



Republic of the Philippines
DEPARTMENT OF TRANSPORTATION
AND
COMMUNICATIONS



JAPAN
INTERNATIONAL
COOPERATION
AGENCY

NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT

DRAWINGS

COMPONENT-6

Aeronautical Ground Lighting Works

- Subcomponent-6-1 Approach Lighting System (L1)
- Subcomponent-6-2 Precision Approach Path Indicator (L2)
- Subcomponent-6-3 Runway Lighting System (L3)
- Subcomponent-6-4 Taxiway Lighting System (L4)
- Subcomponent-6-5 Other Aeronautical Lighting (L5)
- Subcomponent-6-6 Apron Floodlighting (L6)
- Subcomponent-6-7 Underground Cable Ducts (L7)
- Subcomponent-6-8 Control and Monitor System (L8)



August 2013

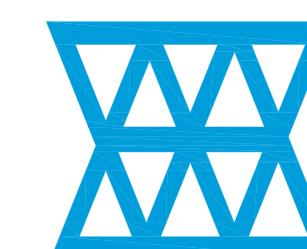
JICA DESIGN CONSULTANT JOINT VENTURE



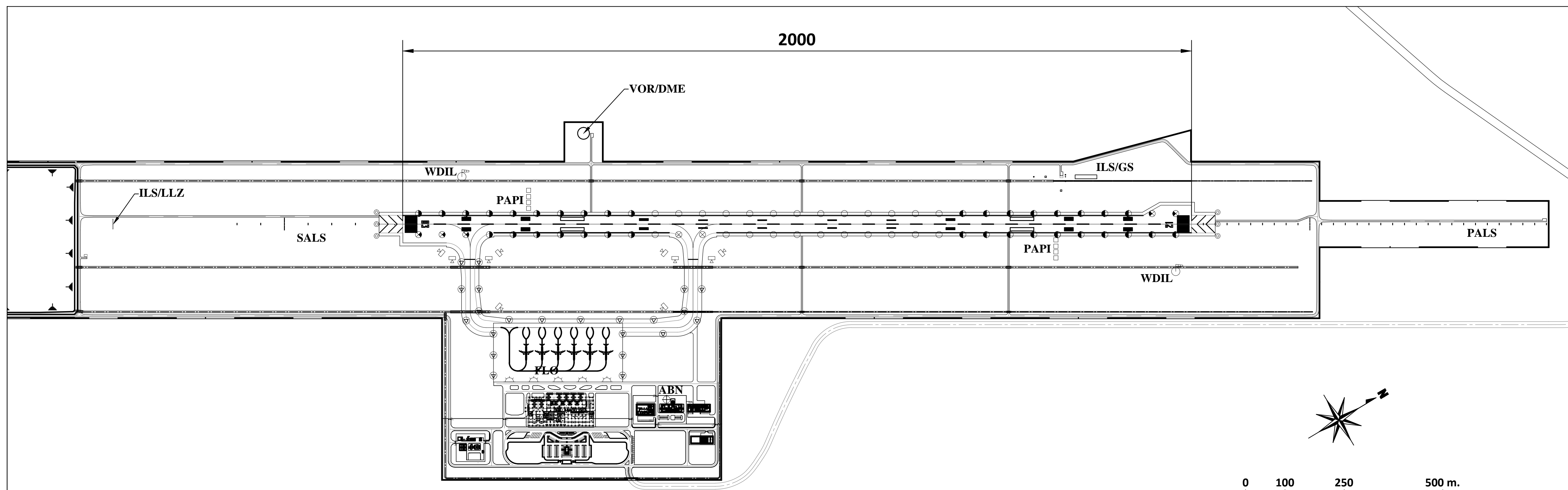
JAPAN AIRPORT
CONSULTANTS,
INC.



NIPPON KOEI
CO., LTD.



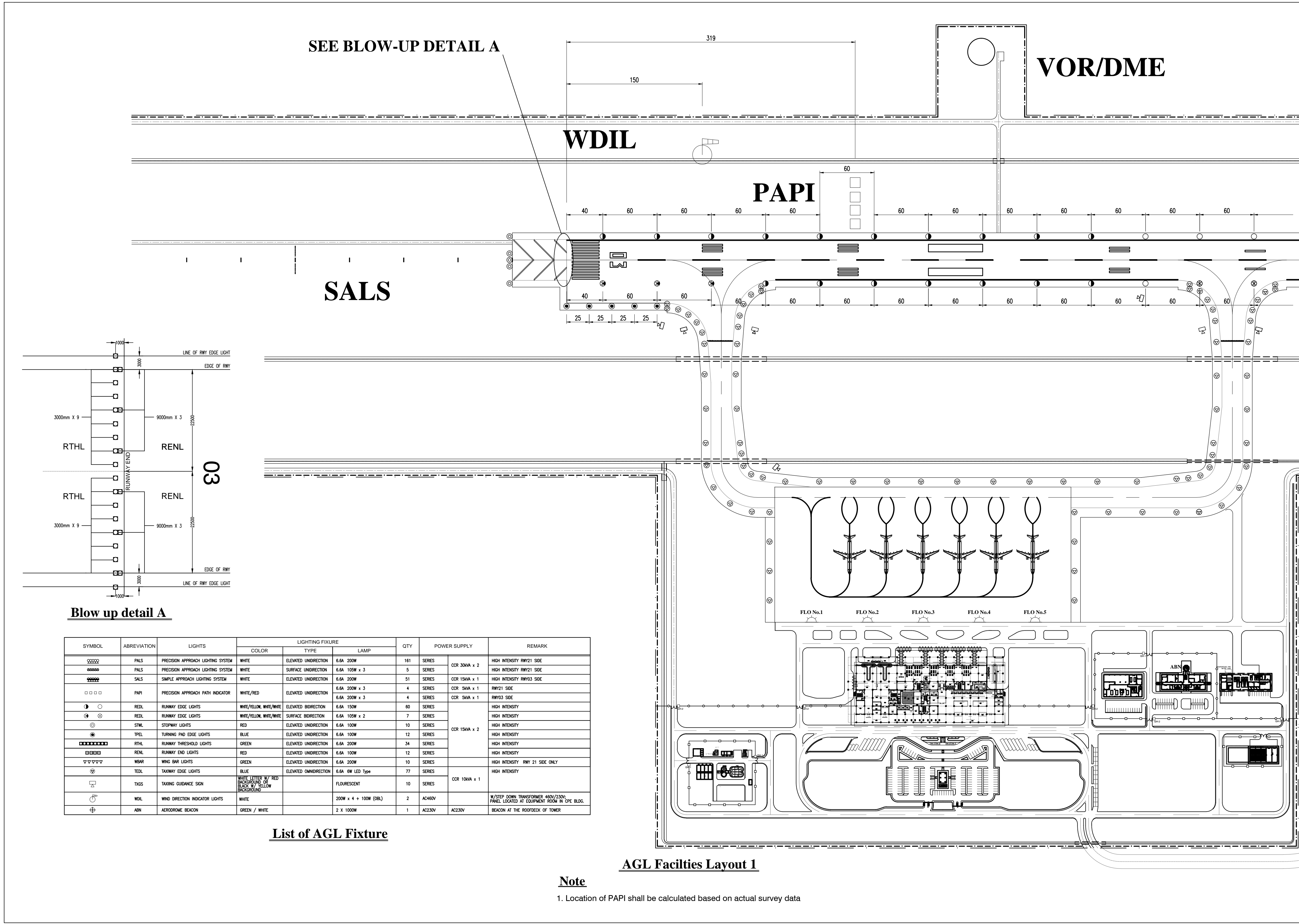
NJS CONSULTANTS
CO., LTD.

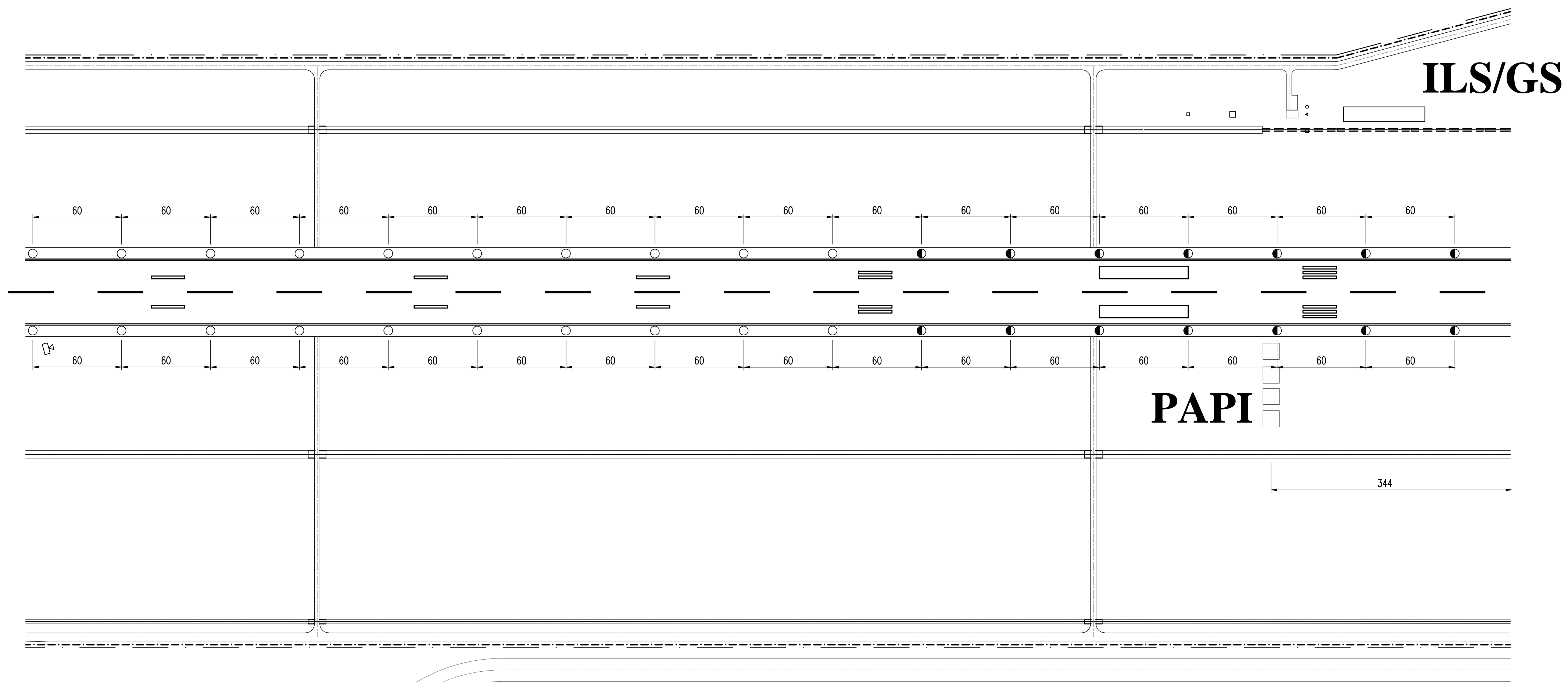


General Aeronautical Ground Light Layout

SYMBOL	ABREVIATION	LIGHTS	LIGHTING FIXTURE			QTY	POWER SUPPLY		REMARK
			COLOR	TYPE	LAMP				
○○○○	PALS	PRECISION APPROACH LIGHTING SYSTEM	WHITE	ELEVATED UNIDIRECTION	6.6A 200W	161	SERIES	CCR 30kVA x 2	HIGH INTENSITY RWY21 SIDE
○○○○	PALS	PRECISION APPROACH LIGHTING SYSTEM	WHITE	SURFACE UNIDIRECTION	6.6A 105W x 3	5	SERIES		HIGH INTENSITY RWY21 SIDE
○○○○	SALS	SIMPLE APPROACH LIGHTING SYSTEM	WHITE	ELEVATED UNIDIRECTION	6.6A 200W	51	SERIES	CCR 15kVA x 1	HIGH INTENSITY RWY03 SIDE
□□□□	PAPI	PRECISION APPROACH PATH INDICATOR	WHITE/RED	ELEVATED UNIDIRECTION	6.6A 200W x 3	4	SERIES	CCR 5kVA x 1	RWY21 SIDE
● ○	REDL	RUNWAY EDGE LIGHTS	WHITE/YELLOW, WHITE/WHITE	ELEVATED BIDIRECTION	6.6A 150W	60	SERIES		HIGH INTENSITY
⊗ ⊗	REDL	RUNWAY EDGE LIGHTS	WHITE/YELLOW, WHITE/WHITE	SURFACE BIDIRECTION	6.6A 105W x 2	7	SERIES		HIGH INTENSITY
⊙	STWL	STOPWAY LIGHTS	RED	ELEVATED UNIDIRECTION	6.6A 100W	10	SERIES		HIGH INTENSITY
●	TPEL	TURNING PAD EDGE LIGHTS	BLUE	ELEVATED UNIDIRECTION	6.6A 100W	12	SERIES	CCR 15kVA x 2	HIGH INTENSITY
□□□□□□□□	RTHL	RUNWAY THRESHOLD LIGHTS	GREEN	ELEVATED UNIDIRECTION	6.6A 200W	34	SERIES		HIGH INTENSITY
□□□□	RENL	RUNWAY END LIGHTS	RED	ELEVATED UNIDIRECTION	6.6A 100W	12	SERIES		HIGH INTENSITY
▽▽▽▽	WBAR	WING BAR LIGHTS	GREEN	ELEVATED UNIDIRECTION	6.6A 200W	10	SERIES		HIGH INTENSITY RWY 21 SIDE ONLY
▽	TEDL	TAXIWAY EDGE LIGHTS	BLUE	ELEVATED OMNIDIRECTION	6.6A 30W	77	SERIES		
⊠	TXGS	TAXIING GUIDANCE SIGN	WHITE LETTER W/ RED BACKGROUND OR BLACK W/ YELLOW BACKGROUND		6.6A 70W/1LETTER	10	SERIES	CCR 10kVA x 1	HIGH INTENSITY
⊕	WDIL	WIND DIRECTION INDICATOR LIGHTS	WHITE		200W x 4 + 100W (OBL)	2	AC460V		W/STEP DOWN TRANSFORMER 460V/230V; PANEL LOCATED AT EQUIPMENT ROOM IN POWER HOUSE
⊕	ABN	AERODROME BEACON	GREEN / WHITE		2 X 1000W	1	AC230V		BEACON AT THE ROOFDECK OF CONTROL TOWER
☛	FLO	APRON FLOODLIGHT	WHITE		NH 660W M 1000W	5 Poles	AC230V		POLE = 25M

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>TIN: 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-0 (LO) GENERAL GENERAL LAYOUT PLAN	SHEET NO: L0-9050-01
	JICA DESIGN CONSULTANT JOINT VENTURE JAC JAPAN AIRPORT CONSULTANTS, INC. NIPPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE: JUNE 2013 INDEX:	AMENDMENTS:	Prepared by: WIM Checked by: HC Validated by:





AGL Facilities Layout 2

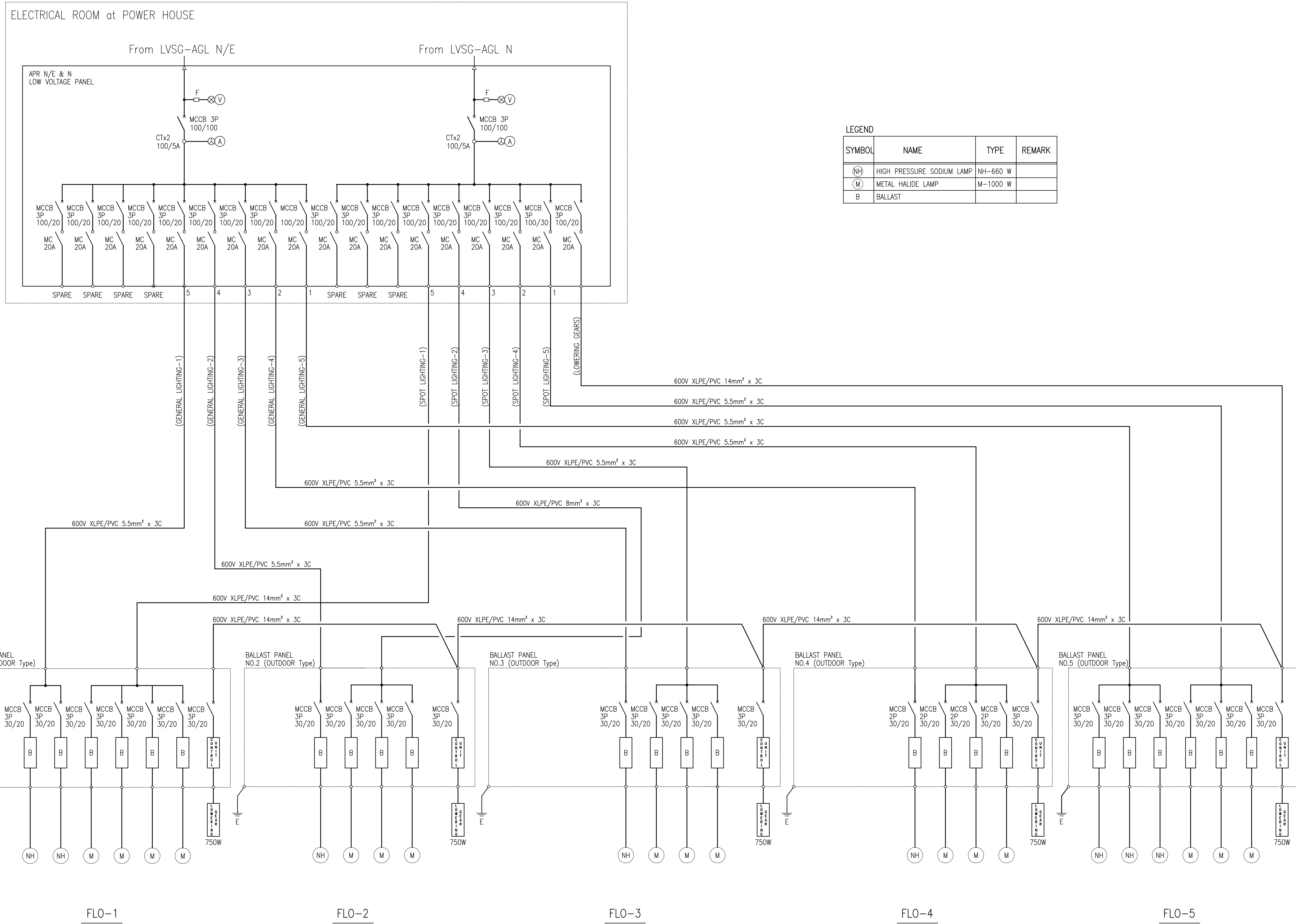
Note

1. Location of PAPI shall be calculated based on actual survey data

SYMBOL	ABBREVIATION	LIGHTS	LIGHTING FIXTURE			QTY	POWER SUPPLY	REMARK	
			COLOR	TYPE	LAMP				
⊖⊖⊖⊖	PALS	PRECISION APPROACH LIGHTING SYSTEM	WHITE	ELEVATED UNIDIRECTION	6.6A 200W	161	SERIES	CCR 30kVA x 2	HIGH INTENSITY RWY21 SIDE
⊖⊖⊖⊖⊖	PALS	PRECISION APPROACH LIGHTING SYSTEM	WHITE	SURFACE UNIDIRECTION	6.6A 105W x 3	5	SERIES	CCR 30kVA x 2	HIGH INTENSITY RWY21 SIDE
⊖⊖⊖⊖	SALS	SIMPLE APPROACH LIGHTING SYSTEM	WHITE	ELEVATED UNIDIRECTION	6.6A 200W	51	SERIES	CCR 15kVA x 1	HIGH INTENSITY RWY03 SIDE
□□□□	PAPI	PRECISION APPROACH PATH INDICATOR	WHITE/RED	ELEVATED UNIDIRECTION	6.6A 200W x 3	4	SERIES	CCR 5kVA x 1	RWY21 SIDE
					6.6A 200W x 3	4	SERIES	CCR 5kVA x 1	RWY03 SIDE
● ○	REDL	RUNWAY EDGE LIGHTS	WHITE/YELLOW, WHITE/WHITE	ELEVATED BIDIRECTION	6.6A 150W	60	SERIES		HIGH INTENSITY
⊙ ⊙	REDL	RUNWAY EDGE LIGHTS	WHITE/YELLOW, WHITE/WHITE	SURFACE BIDIRECTION	6.6A 105W x 2	7	SERIES		HIGH INTENSITY
⊙	STWL	STOPWAY LIGHTS	RED	ELEVATED UNIDIRECTION	6.6A 100W	10	SERIES	CCR 15kVA x 2	HIGH INTENSITY
●	TPEL	TURNING PAD EDGE LIGHTS	BLUE	ELEVATED UNIDIRECTION	6.6A 100W	12	SERIES		HIGH INTENSITY
⊖⊖⊖⊖⊖	RTHL	RUNWAY THRESHOLD LIGHTS	GREEN	ELEVATED UNIDIRECTION	6.6A 200W	34	SERIES		HIGH INTENSITY
⊖⊖⊖⊖	RENL	RUNWAY END LIGHTS	RED	ELEVATED UNIDIRECTION	6.6A 100W	12	SERIES		HIGH INTENSITY
▽▽▽▽▽	WBAR	WING BAR LIGHTS	GREEN	ELEVATED UNIDIRECTION	6.6A 200W	10	SERIES		HIGH INTENSITY RWY 21 SIDE ONLY
⊖	TEDL	TAXIWAY EDGE LIGHTS	BLUE	ELEVATED OMIDIRECTION	6.6A 6W LED Type	77	SERIES		HIGH INTENSITY
⊖	TXGS	TAXIWAY GUIDANCE SIGN	WHITE LETTER W/ RED BACKGROUND OR BLACK W/ YELLOW BACKGROUND		FLOURESCENT	10	SERIES	CCR 10kVA x 1	
⊖	WDL	WIND DIRECTION INDICATOR LIGHTS	WHITE		200W x 4 + 100W (OBL)	2	AC460V		W/STEP DOWN TRANSFORMER 460V/230V. PANEL LOCATED AT EQUIPMENT ROOM IN CPE BLDG.
⊕	ABN	AERODROME BEACON	GREEN / WHITE		2 X 1000W	1	AC230V	AC230V	BEACON AT THE ROOFDECK OF TOWER

List of AGL Fixture

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>T.J.N. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED BY: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	DATE: JUNE 2013	INDEX:	AMENDMENTS:	Prepared by: WIM Checked by: HC Validated by:	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-0 (LO) GENERAL FACILITIES LAYOUT 2	SHEET NO: LO-9050-03 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT	MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	JUNE 2013	INDEX:	AMENDMENTS:	Prepared by: WIM Checked by: HC Validated by:	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-0 (LO) GENERAL FACILITIES LAYOUT 2



LEGEND

SYMBOL	NAME	TYPE	REMARK
(NH)	HIGH PRESSURE SODIUM LAMP	NH-660 W	
(M)	METAL HALIDE LAMP	M-1000 W	
B	BALLAST		

Power Single Line Diagram 2

PANEL: APR N/E		VOLTAGE: 230V 3Ø 3W		SUPPLY: NORMAL/EMERGENCY				
TO: 230V LVSGNE-AGL								
CKT NO.	LOAD DESCRIPTION	VA	AMPERE LOAD			WIRE	CONDUIT	PROTECTION
			ØAB	ØBC	ØCA 3Ø LOAD			
1	GENERAL LIGHTING-5	2475	10.76			Proposed by AGL Works	-	20AT, 3P CB
2	GENERAL LIGHTING-4	825		3.59		Proposed by AGL Works	-	20AT, 3P CB
3	GENERAL LIGHTING-3	825			3.59	Proposed by AGL Works	-	20AT, 3P CB
4	GENERAL LIGHTING-2	825				Proposed by AGL Works	-	20AT, 3P CB
5	GENERAL LIGHTING-1	1650		7.17		Proposed by AGL Works	-	20AT, 3P CB
6	SPARE					Proposed by AGL Works	-	20AT, 3P CB
7	SPARE					Proposed by AGL Works	-	20AT, 3P CB
8	SPARE					Proposed by AGL Works	-	20AT, 3P CB
9	SPARE					Proposed by AGL Works	-	20AT, 3P CB
		6600	10.76	10.76	3.59			
It = 10.76 x 1.732 = 18.63 A								
MAIN PROTECTION: 100AT, 100AF, 230V, 3P, 10KAIC								
FEEDER SIZE: 3-10mm² XLPE + 1-5.5mm² TW								

PANEL: APR N		VOLTAGE: 230V 3Ø 3W		SUPPLY: NORMAL				
TO: 230V LVSGNE-AGL								
CKT NO.	LOAD DESCRIPTION	VA	AMPERE LOAD			WIRE	CONDUIT	PROTECTION
			ØAB	ØBC	ØCA 3Ø LOAD			
1	LOWERING GEARS	750	3.26			Proposed by AGL Works	-	20AT, 3P CB
2	SPOT LIGHTING-5	5000		21.7		Proposed by AGL Works	-	30AT, 3P CB
3	SPOT LIGHTING-4	3750			16.30	Proposed by AGL Works	-	20AT, 3P CB
4	SPOT LIGHTING-3	3750	16.30			Proposed by AGL Works	-	20AT, 3P CB
5	SPOT LIGHTING-2	3750		16.30		Proposed by AGL Works	-	20AT, 3P CB
6	SPOT LIGHTING-1	3750			16.30	Proposed by AGL Works	-	20AT, 3P CB
7	SPARE					Proposed by AGL Works	-	20AT, 3P CB
8	SPARE					Proposed by AGL Works	-	20AT, 3P CB
9	SPARE					Proposed by AGL Works	-	20AT, 3P CB
		20750	19.56	38.00	32.6			
It = 38.00 x 1.732 = 65.82 A								
MAIN PROTECTION: 100AT, 100AF, 230V, 3P, 10KAIC								
FEEDER SIZE: 3-10mm² XLPE + 1-5.5mm² TW								

PANEL: PDB-AGL2		VOLTAGE: 230V 3Ø 3W		SUPPLY: NORMAL/EMERGENCY				
TO: 230V LVSGNE-AGL								
CKT NO.	LOAD DESCRIPTION	VA	AMPERE LOAD			WIRE	CONDUIT	PROTECTION
			ØAB	ØBC	ØCA 3Ø LOAD			
1	AGL INTERFACE PANEL	360	1.56			Proposed by AGL Works	-	50AT, 2P CB
2	CCR2 (PALS No.2)	30000		130.43		Proposed by AGL Works	-	200AT, 2P CB
3	CCR8 (TEDL & TXGS)	10000			43.48	Proposed by AGL Works	-	75AT, 2P CB
4	SPARE	-				Proposed by AGL Works	-	75AT, 2P CB
5	AERODROME BEACON	2513	10.92			Proposed by AGL Works	-	30AT, 2P CB
6	SPARE	-				Proposed by AGL Works	-	75AT, 2P CB
7	SPARE	-				Proposed by AGL Works	-	75AT, 2P CB
8	WDIL-03	250	1.08			Proposed by AGL Works	-	30AT, 2P CB
9	WDIL-21	250	1.08			Proposed by AGL Works	-	30AT, 2P CB
10	SPARE	-				Proposed by AGL Works	-	30AT, 2P CB
			14.64	130.43	43.48			
It = 130.43 x 1.732 = 225.90 A								
MAIN PROTECTION: 250AT, 400AF, 230V, 3P, 10KAIC								
FEEDER SIZE: 3-70mm² XLPE + 1-14mm² TW								

PANEL: PDB-AGL1		VOLTAGE: 230V 3Ø 3W		SUPPLY: NORMAL/EMERGENCY/UPS				
TO: 230V LVSGNE-AGL								
CKT NO.	LOAD DESCRIPTION	VA	AMPERE LOAD			WIRE	CONDUIT	PROTECTION
			ØAB	ØBC	ØCA 3Ø LOAD			
1	CCR6 (PAPI-03)	5000		21.7		Proposed by AGL Works	-	30AT, 2P CB
2	CCR7 (PAPI-03)	5000		21.7		Proposed by AGL Works	-	30AT, 2P CB
3	CCR11 - STANDBY	-				Proposed by AGL Works	-	30AT, 2P CB
4	CCR3 (SALS-03)	15000	65.21			Proposed by AGL Works	-	100AT, 2P CB
5	SPARE	-				Proposed by AGL Works	-	100AT, 2P CB
6	CCR10 - STANDBY	-				Proposed by AGL Works	-	100AT, 2P CB
7	CCR4 (REDL No.1)	20000	86.95			Proposed by AGL Works	-	100AT, 2P CB
8	CCR5 (REDL No.2)	20000		86.95		Proposed by AGL Works	-	100AT, 2P CB
9	CCR1 (PALS No.1)	30000			130.43	Proposed by AGL Works	-	200AT, 2P CB
10	CCR9 - STANDBY	-				Proposed by AGL Works	-	200AT, 2P CB
11	AGL INTERFACE PANEL	360		10.5		Proposed by AGL Works	-	50AT, 2P CB
			152.16	130.35	130.43			
It = 152.16 x 1.732 = 263.54 A								
MAIN PROTECTION: 300AT, 400AF, 230V, 3P, 10KAIC								
FEEDER SIZE: 3-95mm² XLPE + 1-14mm² TW								

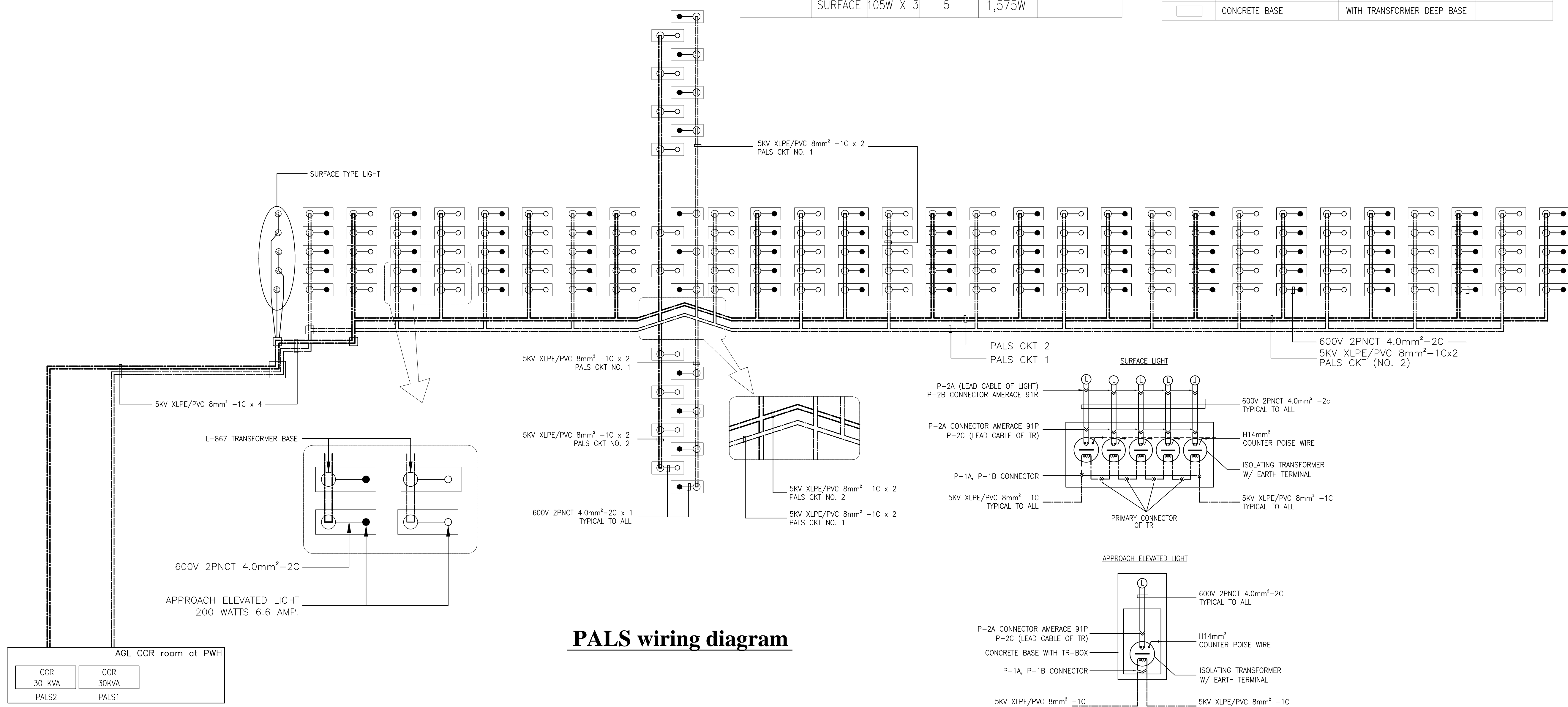
AERONAUTICAL GROUND LIGHT (AGL)

1 PANEL SCHEDULE 1
 10-9050-01 NOT TO SCALE

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	JICA DESIGN CONSULTANT JOINT VENTURE JAPAN AIRPORT CONSULTANTS, INC.	TADASHI AOI Team Leader	JULIANITO G. BUCAYAN, JR. Undersecretary for Project Implementation, DOTC	DATE INDEX AMENDMENTS	Prepared by WIM Checked by HC Validated by	DRAWING SCALE: AS SHOWN	

LOAD SCHEDULE					
CIRCUIT	TYPE	LAMP	QUANTITY	CAPACITY	TOTAL CAP.
PALS NO.1	ELEVATED	200W	81	16,200W	16,200W
PALS NO.2	ELEVATED	200W	80	16,000W	17,575W
	SURFACE	105W X 3	5	1,575W	

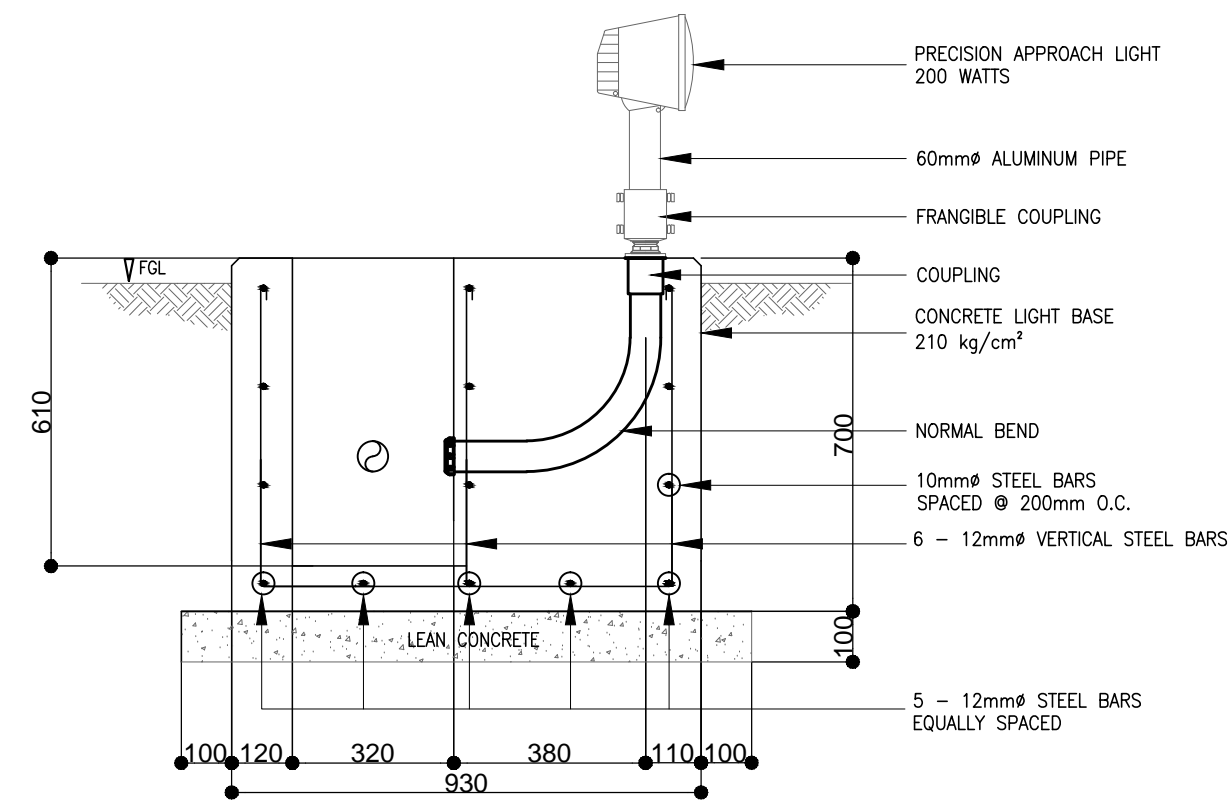
LEGENDS			
SYMBOL	DESCRIPTION	TYPE	REMARKS
○ ●	ELEVATED LIGHT	APPROACH	CKT1, CKT2
—	PRIMARY CABLE	5KV XLPE/PVC 8mm ² -1C	
—	SECONDARY CABLE	600V 2PNCT 4.0mm ² -2C	
—○—	ISOLATING TRANSFORMER		
□	CONCRETE BASE	WITH TRANSFORMER DEEP BASE	



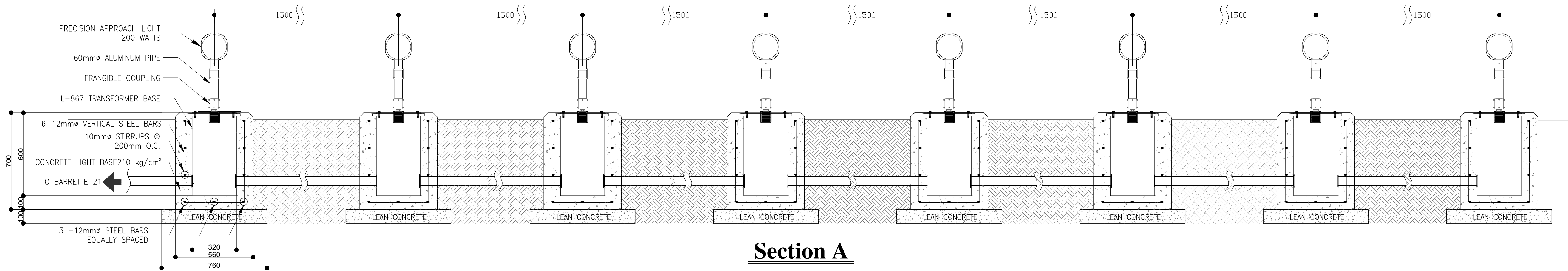
PALS wiring diagram

Primary and secondary connection

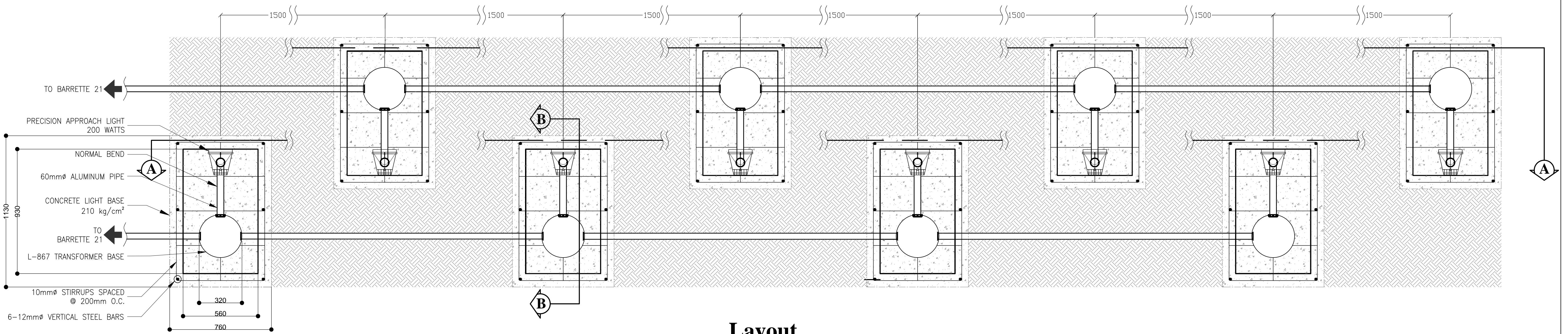
	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>T.N. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-1 (L1) APPROACH LIGHTING SYSTEMS PALS WIRING DIAGRAM	SHEET NO: L1-9100-02 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE JAC JAPAN AIRPORT CONSULTANTS, INC. NIPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE: JUNE 2013 INDEX: _____ AMENDMENTS: _____ Prepared by: WIM Checked by: HC Validated by: _____	



Section B



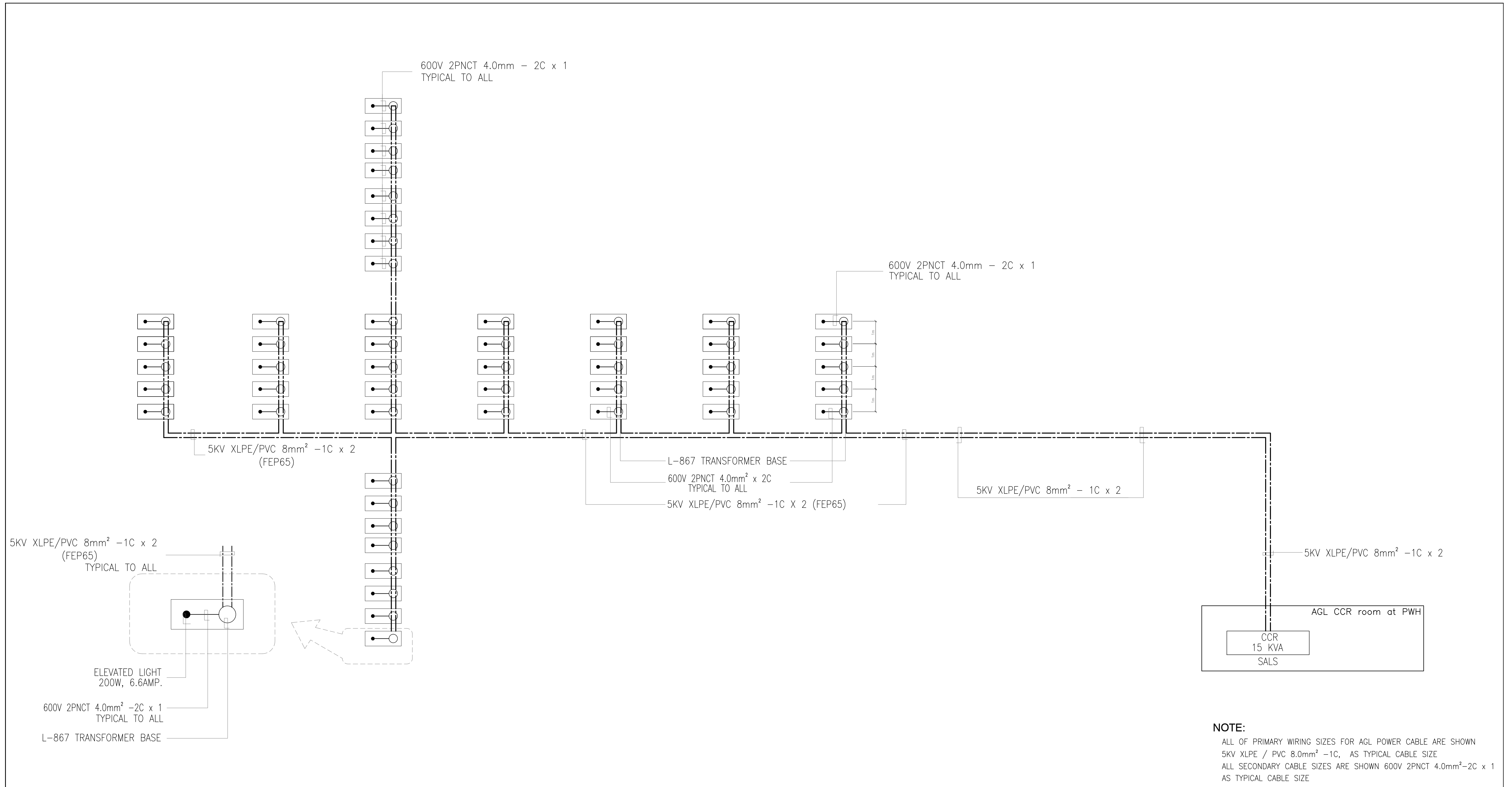
Section A








Layout

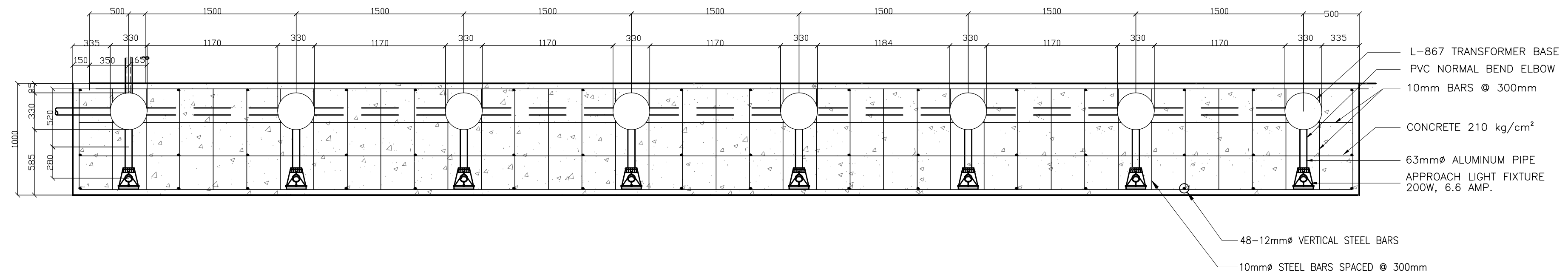
Installation details of cross bar barrette for PALS

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>T.N. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-1 (L1) APPROACH LIGHTING SYSTEMS INSTALLATION DETAILS OF CROSS BAR BARRETTE FOR PALS	SHEET NO: L1-9100-04 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE <small>JAPAN AIRPORT CONSULTANTS, INC. NIPPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.</small>	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	JUNE 2013 DATE INDEX AMENDMENTS Prepared by WIM Checked by HC Validated by	

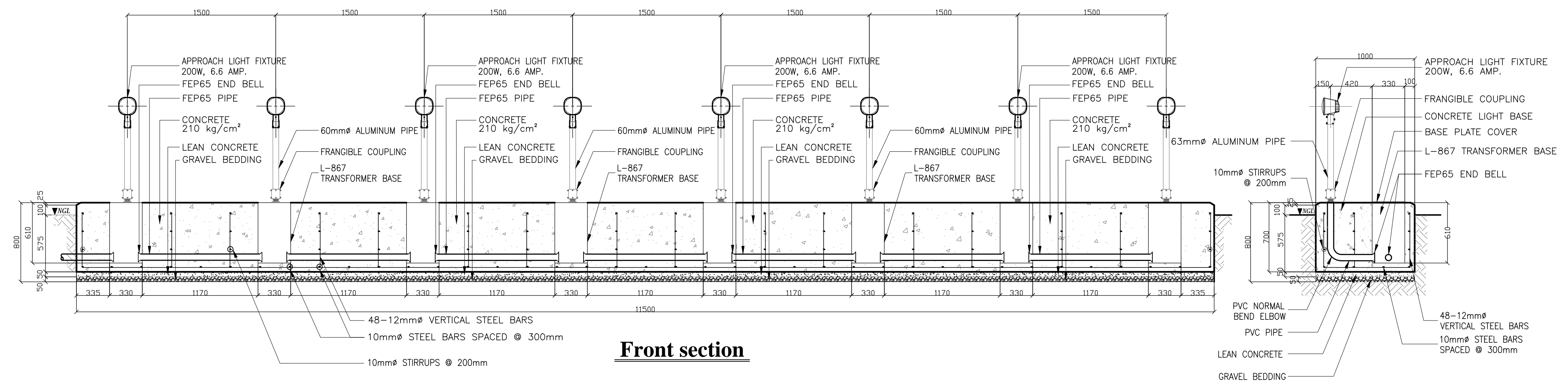


SALS Wiring Diagram

 Republic of the Philippines DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS	 JAPAN INTERNATIONAL COOPERATION AGENCY	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>T.N. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: 	APPROVED: 	PROJECT TITLE: <h3 style="text-align: center;">NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</h3>						SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-1 (L1) APPROACH LIGHTING SYSTEMS SALS WIRING DIAGRAM	SHEET NO: L1-9100-06 DRAWING SCALE: AS SHOWN
JICA DESIGN CONSULTANT JOINT VENTURE   		TADASHI AOI Team Leader	ILDEFONSO T. PATDU, JR. Assistant Secretary for Project Implementation, DOTC	JULIANITO G. BUCAYAN, JR. Undersecretary for Project Implementation, DOTC	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	JUNE 2013 DATE INDEX AMENDMENTS	Prepared by Checked by Validated by	WIM HC	SHEET NO: L1-9100-06			



Layout

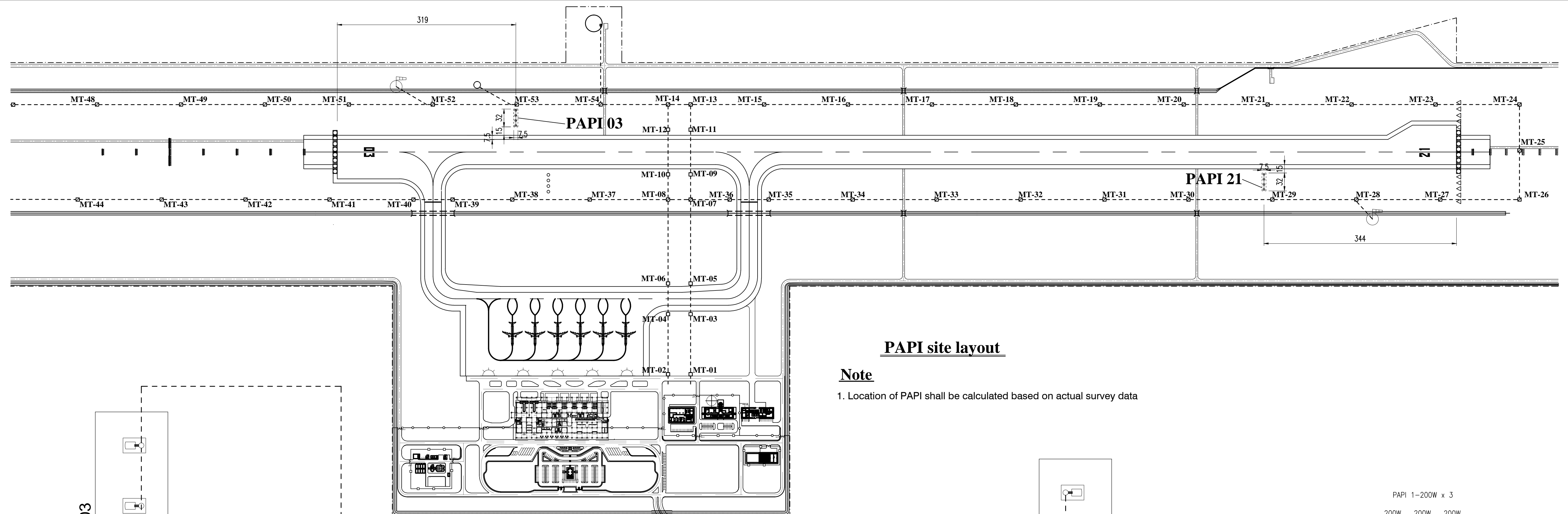


Front section

Side view

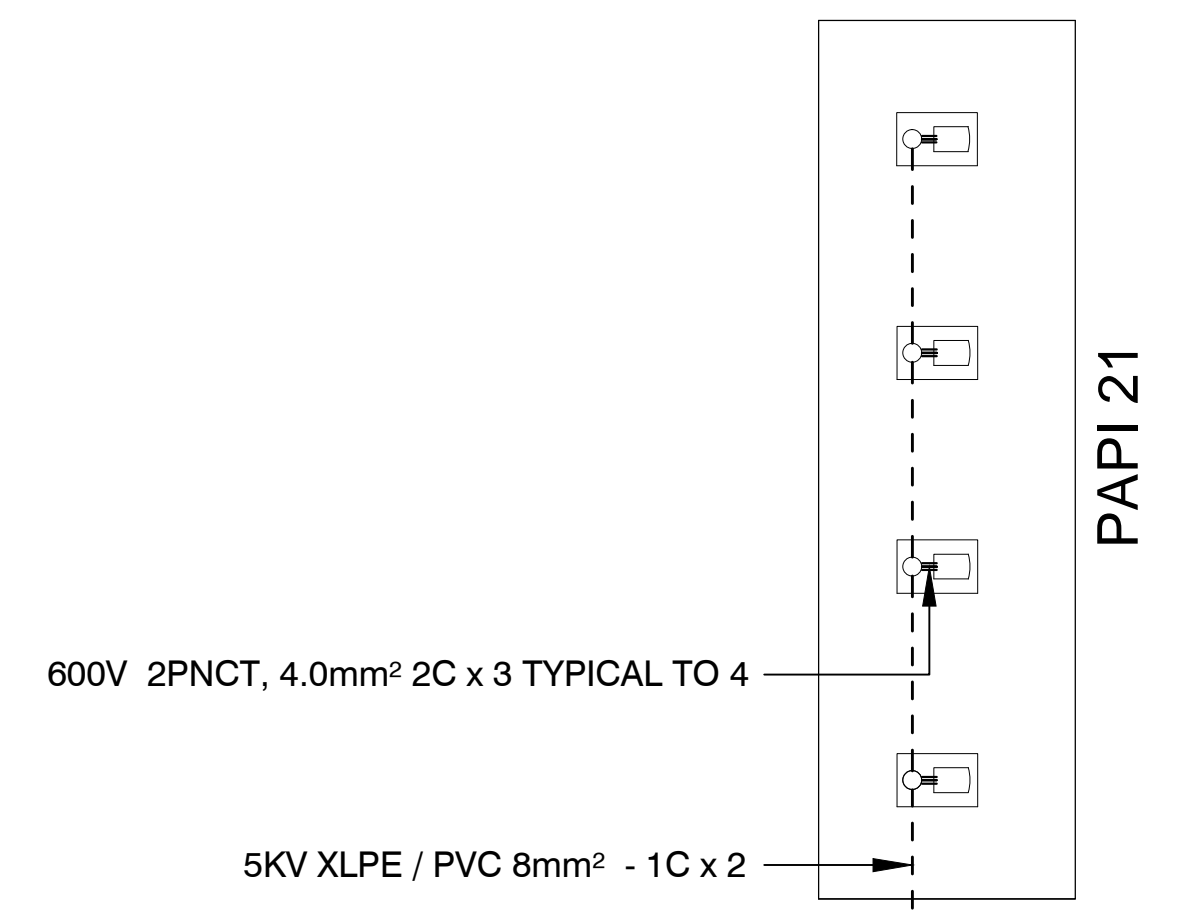
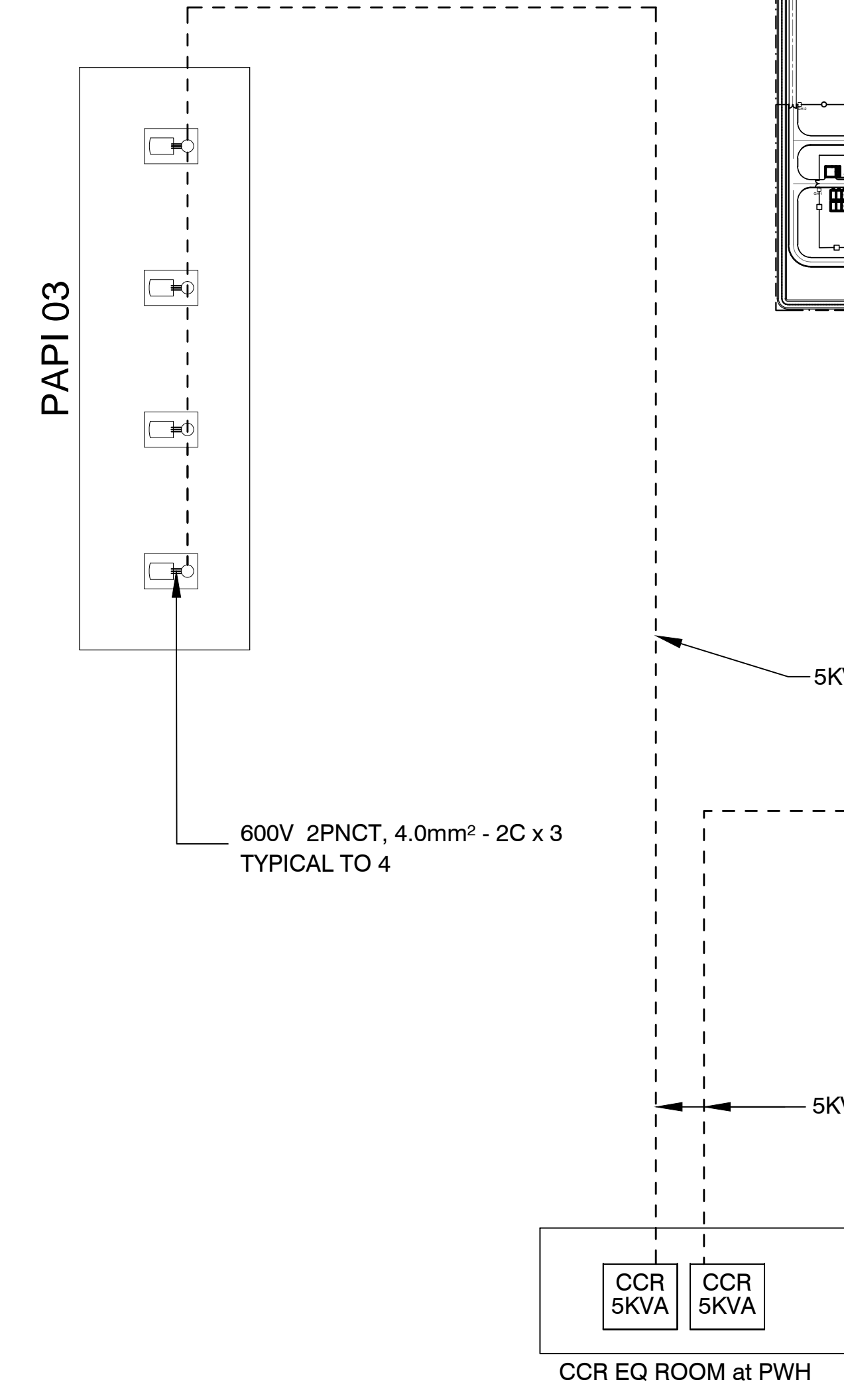
Installation details of cross bar barrette for SALS S=1:10

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>TIN. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-1 (L1) APPROACH LIGHTING SYSTEMS INSTALLATION DETAILS OF CROSS BAR BARRETTE FOR SALS	SHEET NO: L1-9100-07 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE <small>JAPAN AIRPORT CONSULTANTS, INC. NIPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.</small>	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE: JUNE 2013 INDEX:	AMENDMENTS:	Prepared by: WIM Checked by: HC Validated by:

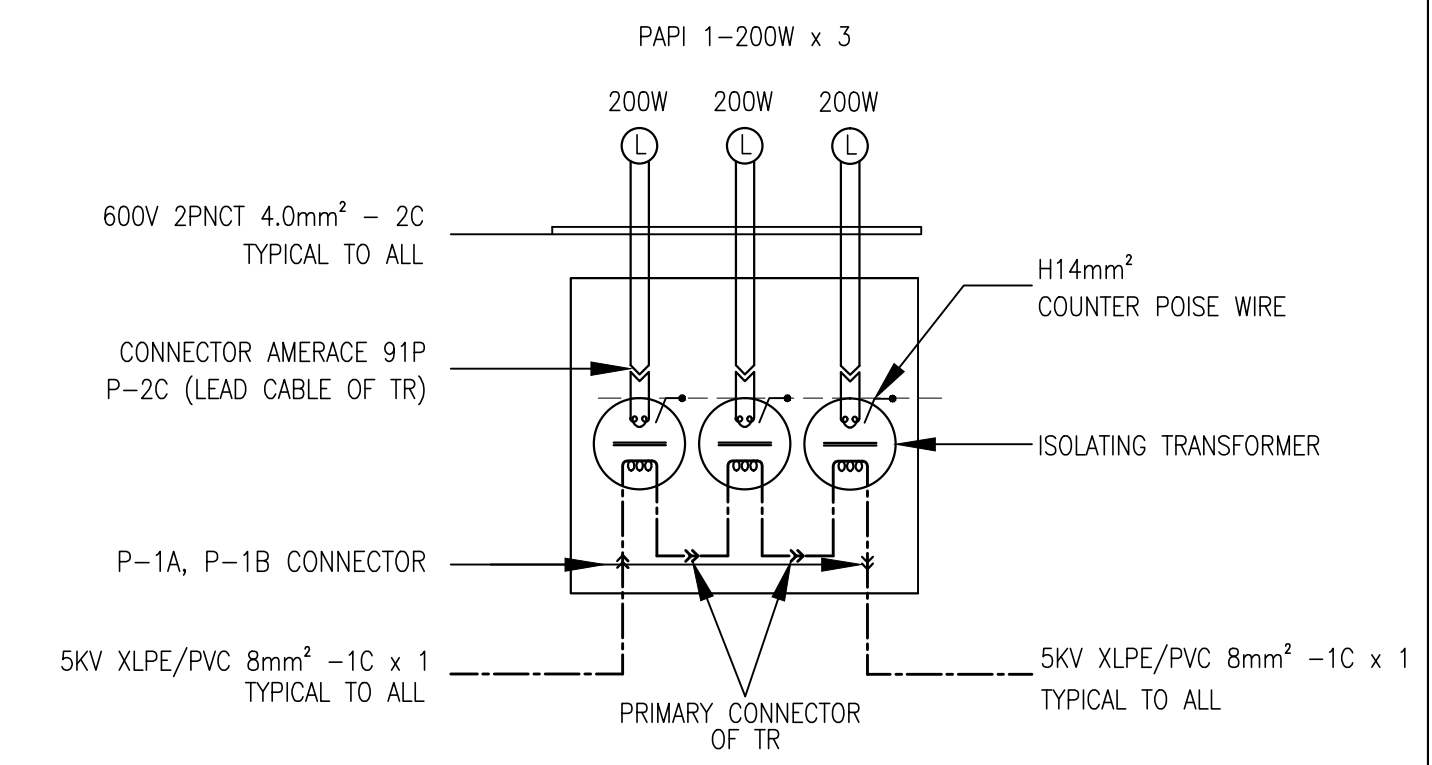


PAPI site layout

Note
1. Location of PAPI shall be calculated based on actual survey data



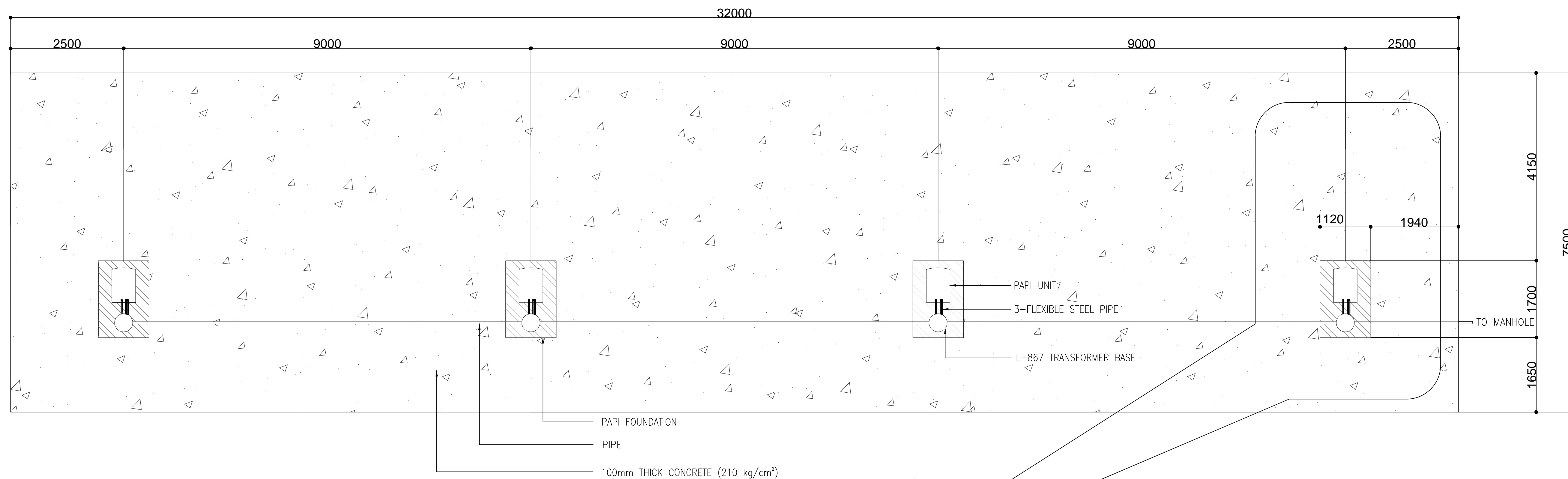
Connection diagram



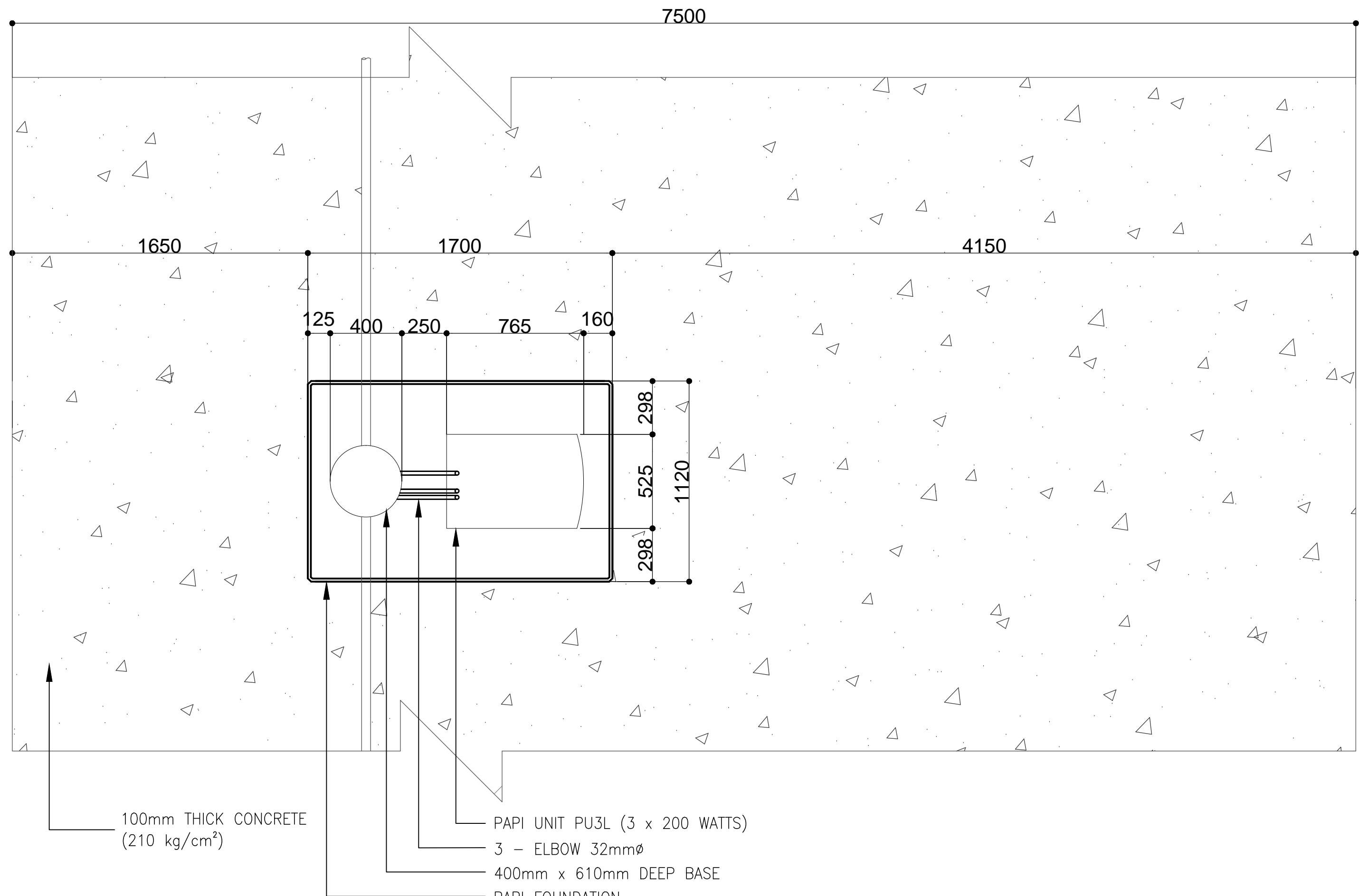
Primary and secondary connection

Legend:

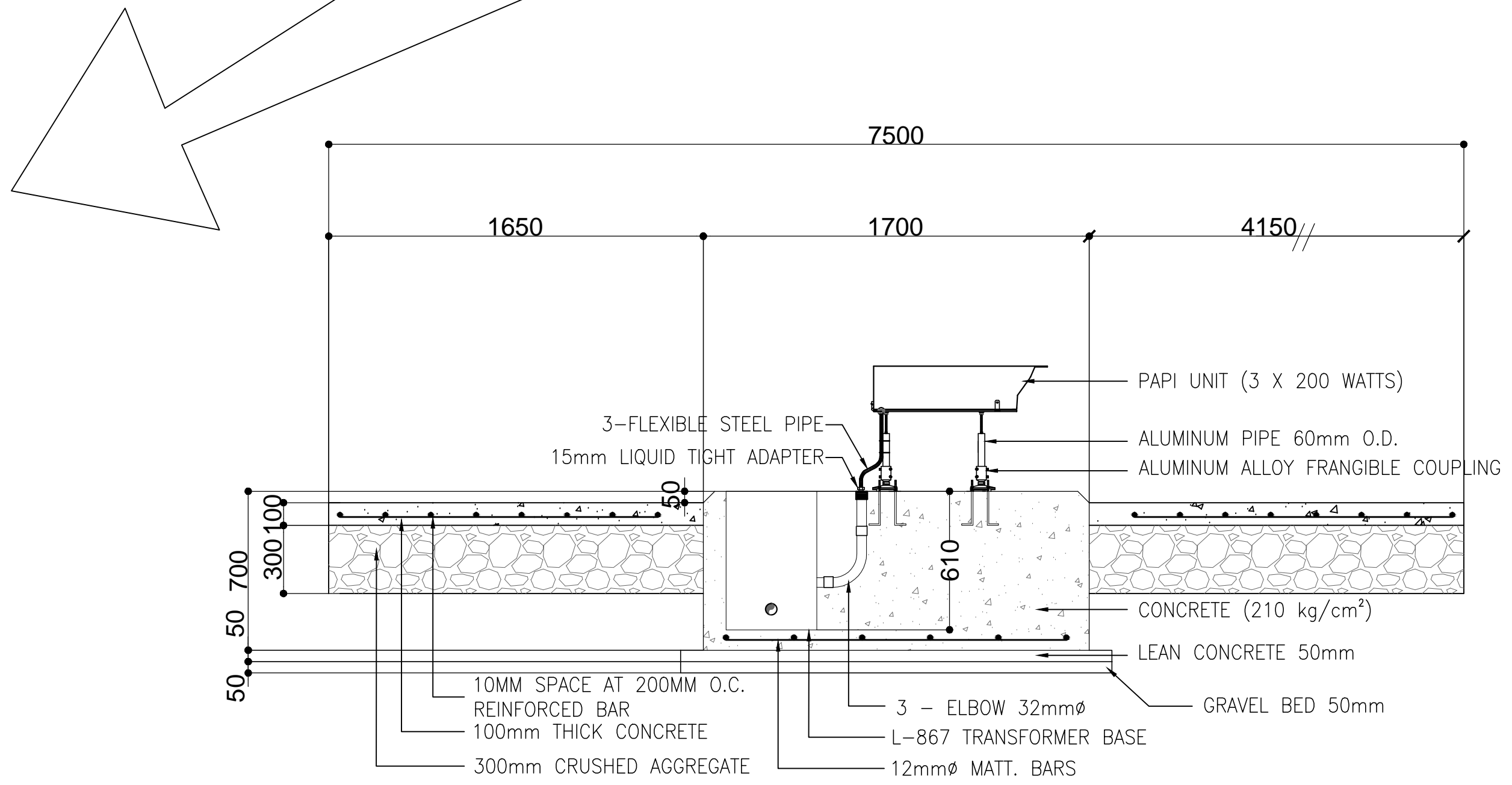
	PAPI UNIT
	PRIMARY CABLE
	SECONDARY CABLE
	ISOLATING TRANSFORMER
	L-867 TRANSFORMER BASE



Plan

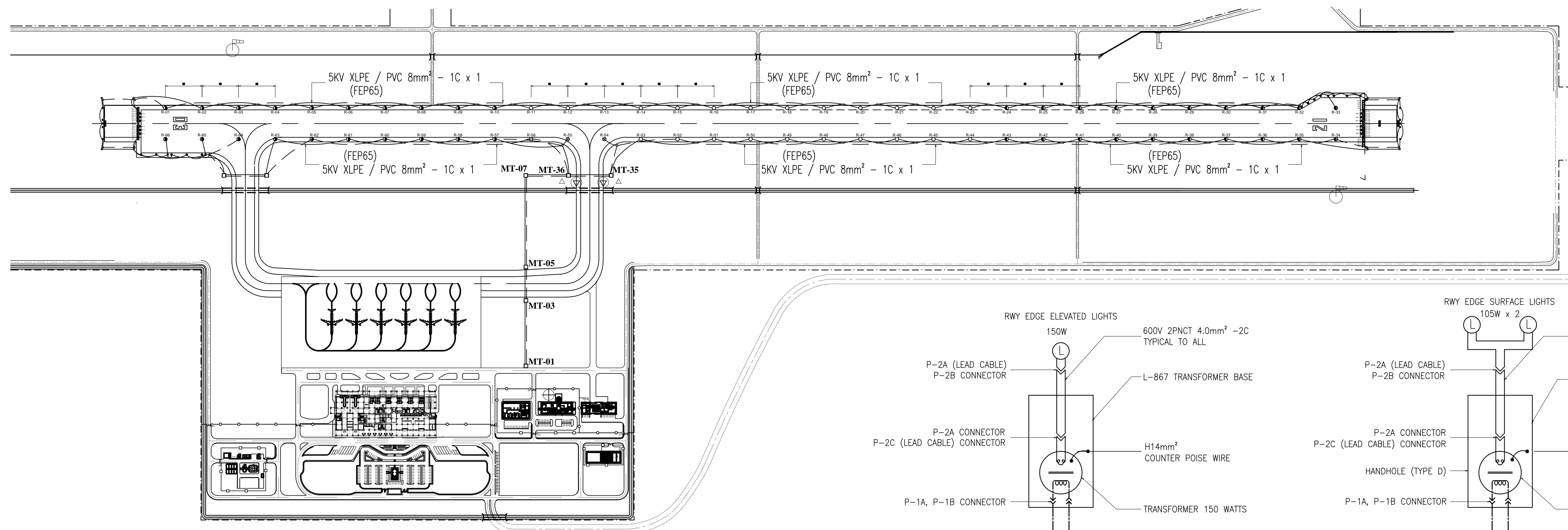


Blow - up detail

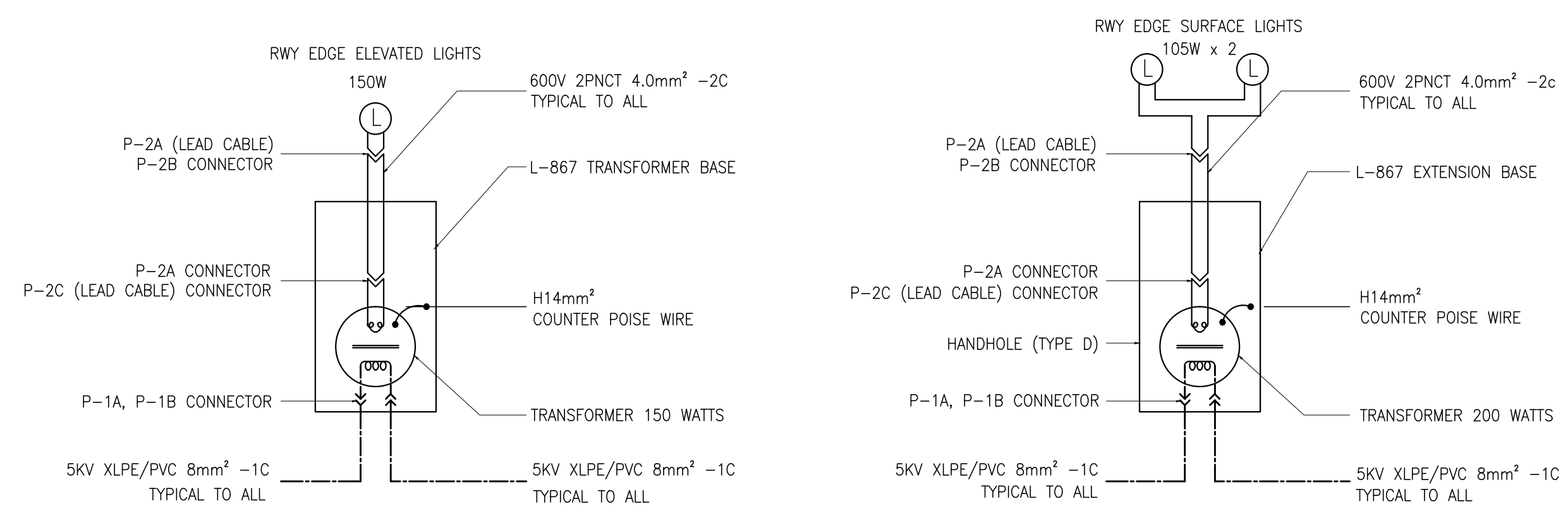


Site elevation

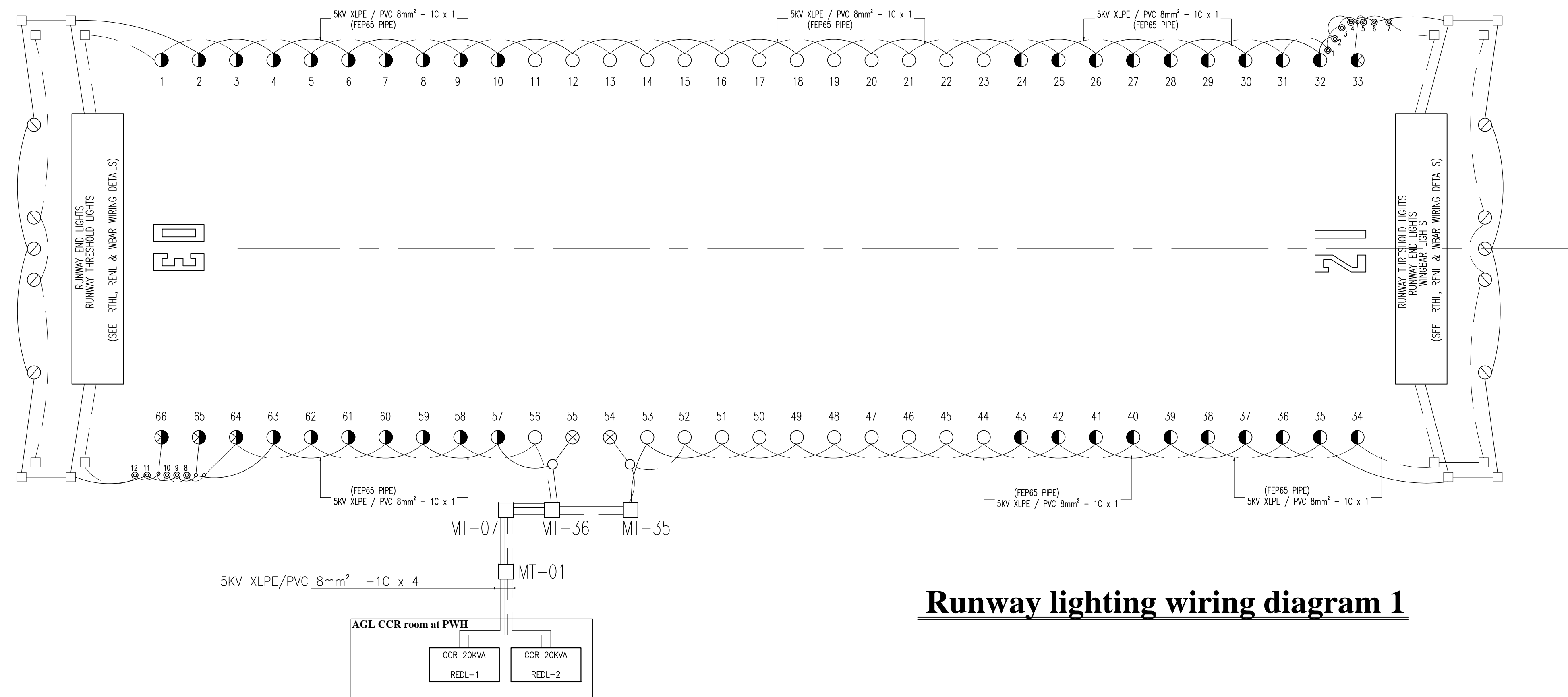
	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>TIN. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-2 (L2) PRECISION APPROACH PATH INDICATOR INSTALLATION DETAILS OF PAPI UNIT	SHEET NO: L2-9200-02
	JICA DESIGN CONSULTANT JOINT VENTURE JAC JAPAN AIRPORT CONSULTANTS, INC.	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE: JUNE 2013 INDEX:	AMENDMENTS:	Prepared by: WIM Checked by: HC Validated by:



REDL location and wiring plan S=1:2000

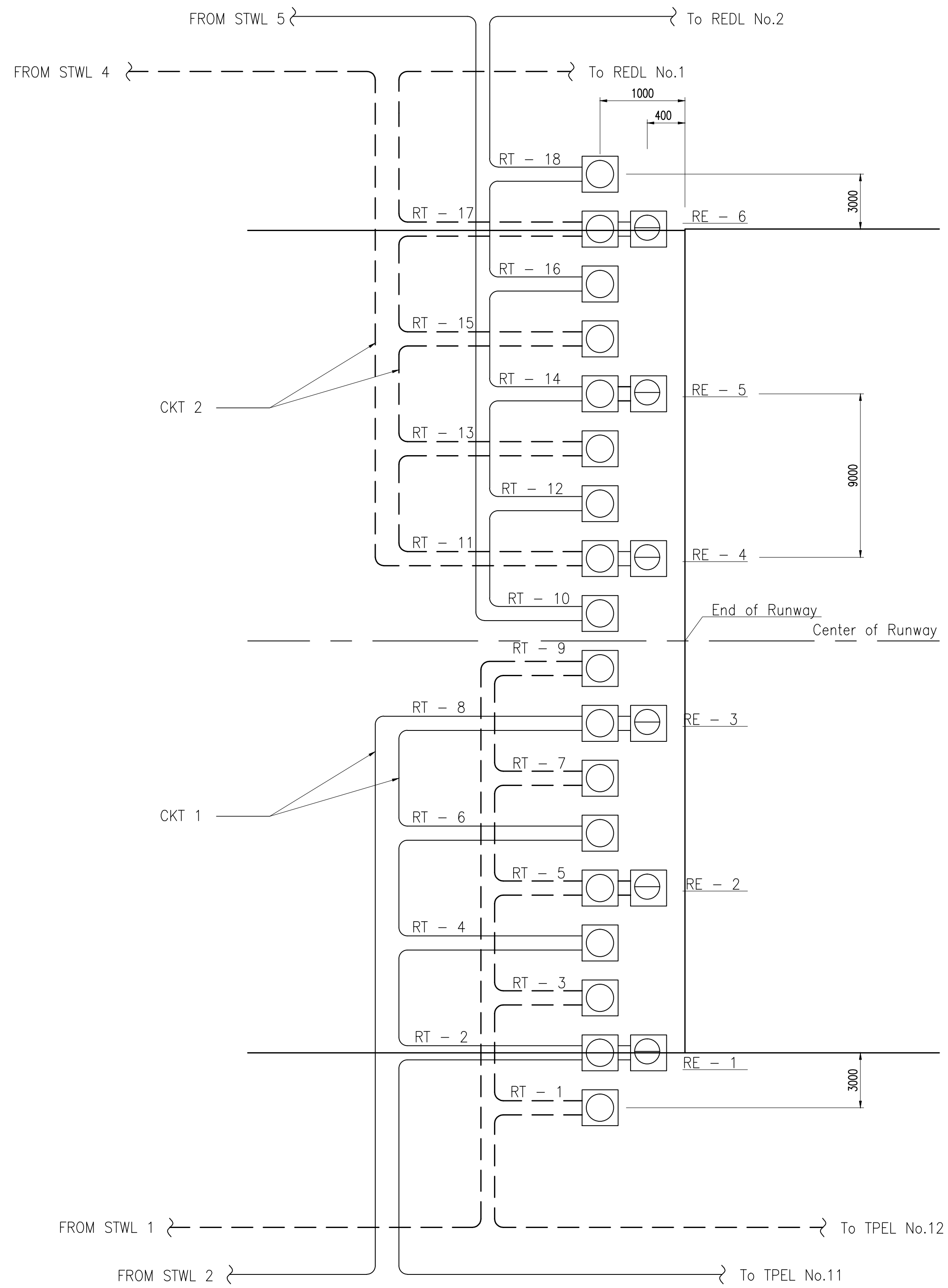


Primary and secondary connection

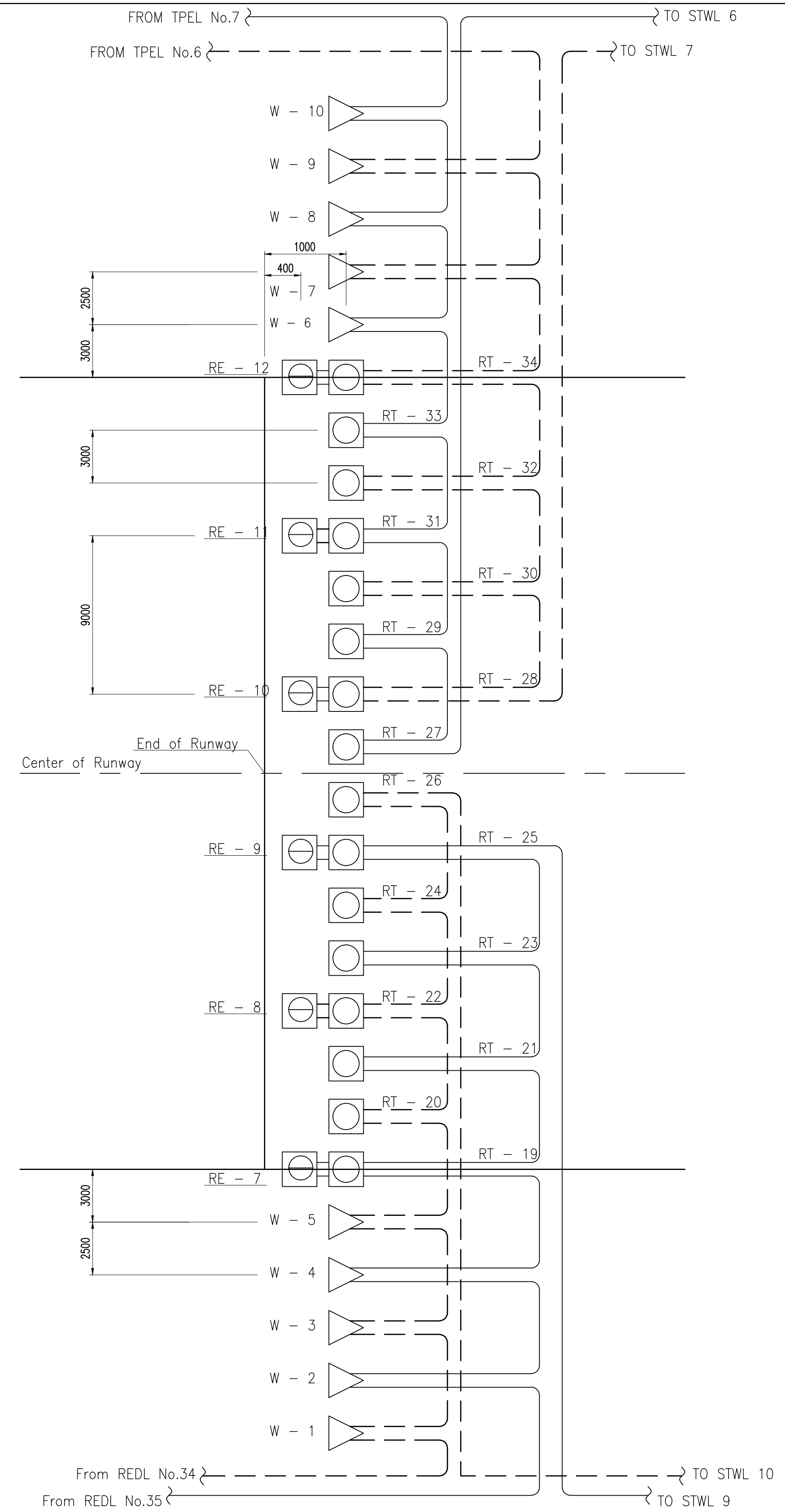


Runway lighting wiring diagram 1

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>T.J.N. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-3 (L3) RUNWAY LIGHTING SYSTEM RUNWAY LIGHTING WIRING DIAGRAM 1	SHEET NO: L3-9300-01 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE JAPAN AIRPORT CONSULTANTS, INC. NIPPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.	TADASHI AOI Team Leader	ILDEFONSO T. PATDU, JR. Assistant Secretary for Project Implementation, DOTC	JULIANITO G. BUCAYAN, JR. Undersecretary for Project Implementation, DOTC	DATE: JUNE 2013 INDEX: [] AMENDMENTS: [] Prepared by: WIM Checked by: HC Validated by: []	



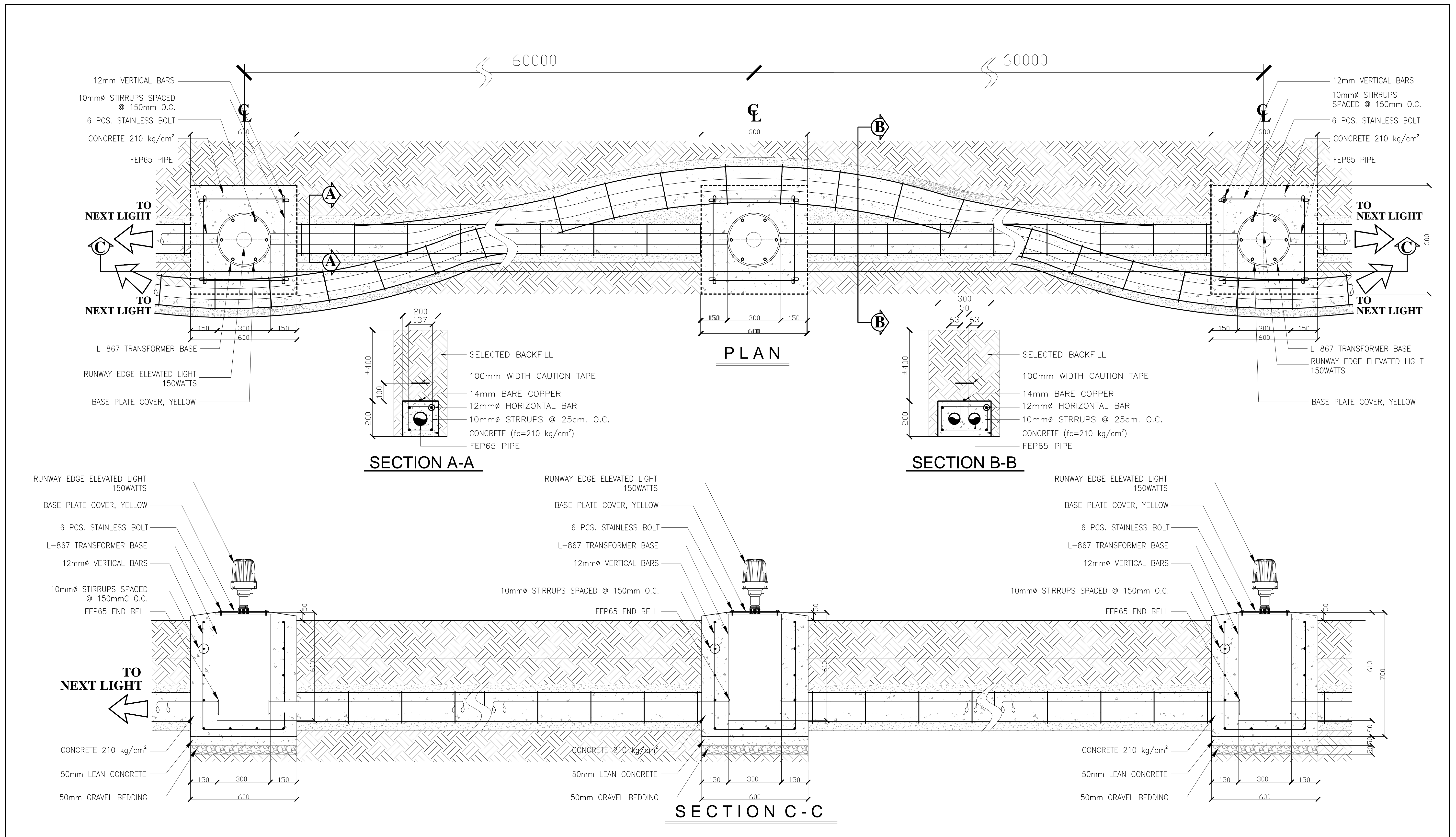
Typical connection diagram of RTHL and REND 03 side



Typical connection diagram of RTHL and REND 21 side

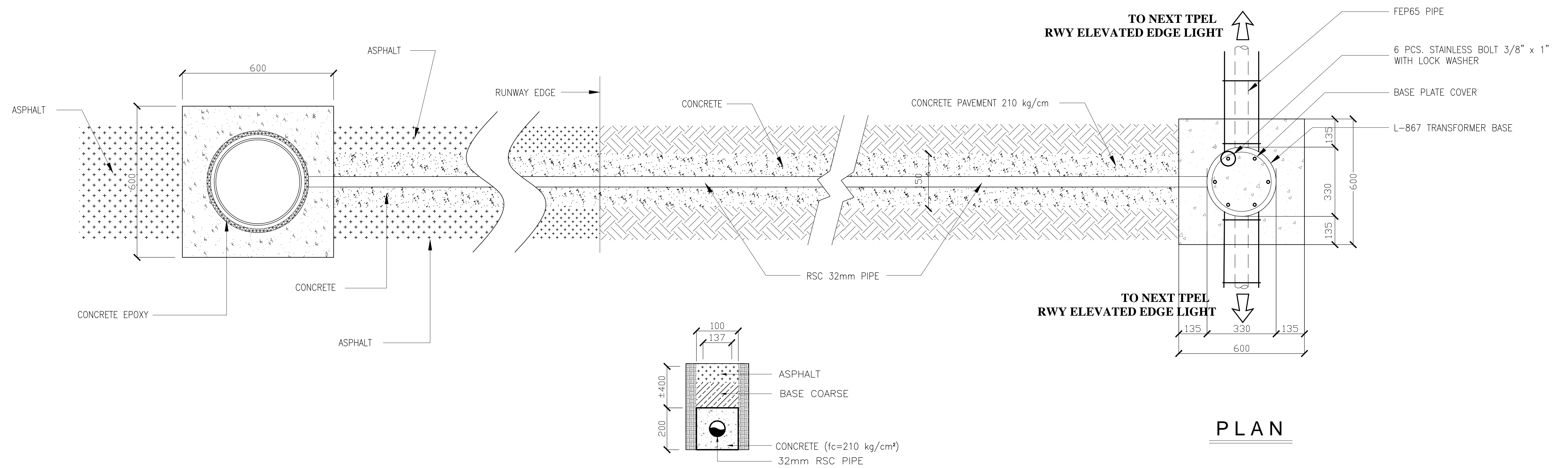
Runway lighting wiring diagram 2

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>TIN. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-3 (L3) RUNWAY LIGHTING SYSTEM RUNWAY LIGHTING WIRING DIAGRAM 2	SHEET NO: L3-9300-02
	JICA DESIGN CONSULTANT JOINT VENTURE JAC JAPAN AIRPORT CONSULTANTS, INC.	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	DATE: JUNE 2013 INDEX AMENDMENTS Prepared by: WIM Checked by: HC Validated by:

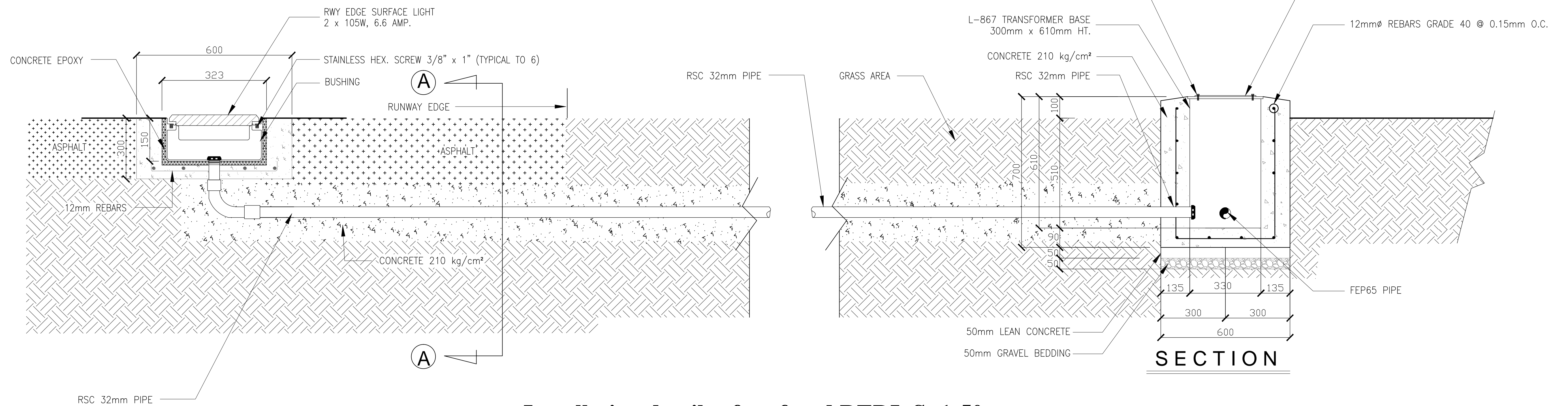


Installation details of elevated REDL

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>TIN. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULJANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-3 (L3) RUNWAY LIGHTING SYSTEM INSTALLATION DETAILS OF ELEVATED REDL	SHEET NO: L3-9300-03 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE <small>JAPAN AIRPORT CONSULTANTS, INC. NIPPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.</small>	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULJANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE: JUNE 2013 INDEX: _____ AMENDMENTS: _____ Prepared by: _____ Checked by: _____ Validated by: _____	WIM HC

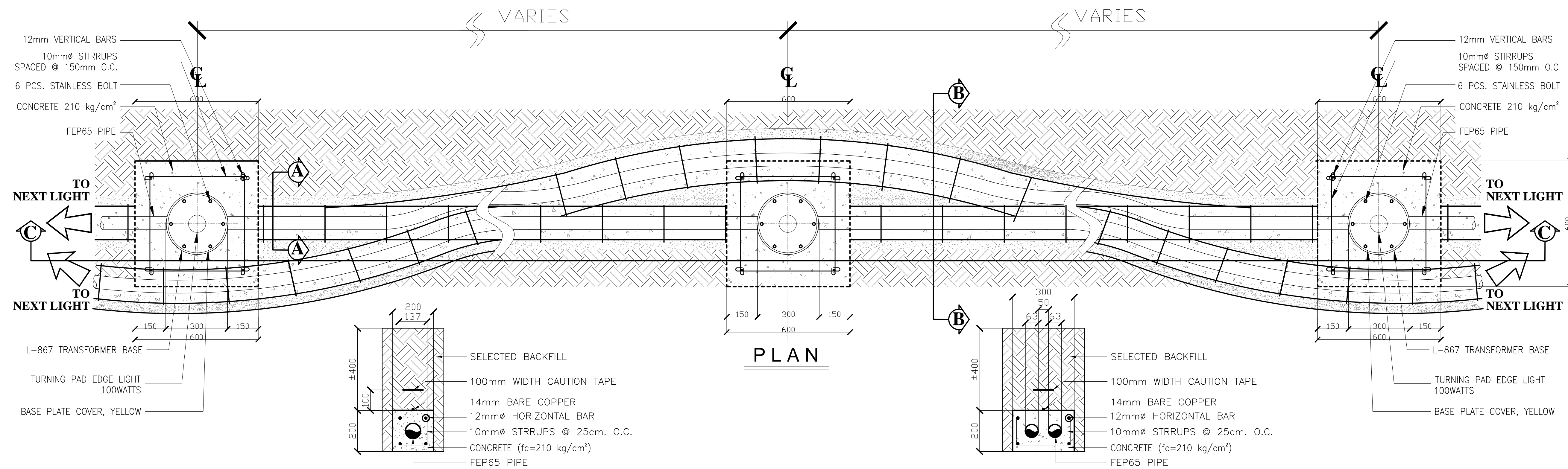


SECTION A-A



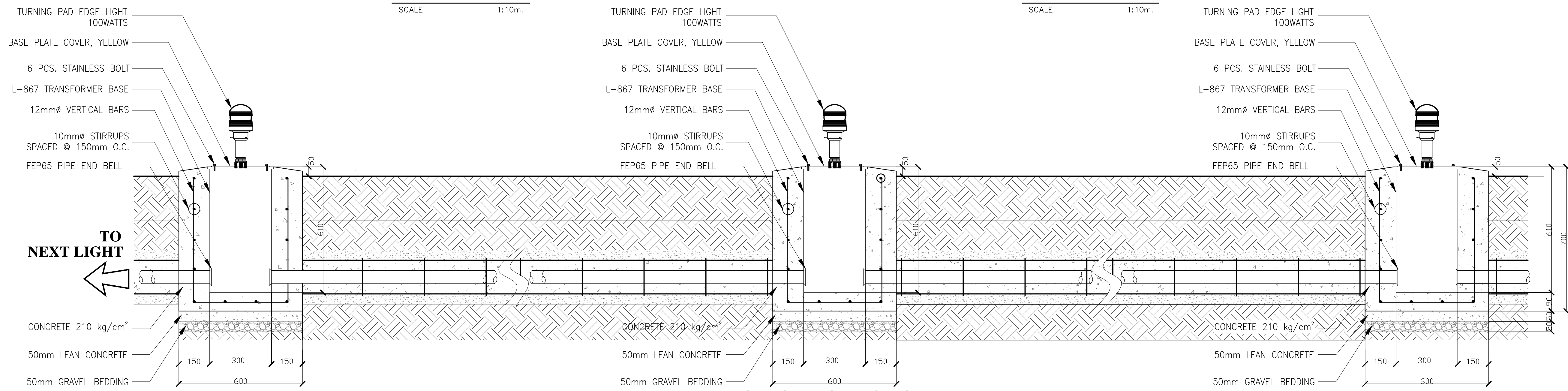
Installation details of surfaced REDL S=1:50

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>TIN. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-3 (L3) RUNWAY LIGHTING SYSTEM INSTALLATION DETAILS OF SURFACED REDL	SHEET NO: L3-9300-04
	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	DATE: JUNE 2013	INDEX:	AMENDMENTS:	Prepared by: WIM Checked by: HC Validated by:	DRAWING SCALE: AS SHOWN



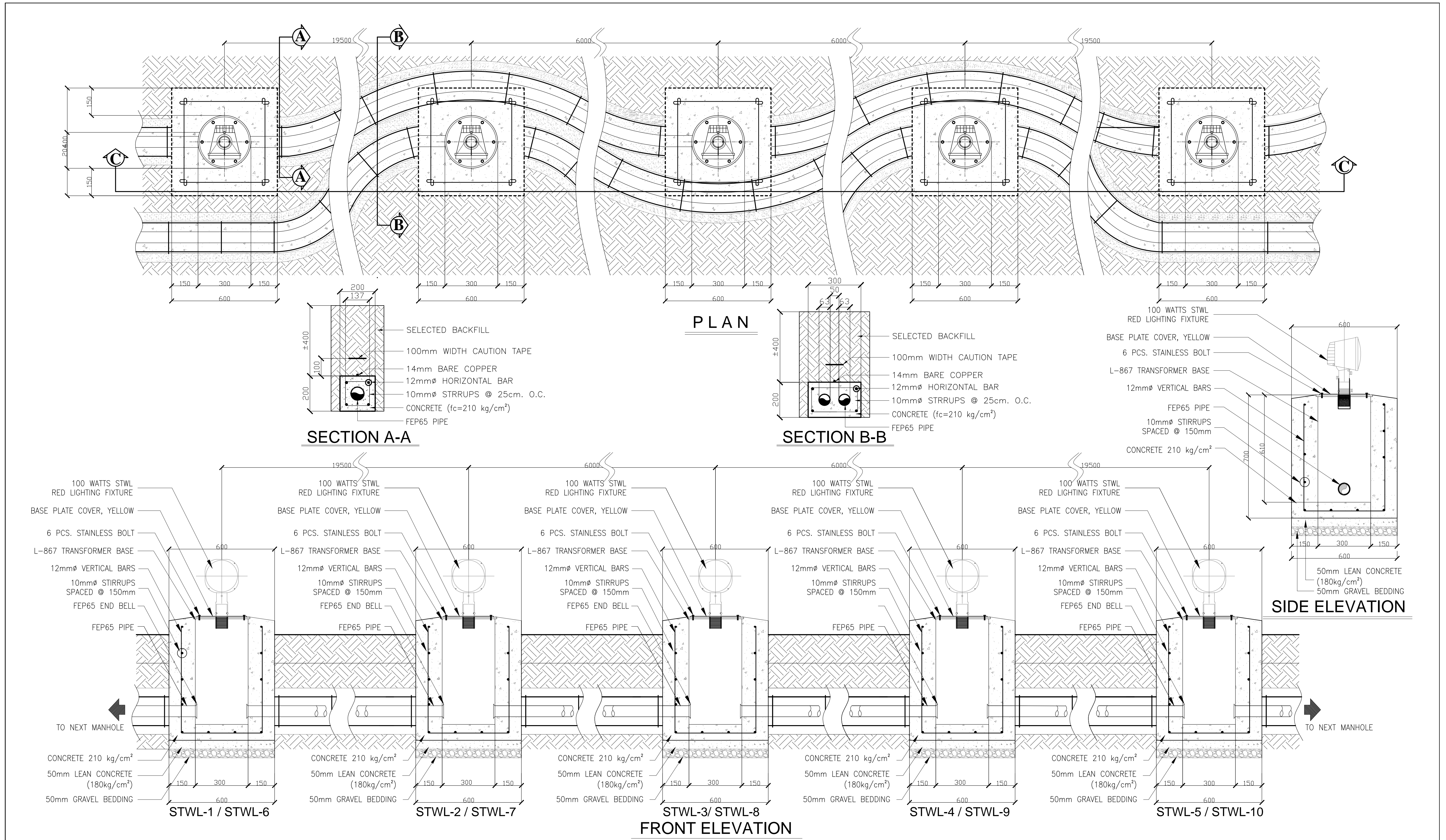
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SCALE 1:10m.

SECTION B-B
SCALE 1:10m.

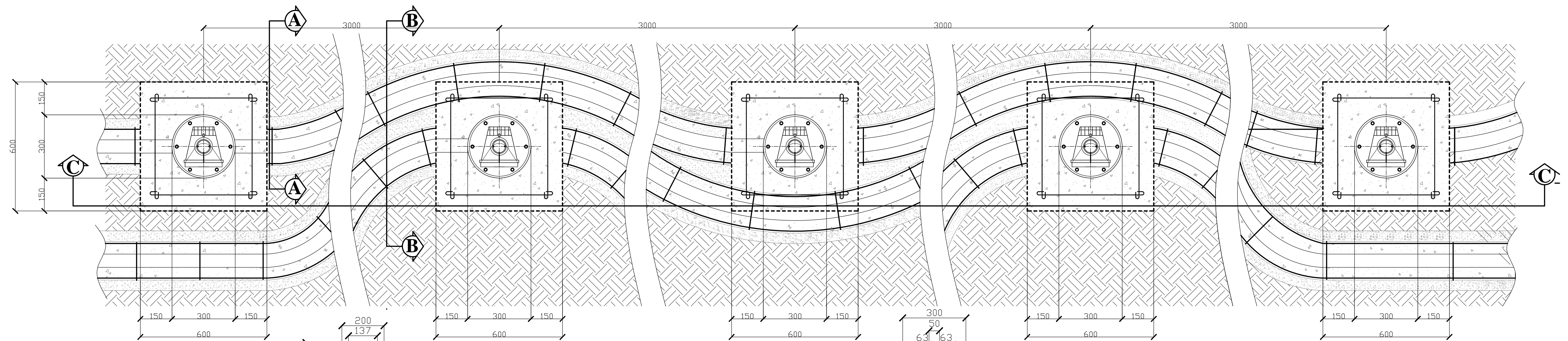


Installation details of elevated TPEL S=1:50

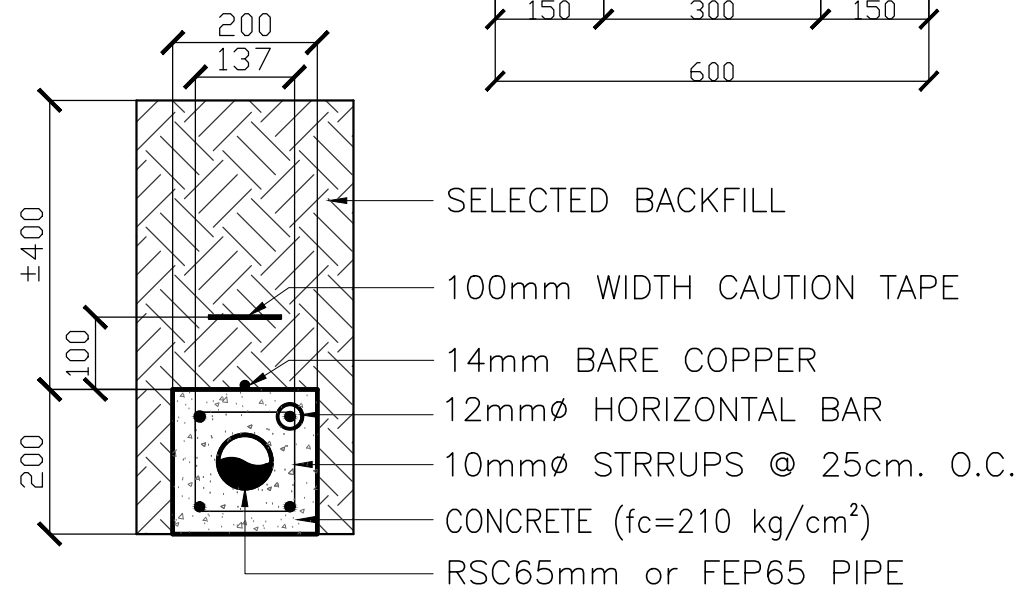
<p>JICA DESIGN CONSULTANT JOINT VENTURE</p> <p>JAPAN AIRPORT CONSULTANTS, INC.</p> <p>NIPPON KOEI CO., LTD.</p> <p>NIS CONSULTANTS CO., LTD.</p>	<p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS</p> <p>JAPAN INTERNATIONAL COOPERATION AGENCY</p>	<p>PREPARED BY: TEODORO N. PAMATMAT</p> <p>PROF. ELECTRICAL ENGINEER PIR. 1403773 REG. NO.: 1927 DATE: 1-04-13 TIN. 119-747-900 PLACE: MANILA</p>	<p>RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. Assistant Secretary for Project Implementation, DOTC</p>	<p>APPROVED: JULIANITO G. BUCAYAN, JR. Undersecretary for Project Implementation, DOTC</p>	<p>PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</p> <p>LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES</p>	<p>JUNE 2013</p> <p>DATE INDEX</p>	<p>AMENDMENTS</p>	<p>Prepared by: WIM Checked by: HC Validated by:</p>	<p>SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-3 (L3) RUNWAY LIGHTING SYSTEM INSTALLATION DETAILS OF ELEVATED TPEL</p>	<p>SHEET NO: L3-9300-05</p> <p>DRAWING SCALE: AS SHOWN</p>
	<p>DATE INDEX AMENDMENTS Prepared by: WIM Checked by: HC Validated by:</p>									



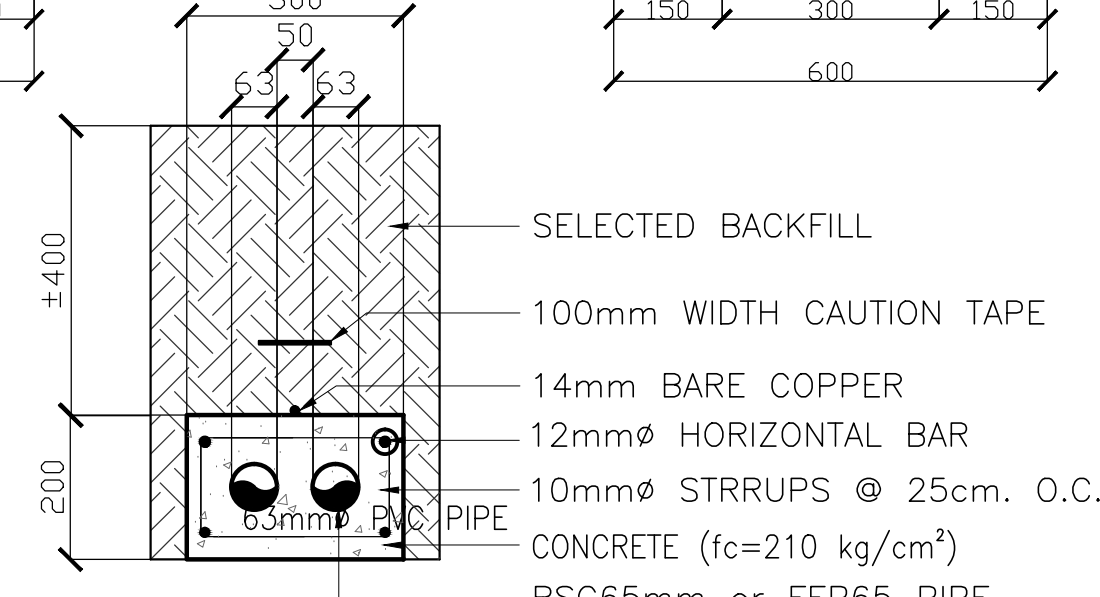
	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>TIN. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-3 (L3) RUNWAY LIGHTING SYSTEM INSTALLATION DETAILS OF ELEVATED STWL	SHEET NO: L3-9300-06
	JICA DESIGN CONSULTANT JOINT VENTURE JAC JAPAN AIRPORT CONSULTANTS, INC. NIPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE: JUNE 2013 INDEX:	AMENDMENTS:	Prepared by: WIM Checked by: HC Validated by:



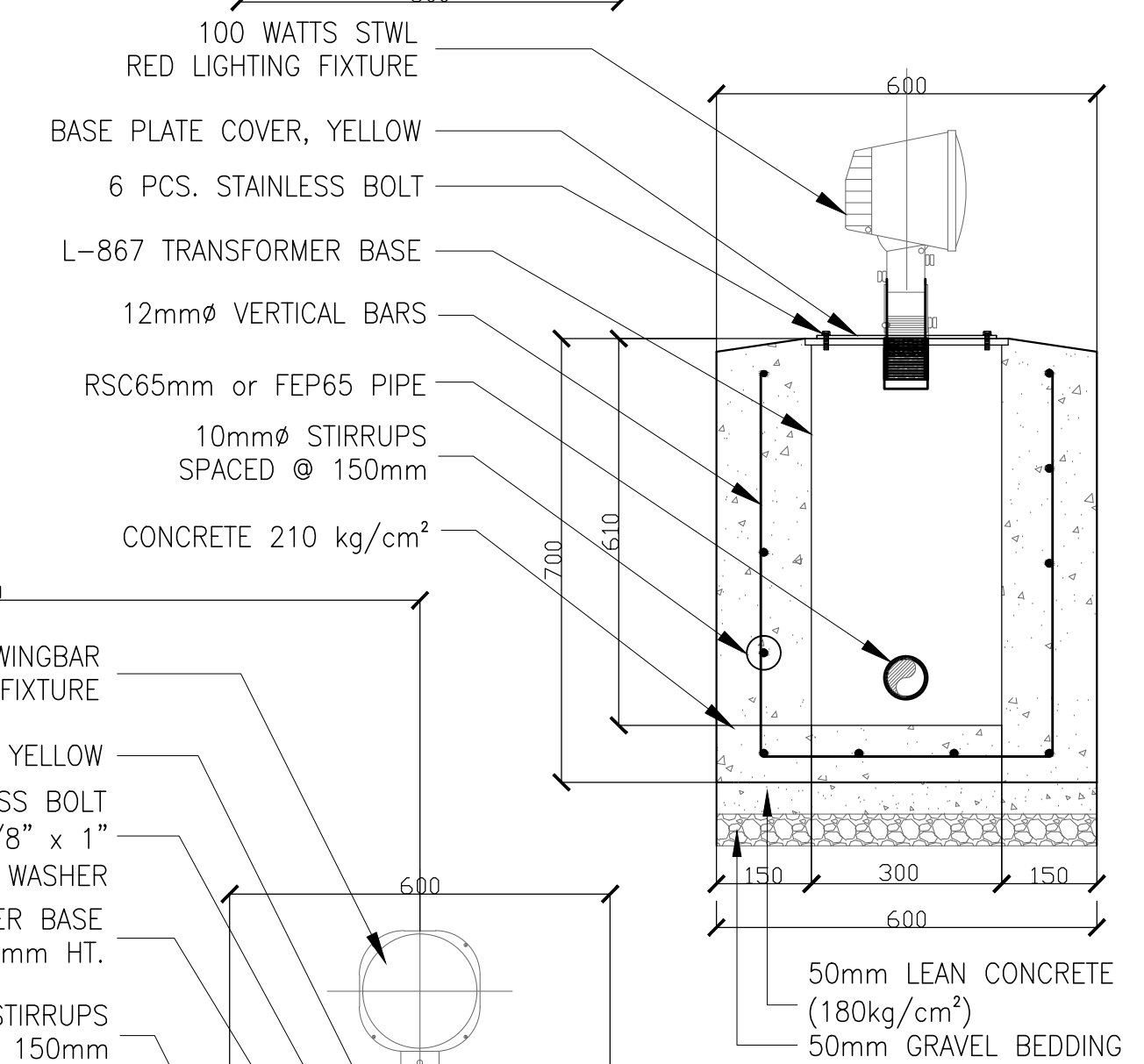
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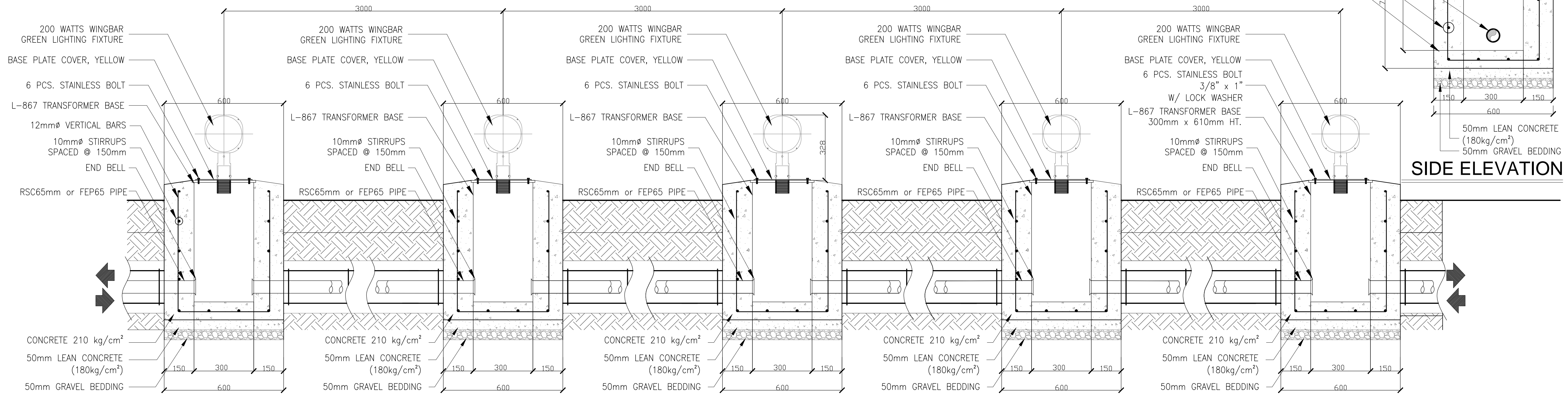
SECTION A-A



SECTION B-B



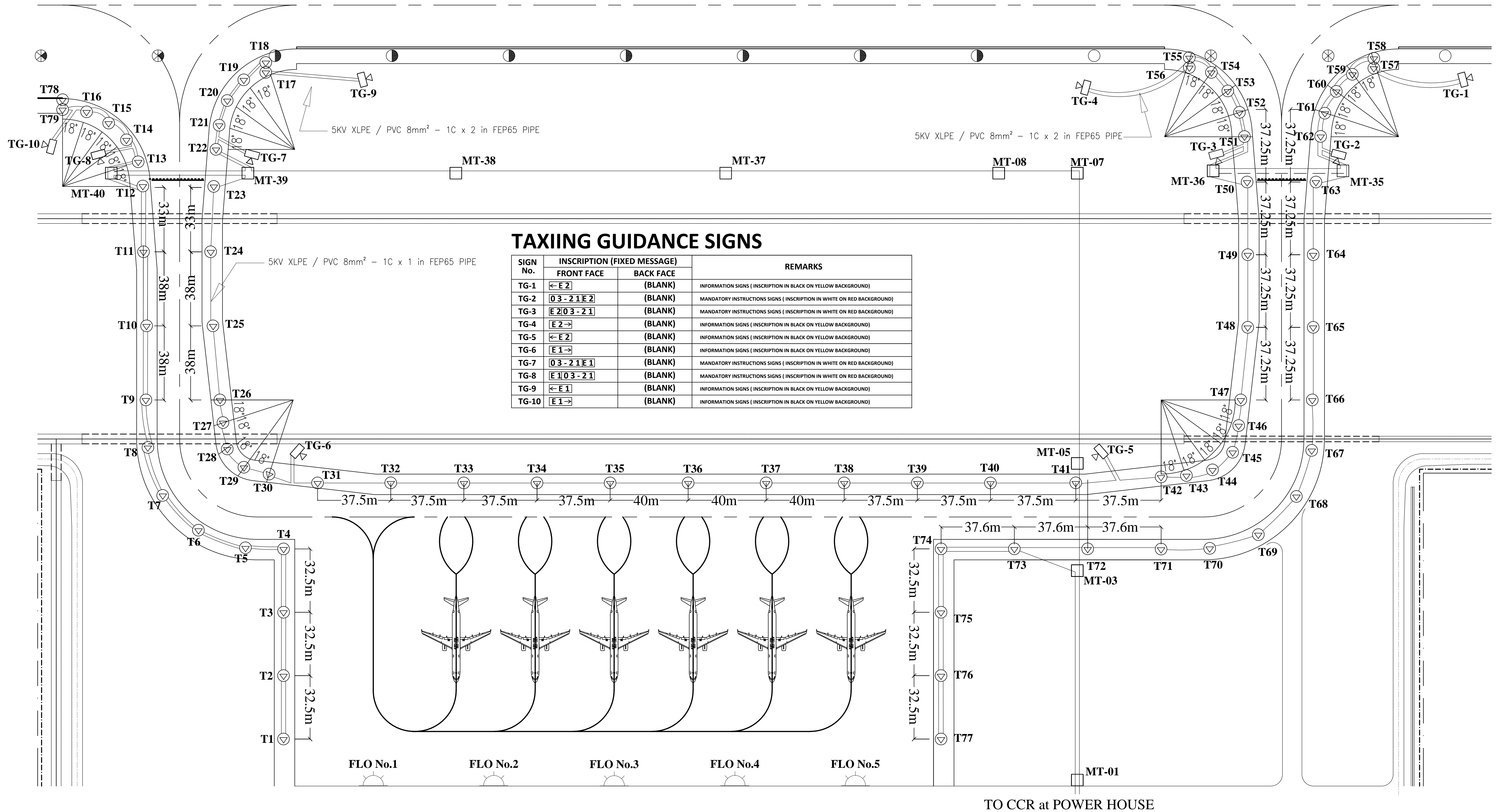
SIDE ELEVATION



FRONT ELEVATION

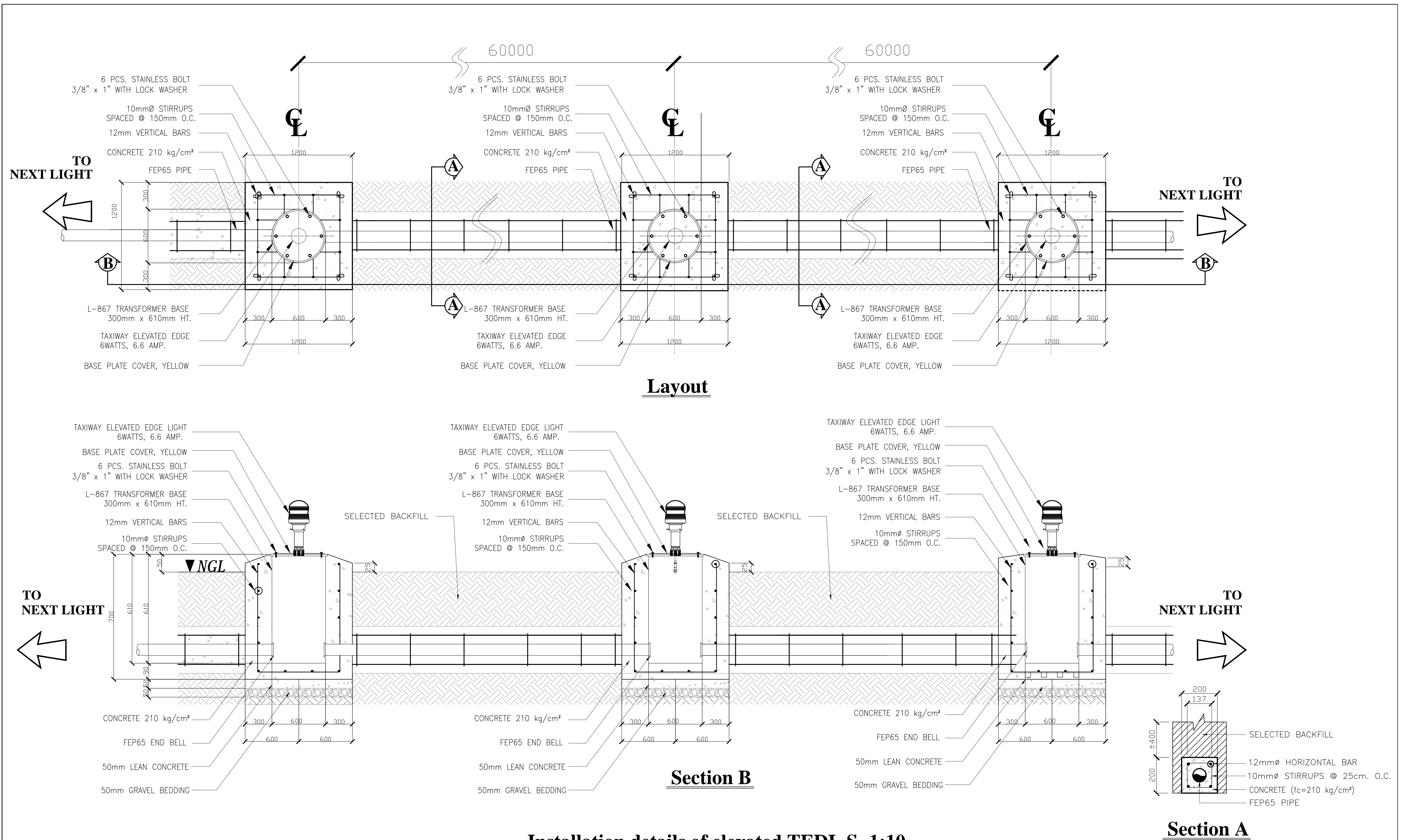
Installation details of elevated RTHL, WBAR and RENL S=1:50

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>TIN: 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-3 (L3) RUNWAY LIGHTING SYSTEM INSTALLATION DETAILS OF ELEVATED RTHL, WBAR AND RENL	SHEET NO: L3-9300-07 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE JAPAN AIRPORT CONSULTANTS, INC.	TADASHI AOI Team Leader	ILDEFONSO T. PATDU, JR. Assistant Secretary for Project Implementation, DOTC	JULIANITO G. BUCAYAN, JR. Undersecretary for Project Implementation, DOTC	JUNE 2013 DATE INDEX AMENDMENTS	Prepared by: WIM Checked by: HC Validated by:



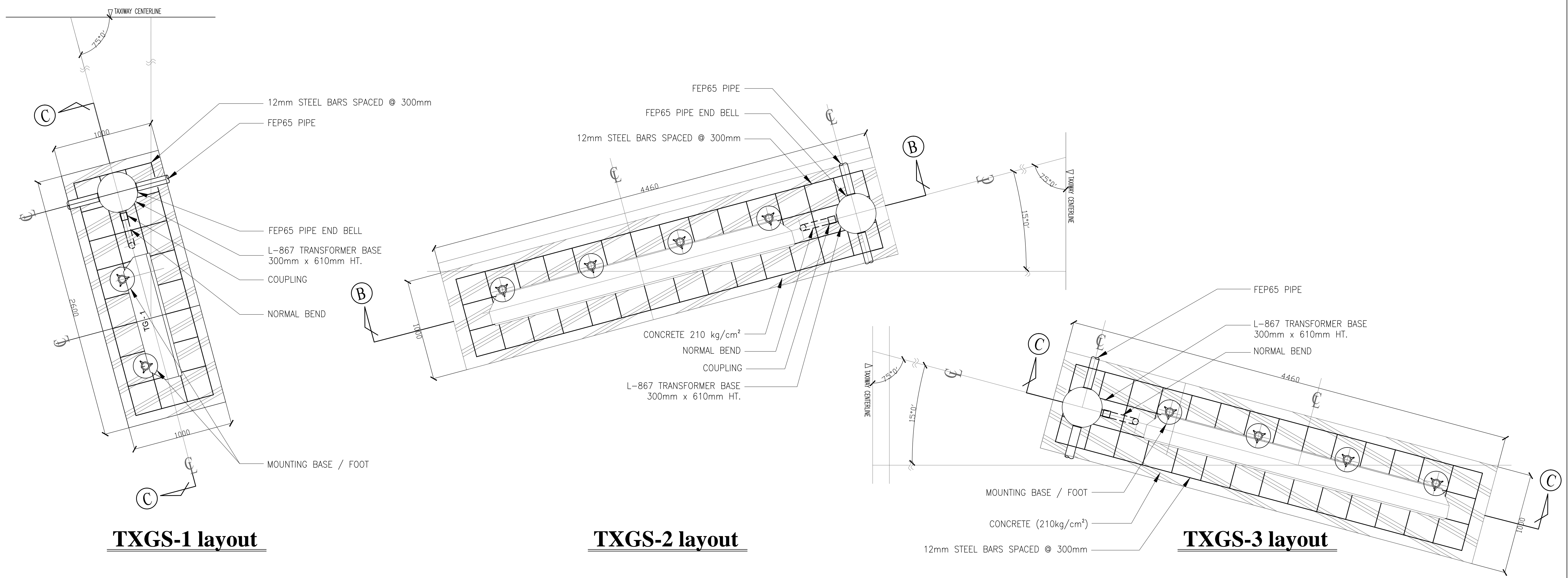
Taxiway and guidance lighting site layout S=1:1000

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773 REG. NO.: 1927 DATE: 1-04-13 TIN. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-4 (L4) TAXIWAY LIGHTING SYSTEM TAXIWAY SITE LAYOUT	SHEET NO: L4-9400-01 DRAWING SCALE: AS SHOWN											
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DATE	INDEX	AMENDMENTS	Prepared by	Checked by	Validated by												
JUNE 2013			WIM	HC													



Installation details of elevated TEDL S=1:10

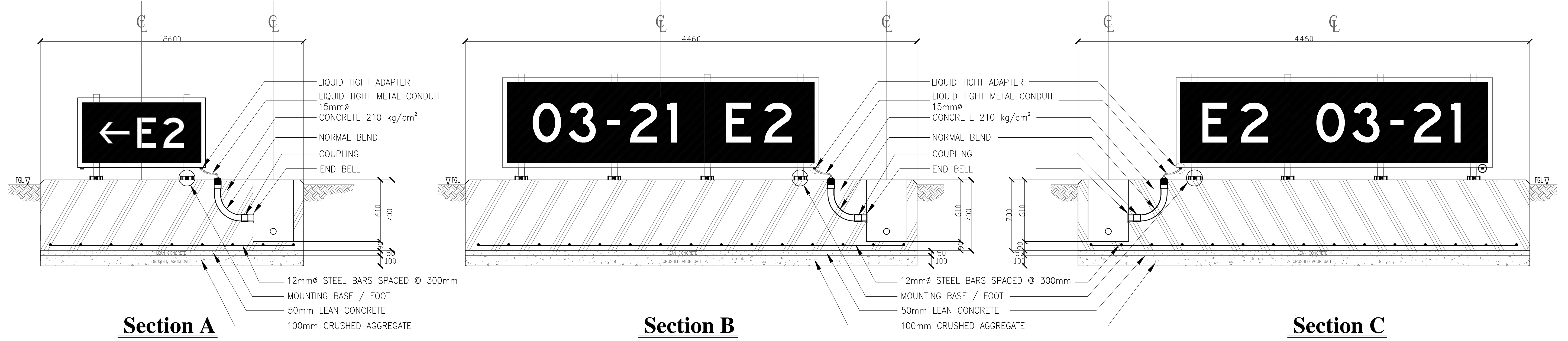
	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>TIN. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-4 (L4) TAXIWAY LIGHTING SYSTEM INSTALLATION DETAILS OF ELEVATED TEDL	SHEET NO: L4-9400-02 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE JAPAN AIRPORT CONSULTANTS, INC. NIPPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.	TADASHI AOI Team Leader	ILDEFONSO T. PATDU, JR. Assistant Secretary for Project Implementation, DOTC	JULIANITO G. BUCAYAN, JR. Undersecretary for Project Implementation, DOTC	DATE: JUNE 2013 INDEX: _____ AMENDMENTS: _____ Prepared by: WIM Checked by: HC Validated by: _____	SHEET NO: L4-9400-02 DRAWING SCALE: AS SHOWN



TXGS-1 layout

TXGS-2 layout

TXGS-3 layout



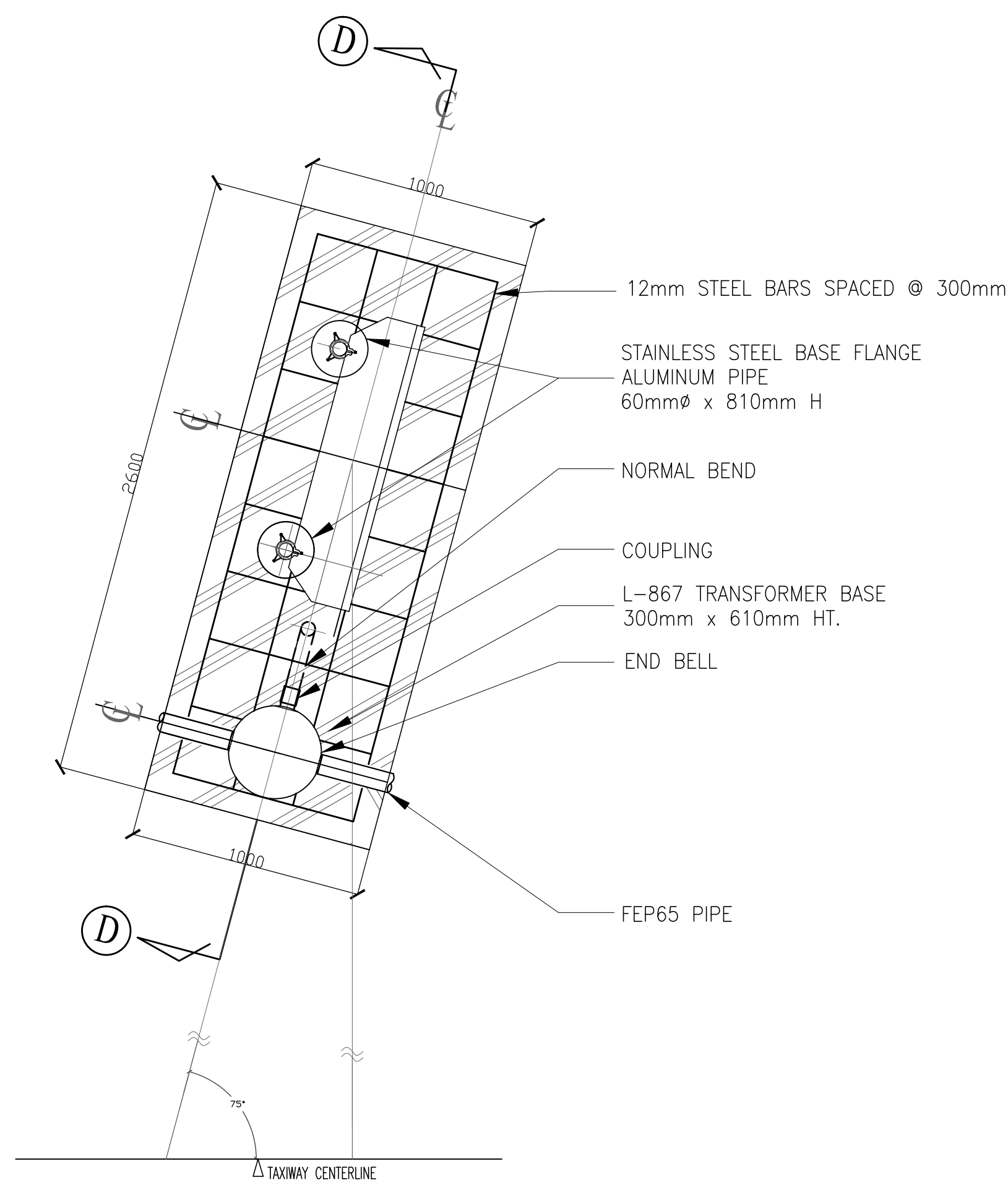
Section A

Section B

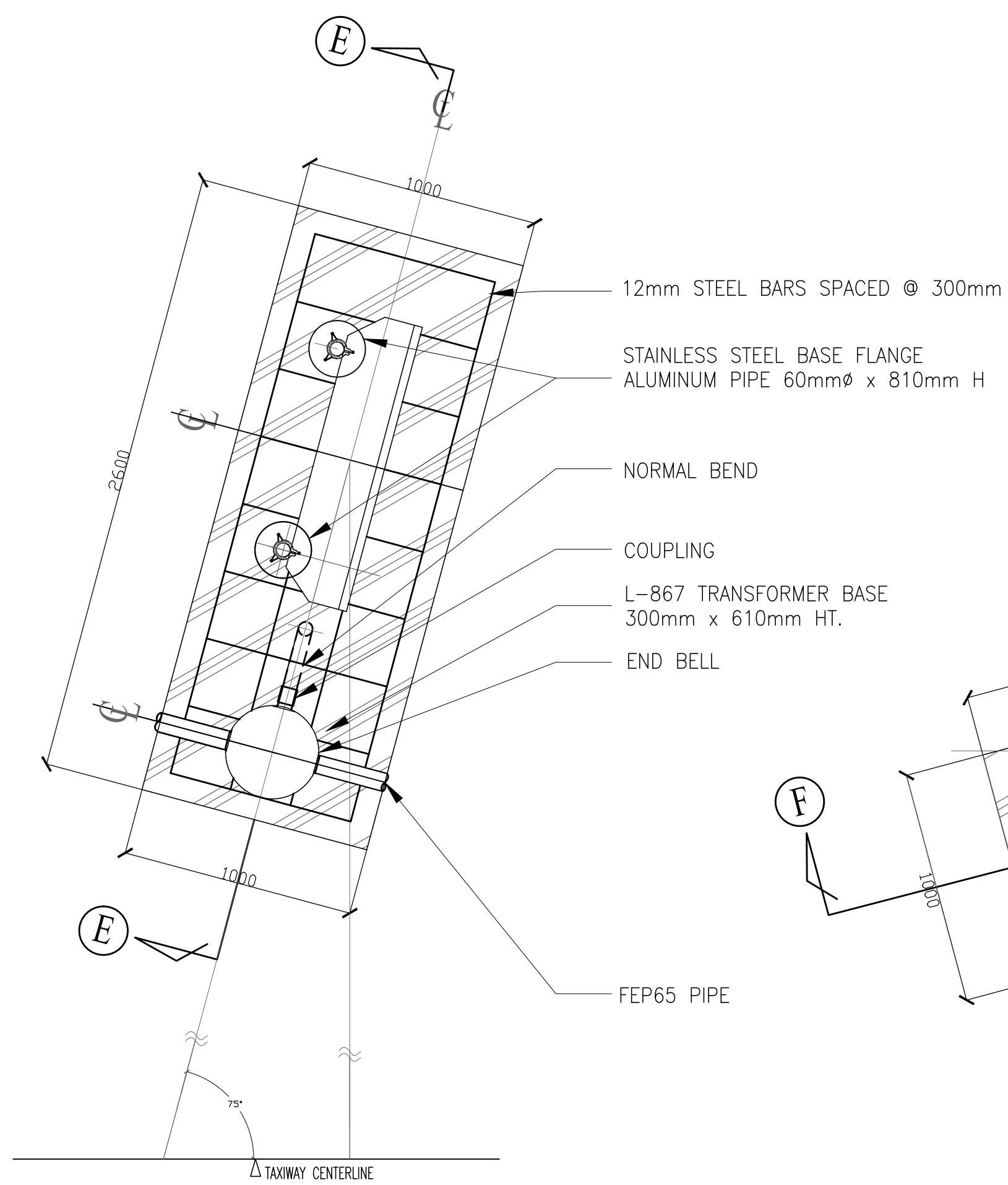
Section C

Installation details of elevated TXGS 1 S=1:10

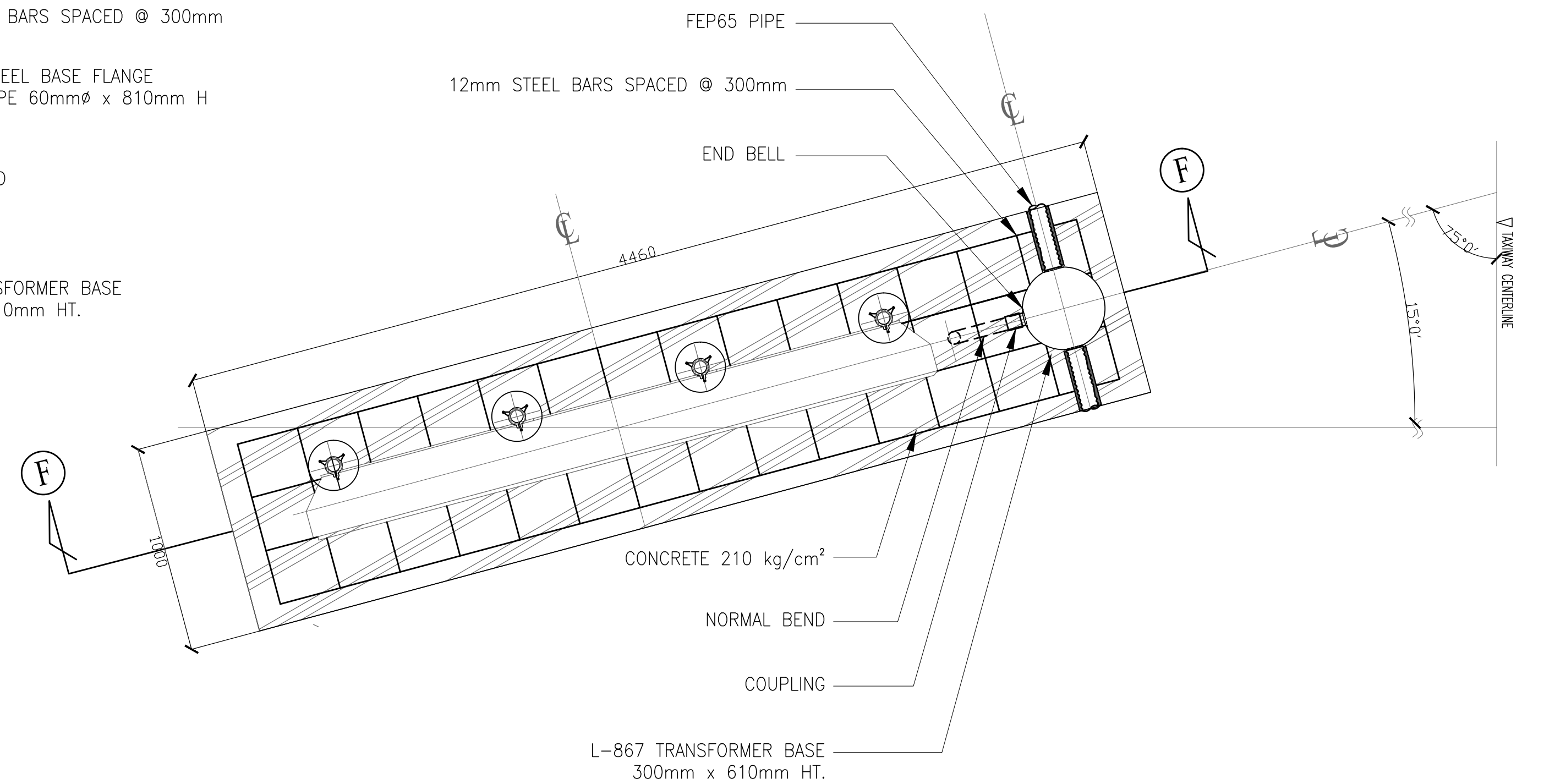
	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>TIN. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-4 (L4) TAXIWAY LIGHTING SYSTEM INSTALLATION DETAILS OF ELEVATED TXGS1	SHEET NO: L4-9400-03 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE <small>JAC JAPAN AIRPORT CONSULTANTS, INC. NIPPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.</small>	DATE: JUNE 2013 INDEX: [] AMENDMENTS: [] Prepared by: [] Checked by: [] Validated by: []	WIM HC			



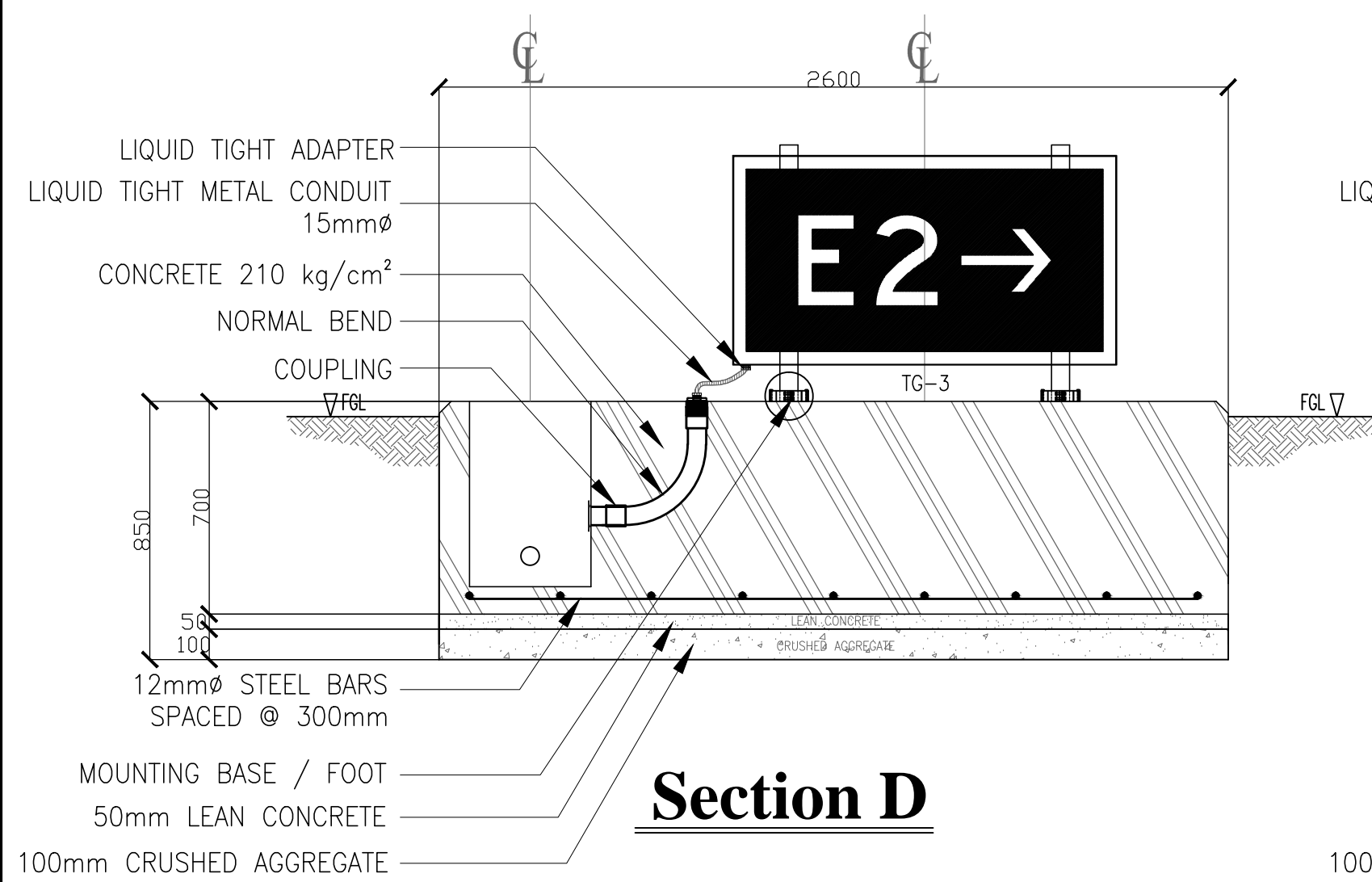
TXGS-4 layout



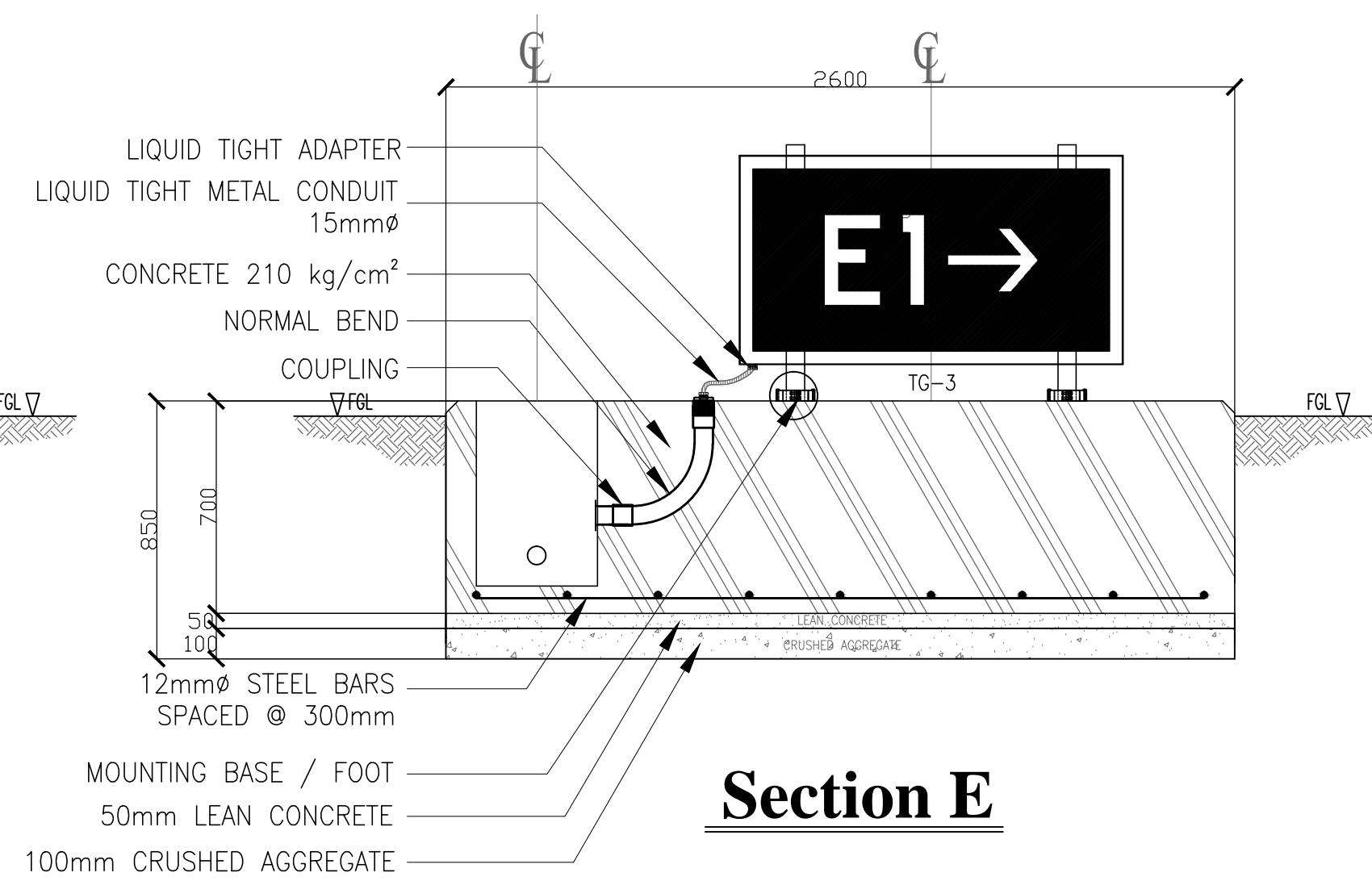
TXGS-6 and 10 layout



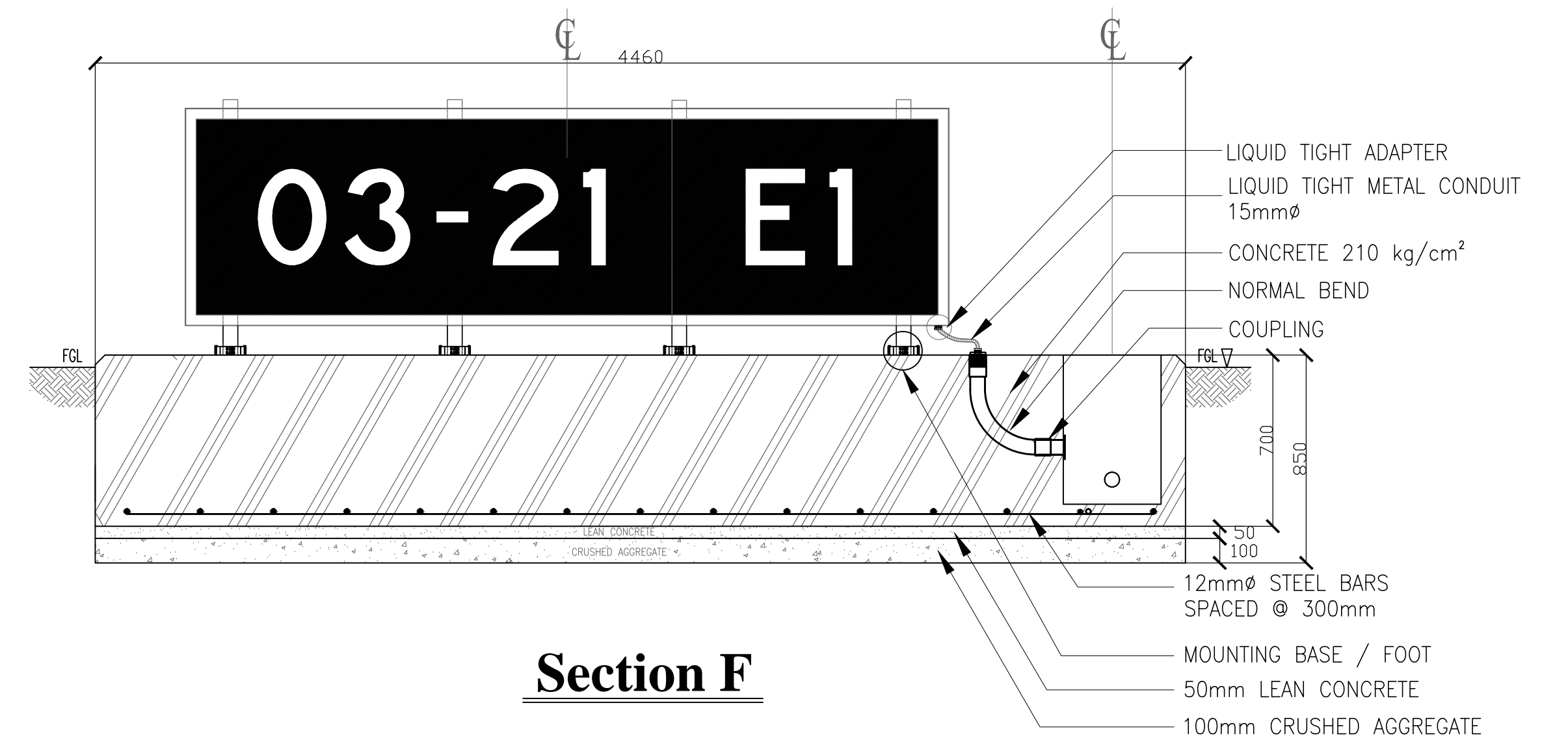
TXGS-7 layout



Section D



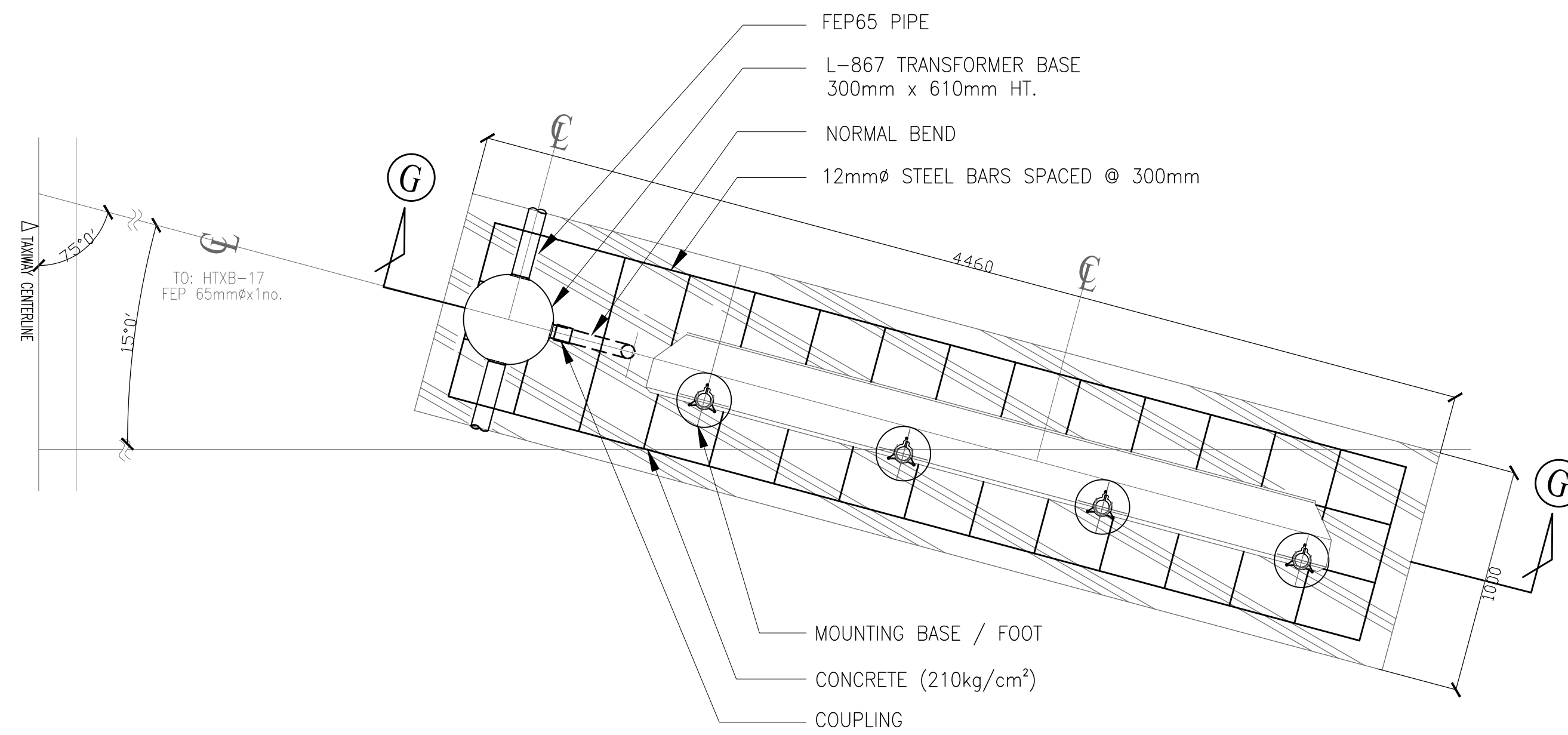
Section E



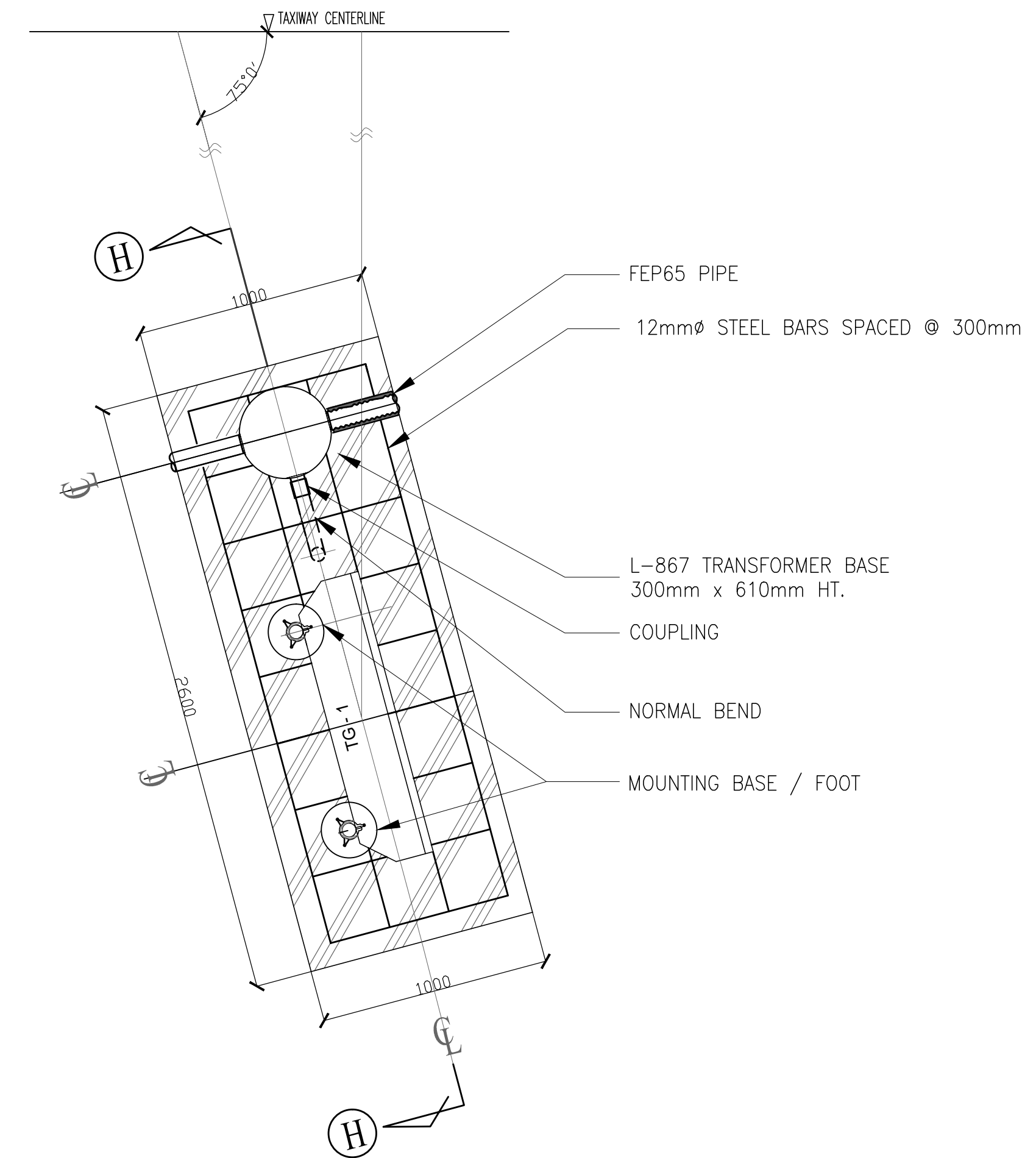
Section F

Installation details of elevated TXGS 1 S=1:10

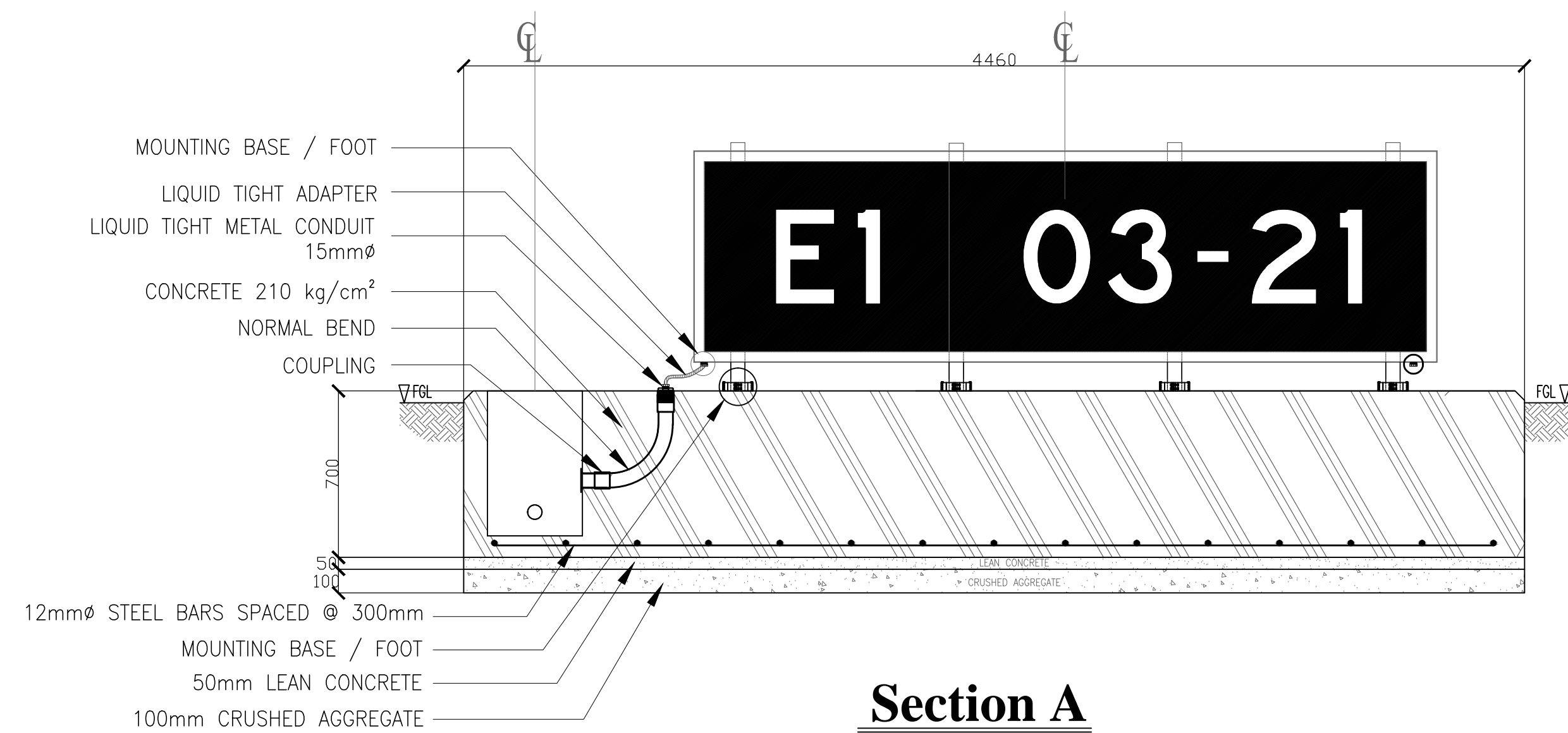
	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>TIN. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-4 (L4) TAXIWAY LIGHTING SYSTEM INSTALLATION DETAILS OF ELEVATED TXGS2	SHEET NO: L4-9400-04 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE JAPAN AIRPORT CONSULTANTS, INC. NIPPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.	DATE: JUNE 2013 INDEX: [] AMENDMENTS: [] Prepared by: [] Checked by: [] Validated by: []	WIM HC			



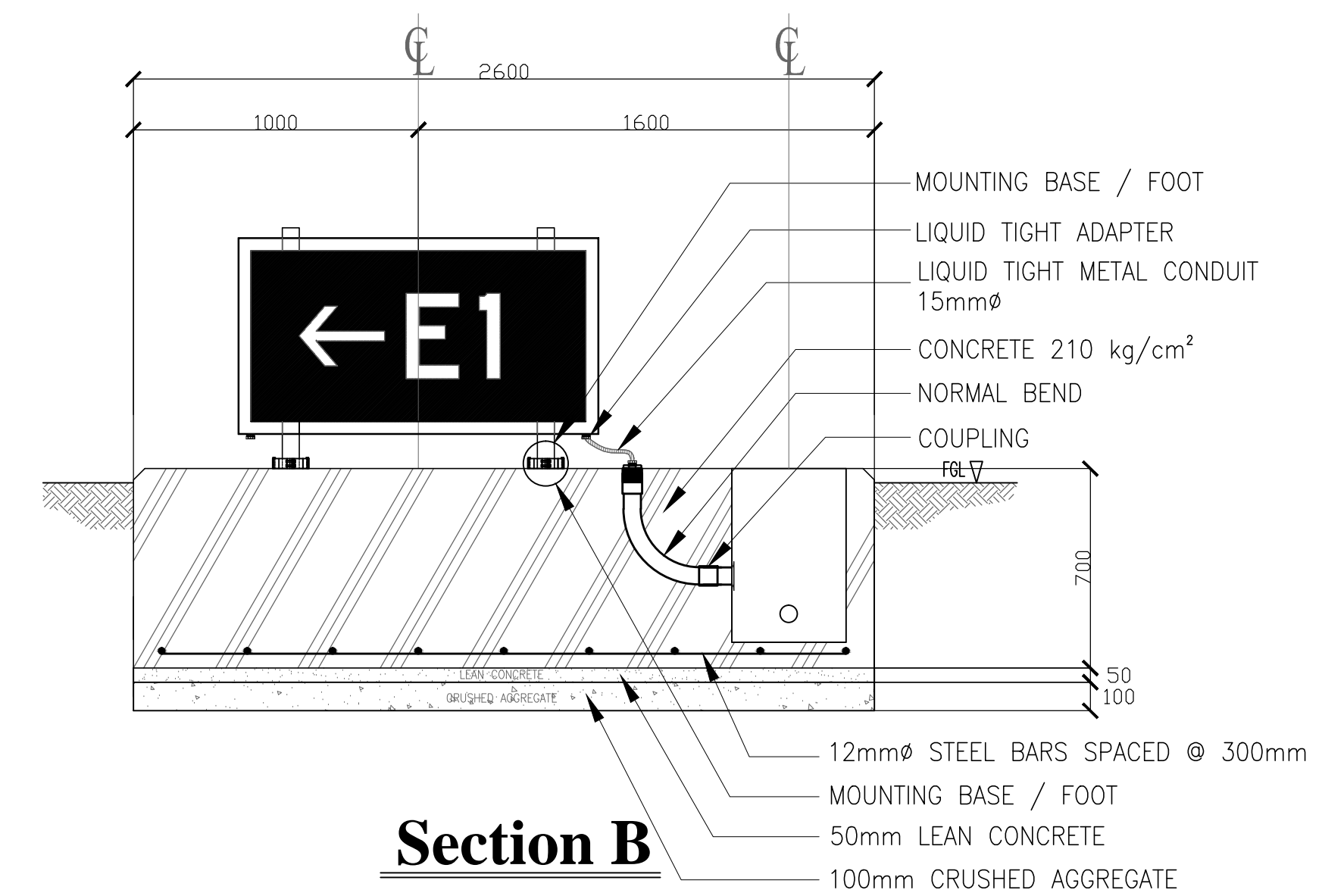
TXGS-8 layout



TXGS-9 layout



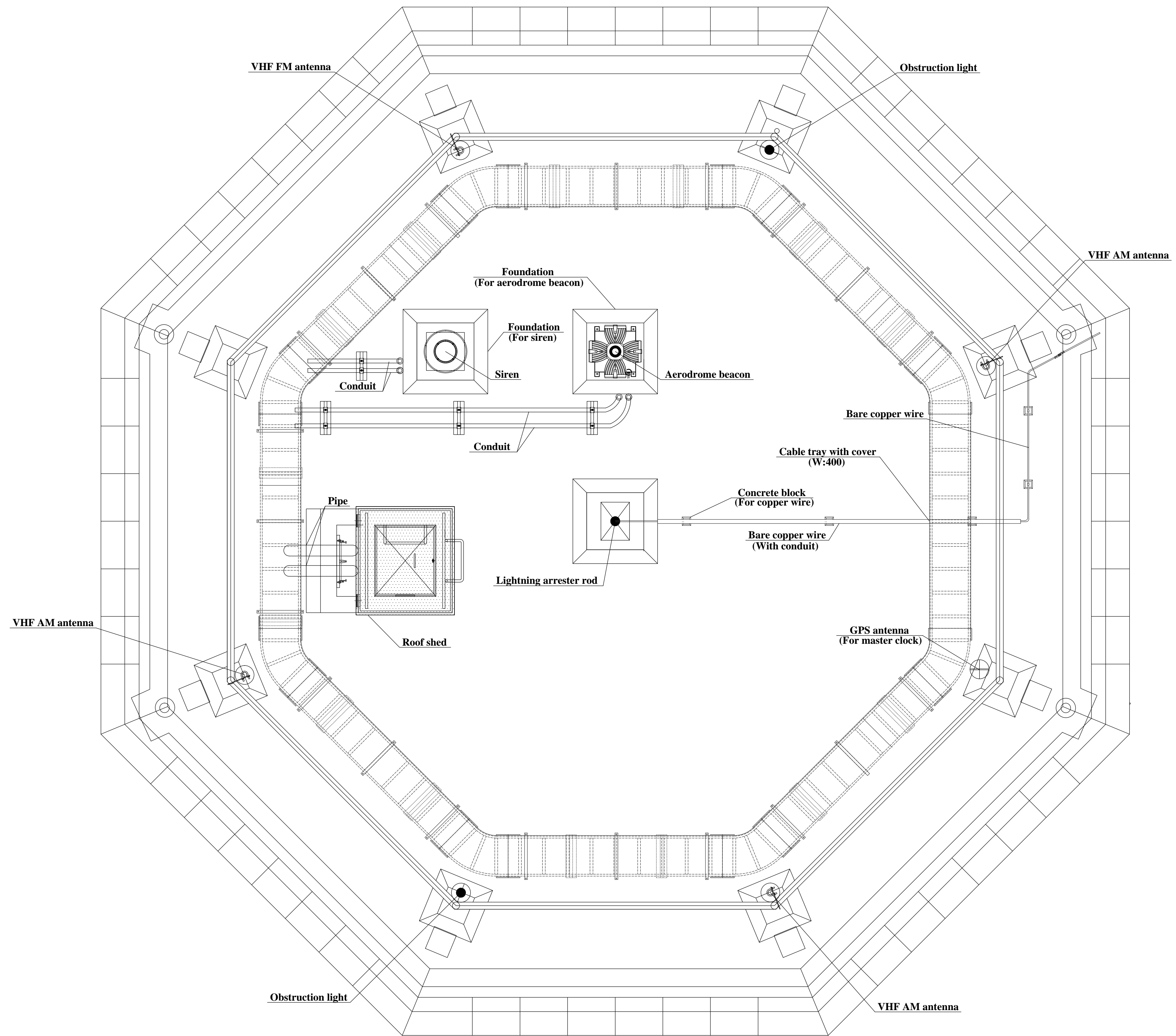
Section A



Section B

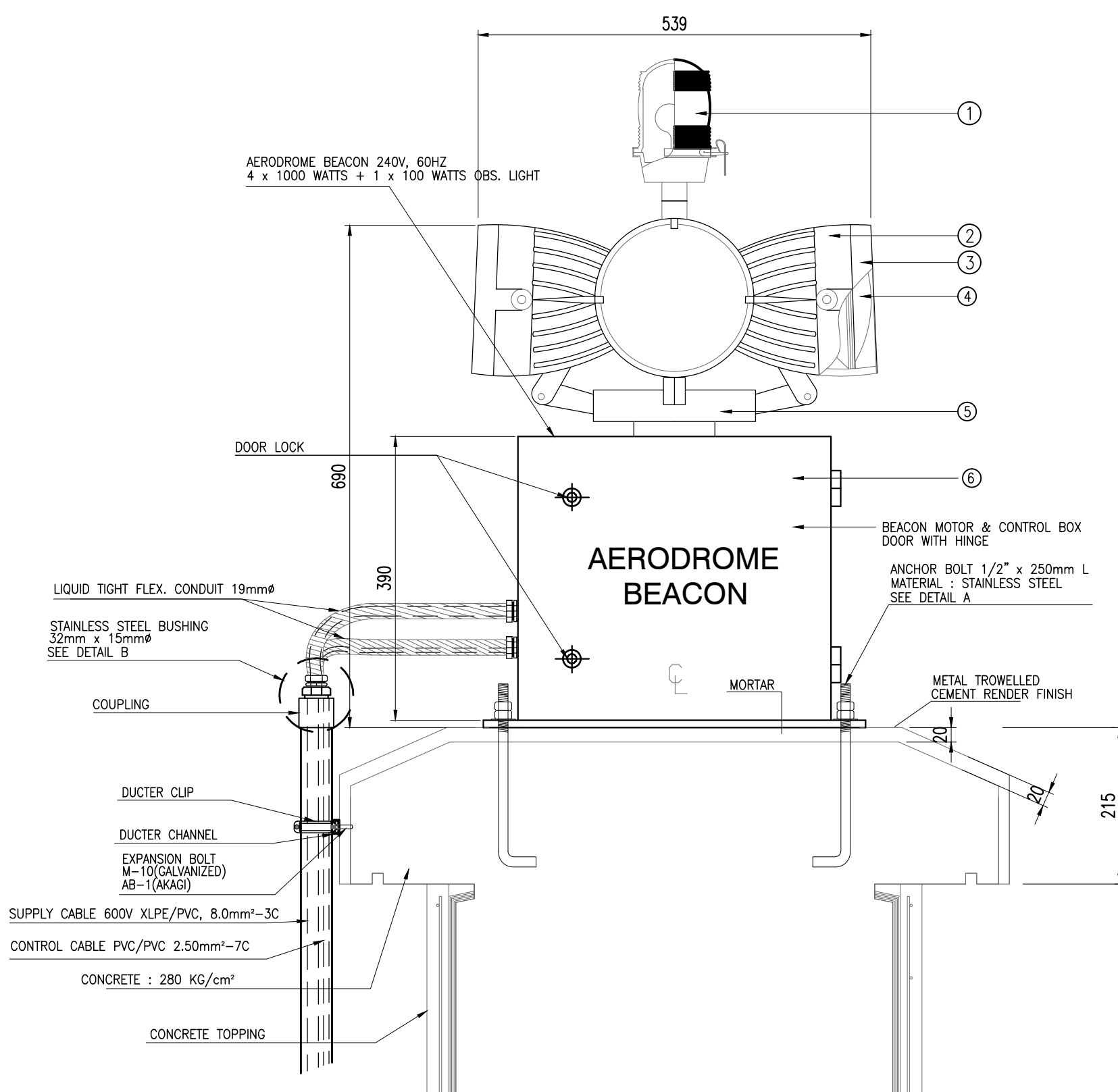
Installation details of elevated TXGS 1 S=1:10

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>T.N. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-4 (L4) TAXIWAY LIGHTING SYSTEM INSTALLATION DETAILS OF ELEVATED TXGS3	SHEET NO: L4-9400-05 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE <small>Republic of the Philippines DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS</small> <small>JAPAN INTERNATIONAL COOPERATION AGENCY</small>	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE: JUNE 2013 INDEX: [] AMENDMENTS: [] Prepared by: WIM Checked by: HC Validated by: []	

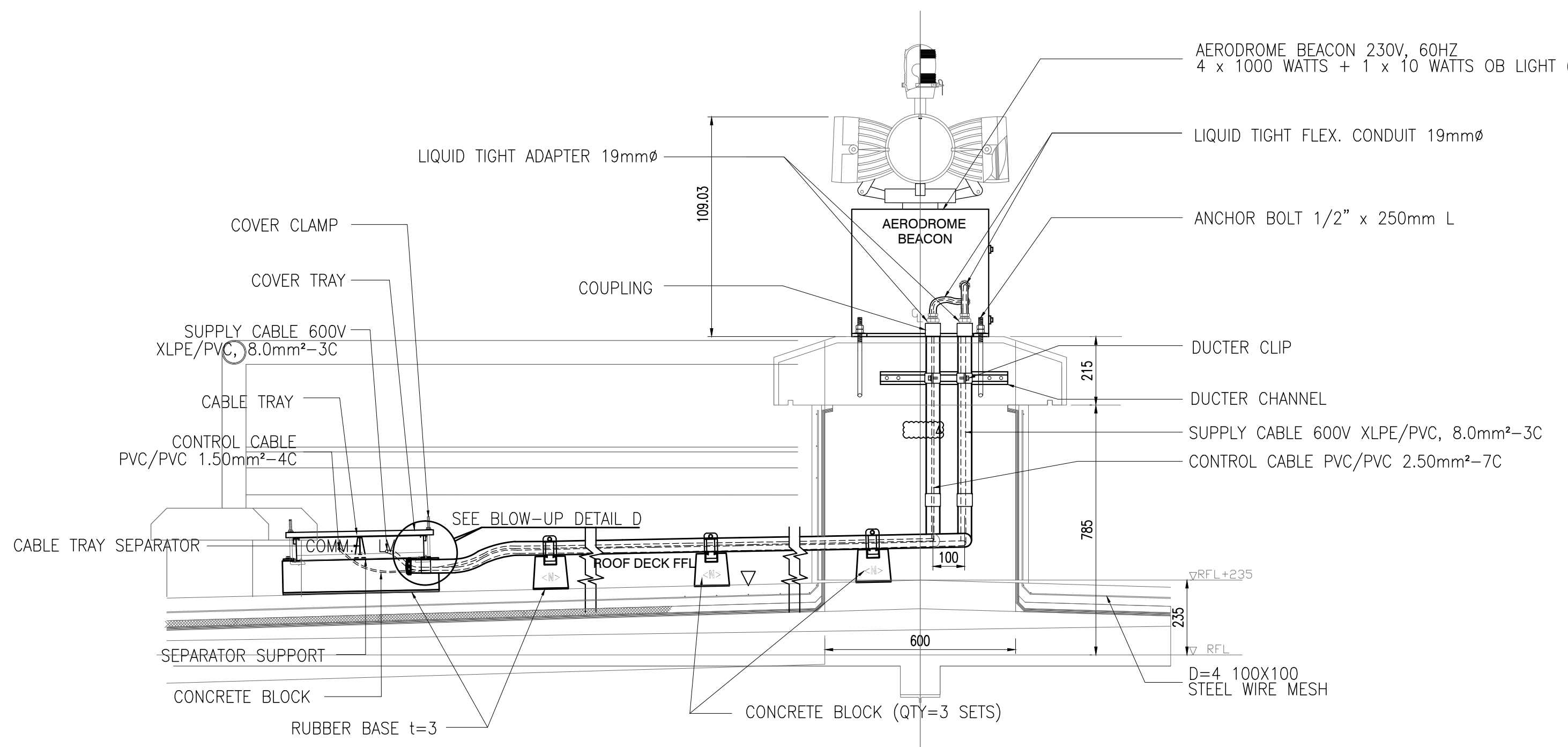


ABN installation layout at Roof top of Control Tower S=1:50

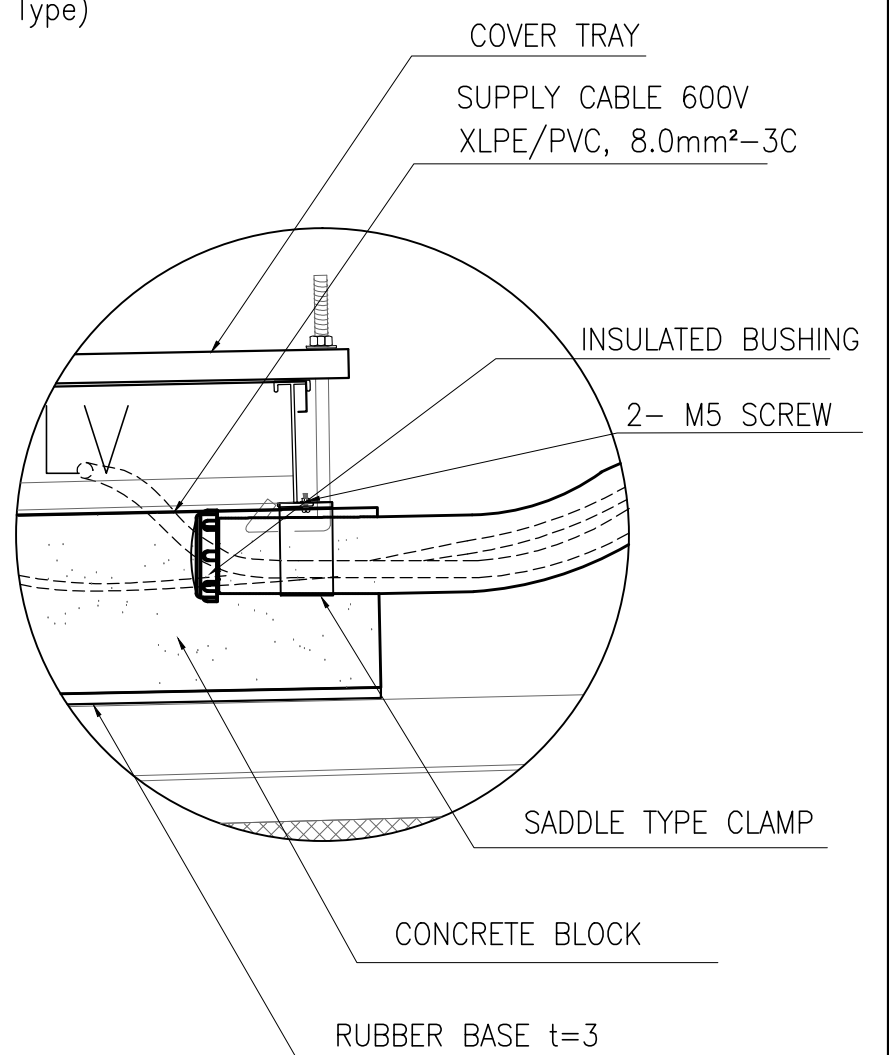
	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. PROF. ELECTRICAL ENGINEER PTR. 1403773</small> <small>RES. NO.: 1927 DATE: 1-04-13</small> <small>T.E.N. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-5 (L5) OTHER AERONAUTICAL LIGHTING ABN INSTALLATION LAYOUT	SHEET NO: L5-9500-01 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE <small>Republic of the Philippines DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS</small> <small>JAPAN INTERNATIONAL COOPERATION AGENCY</small>	TADASHI AOI <small>Team Leader</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE: JUNE 2013 INDEX AMENDMENTS Prepared by: WIM Checked by: HC Validated by:	DATE INDEX AMENDMENTS Prepared by: WIM Checked by: HC Validated by:	SHEET NO: L5-9500-01 DRAWING SCALE: AS SHOWN



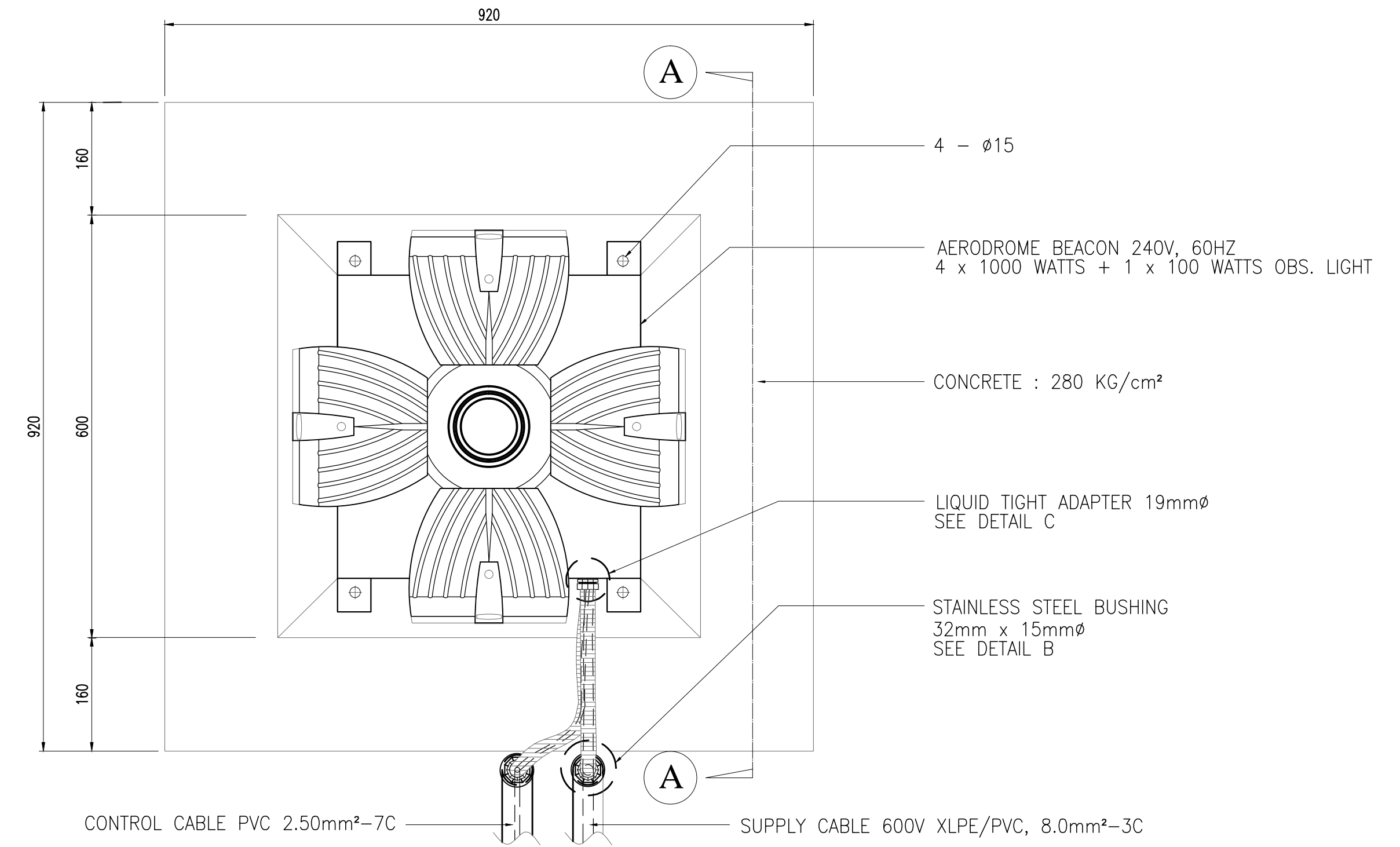
Section A - A'



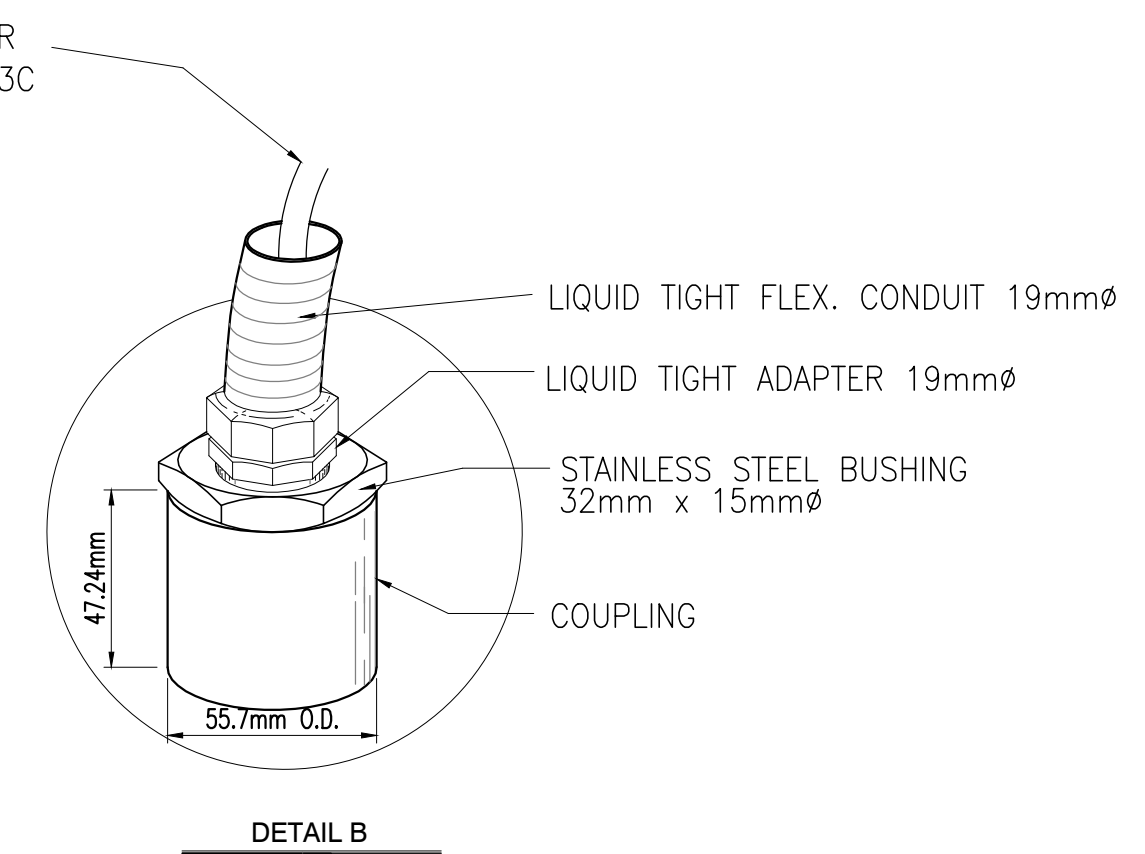
ABN section detail



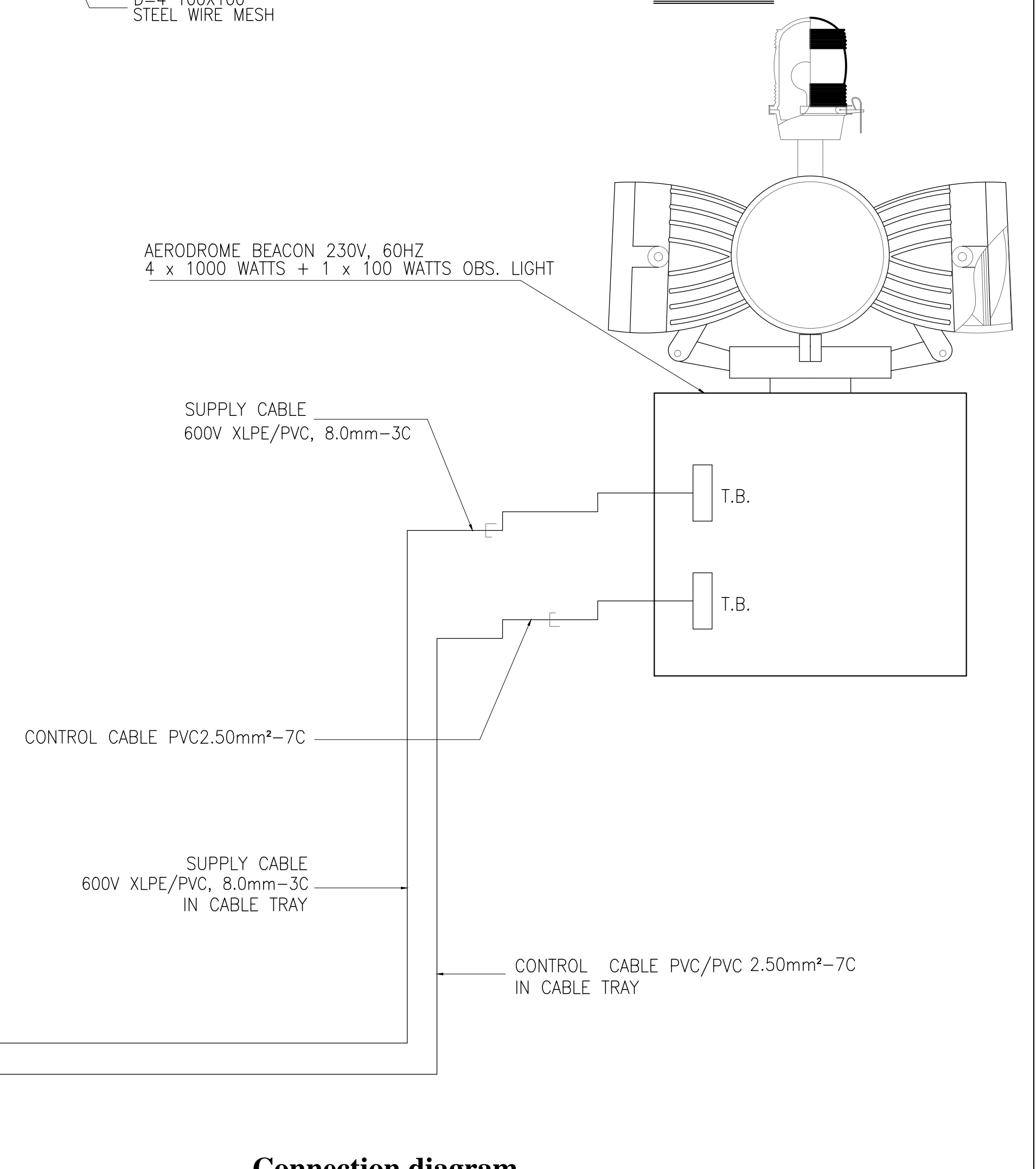
Detail D



Top view S=1:3

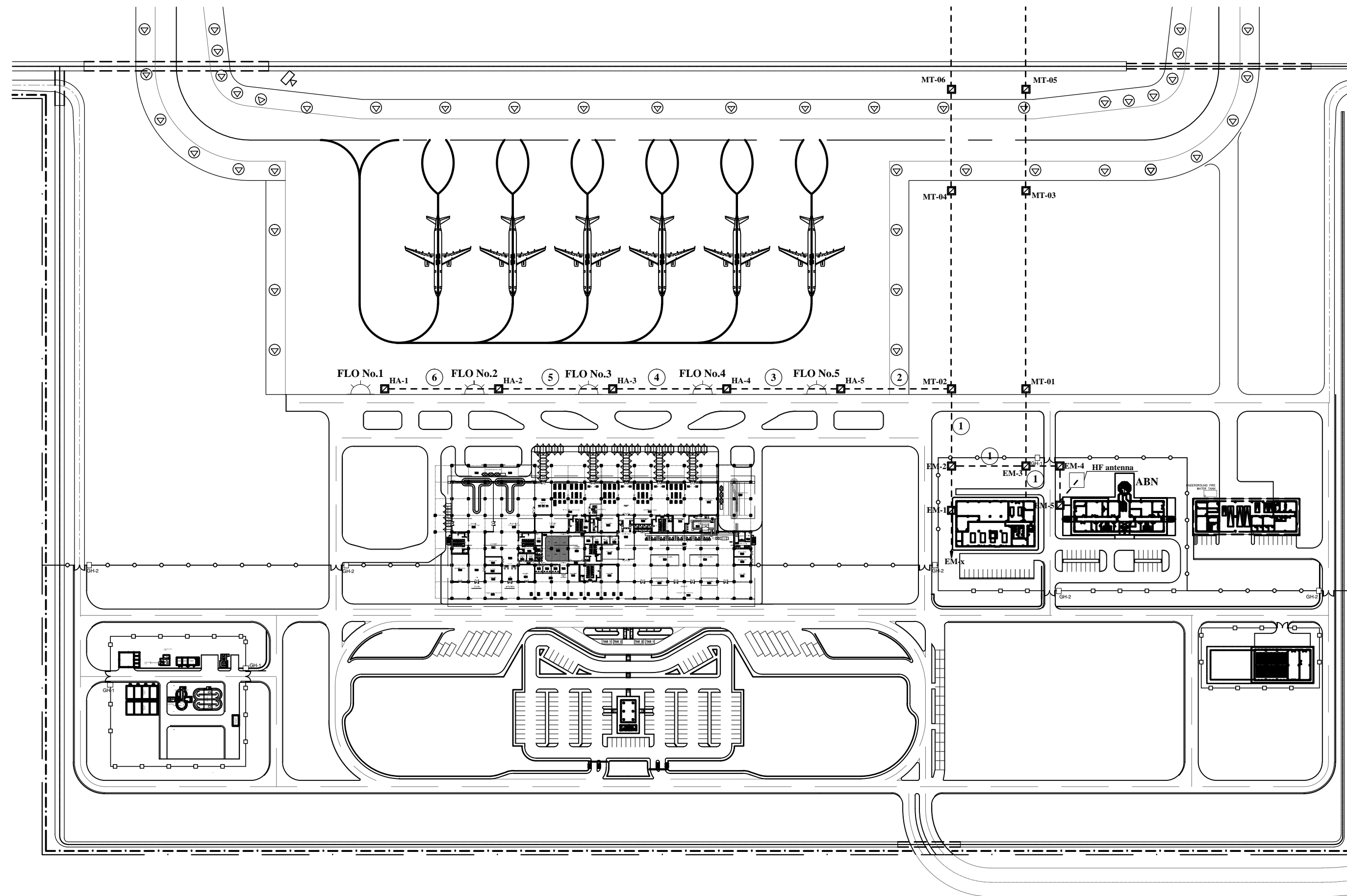


DETAIL B



Connection diagram

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>T.JAN. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-5 (L5) OTHER AERONAUTICAL LIGHTING INSTALLATION DETAILS OF ABN	SHEET NO: L5-9500-02
	JICA DESIGN CONSULTANT JOINT VENTURE JAC JAPAN AIRPORT CONSULTANTS, INC.	TADASHI AOI <small>Team Leader</small>	DATE: JUNE 2013	INDEX:	AMENDMENTS:	Prepared by: WIM Checked by: HC Validated by:	DRAWING SCALE: AS SHOWN



Apron Floodlight Layout

SYMBOL	ABBREVIATION	LIGHTS	LIGHTING FIXTURE			QTY	POWER SUPPLY		REMARK
			COLOR	TYPE	LAMP				
□□□□□	PALS	PRECISION APPROACH LIGHTING SYSTEM	WHITE	ELEVATED UNIDIRECTION	6.6A 200W	161	SERIES	CCR 30kVA x 2	HIGH INTENSITY RWY21 SIDE
□□□□□	PALS	PRECISION APPROACH LIGHTING SYSTEM	WHITE	SURFACE UNIDIRECTION	6.6A 270W	5	SERIES	CCR 30kVA x 2	HIGH INTENSITY RWY21 SIDE
□□□□□	PALS	SIMPLE APPROACH LIGHTING SYSTEM	WHITE	ELEVATED UNIDIRECTION	6.6A 200W	51	SERIES	CCR 15kVA x 1	HIGH INTENSITY RWY03 SIDE
□□□□□	PAPI	PRECISION APPROACH PATH INDICATOR	WHITE/RED	ELEVATED UNIDIRECTION	6.6A 200W x 3	4	SERIES	CCR 5kVA x 1	RWY21 SIDE
□□□□□	PAPI	PRECISION APPROACH PATH INDICATOR	WHITE/RED	ELEVATED UNIDIRECTION	6.6A 200W x 3	4	SERIES	CCR 5kVA x 1	RWY03 SIDE
○	REDL	RUNWAY EDGE LIGHTS	WHITE/YELLOW/WHITE/WHITE	ELEVATED BIDIRECTION	6.6A 150W	60	SERIES		HIGH INTENSITY
○	REDL	RUNWAY EDGE LIGHTS	WHITE/YELLOW/WHITE/WHITE	SURFACE BIDIRECTION	6.6A 100W x 2	7	SERIES		HIGH INTENSITY
○	STWL	STOPWAY LIGHTS	RED	ELEVATED UNIDIRECTION	6.6A 100W	10	SERIES		HIGH INTENSITY
○	TPEL	TURNING PAD EDGE LIGHTS	BLUE	ELEVATED UNIDIRECTION	6.6A 100W	12	SERIES	CCR 10kVA x 2	HIGH INTENSITY
○	RTHL	RUNWAY THRESHOLD LIGHTS	GREEN	ELEVATED UNIDIRECTION	6.6A 200W	34	SERIES		HIGH INTENSITY
○	RENL	RUNWAY END LIGHTS	RED	ELEVATED UNIDIRECTION	6.6A 100W	12	SERIES		HIGH INTENSITY
○	WBAR	WING BAR LIGHTS	GREEN	ELEVATED UNIDIRECTION	6.6A 200W	10	SERIES		HIGH INTENSITY RWY 21 SIDE ONLY
○	TEDL	TAXIWAY EDGE LIGHTS	BLUE	ELEVATED OMnidIRECTION	6.6A 6W LED Type	77	SERIES		HIGH INTENSITY
○	TAGS	TAXIWAY GUIDANCE SIGN	WHITE LETTER W/ RED BACKGROUND OR BLACK W/ YELLOW BACKGROUND		FLUORESCENT	10	SERIES	CCR 10kVA x 1	
○	WDIL	WIND DIRECTION INDICATOR LIGHTS	WHITE		200W x 4 + 100W (OBL)	2	AC460V		W/STEP DOWN TRANSFORMER 460V/230V; PANEL LOCATED AT EQUIPMENT ROOM IN CPE BLDG.
○	ABN	AERODROME BEACON	GREEN / WHITE		2 x 1000W	1	AC230V	AC230V	BEACON AT THE ROOFDECK OF TOWER

List of AGL Fixture

Tabulation of the Cable & Conduit

Section	Classification of cable	Conduit	Remarks	Section	Classification of cable	Conduit	Remarks
①	600V XLPE/PVC 14mm ² - 3C x 2	PVC65 x 1		④	600V XLPE/PVC 14mm ² - 3C x 2	SGP65A x 1	
	600V XLPE/PVC 8mm ² - 3C x 1	PVC65 x 1			600V XLPE/PVC 8mm ² - 3C x 1	SGP65A x 1	
	600V XLPE/PVC 5.5mm ² - 3C x 2	PVC65 x 1			600V XLPE/PVC 5.5mm ² - 3C x 2	SGP65A x 1	
	600V XLPE/PVC 5.5mm ² - 3C x 3	PVC65 x 1			600V XLPE/PVC 5.5mm ² - 3C x 2	SGP65A x 1	
	600V XLPE/PVC 5.5mm ² - 3C x 3	PVC65 x 1			600V XLPE/PVC 14mm ² - 3C x 2	SGP65A x 1	
②	600V XLPE/PVC 14mm ² - 3C x 2	SGP65A x 1		⑤	600V XLPE/PVC 8mm ² - 3C x 1	SGP65A x 1	
	600V XLPE/PVC 8mm ² - 3C x 1	SGP65A x 1			600V XLPE/PVC 5.5mm ² - 3C x 2	SGP65A x 1	
	600V XLPE/PVC 5.5mm ² - 3C x 2	SGP65A x 1			600V XLPE/PVC 14mm ² - 3C x 2	SGP65A x 1	
	600V XLPE/PVC 5.5mm ² - 3C x 3	SGP65A x 1			600V XLPE/PVC 5.5mm ² - 3C x 1	SGP65A x 1	
③	600V XLPE/PVC 14mm ² - 3C x 2	SGP65A x 1		⑥	600V XLPE/PVC 14mm ² - 3C x 2	SGP65A x 1	
	600V XLPE/PVC 8mm ² - 3C x 1	SGP65A x 1			600V XLPE/PVC 5.5mm ² - 3C x 1	SGP65A x 1	
	600V XLPE/PVC 5.5mm ² - 3C x 2	SGP65A x 1					
	600V XLPE/PVC 5.5mm ² - 3C x 2	SGP65A x 1					

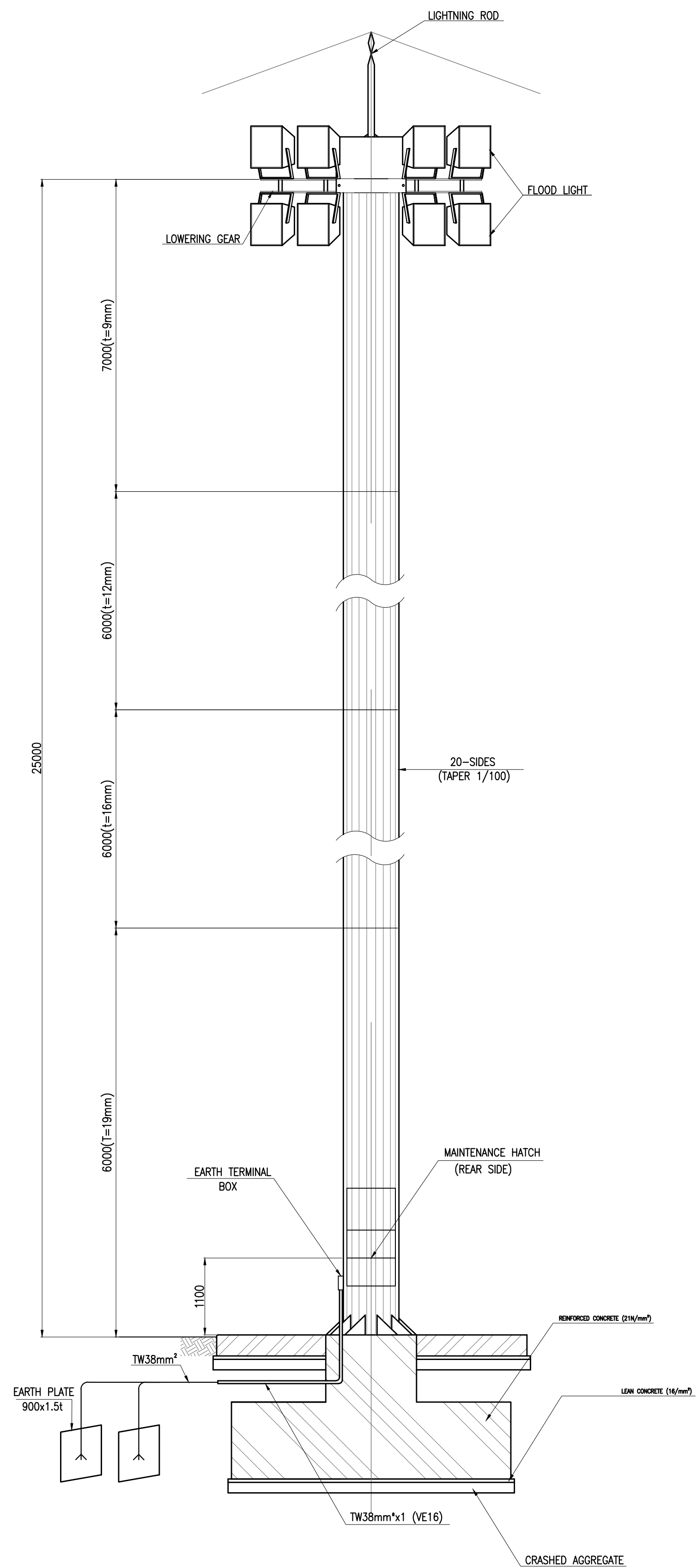
LEGEND

----- : Route of cable and conduit

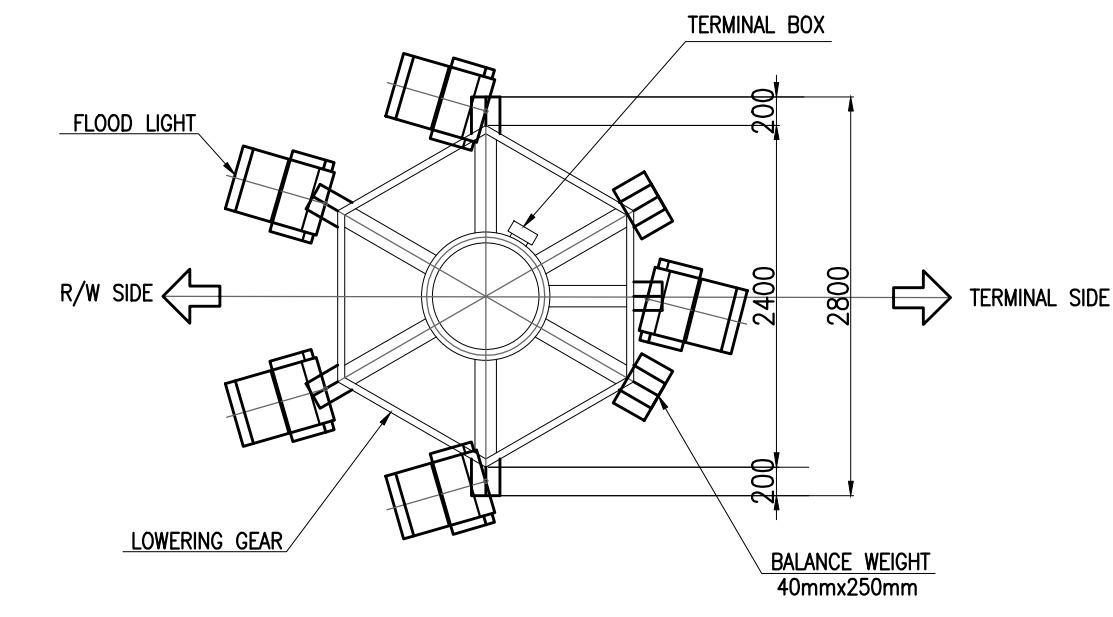
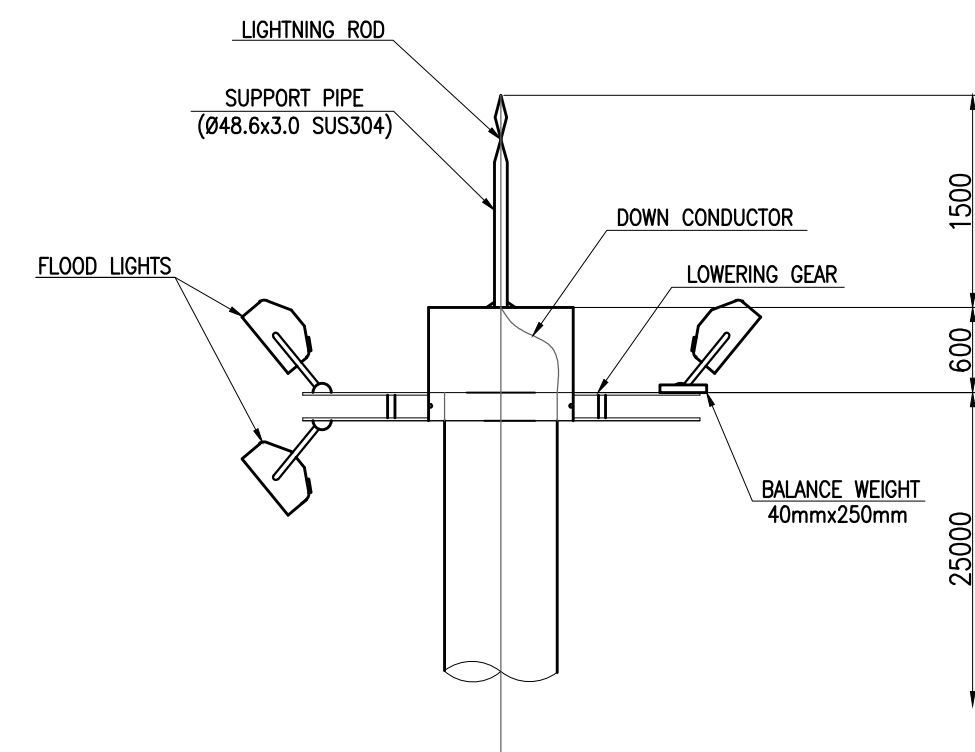
Note

- One (1) spare pipe shall be prepared to each section between manhole and manhole.
- SGP65A pipes shall be provided under pavement in the Section 1 and 2.
- PVC65 pipes shall be provided by Electrical works.

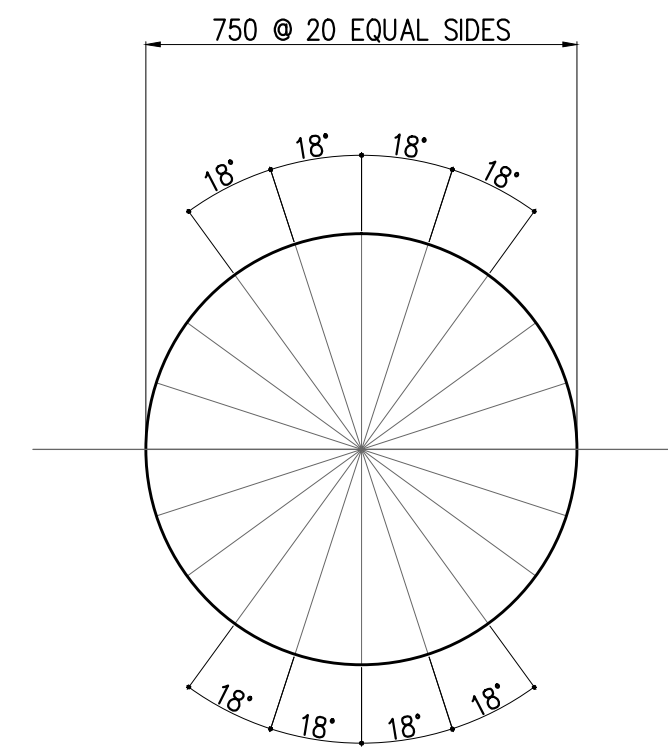
	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>T.N. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-6 (L6) APRON FLOODLIGHTING APRON FLOODLIGHT SITE LAYOUT	SHEET NO: L6-9600-01 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE JAPAN AIRPORT CONSULTANTS, INC.	TADASHI AOI Team Leader	ILDEFONSO T. PATDU, JR. Assistant Secretary for Project Implementation, DOTC	JULIANITO G. BUCAYAN, JR. Undersecretary for Project Implementation, DOTC	DATE: JUNE 2013 INDEX:	AMENDMENTS:	Prepared by: WIM Checked by: HC Validated by:



Apron Floodlight 25m

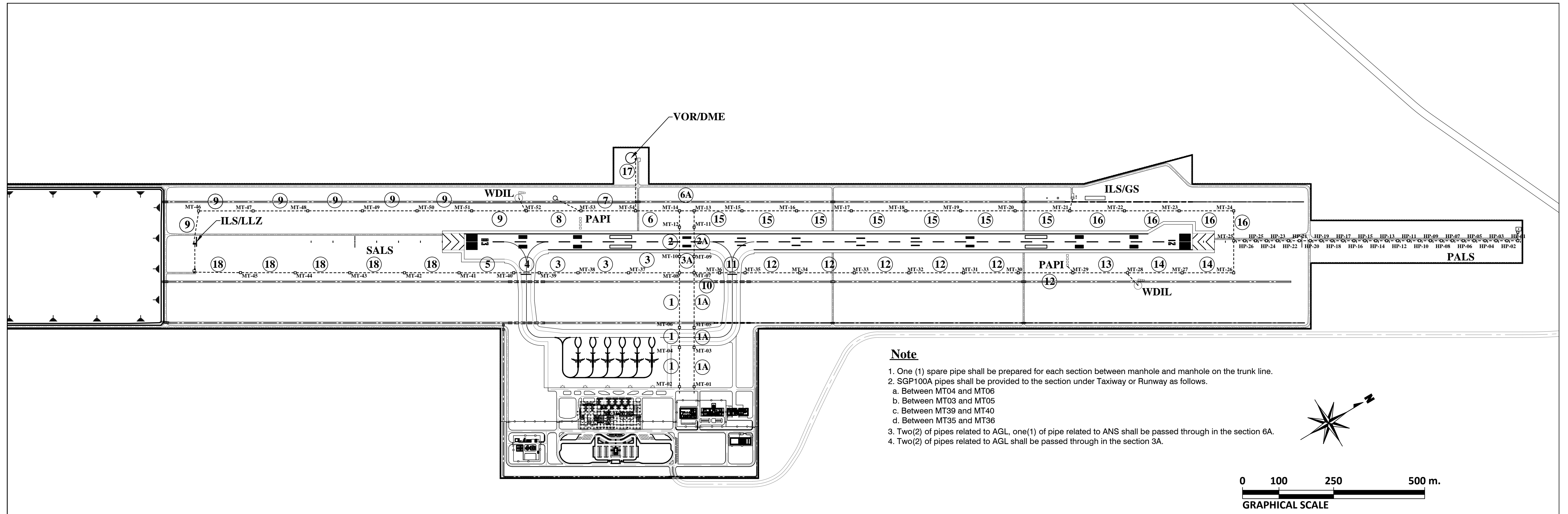


Top Portion Detail



Pole Cross Section

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PTR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>T.N. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-6 (L6) APRON FLOODLIGHTING INSTALLATION DETAIL OF APRON FLOOD LIGHT	SHEET NO: L6-9600-02
	JICA DESIGN CONSULTANT JOINT VENTURE	TADASHI AOI <small>Team Leader</small>					DRAWING SCALE: AS SHOWN



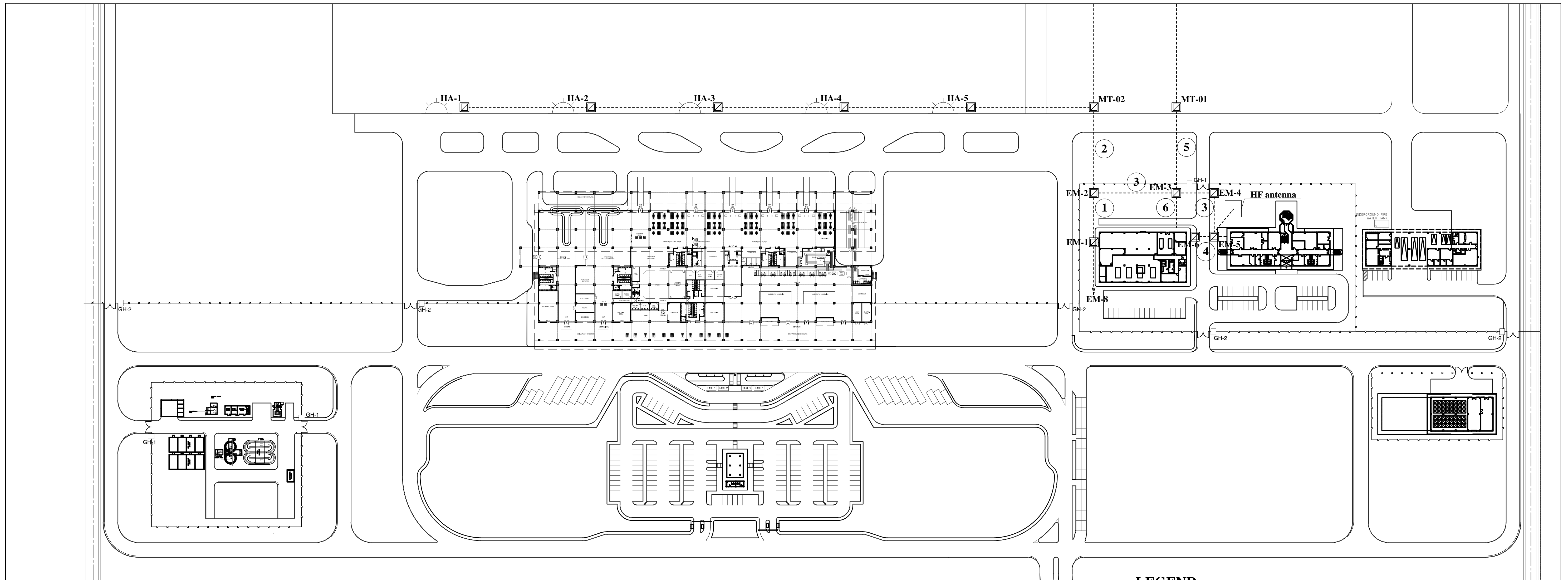
Cable duct for trunk line 1

Legend
 : Route of cable and conduit

Tabulation of the Cable & Conduit

Section	Classification of cable	Conduit	Remarks	Section	Classification of cable	Conduit	Remarks	Section	Classification of cable	Conduit	Remarks
①	5kV XLPE35mm 1Cx3 (VOR building)	FEP100 x 1		⑤	5KV XLPE8mm-1C x 2 (SALS)	FEP100 x 1		⑪	5KV XLPE8mm -1C x 2 (REDL1, REDL2)	SGP100A x 1	
	COM. Cablex2 (VOR, GS building)	-ditto-			COM. Cable x1 (LLZ building)	-ditto-			5KV XLPE8mm 1C x1 (TEDL, TXGS)	-ditto-	
	COM. Cablex1 (LLZ building)	-ditto-			5kV XLPE35mm 1C x3 (VOR building)	-ditto-			5KV XLPE8mm - 1C x 2 (21PAPI)	-ditto-	
①A	5KV XLPE8mm -1C x 4 (REDL1, REDL2)	FEP100x 2		⑥	5kV XLPE25mm 1C x2 (GS building)	-ditto-		⑫	5KV XLPE8mm -1C x 4 (PALS1, PALS2)	SGP100A x 2	
	5KV XLPE8mm 1Cx1 (TEDL, TXGS)	FEP100 x 1			COM. Cable x1 (VOR building)	-ditto-			600V XLPE22mm 2Cx1 (21WDIL)	SGP100A x 1	
	5KV XLPE8mm - 1C x 4 (03PAPI, 21PAPI)	FEP100x 2			5KV XLPE8mm - 1C x 2 (03PAPI)	-ditto-			5KV XLPE8mm - 1C x 2 (21PAPI)	FEP100x 1	
	5KV XLPE8mm -1C x 4 (PALS1, PALS2)	-ditto-			600V XLPE22mm 2C x1 (03WDIL)	-ditto-			5KV XLPE8mm -1C x 4 (PALS1, PALS2)	FEP100x 2	
	5KV XLPE8mm-1C x 2 (SALS)	FEP100x 1			5kV XLPE25mm 1C x2 (LLZ building)	-ditto-			600V XLPE22mm 2Cx1 (21WDIL)	FEP100x 1	
②	600V XLPE22mm 2Cx2 (03WDIL, 21WDIL)	-ditto-		⑦	5KV XLPE8mm - 1C x 2 (03PAPI)	-ditto-		⑬	5KV XLPE8mm -1C x 4 (PALS1, PALS2)	FEP100x 2	
	5kV XLPE35mm 1Cx3 (VOR building)	SGP100A x 1			600V XLPE22mm 2C x1 (03WDIL)	-ditto-			600V XLPE22mm 2Cx1 (21WDIL)	FEP100x 1	
	COM. Cable x2 (VOR, GS building)	-ditto-			5kV XLPE25mm 1C x2 (LLZ building)	-ditto-			5KV XLPE8mm -1C x 4 (PALS1, PALS2)	FEP100x 2	
②A	5KV XLPE8mm - 1C x 2 (03PAPI)	-ditto-		⑧	600V XLPE22mm 2C x1 (03WDIL)	-ditto-		⑮	5kV XLPE25mm 1C x2 (GS building)	FEP100x 1	
	600V XLPE22mm 2Cx1 (03WDIL)	-ditto-			COM. Cable x1 (03MET)	-ditto-			COM. Cable x1 (GS building)	-ditto-	
③	5KV XLPE8mm 1Cx1 (TEDL, TXGS)	FEP100x 1		⑨	5kV XLPE25mm 1C x2 (LLZ building)	-ditto-		⑯	600V XLPE 38-3Cx1 (Ceilometer)	-ditto-	
	5KV XLPE8mm-1C x 2 (SALS)	-ditto-			COM. Cable x1 (03MET)	-ditto-			COM. Cable x 1 x 1 (Ceilometer)	-ditto-	
	COM. Cable x1 (LLZ building)	-ditto-			5KV XLPE8mm -1C x 4 (REDL1, REDL2)	FEP100 x 2			5kV XLPE35mm 1Cx3 (VOR building)	-ditto-	
④	5KV XLPE8mm 1Cx2 (TEDL, TXGS)	SGP100A x 1		⑩	-	-		⑰	5kV XLPE25mm 1Cx2 (LLZ building)	-ditto-	
	5KV XLPE8mm -1C x 2 (REDL1, REDL2)	-ditto-			5KV XLPE8mm - 1C x 2 (21PAPI)	FEP100 1			5kV XLPE25mm 1Cx2 (GS building)	-ditto-	
	5KV XLPE8mm-1C x 2 (SALS)	-ditto-			5KV XLPE8mm -1C x 4 (PALS1, PALS2)	FEP100x 2			COM. Cable x1 (VOR building)	-ditto-	
	COM. Cable x1 (LLZ building)	-ditto-			600V XLPE22mm 2Cx1 (21WDIL)	FEP100x 1			COM. Cable x1 (LLZ building)	-ditto-	

	PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>TIN. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-7 (L7) UNDERGROUND CABLE DUCTS CABLE DUCT FOR TRUNK LINE 1	SHEET NO: L7-9700-01 DRAWING SCALE: AS SHOWN
	JICA DESIGN CONSULTANT JOINT VENTURE JAPAN AIRPORT CONSULTANTS, INC.	TADASHI AOI Team Leader	JUN 2013	DATE INDEX AMENDMENTS	Prepared by: WIM Checked by: HC Validated by:		



Terminal Area Site Layout S=1/200

LEGEND

----- : Route of cable and conduit

Note

1. One (1) spare pipe shall be prepared to each section between manhole and manhole.

Tabulation of the Cable & Conduit

Section	Classification of cable	Conduit	Remarks	Section	Classification of cable	Conduit	Remarks
①	5kV XLPE35-1Cx3 (VOR building)	PVC100 x 1		⑥	5KV XLPE8mm -1C x 4 (REDL1, REDL2)	PVC100 x 2	
	5kV XLPE35-1Cx3 (VOR building)	SGP100 x 1			5KV XLPE8mm 1Cx1 (TEDL, TXGS)	PVC100 x 1	
②	Com. Cable x 2 (VOR and GS building)	-ditto-			5KV XLPE8mm - 1C x 4 (03PAPI, 21PAPI)	PVC100 x 2	
	Com. Cable x 1 (LLZ building)	-ditto-			5KV XLPE8mm -1C x 4 (PALS1, PALS2)	-ditto-	
③	Com. Cable x 2 (VOR and GS building)	PVC100 x 1			5KV XLPE8mm-1C x 2 (SALS)	PVC100 x 1	
	Com. Cable x 1 (LLZ building)	-ditto-			600V XLPE22mm 2Cx2 (03WDIL, 21WDIL)	-ditto-	
④	Com. Cable x 1 (RCMS control cable)	-ditto-					
	Com. Cable x 1 (RCMS COM cable)	-ditto-					
⑤	5KV XLPE8mm -1C x 4 (REDL1, REDL2)	SGP100A x 2					
	5KV XLPE8mm 1Cx1 (TEDL, TXGS)	SGP100A x 1					
	5KV XLPE8mm - 1C x 4 (03PAPI, 21PAPI)	SGP100A x 2					
	5KV XLPE8mm -1C x 4 (PALS1, PALS2)	-ditto-					
	5KV XLPE8mm-1C x 2 (SALS)	SGP100A x 1					
	600V XLPE22mm 2Cx2 (03WDIL, 21WDIL)	-ditto-					

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	JICA DESIGN CONSULTANT JOINT VENTURE	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE: JUNE 2013	INDEX:	AMENDMENTS:	Prepared by: WIM Checked by: HC Validated by:

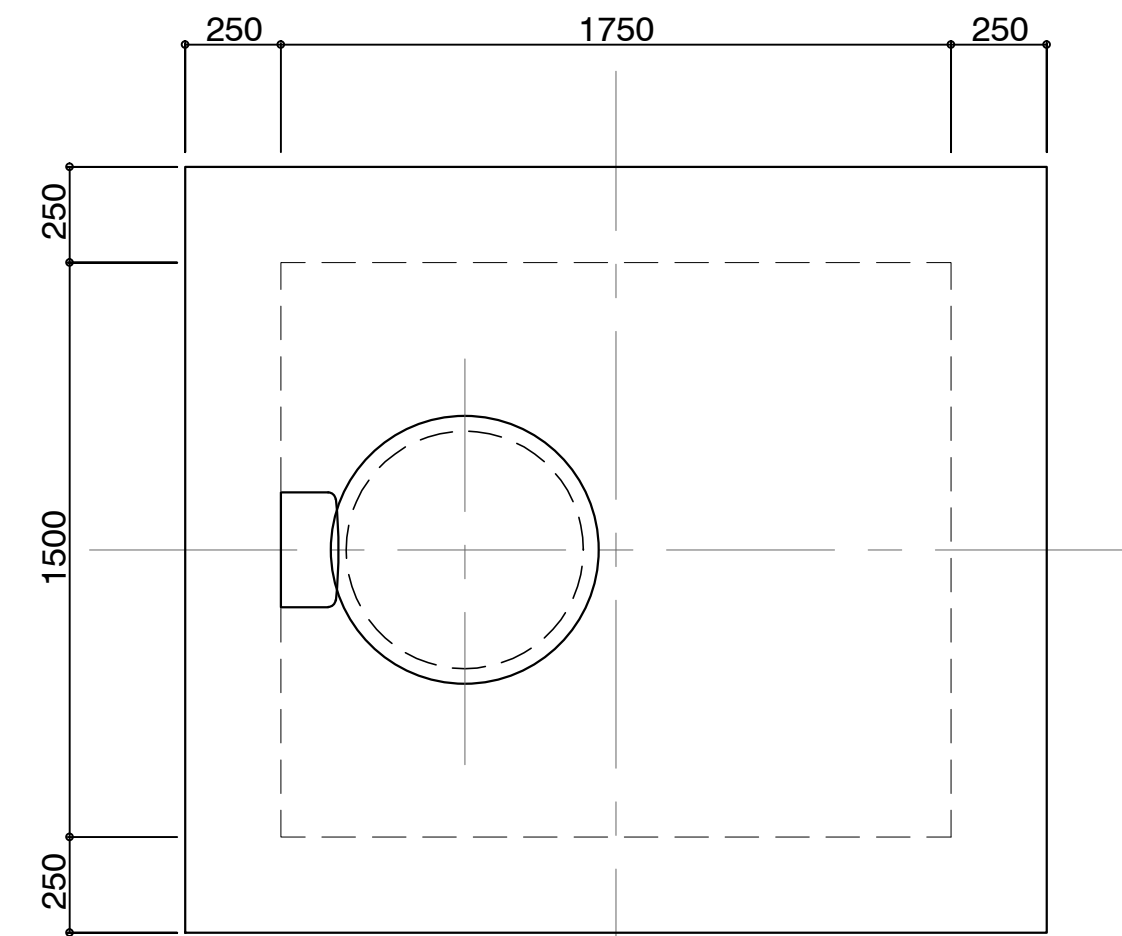
Specification of Manhole

Specification of steel reinforcement details

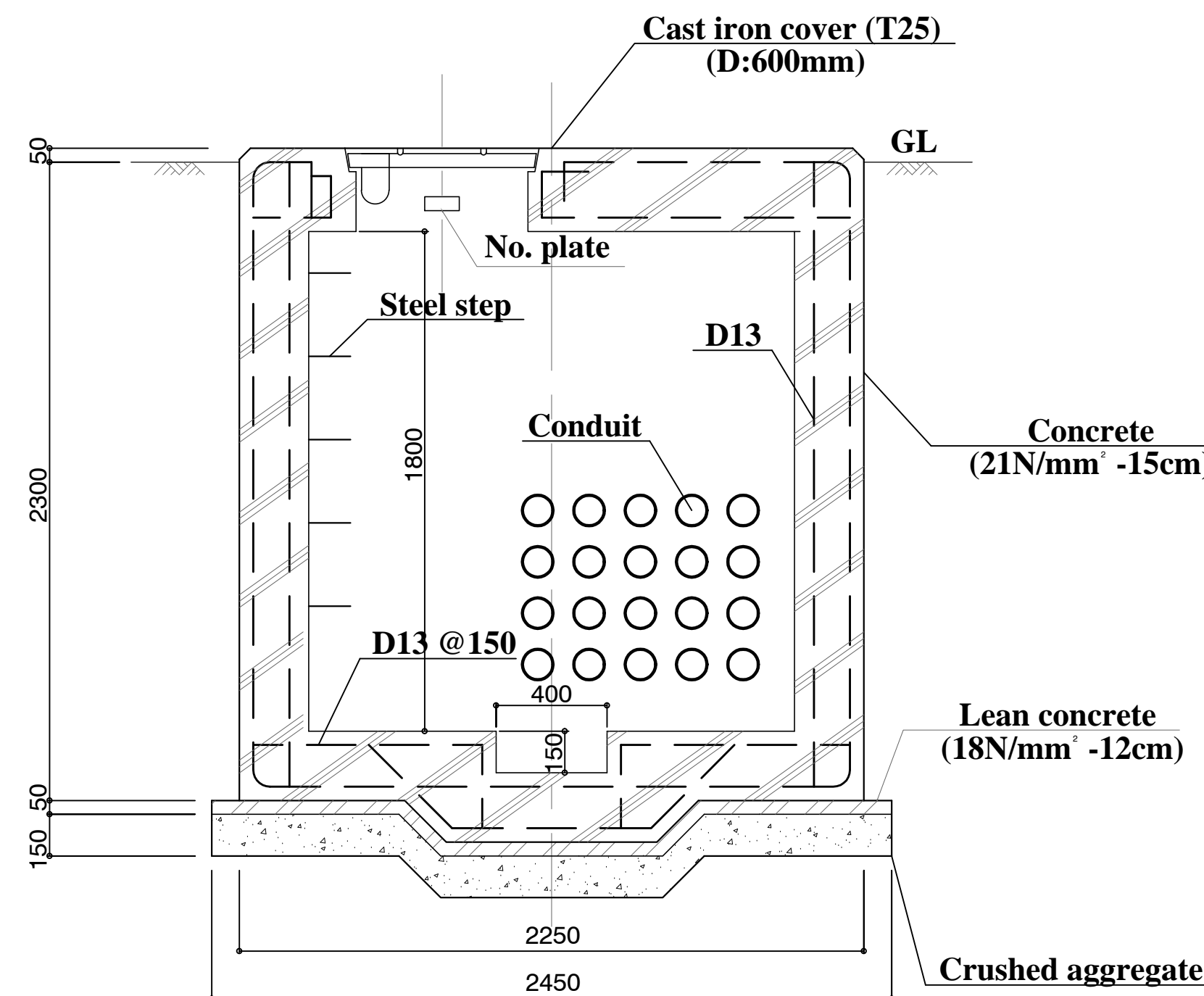
WALL	VERTICAL (INSIDE)	D13 - @ 300
	VERTICAL (OUTSIDE)	D13 - @ 300
	HORIZONTAL	D13 - @ 300 DOUBLE
TOP SLAB		D13 - @ 300 DOUBLE
BOTTOM SLAB		D13 - @ 300 DOUBLE

Schedule of materials

REINFORCEMENT (D13) SD295A	689.1 kg
CONCRETE (21N/mm ² , S=15cm)	5.887 cubic m
FORM	34.848 square m
LEAN CONCRETE (18N/mm ² , S=12cm)	0.270 cubic m
CRUSHED AGGREGATE	0.809 cubic m
HOOK BOLT FOR PULLING D16x700L	8 PCS
STEEL STEP	6 PCS
CABLE HANGER (300mm INTERVAL)	18 PCS
Manhole no. plate	1 PC



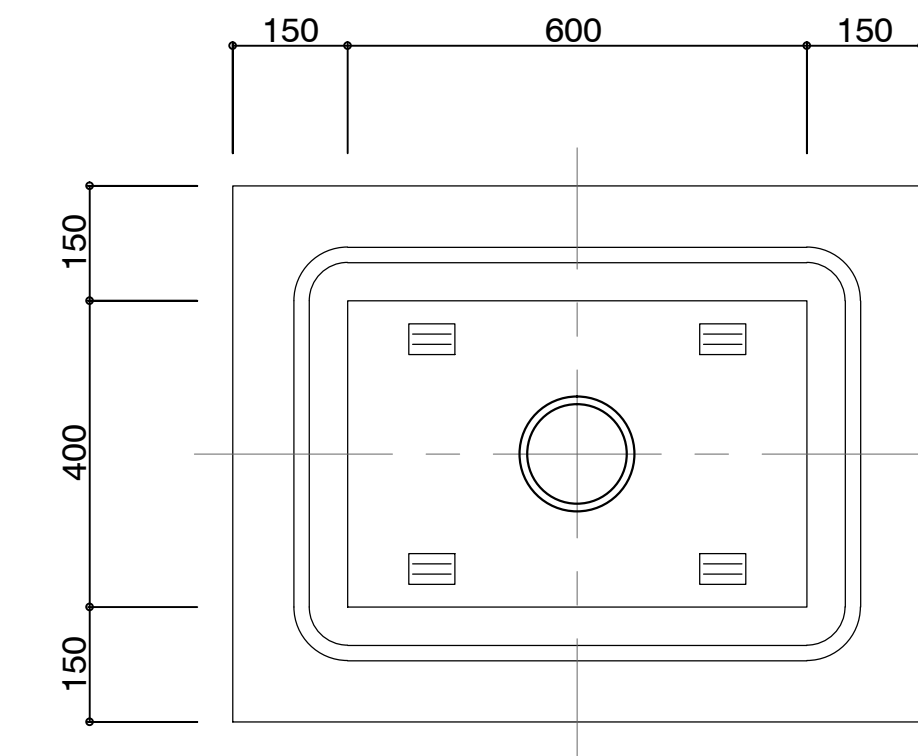
Top view for Manhole



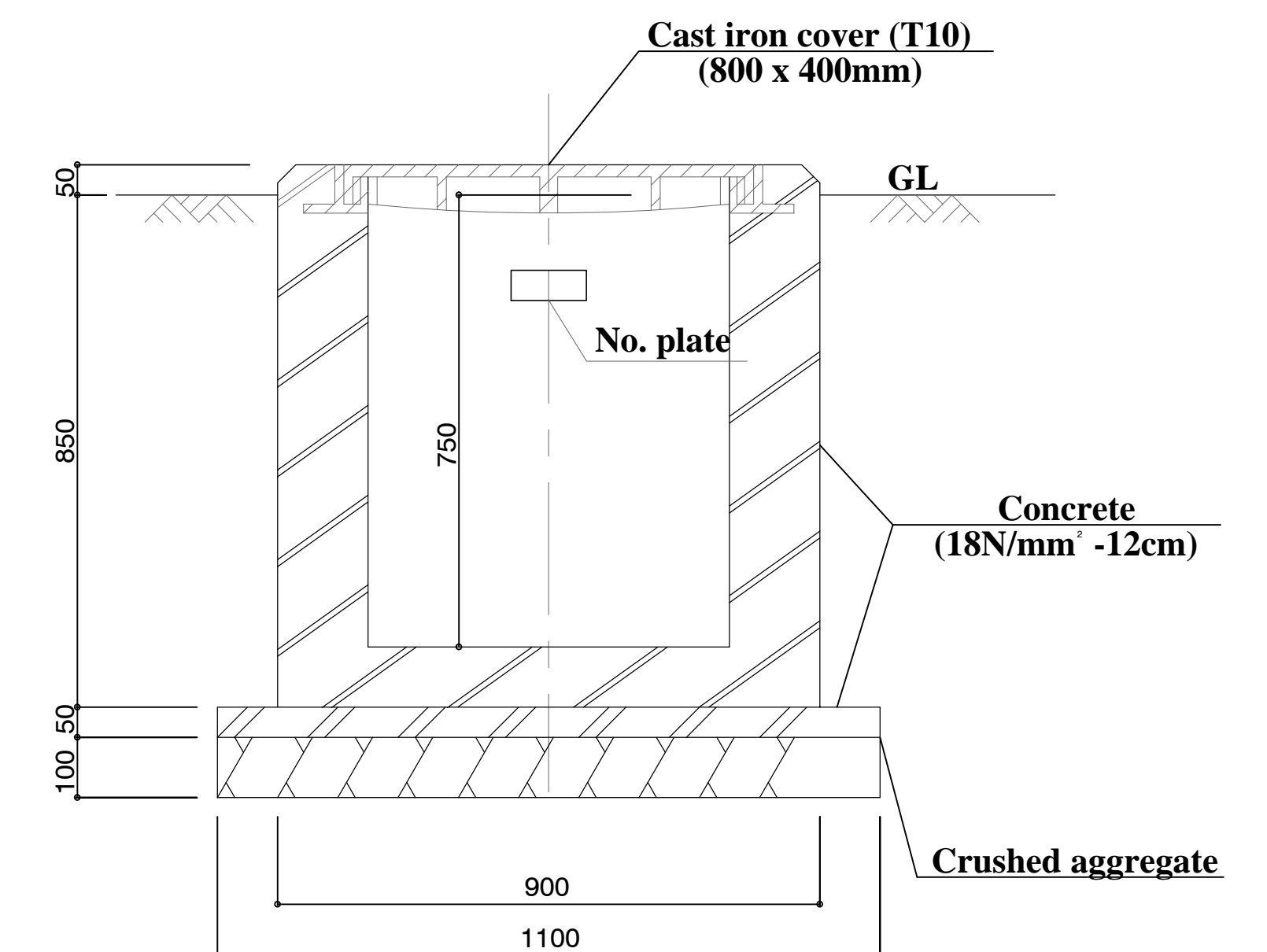
Detail of Manhole

Note

- Manhole shall be fabricated by Civil work.
- Manhole shall be located on the cable duct for trunk line at air side.



Top view for Handhole

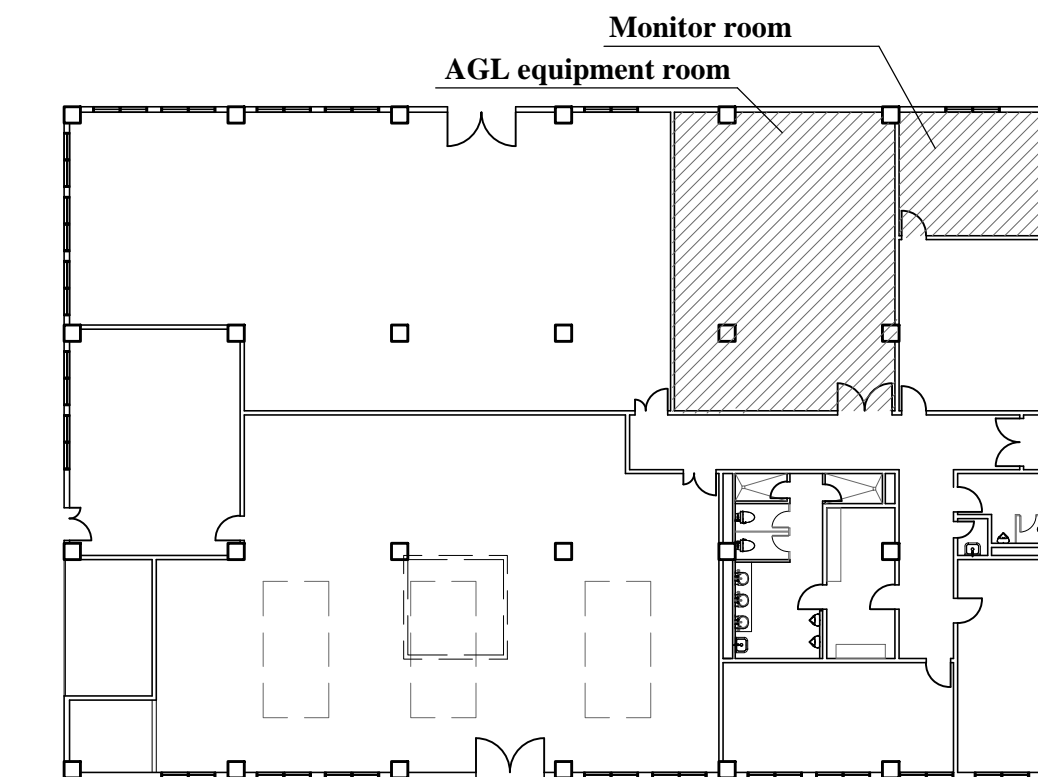
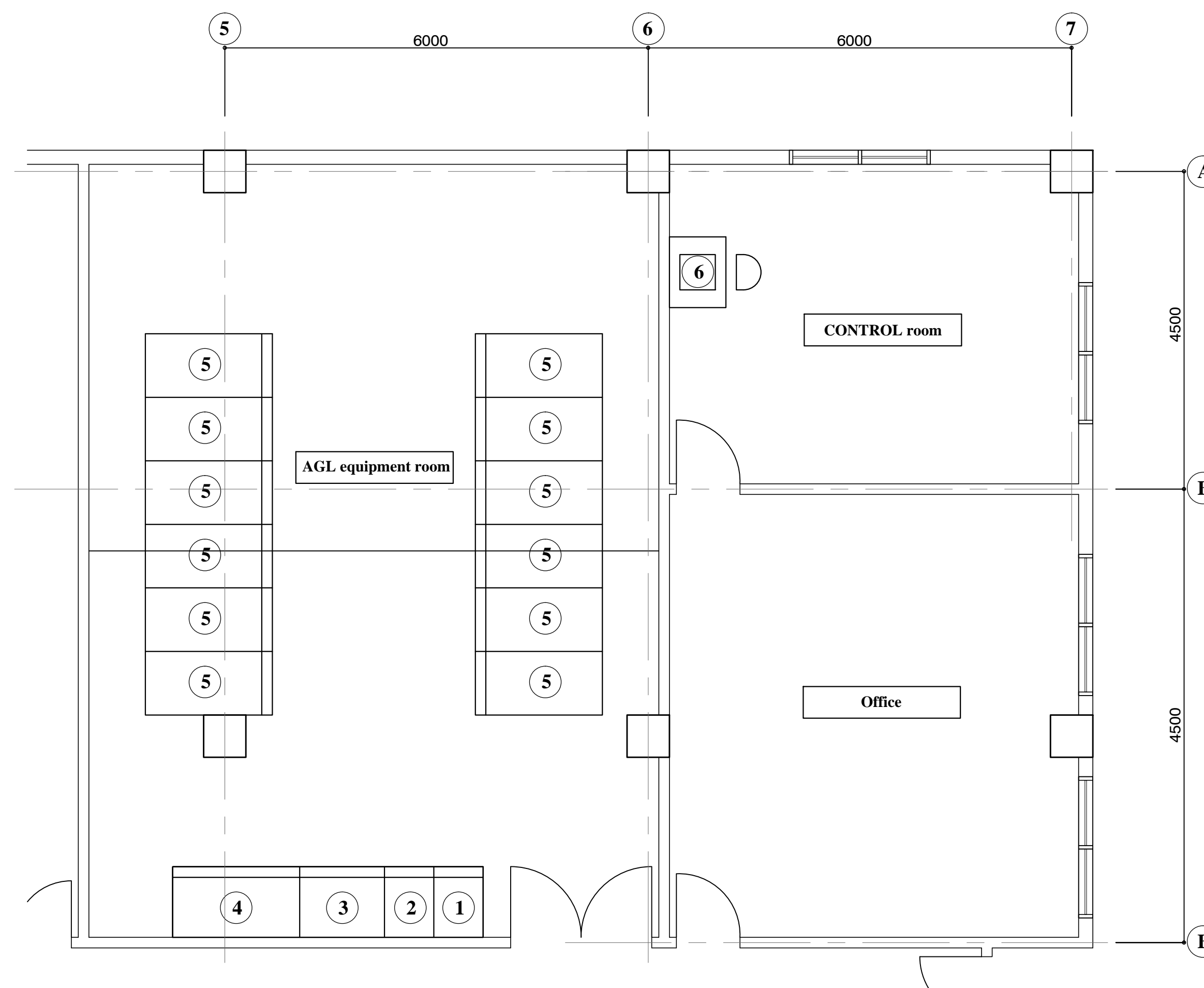


Detail of Handhole

Note

- Handhole shall be fabricated by Civil work.

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	JICA DESIGN CONSULTANT JOINT VENTURE JAPAN AIRPORT CONSULTANTS, INC. NIPPO KOGI CO., LTD. NIS CONSULTANTS CO., LTD.	ILDEFONSO T. PATDU, JR. Assistant Secretary for Project Implementation, DOTC	JULIANITO G. BUCAYAN, JR. Undersecretary for Project Implementation, DOTC	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	DATE: JUNE 2013 INDEX AMENDMENTS Prepared by: WIM Checked by: HC Validated by:	DRAWING SCALE: AS SHOWN

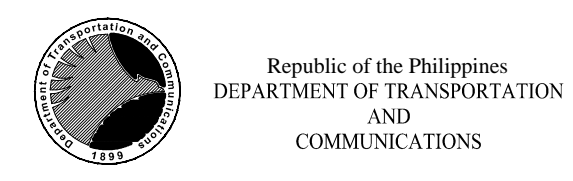




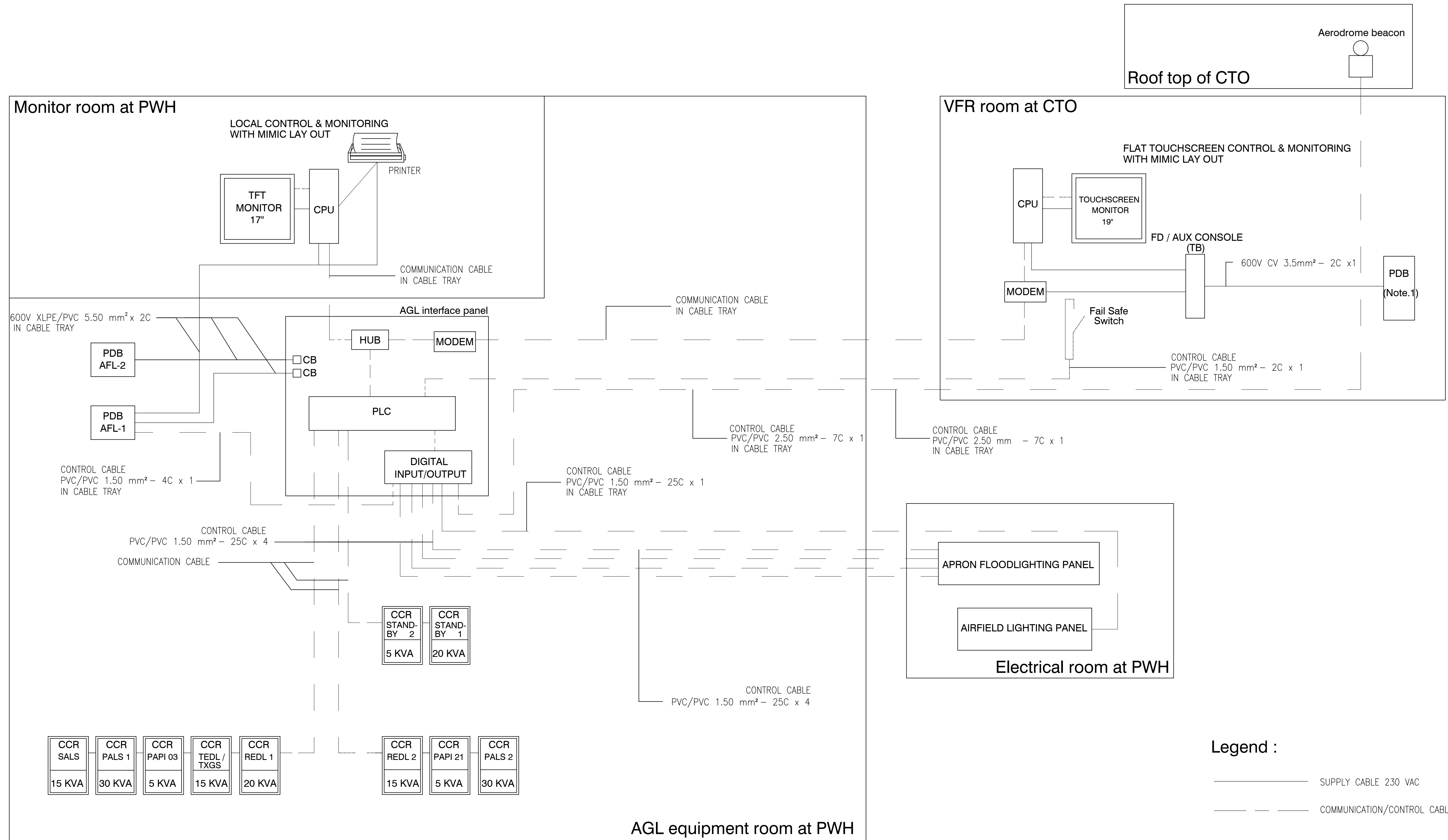
Key plan for Power house

Equipment List

No.	Name of equipment	Remarks
1	PDB-1	
2	PDB-2	
3	AGL Interface panel	
4	UPS 100kVA	
5	CCR	
6	Local control monitoring system	

Installation of RCMS at control room power house S=1:100

		PREPARED BY: TEODORO N. PAMATMAT <small>PROF. ELECTRICAL ENGINEER PTR. 1403773 REG. NO.: 1927 DATE: 1-04-13 T.N. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-6 AERONAUTICAL GROUND LIGHTING WORKS (L) SUBCOMPONENT-6-8 (L8) CONTROL AND MONITOR SYSTEM RCMS INSTALLATION LAYOUT	SHEET NO: L8-9800-01 DRAWING SCALE: AS SHOWN
JICA DESIGN CONSULTANT JOINT VENTURE 		TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE: JUNE 2013 INDEX: _____ AMENDMENTS: _____ Prepared by: _____ Checked by: _____ Validated by: _____		



Connection diagram for remote control and monitoring system

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	JICA DESIGN CONSULTANT JOINT VENTURE JAC JAPAN AIRPORT CONSULTANTS, INC.	JAPAN INTERNATIONAL COOPERATION AGENCY JICA	ILDEFONSO T. PATDU, JR. Assistant Secretary for Project Implementation, DOTC	JULIANITO G. BUCAYAN, JR. Undersecretary for Project Implementation, DOTC	NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	DATE: JUNE 2013 INDEX: WIM HC AMENDMENTS: Prepared by, Checked by, Validated by