

**GENERAL NOTES (APPLY TO ALL SHEETS)**

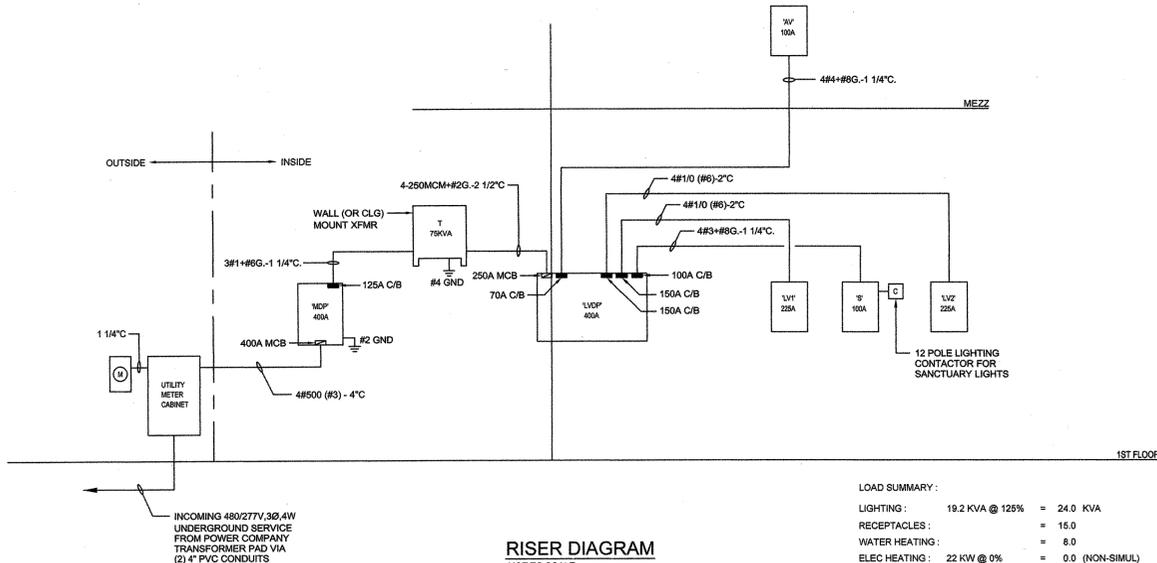
- FURNISH AND INSTALL A COMPLETE ELECTRICAL SYSTEM AS INDICATED ON DRAWINGS.
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF FIXTURES, EQUIPMENT AND WORK INCLUDED IN CONTRACT. CONSULT DRAWINGS OF ALL TRADES AND DETAILS FOR EXACT LOCATION OF FIXTURES AND EQUIPMENT. DO NOT SCALE DRAWINGS. CIRCUITING AND CIRCUIT NUMBERS SHOWN ON PLANS IS FOR COORDINATION PURPOSES. FIELD VERIFY AND COORDINATE CIRCUITING WITH EXISTING FIELD CONDITIONS. WHERE DEVIATIONS ARE FOUND, REDLINE AS-BUILT CONDITIONS ON PLANS FOR ENGINEER AND OWNER.
- FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF ALL TRADES FOR RELATED AND ADJOINING WORK AND TO VERIFY SPACES IN WHICH WORK WILL BE INSTALLED.
- OBTAIN ALL PERMITS AND PAY ALL TAXES, FEES, AND OTHER COSTS IN CONNECTION WITH WORK.
- INCLUDE IN WORK, WITHOUT EXTRA COST TO OWNER, ANY LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS REQUIRED IN ORDER TO COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS, WHETHER OR NOT SHOWN ON DRAWINGS AND/OR SPECIFIED.
- ALL MATERIALS, FIXTURES, AND EQUIPMENT INSTALLED ON PROJECT SHALL BE U.L. LISTED AND BEAR A U.L. LABEL. ALL WORK SHALL CONFORM TO NATIONAL ELECTRICAL CODE (N.E.C.), ALL STATE AND LOCAL CODES, AND ELECTRICAL REQUIREMENTS AS ESTABLISHED BY STATE AND LOCAL FIRE MARSHAL. SHOULD ANY CHANGES BE NECESSARY IN DRAWINGS TO MAKE WORK COMPLY WITH THESE REQUIREMENTS, NOTIFY ARCHITECT.
- ON COMPLETION OF ENTIRE INSTALLATION, SECURE APPROVAL OF ARCHITECT AND OWNER, SUCH APPROVAL COVERING INSTALLATION THROUGHOUT. OBTAIN AND PAY FOR CERTIFICATE OF APPROVAL FROM PUBLIC AUTHORITIES HAVING JURISDICTION. SUBMIT A FINAL INSPECTION CERTIFICATE TO ARCHITECT PRIOR TO FINAL PAYMENT. PAY ANY AND ALL COSTS INCURRED FOR FEES.
- GUARANTEE, BY ACCEPTANCE OF THE CONTRACT, THAT ALL WORK INSTALLED WILL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS. IF DURING PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF PROJECT, ANY SUCH DEFECTS IN WORKMANSHIP, MATERIALS OR PERFORMANCE APPEAR, REMEDY SUCH DEFECTS, WITHOUT COST TO OWNER, WITHIN A REASONABLE TIME TO BE SPECIFIED IN WRITING FROM ARCHITECT. IN DEFAULT, OWNER MAY HAVE SUCH WORK DONE AND CHARGE COST TO CONTRACTOR.
- UNLESS SPECIFICALLY NOTED OTHERWISE, ALL BRANCH CIRCUITS SHALL BE CONCEALED, WHERE ALLOWED BY THE N.E.C. BRANCH CIRCUITS MAY BE TYPE AC CABLE (WITH INSULATED GROUND) OR TYPE MC CABLE. USE TYPE MC OR EMT CONDUITS WHERE NECESSARY IN ACCORDANCE WITH THE NEC, 1/2" EMT MINIMUM.
- ALL CONDUCTORS SHALL BE COPPER WIRE WITH A 600 VOLT INSULATION, TYPE THHN/THWN, OR XHHW, MINIMUM WIRE SIZE: GENERAL #12; OVER 100 FEET #10; OVER 200 FEET #8.
- SOLDERLESS CONNECTORS: N.E.C. STANDARD TYPE THAT DOES NOT EMPLOY A SETSCREW BEARING DIRECTLY ON CONDUCTOR.
- OUTLET BOXES - BEFORE LOCATING OUTLET BOXES, CHECK ALL OF ARCHITECTURAL DRAWINGS FOR TYPE OF CONSTRUCTION AND TO MAKE SURE THAT THERE IS NO CONFLICT WITH OTHER EQUIPMENT. OUTLET BOXES SHALL NOT INTERFERE WITH OTHER WORK OR EQUIPMENT. ALSO NOTE ANY DETAIL OF OUTLETS SHOWN ON DRAWINGS.
- OUTLET BOXES SHALL BE MADE OF GALVANIZED SHEET STEEL AND SHALL BE OF PROPER CODE SIZE FOR REQUIRED NUMBER OF CONDUCTORS.
- OUTLET BOXES SHALL BE MADE COMPLETE WITH RAISED DEVICE COVERS AS REQUIRED TO ACCEPT DEVICE INSTALLED. ALL OUTLET BOXES SHALL BE SECURELY FASTENED IN POSITION WITH EXPOSED EDGE OF RAISED DEVICE COVER SET FLUSH WITH FINISHED SURFACE.
- ALL EQUIPMENT AND MATERIAL SHALL BE NEW AND SHALL BEAR MANUFACTURER'S NAME AND TRADE NAME. EQUIPMENT AND MATERIAL SHALL BE ESSENTIALLY STANDARD PRODUCT OF A MANUFACTURER REGULARLY ENGAGED IN MANUFACTURE OF REQUIRED TYPE OF EQUIPMENT.
- RECEIVE AND PROPERLY STORE EQUIPMENT AND MATERIAL PERTAINING TO ELECTRICAL WORK. EQUIPMENT SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT, WATER, CHEMICAL OR MECHANICAL INJURY AND THEFT. MANUFACTURER'S DIRECTIONS SHALL BE FOLLOWED COMPLETELY IN THE DELIVERY, STORAGE, PROTECTION AND INSTALLATION OF ALL EQUIPMENT AND MATERIALS.
- PAY FOR ALL DAMAGE CAUSED BY CONTRACTOR WORK OR WORKMEN. REPAIRING OF SUCH DAMAGE SHALL BE DONE BY WORKMEN SKILLED IN TRADE REQUIRED FOR REPAIR AND SHALL BE PERFORMED ACCORDING TO DIRECTIONS OF ARCHITECT.
- CLEAN AWAY ALL DEBRIS AND SURPLUS MATERIALS RESULTING FROM ALL TRADES FOR RELATED AND ADJOINING WORK AND TO VERIFY SPACES IN WHICH WORK WILL BE INSTALLED.
- FOR EXISTING ELECTRICAL PANELS, PROVIDE TYPED SCHEDULE OF CIRCUITS TO INDICATE CIRCUIT ARRANGEMENT AT END OF WORK.
- GROUND ENTIRE SYSTEM WITH AN INSULATED, SOLID GREEN, COPPER CONDUCTOR SIZED IN ACCORDANCE WITH N.E.C., LOCAL AND STATE CODES, AND REQUIREMENTS OF EQUIPMENT MANUFACTURERS.
- FIELD COORDINATE LOCATIONS OF OUTLETS, FLOOR OUTLETS AND ELECTRIC CIRCUITING IN FIELD TO AVOID CONFLICTS WITH ADJACENT WORK AND EQUIPMENT.
- FIRE ALARM SUBMITTALS - SUBMIT FOR FIRE MARSHAL APPROVAL
  - PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.
  - SHOP DRAWINGS.
  - WIRING DIAGRAMS: DETAIL WIRING AND DIFFERENTIATE BETWEEN MANUFACTURER-INSTALLED AND FIELD-INSTALLED WIRING. INCLUDE DIAGRAMS FOR EQUIPMENT AND FOR SYSTEM WITH ALL TERMINALS AND INTERCONNECTIONS IDENTIFIED.
  - BATTERY: SIZING CALCULATIONS.
  - FLOOR PLANS: INDICATE FINAL OUTLET LOCATIONS AND ROUTINGS OF RACEWAY CONNECTIONS. FLOOR PLANS SHALL BE PREPARED BY CONTRACTOR AND STAMPED, IF REQUIRED, BY CONTRACTOR'S PROFESSIONAL ENGINEER OR CERTIFIED BY CONTRACTOR'S NICET LEVEL III TECHNICIAN, CONTRACT AND PERMIT DRAWINGS. ELECTRICAL PLANS ARE NOT ACCEPTABLE FOR THIS PURPOSE. UPON REQUEST, VEV ENGINEERS WILL PROVIDE ELECTRONIC FILES FOR CONTRACTOR'S USE.
  - SYSTEM OPERATION DESCRIPTION: DETAILED DESCRIPTION FOR THIS PROJECT, INCLUDING METHOD OF OPERATION AND SUPERVISION OF EACH TYPE OF CIRCUIT AND SEQUENCE OF OPERATIONS FOR MANUALLY AND AUTOMATICALLY INITIATED SYSTEM INPUTS AND OUTPUTS.
  - PROVIDE CERTIFICATION FOR CENTRAL STATION MONITORING SERVICE.

**LOAD SUMMARY:**

LIGHTING:	19.2 KVA @ 125% =	24.0 KVA
RECEPTACLES:	=	15.0
WATER HEATING:	=	8.0
ELEC HEATING:	22 KW @ 0% =	0.0 (NON-SIMUL)
VENT & AC:	=	72.5
OTHER:	=	15.9
		<b>135.9 KVA</b>

@ 480V, 3Ø = 167 AMPERES

**RISER DIAGRAM**  
NOT TO SCALE



**SYMBOLS LIST**

- 2'x4' RECESSED FLUORESCENT LIGHTING FIXTURE. ● = EMERGENCY FIXTURE, PROVIDE BATTERY BACK-UP TYPE BALLAST, CONNECTED AHEAD OF LOCAL SWITCH.
- RECESSED FLUORESCENT DOWNLIGHT. ● = EMERGENCY FIXTURE, PROVIDE BATTERY BACK-UP TYPE BALLAST, CONNECTED AHEAD OF LOCAL SWITCH.
- PENDANT LIGHTING FIXTURE.
- EXIT SIGN, BATTERY BACK-UP TYPE CONNECTED AHEAD OF LOCAL SWITCH.
- § SINGLE POLE TOGGLE SWITCH, LEVITON CSB1-20, +42" A.F.F. COLOR AND DEVICE PLATE SHALL BE WHITE.
- § OCCUPANCY SENSOR, WITH "ON-OFF", LEVITON CSB1-20, +42" A.F.F. COLOR AND DEVICE PLATE SHALL BE WHITE.
- § KEY OPERATED SWITCH (FOR HID LIGHTS).
- § MANUAL MOTOR SWITCH.
- § SMALL SUBSCRIPT INDICATES LIGHTING FIXTURE CONTROL.
- 'A' LARGE SUBSCRIPT INDICATES LIGHTING FIXTURE TYPE, SEE LIGHTING FIXTURE SCHEDULE.
- Ⓛ DUPLEX RECEPTACLE, SEE POWER PLAN NOTE 1.
- Ⓛ GFI GROUND FAULT INTERRUPTER (GFI) DUPLEX RECEPTACLE, SEE POWER PLAN NOTE 1.
- Ⓛ GFI RECEPTACLE IN CAST GASKETED WEATHER PROOF BOX.
- Ⓛ TELEPHONE DATA OUTLET, SINGLE-GANG OUTLET BOX WITH PLASTER RING AND PULL STRING TO ABOVE CEILING, +18" A.F.F. UNLESS OTHERWISE NOTED.
- Ⓛ FIRE ALARM MANUAL PULL STATION, +48" A.F.F.
- Ⓛ FIRE ALARM EVACUATION ALARM (SPEAKER)/STROBE, +68" A.F.F.
- Ⓛ FIRE ALARM EXTERIOR BELL.
- Ⓛ FIRE ALARM FLASHING STROBE LIGHT, +68" A.F.F.
- Ⓛ FIRE ALARM EVACUATION SPEAKER, CEILING OR WALL MOUNT AS SHOWN.
- Ⓛ DUCT DETECTOR.
- Ⓛ IONIZATION AREA SMOKE DETECTOR.
- Ⓛ SPRINKLER WATERFLOW SWITCH.
- Ⓛ SPRINKLER TAMPER SWITCH.
- Ⓛ FIRE ALARM ANNUNCIATOR PANEL.
- Ⓛ FIRE ALARM CONTROL PANEL.
- Ⓛ MOTOR.
- Ⓛ DISCONNECT SWITCH, RATINGS AS NOTED.
- Ⓛ HEATER CONNECTION.
- Ⓛ TRANSFORMER.
- Ⓛ 277/480V PANELBOARD.
- Ⓛ 120/208V PANELBOARD.
- Ⓛ BRANCH CIRCUIT HOMERUN TO PANEL AND CIRCUIT BREAKER INDICATED.
- Ⓛ BRANCH CIRCUIT WIRING, NUMBER OF SLASH MARKS INDICATES NUMBER OF WIRES.
- Ⓛ A.F.F. ABOVE FINISHED FLOOR.

EXISTING ( )	NEW (✓)	PANEL NAME	MCP	FED FROM	SERVICE
NO.	NO.	NO.	NO.	NO.	NO.
1	1	PANEL LVDP	1	2	3
2	2	RTU1	1	2	3
3	3	RTU2	1	2	3
4	4	RTU3	1	2	3
5	5	RTU4	1	2	3
6	6	RTU5	1	2	3
7	7	EDH	1	2	3
8	8	EDH	1	2	3
9	9	EDH	1	2	3
10	10	EDH	1	2	3
11	11	EDH	1	2	3
12	12	EDH	1	2	3
13	13	EDH	1	2	3
14	14	EDH	1	2	3
15	15	EDH	1	2	3
16	16	EDH	1	2	3
17	17	EDH	1	2	3
18	18	EDH	1	2	3
19	19	EDH	1	2	3
20	20	EDH	1	2	3
21	21	EDH	1	2	3
22	22	EDH	1	2	3
23	23	EDH	1	2	3
24	24	EDH	1	2	3
25	25	EDH	1	2	3
26	26	EDH	1	2	3
27	27	EDH	1	2	3
28	28	EDH	1	2	3
29	29	EDH	1	2	3
30	30	EDH	1	2	3
31	31	EDH	1	2	3
32	32	EDH	1	2	3
33	33	EDH	1	2	3
34	34	EDH	1	2	3
35	35	EDH	1	2	3
36	36	EDH	1	2	3
37	37	EDH	1	2	3
38	38	EDH	1	2	3
39	39	EDH	1	2	3
40	40	EDH	1	2	3
41	41	EDH	1	2	3

TOTAL AIB 190.7 190.5 191.3 158.8 KVA

NOTES: ○ U.L. LISTED FOR SERVICE.

EXISTING ( )	NEW (✓)	PANEL NAME	LVDP	FED FROM	MCP
NO.	NO.	NO.	NO.	NO.	NO.
1	1	PANEL LVT	1	2	3
2	2	PANEL LVZ	1	2	3
3	3	PANEL SV	1	2	3
4	4	PANEL SV	1	2	3
5	5	SPACE (150 AF)	1	2	3
6	6	SPACE (150 AF)	1	2	3
7	7	SPACE (150 AF)	1	2	3
8	8	SPACE (150 AF)	1	2	3
9	9	SPACE (150 AF)	1	2	3
10	10	SPACE (150 AF)	1	2	3
11	11	SPACE (150 AF)	1	2	3
12	12	SPACE (150 AF)	1	2	3
13	13	SPACE (150 AF)	1	2	3
14	14	SPACE (150 AF)	1	2	3
15	15	SPACE (150 AF)	1	2	3
16	16	SPACE (150 AF)	1	2	3
17	17	SPACE (150 AF)	1	2	3
18	18	SPACE (150 AF)	1	2	3
19	19	SPACE (150 AF)	1	2	3
20	20	SPACE (150 AF)	1	2	3
21	21	SPACE (150 AF)	1	2	3
22	22	SPACE (150 AF)	1	2	3
23	23	SPACE (150 AF)	1	2	3
24	24	SPACE (150 AF)	1	2	3
25	25	SPACE (150 AF)	1	2	3
26	26	SPACE (150 AF)	1	2	3
27	27	SPACE (150 AF)	1	2	3
28	28	SPACE (150 AF)	1	2	3
29	29	SPACE (150 AF)	1	2	3
30	30	SPACE (150 AF)	1	2	3
31	31	SPACE (150 AF)	1	2	3
32	32	SPACE (150 AF)	1	2	3
33	33	SPACE (150 AF)	1	2	3
34	34	SPACE (150 AF)	1	2	3
35	35	SPACE (150 AF)	1	2	3
36	36	SPACE (150 AF)	1	2	3
37	37	SPACE (150 AF)	1	2	3
38	38	SPACE (150 AF)	1	2	3
39	39	SPACE (150 AF)	1	2	3
40	40	SPACE (150 AF)	1	2	3
41	41	SPACE (150 AF)	1	2	3

TOTAL AIB 151.7 151.1 155.0 84.8 KVA

LOAD SUMMARY:

LIGHTING:	10.2 KVA @ 125% =	12.7 KVA
ELEC HTS:	=	1.0
VENTILATION:	=	1.0
WTR HTG:	=	8.0
REPT:	10 KVA @ 100% =	10.0
OTHER:	11.0 @ 80% =	5.5
		<b>28</b>
		<b>51.8 KVA</b>

EXISTING ( )	NEW (✓)	PANEL NAME	SV	FED FROM	LVDP
NO.	NO.	NO.	NO.	NO.	NO.
1	1	RECEPTACLES	1	2	3
2	2	FLOOR RECEPTACLES	1	2	3
3	3	RECEPTACLES	1	2	3
4	4	FLOOR RECEPTACLES	1	2	3
5	5	RECEPTACLES	1	2	3
6	6	FLOOR RECEPTACLES	1	2	3
7	7	RECEPTACLES	1	2	3
8	8	FLOOR RECEPTACLES	1	2	3
9	9	RECEPTACLES	1	2	3
10	10	RECEPTACLES	1	2	3
11	11	RECEPTACLES	1	2	3
12	12	RECEPTACLES	1	2	3
13	13	RECEPTACLES	1	2	3
14	14	RECEPTACLES	1	2	3
15	15	RECEPTACLES	1	2	3
16	16	RECEPTACLES	1	2	3
17	17	RECEPTACLES	1	2	3
18	18	RECEPTACLES	1	2	3
19	19	RECEPTACLES	1	2	3
20	20	RECEPTACLES	1	2	3
21	21	RECEPTACLES	1	2	3
22	22	RECEPTACLES	1	2	3
23	23	RECEPTACLES	1	2	3
24	24	RECEPTACLES	1	2	3
25	25	RECEPTACLES	1	2	3
26	26	RECEPTACLES	1	2	3
27	27	RECEPTACLES	1	2	3
28	28	RECEPTACLES	1	2	3
29	29	RECEPTACLES	1	2	3
30	30	RECEPTACLES	1	2	3
31	31	RECEPTACLES	1	2	3
32	32	RECEPTACLES	1	2	3
33	33	RECEPTACLES	1	2	3
34	34	RECEPTACLES	1	2	3
35	35	RECEPTACLES	1	2	3
36	36	RECEPTACLES	1	2	3
37	37	RECEPTACLES	1	2	3
38	38	RECEPTACLES	1	2	3
39	39	RECEPTACLES	1	2	3
40	40	RECEPTACLES	1	2	3
41	41	RECEPTACLES	1	2	3

TOTAL AIB 34.1 31.1 48.1 15.1 KVA

EXISTING ( )	NEW (✓)	PANEL NAME	SV	FED FROM	LVDP
NO.	NO.	NO.	NO.	NO.	NO.
1	1	DEDICATED QUAD.	1	2	3
2	2	DEDICATED QUAD.	1	2	3
3	3	DEDICATED QUAD.	1	2	3
4	4	DEDICATED QUAD.	1	2	3
5	5	DEDICATED QUAD.	1	2	3
6	6	DEDICATED QUAD.	1	2	3
7	7	DEDICATED QUAD.	1	2	3
8	8	DEDICATED QUAD.	1	2	3
9	9	DEDICATED QUAD.	1	2	3
10	10	DEDICATED QUAD.	1	2	3
11	11	DEDICATED QUAD.	1	2	3
12	12	DEDICATED QUAD.	1	2	3
13	13	DEDICATED QUAD.	1	2	3
14	14	DEDICATED QUAD.	1	2	3
15	15	DEDICATED QUAD.	1	2	3
16	16	DEDICATED QUAD.	1	2	3
17	17	DEDICATED QUAD.	1	2	3
18	18	DEDICATED QUAD.	1	2	3
19	19	DEDICATED QUAD.	1	2	3
20	20	DEDICATED QUAD.	1	2	3
21	21	DEDICATED QUAD.	1	2	3
22	22	DEDICATED QUAD.	1	2	3
23	23	DEDICATED QUAD.	1	2	3
24	24	DEDICATED QUAD.	1	2	3
25	25	DEDICATED QUAD.	1	2	3
26	26	DEDICATED QUAD.	1	2	3
27	27	DEDICATED QUAD.	1	2	3
28	28	DEDICATED QUAD.	1	2	3
29	29	DEDICATED QUAD.	1	2	3
30					