

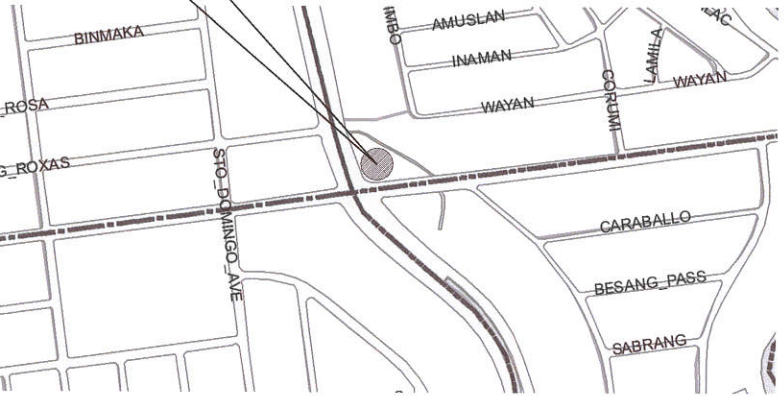
THE SITE



1 VICINITY MAP

NOT TO SCALE

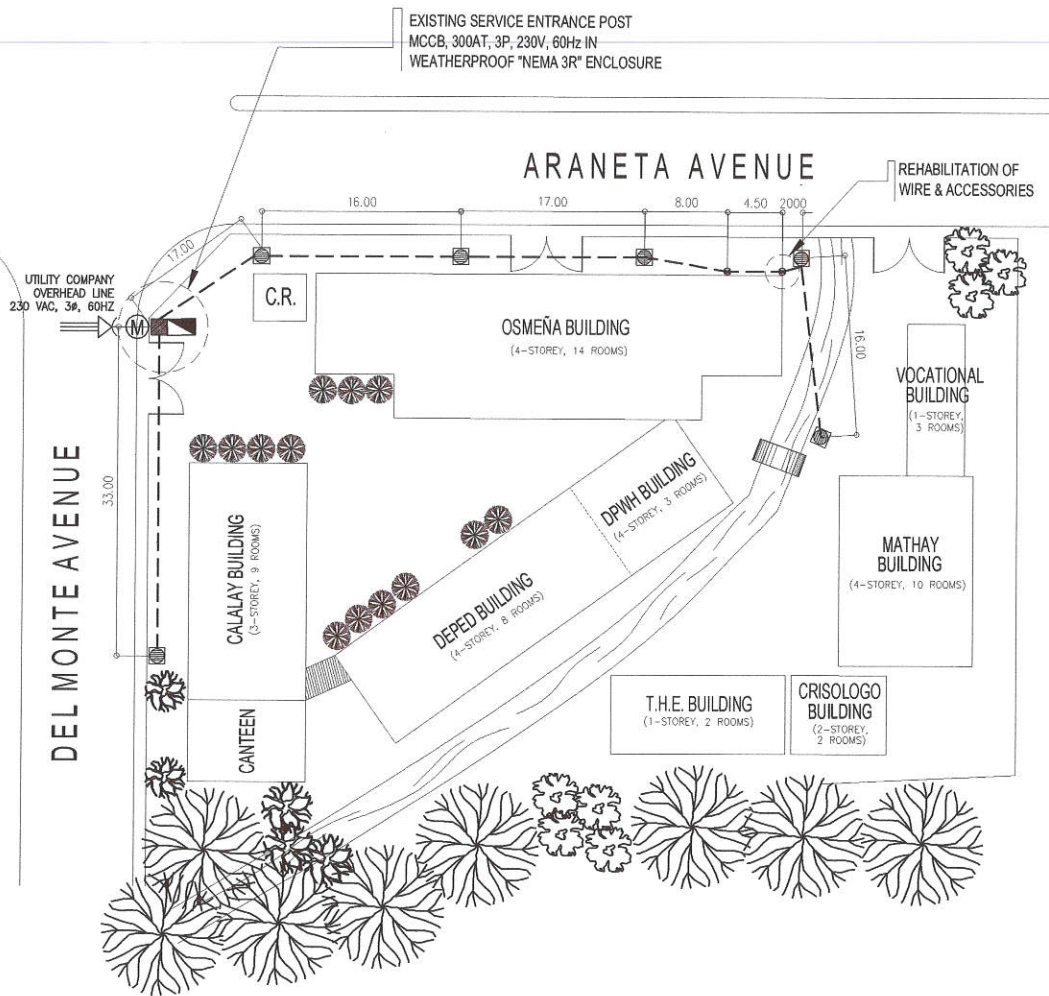
THE SITE



2 LOCATION MAP

NOT TO SCALE

20-00135



3 SITE DEVELOPMENT PLAN / EXISTING FEEDER LAYOUT

NOT TO SCALE



Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:
**PROPOSED REHABILITATION OF ELECTRICAL
SYSTEM AT SERGIO OSMEÑA SENIOR HIGH
SCHOOL**
LOCATION: BARANGAY MASAMBONG, DISTRICT 1,
QUEZON CITY

DRAWN BY: *Gr*
DATE: 11/10/2020
CHECKED BY: *ES*
REVISION NO.:

SUBMITTED BY: *[Signature]*
ENGR. LEO S. DEL ROSARIO
HEAD, PLANNING & PROGRAMMING DIVISION

RECOMMENDING APPROVAL: *[Signature]*
ENGR. ISASANI R. VERZOSA, JR.
CITY ENGINEERING DEPARTMENT

APPROVED BY: *[Signature]*
HON. MA. JOSEFINA G. BELMONTE
CITY MAYOR, QUEZON CITY

SHEET CONTENT
VICINITY MAP
LOCATION MAP
SITE DEVELOPMENT PLAN
FEEDER LAYOUT

SHEET NO.
**EL
01**

20-00135

- ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, THE LAWS AND ORDINANCES OF THE LOCAL CODE ENFORCING AUTHORITIES AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE UTILITY COMPANY.
- THE CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE WORK AND SHALL FURNISH THE OWNER THROUGH THE ENGINEERS, FINAL CERTIFICATES OF ELECTRICAL INSPECTION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETION OF WORK.
- ALL EMBEDDED BRANCH CIRCUITS SHALL BE PVC CONDUITS AND FOR EXPOSED INSTALLATION SHALL BE IMC SUPPORTED BY CONDUIT CLAMPS EVERY 700 MILLIMETERS
- PULL BOXES SHALL BE PROVIDED BY THE CONTRACTOR WHENEVER NECESSARY TO FACILITATE WIRE PULLING EVEN IF THESE ARE NOT INDICATED ON THE PLANS. SIZING OF ALL PULLBOXES SHALL BE COMPUTED BASED ON THE CODE REQUIREMENTS. SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION. LOCATION OF PULLBOXES SHALL BE APPROVED BY THE ARCHITECT/ENGINEER AND MUST BE REFLECTED ON THE "AS-BUILT" PLAN.
- ALL POWER OUTLETS AND SWITCHES SHALL BE GROUNDING TYPE WITH PARALLEL SLOTS FOR 230 V.
- PROVIDE GROUND FAULT CURRENT INTERRUPTER CIRCUIT BREAKER FOR LOADS MARKED "GFCI" ON THE PLAN.
- ALL METALLIC CONDUITS, CABINETS AND EQUIPMENT SHALL BE PROPERLY GROUNDING AND BONDED.
- UNLESS OTHERWISE NOTED, MOUNTING HEIGHT FOR WALL MOUNTED DEVICES SHALL BE AS FOLLOWS:

RECEPTACLE OUTLET - 300 MM AFF, 150MM ABOVE WORKING COUNTER.
TELEPHONE OUTLET - 300 MM AFF
CATV OUTLET - 300 MM AFF
LIGHTING SWITCH - 1400 MM AFF
PANELBOARD - 1600 MM AFF

- ALL MATERIALS TO BE USED SHALL BE OF THE BEST QUALITY, BRAND NEW AS SPECIFIED.
- THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO PRESENT GENERAL LAYOUT AND BROAD OUTLINE/DESCRIPTION OF THE PROJECT BUT DO NOT NECESSARILY INDICATE/DESCRIBE ACTUAL LOCATIONS, LEVEL AND DISTANCES OF THE EQUIPMENT. THE CONTRACTOR IS HEREBY REQUIRED TO MAKE SUCH ADJUSTMENT AT THE JOBSITE AS LOCATION, DISTANCES AND LEVELS ARE GOVERNED BY ACTUAL FIELD CONDITIONS.
- ANY DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION DECISION.
- ALL LIGHTING AND CONVENIENCE OUTLET CIRCUITS SHALL BE 3.5 SQ. MM. THWN-2 COPPER WIRE UNLESS OTHERWISE NOTED. MINIMUM SIZE OF WIRE SHALL BE 3.5 SQ. MM. COPPER WIRE. ALL WIRES AND CABLES SHALL BE COLOR CODED AS FOLLOWS:

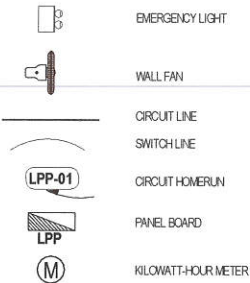
LINE 1 - RED
LINE 2 - YELLOW
NEUTRAL - WHITE
GROUND - GREEN

- BOXES, WIRE, GUTTERS, ENCLOSURE SHALL BE FABRICATED FROM STEEL WITH THICKNESS AS FOLLOWS:

MAXIMUM WIDTH OF THE WIDEST SURFACE STEEL
UP TO INCLUDING 152.40 MM
OVER 152.40 MM BUT NOT OVER 457.30
OVER 457.30 MM BUT NOT OVER 762 MM
OVER 762 MM

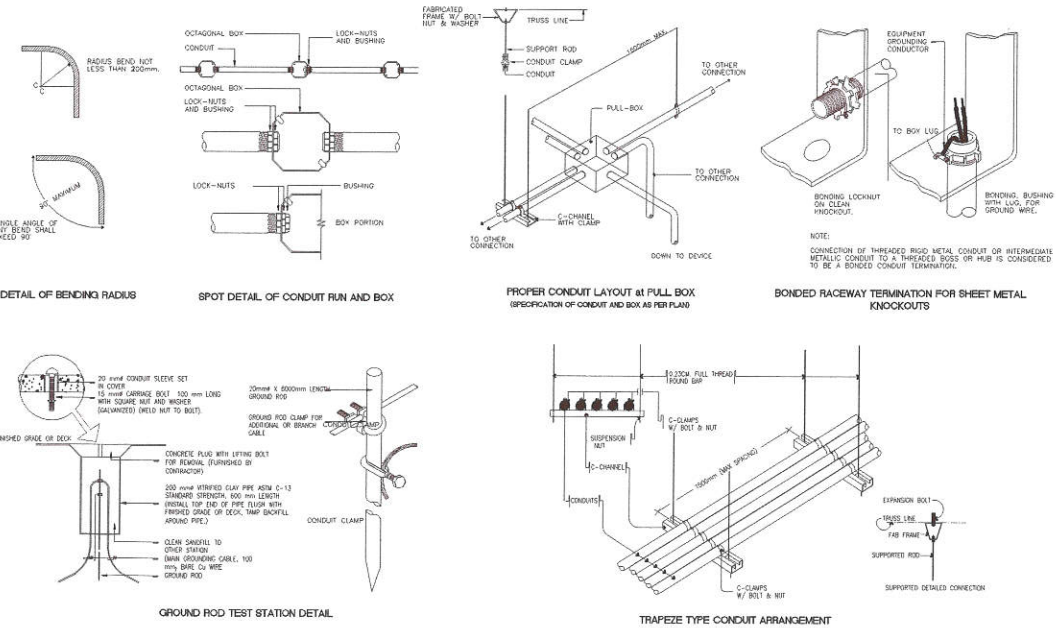
GA
GA 16 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT
GA 14 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT
GA 12 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT
GA 10 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT

- ALL ELECTRICAL WORKS HEREIN SHALL BE EXECUTED BY EXPERIENCED MEN UNDER THE DIRECT SUPERVISION OF A FULL-TIME LICENSED ELECTRICAL ENGINEER AND A DULY ACCREDITED ELECTRICAL CONTRACTOR BY PCAB. WORKS SHALL BE NEATLY PLACED, SECURELY FASTENED AND PROPERLY FINISHED.
- TYPE OF SERVICE ENTRANCE SHALL BE SINGLE-PHASE, TWO-WIRE PLUS GROUND, 60 HERTZ, 230V AC NOMINAL.
- CONDUITS IN NO CASE SHALL THERE BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS IN ANY ONE RUN. ALL CONDUIT BENDS SHALL BE FIELD MADE BY USING HYDRAULIC BENDERS. MINIMUM BENDING RADIUS MUST BE IN ACCORDANCE TO THE CODE REQUIREMENTS.
- UPON COMPLETION OF ELECTRICAL CONSTRUCTION WORK, INSULATION RESISTANCE TEST AND FUNCTIONALITY TEST SHALL BE PERFORMED BY THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETAILS ON FORMS APPROVED BY THE QUEZON CITY ENGINEERING DEPARTMENT REPRESENTATIVE. THE GROUND RESISTANCE FOR ELECTRICAL SYSTEMS SHALL NOT BE MORE THAN 5 OHMS. COMMUNICATION GROUNDING RESISTANCE SHALL NOT EXCEED 2 OHMS.



2 LEGEND & SYMBOLS

NOT TO SCALE



1 GENERAL NOTES & SPECIFICATIONS

NOT TO SCALE

3 MISCELLANEOUS DETAILS

NOT TO SCALE



Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

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PROPOSED REHABILITATION OF ELECTRICAL
SYSTEM AT SERGIO OSMEÑA SENIOR HIGH
SCHOOL

LOCATION: BARANGAY MASAMBONG, DISTRICT 1,
QUEZON CITY

DRAWN BY:

DATE 11/10/2020

CHECKED BY:

REVISION NO.:

SUBMITTED BY:

ENGR. LEO S. DEL ROSARIO
HEAD, PLANNING & PROGRAMING DIVISION

RECOMMENDING APPROVAL:

ENGR. ISAGANI R. VERZOSA, JR.
OIC, CITY ENGINEERING DEPARTMENT

APPROVED BY:

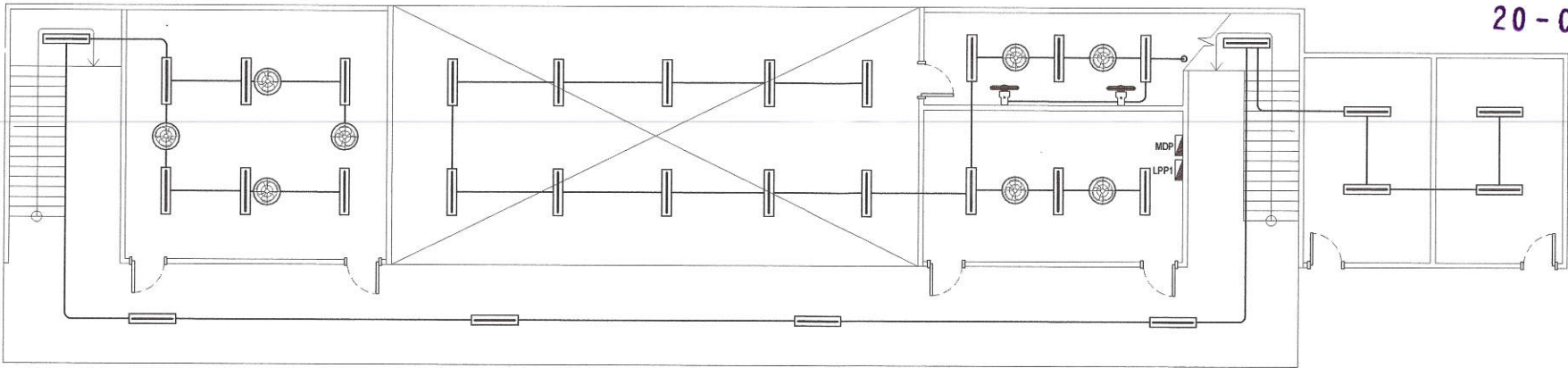
HON. MA. JOSEFINA G. BELMONTE
CITY MAYOR, QUEZON CITY

SHEET CONTENT

GENERAL NOTES &
SPECIFICATIONS
LEGEND & SYMBOLS
MISCELLANEOUS DETAILS

SHEET NO.

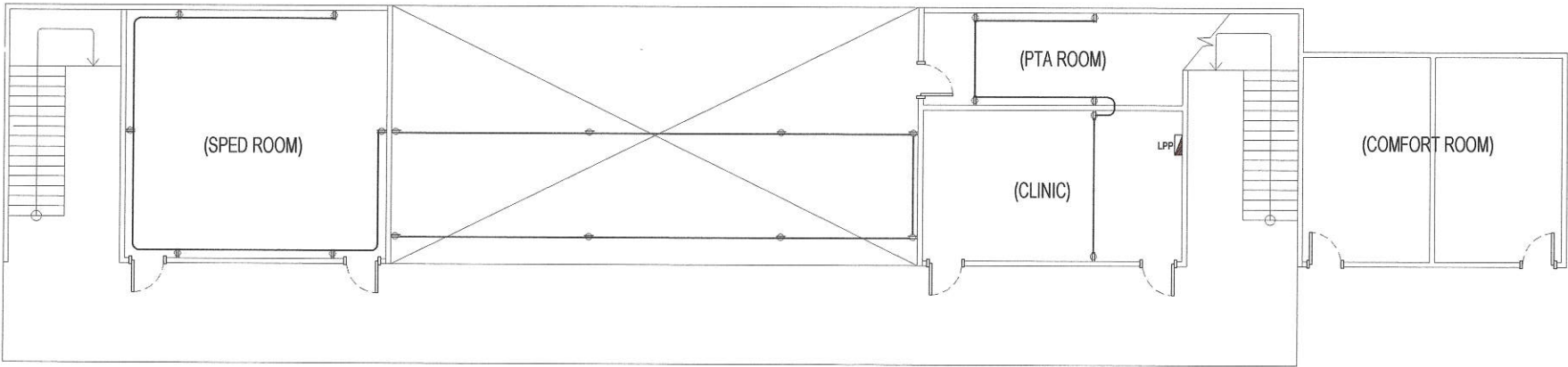
EL
02



NOTE:
1) REPAIRING OF LIGHTING & POWER LAYOUT
2) REPLACEMENT OF UNUSABLE WIRING DEVICES/ LIGHTING FIXTURES AND OTHER FIXTURES
3) REPAIRING & REPLACEMENT OF SUB-PANEL BOARD
4) REHABILITATION OF MAIN DISTRIBUTION PANEL BOARD

1 GROUND FLOOR LIGHTING LAYOUT - OSMEÑA BUILDING







NOT TO SCALE



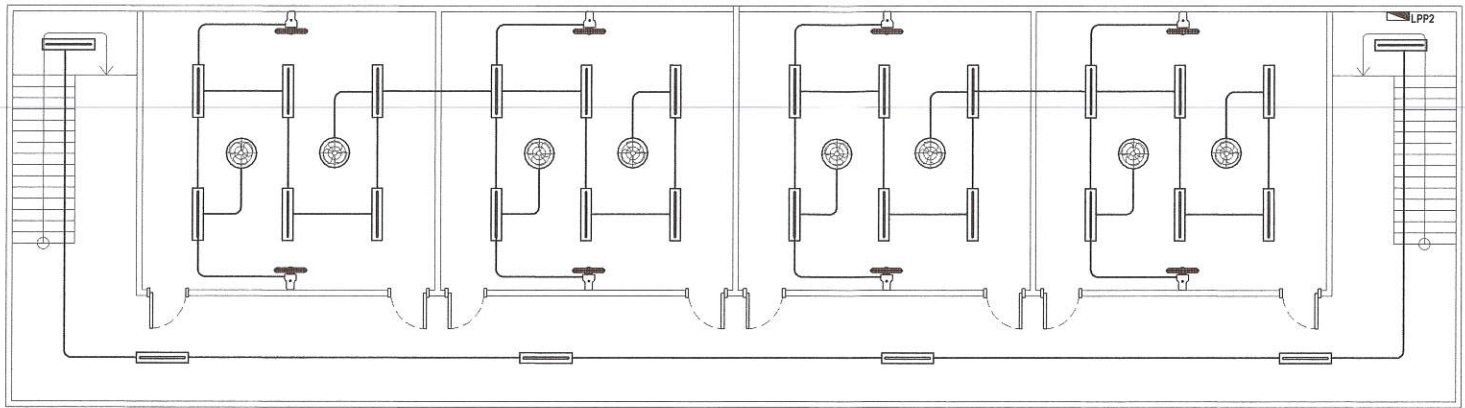
NOTE:
1) REPAIRING OF LIGHTING & POWER LAYOUT
2) REPLACEMENT OF UNUSABLE WIRING DEVICES/ LIGHTING FIXTURES AND OTHER FIXTURES
3) REPAIRING & REPLACEMENT OF SUB-PANEL BOARD

2 GROUND FLOOR POWER LAYOUT - OSMEÑA BUILDING

NOT TO SCALE

 <div>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</div>	PROJECT TITLE:	DRAWN BY: 	SUBMITTED BY: 	RECOMMENDING APPROVAL: 	APPROVED BY: 	SHEET CONTENT	SHEET NO.
	PROPOSED REHABILITATION OF ELECTRICAL SYSTEM AT SERGIO OSMEÑA SENIOR HIGH SCHOOL	DATE 11/10/2020	ENGR. LEO S. DEL ROSARIO HEAD, PLANNING & PROGRAMMING DIVISION	ENGR. ISAGANI R. VERZOSA, JR. CIC, CITY ENGINEERING DEPARTMENT	HON. MA. JOSEFINA G. BELMONTE CITY MAYOR, QUEZON CITY	GROUND FLOOR LIGHTING LAYOUT-NEW MATHAY BUILDING SECOND FLOOR LIGHTING LAYOUT-NEW MATHAY BUILDING (TYPICAL TO THIRD FLOOR)	EL 03
	LOCATION: BARANGAY MASAMBONG, DISTRICT 1, QUEZON CITY	CHECKED BY: 	REVISION NO.:				

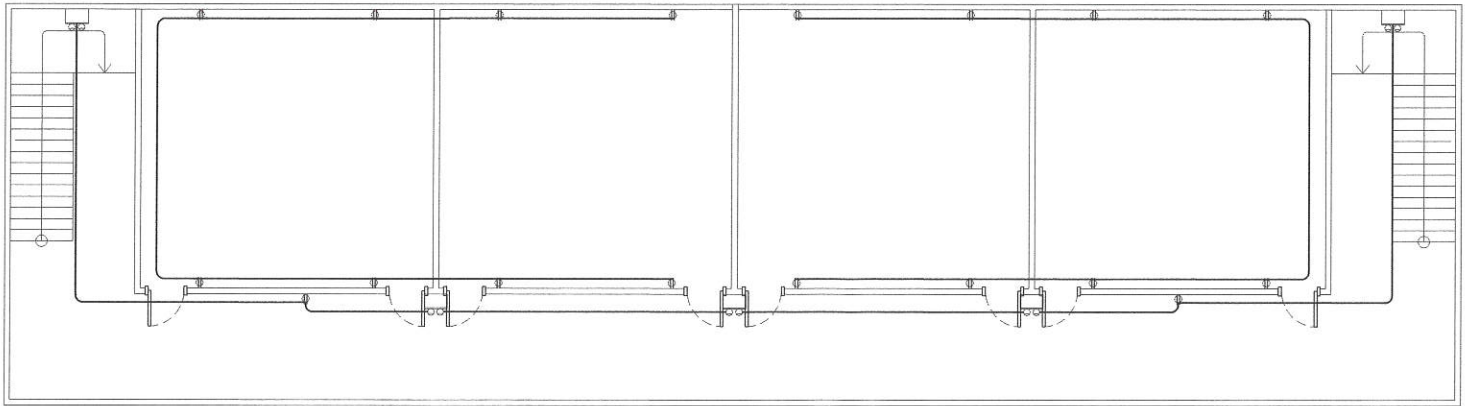
20-00135



NOTE:
1) REPLACEMENT OF UNUSABLE WIRING DEVICES/ LIGHTING FIXTURES AND OTHER FIXTURES.
2) REWIRING & REPLACEMENT OF SUB-PANEL BOARD.

1 SECOND FLOOR LIGHTING LAYOUT - OSMEÑA BUILDING (TYPICAL TO THIRD FLOOR)



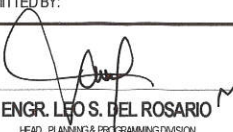




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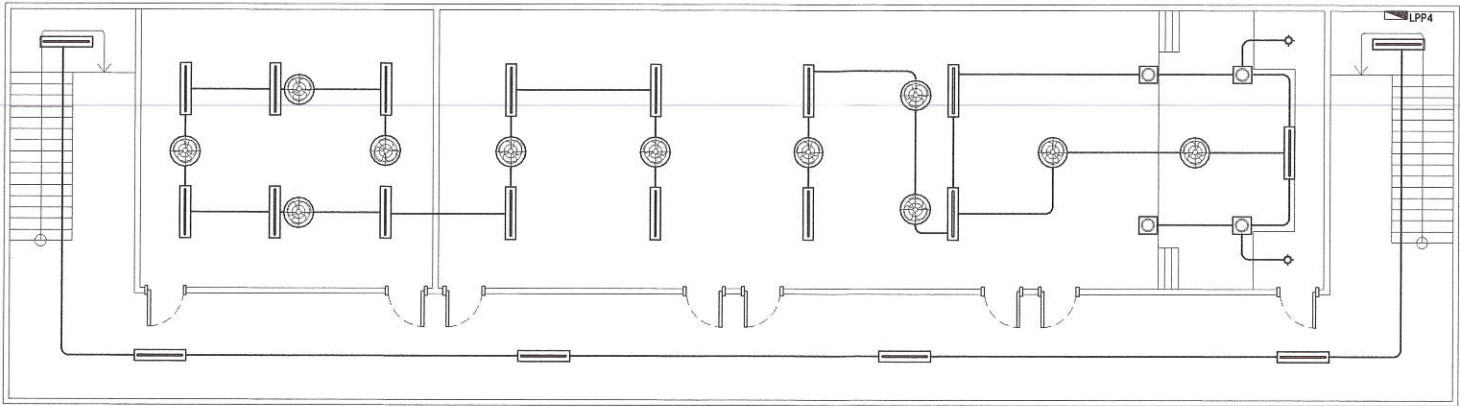
NOTE:
1) REPLACEMENT OF UNUSABLE WIRING DEVICES/ LIGHTING FIXTURES AND OTHER FIXTURES.
2) REWIRING & REPLACEMENT OF SUB-PANEL BOARD.

2 SECOND FLOOR POWER LAYOUT - OSMEÑA BUILDING (TYPICAL TO THIRD FLOOR)

NOT TO SCALE

 <div>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</div>	PROJECT TITLE:	DRAWN BY: 	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT	SHEET NO.
	PROPOSED REHABILITATION OF ELECTRICAL SYSTEM AT SERGIO OSMEÑA SENIOR HIGH SCHOOL	DATE: 11/10/2020	 ENGR. LEO S. DEL ROSARIO HEAD, PLANNING & PROGRAMMING DIVISION	 ENGR. ISAGANI R. VERZOSA, JR. OIC, CITY ENGINEERING DEPARTMENT	 HON. MA. JOSEFINA G. BELMONTE CITY MAYOR, QUEZON CITY	SECOND FLOOR POWER LAYOUT-NEW MATHAY BUILDING (TYPICAL TO THIRD FLOOR) SECOND FLOOR POWER LAYOUT-NEW MATHAY BUILDING (TYPICAL TO THIRD FLOOR)	
	LOCATION: BARANGAY MASAMBONG, DISTRICT 1, QUEZON CITY	CHECKED BY: 					

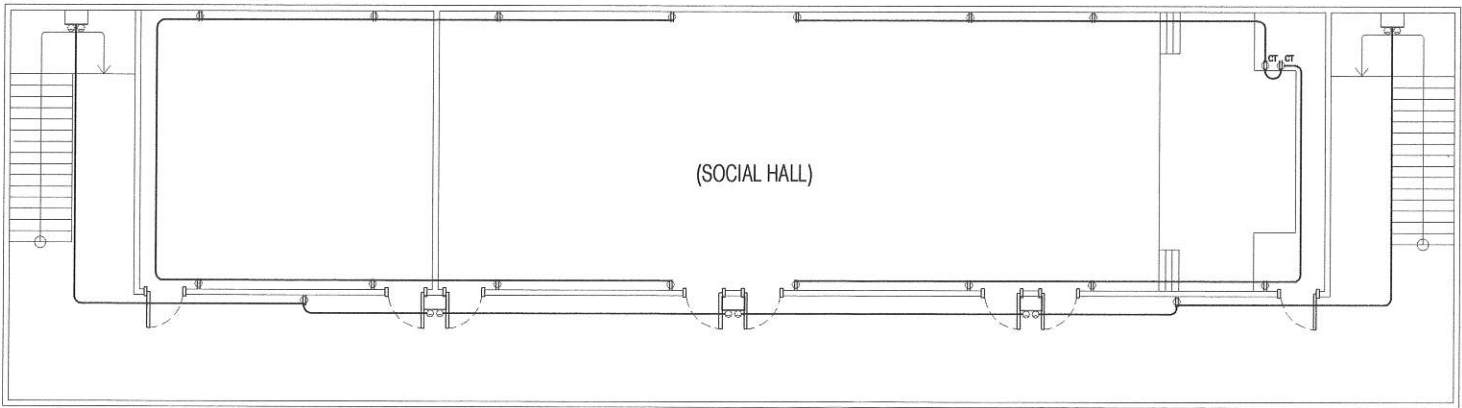
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NOTE:
1) REPLACEMENT OF UNUSABLE WIRING DEVICES/ LIGHTING FIXTURES AND OTHER FIXTURES.
2) REWIRING & REPLACEMENT OF SUB-PANEL BOARD.

1 FOURTH FLOOR LIGHTING LAYOUT - OSMEÑA BUILDING








NOT TO SCALE



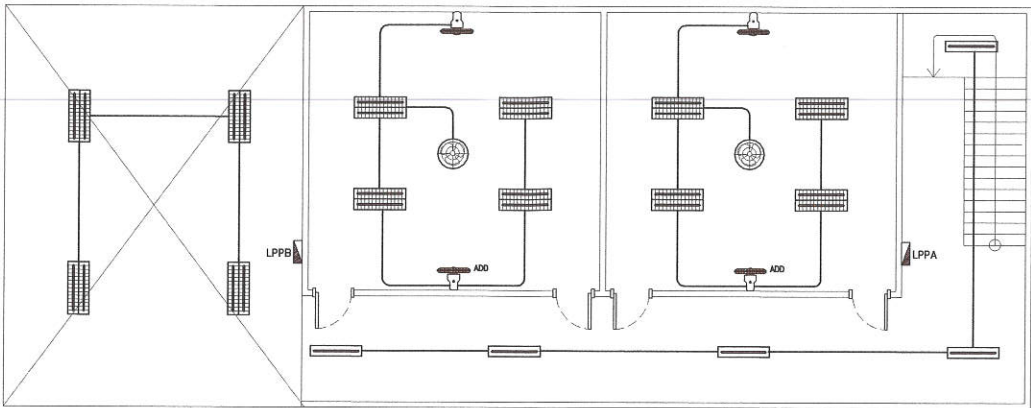
NOTE:
1) REPLACEMENT OF UNUSABLE WIRING DEVICES/ LIGHTING FIXTURES AND OTHER FIXTURES.
2) REWIRING & REPLACEMENT OF SUB-PANEL BOARD.

2 FOURTH FLOOR POWER LAYOUT - OSMEÑA BUILDING

NOT TO SCALE

 <div>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</div>	PROJECT TITLE:	DRAWN BY: 	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT	SHEET NO.
	PROPOSED REHABILITATION OF ELECTRICAL SYSTEM AT SERGIO OSMEÑA SENIOR HIGH SCHOOL	DATE: 11/10/2020	 ENGR. LEO S. DEL ROSARIO HEAD, PLANNING & PROGRAMMING DIVISION	 ENGR. ISAGANI R. VERZOSA, JR. OIC, CITY ENGINEERING DEPARTMENT	 HON. MA. JOSEFINA G. BELMONTE CITY MAYOR, QUEZON CITY	FOURTH FLOOR LIGHTING LAYOUT-NEW MATHAY BUILDING FOURTH FLOOR POWER LAYOUT-NEW MATHAY BUILDING	
	LOCATION: BARANGAY MASAMBONG, DISTRICT 1, QUEZON CITY	CHECKED BY: 					

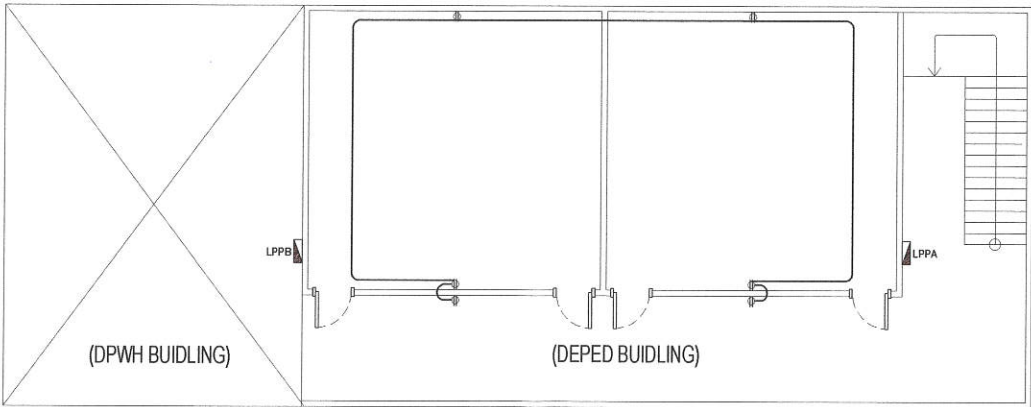
20-00135



NOTE:
1) FOR REPLACEMENT OF UNUSABLE WIRING DEVICES/ LIGHTING FIXTURES AND OTHER FIXTURES.
2) FOR REPLACEMENT AND UPGRADING OF PANEL BOARD.
3) VERIFY ACTUAL LOCATION

1 GROUND FLOOR LIGHTING LAYOUT - DEPED & DPWH BUILDING



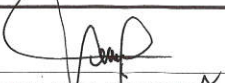




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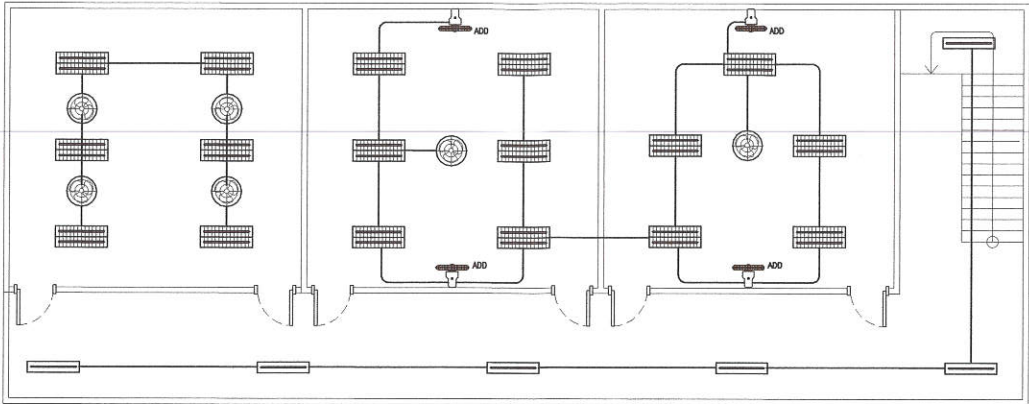
NOTE:
1) FOR REPLACEMENT OF UNUSABLE WIRING DEVICES/ LIGHTING FIXTURES.

2 GROUND FLOOR POWER LAYOUT - DEPED & DPWH BUILDING

NOT TO SCALE

 <div>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</div>	PROJECT TITLE:	DRAWN BY: 	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT	SHEET NO.
	PROPOSED REHABILITATION OF ELECTRICAL SYSTEM AT SERGIO OSMEÑA SENIOR HIGH SCHOOL	DATE 11/10/2020	 ENGR. LEO S. DEL ROSARIO HEAD, PLANNING & PROGRAMMING DIVISION	 ENGR. ISAGANI R. VERZOSA, JR. OIC, CITY ENGINEERING DEPARTMENT	 HON. MA. JOSEFINA G. BELMONTE CITY MAYOR, QUEZON CITY	GROUND FLOOR LIGHTING LAYOUT-DEPED & DPWH BUILDING SECOND FLOOR POWER LAYOUT-DEPED & DPWH BUILDING	
	LOCATION: BARANGAY MASAMBONG, DISTRICT 1, QUEZON CITY	CHECKED BY: 					
	REVISION NO.:						

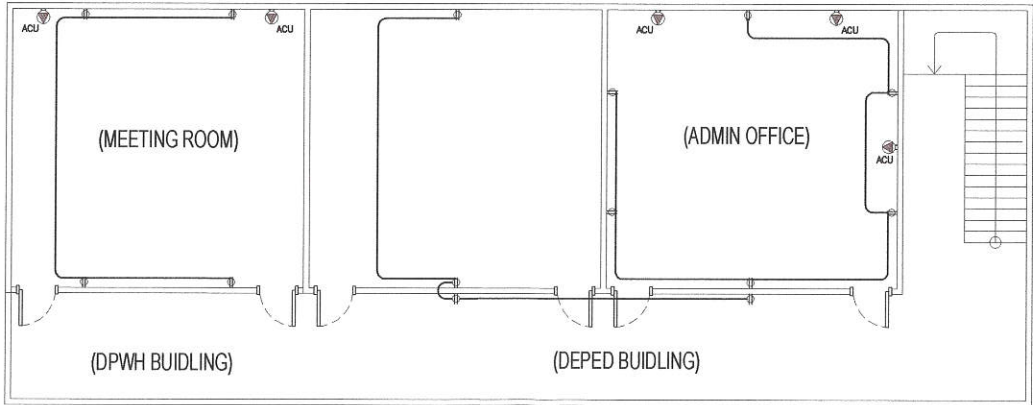
20-00135



NOTE:
1) REPLACEMENT OF UNUSABLE WIRING DEVICES/LIGHTING FIXTURES AND OTHER FIXTURES

1 SECOND FLOOR LIGHTING LAYOUT - DEPED & DPWH BUILDING







NOT TO SCALE

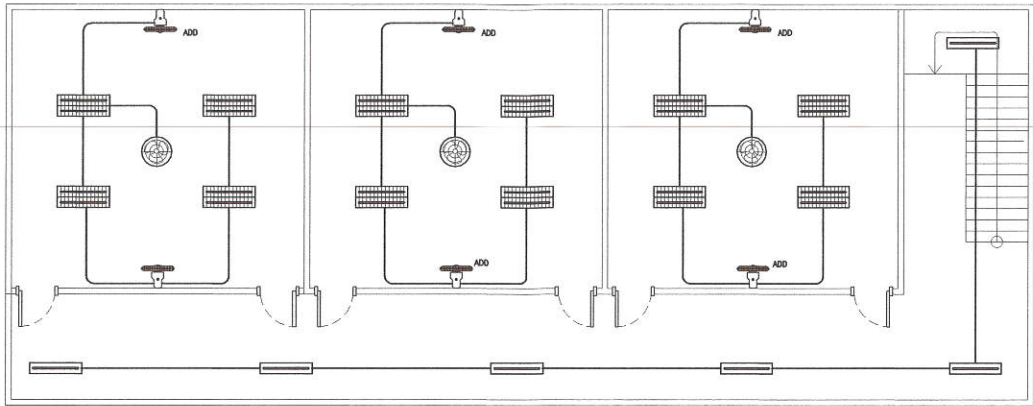


NOTE:
1) REPLACEMENT OF UNUSABLE WIRING DEVICES/LIGHTING FIXTURES

2 SECOND FLOOR POWER LAYOUT - DEPED & DPWH BUILDING

NOT TO SCALE

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	LOCATION: BARANGAY MASAMBONG, DISTRICT 1, QUEZON CITY	CHECKED BY: 					
	REVISION NO.:						

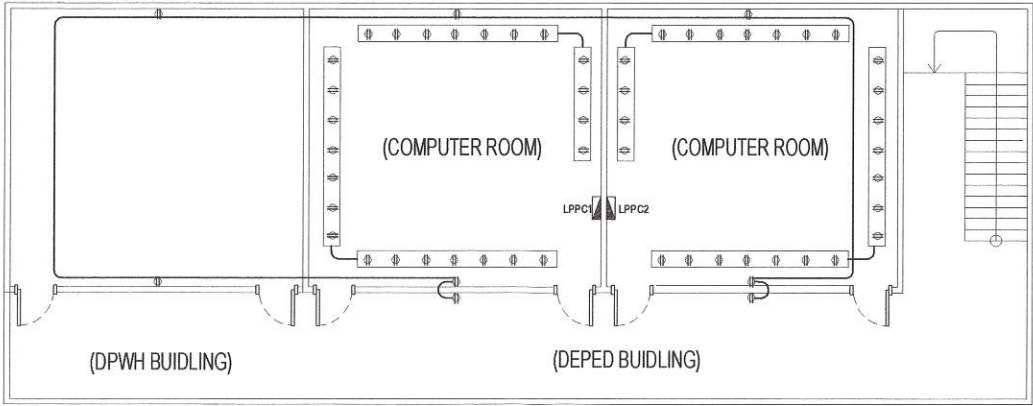


20-00135

NOTE:
1) REPLACEMENT OF UNUSABLE WIRING DEVICES/ LIGHTING FIXTURES AND OTHER FIXTURES.

1 THIRD FLOOR LIGHTING LAYOUT - DEPED & DPWH BUILDING








NOT TO SCALE



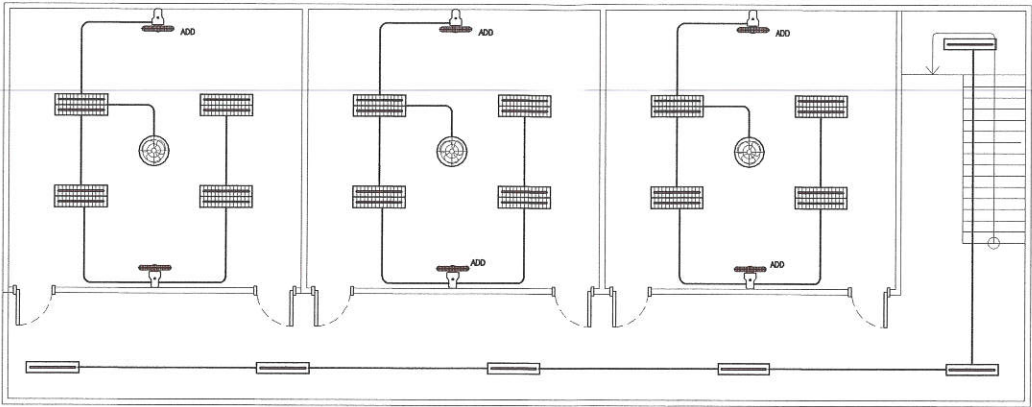
NOTE:
1) REPLACEMENT OF UNUSABLE WIRING DEVICES/ LIGHTING FIXTURES.
2) INSTALLATION OF OUTLETS FOR 50 PC UNITS.
3) INSTALLATION OF SUB-PANEL FOR COMPUTER ROOM.

2 THIRD FLOOR POWER LAYOUT - DEPED & DPWH BUILDING

NOT TO SCALE

 <div>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</div>	PROJECT TITLE:	DRAWN BY: 	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT	SHEET NO.
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	LOCATION: BARANGAY MASAMBONG, DISTRICT 1, QUEZON CITY	CHECKED BY: 					

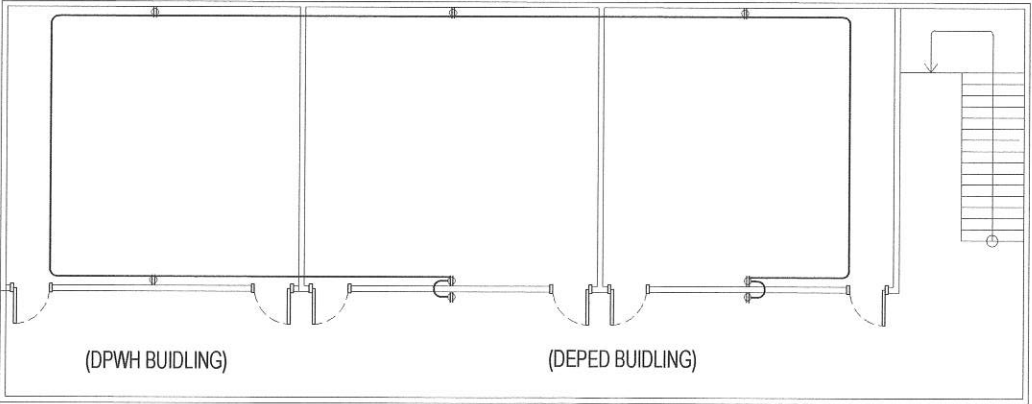
20-00135



NOTE
1) REPLACEMENT OF UNUSABLE WIRING DEVICES/ LIGHTING FIXTURES AND OTHER FIXTURES
2) INSTALLATION OF ADDITIONAL WALL FANS

1 FOURTH FLOOR LIGHTING LAYOUT - DEPED & DPWH BUILDING








NOT TO SCALE



NOTE
1) REPLACEMENT OF UNUSABLE WIRING DEVICES/ LIGHTING FIXTURES

2 FOURTH FLOOR POWER LAYOUT - DEPED & DPWH BUILDING

NOT TO SCALE

 <div>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</div>	PROJECT TITLE:	DRAWN BY: 	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT	SHEET NO.
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	LOCATION: BARANGAY MASAMBONG, DISTRICT 1, QUEZON CITY	CHECKED BY: 					

20-00135

OSMEÑA BUILDING						MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH WITH MULTI-TERMINAL BLOCK FOR SOLID GROUND BUS	
CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	EXISTING LOAD	230	7500	32.61	100	2-30mm ² THHN COPPER WIRE 1-14mm ² TW GROUND WIRE	IN 40mm ^ø PVC PIPE
2	EXISTING LOAD	230	7500	32.61	100	2-30mm ² THHN COPPER WIRE 1-14mm ² TW GROUND WIRE	IN 40mm ^ø PVC PIPE
3	LPP1	230	7300	31.74	70	2-22mm ² THHN COPPER WIRE 1-8.0mm ² TW GROUND WIRE	IN 32mm ^ø PVC PIPE
4	LPP2	230	6540	28.43	70	2-22mm ² THHN COPPER WIRE 1-8.0mm ² TW GROUND WIRE	IN 32mm ^ø PVC PIPE
5	LPP3	230	6540	28.43	70	2-22mm ² THHN COPPER WIRE 1-8.0mm ² TW GROUND WIRE	IN 32mm ^ø PVC PIPE
6	LPP4	230	7690	33.43	70	2-22mm ² THHN COPPER WIRE 1-8.0mm ² TW GROUND WIRE	IN 32mm ^ø PVC PIPE
TOTAL			43070	187.26			
COMPUTATION :						OVER CURRENT PROTECTION USE : 225AT, 2P, 230V CIRCUIT BREAKER *Note: EXISTING PANEL	
IT = $\frac{43070 \text{ VA}}{230 \text{ V}}$ = 187.26 AMPERES						MAIN FEEDER: USE : 2 - 125mm ² THHN & 1-30mm ² TW GROUND WIRE IN 65mm ^ø IMC PIPE	




LPP1-OSMEÑA BUILDING						MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH WITH MULTI-TERMINAL BLOCK FOR SOLID GROUND BUS	
CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	16-LIGHTING OUTLETS 4-ORBIT FANS	230	1600	6.96	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
2	18-LIGHTING OUTLETS 4-ORBIT FANS, 2-WALL FANS	230	2100	9.13	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
3	6-CONVENIENCE OUTLETS	230	1080	4.70	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
4	8-CONVENIENCE OUTLETS	230	1440	6.26	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
5	6-CONVENIENCE OUTLETS	230	1080	4.70	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
6	S P A R E	230	-	-	20	E M P T Y	E M P T Y
TOTAL			7300	31.74			
COMPUTATION :						OVER CURRENT PROTECTION USE : 70AT, 2P, 230V CIRCUIT BREAKER	
IT = $\frac{7300 \text{ VA}}{230 \text{ V}}$ = 31.74 AMPERES						MAIN FEEDER: USE : 2 - 22mm ² THHN & 1-8.0mm ² TW GROUND WIRE IN 32mm ^ø PVC PIPE	

LPP2-OSMEÑA BUILDING (TYPICAL TO THIRD FLOOR / LPP3)						MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH WITH MULTI-TERMINAL BLOCK FOR SOLID GROUND BUS	
CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	12-LIGHTING OUTLETS 4-ORBIT FANS, 4-WALL FANS	230	1200	5.22	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
2	12-LIGHTING OUTLETS 4-ORBIT FANS, 4-WALL FANS	230	1200	5.22	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
3	8-CONVENIENCE OUTLETS	230	1440	6.26	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
4	8-CONVENIENCE OUTLETS	230	1440	6.26	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
5	2-CONVENIENCE OUTLETS 5-EMERGENCY LIGHTS	230	1260	5.48	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
6	S P A R E	230	-	-	20	E M P T Y	E M P T Y
TOTAL			6540	28.43			
COMPUTATION :						OVER CURRENT PROTECTION USE : 70AT, 2P, 230V CIRCUIT BREAKER	
IT = $\frac{7300 \text{ VA}}{230 \text{ V}}$ = 28.43 AMPERES						MAIN FEEDER: USE : 2 - 22mm ² THHN & 1-8.0mm ² TW GROUND WIRE IN 32mm ^ø PVC PIPE	

LPP4-OSMEÑA BUILDING						MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH WITH MULTI-TERMINAL BLOCK FOR SOLID GROUND BUS	
CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	16-LIGHTING OUTLETS 6-ORBIT FANS	230	2000	8.70	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
2	11-LIGHTING OUTLETS 5-ORBIT FANS	230	1550	6.74	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
3	8-CONVENIENCE OUTLETS	230	1440	6.26	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
4	8-CONVENIENCE OUTLETS	230	1440	6.26	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
5	2-CONVENIENCE OUTLETS 5-EMERGENCY LIGHTS	230	1260	5.48	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm ^ø PVC PIPE
6	S P A R E		-	-	20	E M P T Y	E M P T Y
TOTAL			7690	33.43			
COMPUTATION :						OVER CURRENT PROTECTION USE : 70AT, 2P, 230V CIRCUIT BREAKER	
IT = $\frac{7690 \text{ VA}}{230 \text{ V}}$ = 33.43 AMPERES						MAIN FEEDER: USE : 2 - 22mm ² THHN & 1-8.0mm ² TW GROUND WIRE IN 32mm ^ø PVC PIPE	

1 SCHEDULE OF LOADS

NOT TO SCALE

 <div>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</div>	PROJECT TITLE:	DRAWN BY: 	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT	SHEET NO.
	PROPOSED REHABILITATION OF ELECTRICAL SYSTEM AT SERGIO OSMEÑA SENIOR HIGH SCHOOL	DATE: 11/10/2020				SCHEDULE OF LOADS	<div>EL 10</div>
	CHECKED BY: 		ENGR. LEO S. DEL ROSARIO HEAD, PLANNING & PROGRAMMING DIVISION	ENGR. ISAGANI R. VERZOSA, JR. CIC, CITY ENGINEERING DEPARTMENT	HON. MA. JOSEFINA G. BELMONTE CITY MAYOR, QUEZON CITY		
	LOCATION: BARANGAY MASAMBONG, DISTRICT 1, QUEZON CITY	REVISION NO.:					

20-00135

CALALAY BUILDING - MDP							MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH WITH MULTI-TERMINAL BLOCK FOR SOLID GROUND BUS	
LOCATION: GROUND FLOOR								
CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF		
						WIRES	CONDUITS	
1	24-LIGHTING OUTLETS	230	1200	5.22	20	2-3.5mm ² THHN COPPER WIRE	IN 20mm \varnothing PVC PIPE	
2	24-LIGHTING OUTLETS	230	1200	5.22	20	2-3.5mm ² THHN COPPER WIRE	IN 20mm \varnothing PVC PIPE	
3	24-LIGHTING OUTLETS	230	1200	5.22	20	2-3.5mm ² THHN COPPER WIRE	IN 20mm \varnothing PVC PIPE	
4	15-LIGHTING OUTLETS	230	750	3.26	20	2-3.5mm ² THHN COPPER WIRE	IN 20mm \varnothing PVC PIPE	
5	12-CONVENIENCE OUTLETS	230	1440	6.26	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
6	16-CONVENIENCE OUTLETS	230	1440	6.26	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
7	12-CONVENIENCE OUTLETS	230	1440	6.26	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
8	6-ORBIT FANS	230	1200	5.22	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
9	6-ORBIT FANS	230	1200	5.22	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
10	6-ORBIT FANS	230	1200	5.22	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
11	6-ORBIT FANS	230	1200	5.22	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
12	SPARE	230	-	-	-	EMPTY	EMPTY	
TOTAL			13860	77.46				
COMPUTATION:							OVER CURRENT PROTECTION	
IT = $\frac{13,860 \text{ VA}}{230 \text{ V}}$							USE: 100AT, 2P, 230V CIRCUIT BREAKER	
= 60.26 AMPERES							MAIN FEEDER:	
							USE: 2 - 30mm ² THHN & 1-14mm ² TW GROUND WIRE IN 32mm \varnothing PVC PIPE	

MATHAY BUILDING - MDP							MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH WITH MULTI-TERMINAL BLOCK FOR SOLID GROUND BUS	
LOCATION: GROUND FLOOR								
CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF		
						WIRES	CONDUITS	
1	24-LIGHTING OUTLETS	230	1200	5.22	20	2-3.5mm ² THHN COPPER WIRE	IN 20mm \varnothing PVC PIPE	
2	24-LIGHTING OUTLETS	230	1200	5.22	20	2-3.5mm ² THHN COPPER WIRE	IN 20mm \varnothing PVC PIPE	
3	18-LIGHTING OUTLETS	230	900	3.91	20	2-3.5mm ² THHN COPPER WIRE	IN 20mm \varnothing PVC PIPE	
4	8-CONVENIENCE OUTLETS	230	1440	6.26	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
5	8-CONVENIENCE OUTLETS	230	1440	6.26	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
6	8-CONVENIENCE OUTLETS	230	1440	6.26	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
7	8-CONVENIENCE OUTLETS	230	1440	6.26	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
8	8-ORBIT FANS	230	1600	6.96	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
9	8-ORBIT FANS	230	1600	6.96	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
10	9-ORBIT FANS	230	1800	7.83	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
11	9-ORBIT FANS	230	1800	7.83	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
12	21-LIGHTING OUTLETS 6-ORBIT FANS	230	2250	9.78	20	2-3.5mm ² THHN COPPER WIRE	IN 20mm \varnothing PVC PIPE	
13	6-CONVENIENCE OUTLETS 6-WALL FANS	230	2280	9.91	20	2-3.5mm ² THHN COPPER WIRE 1-3.5mm ² TW GROUND WIRE	IN 20mm \varnothing PVC PIPE	
14	SPARE	230	-	-	-	EMPTY	EMPTY	
TOTAL			20390	88.65				
COMPUTATION:							OVER CURRENT PROTECTION	
IT = $\frac{20,390 \text{ VA}}{230 \text{ V}}$							USE: 100AT, 2P, 230V CIRCUIT BREAKER	
= 88.65 AMPERES							MAIN FEEDER:	
							USE: 2 - 30mm ² THHN & 1-14mm ² TW GROUND WIRE IN 32mm \varnothing PVC PIPE	

1 SCHEDULE OF LOADS

NOT TO SCALE



Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:

PROPOSED REHABILITATION OF ELECTRICAL
SYSTEM AT SERGIO OSMEÑA SENIOR HIGH
SCHOOL

LOCATION: BARANGAY MASAMBONG, DISTRICT 1,
QUEZON CITY

DRAWN BY: *Gr...*

DATE: 11/10/2020

CHECKED BY: *[Signature]*

REVISION NO.:

SUBMITTED BY:

ENGR. LEO S. DEL ROSARIO
HEAD, PLANNING & PROGRAMMING DIVISION

RECOMMENDING APPROVAL:

ENGR. ISAGANI R. VERZOSA, JR.
OIC, CITY ENGINEERING DEPARTMENT

APPROVED BY:

HON. MA. JOSEFINA G. BELMONTE
CITY MAYOR, QUEZON CITY

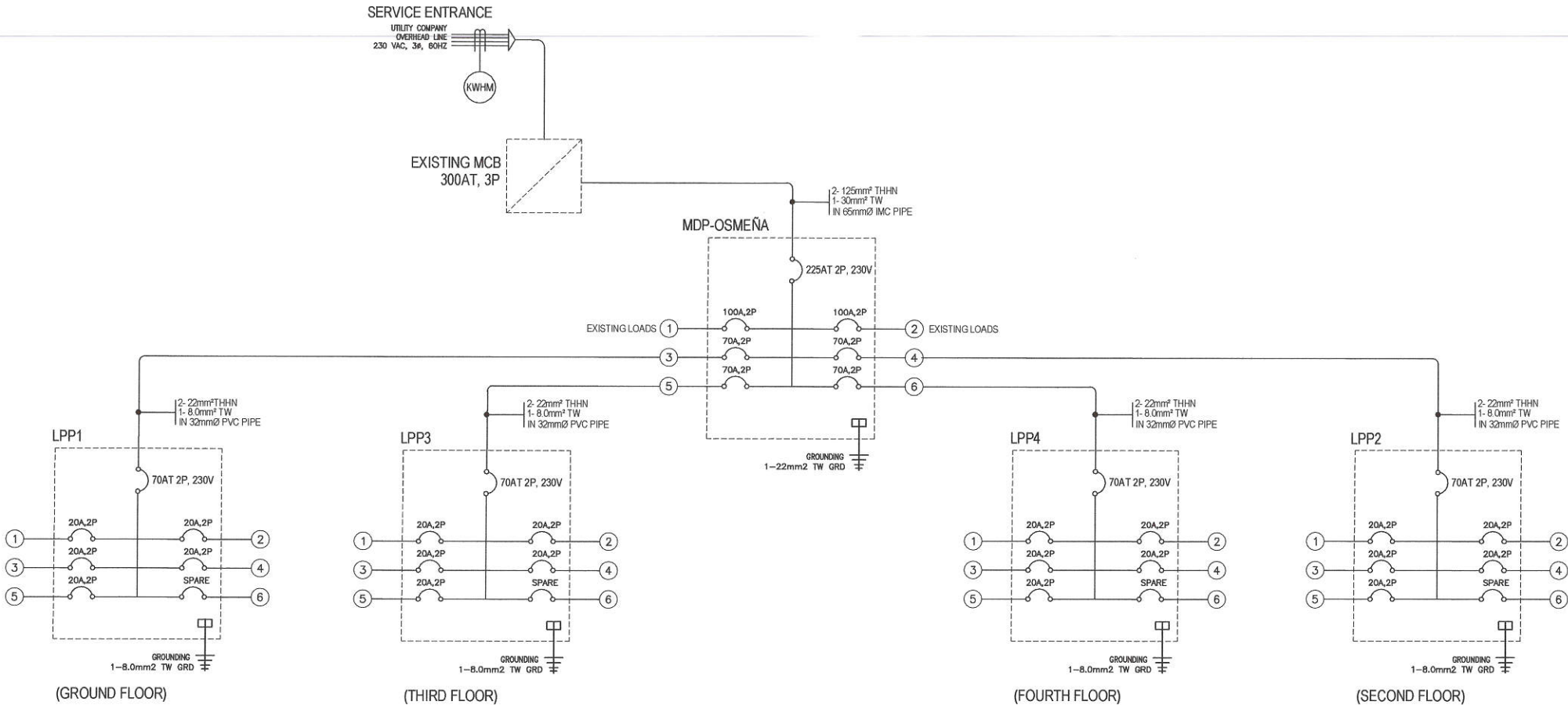
SHEET CONTENT

SCHEDULE OF LOADS

SHEET NO.

EL
11








20-00135



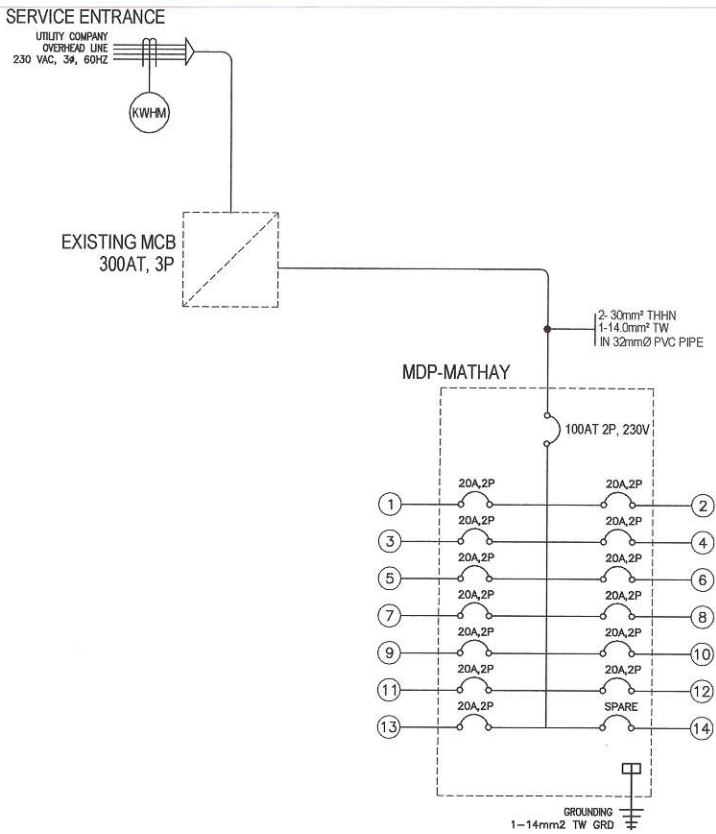
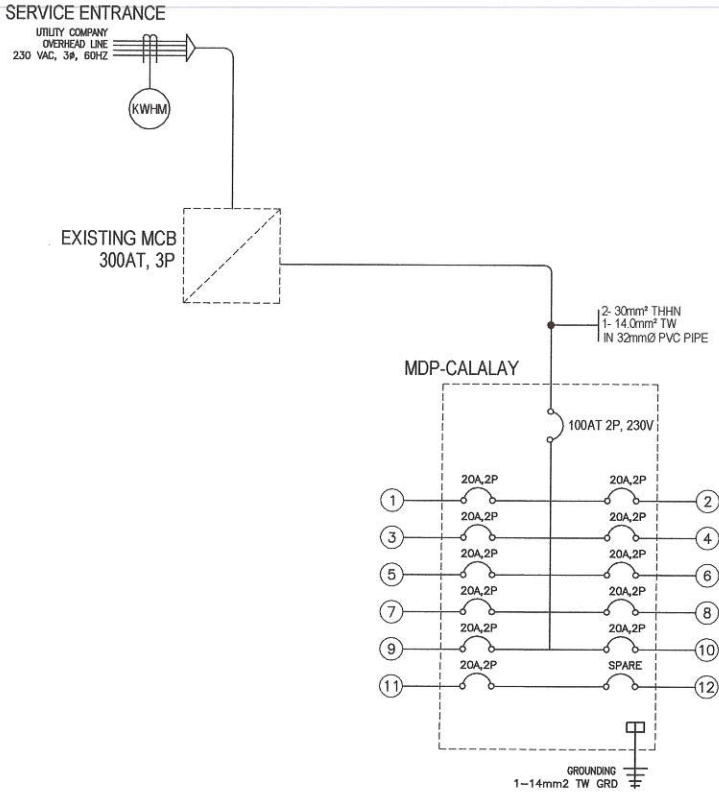
NOTE:
VERIFY BRANCH CIRCUIT LOADS AT EXISTING MDP, 300AT.

1 PANEL BOARD DETAILS

NOT TO SCALE

 <div>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</div>	PROJECT TITLE:	DRAWN BY: 	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT	SHEET NO.
	PROPOSED REHABILITATION OF ELECTRICAL SYSTEM AT SERGIO OSMEÑA SENIOR HIGH SCHOOL	DATE: 11/10/2020	 ENGR. LEO S. DEL ROSARIO HEAD, PLANNING & PROGRAMMING DIVISION	 ENGR. ISAGANI R. VERZOSA, JR. OIC, CITY ENGINEERING DEPARTMENT	 HON. MA. JOSEFINA G. BELMONTE CITY MAYOR, QUEZON CITY	PANEL BOARD DETAILS	
	LOCATION: BARANGAY MASAMBONG, DISTRICT 1, QUEZON CITY	CHECKED BY: 					
		REVISION NO.:					

20-00135



1 PANEL BOARD DETAILS

NOT TO SCALE



Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:

PROPOSED REHABILITATION OF ELECTRICAL
SYSTEM AT SERGIO OSMEÑA SENIOR HIGH
SCHOOL

LOCATION: BARANGAY MASAMBONG, DISTRICT 1,
QUEZON CITY

DRAWN BY:

DATE: 11/10/2020

CHECKED BY:

REVISION NO.:

SUBMITTED BY:

ENGR. LEO S. DEL ROSARIO
HEAD, PLANNING & PROGRAMMING DIVISION

RECOMMENDING APPROVAL:

ENGR. ISAGANI R. VERZOSA, JR.
OIC, CITY ENGINEERING DEPARTMENT

APPROVED BY:

HON. MA. JOSEFINA G. BELMONTE
CITY MAYOR, QUEZON CITY

SHEET CONTENT

PANEL BOARD DETAILS

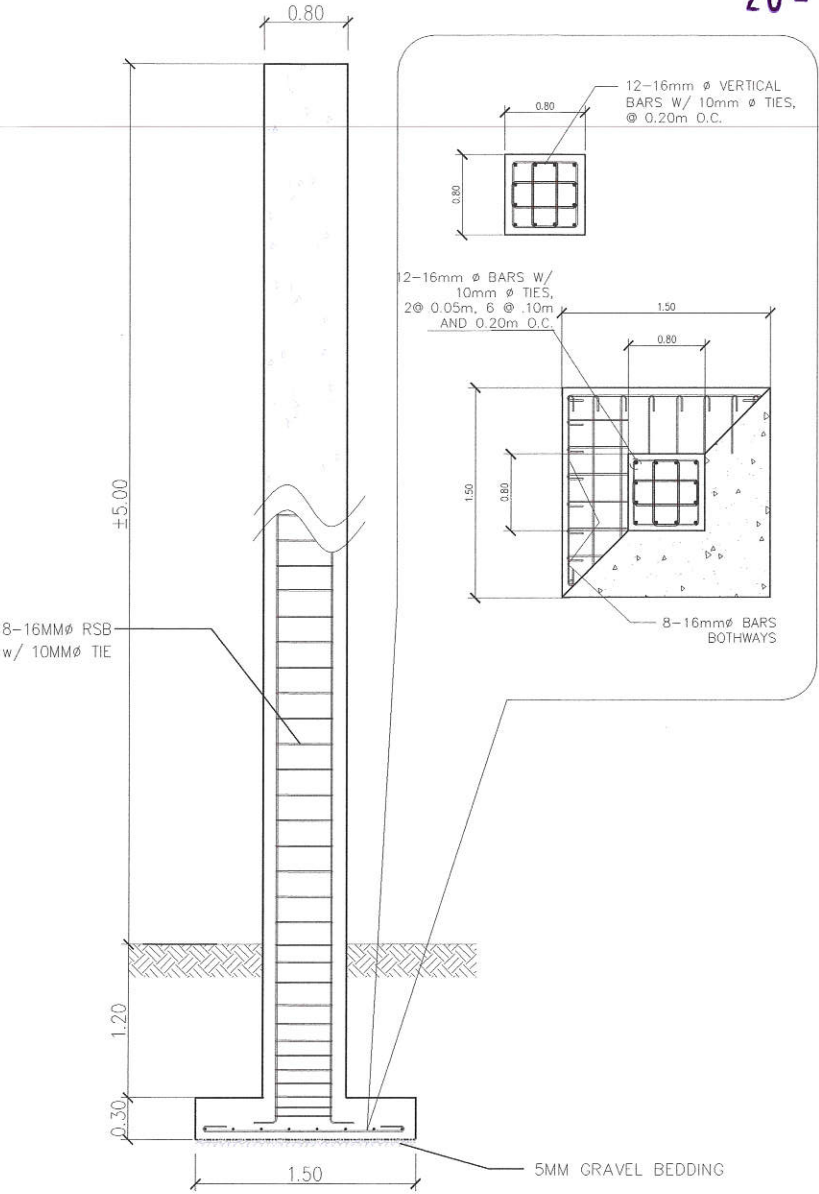
SHEET NO.

EL
13

GENERAL NOTES:
NOTES ON REINFORCEMENT:

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE LATEST BUILDING CODE OF AMERICAN CONCRETE INSTITUTE (ACI-318)
2. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH AT THE ENO OF TWENTY EIGHT (28) DAYS WITH CORRESPONDING MAXIMUM SIZE AGGREGATE AND SLUMPS AS FOLLOWS
- | LOCATION | STRENGTH | MAX SIZE OF AGGREGATES | MAX SLUMP |
|--|-----------------------|------------------------|--------------|
| a. SLAB ON GRADE
CURBS
PAVEMENTS
WALL FOOTING | 3000 Psi (20.685 MPA) | 1 in (25 mm) | 4 in (100mm) |
| b. BEAMS COLUMNS
FOOTINGS SUSPENDED SLAB | 3000 Psi (20.685 MPA) | 3/4 in (19mm) | 4 in (100mm) |
3. ALL REINFORCING BARS SHALL CONFORM TO PNS49 GRADE 275 FOR 12MM AND SMALLER BARS AND GRADE 415 FOR 16mm AND LARGER BARS.
4. IN GENERAL THE LATEST EDITION OF ACM15. MANUAL OF STANDARD PRACTICE DETAILING REINFORCED CONCRETE STRUCTURES SHALL BE ADHERED TO UNLESS OTHERWISE SHOWN OR NOTED.
5. MAINTAIN MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS:
- | CONCRETE DEPOSITED DIRECTLY AGAINST GROUND | 75mm |
|--|-------|
| SUSPENDED SLABS | 20mm |
| SIAB ON GRADE | 40 mm |
| WALLS ABOVE GRADE | 25 mm |
| BEAMS & COLUMNS | 40mm |
6. SPLICES SHALL BE SECURELY WIRED TOGETHER AND SHALL LAP OR EXTEND IN ACCORDANCE WITH TABLE 1 (TABLE OF LAP SPlice AND ANCHORAGE LENGTH UNLESS OTHERWISE SHOWN ON DRAWINGS SPICES SHALL BE STAGGERED WHENEVER POSSIBLE.)
7. ALL ANCHOR BOLTS DOWELS AND OTHER INSERTS SHALL BE PROPERLY POSITIONED AND SECURED IN PLACE PRIOR PLACING OF CONCRETE
8. CONTRACTOR SHALL NOTE AND PROVIDE ALL MISCELLANEOUS CURBS SILLS STOOLS, EQUIPMENTS & MECHANICAL BASES THAT ARE REQUIRED BY THE ARCHITECTURAL. ELECTRICAL, AND MECHANICAL DRAWINGS.
9. ALL CONCRETE SHALL BE KEPT MOIST FOR A MINIMUM OF SEVEN (7) CONSECUTIVE DAYS IMMEDIATELY AFTER POURING BY THE USE OF WET BURLAP FOG SPRAYING, CURING COMPOUNDS OR OTHER APPROVED METHODS.
10. STRIPPING OF FORMS AND SHORES:
- | FOUNDATION | 24 HRS. |
|------------------------------|---------|
| SUSPENDED SLAB EXCEPT WHEN | |
| ADDITIONAL LOADS ARE IMPOSED | 8 DAYS |
| WALL | 21 DAYS |
| BEAMS | 14 DAYS |
| COLUMNS | 21 DAYS |
11. DEVELOPMENT LENGTH FOR ALL BARS SHALL BE A MINIMUM OF 50 BAR DIAMETER UNLESS OTHERWISE NOTED STRUCTURAL STEEL AND PLATES.
12. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM (A-36) SPECIFICATIONS WITH MINIMUM YIELD STRENGTH, $f_y = 250 \text{ MPa}$
13. ANCHOR & FASTENER BOLTS. ALL BOLTS SHALL CONFORM TO ASTM (A-307) SPECIFICATIONS
14. WELDING RODS. ALL WELDING RODS SHALL BE MILD STEEL ELECTRODE. LOW HYDROGEN E7018 WITH MINIMUM YIELD STRENGTH = 420 MPa
15. FOUNDATION IS DESIGNED BASED ON NATIONAL BUILDING CODE OF THE PHILIPPINES FOR AN ALLOWABLE SOIL BEARING CAPACITY OF 240KPa
16. FOUNDATION SHALL REST ON NATURAL SOIL. UNLESS OTHERWISE NOTED BY THE ENGINEER. NO PART OF THE FOUNDATION SHALL REST ON FILL
17. THE CONTRACTOR SHALL NOTIFY THE ENGINEER UPON COMPLETION OF FOUNDATION EXCAVATION FOR ACTUAL SOIL CONDITIONS WHICH DO NOT CONFORM TO THE BOA BEARING CAPACITY FOR PROPER REVISION.

20-00135



1 GENERAL SPECIFICATIONS

2 METERING POLE DETAILS

SCALE: NTS



Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:
PROPOSED UPGRADING OF SERVICE ENTRANCE
OF DON QUINTIN PAREDES HIGH SCHOOL
LOCATION: BARANGAY QUIRINO 2-B, DISTRICT 3, QUEZON CITY

DESIGNED BY: AND
DATE: NOVEMBER 01, 2020
CHECKED BY:
REVISIONS:

ENGR. LEO S. DEL ROSARIO
HEAD, PLANNING & PROGRAMMING DIVISION

RECOMMENDING APPROVAL:
ENGR. ISABANI R. VERZOSA, JR.
CIC, CITY ENGINEERING DEPARTMENT

APPROVED BY:
HON. MA. JOSEFINA G. BELMONTE
CITY MAJOR, QUEZON CITY

GENERAL
SPECIFICATIONS
METERING POLE
DETAILS

ST-01