PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

INFRASTRUCTURE DESIGN OF NEW CLARK CITY

ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)

PHASE 1

R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

DRAWINGS

(VOLUME III)

PART 3:ELECTRICAL SYSTEM, TRAFFIC SIGNALIZATION, STREET LIGHTING SYSTEM, LAND GRADING, WATER SYSTEM, POWER SYSTEM LAYOUT, FIBER OPTIC LAYOUT

NIPPON KOEI CO.,LTD.

PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

J O I N

BCDA
Bases Conversion and Development Authority

PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

DRAFT FINAL

INFRASTRUCTURE DESIGN OF NEW CLARK CITY

ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)

PHASE 1

R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

DRAWINGS

July 2020

TEDDY MASANORI
PROJECT MANAGER, NK-PKII

RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS, BCDA

JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP, BCDA

NIPPON KOEI
NIPPON KOEI CO.,LTD.

PKII
PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

JOIN

BCDA
Bases Conversion and Development Authority

ELECTRICAL SYSTEM

INFRASTRUCTURE DESIGN OF NEW CLARK CITY

ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)

PHASE 1

R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

LIST OF DRAWINGS

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	**MARICEL O. MAGLALANG** HIGHWAY ENGINEER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: **RYAN PAUL S. GALURA** OIC, PMD CLARK PROJECTS DATE:	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY** ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	LIST OF DRAWINGS		DRAFT FINAL
	CHECKED BY **DANILO L. LIZARDO** CO-TEAM LEADER DATE:			APPROVED BY: **JOSHUA M. BINGCANG** SVP, CONVERSION AND DEVELOPMENT GROUP DATE:			DRAWING NO. PH1-U-01	SHEET NO. 1 OF 1

STREET LIGHTING

DWG No.	SHEET CONTENT	SHEET NO.
PH1-PS-01	ELECTRICAL SYSTEM DRAWING INDEX	1 OF 27
PH1-PS-02	ROAD 1 LIGHTING / CABLE ROUTING PLAN 1 OF 2	2 OF 27
PH1-PS-03	ROAD 1 LIGHTING / CABLE ROUTING PLAN 2 OF 2	3 OF 27
PH1-PS-04	ROAD 2 LIGHTING / CABLE ROUTING PLAN	4 OF 27
PH1-PS-05	ROAD 1 LIGHTING LAYOUT STA. 0+000 – STA. 1+080	5 OF 27
PH1-PS-06	ROAD 1 LIGHTING LAYOUT STA. 1+080 – STA. 1+800	6 OF 27
PH1-PS-07	ROAD 1 LIGHTING LAYOUT STA. 1+800 – STA. 2+560	7 OF 27
PH1-PS-08	ROAD 1 LIGHTING LAYOUT STA. 2+560 – STA. 3+320	8 OF 27
PH1-PS-09	ROAD 1 LIGHTING LAYOUT STA. 3+320 – STA. 4+460	9 OF 27
PH1-PS-10	ROAD 1 LIGHTING LAYOUT STA. 4+460 – STA. 5+220	10 OF 27
PH1-PS-11	ROAD 1 LIGHTING LAYOUT STA. 5+220 – STA. 6+340	11 OF 27
PH1-PS-12	ROAD 1 LIGHTING LAYOUT STA. 6+340 – STA. 6+600	12 OF 27
PH1-PS-13	ROAD 2 LIGHTING LAYOUT STA. 0+000 – STA. 0+760	13 OF 27
PH1-PS-14	ROAD 2 LIGHTING LAYOUT STA. 0+760 – STA. 1+900	14 OF 27
PH1-PS-15	ROAD 2 LIGHTING LAYOUT STA. 1+900 – STA. 2+175.24	15 OF 27
PH1-PS-16	ROAD 1 & ROAD 2 LIGHTING STATIONING NUMBER	16 OF 27
PH1-PS-17	ROAD 1 & ROAD 2 LIGHTING STATIONING NUMBER	17 OF 27
PH1-PS-18	ROAD 1 & ROAD 2 LIGHTING STATIONING NUMBER	18 OF 27
PH1-PS-19	ROAD 1 & ROAD 2 HANDHOLE STATIONING NUMBER	19 OF 27
PH1-PS-20	(TYPICAL FOR 39M, 41.5M AND 50M ROW) 6M LIGHTING ARM POLE FOUNDATION	20 OF 27
PH1-PS-21	10M LIGHTING ARM POLE FOUNDATION / HANDHOLE & DUCTBANK DETAILS	21 OF 27
PH1-PS-22	TYPICAL CROSS SECTION OF ELECTRICAL (39M ROW & 41.5M ROW)	22 OF 27
PH1-PS-23	TYPICAL CROSS SECTION OF ELECTRICAL (50M ROW)	23 OF 27
PH1-PS-24	6M & 10M DOUBLE ARM POLE AND 10M SINGLE ARM POLE (TYPICAL)	24 OF 27
PH1-PS-25	SINGLE LINE DIAGRAM & PANEL BOARD LOAD SCHEDULE (LDP-1)	25 OF 27
PH1-PS-26	SINGLE LINE DIAGRAM & PANEL BOARD LOAD SCHEDULE (LDP-2 & LDP-3)	26 OF 27
PH1-PS-27	ROAD LIGHTING CONTROLLER SYSTEM	27 OF 27

1 PH1-PS-01 ELECTRICAL SYSTEM DRAWING INDEX

NOT TO SCALE

CONSULTANTS

NIPPON KOEI CO.,LTD.

PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY
CHARLES P. PANTE
ELECTRICAL ENGINEER
DATE:

CHECKED BY
CHARLES P. PANTE
CO-TEAM LEADER
DATE:

SUBMITTED BY
TEDDY MASANORI
PROJECT MANAGER
DATE:

REPUBLIC OF THE PHILIPPINES
PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority

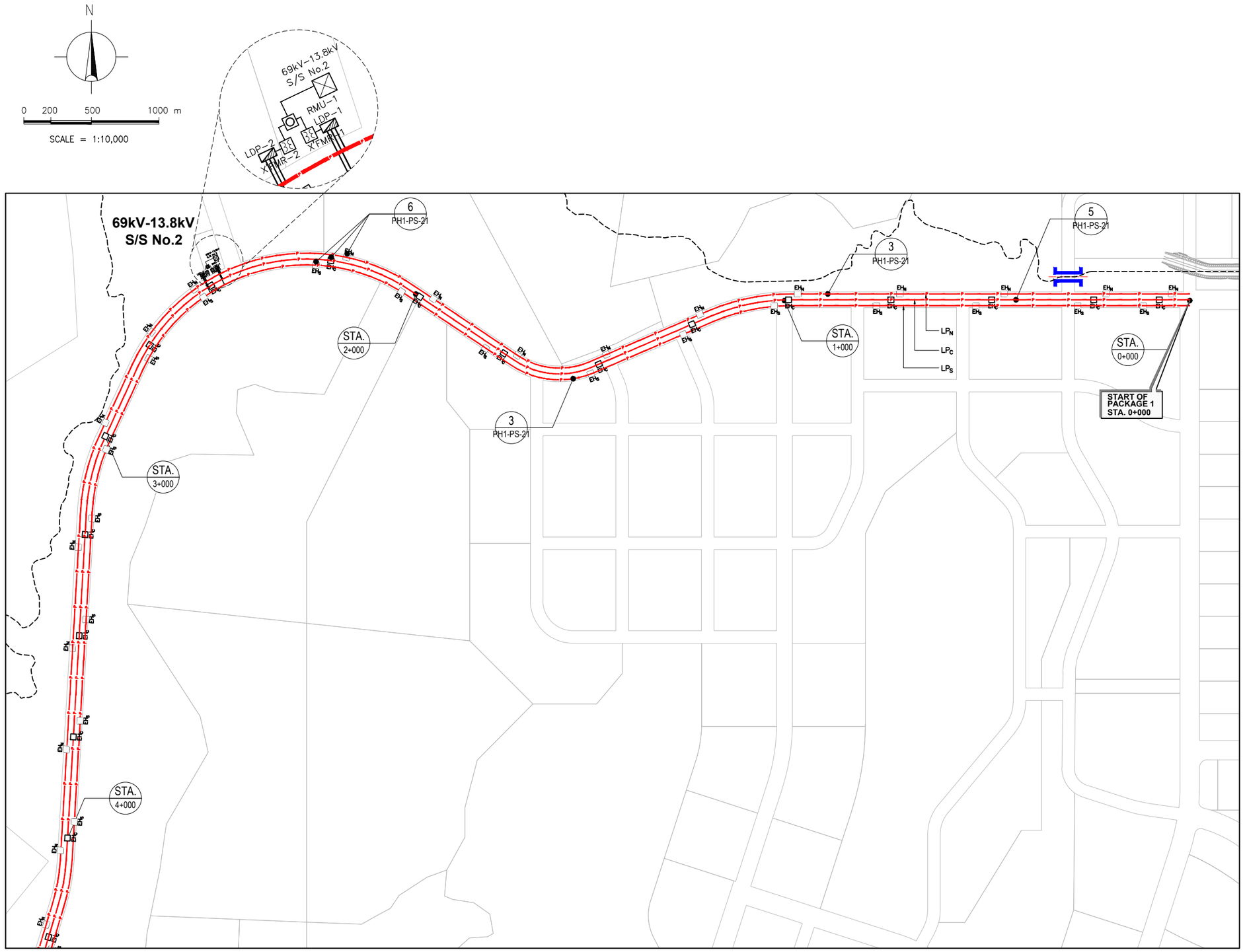
RECOMMENDING APPROVAL
RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS
DATE:

APPROVED BY
JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP
DATE:

PROJECT TITLE
INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT
ELECTRICAL SYSTEM DRAWING INDEX

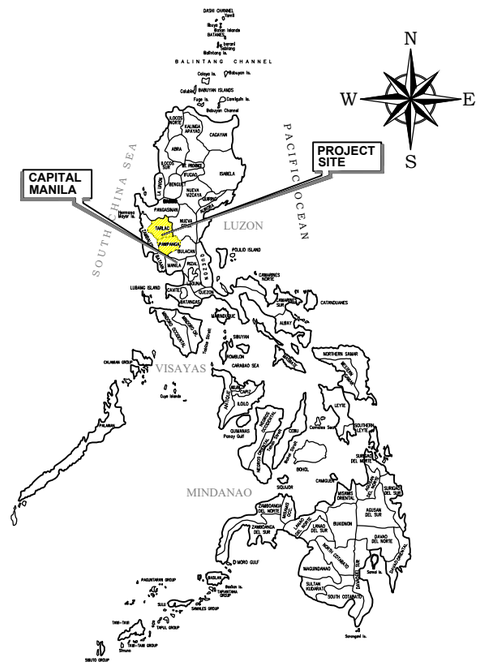
SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-PS-01	1 OF 27



1 PH1-PS-02 ROAD 1 LIGHTING / CABLE ROUTING PLAN (1 OF 2)

SCALE 1:5

LOCATION PLAN



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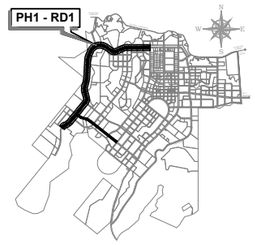
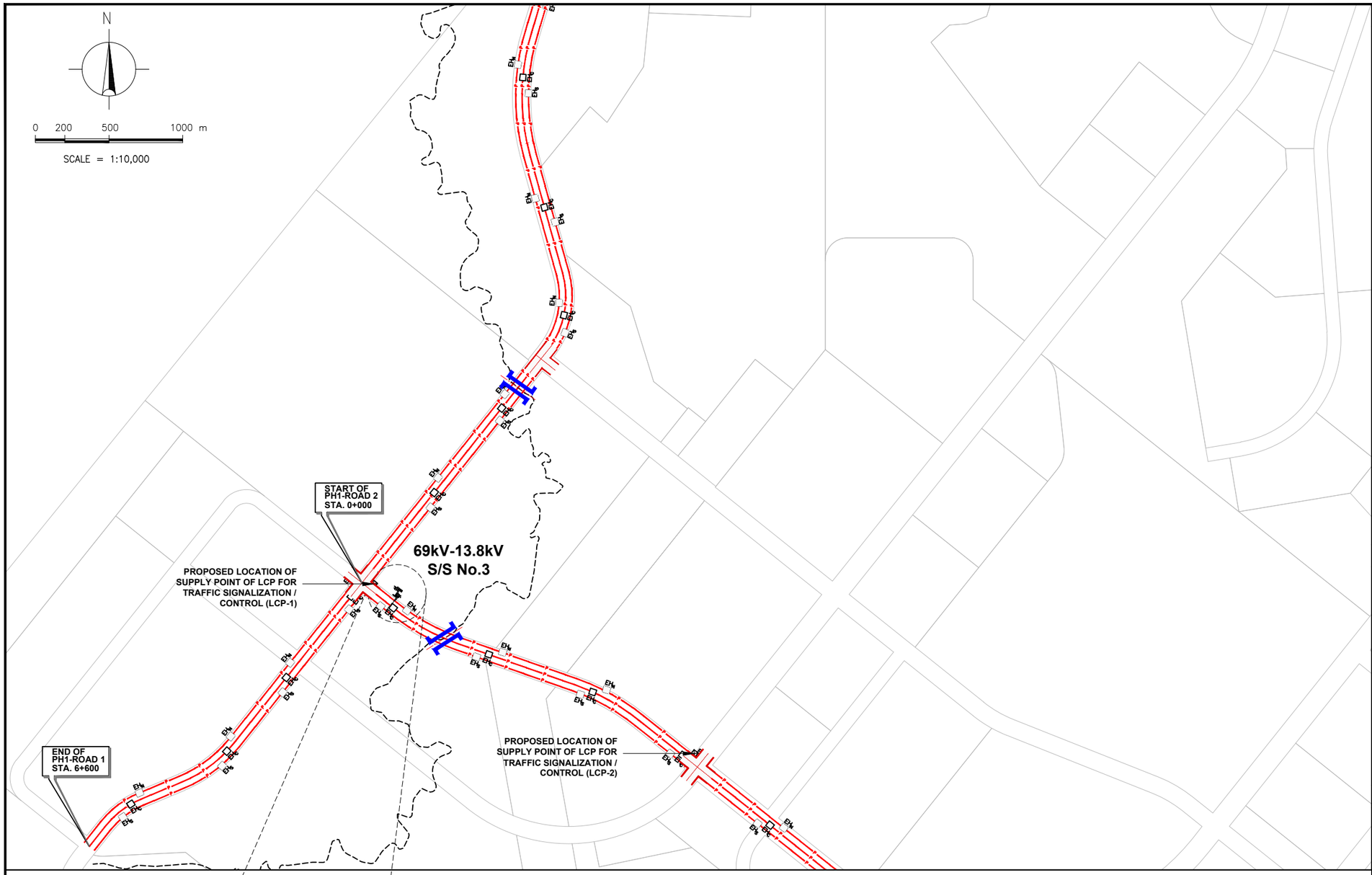


LEGENDS AND SYMBOLS

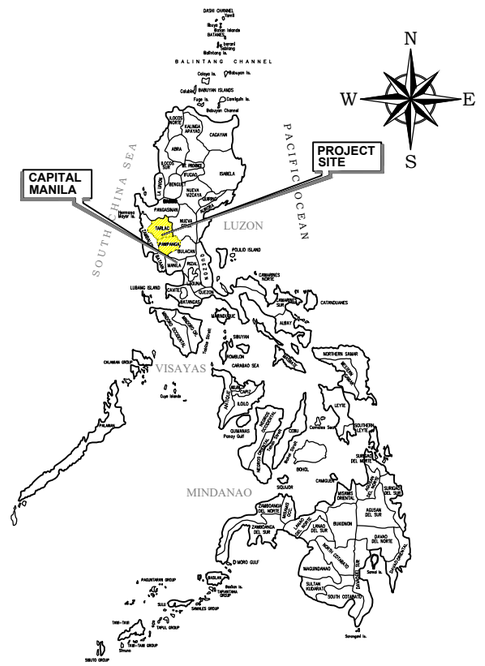
- LV LIGHTING POWER CABLE U/G ROUTE
- 69KV - 13.8KV SUBSTATION
- 13.89kV RMU OUTDOOR TYPE
- LIGHTING DISTRIBUTION PANEL (LDP)
- XFMR TRANSFORMER
- UTILITY BRIDGE
- RIVER LINES
- INTERSECTION
- EH_C ELECTRICAL HANDHOLE @ CENTER ROAD
- EH_N ELECTRICAL HANDHOLE @ NORTH SIDE
- EH_S ELECTRICAL HANDHOLE @ SOUTH SIDE
- LOCAL CONTROL PANEL FOR TRAFFIC SIGNALIZATION / CONTROL

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES — PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA — RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 LIGHTING / CABLE ROUTING PLAN (1 OF 2)	AS SHOWN	DRAFT FINAL
	CHECKED BY: CHARLES P. PANTE, CO-TEAM LEADER, DATE:						DRAWING NO. PH1-PS-02	SHEET NO. 2 OF 27



1 PH1-PS-03 ROAD 1 LIGHTING / CABLE ROUTING PLAN (2 OF 2)
SCALE 1:5

LOCATION PLAN



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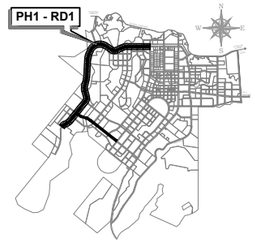


LEGENDS AND SYMBOLS

- LV LIGHTING POWER CABLE U/G ROUTE
- 69KV - 13.8KV SUBSTATION
- 13.89kV RMU OUTDOOR TYPE
- LIGHTING DISTRIBUTION PANEL (LDP)
- XFMR TRANSFORMER
- UTILITY BRIDGE
- RIVER LINES
- INTERSECTION
- EHC ELECTRICAL HANDHOLE @ CENTER ROAD
- EHN ELECTRICAL HANDHOLE @ NORTH SIDE
- EHS ELECTRICAL HANDHOLE @ SOUTH SIDE
- LOCAL CONTROL PANEL FOR TRAFFIC SIGNALIZATION / CONTROL

CONSULTANTS

NIPPON KOEI CO.,LTD.

PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY: CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE:
CHECKED BY: CHARLES P. PANTE, CO-TEAM LEADER, DATE:

SUBMITTED BY: TEDDY MASANORI, PROJECT MANAGER, DATE:

REPUBLIC OF THE PHILIPPINES
PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

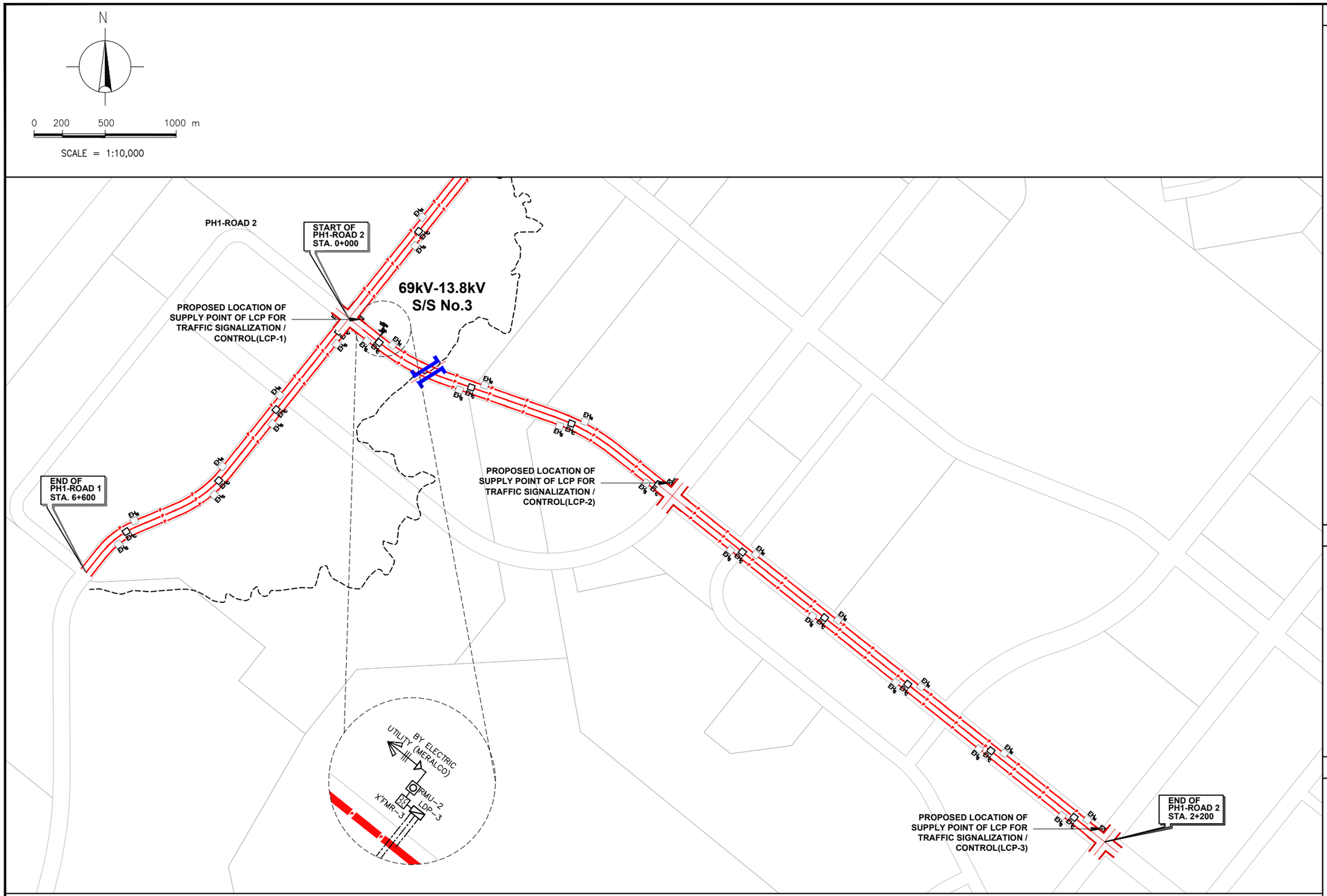
BCDA Bases Conversion and Development Authority

RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE:
APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:

PROJECT TITLE: INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT: ROAD 1 LIGHTING / CABLE ROUTING PLAN (2 OF 2)

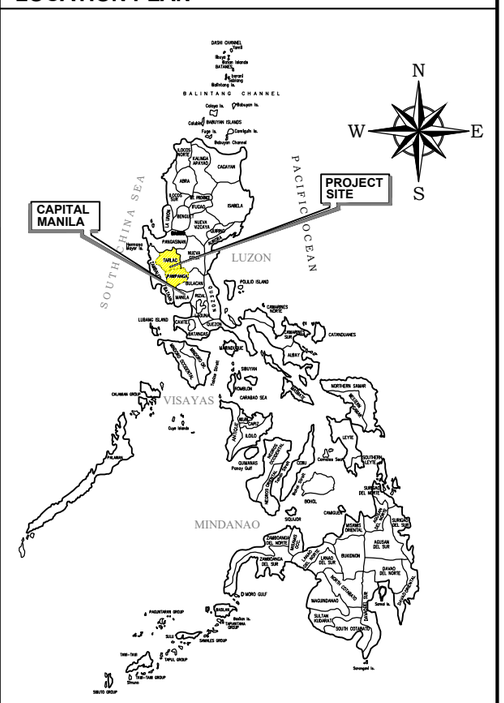
SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-PS-03	3 OF 27



1 PH1-PS-04 ROAD 2 LIGHTING / CABLE ROUTING PLAN

SCALE 1:5

LOCATION PLAN



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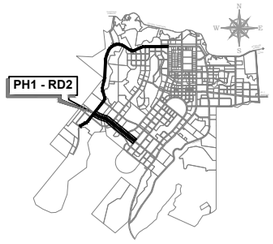


LEGENDS AND SYMBOLS

- LV LIGHTING POWER CABLE U/G ROUTE
- 69KV - 13.8KV SUBSTATION
- 13.89kV RMU OUTDOOR TYPE
- LIGHTING DISTRIBUTION PANEL (LDP)
- XFMR TRANSFORMER
- UTILITY BRIDGE
- RIVER LINES
- INTERSECTION
- EH_C ELECTRICAL HANDHOLE @ CENTER ROAD
- EH_N ELECTRICAL HANDHOLE @ NORTH SIDE
- EH_S ELECTRICAL HANDHOLE @ SOUTH SIDE
- LOCAL CONTROL PANEL FOR TRAFFIC SIGNALIZATION / CONTROL

CONSULTANTS

NIPPON KOEI CO.,LTD.

PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY
CHARLES P. PANTE
ELECTRICAL ENGINEER
DATE:

CHECKED BY
CHARLES P. PANTE
CO-TEAM LEADER
DATE:

SUBMITTED BY
TEDDY MASANORI
PROJECT MANAGER
DATE:

REPUBLIC OF THE PHILIPPINES
PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority

RECOMMENDING APPROVAL
RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS
DATE:

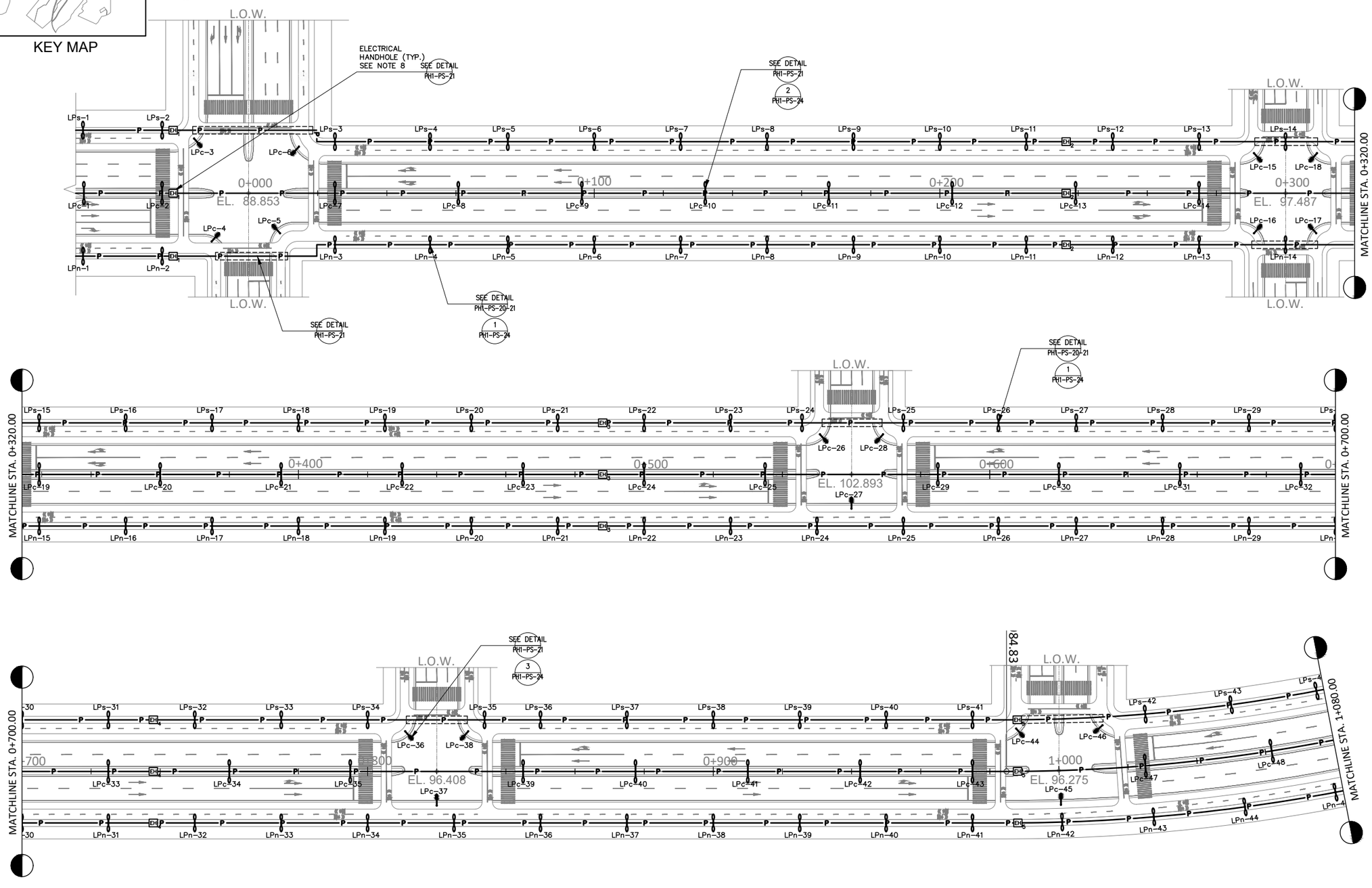
APPROVED BY
JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP
DATE:

PROJECT TITLE
INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT
ROAD 1
LIGHTING / CABLE ROUTING PLAN

SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-PS-04	4 OF 27

KEY MAP



1 PH1-PS-05 ROAD 1 LIGHTING LAYOUT (STA.0+000 – STA. 1+080)

SCALE 1:600

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT MATERIALS AND INSTALLATIONS SHALL BE AS PER APPROVED DRAWINGS AND IN ACCORDANCE W/ INTERNATIONAL / PEC CODES AND STANDARDS.
3. CABLES THAT WILL CROSS CONCRETE ROAD WAYS SHALL BE RUN INSIDE REINFORCED CONCRETE DUCTBANK.
4. ROAD LIGHTING ARE TO BE REMOTELY CONTROLLED & MONITORED FROM BY CENTRAL CONTROL CENTER AND THE LATEST STATE OF THE ART INTERNET BASE NETWORK "CLOUD" ACCESS FROM MOBILE CELLPHONE, TABLET OR LAPTOP DEVICE EQUIPMENT.
5. LIGHTING CABLES ARE INSTALLED INSIDE 100mm HDPE., TYPE CONDUIT AND DIRECTLY BURIED TO GROUND FROM FGL 600mm DEPTH TO TOP SURFACE OF CONDUITS.DUCT SPACER SHALL BE PROVIDED AT INTERVALS NOT EXCEEDING 3M APART ALONG THE RUN OF THE DUCT.
6. CABLE TRENCH FOR LIGHTING CABLES SHALL BE PROVIDED WITH SAND BEDDING BETWEEN BELOW AND TOP PART OF BURIED CONDUIT/CABLES W/ 300mm TOTAL FILL. TOP LAYER OF SAND FILL SHALL BE PROVIDED W/ CONCRETE TILES ALONG CABLE ROUTE AND TERRA TAPE CABLE EARLY WARNING TAPE.
7. THE ROADWAY LIGHTING SHALL BE DESIGNED THE FARTHEST LUMINAIRE IN THE BRANCH CIRCUIT, SHALL OPERATE WITHIN THE VOLTAGE SUPPLY LEVEL OF 230± 10% VOLTAGE DROP.
8. ELECTRICAL HANDHOLE (EH) IS THE LOCATION POINT FOR SPLICING OF CABLES (CABLES JOINTING) AND APPROXIMATELY TO BE INSTALLED @ 250M DISTANCE APART FROM THE OTHER HANDHOLE.
9. FOR LIGHTING POLE & KM. STA. NOS. REFER TO PH1–PS–15/16/17.

LEGENDS:

BIKE LANE	SINGLE MAST DOUBLE ARM WITH 2x40W LIGHTING FIXTURES IN 6M HIGH LAMP POST
INTERSECTION	SINGLE MAST SINGLE ARM WITH 1x90W LIGHTING FIXTURES IN 10M HIGH LAMP POST
CENTER ISLAND	SINGLE MAST DOUBLE ARM WITH 2x90W LIGHTING FIXTURES IN 10M HIGH LAMP POST
LP_C	LIGHTING POLE LOCATED AT ROAD CENTER ISLAND
LP_S	LIGHTING POLE LOCATED AT SOUTHSIDE OF ROAD
LP_N	LIGHTING POLE LOCATED AT NORTHSIDE OF ROAD
—— P ——	LV POWER CABLE IN HDPE CONDUIT DUCTS OR CONCRETE DUCT BANK FOR ROAD CROSSING
LDP–1	LIGHTING DISTRIBUTION PANEL BOARD / OUTDOOR TYPE MOUNTED PAD (LOW VOLTAGE)
X'FMR–1	OIL FILLED TRANSFORMER PAD MOUNTED, 13.8kV 400Y / 230V, 3ø, 4W
RMU–1	RING MAIN UNIT 13.8kV, 3ø, MANUAL TYPE
EH	ELECTRICAL HANDHOLE
	LOCAL CONTROL PANEL FOR TRAFFIC/ CONTROL SYSTEM
P	ELECTRICAL DUCTBANK CONCRETE (FOR ROAD CROSSING)
SN	SOLID NEUTRAL BUS BAR
G	GROUND BUS BAR

CONSULTANTS

NIPPON KOEI CO.,LTD.

PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY
CHARLES P. PANTE
ELECTRICAL ENGINEER
DATE:

CHECKED BY
CHARLES P. PANTE
CO-TEAM LEADER
DATE:

SUBMITTED BY
TEDDY MASANORI
PROJECT MANAGER
DATE:

REPUBLIC OF THE PHILIPPINES
PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority

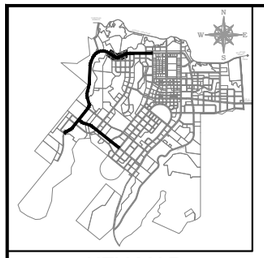
RECOMMENDING APPROVAL
RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS
DATE:

APPROVED BY
JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP
DATE:

PROJECT TITLE
INFRASTRUCTURE DESIGN OF NEW CLARK CITY
ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT
ROAD 1
LIGHTING LAYOUT
STA.0+000 - STA. 1+080

SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-PS-05	5 OF 27



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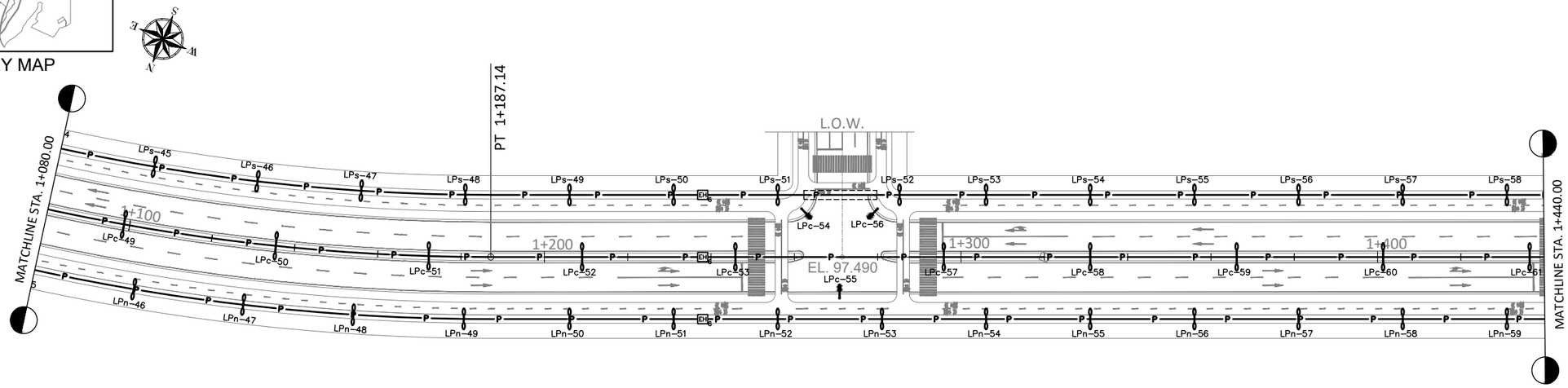
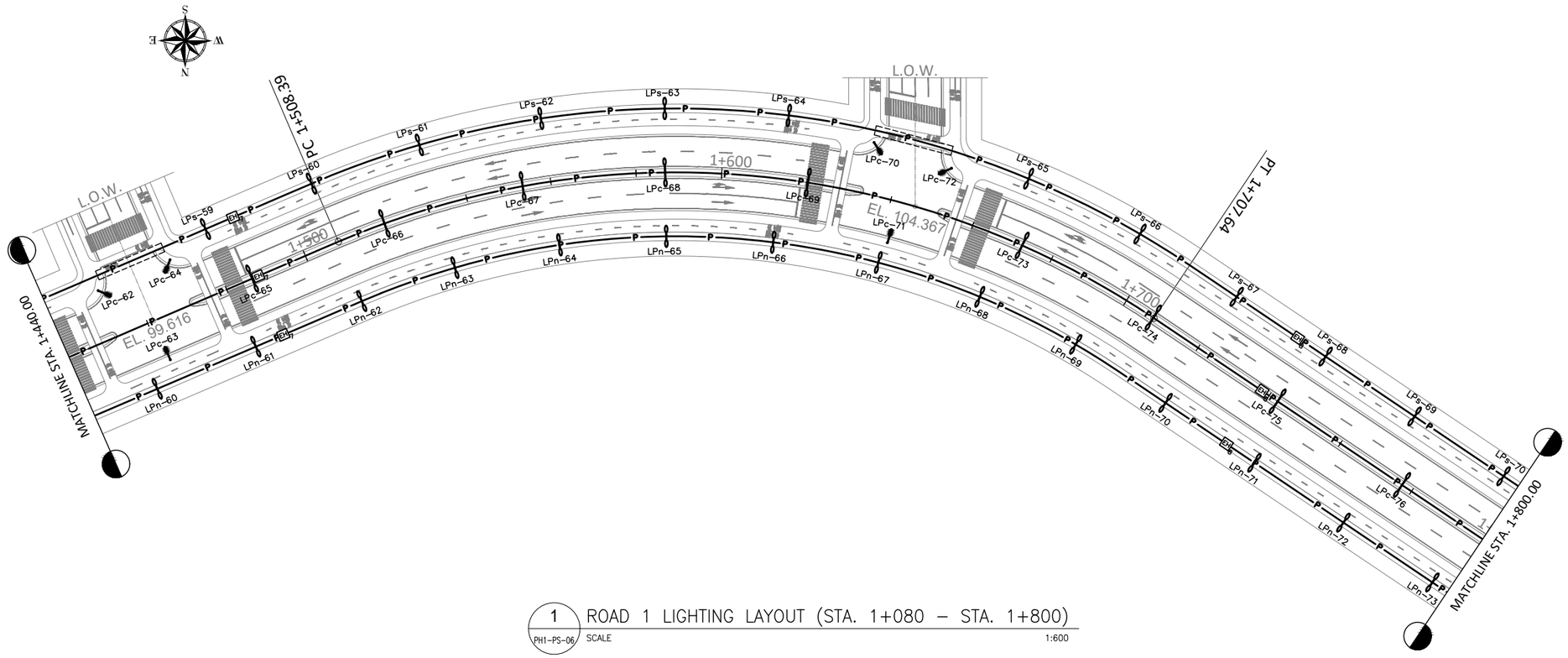




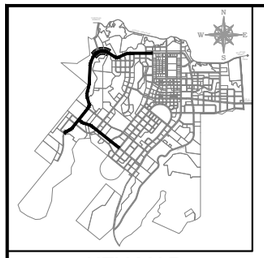
1 PH1-PS-06 ROAD 1 LIGHTING LAYOUT (STA. 1+080 – STA. 1+800)

SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1–PS–05
2. FOR LEGENDS SEE PH1–PS–05

CONSULTANTS	DESIGNED BY	SUBMITTED BY		PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI / PKII NIPPON KOEI CO.,LTD. PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE ELECTRICAL ENGINEER DATE: CHECKED BY CHARLES P. PANTE CO-TEAM LEADER DATE:	TEDDY MASANORI PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE: **INFRASTRUCTURE DESIGN OF NEW CLARK CITY** **ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** **PHASE 1** **R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)**	ROAD 1 LIGHTING LAYOUT STA. 1+080 - STA. 1+800	AS SHOWN	DRAFT FINAL
						DRAWING NO. PH1-PS-06	SHEET NO. 6 OF 27



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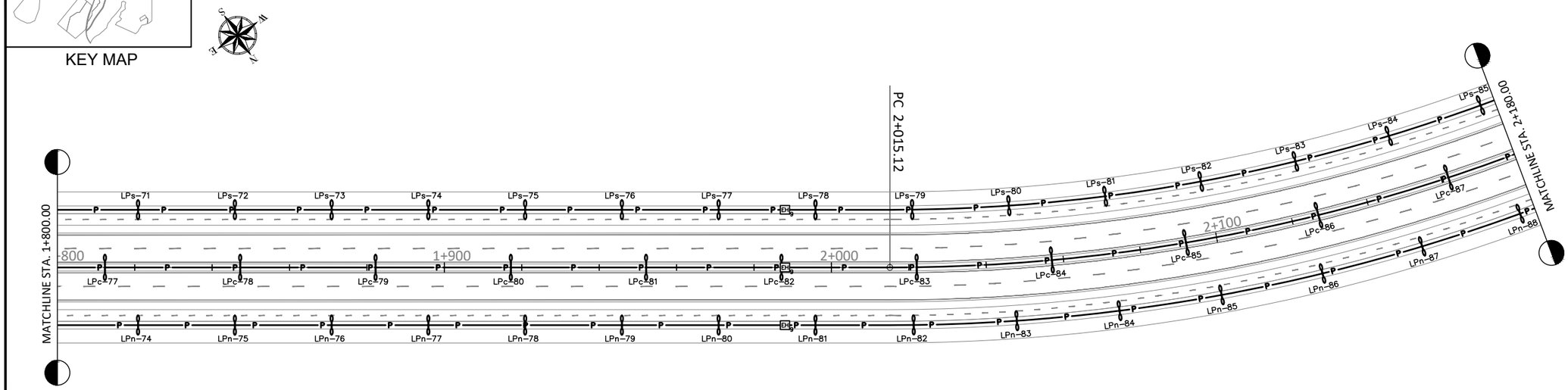
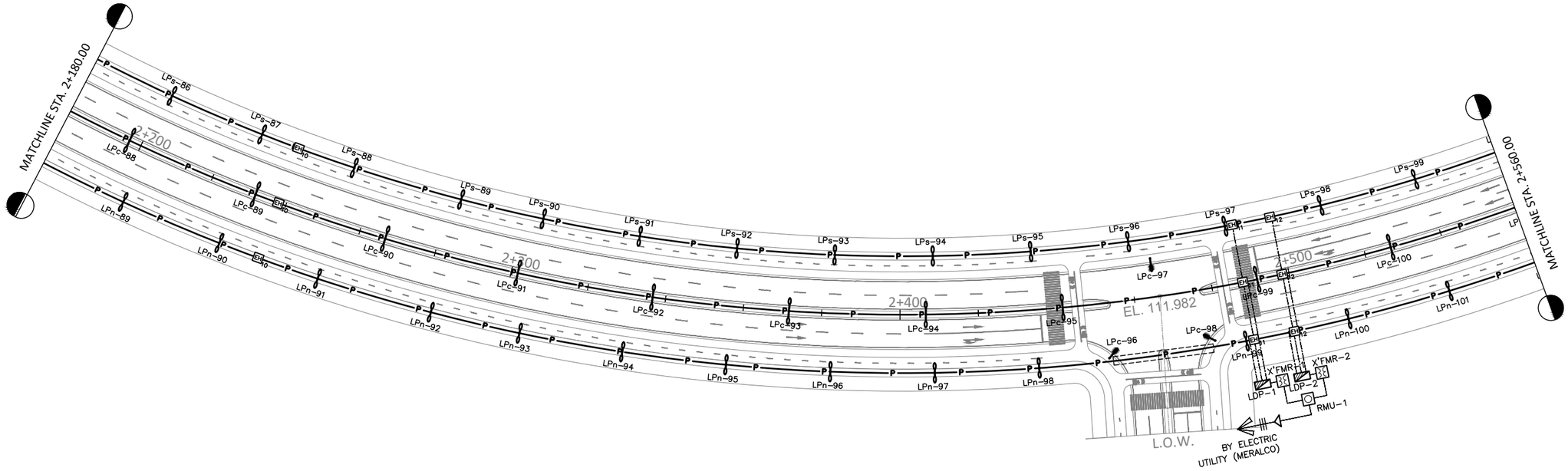




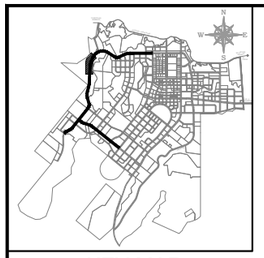
1 PH1-PS-07 ROAD 1 LIGHTING LAYOUT (STA. 1+800 – STA. 2+560)

SCALE 1:600

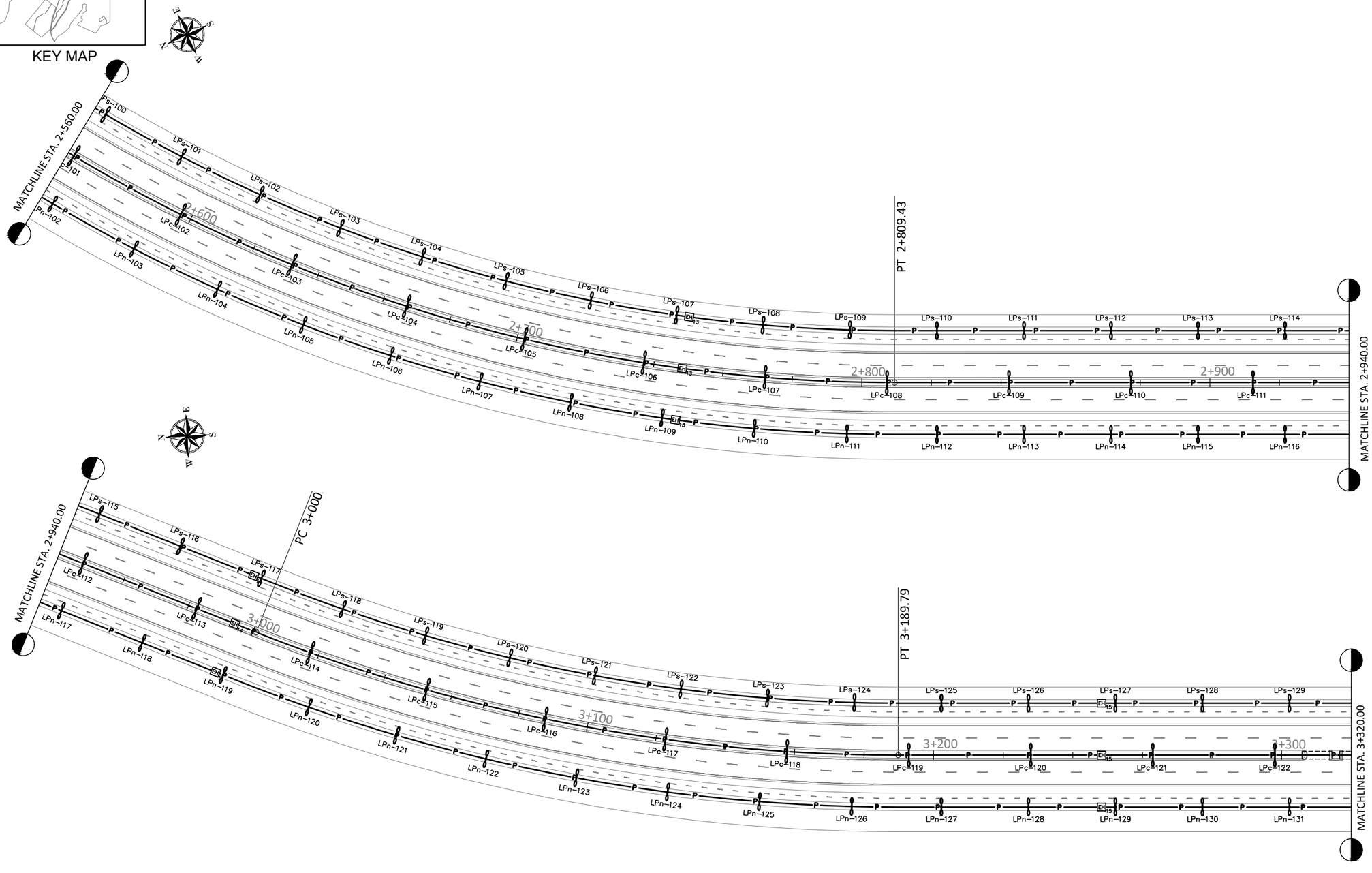
NOTES

1. FOR GENERAL NOTES SEE PH1–PS–05
2. FOR LEGENDS SEE PH1–PS–05

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 LIGHTING LAYOUT STA. 1+800 - STA. 2+560	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-PS-07	SHEET NO. 7 OF 27



KEY MAP



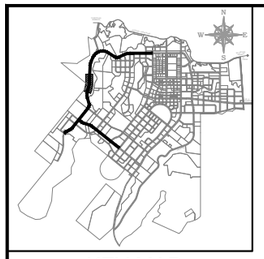
NOTES

1. FOR GENERAL NOTES SEE PH1–PS–05
2. FOR LEGENDS SEE PH1–PS–05

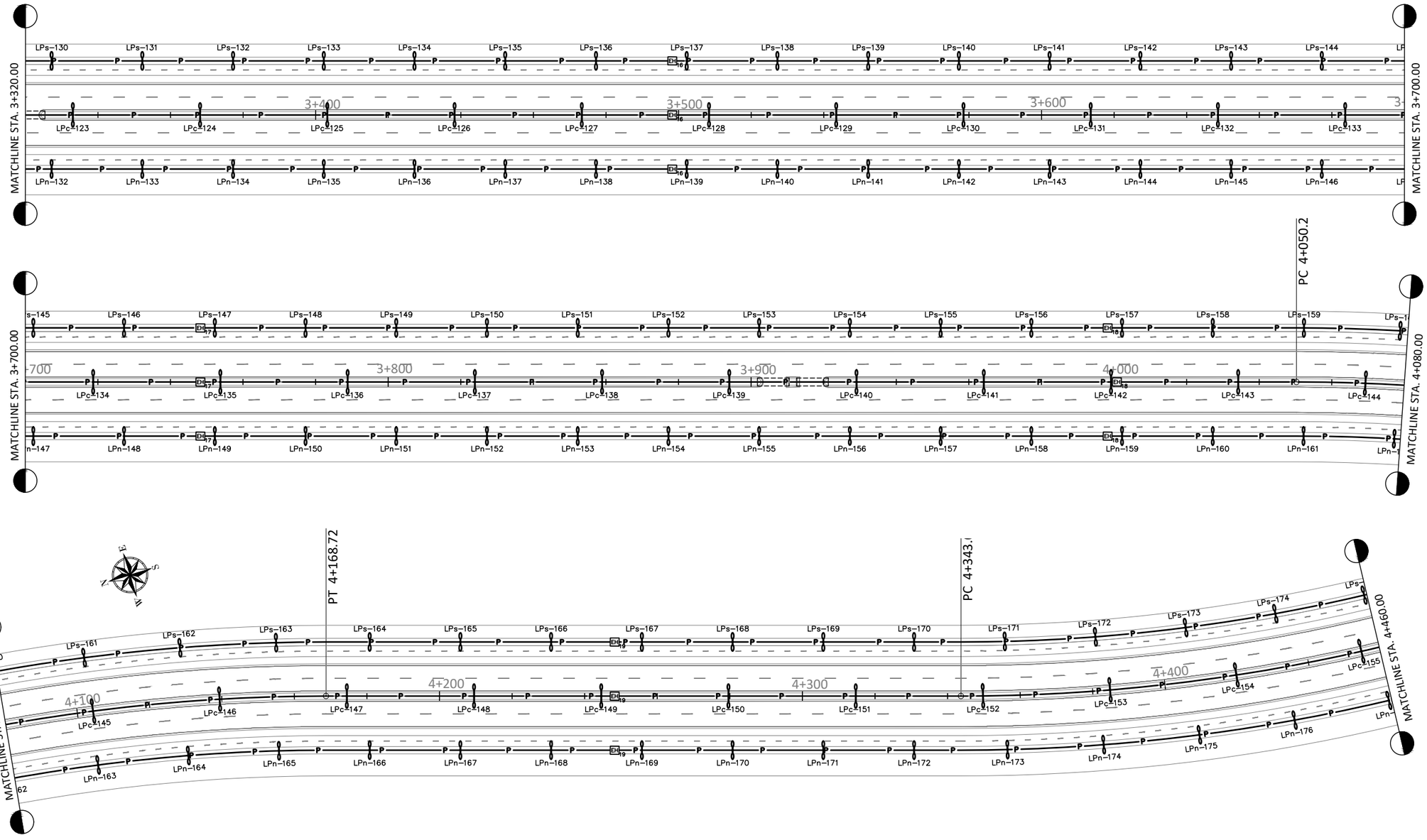
1 PH1–PS–08 ROAD 1 LIGHTING LAYOUT (STA. 2+560 – STA. 3+320)

SCALE 1:600

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI / NIPPON KOEI CO.,LTD. / PKII PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	**CHARLES P. PANTE** ELECTRICAL ENGINEER DATE: / CHECKED BY **CHARLES P. PANTE** CO-TEAM LEADER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority — RECOMMENDING APPROVAL **RYAN PAUL S. GALURA** OIC, PMD CLARK PROJECTS DATE: / APPROVED BY **JOSHUA M. BINGCANG** SVP, CONVERSION AND DEVELOPMENT GROUP DATE:	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 LIGHTING LAYOUT STA. 2+560 - STA. 3+320	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-PS-08	SHEET NO. 8 OF 27



KEY MAP



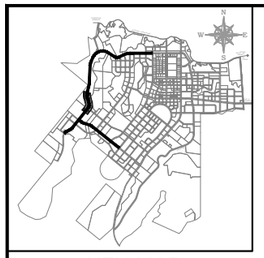
NOTES

1. FOR GENERAL NOTES SEE PH1–PS–05
2. FOR LEGENDS SEE PH1–PS–05

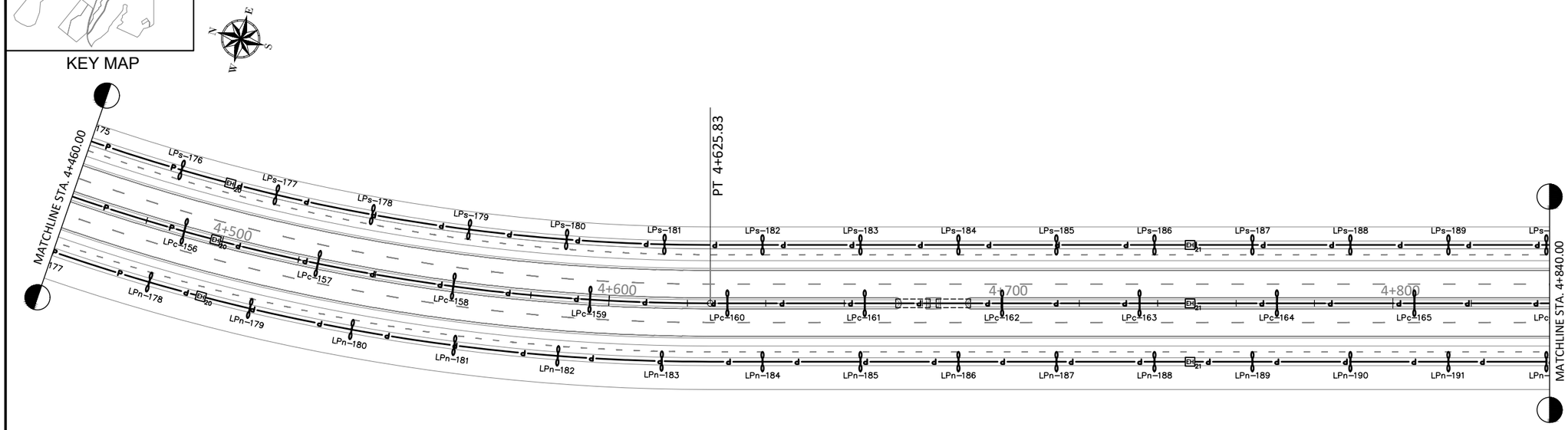
1 / PH1–PS–09 ROAD 1 LIGHTING LAYOUT (STA. 3+320 – STA. 4+460)

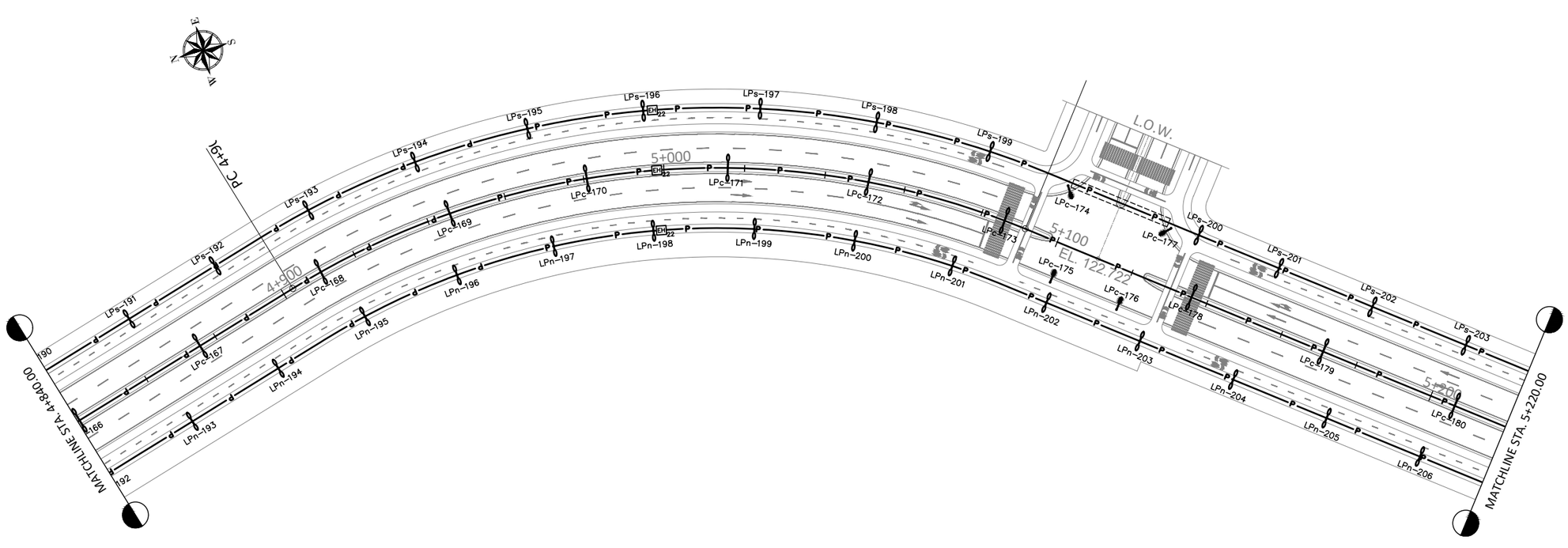
SCALE 1:600

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. (CONSULTANTS PLANNERS ENGINEERS)	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 LIGHTING LAYOUT STA. 3+320 - STA. 4+460	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-PS-09	SHEET NO. 9 OF 27



KEY MAP





1 PH1-PS-10 ROAD 1 LIGHTING LAYOUT (STA. 4+460 – STA. 5+220)

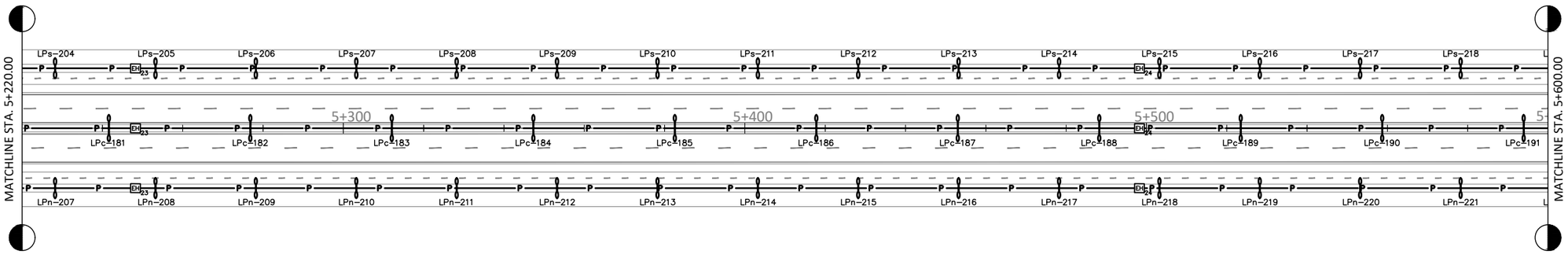
SCALE 1:600

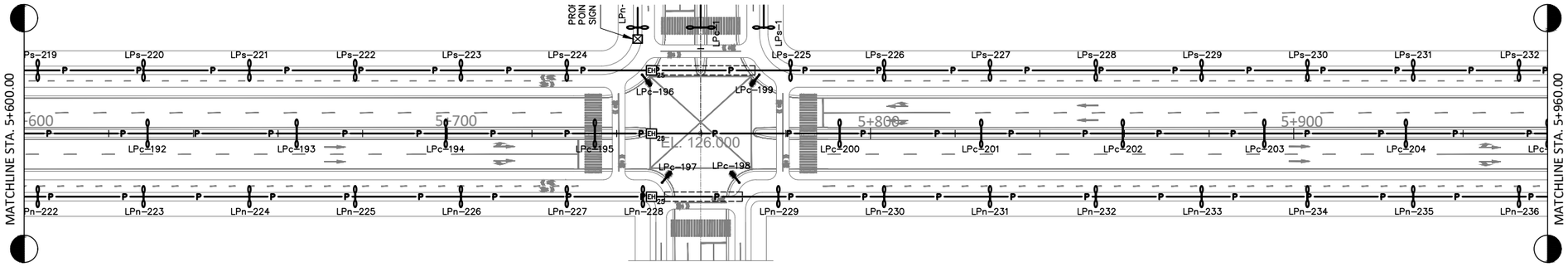
NOTES

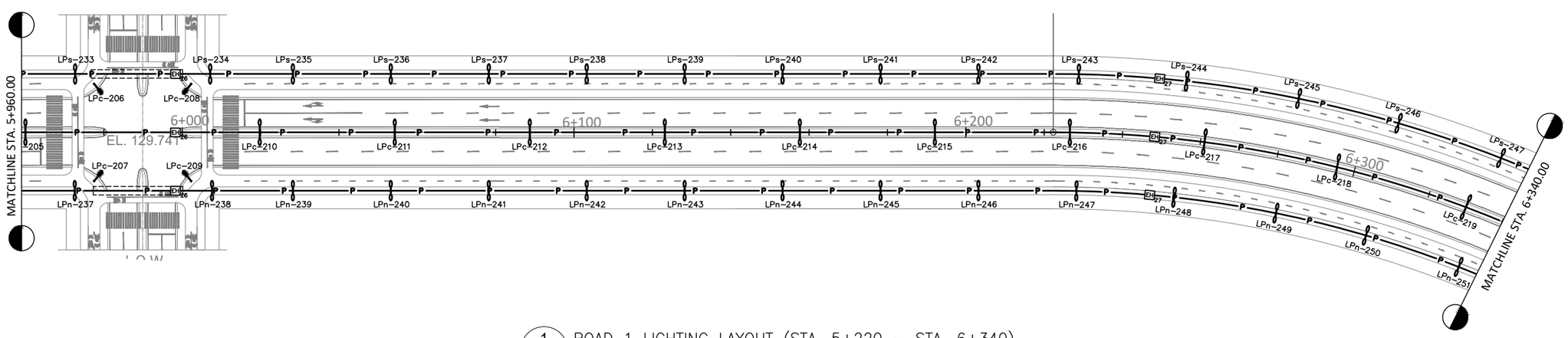
1. FOR GENERAL NOTES SEE PH1–PS–05
2. FOR LEGENDS SEE PH1–PS–05

CONSULTANTS	DESIGNED BY	SUBMITTED BY		PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 LIGHTING LAYOUT STA. 4+460 - STA. 5+220	AS SHOWN	DRAFT FINAL
						DRAWING NO. PH1-PS-10	SHEET NO. 10 OF 27

KEY MAP







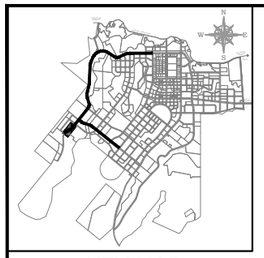
1 PH1-PS-11 ROAD 1 LIGHTING LAYOUT (STA. 5+220 – STA. 6+340)

SCALE 1:600

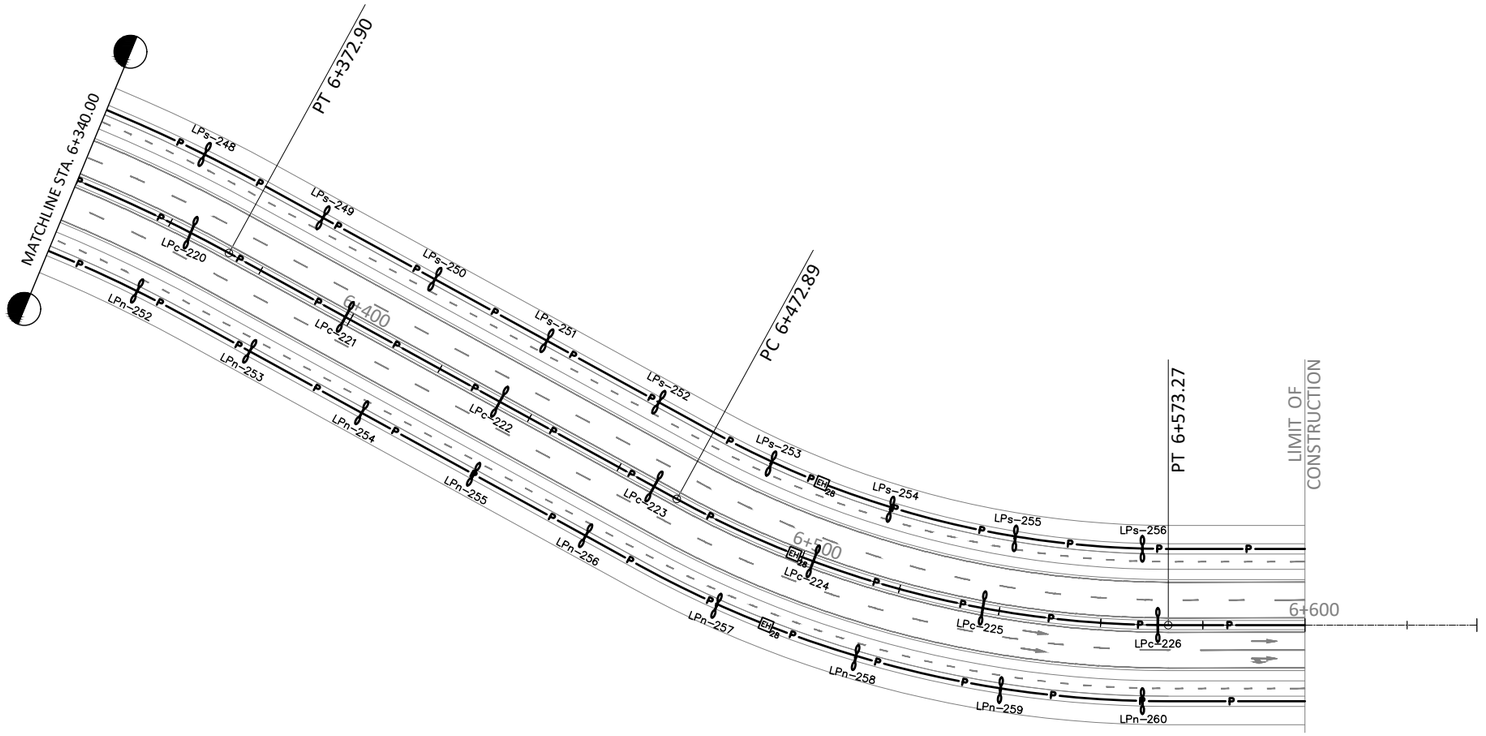
NOTES

1. FOR GENERAL NOTES SEE PH1–PS–05
2. FOR LEGENDS SEE PH1–PS–05

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. (CONSULTANTS PLANNERS ENGINEERS)	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Clark Conversion and Development Authority — RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 LIGHTING LAYOUT STA. 5+220 - STA. 6+340	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-PS-11	SHEET NO. 11 OF 27



KEY MAP



NOTES

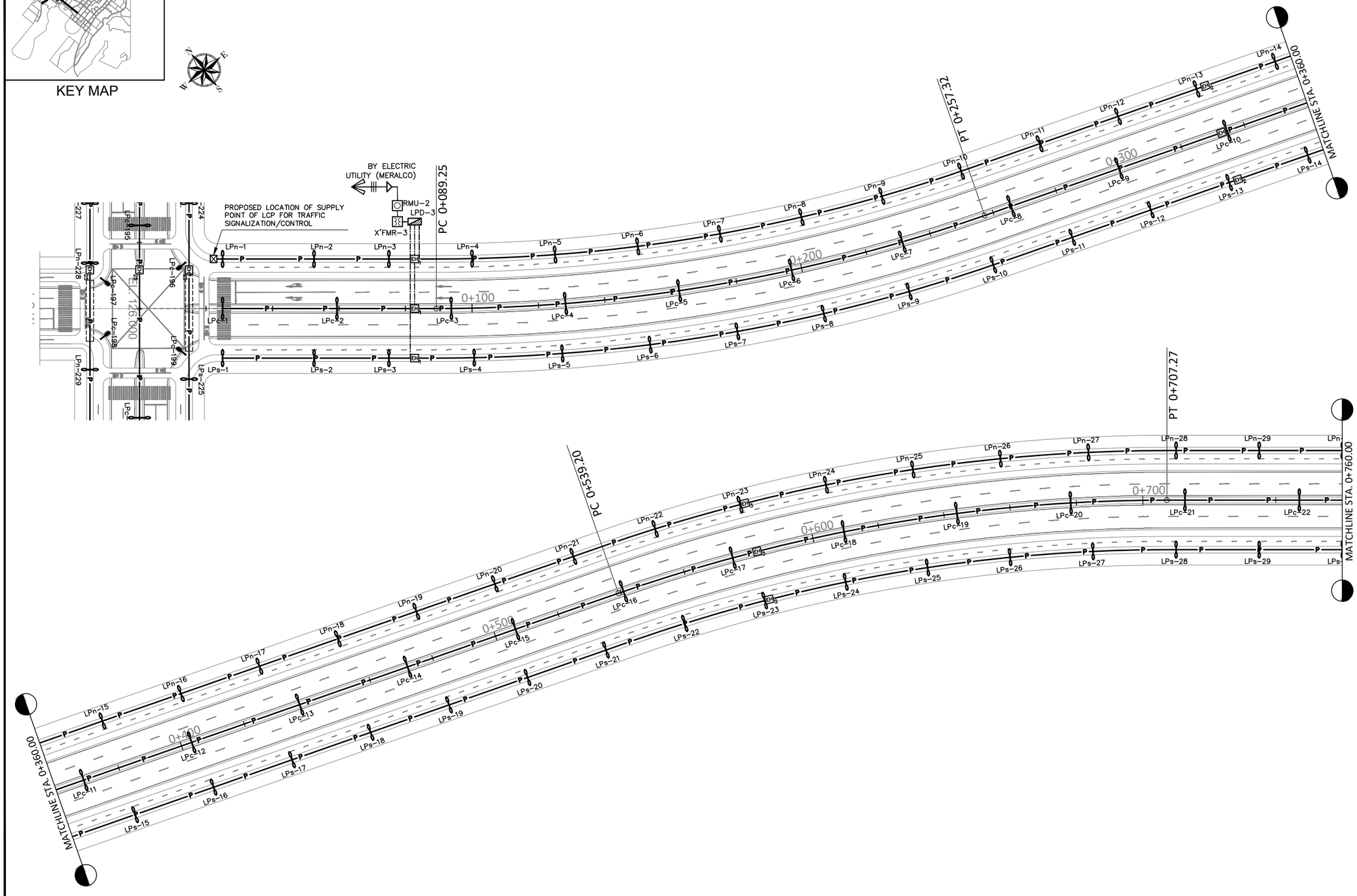
1. FOR GENERAL NOTES SEE PH1–PS–05
2. FOR LEGENDS SEE PH1–PS–05

1 PH1–PS–12 ROAD 1 LIGHTING LAYOUT (STA. 6+340 – STA. 6+600)

SCALE 1:600

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES; PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 LIGHTING LAYOUT STA. 6+340 - STA. 6+600	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-PS-12	SHEET NO. 12 OF 27

KEY MAP



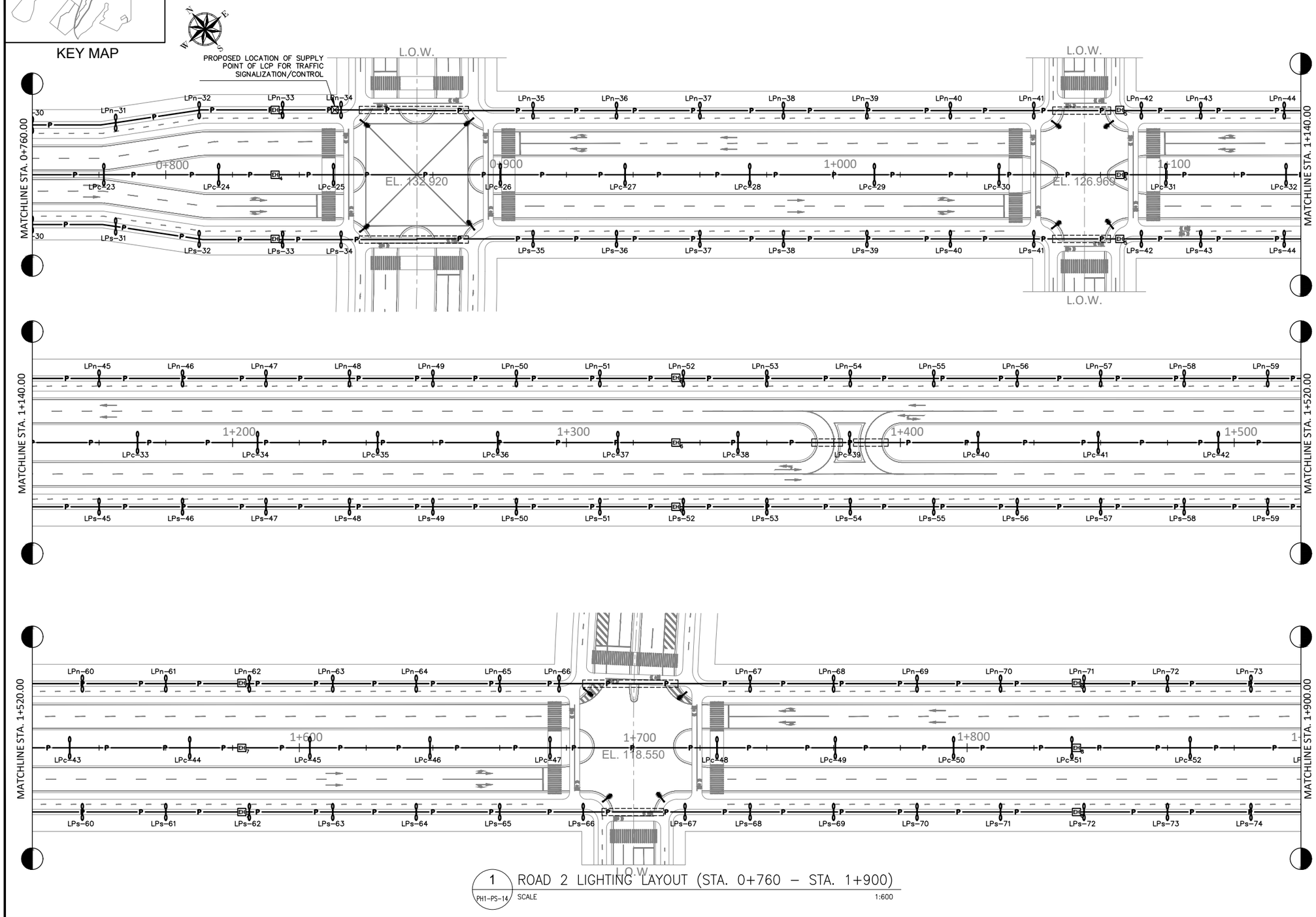
1 ROAD 2 LIGHTING LAYOUT (STA. 0+000 – STA. 0+760)
PH1-PS-13 SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1–PS–05
2. FOR LEGENDS SEE PH1–PS–05

CONSULTANTS	DESIGNED BY	SUBMITTED BY	REPUBLIC OF THE PHILIPPINES	BCDA	PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI / PKII NIPPON KOEI CO.,LTD. PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	**CHARLES P. PANTE** ELECTRICAL ENGINEER DATE: CHECKED BY **CHARLES P. PANTE** CO-TEAM LEADER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL **RYAN PAUL S. GALURA** OIC, PMD CLARK PROJECTS DATE: APPROVED BY **JOSHUA M. BINGCANG** SVP, CONVERSION AND DEVELOPMENT GROUP DATE:	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY** **ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** **PHASE 1** **R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)**	ROAD 2 LIGHTING LAYOUT STA. 0+000 - STA. 0+760	AS SHOWN DRAWING NO. PH1-PS-13	DRAFT FINAL SHEET NO. 13 OF 27

KEY MAP



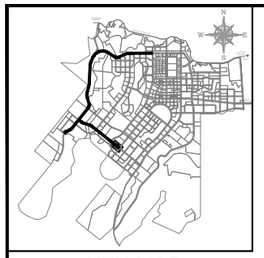
1 ROAD 2 LIGHTING LAYOUT (STA. 0+760 – STA. 1+900)

PH1-PS-14 SCALE 1:600

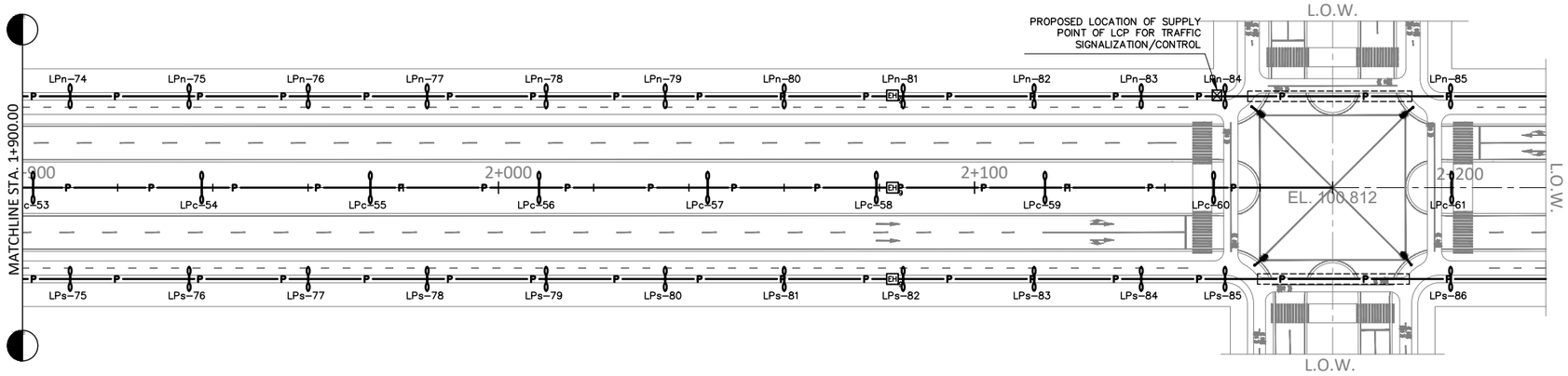
NOTES

1. FOR GENERAL NOTES SEE PH1-PS-05
2. FOR LEGENDS SEE PH1-PS-05

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. (CONSULTANTS PLANNERS ENGINEERS)	**CHARLES P. PANTE** ELECTRICAL ENGINEER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES / PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 2 LIGHTING LAYOUT STA. 0+760 - STA. 1+900	AS SHOWN	DRAFT FINAL
	CHECKED BY **CHARLES P. PANTE** CO-TEAM LEADER DATE:			RECOMMENDING APPROVAL: **RYAN PAUL S. GALURA** OIC, PMD CLARK PROJECTS DATE: / APPROVED BY: **JOSHUA M. BINGCANG** SVP, CONVERSION AND DEVELOPMENT GROUP DATE:			DRAWING NO. PH1-PS-14	SHEET NO. 14 OF 27



KEY MAP



1 PH1-PS-15 ROAD 2 LIGHTING LAYOUT (STA. 1+900 – STA. 2+175.24)

SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1–PS–05
2. FOR LEGENDS SEE PH1–PS–05

CONSULTANTS	DESIGNED BY	SUBMITTED BY	REPUBLIC OF THE PHILIPPINES	BCDA	PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	**CHARLES P. PANTE** ELECTRICAL ENGINEER DATE: / CHECKED BY **CHARLES P. PANTE** CO-TEAM LEADER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: **RYAN PAUL S. GALURA** OIC, PMD CLARK PROJECTS DATE: / APPROVED BY: **JOSHUA M. BINGCANG** SVP, CONVERSION AND DEVELOPMENT GROUP DATE:	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 2 LIGHTING LAYOUT STA. 1+900 - STA. 2+175.24	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-PS-15	SHEET NO. 15 OF 27

LIGHTING NUMBER	STATION NUMBER
LPc–1	STA.0–47.638
LPc–2	STA.0–25.019
LPc–3	STA.0–15.773
LPc–4	STA.0–10.685
LPc–5	STA.0+9.115
LPc–6	STA.0+14.577
LPc–7	STA.0+24.981
LPc–8	STA.0+60.695
LPc–9	STA.0+96.409
LPc–10	STA.0+132.124
LPc–11	STA.0+167.838
LPc–12	STA.0+203.552
LPc–13	STA.0+239.266
LPc–14	STA.0+274.981
LPc–15	STA.0+290.846
LPc–16	STA.0+290.846
LPc–17	STA.0+308.9
LPc–18	STA.0+309.115
LPc–19	STA.0+324.981
LPc–20	STA.0+359.981
LPc–21	STA.0+394.982
LPc–22	STA.0+429.982
LPc–23	STA.0+464.983
LPc–24	STA.0+499.984
LPc–25	STA.0+534.984
LPc–26	STA.0+550.85
LPc–27	STA.0+559.984
LPc–28	STA.0+569.118
LPc–29	STA.0+584.984
LPc–30	STA.0+619.984
LPc–31	STA.0+654.984
LPc–32	STA.0+689.984
LPc–33	STA.0+724.984
LPc–34	STA.0+759.984
LPc–35	STA.0+794.984
LPc–36	STA.0+810.85
LPc–37	STA.0+819.984
LPc–38	STA.0+829.118
LPc–39	STA.0+844.984
LPc–40	STA.0+877.483
LPc–41	STA.0+909.982
LPc–42	STA.0+942.482
LPc–43	STA.0+974.981
LPc–44	STA.0+987.661
LPc–45	STA.1+000.261
LPc–46	STA.1+013.314
LPc–47	STA.1+025.024
LPc–48	STA.1+061.83
LPc–49	STA.1+098.636
LPc–50	STA.1+135.442
LPc–51	STA.1+172.247
LPc–52	STA.1+209.053
LPc–53	STA.1+245.859

LIGHTING NUMBER	STATION NUMBER
LPc–54	STA.1+261.725
LPc–55	STA.1+270.859
LPc–56	STA.1+279.993
LPc–57	STA.1+295.859
LPc–58	STA.1+331.017
LPc–59	STA.1+366.175
LPc–60	STA.1+401.333
LPc–61	STA.1+436.491
LPc–62	STA.1+452.357
LPc–63	STA.1+461.491
LPc–64	STA.1+470.625
LPc–65	STA.1+486.491
LPc–66	STA.1+519.921
LPc–67	STA.1+553.351
LPc–68	STA.1+586.781
LPc–69	STA.1+620.211
LPc–70	STA.1+633.256
LPc–71	STA.1+641.837
LPc–72	STA.1+651.248
LPc–73	STA.1+672.463
LPc–74	STA.1+707.421
LPc–75	STA.1+742.38
LPc–76	STA.1+777.339
LPc–77	STA.1+812.297
LPc–78	STA.1+847.256
LPc–79	STA.1+882.215
LPc–80	STA.1+917.173
LPc–81	STA.1+952.132
LPc–82	STA.1+987.091
LPc–83	STA.2+022.049
LPc–84	STA.2+057.008
LPc–85	STA.2+091.967
LPc–86	STA.2+126.925
LPc–87	STA.2+161.884
LPc–88	STA.2+196.843
LPc–89	STA.2+231.801
LPc–90	STA.2+266.76
LPc–91	STA.2+301.719
LPc–92	STA.2+336.677
LPc–93	STA.2+371.636
LPc–94	STA.2+406.595
LPc–95	STA.2+441.553
LPc–96	STA.2+451.97
LPc–97	STA.2+465.383
LPc–98	STA.2+478.566
LPc–99	STA.2+491.723
LPc–100	STA.2+526.78
LPc–101	STA.2+561.837
LPc–102	STA.2+596.894
LPc–103	STA.2+631.951
LPc–104	STA.2+667.008
LPc–105	STA.2+702.065
LPc–106	STA.2+737.122

LIGHTING NUMBER	STATION NUMBER
LPc–107	STA.2+772.179
LPc–108	STA.2+807.236
LPc–109	STA.2+842.293
LPc–110	STA.2+877.35
LPc–111	STA.2+912.407
LPc–112	STA.2+947.464
LPc–113	STA.2+982.521
LPc–114	STA.3+017.578
LPc–115	STA.3+052.635
LPc–116	STA.3+087.692
LPc–117	STA.3+122.749
LPc–118	STA.3+157.806
LPc–119	STA.3+192.863
LPc–120	STA.3+227.92
LPc–121	STA.3+262.977
LPc–122	STA.3+298.034
LPc–123	STA.3+333.091
LPc–124	STA.3+368.148
LPc–125	STA.3+403.205
LPc–126	STA.3+438.262
LPc–127	STA.3+473.319
LPc–128	STA.3+508.376
LPc–129	STA.3+543.433
LPc–130	STA.3+578.49
LPc–131	STA.3+613.547
LPc–132	STA.3+648.604
LPc–133	STA.3+683.661
LPc–134	STA.3+718.718
LPc–135	STA.3+753.775
LPc–136	STA.3+788.832
LPc–137	STA.3+823.889
LPc–138	STA.3+858.946
LPc–139	STA.3+894.003
LPc–140	STA.3+929.06
LPc–141	STA.3+964.117
LPc–142	STA.3+999.174
LPc–143	STA.4+034.231
LPc–144	STA.4+069.288
LPc–145	STA.4+104.345
LPc–146	STA.4+139.402
LPc–147	STA.4+174.459
LPc–148	STA.4+209.516
LPc–149	STA.4+244.573
LPc–150	STA.4+279.63
LPc–151	STA.4+314.687
LPc–152	STA.4+349.744
LPc–153	STA.4+384.801
LPc–154	STA.4+419.858
LPc–155	STA.4+454.915
LPc–156	STA.4+489.972
LPc–157	STA.4+525.029
LPc–158	STA.4+560.086
LPc–159	STA.4+595.143

LIGHTING NUMBER	STATION NUMBER
LPc–160	STA.4+630.2
LPc–161	STA.4+665.257
LPc–162	STA.4+700.314
LPc–163	STA.4+735.371
LPc–164	STA.4+770.428
LPc–165	STA.4+805.485
LPc–166	STA.4+840.542
LPc–167	STA.4+875.599
LPc–168	STA.4+910.656
LPc–169	STA.4+945.713
LPc–170	STA.4+980.77
LPc–171	STA.5+015.827
LPc–172	STA.5+050.884
LPc–173	STA.5+085.935
LPc–174	STA.5+097.164
LPc–175	STA.5+102.162
LPc–176	STA.5+119.944
LPc–177	STA.5+124.789
LPc–178	STA.5+135.935
LPc–179	STA.5+171.168
LPc–180	STA.5+206.399
LPc–181	STA.5+241.631
LPc–182	STA.5+276.863
LPc–183	STA.5+312.095
LPc–184	STA.5+347.327
LPc–185	STA.5+382.559
LPc–186	STA.5+417.791
LPc–187	STA.5+453.023
LPc–188	STA.5+488.255
LPc–189	STA.5+523.487
LPc–190	STA.5+558.719
LPc–191	STA.5+593.951
LPc–192	STA.5+629.183
LPc–193	STA.5+664.415
LPc–194	STA.5+699.647
LPc–195	STA.5+734.884
LPc–196	STA.5+746.029
LPc–197	STA.5+750.749
LPc–198	STA.5+769.018
LPc–199	STA.5+773.738
LPc–200	STA.5+792.709
LPc–201	STA.5+826.159
LPc–202	STA.5+859.61
LPc–203	STA.5+893.06
LPc–204	STA.5+926.51
LPc–205	STA.5+959.96
LPc–206	STA.5+977.495
LPc–207	STA.5+977.495
LPc–208	STA.6+002.274
LPc–209	STA.6+002.274
LPc–210	STA.6+019.784
LPc–211	STA.6+054.248
LPc–212	STA.6+088.712

LIGHTING NUMBER	STATION NUMBER
LPc–213	STA.6+123.176
LPc–214	STA.6+157.64
LPc–215	STA.6+192.104
LPc–216	STA.6+226.568
LPc–217	STA.6+261.032
LPc–218	STA.6+295.496
LPc–219	STA.6+329.96
LPc–220	STA.6+364.424
LPc–221	STA.6+398.888
LPc–222	STA.6+433.352
LPc–223	STA.6+467.816
LPc–224	STA.6+502.28
LPc–225	STA.6+536.744
LPc–226	STA.6+571.208

ROAD 2 LIGHTING

LIGHTING NUMBER	STATION NUMBER
LPc–1	STA.0+25
LPc–2	STA.0+59.385
LPc–3	STA.0+93.77
LPc–4	STA.0+128.155
LPc–5	STA.0+162.54
LPc–6	STA.0+196.925
LPc–7	STA.0+231.31
LPc–8	STA.0+265.695
LPc–9	STA.0+300.08
LPc–10	STA.0+334.465
LPc–11	STA.0+368.85
LPc–12	STA.0+403.235
LPc–13	STA.0+437.62
LPc–14	STA.0+472.005
LPc–15	STA.0+506.39
LPc–16	STA.0+540.775
LPc–17	STA.0+575.16
LPc–18	STA.0+609.545
LPc–19	STA.0+643.93
LPc–20	STA.0+678.315
LPc–21	STA.0+712.7
LPc–22	STA.0+747.085
LPc–23	STA.0+781.47
LPc–24	STA.0+815.855
LPc–25	STA.0+850.236
LPc–26	STA.0+900.236
LPc–27	STA.0+937.573
LPc–28	STA.0+974.911
LPc–29	STA.1+012.248
LPc–30	STA.1+049.585
LPc–31	STA.1+099.585
LPc–32	STA.1+135.554
LPc–33	STA.1+171.523
LPc–34	STA.1+207.492
LPc–35	STA.1+243.461

LIGHTING NUMBER	STATION NUMBER
LPc–36	STA.1+279.43
LPc–37	STA.1+315.399
LPc–38	STA.1+351.368
LPc–39	STA.1+384.821
LPc–40	STA.1+423.306
LPc–41	STA.1+459.275
LPc–42	STA.1+495.244
LPc–43	STA.1+531.213
LPc–44	STA.1+567.182
LPc–45	STA.1+603.151
LPc–46	STA.1+639.12
LPc–47	STA.1+675.088
LPc–48	STA.1+725.088
LPc–49	STA.1+760.517
LPc–50	STA.1+795.946
LPc–51	STA.1+831.375
LPc–52	STA.1+866.804
LPc–53	STA.1+902.233
LPc–54	STA.1+937.662
LPc–55	STA.1+973.091
LPc–56	STA.2+008.52
LPc–57	STA.2+043.949
LPc–58	STA.2+079.378
LPc–59	STA.2+114.807
LPc–60	STA.2+150.236
LPc–61	STA.2+200.236

NOTES

1. FOR GENERAL NOTES SEE PH1–PS–05
2. FOR LEGENDS SEE PH1–PS–05

1 / PH1–PS–16 ROAD 1 & ROAD 2 LIGHTING STATIONING NUMBER

NOT TO SCALE

CONSULTANTS

NIPPON KOEI CO.,LTD.

PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY
CHARLES P. PANTE
ELECTRICAL ENGINEER
DATE:

CHECKED BY
CHARLES P. PANTE
CO-TEAM LEADER
DATE:

SUBMITTED BY
TEDDY MASANORI
PROJECT MANAGER
DATE:

REPUBLIC OF THE PHILIPPINES
PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority

RECOMMENDING APPROVAL
RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS
DATE:

APPROVED BY
JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP
DATE:

PROJECT TITLE
INFRASTRUCTURE DESIGN OF NEW CLARK CITY
ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT
ROAD 1 & ROAD 2
LIGHTING STATIONING NUMBER

SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-PS-16	16 OF 27

LIGHTING NUMBER	STATION NUMBER
LPs–1	STA.0–47.886
LPs–2	STA.0–25
LPs–3	STA.0+25
LPs–4	STA.0+52.5
LPs–5	STA.0+75
LPs–6	STA.0+100
LPs–7	STA.0+125
LPs–8	STA.0+150
LPs–9	STA.0+175
LPs–10	STA.0+200
LPs–11	STA.0+225
LPs–12	STA.0+250
LPs–13	STA.0+275
LPs–14	STA.0+300
LPs–15	STA.0+325
LPs–16	STA.0+350
LPs–17	STA.0+375
LPs–18	STA.0+400
LPs–19	STA.0+425
LPs–20	STA.0+450
LPs–21	STA.0+475
LPs–22	STA.0+500
LPs–23	STA.0+525
LPs–24	STA.0+545.687
LPs–25	STA.0+575
LPs–26	STA.0+602.5
LPs–27	STA.0+625
LPs–28	STA.0+650
LPs–29	STA.0+675
LPs–30	STA.0+700
LPs–31	STA.0+725
LPs–32	STA.0+750
LPs–33	STA.0+775
LPs–34	STA.0+800
LPs–35	STA.0+833.838
LPs–36	STA.0+850
LPs–37	STA.0+875
LPs–38	STA.0+900
LPs–39	STA.0+925
LPs–40	STA.0+950
LPs–41	STA.0+975
LPs–42	STA.1+026.234
LPs–43	STA.1+052.002
LPs–44	STA.1+077.77
LPs–45	STA.1+103.537
LPs–46	STA.1+129.305
LPs–47	STA.1+155.073
LPs–48	STA.1+180.841
LPs–49	STA.1+206.029
LPs–50	STA.1+231.029
LPs–51	STA.1+256.029
LPs–52	STA.1+285.244
LPs–53	STA.1+306.029

LIGHTING NUMBER	STATION NUMBER
LPs–54	STA.1+331.029
LPs–55	STA.1+356.029
LPs–56	STA.1+381.029
LPs–57	STA.1+406.029
LPs–58	STA.1+431.029
LPs–59	STA.1+481.029
LPs–60	STA.1+507.923
LPs–61	STA.1+532.851
LPs–62	STA.1+559.863
LPs–63	STA.1+586.875
LPs–64	STA.1+613.888
LPs–65	STA.1+667.913
LPs–66	STA.1+694.925
LPs–67	STA.1+720.872
LPs–68	STA.1+745.872
LPs–69	STA.1+770.872
LPs–70	STA.1+795.872
LPs–71	STA.1+820.872
LPs–72	STA.1+845.872
LPs–73	STA.1+870.872
LPs–74	STA.1+895.872
LPs–75	STA.1+920.872
LPs–76	STA.1+945.872
LPs–77	STA.1+970.872
LPs–78	STA.1+995.872
LPs–79	STA.2+021.065
LPs–80	STA.2+046.902
LPs–81	STA.2+072.739
LPs–82	STA.2+098.575
LPs–83	STA.2+124.412
LPs–84	STA.2+150.249
LPs–85	STA.2+176.086
LPs–86	STA.2+201.923
LPs–87	STA.2+227.76
LPs–88	STA.2+253.597
LPs–89	STA.2+282.889
LPs–90	STA.2+305.271
LPs–91	STA.2+331.107
LPs–92	STA.2+356.944
LPs–93	STA.2+382.781
LPs–94	STA.2+408.618
LPs–95	STA.2+434.455
LPs–96	STA.2+460.292
LPs–97	STA.2+486.129
LPs–98	STA.2+511.966
LPs–99	STA.2+537.803
LPs–100	STA.2+563.64
LPs–101	STA.2+589.476
LPs–102	STA.2+615.313
LPs–103	STA.2+641.15
LPs–104	STA.2+666.987
LPs–105	STA.2+692.824
LPs–106	STA.2+718.661

LIGHTING NUMBER	STATION NUMBER
LPs–107	STA.2+744.498
LPs–108	STA.2+770.335
LPs–109	STA.2+796.172
LPs–110	STA.2+821.601
LPs–111	STA.2+846.601
LPs–112	STA.2+871.601
LPs–113	STA.2+896.601
LPs–114	STA.2+921.601
LPs–115	STA.2+946.601
LPs–116	STA.2+971.601
LPs–117	STA.2+996.601
LPs–118	STA.3+022.236
LPs–119	STA.3+048.004
LPs–120	STA.3+073.772
LPs–121	STA.3+099.54
LPs–122	STA.3+125.307
LPs–123	STA.3+151.075
LPs–124	STA.3+176.843
LPs–125	STA.3+202.229
LPs–126	STA.3+227.229
LPs–127	STA.3+252.229
LPs–128	STA.3+277.229
LPs–129	STA.3+302.229
LPs–130	STA.3+327.229
LPs–131	STA.3+352.229
LPs–132	STA.3+377.229
LPs–133	STA.3+402.229
LPs–134	STA.3+427.229
LPs–135	STA.3+452.229
LPs–136	STA.3+477.229
LPs–137	STA.3+502.229
LPs–138	STA.3+527.229
LPs–139	STA.3+552.229
LPs–140	STA.3+577.229
LPs–141	STA.3+602.229
LPs–142	STA.3+627.229
LPs–143	STA.3+652.229
LPs–144	STA.3+677.229
LPs–145	STA.3+702.229
LPs–146	STA.3+727.229
LPs–147	STA.3+752.229
LPs–148	STA.3+777.229
LPs–149	STA.3+802.229
LPs–150	STA.3+827.229
LPs–151	STA.3+852.229
LPs–152	STA.3+877.229
LPs–153	STA.3+902.229
LPs–154	STA.3+927.229
LPs–155	STA.3+952.229
LPs–156	STA.3+977.229
LPs–157	STA.4+002.229
LPs–158	STA.4+027.229
LPs–159	STA.4+052.289

LIGHTING NUMBER	STATION NUMBER
LPs–160	STA.4+078.057
LPs–161	STA.4+103.825
LPs–162	STA.4+129.593
LPs–163	STA.4+155.361
LPs–164	STA.4+180.759
LPs–165	STA.4+205.759
LPs–166	STA.4+230.759
LPs–167	STA.4+255.759
LPs–168	STA.4+280.759
LPs–169	STA.4+305.759
LPs–170	STA.4+330.759
LPs–171	STA.4+356.13
LPs–172	STA.4+381.898
LPs–173	STA.4+407.666
LPs–174	STA.4+433.434
LPs–175	STA.4+459.202
LPs–176	STA.4+484.97
LPs–177	STA.4+510.738
LPs–178	STA.4+536.505
LPs–179	STA.4+562.273
LPs–180	STA.4+588.041
LPs–181	STA.4+613.809
LPs–182	STA.4+639.167
LPs–183	STA.4+664.167
LPs–184	STA.4+689.167
LPs–185	STA.4+714.167
LPs–186	STA.4+739.167
LPs–187	STA.4+764.167
LPs–188	STA.4+789.167
LPs–189	STA.4+814.167
LPs–190	STA.4+839.167
LPs–191	STA.4+864.167
LPs–192	STA.4+889.167
LPs–193	STA.4+915.1
LPs–194	STA.4+942.112
LPs–195	STA.4+969.124
LPs–196	STA.4+996.137
LPs–197	STA.5+023.149
LPs–198	STA.5+050.162
LPs–199	STA.5+077.174
LPs–200	STA.5+131.749
LPs–201	STA.5+153.236
LPs–202	STA.5+178.236
LPs–203	STA.5+203.236
LPs–204	STA.5+228.236
LPs–205	STA.5+253.236
LPs–206	STA.5+278.236
LPs–207	STA.5+303.236
LPs–208	STA.5+328.236
LPs–209	STA.5+353.236
LPs–210	STA.5+378.236
LPs–211	STA.5+403.236
LPs–212	STA.5+428.236

LIGHTING NUMBER	STATION NUMBER
LPs–213	STA.5+453.236
LPs–214	STA.5+478.236
LPs–215	STA.5+503.236
LPs–216	STA.5+528.236
LPs–217	STA.5+553.236
LPs–218	STA.5+578.236
LPs–219	STA.5+603.236
LPs–220	STA.5+628.236
LPs–221	STA.5+653.236
LPs–222	STA.5+678.236
LPs–223	STA.5+703.236
LPs–224	STA.5+728.236
LPs–225	STA.5+781.107
LPs–226	STA.5+803.236
LPs–227	STA.5+828.236
LPs–228	STA.5+853.236
LPs–229	STA.5+878.236
LPs–230	STA.5+903.236
LPs–231	STA.5+928.236
LPs–232	STA.5+953.236
LPs–233	STA.5+972.662
LPs–234	STA.6+007.135
LPs–235	STA.6+028.236
LPs–236	STA.6+053.236
LPs–237	STA.6+078.236
LPs–238	STA.6+103.236
LPs–239	STA.6+128.236
LPs–240	STA.6+153.236
LPs–241	STA.6+178.236
LPs–242	STA.6+203.236
LPs–243	STA.6+228.545
LPs–244	STA.6+254.851
LPs–245	STA.6+282.48
LPs–246	STA.6+307.464
LPs–247	STA.6+333.771
LPs–248	STA.6+360.078
LPs–249	STA.6+385.714
LPs–250	STA.6+410.714
LPs–251	STA.6+435.714
LPs–252	STA.6+460.714
LPs–253	STA.6+487.719
LPs–254	STA.6+514.732
LPs–255	STA.6+541.744
LPs–256	STA.6+568.192

ROAD 2 LIGHTING

LIGHTING NUMBER	STATION NUMBER
LPs–1	STA.0.25
LPs–2	STA.0+52.5
LPs–3	STA.0+75
LPs–4	STA.0+100.33
LPs–5	STA.0+126.098
LPs–6	STA.0+151.866

LIGHTING NUMBER	STATION NUMBER
LPs–7	STA.0+177.634
LPs–8	STA.0+203.402
LPs–9	STA.0+229.17
LPs–10	STA.0+254.937
LPs–11	STA.0+280.008
LPs–12	STA.0+305.008
LPs–13	STA.0+330.008
LPs–14	STA.0+355.008
LPs–15	STA.0+380.008
LPs–16	STA.0+405.008
LPs–17	STA.0+430.008
LPs–18	STA.0+455.008
LPs–19	STA.0+480.008
LPs–20	STA.0+505.008
LPs–21	STA.0+530.008
LPs–22	STA.0+555.494
LPs–23	STA.0+581.262
LPs–24	STA.0+607.03
LPs–25	STA.0+632.798
LPs–26	STA.0+658.565
LPs–27	STA.0+684.333
LPs–28	STA.0+710.017
LPs–29	STA.0+735.017
LPs–30	STA.0+760.017
LPs–31	STA.0+785.017
LPs–32	STA.0+810.017
LPs–33	STA.0+835.017
LPs–34	STA.0+852.517
LPs–35	STA.0+910.017
LPs–36	STA.0+935.017
LPs–37	STA.0+960.017
LPs–38	STA.0+985.017
LPs–39	STA.1+010.017
LPs–40	STA.1+035.017
LPs–41	STA.1+060.017
LPs–42	STA.1+092.217
LPs–43	STA.1+110.017
LPs–44	STA.1+135.017
LPs–45	STA.1+160.017
LPs–46	STA.1+185.017
LPs–47	STA.1+210.017
LPs–48	STA.1+235.017
LPs–49	STA.1+260.017
LPs–50	STA.1+285.017
LPs–51	STA.1+310.017
LPs–52	STA.1+335.017
LPs–53	STA.1+360.017
LPs–54	STA.1+385.017
LPs–55	STA.1+410.017
LPs–56	STA.1+435.017
LPs–57	STA.1+460.017
LPs–58	STA.1+485.017
LPs–59	STA.1+510.017

LIGHTING NUMBER	STATION NUMBER
LPs–60	STA.1+535.017
LPs–61	STA.1+560.017
LPs–62	STA.1+585.017
LPs–63	STA.1+610.017
LPs–64	STA.1+635.017
LPs–65	STA.1+660.017
LPs–66	STA.1+685.017
LPs–67	STA.1+715.517
LPs–68	STA.1+735.017
LPs–69	STA.1+760.017
LPs–70	STA.1+785.017
LPs–71	STA.1+810.017
LPs–72	STA.1+835.017
LPs–73	STA.1+860.017
LPs–74	STA.1+885.017
LPs–75	STA.1+910.017
LPs–76	STA.1+935.017
LPs–77	STA.1+960.017
LPs–78	STA.1+985.017
LPs–79	STA.2+010.017
LPs–80	STA.2+035.017
LPs–81	STA.2+060.017
LPs–82	STA.2+085.017
LPs–83	STA.2+112.517
LPs–84	STA.2+135.017
LPs–85	STA.2+152.617
LPs–86	STA.2+200.017

NOTES

1. FOR GENERAL NOTES SEE PH1–PS–05
2. FOR LEGENDS SEE PH1–PS–05

1 PH1–PS–17

ROAD 1 & ROAD 2 LIGHTING STATIONING NUMBER

NOT TO SCALE

CONSULTANTS

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BCDA

RECOMMENDING APPROVAL
RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS
DATE:

APPROVED BY
JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP
DATE:

PROJECT TITLE
INFRASTRUCTURE DESIGN OF NEW CLARK CITY
ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT
ROAD 1 & ROAD 2
LIGHTING STATIONING NUMBER

SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-PS-17	17 OF 27

LIGHTING NUMBER	STATION NUMBER
LPn–1	STA.0–47.886
LPn–2	STA.0–25
LPn–3	STA.0+25
LPn–4	STA.0+52.5
LPn–5	STA.0+75
LPn–6	STA.0+100
LPn–7	STA.0+125
LPn–8	STA.0+150
LPn–9	STA.0+175
LPn–10	STA.0+200
LPn–11	STA.0+225
LPn–12	STA.0+250
LPn–13	STA.0+275
LPn–14	STA.0+300
LPn–15	STA.0+325
LPn–16	STA.0+350
LPn–17	STA.0+375
LPn–18	STA.0+400
LPn–19	STA.0+425
LPn–20	STA.0+450
LPn–21	STA.0+475
LPn–22	STA.0+500
LPn–23	STA.0+525
LPn–24	STA.0+550.008
LPn–25	STA.0+575
LPn–26	STA.0+602.5
LPn–27	STA.0+625
LPn–28	STA.0+650
LPn–29	STA.0+675
LPn–30	STA.0+700
LPn–31	STA.0+725
LPn–32	STA.0+750
LPn–33	STA.0+775
LPn–34	STA.0+800
LPn–35	STA.0+825.008
LPn–36	STA.0+850
LPn–37	STA.0+875
LPn–38	STA.0+900
LPn–39	STA.0+925
LPn–40	STA.0+950
LPn–41	STA.0+975
LPn–42	STA.1+000.474
LPn–43	STA.1+026.234
LPn–44	STA.1+052.002
LPn–45	STA.1+077.77
LPn–46	STA.1+103.537
LPn–47	STA.1+129.305
LPn–48	STA.1+155.073
LPn–49	STA.1+180.841
LPn–50	STA.1+206.029
LPn–51	STA.1+231.029
LPn–52	STA.1+256.029
LPn–53	STA.1+285.244

LIGHTING NUMBER	STATION NUMBER
LPn–54	STA.1+306.029
LPn–55	STA.1+331.029
LPn–56	STA.1+356.029
LPn–57	STA.1+381.029
LPn–58	STA.1+406.029
LPn–59	STA.1+431.029
LPn–60	STA.1+456.037
LPn–61	STA.1+481.029
LPn–62	STA.1+507.923
LPn–63	STA.1+532.851
LPn–64	STA.1+559.863
LPn–65	STA.1+586.875
LPn–66	STA.1+613.888
LPn–67	STA.1+640.908
LPn–68	STA.1+667.913
LPn–69	STA.1+694.925
LPn–70	STA.1+720.872
LPn–71	STA.1+745.872
LPn–72	STA.1+770.872
LPn–73	STA.1+795.872
LPn–74	STA.1+820.872
LPn–75	STA.1+845.872
LPn–76	STA.1+870.872
LPn–77	STA.1+895.872
LPn–78	STA.1+920.872
LPn–79	STA.1+945.872
LPn–80	STA.1+970.872
LPn–81	STA.1+995.872
LPn–82	STA.2+021.065
LPn–83	STA.2+046.902
LPn–84	STA.2+072.739
LPn–85	STA.2+098.575
LPn–86	STA.2+124.412
LPn–87	STA.2+150.249
LPn–88	STA.2+176.086
LPn–89	STA.2+201.923
LPn–90	STA.2+227.76
LPn–91	STA.2+253.597
LPn–92	STA.2+282.889
LPn–93	STA.2+305.271
LPn–94	STA.2+331.107
LPn–95	STA.2+356.944
LPn–96	STA.2+382.781
LPn–97	STA.2+408.618
LPn–98	STA.2+434.455
LPn–99	STA.2+486.129
LPn–100	STA.2+511.966
LPn–101	STA.2+537.803
LPn–102	STA.2+563.64
LPn–103	STA.2+589.476
LPn–104	STA.2+615.313
LPn–105	STA.2+641.15
LPn–106	STA.2+666.987

LIGHTING NUMBER	STATION NUMBER
LPn–107	STA.2+692.824
LPn–108	STA.2+718.661
LPn–109	STA.2+744.498
LPn–110	STA.2+770.335
LPn–111	STA.2+796.172
LPn–112	STA.2+821.601
LPn–113	STA.2+846.601
LPn–114	STA.2+871.601
LPn–115	STA.2+896.601
LPn–116	STA.2+921.601
LPn–117	STA.2+946.601
LPn–118	STA.2+971.601
LPn–119	STA.2+996.601
LPn–120	STA.3+022.236
LPn–121	STA.3+048.004
LPn–122	STA.3+073.772
LPn–123	STA.3+099.54
LPn–124	STA.3+125.307
LPn–125	STA.3+151.075
LPn–126	STA.3+176.843
LPn–127	STA.3+202.229
LPn–128	STA.3+227.229
LPn–129	STA.3+252.229
LPn–130	STA.3+277.229
LPn–131	STA.3+302.229
LPn–132	STA.3+327.229
LPn–133	STA.3+352.229
LPn–134	STA.3+377.229
LPn–135	STA.3+402.229
LPn–136	STA.3+427.229
LPn–137	STA.3+452.229
LPn–138	STA.3+477.229
LPn–139	STA.3+502.229
LPn–140	STA.3+527.229
LPn–141	STA.3+552.229
LPn–142	STA.3+577.229
LPn–143	STA.3+602.229
LPn–144	STA.3+627.229
LPn–145	STA.3+652.229
LPn–146	STA.3+677.229
LPn–147	STA.3+702.229
LPn–148	STA.3+727.229
LPn–149	STA.3+752.229
LPn–150	STA.3+777.229
LPn–151	STA.3+802.229
LPn–152	STA.3+827.229
LPn–153	STA.3+852.229
LPn–154	STA.3+877.229
LPn–155	STA.3+902.229
LPn–156	STA.3+927.229
LPn–157	STA.3+952.229
LPn–158	STA.3+977.229
LPn–159	STA.4+002.229

LIGHTING NUMBER	STATION NUMBER
LPn–160	STA.4+027.229
LPn–161	STA.4+052.289
LPn–162	STA.4+078.057
LPn–163	STA.4+103.825
LPn–164	STA.4+129.593
LPn–165	STA.4+155.361
LPn–166	STA.4+180.759
LPn–167	STA.4+205.759
LPn–168	STA.4+230.759
LPn–169	STA.4+255.759
LPn–170	STA.4+280.759
LPn–171	STA.4+305.759
LPn–172	STA.4+330.759
LPn–173	STA.4+356.13
LPn–174	STA.4+381.898
LPn–175	STA.4+407.666
LPn–176	STA.4+433.434
LPn–177	STA.4+459.202
LPn–178	STA.4+484.97
LPn–179	STA.4+510.738
LPn–180	STA.4+536.505
LPn–181	STA.4+562.273
LPn–182	STA.4+588.041
LPn–183	STA.4+613.809
LPn–184	STA.4+639.167
LPn–185	STA.4+664.167
LPn–186	STA.4+689.167
LPn–187	STA.4+714.167
LPn–188	STA.4+739.167
LPn–189	STA.4+764.167
LPn–190	STA.4+789.167
LPn–191	STA.4+814.167
LPn–192	STA.4+839.167
LPn–193	STA.4+864.167
LPn–194	STA.4+889.167
LPn–195	STA.4+915.1
LPn–196	STA.4+942.112
LPn–197	STA.4+969.124
LPn–198	STA.4+996.137
LPn–199	STA.5+023.149
LPn–200	STA.5+050.162
LPn–201	STA.5+077.174
LPn–202	STA.5+103.244
LPn–203	STA.5+128.244
LPn–204	STA.5+153.236
LPn–205	STA.5+178.236
LPn–206	STA.5+203.236
LPn–207	STA.5+228.236
LPn–208	STA.5+253.236
LPn–209	STA.5+278.236
LPn–210	STA.5+303.236
LPn–211	STA.5+328.236
LPn–212	STA.5+353.236

LIGHTING NUMBER	STATION NUMBER
LPn–213	STA.5+378.236
LPn–214	STA.5+403.236
LPn–215	STA.5+428.236
LPn–216	STA.5+453.236
LPn–217	STA.5+478.236
LPn–218	STA.5+503.236
LPn–219	STA.5+528.236
LPn–220	STA.5+553.236
LPn–221	STA.5+578.236
LPn–222	STA.5+603.236
LPn–223	STA.5+628.236
LPn–224	STA.5+653.236
LPn–225	STA.5+678.236
LPn–226	STA.5+703.236
LPn–227	STA.5+728.236
LPn–228	STA.5+746.231
LPn–229	STA.5+778.244
LPn–230	STA.5+803.236
LPn–231	STA.5+828.236
LPn–232	STA.5+853.236
LPn–233	STA.5+878.236
LPn–234	STA.5+903.236
LPn–235	STA.5+928.236
LPn–236	STA.5+953.236
LPn–237	STA.5+972.559
LPn–238	STA.6+007.608
LPn–239	STA.6+028.236
LPn–240	STA.6+053.236
LPn–241	STA.6+078.236
LPn–242	STA.6+103.236
LPn–243	STA.6+128.236
LPn–244	STA.6+153.236
LPn–245	STA.6+178.236
LPn–246	STA.6+203.236
LPn–247	STA.6+228.545
LPn–248	STA.6+254.851
LPn–249	STA.6+282.48
LPn–250	STA.6+307.464
LPn–251	STA.6+333.771
LPn–252	STA.6+360.078
LPn–253	STA.6+385.714
LPn–254	STA.6+410.714
LPn–255	STA.6+435.714
LPn–256	STA.6+460.714
LPn–257	STA.6+487.719
LPn–258	STA.6+514.732
LPn–259	STA.6+541.744
LPn–260	STA.6+568.192

ROAD 2 LIGHTING

LIGHTING NUMBER	STATION NUMBER
LPn–1	STA.0.25
LPn–2	STA.0+52.5
LPn–3	STA.0+75
LPn–4	STA.0+100.33
LPn–5	STA.0+126.098
LPn–6	STA.0+151.866
LPn–7	STA.0+177.634
LPn–8	STA.0+203.402
LPn–9	STA.0+229.17
LPn–10	STA.0+254.937
LPn–11	STA.0+280.008
LPn–12	STA.0+305.008
LPn–13	STA.0+330.008
LPn–14	STA.0+355.008
LPn–15	STA.0+380.008
LPn–16	STA.0+405.008
LPn–17	STA.0+430.008
LPn–18	STA.0+455.008
LPn–19	STA.0+480.008
LPn–20	STA.0+505.008
LPn–21	STA.0+530.008
LPn–22	STA.0+555.494
LPn–23	STA.0+581.262
LPn–24	STA.0+607.03
LPn–25	STA.0+632.798
LPn–26	STA.0+658.565
LPn–27	STA.0+684.333
LPn–28	STA.0+710.017
LPn–29	STA.0+735.017
LPn–30	STA.0+760.017
LPn–31	STA.0+785.017
LPn–32	STA.0+810.017
LPn–33	STA.0+835.017
LPn–34	STA.0+852.517
LPn–35	STA.0+910.017
LPn–36	STA.0+935.017
LPn–37	STA.0+960.017
LPn–38	STA.0+985.017
LPn–39	STA.1+010.017
LPn–40	STA.1+035.017
LPn–41	STA.1+060.017
LPn–42	STA.1+092.217
LPn–43	STA.1+110.017
LPn–44	STA.1+135.017
LPn–45	STA.1+160.017
LPn–46	STA.1+185.017
LPn–47	STA.1+210.017
LPn–48	STA.1+235.017
LPn–49	STA.1+260.017
LPn–50	STA.1+285.017
LPn–51	STA.1+310.017
LPn–52	STA.1+335.017
LPn–53	STA.1+360.017
LPn–54	STA.1+385.017
LPn–55	STA.1+410.017

LIGHTING NUMBER	STATION NUMBER
LPn–56	STA.1+435.017
LPn–57	STA.1+460.017
LPn–58	STA.1+485.017
LPn–59	STA.1+510.017
LPn–60	STA.1+535.017
LPn–61	STA.1+560.017
LPn–62	STA.1+585.017
LPn–63	STA.1+610.017
LPn–64	STA.1+635.017
LPn–65	STA.1+660.017
LPn–66	STA.1+677.817
LPn–67	STA.1+735.017
LPn–68	STA.1+760.017
LPn–69	STA.1+785.017
LPn–70	STA.1+810.017
LPn–71	STA.1+835.017
LPn–72	STA.1+860.017
LPn–73	STA.1+885.017
LPn–74	STA.1+910.017
LPn–75	STA.1+935.017
LPn–76	STA.1+960.017
LPn–77	STA.1+985.017
LPn–78	STA.2+010.017
LPn–79	STA.2+035.017
LPn–80	STA.2+060.017
LPn–81	STA.2+085.017
LPn–82	STA.2+112.517
LPn–83	STA.2+135.017
LPn–84	STA.2+152.617
LPn–85	STA.2+200.017

NOTES

1. FOR GENERAL NOTES SEE PH1–PS–05
2. FOR LEGENDS SEE PH1–PS–05

1 PH1–PS–18

ROAD 1 & ROAD 2 LIGHTING STATIONING NUMBER

NOT TO SCALE

CONSULTANTS

NIPPON KOEI CO.,LTD.

PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY
CHARLES P. PANTE
ELECTRICAL ENGINEER
DATE:

CHECKED BY
CHARLES P. PANTE
CO-TEAM LEADER
DATE:

SUBMITTED BY
TEDDY MASANORI
PROJECT MANAGER
DATE:

REPUBLIC OF THE PHILIPPINES
PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority

RECOMMENDING APPROVAL
RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS
DATE:

APPROVED BY
JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP
DATE:

PROJECT TITLE
INFRASTRUCTURE DESIGN OF NEW CLARK CITY
ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT
ROAD 1 & ROAD 2
LIGHTING STATIONING NUMBER

SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-PS-18	18 OF 27

ROAD 1 ELECTRICAL HANDHOLE					
EHc ⊙ CENTER ROAD	STATION NUMBER	EHs ⊙ CENTER ROAD	STATION NUMBER	EHn ⊙ CENTER ROAD	STATION NUMBER
EHc−1	STA.0−21.831	EHs−1	STA.0−21.831	EHn−1	STA.0−21.831
EHc−2	STA.0+236.505	EHs−2	STA.0+236.505	EHn−2	STA.0+236.505
EHc−3	STA.0+488.005	EHs−3	STA.0+488.005	EHn−3	STA.0+488.005
EHc−4	STA.0+738.005	EHs−4	STA.0+738.005	EHn−4	STA.0+738.005
EHc−5	STA.0+988.005	EHs−5	STA.0+988.005	EHn−5	STA.0+988.005
EHc−6	STA.1+238.005	EHs−6	STA.1+238.005	EHn−6	STA.1+238.005
EHc−7	STA.1+488.005	EHs−7	STA.1+488.005	EHn−7	STA.1+488.005
EHc−8	STA.1+738.005	EHs−8	STA.1+738.005	EHn−8	STA.1+738.005
EHc−9	STA.1+988.005	EHs−9	STA.1+988.005	EHn−9	STA.1+988.005
EHc−10	STA.2+238.005	EHs−10	STA.2+238.005	EHn−10	STA.2+238.005
EHc−11	STA.2+488.005	EHs−11	STA.2+488.005	EHn−11	STA.2+488.005
EHc−12	STA.2+498.245	EHs−12	STA.2+498.245	EHn−12	STA.2+498.245
EHc−13	STA.2+748.245	EHs−13	STA.2+748.245	EHn−13	STA.2+748.245
EHc−14	STA.2+994.229	EHs−14	STA.2+994.229	EHn−14	STA.2+994.229
EHc−15	STA.3+248.245	EHs−15	STA.3+248.245	EHn−15	STA.3+248.245
EHc−16	STA.3+498.245	EHs−16	STA.3+498.245	EHn−16	STA.3+498.245
EHc−17	STA.3+748.245	EHs−17	STA.3+748.245	EHn−17	STA.3+748.245
EHc−18	STA.4+000.792	EHs−18	STA.3+998.095	EHn−18	STA.3+998.095
EHc−19	STA.4+248.245	EHs−19	STA.4+248.245	EHn−19	STA.4+248.245
EHc−20	STA.4+498.245	EHs−20	STA.4+498.245	EHn−20	STA.4+498.245
EHc−21	STA.4+748.245	EHs−21	STA.4+748.245	EHn−21	STA.4+748.245
EHc−22	STA.4+998.245	EHs−22	STA.4+998.245	EHn−22	STA.4+998.245
EHc−23	STA.5+248.245	EHs−23	STA.5+248.245	EHn−23	STA.5+248.245
EHc−24	STA.5+498.245	EHs−24	STA.5+498.245	EHn−24	STA.5+498.245
EHc−25	STA.5+748.245	EHs−25	STA.5+748.245	EHn−25	STA.5+748.245
EHc−26	STA.5+998.245	EHs−26	STA.5+998.245	EHn−26	STA.5+998.245
EHc−27	STA.6+248.245	EHs−27	STA.6+248.245	EHn−27	STA.6+248.245
EHc−28	STA.6+498.245	EHs−28	STA.6+498.245	EHn−28	STA.6+498.245

ROAD 2 ELECTRICAL HANDHOLE					
EHc ⊙ CENTER ROAD	STATION NUMBER	EHs ⊙ CENTER ROAD	STATION NUMBER	EHn ⊙ CENTER ROAD	STATION NUMBER
EHc−1	STA.0+82.757	EHs−1	STA.0+82.757	EHn−1	STA.0+82.757
EHc−2	STA.0+332.757	EHs−2	STA.0+332.757	EHn−2	STA.0+332.757
EHc−3	STA.0+582.757	EHs−3	STA.0+582.757	EHn−3	STA.0+582.757
EHc−4	STA.0+832.757	EHs−4	STA.0+832.757	EHn−4	STA.0+832.757
EHc−5	STA.1+085.757	EHs−5	STA.1+085.757	EHn−5	STA.1+085.757
EHc−6	STA.1+332.757	EHs−6	STA.1+332.757	EHn−6	STA.1+332.757
EHc−7	STA.1+582.757	EHs−7	STA.1+582.757	EHn−7	STA.1+582.757
EHc−8	STA.1+832.757	EHs−8	STA.1+832.757	EHn−8	STA.1+832.757
EHc−9	STA.2+082.757	EHc−9	STA.2+082.757	EHc−9	STA.2+082.757

NOTES

1. FOR GENERAL NOTES SEE PH1−PS−05
2. FOR LEGENDS SEE PH1−PS−05

1 (PH1−PS−19) ROAD 1 & ROAD 2 HANDHOLE STATIONING NUMBER

NOT TO SCALE

CONSULTANTS

NIPPON KOEI CO.,LTD.

PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY
CHARLES P. PANTE
ELECTRICAL ENGINEER
DATE:

CHECKED BY
CHARLES P. PANTE
CO-TEAM LEADER
DATE:

SUBMITTED BY
TEDDY MASANORI
PROJECT MANAGER
DATE:

REPUBLIC OF THE PHILIPPINES
PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority

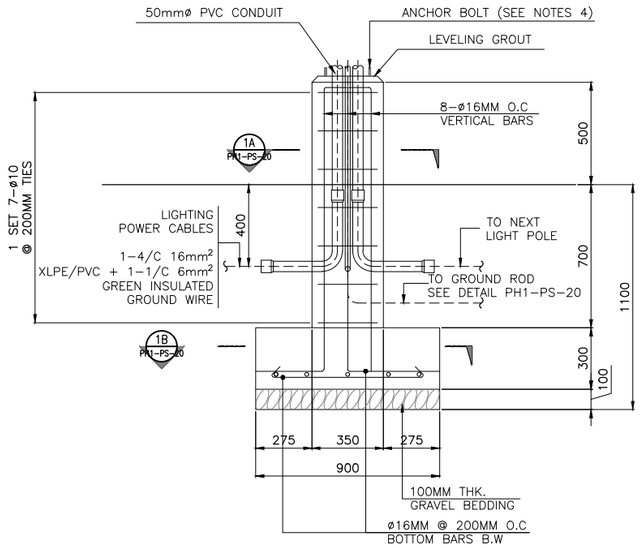
RECOMMENDING APPROVAL
RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS
DATE:

APPROVED BY
JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP
DATE:

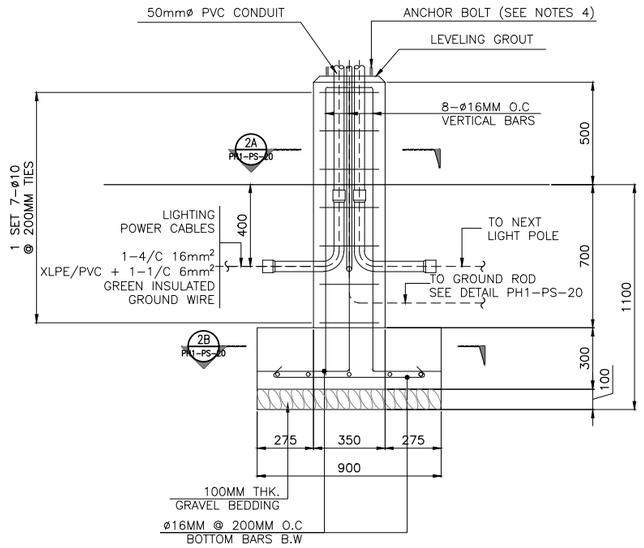
PROJECT TITLE
INFRASTRUCTURE DESIGN OF NEW CLARK CITY
ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT
ROAD 1 AND ROAD 2
HANDHOLE STATIONING NUMBER

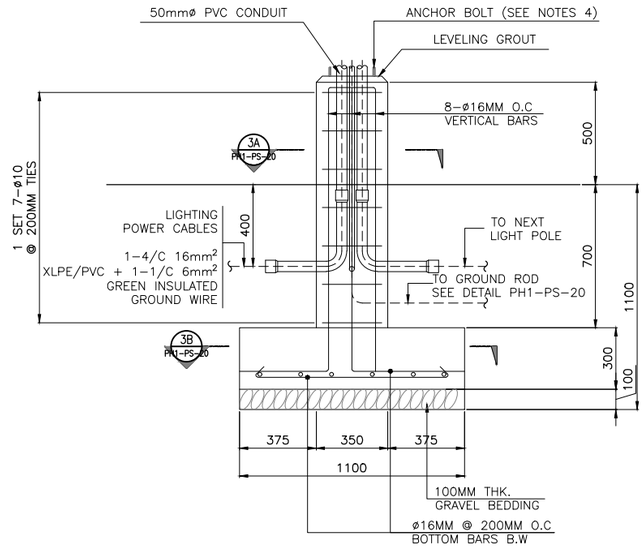
SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-PS-19	19 OF 27



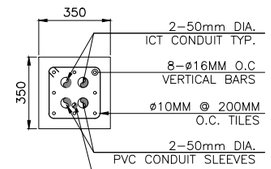
1 PH1-PS-20 TYPICAL TO 39 AND 41.5 ROW
6M DOUBLE ARM POLE FOUNDATION (SOUTH SIDE)
SCALE 1:15



2 PH1-PS-20 TYPICAL TO 39 AND 41.5 ROW
6M DOUBLE ARM POLE FOUNDATION (NORTH SIDE)
SCALE 1:15



3 PH1-PS-20 TYPICAL TO 50 ROW
6M DOUBLE ARM POLE FOUNDATION
SCALE 1:15



1A PH1-PS-20 SECTION
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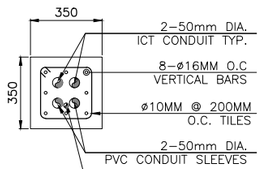

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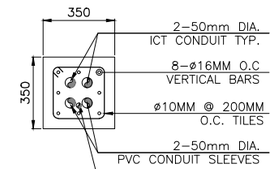
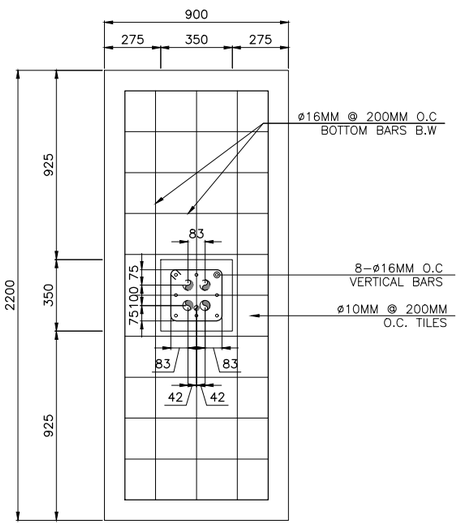
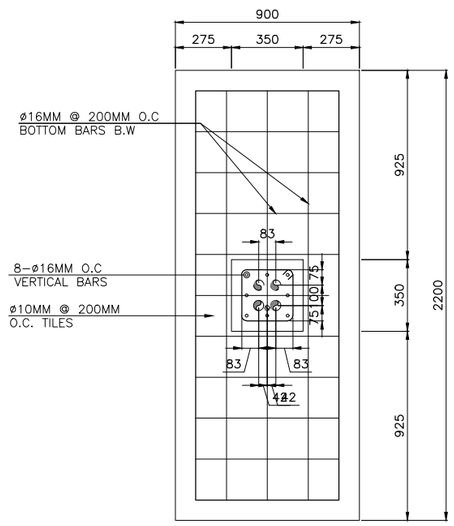
SCALE 1:15



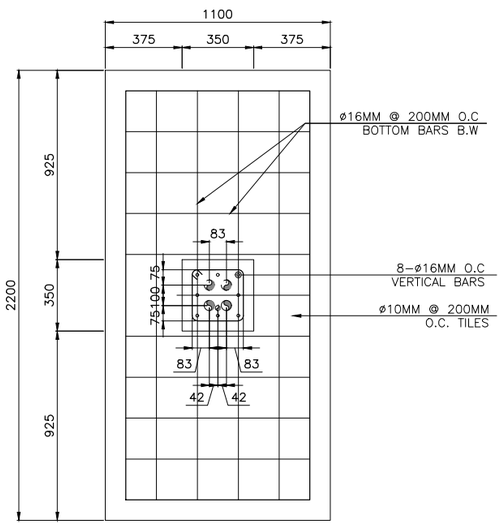
3A PH1-PS-20 SECTION
SCALE 1:15



1B PH1-PS-20 SECTION
SCALE 1:15



2B PH1-PS-20 SECTION
SCALE 1:15



3B PH1-PS-20 SECTION
SCALE 1:15

NOTES

1. PIPE THICKNESS IS 3.0mm. STRUCTURAL MATERIALS TUBULAR STEEL IN HOT–DIPPED GALVANIZED W/ BASE PLATE (SQUARE) 10.5" (267mm)
2. POLE HEIGHT – 9.5m WITH DOUBLE ARM – 1.8m
3. POLE HEIGHT – 5.5m WITH DOUBLE ARM 1.0m W/ BASE PLATE (SQUARE) 10" (254mm)
4. ANCHOR BOLTS SIZE: 1"(25mm) X 36" (914mm) LENGTH X 4" (100mm) hook dia. CONTRACTOR TO VERIFY FROM POLE MANUFACTURER ACTUAL MOUNTING DIMENSION OF ANCHOR BOLT PLACEMENT PRIOR TO CONCRETING WORKS.

A. REINFORCED CONCRETE 3,000 PSI, 3/4 AGGREGATES 28 DAYS

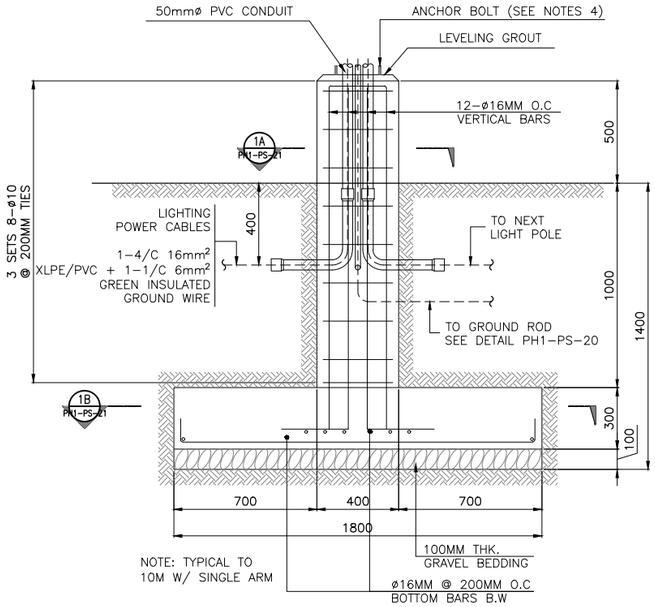
B. SCHEDULE OF REINFORCING BARS

DIAMETER OF BARS	GRADE	ASTM
ø12 AND SMALLER (WELDABLE)	GRADE 40 (40,000psi)	A706M PNS49
ø16 AND LARGER (WELDABLE)	GRADE 60 (60,000psi)	A706M PNS49

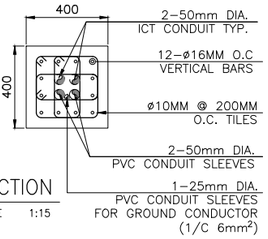
C. ASSUMED SOIL BEARING CAPACITY =100 KPA

D. WIND SPEED = 260 KPH

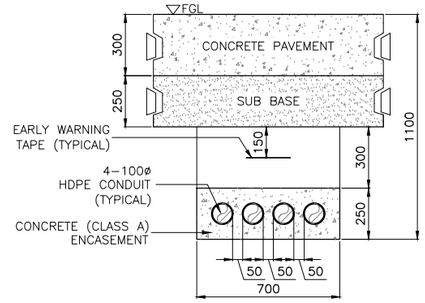
CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES	BCDA Bases Conversion and Development Authority	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	(TYPICAL FOR 39M, 41.5M AND 50M ROW) 6M LIGHTING ARM POLE FOUNDATION	AS SHOWN	DRAFT FINAL
			PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:			DRAWING NO. PH1-PS-20	SHEET NO. 20 OF 27



1 PH1–PS–21 10M SINGLE AND DOUBLE ARM POLE FOUNDATION
SCALE 1:15

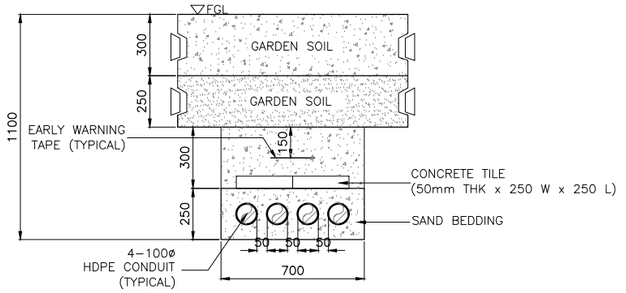


1A PH1–PS–21 SECTION
SCALE 1:15



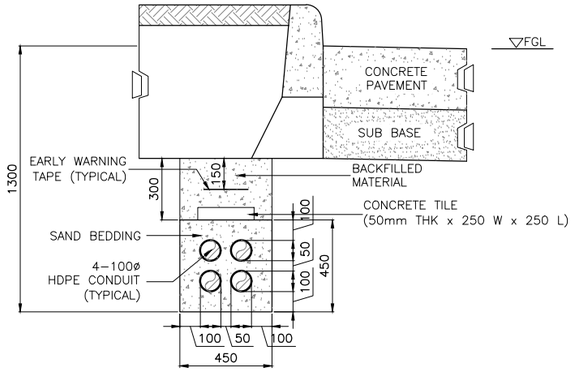
6M DOUBLE ARM POLE
LOW VOLTAGE DUCTBANK DETAIL
FOR ROAD CROSSING – ROAD LIGHTING CABLE

2 PH1–PS–21 SCALE 1:15



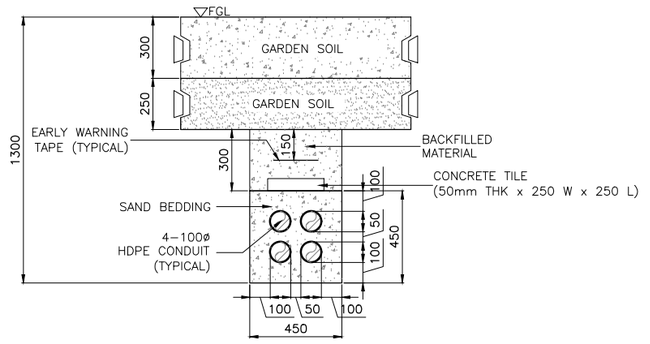
6M DOUBLE ARM POLE
LOW VOLTAGE DIRECT BURIAL POWER CABLE IN HDPE CONDUIT
(FOR NON–ROAD CROSSING)

3 PH1–PS–21 SCALE 1:15



10M SINGLE AND DOUBLE ARM POLE
LOW VOLTAGE DIRECT BURIAL POWER CABLE IN HDPE CONDUIT
(FOR ROAD CROSSING)

4 PH1–PS–21 SCALE 1:15



10M SINGLE AND DOUBLE ARM POLE
LOW VOLTAGE DIRECT BURIAL POWER CABLE IN HDPE CONDUIT
(FOR NON–ROAD CROSSING)

5 PH1–PS–21 SCALE 1:15

NOTES

1. PIPE THICKNESS IS 3.0mm. STRUCTURAL MATERIALS TUBULAR STEEL IN HOT–DIPPED GALVANIZED W/ BASE PLATE (SQUARE) 10.5" (267mm)
2. POLE HEIGHT – 9.5m WITH DOUBLE ARM – 1.8m
3. POLE HEIGHT – 5.5m WITH DOUBLE ARM 1.0m W/ BASE PLATE (SQUARE) 10" (254mm)
4. ANCHOR BOLTS SIZE: 1"(25mm) X 36" (914mm) LENGTH X 4" (100mm) hook dia. CONTRACTOR TO VERIFY FROM POLE MANUFACTURER ACTUAL MOUNTING DIMENSION OF ANCHOR BOLT PLACEMENT PRIOR TO CONCRETING WORKS.

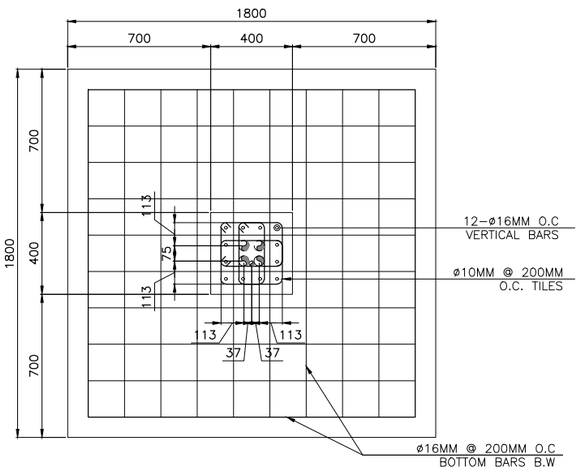
A. REINFORCED CONCRETE 3,000 PSI, 3/4 AGGREGATES 28 DAYS

B. SCHEDULE OF REINFORCING BARS

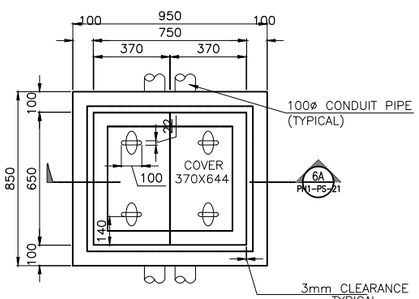
DIAMETER OF BARS	GRADE	ASTM
ø12 AND SMALLER (WELDABLE)	GRADE 40 (40,000psi)	A706M PNS49
ø16 AND LARGER (WELDABLE)	GRADE 60 (60,000psi)	A706M PNS49

C. ASSUMED SOIL BEARING CAPACITY =100 KPA

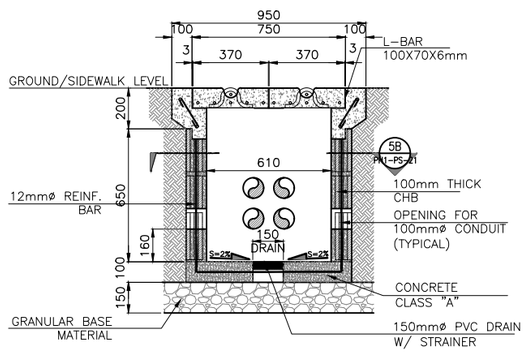
D. WIND SPEED = 260 KPH



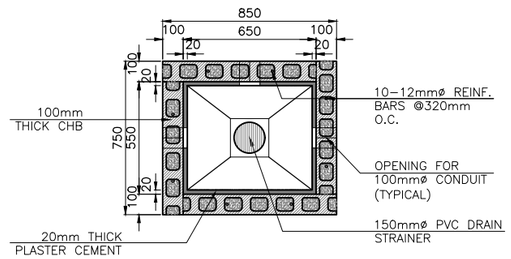
2B PH1–PS–21 SECTION
SCALE 1:15



6 PH1–PS–21 HANDHOLE PLAN
SCALE 1:15

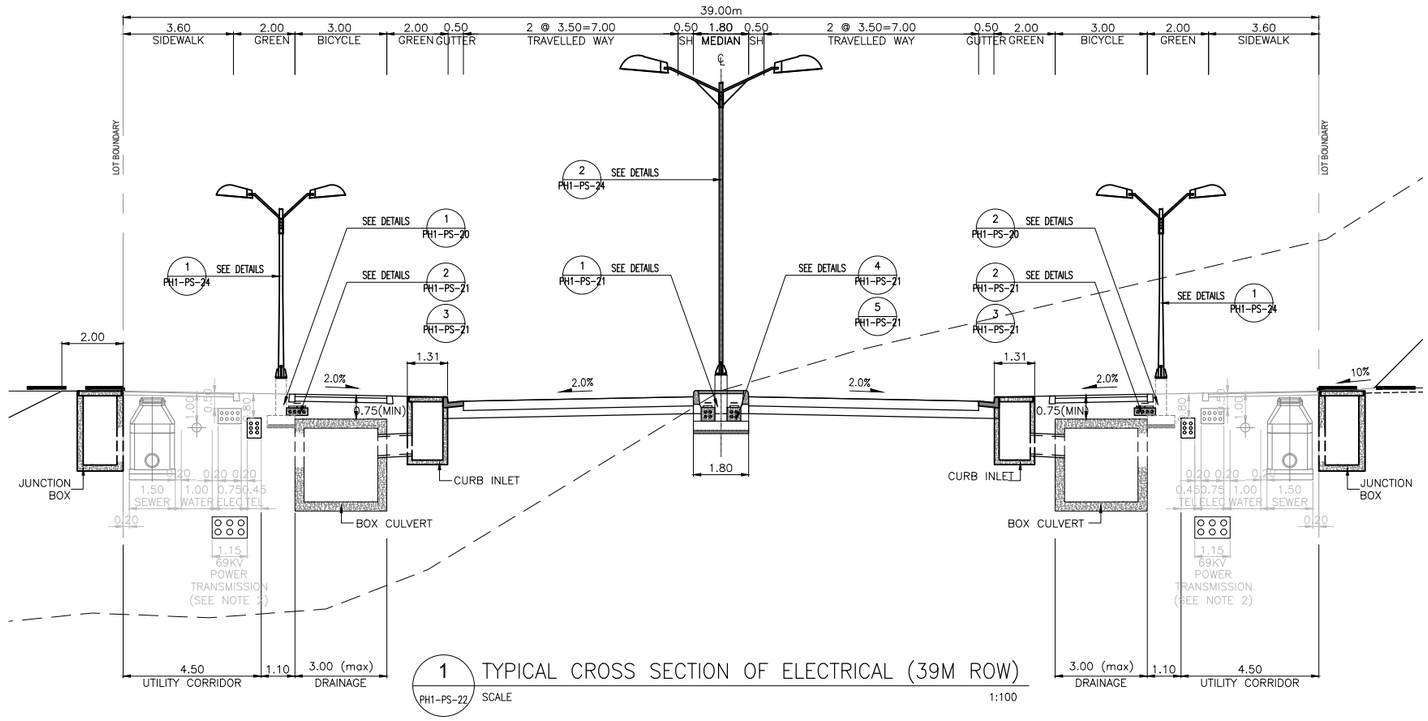


6A PH1–PS–21 SCALE 1:15



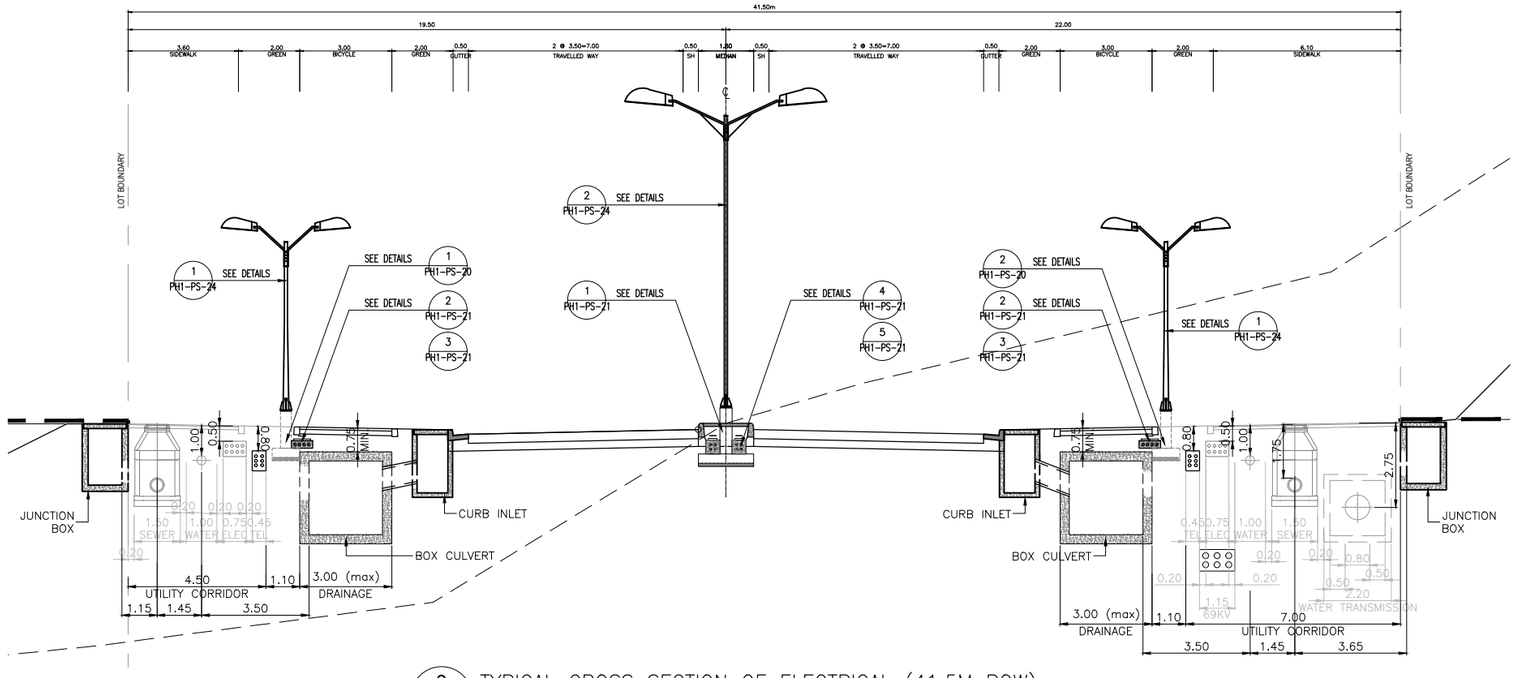
6B PH1–PS–21 SCALE 1:15

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority / RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	10M LIGHTING ARM POLE FOUNDATION / HANDHOLE & DUCTBANK DETAILS	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-PS-21	SHEET NO. 21 OF 27



1 PH1-PS-22 TYPICAL CROSS SECTION OF ELECTRICAL (39M ROW)

SCALE 1:100



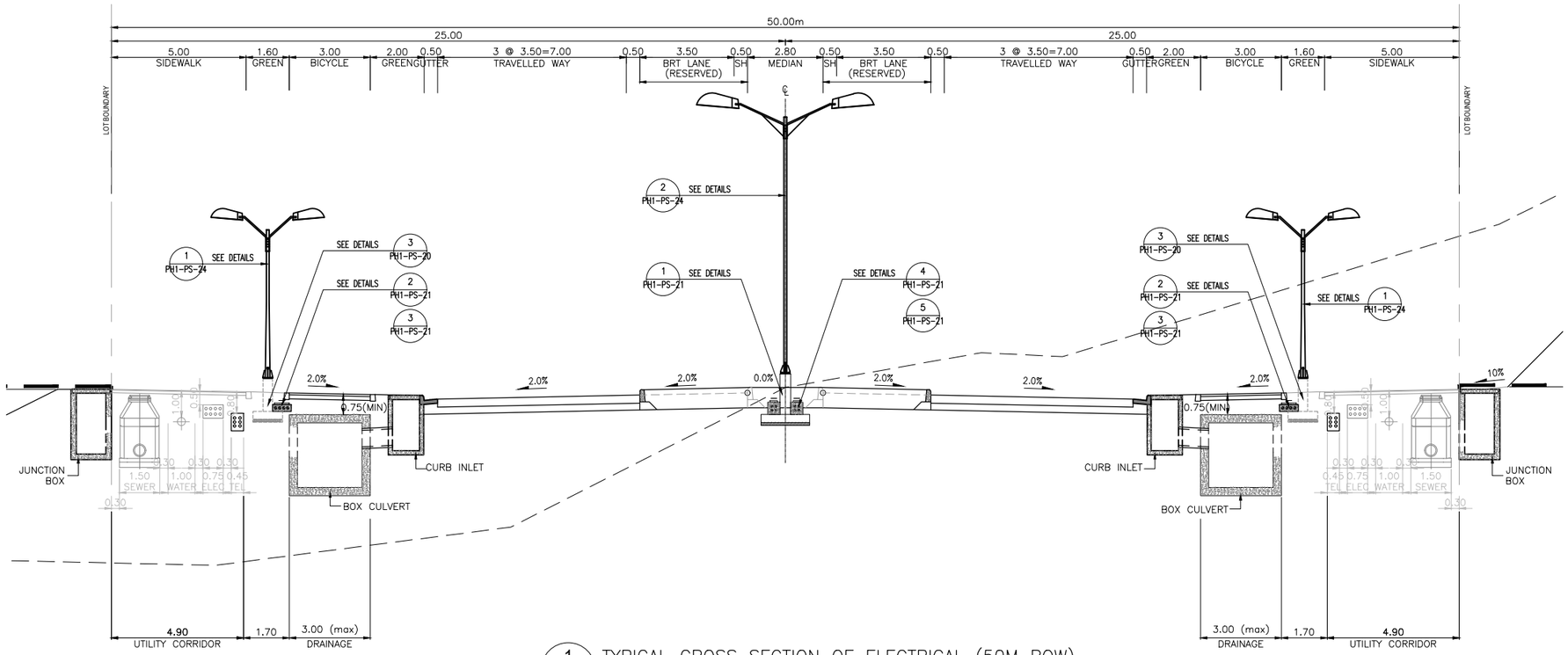
2 PH1-PS-22 TYPICAL CROSS SECTION OF ELECTRICAL (41.5M ROW)

SCALE 1:100

NOTES

1. FOR GENERAL NOTES & LEGEND SEE REF. PH1-PS-05
2. FOR DRAWING DETAILS SEE REF. PH1-PS-20, PH1-PS-21 & PH1-PS-24

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. (CONSULTANTS PLANNERS ENGINEERS)	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority — RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	TYPICAL CROSS SECTION OF ELECTRICAL (39M ROW) & (41.5 ROW)	AS SHOWN	DRAFT FINAL
							DRAWING NO.	SHEET NO.
							PH1-PS-22	22 OF 27



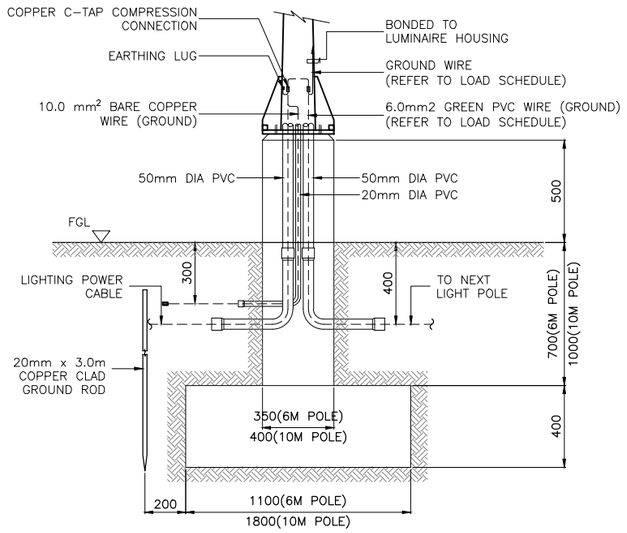
1 PH1-PS-23 TYPICAL CROSS SECTION OF ELECTRICAL (50M ROW)

SCALE 1:100

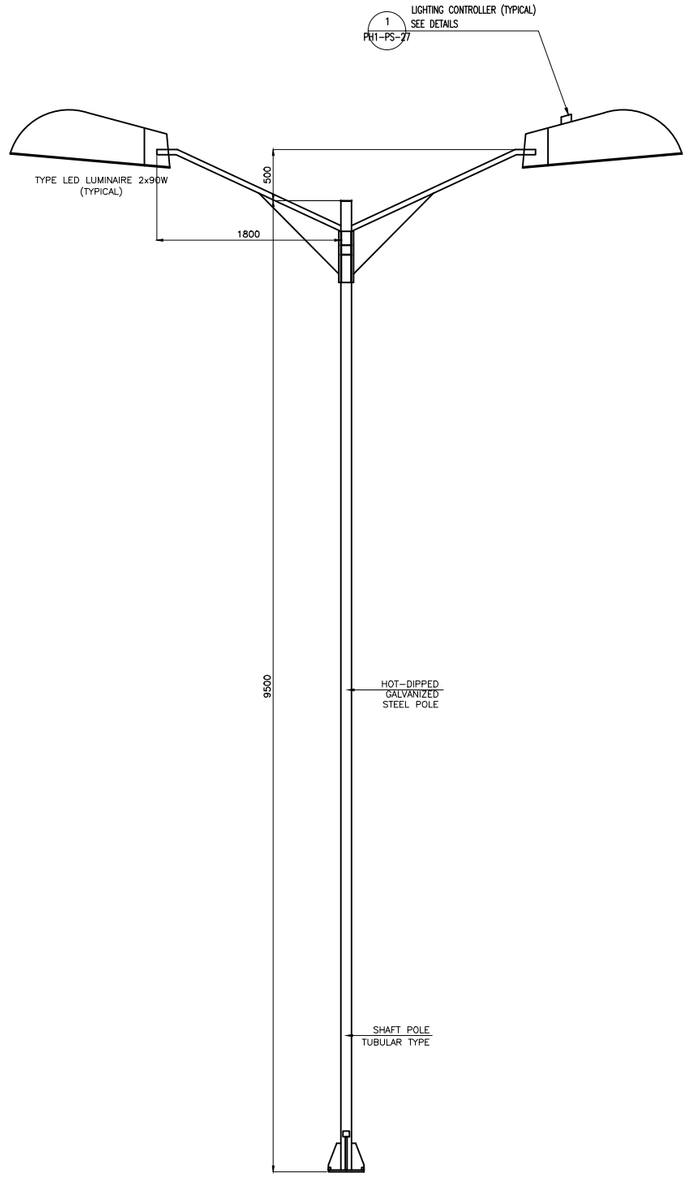
NOTES

1. FOR GENERAL NOTES & LEGEND SEE REF. PH1-PS-05
2. FOR DRAWING DETAILS SEE REF. PH1-PS-20, PH1-PS-21 & PH1-PS-24

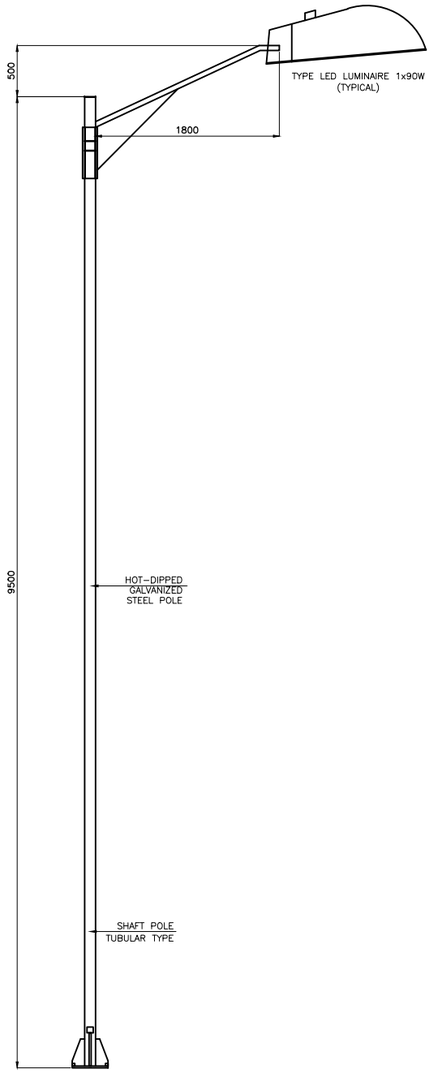
CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority — RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	TYPICAL CROSS SECTION OF ELECTRICAL (50M ROW)	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-PS-23	SHEET NO. 23 OF 27



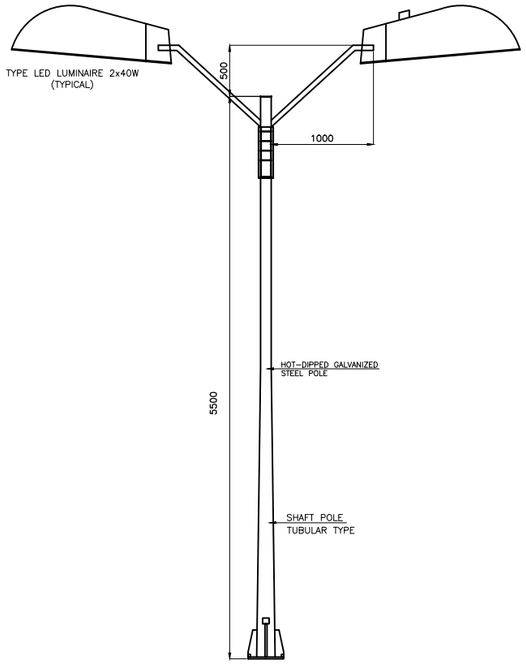
A PH1-PS-24 GROUNDING DETAILS (TYP. TO ALL LIGHTING POLES)
SCALE 1:10



2 PH1-PS-24 SINGLE POLE, DOUBLE LIGHTING FIXTURES (10M)
SCALE 1:30



3 PH1-PS-24 SINGLE POLE, SINGLE LIGHTING FIXTURES (10M)
SCALE 1:30



1 PH1-PS-24 SINGLE POLE, DOUBLE LIGHTING FIXTURES (6M)
SCALE 1:30

NOTES

1. FOR GENERAL NOTES & LEGEND SEE REF. PH1-PS-05
2. FOR STREET LIGHT POLE FOUNDATION DETAILS REFER TO REFERENCE PH1-PS-20

CONSULTANTS
NIPPON KOEI
NIPPON KOEI CO.,LTD.
PKII
PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY
CHARLES P. PANTE
ELECTRICAL ENGINEER
DATE:
CHECKED BY
CHARLES P. PANTE
CO-TEAM LEADER
DATE:

SUBMITTED BY
TEDDY MASANORI
PROJECT MANAGER
DATE:

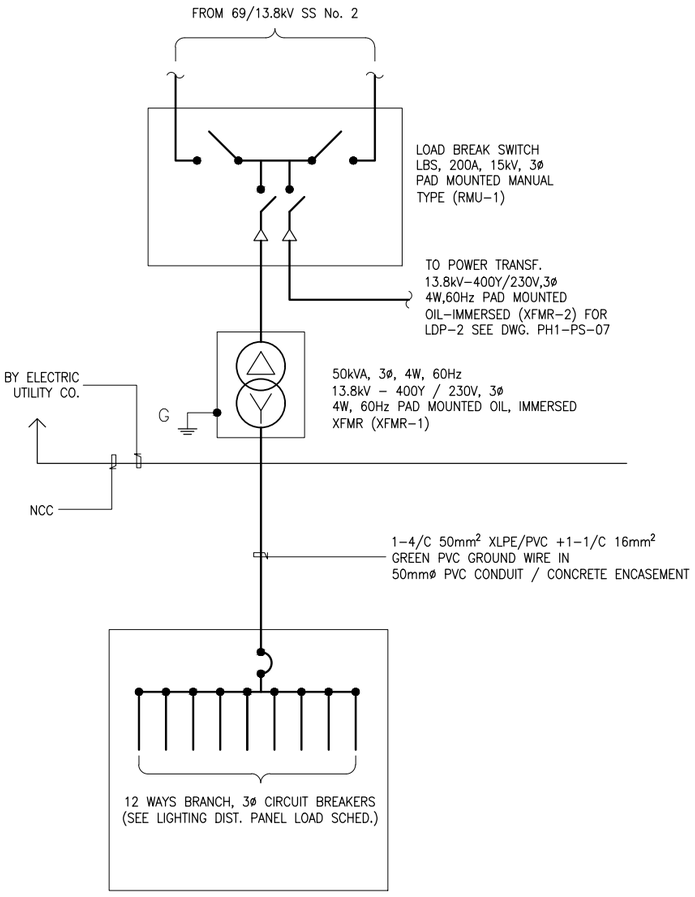
REPUBLIC OF THE PHILIPPINES
PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority
RECOMMENDING APPROVAL
RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS
DATE:
APPROVED BY
JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP
DATE:

PROJECT TITLE
INFRASTRUCTURE DESIGN OF NEW CLARK CITY
ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT
6M & 10M DOUBLE ARM POLE AND 10M SINGLE ARM POLE DETAILS (TYPICAL)

SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-PS-24	24 OF 27



1 / PH1-PS-07/13 — SINGLE LINE DIAGRAM
ROAD LIGHTING DISTRIBUTION PANEL
(LDP–1 & LDP–3)
NOT TO SCALE

LIGHTING PANEL BOARD : LDP-1 — TYPE : NEMA 3R — FEED : ☐ TOP ■ BOT
SERVICE : 400Y/ 230 V, 3Æ, 4 W, 60HZ, _10 KAIC — MOUNTING : ☐ SURFACE ☐ FLUSH ■ FLOOR
LOCATION : Adjacent to S/S # 2

LOAD DESCRIPTION	LOAD (IN VA) 3ø	CABLE mm²	CIRCUIT BREAKER AMP	CIRCUIT BREAKER CKT	MAIN CB A B X n	CIRCUIT BREAKER AMP	CIRCUIT BREAKER CKT	CABLE mm²	LOAD (IN VA) 3ø	LOAD DESCRIPTION
Lighting Pole Mounted@ road center W/ 2x 90w or 1x90w LED type (from LPC-1 to LPC-38 with assume 90% system PF)	6200	16	20	1		2	20	16	6400	Lighting Pole Mounted@ road center W/ 2x 90w or 1x90w LED type (from LPC-39 to LPC-76 with assume 90% system PF)
Lighting Pole Mounted@ road center W/ 2x 90w or 1x90w LED type (from LPC-77 to LPC-98 with assume 90% system PF)	4100	16	20	3		4	20	16	4622	Lighting Pole Mounted@ north side W/ 2x 40w LED type (from LPN-1 to LPN-52 with assume 90% system P.F.)
Lighting Pole Mounted@ north side W/ 2x 40w LED type (from LPN-53 to LPN-103 with assume 90% system P.F.)	4444	16	20	5		6	20	16	4800	Lighting Pole Mounted@ south side W/ 2x 40w LED type (from LPs-1 to LPs-60 with assume 90% system P.F.)
Lighting Pole Mounted@ south side W/ 2x 40w LED type (from LPs-61 to LPs-107 with assume 90% system P.F.)	4622	16	20	7		8	20	10	2500	Pole mounted traffic lights and control units (9 locations) Assumed load =2500va
CCTV and its Control units (assumed load= 2000va)	2000	10	20	9		10	20	-	3000	Spare (Future Load)
Spare (Future Load)	3000	-	20	11		12	20	-	3000	Spare (Future Load)
SUB-TOTAL (VA)	24366					24322				SUB-TOTAL (VA)

CONECTED LOAD (VA)	48688
CONNECTED LOAD CURRENT (AMP)	70.28
DEMAND FACTOR	70 (IN %)
DEMAND LOAD (VA)	34082
DEMAND LOAD CURRENT (AMP)	49

SN BUS
G BUS

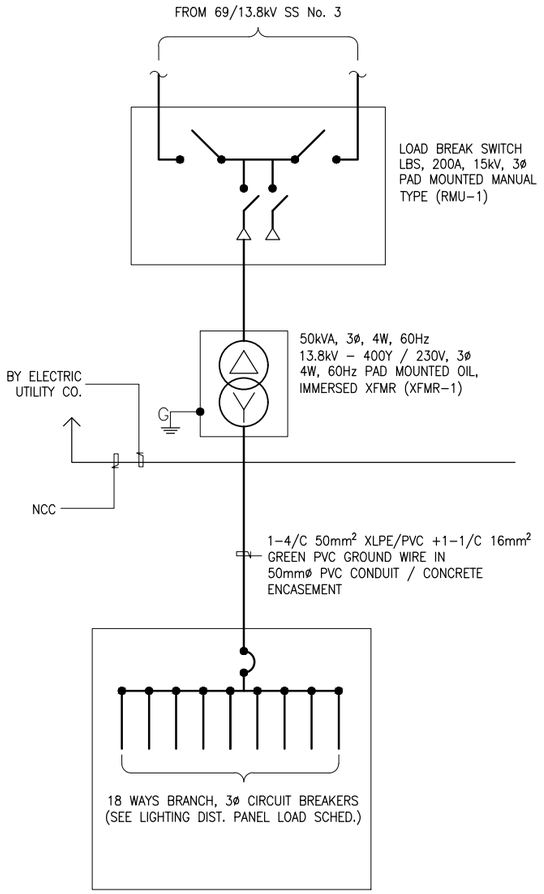
SOURCE:	Use: 50 kva, Pad mounted, oil immersed , delta-wye, 13.8kv/ 400Y-230V, 3ph, 4W,60hz
INCOMING	Feeder :1-4/C 50mm² +1/C 16 mm² Green ground wire, XLPE/ PVC cable
MAIN CIRCUIT BREAKER	Use: 100AT/225AF, MCB, 3ph, 4poles, 400 V with Ground in NEMA 3R Enclosure, Pad mounted type, out-door type
REMARKS:	For location of transformer and LDP-1 see reference PH1-PS-07

2 / PH1-PS-07 — PANEL BOARD LOAD SCHEDULE (LDP–1)
NOT TO SCALE

NOTES

1. FOR GENERAL NOTES SEE PH1–PS–05
2. FOR LEGENDS SEE PH1–PS–05
3. FOR EQUIPMENT LOCATION REFER TO PH1–PS–07 & 13

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI / PKII — NIPPON KOEI CO.,LTD. — PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES — PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA — RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	SINGLE LINE DIAGRAM & PANEL BOARD LOAD SCHEDULE (LPD-1)	AS SHOWN	DRAFT FINAL
							DRAWING NO.	SHEET NO.
							PH1-PS-25	25 OF 27



SINGLE LINE DIAGRAM
ROAD LIGHTING DISTRIBUTION PANEL
(LDP-2)

1 / PH1-PS-07 NOT TO SCALE

LIGHTING PANEL BOARD : LDP-2 — TYPE : NEMA 3R — FEED : ☐ TOP ■ BOT
SERVICE : 400Y/ 230 V, 3Æ, 4 W, 60HZ, _10 KAIC — MOUNTING : ☐ SURFACE ☐ FLUSH ■ FLOOR
LOCATION : Adjacent to S/S # 2

LOAD DESCRIPTION	LOAD (IN VA) 3ø	CABLE mm²	CIRCUIT BREAKER AMP	CKT	MAIN CB A B C n	CIRCUIT BREAKER AMP	CKT	CABLE mm²	LOAD (IN VA) 3ø	LOAD DESCRIPTION
Lighting Pole Mounted@ road center W/ 2x 90w or 1x90w LED type (from LPC-99 to LPC-134 with assume 90% system PF	7200	16	20	1		2	20	16	4800	Lighting Pole Mounted@ road center W/ 2x 90w or 1x90w LED type (from LPC-135 to LPC-159 with assume 90% system PF
Lighting Pole Mounted@ road center W/ 2x 90w or 1x90w LED type (from LPC-160 to LPC-179 with assume 90% system PF	3800	16	20	3		4	20	16	3200	Lighting Pole Mounted@ road center W/ 2x 90w or 1x90w LED type (from LPC-180 to LPC-196 with assume 90% system PF
Lighting Pole Mounted@ road center W/ 2x 90w or 1x90w LED type (from LPC-197 to LPC-210 with assume 90% system PF	2800	16	20	5		6	20	16	2400	Lighting Pole Mounted@ road center W/ 2x 90w or 1x90w LED type (from LPC-211 to LPC-232 with assume 90% system PF
Lighting Pole Mounted@ north side W/ 2x 40w LED type (from LPN-104 to LPN-173 with assume 90% system P.F.	6222	16	20	7		8	20	16	3556	Lighting Pole Mounted@ north side W/ 2x 40w LED type (from LPN-174 to LPN-213 with assume 90% system P.F.
Lighting Pole Mounted@ north side W/ 2x 40w LED type (from LPN-214 to LPN-243 with assume 90% system P.F.	2667	16	20	9		10	20	16	2222	Lighting Pole Mounted@ north side W/ 2x 40w LED type (from LPN-244 to LPN-269 with assume 90% system P.F.
Lighting Pole Mounted@ south side W/ 2x 40w LED type (from LPs-108 to LPs-177 with assume 90% system P.F.)	6222	16	20	11		12	20	16	3556	Lighting Pole Mounted@ south side W/ 2x 40w LED type (from LPs-178 to LPs-217 with assume 90% system P.F.)
Lighting Pole Mounted@ south side W/ 2x 40w LED type (from LPs-218 to LPs-257 with assume 90% system P.F.)	2667	16	20	13		14	20	16	1867	Lighting Pole Mounted@ south side W/ 2x 40w LED type (from LPs-258 to LPs-268 with assume 90% system P.F.)
CCTV and its Control units (assumed load= 2500va)	2500	10	20	15		16	20	10	2000	Pole mounted traffic lights and control units (9 locations) Assumed load =2000va
Spare (Future Load)	3000	-	20	17		18	20	-	3000	Spare (Future Load)
SUB-TOTAL (VA)	37078					26601				SUB-TOTAL (VA)
CONECTED LOAD (VA)	63679				SN BUS	SOURCE:				Use: 50 kva, Pad mounted, oil immersed , delta-wye, 13.8kv/ 400Y-230V, 3ph, 4W ,60hz
CONNECTED LOAD CURRENT (AMP)	91.92				G BUS	INCOMING				Feeder :1-4/C 150mm² +1/C 50 mm² G ground wire, XLPE/ PVC cable
DEMAND FACTOR	70 (IN %)					MAIN CIRCUIT BREAKER				Use: 100AT/225AF, MCB, 3ph, 4poles, 400 V with Ground in NEMA 3R Enclosure, Pad mounted type, out-door type
DEMAND LOAD (VA)	44575					REMARKS:				For location of transformer and LDP-1 see reference PH1-PS-07
DEMAND LOAD CURRENT (AMP)	64									

2 / PH1-PS-07 PANEL BOARD LOAD SCHEDULE (LDP-2)
NOT TO SCALE

LIGHTING PANEL BOARD : LDP-3 — TYPE : NEMA 3R — FEED : ☐ TOP ■ BOT
SERVICE : 400Y/ 230 V, 3Æ, 4 W, 60HZ, _10 KAIC — MOUNTING : ☐ SURFACE ☐ FLUSH ■ FLOOR
LOCATION :

LOAD DESCRIPTION	LOAD (IN VA) 3ø	CABLE mm²	CIRCUIT BREAKER AMP	CKT	MAIN CB A B X n	CIRCUIT BREAKER AMP	CKT	CABLE mm²	LOAD (IN VA) 3ø	LOAD DESCRIPTION
Lighting Pole Mounted@ road center W/ 2x 90w or 1x90w LED type (from LPC-228 to LPC-256 with assume 90% system PF)	6060	16	20	1		2	20	16	6280	Lighting Pole Mounted@ road center W/ 2x 90w or 1x90w LED type (from LPC-257 to LPC-286 with assume 90% system PF)
Lighting Pole Mounted@ road center W/ 2x 90w or 1x90w LED type (from LPC-287 to LPC-318 with 90% system PF)	4070	16	20	3		4	20	16	4622	Lighting Pole Mounted@ north side W/ 2x 40w LED type (from LPN-264 to LPN-313) with assume 90% system P.F.)
Lighting Pole Mounted@ north side W/ 2x 40w LED type (from LPN-314 to LPN-368 with assume 90% system P.F.)	4444	16	20	5		6	20	16	4800	Lighting Pole Mounted@ south side W/ 2x 40w LED type (from LPs-266 to LPs-315 with assume 90% system P.F.)
Lighting Pole Mounted@ south side W/ 2x 40w LED type (from LPs-319 to LPs-359 with assume 90% system P.F.	4622	16	20	7		8	20	10	2500	Pole mounted traffic lights and control units (9 locations) Assumed load =2500va
CCTV and its Control units (assumed load= 2000va)	2000	10	20	9		10	20	-	3000	Spare (Future Load)
Spare (Future Load)	3000	-	20	11		12	20	-	3000	Spare (Future Load)
SUB-TOTAL (VA)	24196					24202				SUB-TOTAL (VA)
CONECTED LOAD (VA)	48398				SN BUS	SOURCE:				Use: 50 kva, Pad mounted, oil immersed , delta-wye, 13.8kv/ 400Y-230V, 3ph, 4W,60hz
CONNECTED LOAD CURRENT (AMP)	69.86				G BUS	INCOMING				Feeder :1-4/C 150mm² +1/C 50 mm² G ground wire, XLPE/ PVC cable
DEMAND FACTOR	70 (IN %)					MAIN CIRCUIT BREAKER				Use: 100AT/225AF, MCB, 3ph, 4poles, 400 V with Ground in NEMA 3R Enclosure, Pad mounted type, out-door type
DEMAND LOAD (VA)	33879					REMARKS:				For location of transformer and LDP-3 see reference PH1-PS-13
DEMAND LOAD CURRENT (AMP)	49									

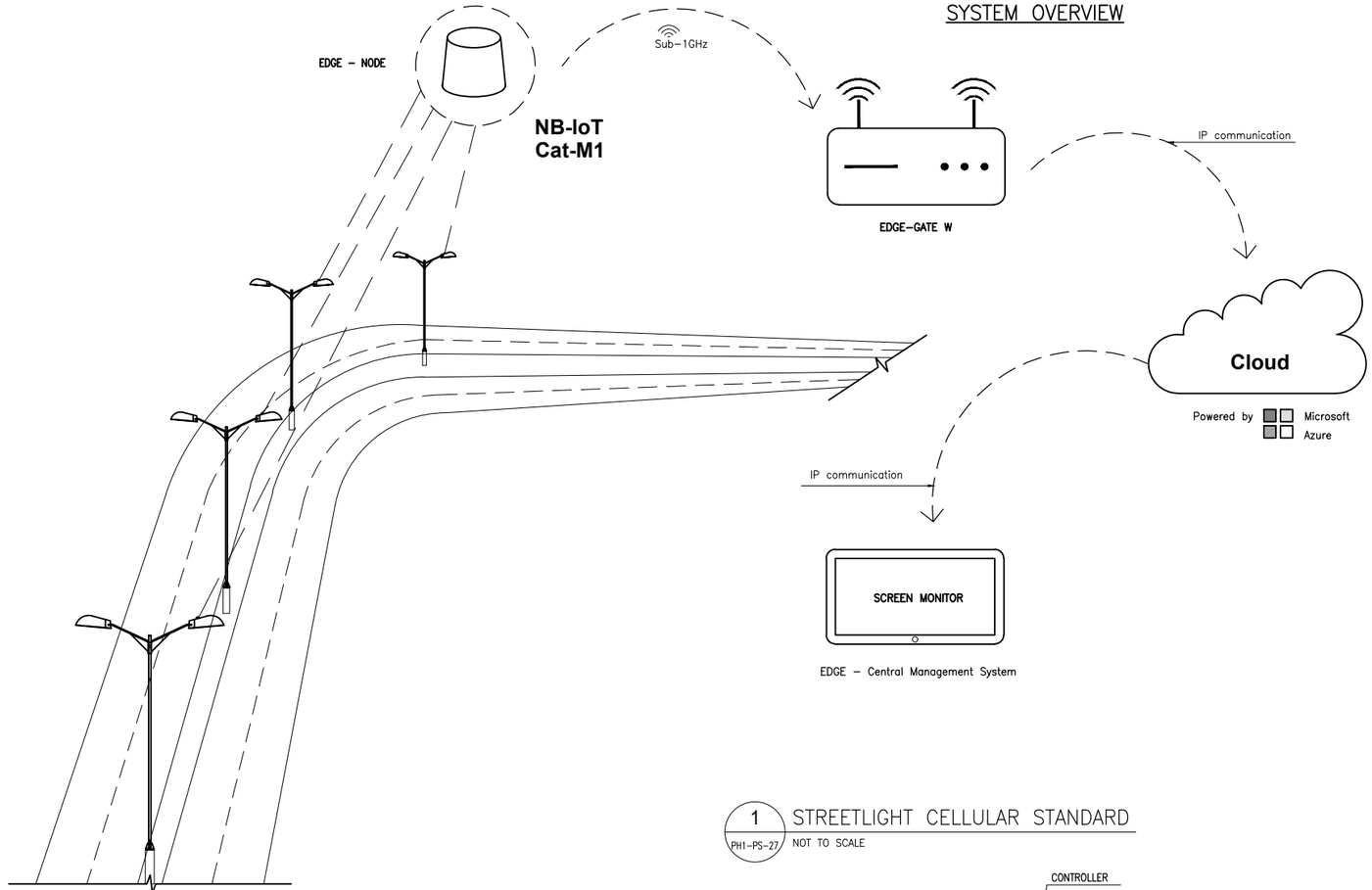
3 / PH1-PS-13 PANEL BOARD LOAD SCHEDULE (LDP-3)
NOT TO SCALE

NOTES

1. FOR GENERAL NOTES SEE PH1-PS-05
2. FOR LEGENDS SEE PH1-PS-05
3. FOR EQUIPMENT LOCATION REFER TO PH1-PS-07 & 13

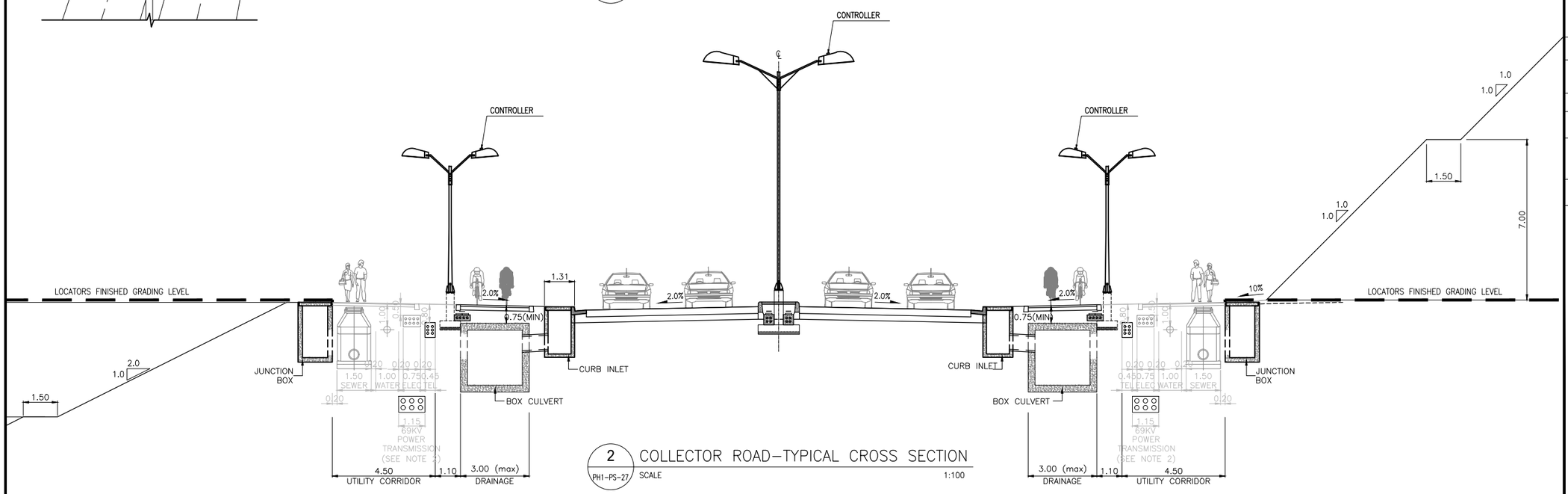
CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES — PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	SINGLE LINE DIAGRAM & PANEL BOARD LOAD SCHEDULE (LDP-2 & LDP-3)	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-PS-26	SHEET NO. 26 OF 27

SYSTEM OVERVIEW



1 PH1-PS-27 STREETLIGHT CELLULAR STANDARD

NOT TO SCALE

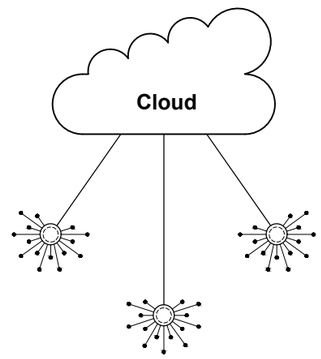


2 PH1-PS-27 COLLECTOR ROAD–TYPICAL CROSS SECTION

SCALE 1:100

NB-IoT LoRa

STAR NETWORK



LEGENDS & SYMBOLS

- Base Station
- Node

DATA IS COMMUNICATED AND COLLECTED
BY LIGHTING CONTROLLERS VIA NB–Lot / LoRa
BASE STATIONS SET UP BY TELECOM OPERATORS TO THE CLOUD.

NOTES

1. FOR GENERAL NOTES SEE PH1–PS–05
2. FUNCTIONALITIES (SEE TABLE BELOW)

FUNCTIONALITY	FEATURE
DATA DASHBOARD	• USER–FRIENDLY INTERFACE TO EFFICIENTLY TRACK, ANALYZE AND DISPLAY KEY DATA IN THE FORM OF CHARTS AND TABLES
MAP VIEW	• STREETLIGHT LOCATION AND STATUS DISPLAY • MONITORING MANAGEMENT WITH MAP VIEW
REAL–TIME MONITORING	• LIVE DATA OF STREETLIGHT STATUS, ENERGY USAGE, ENERGY COST AND CO2 EMISSION • REAL–TIME SYSTEM WARNING
REMOTE CONTROL	• ACTIVATION, DEACTIVATION AND DIMMING • SINGLE CONTROL /GROUP CONTROL / CIRCUIT CONTROL
SCHEDULE MANAGER	• ONE–TIME, DAILY, WEEKLY AND MONTHLY SCHEDULE MANAGEMENT
SYSTEM HEALTH	• ABNORMAL POWER CONSUMPTION, ACTIVATION AND DEACTIVATION DIAGNOSIS AND REPAIR SUGGESTION • WARNINGS OF POWER THEFT, LAMP MALFUNCTIONS • CUSTOMIZATION OF WARNING AWARENESS TO USERS AND MAINTENANCE SERVICE PROVIDERS
ASSET MANAGER	• CONTROLLERS, CIRCUIT, GATEWAYS, METERS AND LAMPS MANAGEMENT • STATUS AND INFORMATION REPORT
EVENT VIEW	• OPERATION OCCURRENCES RECORDS FOR FUTURE TRACKING AND MONITORING • CSV REPORT
REPAIR MANAGER	• REPAIR PROCEDURE WITH STATUS REPORT • TRACKING RECORDS OF REPAIR AND MAINTENANCE
ENERGY SAVING REPORT	• ANALYSIS OF HISTORICAL POWER CONSUMPTION AND ENERGY–SAVING COMPARISONS (DAILY/WEEKLY/MONTHLY/ ANNUALLY) • ANALYSIS OF REPAIRS, AVAILABILITY AND LIFE SPAN
USER ACCESS MANAGER	• SYSTEM ACCESS CONTROL BY ADMINISTRATORS • GROUPING FUNCTION FOR MANAGING USER AUTHORIZATION
BROWSER	• WEB–BASED
CUSTOMIZED OPTIONS	• INTEGRATING WITH EXISTING PIPELINE INFORMATION, CITIZENS FAULT REPORTING SERVICE • EXISTING LUMINARIES FROM OTHER MANUFACTURER ARE ALSO INCLUDED IN THE SYSTEM

3. USER INTERFACE (SEE TABLE BELOW)

CATEGORY	OUTPUT
LIVE DATA	• ENERGY • ENERGY COST • CO2 EMISSION
ASSET MANAGEMENT	• ASSETS
MAINTENANCE & SERVICE MANAGEMENT	• SYSTEM HEALTH • REPAIR REQUEST
REPORT	• ENERGY COST • CO2 EMISSION • REPAIR LOG • ENERGY USAGE
LIGHT CONTROL	• LIGHTS CONTROL • LIGHTS OFF/ON

CONSULTANTS

NIPPON KOEI
NIPPON KOEI CO.,LTD.
PKII
PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY
CHARLES P. PANTE
ELECTRICAL ENGINEER
DATE:

CHECKED BY
CHARLES P. PANTE
CO-TEAM LEADER
DATE:

SUBMITTED BY
TEDDY MASANORI
PROJECT MANAGER
DATE:

REPUBLIC OF THE PHILIPPINES
PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority

RECOMMENDING APPROVAL
RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS
DATE:

APPROVED BY
JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP
DATE:

PROJECT TITLE
INFRASTRUCTURE DESIGN OF NEW CLARK CITY
ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT
ROAD LIGHTING CONTROLLER SYSTEM

SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-PS-27	27 OF 27

TRAFFIC SIGNALIZATION

DWG No.	SHEET CONTENT	SHEET NO.
PH1-TS-01	TRAFFIC SIGNALIZATION DRAWING INDEX	1 OF 6
PH1-TS-02	ROAD 2 TRAFFIC SIGNAL LIGHT LOCATION PLAN	2 OF 6
PH1-TS-03	ROAD 2 INTERSECTION-11 (STA.0+000) LIGHTING AND TRAFFIC SIGNAL LAYOUT	3 OF 6
PH1-TS-04	ROAD 2 INTERSECTION-26 (STA.0+820) LIGHTING AND TRAFFIC SIGNAL LAYOUT	4 OF 6
PH1-TS-05	ROAD 2 INTERSECTION-52 (STA.2+180) LIGHTING AND TRAFFIC SIGNAL LAYOUT	5 OF 6
PH1-TS-06	TRAFFIC SIGNAL LIGHT, PEDESTRIAN LIGHT AND FOOTING DETAILS	6 OF 6

1 / PH1-TS-01 TRAFFIC SIGNALIZATION DRAWING INDEX

NOT TO SCALE

CONSULTANTS

NIPPON KOEI CO.,LTD.

PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

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ELECTRICAL ENGINEER
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CHECKED BY
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CO-TEAM LEADER
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BCDA

RECOMMENDING APPROVAL
RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS
DATE:

APPROVED BY
JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP
DATE:

PROJECT TITLE
INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

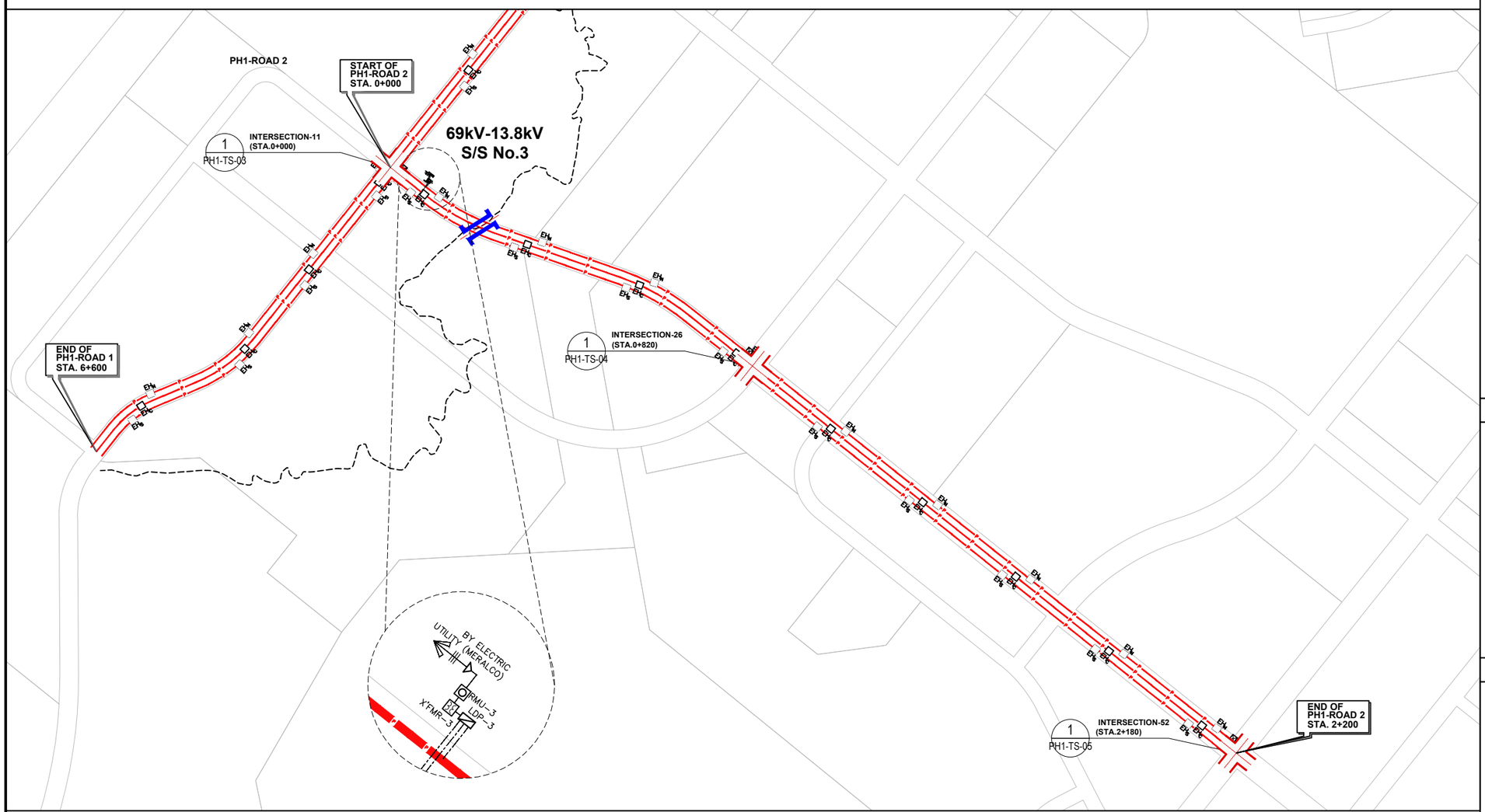
SHEET CONTENT
TRAFFIC SIGNALIZATION DRAWING INDEX

SCALE: AS SHOWN
DRAWING STATUS: DRAFT FINAL
DRAWING NO.: PH1-TS-01
SHEET NO.: 1 OF 6

N

0 200 500 1000 m

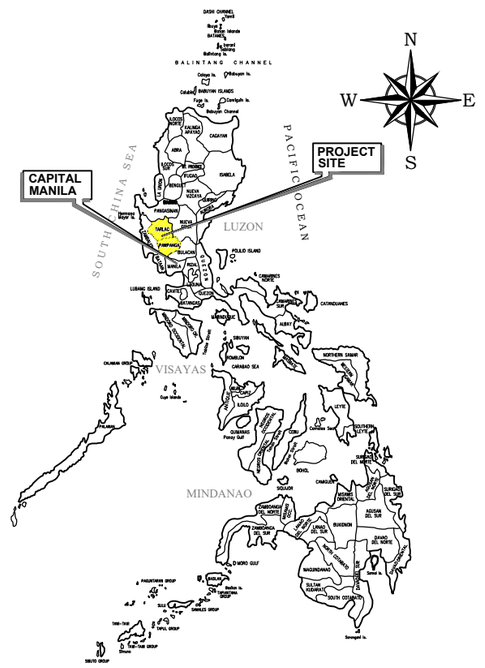
SCALE = 1:10,000



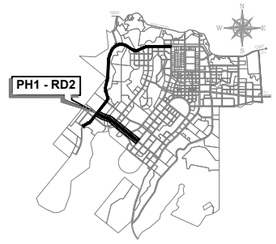
1 PH1-TS-02 ROAD 2 TRAFFIC SIGNAL LIGHT LOCATION PLAN

SCALE 1:5

LOCATION PLAN



KEY MAP



LEGENDS AND SYMBOLS

- LV LIGHTING POWER CABLE U/G ROUTE
- 69KV - 13.8KV SUBSTATION
- 13.89kV RMU OUTDOOR TYPE
- LIGHTING DISTRIBUTION PANEL (LDP)
- XFMR TRANSFORMER
- UTILITY BRIDGE
- RIVER LINES
- INTERSECTION
- EHC ELECTRICAL HANDHOLE @ CENTER ROAD
- EHN ELECTRICAL HANDHOLE @ NORTH SIDE
- EHS ELECTRICAL HANDHOLE @ SOUTH SIDE

CONSULTANTS

NIPPON KOEI CO.,LTD.

PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY: CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE:

CHECKED BY: CHARLES P. PANTE, CO-TEAM LEADER, DATE:

SUBMITTED BY: TEDDY MASANORI, PROJECT MANAGER, DATE:

REPUBLIC OF THE PHILIPPINES

PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority

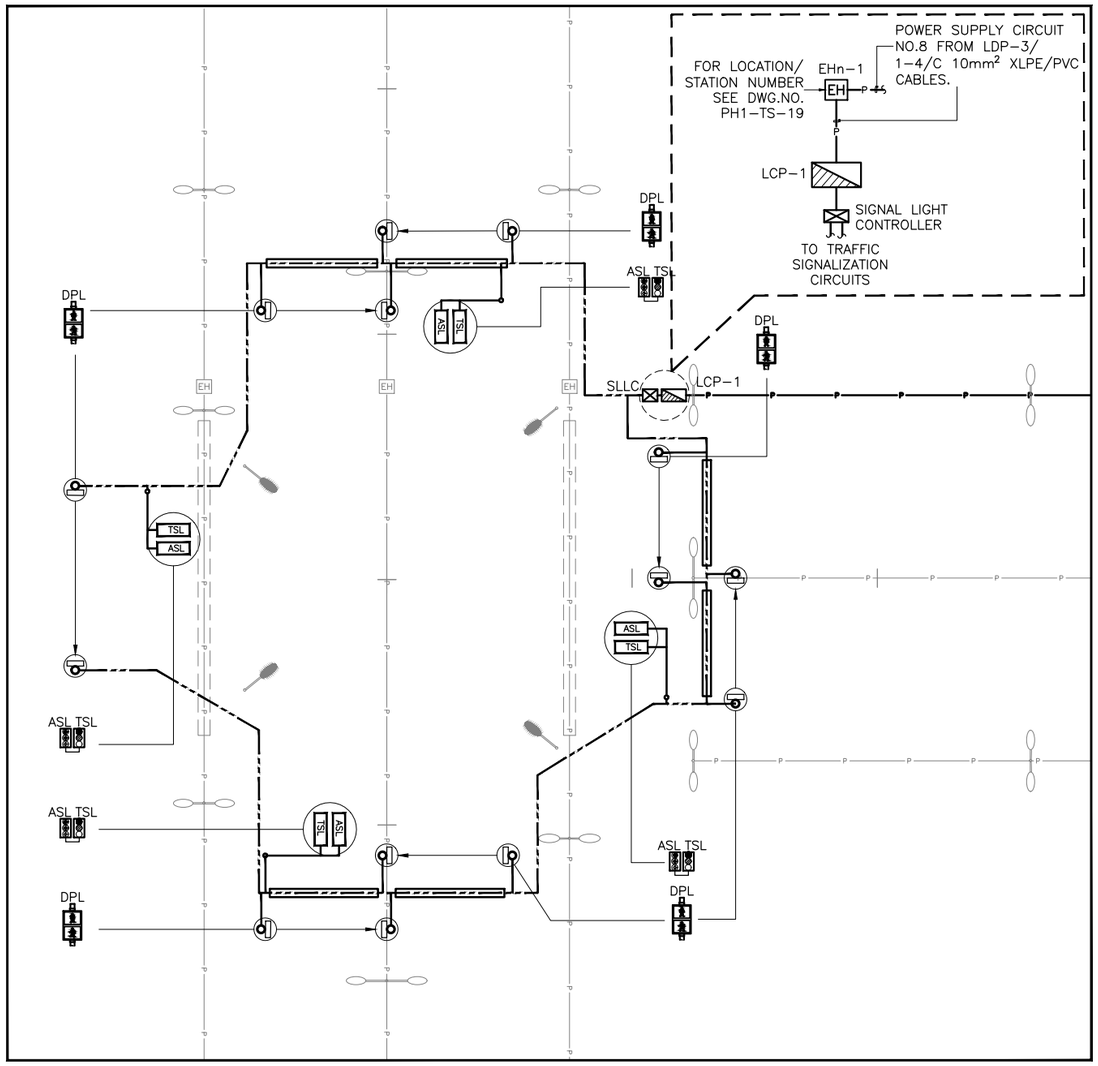
RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE:

APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:

PROJECT TITLE: INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT: ROAD 2 TRAFFIC SIGNAL LIGHT LOCATION PLAN

SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-TS-02	2 OF 6

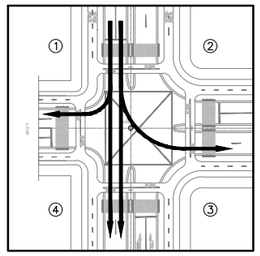


1 PH1-TS-03 ROAD 2 INTERSECTION-11 (STA.0+000) LIGHTING AND TRAFFIC SIGNAL LAYOUT
SCALE 1:250

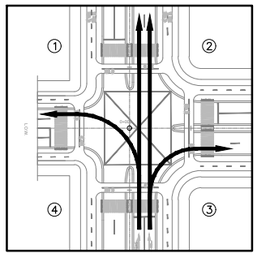
	1 Ø	2 Ø	3 Ø	4 Ø
PHASE (NUMBER OF LANE)				

NOTES:
1. INITIAL PHASING TIME WILL BE GIVEN AT INSTALLATION.
2. PHASING TIME WILL B ADJUSTED IN 2-3 DAYS, 1-2 WEEKS, QUARTERLY AND AT THE END OF ONE YEAR BY THE ENGINEER BASED ON THE ACTUAL TRAFFIC BY DIRECTION COUNTED BY THE CONTRACTOR

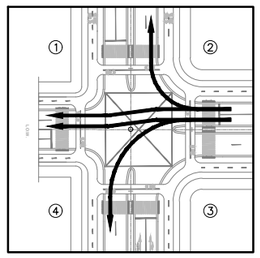
TRAFFIC SIGNAL PHASE (ALL CROSS INTERSECTION)



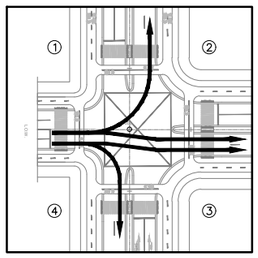
2 PH1-TS-03 PHASE 1
SCALE 1:1000



3 PH1-TS-03 PHASE 2
SCALE 1:1000



4 PH1-TS-03 PHASE 3
SCALE 1:1000



5 PH1-TS-03 PHASE 3
SCALE 1:1000

SUMMARY OF QUANTITY

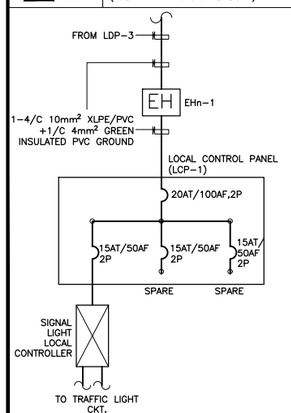
ITEM	QUANTITY
1. 300mm RYG FULL BALL TRAFFIC LIGHT	4 PCS
2. 300mm ARROW TRAFFIC LIGHT	4 PCS
3. DYNAMIC PEDESTRIAN LIGHT	22 PCS
4. 600*800mm COUNDOWN TIMER	4 PCS
5. TRAFFIC LIGHT CONTROLLER	1 PC
6. TRAFFIC LIGHT POLE	4 PCS
7. PEDESTRIAN LIGHT POLE	14 PCS

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT MATERIALS AND INSTALLATIONS SHALL BE AS PER APPROVED DRAWINGS AND IN ACCORDANCE W/ INTERNATIONAL / PEC CODES AND STANDARDS.
3. CABLES THAT CROSS CONCRETE ROAD WAYS SHALL BE RUN INSIDE REINFORCED CONCRETE DUCTBANK.
4. CABLE TRENCH FOR TRAFFIC LIGHTS CABLES SHALL BE PROVIDED WITH SAND BEDDING BETWEEN BELOW AND TOP PART OF BURIED CONDUIT/ CABLES W/ 300mm TOTAL FILL. TOP LAYER OF SAND FILL SHALL BE PROVIDED W/ CONCRETE TILES ALONG CABLE ROUTE AND TERRA TAPE CABLE EARLY WARNING TAPE.
5. ELECTRICAL HANDHOLE (EH) IS THE LOCATION POINT FOR SPLICING OF CABLES (CABLES JOINTING) AND APPROXIMATELY TO BE INSTALLED @ 250M DISTANCE APART FROM THE OTHER HANDHOLE.
6. WHENEVER REQUIRED AND NECESSARY, PULL BOXES AND JUNCTION BOXES OF APPROPRIATE SIZES SHALL BE INSTALLED AT CONVENIENT AND INCONSPICUOUS LOCATIONS ALTHOUGH SUCH BOXES ARE NOT SHOWN ON THE PLAN.
7. THE CONTRACTOR IS NOT ALLOWED TO SUBSTITUTE THE MATERIALS IN THE SPECIFICATION WITHOUT THE APPROVAL AT THE ELECTRICAL DESIGN ENGINEER.
8. STANDARD TYPE OF ACCESSORIES, SPLICING DEVICES, TERMINATION AND OTHER APPURTENANCES FOR THE ENTIRE ELECTRICAL INSTALLATION SHALL BE USED.
9. STANDARD COLOR CODING OF THE WIRE SHALL BE IMPLEMENTED.
10. THE ELECTRICAL WORKS SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A DULY REGISTERED ELECTRICAL ENGINEER OR REGISTERED MASTER ELECTRICIAN
11. ALL UNUSED U/G CONDUITS SHALL BE PROVIDED WITH PLUGS OR APPROVED SEALING MATERIALS FOR MOIST/DIRTS ENTRY AND INSECT/RODENT INFESTATION.
12. CONTRACTOR TO DETERMINE THE FINAL LOCATION OF LCP ALONG WITH SIGNAL LIGHT CONTROLLER. PROVIDE MOUNTING PEDESTAL PAD WITH U/G CONDUIT SLEEVES FOR INCOMING/OUTGOING FEEDER CIRCUITS ENTRY.
13. TERMINAL BOXES SHALL BE OF STEEL, ZINC CHROMATE PROTECTED WITH COVER.

LEGENDS:

LP_C	LIGHTING POLE LOCATED AT ROAD CENTER ISLAND
LP_S	LIGHTING POLE LOCATED AT SOUTHSIDE OF ROAD
LP_N	LIGHTING POLE LOCATED AT NORTHSIDE OF ROAD
P	LV POWER CABLE IN HDPE CONDUIT DUCTS OR CONCRETE DUCT BANK FOR ROAD CROSSING
LCP	LOCAL CONTROL PANEL PAD MOUNTED/OUTDOOR TYPE
LDP	LIGHTING DISTRIBUTION PANEL BOARD / OUTDOOR TYPE MOUNTED PAD (LOW VOLTAGE)
SLLC	SIGNAL LIGHT LOCAL CONTROLLER
EH	ELECTRICAL HANDHOLE
	TRAFFIC SIGNAL CABLE DUCTBANK CONCRETE (FOR ROAD CROSSING)
	DYNAMIC PEDESTRIAN LIGHT
ASL TSL	TRAFFIC SIGNAL LANTERN (ASL – ARROW SIGNAL LIGHT) (TSL – TRAFFIC SIGNAL LIGHT)



SINGLE LINE DIAGRAM

CONSULTANTS
NIPPON KOEI CO.,LTD.
PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY
CHARLES P. PANTE
ELECTRICAL ENGINEER
DATE:
CHECKED BY
CHARLES P. PANTE
CO-TEAM LEADER
DATE:

SUBMITTED BY
TEDDY MASANORI
PROJECT MANAGER
DATE:

REPUBLIC OF THE PHILIPPINES
PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority

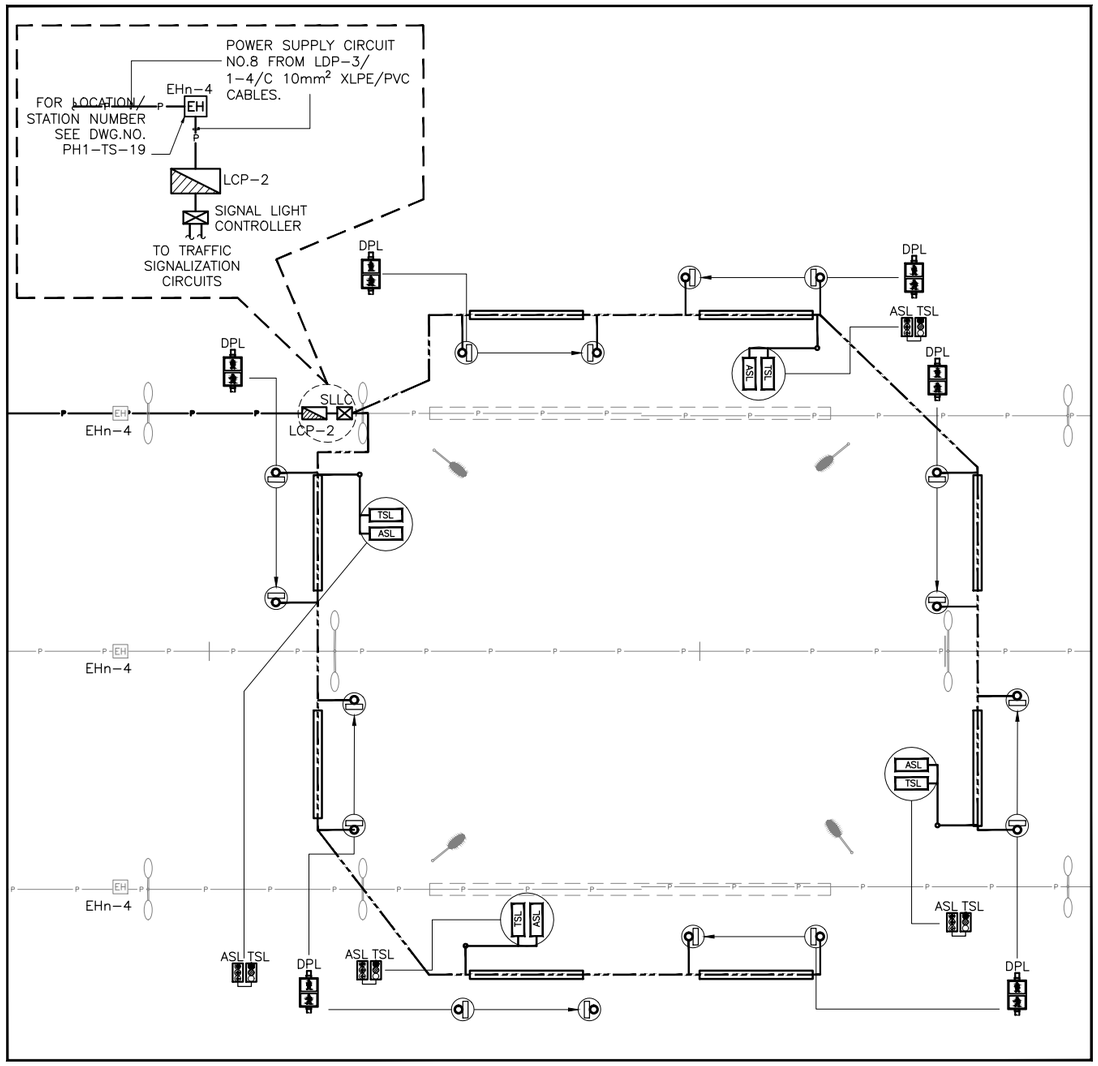
RECOMMENDING APPROVAL
RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS
DATE:

APPROVED BY
JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP
DATE:

PROJECT TITLE
INFRASTRUCTURE DESIGN OF NEW CLARK CITY
ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT
ROAD 2 INTERSECTION-11 (STA.0+000)
LIGHTING AND TRAFFIC SIGNAL LAYOUT

SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-TS-03	3 OF 6



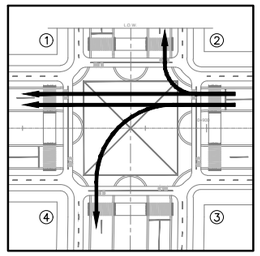
1 PH1-TS-04 ROAD 2 INTERSECTION-26 (STA.0+820) LIGHTING AND TRAFFIC SIGNAL LAYOUT

SCALE 1:250

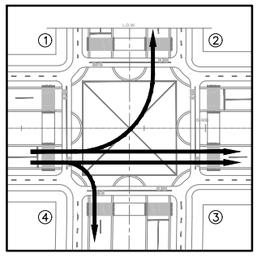
	1 Ø	2 Ø	3 Ø	4 Ø
PHASE (NUMBER OF LANE)				

NOTES:
1. INITIAL PHASING TIME WILL BE GIVEN AT INSTALLATION.
2. PHASING TIME WILL B ADJUSTED IN 2-3 DAYS, 1-2 WEEKS, QUARTERLY AND AT THE END OF ONE YEAR BY THE ENGINEER BASED ON THE ACTUAL TRAFFIC BY DIRECTION COUNTED BY THE CONTRACTOR

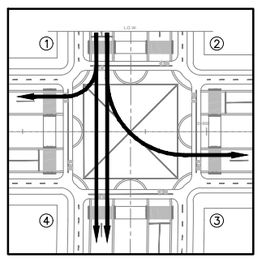
TRAFFIC SIGNAL PHASE (ALL CROSS INTERSECTION)



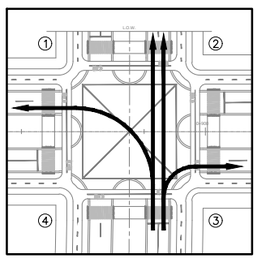
2 PH1-TS-04 PHASE 1 SCALE 1:1000



3 PH1-TS-04 PHASE 2 SCALE 1:1000



4 PH1-TS-04 PHASE 3 SCALE 1:1000



5 PH1-TS-04 PHASE 3 SCALE 1:1000

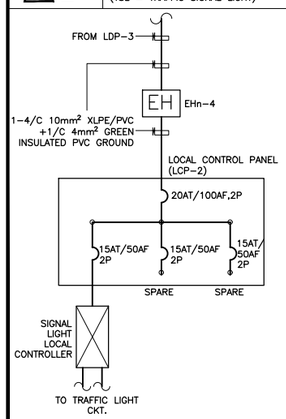
SUMMARY OF QUANTITY	
ITEM	QUANTITY
1. 300mm RYG FULL BALL TRAFFIC LIGHT	4 PCS
2. 300mm ARROW TRAFFIC LIGHT	4 PCS
3. DYNAMIC PEDESTRIAN LIGHT	24 PCS
4. 600*800mm COUNDOWN TIMER	4 PCS
5. TRAFFIC LIGHT CONTROLLER	1 PC
6. TRAFFIC LIGHT POLE	4 PCS
7. PEDESTRIAN LIGHT POLE	16 PCS

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT MATERIALS AND INSTALLATIONS SHALL BE AS PER APPROVED DRAWINGS AND IN ACCORDANCE W/ INTERNATIONAL / PEC CODES AND STANDARDS.
3. CABLES THAT CROSS CONCRETE ROAD WAYS SHALL BE RUN INSIDE REINFORCED CONCRETE DUCTBANK.
4. CABLE TRENCH FOR TRAFFIC LIGHTS CABLES SHALL BE PROVIDED WITH SAND BEDDING BETWEEN BELOW AND TOP PART OF BURIED CONDUIT/ CABLES W/ 300mm TOTAL FILL. TOP LAYER OF SAND FILL SHALL BE PROVIDED W/ CONCRETE TILES ALONG CABLE ROUTE AND TERRA TAPE CABLE EARLY WARNING TAPE.
5. ELECTRICAL HANDHOLE (EH) IS THE LOCATION POINT FOR SPLICING OF CABLES (CABLES JOINTING) AND APPROXIMATELY TO BE INSTALLED @ 250M DISTANCE APART FROM THE OTHER HANDHOLE.
6. WHENEVER REQUIRED AND NECESSARY, PULL BOXES AND JUNCTION BOXES OF APPROPRIATE SIZES SHALL BE INSTALLED AT CONVENIENT AND INCONSPICUOUS LOCATIONS ALTHOUGH SUCH BOXES ARE NOT SHOWN ON THE PLAN.
7. THE CONTRACTOR IS NOT ALLOWED TO SUBSTITUTE THE MATERIALS IN THE SPECIFICATION WITHOUT THE APPROVAL AT THE ELECTRICAL DESIGN ENGINEER.
8. STANDARD TYPE OF ACCESSORIES, SPLICING DEVICES, TERMINATION AND OTHER APPURTENANCES FOR THE ENTIRE ELECTRICAL INSTALLATION SHALL BE USED.
9. STANDARD COLOR CODING OF THE WIRE SHALL BE IMPLEMENTED.
10. THE ELECTRICAL WORKS SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A DULY REGISTERED ELECTRICAL ENGINEER OR REGISTERED MASTER ELECTRICIAN
11. ALL UNUSED U/G CONDUITS SHALL BE PROVIDED WITH PLUGS OR APPROVED SEALING MATERIALS FOR MOIST/DIRTS ENTRY AND INSECT/RODENT INFESTATION.
12. CONTRACTOR TO DETERMINE THE FINAL LOCATION OF LCP ALONG WITH SIGNAL LIGHT CONTROLLER. PROVIDE MOUNTING PEDESTAL PAD WITH U/G CONDUIT SLEEVES FOR INCOMING/OUTGOING FEEDER CIRCUITS ENTRY.
13. TERMINAL BOXES SHALL BE OF STEEL, ZINC CHROMATE PROTECTED WITH COVER.

LEGENDS:

LP_C	LIGHTING POLE LOCATED AT ROAD CENTER ISLAND
LP_S	LIGHTING POLE LOCATED AT SOUTHSIDE OF ROAD
LP_N	LIGHTING POLE LOCATED AT NORTHSIDE OF ROAD
—— P ——	LV POWER CABLE IN HDPE CONDUIT DUCTS OR CONCRETE DUCT BANK FOR ROAD CROSSING
LCP	LOCAL CONTROL PANEL PAD MOUNTED/OUTDOOR TYPE
LDP	LIGHTING DISTRIBUTION PANEL BOARD / OUTDOOR TYPE MOUNTED PAD (LOW VOLTAGE)
SLLC	SIGNAL LIGHT LOCAL CONTROLLER
EH	ELECTRICAL HANDHOLE
	TRAFFIC SIGNAL CABLE DUCTBANK CONCRETE (FOR ROAD CROSSING)
	DYNAMIC PEDESTRIAN LIGHT
ASL TSL	TRAFFIC SIGNAL LANTERN (ASL – ARROW SIGNAL LIGHT) (TSL – TRAFFIC SIGNAL LIGHT)



SINGLE LINE DIAGRAM

CONSULTANTS

NIPPON KOEI CO.,LTD.

PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY: CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE:

CHECKED BY: CHARLES P. PANTE, CO-TEAM LEADER, DATE:

SUBMITTED BY: TEDDY MASANORI, PROJECT MANAGER, DATE:

REPUBLIC OF THE PHILIPPINES

PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority

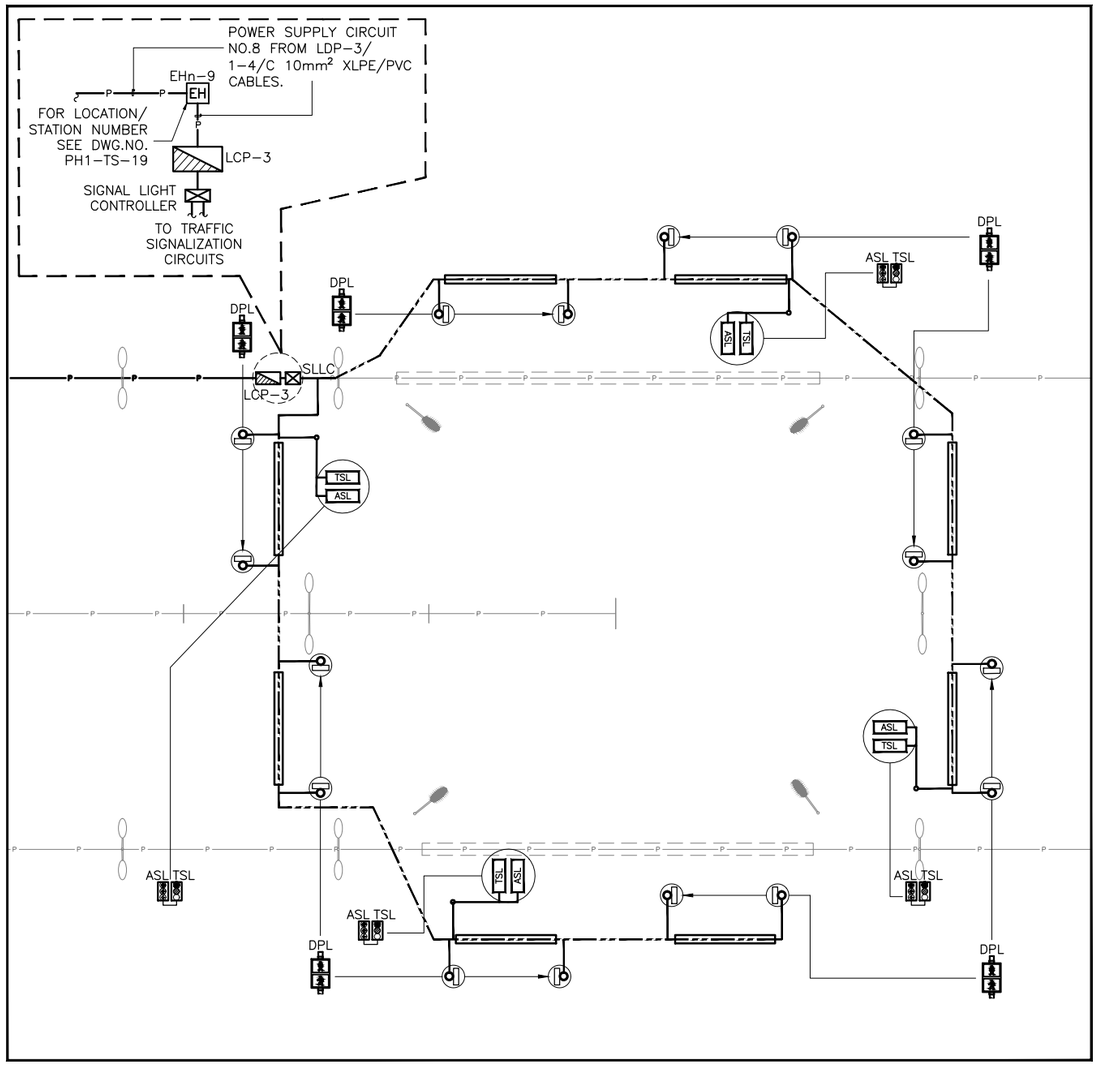
RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE:

APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:

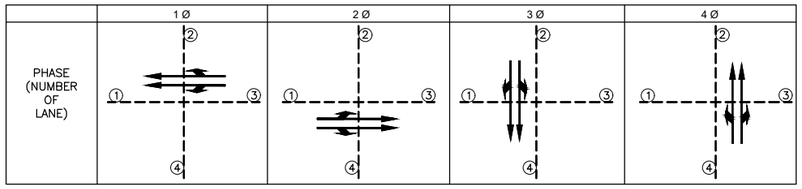
PROJECT TITLE: INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT: ROAD 2 INTERSECTION-26 (STA.0+820) LIGHTING AND TRAFFIC SIGNAL LAYOUT

SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-TS-04	4 OF 6



1 PH1-TS-05 ROAD 2 INTERSECTION-52 (STA.2+180) LIGHTING AND TRAFFIC SIGNAL LAYOUT
SCALE 1:250



NOTES:
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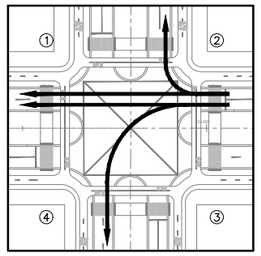
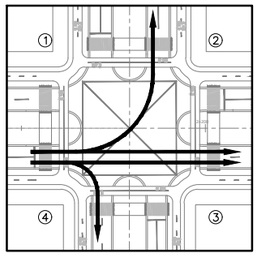
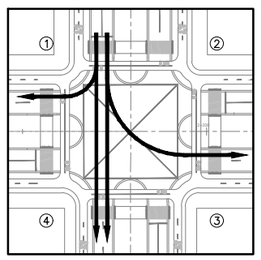
TRAFFIC SIGNAL PHASE (ALL CROSS INTERSECTION)



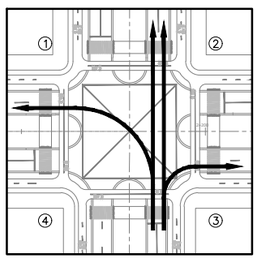
2 PH1-TS-05 PHASE 1
SCALE 1:1000



3 PH1-TS-05 PHASE 2
SCALE 1:1000



4 PH1-TS-05 PHASE 3
SCALE 1:1000



5 PH1-TS-05 PHASE 3
SCALE 1:1000

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LCP	LOCAL CONTROL PANEL PAD MOUNTED/OUTDOOR TYPE
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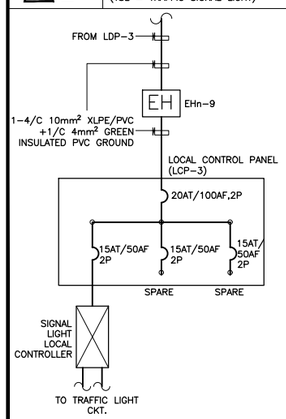
	DYNAMIC PEDESTRIAN LIGHT
ASL TSL	TRAFFIC SIGNAL LANTERN (ASL – ARROW SIGNAL LIGHT) (TSL – TRAFFIC SIGNAL LIGHT)



SINGLE LINE DIAGRAM

CONSULTANTS
NIPPON KOEI CO.,LTD.
PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY: CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE:
CHECKED BY: CHARLES P. PANTE, CO-TEAM LEADER, DATE:
SUBMITTED BY: TEDDY MASANORI, PROJECT MANAGER, DATE:

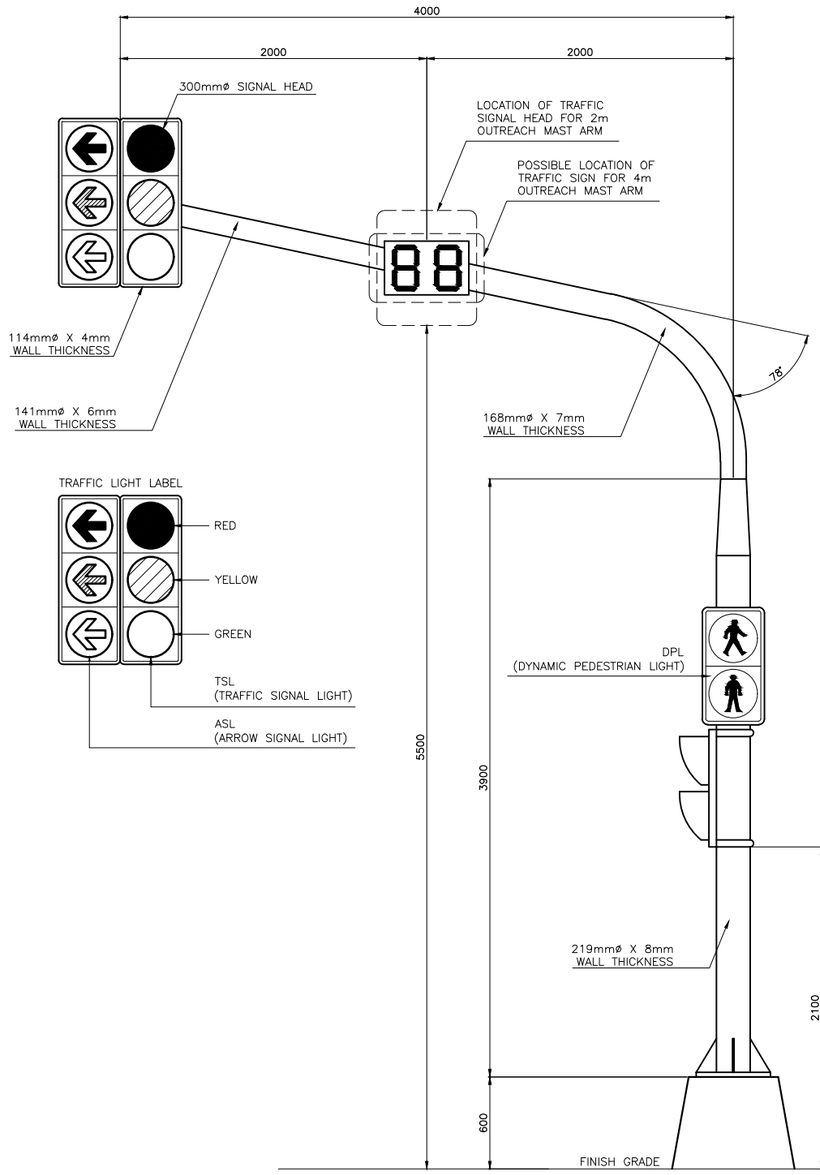
REPUBLIC OF THE PHILIPPINES
PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority
RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE:
APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:

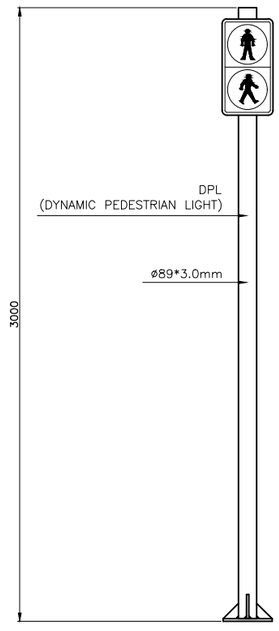
PROJECT TITLE: INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT: ROAD 2 INTERSECTION-52 (STA.2+180) LIGHTING AND TRAFFIC SIGNAL LAYOUT

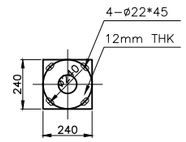
SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-TS-05	5 OF 6



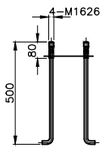
1 ELEVATION DETAILS OF TRAFFIC SIGNAL LIGHT
PH1-TS-06 SCALE 1:20



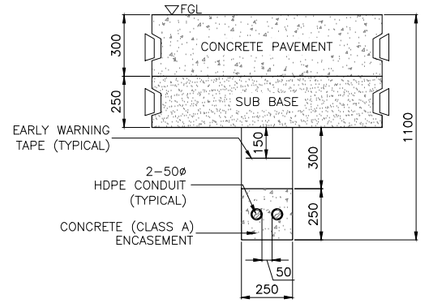
3 ELEVATION OF PEDESTRIAN LIGHT
PH1-TS-06 SCALE 1:15



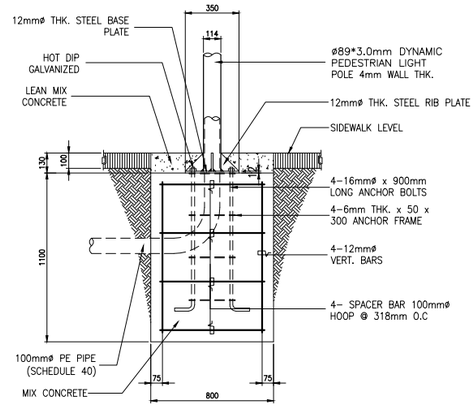
3A BASE PLATE DETAIL
PH1-TS-06 SCALE 1:15



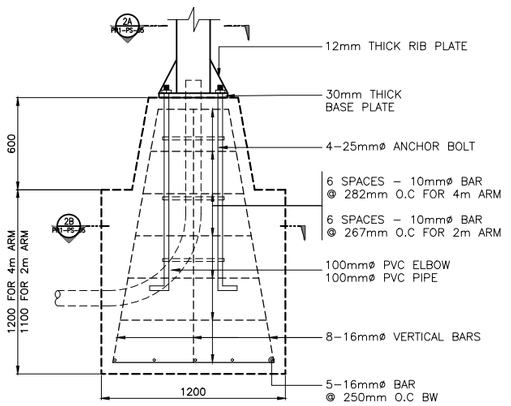
3B ANCHOR BOLTS DETAIL
PH1-TS-06 SCALE 1:15



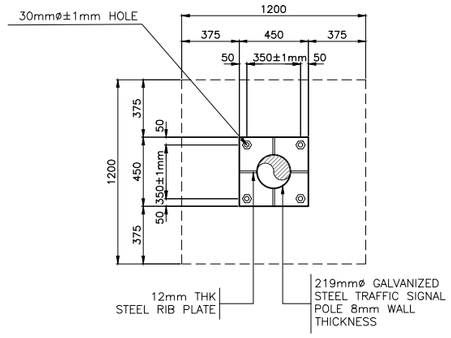
4 DUCTBANK DETAIL
PH1-TS-06 SCALE 1:20



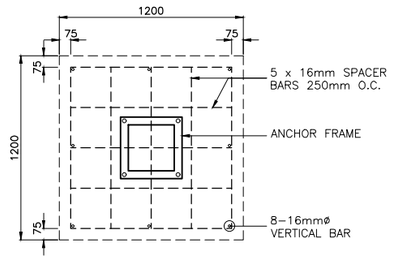
3C FOOTING DETAILS
PH1-TS-06 SCALE 1:20



2 FOOTING DETAILS
PH1-TS-06 SCALE 1:20



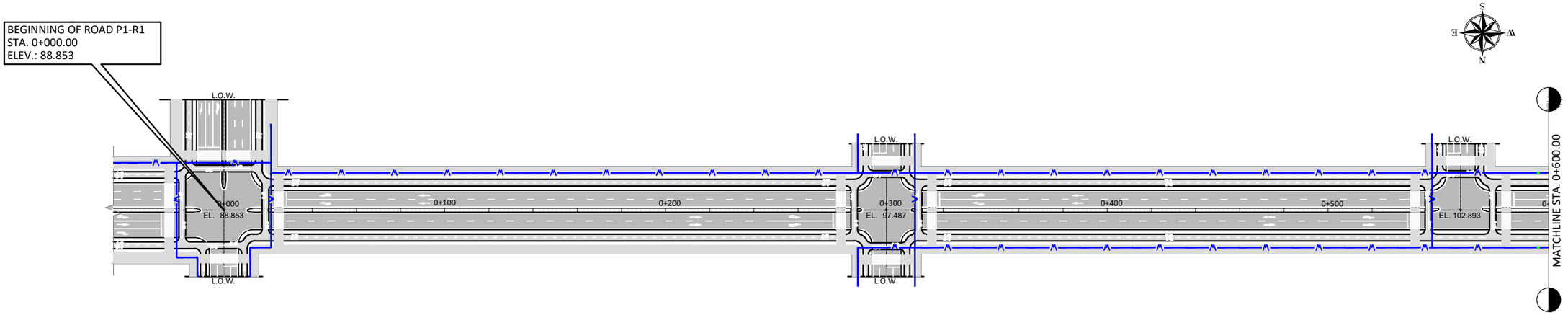
2A SECTION DETAIL
PH1-TS-06 SCALE 1:20

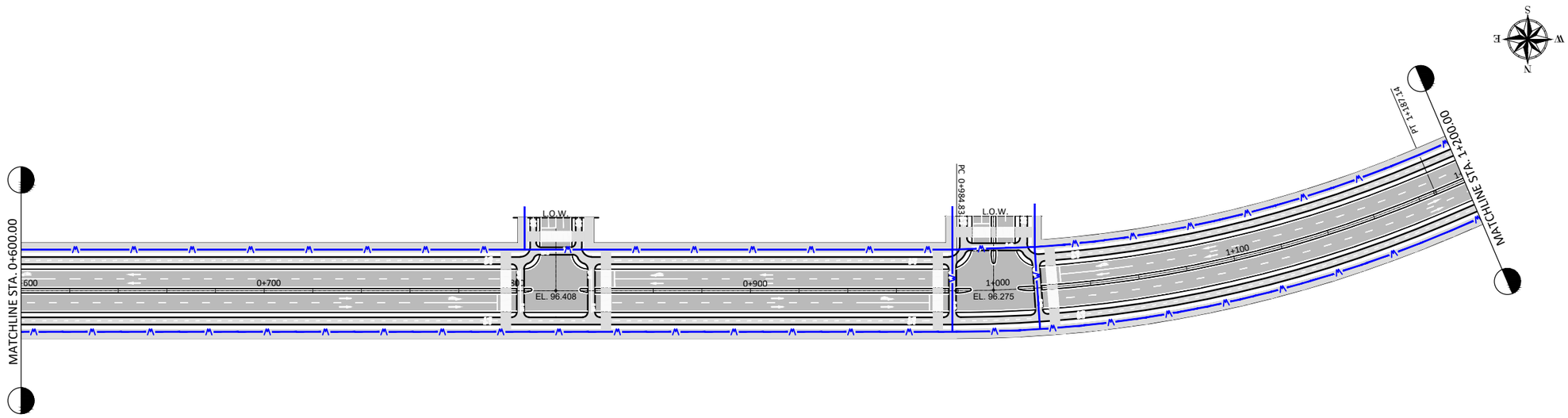


2B SECTION DETAIL
PH1-TS-06 SCALE 1:20

CONSULTANTS	DESIGNED BY	SUBMITTED BY		PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PKII PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority — RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	TRAFFIC SIGNAL LIGHT, PEDESTRIAN LIGHT, FOOTING AND DUCTBANK DETAILS	AS SHOWN	DRAFT FINAL
						DRAWING NO. PH1-TS-06	SHEET NO. 6 OF 6

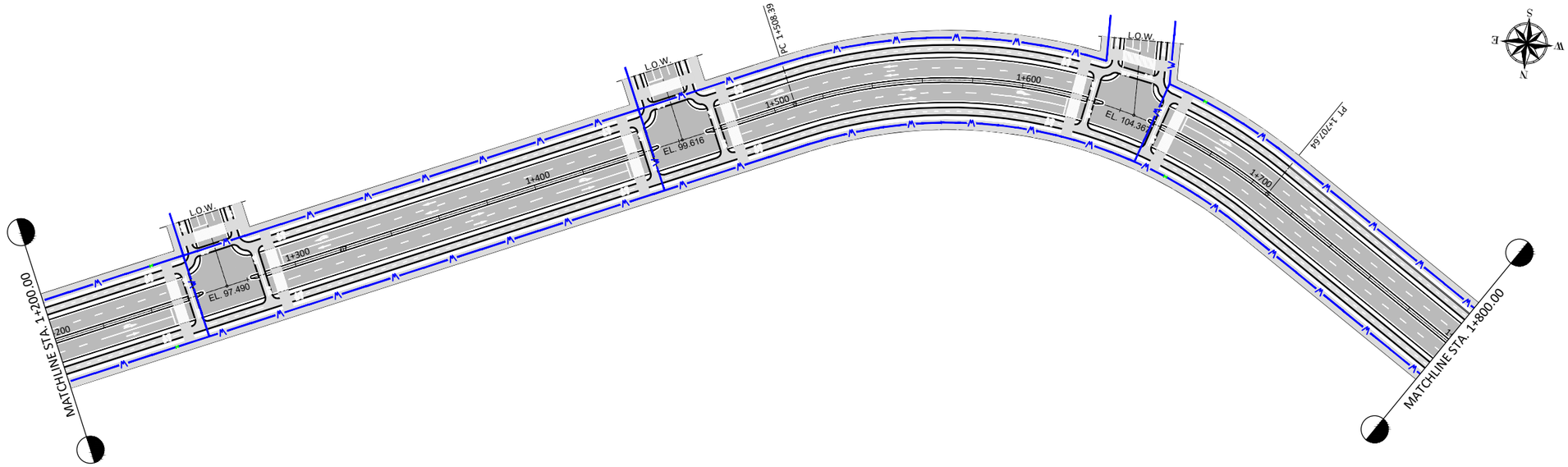
WATER LAYOUT

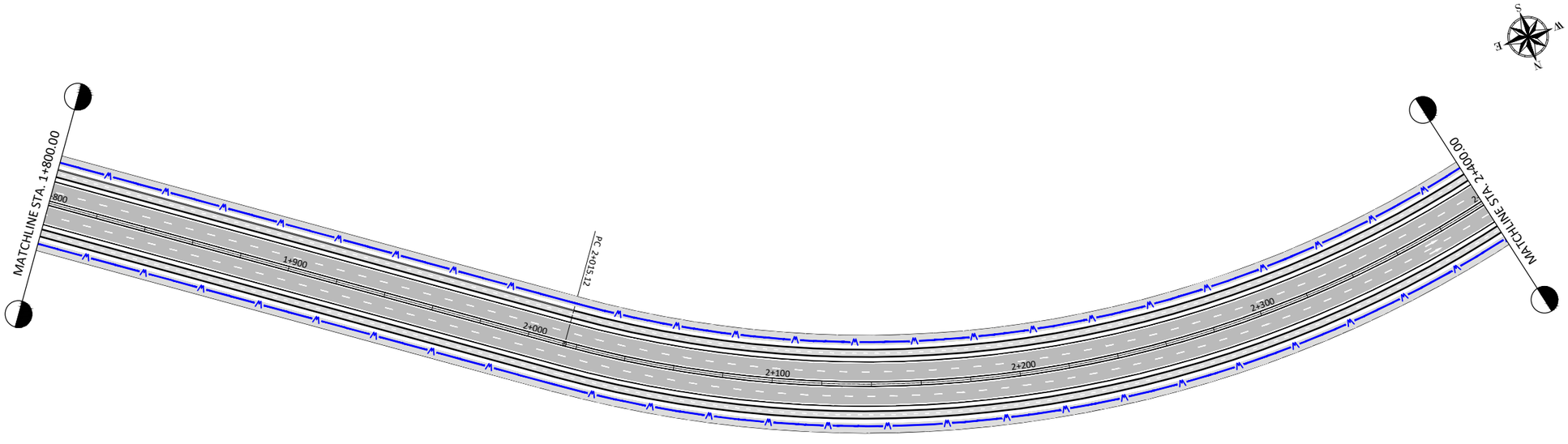




LEGEND :
WATERLINE —W———W—

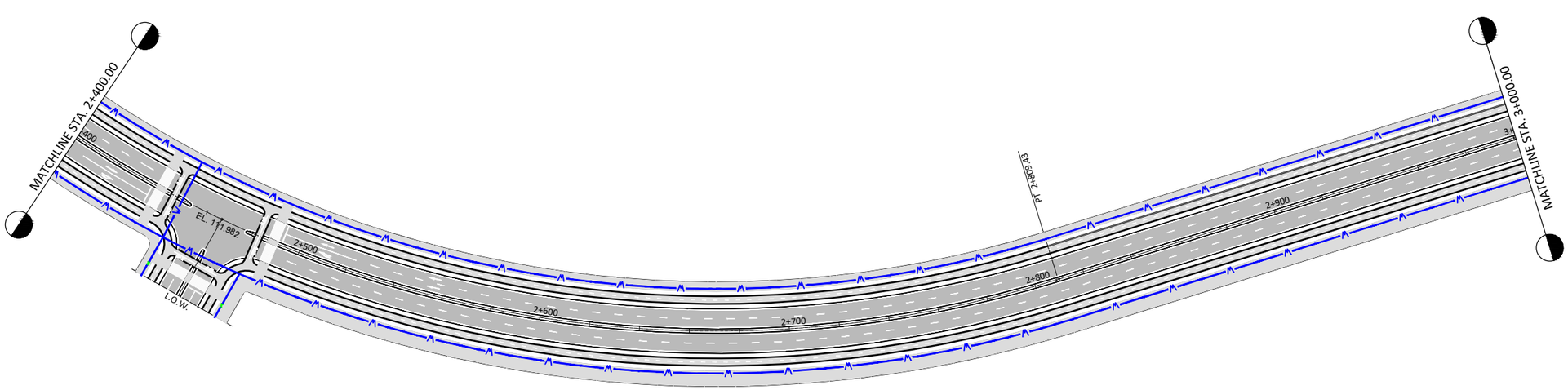
CONSULTANTS: NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. (CONSULTANTS PLANNERS ENGINEERS)	DESIGNED BY: RENE R. FLORDELIZ, WATER SUPPLY ENGINEER, DATE: / CHECKED BY: CIELITO ESTABLECIDA, CO-TEAM LEADER, DATE:	SUBMITTED BY: TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority — RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	PROJECT TITLE: INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	SHEET CONTENT: P1-R1 WATER SUPPLY PILE LINE LAYOUT STA. 0+000 - STA. 1+200	SCALE: 1:2000 / DRAWING NO.: PH1-WS-01	DRAWING STATUS: DRAFT FINAL / SHEET NO.: 1 OF 8

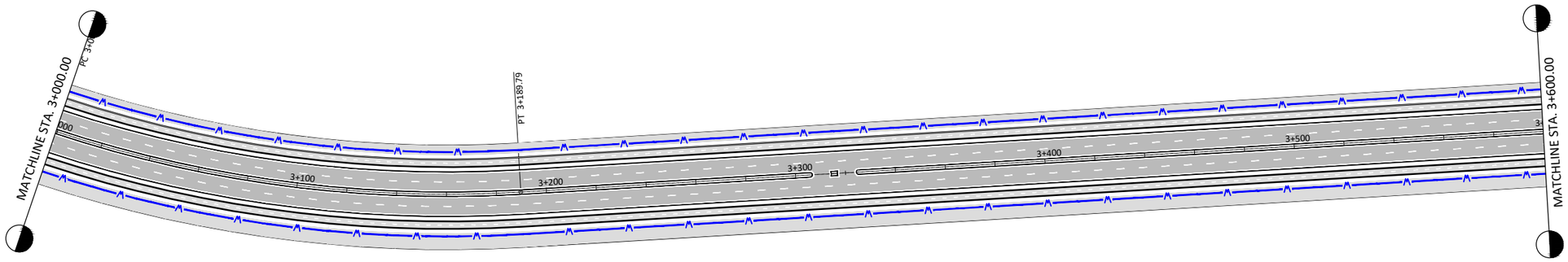




LEGEND :
WATERLINE —W———W—

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	**RENE R. FLORDELIZ** WATER SUPPLY ENGINEER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: **RYAN PAUL S. GALURA** OIC, PMD CLARK PROJECTS DATE: / APPROVED BY: **JOSHUA M. BINGCANG** SVP, CONVERSION AND DEVELOPMENT GROUP DATE:	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	P1-R1 WATER SUPPLY PILE LINE LAYOUT STA. 1+200 - STA. 2+400	1:2000	DRAFT FINAL
	CHECKED BY **CIELITO ESTABLECIDA** CO-TEAM LEADER DATE:						DRAWING NO. PH1-WS-02	SHEET NO. 2 OF 8

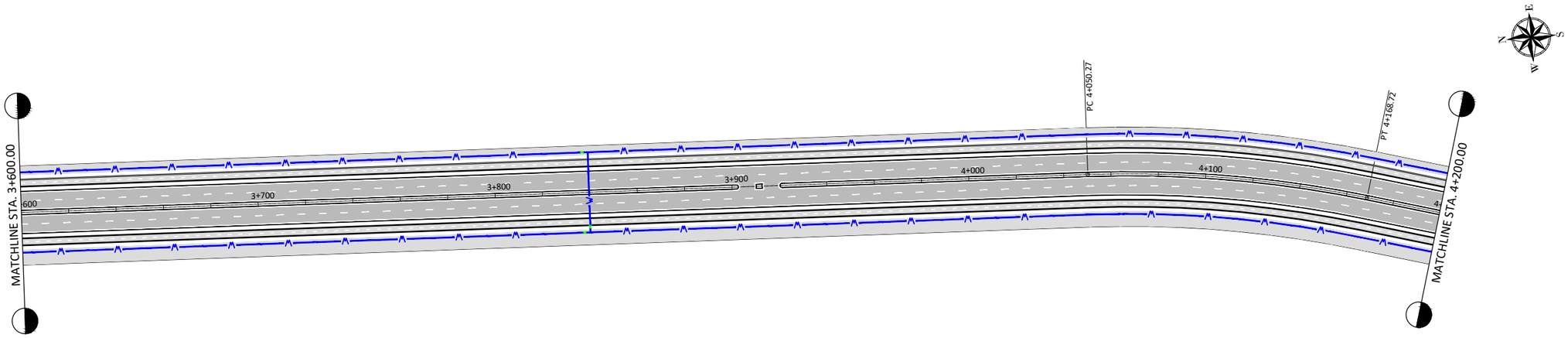


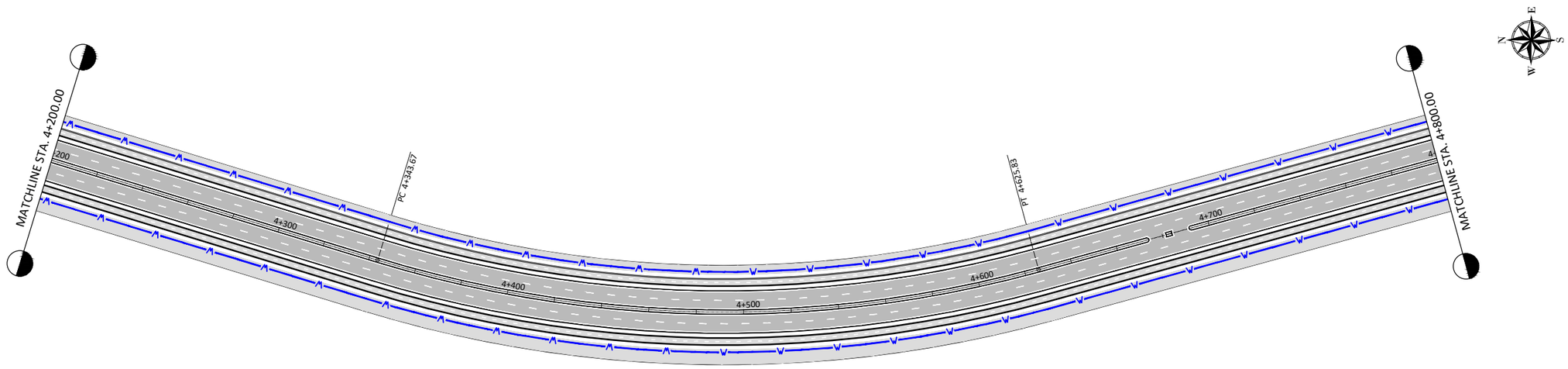


LEGEND :
WATERLINE

CONSULTANTS: NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. (CONSULTANTS PLANNERS ENGINEERS)	DESIGNED BY: RENE R. FLORDELIZ, WATER SUPPLY ENGINEER, DATE: / CHECKED BY: CIELITO ESTABLECIDA, CO-TEAM LEADER, DATE:	SUBMITTED BY: TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA / RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE:	APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	PROJECT TITLE: INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	SHEET CONTENT: P1-R1 WATER SUPPLY PILE LINE LAYOUT STA. 2+400 - STA. 3+600

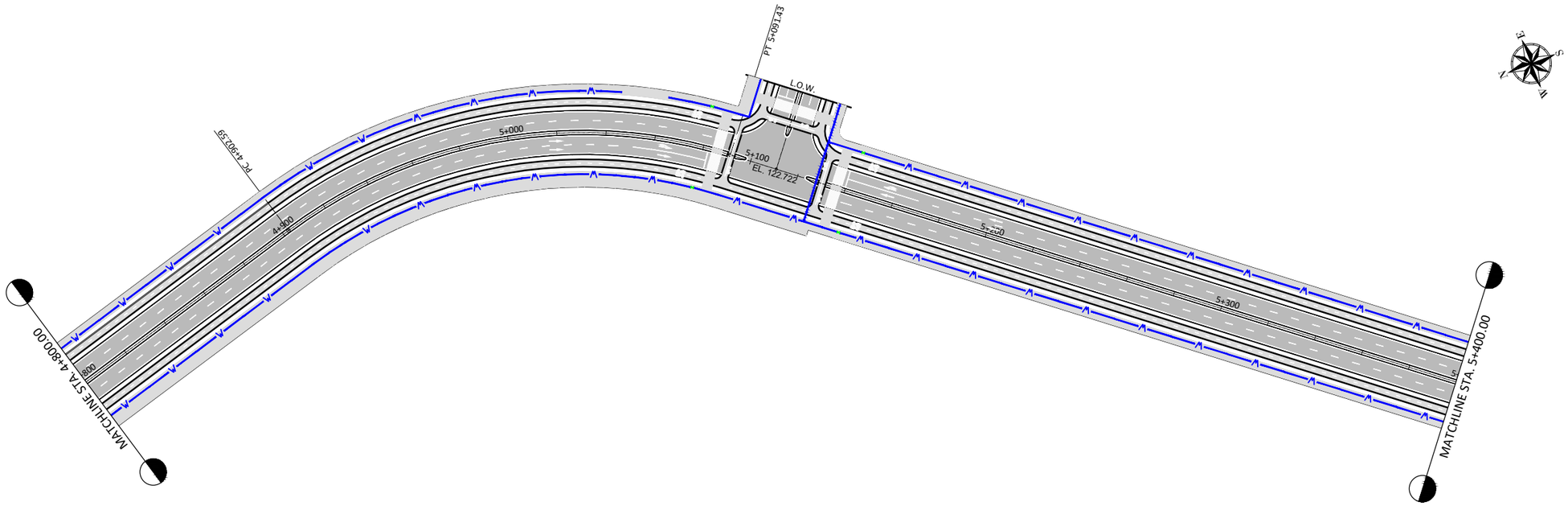
SCALE	DRAWING STATUS
1:2000	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-WS-03	3 OF 8

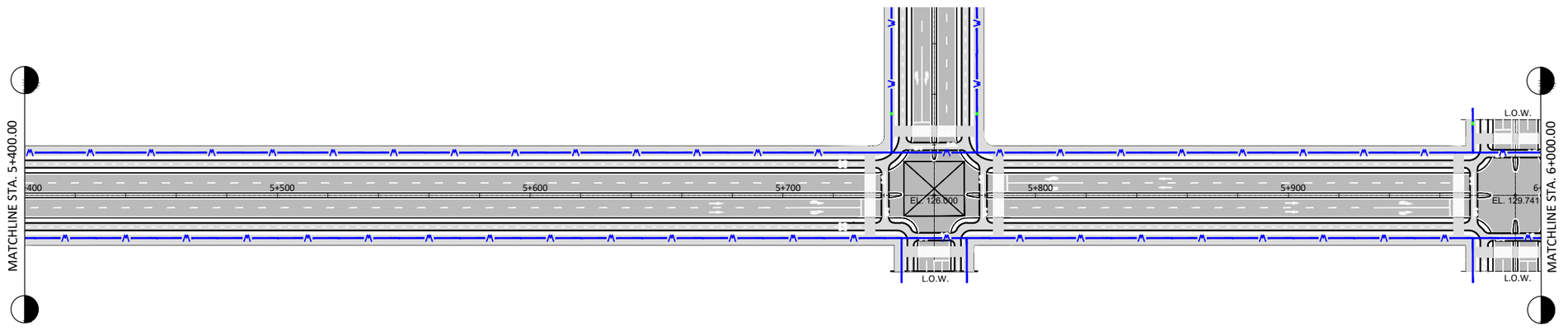




LEGEND :
WATERLINE

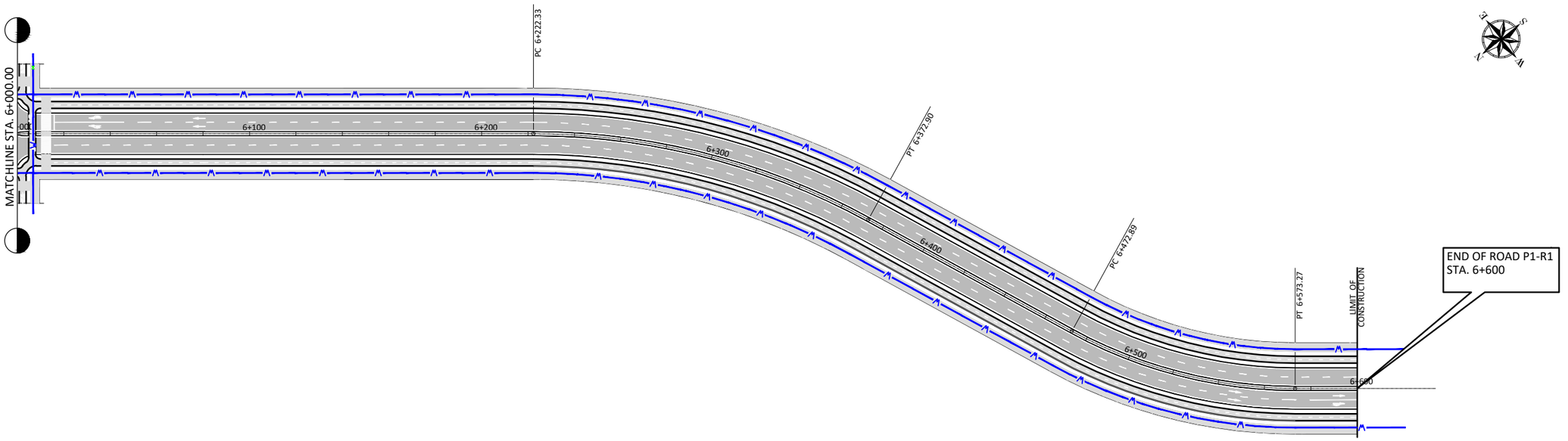
CONSULTANTS	DESIGNED BY	SUBMITTED BY		BCDA	PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	**RENE R. FLORDELIZ** WATER SUPPLY ENGINEER DATE: CHECKED BY **CIELITO ESTABLECIDA** CO-TEAM LEADER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL **RYAN PAUL S. GALURA** OIC, PMD CLARK PROJECTS DATE: APPROVED BY **JOSHUA M. BINGCANG** SVP, CONVERSION AND DEVELOPMENT GROUP DATE:	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** **PHASE 1** **R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)**	P1-R1 WATER SUPPLY PILE LINE LAYOUT STA. 3+600 - STA. 4+800	1:2000	DRAFT FINAL
							DRAWING NO.	SHEET NO.
							PH1-WS-04	4 OF 8





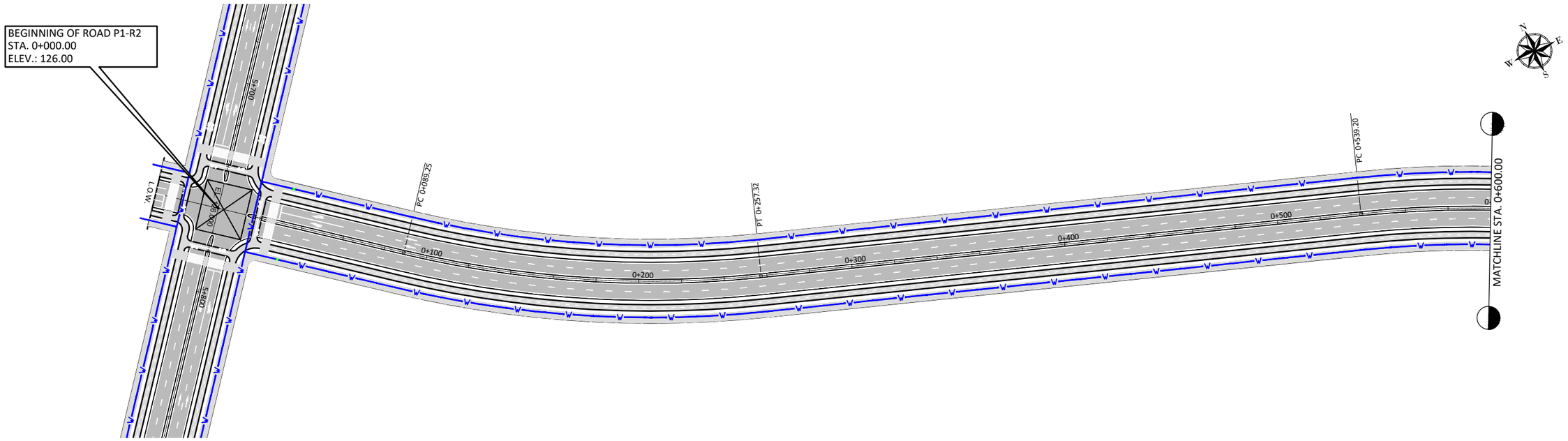
LEGEND :
WATERLINE

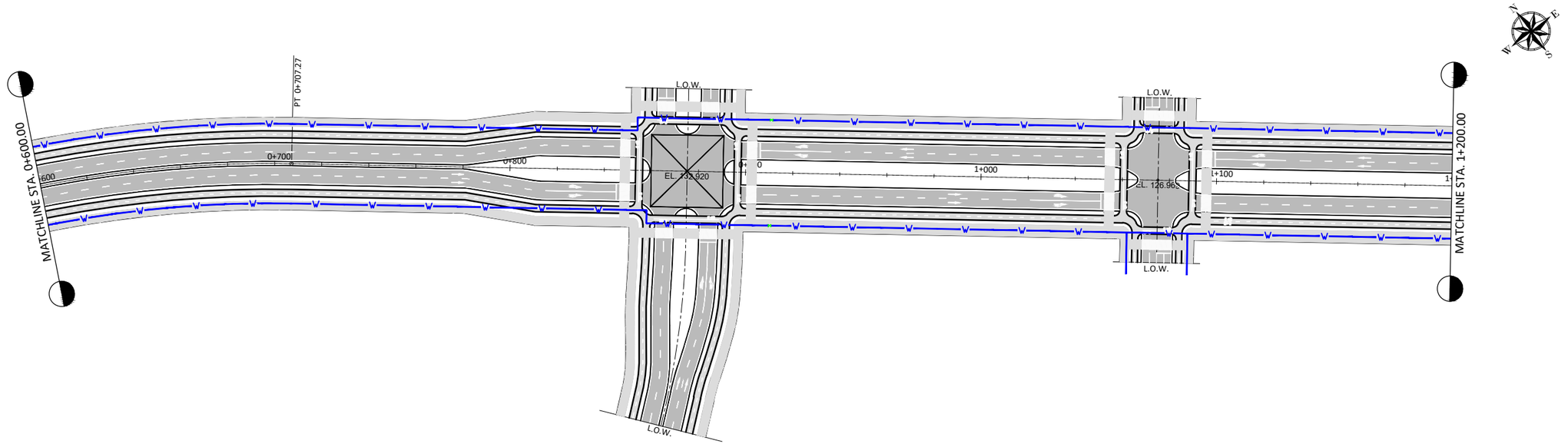
CONSULTANTS	DESIGNED BY	SUBMITTED BY	REPUBLIC OF THE PHILIPPINES	BCDA	PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	**RENE R. FLORDELIZ** WATER SUPPLY ENGINEER DATE: CHECKED BY **CIELITO ESTABLECIDA** CO-TEAM LEADER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: **RYAN PAUL S. GALURA**, OIC, PMD CLARK PROJECTS, DATE: APPROVED BY: **JOSHUA M. BINGCANG**, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	P1-R1 WATER SUPPLY PILE LINE LAYOUT STA. 4+800 - STA. 6+000	1:2000	DRAFT FINAL
							DRAWING NO. PH1-WS-05	SHEET NO. 5 OF 8



LEGEND :
WATERLINE —W———W—

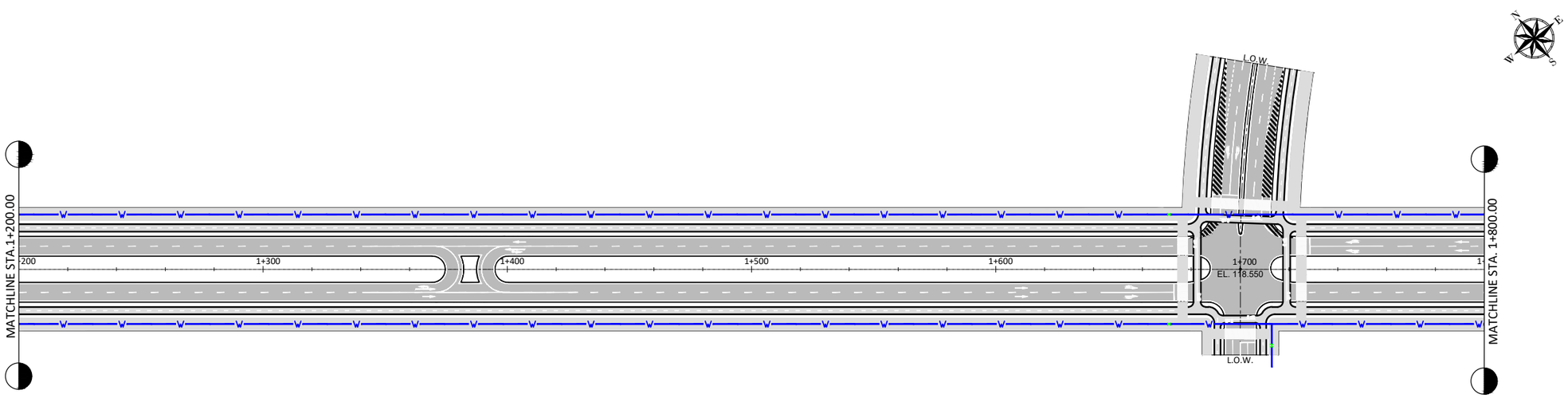
CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	RENE R. FLORDELIZ, WATER SUPPLY ENGINEER, DATE: / CHECKED BY CIELITO ESTABLECIDA, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	P1-R1 WATER SUPPLY PILE LINE LAYOUT STA. 6+000 - STA. 6+600	1:2000	DRAFT FINAL
							DRAWING NO. PH1-WS-06	SHEET NO. 6 OF 8

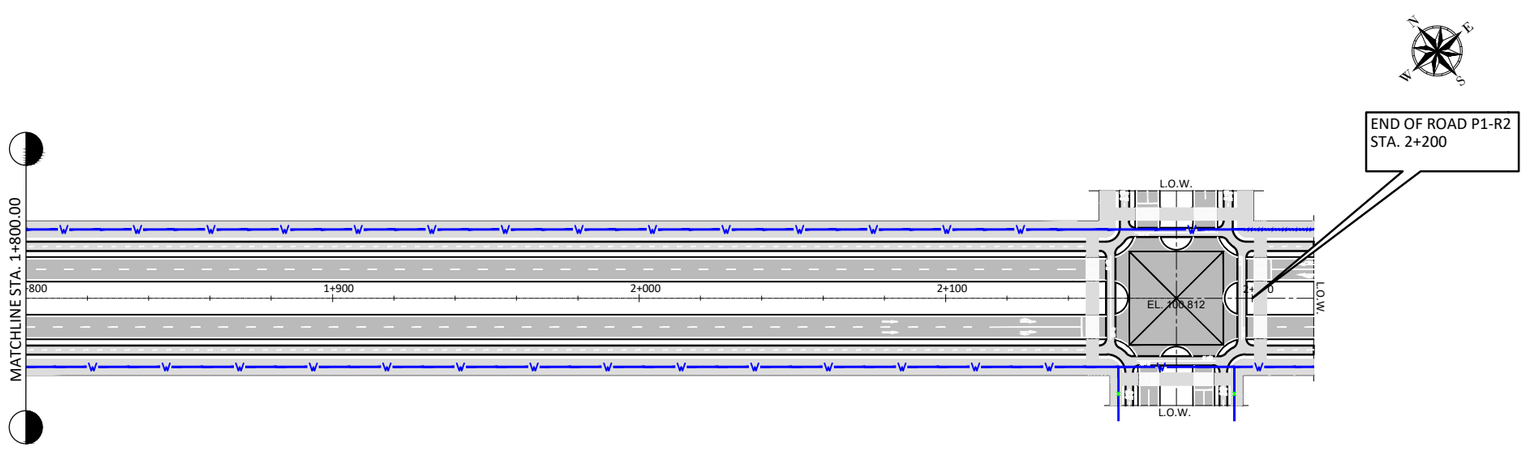




LEGEND :
WATERLINE —W———W—

CONSULTANTS	DESIGNED BY	SUBMITTED BY		BCDA	PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	**RENE R. FLORDELIZ** WATER SUPPLY ENGINEER DATE: CHECKED BY **CIELITO ESTABLECIDA** CO-TEAM LEADER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL **RYAN PAUL S. GALURA** OIC, PMD CLARK PROJECTS DATE: APPROVED BY **JOSHUA M. BINGCANG** SVP, CONVERSION AND DEVELOPMENT GROUP DATE:	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY** **ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** **PHASE 1** **R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)**	P1-R2 WATER SUPPLY PILE LINE LAYOUT STA. 0+000 - STA. 1+200	1:2000	DRAFT FINAL
							DRAWING NO. PH1-WS-07	SHEET NO. 7 OF 8





LEGEND :
WATERLINE —W———W—

CONSULTANTS	DESIGNED BY	SUBMITTED BY		BCDA	PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	**RENE R. FLORDELIZ** WATER SUPPLY ENGINEER DATE: CHECKED BY **CIELITO ESTABLECIDA** CO-TEAM LEADER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL **RYAN PAUL S. GALURA** OIC, PMD CLARK PROJECTS DATE: APPROVED BY **JOSHUA M. BINGCANG** SVP, CONVERSION AND DEVELOPMENT GROUP DATE:	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY** **ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** **PHASE 1** **R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)**	P1-R2 WATER SUPPLY PILE LINE LAYOUT STA. 1+200 - STA. 2+200	1:2000 DRAWING NO. PH1-WS-08	DRAFT FINAL SHEET NO. 8 OF 8

POWER LAYOUT

DWG No.	SHEET CONTENT	SHEET NO.
PH1-PL-01	POWER SUPPLY SYSTEM DRAWING INDEX	1 OF 14
PH1-PL-02	13.8kV DISTRIBUTION LAYOUT PLAN POWER SUPPLY SYSTEM	2 OF 14
PH1-PL-03	ROAD 1 & ROAD 2 LDP-1, LDP-2 AND LDP-3 POWER DISTRIBUTION LOCATION PLAN	3 OF 14
PH1-PL-04	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 0+000 – STA. 1+080	4 OF 14
PH1-PL-05	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 1+080 – STA. 1+800	5 OF 14
PH1-PL-06	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 1+800 – STA. 2+560	6 OF 14
PH1-PL-07	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 2+560 – STA. 3+320	7 OF 14
PH1-PL-08	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 3+320 – STA. 4+460	8 OF 14
PH1-PL-09	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 4+460 – STA. 5+220	9 OF 14
PH1-PL-10	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 5+220 – STA. 6+340	10 OF 14
PH1-PL-11	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 6+340 – STA. 6+600	11 OF 14
PH1-PL-12	ROAD 2 POWER DISTRIBUTION LAYOUT STA. 0+000 – STA. 0+760	12 OF 14
PH1-PL-13	ROAD 2 POWER DISTRIBUTION LAYOUT STA. 0+760 – STA. 1+900	13 OF 14
PH1-PL-14	ROAD 2 POWER DISTRIBUTION LAYOUT STA. 1+900 – STA. 2+175.24	14 OF 14

1 / PH1-PL-01 POWER SUPPLY SYSTEM DRAWING INDEX

NOT TO SCALE

CONSULTANTS

NIPPON KOEI

NIPPON KOEI CO.,LTD.

PKII

PHILKOEI INTERNATIONAL, INC.

CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY

CHARLES P. PANTE
ELECTRICAL ENGINEER

DATE:

CHECKED BY

CHARLES P. PANTE
CO-TEAM LEADER

DATE:

SUBMITTED BY

TEDDY MASANORI
PROJECT MANAGER

DATE:

REPUBLIC OF THE PHILIPPINES

PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority

RECOMMENDING APPROVAL

RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS

DATE:

APPROVED BY

JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP

DATE:

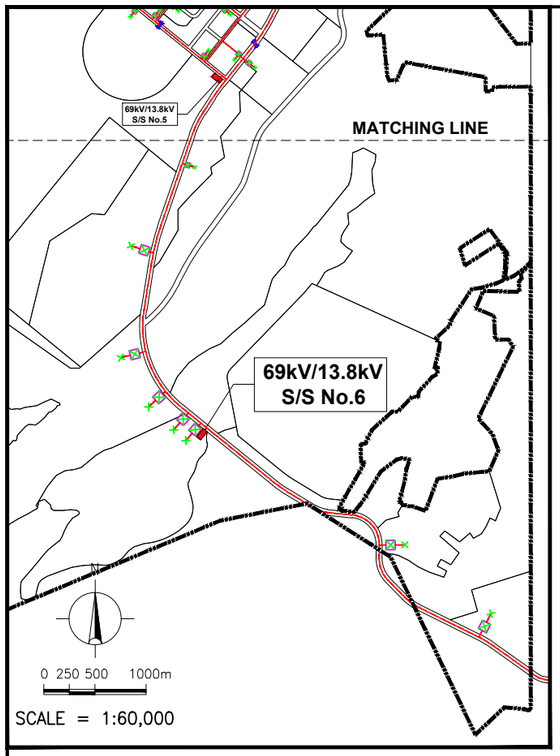
PROJECT TITLE

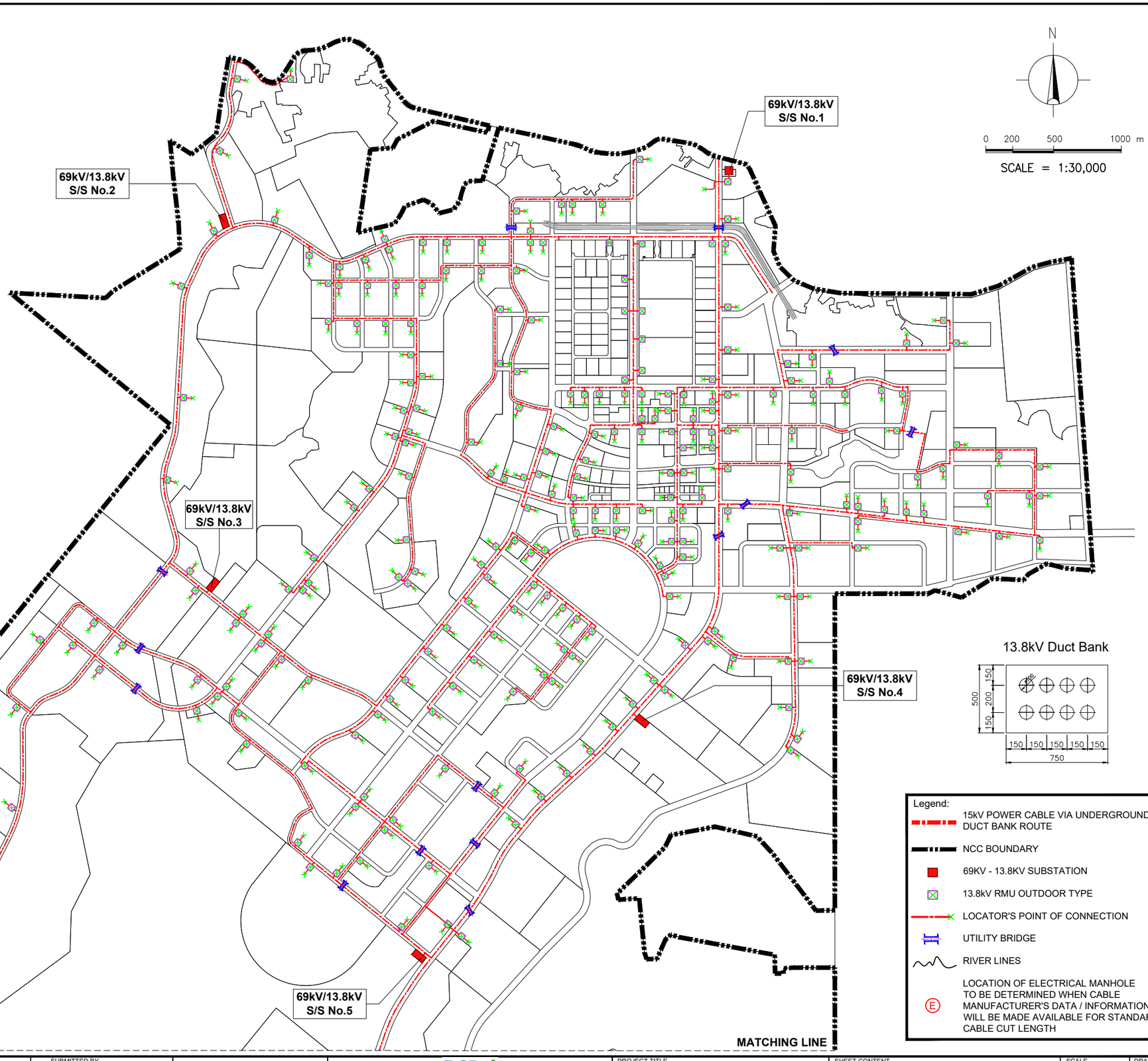
INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT

POWER SUPPLY SYSTEM DRAWING INDEX

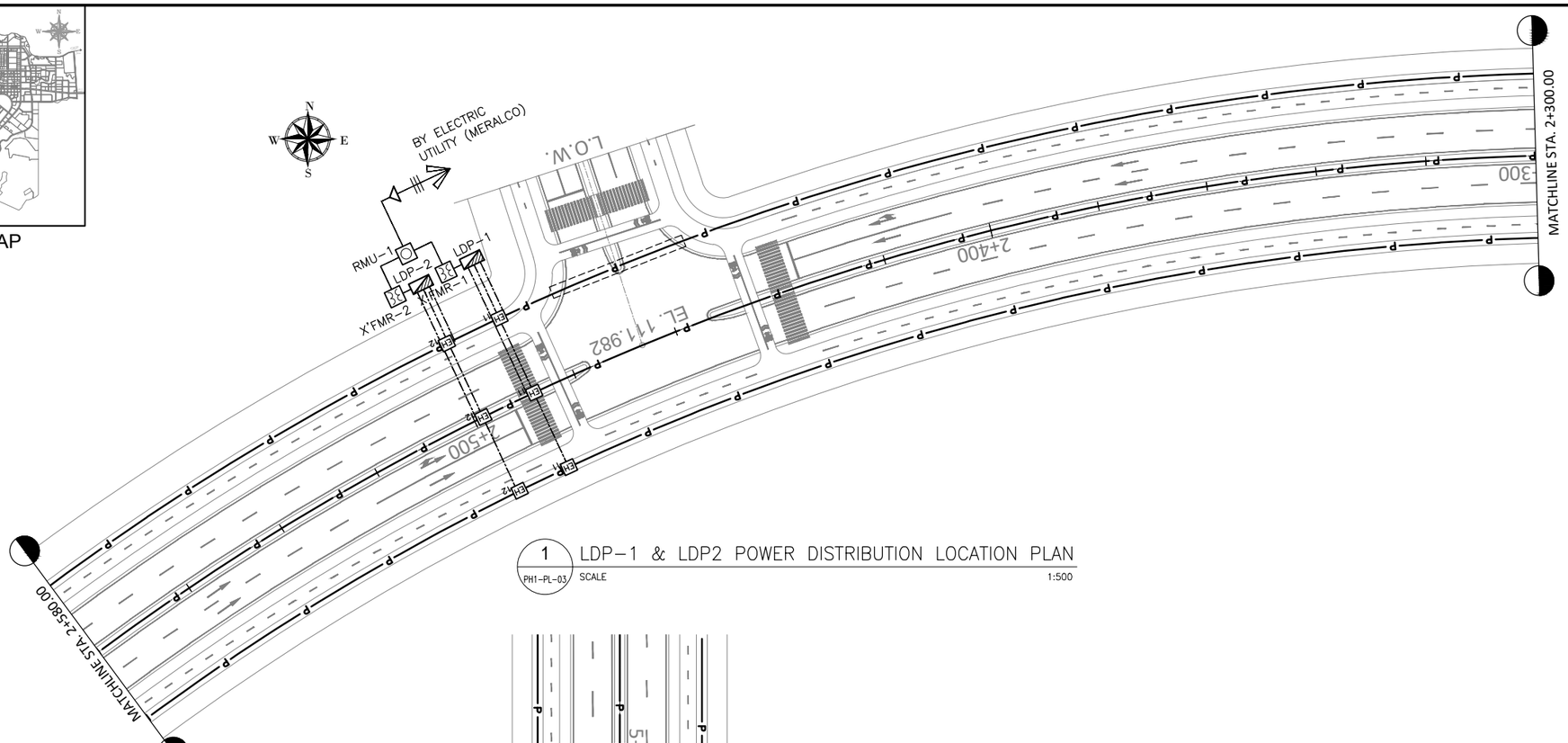
SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-PL-01	1 OF 14





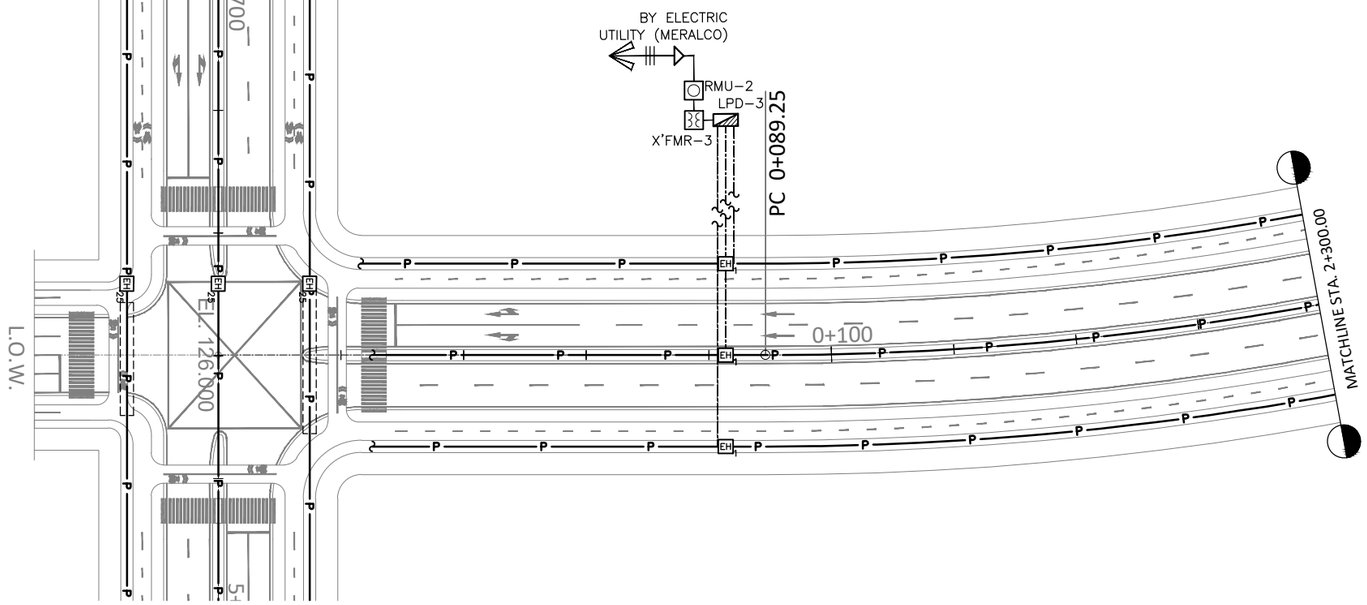
CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI NIPPON KOEI CO.,LTD. PKII PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	**CHARLES P. PANTE** ELECTRICAL ENGINEER DATE: CHECKED BY **CHARLES P. PANTE** CO-TEAM LEADER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority RECOMMENDING APPROVAL **RYAN PAUL S. GALURA** OIC, PMD CLARK PROJECTS DATE: APPROVED BY **JOSHUA M. BINGCANG** SVP, CONVERSION AND DEVELOPMENT GROUP DATE:	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY** **ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** **PHASE 1** **R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)**	13.8kV DISTRIBUTION LAYOUT PLAN POWER SUPPLY SYSTEM	AS SHOWN DRAWING NO. PH1-PL-02	DRAFT FINAL SHEET NO. 2 OF 14

KEY MAP



1 PH1-PL-03 LDP-1 & LDP2 POWER DISTRIBUTION LOCATION PLAN

SCALE 1:500



2 PH1-PL-03 LDP-3 POWER DISTRIBUTION LOCATION PLAN

SCALE 1:500

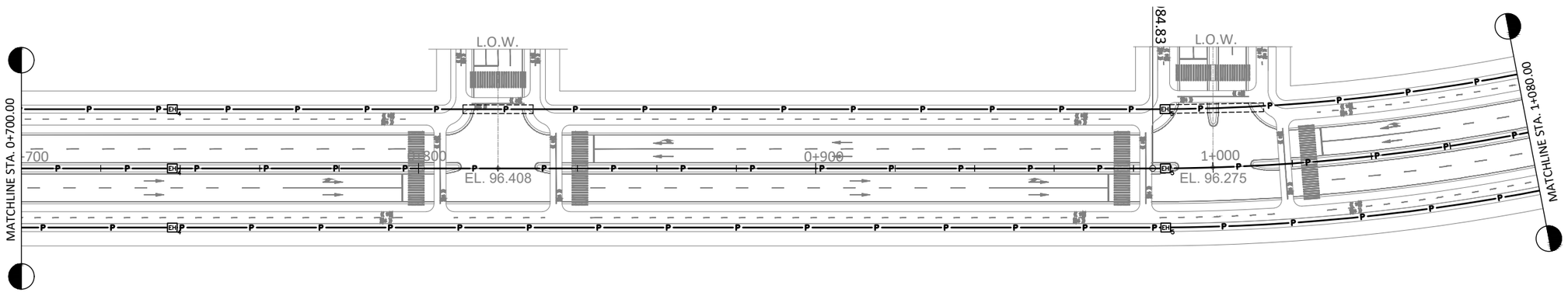
NOTES

1. FOR GENERAL NOTES SEE PH1-TS-03
2. FOR LEGENDS SEE PH1-TS-03

FOR INFORMATION ONLY

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. (CONSULTANTS PLANNERS ENGINEERS)	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority — RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 & ROAD 2 LDP-1, LDP-2 AND LDP-3 POWER DISTRIBUTION LOCATION PLAN	AS SHOWN	DRAFT FINAL
	CHECKED BY: CHARLES P. PANTE, CO-TEAM LEADER, DATE:						DRAWING NO. PH1-PL-03	SHEET NO. 3 OF 14

KEY MAP



1 / PH1-PL-04 ROAD 1 POWER DISTRIBUTION LAYOUT (STA.0+000 – STA. 1+080)

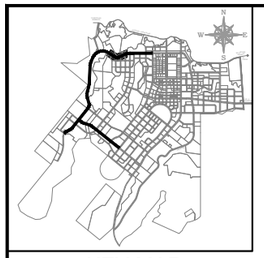
SCALE 1:600

NOTES

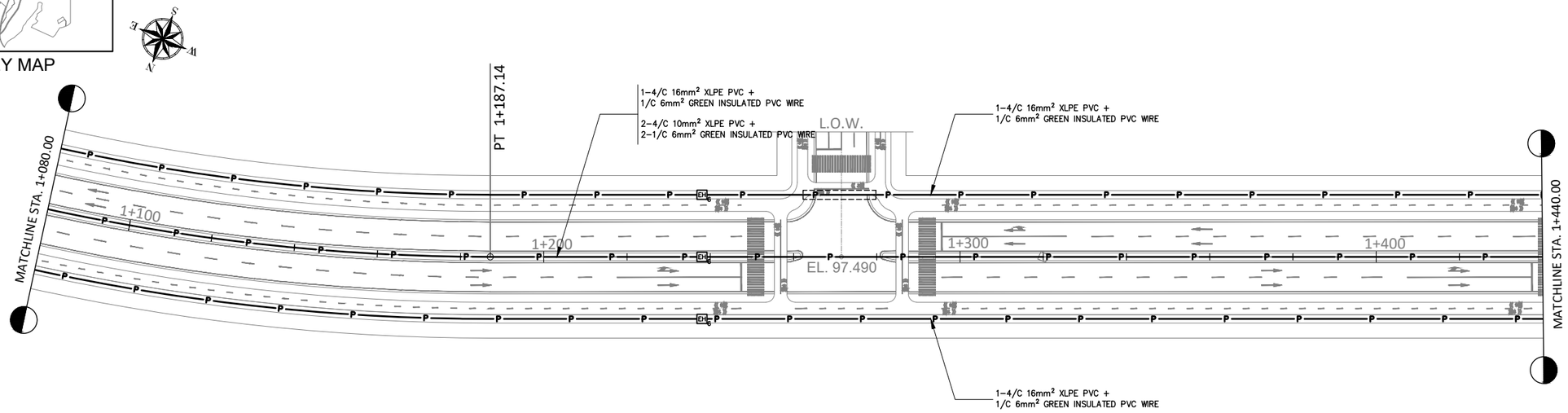
1. FOR GENERAL NOTES SEE PH1–TS–03
2. FOR LEGENDS SEE PH1–TS–03

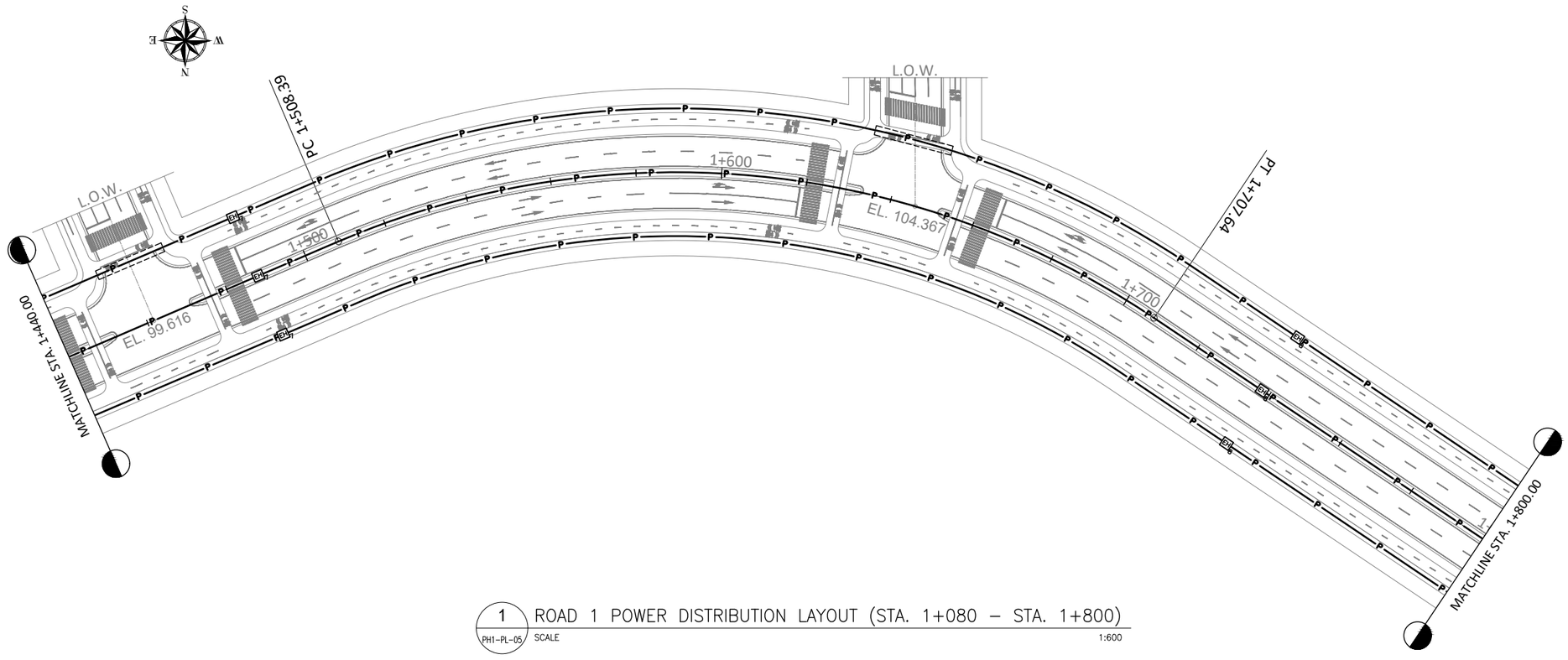
FOR INFORMATION ONLY

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. (CONSULTANTS PLANNERS ENGINEERS)	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 POWER DISTRIBUTION LAYOUT STA.0+000 - STA. 1+080	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-PL-04	SHEET NO. 4 OF 14



KEY MAP





1 PH1–PL–05 ROAD 1 POWER DISTRIBUTION LAYOUT (STA. 1+080 – STA. 1+800)

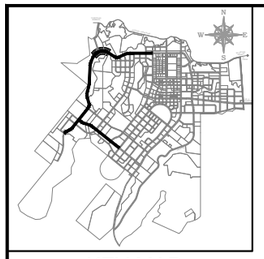
SCALE 1:600

NOTES

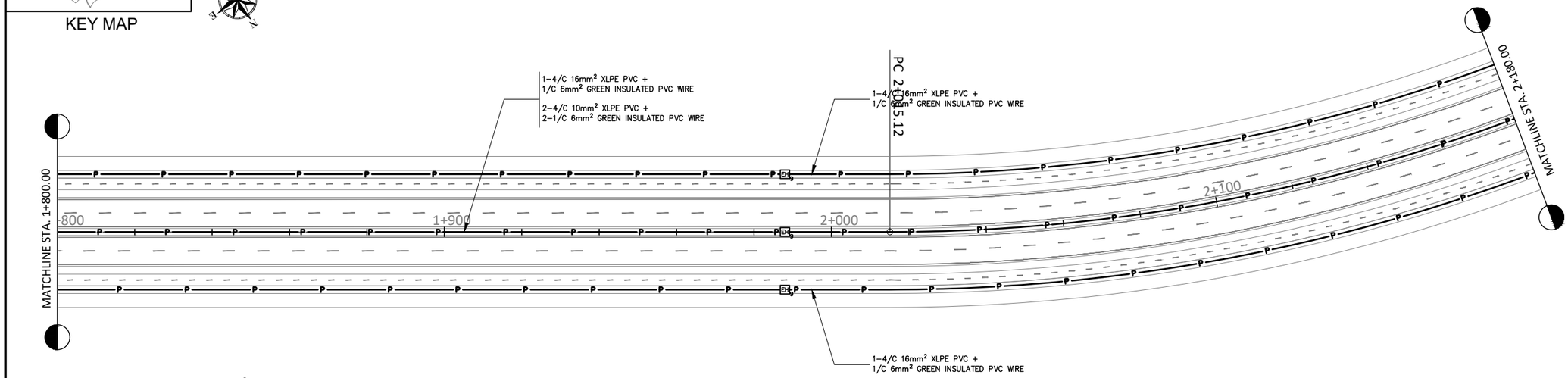
1. FOR GENERAL NOTES SEE PH1–TS–03
2. FOR LEGENDS SEE PH1–TS–03

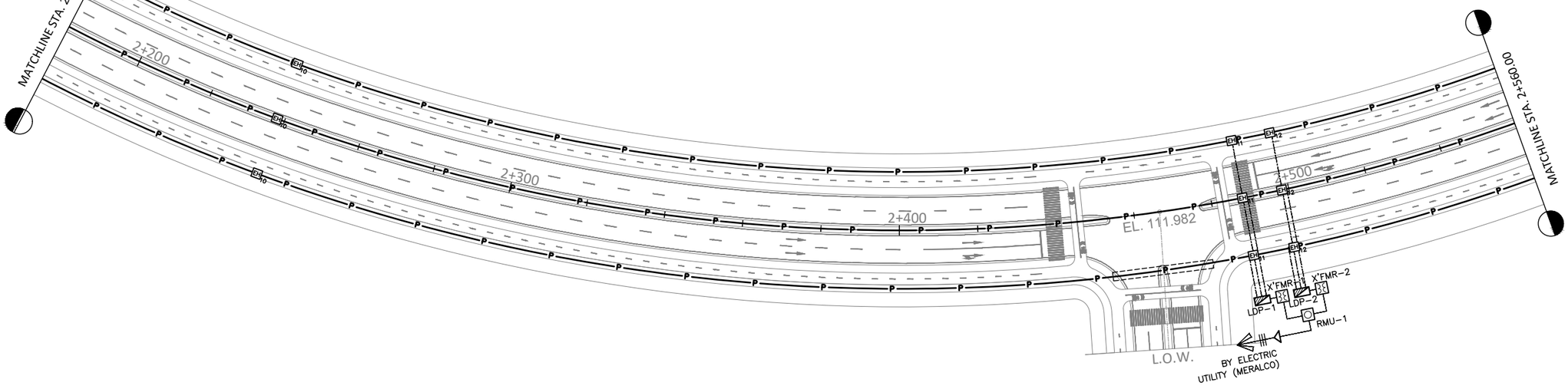
FOR INFORMATION ONLY

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	**CHARLES P. PANTE** ELECTRICAL ENGINEER DATE: CHECKED BY **CHARLES P. PANTE** CO-TEAM LEADER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL **RYAN PAUL S. GALURA** OIC, PMD CLARK PROJECTS DATE:	APPROVED BY **JOSHUA M. BINGCANG** SVP, CONVERSION AND DEVELOPMENT GROUP DATE:	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY** **ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** **PHASE 1** **R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)**	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 1+080 - STA. 1+800	AS SHOWN DRAWING NO. PH1-PL-05	DRAFT FINAL SHEET NO. 5 OF 14



KEY MAP





1 PH1-PL-06 ROAD 1 POWER DISTRIBUTION LAYOUT (STA. 1+800 – STA. 2+560)

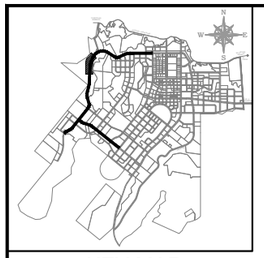
SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1-TS-03
2. FOR LEGENDS SEE PH1-TS-03

FOR INFORMATION ONLY

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 1+800 - STA. 2+560	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-PL-06	SHEET NO. 6 OF 14



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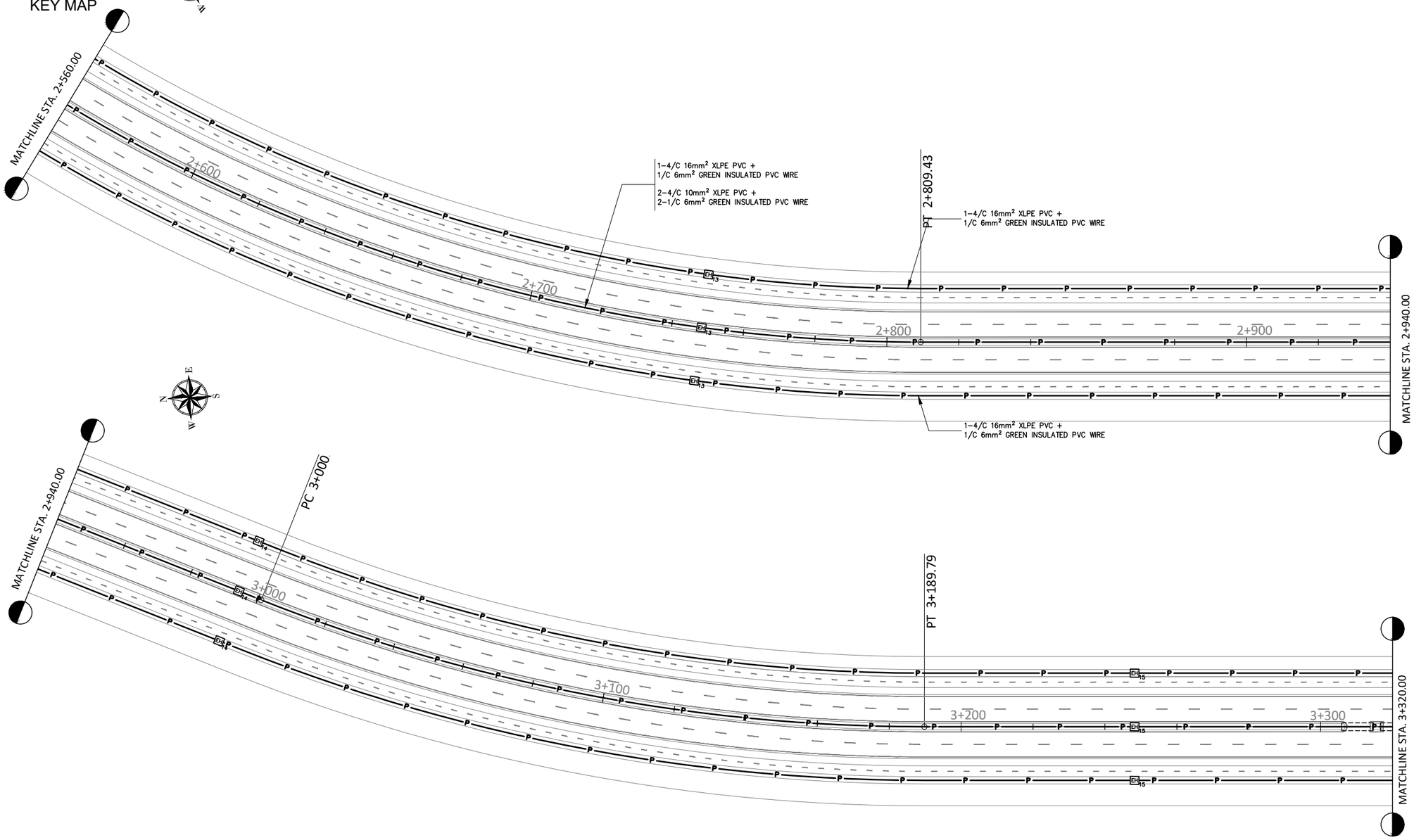


1 PH1-PL-07 ROAD 1 POWER DISTRIBUTION LAYOUT (STA. 2+560 – STA. 3+320)

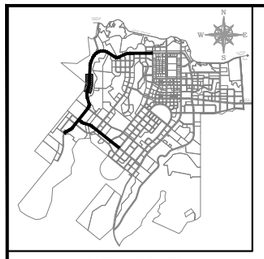
SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1–TS–03
2. FOR LEGENDS SEE PH1–TS–03

FOR INFORMATION ONLY

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI / NIPPON KOEI CO.,LTD. / PKII PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority — RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 2+560 - STA. 3+320	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-PL-07	SHEET NO. 7 OF 14



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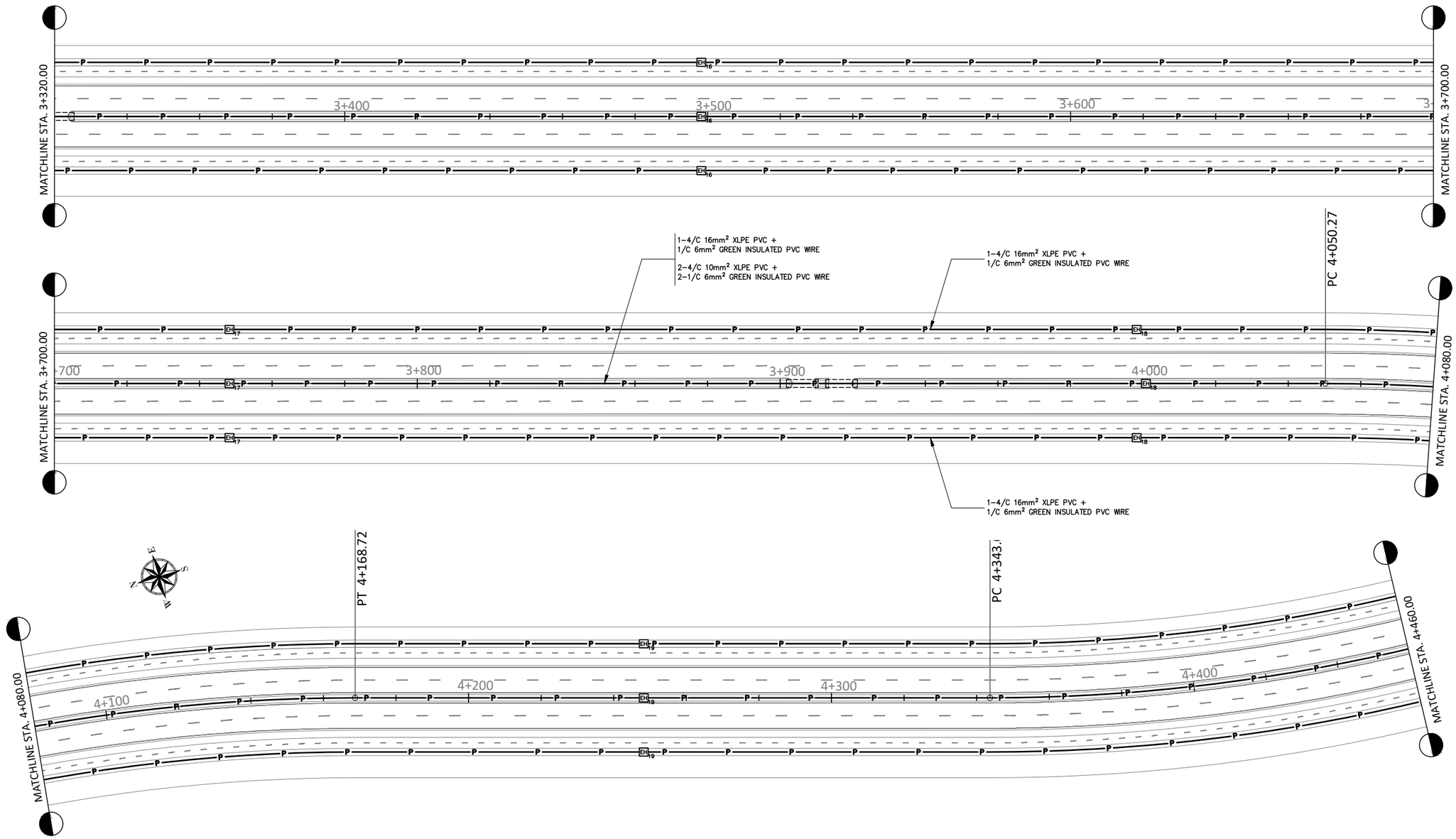


1 PH1–PL–08 ROAD 1 POWER DISTRIBUTION LAYOUT (STA. 3+320 – STA. 4+460)

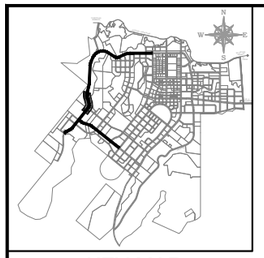
SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1–TS–03
2. FOR LEGENDS SEE PH1–TS–03

FOR INFORMATION ONLY

CONSULTANTS	DESIGNED BY	SUBMITTED BY		PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. (CONSULTANTS PLANNERS ENGINEERS)	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 3+320 - STA. 4+460	AS SHOWN	DRAFT FINAL
			RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:			DRAWING NO. PH1-PL-08	SHEET NO. 8 OF 14



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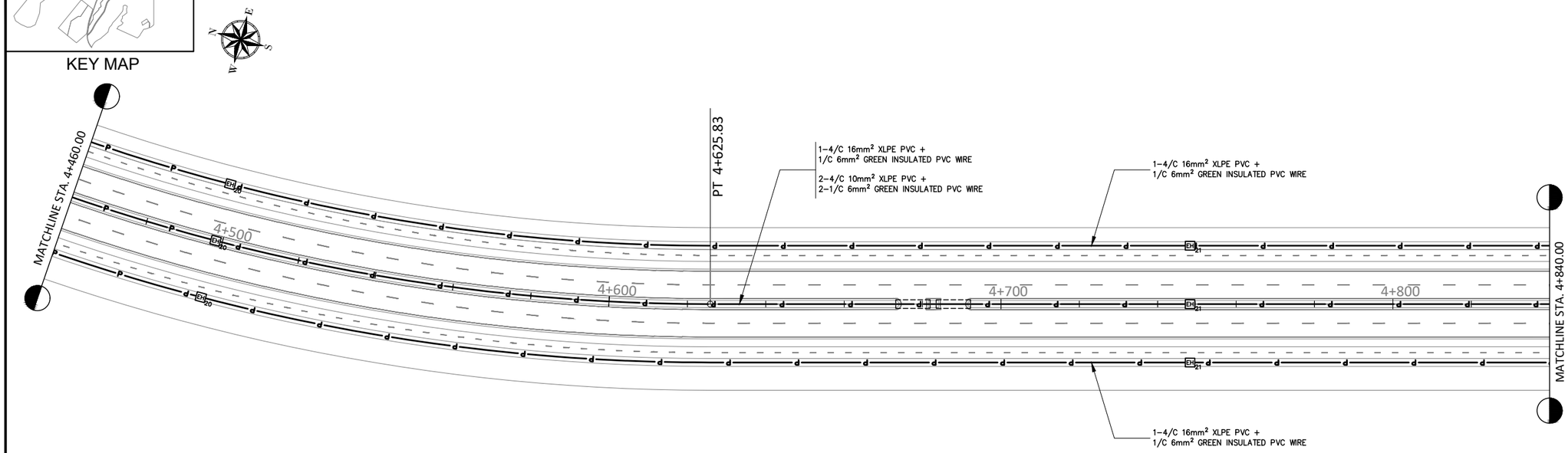
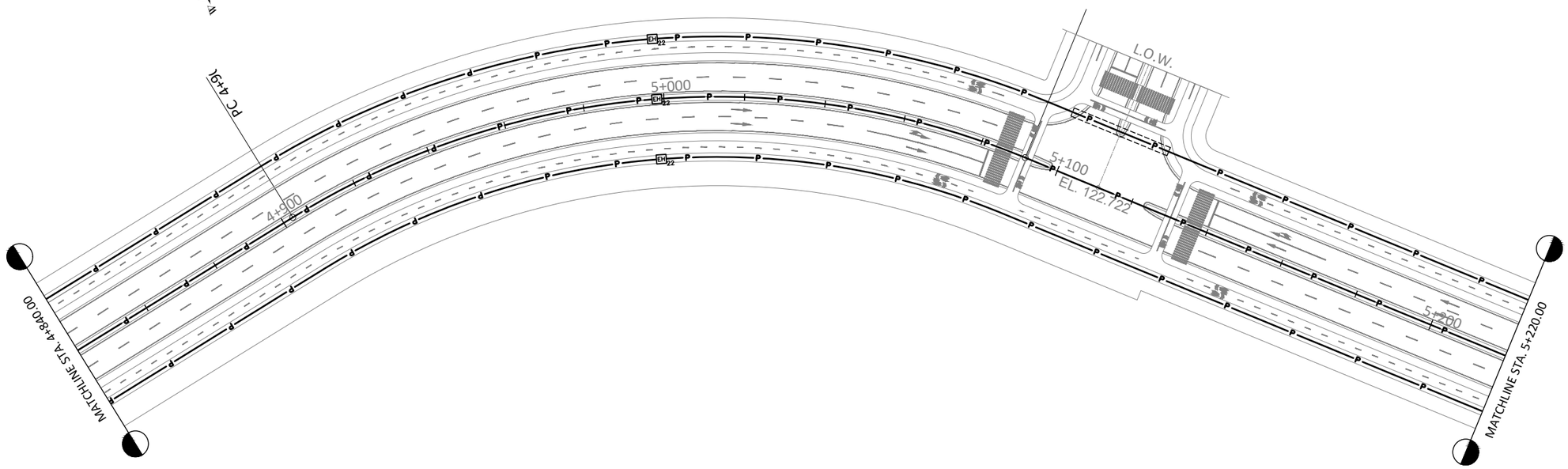




1 PH1-PL-09 ROAD 1 POWER DISTRIBUTION LAYOUT (STA. 4+460 – STA. 5+220)

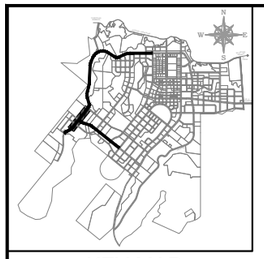
SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1–TS–03
2. FOR LEGENDS SEE PH1–TS–03

FOR INFORMATION ONLY

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI NIPPON KOEI CO.,LTD. PKII PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	**CHARLES P. PANTE** ELECTRICAL ENGINEER DATE: CHECKED BY **CHARLES P. PANTE** CO-TEAM LEADER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA RECOMMENDING APPROVAL: **RYAN PAUL S. GALURA**, OIC, PMD CLARK PROJECTS, DATE: APPROVED BY: **JOSHUA M. BINGCANG**, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY** **ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** **PHASE 1** **R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)**	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 4+460 - STA. 5+220	AS SHOWN DRAWING NO.: PH1-PL-09	DRAFT FINAL SHEET NO.: 9 OF 14



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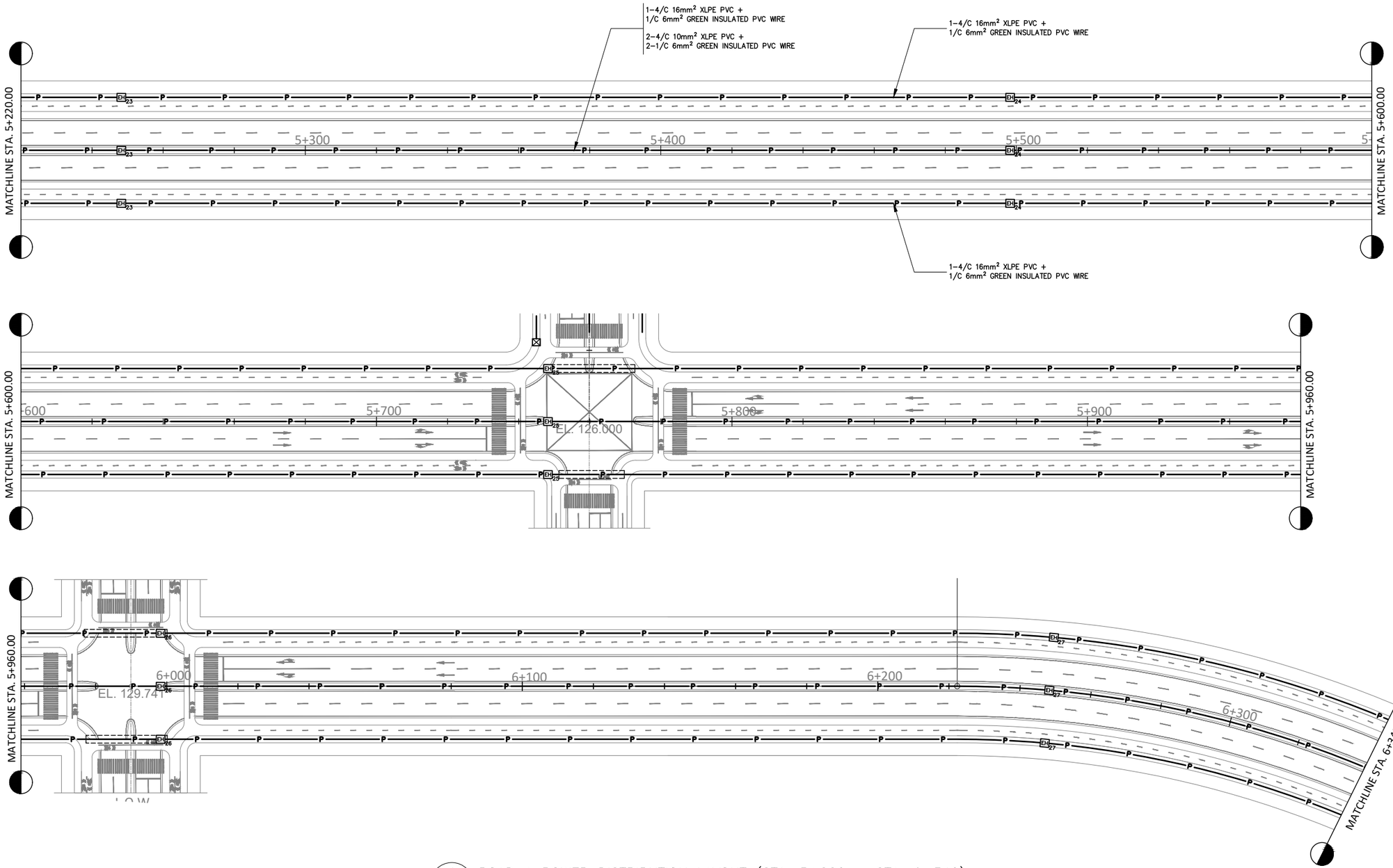


1 PH1-PL-10 ROAD 1 POWER DISTRIBUTION LAYOUT (STA. 5+220 – STA. 6+340)

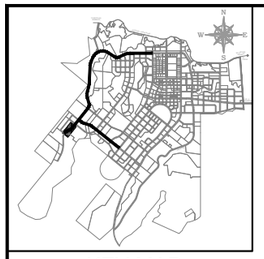
SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1–TS–03
2. FOR LEGENDS SEE PH1–TS–03

FOR INFORMATION ONLY

CONSULTANTS	DESIGNED BY	SUBMITTED BY		PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE ELECTRICAL ENGINEER DATE: CHECKED BY CHARLES P. PANTE CO-TEAM LEADER DATE:	TEDDY MASANORI PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 5+220 - STA. 6+340	AS SHOWN	DRAFT FINAL
			RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE:			DRAWING NO.	SHEET NO.
			APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:			PH1-PL-10	10 OF 14



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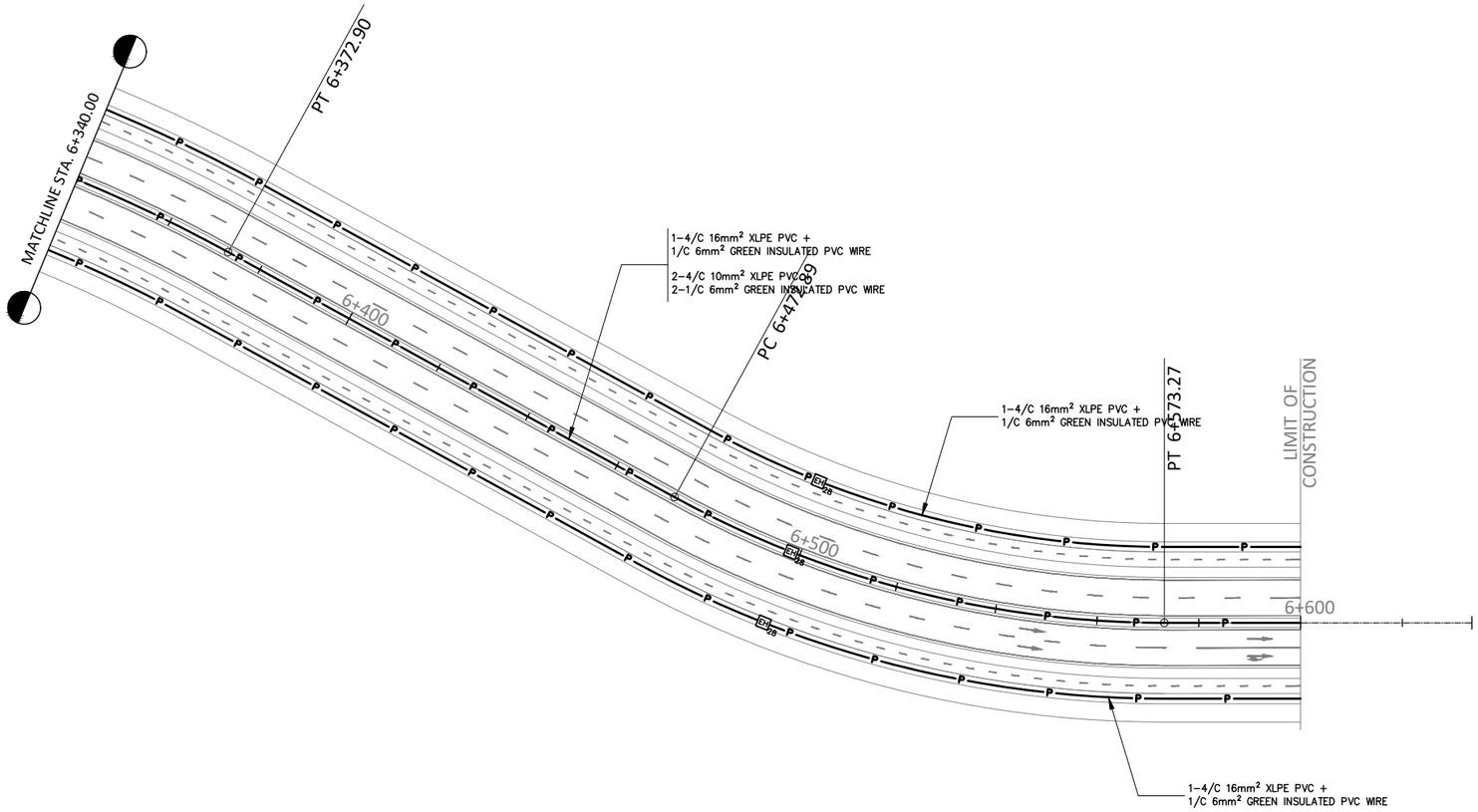


1 / PH1–PL–11 ROAD 1 POWER DISTRIBUTION LAYOUT (STA. 6+340 – STA. 6+600)

SCALE 1:600

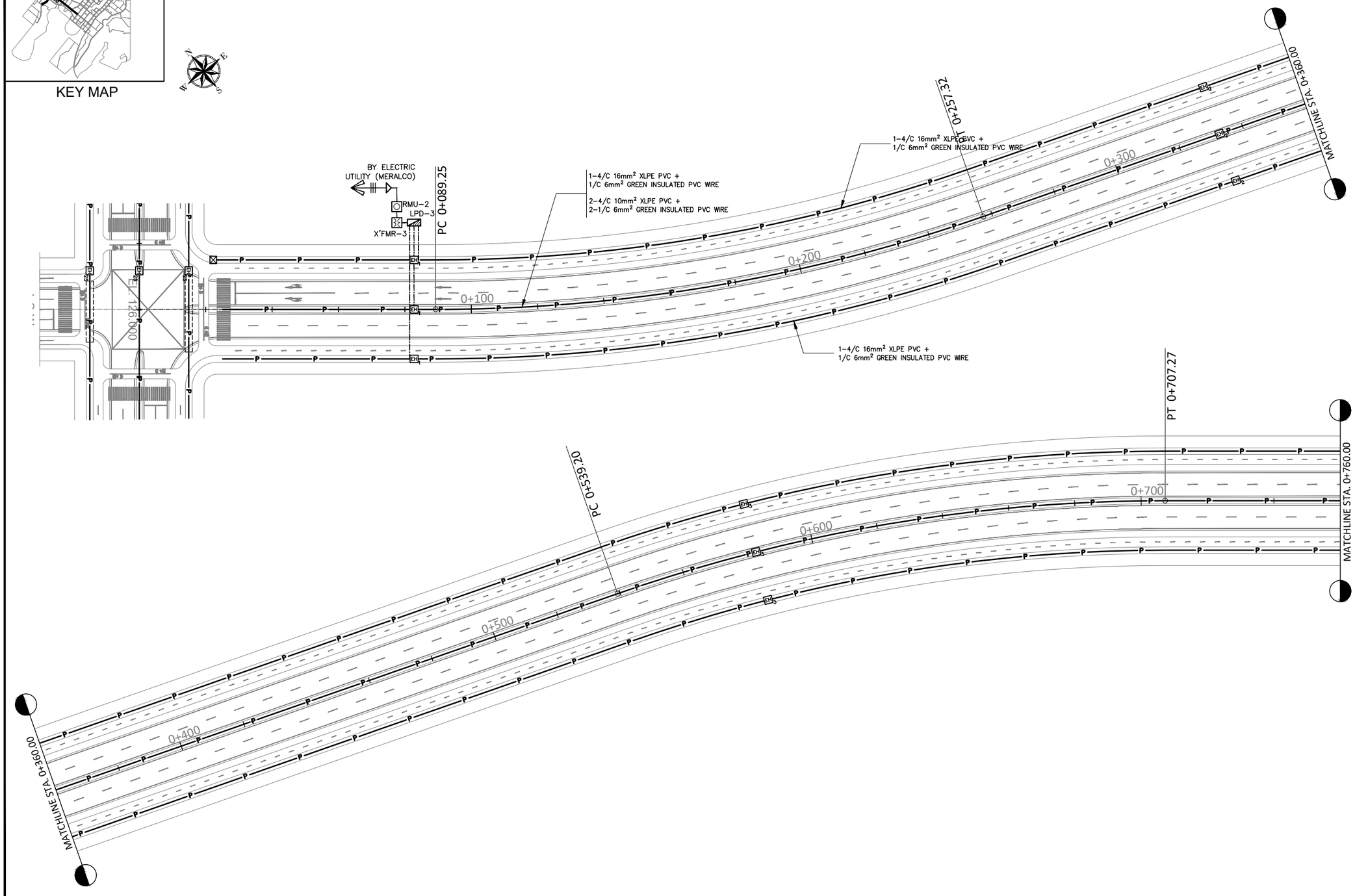
NOTES

1. FOR GENERAL NOTES SEE PH1–TS–03
2. FOR LEGENDS SEE PH1–TS–03

FOR INFORMATION ONLY

CONSULTANTS	DESIGNED BY	SUBMITTED BY		PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	**CHARLES P. PANTE** ELECTRICAL ENGINEER DATE: CHECKED BY **CHARLES P. PANTE** CO-TEAM LEADER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority RECOMMENDING APPROVAL: **RYAN PAUL S. GALURA** OIC, PMD CLARK PROJECTS DATE: APPROVED BY: **JOSHUA M. BINGCANG** SVP, CONVERSION AND DEVELOPMENT GROUP DATE:	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY** **ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** **PHASE 1** **R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)**	ROAD 1 POWER DISTRIBUTION LAYOUT STA. 6+340 - STA. 6+600	AS SHOWN	DRAFT FINAL
						DRAWING NO.	SHEET NO.
						PH1-PL-11	11 OF 14

KEY MAP



1 PH1-PL-12 ROAD 2 POWER DISTRIBUTION LAYOUT (STA. 0+000 – STA. 0+760)

SCALE 1:600

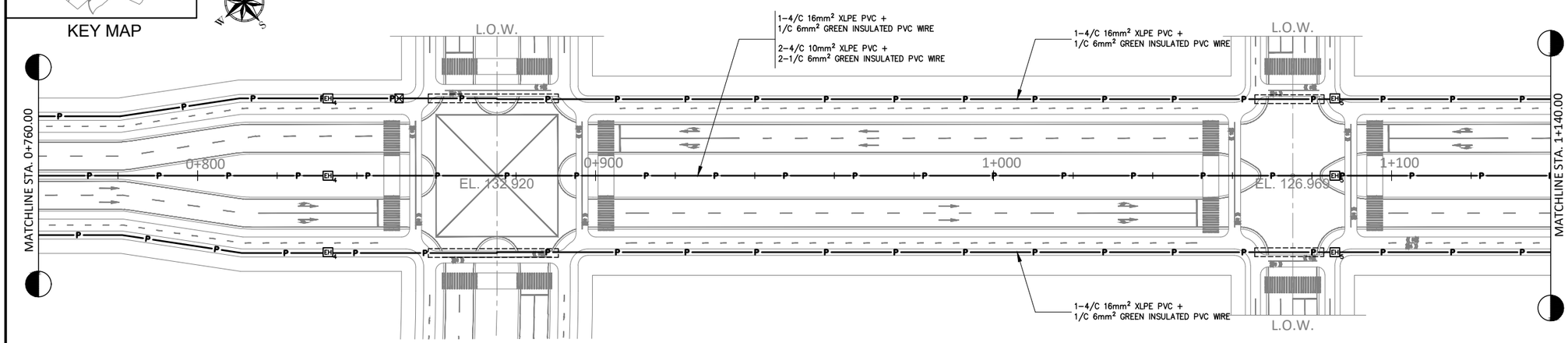
NOTES

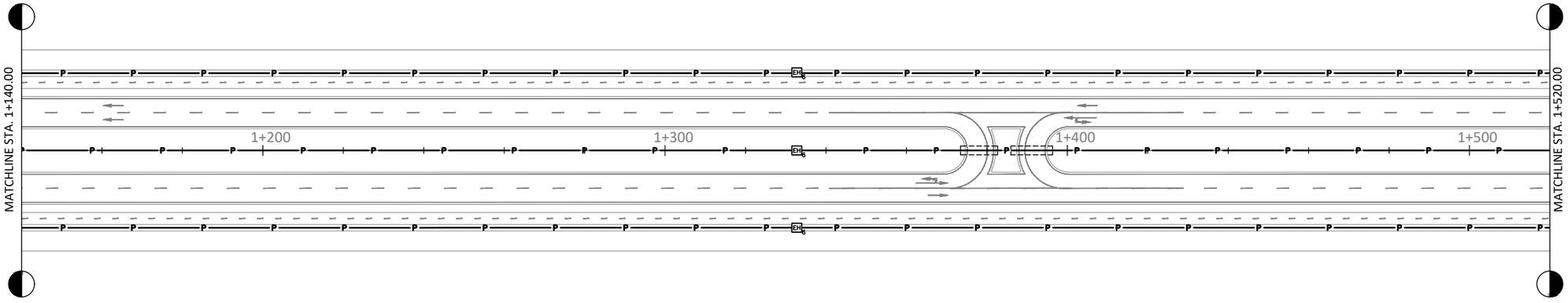
1. FOR GENERAL NOTES SEE PH1–TS–03
2. FOR LEGENDS SEE PH1–TS–03

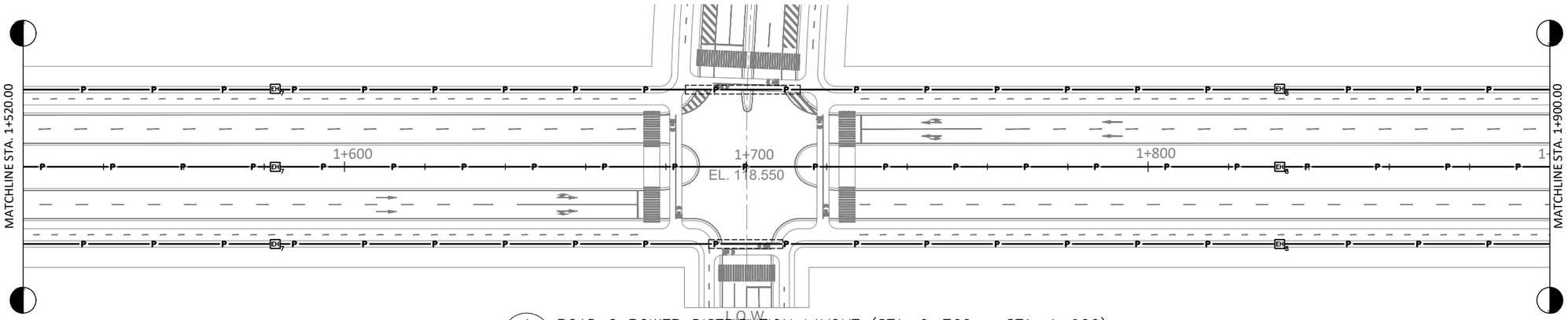
FOR INFORMATION ONLY

CONSULTANTS	DESIGNED BY	SUBMITTED BY		PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. (CONSULTANTS PLANNERS ENGINEERS)	**CHARLES P. PANTE** ELECTRICAL ENGINEER DATE: / CHECKED BY **CHARLES P. PANTE** CO-TEAM LEADER DATE:	**TEDDY MASANORI** PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES — PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	**INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)** PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 2 POWER DISTRIBUTION LAYOUT STA. 0+000 - STA. 0+760	AS SHOWN	DRAFT FINAL
			BCDA Bases Conversion and Development Authority — RECOMMENDING APPROVAL: **RYAN PAUL S. GALURA** OIC, PMD CLARK PROJECTS DATE: / APPROVED BY: **JOSHUA M. BINGCANG** SVP, CONVERSION AND DEVELOPMENT GROUP DATE:			DRAWING NO. PH1-PL-12	SHEET NO. 12 OF 14

KEY MAP







1 PH1-PL-13 ROAD 2 POWER DISTRIBUTION LAYOUT (STA. 0+760 – STA. 1+900)

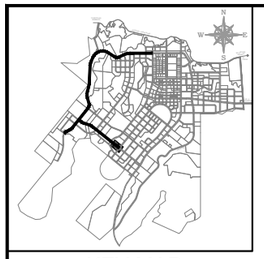
SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1–TS–03
2. FOR LEGENDS SEE PH1–TS–03

FOR INFORMATION ONLY

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE, ELECTRICAL ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 2 POWER DISTRIBUTION LAYOUT STA. 0+760 - STA. 1+900	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-PL-13	SHEET NO. 13 OF 14



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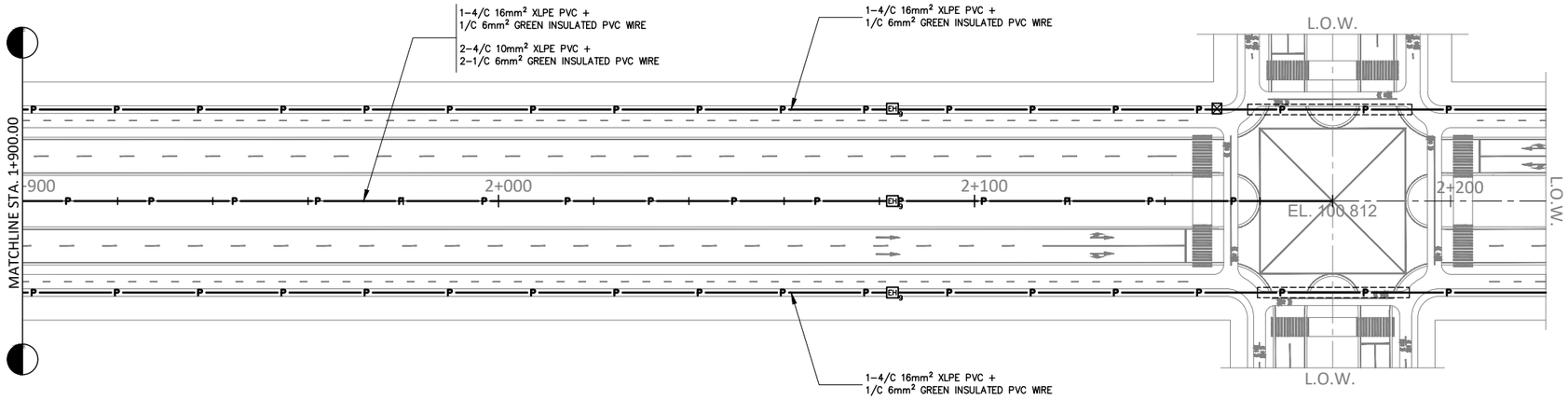


1 PH1-PL-14 ROAD 2 POWER DISTRIBUTION LAYOUT (STA. 1+900 – STA. 2+175.24)

SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1–TS–03
2. FOR LEGENDS SEE PH1–TS–03

FOR INFORMATION ONLY

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI / PKII NIPPON KOEI CO.,LTD. PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	CHARLES P. PANTE ELECTRICAL ENGINEER DATE: CHECKED BY CHARLES P. PANTE CO-TEAM LEADER DATE:	TEDDY MASANORI PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 2 POWER DISTRIBUTION LAYOUT STA. 1+900 - STA. 2+175.24	AS SHOWN	DRAFT FINAL
							DRAWING NO.	SHEET NO.
							PH1-PL-14	14 OF 14

FIBER OPTIC LAYOUT

DWG No.	SHEET CONTENT	SHEET NO.
PH1-FOC-01	FIBER OPTIC DRAWING INDEX	1 OF 16
PH1-FOC-02	GENERAL LAYOUT PLAN, CONDUIT & MANHOLE LAYOUT FOR COMMUNICATION CABLING (PHASING) INFORMATION & COMMUNICATION SYSTEM	2 OF 16
PH1-FOC-03	ROAD 1 FIBER OPTIC LAYOUT STA.0+000 – STA. 1+080	3 OF 16
PH1-FOC-04	ROAD 1 FIBER OPTIC LAYOUT STA. 1+080 – STA. 1+800	4 OF 16
PH1-FOC-05	ROAD 1 FIBER OPTIC LAYOUT STA. 1+800 – STA. 2+560	5 OF 16
PH1-FOC-06	ROAD 1 FIBER OPTIC LAYOUT STA. 2+560 – STA. 3+320	6 OF 16
PH1-FOC-07	ROAD 1 FIBER OPTIC LAYOUT STA. 3+320 – STA. 4+460	7 OF 16
PH1-FOC-08	ROAD 1 FIBER OPTIC LAYOUT STA. 4+460 – STA. 5+220	8 OF 16
PH1-FOC-09	ROAD 1 FIBER OPTIC LAYOUT. 5+220 – STA. 6+340	9 OF 16
PH1-FOC-10	ROAD 1 FIBER OPTIC LAYOUT. 6+340 – STA. 6+600	10 OF 16
PH1-FOC-11	ROAD 2 FIBER OPTIC LAYOUT STA. 0+000 – STA. 0+760	11 OF 16
PH1-FOC-12	ROAD 2 FIBER OPTIC LAYOUT STA. 0+760 – STA. 1+900	12 OF 16
PH1-FOC-13	ROAD 2 FIBER OPTIC LAYOUT STA. 1+900 – STA. 2+175.24	13 OF 16
PH1-FOC-14	ROAD 1 AND ROAD 2 CCTV & MANHOLE STATIONING NUMBER	14 OF 16
PH1-FOC-15	SERVICE BOC, HANDHOLE AND PULL BOX DETAILS	15 OF 16
PH1-FOC-16	SERVICE BOX LAYOUT AND CCTV TYPE	16 OF 16

1 PH1-FOC-01 FIBER OPTIC DRAWING INDEX

NOT TO SCALE

CONSULTANTS

NIPPON KOEI CO.,LTD.

PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY
GRACE B. AGUILOS
ICT ENGINEER
DATE:

CHECKED BY
CHARLES P. PANTE
CO-TEAM LEADER
DATE:

SUBMITTED BY
TEDDY MASANORI
PROJECT MANAGER
DATE:

REPUBLIC OF THE PHILIPPINES

PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority

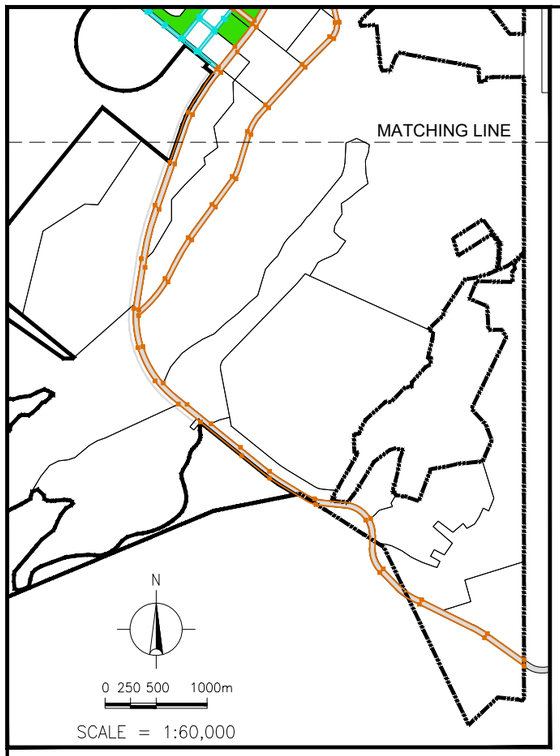
RECOMMENDING APPROVAL
RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS
DATE:

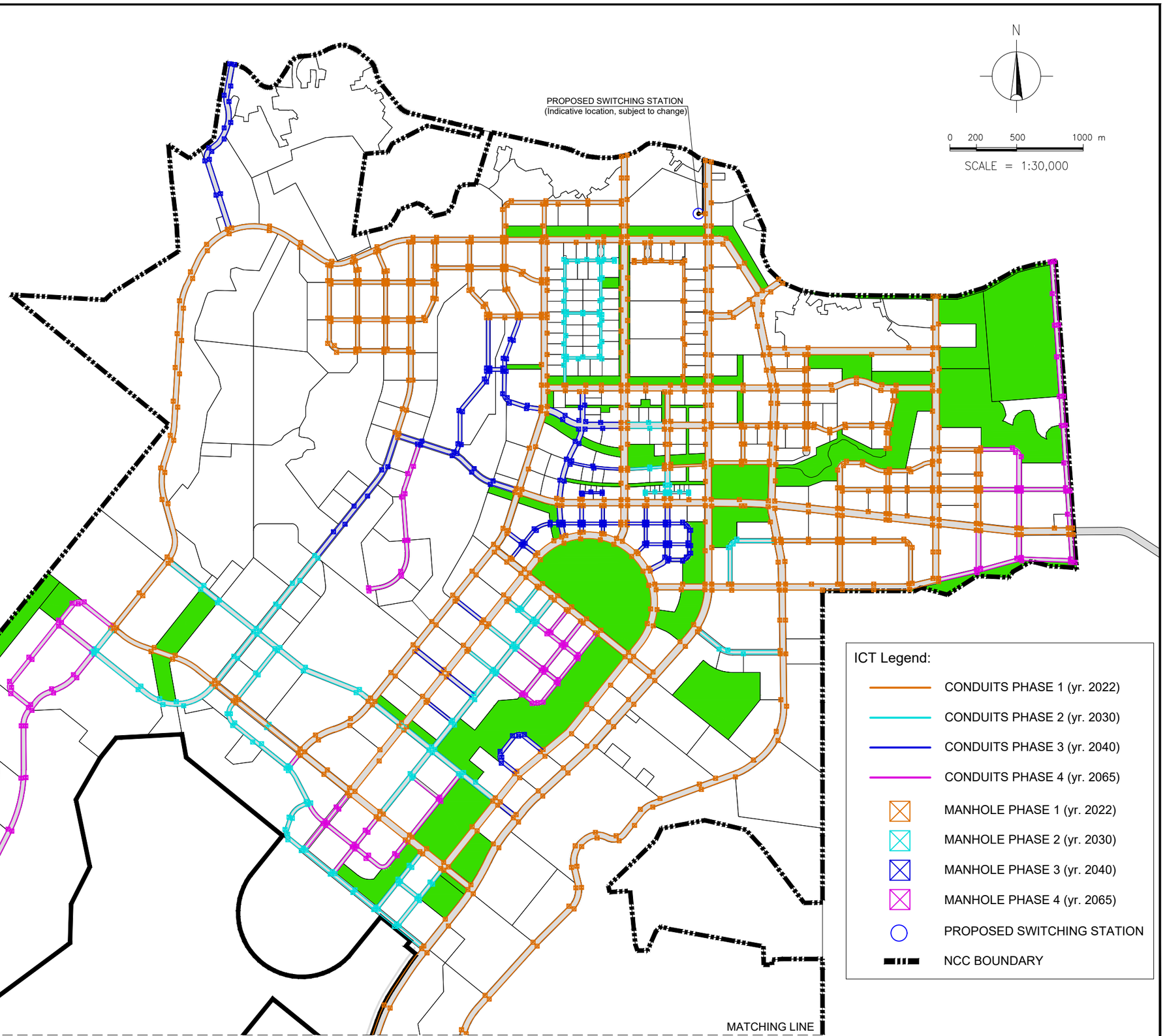
APPROVED BY
JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP
DATE:

PROJECT TITLE
INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT
FIBER OPTIC DRAWING INDEX

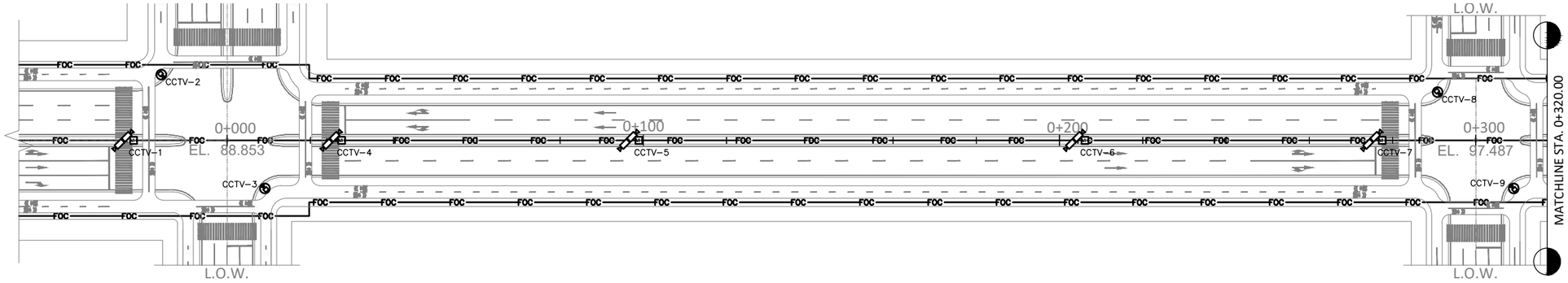
SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-FOC-01	1 OF 16

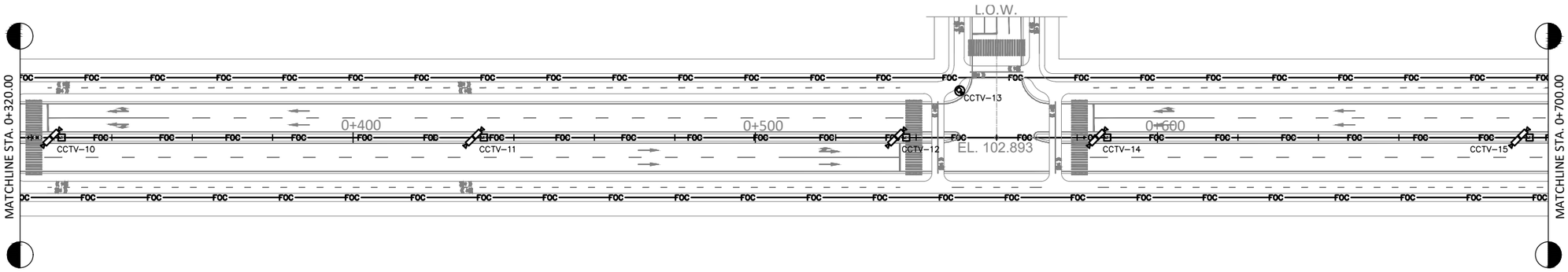


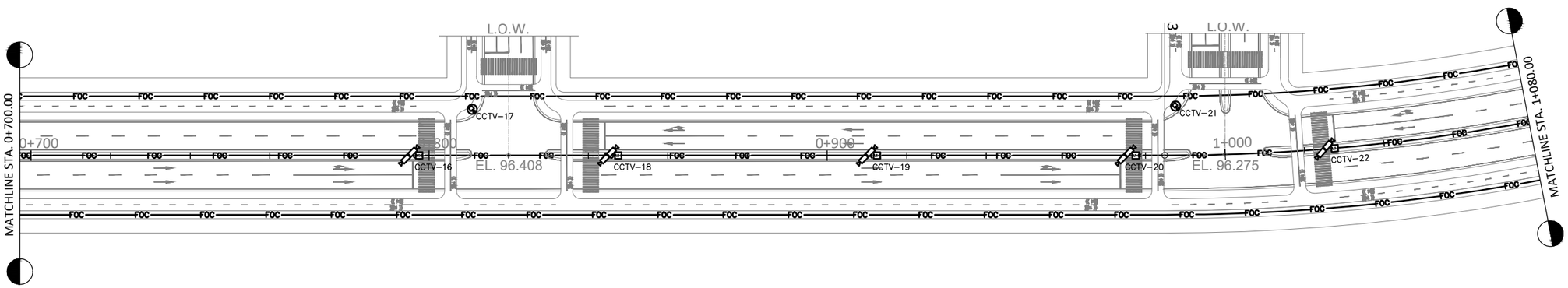


CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	GRACE B. AGUILOS ICT ENGINEER DATE: CHECKED BY CHARLES P. PANTE CO-TEAM LEADER DATE:	TEDDY MASANORI PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL RYAN PAUL S. GALURA OIC, PMD CLARK PROJECTS DATE: APPROVED BY JOSHUA M. BINGCANG SVP, CONVERSION AND DEVELOPMENT GROUP DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	GENERAL LAYOUT PLAN, CONDUIT & MANHOLE LAYOUT FOR COMMUNICATION CABLING (PHASING) INFORMATION & COMMUNICATION SYSTEM	AS SHOWN	DRAFT FINAL
							DRAWING NO.	SHEET NO.
							PH1-FOC-02	2 OF 16

KEY MAP







1 PH1-FOC-03 ROAD 1 FIBER OPTIC LAYOUT (STA.0+000 – STA.1+080)

SCALE 1:600

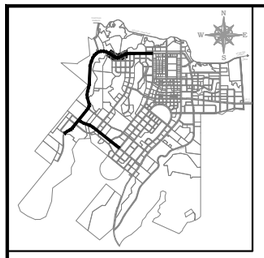
GENERAL NOTES

1. THE OWNER AND/OR OPERATOR AT THE PROJECT WILL, AT ITS OWN EXPENSE, FURNISH AND INSTALL IN ACCORDANCE WITH CONSTRUCTION STANDARDS OF NATIONAL AND LOCAL AUTHORITIES CONCERNED AND REQUIREMENTS OF TELECOMMUNICATION COMPANIES WITH REFERENCE TO BUILDING INDUSTRY AND CONSULTING SERVICES (BICS) MANUAL.
2. THE ENTIRE REQUIREMENTS OF THE PROJECT FOR FIBER OPTIC BACKNBONE SHALL BE SUPPLIED AND INSTALLED BY TELCOS.
3. ALL SERVICE BOXES, HANDHOLES, PULL BOXES AND CONDUIT WHICH ARE PART OF THIS DISTRIBUTION SYSTEM BACKBONE SHALL BE UNDER PACKAGE OF GENERAL CONTRACTOR.
4. ALL FIBER OPTICS CABLE OWNED BY DIFFERENT TELEPHONE COMPANIES SHALL BE INSTALLED IN COLOR CODED CONDUIT INSIDE THE 100mmø CONDUIT (MULTI-DUCTING SYSTEM).
5. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONSULT AND COORDINATE THE INSTALLATION REQUIREMENTS OF THE PROJECT TO THE SITE PROJECT MANAGER.
6. ANY CHANGES MADE BY THE CONTRACTOR IN THE APPROVED PLANS SHALL BE PROPERLY COORDINATED AND APPROVED BY THE DESIGNER AND THE OWNER.
7. ALL ROAD CROSSING CONDUIT SHALL BE IN CONCRETE ENCASEMENT.
8. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

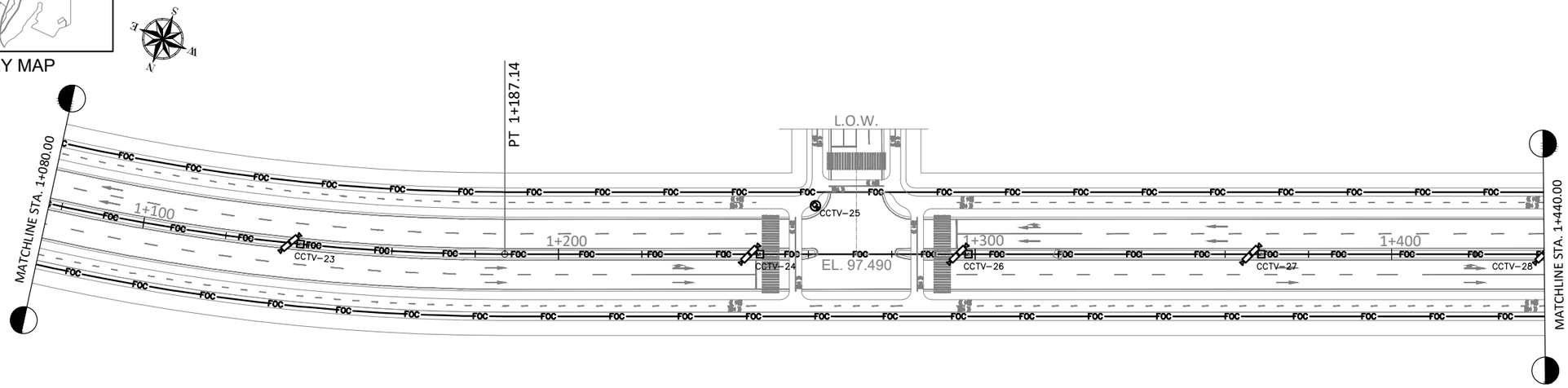
LEGENDS:

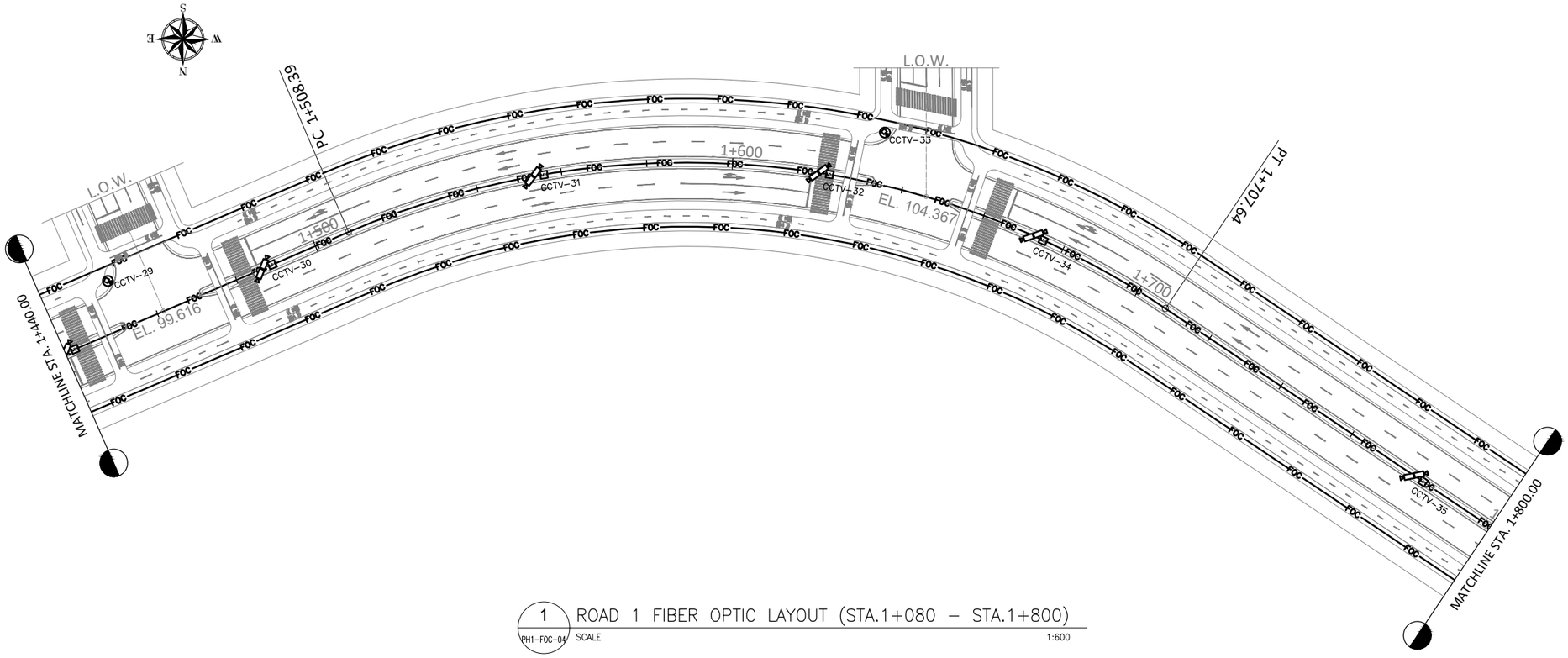
- FOC — FIBER OPTIC CABLE IN CONDUIT
- HH — HAND HOLE
- MH — MANHOLE
- SB — SERVICE BOX
- PB — PULL BOX
- FIXED TYPE CCTV CAMERA
- FIXED TYPE CCTV CAMERA IN A POLE
- (DOME TYPE) CCTV CAMERA W/ PAN, TILT, & ZOOM
- STUB OUT CONDUIT
- SERVICE ENTRANCE AND TAPPING POINT OF TELECOM COMPANIES

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	GRACE B. AGUILOS, ICT ENGINEER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 FIBER OPTIC LAYOUT STA. 0+000 - STA. 1+080	AS SHOWN	DRAFT FINAL
	CHECKED BY: CHARLES P. PANTE, CO-TEAM LEADER, DATE:			RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:			DRAWING NO. PH1-FOC-03	SHEET NO. 3 OF 16



KEY MAP





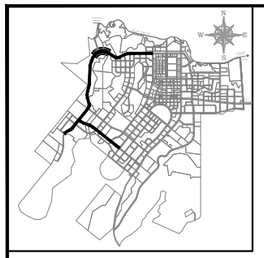
1 PH1-FOC-04 ROAD 1 FIBER OPTIC LAYOUT (STA.1+080 – STA.1+800)

SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1–FOC–03
2. FOR LEGENDS SEE PH1–FOC–03

CONSULTANTS	DESIGNED BY	SUBMITTED BY		PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	GRACE B. AGUILOS, ICT ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 FIBER OPTIC LAYOUT STA. 1+080 - STA. 1+800	AS SHOWN	DRAFT FINAL
			BCDA Bases Conversion and Development Authority RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:			DRAWING NO. PH1-FOC-04	SHEET NO. 4 OF 16



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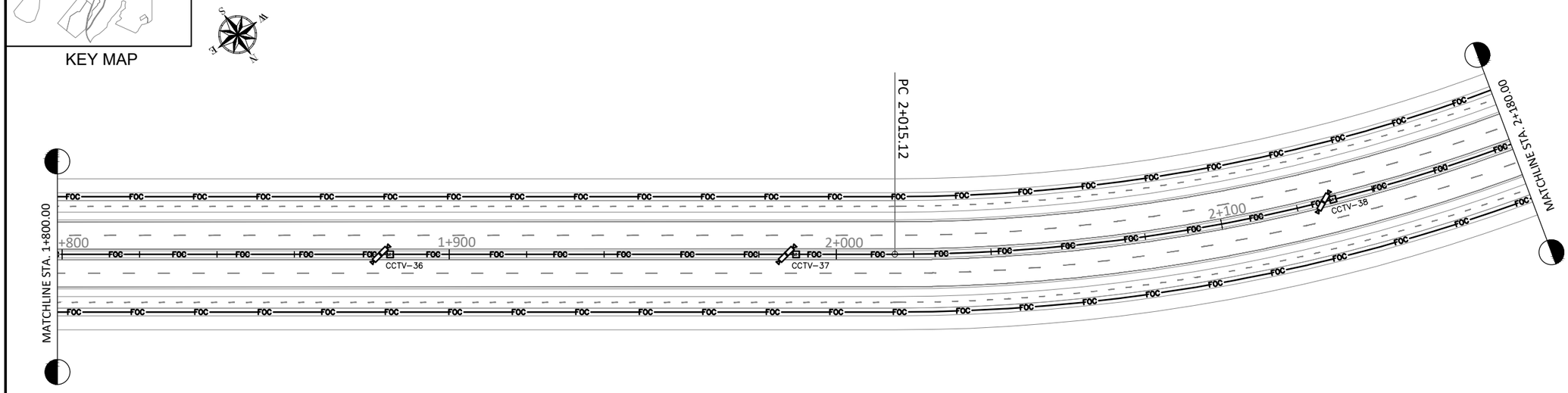
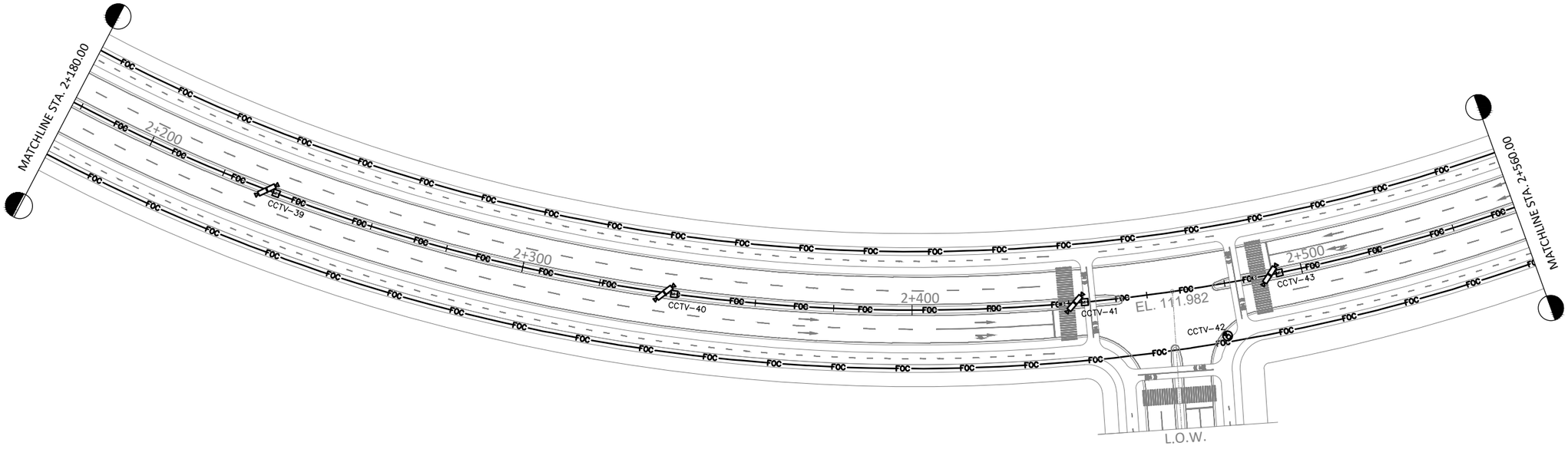




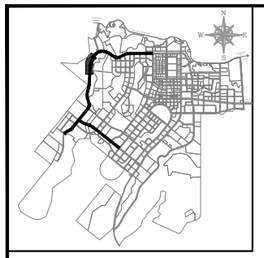
1 PH1-FOC-05 ROAD 1 FIBER OPTIC LAYOUT (STA.1+800 – STA.2+560)

SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1–FOC–03
2. FOR LEGENDS SEE PH1–FOC–03

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	GRACE B. AGUILOS, ICT ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 FIBER OPTIC LAYOUT STA. 1+800 - STA. 2+560	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-FOC-05	SHEET NO. 5 OF 16



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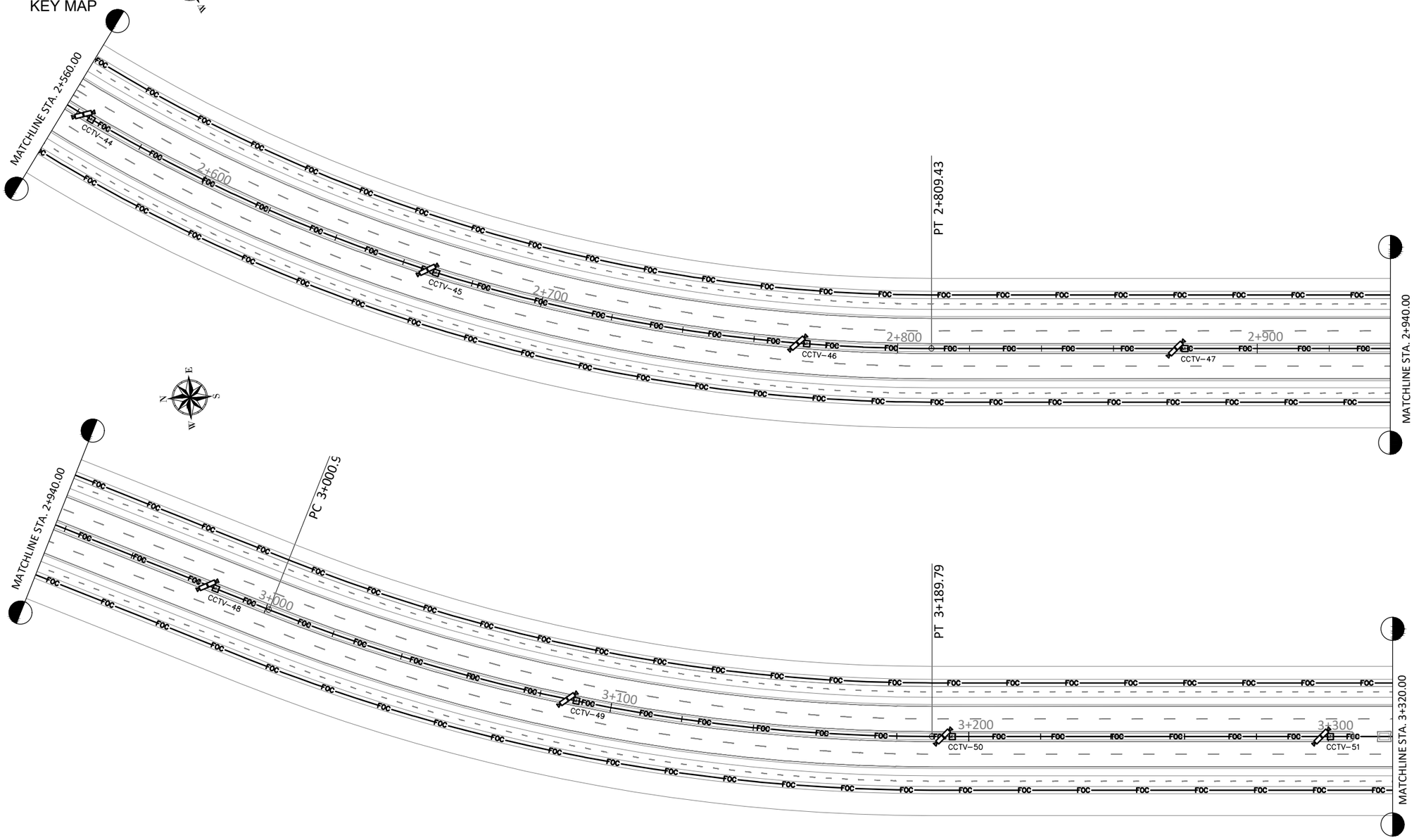


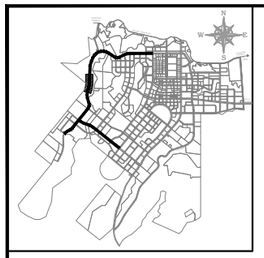
1 ROAD 1 FIBER OPTIC LAYOUT (STA.2+560 – STA.3+320)

PH1-FOC-06 SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1–FOC–03
2. FOR LEGENDS SEE PH1–FOC–03

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. (CONSULTANTS PLANNERS ENGINEERS)	GRACE B. AGUILOS, ICT ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 FIBER OPTIC LAYOUT STA. 2+560 - STA. 3+320	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-FOC-06	SHEET NO. 6 OF 16



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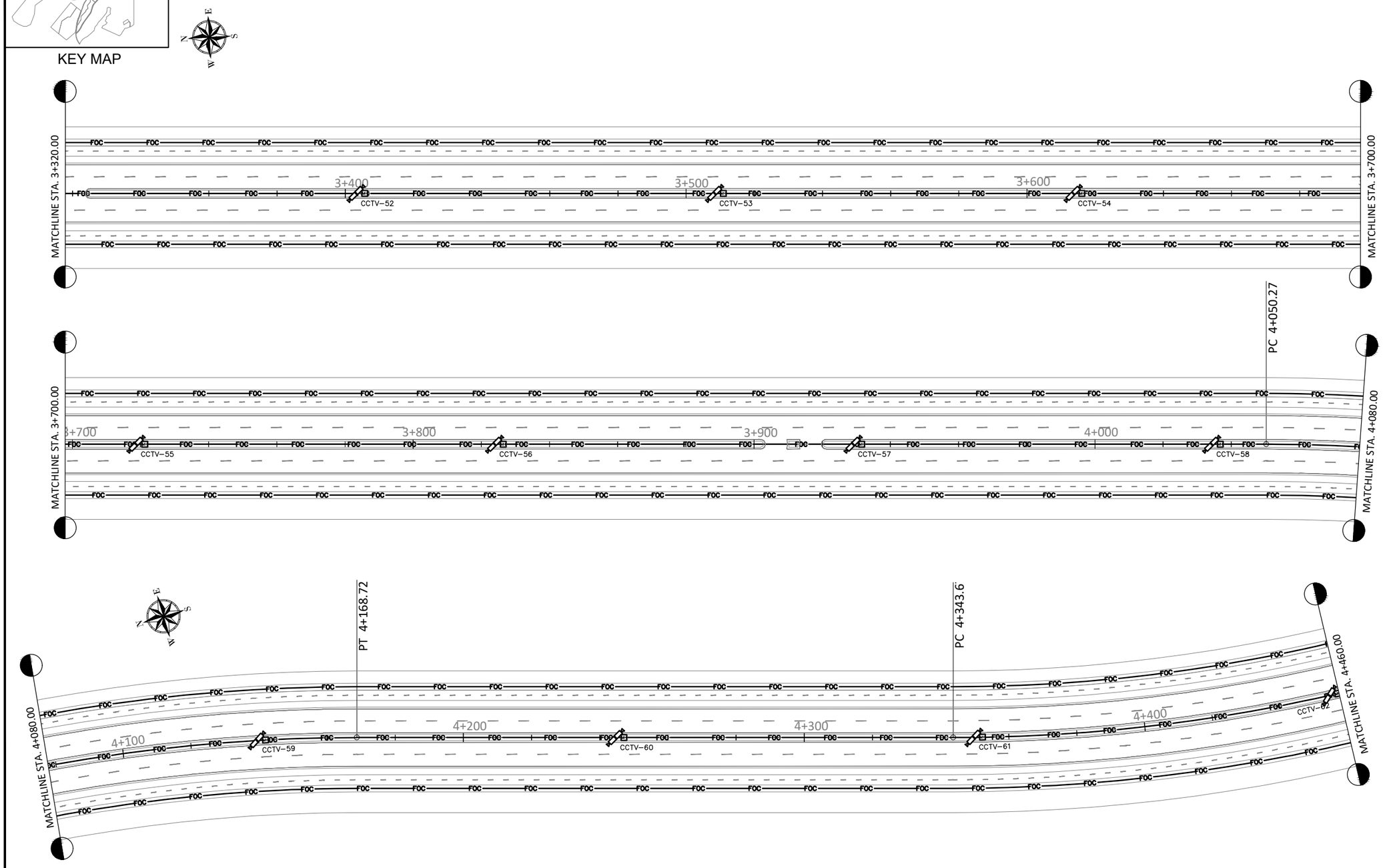


1 PH1–FOC–07 ROAD 1 FIBER OPTIC LAYOUT (STA.3+320 – STA.4+460)

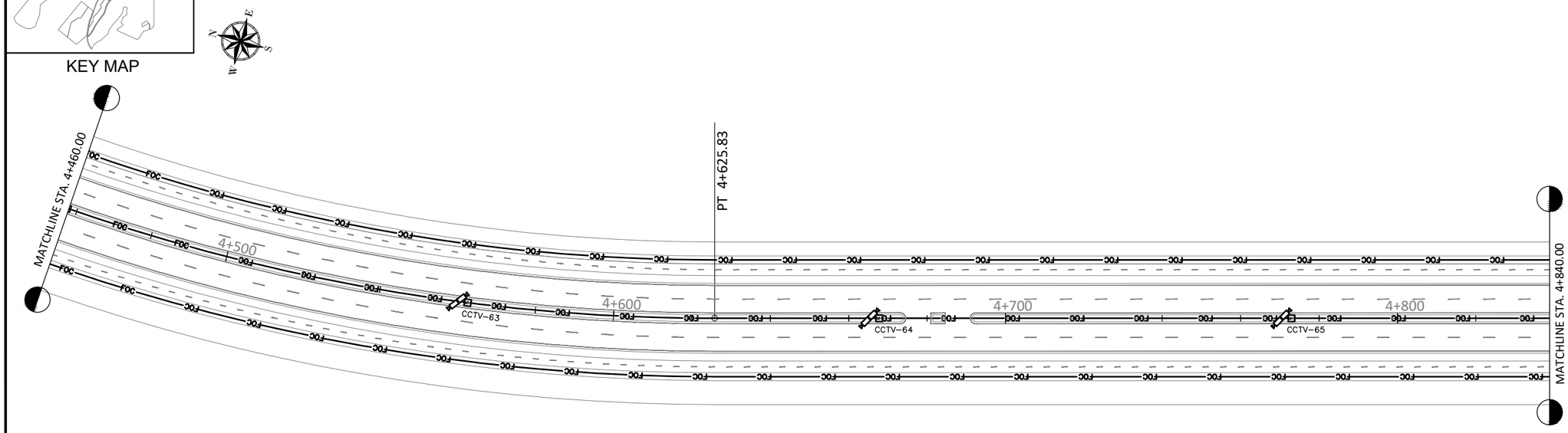
SCALE 1:600

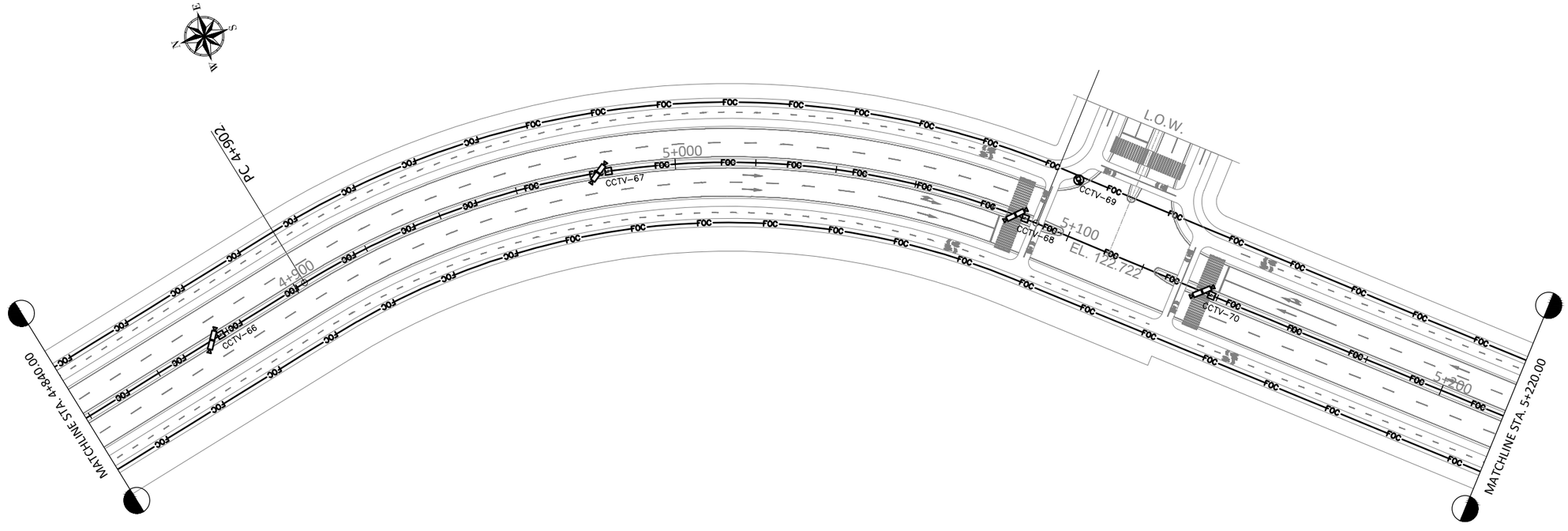
NOTES

1. FOR GENERAL NOTES SEE PH1–FOC–03
2. FOR LEGENDS SEE PH1–FOC–03

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	GRACE B. AGUILOS, ICT ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES — PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA — RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 FIBER OPTIC LAYOUT STA. 3+320 - STA. 4+460	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-FOC-07	SHEET NO. 7 OF 16

KEY MAP





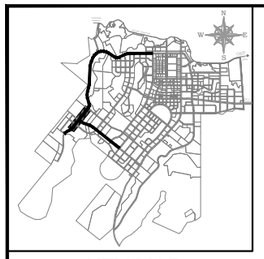
1 PH1-FOC-08 ROAD 1 FIBER OPTIC LAYOUT (STA.4+460 – STA.5+220)

SCALE 1:600

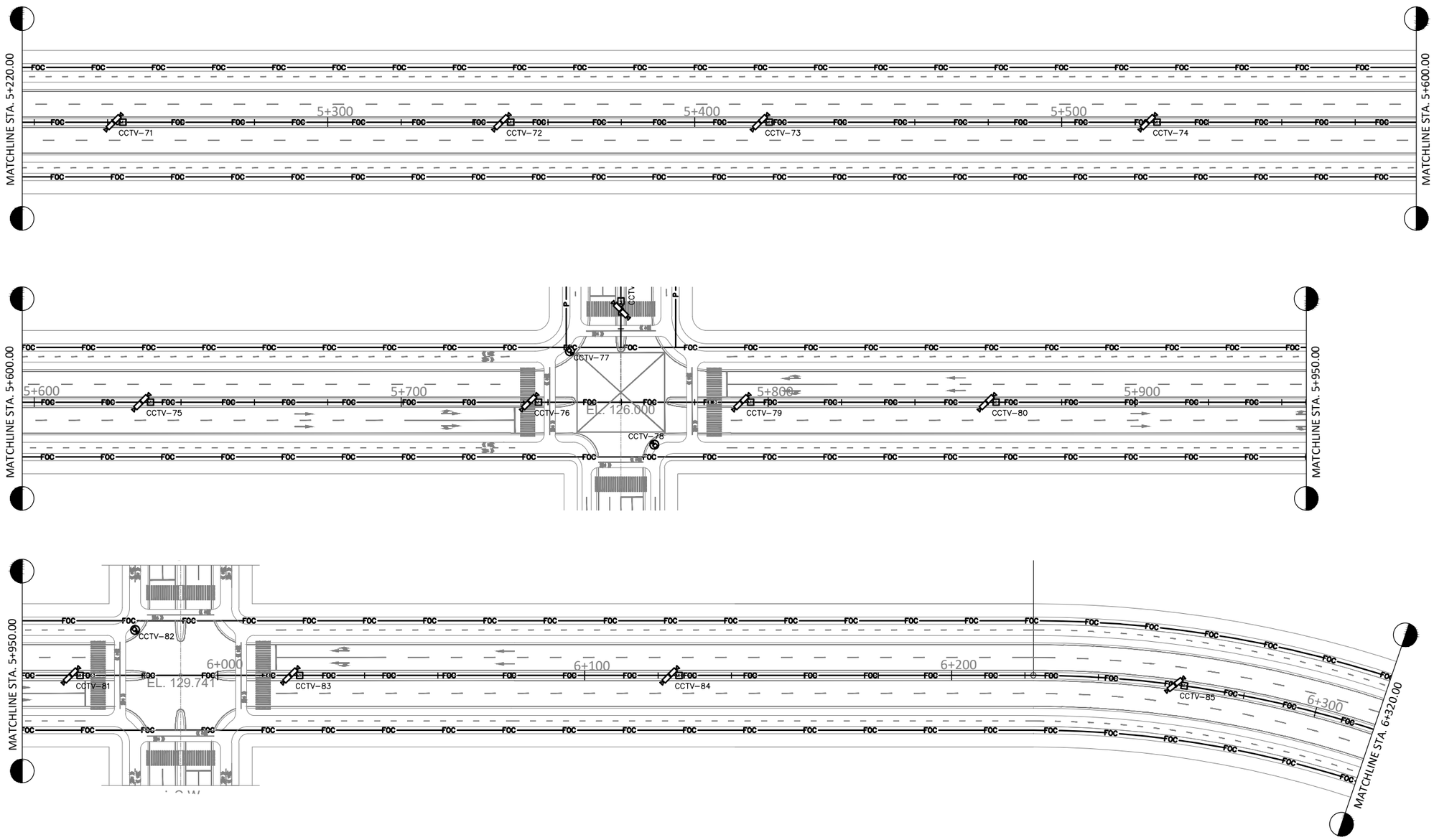
NOTES

1. FOR GENERAL NOTES SEE PH1–FOC–03
2. FOR LEGENDS SEE PH1–FOC–03

CONSULTANTS	DESIGNED BY	SUBMITTED BY		PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI / PKII NIPPON KOEI CO.,LTD. PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	GRACE B. AGUILOS ICT ENGINEER DATE: CHECKED BY CHARLES P. PANTE CO-TEAM LEADER DATE:	TEDDY MASANORI PROJECT MANAGER DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 FIBER OPTIC LAYOUT STA. 4+460 - STA. 5+220	AS SHOWN	DRAFT FINAL
						DRAWING NO.	SHEET NO.
						PH1-FOC-08	8 OF 16



KEY MAP



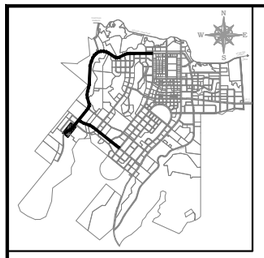
1 PH1-FOC-09 ROAD 1 FIBER OPTIC LAYOUT (STA.5+220 – STA.6+320)

SCALE 1:600

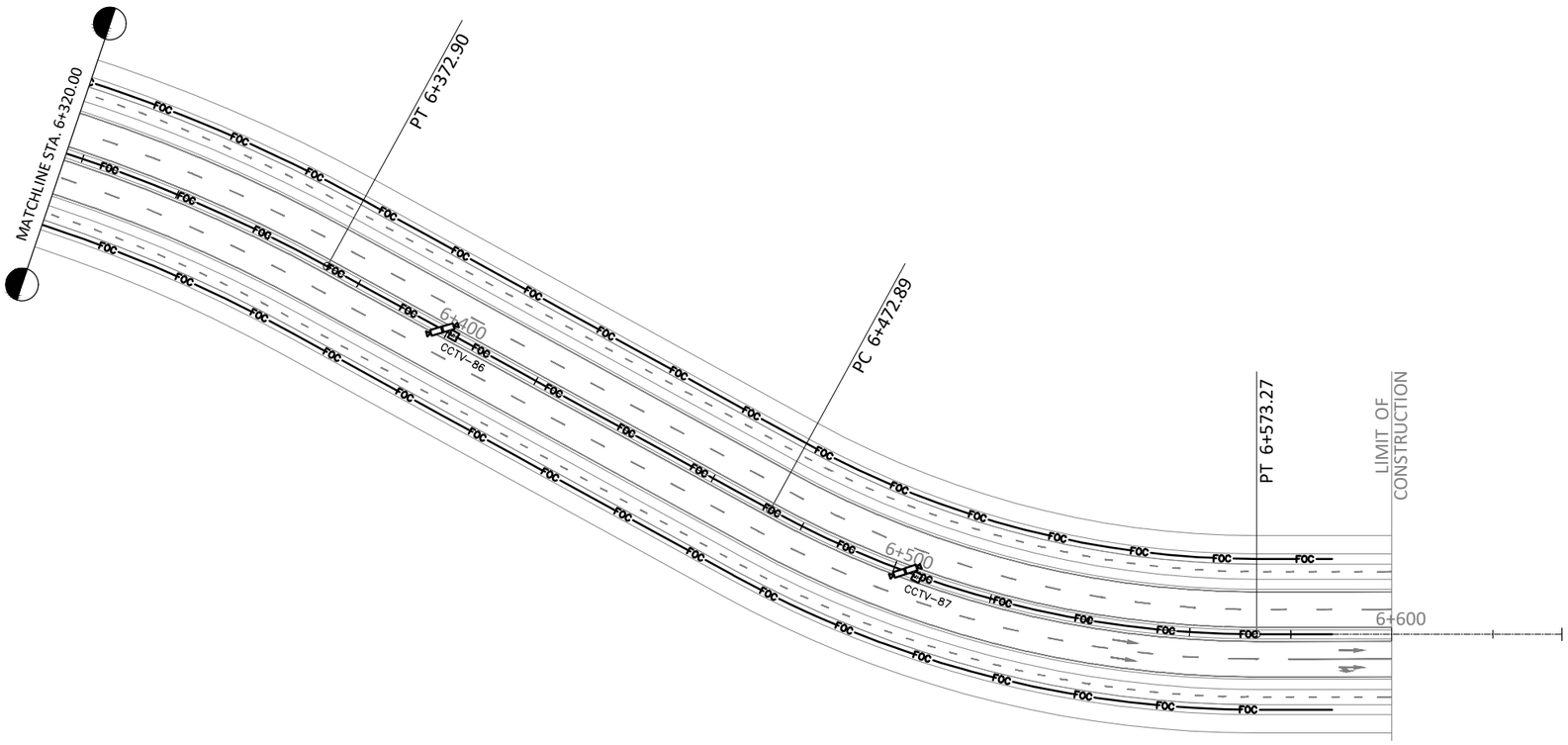
NOTES

1. FOR GENERAL NOTES SEE PH1–FOC–03
2. FOR LEGENDS SEE PH1–FOC–03

CONSULTANTS	DESIGNED BY	SUBMITTED BY	REPUBLIC OF THE PHILIPPINES	BCDA	PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. (CONSULTANTS PLANNERS ENGINEERS)	GRACE B. AGUILOS, ICT ENGINEER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	PHILIPPINE JAPAN INITIATIVE FOR CGC INC. (PJIC)	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 FIBER OPTIC LAYOUT STA. 5+220 - STA. 6+320	AS SHOWN	DRAFT FINAL
	CHECKED BY: CHARLES P. PANTE, CO-TEAM LEADER, DATE:						DRAWING NO. PH1-FOC-09	SHEET NO. 9 OF 16



KEY MAP



1 ROAD 1 FIBER OPTIC LAYOUT (STA.6+320 – STA.6+600)

PH1-FOC-10 SCALE 1:600

NOTES

1. FOR GENERAL NOTES SEE PH1–FOC–03
2. FOR LEGENDS SEE PH1–FOC–03

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	GRACE B. AGUILOS, ICT ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority — RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 1 FIBER OPTIC LAYOUT STA. 6+320 - STA. 6+600	AS SHOWN	DRAFT FINAL
							DRAWING NO.	SHEET NO.
							PH1-FOC-10	10 OF 16

KEY MAP

1 PH1-FOC-11 ROAD 2 FIBER OPTIC LAYOUT (STA.0+000 – STA.0+760)

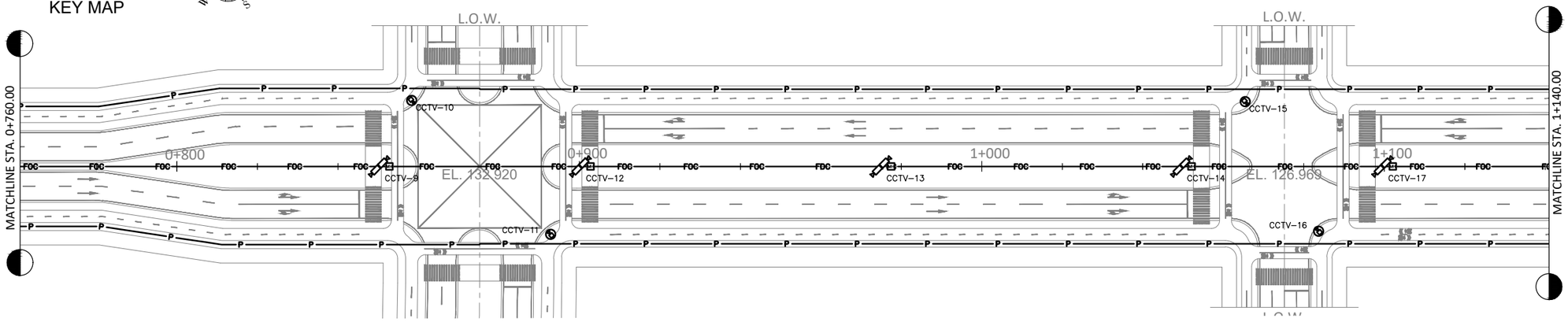
SCALE 1:600

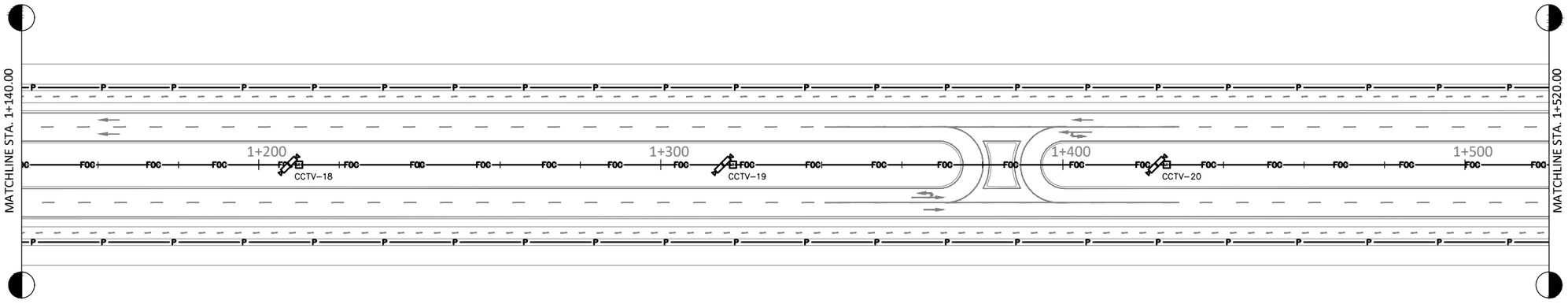
NOTES

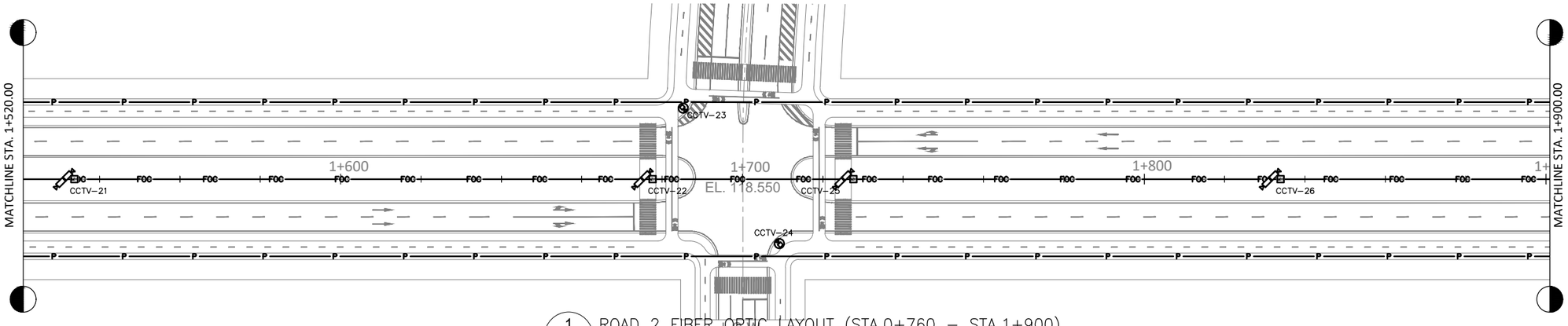
1. FOR GENERAL NOTES SEE PH1–FOC–03
2. FOR LEGENDS SEE PH1–FOC–03

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	GRACE B. AGUILOS, ICT ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	BCDA Bases Conversion and Development Authority — RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 2 FIBER OPTIC LAYOUT STA. 0+000 - STA. 0+760	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-FOC-11	SHEET NO. 11 OF 16

KEY MAP







1 PH1–FOC–12 ROAD 2 FIBER OPTIC LAYOUT (STA.0+760 – STA.1+900)

SCALE 1:600

NOTES

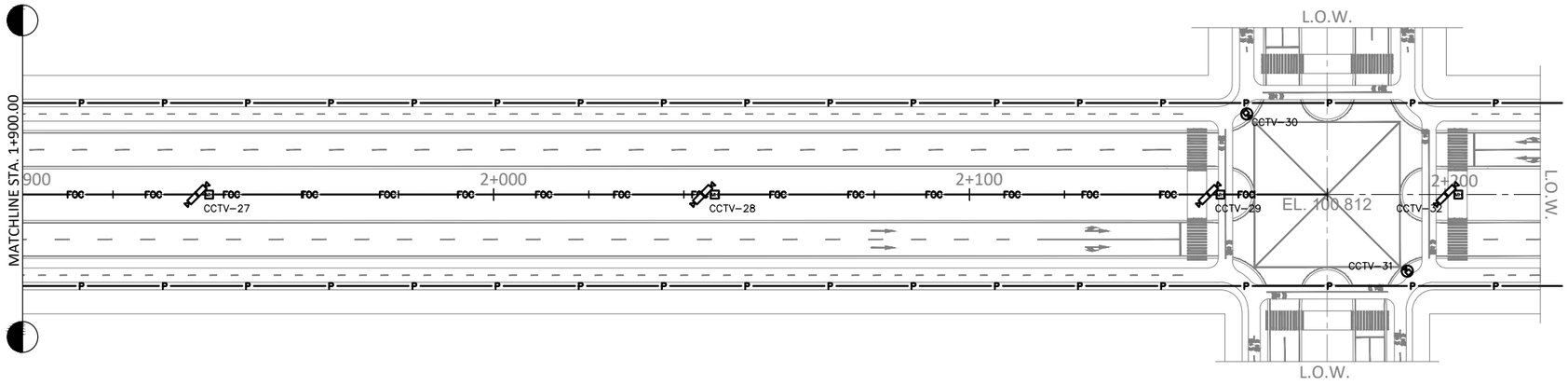
1. FOR GENERAL NOTES SEE PH1–FOC–03
2. FOR LEGENDS SEE PH1–FOC–03

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	GRACE B. AGUILOS, ICT ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES — PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 2 FIBER OPTIC LAYOUT STA. 0+760 - STA. 1+900	AS SHOWN	DRAFT FINAL
							DRAWING NO. PH1-FOC-12	SHEET NO. 12 OF 16

KEY MAP

NOTES

1. FOR GENERAL NOTES SEE PH1–FOC–03
2. FOR LEGENDS SEE PH1–FOC–03



1 (PH1–FOC–13) ROAD 2 FIBER OPTIC LAYOUT (STA.1+900 – STA.2+175.24)

SCALE 1:600

CONSULTANTS	DESIGNED BY	SUBMITTED BY			PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	GRACE B. AGUILOS, ICT ENGINEER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES — PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	ROAD 2 FIBER OPTIC LAYOUT STA. 1+900 - STA. 2+175.24	AS SHOWN	DRAFT FINAL
	CHECKED BY: CHARLES P. PANTE, CO-TEAM LEADER, DATE:						DRAWING NO. PH1-FOC-13	SHEET NO. 13 OF 16

ROAD 1 CCTV AND HANDHOLE LOCATION				ROAD 2 CCTV AND HANDHOLE LOCATION	
CCTV NUMBER	STATION NUMBER	CCTV NUMBER	STATION NUMBER	CCTV NUMBER	STATION NUMBER
CCTV–1	STA.0–025.019	CCTV–46	STA.2+772.179	CCTV–1	STA.0+025.00
CCTV–2	STA.0–015.773	CCTV–47	STA.2+877.35	CCTV–2	STA.0+128.155
CCTV–3	STA.0+009.115	CCTV–48	STA.2+982.521	CCTV–3	STA.0+231.31
CCTV–4	STA.0+024.981	CCTV–49	STA.3+087.692	CCTV–4	STA.0+334.465
CCTV–5	STA.0+096.409	CCTV–50	STA.3+192.863	CCTV–5	STA.0+437.62
CCTV–6	STA.0+203.552	CCTV–51	STA.3+298.034	CCTV–6	STA.0+540.775
CCTV–7	STA.0+274.981	CCTV–52	STA.3+403.205	CCTV–7	STA.0+643.93
CCTV–8	STA.0+290.846	CCTV–53	STA.3+508.376	CCTV–8	STA.0+747.085
CCTV–9	STA.0+308.9	CCTV–54	STA.3+613.547	CCTV–9	STA.0+850.236
CCTV–10	STA.0+324.981	CCTV–55	STA.3+718.718	CCTV–10	STA.0+858.347
CCTV–11	STA.0+429.982	CCTV–56	STA.3+823.889	CCTV–11	STA.0+892.403
CCTV–12	STA.0+534.984	CCTV–57	STA.3+929.06	CCTV–12	STA.0+900.236
CCTV–13	STA.0+550.85	CCTV–58	STA.4+034.231	CCTV–13	STA.0+974.911
CCTV–14	STA.0+584.984	CCTV–59	STA.4+139.402	CCTV–14	STA.1+049.585
CCTV–15	STA.0+689.984	CCTV–60	STA.4+244.573	CCTV–15	STA.1+065.451
CCTV–16	STA.0+794.984	CCTV–61	STA.4+349.744	CCTV–16	STA.1+083.719
CCTV–17	STA.0+810.85	CCTV–62	STA.4+454.915	CCTV–17	STA.1+099.585
CCTV–18	STA.0+844.984	CCTV–63	STA.4+560.086	CCTV–18	STA.1+207.492
CCTV–19	STA.0+909.982	CCTV–64	STA.4+665.257	CCTV–19	STA.1+315.399
CCTV–20	STA.0+974.981	CCTV–65	STA.4+770.428	CCTV–20	STA.1+423.306
CCTV–21	STA.0+987.661	CCTV–66	STA.4+875.599	CCTV–21	STA.1+531.213
CCTV–22	STA.1+025.024	CCTV–67	STA.4+980.77	CCTV–22	STA.1+675.088
CCTV–23	STA.1+135.442	CCTV–68	STA.5+085.935	CCTV–23	STA.1+685.251
CCTV–24	STA.1+245.859	CCTV–69	STA.5+097.164	CCTV–24	STA.1+709.22
CCTV–25	STA.1+261.725	CCTV–70	STA.5+135.935	CCTV–25	STA.1+725.088
CCTV–26	STA.1+295.859	CCTV–71	STA.5+241.631	CCTV–26	STA.1+831.375
CCTV–27	STA.1+366.175	CCTV–72	STA.5+347.327	CCTV–27	STA.1+937.662
CCTV–28	STA.1+436.491	CCTV–73	STA.5+417.791	CCTV–28	STA.2+043.949
CCTV–29	STA.1+452.357	CCTV–74	STA.5+523.487	CCTV–29	STA.2+150.236
CCTV–30	STA.1+486.491	CCTV–75	STA.5+629.183	CCTV–30	STA.2+158.232
CCTV–31	STA.1+553.351	CCTV–76	STA.5+734.884	CCTV–31	STA.2+191.738
CCTV–32	STA.1+620.211	CCTV–77	STA.5+746.029	CCTV–32	STA.2+200.236
CCTV–33	STA.1+633.256	CCTV–78	STA.5+769.018		
CCTV–34	STA.1+672.463	CCTV–79	STA.5+792.709		
CCTV–35	STA.1+777.339	CCTV–80	STA.5+859.61		
CCTV–36	STA.1+882.215	CCTV–81	STA.5+959.96		
CCTV–37	STA.1+987.091	CCTV–82	STA.5+977.495		
CCTV–38	STA.2+126.925	CCTV–83	STA.6+019.784		
CCTV–39	STA.2+231.801	CCTV–84	STA.6+123.176		
CCTV–40	STA.2+336.677	CCTV–85	STA.6+261.032		
CCTV–41	STA.2+441.553	CCTV–86	STA.6+398.888		
CCTV–42	STA.2+478.566	CCTV–87	STA.6+502.28		
CCTV–43	STA.2+491.723				
CCTV–44	STA.2+561.837				
CCTV–45	STA.2+667.008				

1 PH1-FOC-14 ROAD 1 AND ROAD 2 CCTV & MANHOLE STATIONING NUMBER

NOT TO SCALE

NOTES

1. FOR GENERAL NOTES SEE PH1–FOC–03
2. FOR LEGENDS SEE PH1–FOC–03

CONSULTANTS

NIPPON KOEI CO.,LTD.

PHILKOEI INTERNATIONAL, INC.
CONSULTANTS PLANNERS ENGINEERS

DESIGNED BY
GRACE B. AGUILOS
ICT ENGINEER
DATE:

CHECKED BY
CHARLES P. PANTE
CO-TEAM LEADER
DATE:

SUBMITTED BY
TEDDY MASANORI
PROJECT MANAGER
DATE:

REPUBLIC OF THE PHILIPPINES
PJIC PHILIPPINE JAPAN INITIATIVE FOR CGC INC.

BCDA Bases Conversion and Development Authority

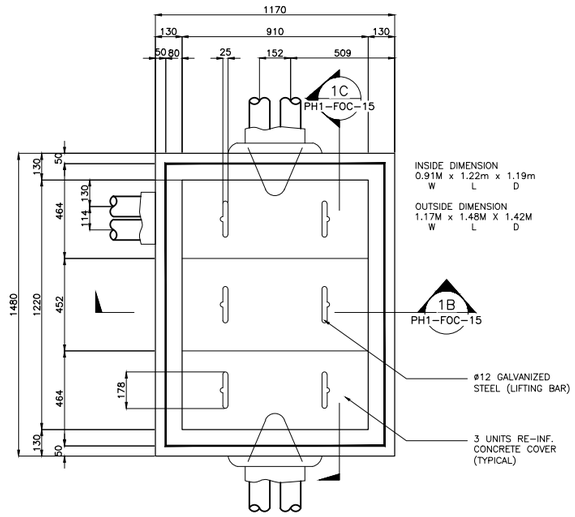
RECOMMENDING APPROVAL
RYAN PAUL S. GALURA
OIC, PMD CLARK PROJECTS
DATE:

APPROVED BY
JOSHUA M. BINGCANG
SVP, CONVERSION AND DEVELOPMENT GROUP
DATE:

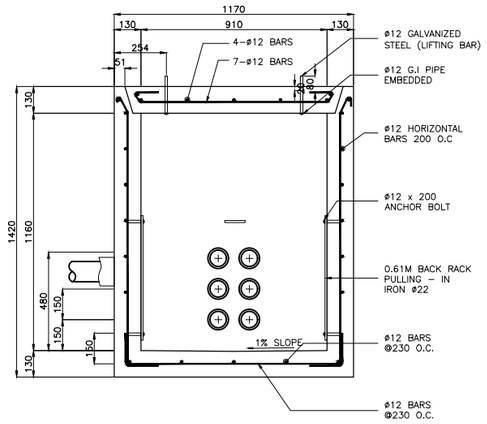
PROJECT TITLE
INFRASTRUCTURE DESIGN OF NEW CLARK CITY
ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3)
PHASE 1
R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)

SHEET CONTENT
ROAD 1 AND ROAD 2
CCTV & MANHOLE STATIONING NUMBER

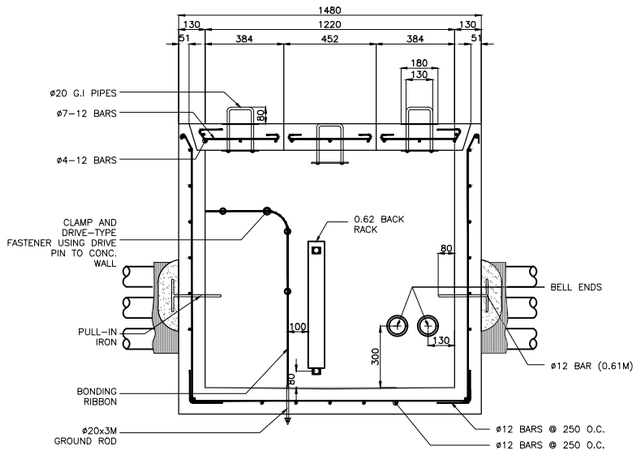
SCALE	DRAWING STATUS
AS SHOWN	DRAFT FINAL
DRAWING NO.	SHEET NO.
PH1-FOC-14	14 OF 16



1A PH1-FOC-15 PLAN NOT TO SCALE



1B PH1-FOC-15 SECTION NOT TO SCALE



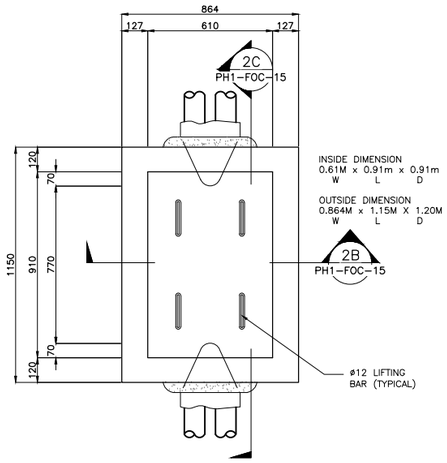
1C PH1-FOC-15 SECTION NOT TO SCALE

1 PH1-FOC-15 SERVICE BOX DETAILS NOT TO SCALE

NOTES: ALL COVER HAND HOLES AND SERVICE BOXES SHALL BE WATERTIGHT.

NOTES

1. FOR GENERAL NOTES SEE PH1–FOC–03
2. FOR LEGENDS SEE PH1–FOC–03



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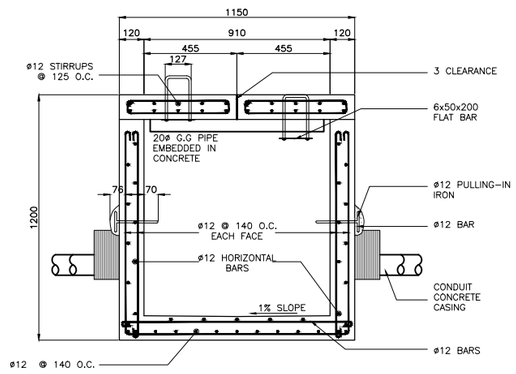

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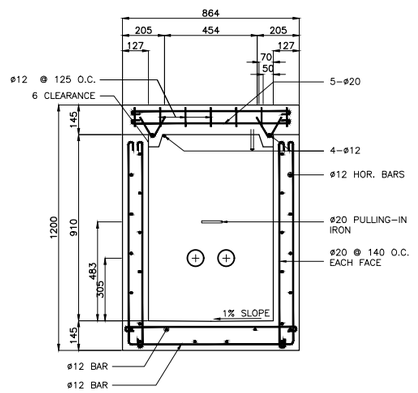
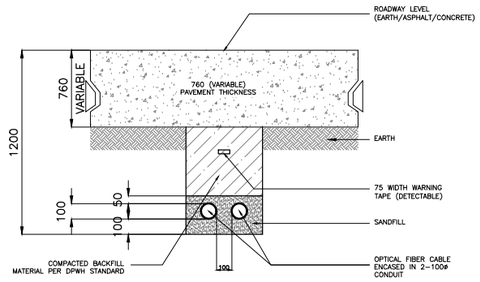


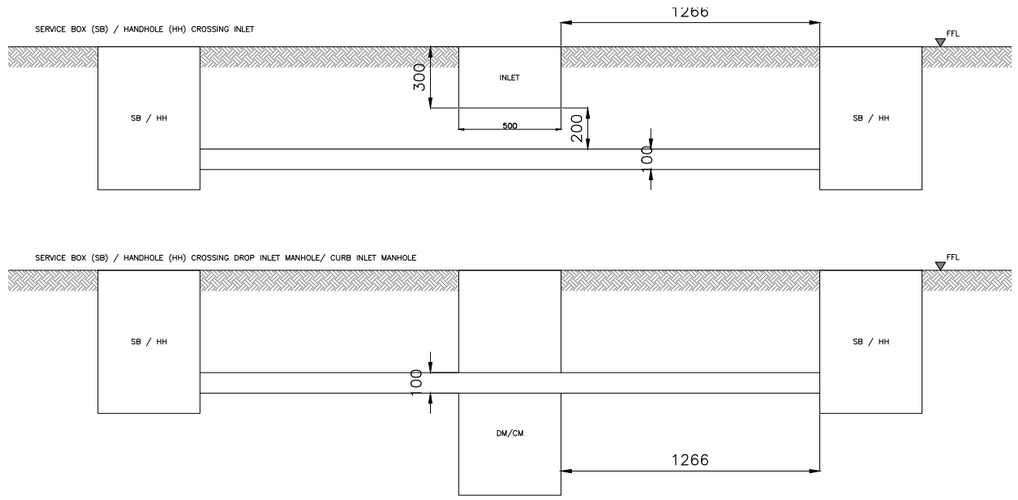
2C PH1-FOC-15 SECTION NOT TO SCALE

2 PH1-FOC-15 HAND HOLE / PULL BOX DETAILS NOT TO SCALE

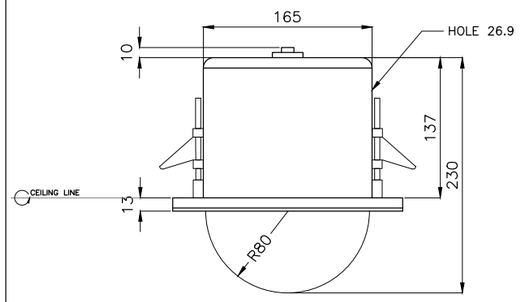
CONSULTANTS	DESIGNED BY	SUBMITTED BY		PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	GRACE B. AGUILOS, ICT ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANOI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES — PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	SERVICE BOX, HANDHOLE AND PULL BOX DETAILS	AS SHOWN	DRAFT FINAL
			RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE:			DRAWING NO.	SHEET NO.
			APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:			PH1-FOC-15	15 OF 16



1 TYPICAL FIBER OPTIC CABLE INSTALLATION DETAIL
PH1-FOC-16 NOT TO SCALE



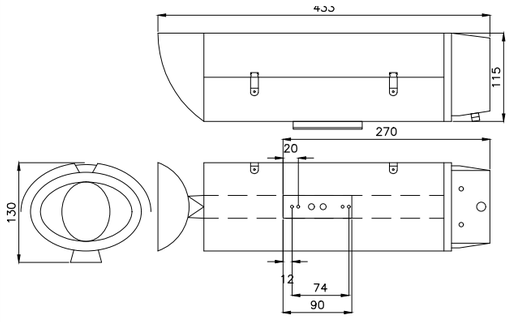
2 SERVICE BOX/HANDHOLE LAYOUT
PH1-FOC-16 NOT TO SCALE



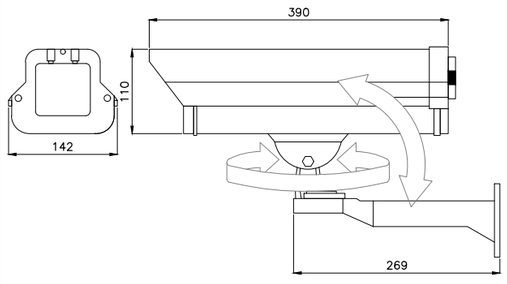
3 SUSPENDED CEILING CCTV DETAIL
PH1-FOC-16 NOT TO SCALE

NOTES

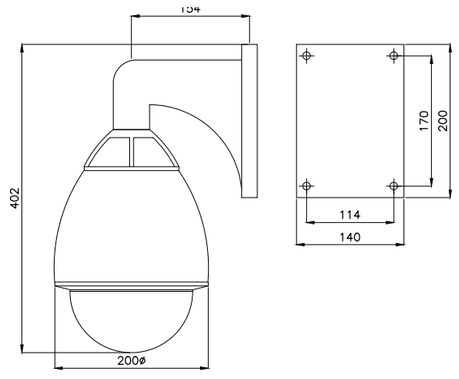
1. FOR GENERAL NOTES SEE PH1-FOC-03
2. FOR LEGENDS SEE PH1-FOC-03



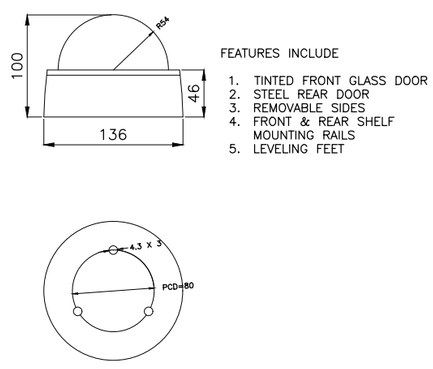
4 OUTDOOR CCTV DETAIL
PH1-FOC-16 NOT TO SCALE



5 OUTDOOR CCTV DETAIL
PH1-FOC-16 NOT TO SCALE



6 PENDANT TYPE WALL MOUNTED CCTV DETAIL
PH1-FOC-16 NOT TO SCALE



FEATURES INCLUDE

1. TINTED FRONT GLASS DOOR
2. STEEL REAR DOOR
3. REMOVABLE SIDES
4. FRONT & REAR SHELF MOUNTING RAILS
5. LEVELING FEET

7 DOMED TYPE CCTV DETAIL
PH1-FOC-16 NOT TO SCALE

CONSULTANTS	DESIGNED BY	SUBMITTED BY		PROJECT TITLE	SHEET CONTENT	SCALE	DRAWING STATUS
NIPPON KOEI CO.,LTD. / PHILKOEI INTERNATIONAL, INC. CONSULTANTS PLANNERS ENGINEERS	GRACE B. AGUILOS, ICT ENGINEER, DATE: / CHECKED BY CHARLES P. PANTE, CO-TEAM LEADER, DATE:	TEDDY MASANORI, PROJECT MANAGER, DATE:	REPUBLIC OF THE PHILIPPINES / PHILIPPINE JAPAN INITIATIVE FOR CGC INC.	RECOMMENDING APPROVAL: RYAN PAUL S. GALURA, OIC, PMD CLARK PROJECTS, DATE: / APPROVED BY: JOSHUA M. BINGCANG, SVP, CONVERSION AND DEVELOPMENT GROUP, DATE:	INFRASTRUCTURE DESIGN OF NEW CLARK CITY ROAD WORKS (C.2) AND DRAINAGE SYSTEM (C.3) PHASE 1 R1 (STA. 0+000 - STA. 6+600) & R2 (STA. 0+000 - STA. 2+220)	SERVICE BOX LAYOUT AND CCTV TYPE	AS SHOWN	DRAFT FINAL
						DRAWING NO. PH1-FOC-16	SHEET NO. 16 OF 16