ROUTE 16A: TOTAL LENGTH = 64.138km

1. LOCATION MAP

2. PLAN AND PROFILE : R16-PP-001 – R14-PP-036

3. TYPICAL CROSS SECTIONS : R16-TC-001 – R16-TC-002

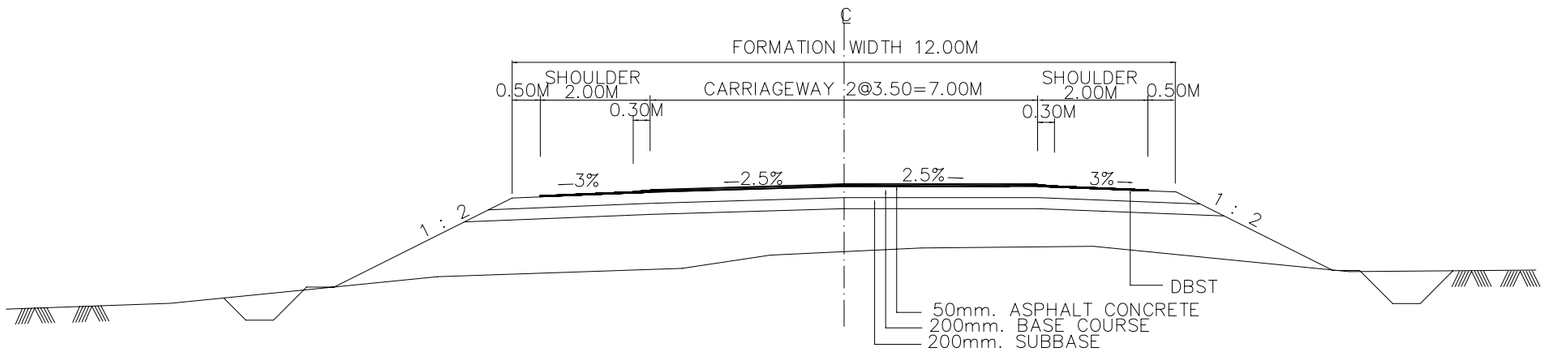
4. JUNCTION : R16-JT-001 – R14-JT-004

5. BRIDGE : R16-BR-001 – R16-BR-007

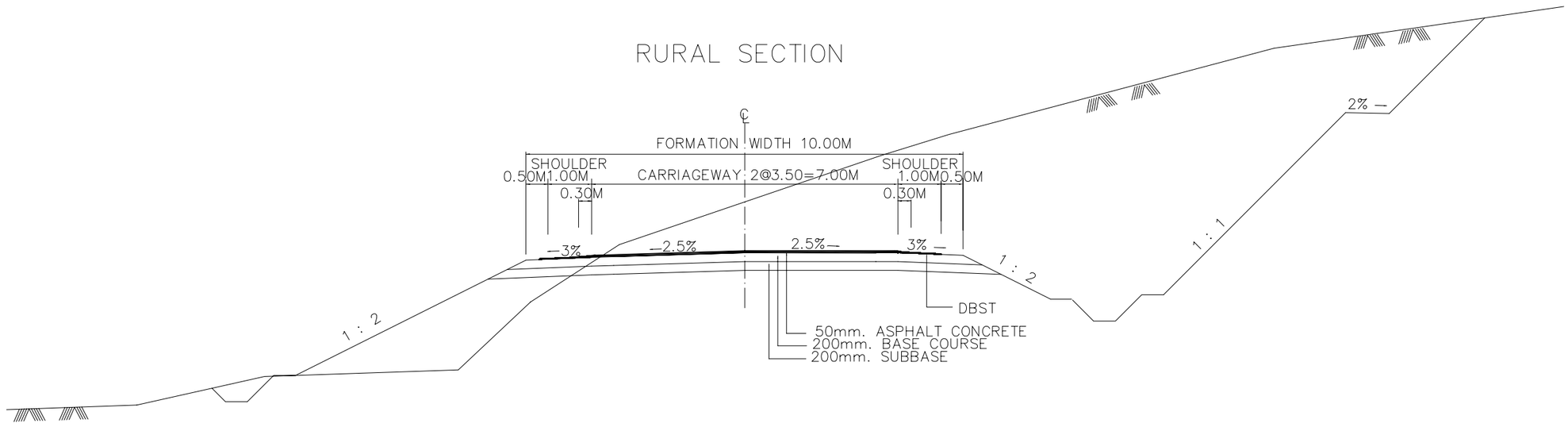
3. TYPICAL CROSS SECTIONS

TYPICAL CROSS SECTIONS SCALE = 1 : 100
(RT.16A : LEVEL TERRAIN)

POPULATED SECTION



RURAL SECTION

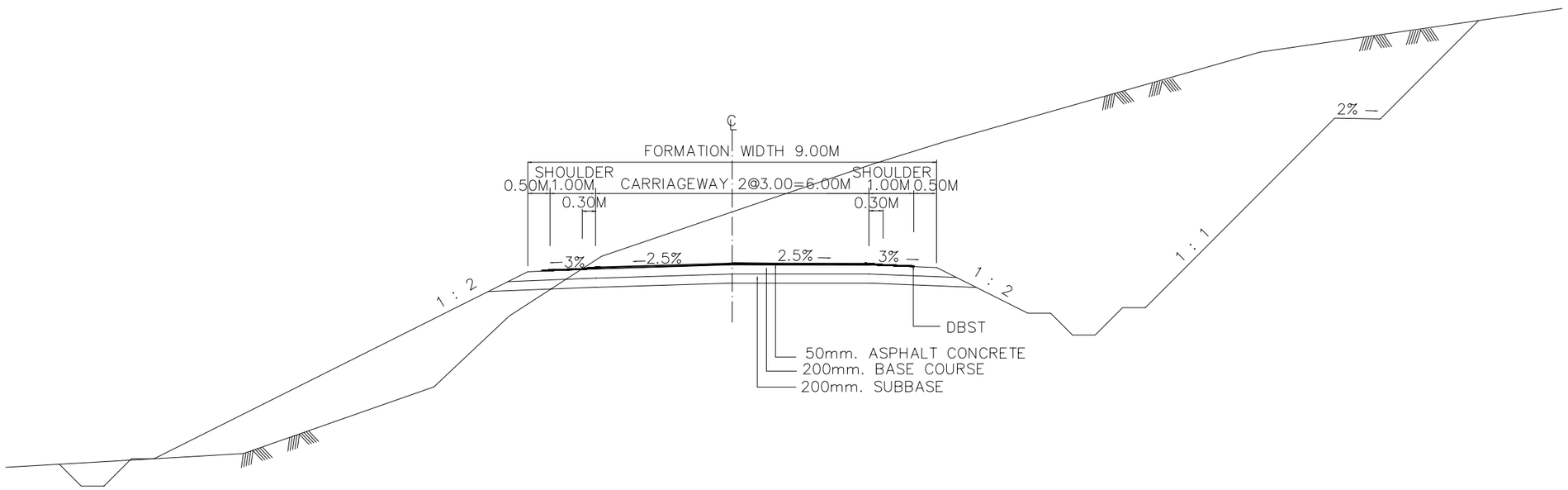


THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R.
					RT.16A TYPICAL CROSS SECTIONS (RT.16A: LEVEL TERRAIN)

DESIGNED BY	
CHECKED BY	
APPROVED BY	
DWG. NO.	R16-TC-001

TYPICAL CROSS SECTIONS SCALE = 1 : 100

(RT.16A MOUNTAIN SECTION : STA. 42+000 – STA.58+000)



THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. RT.16A TYPICAL CROSSECTIONS (RT.16A: MOUNTAIN SECTION)

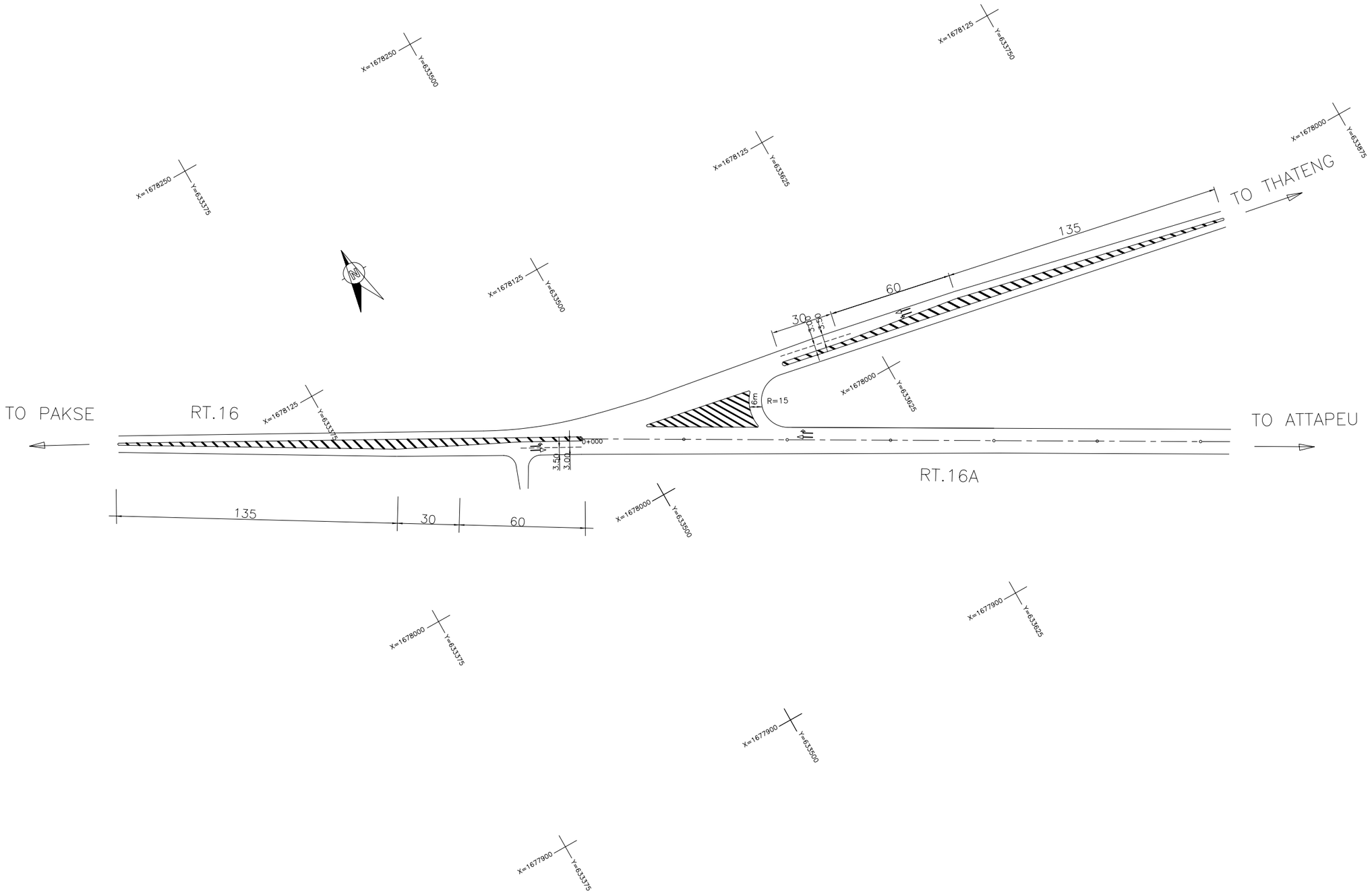
DESIGNED BY	
CHECKED BY	
APPROVED BY	
DWG. NO.	R16–TC–002

4. JUNCTION

PLAN OF JUNCTION: STA.0+000

(RT.16 – RT.16A)

SCALE=1:2000



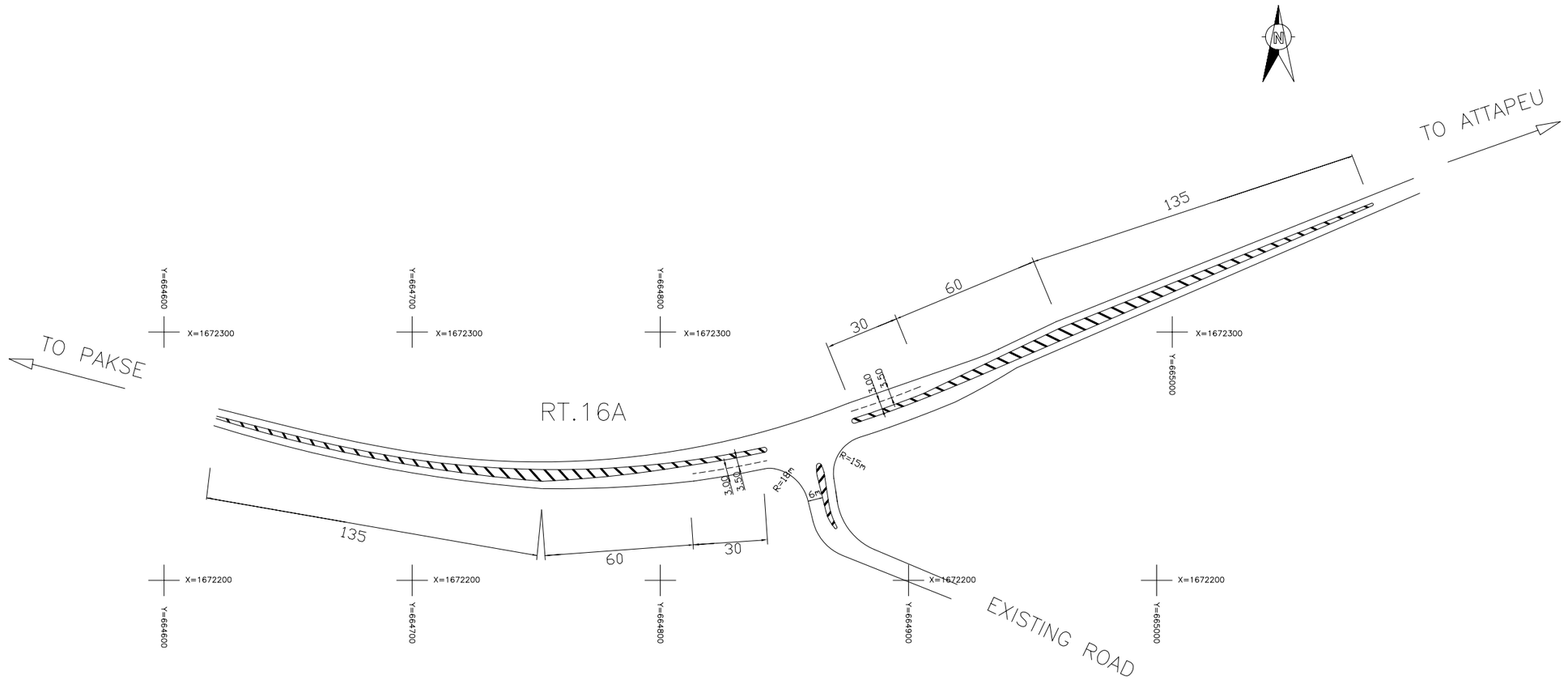
THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. RT.16A PLAN OF JUNCTION STA.0+000

DESIGNED BY	
CHECKED BY	
APPROVED BY	
DWG. NO.	R16-JT-001

PLAN OF JUNCTION: STA.33+800

(SHORTCUT ENTRANCE)

SCALE=1:1000

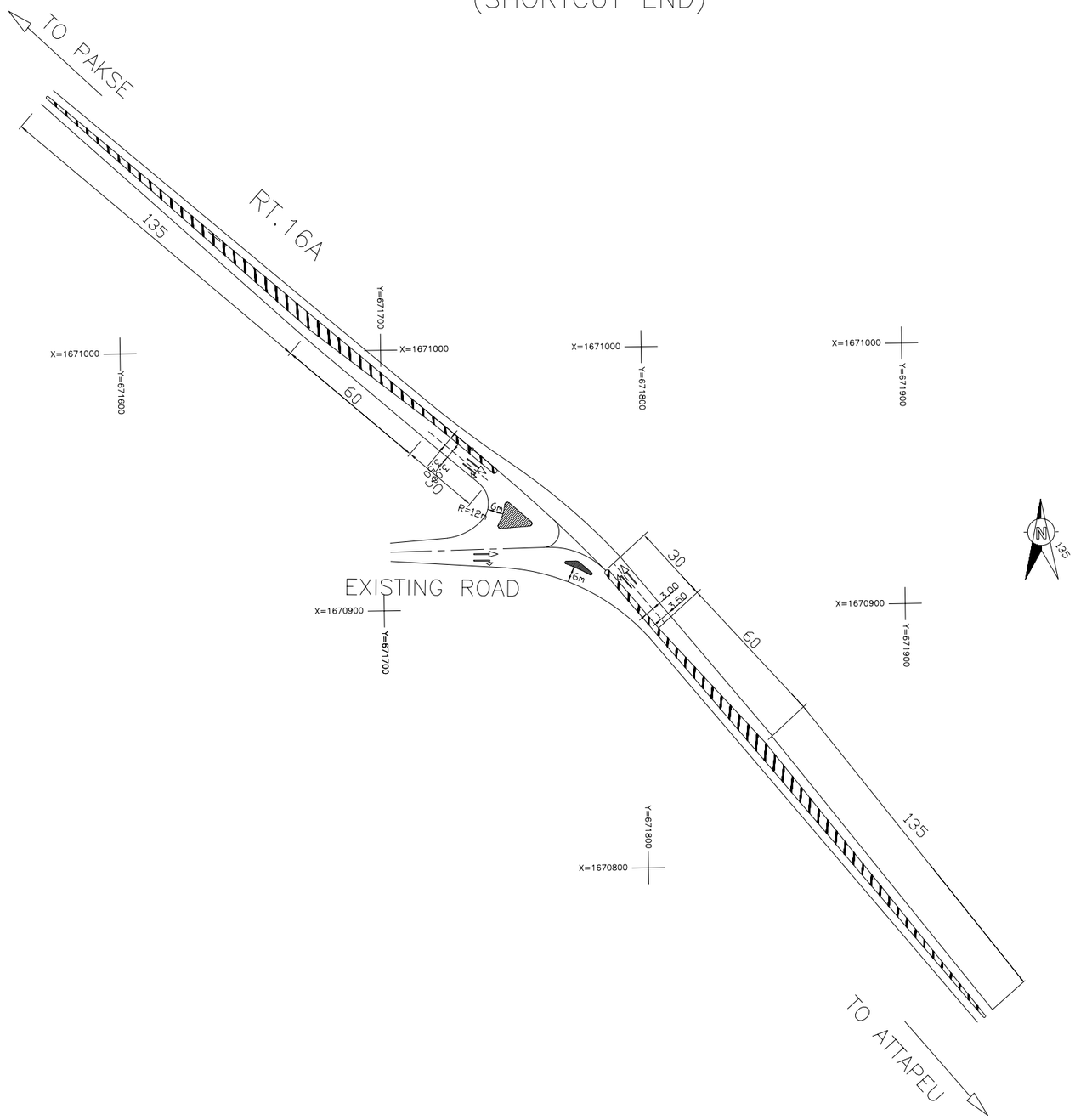


THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED				THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R.	DESIGNED BY	
						CHECKED BY	
					RT.16A PLAN OF JUNCTION STA.33+800	APPROVED BY	
		No.	REVISION	DATE		DWG. NO.	R16-JT-002

PLAN OF JUNCTION: STA.41+950

(SHORTCUT END)

SCALE=1:2000

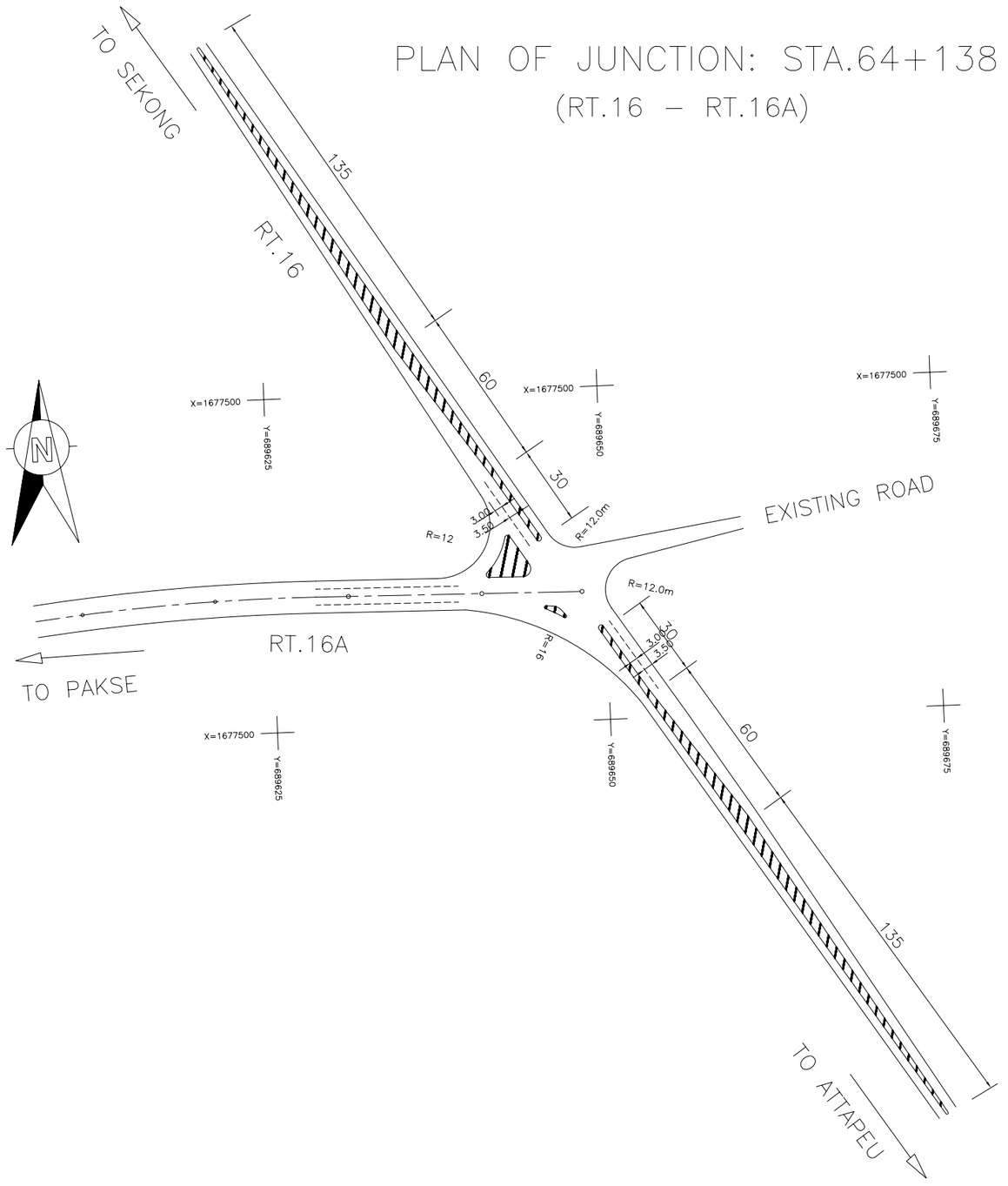


THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. RT.16A PLAN OF JUNCTION STA.41+950	DESIGNED BY CHECKED BY APPROVED BY DWG. NO. R16-JT-003

PLAN OF JUNCTION: STA.64+138

(RT.16 – RT.16A)

SCALE=1:2000



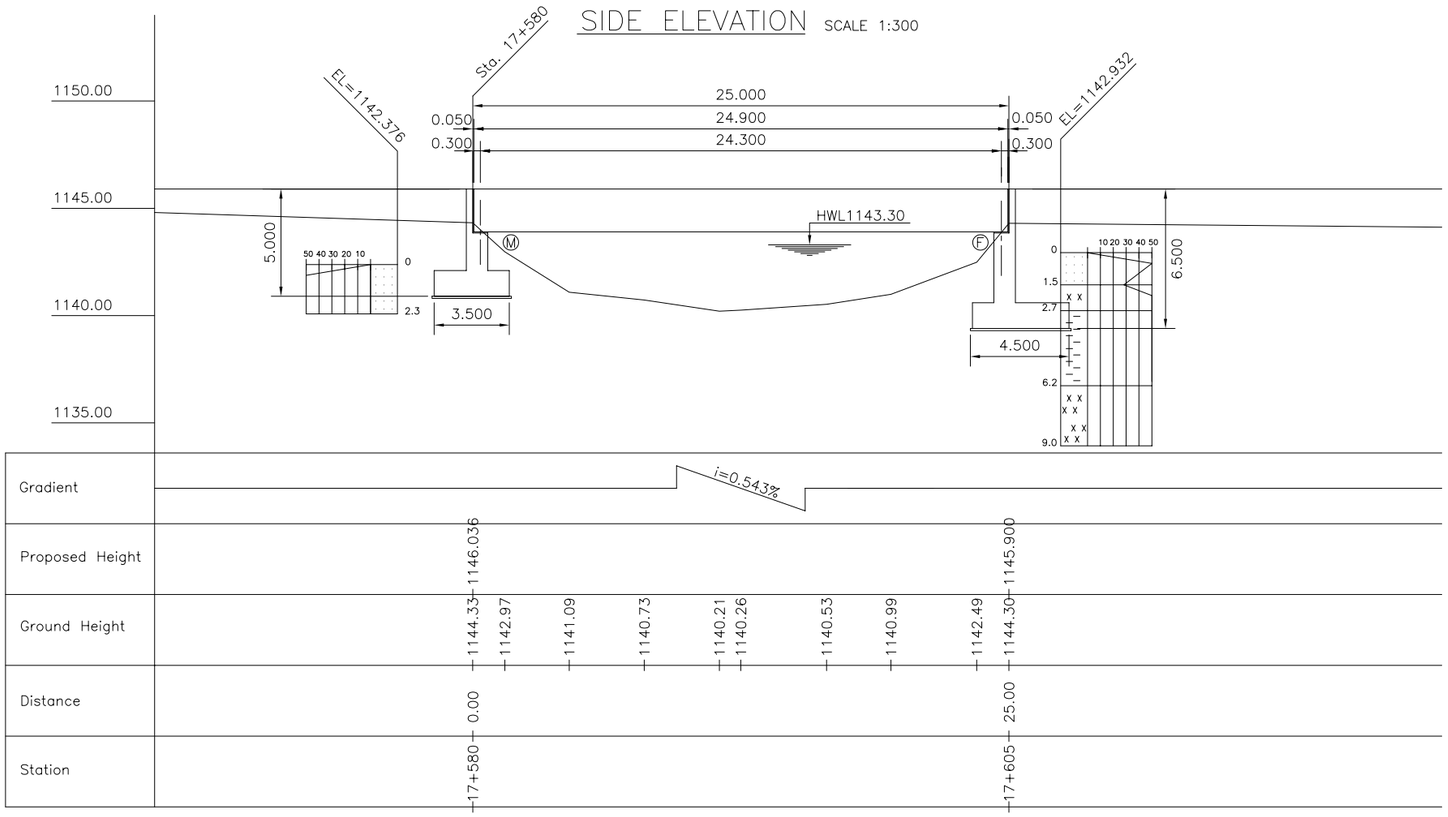
THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. RT.16A PLAN OF JUNCTION STA. 64+138

DESIGNED BY	
CHECKED BY	
APPROVED BY	
DWG. NO.	R16–JT–004

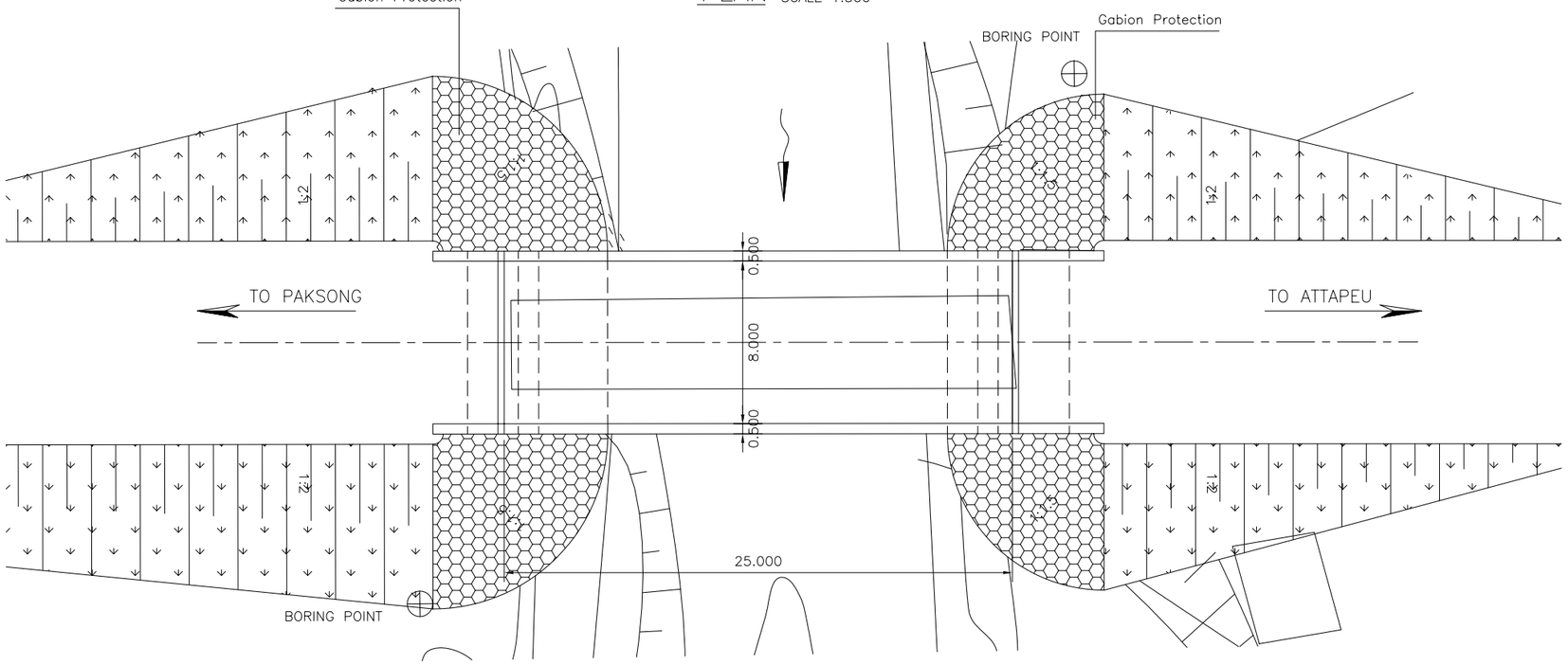
5. BRIDGE

GENERAL VIEW (HOUAY MAKCHANE BRIDGE)

SIDE ELEVATION SCALE 1:300



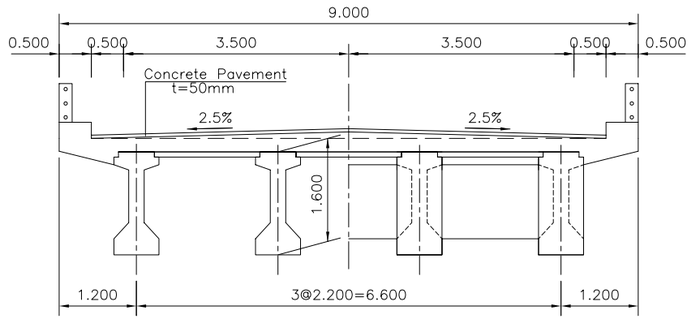
PLAN SCALE 1:300



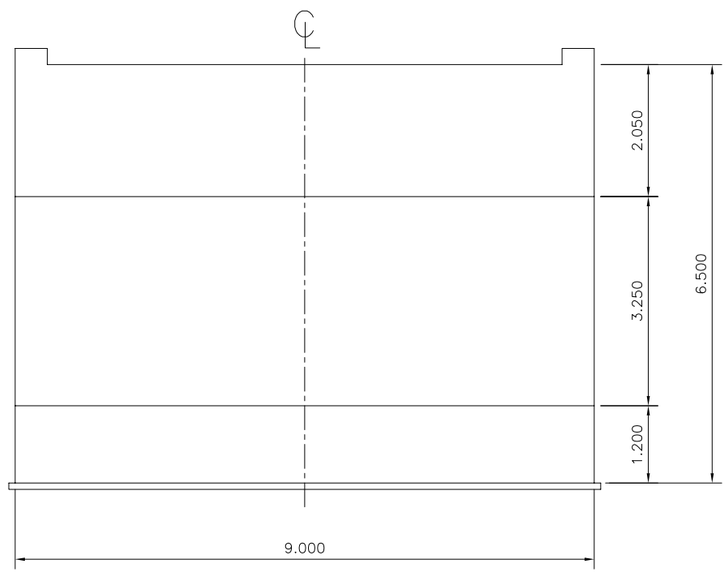
DESIGN CONDITION

Station	17+580
Bridge Type	PC – I GIRDER
Bridge Length (m)	25.00
Girder Length (m)	24.90
Span Arrangement	24.30
Effective Width	8.00
Skew Angle	90°
Live Load	HS 25 – 44
Seismic Coeficient	0.06

CROSS SECTION SUPERSTRUCTURE SCALE 1:100



A1 ABUTMENT SCALE 1:100

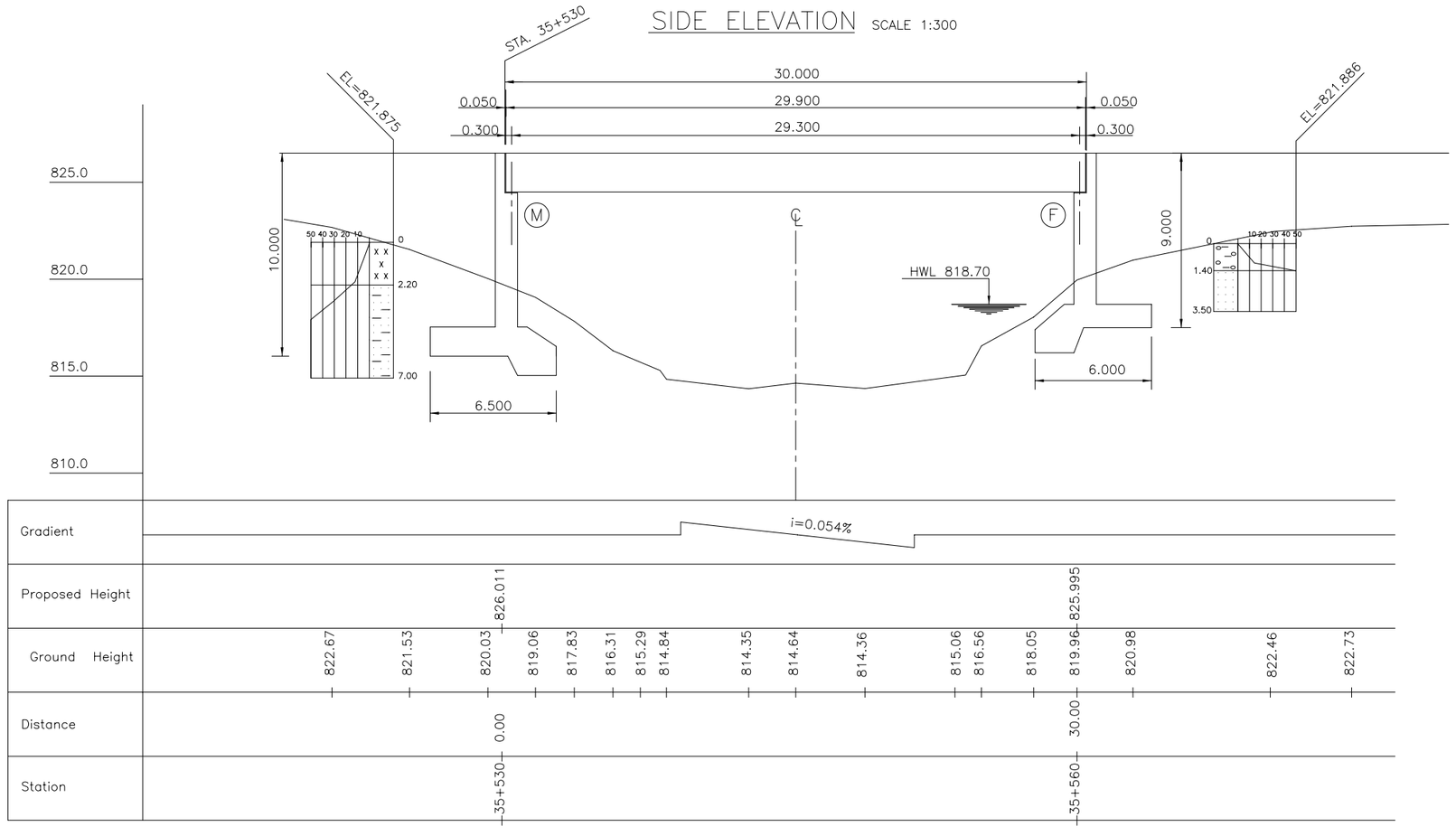


THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. RT.16A GENERAL VIEW HOUAY MAKCHANE BRIDGE (No.1)

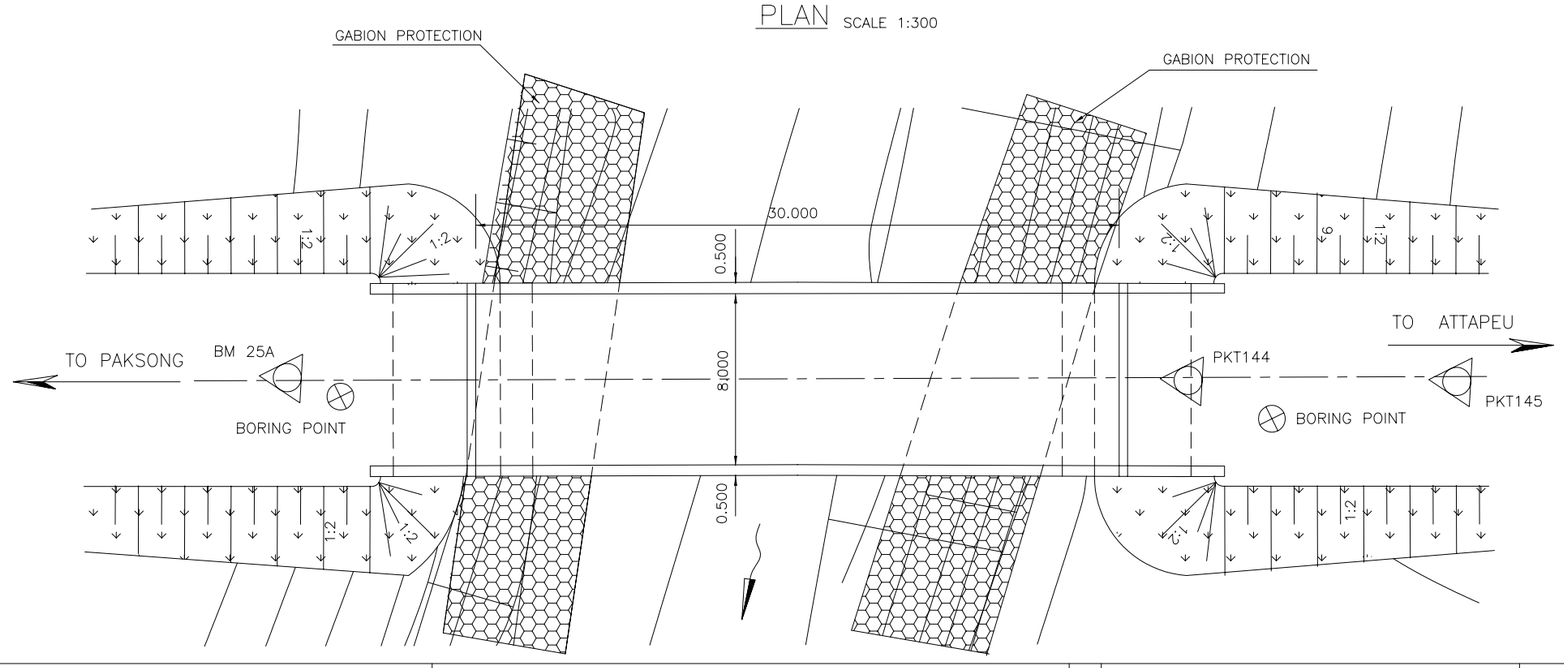
DESIGNED BY	
CHECKED BY	
APPROVED BY	
DWG. NO.	R16–BR–001

GENERAL VIEW (HOUAY NAMTANG BRIDGE)

SIDE ELEVATION SCALE 1:300



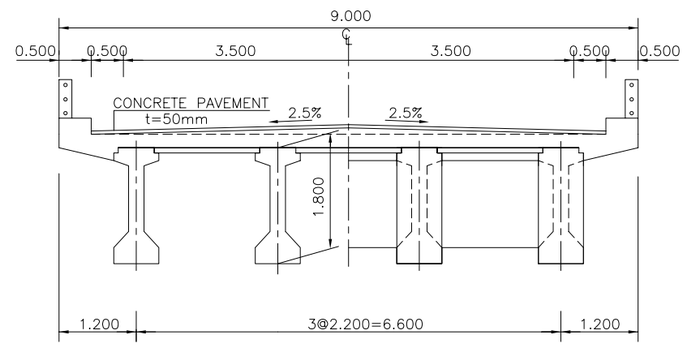
PLAN SCALE 1:300



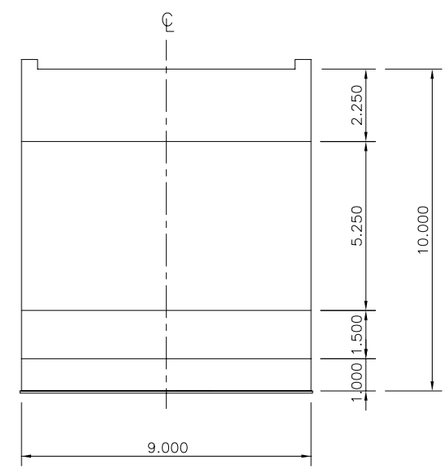
DESIGN CONDITION

Station	35+530
Bridge Type	PC – I GIRDER
Bridge Length	30.000
Girder Length	29.900
Span Arrangement	29.300
Width	8.000
Skew Angle	90°
Live Load	HS-25-44
Seismic Coeficient	0.06

CROSS SECTION SUPERSTRUCTURE SCALE 1:100



A1 ABUTMENT SCALE 1:200

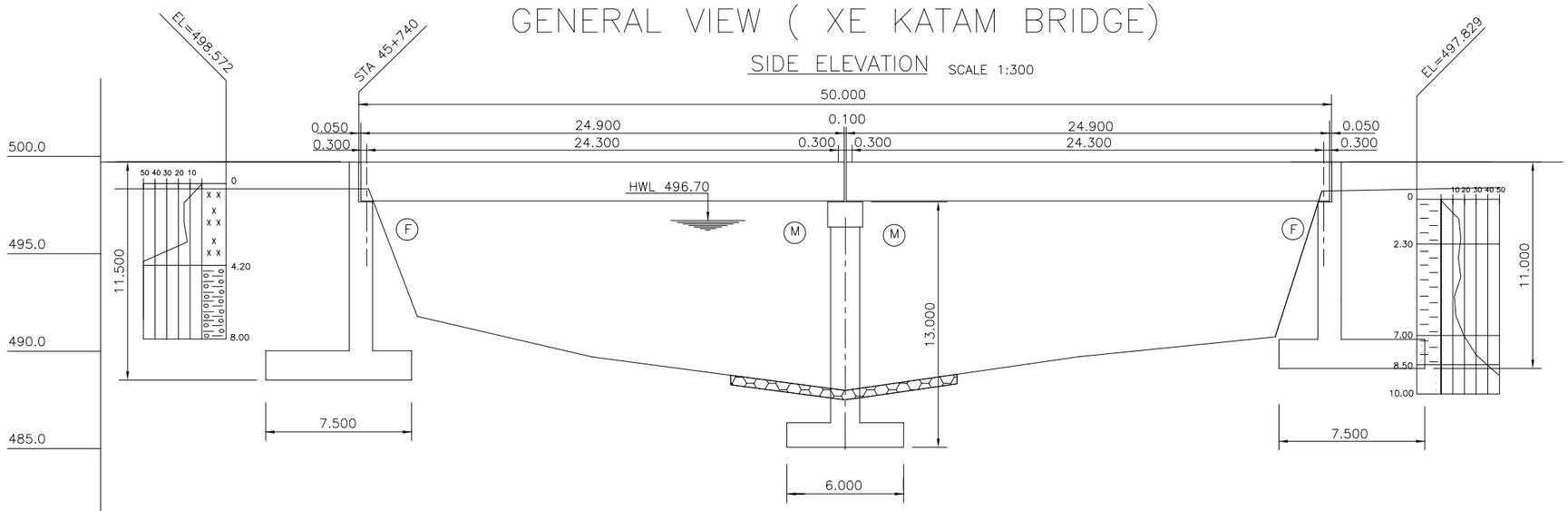


THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. RT.16A GENERAL VIEW HOUAY NAMTANG BRIDGE (No.2)

DESIGNED BY	
CHECKED BY	
APPROVED BY	
DWG. NO.	R16-BR-002

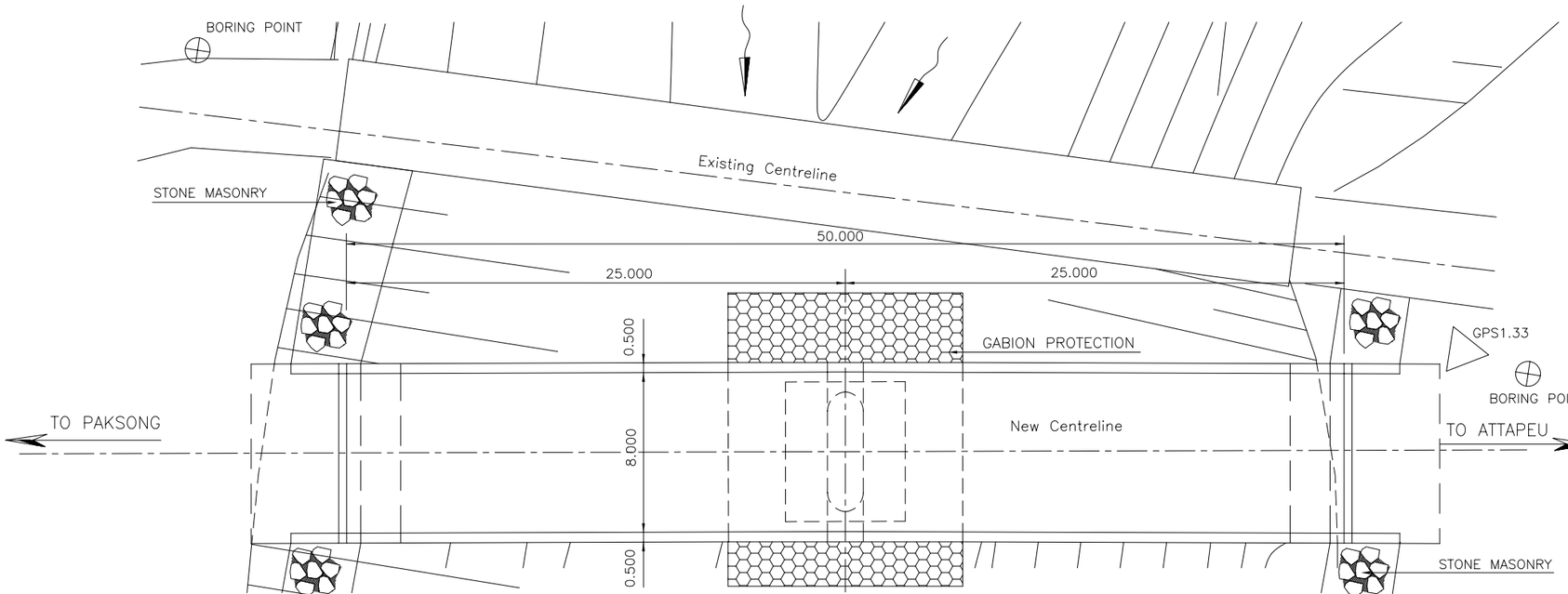
GENERAL VIEW (XE KATAM BRIDGE)

SIDE ELEVATION SCALE 1:300



Gradient	i =8.00%	498.928	i =0.305%		
Proposed Height	499.586		498.864		498.788
Height Elevation	498.928	489.70		489.71	490.73
Distance	50.00		25.00		0.00
Station	45+740	45+744	45+765		45+790

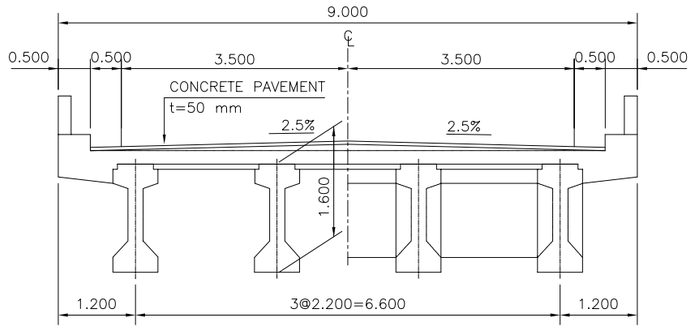
PLAN SCALE 1:300



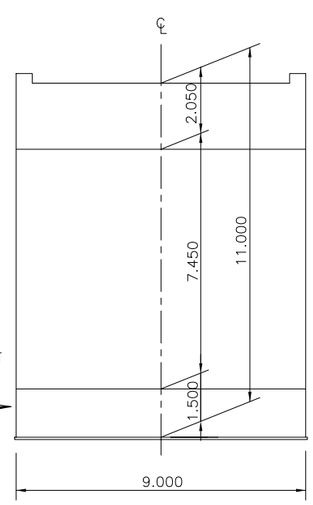
DESIGN CONDITION

Station	45+740
Bridge Type	PC – I GIRDER
Bridge Length	50.000
Girder Length	24.900
Span Arrangement	24.300+24.300
Width	8.00
Skew Angle	90°
Live Load	HS–25–44
Seismic Coeficient	0.06

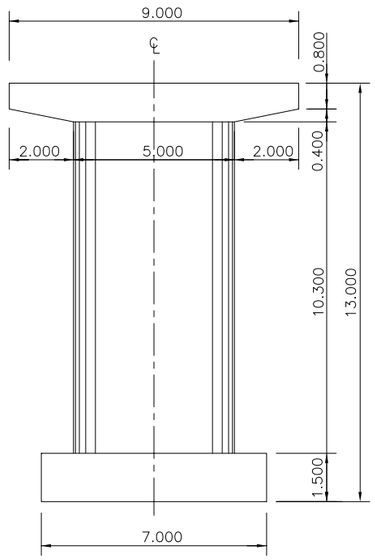
CROSS SECTION SUPERSTRUCTURE SCALE 1:100



A2 ABUTMENT SCALE 1:200



PIER SCALE 1:200

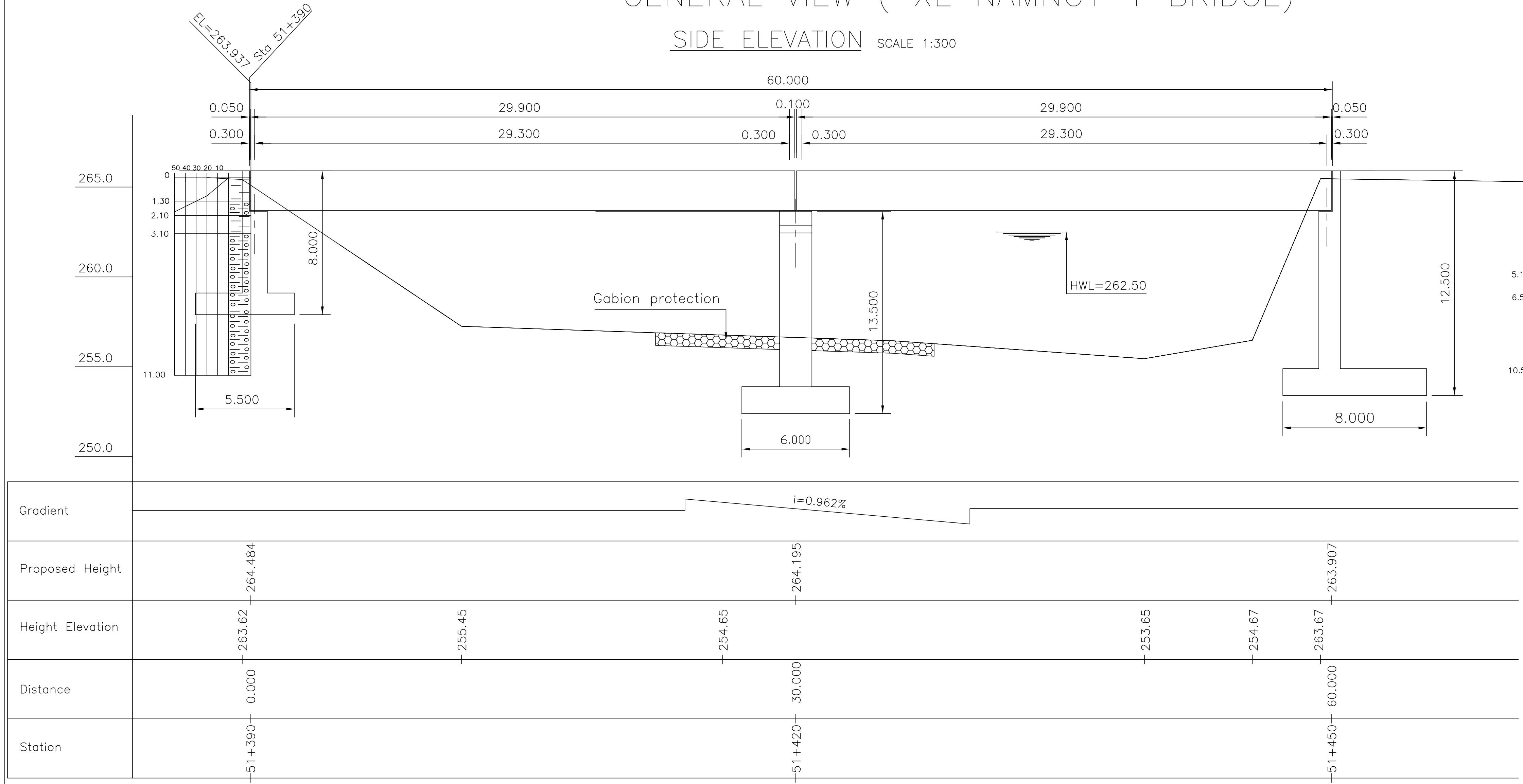


THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. RT.16A GENERAL VIEW XE KATAM BRIDGE (No.3)

DESIGNED BY	
CHECKED BY	
APPROVED BY	
DWG. NO.	R16–BR–003

GENERAL VIEW (XE NAMNOY 1 BRIDGE)

SIDE ELEVATION SCALE 1:300

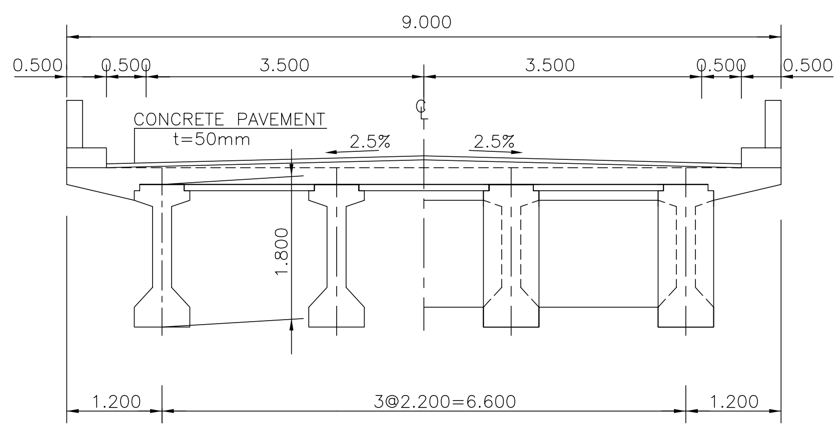


DESIGN CONDITION

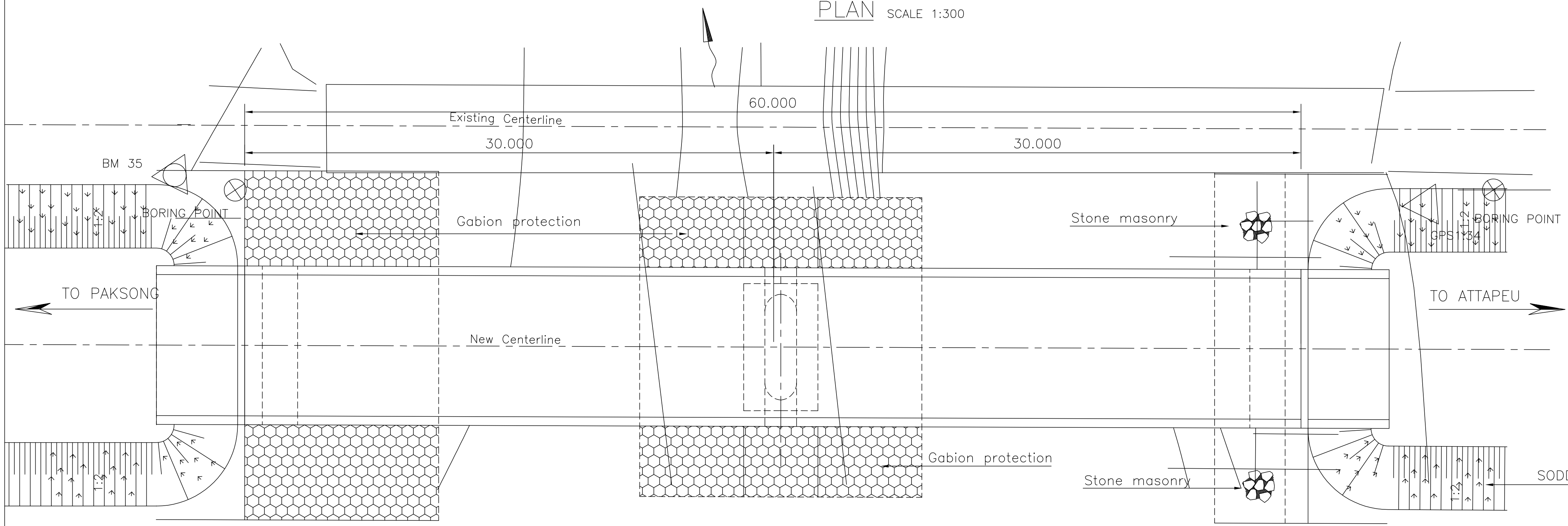
Station	51+390
Bridge Type	PC–I Girder
Bridge Length	60.000
Girder Length	29.900x2
Span Arrangement	29.300x2
Width	8.000
Skew Angle	90°
Live Load	HS–25–44
Seismic Coeficient	0.06

CROSS SECTION

SUPERSTRUCTURE SCALE 1:100

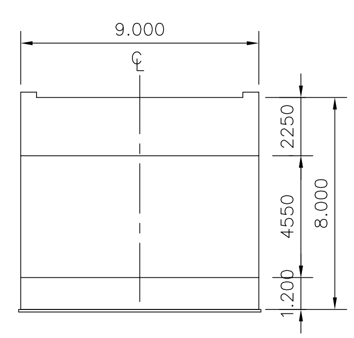


PLAN SCALE 1:300



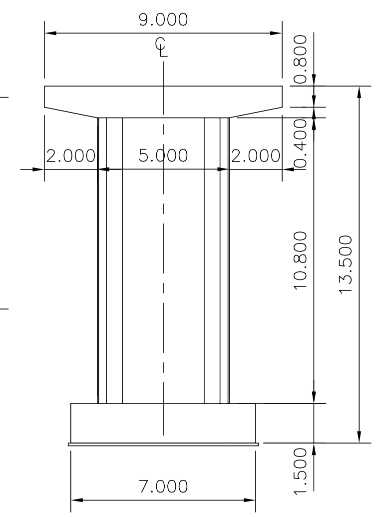
A1 ABUTMENT

SCALE 1:300



PIER

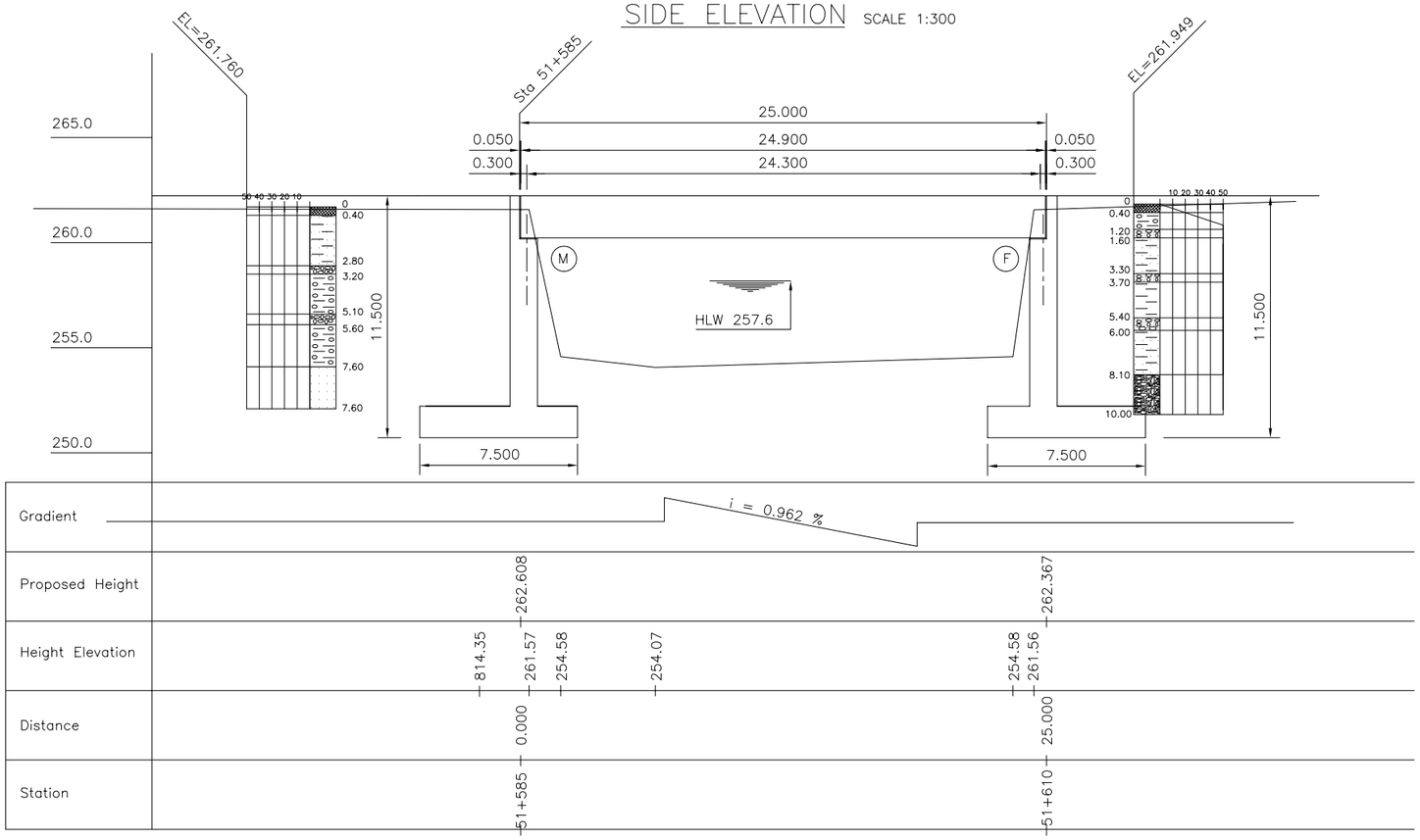
SCALE 1:300



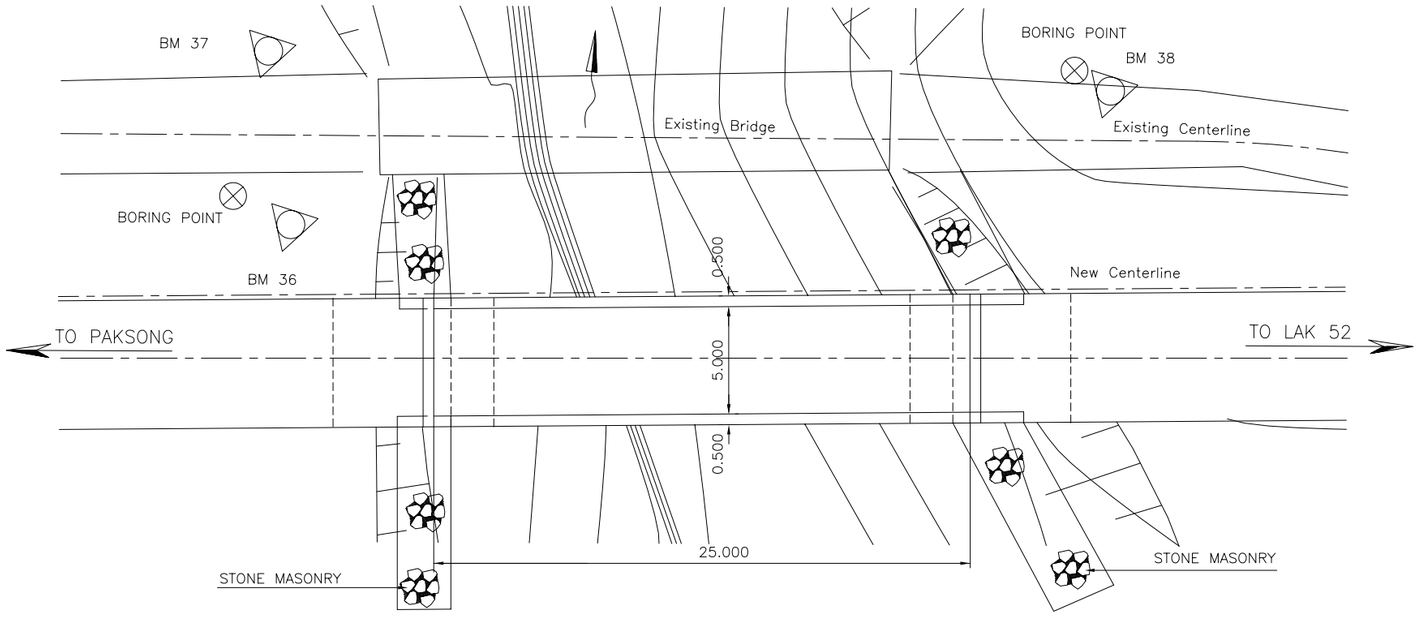
THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No. / REVISION / DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. RT.16A GENERAL VIEW XE NAMNOY 1 BRIDGE (No.4)
DESIGNED BY		CHECKED BY	
APPROVED BY		DWG. NO.	R16–BR–004

GENERAL VIEW (HOUAY XENAMNOY 2 BRIDGE)

SIDE ELEVATION SCALE 1:300



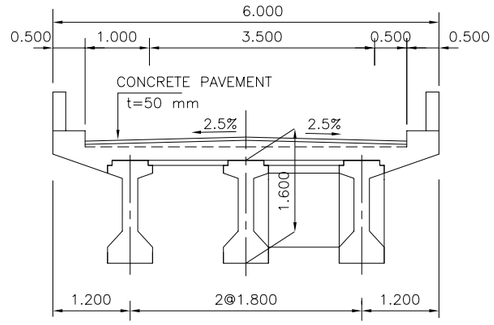
PLAN SCALE 1:300



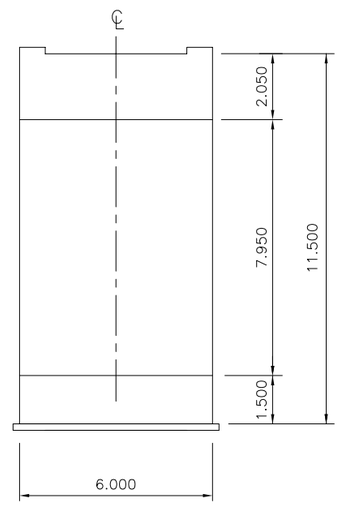
DESIGN CONDITION

Station	51+585
Bridge Type	PC–I Girder
Bridge Length	25.000
Girder Length	24.900
Span Arrangement	24.300
Width	5.000
Skew Angle	90°
Live Load	HS–25–44
Seismic Coeficient	0.06

CROSS SECTION
SUPERSTRUCTURE SCALE 1:100



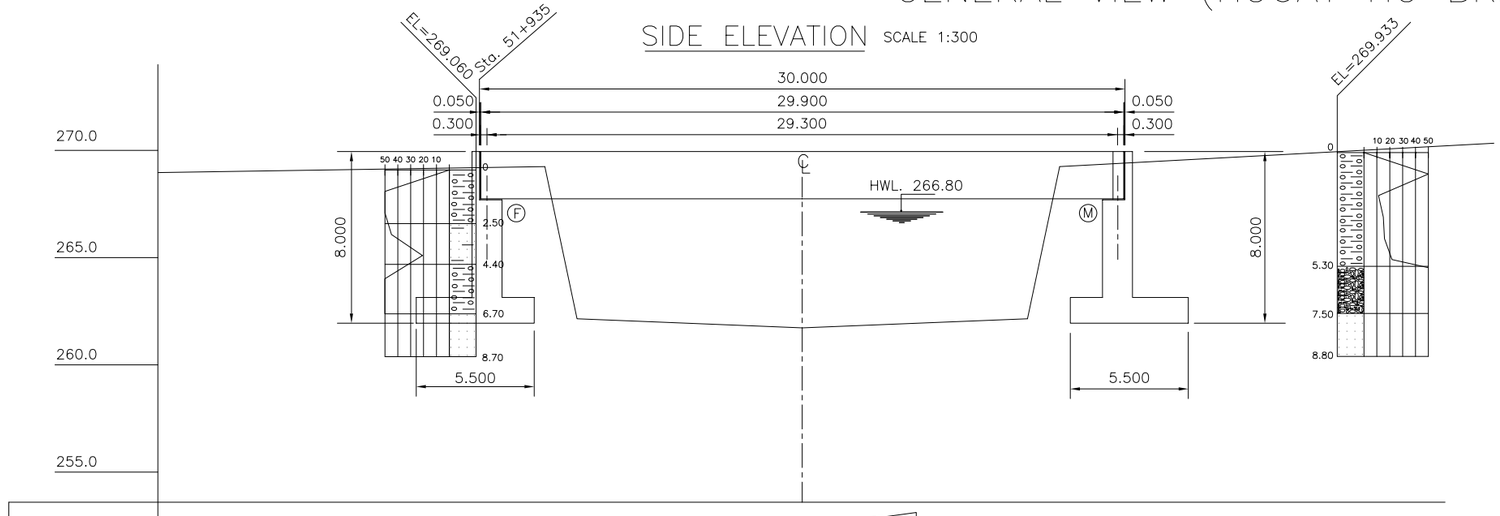
A1 ABUTMENT SCALE 1:200



THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. RT.16A GENERAL VIEW HOUAY XENAMNOY 2 BRIDGE (NO.5)	DESIGNED BY CHECKED BY APPROVED BY DWG. NO.	R16–BR–005

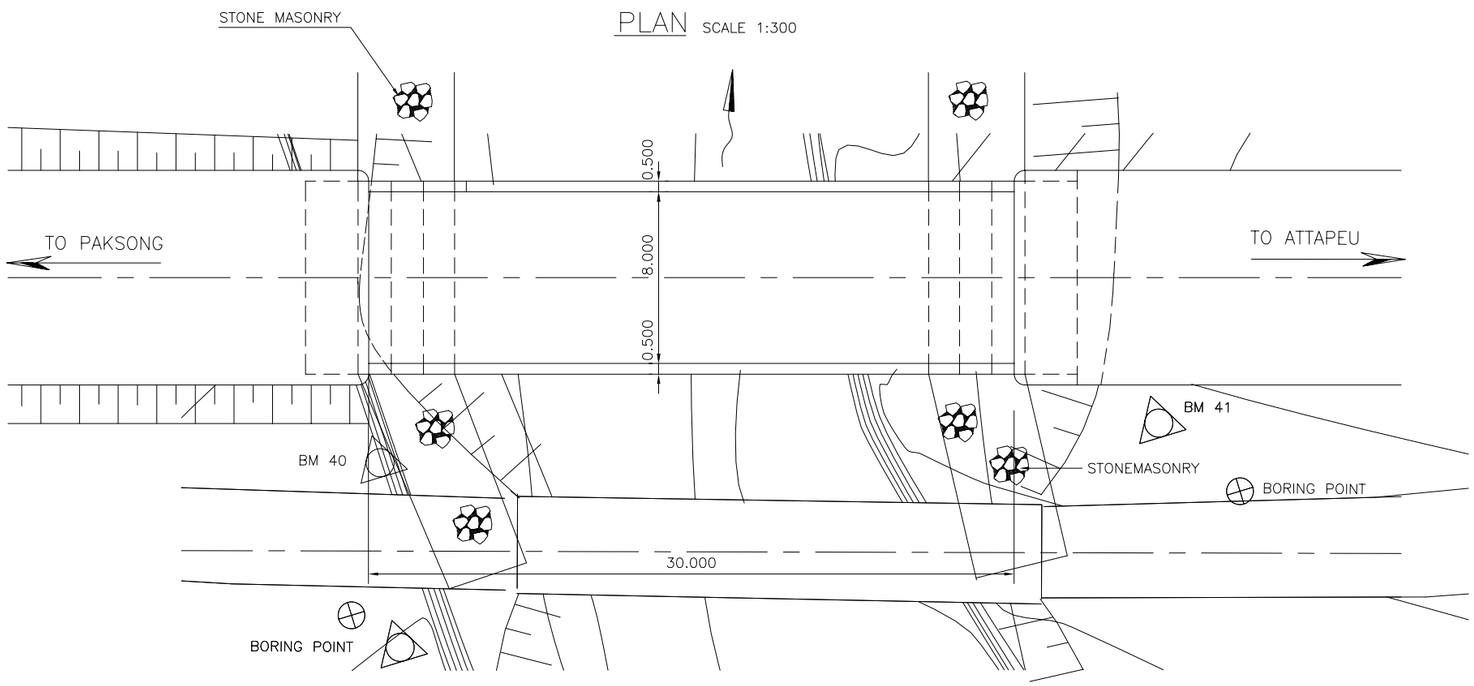
GENERAL VIEW (HOUAY HO BRIDGE)

SIDE ELEVATION SCALE 1:300



Gradient	I=1.084%
Proposed Height	269.977 — 270.304
Height Elevation	269.24, 262.15, 261.73, 262.15, 269.24
Distance	0.000 — 30.000
Station	51+935 — 51+965

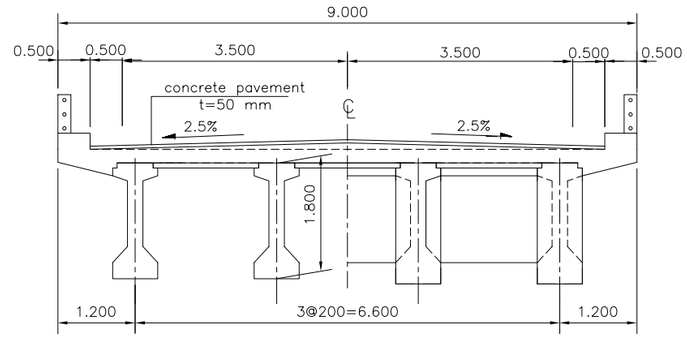
PLAN SCALE 1:300



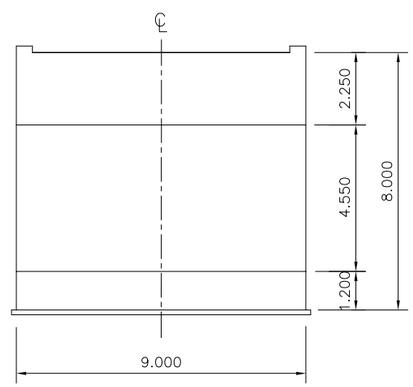
DESIGN CONDITION

Station	51+935
Bridge Type	PC-I GIRDER
Bridge Length	30.000
Girder Length	29.900
Span Arrangement	29.300
Width	8.000
Skew Angle	90°
Live Load	HS-25-44
Seismic Coeficient	0.060

CROSS SECTION SUPERSTRUCTURE SCALE 1:100



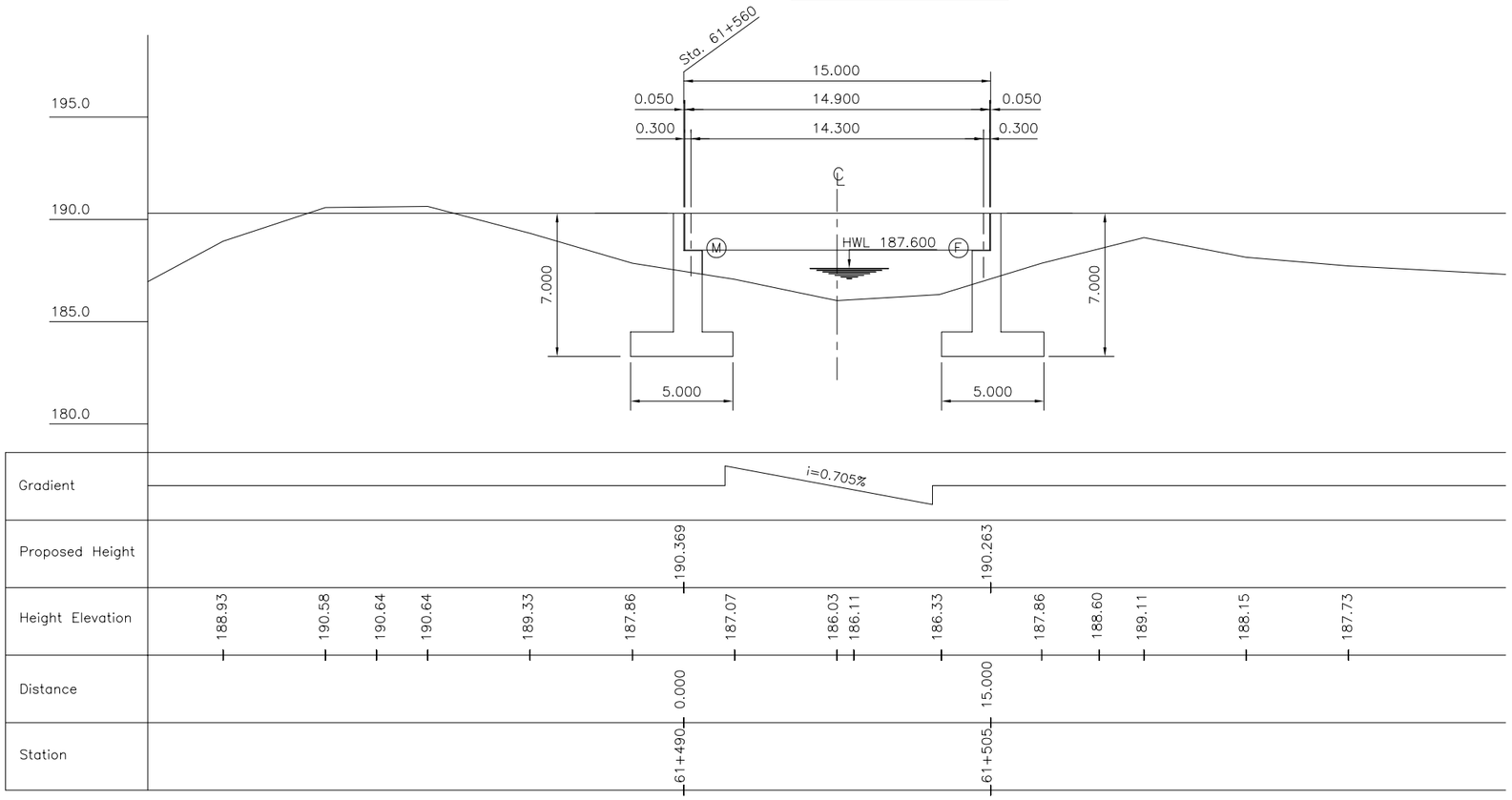
A1 ABUTMENT SCALE 1:200



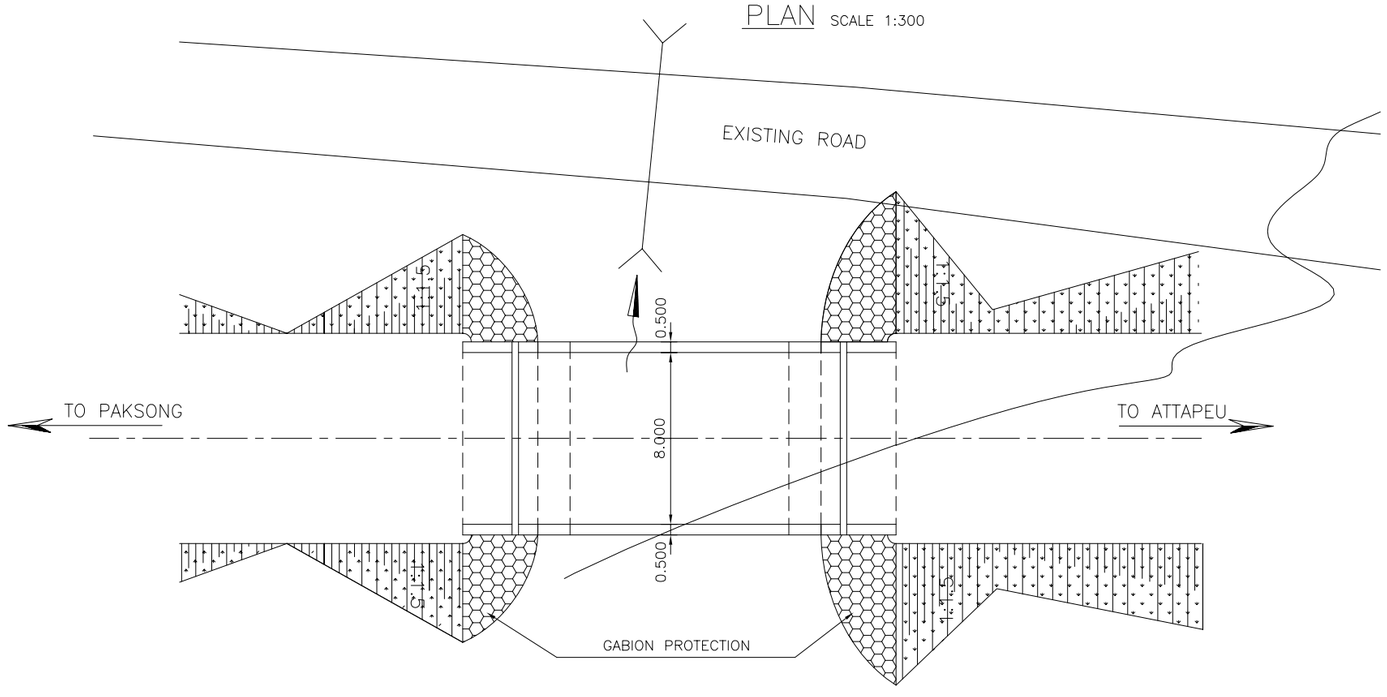
THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. RT.16A GENERAL VIEW HOUAY HO BRIDGE (No.6)	DESIGNED BY CHECKED BY APPROVED BY DWG. NO.	R16-BR-006

GENERAL VIEW (BRIDGE No. 7)

SIDE ELEVATION SCALE 1:300



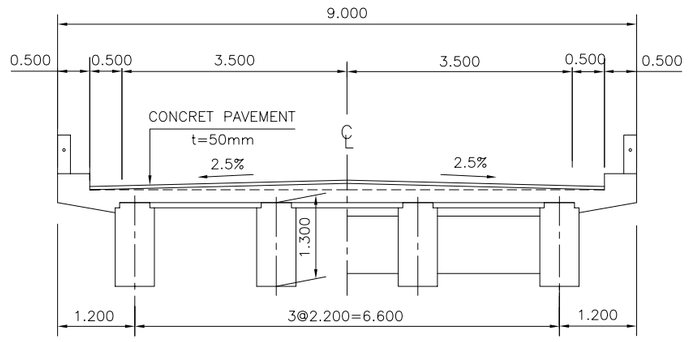
PLAN SCALE 1:300



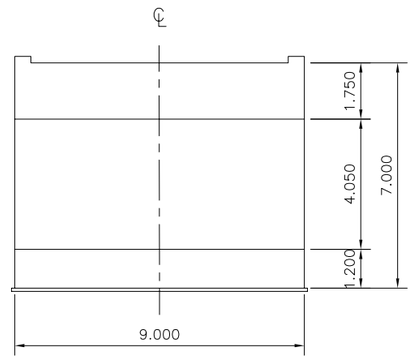
DESIGN CONDITION

Station	61+560
Bridge Type	RC – I Girder
Bridge Length	15.000
Girder Length	14.900
Span Arrangement	14.300
Width	8.000
Skew Angle	90°
Live Load	HS–25–44
Seismic Coeficient	0.060

CROSS SECTION SUPERSTRUCTERE SCALE 1:100



A1 ABUTMENT SCALE 1:200



THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. RT.16A GENERAL VIEW Houay (No. 7)	DESIGNED BY CHECKED BY APPROVED BY DWG. NO.	 R16–BR–007

COMMON STRUCTURES FOR ROUTE 14A & 16A

1. APPARATUS : COM-AP-001 – COM-AP-007

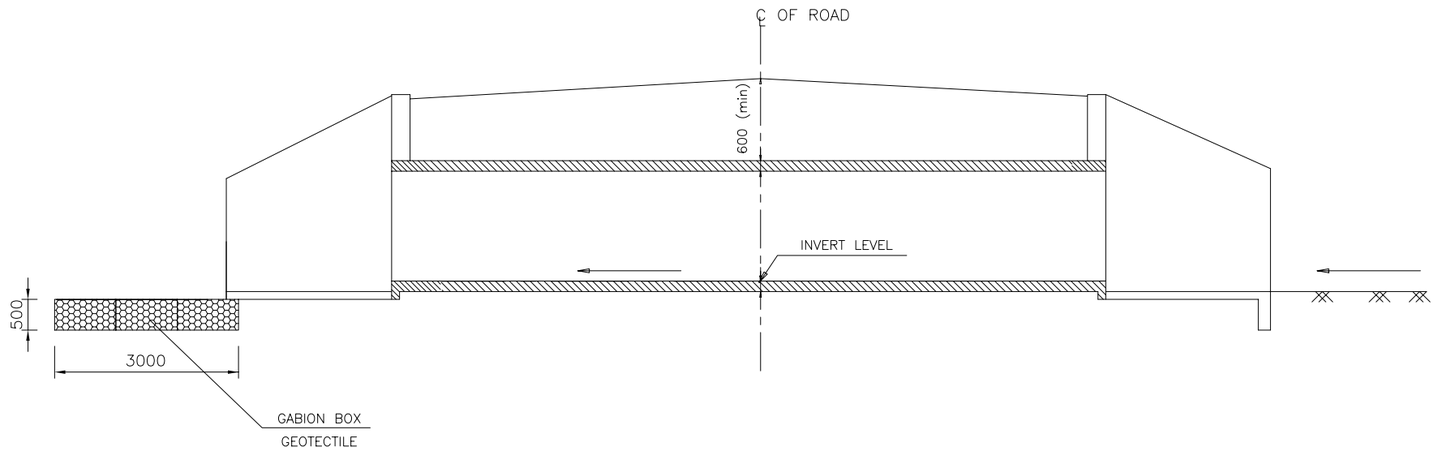
2. STANDARD PROTECTION WORK : COM-BR-001

1. APPARATUS

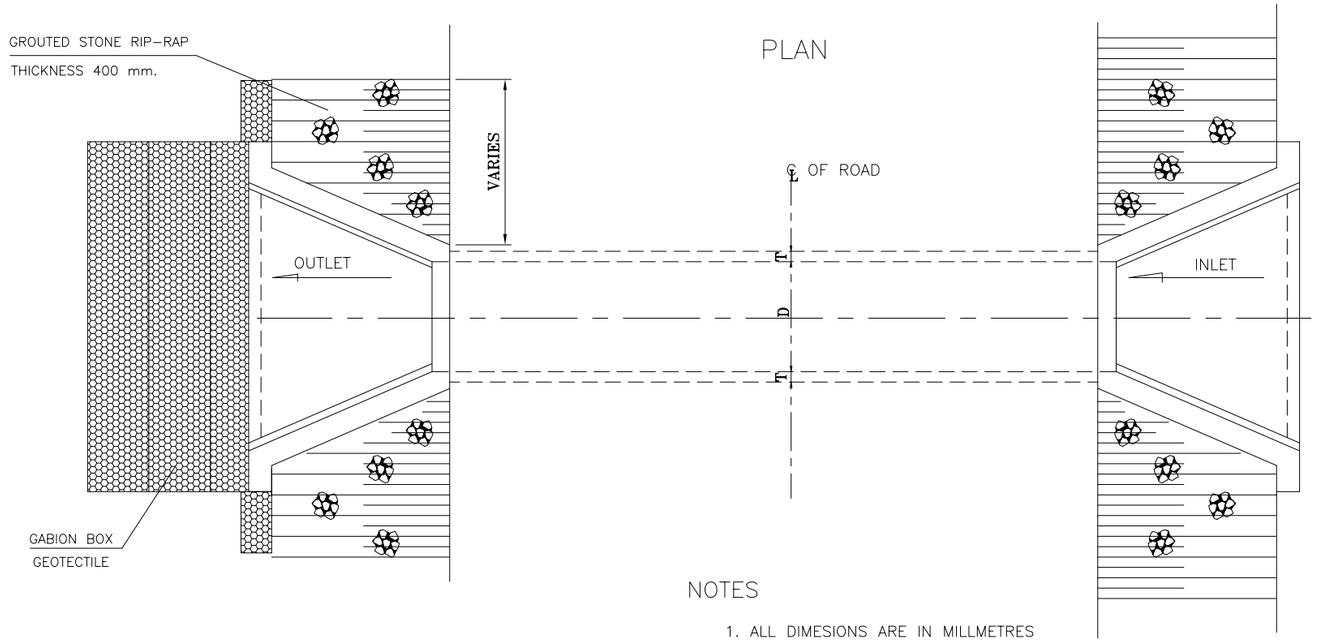
GENERAL VIEW OF PIPE & BOX CULVERT

(NOT TO SCALE)

SIDE VIEW



PLAN



NOTES

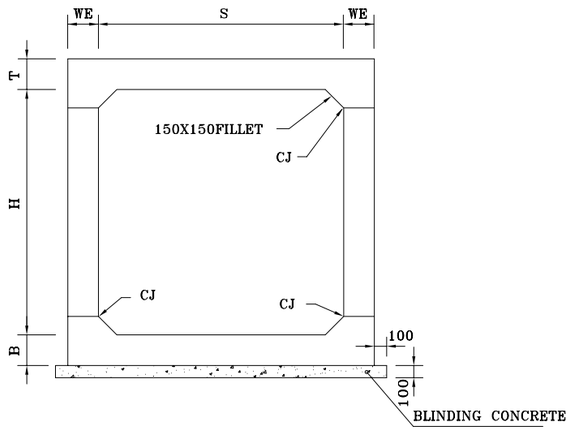
1. ALL DIMESIONS ARE IN MILLMETRES UNLESS OTHERWIDE INDICATED.
2. EROSION PROTECTION WORK SHALL BE DIRECTED BY THE ENGIEER

THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. COMMON GENERAL VIEWS OF PIPE & BOX CULVERT

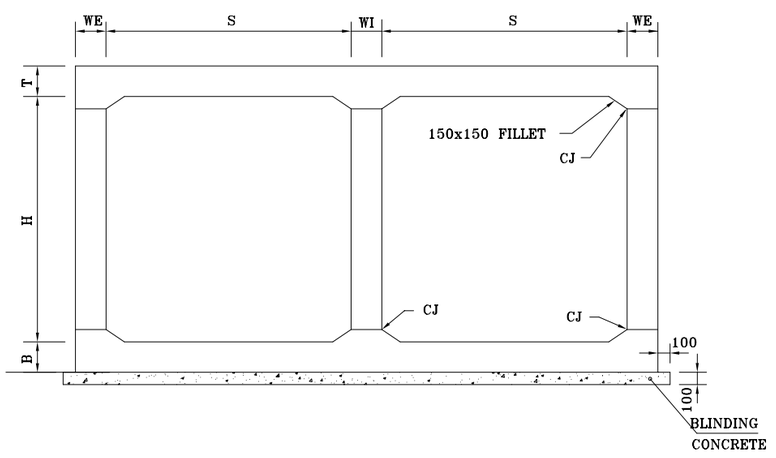
DESIGNED BY	
CHECKED BY	
APPROVED BY	
DWG. NO.	COM-AP-001

BOX CULVERT
(NOT TO SCALE)

SINGLE



DOUBLE



BARREL DIMENSIONS

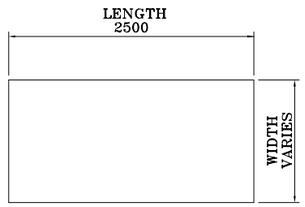
FOR SINGLE CELL

TABLE OF DIMENSIONS				
S mm	H mm	T mm	B mm	WE mm
1500	1500	250	250	200
2000	2000	250	250	200
2500	2500	275	275	200

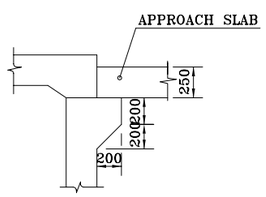
FOR TWO CELLS

TABLE OF DIMENSIONS					
S mm	H mm	T mm	B mm	WE mm	WI mm
1500	1500	250	250	200	200
2000	2000	250	250	200	200
2500	2500	275	275	200	200

APPROACH SLAB



APPROACH SLAB SUPPORT



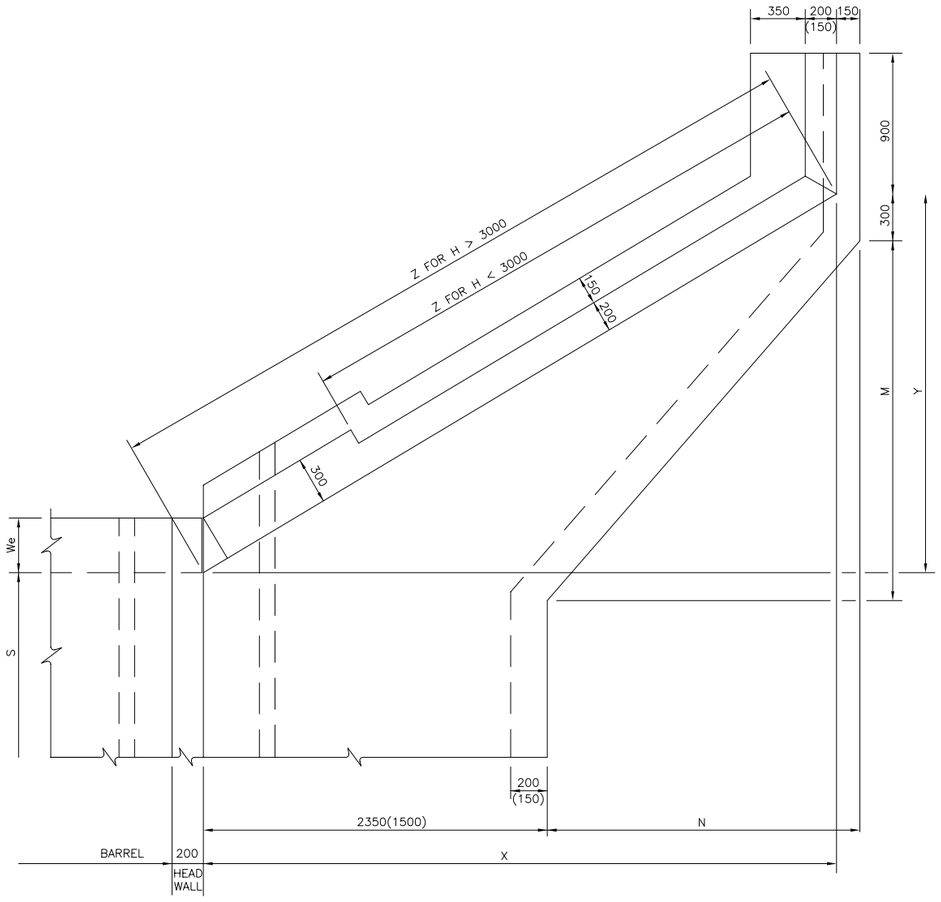
NOTE:

1. APPROACH SLAB SHALL ONLY BE USED WHERE THE COVER IS LESS THAN 0.60m.

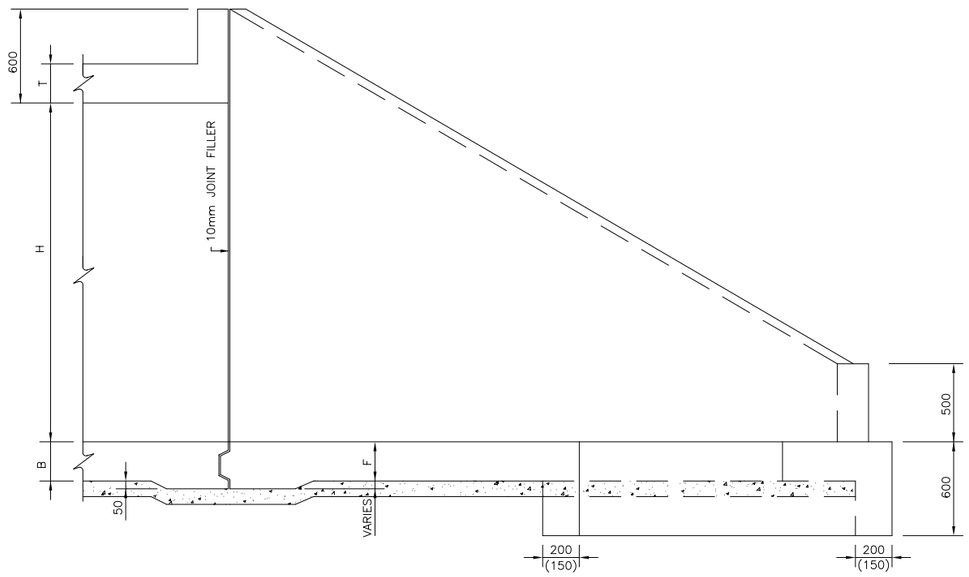
THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. COMMON — BOX CULVERT
					DESIGNED BY
					CHECKED BY
					APPROVED BY
					DWG. NO. COM-AP-002

WING WALL OF BOX CULVERT

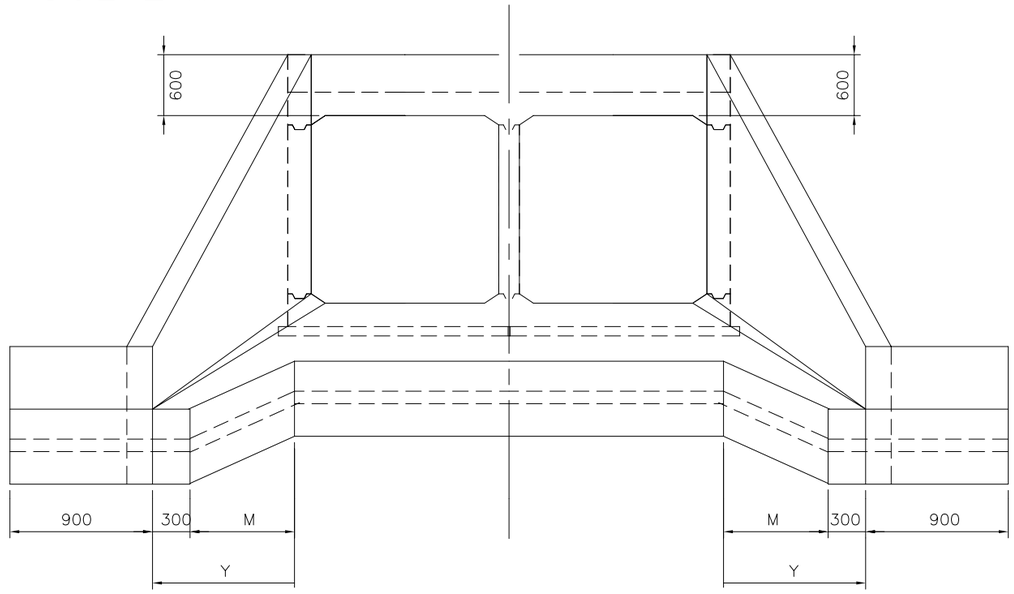
(NOT TO SCALE)



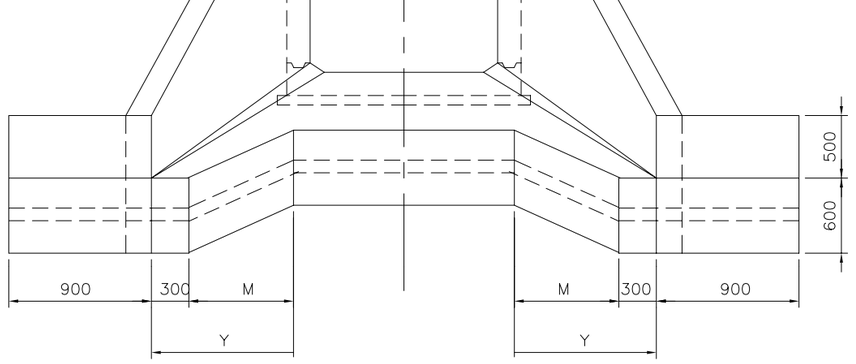
PLAN



SIDE VIEW



FRONT VIEW (DOUBLE)



FRONT VIEW (SINGLE)

WINGWALL DIMENSIONS

H	F	SLOPE 1:2				
		X	Y	Z	M	N
1500	200	3200	1850	3700	800	1000
2000	200	4200	2420	4850	1600	2000
2500	250	5200	3000	6000	2400	3000

THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION

JAPAN INTERNATIONAL COOPERATION AGENCY

ORIENTAL CONSULTANTS COMPANY LIMITED

&

PADECO COMPANY LIMITED

No.	REVISION	DATE

THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R.

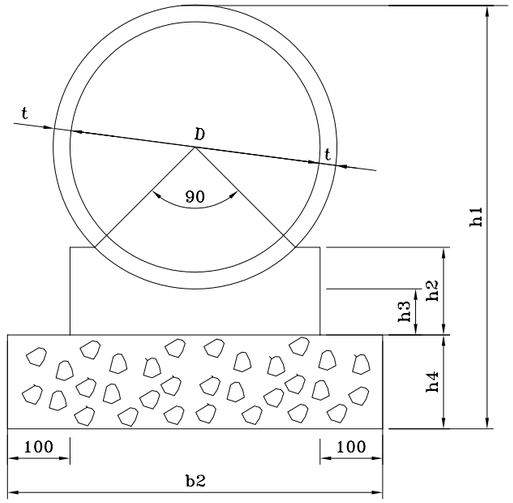
COMMON

WING WALL OF BOX CULVERT

DESIGNED BY	
CHECKED BY	
APPROVED BY	
DWG. NO.	COM-AP-003

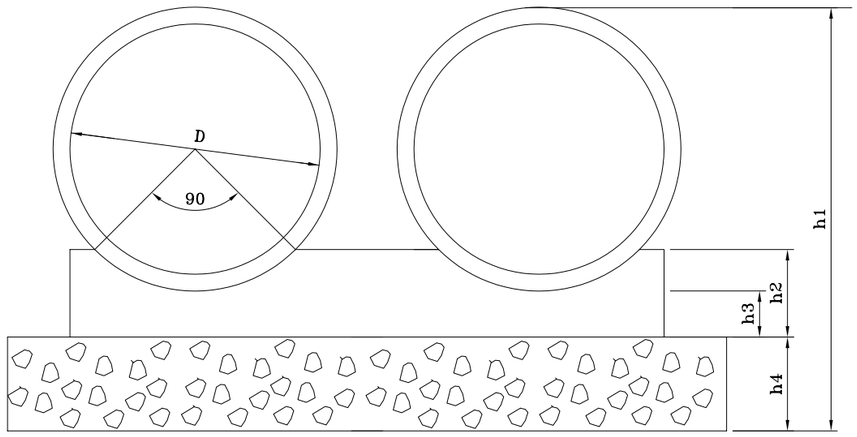
PIPE CULVERT

(NOT TO SCALE)



SINGLE

DIMENSION OF BEDDING AND PAVING								
DIA.(D)	D	T	b1	b2	h1	h2	h3	h4
P1-PC-800	800	66	950	1150	1300	340	200	150
P1-PC-1000	1000	82	1200	1400	1570	380	200	200
P1-PC-1500	1500	112	1750	1950	2170	510	250	200



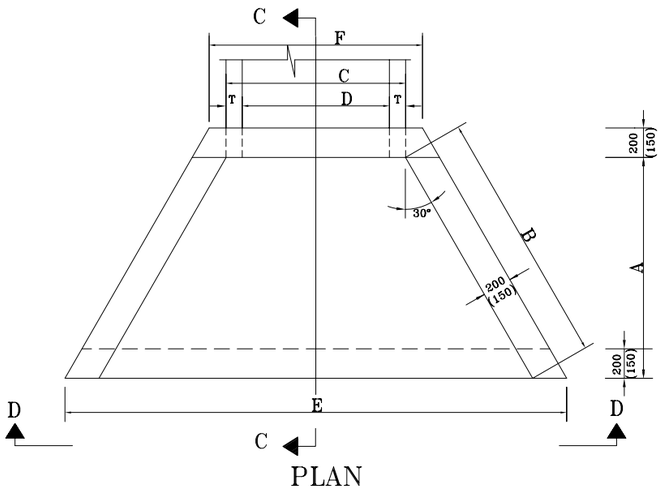
DOUBLE

DIMENSION OF BEDDING AND PAVING								
DIA.(D)	D	T	b1	b2	h1	h2	h3	h4
P1-PC-800	800	75	950	1150	1300	340	200	150
P1-PC-1000	1000	85	1200	1400	1570	380	200	200
P1-PC-1500	1500	110	1750	1950	2170	510	250	200

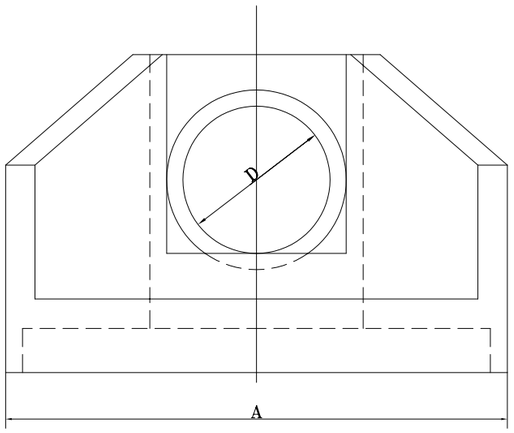
THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. COMMON / PIPE CULVERT DESIGNED BY / CHECKED BY / APPROVED BY / DWG. NO. COM-AP-004

WING WALL OF PIPE CULVERT

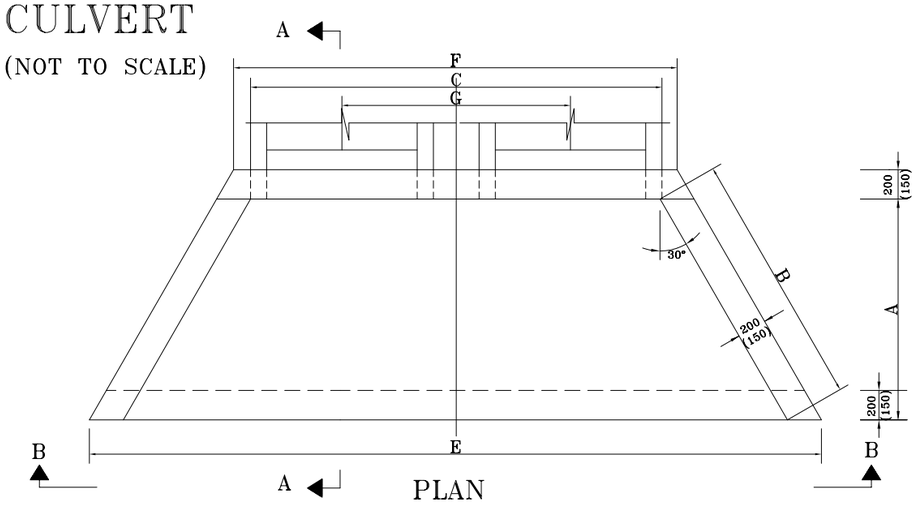
(NOT TO SCALE)



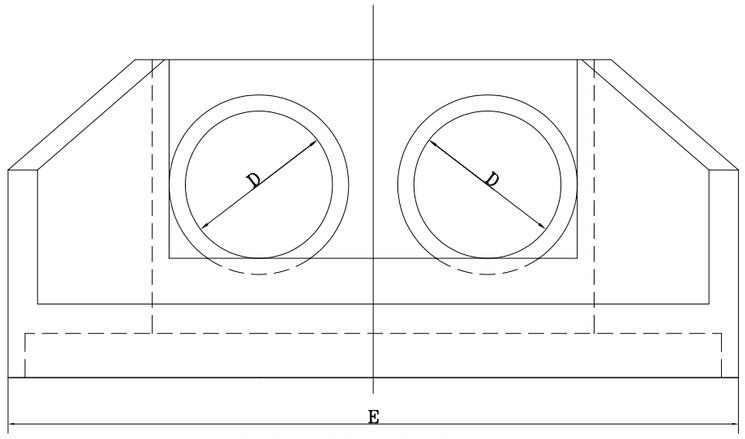
PLAN



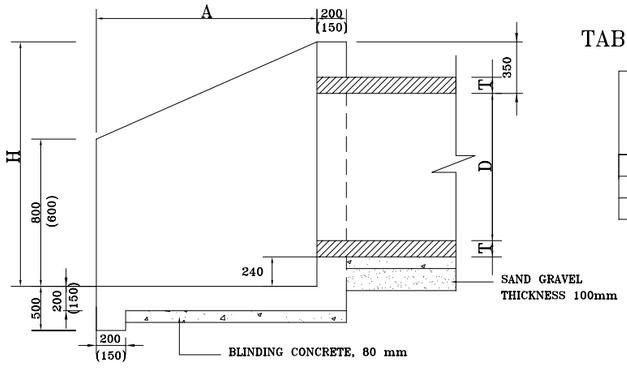
END VIEW D–D



PLAN



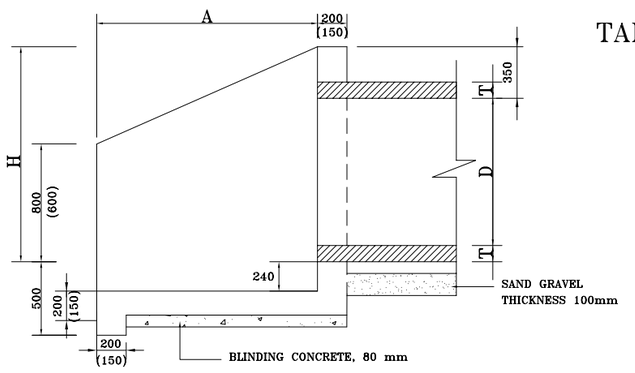
END VIEW B–B



SECTION C–C

TABLE DIMENSIONS FOR SINGLE CELL

DIA. OF PIPE D mm	WALL THICKNESS T (mm)	TABLE OF DIMENSIONS					
		A mm	B mm	C mm	E mm	F mm	H mm
800	95	1300	1500	990	2840	1220	1350
1000	110	1500	1730	1220	3410	1450	1550
1500	150	2500	2900	1800	5200	2030	2050



SECTION A–A

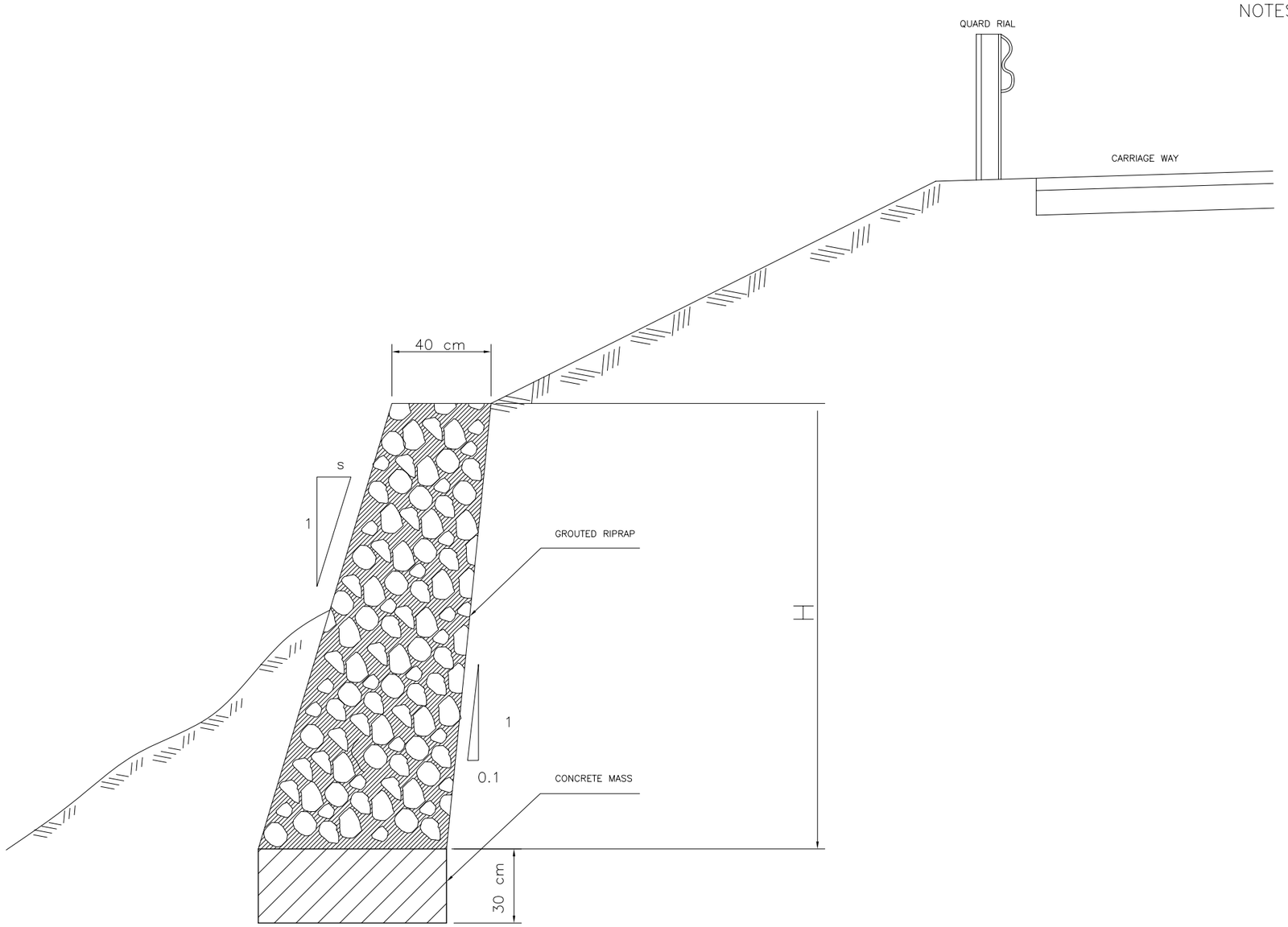
TABLE DIMENSIONS FOR DOUBLE CELL

DIA. OF PIPE D mm	WALL THICKNESS T(mm)	TABLE OF DIMENSIONS						
		A mm	B mm	C mm	E mm	F mm	G mm	H mm
1000	110	1500	1730	2920	5110	3150	1700	1550
1200	125	1900	2190	3350	6010	3580	1900	1750
1500	150	2500	2900	4050	7400	4280	2250	2050

THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No. / REVISION / DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. COMMON — WING WALL OF PIPE CULVERT	DESIGNED BY CHECKED BY APPROVED BY DWG. NO. COM–AP–005

RETAINING WALL (STONE MASONRY TYPE)

(NOT TO SCALE)



NOTES:

1. ALL DIMENSIONS ARE IN METERS, EXCEPT IF OTHERWISE INDICATED.
2. STONES USED FOR ALL RIPRAP PROTECTION SHALL BE HARD,DENSE,DURABLE, ANGULAR AND WITH ANY ONE DIMENSION NOT LESS THAN ONE THIRD THE LARGEST DIMENSION.
3. THE RIP RAP STONES SHALL MEET THE REQUIREMENTS OF GRADATION GIVEN BELOW:

3.1. RIP RAP TYPE A

MAX. STONE WEIGHT	=	40kg.
MIN. 50 PERCENT BY WEIGHT	≥	10kg.
MIN. 75 PERCENT BY WEIGHT	>	2.0kg.
MIN. STONE WEIGHT	=	0.5kg.
MAX. DIMENSION	=	0.25m.

3.2. RIP RAP AT MEDIUM HIGH WATER VELOCITIES

MAX. STONE WEIGHT	=	200kg.
MIN. 50 PERCENT BY WEIGHT	≥	40kg.
MIN. STONE WEIGHT	=	20kg

3.3. RIP RAP AT HIGH WATER VELOCITIES

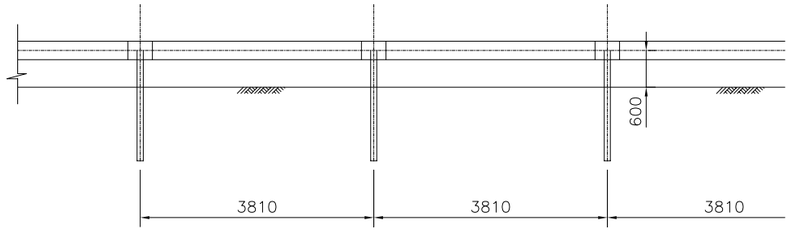
WEIGHT AND DIMENSIONS SHALL BE DETERMINED BASED ON RELATIONSHIP OF WATER VELOCITY AND REQUIRED WEIGHTS AND DIMINSIONS

4. THE THICKNESS OF THE RIPRAP LAYER OF ISEM ACCORDINGLY 4,3 AND 4,4 SHALL RE ADJUSTED
5. GEOTEXTILE SHALL HAVE & WEIGHT OF MIN 200g/m^2, IF NOT OTHERWISE INDICATED CONFORM TO AASHTO M 288;LLASSA,ANDA

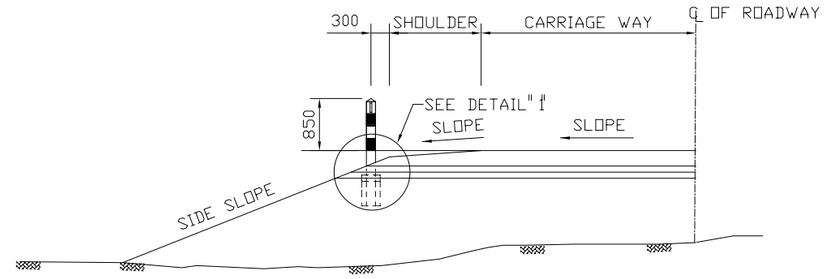
H (m)	S
0 – 2	0.2
2 – 4	0.3

THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED				THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R.	DESIGNED BY	
						CHECKED BY	
					COMMON — RETAINING WALL (STONE MASONRY TYPE)	APPROVED BY	
		No.	REVISION	DATE		DWG. NO.	COM–AP–006

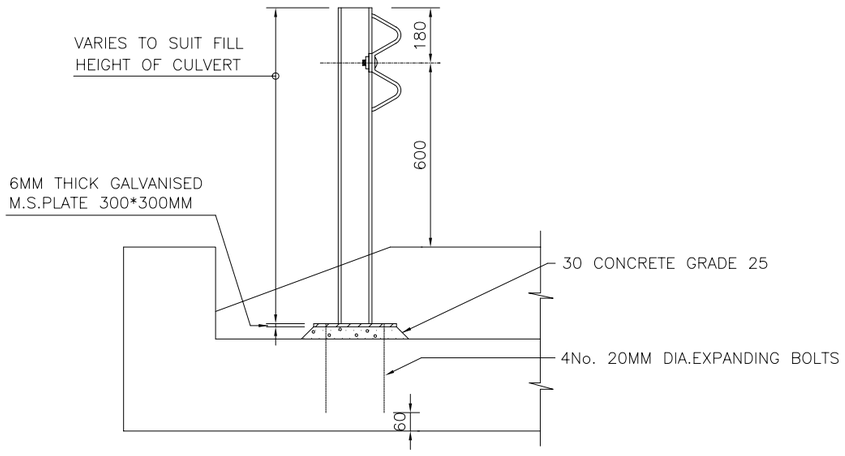
GUARDRAIL AND GUARD POST



ELEVATION (SCALE=1:100)

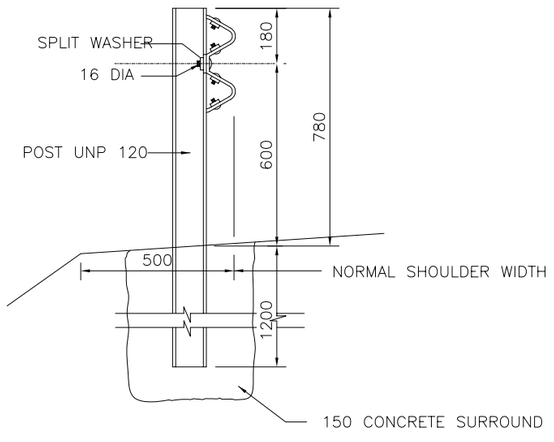


POST ON EMBANKMENT
(NOT TO SCALE)

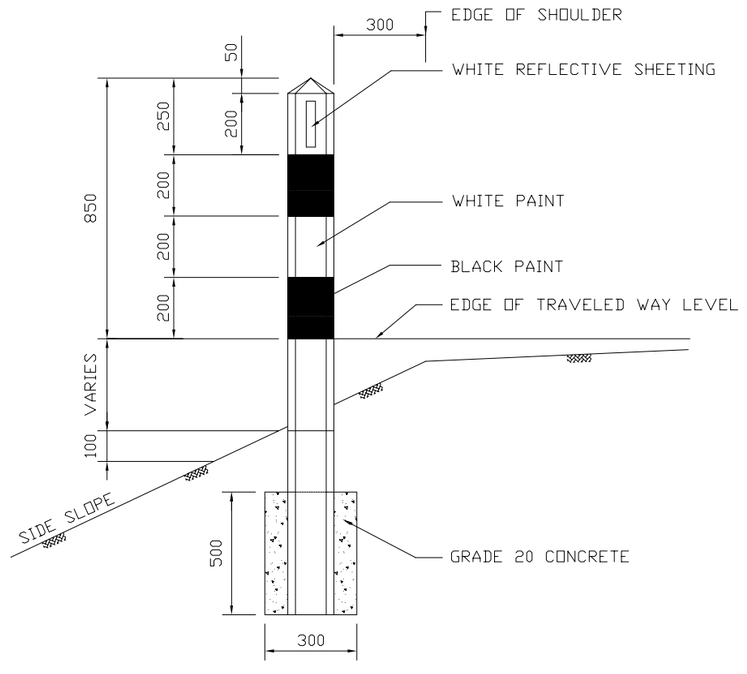


POSTS SHALL BE PLACED AT C/C 1905MM ON CONCRETE BOX CULVERTS.POSTS SHALL BE PLACED AT C/C 1905MM ON A LENGTH OF MINIMUM 20955MM ON EACH SIDE OF THE BOX CULVERT INCLUDING (AS REQUIRED) ARRANGEMENT AT GUARDRAIL ENDS.

DETAIL (ON BOX CULVERT)
(SCALE=1:20)



DETAIL (ON EMBANKMENT)
(SCALE=1:20)

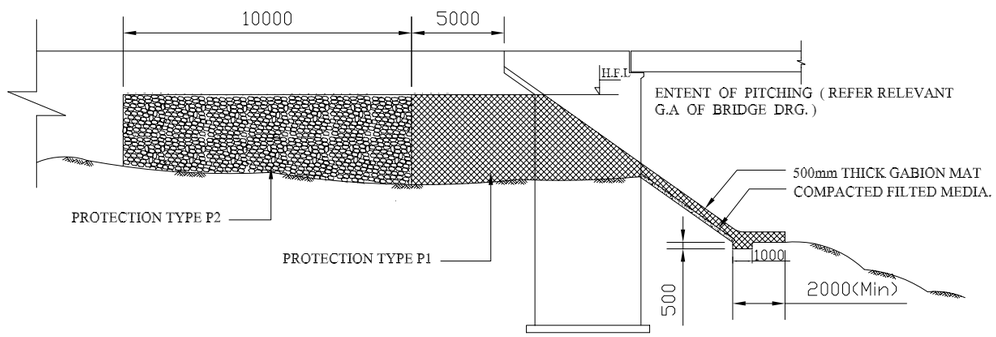


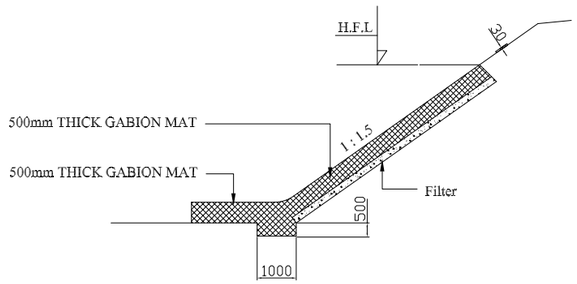
DETAIL
(SCALE=1:20)

THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. COMMON GUARDRAIL & GUARD POST	DESIGNED BY CHECKED BY APPROVED BY DWG. NO.	 COM-AP-007

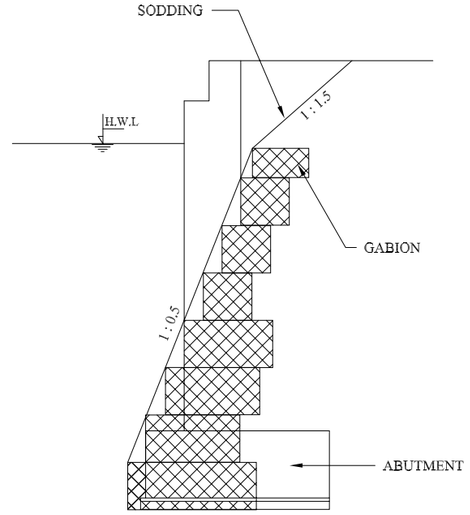
2. STANDARD PROTECTION WORK

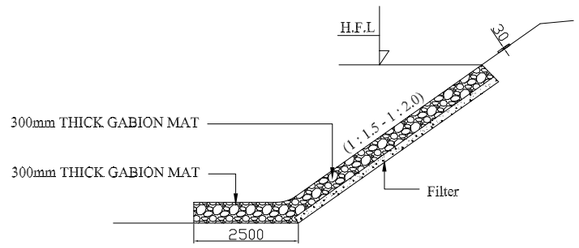
STANDARD PROTECTION WORK



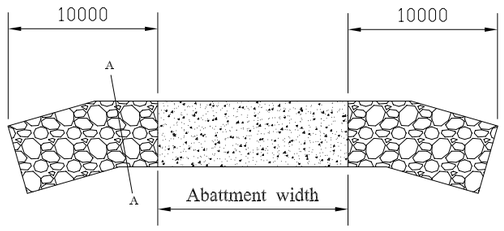


DETAIL OF EMBANKMENT PROTECTION
TYPE P.1

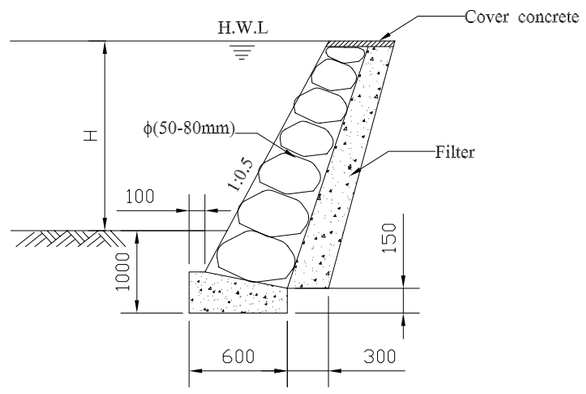




DETAIL OF EMBANKMENT PROTECTION
TYPE P.2



Protection works for Abutments



A - A

THE LAO PEOPLE'S DEMOCRATIC REPUBLIC MINISTRY OF COMMUNICATION TRANSPORT, POST AND CONSTRUCTION	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED & PADECO COMPANY LIMITED	No.	REVISION	DATE	THE STUDY ON IMPROVEMENT OF ROADS IN THE SOUTHERN REGION IN LAO P.D.R. COMMON STANDARD PROTECTION WORK

DESIGNED BY	
CHECKED BY	
APPROVED BY	
DWG. NO.	COM-BR-001