIMETER

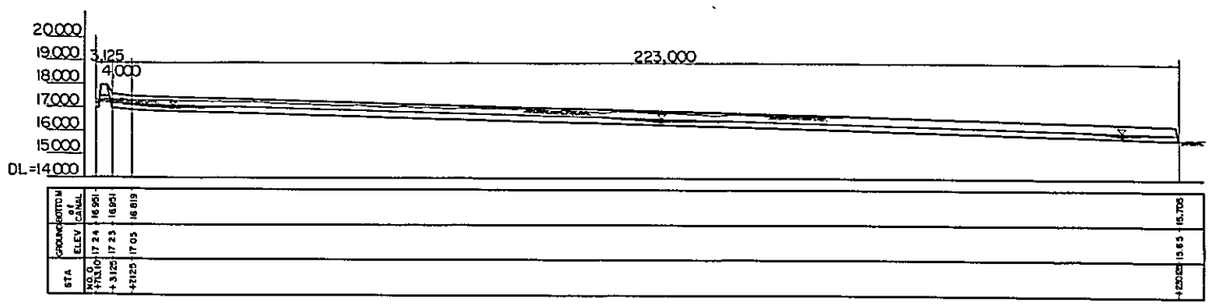


SECTION D-D

0 1000 2000
SCALE OF MILLIMETER



SECTION A-A



LONGITUDINAL SECTION

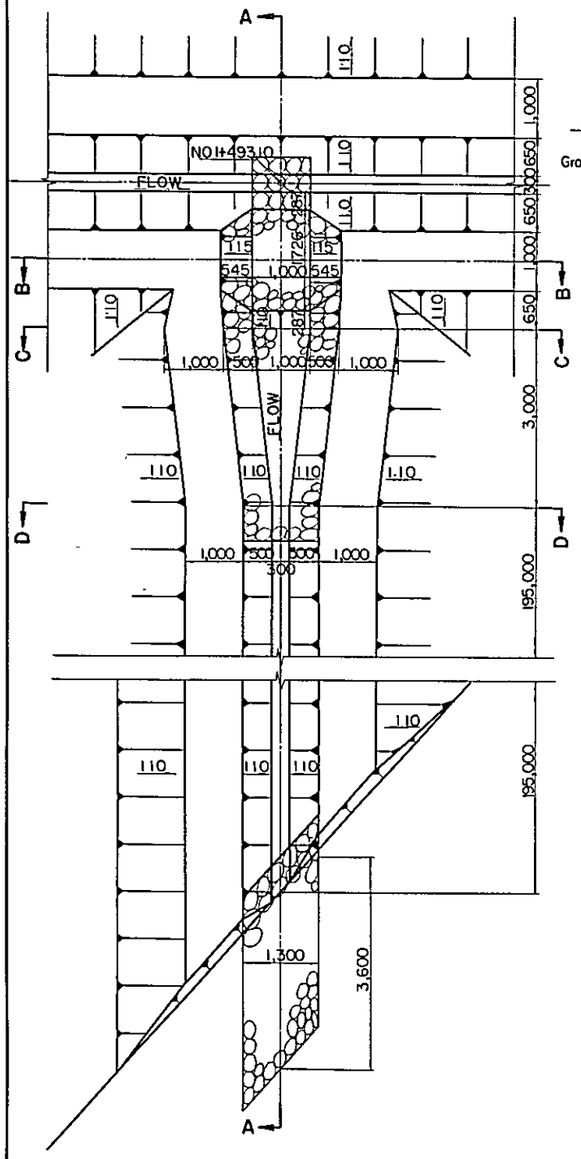
0 1,000 2,000 3,000
SCALE OF MILLIMETER

NOTES

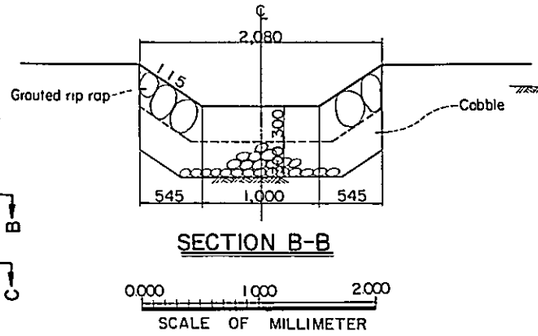
All dimensions are given in millimeters
All elevations are given in meters

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
LATERAL A1 WASTEWAY NO.1
PLAN AND SECTION
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

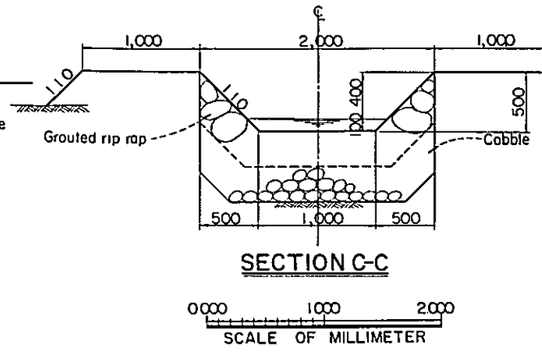
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO	S — 37



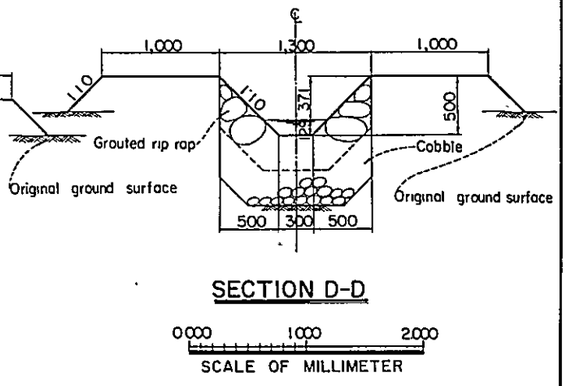
PLAN



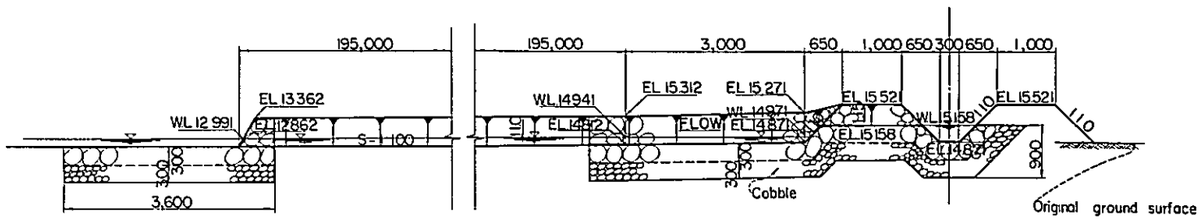
SECTION B-B



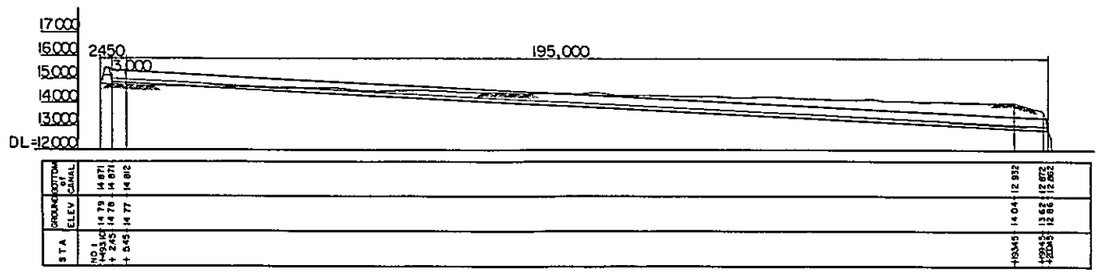
SECTION C-C



SECTION D-D



SECTION A-A



LONGITUDINAL SECTION

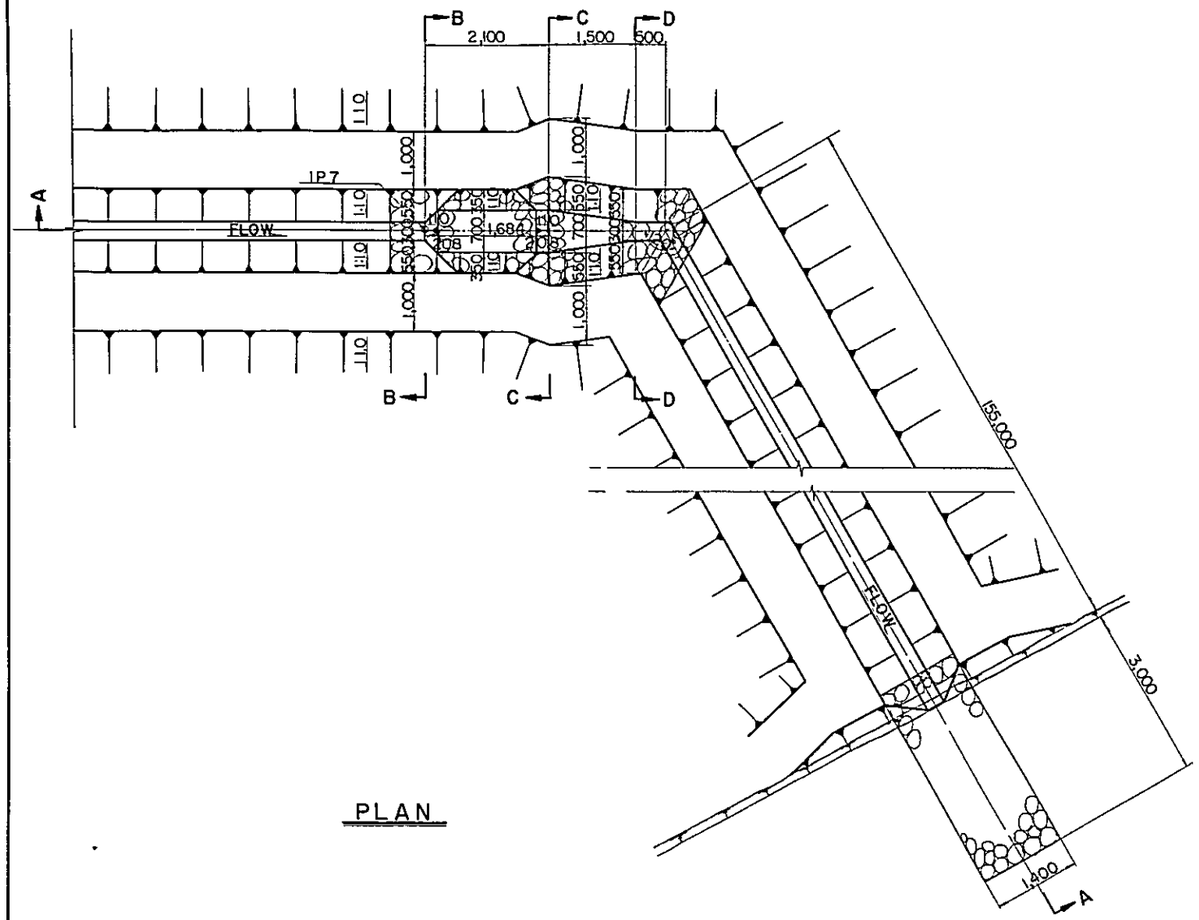
NOTES

All dimensions are given in millimeters
All elevations are given in meters

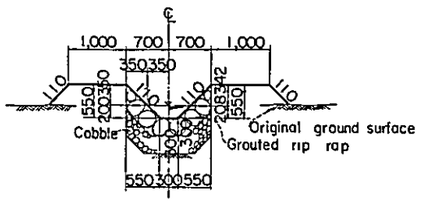
0000 1000 2000 3000
SCALE OF MILLIMETER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
LATERAL A1 WASTEWAY NO. 2
PLAN AND SECTION
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

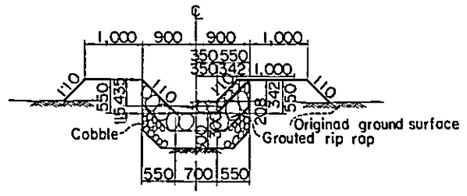
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO	S – 38



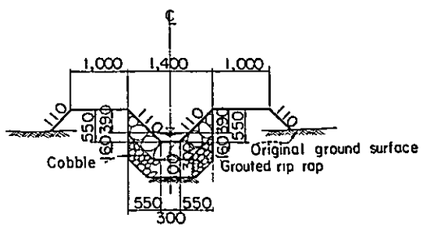
PLAN



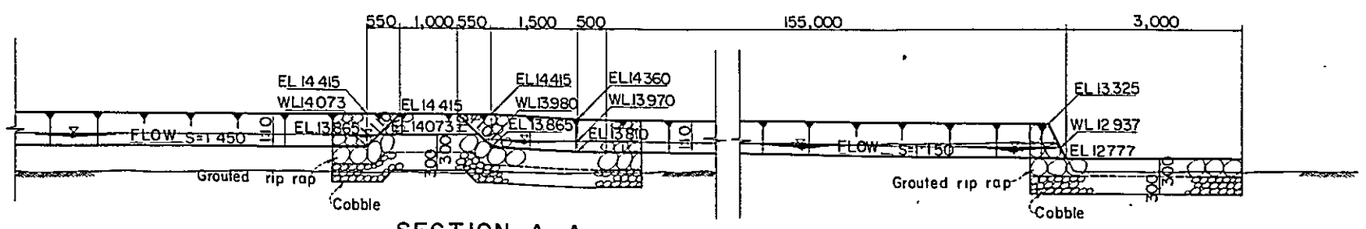
SECTION B-B



SECTION C-C



SECTION D-D



SECTION A-A

NOTES

All dimensions are given in millimeters

All elevations are given in meters

0 1,000 2,000 3,000

SCALE OF MILLIMETER

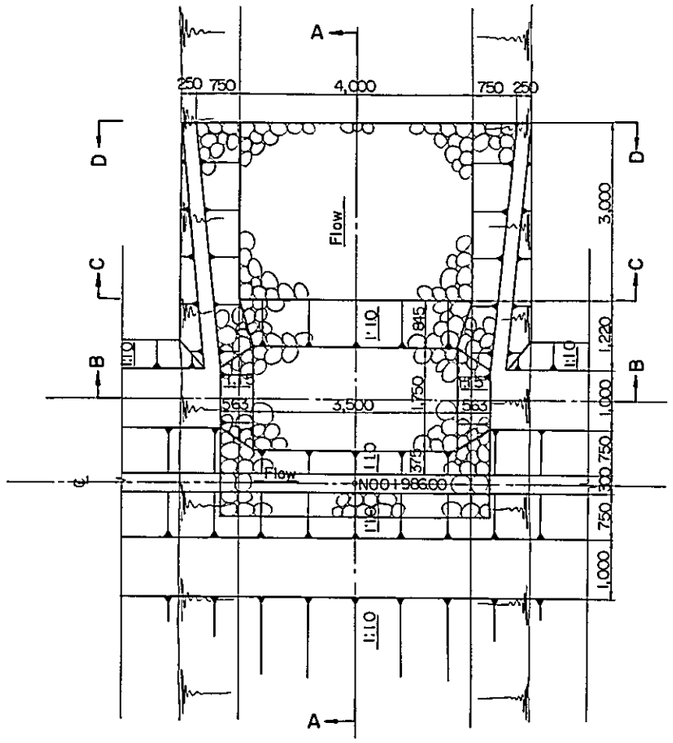
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL

REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG

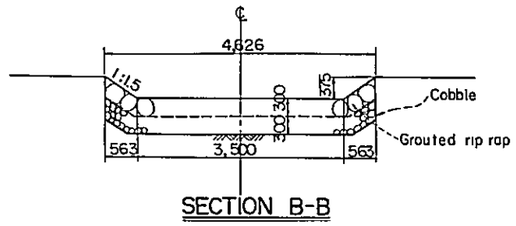
LATERAL A1 WASTEWAY NO.3
PLAN AND SECTION

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

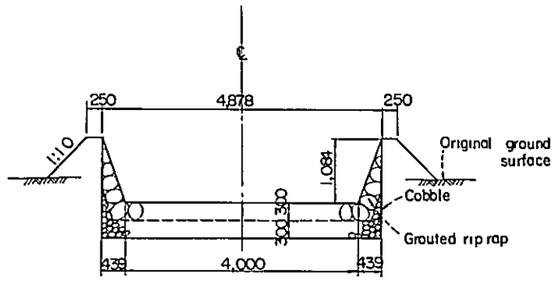
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO	S-39



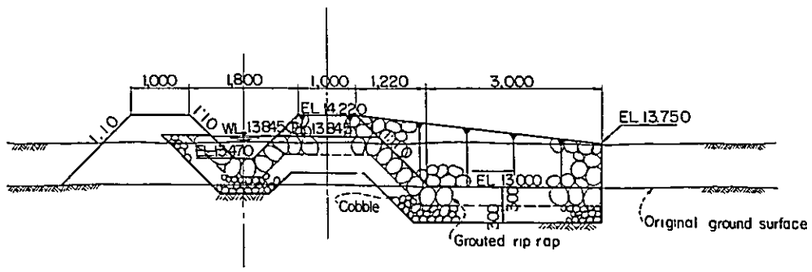
PLAN



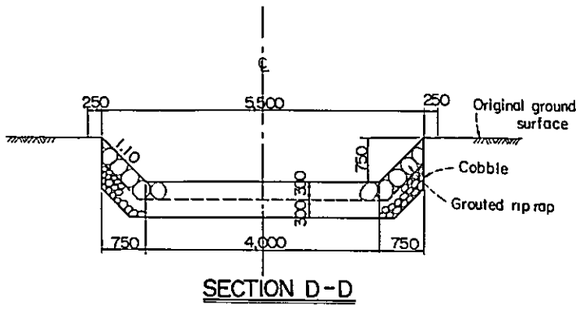
SECTION B-B



SECTION C-C



SECTION A — A



SECTION D-D

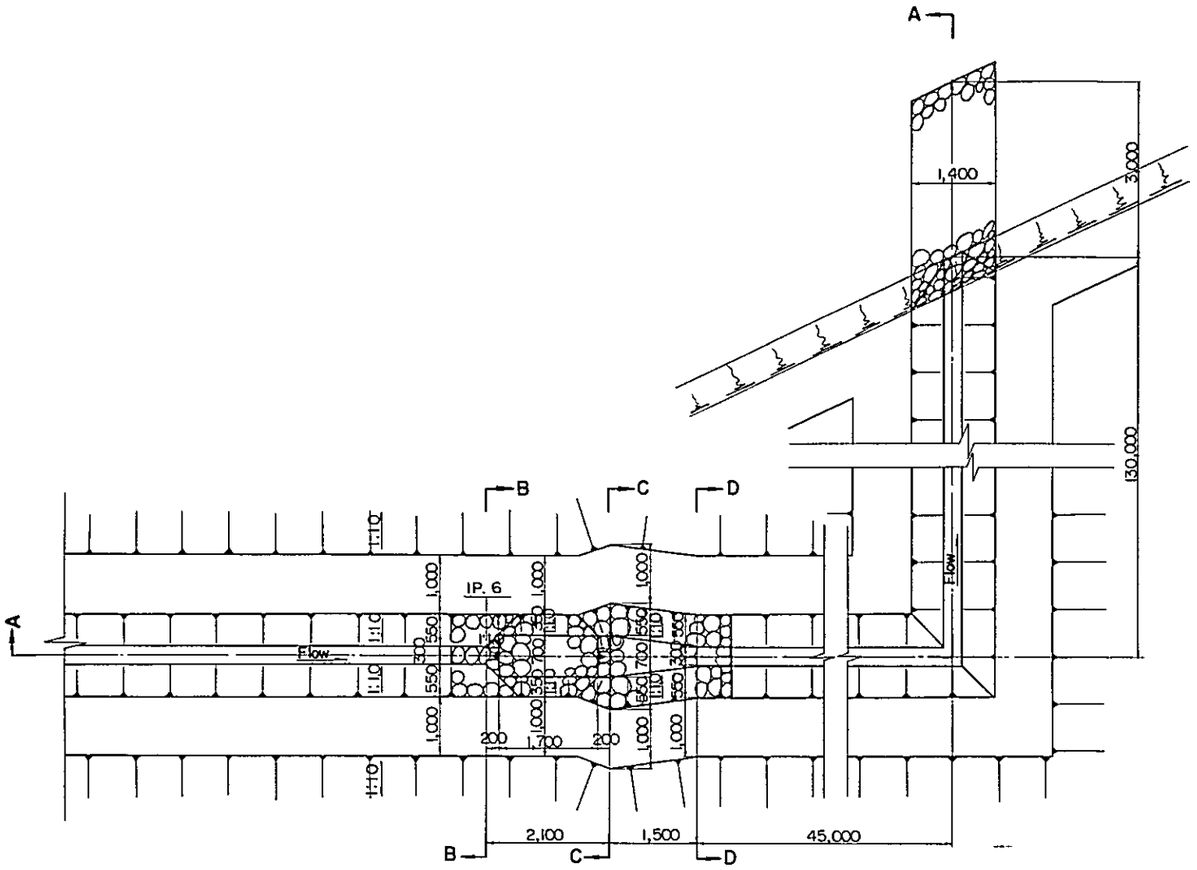
NOTES

All dimensions are given in millimeters
All elevations are given in meters.

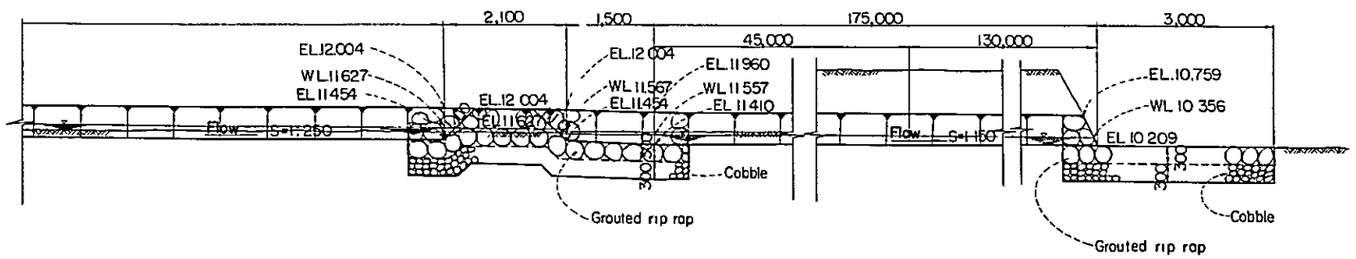
0 1,000 3,000
SCALE OF MILLIMETER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
LATERAL B WASTEWAY NO. 1
PLAN AND SECTION
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

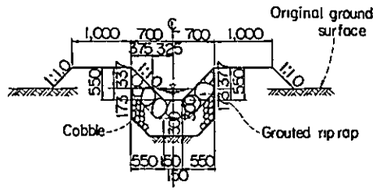
SCALE	AS SHOWN	DATE	
SHEET NO.	1 OF 1	DRAWING NO.	S-40



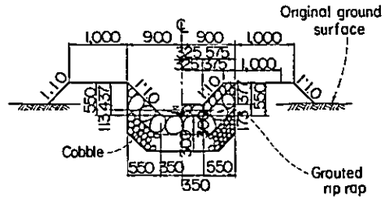
PLAN



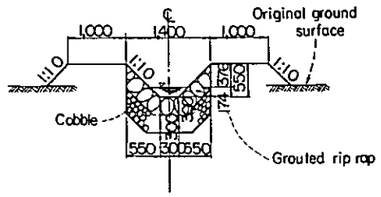
SECTION A – A



SECTION B-B



SECTION C-C



SECTION D-D

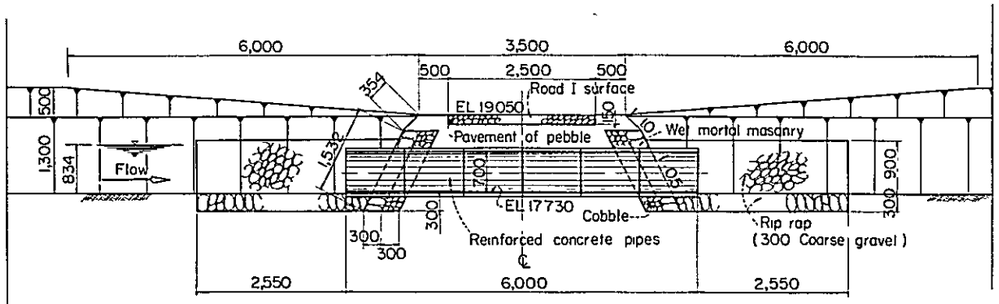
NOTES

All dimensions are given in millimeters
All elevations are given in meters

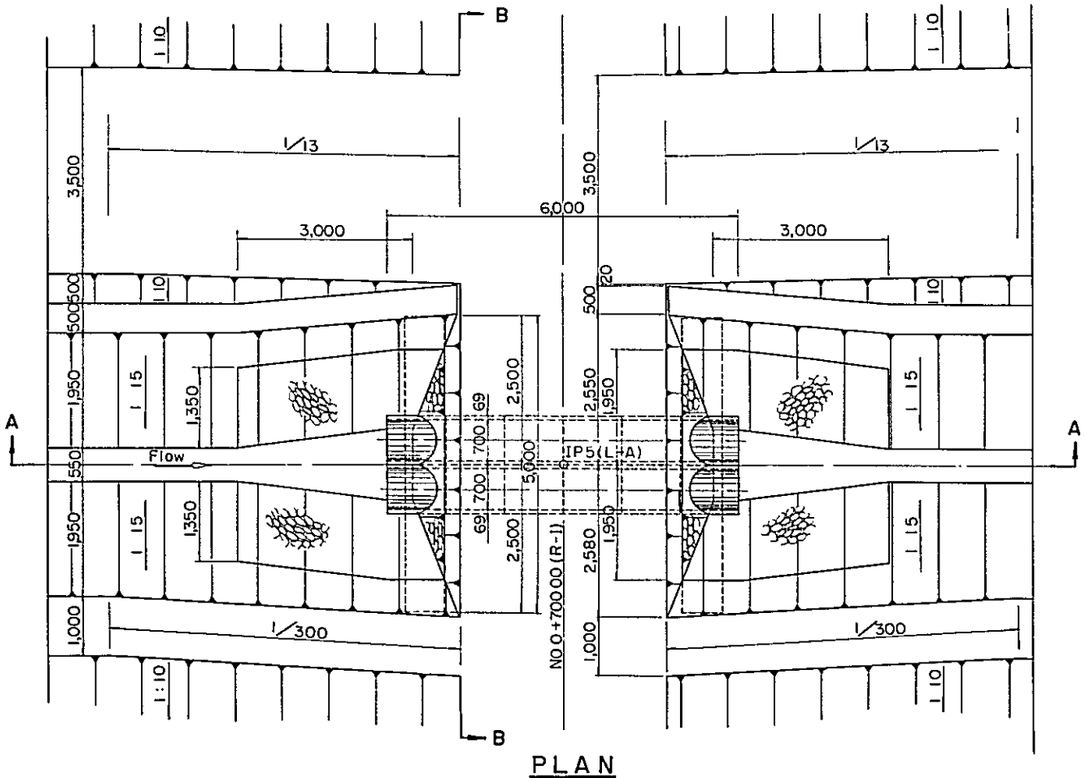
0 1,000 2,000 3,000
SCALE OF MILLIMETER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
LATERAL B WASTEWAY NO.2
PLAN AND SECTION
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

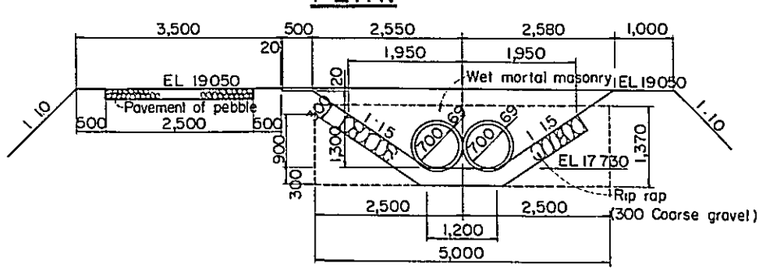
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO.	S-41



SECTION A – A



PLAN



SECTION B – B

NOTES

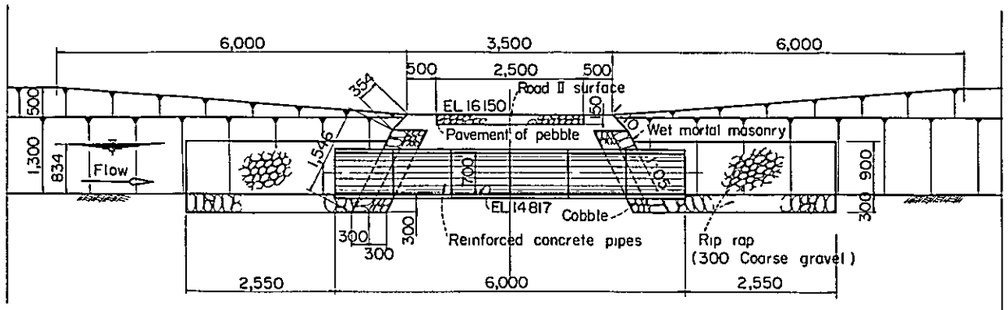
All dimesuns are given in millimeters

All stations and elevations are given in meters

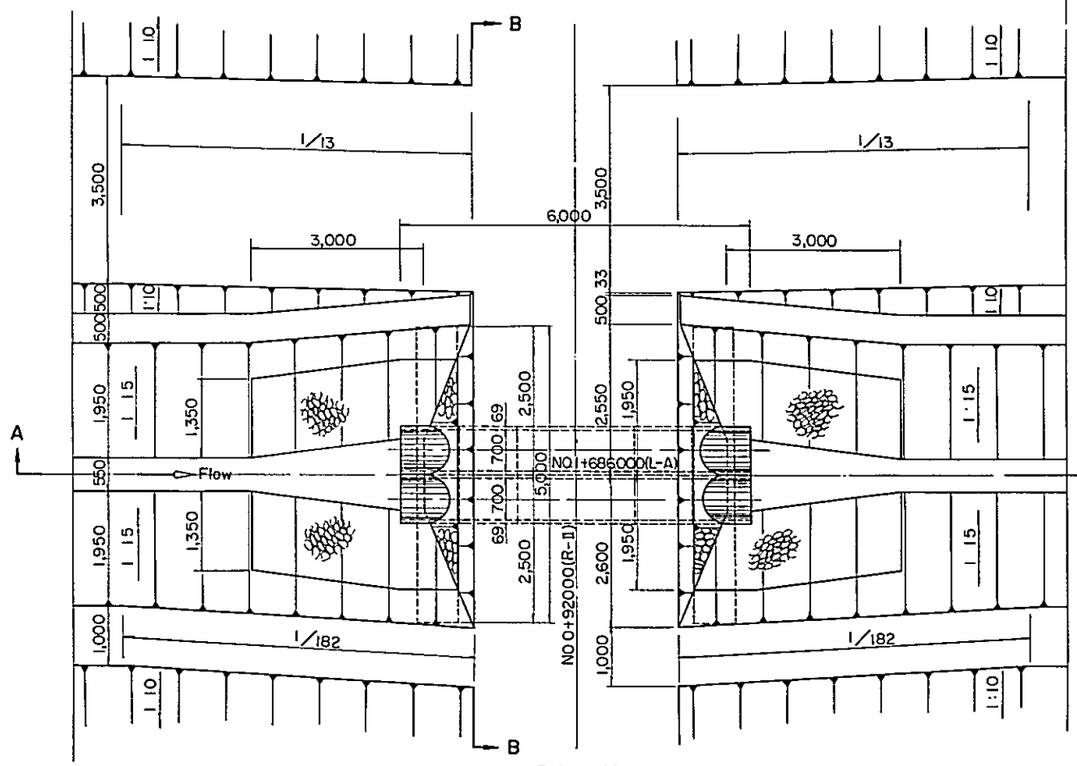
0 1,000 2,000 3,000

SCALE OF MILLIMETER

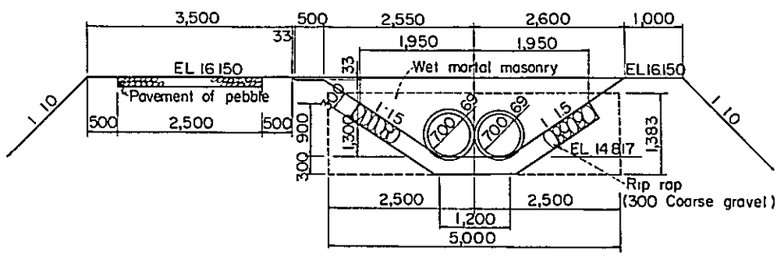
THE PHILIPPINES	
RICE AND CORN PRODUCTION COORDINATING COUNCIL	
REGIONAL RICE PRODUCTION CENTER SANMIGUEL – ALANGALANG	
LATERAL A CULUVERT NO.1 PLAN AND SECTION	
OVERSEAS TECHNICAL COOPERATION AGENCY GOVERNMENT OF JAPAN	
SCALE: AS SHOWN	DATE:
SHEET NO.: 1 OF 1	DRAWING NO.: S – 42



SECTION A — A



PLAN



SECTION B — B

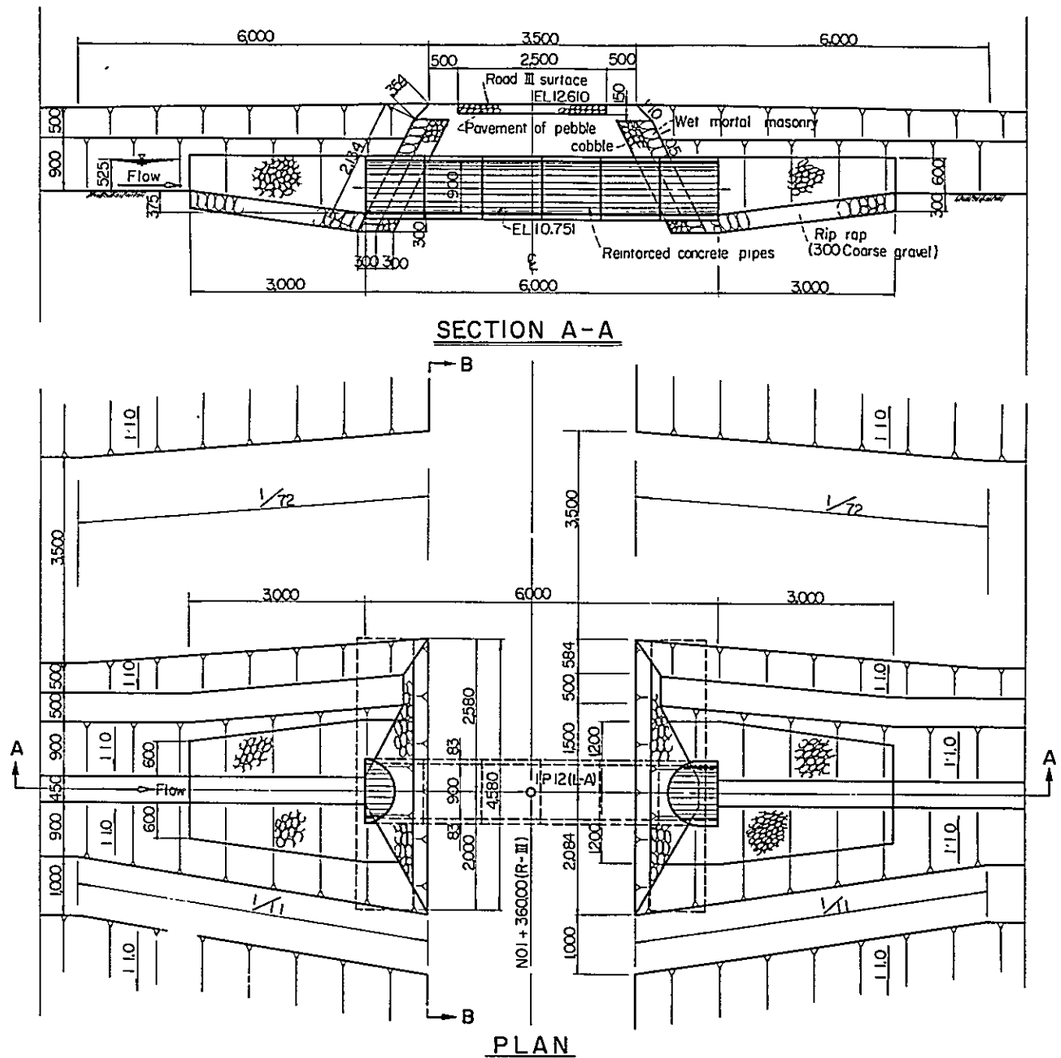
NOTES

All dimesions are given in millimeters.
All stations and elevations are given in meters

0 1,000 2,000 3,000
SCALE OF MILLIMETER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG
LATERAL A CULVERT NO2
PLAN AND SECTION
OVERSEAS TECHNICAL COOFARATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO.	1 OF 1	DRAWING NO.	S-43



NOTES

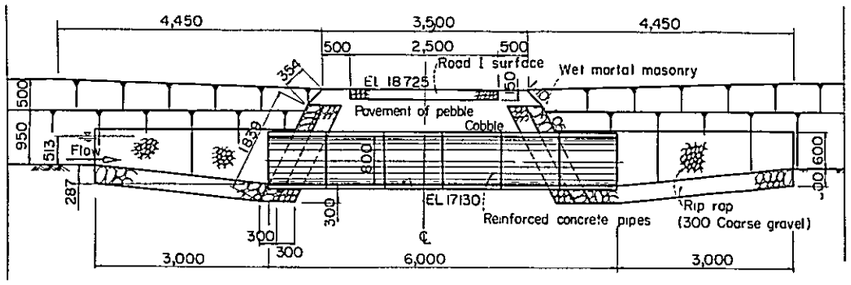
All dimesions are given in millimeters

All stations and elevations are given in meters.

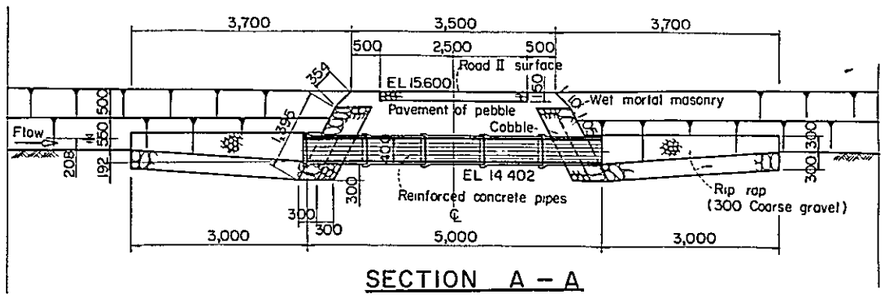
0.000 1.000 2.000 3.000 4.000

SCALE OF MILLIMETER

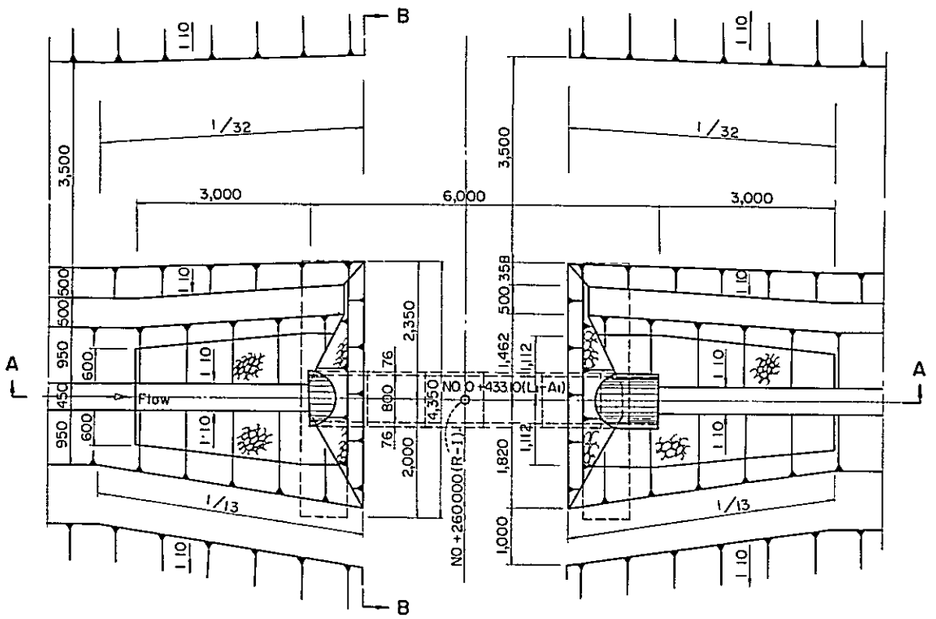
THE PHILIPPINES RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER SANMIGUEL – ALANGALANG			
LATERAL A CULVERT NO. 3 PLAN AND SECTION			
OVERSEAS TECHNICAL COOPERATION AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO	S – 44



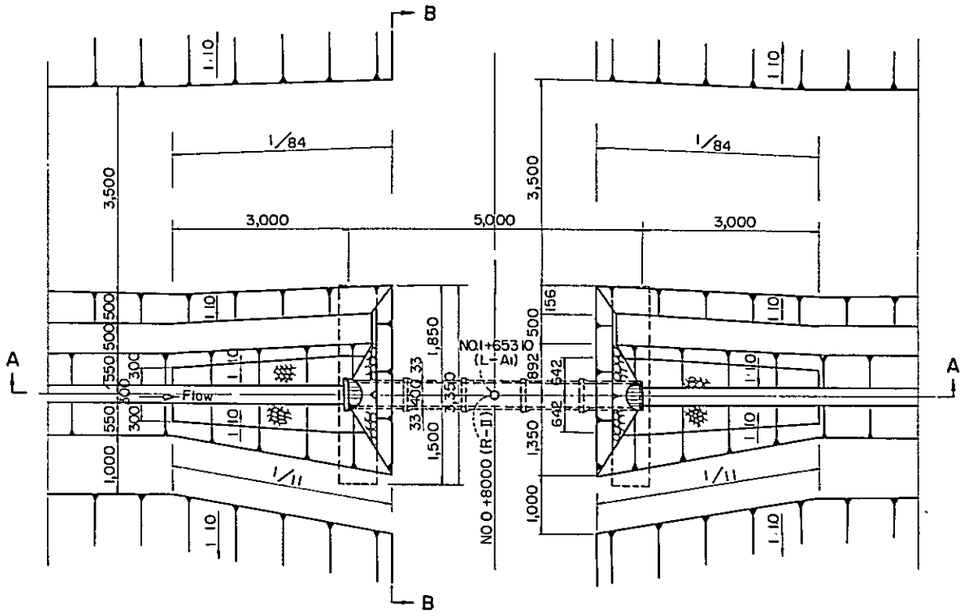
SECTION A – A



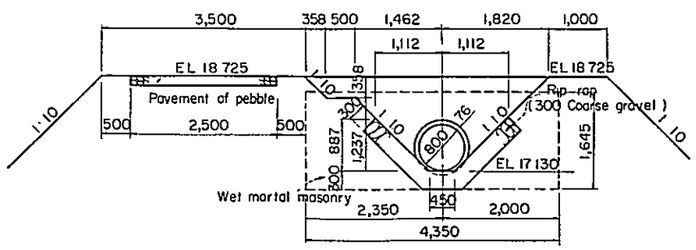
SECTION A – A



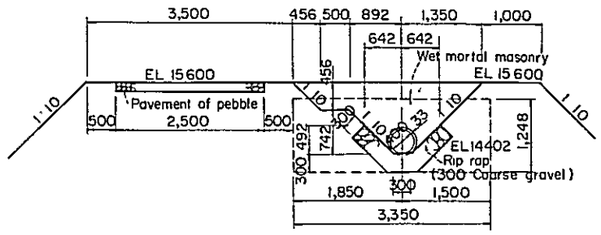
PLAN



PLAN



SECTION B – B



SECTION B – B

NOTES

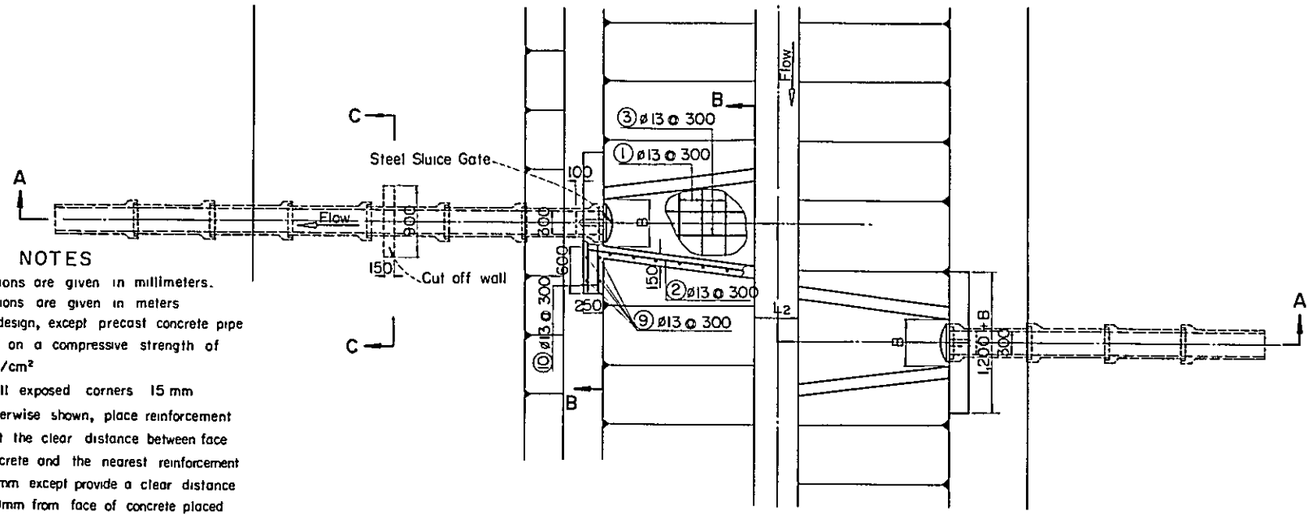
All dimnesions are given in millimeters

All stations and elevations are given in meters

0 1,000 2,000 3,000

SCALE OF MILLIMETERS

THE PHILIPPINES RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER SANMIGUEL – ALANGALANG			
LATERAL A1 CULVERT NO.1 AND NO 2 PLAN AND SECTION			
OVERSEAS TECHNICAL COOPARATION AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO.	1 OF 1	DRAWING NO.	S – 45

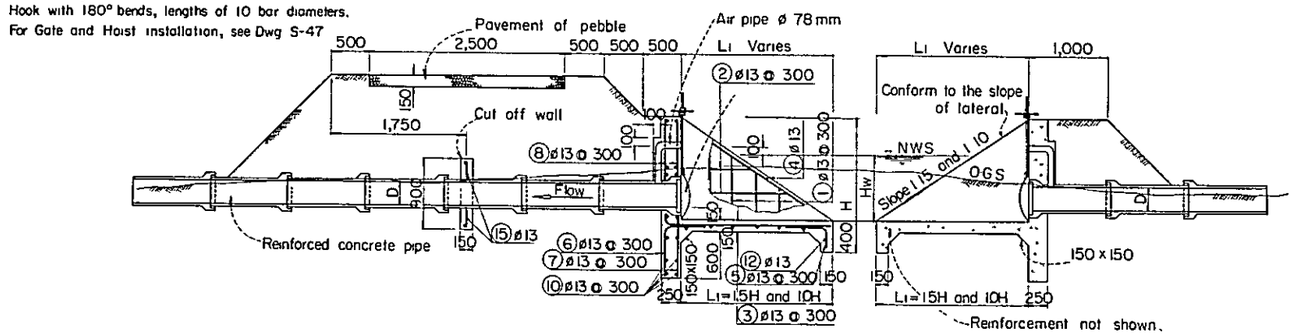


TYPE A

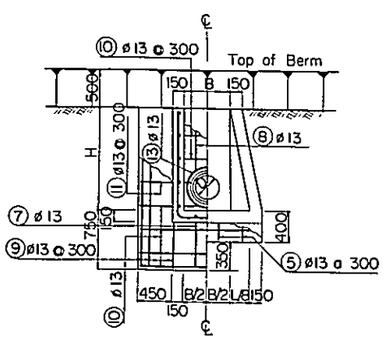
TYPE B

NOTES

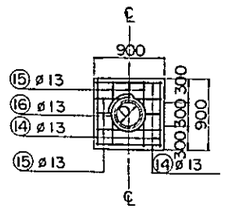
All dimesions are given in millimeters.
All elevations are given in meters
Concrete design, except precast concrete pipe based on a compressive strength of 80 kg/cm²
Chamfar all exposed corners 15 mm
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of concrete placed against earth.
Lap all bars 30 diameters at splices
All reinforcing steel to be plain bar with standard hook each end in addition to length shown
Hook with 180° bends, lengths of 10 bar diameters.
For Gate and Hoist installation, see Dwg S-47



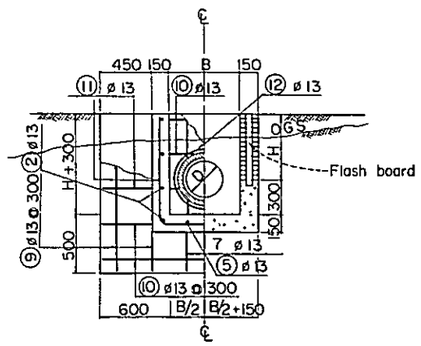
SECTION A – A



SECTION B – B

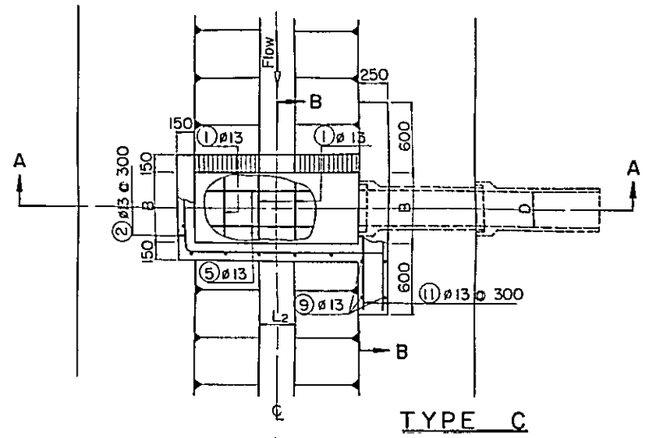


SECTION C-C

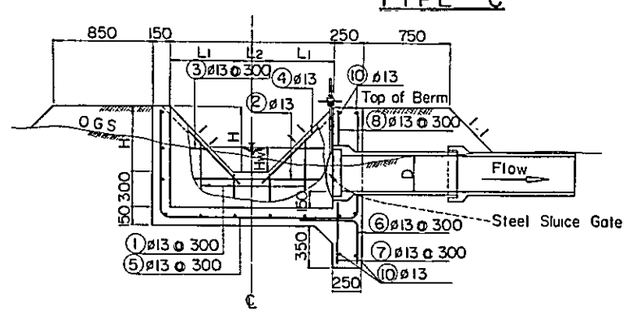


TYPE C SECTION B – B

0 1000 2000
SCALE OF MILLIMETER



TYPE C



TYPE A

CANAL SYSTEM	NAME	DIAMETER OF PIPE	B	DIMENSION L1	L2	H	Hw	STITON NUMBER
LATERAL A	III	150	450	1950	550	1300	834	NO0+5869O
	IV			1650	450	1100	704	NO2+7669O
	III	200	500	1950	550	1300	834	NO1+ 2690, NO1+16890, NO1+8869O
	IV			1650	450	1100	704	NO2+2069O, NO2+3669O
	III	250	550	1950	550	1300	834	NO1+6919O
	IV			1650	450	1100	704	NO2+669O, NO2+5469O, NO2+6469, NO3+2290
	V			900	450	900	525	NO3+6869O, NO4+2194O
	V	350	650	900	450	900	525	NO3+3669O

TYPE B

CANAL SYSTEM	NAME	DIAMETER OF PIPE	B	DIMENSION L1	L2	H	Hw	STITON NUMBER
LATERAL A	III	150	450	1950	550	1300	834	NO1+2690, NO1+18690, NO0+5869O
	IV			1650	450	1100	704	NO2+669O, NO2+7669O
	V	200	500	900	450	900	525	NO3+3669O, NO3+5269O, NO3+9469O
	III	250	550	1950	550	1300	834	NO1+4369O, NO1+8869O
	IV			1650	450	1100	704	NO3+2290
	V			900	450	900	525	NO3+6869O
LATERAL A1	I	150	450	950	450	950	513	NO0+500(R), NO0+453,10(L)
	I	200	500	950	450	950	513	NO0+4531O(R), NO0+500 (L)
	II	150	450	650	300	650	287	NO0+7931O(L)
LATERAL B	I	150	450	750	300	750	375	NO0+1850(L), NO1+200(L), NO0+6800(L)

TYPE C

CANAL SYSTEM	NAME	DIAMETER OF PIPE	B	DIMENSION L1	L2	H	Hw	STITON NUMBER
LATERAL A1	III	150	450	550	300	550	208	NO1+6731O(R), NO1+9802Z(R), NO1+8131O(L)
	II	200	550	650	300	650	287	NO1+1131O(R)
	II	150	450	650	300	650	287	NO0+9331O(L)
LATERAL B	I	250	550	750	300	750	375	NO0+1850(R), NO0+7600(R)
	II			550	300	550	200	NO1+3200(L)

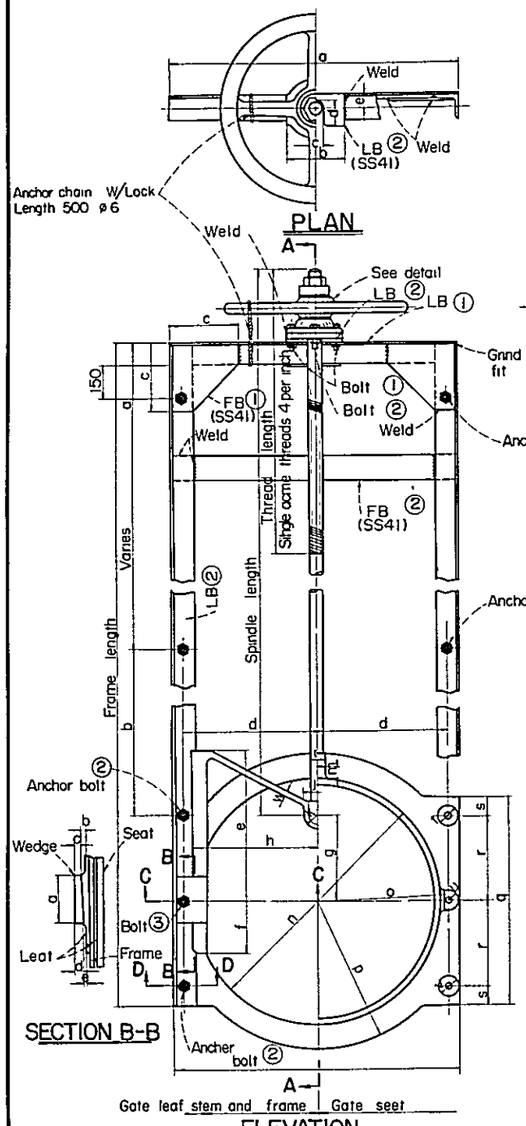
0 500 1,000 2,000
SCALE OF MILLIMETER

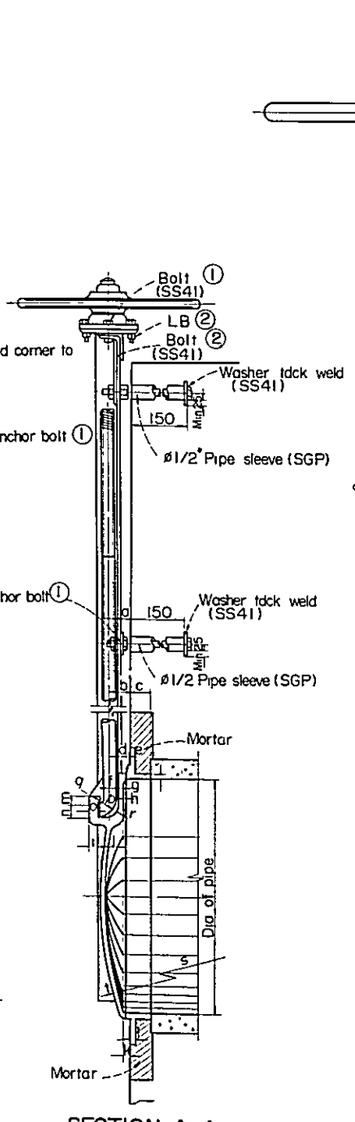
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL - ALANGALANG

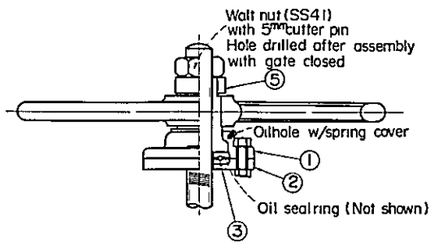
TURN OUT PAN AND SECTION

OVERSEAS TECHNICAL COOFARATION AGENCY
GOVERNMENT OF JAPAN

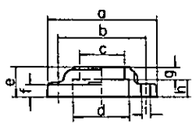
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 2	DRAWING NO	S-46



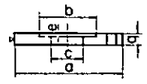


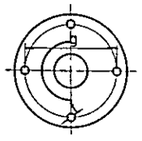


DETAIL OF HOIST

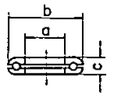


① METAL COVER (FC20)

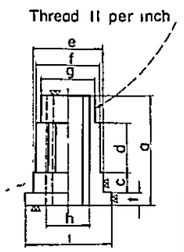




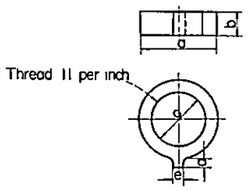
② METAL SEAT (SS41)



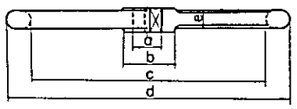
③ THRUST BEARING (SN)

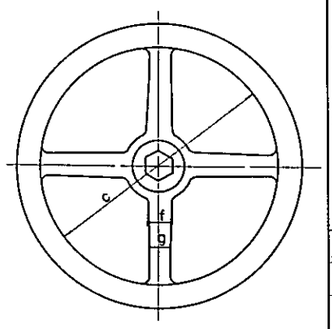


④ THRED METAL (BC2)

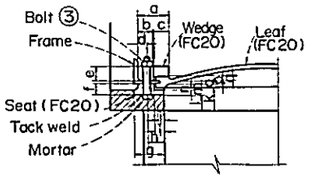


⑤ LOCK NUT (FC20)

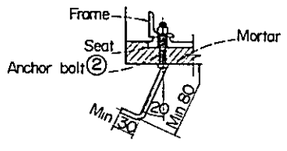




⑥ HAND WHEEL (FC20)



SECTION C-C



SECTION D-D

NOTE; All anchor bolts shall be galvanized

DIMENSION TABLE

PIPE DIA		200	300	400	500	600	700	800	900
SPINDLE		ø29 (1 1/8")				ø35 (1 3/8")		ø41 (1 5/8")	
PLAN	a	345	445	545	650	760	865	975	1105
	b	120				144		163	
	c	36				42		48	
	d	57				50		61.5	
	e	34				37		425	
ELEVATION	a	—				300		400	
	b	1500 Mix							
	c	90			150			200	
	d	125	175	225	285	340	400	450	505
	e	120	160	210	250	300	350	400	450
	f	60	75	90	125	140	160	180	200
	g	50	75	100	150	170	200	220	250
	h	112	162	212	267	322	375	427	480
	i	345	445	545	650	760	865	975	1105
	j	55				60		75	
	k	275				30		375	
	l	20				30			
	m	20							
	n	220	320	420	524	630	736	840	944
	o	125	165	215	270	325	378	430	483
	p	130	185	240	290	350	400	450	520
	q	190	250	330	430	480	520	640	700
	r	75	100	140	180	200	220	270	300
	s	20	25		35	40		45	50
	t	30			40			45	50
	u	15			20		22.5		25
	v	145			175			205	
	w	10		12		15		180	
SECTION A-A	a	15				17		21	
	b	49				54		63.5	
	c	43		45	50	52		65	
	d	30				35		44	
	e	5				3		5	
	f	32				38		48	
	g	6		8		10		12	
	h	63		43		6		10	
	i	143		133		15	5	10	0
	j	45		48		60	70	80	95
	k	7				9			
	l	8		10		12		15	
	m	10		12		14		16	18
	n	30				37		44	
	o	7				10		12	
	p	33				40		49	
	q	4				5		7	
	r	10							
	s	160	360	610	860	1050	1140	1300	1340
	t	6		8		10		12	
SECTION B-B	a	50				80		100	110
	b	7				8			
	c	13				15			18
	d	18				20			23
	e	2				3			
SECTION C-C	a	675		80		895	1025	1035	
	b	495		47		465	545	505	
	c	15		30		40	45	50	
	d	395		32		245	345	285	
	e	29		32			34	40	
	f	23	25	27	29		38		
	g	50	60	65		825		925	
	h	25	35	40		50		55	
	i	12	17	22	25	27	30		
	j	8		10		12		15	
	k	62	64	69	71		845		
	l	35			40			50	
	m	8		10		14		15	
	n	7				9			
	o	7						11	
	p	10						11	
	q	8			9			10	14
L BAR	1	65x65x8						75x75x9	
	2	75x75x9						90x90x10	
F.B.	1	90x7			150x7			200x7	
	2	65x8						75x9	
BOLT	1	ø9x60				ø12x70		ø12x75	
	2	ø9x45				ø12x55		ø12x60	
	3	ø13x95			ø16x110			ø19x160	
ANCH OR BOLT	1	ø13x220			ø16x220			ø19x220	
	2	ø13			ø16			ø19	

DIMENSION TABLE

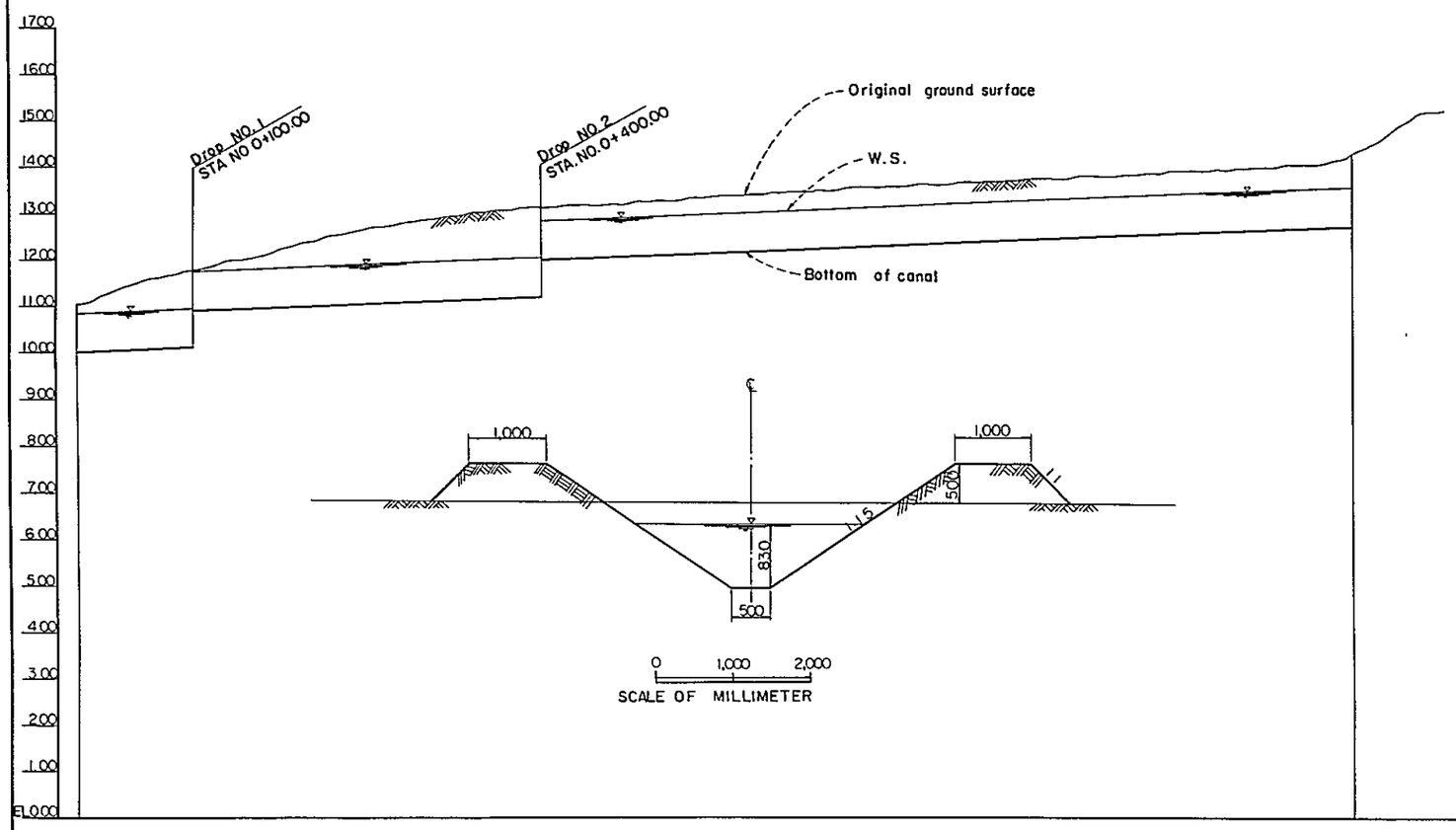
TYPE		I	II	III
PIPE DIA		200	600	800
		~500	~700	~900
1	a	120	144	163
	b	95	114	128
	c	51	60	68
	d	67	76	88
	e	33	36	41
	f	12	14	16
	g	10	12	15
	h	23	24	26
	i	11	14	
	j	95	114	128
2	a	120	144	163
	b	66	75	88
	c	36	42	48
	d	10	13	
	e	4	5	5
	f	11	14	
	g	95	114	128
3	a	34	42	48
	b	66	75	87
	c	14	16	17
4	a	88	93	107
	b	11		12
	c	15	17	19
	d	42		51
	e	51	60	68
	f	45	57	65
	g	43	46	54
	h	30	36	42
	i	66	75	87
5	a	65	64	68
	b	22		
	c	40	43	51
	d	6	8	
	e	12	8	
6	a	47	54	60
	b	70	88	100
	c	430		
	d	500		
	e	42		51
	f	30	40	55
	g	22	32	35
	h	54	62	69

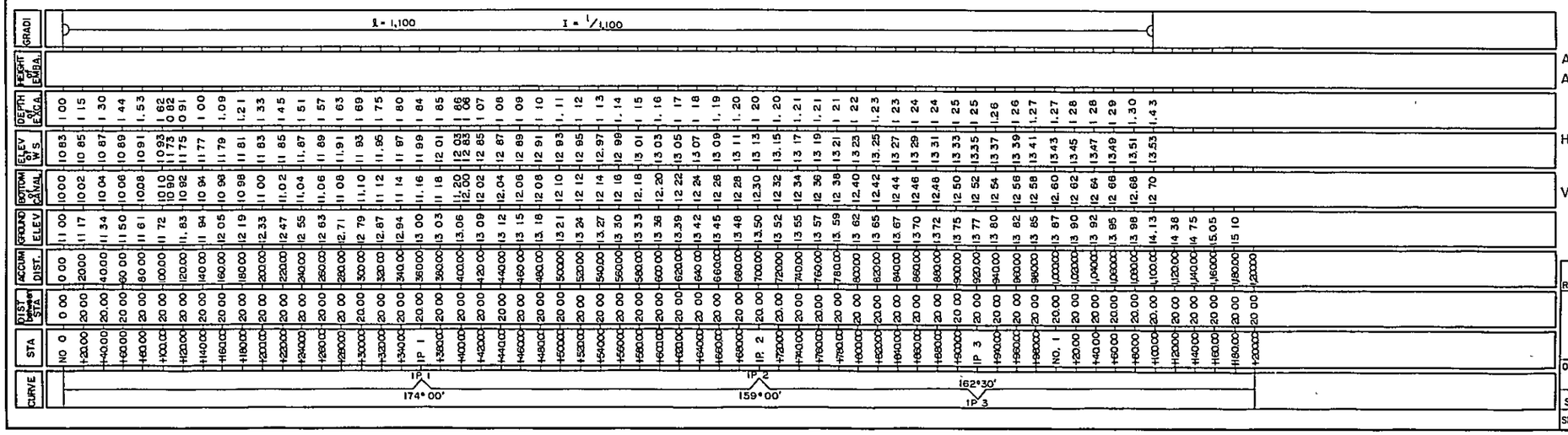
MATERIAL CODE

LB	Angle bar
FB	Flat bar
SS41	Steel
FC20	Cast iron
BC2	Cast bronze
SGP	Galvanized steel gas pipe
SN	Special order make

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
TUROUT
INSTALL ASSEMBLY OF GATES
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE		DATE	
SHEET NO	1 OF 2	DRAWING NO	S – 47





NOTES

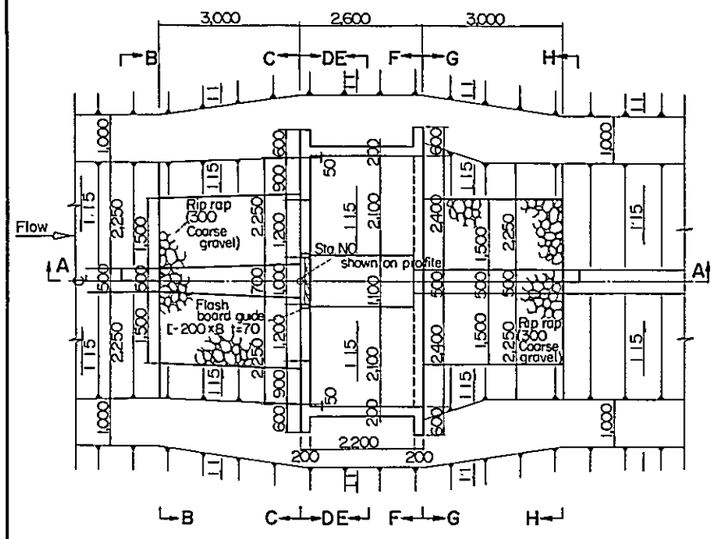
All dimensions are given in millimeters
All stations and elevations are given in meters

Horizontal scale 0 50 100 SCALE OF METER

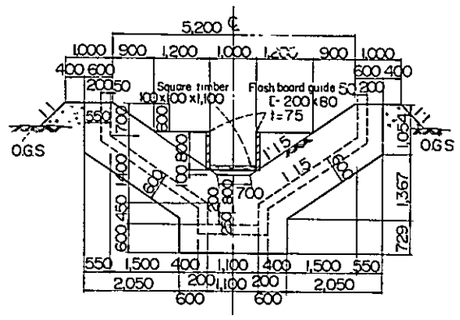
Vertical scale 0 1 2 3 SCALE OF METER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG
DRINAGE CANAL PROFILE
OVERSEAS TECHNICAL COOPERATIONS AGENCY
GOVERNMENT OF JAPAN

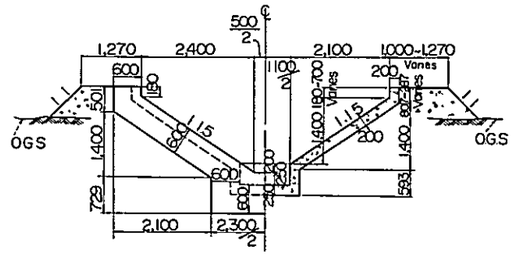
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO	S — 48



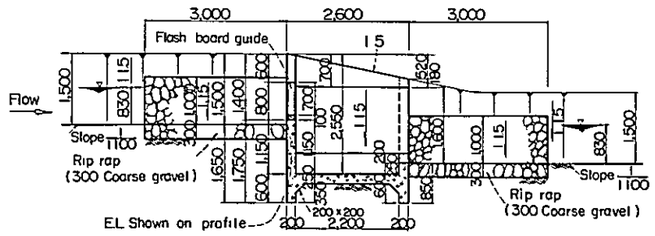
PLAN



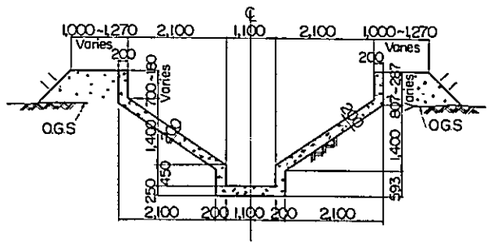
ELEVATION D-D



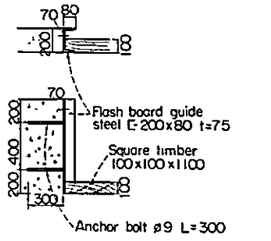
SECTION F-F



SECTION A-A



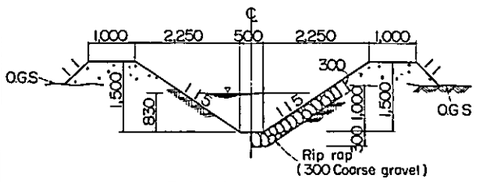
SECTION E-E



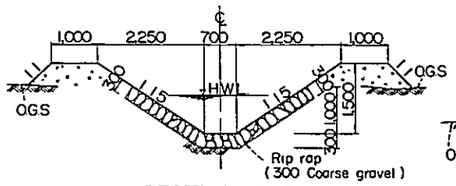
DETAIL OF FLASH BOARD

NOTES

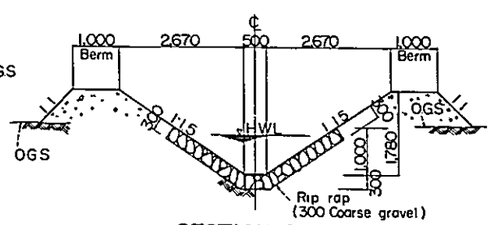
All dimesions are given in millimeters
See drawing for reinforcement.
Concrete design based on a compressive strength of 80 kg/cm².
Chamfer all exposed corners 15 mm.



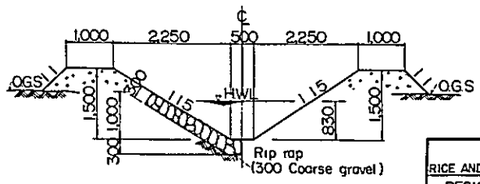
SECTION B-B



SECTION C-C



SECTION G-G

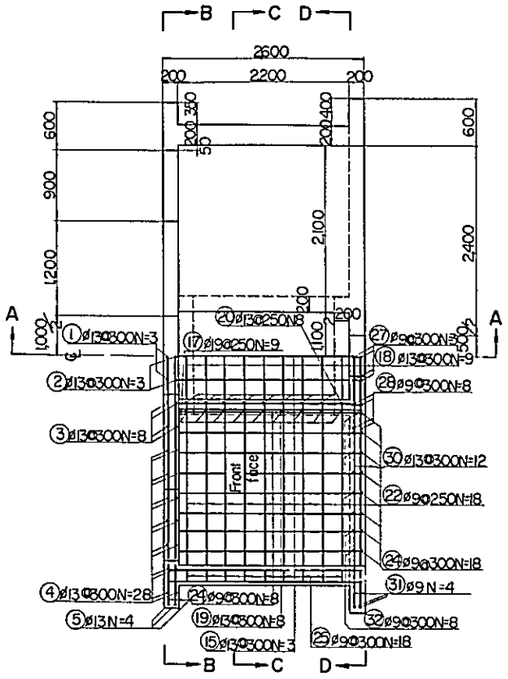


SECTION H-H

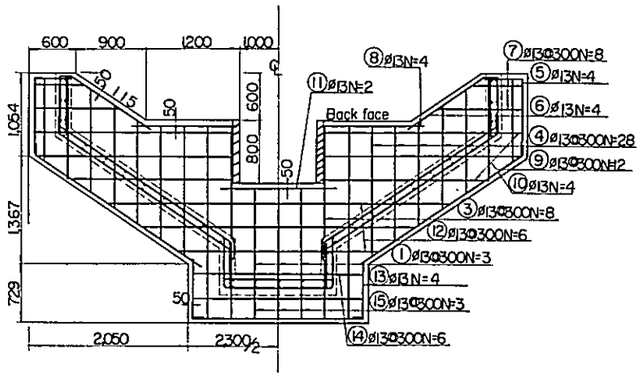
1,000 0 1,000 2,000 3,000 4,000

SCALE OF MILLIMETER

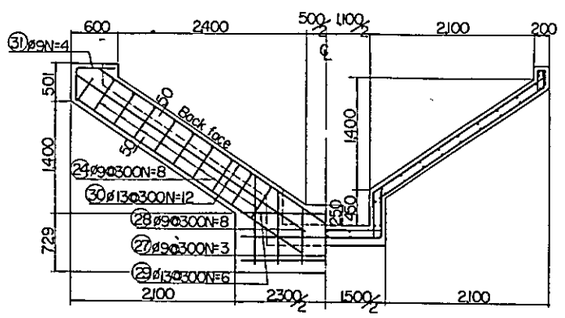
THE PHILIPPINES	
RICE AND CORN PRODUCTION COORDINATING COUNCIL	
REGIONAL RICE PRODUCTION CENTER	
SANMIGUEL-- ALANGALANG	
DRINAGE CANAL DROP	
PLAN AND SECTION	
OVERSEAS TECHNICAL COOPERATION AGENCY	
GOVERNMENT OF JAPAN	
SCALE: AS SHOWN	DATE:
SHEET NO.: 1 OF 2	DRAWING NO.: S - 49



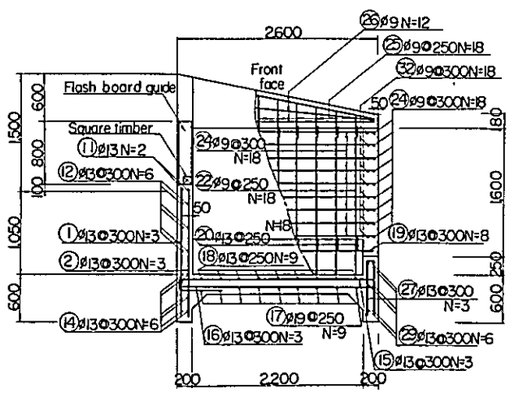
PLAN



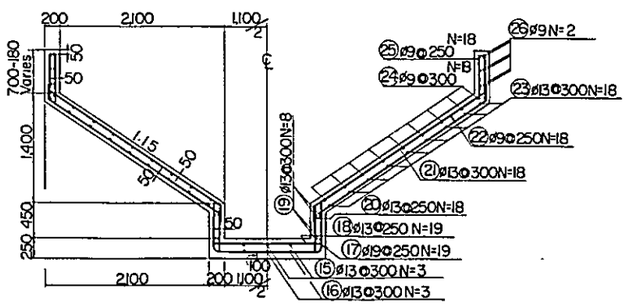
ELEVATION A-A



SECTION D-D



SECTION B-B



SECTION C-C

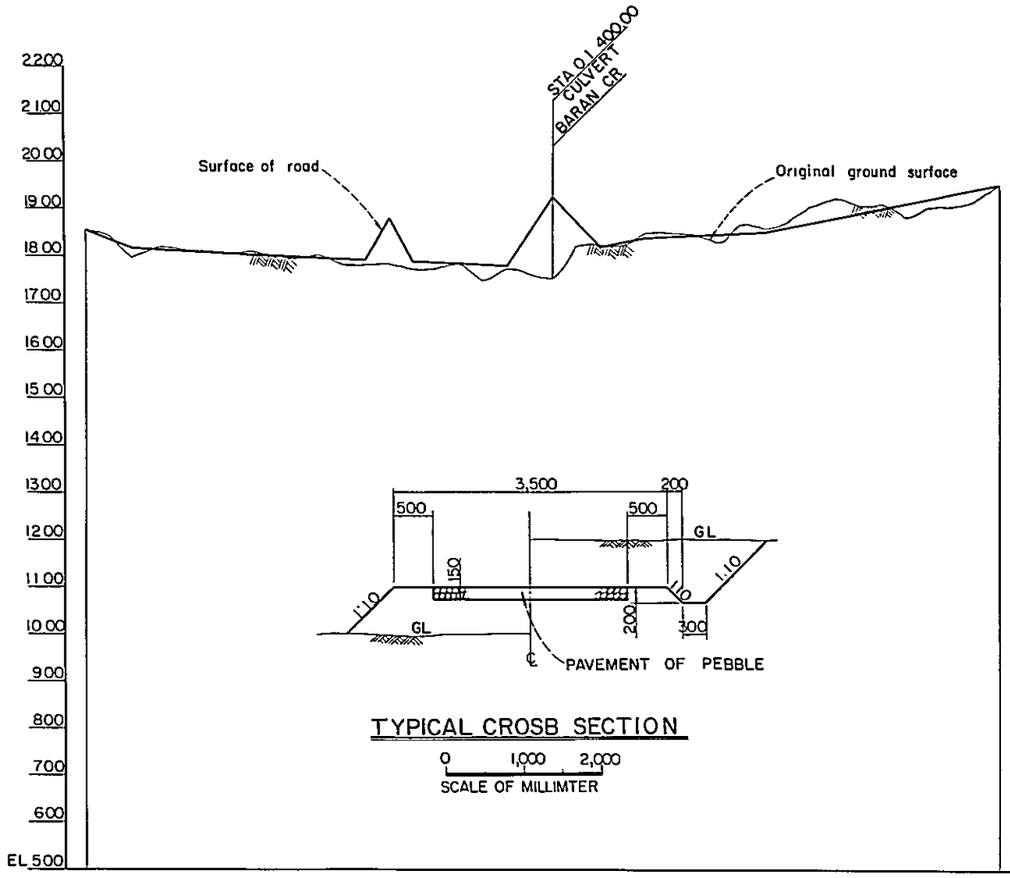
NOTES

All dimesions are given in millimeters
See drawing for plan and section.
Unless otherwise shown, place reinforcement so that the clear distance between face of concrete and the nearest reinforcement is 50mm except provide a clear distance of 100mm from face of cocrete placed against earth.
Lap all bars 30 dirmeters at splices.
All reinforcing steel to be plain bar with standard hook each end in addition to length shown.
Hook with 180° bends, lengths of 10 bar dirmeters.

0 500 1000 2000 3000
SCALE OF MILLIMETER

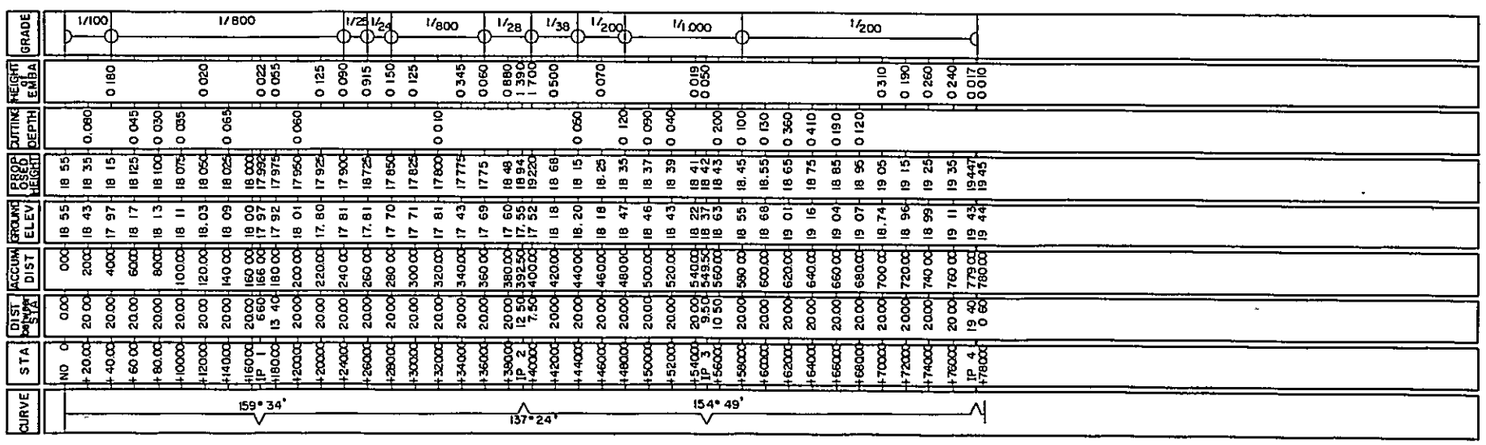
THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL– ALANGALANG
DRINAGE CANAL DROP
REINFORCEMENT SHEET
OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO	2 OF 2	DRAWING NO	S–50



TYPICAL CROSB SECTION

0 1,000 2,000
SCALE OF MILLIMTER



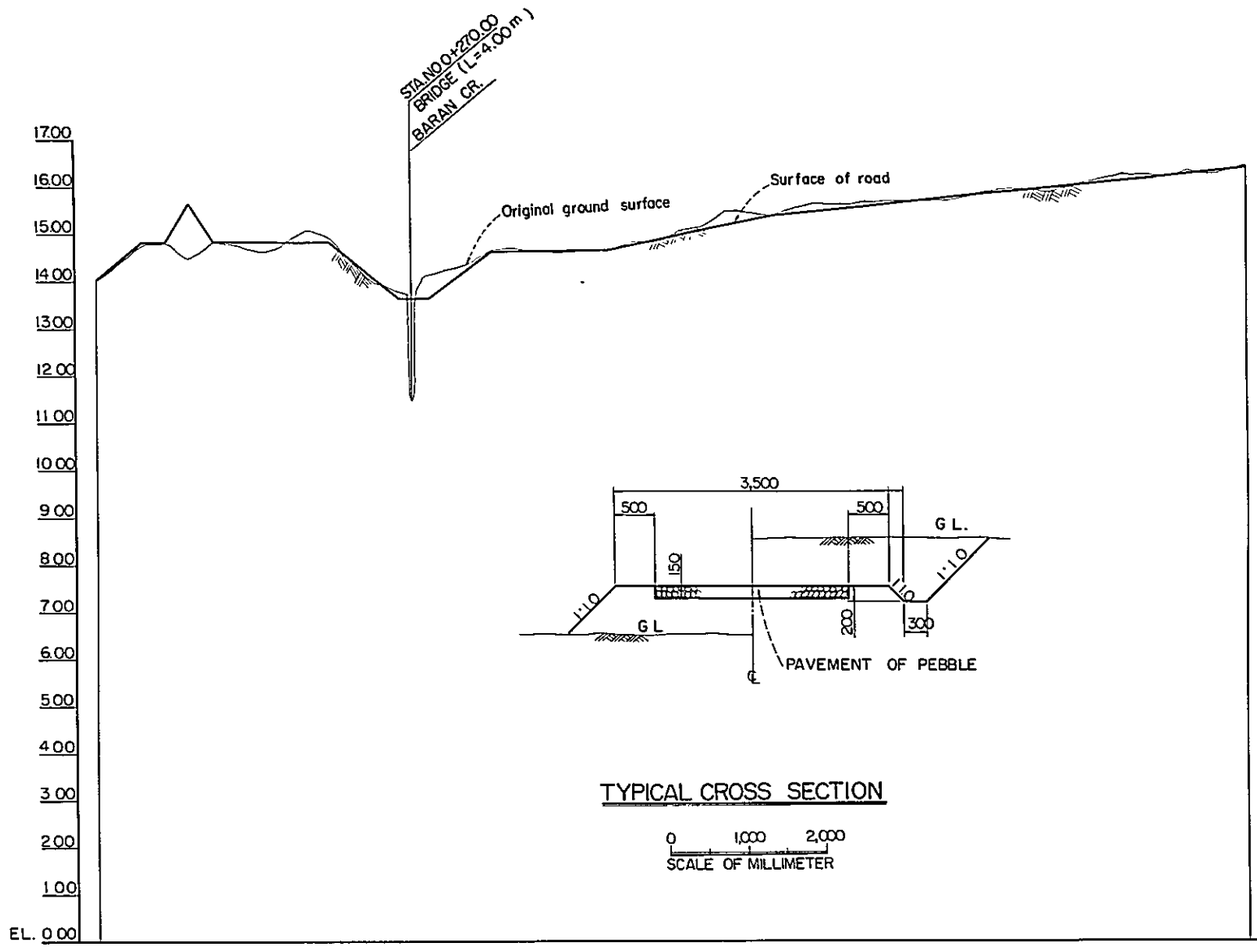
NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters.

Horizontal scale 0 50 100 SCALE OF METER

Vertical scale 0 1 2 3 SCALE OF METER

THE PHILIPPINES RICE AND CORN PRODUCTION COORDINATING COUNCIL REGIONAL RICE PRODUCTION CENTER SANMIGUEL – ALANGALANG ACCESS ROAD I PROFILE			
OVERSEAS TECHNICAL COOPERATION AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO	S – 51



TYPICAL CROSS SECTION

0 1,000 2,000
SCALE OF MILLIMETER

GRADE: 1/50 – LEVEL – 1/25 – 1/25 – LEVEL – 1/50 – LEVEL – 1/60 – LEVEL – 1/200 – 1/400 – LEVEL

STA.	DIST. between STA.	ACCUM. DIST.	GROUND ELEV.	PROPOSED HEIGHT	CUTTING DEPTH	HEIGHT of EMBA.
NO 0	0.00	0.00	14.00	14.00		
+20.00	20.00	20.00	14.34	14.40		0.060
+40.00	20.00	40.00	14.73	14.80		0.070
+60.00	20.00	60.00	14.79	14.80		0.010
+80.00	20.00	80.00	14.44	15.60		1.160
+100.00	20.00	100.00	14.77	14.80		0.030
+120.00	20.00	120.00	14.73	14.80		0.070
+140.00	20.00	140.00	14.61	14.80		0.190
+160.00	20.00	160.00	14.74	14.80		0.060
+180.00	20.00	180.00	15.05	14.80	0.250	
+200.00	20.00	200.00	14.88	14.80	0.080	
IP. 1	4.15	204.15	14.80	14.717	0.083	
+220.00	15.85	220.00	14.37	14.40		0.030
+240.00	20.00	240.00	13.89	14.00		0.110
+260.00	20.00	260.00	13.72	13.600	0.120	
+266.00	6.00	266.00	13.70	13.600	0.100	
+268.00	2.00	268.00	[illegible]	13.600		1.880
+270.00	2.00	270.00	[illegible]	13.600		2.230
+272.00	2.00	272.00	[illegible]	13.600		2.110
+274.00	2.00	274.00	13.80	13.600	0.200	
+280.00	6.00	280.00	[illegible]	[illegible]	[illegible]	
IP 2	6.58	286.58	[illegible]	[illegible]	[illegible]	
+300.00	13.42	300.00	14.20	13.933	0.267	
+320.00	20.00	320.00	14.31	14.267	0.043	
+340.00	20.00	340.00	14.62	14.60	0.020	
+360.00	20.00	360.00	14.65	14.60	0.050	
+380.00	20.00	380.00	14.59	14.60		0.010
+400.00	20.00	400.00	14.54	14.60		0.060
+420.00	20.00	420.00	14.60	14.60		
+440.00	20.00	440.00	14.57	14.60		0.030
+460.00	20.00	460.00	14.74	14.70	0.040	
+480.00	20.00	480.00	14.76	14.80		0.040
+500.00	20.00	500.00	14.96	14.90	0.060	
+520.00	20.00	520.00	15.05	15.00	0.050	
+540.00	20.00	540.00	15.38	15.10	0.280	
+560.00	20.00	560.00	15.36	15.20	0.160	
+580.00	20.00	580.00	15.30	15.30		
+600.00	20.00	600.00	15.46	15.35	0.110	
+620.00	20.00	620.00	15.56	15.40	0.160	
+640.00	20.00	640.00	15.56	15.45	0.110	
IP 3	6.66	646.66	15.56	15.47	0.090	
+660.00	13.34	660.00	15.61	15.50	0.110	
+680.00	20.00	680.00	15.62	15.55	0.070	
+700.00	20.00	700.00	15.62	15.60	0.020	
+720.00	20.00	720.00	15.62	15.65		0.030
+740.00	20.00	740.00	15.64	15.70		0.060
+760.00	20.00	760.00	15.78	15.75	0.030	
+780.00	20.00	780.00	15.86	15.80	0.060	
+800.00	20.00	800.00	15.86	15.85	0.010	
+820.00	20.00	820.00	15.80	15.90		0.100
+840.00	20.00	840.00	15.93	15.95		0.020
+860.00	20.00	860.00	16.05	16.00	0.050	
+880.00	20.00	880.00	16.16	16.05	0.110	
+900.00	20.00	900.00	16.17	16.10	0.070	
+920.00	20.00	920.00	16.11	16.15		0.040
+940.00	20.00	940.00	16.21	16.20	0.010	
+960.00	20.00	960.00	16.20	16.25		0.050
+980.00	20.00	980.00	16.33	16.30	0.030	
IP 4	2.00	982.00	16.32	16.30	0.020	
+983.00	1.00	983.00	16.32	16.30	0.020	

CURVE: 138°34' – 167°43' – 126°18'

NOTES

All dimensions are given in millimeters.
All stations and elevations are given in meters

Horizontal scale 0 50 100 SCALE OF METER

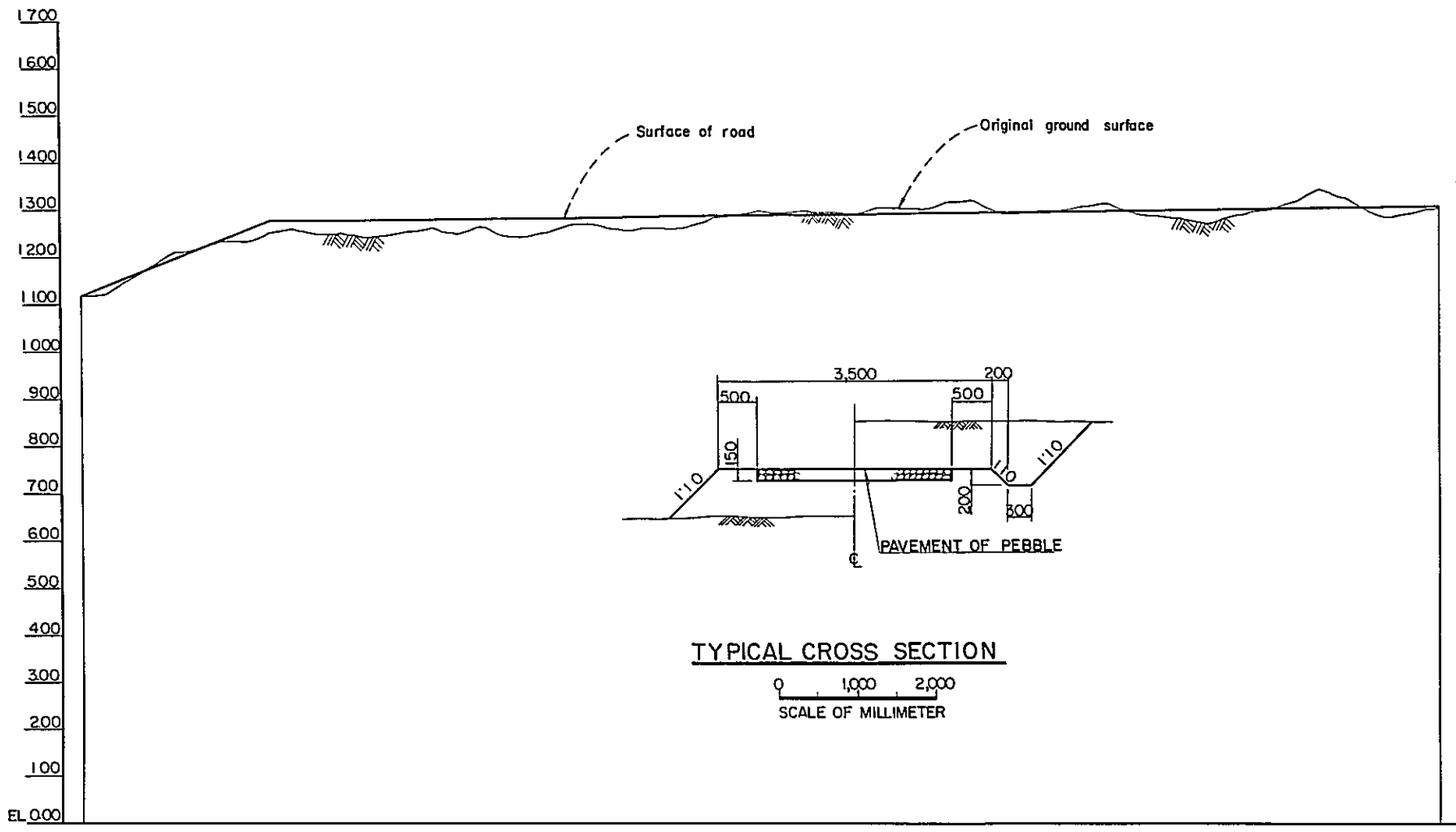
Vertical scale 0 1 2 3 SCALE OF METER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL — ALANGALANG

ACCESS ROAD II
PROFILE

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

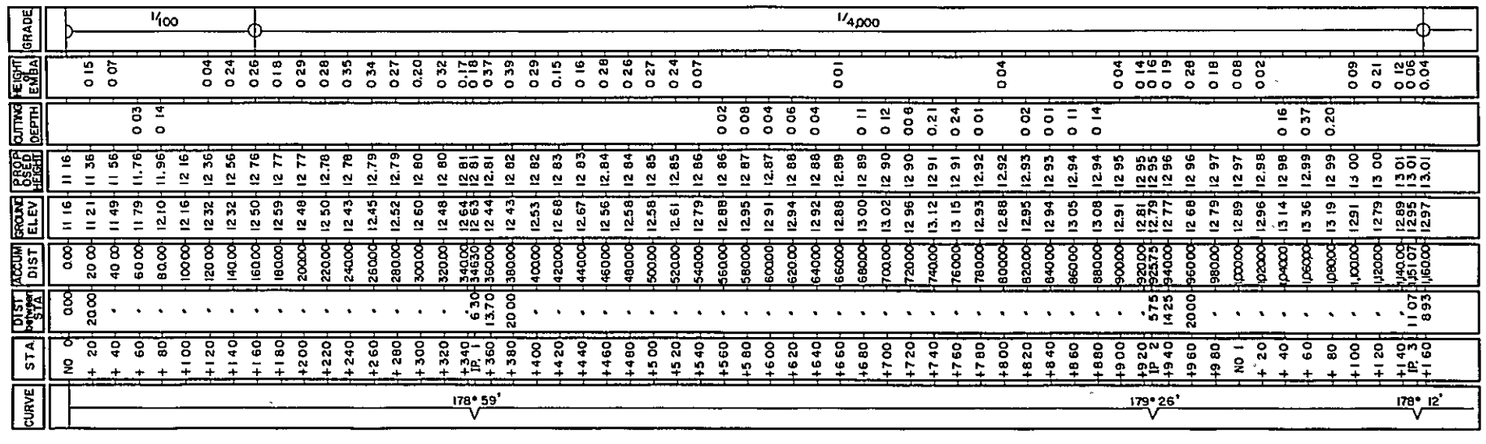
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO	S – 52



TYPICAL CROSS SECTION

0 1,000 2,000

SCALE OF MILLIMETER



NOTES

All dimensions are given in millimeters

All stations and elevations are given in meters.

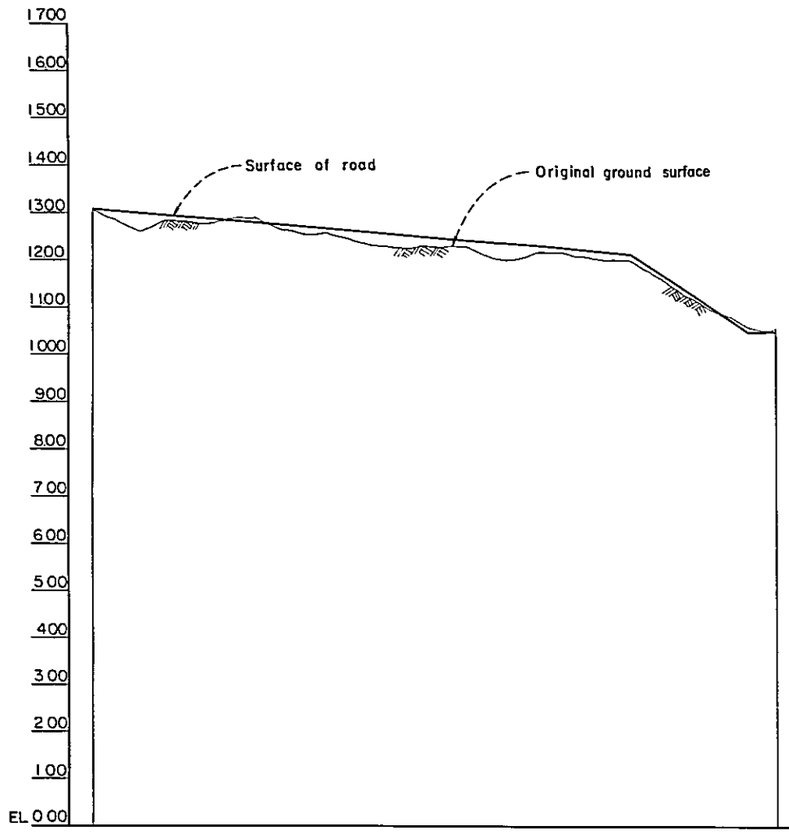
Horizontal scale 0 50 100 SCALE OF METER

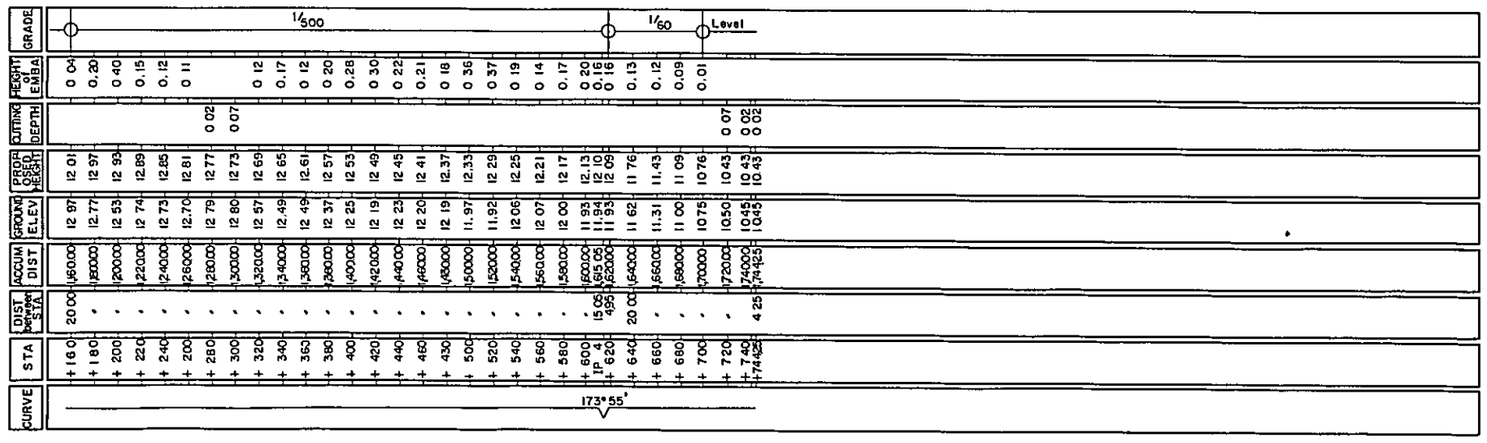
Vertical scale 0 1 2 3 SCALE OF METER

THE PHILIPPINES
RICE AND CORN PRODUCTION COORDINATING COUNCIL
REGIONAL RICE PRODUCTION CENTER
SANMIGUEL – ALANGALANG
ACCESS ROAD III
PROFILE (1)

OVERSEAS TECHNICAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

SCALE	AS SHOWN	DATE	
SHEET NO.	1 OF 2	DRAWING NO.	S – 53





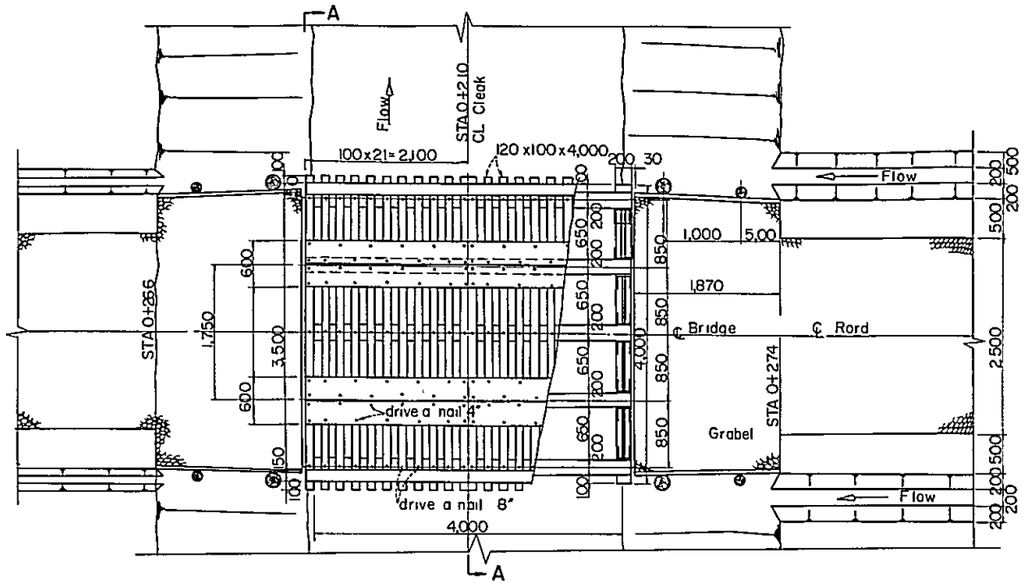
NOTES

All dimensions are given in millimeters
All stations and elevations are given in meters.

Horizontal scale 0 50 100 SCALE OF METER

Vertical scale 0 1 2 3 SCALE OF METER

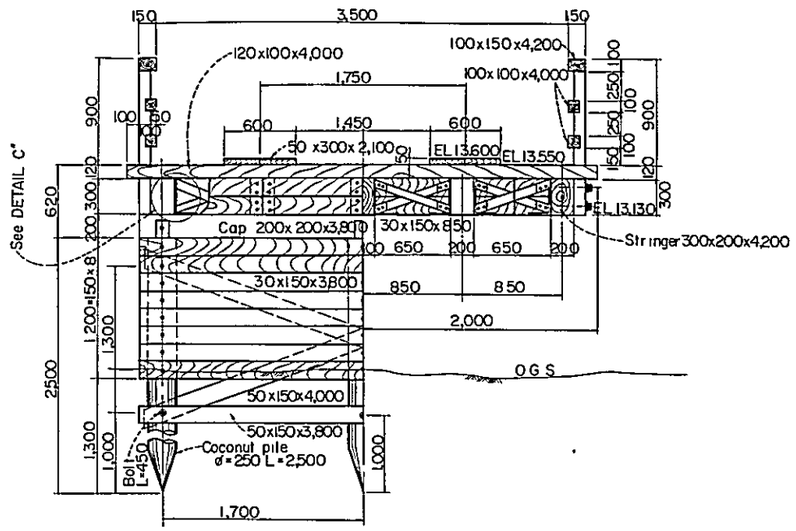
THE PHILIPPINES	
RICE AND CORN PRODUCTION COORDINATING COUNCIL	
REGIONAL RICE PRODUCTION CENTER	
SANMIGUEL – ALANGALANG	
ACCESS ROAD III	
PROFILE (2)	
OVERSEAS TECHNICAL COOPERATION AGENCY	
GOVERNMENT OF JAPAN	
SCALE: AS SHOWN	DATE:
SHEET NO: 2 OF 2	DRAWING NO: S – 54



PLAN

0,000 1,000 2,000

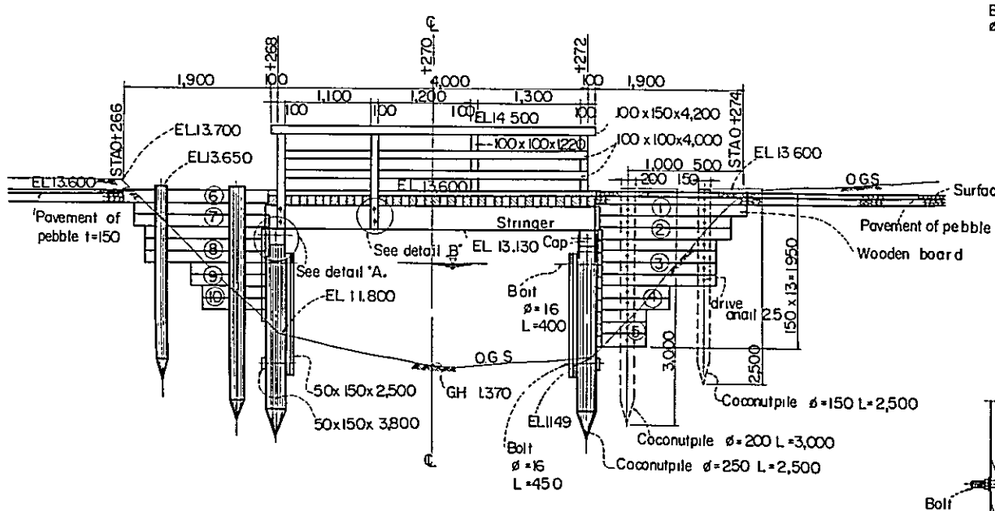
SCALE OF MILLIMETER



SECTION A—A

0,000 1,000 2,000

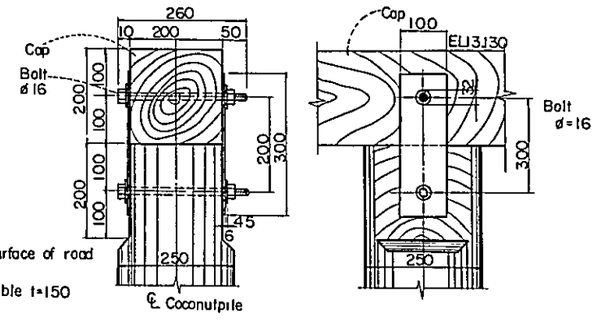
SCALE OF MILLIMETER



ELEVATION

0,000 1,000 2,000

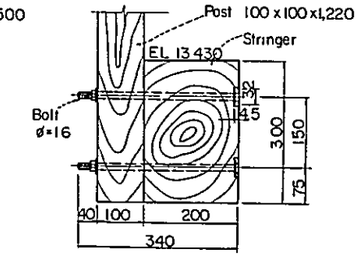
SCALE OF MILLIMETER



DETAIL A

0 100 200

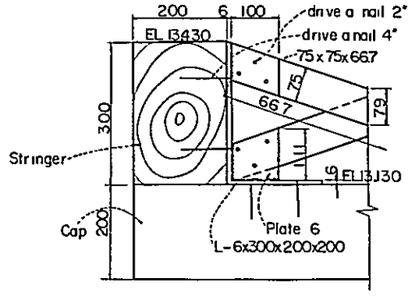
SCALE OF MILLIMETER



DETAIL B

0.00 100 200

SCALE OF MILLIMETER



DETAIL C

0.00 100 200

SCALE OF MILLIMETER

WOODEN BOARD SIZE TABLE

NUMBER	SIZE mm
1	30(t)x150(b)x1,900(ℓ)
2	30 x150 x 1,680
3	30 x150 x 1,480
4	30 x150 x 900
5	30 x150 x 600
6	30 x150 x1,900
7	30 x150 x1,700
8	30 x150 x1,500
9	30 x150 x 900
10	30 x150 x 700

NOTES .

All dimesins are gien in millimeters.

All statiuns and elevations are given in meters

Bndge desighed for one lane of T-6 loading.

All lumer to be treated.

Unit stress of timber and lumler.

Bending ----------90kg/cm²

Compression (columns)--------70kg/cm²

Blaring----------20kg/cm²

Horizontal shear --------- 8 kg/cm²

Non-cossosive studs and nuts.

THE PHILIPPINES

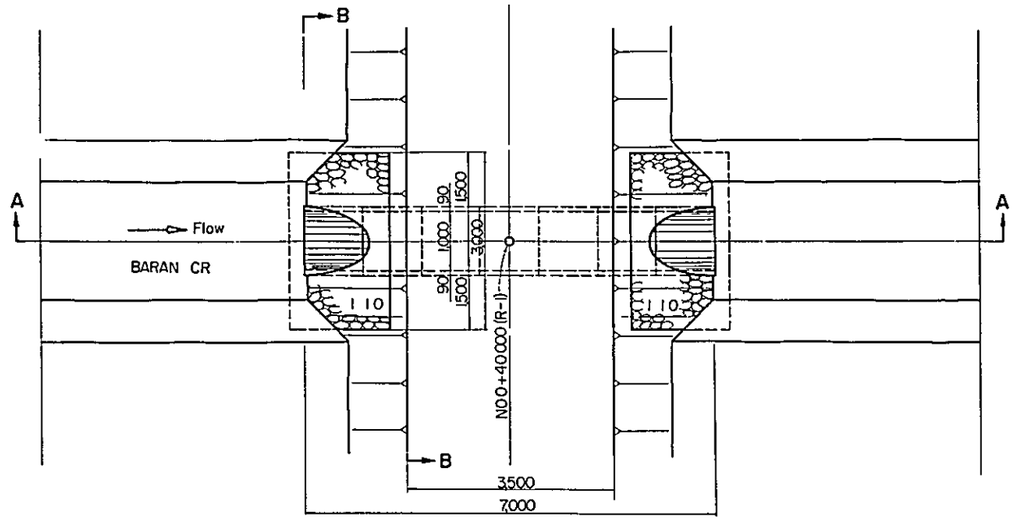
RICE AND CORN PRODUCTION COORDINATING COUNCIL

REGIONAL RICE PRODUCTION CENTER SANMIGUEL ALANGALANG

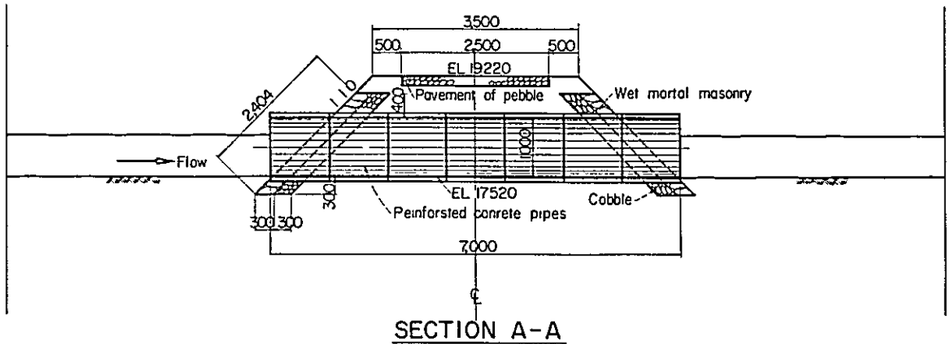
ACCESS RAOD II BRIDGE PLAN AND SECTION

OVERSEAS TECHNICAL COOPERATION AGENCY GOVERNMENT OF JAPAN

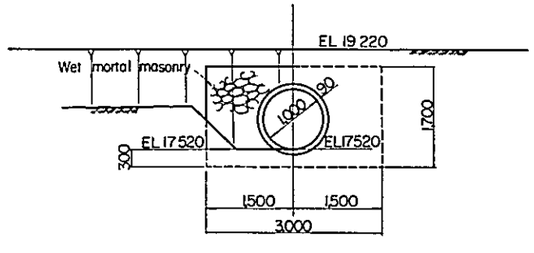
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO	S – 55



PLAN



SECTION A-A



SECTION B-B

NOTES

All dimesions are given in millimeters

All stations and elevations are given in meters

0 1,000 2,000 3,000

SCALE OF MILLIMETER

THE PHILIPPINES RICE AND CORN PRODUCTION COORDINATING COUNCIL			
REGIONAL RICE PRODUCTION CENTER SANMIGUEL – ALANGALANG **ACCESS RAOD I CULVERT** PLAN AND SECTION			
OVERSEAS TECHNICAL COOPERATION AGENCY GOVERNMENT OF JAPAN			
SCALE	AS SHOWN	DATE	
SHEET NO	1 OF 1	DRAWING NO.	S – 56