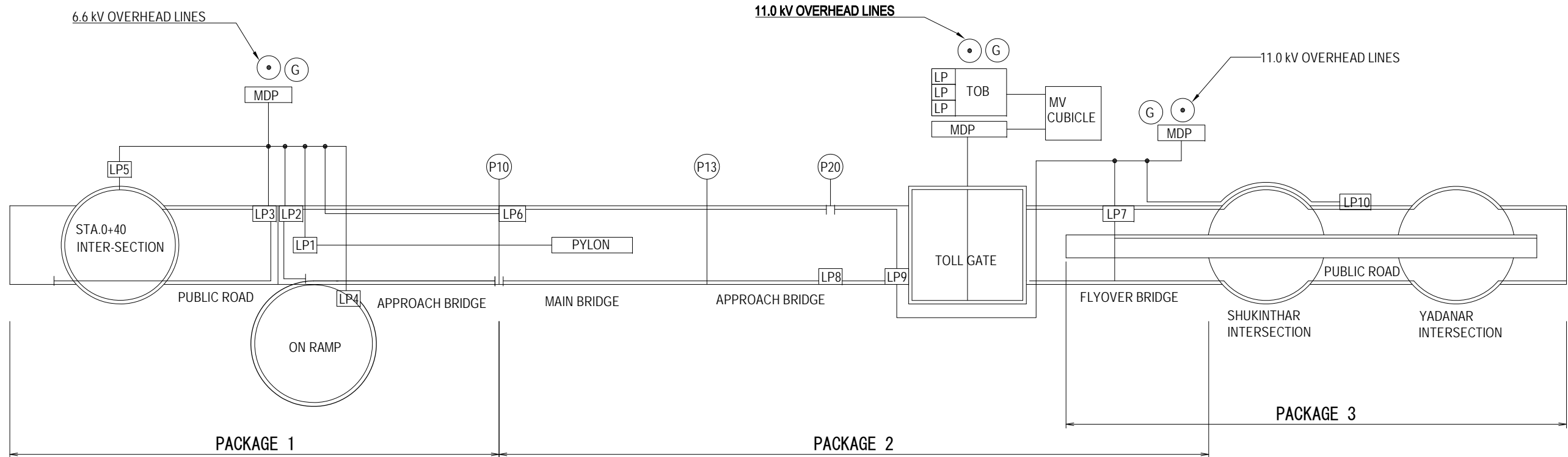
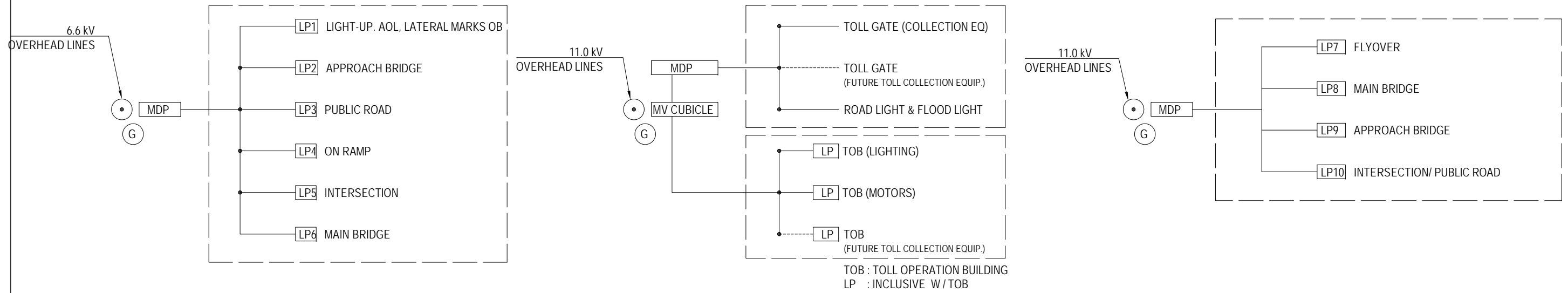


G. LIGHTING

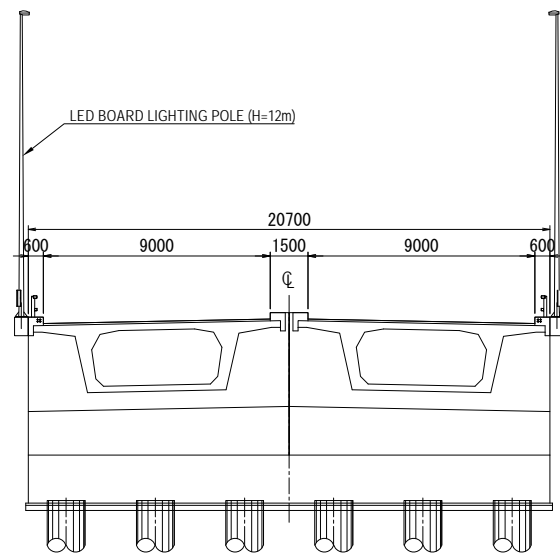
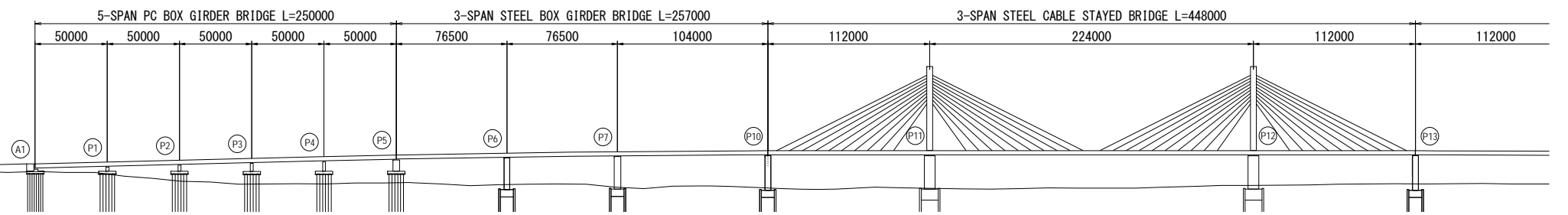
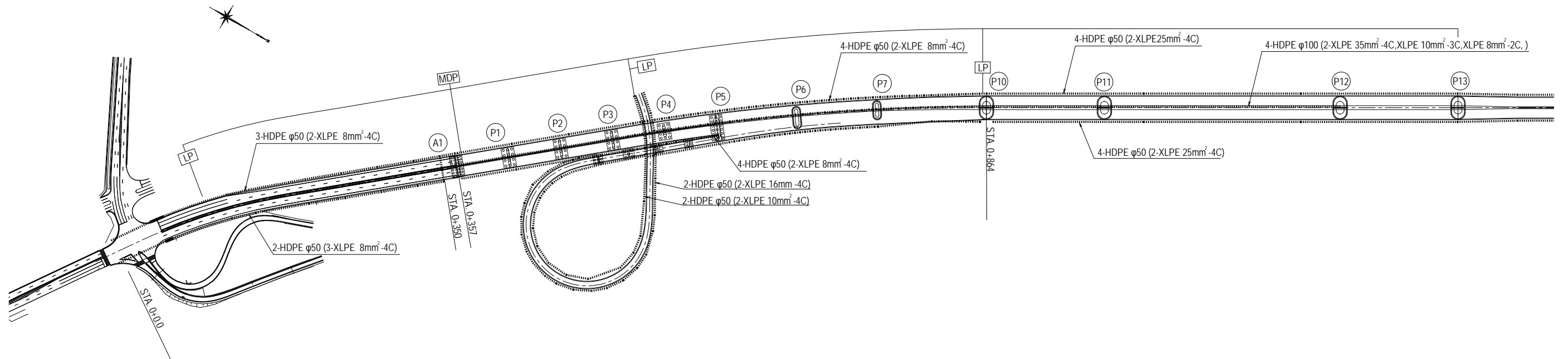
TYPICAL POWER DISTRIBUTION PLAN



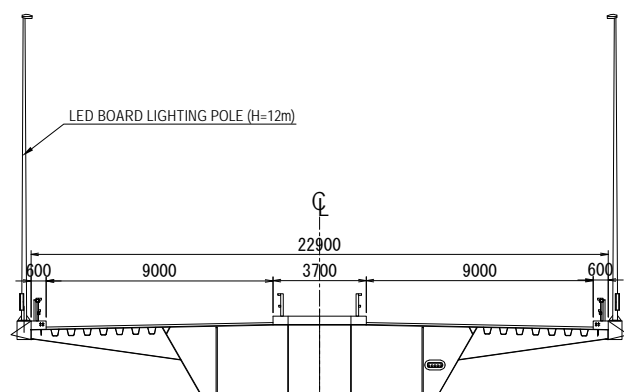
POWER DISTRIBUTION DIAGRAM

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE TYPICAL POWER DISTRIBUTION PLAN	PACKAGE	
				PREPARED BY	K. MORIMATA			29 Sep. 2017	1
				CHECKED BY	T. HAYAKAWA			3 Oct. 2017	DWG No.
				APPROVED BY	Y. SANO			6 Oct. 2017	P1-EL- 0001

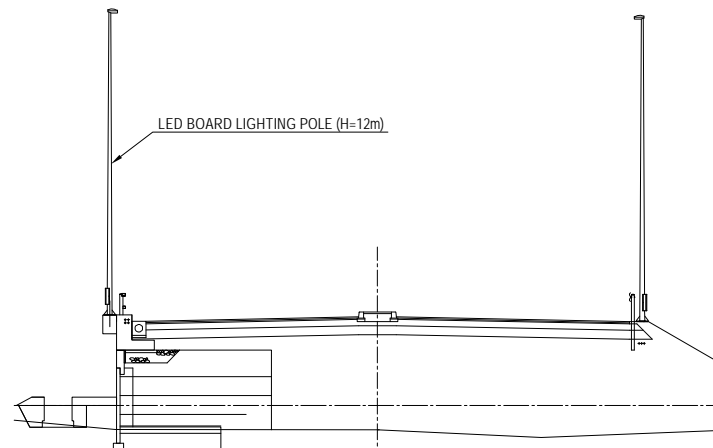
TYPICAL WIRING PLAN



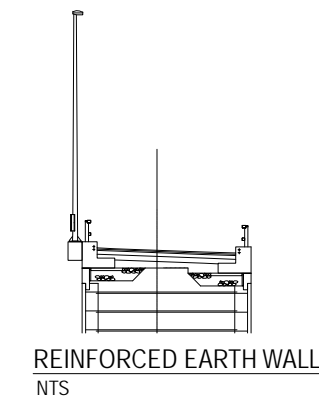
PC BOX GIRDER BRIDGE SECTION
NTS



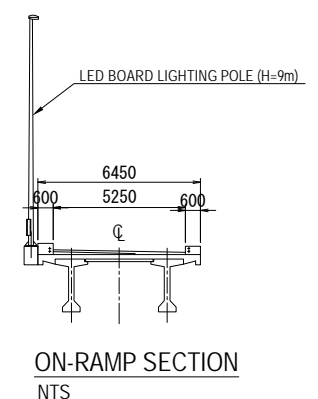
CABLE STAYED BRIDGE SECTION
NTS



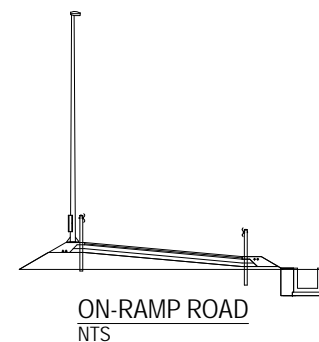
APPROACH ROAD SECTION
NTS



REINFORCED EARTH WALL
NTS



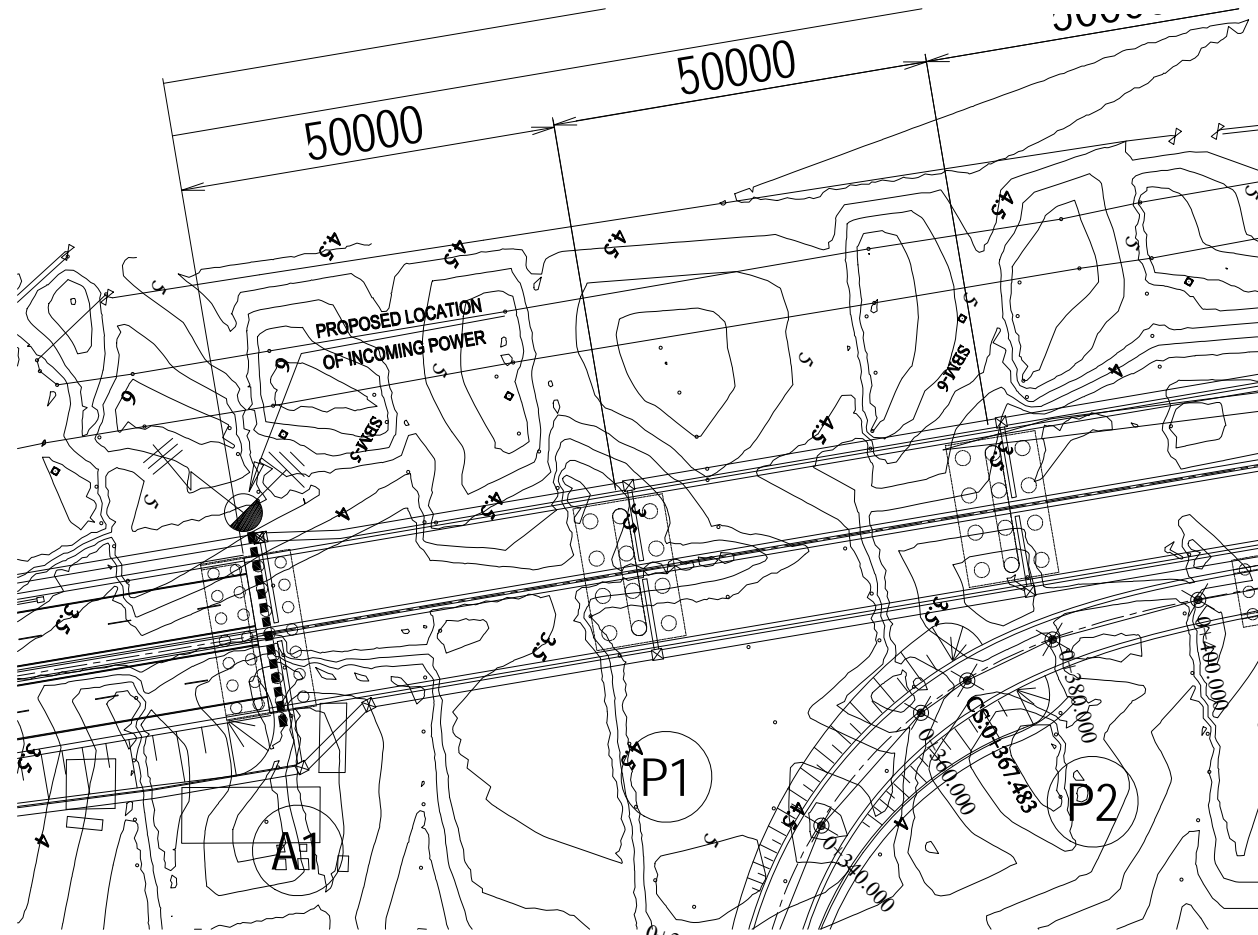
ON-RAMP SECTION
NTS



ON-RAMP ROAD
NTS

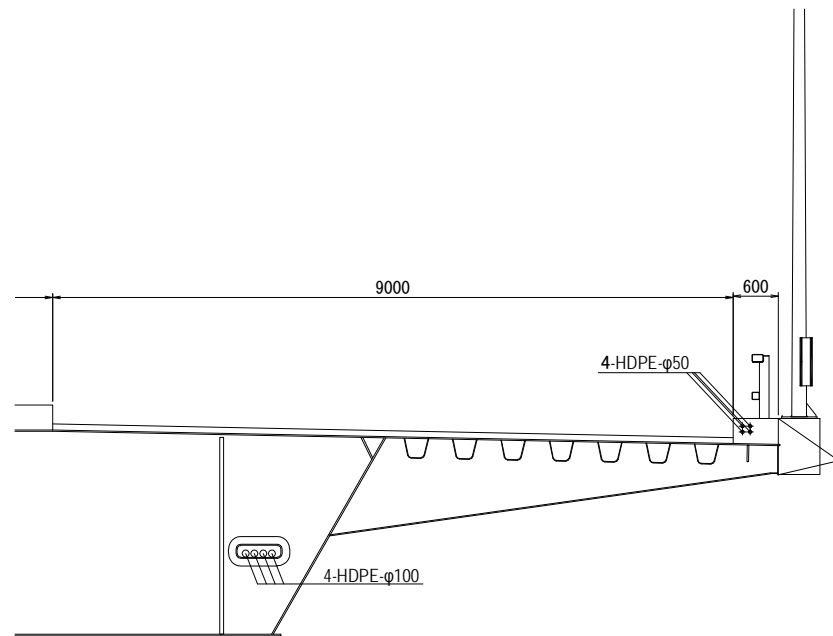
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	K. MORIMATA				29 Sep. 2017
				CHECKED BY	T. HAYAKAWA				3 Oct. 2017
				APPROVED BY	Y. SANO				6 Oct. 2017
TYPICAL WIRING PLAN							1	DWG No.	
								P1-EL- 0002	

(REFERENCE) INCOMING POWER RECEIVING FOR ROAD LIGHTING

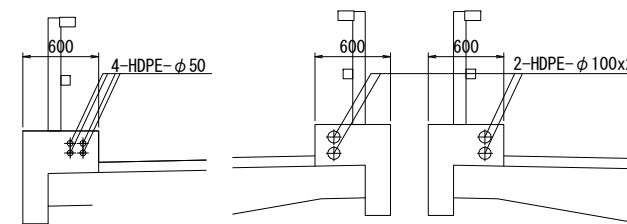


WIRING POSITION

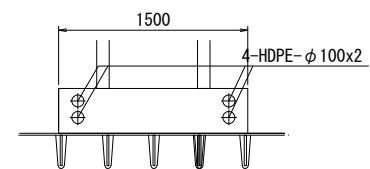
CABLE STAYED BRIDGE CROSS SECTION



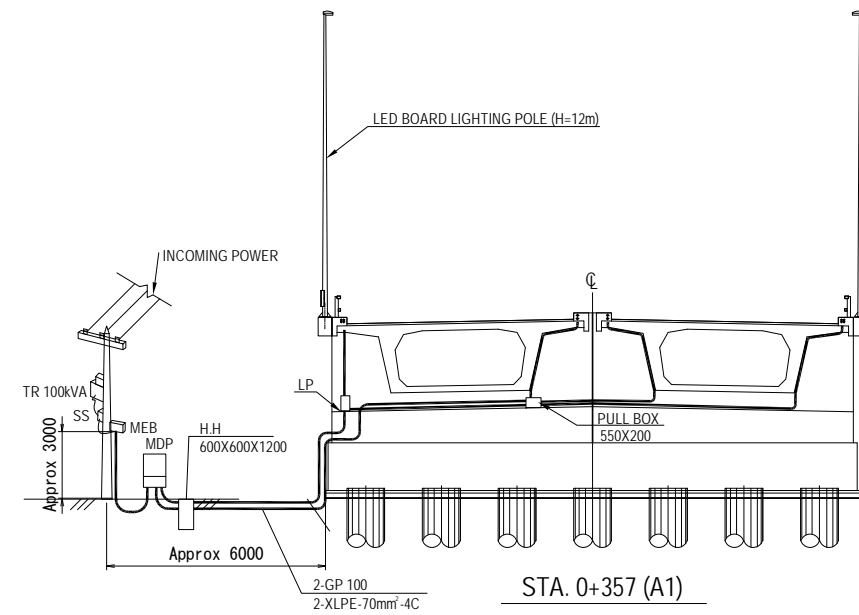
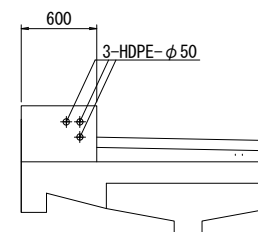
CONCRETE KERB BARRIER AND MEDIAN



PCBOX GIRDER AND STEEL BOX GIRDER

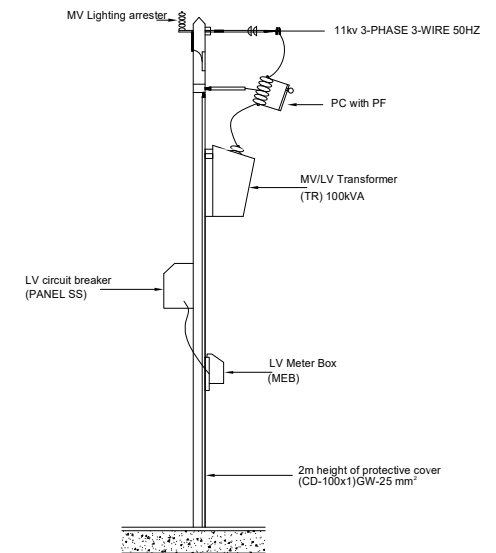


ONRAMP



OUTLINE OF INCOMING POWER RECEIVING (REFERENCE)

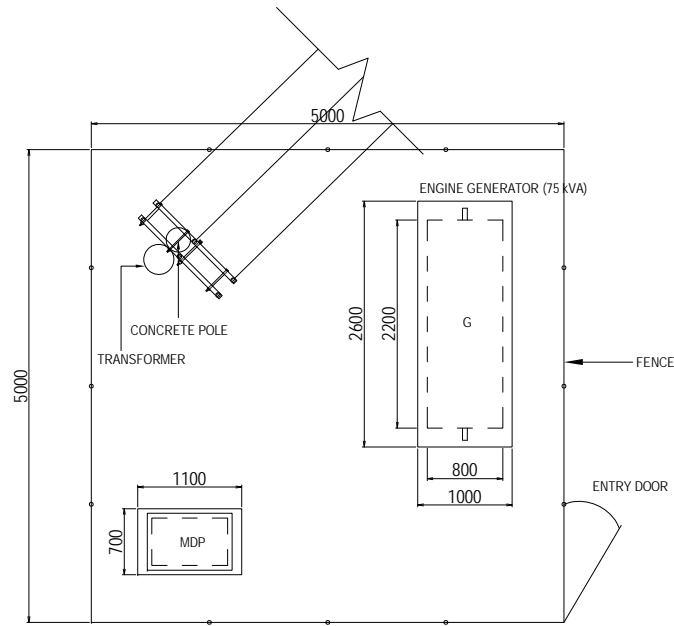
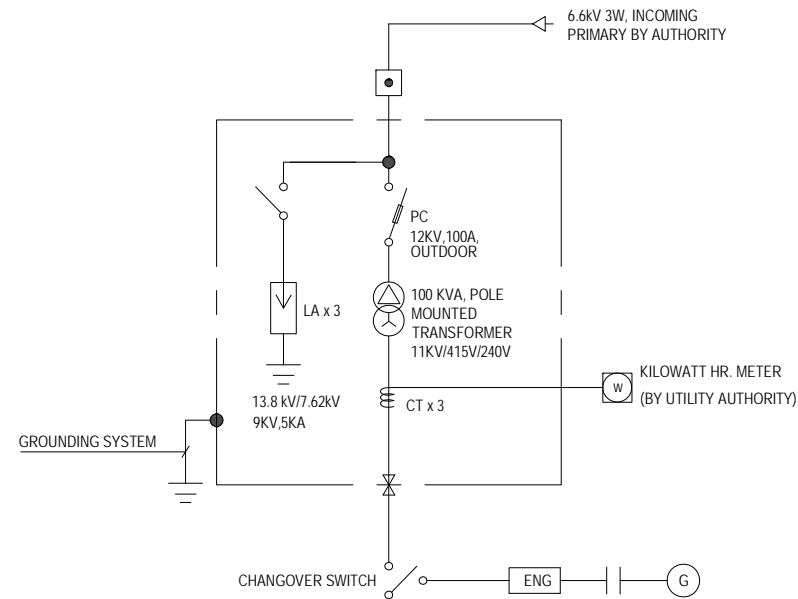
OUTLINE OF INCOMING POWER RECEIVING



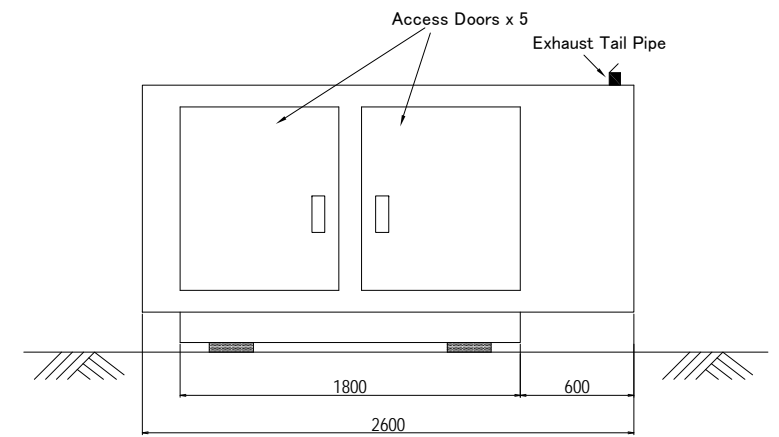
NOTE: Main Distribution Panel should be installed above the high water level (H.W.L) of 4.99 (M.S.L).

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) INCOMING POWER RECEIVING FOR ROAD LIGHTING	PACKAGE	
				PREPARED BY	HAYAKAWA K. MORIMATA			29 Sep. 2017	1
				CHECKED BY	T. HAYAKAWA			3 Oct. 2017	DWG No.
				APPROVED BY	Y. SANO			6 Oct. 2017	P1-EL- 0003

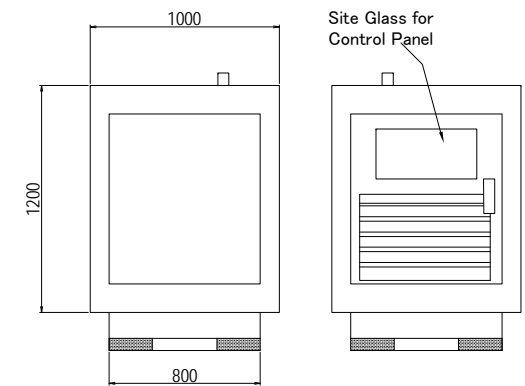
TYPICAL MV SITE SUBSTATION



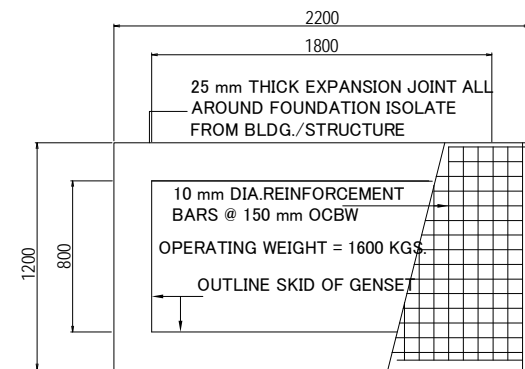
SITE LAYOUT OF INCOMING POWER STATION S=1:80



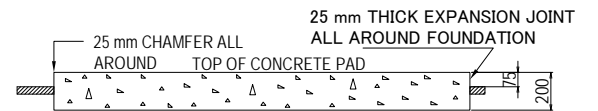
FRONT VIEW



SIDE VIEW

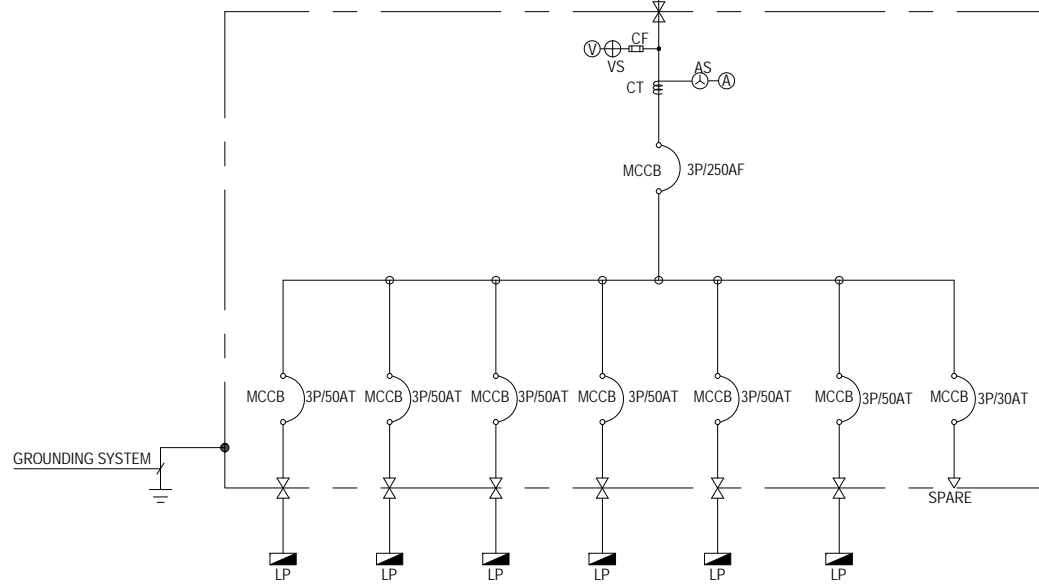


TOP VIEW



CONCRETE FOUNDATION

REFERENCE LAYOUT OF ENGINE GENERATOR S=1:40



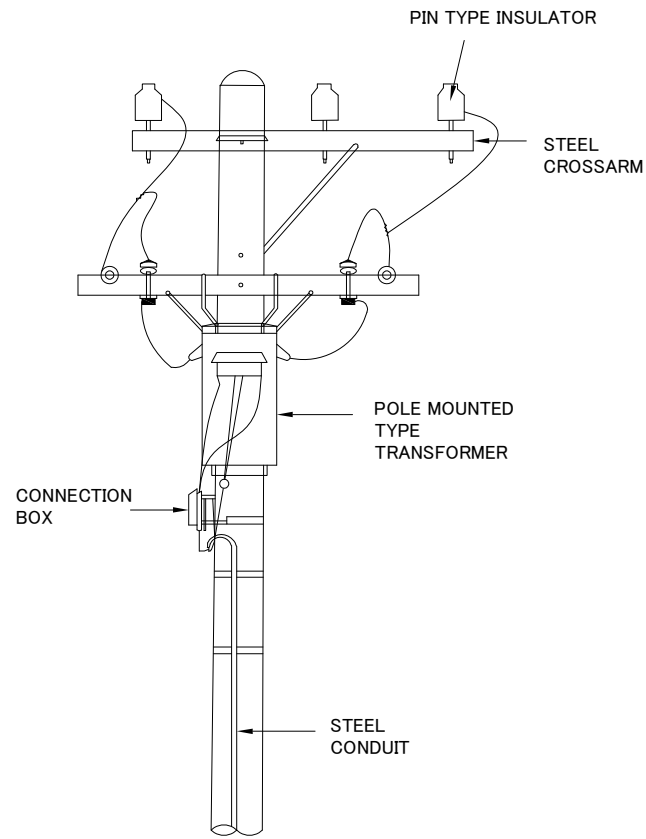
SINGLE LINE DIAGRAM

LEGEND

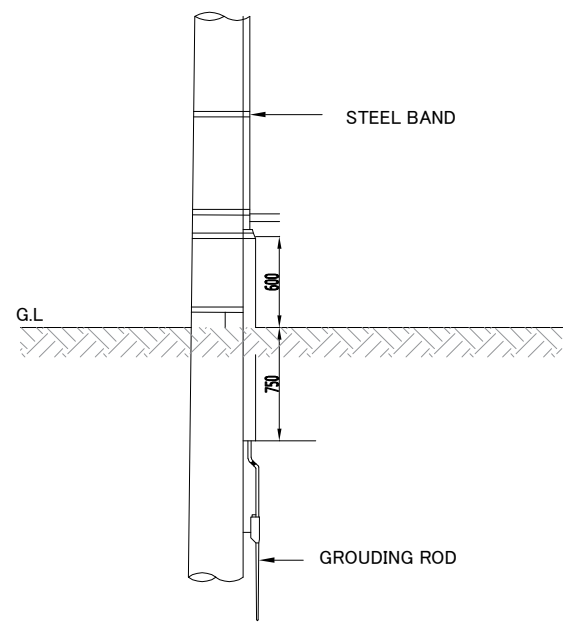
- LIGHTING PANEL
- MOLD-CASE CIRCUIT BREAKER (MCCB)
- GROUNDING
- KILOWATT HR. METER
- POWER TRANSFORMER
- PRIMARY CUTOUT (PC) WITH POWER FUSE (PF)
- LIGHTING ARRESTER (LA)
- GENERATOR
- ENGINE
- AS - AMMETER CHANGE OVER SWITCH
- CF - CURRENT FUSE
- VS - VOLTAGE CHANGE OVER SWITCH
- CT - CURRENT TRANSFORMER
- MDP - MAIN DISTRIBUTION PANEL
- PF - POWER FUSE

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	K. MORIMATA				29 Sep. 2017
				CHECKED BY	T. HAYAKAWA				3 Oct. 2017
				APPROVED BY	Y. SANO				6 Oct. 2017
TYPICAL MV SITE SUBSTATION							1	DWG No.	P1-EL- 0004

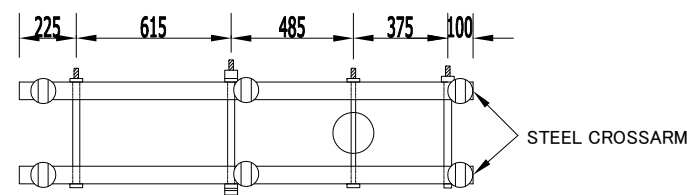
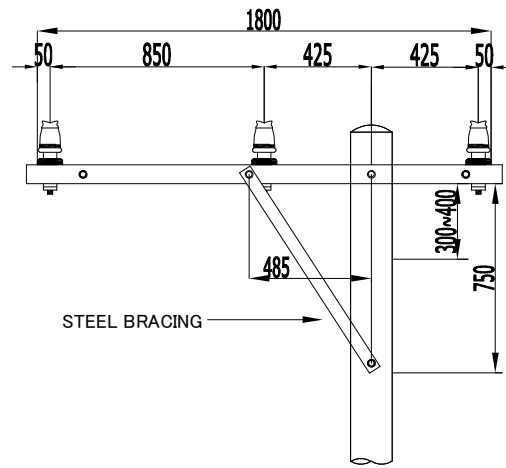
TYPICAL ELECTRIC POLE ASSEMBLING (6.6kv)



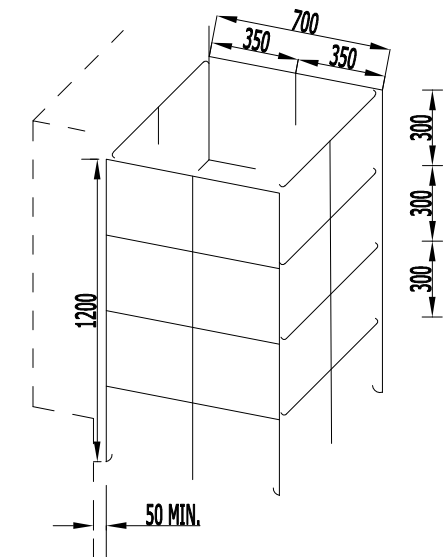
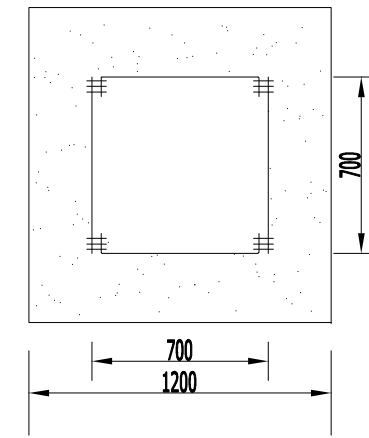
TYPICAL POLE ASSEMBLING FOR
POLE MOUNTED TRANSFORMER



TYPICAL GROUNDING SYSTEM

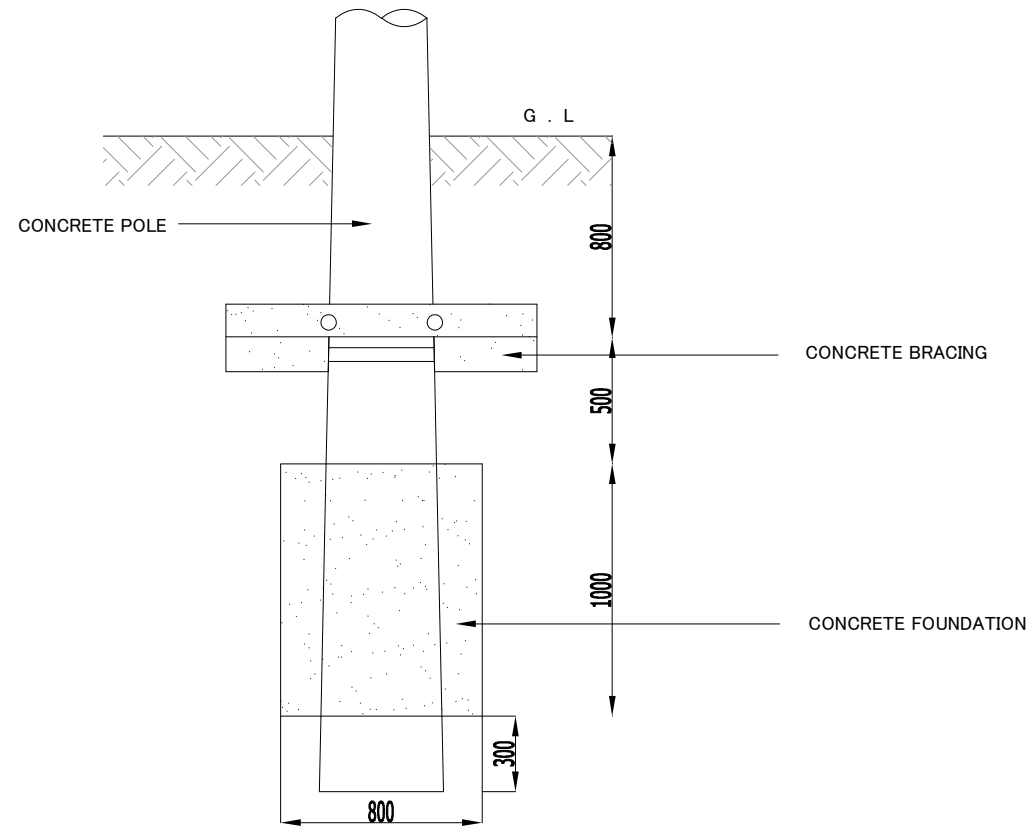


TYPICAL POLE ASSEMBLING FOR
EXTENDED OVERHEAD LINES



NOTE : REINFORCEMENT BAR WITH MORE THAN 10MM DIA.
SHALL BE ARRANGED.

TYPICAL CONCRETE FOUNDATION
AND RE-BAR ARRANGEMENT



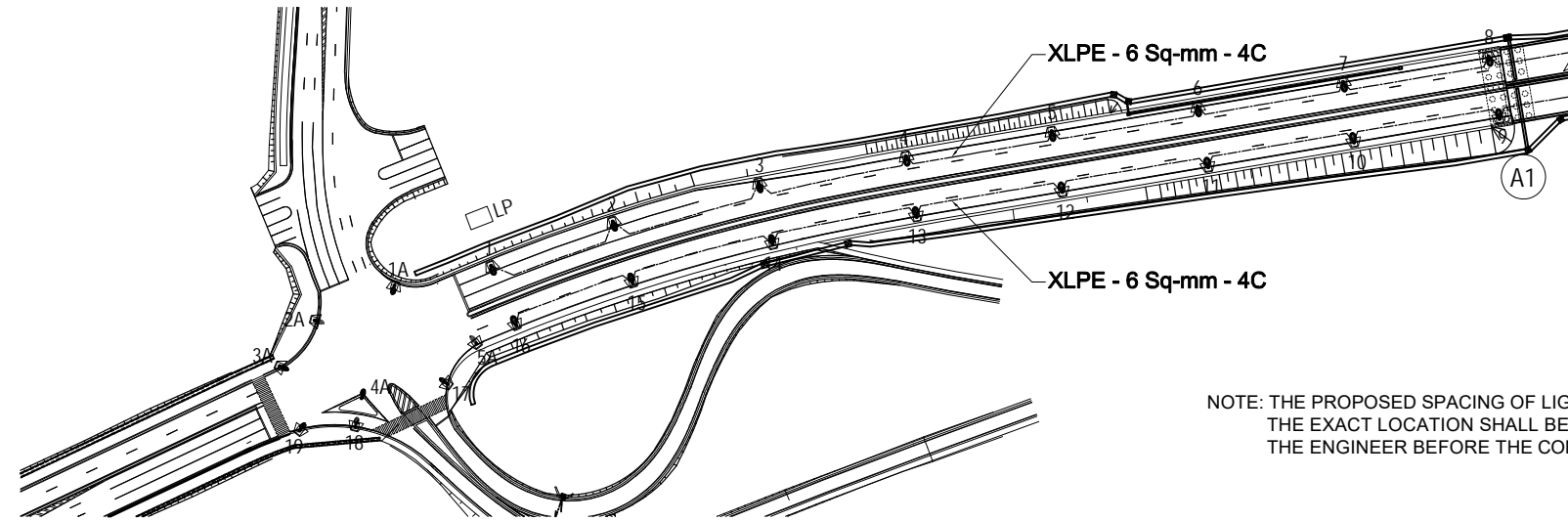
TYPICAL POLE CONCRETE BRACING

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY jica JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME K. MORIMATA	SIGNATURE <i>[Signature]</i>	DATE 29 Sep. 2017	DRAWING TITLE TYPICAL ELECTRIC POLE ASSEMBLING	PACKAGE 1
				CHECKED BY T. HAYAKAWA	<i>[Signature]</i>	3 Oct. 2017		DWG No.
				APPROVED BY Y. SANO	<i>[Signature]</i>	6 Oct. 2017		P1-EL- 0005

TYPICAL LIGHTING PLAN FOR RETAINING WALL APPROACH (THANLYIN SIDE)

LEGEND:

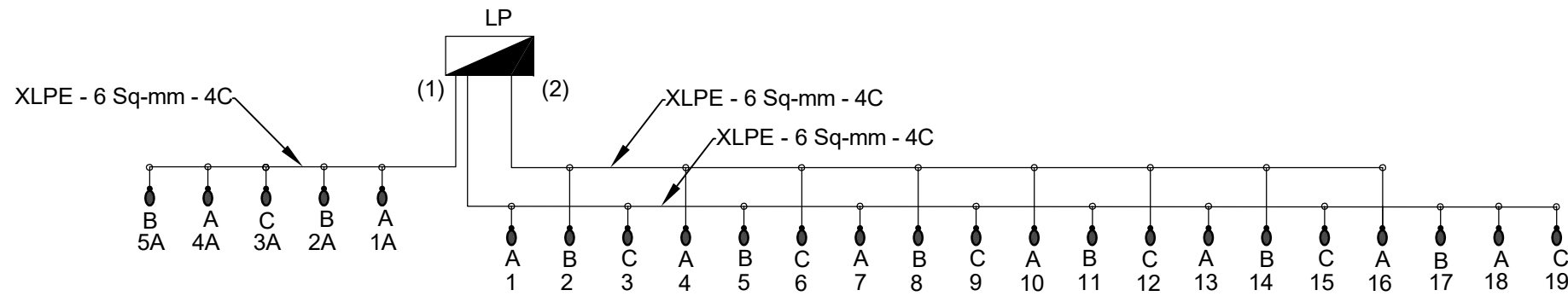
- - ROAD LIGHTING POLE 140(W) 12m HEIGHT
- ⊗ - WARNING LIGHTS, 200 (W)
- ▬ - LIGHTING PANEL
- ⊥ - GROUNDING



NOTE: THE PROPOSED SPACING OF LIGHTING POLE IS 40M AT THE DESIGN STAGE.
THE EXACT LOCATION SHALL BE PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER BEFORE THE COMMENCEMENT OF INSTALLATION

LIGHTING PLAN FOR RETAINING WALL APPROACH (THANLYIN SIDE)

NTS



WIRING DIAGRAM

CKT = LP (1)

DESCRIPTION	CONNECTED LOAD (VA)				CIRCUIT BREAKER		
	TOTAL	A	B	C	P	AF	AT
RETAINING WALL APPROACH	165	165			1	25	15
	165			165	1		
	165		165		1		
	165	165			1		
	165			165	1		
	165		165		1		
	165	165			1		
	165			165	1		
	165	165			1		
	165		165		1		
RETAINING WALL APPROACH INTERSECTION	177	177			1		
	177		177		1		
	177			177	1		
	177	177			1		
	177		177		1		
SPARE	1000				3		
SPARE							
SUBTOTAL	3,700	1,014	849	837		25	15

CKT = LP (2)

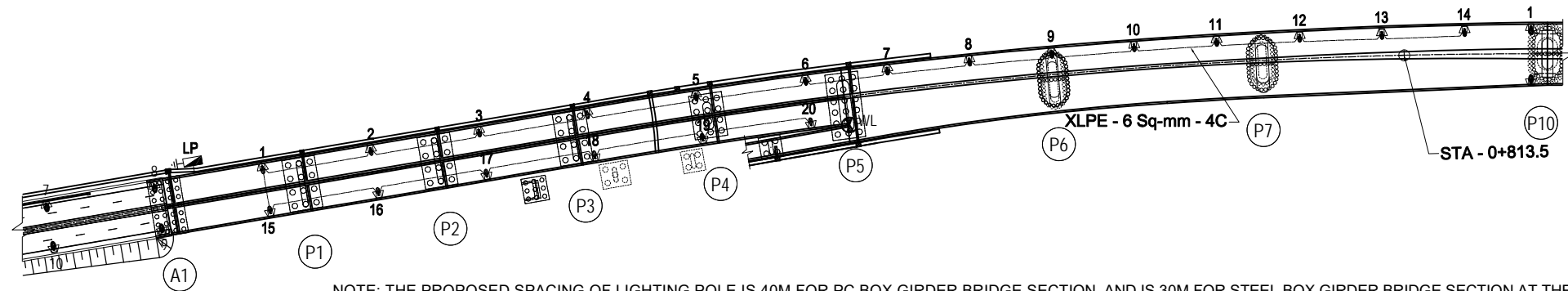
DESCRIPTION	CONNECTED LOAD (VA)				CIRCUIT BREAKER		
	TOTAL	A	B	C	P	AF	AT
RETAINING WALL APPROACH	165		165		1	25	15
	165	165			1		
	165			165	1		
	165		165		1		
	165	165			1		
	165			165	1		
	165		165		1		
RETAINING WALL APPROACH	165	165			1		
SPARE	1000				3		
SPARE							
SUBTOTAL	2320	495	495	330		25	15

LOAD SCHEDULE

TYPICAL LIGHTING PLAN FOR PC BOX GIRDER AND STEEL BOX GIRDER BRIDGE (THANLYIN SIDE)

LEGEND:

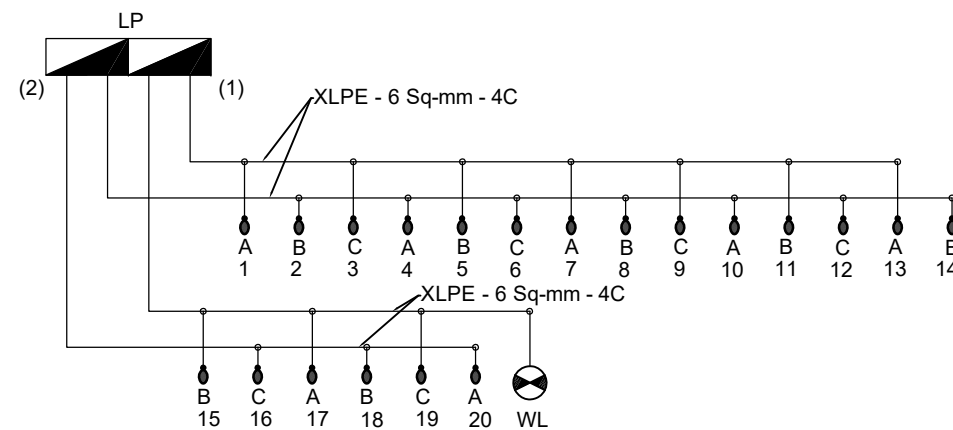
- - ROAD LIGHTING POLE 140(W) 12m HEIGHT
- ⊙ - WARNING LIGHTS, 200 (W)
- ▬ - LIGHTING PANEL
- ⊥ - GROUNDING



NOTE: THE PROPOSED SPACING OF LIGHTING POLE IS 40M FOR PC BOX GIRDER BRIDGE SECTION, AND IS 30M FOR STEEL BOX GIRDER BRIDGE SECTION AT THE DESIGN STAGE. THE EXACT LOCATION SHALL BE PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER BEFORE THE COMMENCEMENT OF INSTALLATION

LIGHTING PLAN FOR PC BOX GIRDER AND STEEL BOX GIRDER (THANLYIN SIDE)

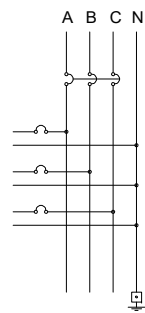
NTS



WIRING DIAGRAM

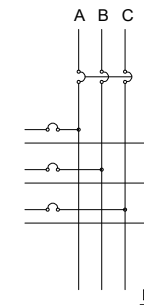
CKT = LP (1)

DESCRIPTION	CONNECTED LOAD (VA)			CIRCUIT BREAKER			
	TOTAL	A	B	C	P	AF	AT
Approach Bridge	165	165			1	25	15
	165			165	1		
	165		165		1		
	165	165			1		
	165			165	1		
	165		165		1		
	165	165			1		
	165		165		1		
Approach Bridge	165			165	1		
Warning Light	200	200					
SPARE	1000				3		
SPARE							
SUBTOTAL	2850	860	495	495		25	15



CKT = LP (2)

DESCRIPTION	CONNECTED LOAD (VA)			CIRCUIT BREAKER			
	TOTAL	A	B	C	P	AF	AT
Approach Bridge	165		165		1	25	15
	165	165			1		
	165			165	1		
	165		165		1		
	165	165			1		
	165			165	1		
	165		165		1		
	165	165			1		
	165			165	1		
Approach Bridge	165	165			1		
SPARE	1000				3		
SPARE	2650	495	660	495		25	15
SUBTOTAL							

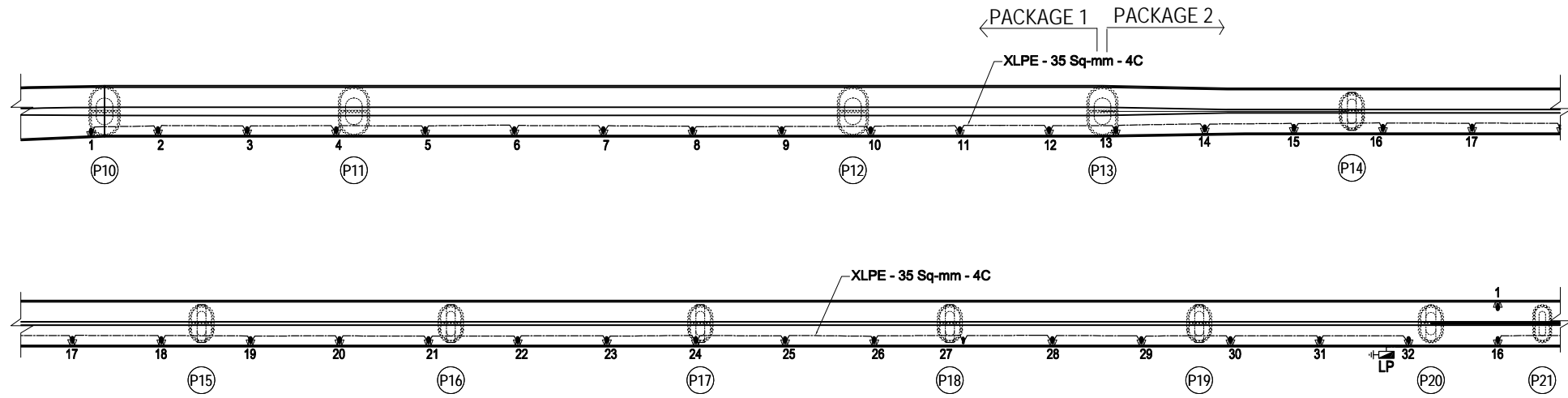


LOAD SCHEDULE

TYPICAL LIGHTING PLAN FOR CABLE-STAYED BRIDGE (2)

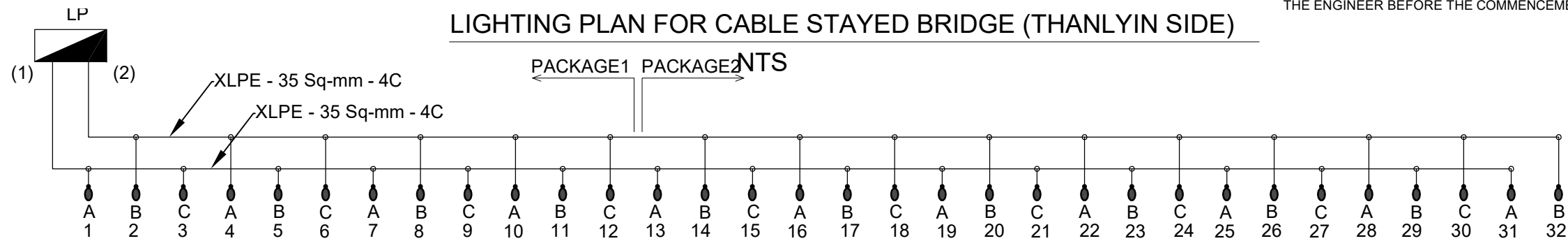
LEGEND:

- - ROAD LIGHTING POLE 140(W) 12m HEIGHT
- ⊗ - WARNING LIGHTS, 200 (W)
- ▬ - LIGHTING PANEL
- ⊥ - GROUNDING



NOTE: THE PROPOSED SPACING OF LIGHTING POLE IS 40M AT THE DESIGN STAGE.
THE EXACT LOCATION SHALL BE PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER BEFORE THE COMMENCEMENT OF INSTALLATION

LIGHTING PLAN FOR CABLE STAYED BRIDGE (THANLYIN SIDE)

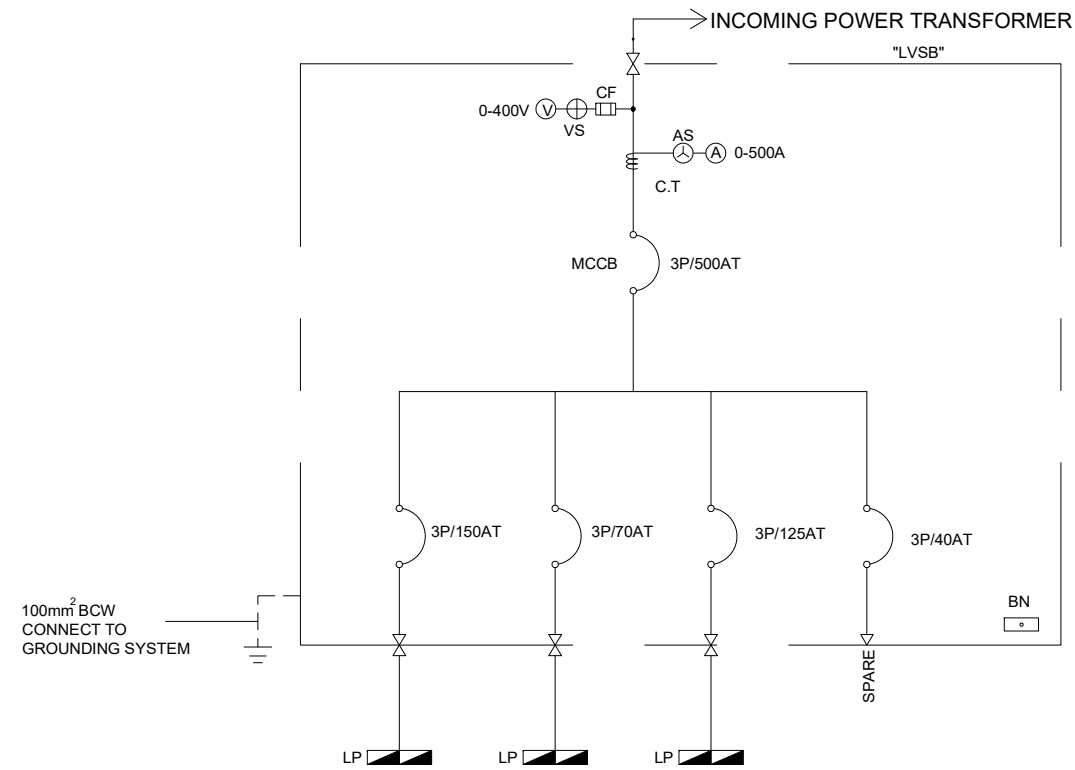


WIRING DIAGRAM

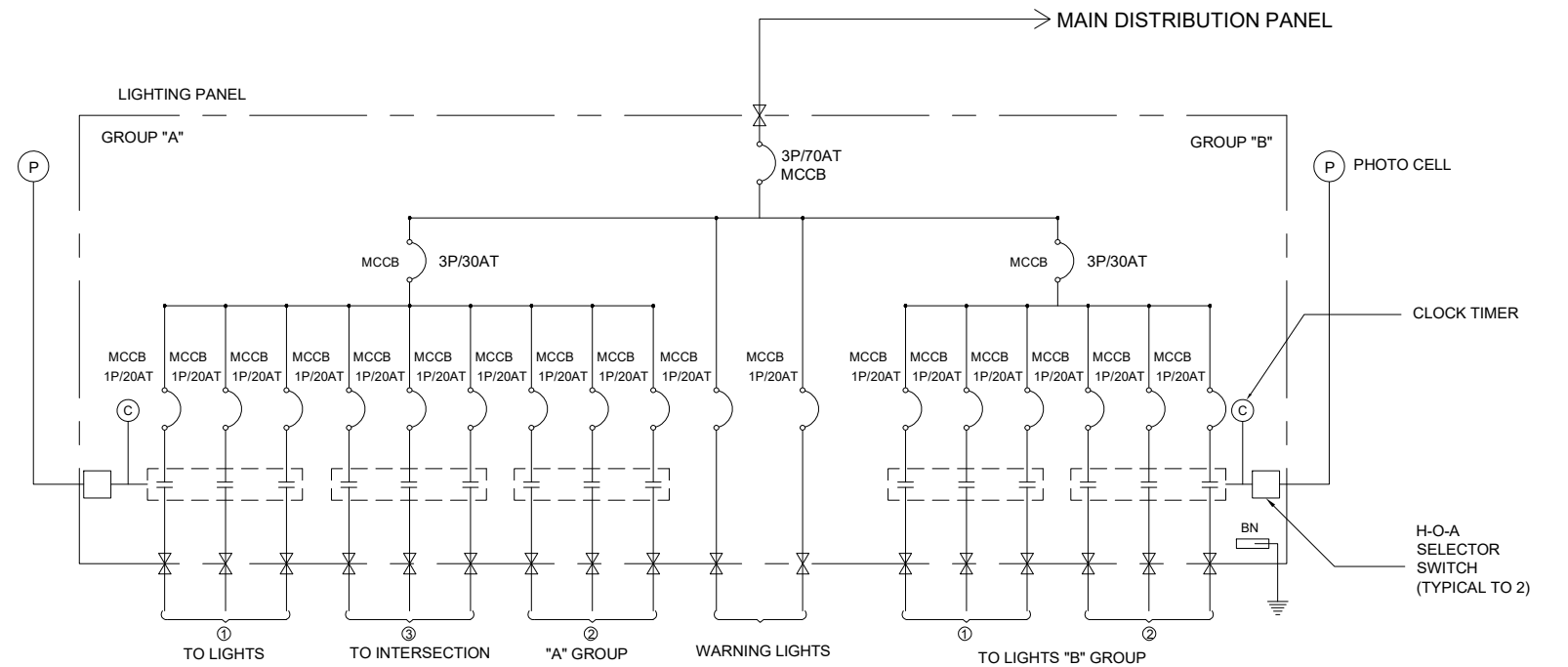
CKT = LP (1)

DESCRIPTION	CONNECTED LOAD (VA)			CIRCUIT BREAKER			
	TOTAL	A	B	C	P	AF	AT
Main Road	165	165			1	30	20
	165			165	1		
	165		165		1		
	165	165			1		
	165		165		1		
	165	165			1		
	165		165		1		
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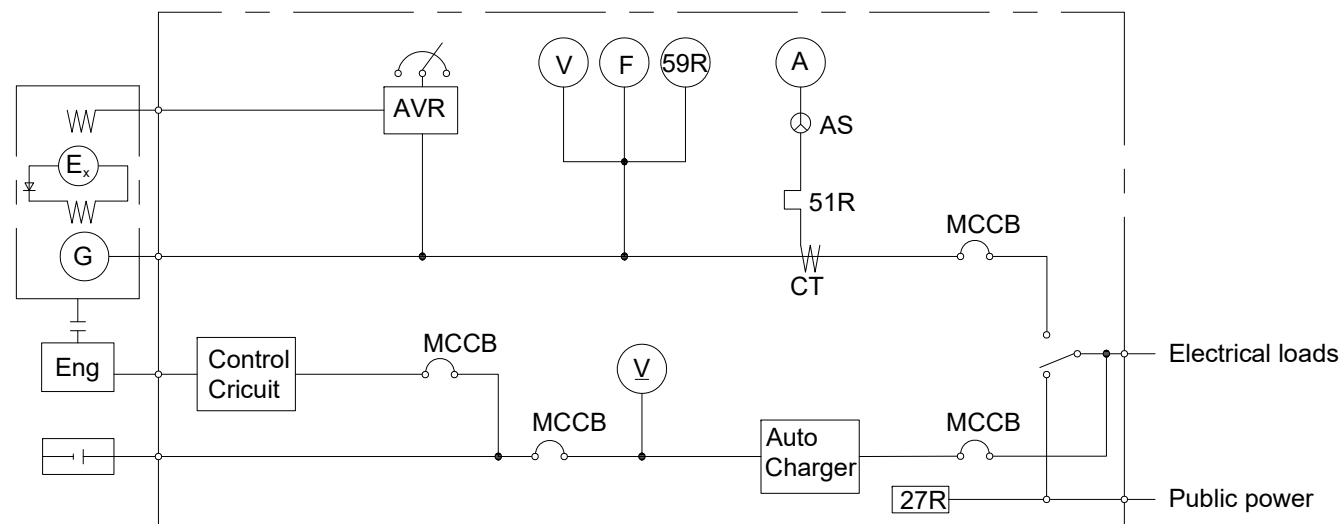
(REFERENCE) SINGLE LINE DIAGRAM FOR PANELS



SINGLE LINE DIAGRAM FOR MAIN DISTRIBUTION PANEL



SINGLE LINE DIAGRAM FOR LIGHTING PANEL

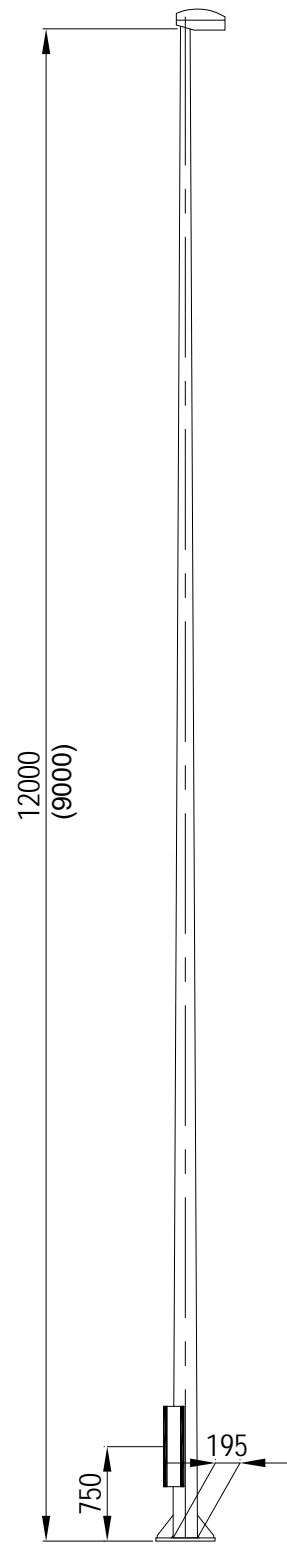


SINGLE LINE DIAGRAM FOR ENGINE GENERATOR CONTROL PANEL

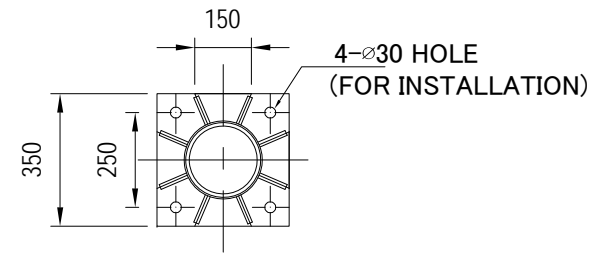
LEGEND

- | | | | |
|----|--------------------------------|-----|-------------------------------|
| | : MOLD-CASE CIRCUIT BREAKER | | : DIESEL ENGINE |
| AT | : AMPERE TRIPPING | | : GENERATOR |
| | : GROUNDING | | : EXITER |
| | : CONTACTOR | | : AMPERE METER |
| VS | : VOLTMETER CHANGE OVER SWITCH | | : VOLTAGE METER |
| AS | : AMMETER CHANGOVER SWITCH | | : FREQUENCY METER |
| CT | : CURRENT TRANSFORMER | | : BATTERY |
| | | | : AUTOMATIC VOLTAGE LEGULATOR |
| | | 27R | : LOW VOLTAGE RELAY |
| | | 59G | : OVER VOLTAGE |
| | | 51R | : OVERCURRENT RELAY |

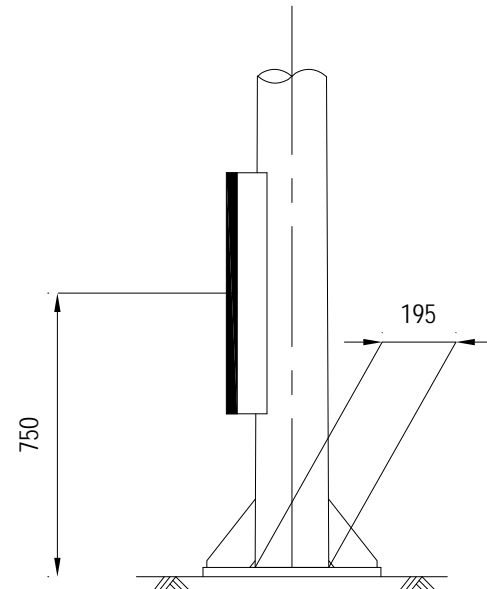
TYPICAL LED LUMINAIR AND POLE



NOTE: () : FOR ON-RAMP
OUTLINE OF POLE

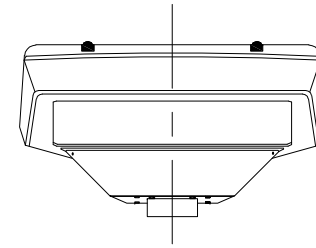


DETAILS OF BASE PLATE

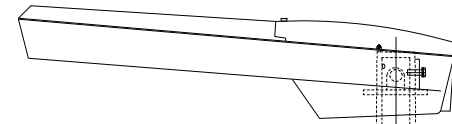


MAINTENANCE OPENING

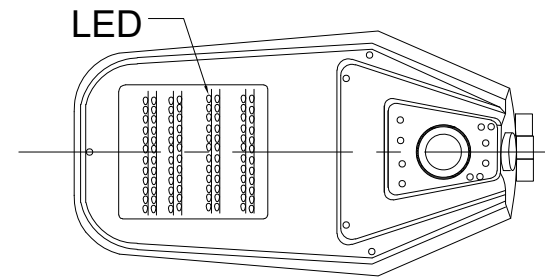
REFERENCE FOR LIGHTING POLE
 NTS



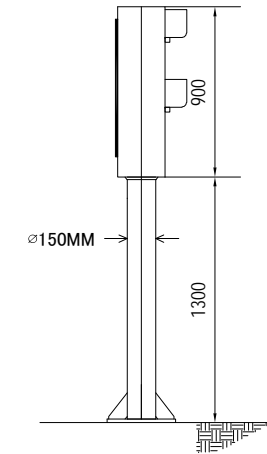
FRONT VIEW



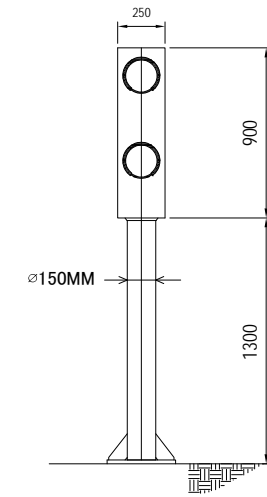
SIDE VIEW



REFERENCE FOR LED LUMINAIR
 NTS



SIDE VIEW
 NTS



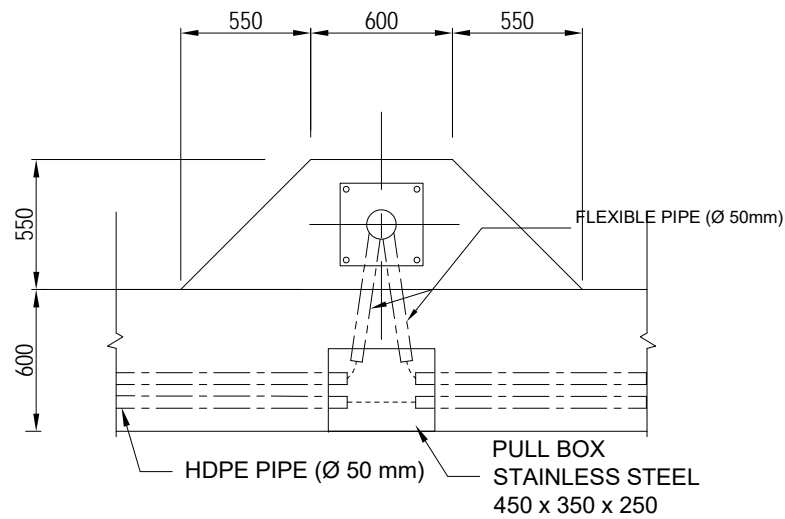
FRONT VIEW
 NTS

REFERENCE WARNING LIGHTS
 NTS

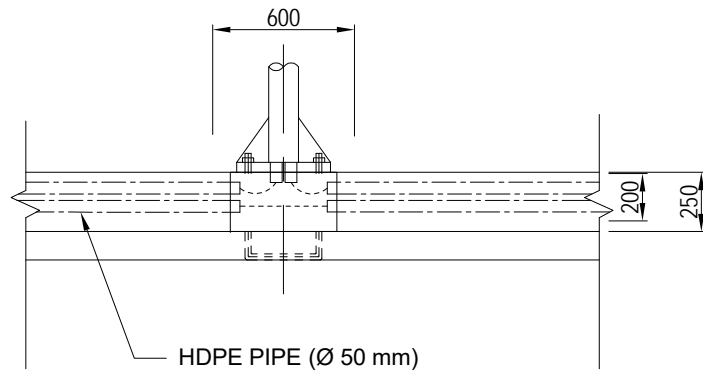
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE TYPICAL LED LUMINAIR AND POLE	PACKAGE	
				PREPARED BY	K. MORIMATA			29 Sep. 2017	1
				CHECKED BY	T. HAYAKAWA			3 Oct. 2017	DWG No.
				APPROVED BY	Y. SANO			6 Oct. 2017	P1-EL- 0012

TYPICAL FOUNDATION DETAILS FOR ROAD LIGHTING POLE

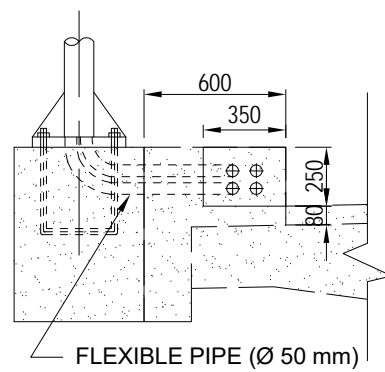
TOP VIEW



SIDE VIEW

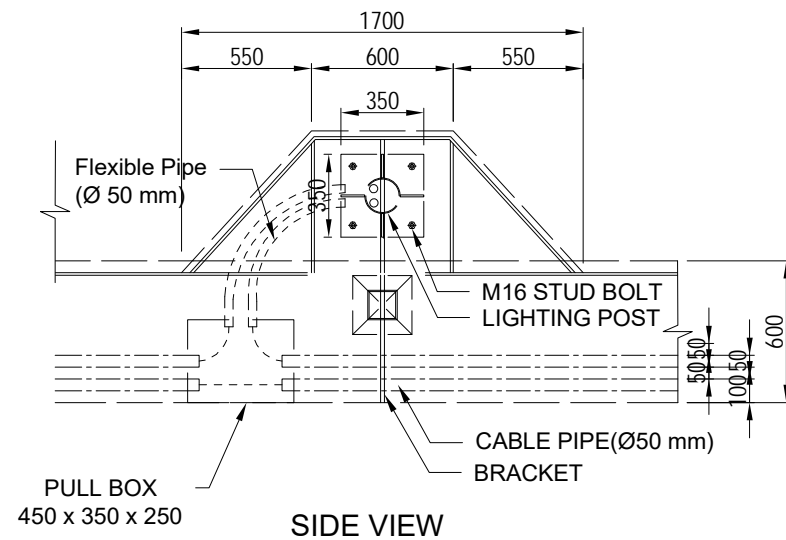


CROSS SECTION

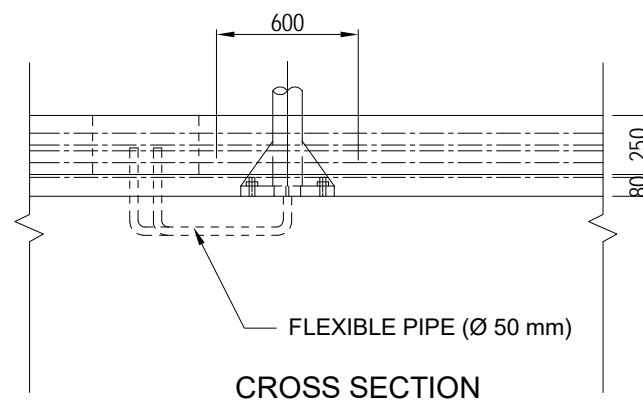


PC BOX GIRDER BRIDGE
NTS

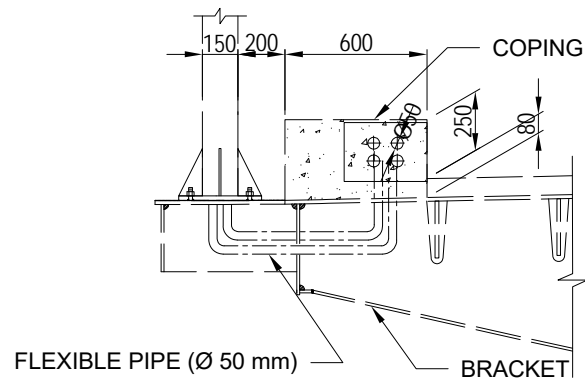
TOP VIEW



SIDE VIEW

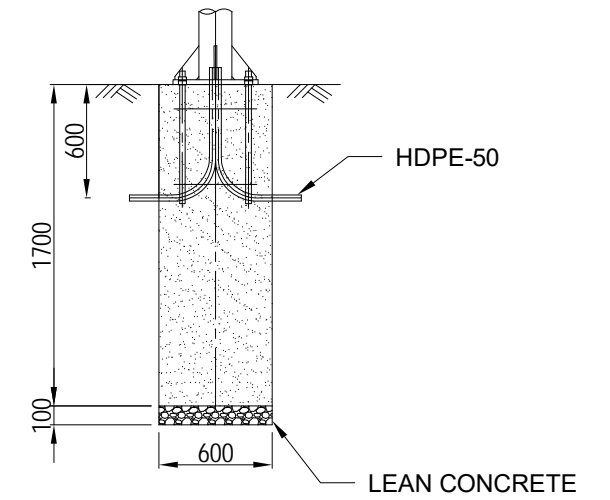


CROSS SECTION

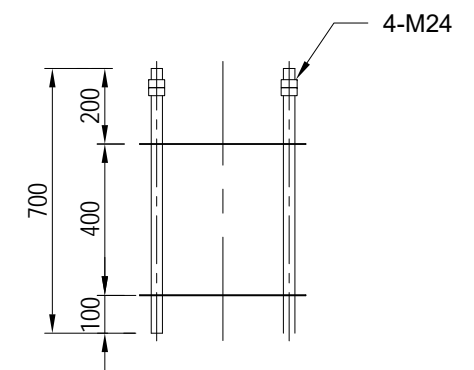
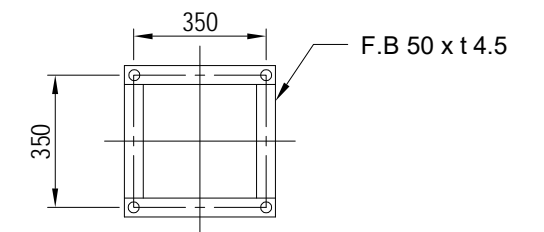


CABLE STAYED BRIDGE
STEEL BOX GIRDER BRIDGE
NTS

PIPING DETAIL



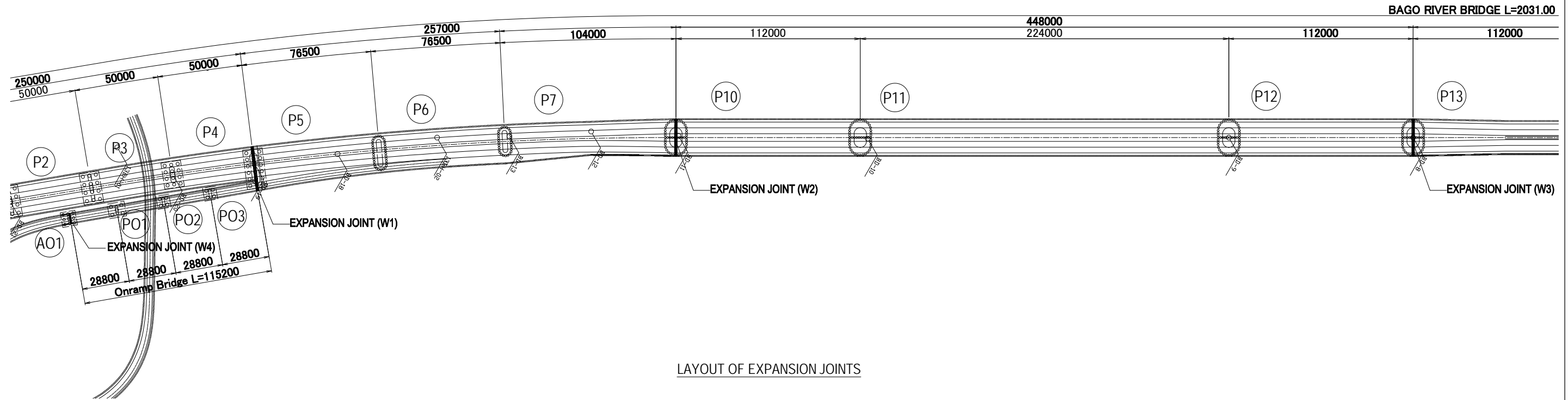
DETAIL OF ANCHOR BOLT



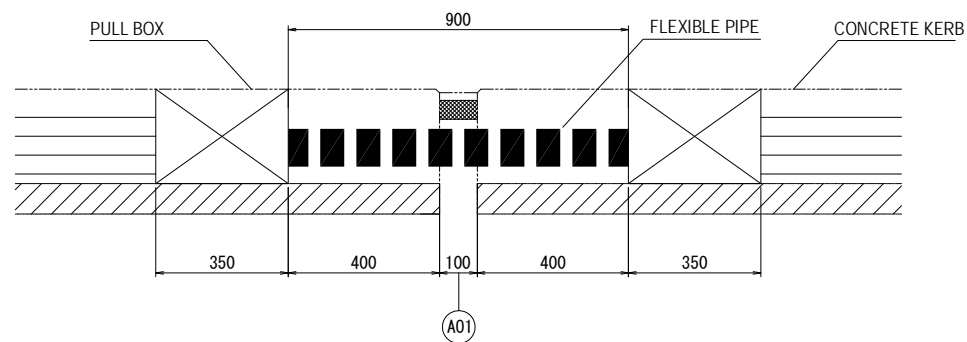
FOR PUBLIC ROAD LIGHTING POLE
NTS

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE TYPICAL FOUNDATION DETAILS FOR ROAD LIGHTING POLE	PACKAGE
				PREPARED BY	K. MORIMATA	29 Sep. 2017		1
				CHECKED BY	T. HAYAKAWA	3 Oct. 2017		DWG No.
				APPROVED BY	Y. SANO	6 Oct. 2017		P1-EL- 0013

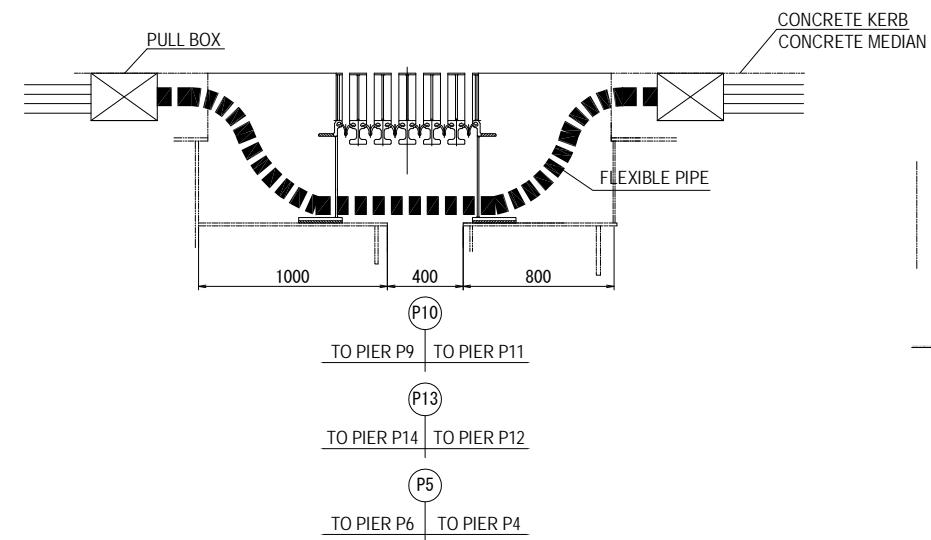
(REFERENCE) INSTALLATION DETAIL FOR FLEXIBLE PIPE



LAYOUT OF EXPANSION JOINTS

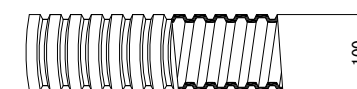


TYPICAL INSTALLATION DETAIL OF FLEXIBLE PIPE (A01))



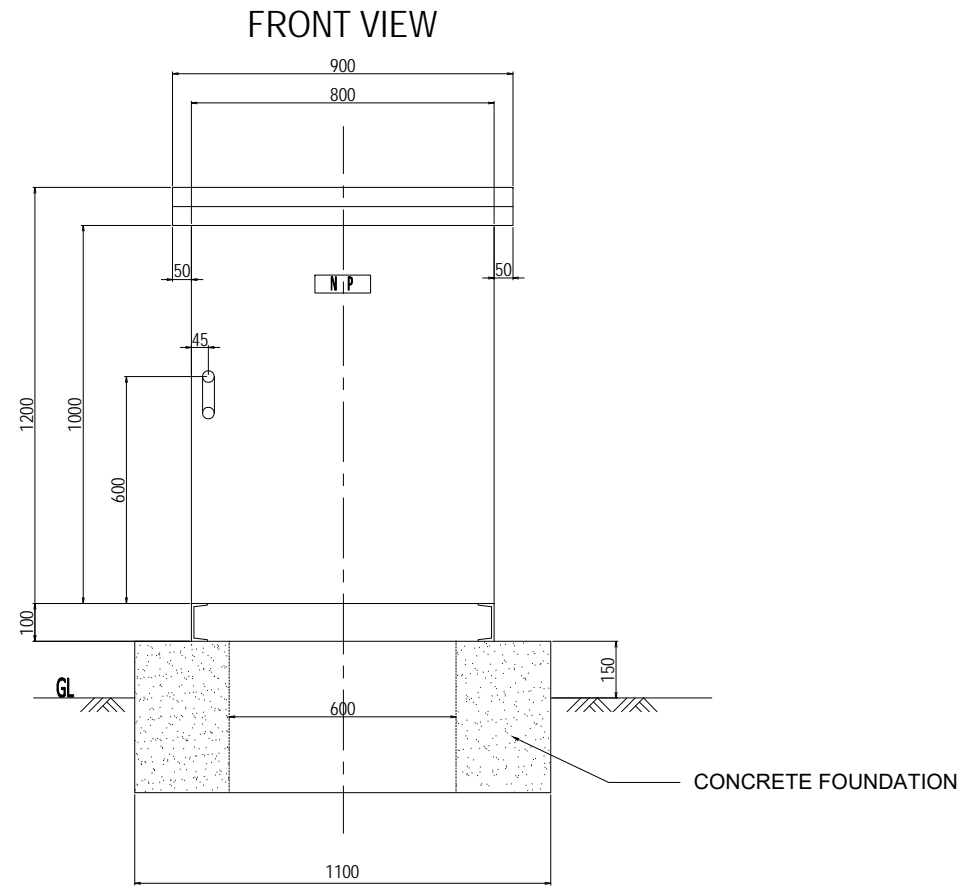
TYPICAL INSTALLATION DETAIL OF FLEXIBLE PIPE (P10,P13)

	No	W (mm)
EXPANSION	1	3500
	2	3500
	3	3500
	4	1000

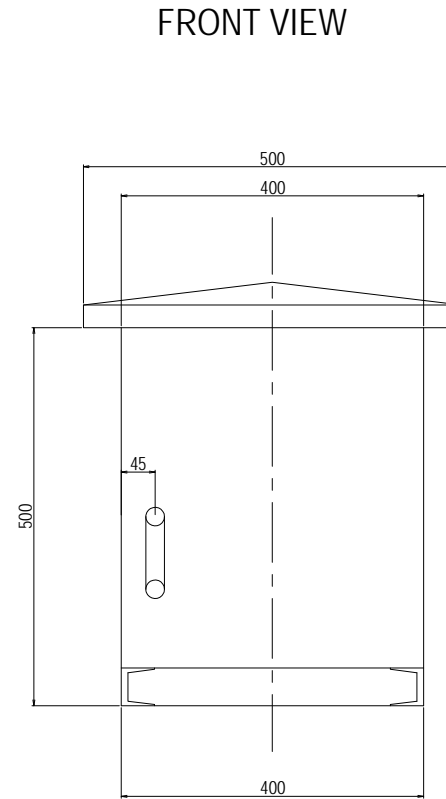


DIAMETER OF FLEXIBLE PIPE

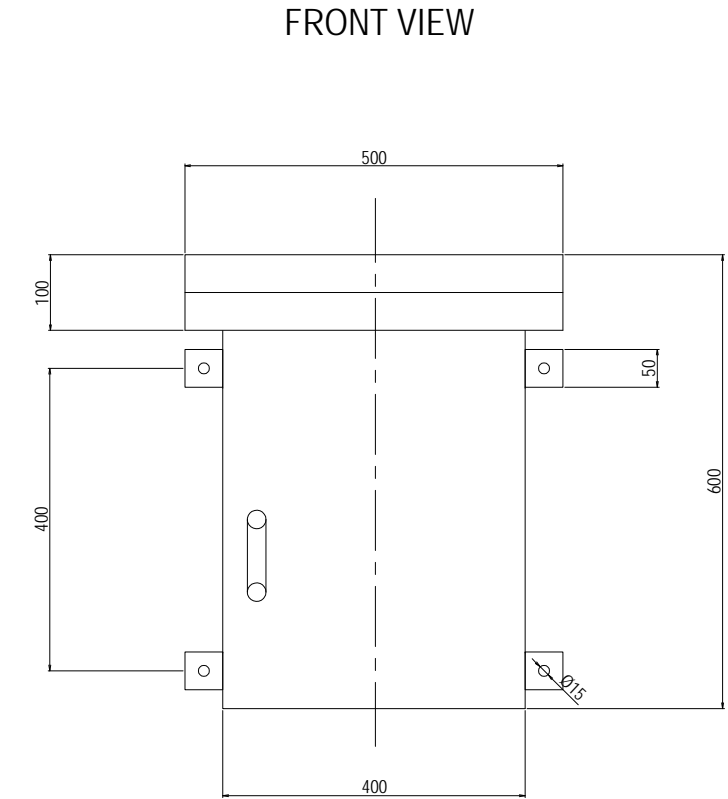
(REFERENCE) OUTLINE OF ELECTRIC PANELS



MAIN DISTRIBUTION PANEL S=1:20



LIGHTING PANEL S=1:10














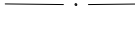


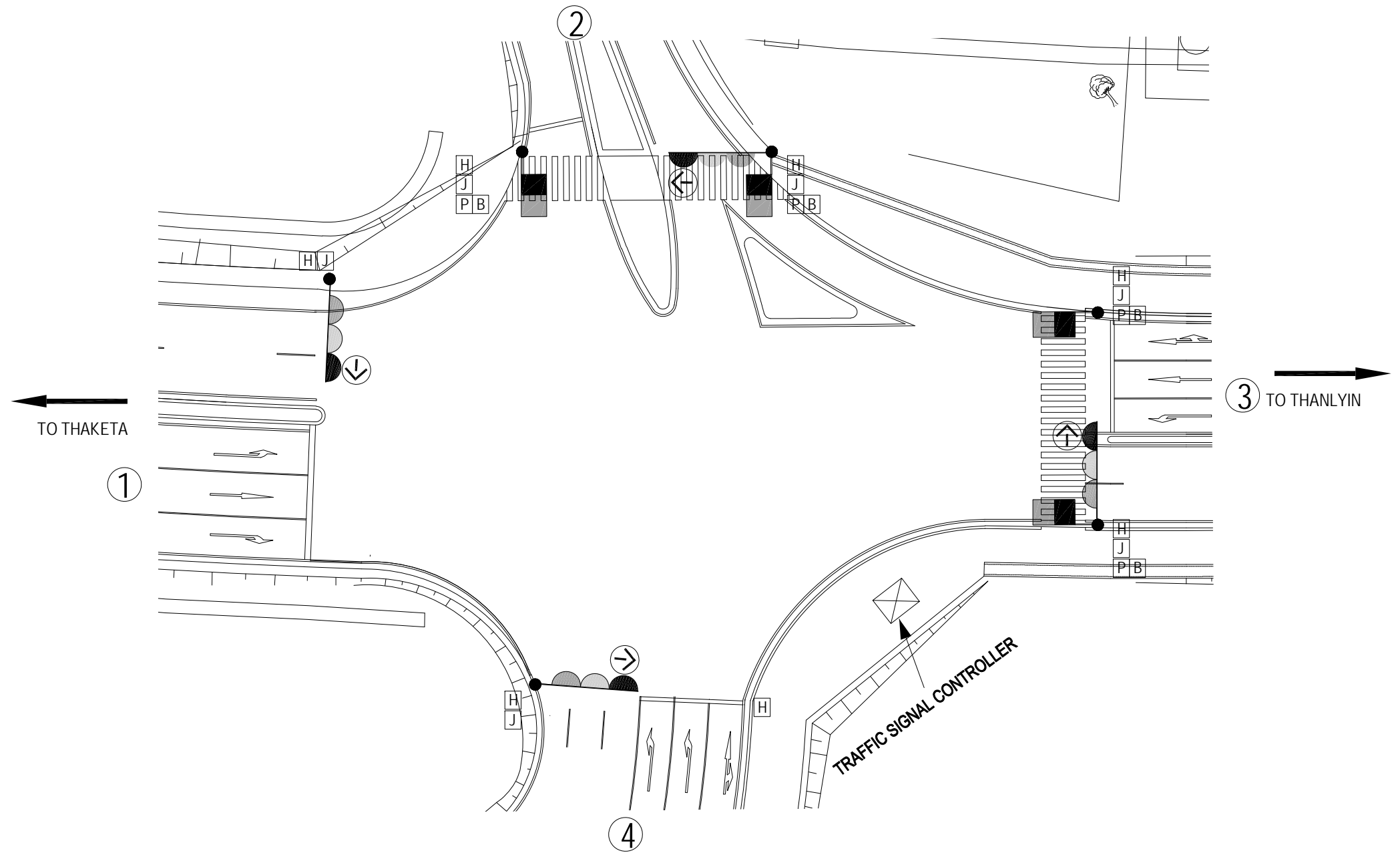
POLE MOUNTED TYPE BOX S=1:10

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) OUTLINE OF ELECTRIC PANELS	PACKAGE	
				PREPARED BY	K. MORIMATA			29 Sep. 2017	1
				CHECKED BY	T. HAYAKAWA			3 Oct. 2017	DWG No.
				APPROVED BY	Y. SANO			6 Oct. 2017	P1-EL- 0015

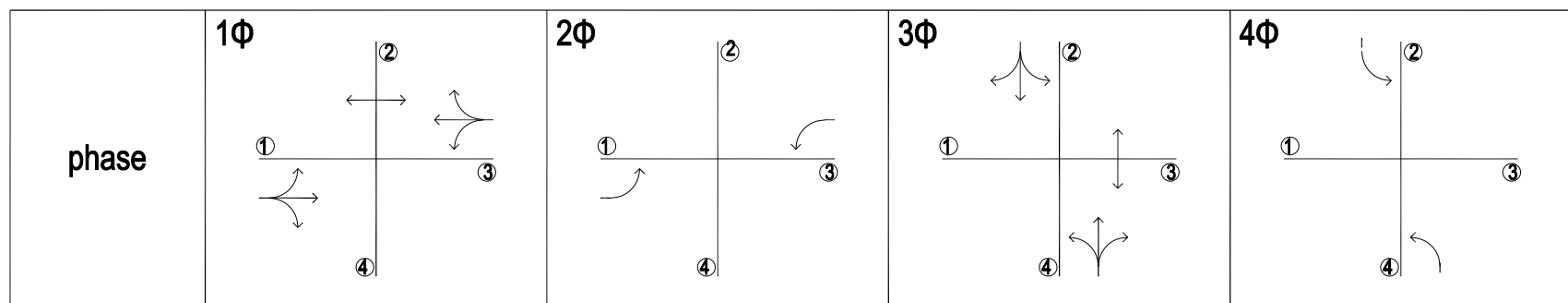
TYPICAL TRAFFIC SIGNAL SYSTEM PLAN FOR STA.0+40 INTERSECTION

LEGEND










-  : Concrete pole
-  : Steel pole
-  : Traffic signal controller
-  : Vehicle traffic signal
-  : Arrow sign traffic signal
-  : Pedestrian signal
-  : Push-button switch
-  : Junction box
-  : Power supply box
-  : Pull box
-  : Hand hole
-  : Raising underground pipe
-  : Cable
-  : Underground piping
- SVV : Control -use vinyl insulated vinyl sheathed cable
- IV : Indoor PVC
- E : Grounding



TRAFFIC SIGNAL SYSTEM PLAN
NTS



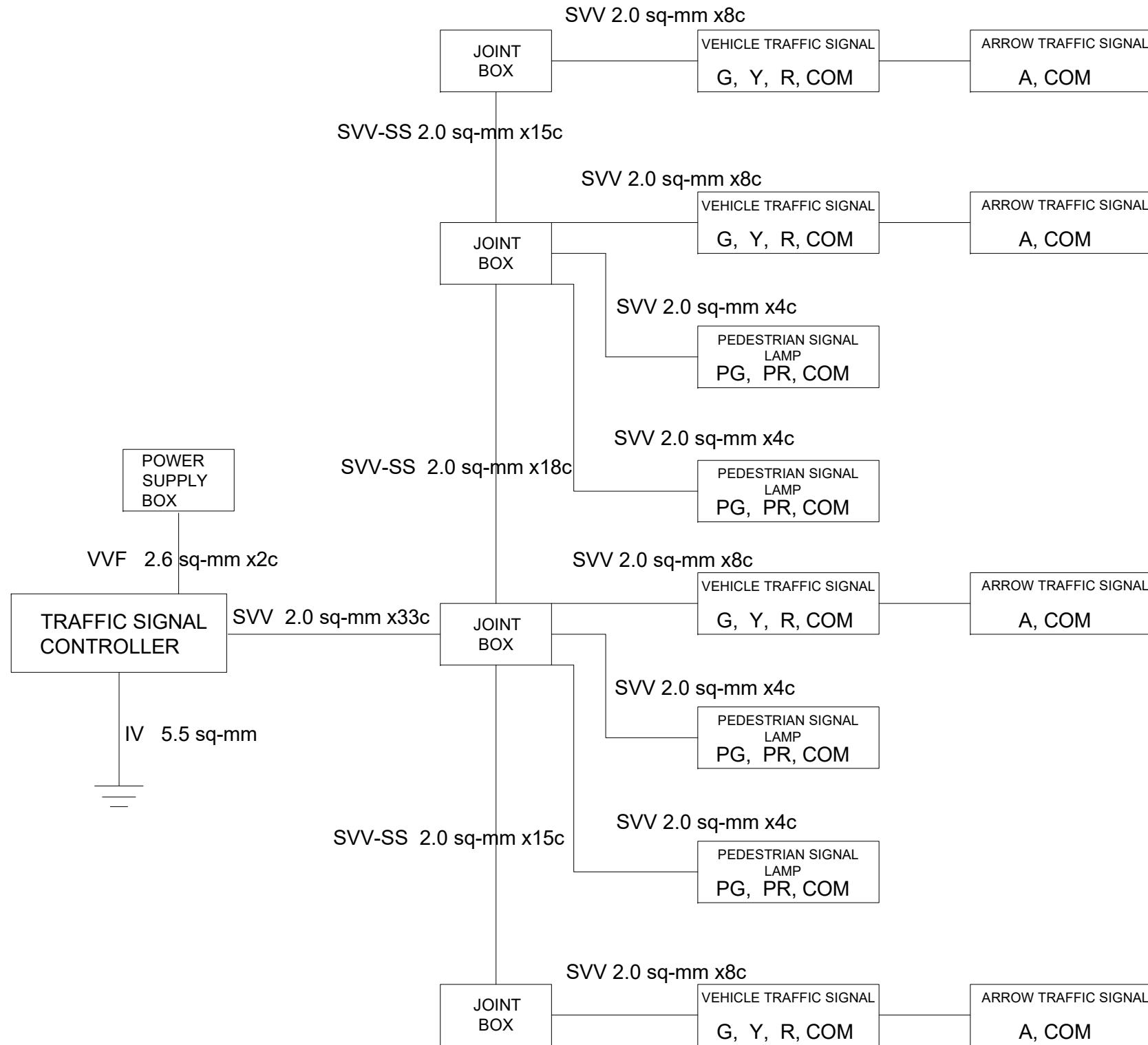
TRAFFIC SIGNAL AND PEDESTRIAN PHASING DIAGRAM

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY  JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART  REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM  NIPPON KOEI CO., LTD.  ORIENTAL CONSULTANTS GLOBAL CO., LTD.  METROPOLITAN EXPRESSWAY COMPANY LIMITED  CHODAI CO., LTD.  NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE TYPICAL TRAFFIC SIGNAL SYSTEM PLAN FOR STA.0+40 INTERSECTION	PACKAGE	
				PREPARED BY	K. MORIMATA			29 Sep. 2017	1
				CHECKED BY	T. HAYAKAWA			3 Oct. 2017	DWG No.
APPROVED BY	Y. SANO		6 Oct. 2017	P1-EL- 0016					

TYPICAL TRAFFIC SIGNAL CONTROL SYSTEM DIAGRAM

LEGND

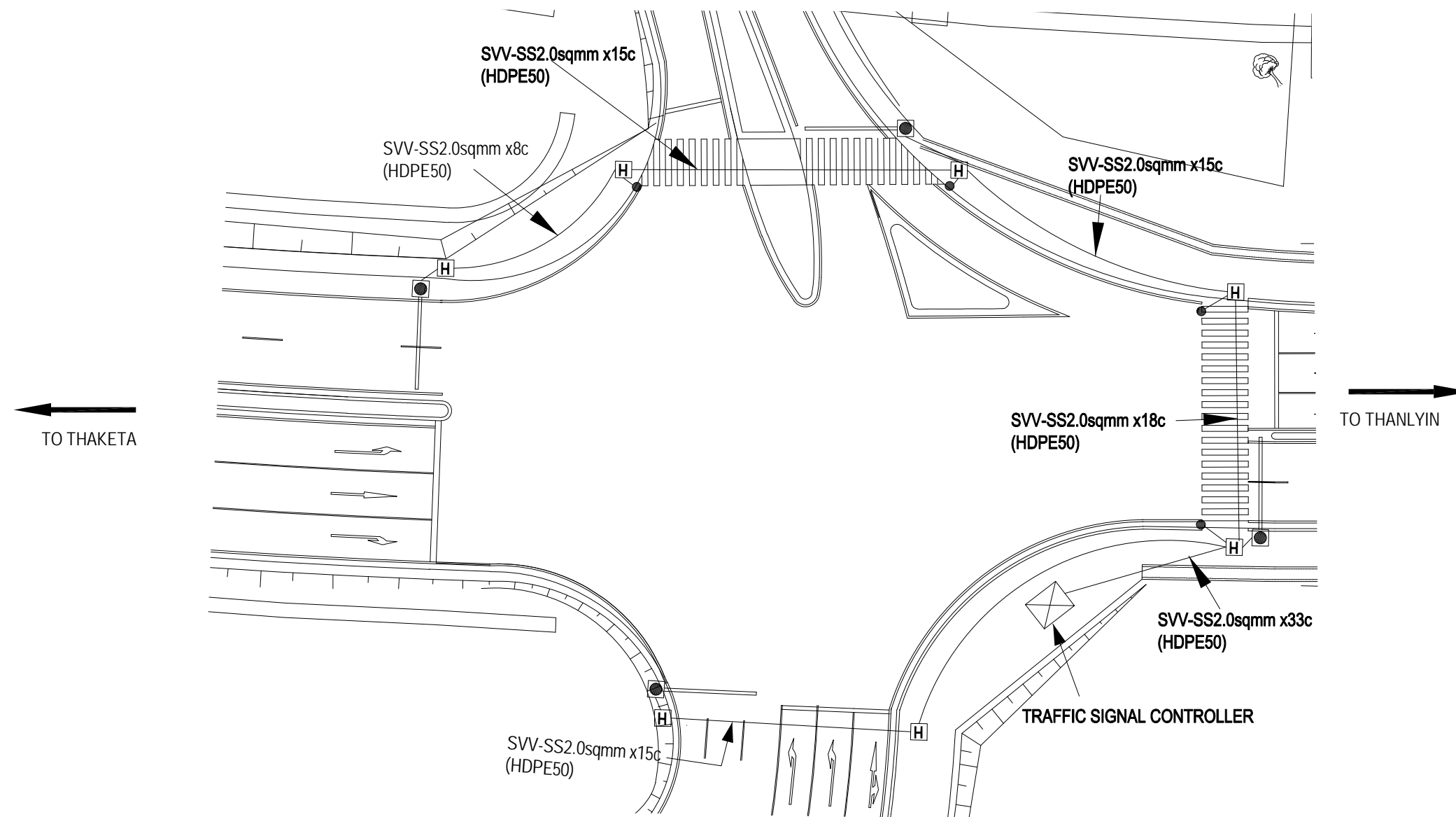
- G : Vehicle traffic signal : Green light
- Y : Vehicle traffic signal : Yellow light
- R : Vehicle traffic signal : Red light
- A : Arrow traffic signal : Green light
- PG : Pedestrian signal lamp : Green light
- PR : Pedestrian signal lamp : Red light
- COM : Common for all indication



TYPICAL TRAFFIC SIGNAL CONTROL SYSTEM DIAGRAM FOR STA.0+40 INTERSECTION

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	PREPARED BY K. MORIMATA		29 Sep. 2017	TYPICAL TRAFFIC SIGNAL CONTROL SYSTEM DIAGRAM	1
				CHECKED BY T. HAYAKAWA		3 Oct. 2017		DWG No.
				APPROVED BY Y. SANO		6 Oct. 2017		P1-EL- 0017

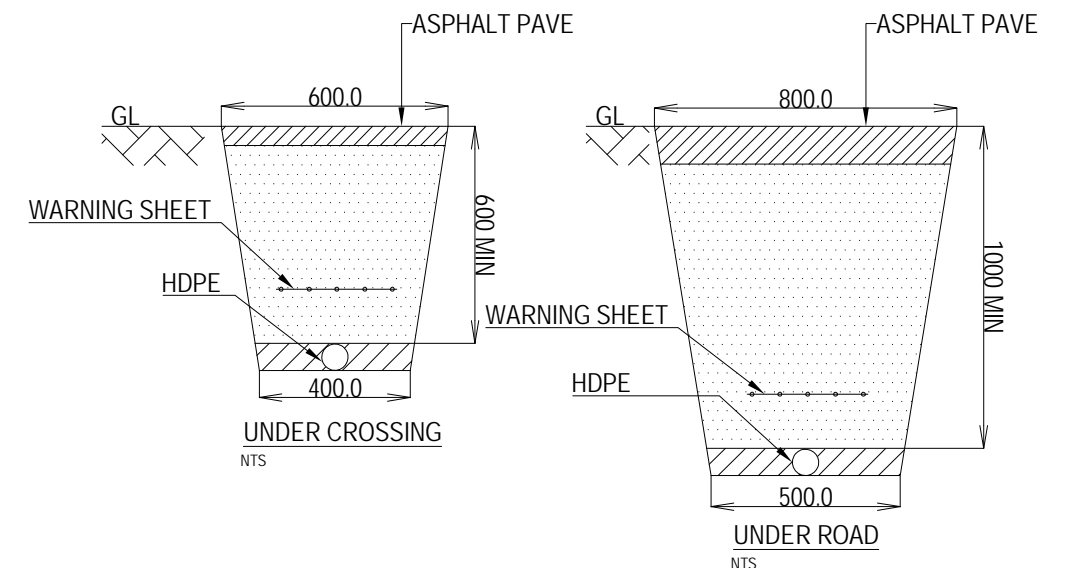
TYPICAL UNDERGROUND WIRING PLAN FOR STA.0+40 INTERSECTION



UNDERGROUND WIRING PLAN FOR STA.0+40 INTERSECTION
1:400

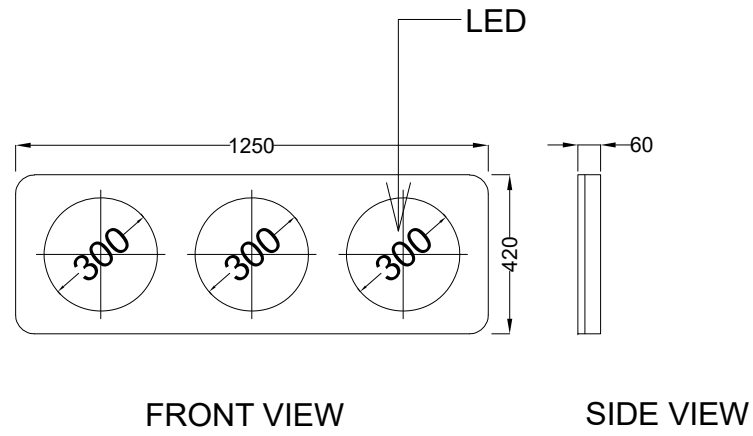
LEGEND

- : Base mounted pole signal head pole (with arm)
- : Pedestrian signal head pole (with push-button)
- : Underground wiring

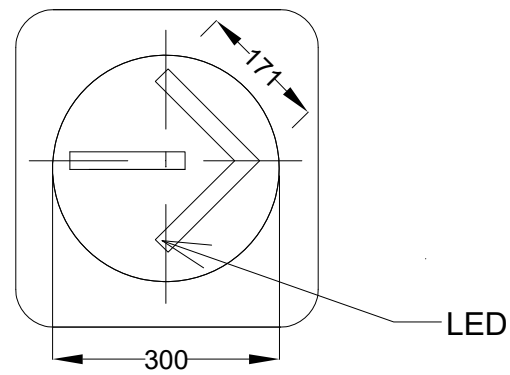


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE TYPICAL UNDERGROUND WIRING PLAN FOR STA.0+40 INTERSECTION	PACKAGE
				PREPARED BY	K. MORIMATA	29 Sep. 2017		1
				CHECKED BY	T. HAYAKAWA	3 Oct. 2017		DWG No.
				APPROVED BY	Y. SANO	6 Oct. 2017		P1-EL- 0018

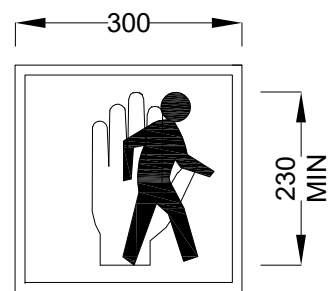
(REFERENCE) TRAFFIC SIGNAL HEAD AND POLES



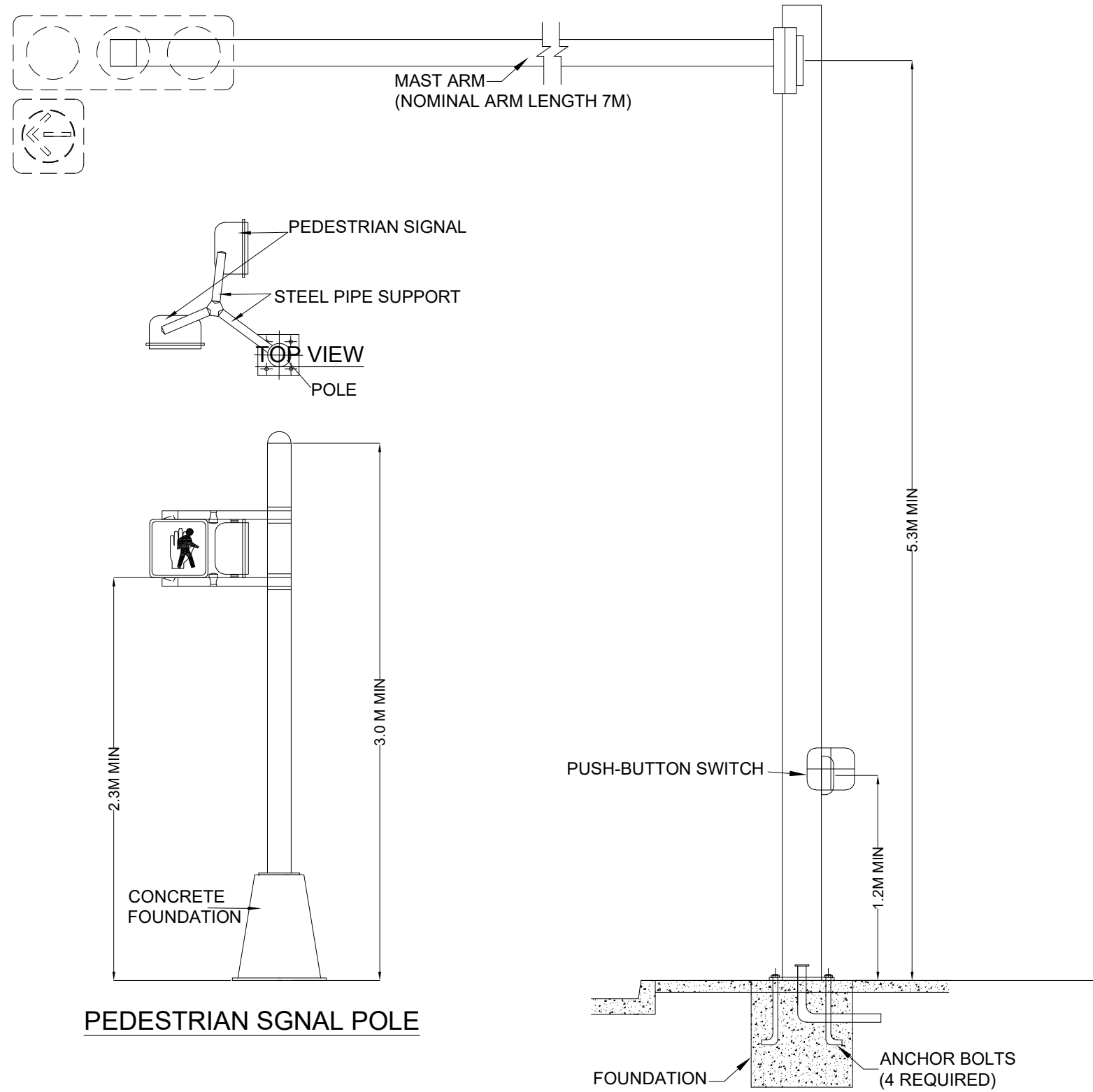
FRONT VIEW SIDE VIEW
TYPICAL SIGNAL HEAD S=1:20



TYPICAL ARROW SIGNAL DETAIL S=1:10



TYPICAL PEDESTRIAN SIGNAL S=1:10

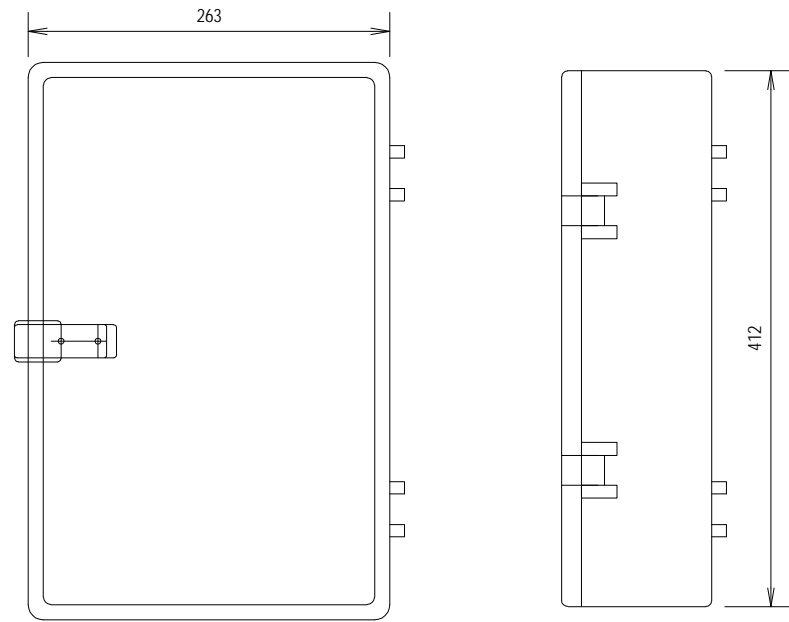


PEDESTRIAN SIGNAL POLE

TRAFFIC SIGNAL HEAD POLE

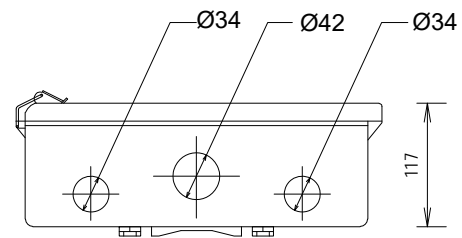
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) TRAFFIC SIGNAL HEAD AND POLES	PACKAGE	
				PREPARED BY	K. MORIMATA			29 Sep. 2017	1
				CHECKED BY	T. HAYAKAWA			3 Oct. 2017	DWG No.
				APPROVED BY	Y. SANO			6 Oct. 2017	P1-EL- 0019

(REFERENCE) OUTLINE OF TRAFFIC SIGNAL CONTROLLER AND JUNCTION BOX



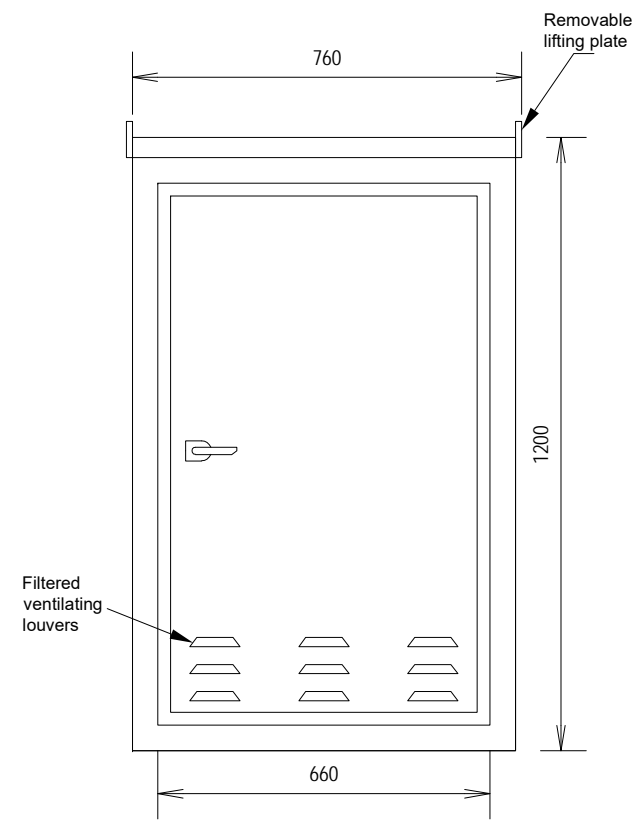
FRONT VIEW
UNIT : mm

SIDE VIEW
UNIT : mm

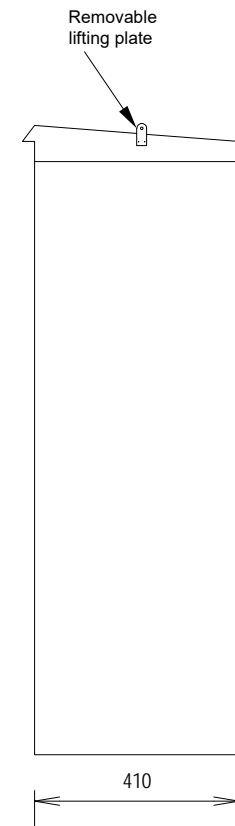


BOTTOM VIEW
UNIT : mm

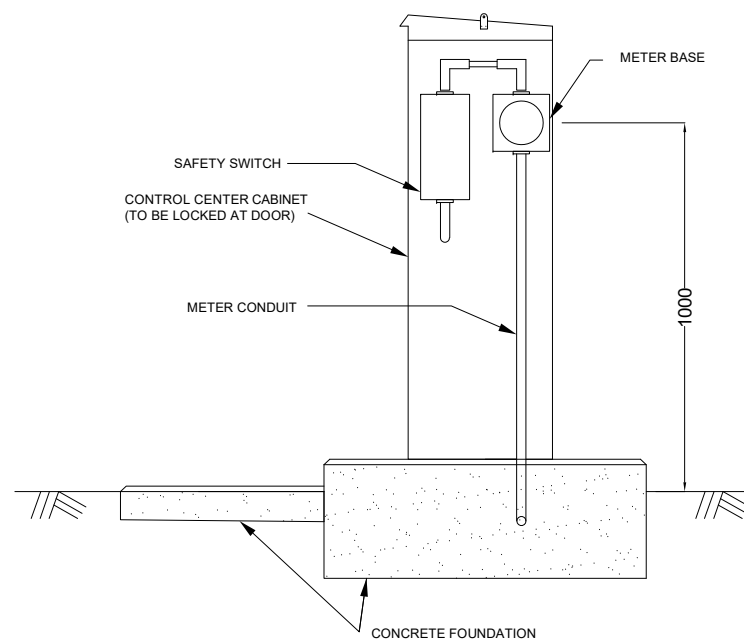
TYPICAL OUTLINE OF JUNCTION BOX
NTS



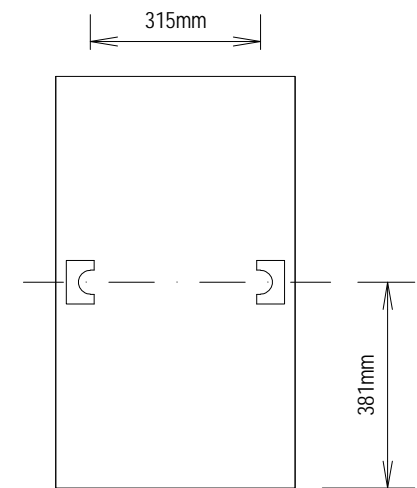
FRONT VIEW



SIDE VIEW



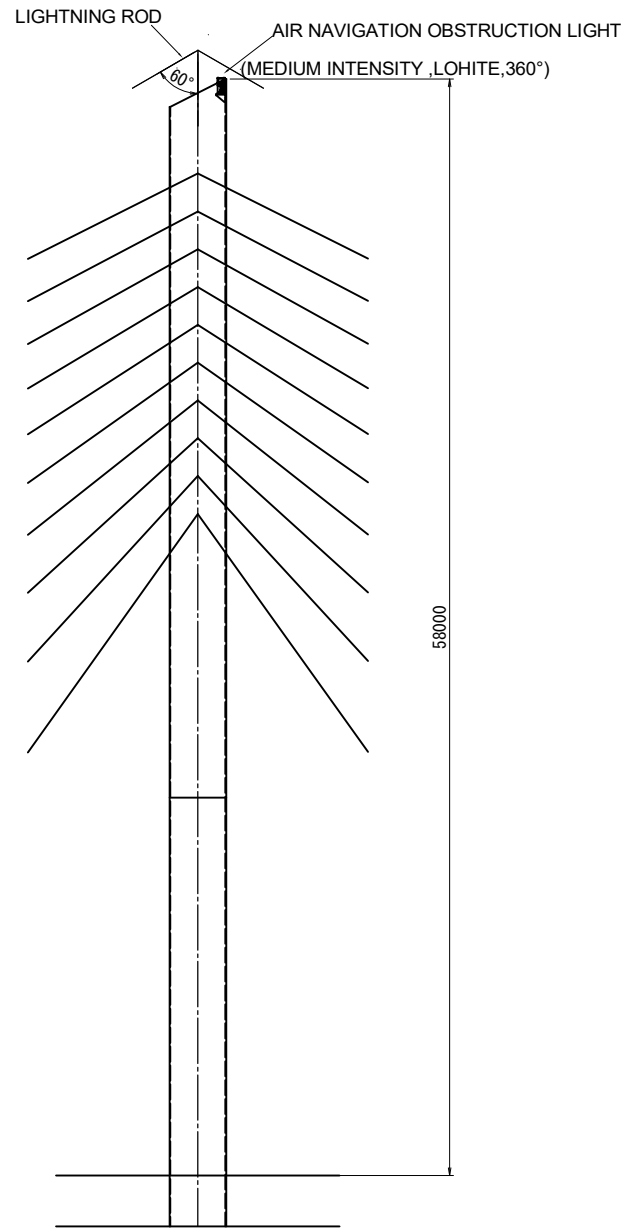
SIDE VIEW
UNIT : mm



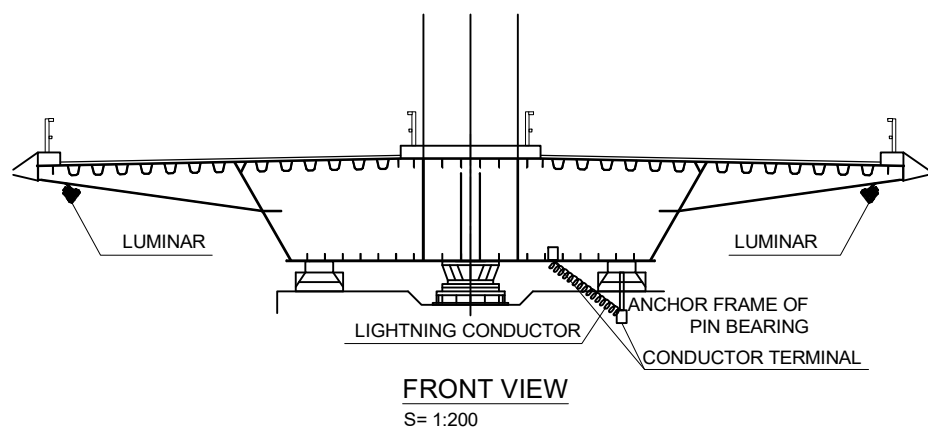
TYPICAL TRAFFIC SIGNAL CONTROLLER

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) OUTLINE OF TRAFFIC SIGNAL CONTROLLER AND JUNCTION BOX	PACKAGE	
				PREPARED BY	K. MORIMATA			29 Sep. 2017	1
				CHECKED BY	T. HAYAKAWA			3 Oct. 2017	DWG No.
				APPROVED BY	Y. SANO			6 Oct. 2017	P1-EL- 0020

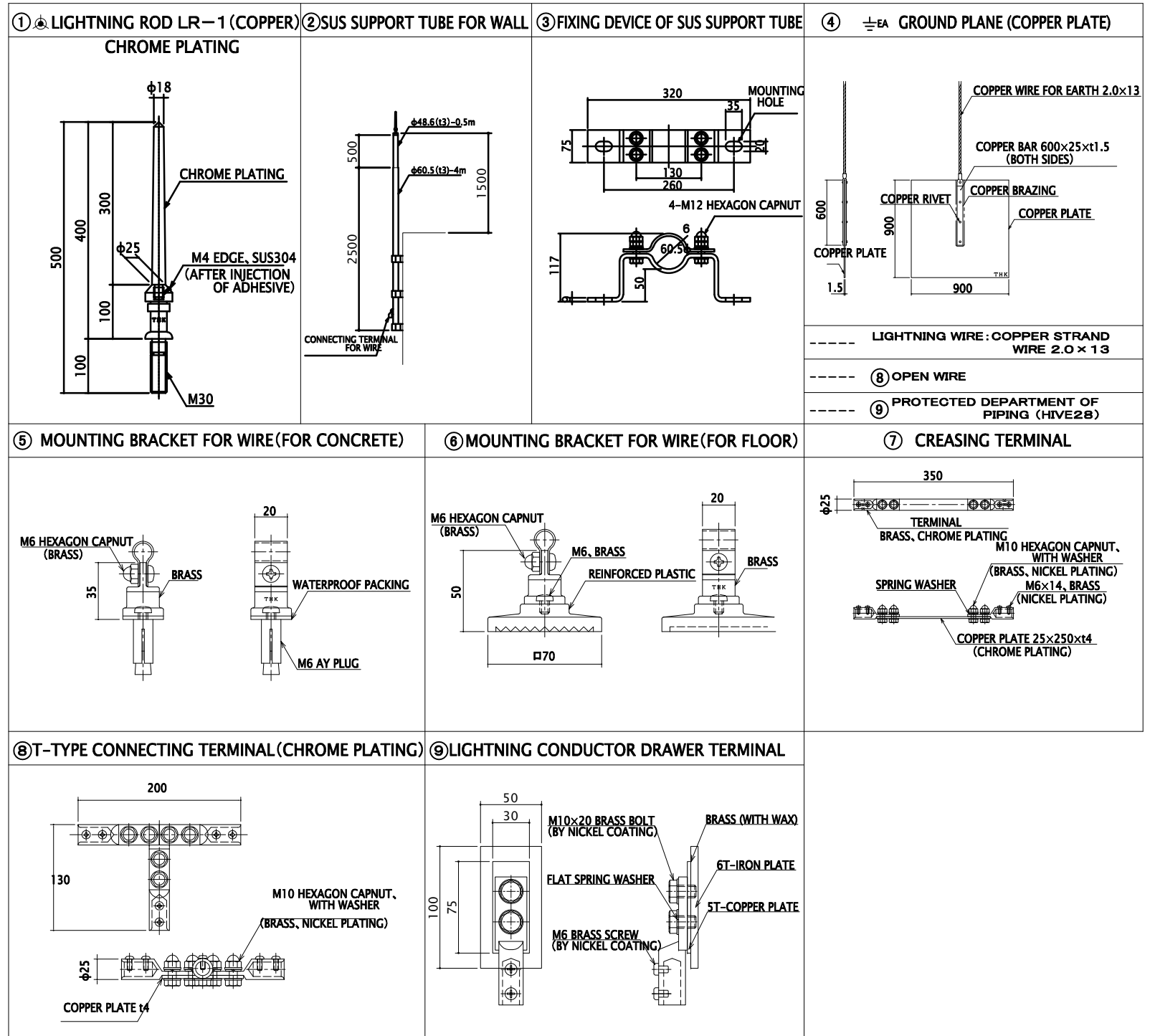
(REFERENCE) TYPICAL ACCESSORIES FOR LIGHTNING PROTECTION SYSTEM



SIDE VIEW
S= 1:400



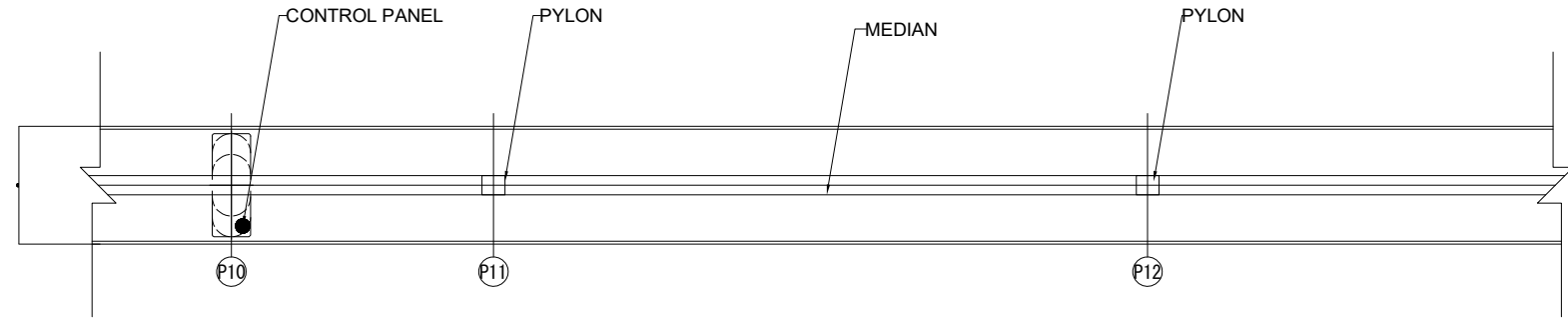
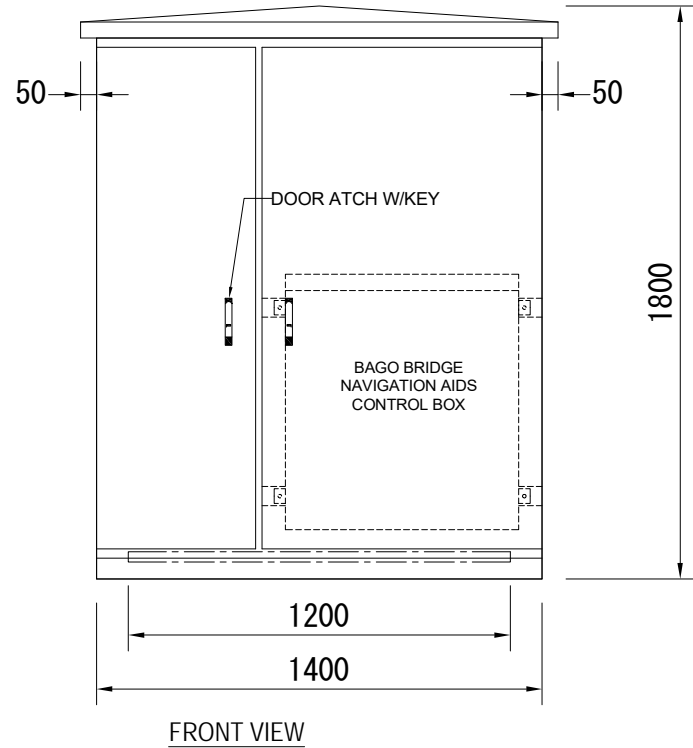
FRONT VIEW
S= 1:200



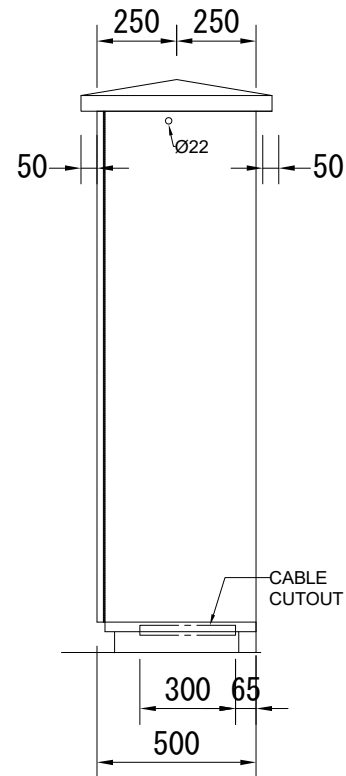
REFERENCE ACCESSORIES FOR LIGHTNING PROTECTION SYSTEM
NTS

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) TYPICAL ACCESSORIES FOR LIGHTNING PROTECTION SYSTEM	PACKAGE	
				PREPARED BY	K. MORIMATA			29 Sep. 2017	1
				CHECKED BY	T. HAYAKAWA			3 Oct. 2017	DWG No.
				APPROVED BY	Y. SANO			6 Oct. 2017	P1-EL- 0022

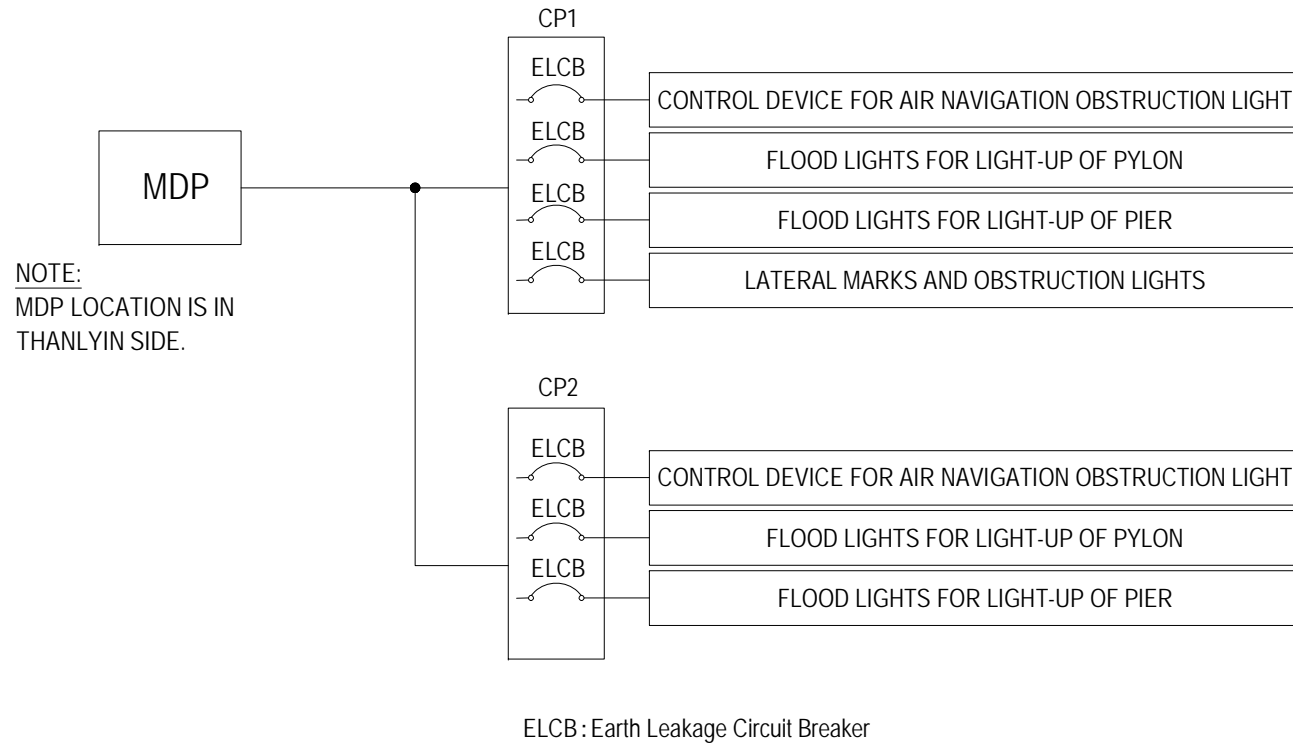
(REFERENCE) CONTROL PANEL FOR OBSTRUCTION LIGHT



LOCATION PLAN FOR CONTROL PANEL
NTS



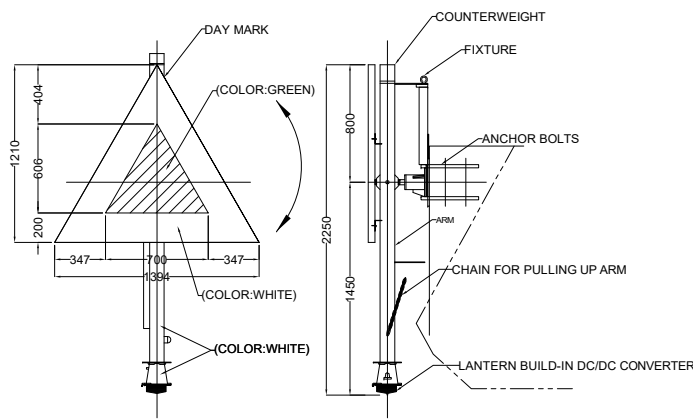
OUTSIDE VIEW OF CONTROL PANEL
NTS



TYPICAL BLOCK DIAGRAM FOR OBSTRUCTION LIGHTS AND LIGHT-UP
NTS

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) CONTROL PANEL FOR OBSTRUCTION LIGHT	PACKAGE	
				PREPARED BY	K. MORIMATA			29 Sep. 2017	1
				CHECKED BY	T. HAYAKAWA			3 Oct. 2017	DWG No.
				APPROVED BY	Y. SANO			6 Oct. 2017	P1-EL- 0023

TYPICAL NAVIGATION LATERAL MARKS AND OBSTRUCTION LIGHT

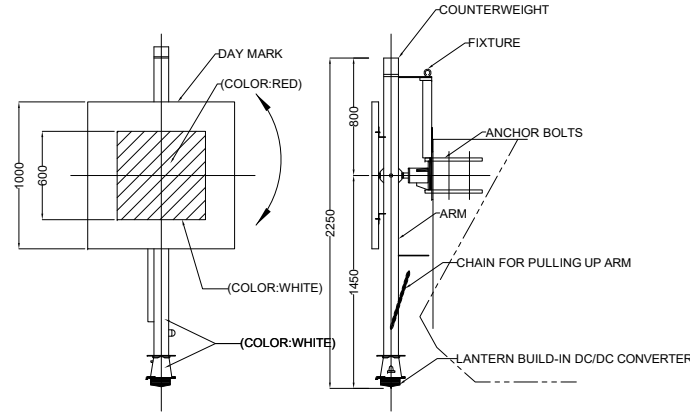


FRONT VIEW

SIDE VIEW

SPECIFICATIONS OF BRIDGE LIGHT
<STARBOARD LANTERN>

1. BRIDGE LIGHT BODY
 - (a) MODEL : RBL-30R
 - (b) MATERIAL(ARM) : ALUMINIUM ALLOY
 - (c) MATERIAL(DAYMARK) : ALUMINIUM ALLOY
 - (d) HEIGHT OVERALL : APPROX. 2.4m
 - (e) FOCAL PLANE HEIGHT : APPROX. 1.5m
 - (f) TOTAL MASS : APPROX. 75kg (INCLUDING LANTRN)
 - (g) COLOUR(ARM) : WHITE
 - (h) COLOR(DAYMARK) : RED AND WHITE
2. LANTERN
 - (a) Model : RL - 123
 - (b) INPUT VOLTAGE : DC24V
 - (c) LIGHT SOURCE : LED
 - (d) LENS : POLYCARBONATE
 - (e) LIGHT COLOUR : RED
 - (f) CHARACTER : FIXED
 - (g) EFFECTIVE INTENSITY : 14cd
 - (h) LUMINOUS RANGE : 3 N.M. (T=0.74)
 - (i) COLOR : WHITE

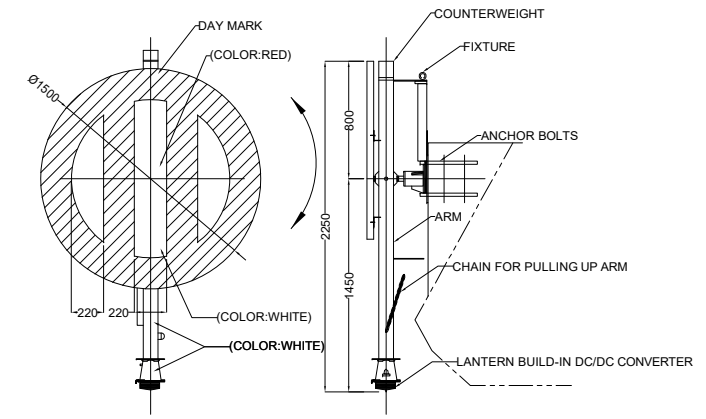


FRONT VIEW

SIDE VIEW

SPECIFICATIONS OF BRIDGE LIGHT
<PORT LANTERN>

1. BRIDGE LIGHT BODY
 - (a) MODEL : RBL-30L
 - (b) MATERIAL(ARM) : ALUMINIUM ALLOY
 - (c) MATERIAL(DAYMARK) : ALUMINIUM ALLOY
 - (d) HEIGHT OVERALL : APPROX. 2.4m
 - (e) FOCAL PLANE HEIGHT : APPROX. 1.5m
 - (f) TOTAL MASS : APPROX. 75kg (INCLUDING LANTRN)
 - (g) COLOUR(ARM) : WHITE
 - (h) COLOR(DAYMARK) : GREEN AND WHITE
2. LANTERN
 - (a) Model : RL - 123
 - (b) INPUT VOLTAGE : DC24V
 - (c) LIGHT SOURCE : LED
 - (d) LENS : POLYCARBONATE
 - (e) LIGHT COLOUR : GREEN
 - (f) CHARACTER : FIXED
 - (g) EFFECTIVE INTENSITY : 14cd
 - (h) LUMINOUS RANGE : 3 N.M. (T=0.74)
 - (i) COLOR : WHITE

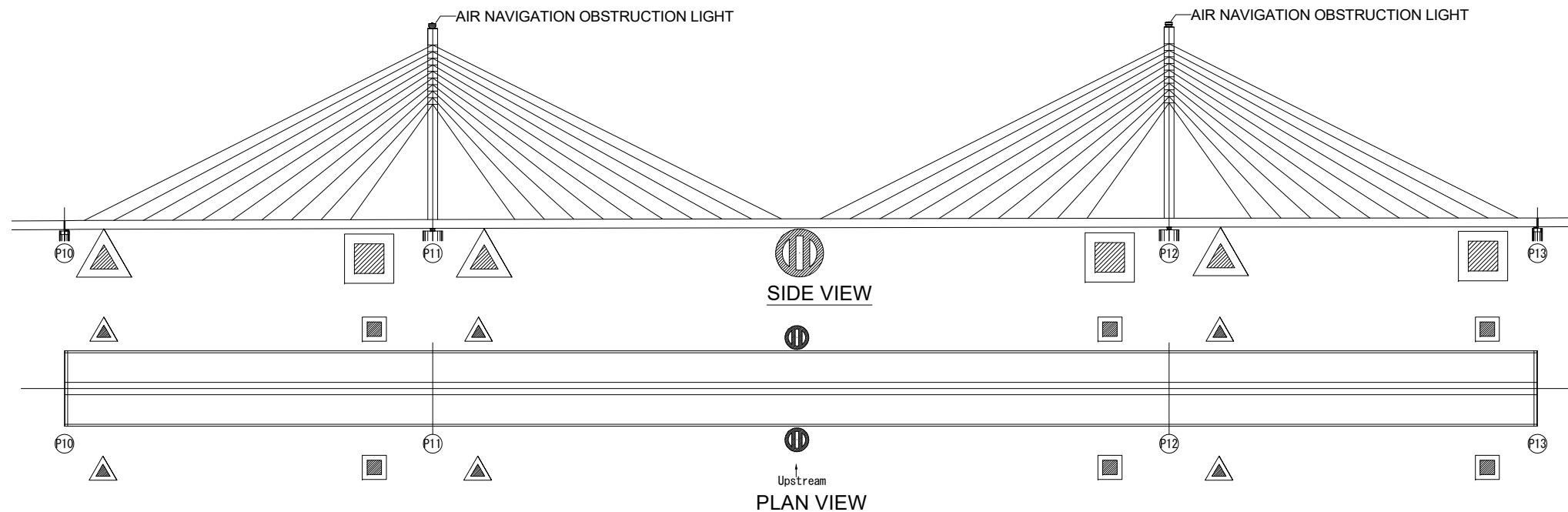


FRONT VIEW

SIDE VIEW

SPECIFICATIONS OF BRIDGE LIGHT
<SAFE WATER LANTERN>

1. BRIDGE LIGHT BODY
 - (a) MODEL : RBL-30C
 - (b) MATERIAL(ARM) : ALUMINIUM ALLOY
 - (c) MATERIAL(DAYMARK) : ALUMINIUM ALLOY
 - (d) HEIGHT OVERALL : APPROX. 2.4m
 - (e) FOCAL PLANE HEIGHT : APPROX. 1.5m
 - (f) TOTAL MASS : APPROX. 75kg (INCLUDING LANTRN)
 - (g) COLOUR(ARM) : WHITE
 - (h) COLOR(DAYMARK) : RED AND WHITE
2. LANTERN
 - (a) Model : RL - 123
 - (b) INPUT VOLTAGE : DC24V
 - (c) LIGHT SOURCE : LED
 - (d) LENS : POLYCARBONATE
 - (e) LIGHT COLOUR : WHITE
 - (f) CHARACTER : FIXED
 - (g) EFFECTIVE INTENSITY : 14cd
 - (h) LUMINOUS RANGE : 3 N.M. (T=0.74)
 - (i) COLOR : WHITE

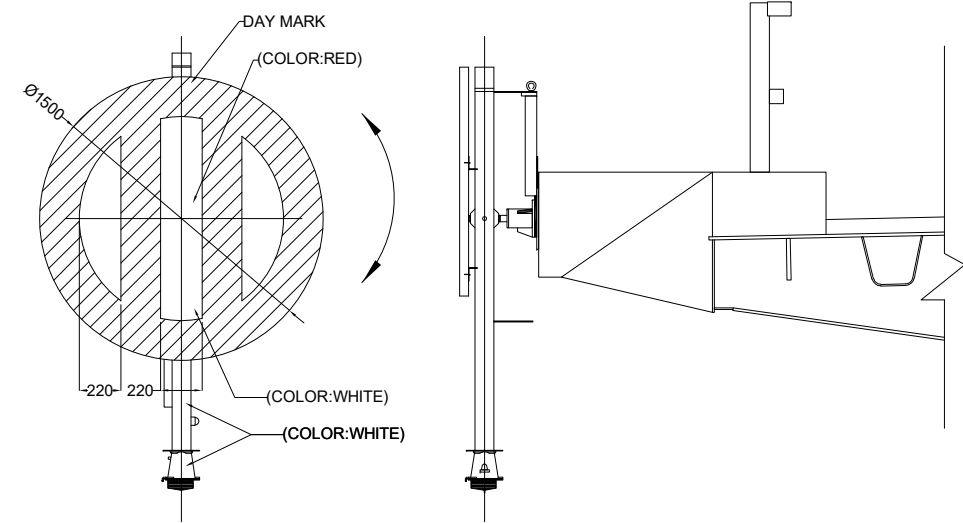
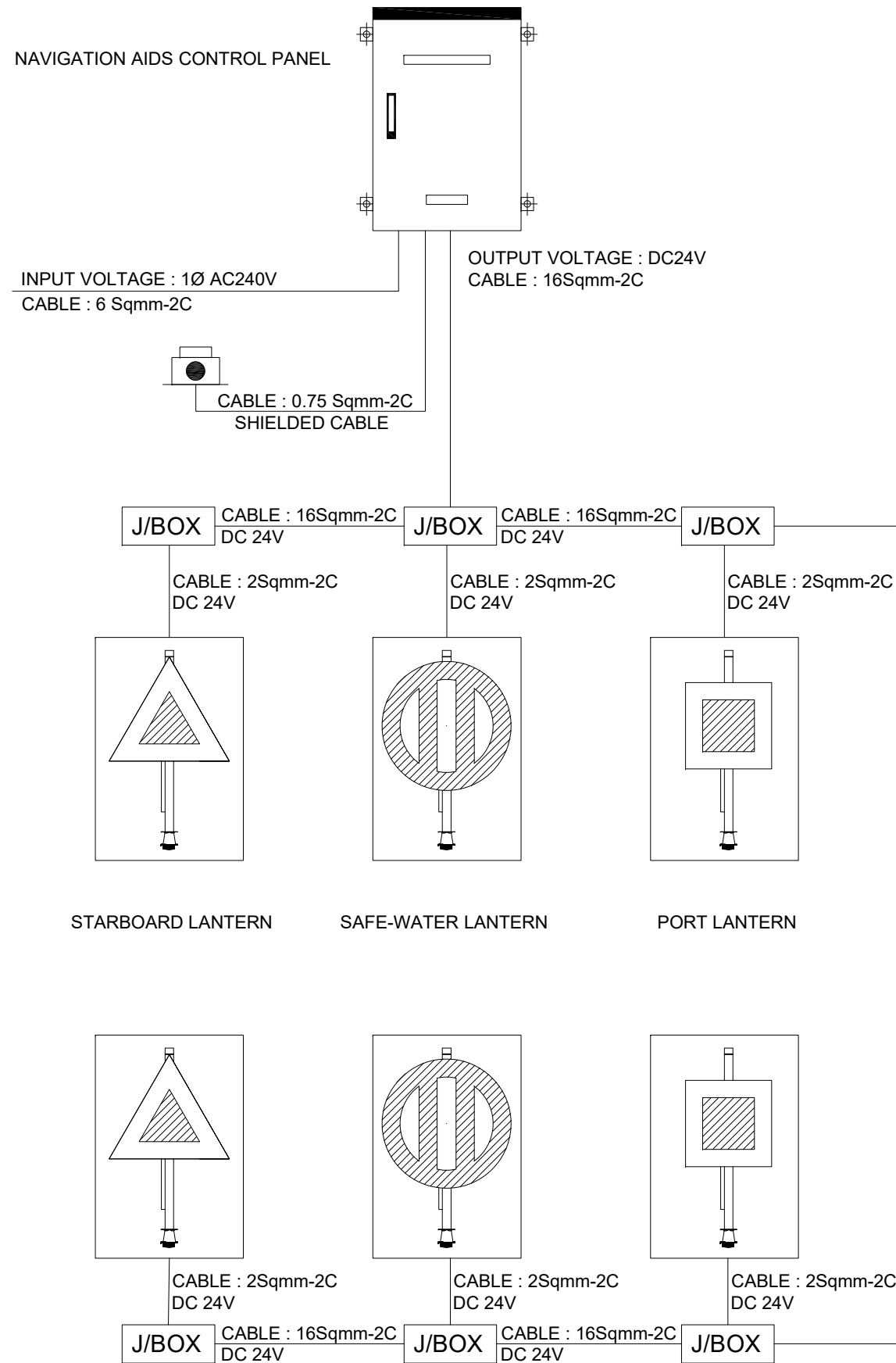


SIDE VIEW

PLAN VIEW

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE TYPICAL NAVIGATION LATERAL MARKS AND OBSTRUCTION LIGHT	PACKAGE
				PREPARED BY	K. MORIMATA	29 Sep. 2017		1
				CHECKED BY	T. HAYAKAWA	3 Oct. 2017		DWG No.
APPROVED BY	Y. SANO	6 Oct. 2017		P1-EL- 0024				

TYPICAL SCHEMATIC DIAGRAM



FRONT VIEW LEFT SIDE VIEW
 TYPICAL INSTALLATION FOR LATERAL REMARKS AND OBSTRUCTION LIGHT
 NTS

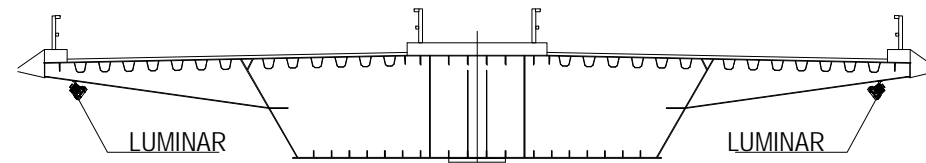
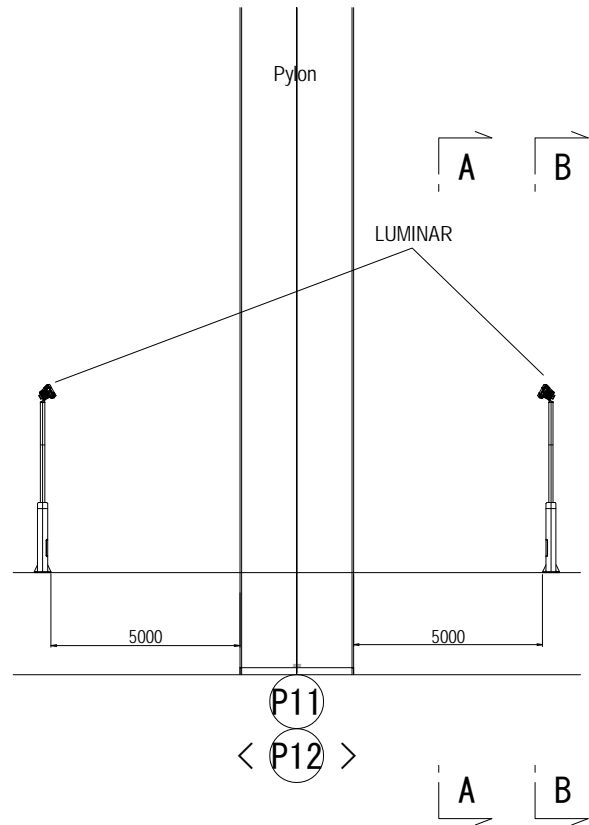
CABLE : 16Sqmm-2C
 DC 24V

- NOTE:
 Operation and maintenance method
1. Insulation resistance test is not allowed at panel circuit. Remove all DC circuit, in case of necessity of insulation test.
 2. Automatic/ Manual selector switch is pull type. Prior to operation, pull toward first then turn switch.
 3. Off the breaker (MCCB2), prior to replace the battery set.
 4. The Photocell switch is set at 300Lx operated.
 5. Equipment transfer is set at 240V /100V.
- The system may not operate at less than 220V of input voltage.
 If so, change the connection terminal (input side) to suitable voltage.
 (the equipment operates from 90V to 110V at output side.)

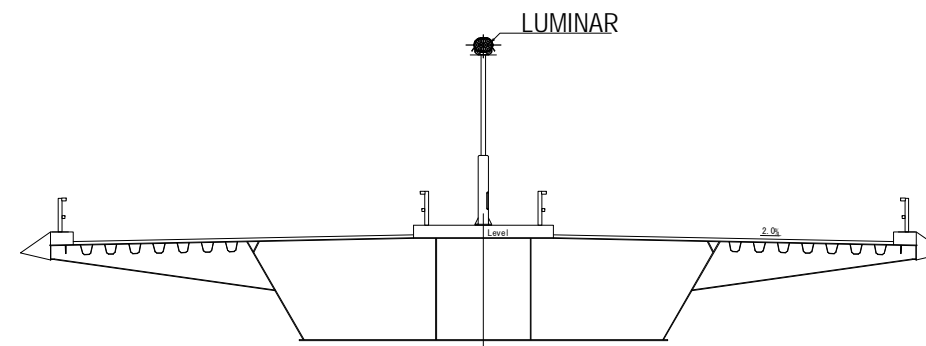
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE			
				PREPARED BY	K. MORIMATA				29 Sep. 2017	TYPICAL SCHEMATIC DIAGRAM	1
				CHECKED BY	T. HAYAKAWA				3 Oct. 2017		DWG No.
				APPROVED BY	Y. SANO				6 Oct. 2017		P1-EL- 0025

(REFERENCE) TYPICAL FLOOD LIGHT INSTALLATION

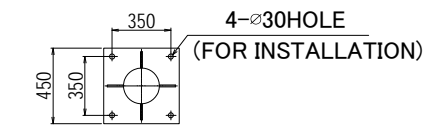
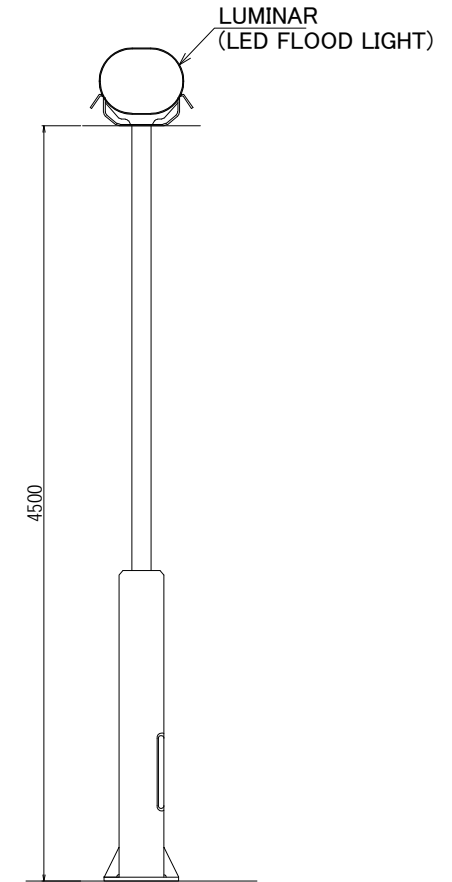
POSITION
NTS



A - A
NTS

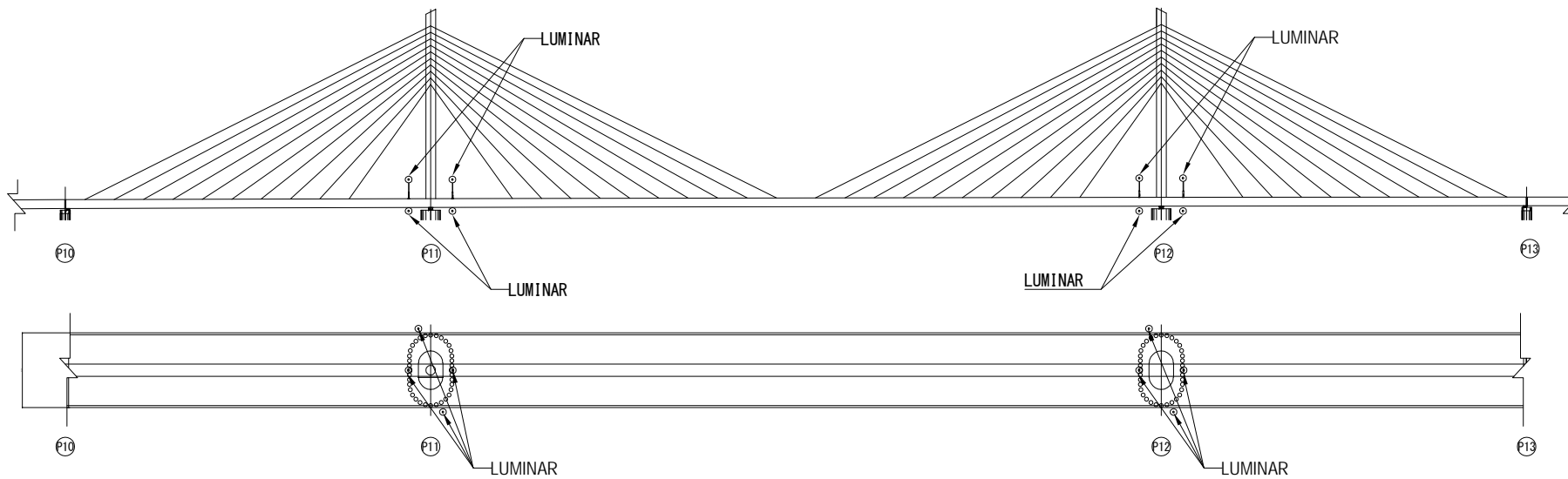


B - B
NTS



OUTLINE VIEW OF FLOOD LIGHT
NTS

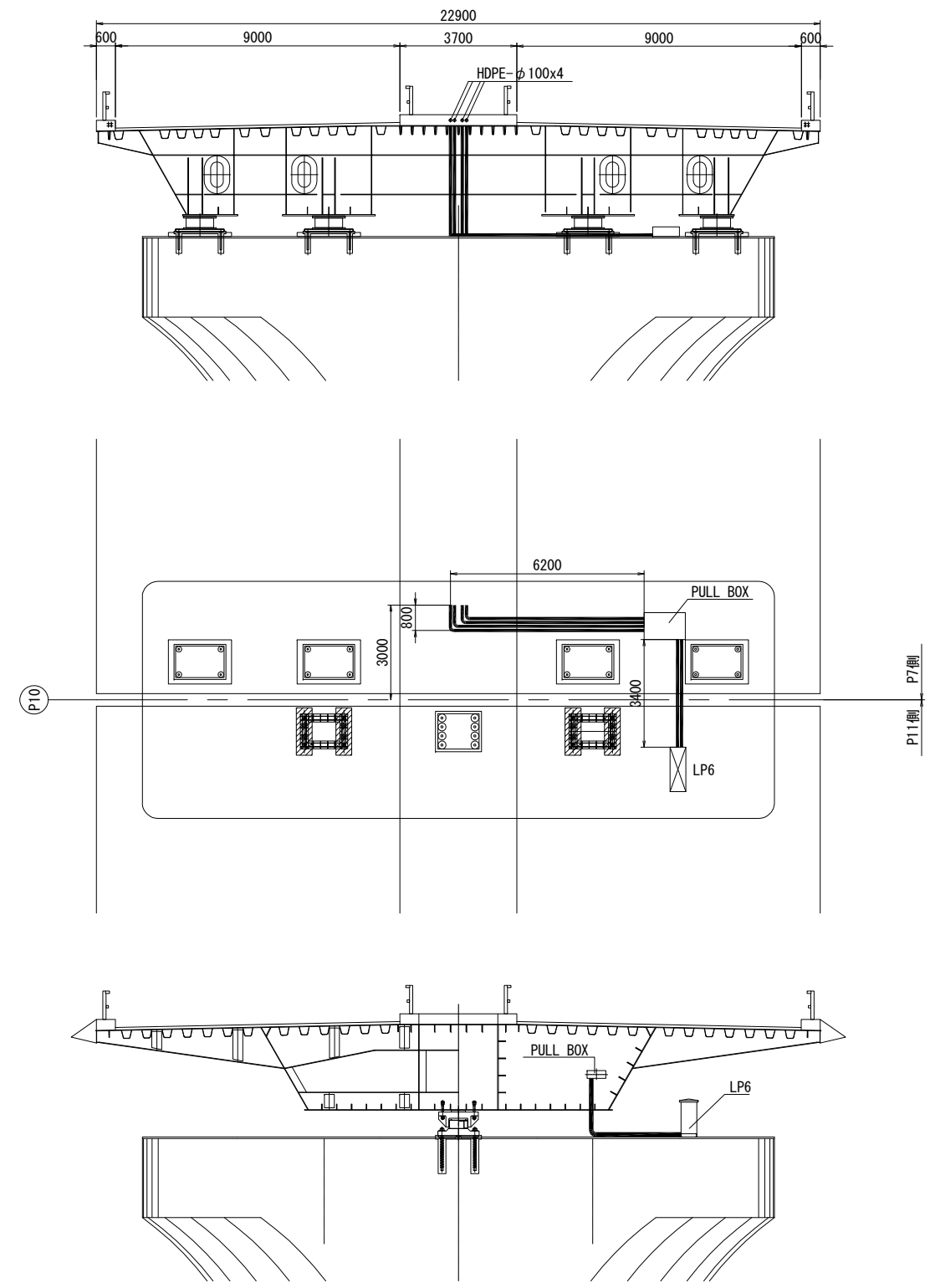
SIDE VIEW
NTS



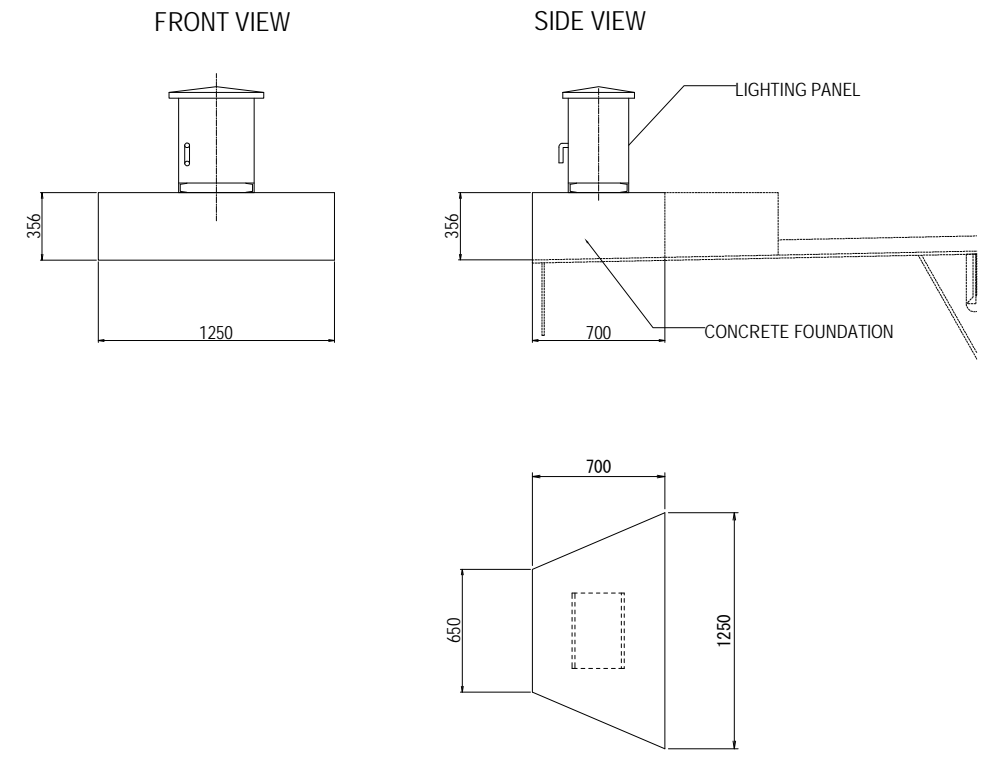
LAYOUT OF ILLUMINATOR
NTS

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) TYPICAL FLOOD LIGHT INSTALLATION	PACKAGE	
				PREPARED BY	K. MORIMATA			29 Sep. 2017	1
				CHECKED BY	T. HAYAKAWA			3 Oct. 2017	DWG No.
				APPROVED BY	Y. SANO			6 Oct. 2017	P1-EL- 0026

(REFERENCE) TYPICAL WIRING PLAN AND LIGHTING PANEL AT P10



TYPICAL CONCRETE FOUNDATION FOR LIGHTING PANEL



QUANTITY TABLE OF LIGHTING AND ELECTRICAL WORKS (REFERENCE DRAWING)

QUANTITY OF ROAD LIGHTING SYSTEM

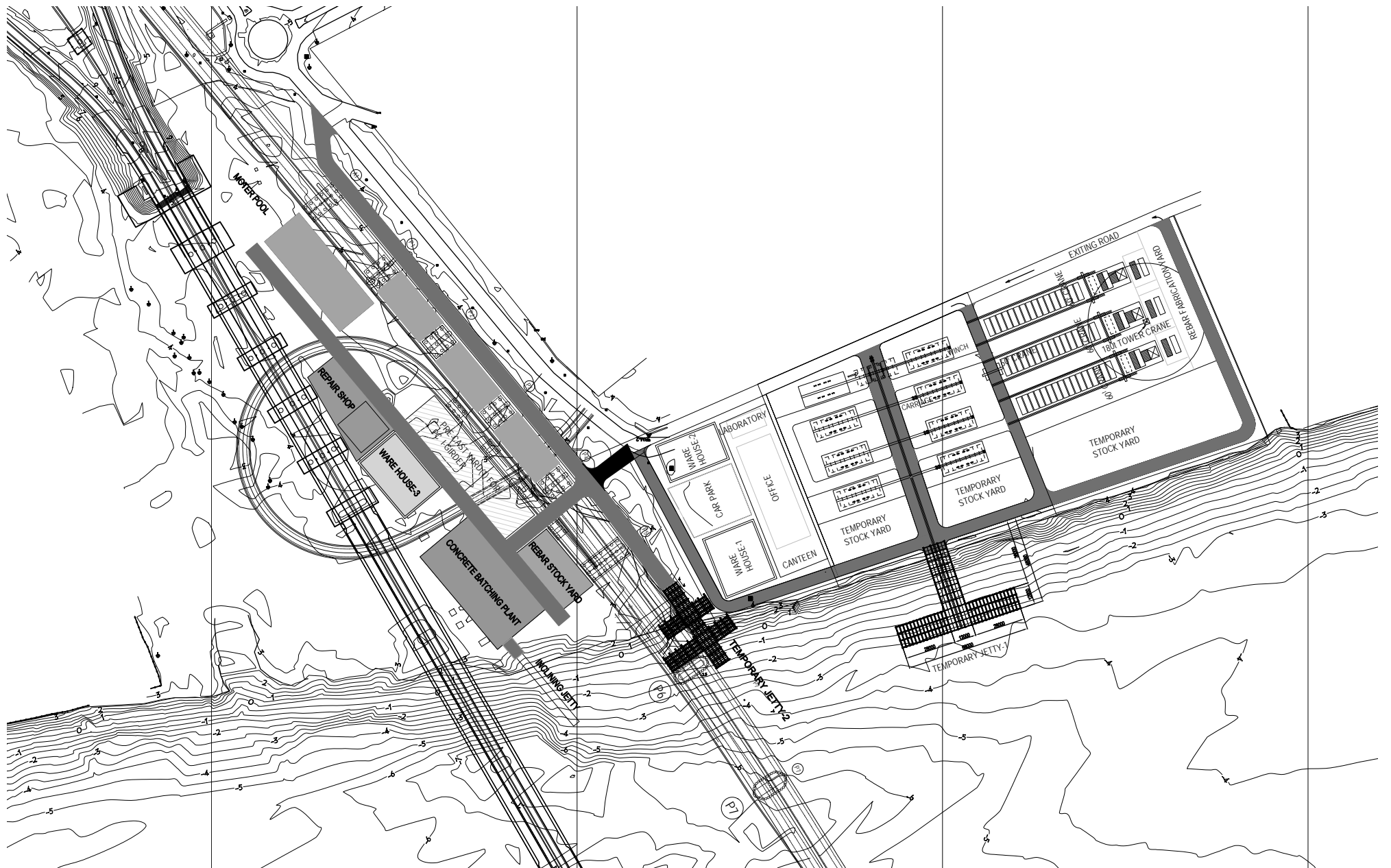
Item Description	Unit	Total
Lighting Pole Type B (H=12m.)	No.	63.0
Lighting Pole Type C (H=9m)	No.	35.0
LED Lamp (51W)	No.	35.0
LED Lamp (140W)	No.	63.0
LED Lamp (380W)	No.	12.0
HID Lamp (400W)	No.	5.0
Lighting Panel Type A (17 lines)	No.	4.0
Lighting Panel Type B (4 lines)	No.	4.0
Pull Box Type A (300 x 350 x 175)	No.	112.0
Pull Box Type B (550 x 200 x 600)	No.	220.0
Pull Box Type C (400 x 300 x 200)	No.	6.0
Grounding System	No.	10.0
4 Core/XLPE 35 sq. mm Electric Wire Cable	m	1980.0
4 Core/XLPE 25 sq. mm Electric Wire Cable	m	2328.0
4 Core/XLPE 16 sq. mm Electric Wire Cable	m	1404.0
4 Core/XLPE 10 sq. mm Electric Wire Cable	m	3150.0
4 Core/XLPE 8 sq. mm Electric Wire Cable	m	4372.0
HDPE Pipe (25mm dia.)	m	53.0
HDPE Pipe (50mm dia.)	m	12345.0
HDPE Pipe (100mm dia.)	m	100.0
FEP Pipe (25mm dia.)	m	28.0
FEP Pipe (50mm dia.)	m	207.0
Steel Conduit (10mm dia.)	m	800.0
Handhole (600 x 600 x 1200)	No.	2.0
Handhole (600 x 600 x 600)	No.	12.0
MV Site Substation (6.6kV)	L.S.	1.0
Warning Light	No.	1.0
Aviation Obstruction Lights (LED 25W White)	No.	2.0
Control Panel for Aviation Obstruction Lights	No.	2.0
CV 0.75sq.mm x 2c	m	30.0
CV 2.0sq.mm x 2c	m	95.0
CV 5.5sq.mm x 1c	m	65.0
CV 6.6sq.mm x 2c	m	65.0
CV 16sq.mm x 2c	m	1120.0
CVV 2.0sq.mm x 4c x 3	m	65.0
CVV 2.0sq.mm x 6c	m	20.0
Navigation Lateral Marks (Left) with LED Signal Light	No.	4.0
Navigation Lateral Marks (Right) with LED Signal Light	No.	4.0
Navigation Lateral Marks (Centre) with LED Signal Light	No.	2.0
Control Panel for Navigation Lateral Marks	No.	1.0
Joint Box (200 x 200 x 150)	No.	10.0
Lightning Rod	No.	2.0
Copper Wire (30 sq.mm)	m	20.0
Drawer Conductor Terminal	No.	12.0
Connection Conductor Terminal	No.	4.0

QUANTITY OF TRAFFIC SIGNAL CONTROL SYSTEM

Item Description	Unit	Total
Traffic Signal Pole	No.	9.0
Pedestrian Signal Pole	No.	9.0
Traffic Signal Head	No.	12.0
Arrow Signal Head	No.	8.0
Pedestrian Signal Head and Push Button	No.	18.0
Handhole (600 x 600 x 800)	No.	15.0
Traffic Signal Controller	No.	1.0
HDPE Pipe (50mm dia.)	m	309.0
HDPE Pipe (25mm dia.)	m	208.0
SVV-SS 2.0sq.mm x 4c	m	77.0
SVV-SS 2.0sq.mm x 15c	m	157.0
SVV-SS 2.0sq.mm x 18c	m	69.0
SVV-SS 2.0sq.mm x 21c	m	32.0
SVV-SS 2.0sq.mm x 33c	m	10.0
SVV-2.0sq.mm x 4c	m	302.0
SVV-2.0sq.mm x 8c	m	162.0

H. REFERENCE DRAWING

(REFERENCE) GENERAL LAYOUT OF CONSTRUCTION YARD S=1:2000

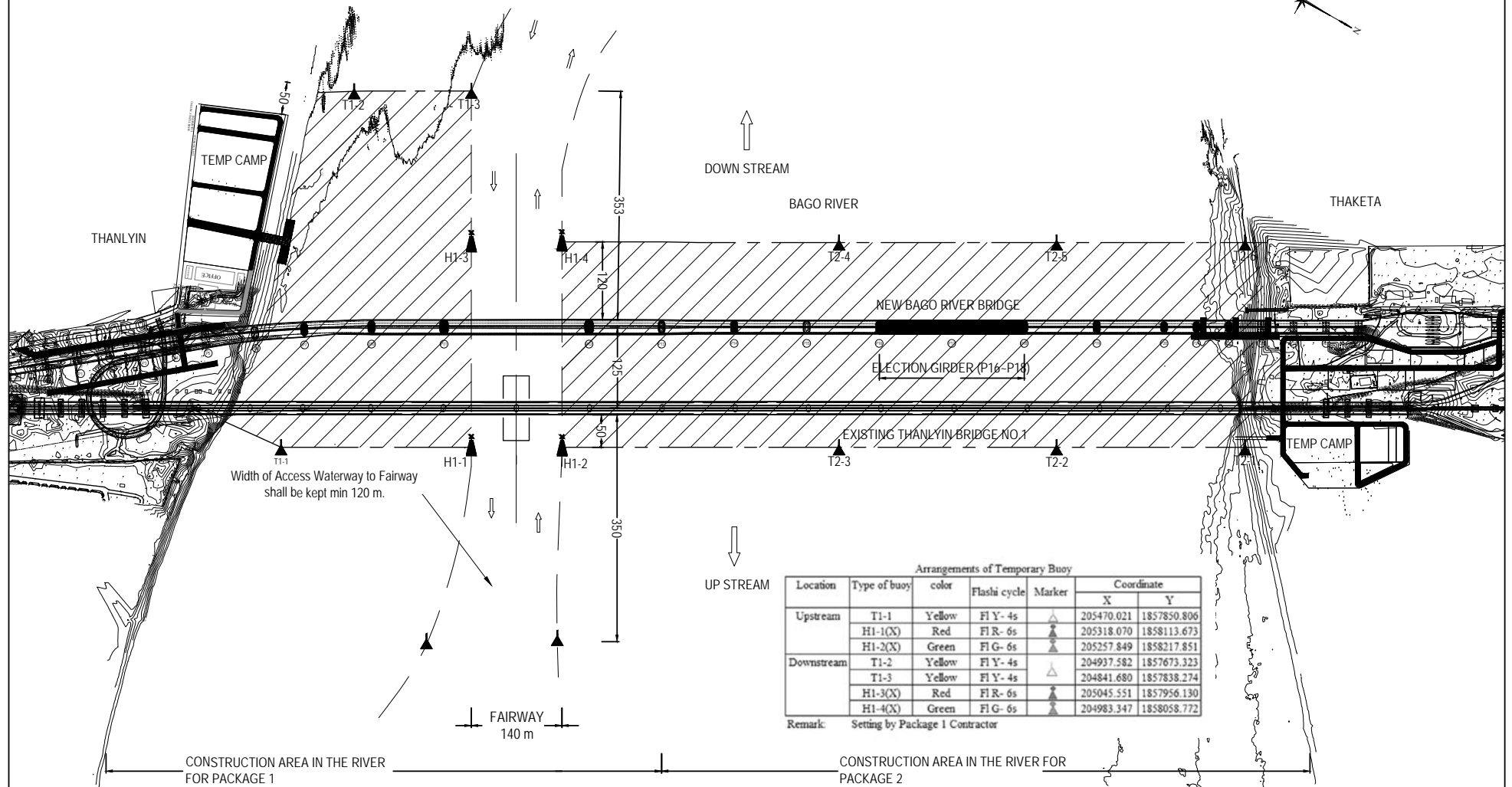


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTRY REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) GENERAL LAYOUT OF CONSTRUCTION YARD	PACKAGE	
				PREPARED BY	T. ICHIKAWA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-REF-001

(REFERENCE) NAVIGATION CONTROL PLAN (1)

S=1:6000

TEMPORARY FAIRWAY
CONSTRUCTION STAG 1: FOUNDATION AND PIER WORKS AND ERECTION GIRDER (P16-P18)

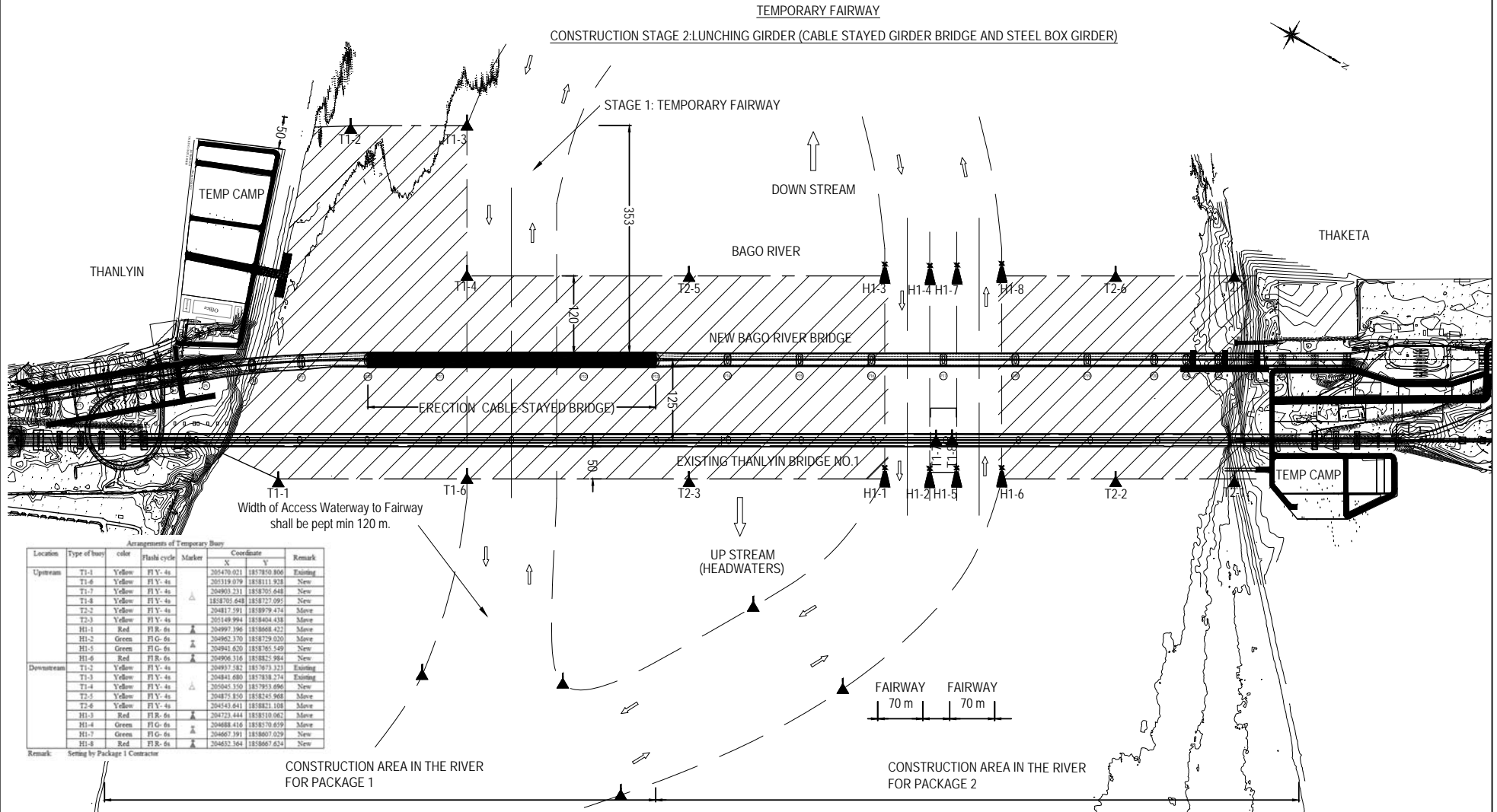


Note : Water depth of Access Waterway and Fairway shall be kept min 5.0 m depth.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) NAVIGATION CONTROL PLAN (1)	PACKAGE	
				PREPARED BY	T. ICHIKAWA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-REF-002

(REFERENCE) NAVIGATION CONTROL PLAN (2)

S=1:6000



Width of Access Waterway to Fairway shall be kept min 120 m.

Note : Water depth of Access Waterway and Fairway shall be kept min 5.0 m depth.

Arrangements of Temporary Buoy

Location	Type of buoy	color	Flash cycle	Marker	Coordinate		Remark
					X	Y	
Upstream	T1-1	Yellow	Fl Y. 4s	▲	20470.021	1857850.806	Existing
	T1-6	Yellow	Fl Y. 4s	▲	20519.079	1858111.928	New
	T1-7	Yellow	Fl Y. 4s	▲	204903.211	1858705.648	New
	T1-8	Yellow	Fl Y. 4s	▲	1858701.648	1858727.095	New
	T2-2	Yellow	Fl Y. 4s	▲	204817.591	1858979.474	Move
	T2-3	Yellow	Fl Y. 4s	▲	205149.994	1858404.438	Move
	H1-1	Red	Fl R. 6s	▲	204997.396	1858468.272	Move
Downstream	H1-2	Green	Fl G. 6s	▲	204962.370	1858729.020	Move
	H1-3	Green	Fl G. 6s	▲	204941.620	1858765.549	New
	H1-6	Red	Fl R. 6s	▲	204906.316	1858825.984	New
	T1-2	Yellow	Fl Y. 4s	▲	204917.582	1857973.232	Existing
	T2-5	Yellow	Fl Y. 4s	▲	204841.680	1857938.274	Existing
	T1-4	Yellow	Fl Y. 4s	▲	205045.350	1857953.686	New
	T2-1	Yellow	Fl Y. 4s	▲	204875.850	1858245.968	Move
	T2-6	Yellow	Fl Y. 4s	▲	204543.841	1858821.108	Move
	H1-3	Red	Fl R. 6s	▲	204723.444	1858110.462	Move
	H1-4	Green	Fl G. 6s	▲	204688.416	1858370.659	Move
H1-7	Green	Fl G. 6s	▲	204667.391	1858607.029	New	
H1-8	Red	Fl R. 6s	▲	204632.364	1858667.634	New	

Remark: Setting by Package 1 Contractor

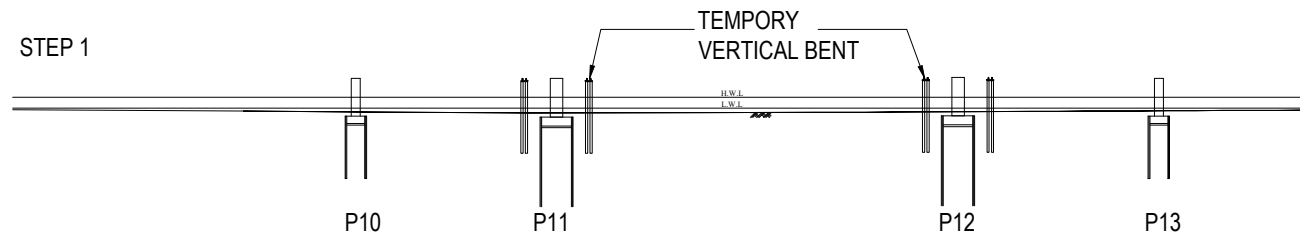
CONSTRUCTION AREA IN THE RIVER FOR PACKAGE 1

CONSTRUCTION AREA IN THE RIVER FOR PACKAGE 2

(REFERENCE) CONSTRUCTION SEQUENCE OF CABLE STAYED BRIDGE

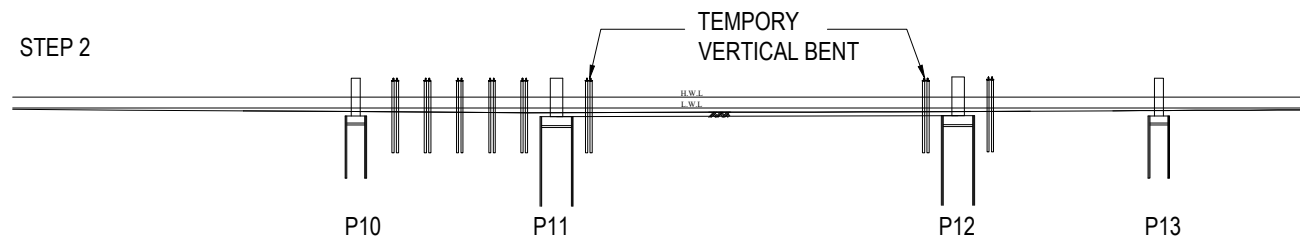
S=1:4000

STEP 1



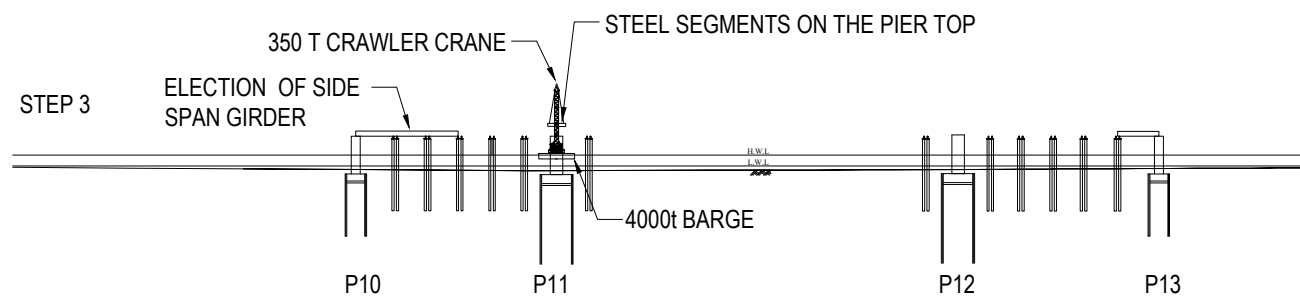
- Construct Piers P10 and P13.

STEP 2



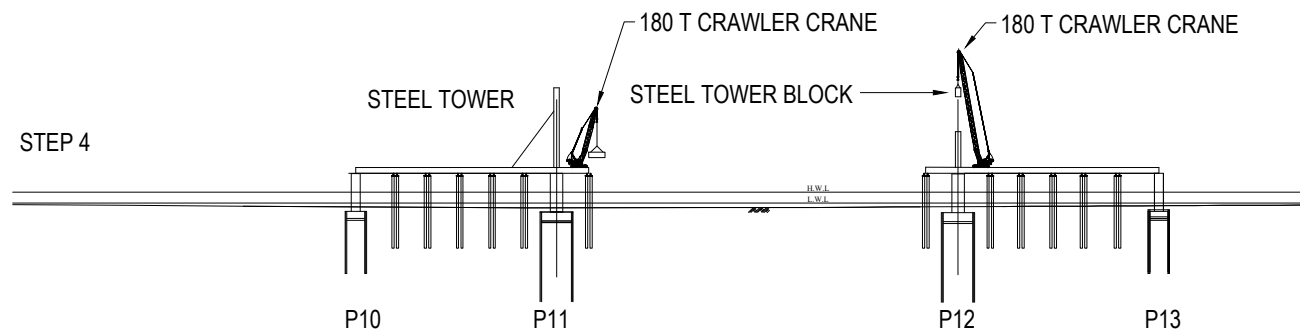
- Temporary Vertical bents are attached to the tower piers.

STEP 3



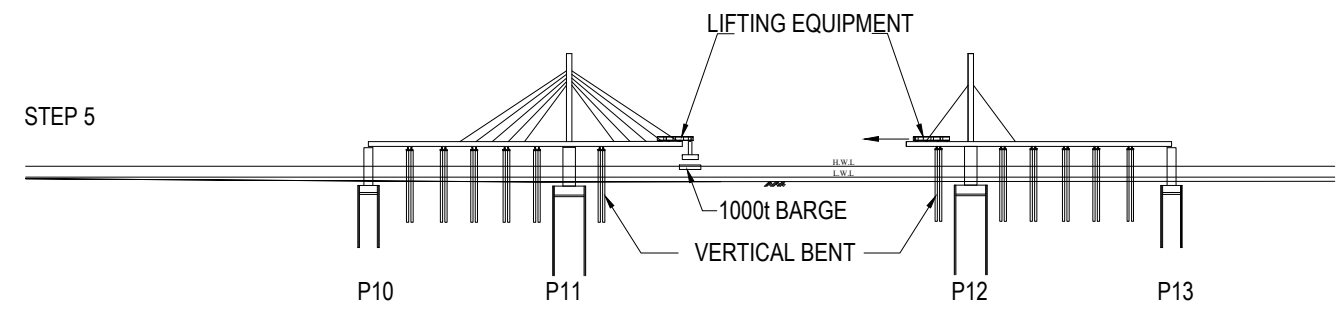
- Erect side span girder by 350 T Crawler Crane.
- Temporary supports are attached to the tower piers.
- Steel segment on the pier top are erected by 350 T Crawler crane.

STEP 4



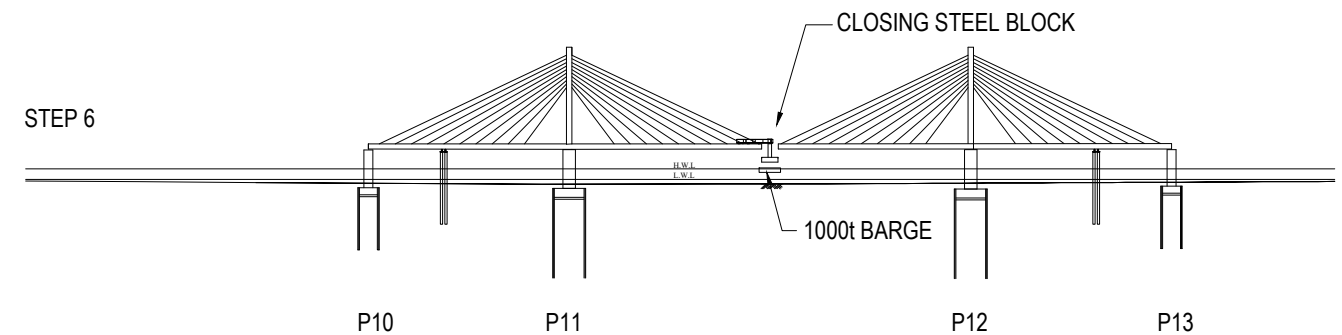
- After side span steel girder segment is connected to pier top steel girder segment.
- 180T Crawler Crane are mounted on the girder deck.
- Construct Steel Towers on Pier 11 and 12 are constructed.

STEP 5



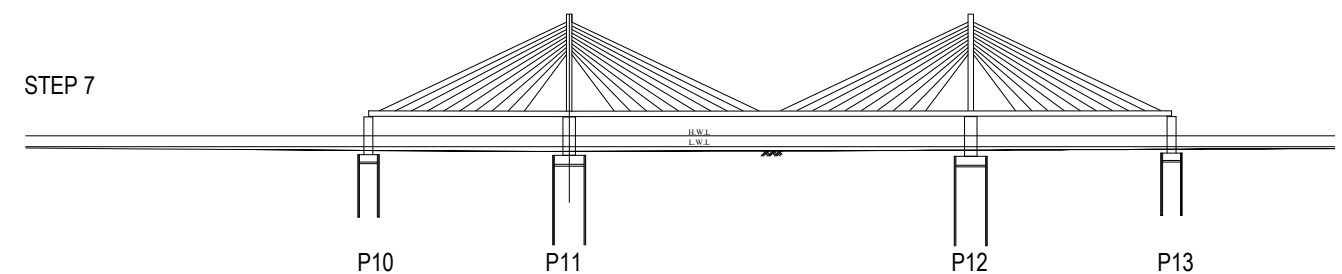
- Install stay cable to the girder segment.
- Erect a steel girder block with cantilever method using stay cables by Lifting Equipment on the deck.

STEP 6



- Remain one temporary bent and others are removed.
- Finally closing steel blocks are erected by lifting equipment using Set-backing method.

STEP 7

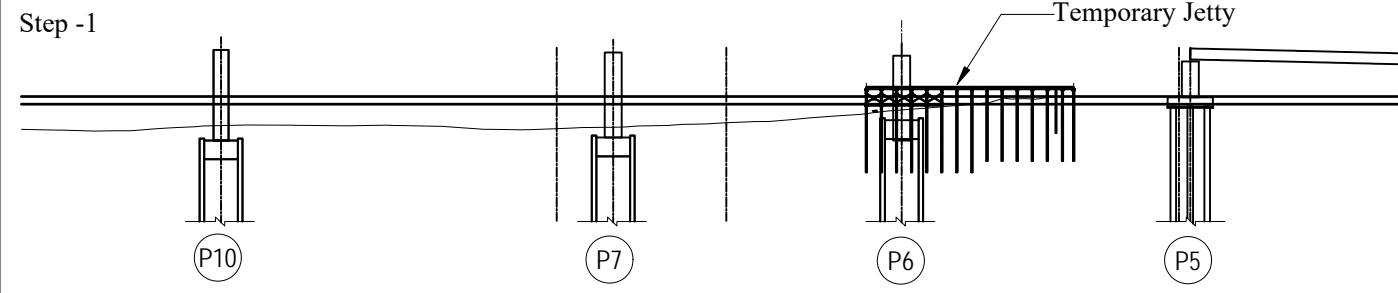


- Erection is completed.

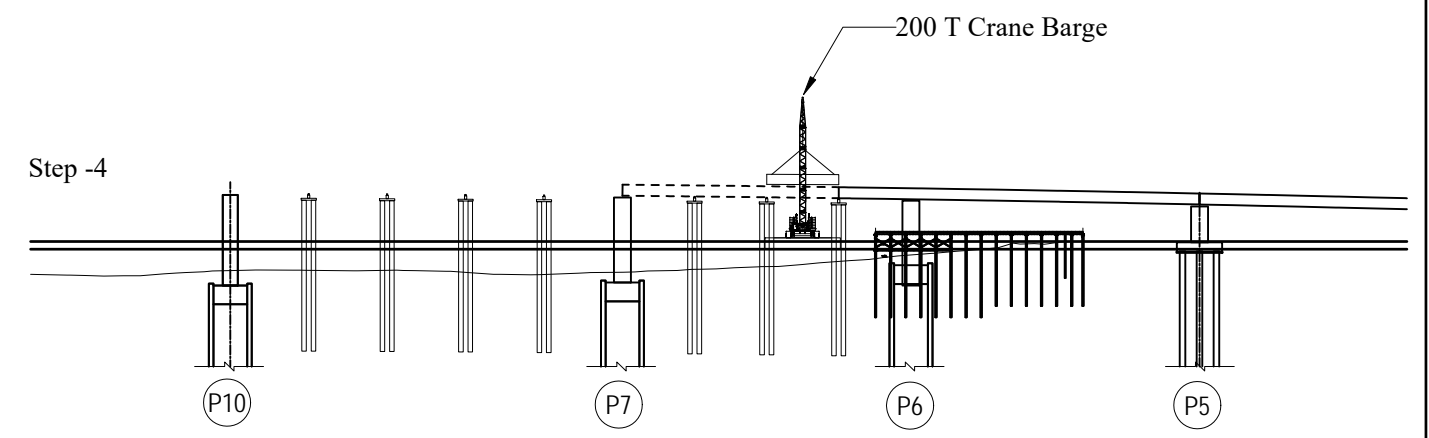
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) CONSTRUCTION SEQUENCE OF CABLE STAYED BRIDGE	PACKAGE	
				PREPARED BY	T. ICHIKAWA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-REF-0004

(REFERENCE) CONSTRUCTION SEQUENCE OF CONTINUOUS STEEL BOX GIRDER

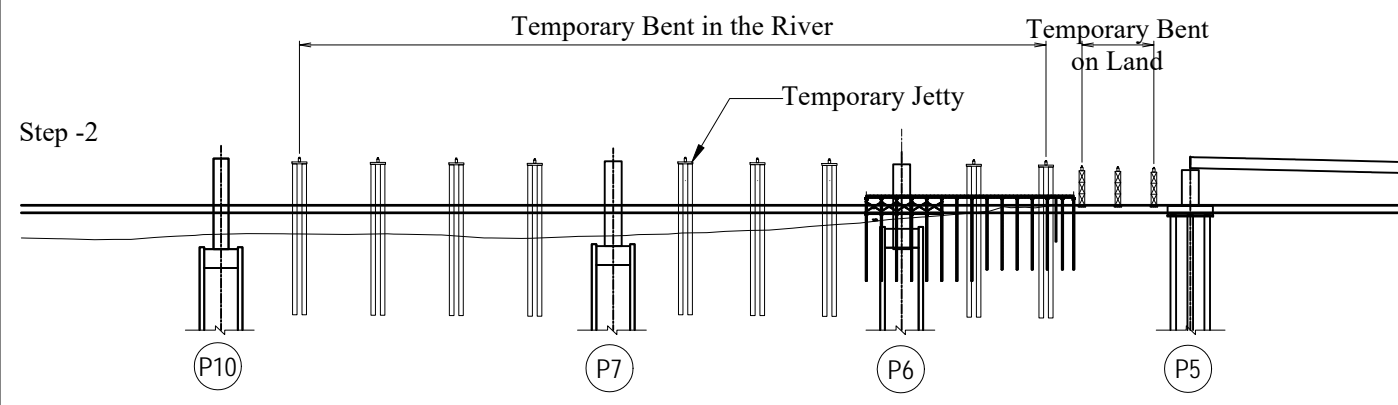
S=1:2000



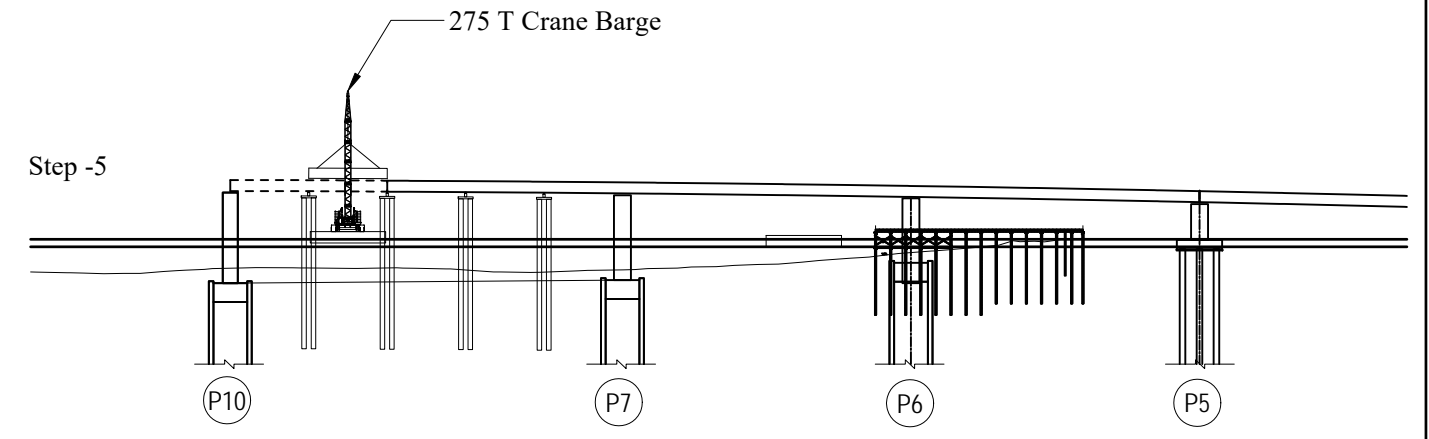
- Installation of temporary jetty between P5 and P6.



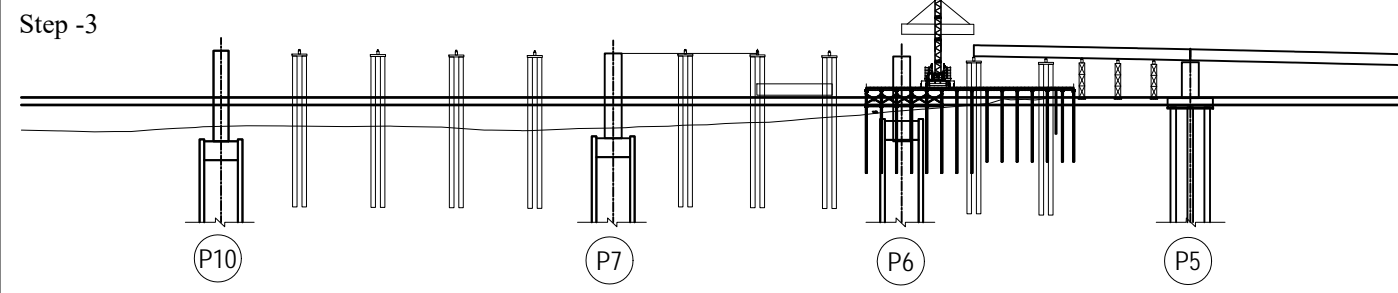
- Girder blocks between P6 and P7 erect using 200t Crane Barge.



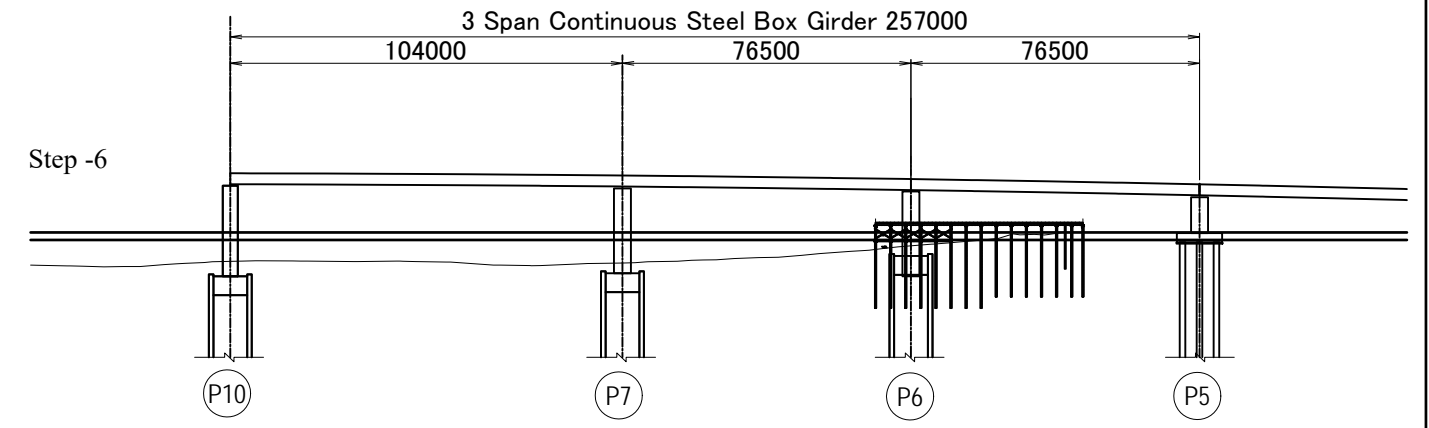
- Installation of temporary bents in the river and on land.



- Girder blocks between P7 and P10 erects using 275t Crane Barge.



- Girder blocks between P5 and P6 erect using 200t Crawler Crane on land and temporary jetty.



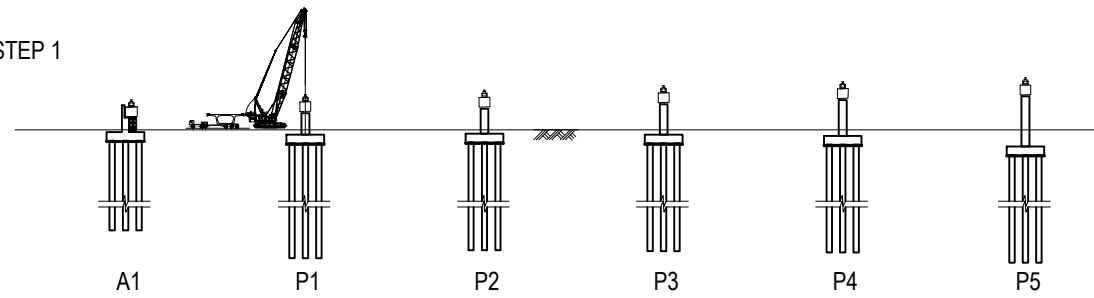
- After erection all girder blocks, all temporary bents are removed.
- Completed.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) CONSTRUCTION SEQUENCE OF CONTINUOUS STEEL BOX GIRDER	PACKAGE	
				PREPARED BY	T. ICHIKAWA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-REF-0005

(REFERENCE) CONSTRUCTION SEQUENCE OF CONTINUOUS PC BOX GIRDER

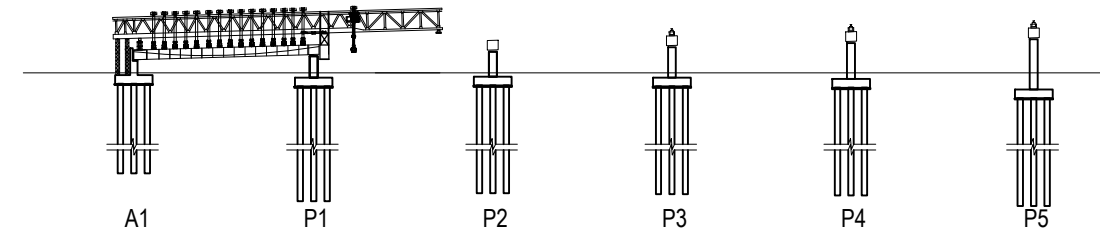
S=1:2000

STEP 1



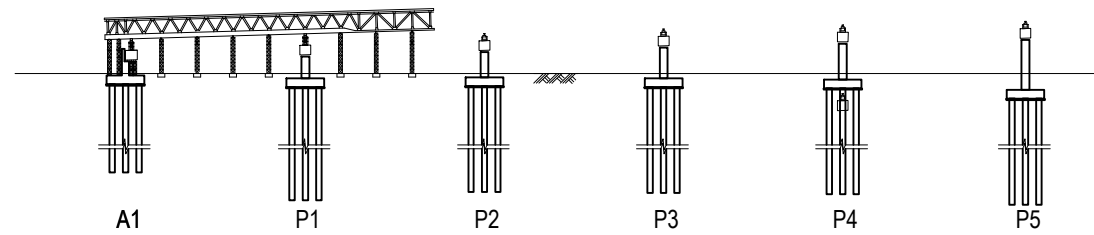
• In advance of segment erection, bearing shoes are set on abutment and piers. Pier head segments are erected by 200t crawler crane and fixed by PC bars.

STEP 4



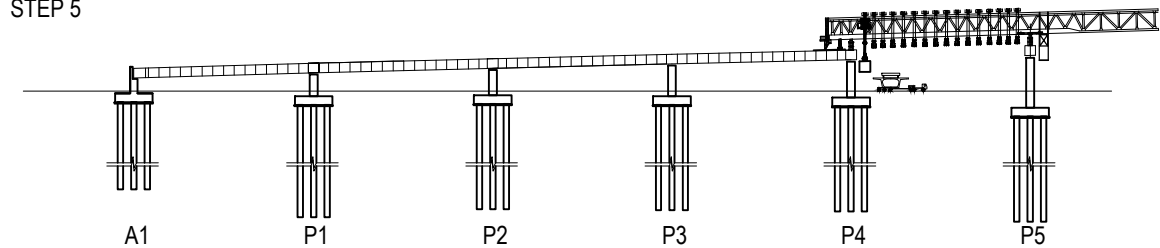
• After all segment are suspended at the designed position, epoxy adhesive applies to the segment which is pulling and connected by PC bars. Mortar is placed in wet joints at both sides. Permanent inner and external tendons for span are installed and tensioned by hydraulic jack.

STEP 2



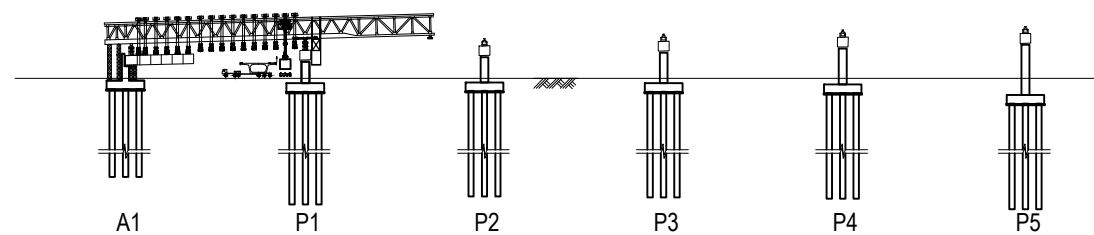
• For assembling of erection girder, temporary bent are installed. The erection girder and erection apparatus are set in designated position and girder support fixed on the pier head segment.

STEP 5



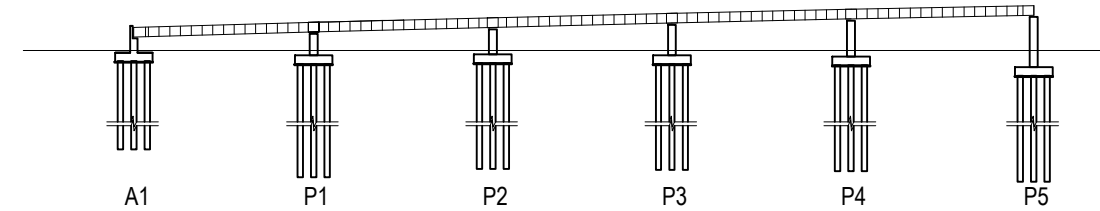
• After completion of one span erection sequence, erection girder advances to next span and erects segments in the same procedure up to Pier 5.

STEP 3



• Pre-cast segments are transported by trailer under the erection girder and lifted by electric hoist and moved to the setting position. The segment transfers the load to temporary hanging beam and adjusts the slope and gradient by jack.

STEP 6

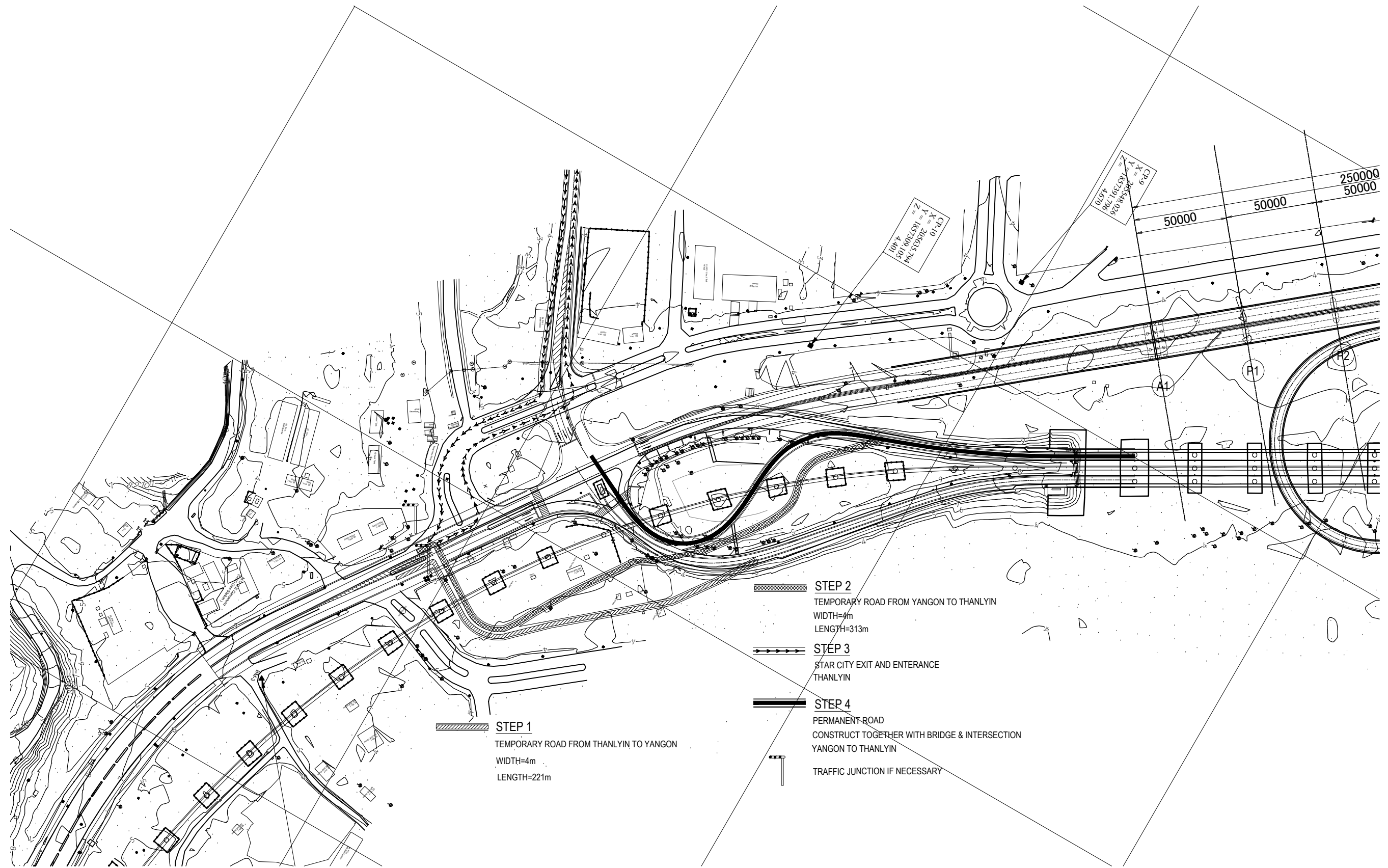


• Demolition of erection girder and then completion.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) CONSTRUCTION SEQUENCE OF CONTINUOUS PC BOX GIRDER	PACKAGE 1 DWG No. P1-REF-0006	
				PREPARED BY	T. ICHIKAWA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017

(REFERENCE) DIVERSION OF EXISTING TRAFFIC DURING CONSTRUCTION OF INTERSECTION

S=1:2000



STEP 1
TEMPORARY ROAD FROM THANLYIN TO YANGON
WIDTH=4m
LENGTH=221m

STEP 2
TEMPORARY ROAD FROM YANGON TO THANLYIN
WIDTH=4m
LENGTH=313m

STEP 3
STAR CITY EXIT AND ENTERANCE
THANLYIN

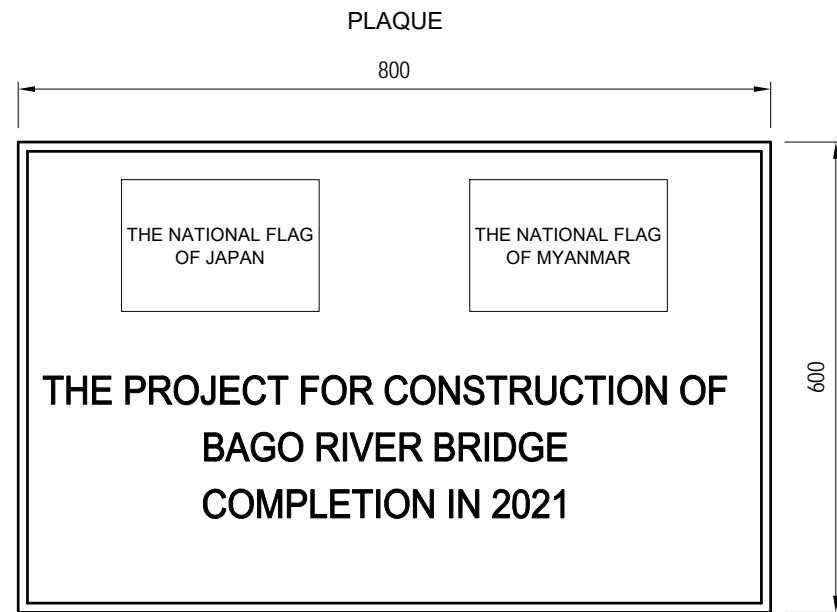
STEP 4
PERMANENT ROAD
CONSTRUCT TOGETHER WITH BRIDGE & INTERSECTION
YANGON TO THANLYIN

TRAFFIC JUNCTION IF NECESSARY

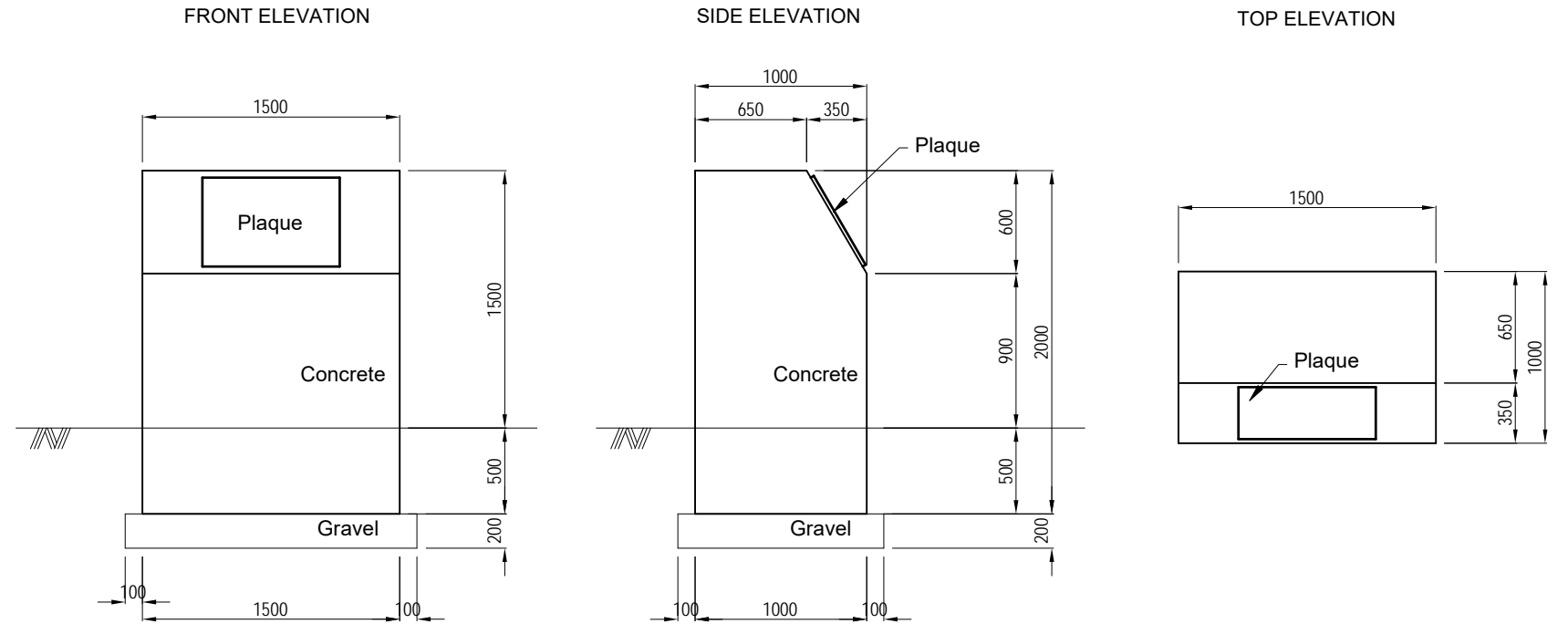
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY jica JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	NAME T. ICHIKAWA T. HAYAKAWA Y. SANO	SIGNATURE 市川 敏夫 平川 勉 佐野 祐一	DATE 15 Jun.2017 20 Jun.2017 21 Jun.2017	DRAWING TITLE (REFERENCE) DIVERSION OF EXISTING TRAFFIC DURING CONSTRUCTION OF INTERSECTION	PACKAGE 1 DWG No. P1-REF-0007
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(REFERENCE) MONUMENT AND BRIDGE RECORD

MONUMENT



Note) Design & sentence shall be confirmed to the Engineer during construction period.



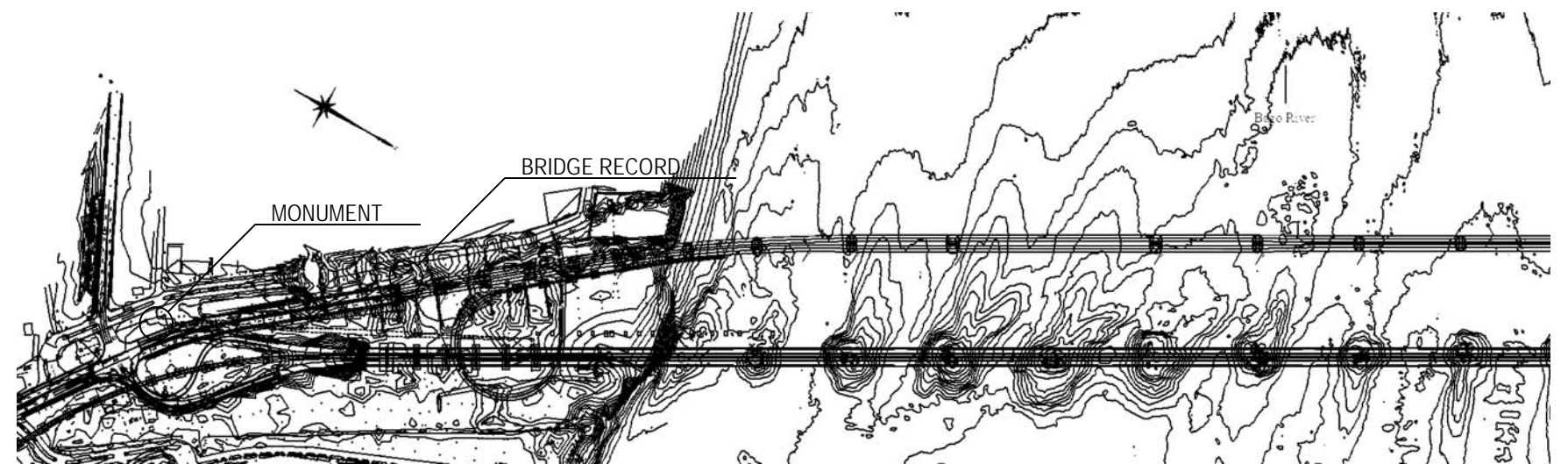
Note) Design and details of monument shall be confirmed to the Engineer during construction period.

BRIDGE RECORD



Note) Design & sentence shall be confirmed to the Engineer during construction period.

LOCATION



Note) Location for monument and bridge record shall be confirmed to the Engineer during construction period.

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	T. HAYAKAWA		29 Sep. 2017	(REFERENCE) MONUMENT AND BRIDGE RECORD	1
				T. HAYAKAWA		3 Oct. 2017		DWG No.
				Y. SANO		6 Oct. 2017		P1-REF-0008

(REFERENCE) NETWORK PLAN

Primary Control Point By GPS

Point No	Easting	Northing	Elevation
GPS 01	205,842.773	1,857,184.685	5.698
GPS 011	205,760.156	1,857,254.692	5.543
GPS 02	205,321.737	1,857,693.657	4.426
GPS 021	205,410.480	1,857,584.129	4.262
GPS 03	204,535.795	1,859,088.346	4.115
GPS 031	204,453.920	1,859,180.786	3.874
GPS 04	204,274.946	1,859,592.673	5.344
GPS 041	204,205.987	1,859,475.724	5.066
GPS 05	203,521.369	1,860,268.348	4.914
GPS 051	203,458.184	1,860,271.486	5.105

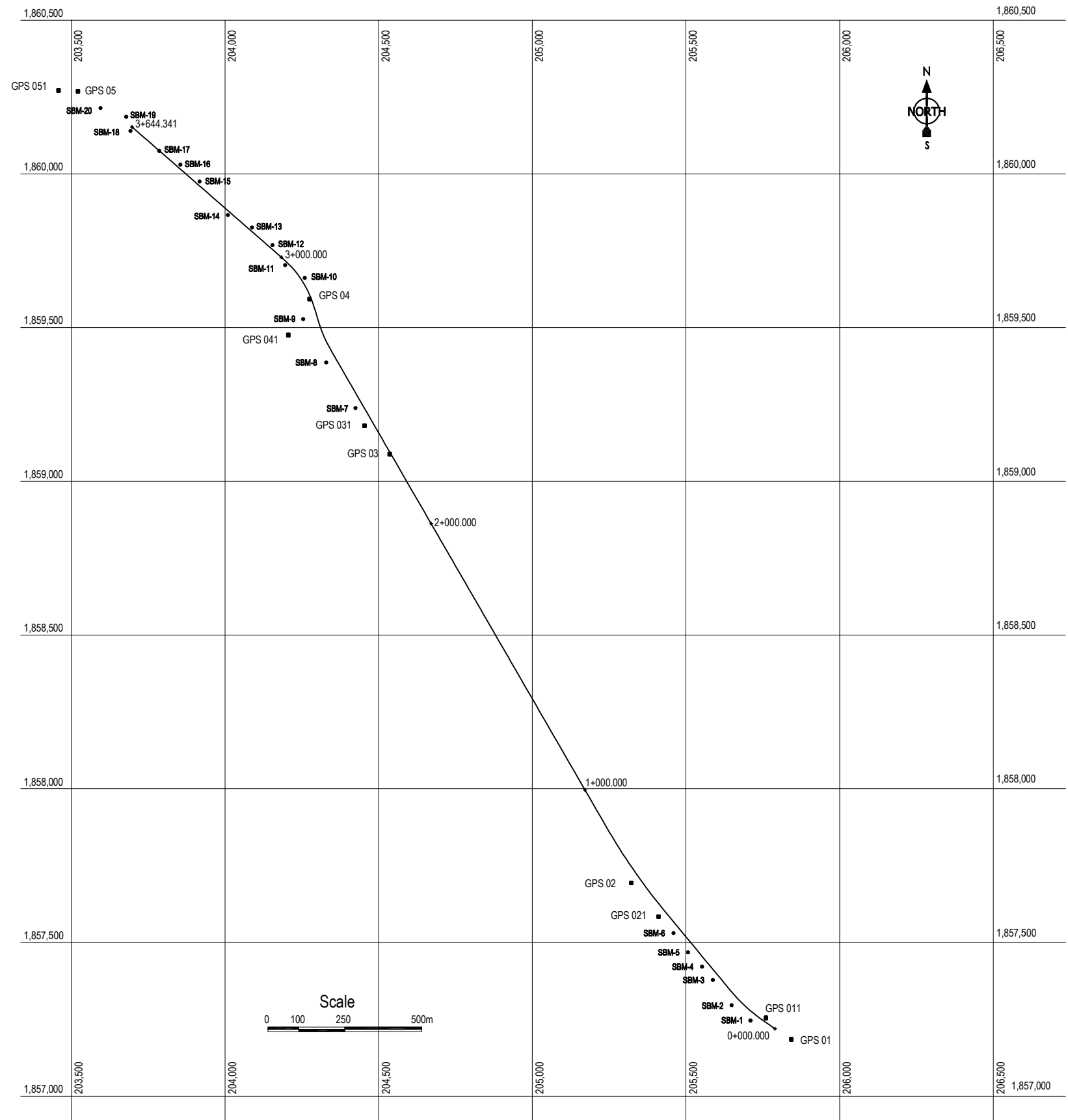
Secondary Control Point By TS

Point No	Easting	Northing	Elevation
SBM-1	205,709.674	1,857,245.921	4.664
SBM-2	205,648.458	1,857,295.972	3.968
SBM-3	205,587.614	1,857,378.019	4.452
SBM-4	205,552.160	1,857,421.174	4.242
SBM-5	205,506.509	1,857,467.950	4.582
SBM-6	205,459.429	1,857,530.545	4.476
SBM-7	204,424.427	1,859,238.491	4.324
SBM-8	204,329.282	1,859,386.470	4.361
SBM-9	204,254.242	1,859,527.666	4.472
SBM-10	204,259.481	1,859,662.039	5.476
SBM-11	204,195.472	1,859,703.336	4.441
SBM-12	204,154.484	1,859,768.248	4.809
SBM-13	204,087.886	1,859,825.931	4.820
SBM-14	204,009.411	1,859,866.246	4.668
SBM-15	203,917.301	1,859,975.432	4.711
SBM-16	203,854.596	1,860,030.075	4.662
SBM-17	203,785.802	1,860,075.169	5.150
SBM-18	203,692.328	1,860,139.951	4.536
SBM-19	203,678.453	1,860,185.673	4.496
SBM-20	203,595.035	1,860,214.212	4.526

Elevation : Direct Leveling above Mean Sea Level

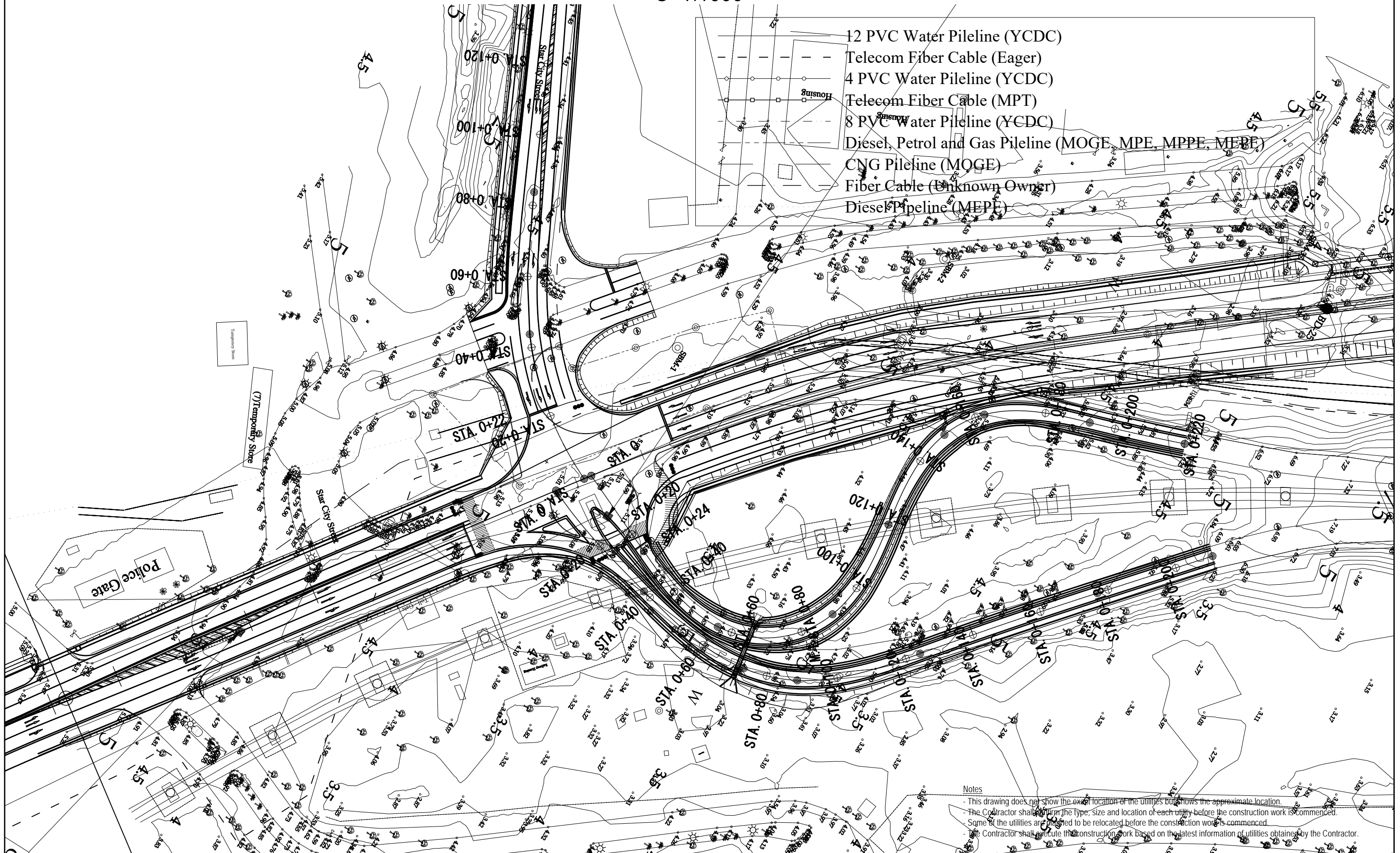
Existing Control Points from SD

Point No	Easting	Northing	Elevation
GCP 08	204,426.731	1,867,438.719	————
SD 2	197,289.025	1,863,904.781	————
BM76097	214,396.8	1,851,646.3	23.895



(REFERENCE) EXISTING UNDERGROUND UTILITIES LAYOUT (1)

S=1:1000

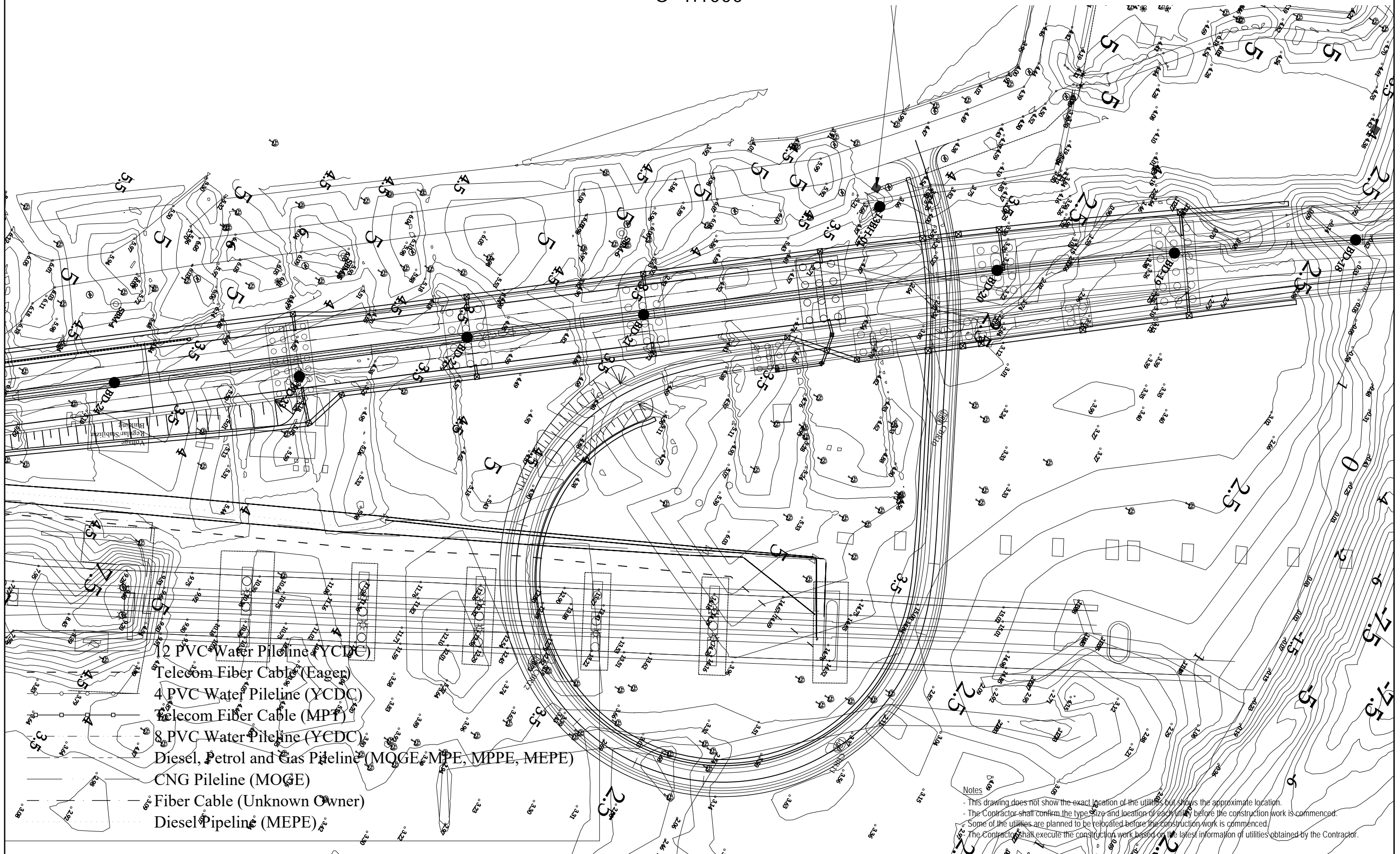


Notes
 - This drawing does not show the exact location of the utilities but shows the approximate location.
 - The Contractor shall confirm the type, size and location of each utility before the construction work is commenced.
 - Some of the utilities are planned to be relocated before the construction work is commenced.
 - The Contractor shall execute the construction work based on the latest information of utilities obtained by the Contractor.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	PREPARED BY	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) EXISTING UNDERGROUND UTILITIES LAYOUT (1)	PACKAGE 1 DWG No. P1-REF-0011
				CHECKED BY	T. HAYAKAWA		3 Oct. 2017		
				APPROVED BY	Y. SANO		6 Oct. 2017		

(REFERENCE) EXISTING UNDERGROUND UTILITIES LAYOUT (2)

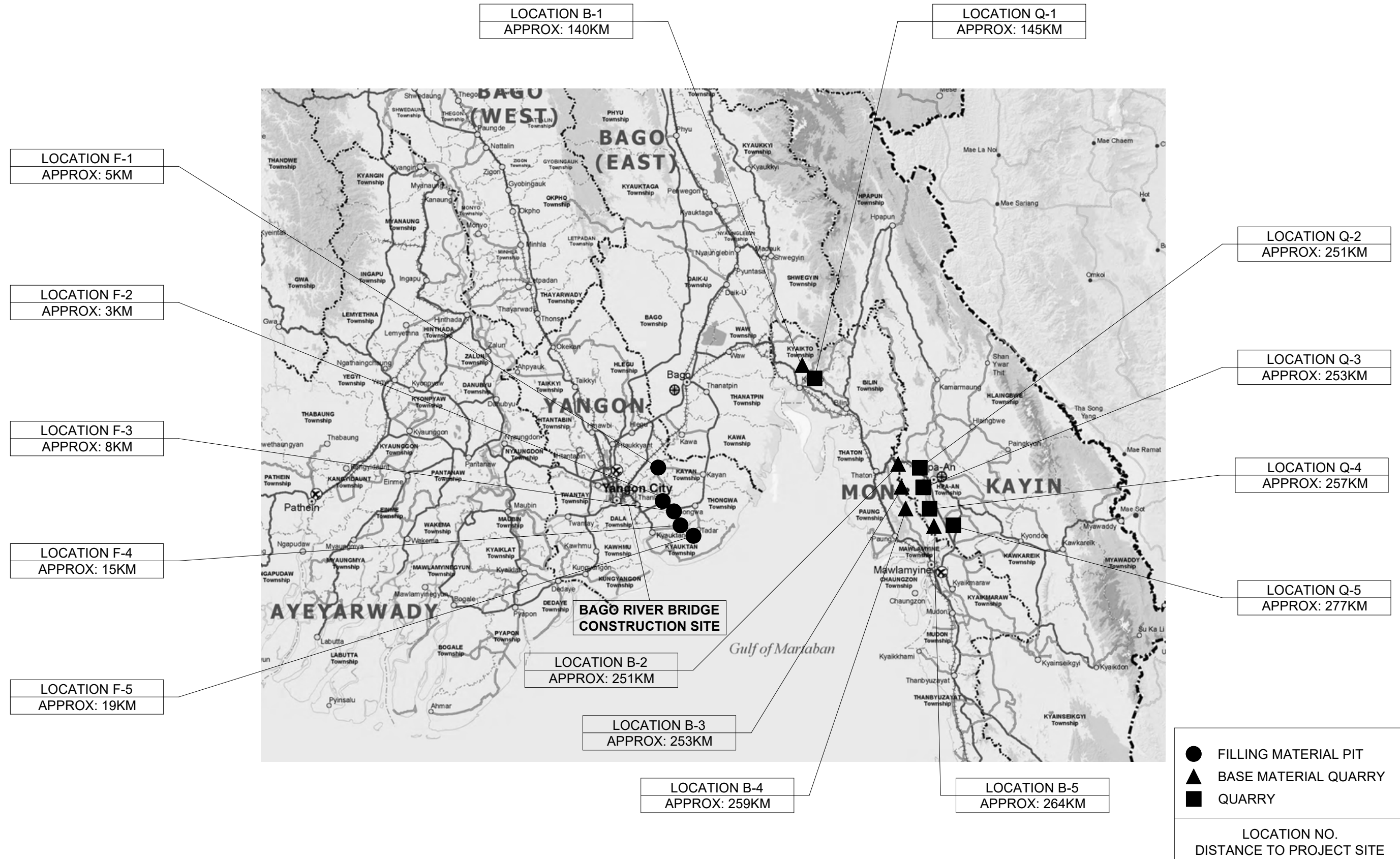
S=1:1000



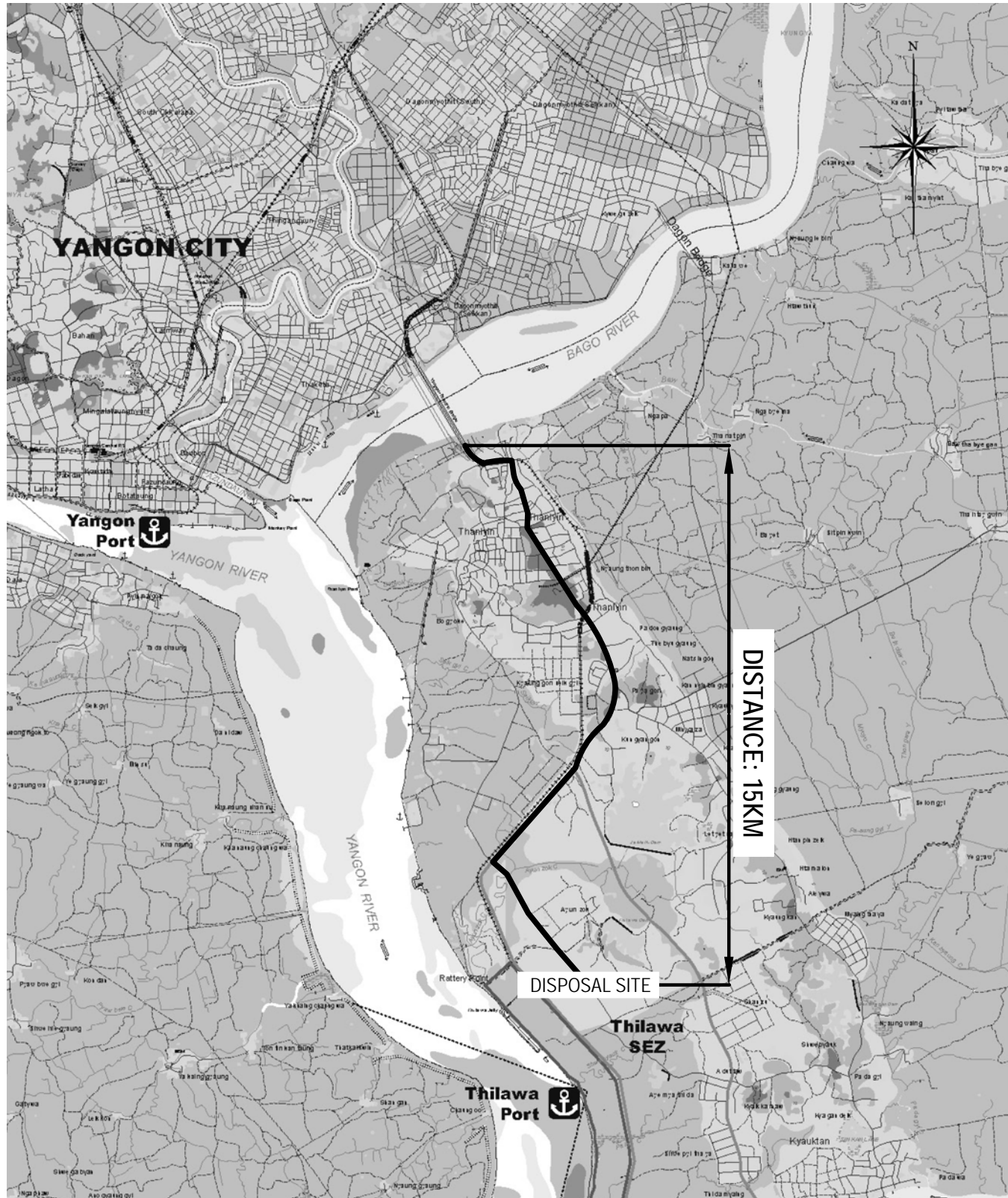
Notes
 - This drawing does not show the exact location of the utilities but shows the approximate location.
 - The Contractor shall confirm the type, size and location of each utility before the construction work is commenced.
 - Some of the utilities are planned to be relocated before the construction work is commenced.
 - The Contractor shall execute the construction work based on the latest information of utilities obtained by the Contractor.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) EXISTING UNDERGROUND UTILITIES LAYOUT (2)	PACKAGE	
				PREPARED BY	T. HAYAKAWA			29 Sept. 2017	1
				CHECKED BY	T. HAYAKAWA			3 Oct. 2017	DWG No.
				APPROVED BY	Y. SANO		6 Oct. 2017	P1-REF-0012	

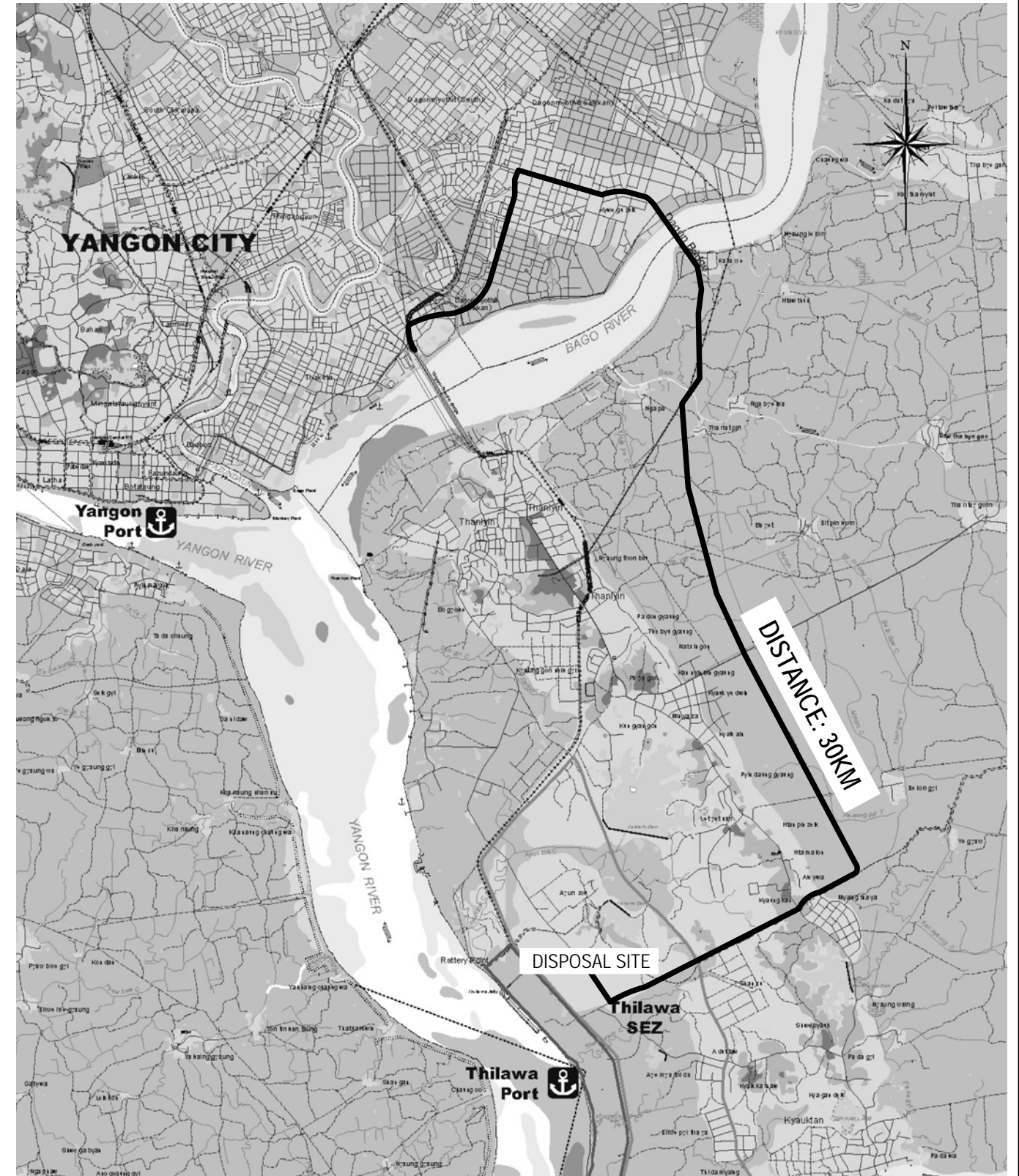
(REFERENCE) QUARRY SITE LOCATION



(REFERENCE) LAND TRANSPORTATION ROUTE TO WASTE DISPOSAL SITE IN THILAWA SEZ



LAND ROUTE 1
FROM PACKAGE 1 TO DIPOSAL SITE

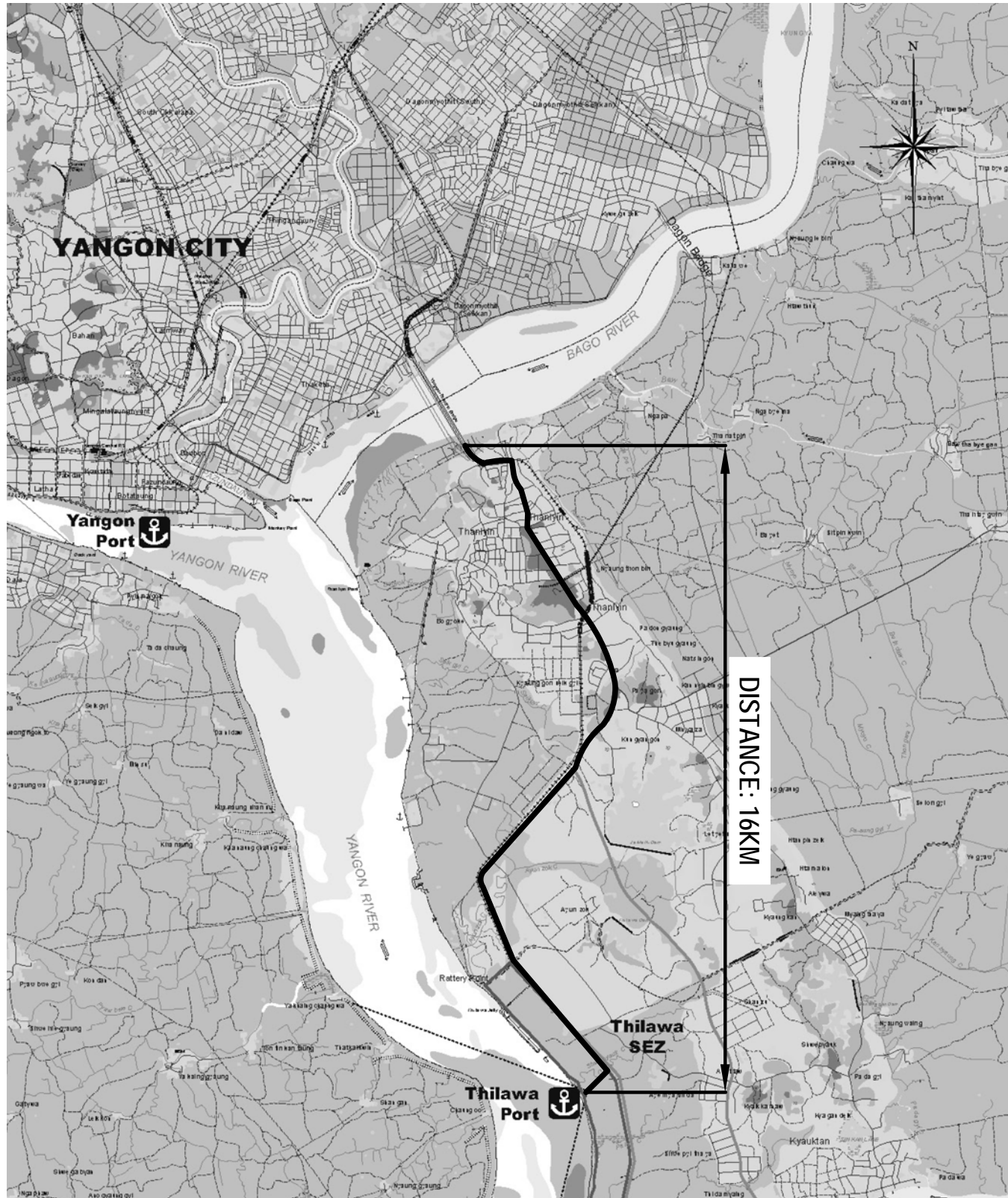


LAND ROUTE 2
FROM PACKAGE 2 & 3 TO DIPOSAL SITE

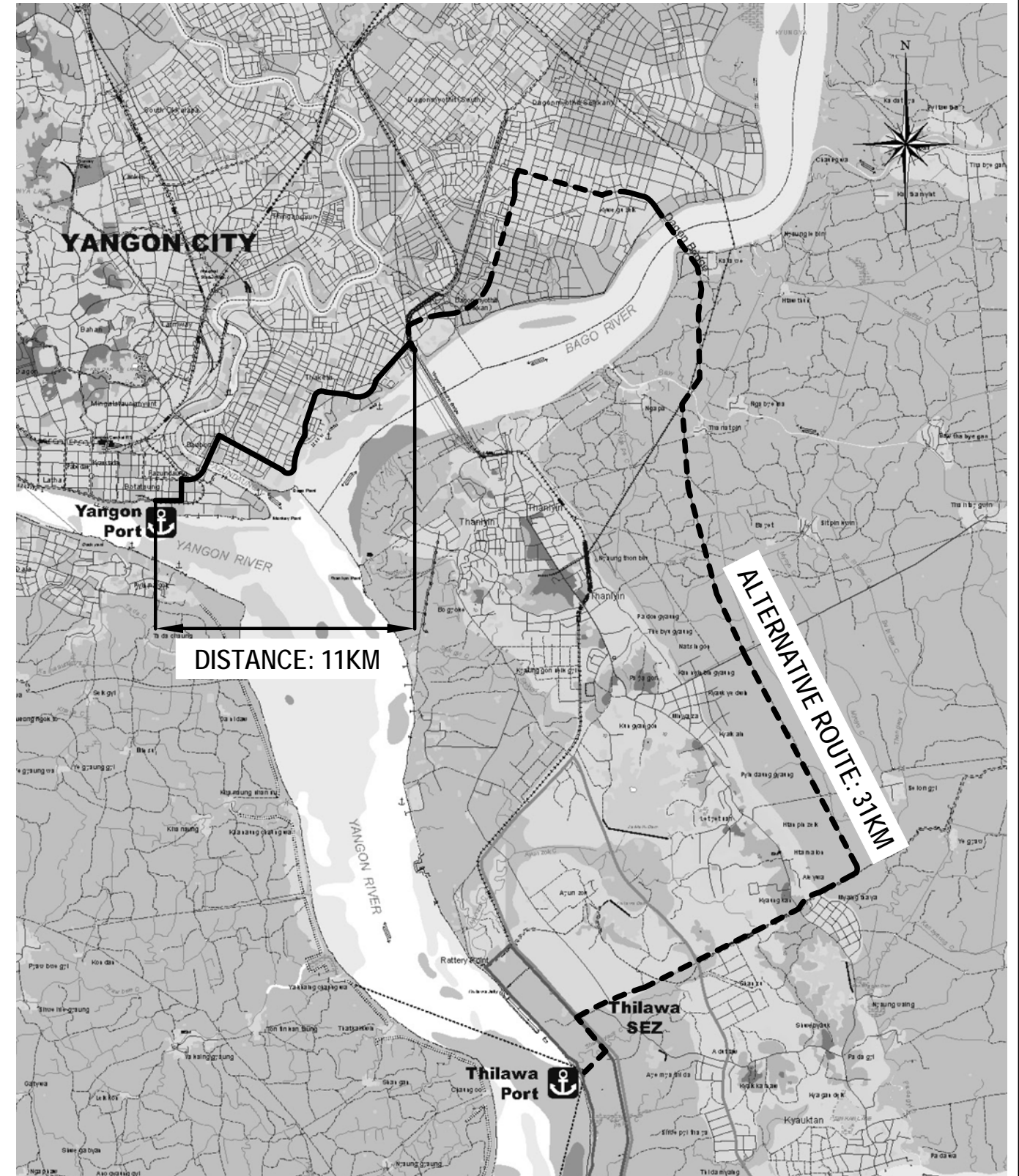
NOTE: The site shown in this drawing is a candidate for the waste disposal site. The contractor may change the waste disposal site according to Engineer's instruction.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) LAND TRANSPORTATION ROUTE TO WASTE DISPOSAL SITE IN THILAWA SEZ	PACKAGE	
				PREPARED BY	T. HAYAKAWA			4 Aug.2017	1
				CHECKED BY	T. HAYAKAWA			14 Aug.2017	DWG No.
				APPROVED BY	Y. SANO			16 Aug.2017	P1-REF-1002

(REFERENCE) LAND TRANSPORTATION ROUTE FROM LANDING PORT



LAND ROUTE 1
FROM THILAWA PORT TO PACKAGE 1



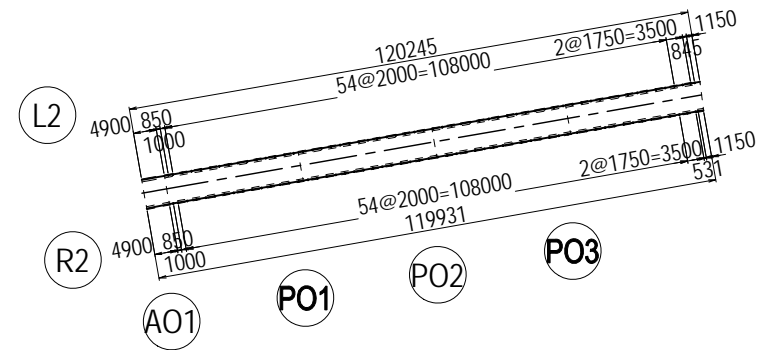
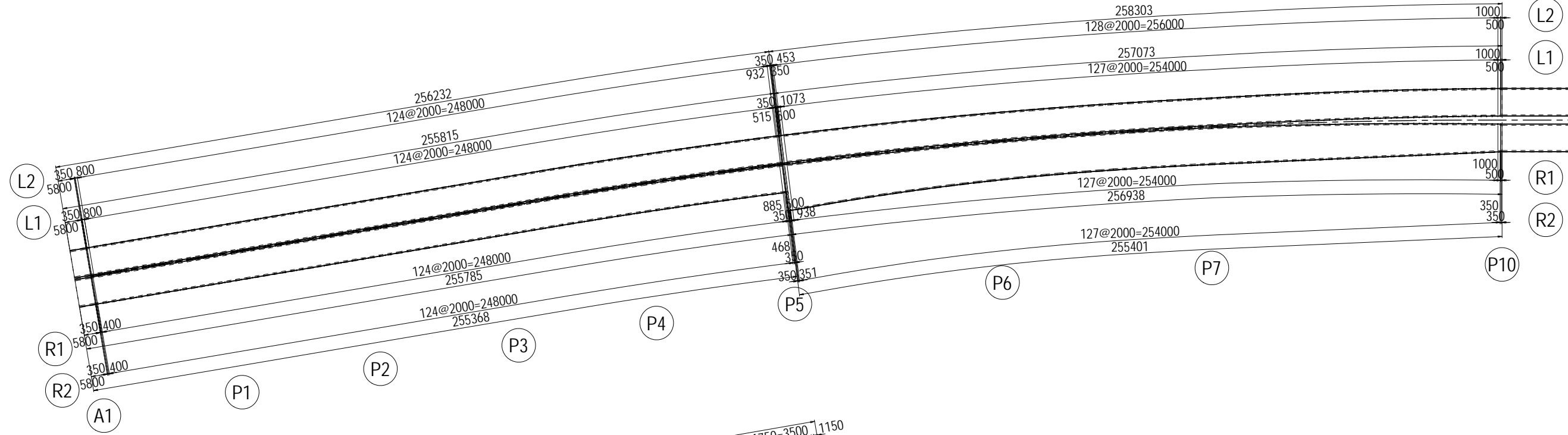
LAND ROUTE 2
FROM YANGON PORT TO PACKAGE 2 & 3
(FROM THILAWA PORT TO PACKAGE 2 & 3)

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) LAND TRANSPORTATION ROUTE FROM LANDING PORT	PACKAGE	
				PREPARED BY	T. HAYAKAWA			4 Aug.2017	1
				CHECKED BY	T. HAYAKAWA			14 Aug.2017	DWG No.
				APPROVED BY	Y. SANO		16 Aug.2017	P1-REF-1003	

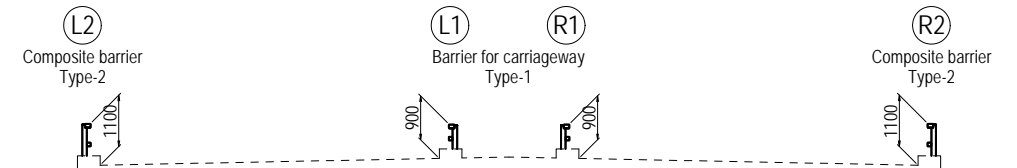
(REFERENCE) DIAGRAM OF RAILING POST

S=1:800

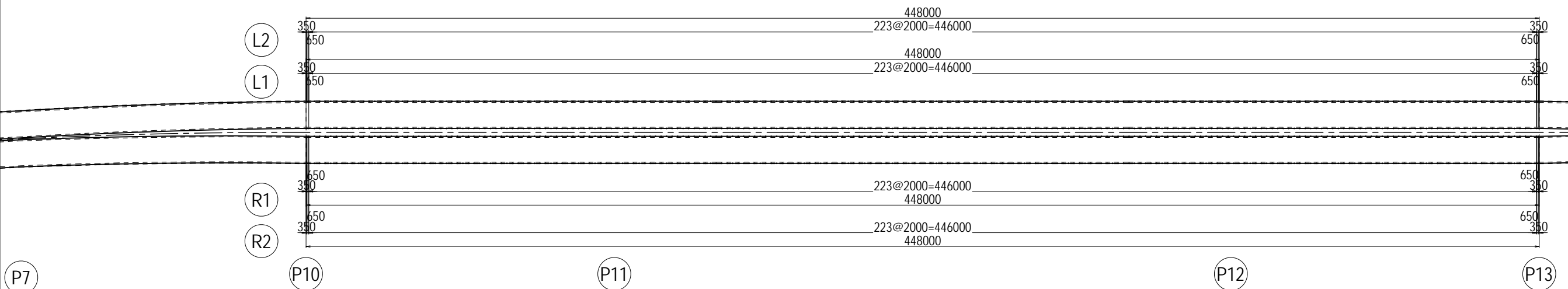
A1 - P5 (PC BOX GIRDER), P5-P10 (STEEL BOX GIRDER)



LEGEND



P10 - P13 (CABLE STAYED BRIDGE)

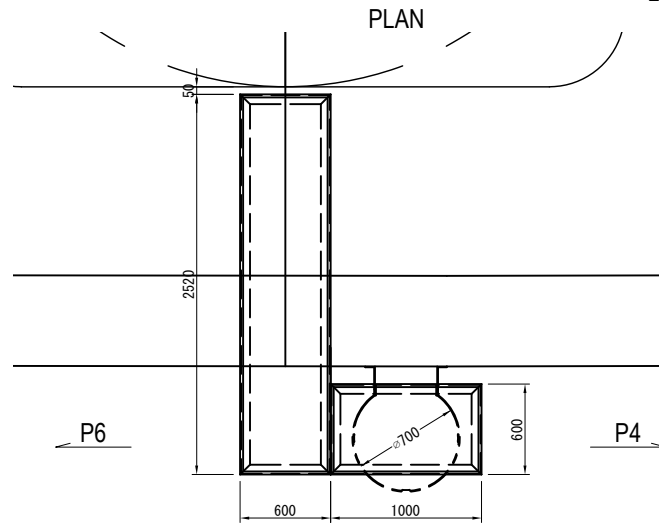


Elevation represents above MSL unless otherwise indicated.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) DIAGRAM OF RAILING POST	PACKAGE	
				PREPARED BY	T. HAYAKAWA			29 Sep. 2017	1
				CHECKED BY	T. HAYAKAWA			3 Oct. 2017	DWG No.
				APPROVED BY	Y. SANO			6 Oct. 2017	P1-REF-2001

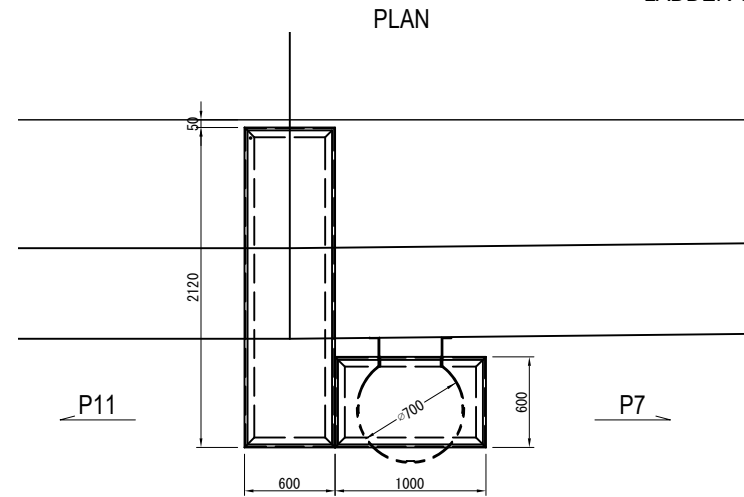
(REFERENCE) INSPECTION LADDER FROM DECK

LADDER ON P5 PIER



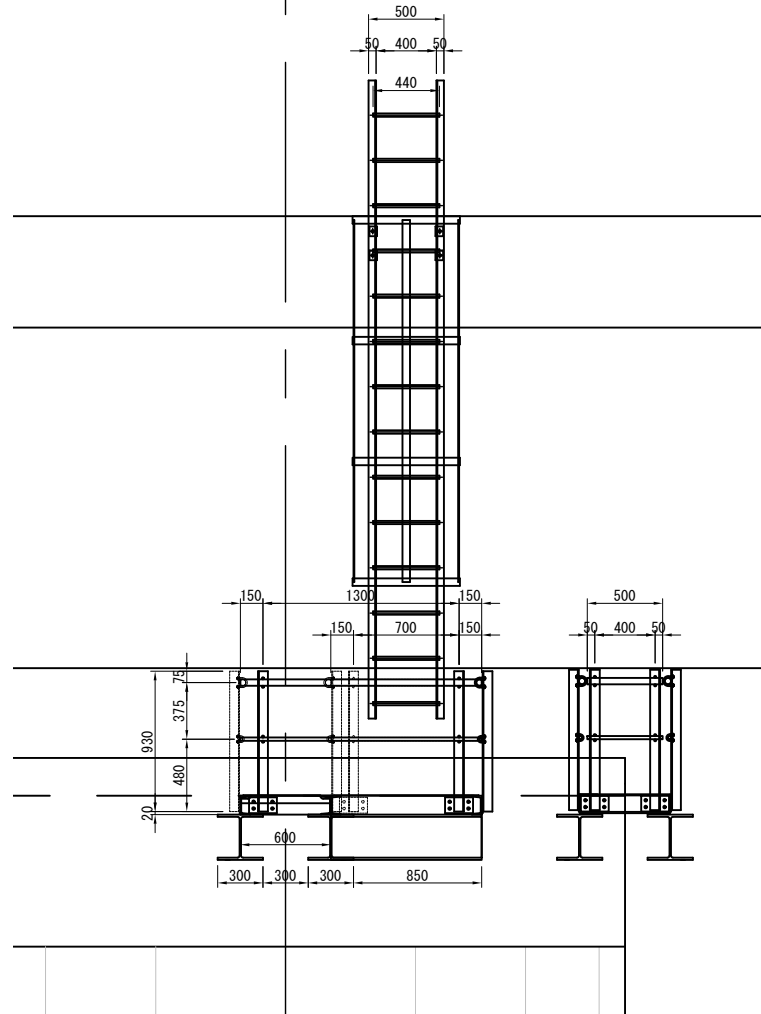
- LADDER**
 2-L 50x50x6x4230
 3-FB 50x4.5x2400
 4-FB 50x4.5x2057
 14-RB 22qx440
 4-FB 65x6x264
 4-Concrete Anchor M6x125
 4-BN M6x40
- PATHWAY (2)**
 1-CH PL 560x3.2x960
 2-C 125x65x6x8x1000
 2-C 125x65x6x8x600
 3-FB 50x6x588
 12-BN M10x30
 1-PL 240x9x580
 1-PL 100x9x580
- SUPPORT BEAM**
 2-H 300x300x15x10x2570
 2-H 300x300x15x10x1023
 2-H 300x300x15x10x850
 2-PL 320x320x10
 12-BN M10x30
 8-PL 280x145x10
 16-Concrete Anchor M6x125
- PATHWAY (1)**
 1-CH PL 560x3.2x2480
 2-C 125x65x6x8x2520
 2-C 125x65x6x8x600
 4-FB 50x6x588
 26-BN M10x30
 2-PL 240x9x580
 2-PL 100x9x580
- HANDRAIL (2)**
 6-L 65x65x6x930
 6-PL 105x6x185
 1-PIPE 42.7x2.3x1600
 1-PIPE 21.7x1.9x1600
 1-PIPE 42.7x2.3x1000
 1-PIPE 21.7x2.3x1000
 1-PIPE 42.7x2.3x500
 1-PIPE 21.7x2.3x500
 6-U-bolt 32A
 6-U-bolt 15A
 24-Nut M10
- HANDRAIL (1)**
 5-L 65x65x6x930
 5-PL 105x6x185
 1-PIPE 42.7x2.3x2520
 1-PIPE 21.7x1.9x2520
 1-PIPE 42.7x2.3x1920
 1-PIPE 21.7x2.3x1920
 5-U-bolt 32A
 5-U-bolt 15A
 20-Nut M10

LADDER ON P10 PIER

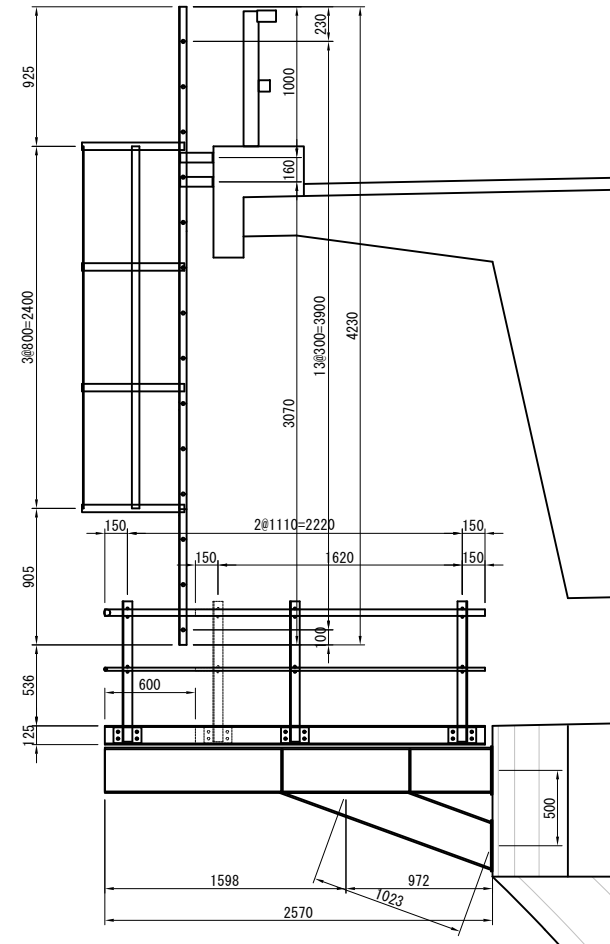


- LADDER**
 2-L 50x50x6x4230
 3-FB 50x4.5x2400
 4-FB 50x4.5x2057
 14-RB 22qx440
 4-FB 65x6x264
 4-Concrete Anchor M6x125
 4-BN M6x40
- PATHWAY (2)**
 1-CH PL 560x3.2x960
 2-C 125x65x6x8x1000
 2-C 125x65x6x8x600
 3-FB 50x6x588
 12-BN M10x30
 1-PL 240x9x580
 1-PL 100x9x580
- SUPPORT BEAM**
 2-H 300x300x15x10x2220
 2-H 300x300x15x10x1202
 2-H 300x300x15x10x850
 2-PL 320x320x10
 2-PL 320x444x10
 8-PL 280x145x10
 16-Concrete Anchor M6x125
- PATHWAY (1)**
 1-CH PL 560x3.2x2080
 2-C 125x65x6x8x2120
 2-C 125x65x6x8x600
 4-FB 50x6x588
 26-BN M10x30
 2-PL 240x9x580
 2-PL 100x9x580
- HANDRAIL (2)**
 6-L 65x65x6x930
 6-PL 105x6x185
 1-PIPE 42.7x2.3x1600
 1-PIPE 21.7x1.9x1600
 1-PIPE 42.7x2.3x1000
 1-PIPE 21.7x2.3x1000
 1-PIPE 42.7x2.3x500
 1-PIPE 21.7x2.3x500
 6-U-bolt 32A
 6-U-bolt 15A
 24-Nut M10
- HANDRAIL (1)**
 5-L 65x65x6x930
 5-PL 105x6x185
 1-PIPE 42.7x2.3x2180
 1-PIPE 21.7x1.9x2180
 1-PIPE 42.7x2.3x1580
 1-PIPE 21.7x2.3x1580
 5-U-bolt 32A
 5-U-bolt 15A
 20-Nut M10

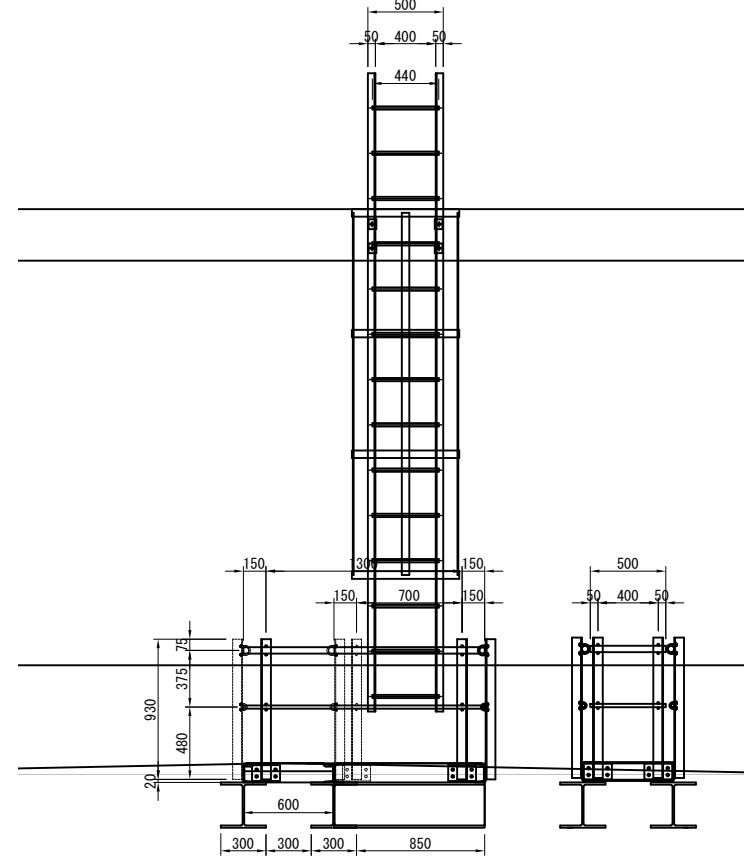
ELEVATION



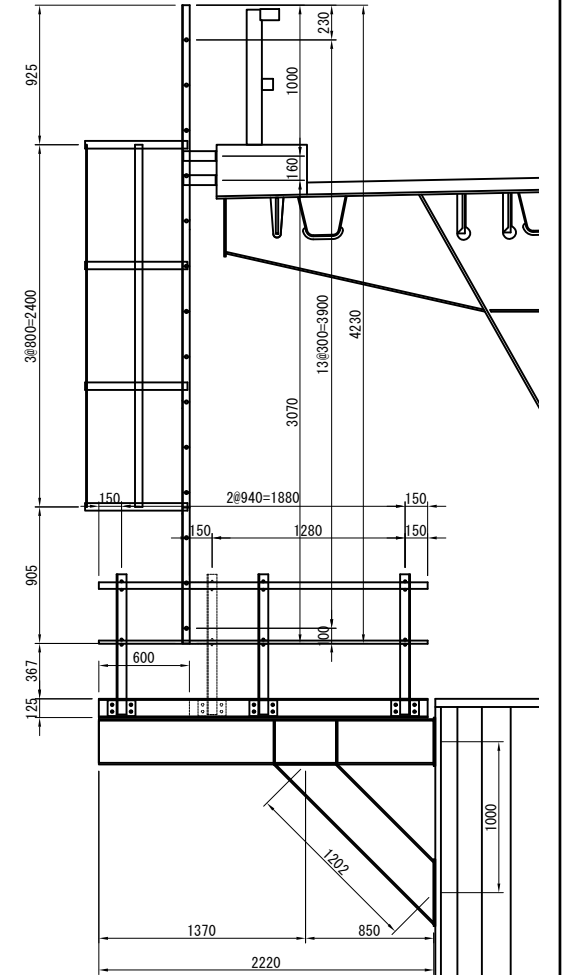
SECTION



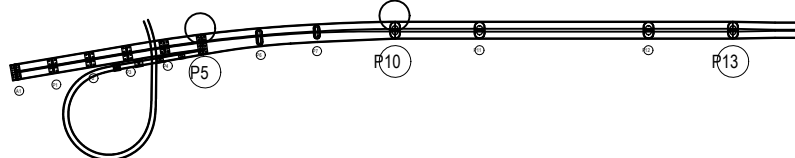
ELEVATION



SECTION



LOCATION



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) INSPECTION LADDER FROM DECK	PACKAGE 1 DWG No. P1-REF-2002
				PREPARED BY	T. HAYAKAWA	29 Sep. 2017		
				CHECKED BY	T. HAYAKAWA	3 Oct. 2017		
				APPROVED BY	Y. SANO	6 Oct. 2017		