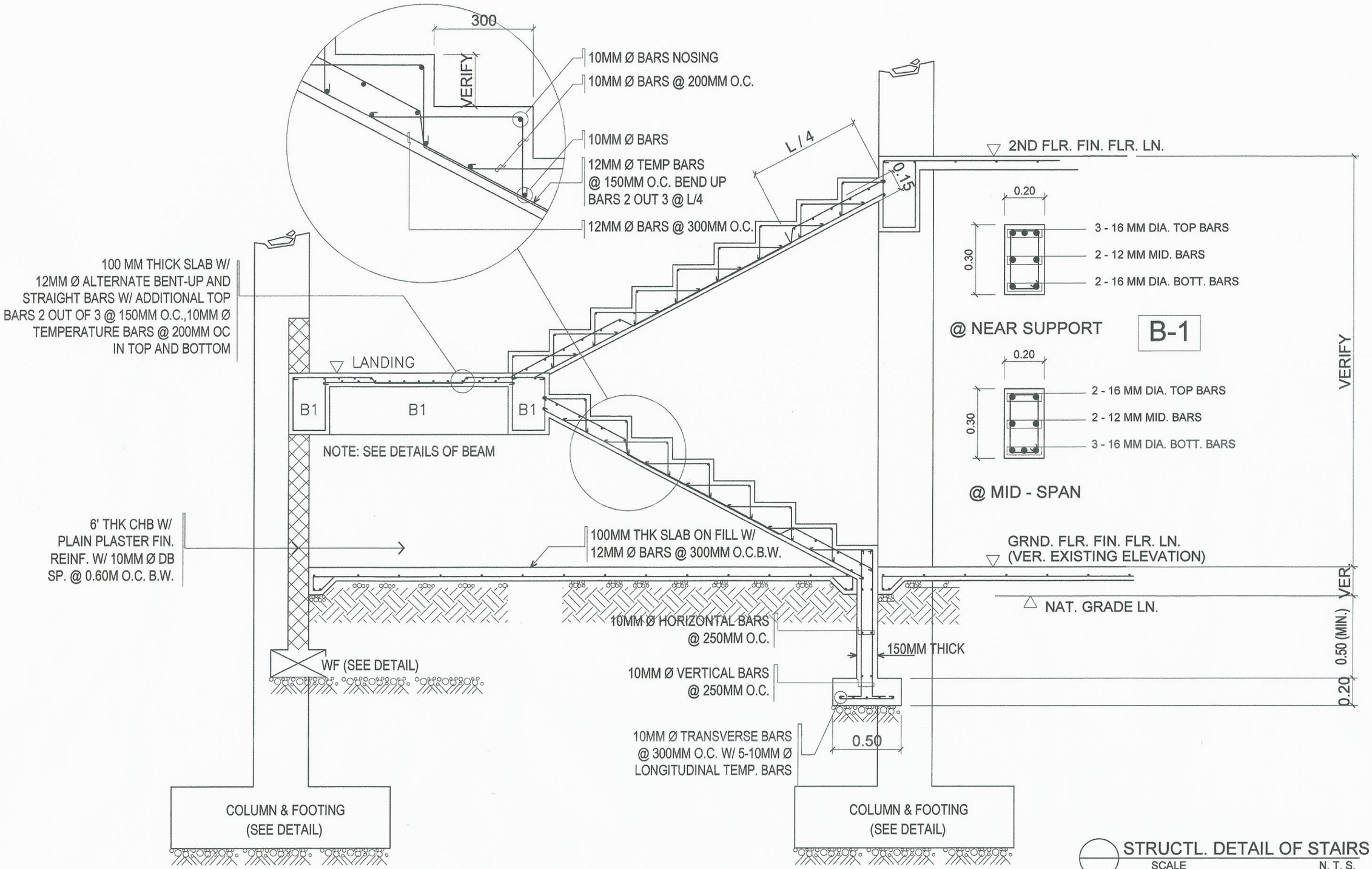


STRUCTL. DETAIL OF STAIRS
SCALE N. T. S.

Bid Bulletin No. 1. : HRM Hostel Building, Silang Campus

TO MDP OF EXISTING BUILDING
(200AT, 300AF, 3P, MCCB - SPARE)

3-30.0 sq. meter THHN wire + 14.0 THW (G)
IN 50 mm. dia. IMC CONDUIT PIPE

LP1
100AT, 100AF, 3P

SECOND FLOOR

3-22.0 sq. meter THHN wire + 8.0 THW (G)
IN 40 mm. dia. IMC CONDUIT PIPE

MDP
125AT, 200AF, 3P

LP1
100AT, 100AF, 3P

GENERATOR
15 kVA, 230V, 3P

MTS

2 - 125AT, 200AF, 3P

FIRST FLOOR

3-30.0 sq. meter THHN wire + 14.0 THW (G)
IN 50 mm. dia. IMC CONDUIT PIPE

3-22.0 sq. meter THHN wire + 8.0 THW (G)
IN 40 mm. dia. IMC CONDUIT PIPE

VERIFY HEIGHTS

ELECTRICAL SINGLE LINE DIAGRAM
(REVISED PLAN)

SCALE NTS

SCHEDULE OF LOADS AND COMPUTATIONS

PANEL : LP1 (LIGHTING AND POWER PANEL 1) **CABLE: 3 - 22.0 SQMM THHN+ 1 - 8.0 SQMM THW** **MAIN: 100AT, 100AF, 3P, 230V,MCCB, 20 KAIC**
CONDUIT: IMC, 40 MM DIA. **ENCLOSURE : NEMA 1**
PHASE: 3 **MOUNTING: SURFACE**
VOLTS: 230 **LOCATION: GROUND FLOOR**

CKT NO.	CIRCUIT DESCRIPTION	NO. OF OUTLET	LOAD IN RATING					CIRCUIT PROTECTION	Size of Conductor		Size Of Conduit In MM ø	Color Code
			Volt- Amp	VOLT	AMPERES AB	AMPERES CA	AMPERES BC	CIRCUIT BREAKER RATING	SQ. MM THHN	SQ. MM THW(G)		
1	LIGHTING OUTLET	16	1600	230	6.96			15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1R,1B
2	LIGHTING OUTLET	12	1200	230	5.22			15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1R,1B
3	LIGHTING OUTLET	12	1200	230		5.22		15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1B,1Y
4	LIGHTING OUTLET	16	1600	230		6.96		15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1B,1Y
5	LIGHTING OUTLET	7	700	230			3.04	15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1Y,1R
6	LIGHTING OUTLET	8	800	230			3.48	15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1Y,1R
7	CONVENIENCE OUT OUTLET	9	1620	230	7.04			20AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1R,1B,G
8	CONVENIENCE OUT OUTLET	9	1620	230	7.04			20AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1R,1B,G
9	CONVENIENCE OUT OUTLET	8	1440	230		6.26		20AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1B,1Y,G
10	SPECIAL PURPOSE OUTLET	1	1500	230		6.52		20AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1B,1Y,G
11	SPECIAL PURPOSE OUTLET	1	1500	230			6.52	20AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1Y,1R,G
12	SPECIAL PURPOSE OUTLET	1	1500	230			6.52	20AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1Y,1R,G
13	SPECIAL PURPOSE OUTLET	1	1500	230	6.52			20AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1R,1B,G
	SPARE											
14	Airconditioning Unit - 2.5 hp	1	1865	230		14.00		40AT, 2P, 230V, MCCB	2 - 5.5	+ 1 - 2.0 G	PVC, 20	1B,1Y,G
	SPARE											
15	Airconditioning Unit - 2.5 hp	1	1865	230			14.00	40AT, 2P, 230V, MCCB	2 - 5.5	+ 1 - 2.0 G	PVC, 20	1Y,1R,G
	SPARE											
	TOTAL		21510	230	33	39	34	100AT, 100AF, 3P, 230V,MCCB, 20 KAIC	3 - 22.0	+ G 8.0	IMC, 40	1R,1B,1Y,G

MAIN FEEDER and CURRENT PROTECTION COMPUTATION:

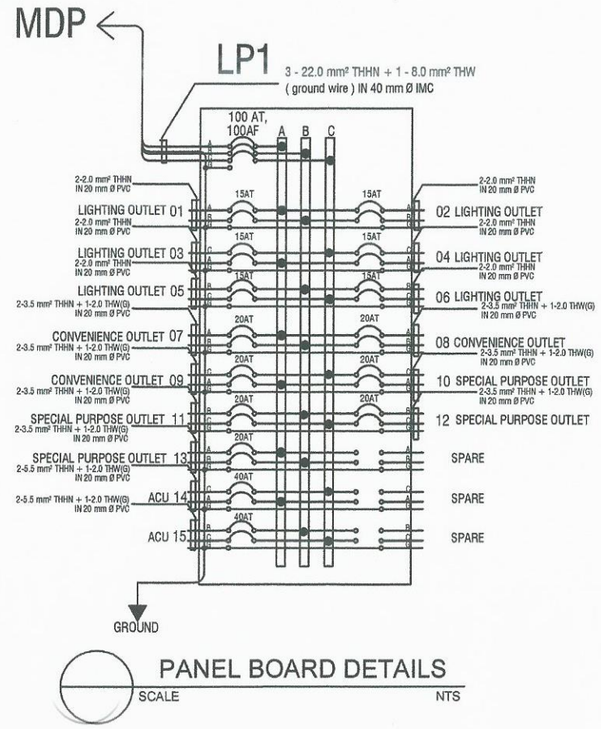
NOTE:

I_{FL} = [(39 x 1.732) + (25% x Im)] DF = 56.84 *Amperes*

I_{CB} = [(39 x 1.732) + (250% x Im)] DF = 82.04 *Amperes*

G - Means Ground Wire
1R- Color RED — **use: 3 - 22.0 SQMM THHN+ 1 - 8.0 SQMM THW IN 40 MM DIA. IMC**
1B- Color BLACK — **use: 100AT, 100AF, 3P, 230V,MCCB, 20 KAIC**
1Y- Color YELLOW
1G- Color GREEN

This Electrical Design is good only for the above connected loads.
Any additional electrical load connection in the future is not allowed,
Except redesign of electrical load system will be done.



PANEL BOARD DETAILS
SCALE NTS

PANEL : LP2 (LIGHTING AND POWER PANEL 2) **CABLE: 3 - 22.0 SQMM THHN+ 1 - 8.0 SQMM THW** **MAIN: 100AT, 100AF, 3P, 230V,MCCB, 20 KAIC**
CONDUIT: IMC, 40 MM DIA. **ENCLOSURE : NEMA 1**
PHASE: 3 **MOUNTING: SURFACE**
VOLTS: 230 **LOCATION: SECOND FLOOR**

CKT NO.	CIRCUIT DESCRIPTION	NO. OF OUTLET	LOAD IN RATING					CIRCUIT PROTECTION	Size of Conductor		Size Of Conduit In MM ø	Color Code
			Volt- Amp	VOLT	AMPERES AB	AMPERES CA	AMPERES BC	CIRCUIT BREAKER RATING	SQ. MM THHN	SQ. MM THW(G)		
1	LIGHTING OUTLET	14	1400	230	6.09			15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1R,1B
2	LIGHTING OUTLET	14	1400	230	6.09			15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1R,1B
3	LIGHTING OUTLET	14	1400	230		6.09		15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1B,1Y
4	LIGHTING OUTLET	13	1300	230		5.65		15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1B,1Y
5	LIGHTING OUTLET	15	1500	230			6.52	15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1Y,1R
6	LIGHTING OUTLET	12	1200	230			5.22	15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1Y,1R
7	CONVENIENCE OUT OUTLET	7	1260	230	5.48			20AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1R,1B,G
8	CONVENIENCE OUT OUTLET	10	1800	230	7.83			20AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1R,1B,G
9	CONVENIENCE OUT OUTLET	9	1620	230		7.04		20AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1B,1Y,G
10	Airconditioning Unit - 1.5 hp	1	1119	230		10.00		30AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1B,1Y,G
11	Airconditioning Unit - 1.5 hp	1	1119	230			10.00	30AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1Y,1R,G
12	Airconditioning Unit - 1.5 hp	1	1119	230			10.00	30AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1Y,1R,G
13	Airconditioning Unit - 1.5 hp	1	1119	230	10.00			30AT, 2P, 230V, MCCB	2 - 3.5	+ 1 - 2.0 G	PVC, 20	1R,1B,G
14	Airconditioning Unit - 1.5 hp	1	1119	230	10.00			30AT, 2P, 230V, MCCB	2 - 5.5	+ 1 - 2.0 G	PVC, 20	1R,1B,G
15	Airconditioning Unit - 1.5 hp	1	1119	230		10.00		30AT, 2P, 230V, MCCB	2 - 5.5	+ 1 - 2.0 G	PVC, 20	1B,1Y,G
16	Airconditioning Unit - 1.5 hp	1	1119	230		10.00		30AT, 2P, 230V, MCCB	2 - 5.5	+ 1 - 2.0 G	PVC, 20	1B,1Y,G
17	Airconditioning Unit - 1.5 hp	1	1119	230			10.00	30AT, 2P, 230V, MCCB	2 - 5.5	+ 1 - 2.0 G	PVC, 20	1Y,1R,G
18	Airconditioning Unit - 1.5 hp	1	1119	230			10.00	30AT, 2P, 230V, MCCB	2 - 5.5	+ 1 - 2.0 G	PVC, 20	1Y,1R,G
19	SPARE											
20	SPARE											
	TOTAL		22951	230	45	49	52	100AT, 100AF, 3P, 230V,MCCB, 20 KAIC	3 - 22.0	+ G 8.0	IMC, 40	1R,1B,1Y,G

MAIN FEEDER and CURRENT PROTECTION COMPUTATION:

NOTE:

I_{FL} = [(52 x 1.732) + (25% x Im)] DF = 74.05 *Amperes*

I_{CB} = [(52 x 1.732) + (250% x Im)] DF = 92.05 *Amperes*

G - Means Ground Wire
1R- Color RED — **use: 3 - 22.0 SQMM THHN+ 1 - 8.0 SQMM THW IN 40 MM DIA. IMC**
1B- Color BLACK — **use: 100AT, 100AF, 3P, 230V,MCCB, 20 KAIC**
1Y- Color YELLOW
1G- Color GREEN

This Electrical Design is good only for the above connected loads.
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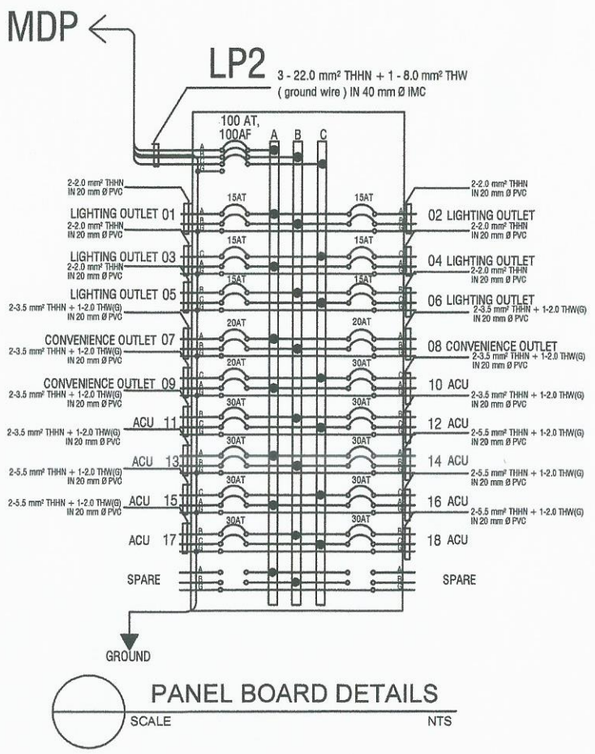
Except redesign of electrical load system will be done.



PANEL BOARD DETAILS
SCALE NTS

BID BULLETIN NO. 1 : HRM HOSTEL BUILDING - SILANG CAMPUS

PANEL : MDP (MAIN DISTRIBUTION PANEL) CABLE: 3 - 30.0 SQMM THHN + 1 - 14.0 SQMM THW MAIN: 125 AT, 200 AF, 3P, 230V, MCCB

CONDUIT: IMC, 50 MM DIA. ENCLOSURE : NEMA 1

PHASE: 3 MOUNTING: SURFACE

VOLTS: 230 LOCATION: GROUND FLOOR

CKT NO.	CIRCUIT DESCRIPTION	PANEL	LOAD IN RATING					CIRCUIT PROTECTION	Size of Conductor		Size Of Conduit In MM ø	Color Code
			Volt- Amp	VOLT	AB	CA	BC	CIRCUIT BREAKER RATING	SQ. MM THHN	SQ. MM THW(G)		
1	LIGHTING AND POWER PANEL 1	LP1	21510	230	33	39	34	100AT, 100AF, 3P, 230V,MCCB, 20 KAIC	3 - 22.0	G 8.0	IMC, 40	1R,1B,1Y,G
2	LIGHTING AND POWER PANEL 2	LP2	22951	230	45	49	52	100AT, 100AF, 3P, 230V,MCCB, 20 KAIC	3 - 22.0	G 8.0	IMC, 40	1R,1B,1Y,G
	SPARE											
	SPARE											
	TOTAL		44461	230	78	88	85	125AT, 200AF, 3P, 230V,MCCB, 50 KAIC	3 - 30.0	G 14.0	IMC, 50	1R,1B,1Y, G

MAIN FEEDER and CURRENT PROTECTION COMPUTATION:

NOTE:

I_{FL} = (88 x 1.732) DF = 121.93 *Amperes*

I_{CB} = (88 x 1.732) DF = 121.93 *Amperes*

G - Means Ground Wire
1R- Color RED
1B- Color BLACK
1Y- Color YELLOW
1G- Color GREEN

use: *3 - 30.0 SQMM THHN + 1 - 14.0 SQMM THW IN 50 MM DIA. IMC*

use: *125AT, 200AF, 3P, 230V,MCCB, 50 KAIC*

This Electrical Design is good only for the above connected loads.
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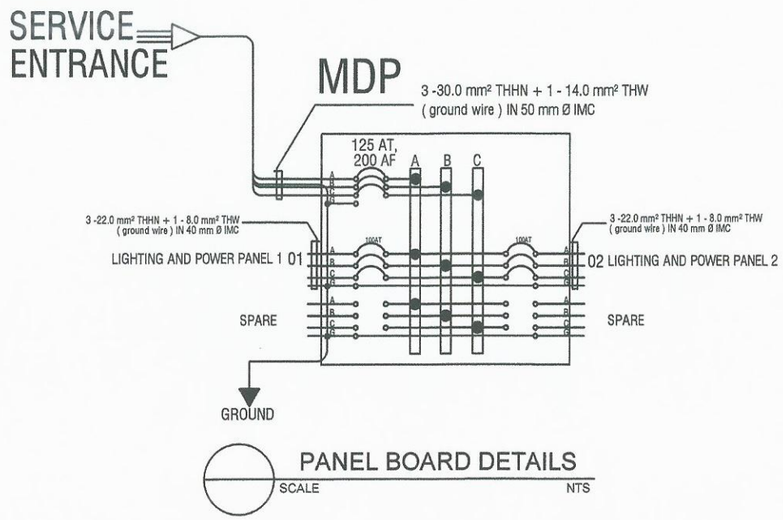
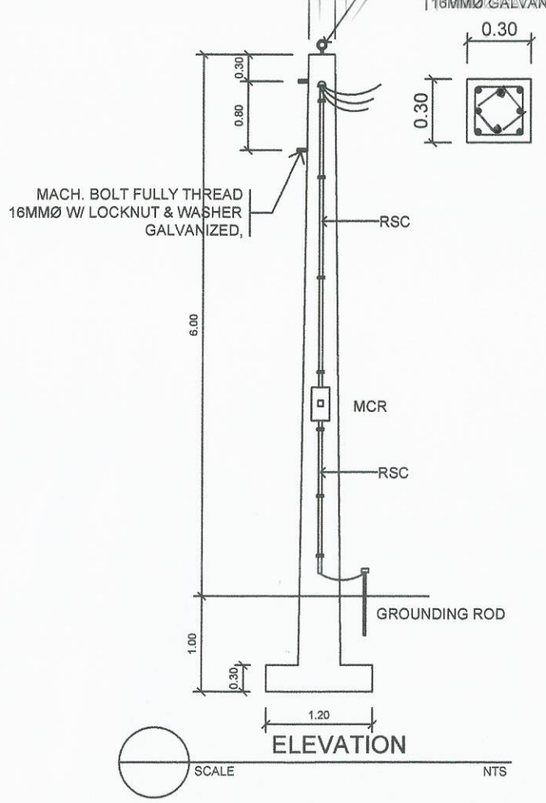
Except redesign of electrical load system will be done.



PANEL BOARD DETAILS

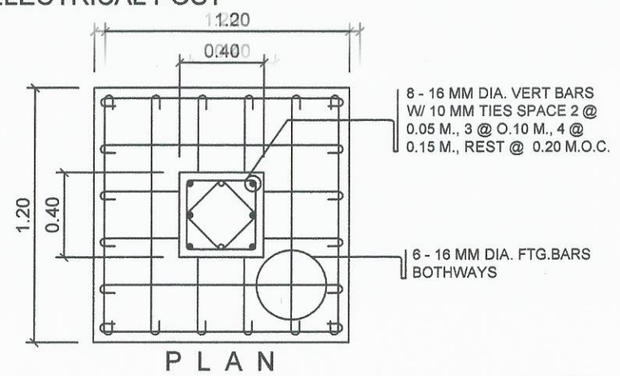
SCALE NTS

PROPOSED ELECTRICAL POST

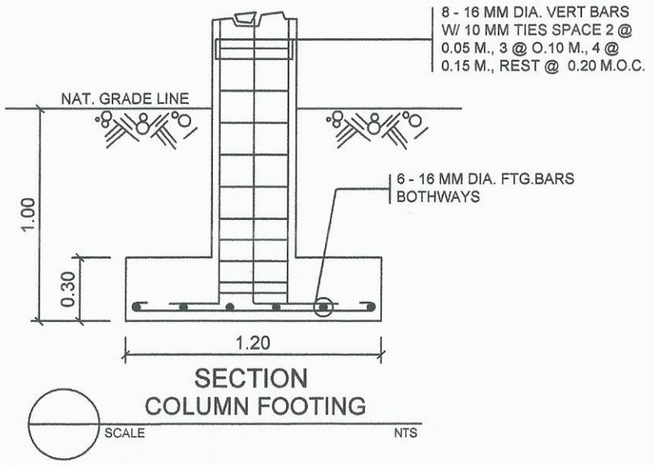


ELEVATION

SCALE NTS



PLAN



SECTION
COLUMN FOOTING

SCALE NTS

BID BULLETIN NO. 1 : HRM HOSTEL BUILDING - SILANG CAMPUS