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ELECTRICAL LEGEND

(NOTE: THIS IS A STANDARD LEGEND AND NOT ALL SYMBOLS ARE NECESSARILY USED.)

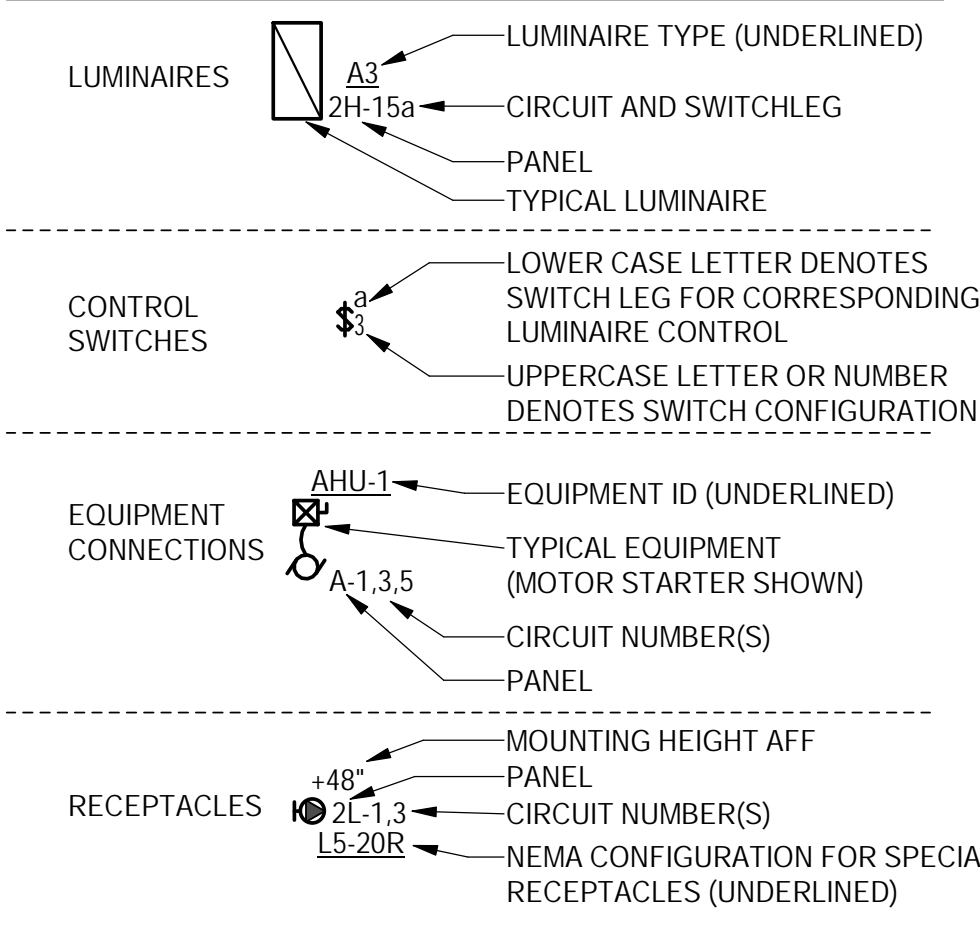
- EXTERIOR LIGHT FIXTURE, POLE MOUNTED, HEADS AS SHOWN
- PHOTOCCELL CONTROL
- LUMINAIRE - TYPE AS NOTED ON PLAN. INNER PARALLEL LINES REPRESENT REFLECTOR ORIENTATION.
- LUMINAIRE - WALL MOUNTED: TYPE AS NOTED ON PLAN
- LUMINAIRE - EMERGENCY LIGHT
- TRACK LIGHTING - TRACK LENGTH AS SCALED: TYPE AS NOTED ON PLAN
- EMERGENCY LIGHTING UNIT (WALL: CEILING; REMOTE HEAD)
- EXIT SIGN (CEILING OR WALL - SEE MODEL NUMBER); SHADE DENOTES FACE; ARROWS AS INDICATED
- COMBINATION EMERGENCY UNIT & EXIT SIGN (CEILING OR WALL - SEE MODEL NUMBER); SHADE DENOTES FACE; ARROWS AS INDICATED
- OCCUPANCY SENSOR LIGHTING CONTROL
- SWITCH - SINGLE POLE, SINGLE THROW, UON
- SWITCH LEGEND
 3 (THREE WAY); 4 (FOUR WAY); L (LOW VOLTAGE); D (DIMMER); K (KEYED); P (PILOT LIGHT); V (VARIABLE SPEED CONTROL); VS (VACANCY SENSOR); OS (OCCUPANCY SENSOR); T (INTEGRAL MOTOR OVERLOAD [WHERE FHP MOTOR REQUIRES AUTOMATIC CONTROL PROVIDE MOTOR RATED "RELAY IN BOX"])
- POWER DISTRIBUTION PANELBOARD
- METERING DEVICE
- POWER PANELBOARD
- TRANSFORMER: APPROX. PHYSICAL SIZE AS SCALED; ACTUAL RATING AS NOTED ON ONE-LINE DIAGRAMS
- MOTOR CONNECTION
- COMBINATION BATHROOM FAN/LIGHT: TYPE AS NOTED ON PLAN
- NON-FUSED SAFETY SWITCH / DISCONNECT
- FUSED SAFETY SWITCH / DISCONNECT
- ENCLOSED CIRCUIT BREAKER SWITCH
- MOTOR STARTER
- COMBINATION MOTOR STARTER SAFETY SWITCH / DISCONNECT
- PUSH BUTTON CONTROL STATION
- JUNCTION BOX OR EQUIPMENT CONNECTION - FLEX OR RECEPTACLE AS REQUIRED (CEILING; WALL; FLOOR)
- SIMPLEX RECEPTACLE
- DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE - SPLIT WIRED FOR SWITCH CONTROL OF LOWER OUTLET
- DUPLEX RECEPTACLE - GFCI PROTECTED
- DUPLEX RECEPTACLE - GFCI PROTECTED MOUNTED ABOVE COUNTERTOP
- DUPLEX RECEPTACLE - FLOOR MOUNTED
- DOUBLE DUPLEX RECEPTACLE - FLOOR MOUNTED
- RECEPTACLE - PENDANT MOUNTED FROM CEILING WITH KELLUM GRIPS
- RECEPTACLE - FLUSH MOUNTED IN CEILING
- RECEPTACLE - 3 POLE, 4 WIRE
- SPECIAL RECEPTACLE - COORDINATE EXACT NEMA CONFIGURATION IF NOT NOTED (SURFACE; WALL)
- GROUND CONNECTION POINT
- TELECOMMUNICATION OUTLET (WALL; FLOOR)
- TELEPHONE VOICE OUTLET
- TELEVISION OUTLET RG-6 QUAD SHIELD HOMERUN, UON
- CONTROL PANEL - TYPE AS NOTED (SURFACE; RECESSED)
- XXXX DENOTES AVAILABLE FAULT CURRENT

- LINETYPE/LINWEIGHT DENOTING FUTURE WORK
- LINETYPE/LINWEIGHT DENOTING EXISTING WORK TO REMAIN
- LINETYPE/LINWEIGHT DENOTING NEW WORK
- LINETYPE/LINWEIGHT DENOTING DEMO WORK

MOUNTING HEIGHT SCHEDULE	
EQUIPMENT	HEIGHT
PANELBOARDS (TOP)	72"
SPECIAL SYSTEM PANELS (TOP)	72"
POWER METER BASE (CENTER LINE OF SOCKET)	PER UTILITY
CONTACTORS, MOTOR STARTERS, DISCONNECT SWITCHES (TOP)	66"
RECEPTACLES IN OFFICE AREAS	18"
RECEPTACLES LOCATED IN HAZARDOUS OR S-2 OCCUPANCIES	24" MINIMUM
RECEPTACLES IN NON-FINISHED AND MECHANICAL SPACES	46"
ABOVE COUNTER/BACKSPLASH DEVICES (DENOTED "AC")	4" ABOVE
WALL MOUNTED SWITCHES	46"
TELECOMMUNICATION OUTLETS (WALL MOUNTED DENOTED "W")	18" (WALL MOUNTED 54")
CLOCK OUTLETS (BOTTOM)	80"
HORNS/STROBES/HORN STROBES/DOORBELL RINGER (BOTTOM)	80"
PULL STATIONS, PUSH BUTTONS, DOORBELL PUSHBUTTON	46"

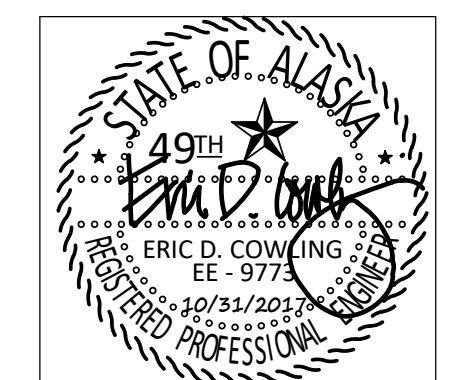
- SMOKE ALARM - MULTIPLE STATION 120VAC/9VDC
- SMOKE AND CARBON MONOXIDE ALARM - MULTIPLE STATION 120VAC/9VDC
- ALARM STROBE - MULTIPLE STATION 120VAC
- CARBON MONOXIDE ALARM - MULTIPLE STATION 120VAC/9VDC
- DUCT SMOKE DETECTOR REMOTE MONITOR/TEST STATION
- SMOKE DETECTOR - DUCT MOUNTED
- SMOKE DETECTOR - PHOTO ELECTRIC
- HEAT DETECTOR - RATE OF RISE
- HEAT DETECTOR - FIXED TEMPERATURE AS NOTED
- FIRE ALARM CONTROLLED MAGNETIC DOOR HOLDER / RELEASE
- FIRE ALARM HORN (WALL; CEILING)
- FIRE ALARM STROBE (WALL; CEILING)
- FIRE ALARM COMBINATION HORN/STROBE (WALL; CEILING)
- FIRE ALARM PULL STATION
- WATER FLOW BELL - 120V CONTROLLED BY FLOW SWITCH
- FIRE ALARM FLOW SWITCH
- FIRE ALARM TAMPER SWITCH
- DOOR ANNUNCIATOR STROBE
- DOOR ANNUNCIATOR HORN/STROBE
- DOOR MAGNET
- DOOR POSITION SENSOR
- REQUEST TO EXIT
- SECURITY CAMERA (FIXED POSITION)
- SECURITY CAMERA (PAN, TILT, ZOOM)

EQUIPMENT TAG LEGEND



ELECTRICAL SHEET LIST	
NUM	SHEET TITLE
E0.1	LEGEND
E0.2	SPECS.
E0.3	SCHEDULES
E1.1	CRAWLSPACE ELECTRICAL PLAN
E2.1	LEVEL 1 LIGHTING PLAN
E2.2	LEVEL 2 LIGHTING PLAN
E3.1	LEVEL 1 POWER AND SIGNAL PLAN
E3.2	LEVEL 2 POWER AND SIGNAL PLAN
E4.1	ONE-LINE DIAGRAMS, DETAILS, AND SCHEDULES
E5.1	PANEL SCHEDULES
E5.2	PANEL SCHEDULES
TOTAL SHEETS: 11	

ABBREVIATIONS	
(D)	DEMOLISH
(E)	EXISTING
(R)	RELOCATED
A	AMPERES
AC	ABOVE COUNTER/BACKSPLASH
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPS INTERRUPTING CAPACITY
AL	ALUMINUM
BJ	BONDING JUMPER
C	CONDUIT OR CELCIUS
CAT	CATEGORY
CB	CIRCUIT BREAKER
CO, C.O.	CONDUIT ONLY
CT	CURRENT TRANSFORMER
CU	COPPER
DISC	DISCONNECT
EGC	EQUIPMENT GROUNDING CONDUCTOR
ERCSP	ELEVATOR RECALL CONTROL AND SUPERVISORY PANEL
F	FARENHEIT
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FHP	FRACTIONAL HORSEPOWER
FLA	FULL LOAD AMPS
FSD	FIRE SMOKE DAMPER
FT	FEET
FU	FUSE
G, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GEC	GROUNDING ELECTRODE CONDUCTOR
GES	GROUNDING ELECTRODE SYSTEM
GFEP	GROUND FAULT EQUIPMENT PROTECTION
HP	HORSEPOWER
ID	IDENTIFICATION
IN	INCHES
KVA	KILOVOLT-AMPERE
KW	KILOWATT
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
MCA	MINIMUM CIRCUIT AMPACITY
MDP	MAIN DISTRIBUTION PANEL
MDS	MAIN DISTRIBUTION SWITCHBOARD
MFS	MAXIMUM FUSE SIZE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT (NOT IN SCOPE)
NO	NORMALLY OPEN
P	POLES
PC	PHOTO CELL
PH, Ø	PHASE
PNL	PANEL
PRI	PRIMARY
REC	RECEPTACLE
RIB	RELAY IN A BOX (MOTOR RATED)
SCCR	SHORT CIRCUIT CURRENT RATING
SE	SERVICE ENTRANCE RATED
SEC	SECONDARY
SSBJ	SUPPLY SIDE BONDING JUMPER
SSEBJ	SUPPLY SIDE EQUIPMENT BONDING JUMPER
SVC	SERVICE
TELECOM	TELECOMMUNICATION
TGB	TELECOMMUNICATION GROUNDING BUSBAR
TMGB	TELECOMMUNICATION MAIN GROUNDING BUSBAR
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLTS
VA	VOLTS-AMPERES
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS OR WIRE
WG	WIRE GUARD
WP	WEATHERPROOF (NEMA 4 RATED)
XFMR	TRANSFORMER



REVISIONS	NUM	DATE	DESCRIPTION

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E0.1

GENERAL REQUIREMENTS

26 05 00 - COMMON WORK REQUIREMENTS FOR ELECTRICAL:

- A. ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE, STATE, MUNICIPAL, FEDERAL LAWS, AND AMENDMENTS GOVERNING THE PROJECT. ALL WORK SHALL BE PERFORMED UNDER THE SUPERVISION OF A CERTIFIED ADMINISTRATOR JOURNEYMAN ELECTRICIAN. CONTRACTOR SHALL SUBMIT REQUEST FOR SUBSTITUTION IN WRITING TO THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED CONSTRUCTION PERMITS AND PAY ALL ASSOCIATED FEES. MATERIALS AND EQUIPMENT SHALL BE NEW COMMERCIAL GRADE AND ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED. ALL ELECTRICAL EQUIPMENT SHALL INCLUDE THE SEAL OF A NATIONALLY RECOGNIZED TESTING LABORATORY FOR THE PURPOSE FOR WHICH IT IS INSTALLED.
B. THE CONTRACTOR IS REQUIRED TO COORDINATE THE MINIMUM WORKING CLEARANCES REQUIRED BY THE NATIONAL ELECTRICAL CODE 110.26. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH ALL SUBCONTRACTORS SO THAT ENCROACHMENTS INTO THIS RESTRICTED SPACE ARE PREVENTED.
C. ALL CABLING, RACEWAYS, CABLE TIES AND COMPONENTS LOCATED IN CEILING SPACES THAT ARE PLENUMS SHALL BE PLENUM RATED.
D. PENETRATIONS OF FIRE BARRIERS: ALL ELECTRICAL PENETRATIONS THROUGH FIRE RATED BARRIERS SHALL BE SEALED IN ACCORDANCE WITH NEC ARTICLE 300.21. PROVIDE FIRE PUTTY AT ALL BOXES IN FIRE RATED WALLS. CONTRACTOR TO PROVIDE SUBMITTAL OF ALL FIRE RATING SYSTEMS TO BE USED. VAPOR BARRIERS: SEAL ALL VAPOR BARRIER PENETRATIONS TO MAINTAIN SYSTEM INTEGRITY.
E. ACCESS PANELS: PROVIDE ACCESS PANELS FOR ALL LOCATIONS NECESSARY TO ACCESS ELECTRICAL EQUIPMENT AND JUNCTION BOXES. ACCESS PANELS SHALL BE FIRE RATED EQUAL TO OR EXCEEDING THE ADJACENT WALL OR CEILING CONSTRUCTION AND PAINTED TO MATCH.
F. SEISMIC: CONTRACTOR TO PROVIDE DEFERRED SUBMITTAL FOR SEISMIC ANCHORING DESIGN FOR ALL EQUIPMENT OVER 400 POUNDS.

26 05 19 - POWER CONDUCTORS:

- A. ALL POWER AND CONTROL CONDUCTORS SHALL BE COPPER UNLESS NOTED OTHERWISE. ALL CONDUCTORS ROUTED IN UNHEATED SPACES OF THE BUILDING, UNDERGROUND, OR LOCATED OUTSIDE OF THE BUILDING ARE REQUIRED TO HAVE TYPE XHHW 90 DEGREE C INSULATION. ALL CONDUCTORS LOCATED IN HEATED SPACES CAN BE XHHW OR THHN 90 DEGREE C INSULATION UNLESS NOTED OTHERWISE. CONDUCTOR AMPACITY SHALL BE BASED ON TABLE 310-15(B)(1) OF THE NEC. USE 60-DEGREE C RATING COLUMN FOR CIRCUITS TERMINATING ON DEVICES RATED BELOW 100A. USE 75-DEGREE C RATING COLUMN FOR CIRCUITS TERMINATING ON DEVICES AND IN ENCLOSURES RATED 100A AND OVER. 90-DEGREE C RATING COLUMN CAN BE USED FOR DERATING CALCULATIONS ONLY. PROVIDE UNSHARED DEDICATED NEUTRAL FOR EACH CIRCUIT. TYPE NM CABLE IS ACCEPTABLE FOR CONCEALED INSTALLATION WITHIN RESIDENTIAL UNIT ONLY.
B. INSTALL IN ACCORDANCE WITH NEC REQUIREMENTS FOR AMBIENT TEMPERATURE DERATING, CONDUIT FILL DERATING AND BOX FILL. COLOR CODE CONDUCTORS BLACK, RED, WHITE, AND GREEN FOR 240/120V 1 PHASE 3 WIRE CIRCUITS. IDENTIFY GROUNDED CONDUCTORS PER NEC FOR ALL CIRCUITS.
C. MINIMUM SIZE CONDUCTORS FOR 15 AND 20 AMP BRANCH CIRCUITS MEASURED FROM THE PANELBOARD TO THE FURTHEST DEVICE ON THE CIRCUIT UNLESS OTHERWISE NOTED ON THE DRAWINGS.
120 VOLT BRANCH CIRCUITS:
12 AWG UP TO 75 FEET.
10 AWG 75 FEET TO 120 FEET.
8 AWG GREATER THAN 120 FEET.

26 05 33 - RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS:

- A. ALL CLASS 1 CIRCUITS SHALL BE INSTALLED IN CONCEALED METALLIC RACEWAY EXCEPT WHERE SPECIFICALLY INDICATED ELSEWHERE IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS. CLASS 2 CIRCUITS MAY BE INSTALLED IN CABLE TRAYS OR CAT 5 RATED J-HOOKS SPACED NO MORE THAN 4 FT APART WHERE NO CABLE TRAY IS DENOTED. WHERE WIRING OR CABLING IS ROUTED IN NON-ACCESSIBLE LOCATION, A RACEWAY SYSTEM IS TO BE PROVIDED.
- BELOW GRADE: PVC, HDPE OR RMC (RMC MUST BE USED FOR 90 DEGREE BENDS AND STUB UPS).
- EXPOSED INTERIOR: RMC, IMC, OR EMT.
- CONCEALED INTERIOR: RMC, IMC, EMT, OR MC CABLE. NM CABLE MAY BE USED WITHIN DWELLING UNITS ONLY.
- HAZARDOUS CLASSIFIED WIRING: RMC OR MC-HL. (CONDUIT SEALS PER NEC REQUIREMENTS).
- EXPOSED TO PHYSICAL DAMAGE (INSTALLED EXPOSED BELOW 8 FT): RMC. ALSO PROVIDE RMC FOR ALL PENETRATIONS AND STUB UPS FROM CONCRETE STRUCTURES AND FLOORS. PROVIDE 10 FT MINIMUM STUB OUT FROM UNDERGROUND LIGHT POLE BASES.
B. MAKE CONNECTIONS TO MOTORS, TRANSFORMERS AND OTHER EQUIPMENT WITH FLEXIBLE METAL CONDUIT (FMC) OF GALVANIZED STEEL. USE FITTINGS LISTED FOR USE WITH FLEXIBLE METAL CONDUIT OF ELECTRO ZINC GALVANIZED MALLEABLE IRON OR STEEL CONSTRUCTION. USE LIQUID TIGHT FLEXIBLE CONDUIT FOR ALL FLEXIBLE EXTERIOR LOCATIONS, WET LOCATIONS AND CONNECTIONS TO PUMPS.
C. CONCEAL ALL ELECTRICAL RACEWAYS, BOXES, CABLING, CONDUCTORS AND THE LIKE IN WALLS, BELOW FLOORS, SLABS OR ABOVE FINISHED CEILING SPACES. ELECTRICAL EQUIPMENT AND WIRING CAN BE EXPOSED IN MECHANICAL ROOMS, TELECOMMUNICATION ROOMS OR WHERE SPECIFICALLY NOTED. DO NOT ROUTE RACEWAYS ON THE EXTERIOR SURFACE OF THE BUILDING OR THE ROOF UNLESS SPECIFICALLY NOTED OTHERWISE.
D. PROVIDE ALL WIRING AND EQUIPMENT IN ELEVATOR PITS, WET OR EXTERIOR LOCATIONS USING EQUIPMENT AND WIRING METHODS RATED FOR WET ENVIRONMENTS.
E. BOXES: PROVIDE PULL AND JUNCTION BOXES AS REQUIRED PER NEC REQUIREMENTS RATED FOR THE ENVIRONMENT INSTALLED. BRANCH CIRCUIT JUNCTION BOXES TO BE ELECTRO-GALVANIZED, 4" SQUARE BY 1 1/2" DEEP MINIMUM FOR USE IN INTERIOR AREAS. PROVIDE 4 1/16" SQUARE BY 2 1/8" DEEP OUTLET BOXES FOR ALL VOICE AND DATA OUTLETS. DO NOT INSTALL BOXES BACK-TO-BACK IN WALLS. PROVIDE SEPARATION TO MINIMIZE SOUND TRANSFER. PROVIDE FIRE RATED PADS TO COVER EACH BOX IN FIRE RATED WALLS WHERE NECESSARY TO MAINTAIN FIRE WALL RATING.
F. RESIDENTIAL BOXES: PROVIDE PULL AND JUNCTION BOXES AS REQUIRED PER NEC REQUIREMENTS RATED FOR THE ENVIRONMENT INSTALLED. BRANCH CIRCUIT JUNCTION BOXES TO BE NON-METALLIC DEEP GANG AS NECESSARY. PROVIDE GASKETED VAPOR TIGHT BOXES WHERE VAPOR BARRIER IS PENETRATED BY INSTALLATION OF THE BOX. PROVIDE BOX AND SUPPORT SYSTEM FOR CEILING MOUNTED LIGHT BOXES IN THE BEDROOMS, DINING AND LIVING ROOM UL LISTED AND MARKED "FOR USE WITH CEILING FANS". PROVIDE TWO SWITCH LEGS AT THESE LOCATIONS FOR ALLOWING FAN AND LIGHT TO BE SEPARATELY SWITCHED IF INSTALLED IN FUTURE.

26 09 43 - LIGHTING CONTROL DEVICES:

- A. PHOTOELECTRIC CELL: ENCLOSED IN A WEATHER TIGHT ENCLOSURE WITH THREADED NIPPLE. THE ENCLOSURE SHALL BE SUITABLE FOR MOUNTING IN ANY POSITION WITH AN ADJUSTMENT SHIELD TO PERMIT ADJUSTMENT TO TURN-ON LIGHT LEVEL REQUIREMENTS.
B. LINE VOLTAGE WALL SENSORS: DUAL TECHNOLOGY, SELF ADJUSTING, AUTOMATIC DUAL MODE WITH MANUAL ON AUTO OFF CONFIGURATION.

26 24 16 - PANELBOARDS AND SWITCHBOARDS:

- A. BRANCH CIRCUIT: PROVIDE AND INSTALL CIRCUIT BREAKER TYPE FS W-P-115; TYPE I PANELBOARD OF THE RATING AND CONFIGURATION AS SHOWN ON THE SINGLE LINE DIAGRAM AND PANEL SCHEDULES. PROVIDE TYPED CIRCUIT DIRECTORY SHOWING CIRCUITING ARRANGEMENT. PROVIDE BREAKER HANDLE TIES ON ALL EXISTING AND NEW MULTIWIRE BRANCH CIRCUITS SHOWN ON DRAWINGS.
B. DISTRIBUTION: PROVIDE AND INSTALL I-LINE TYPE CIRCUIT BREAKER TYPE CLASS 1 PANELBOARD OR SWITCHBOARD OF THE RATING AND CONFIGURATION AS SHOWN ON THE SINGLE LINE DIAGRAM AND PANEL SCHEDULES.
C. COORDINATE AND PROVIDE THE EQUIPMENT WITH THE SHORT CIRCUIT CURRENT RATING (SCCR) FOR THE AVAILABLE FAULT CURRENT AT THE POINT OF THE SYSTEM WHERE INSTALLED.
D. PROVIDE BREAKER HANDLE TIES ON ALL EXISTING AND NEW MULTIWIRE BRANCH CIRCUITS.

26 27 13 - ELECTRICAL SERVICES:

- A. THE ELECTRICAL CONTRACTOR SHALL CONTACT EACH SERVING UTILITY CO. AND VERIFY EXACT SERVICE REQUIREMENTS FOR POWER, TELEPHONE AND CABLE TV. THE CONTRACTOR SHALL COORDINATE AND PROVIDE ALL REQUIREMENTS OF EACH SERVING UTILITY AND ALL EQUIPMENT SHALL CONFORM TO THE SERVING UTILITY STANDARDS AND REQUIREMENTS.

26 27 26 - WIRING DEVICES:

- A. DEVICE AND DEVICE PLATES: COORDINATE COLOR WITH OWNER. FINISHED AREAS-FLUSH SMOOTH PLASTIC WITH MATCHING SCREWS. UNFINISHED AREAS - RAISED GALVANIZED STEEL. EXTERIOR AREAS - DIE CAST METAL, POWDERCOAT FINISH, GASKETED, EXTRA DUTY RATED.
B. RECEPTACLES: COMMERCIAL GRADE, UL LISTED, NYLON FACE, BACK AND SIDE WIRED. INSTALL RECEPTACLES VERTICALLY WITH GROUNDING POLE ON BOTTOM UNLESS NOTED OTHERWISE.
1. DUPLEX RECEPTACLES: 2 POLE, 3 WIRE, 120V, 20 AMP STRAIGHT BLADE, UON.
2. EXTERIOR OR WET LOCATIONS: GFCI PROTECTED AND WEATHER RESISTANT MARKED "WR" ON FACE.
3. RESIDENTIAL: GENERAL PURPOSE - TAMPER RESISTANT 120V, 15 AMP. DEDICATED CIRCUITS - TAMPER RESISTANT 120V, 20 AMP.
4. GFCI: DUPLEX WITH CLASS 3 INTEGRAL GROUND FAULT CURRENT INTERRUPTER (GFCI). THE GFCI SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION OR PROVIDE GFCI BREAKER IN PANEL.
5. POWER RECEPTACLES: AMPERAGE/VOLTAGE/POLES AS DENOTED ON PLANS.
C. RESIDENTIAL RECEPTACLES: ALL NON-LOCKING-TYPE 120V, 15 & 20 AMP RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES. PROVIDE 20AMP UL LISTED RESIDENTIAL GRADE NEMA 5-20R DUPLEX GROUNDING BACK AND SIDE WIRED. PROVIDE DUPLEX RECEPTACLES WITH CLASS 3 INTEGRAL GROUND FAULT CURRENT INTERRUPTER (GFCI) AND SPECIFIC USE RECEPTACLES WHERE INDICATED ON THE DRAWINGS. THE GFCI SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION OR PROVIDE GFCI BREAKER IN PANEL. INSTALL RECEPTACLES VERTICALLY WITH GROUNDING POLE ON BOTTOM UNLESS NOTED OTHERWISE.
D. SWITCHES: PROVIDE 20 AMP, 120/277V AC, BACK AND SIDE WIRED CONFIGURED AS INDICATED ON THE DRAWINGS. PROVIDE NEUTRAL (GROUNDED CONDUCTOR) IN ALL SWITCH BOXES FOR EACH SWITCHED CIRCUIT TO ALLOW FUTURE TECHNOLOGIES TO BE INSTALLED WHICH REQUIRE NEUTRAL CONDUCTOR. DIMMING SWITCHES TO BE RATED AND CONFIGURED TO MATCH THE LOAD REQUIREMENTS.

26 51 00 - LUMINAIRES:

- A. PROVIDE AND INSTALL ALL LIGHTING EQUIPMENT AS SHOWN ON THE DRAWINGS AND DESCRIBED IN THE LIGHTING FIXTURE SCHEDULE. PROVIDE FLUORESCENT FIXTURES WITH RAPID START, CLASS P, CONSTANT WATTAGE, ELECTRONIC BALLASTS. EXTERIOR FIXTURES SHALL BE RATED FOR OPERATION AT LEAST -20 DEG F. PROVIDE LED FIXTURES WITH LONG-LIFE LED'S, COUPLED WITH HIGH EFFICIENCY DRIVERS, L80 PERFORMANCE FOR 50,000 HOURS. DIMMING BALLASTS SHALL BE FLICKER-FREE, LOW INRUSH, 89% EFFICIENT AND LOW EMI. PROVIDE COMPATIBLE DIMMER SWITCH TO DIMMER DRIVER.
B. CONNECT ALL EMERGENCY LIGHTING UNITS AND MODULES TO THE LOCAL AREA LIGHTING CIRCUITS AHEAD OF ANY SWITCHES OR RELAYS. LOCATE REMOTE TEST SWITCHES AND INDICATOR LIGHTS AS NECESSARY FOR TEST SWITCHES ON EMERGENCY MODULES.
C. MULTIWIRE BRANCH CIRCUITS ARE PROHIBITED FROM FEEDING EMERGENCY LIGHTS AND EMERGENCY UNIT EQUIPMENT.

27 15 00 - TELECOMMUNICATION DISTRIBUTION SYSTEM:

- A. SYSTEM PERFORMANCE: ALL RACEWAYS, JUNCTION BOXES, CABLES, DEVICE PLATES, PATCH PANELS, AND TERMINATIONS SHALL BE INSTALLED ACCORDING TO EIA/TIA CATEGORY 6 STANDARDS. PERFORM AND DOCUMENT TESTING ACCORDING TO EIA/TIA.
B. TELECOMMUNICATION BACKBOARD (TTB): ACX PLYWOOD PAINTED WITH FIRE RETARDANT PAINT 0.75"x4"x8 0.75"x4"x8" OR AS DENOTED ON THE DRAWINGS.
C. GROUNDING: PROVIDE 12"x4"x1/4" ISOLATED COPPER GROUND BUSBAR AT THE TTB AND EACH TELECOMMUNICATION ROOM.
D. RACEWAYS: ALL RACEWAYS SHALL BE 1" EMT MINIMUM. PROVIDE INNER DUCTS FOR BACKBONE CABLING CONDUITS. STUB CONDUITS FROM OUTLET LOCATIONS TO ACCESSIBLE CEILING SPACE FOR ROUTING HORIZONTAL CABLES. PROVIDE J-HOOK OR CABLE TRAY SUPPORT FOR ROUTING HORIZONTAL CABLING BACK TO TELECOM RACKS.
E. DEVICE PLATES: DEVICE PLATES SHALL BE SINGLE GANG PLASTIC FACEPLATE WITH OPENINGS FOR 4 COUPLERS MINIMUM AND FINISH/COLOR TO MATCH RECEPTACLE COLOR. PROVIDE RJ45 TYPE COUPLERS, QUANTITY AS NOTED ON DRAWINGS. BLANK OFF UNUSED COUPLER OPENINGS IN DEVICE PLATE.
F. HORIZONTAL CABLES: CABLES SHALL BE CATEGORY 6, PLENUM RATED, COLOR CODED, 4 UNSHIELDED TWISTED PAIRS WITH 24 AWG INSULATED SOLID COPPER CONDUCTORS.
G. BACKBONE CABLES: FIBER OPTIC BACKBONE CABLES SHALL BE 50 MICRON MULTI-MODE LOOSE-TUBE TYPE WITH NUMBER OF STRANDS NOTED ON THE DRAWINGS. FIBER OPTIC CABLES TO UTILIZE LC TYPE CONNECTORS. COPPER BACKBONE CABLES SHALL BE CATEGORY 3 24 AWG WITH NUMBER OF PAIRS NOTED ON THE DRAWINGS.
H. PATCH PANELS:
1. DATA - RACK MOUNTED 48 PORT, CAT 6, MODULAR PATCH PANELS. PROVIDE QUANTITY REQUIRED TO TERMINATE ALL HORIZONTAL CABLES.
2. VOICE (BACKBONE) - 66 BLOCK AT THE TTB CONNECTED TO RACK MOUNTED MODULAR PATCH AT EACH HORIZONTAL CABLE TERMINATION RACK. TERMINATE 1 PAIR ON EACH PORT ON THE MODULAR PATCH PANEL.
3. FIBER OPTIC - RACK MOUNTED, PORTS AS NECESSARY TO TERMINATE ALL FIBERS. TYPE LC CONNECTORS.
I. IDENTIFICATION: PROVIDE EQUIPMENT AND CABLE LABELING PER EIA/TIA 606 STANDARDS. LABEL EACH END OF CABLE AND DEVICE PLATE PORT WITH UNIQUE PORT NUMBER CORRESPONDING TO PATCH PANEL/PORT NUMBER TO WHICH IT IS CONNECTED.
J. EQUIPMENT RACKS: PROVIDE FLOOR MOUNTED 2 POST 19" OPEN FRAME 45 RU EQUIPMENT RACKS (CHATSWORTH #48353-703 OR EQUAL) IN MAIN TELECOM ROOM, QUANTITY AS NECESSARY TO ACCOMMODATE EQUIPMENT. PROVIDE 24" DEEP 25 RU WALL MOUNTED OPEN SWING FRAME EQUIPMENT RACK (MIDDLE ATLANTIC #SFR-25-24 OR EQUAL) IN SATELLITE TELECOM CLOSETS. PROVIDE EQUIPMENT RACKS WITH GROUND BUS, CABLE MANAGEMENT, AND MODULAR PATCH PANELS AS NECESSARY TO ACCOMMODATE ALL CABLE TERMINATIONS.
K. TESTING: PROVIDE TESTING OF EACH UTP HORIZONTAL CABLE, FIBER OPTIC BACKBONE CABLE, AND COPPER BACKBONE CABLE ACCORDING TO EIA/TIA STANDARDS.

28 31 11 - SMOKE ALARM/CO DETECTION EQUIPMENT:

- A. SYSTEM DESCRIPTION: PROVIDE MULTI-STATION TANDEM WIRED 120V WITH 9VDC BACKUP POWER SMOKE DETECTORS AND COMBINATION SMOKE DETECTOR WITH CO SENSOR (LOCATED ON EACH LEVEL AND OUTSIDE EACH BEDROOM) WITH INTEGRAL SOUNDER BASES. PROVIDE VISUAL STROBES IN ALL HANDI-CAP DESIGNATED UNITS.

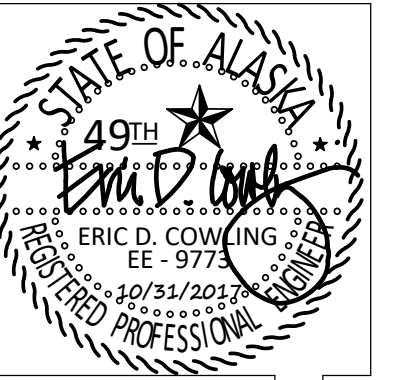


Table with 2 columns: REVISIONS, NUM, DATE, DESCRIPTION

SAJJ ARCHITECTURE, LLC
550 E. TUDOR #202, ANCHORAGE, ALASKA 99503
SCOTT A. JONES #907-440-6606 #907-258-6606 (FAX)

OUZINKIE OFFICE
OUZINKIE NATIVE CORP.
SPRUCE ISLAND, ALASKA

DR: KMM
CK: EDC
DT: 10/31/2017
JB: OUZINKIE
DWG: SPECS.

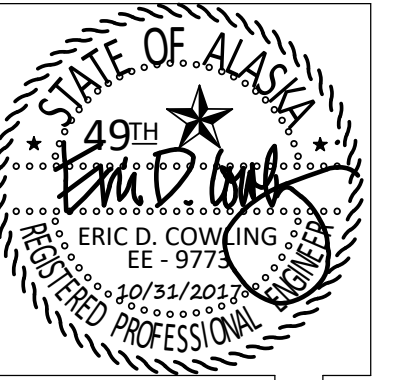
EIC ENGINEERS, INC
ELECTRICAL ENGINEERS
EIC JOB NO: E16-2514
CORP. #AECC1105
6927 OLD SEWARD HWY
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ANCHORAGE, AK 99518
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E0.2

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qc:11/01/2017 14:57:44 ; fc-0; 1;9;12;11;14;0;9142;[O]

"11X17 DRAWINGS ARE HALF THE INDICATED SCALE"

* 31 OCTOBER 2017 * BID SET *



REVISIONS	NUM.	DATE	DESCRIPTION

SAJJ ARCHITECTURE, LLC
 550 E. TUDOR #202, ANCHORAGE, ALASKA 99503
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OUZINKIE OFFICE
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DR: KMM
 CK: EDC
 DT: 10/31/2017
 JB: OUZINKIE
 DWG: SCHEDULES

E0.3

EIC ENGINEERS, INC
 ELECTRICAL ENGINEERS

EIC JOB NO: E16-2514
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6927 OLD SEWARD HWY
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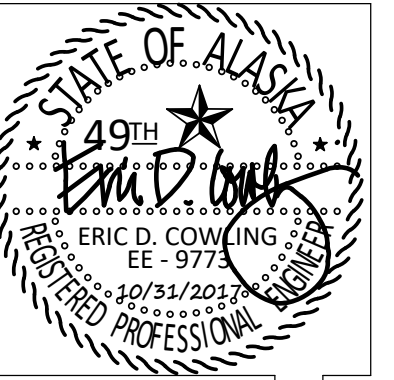
EQUIPMENT CONNECTION SCHEDULE												
NOTES												
(KEY) (x) DENOTES A GENERAL, NON-REFERENCED, NOTE. NUMBERED NOTES ARE REFERENCED IN THE SCHEDULE.												
(A) QUANTITIES/COUNTS SHOWN IN SCHEDULES ARE FOR CONVENIENCE ONLY. CONTRACTOR TO VERIFY ALL QUANTITIES/COUNTS FROM PLANS.												
(B) REFER TO FLOOR PLAN DRAWINGS FOR EQUIPMENT TYPE REQUIREMENTS, LOCATIONS AND QUANTITIES.												
(C) COORDINATE ALL CONNECTION REQUIREMENTS WITH ACTUAL EQUIPMENT SUPPLIED PRIOR TO ROUGH-IN.												
1 NOT USED.												
SCHEDULE												
QTY	EQUIP ID	LOCATION OR FUNCTION	KVA	HP	FLA	MCA	MFS	V	PH	FEEDER (MINIMUM) CU UON	NOTES	
1	ACCU-1	HEAT PUMP OUTDOOR UNIT	6.960			29		240	1	0.75°C, (2)8 AWG, (1)10 AWG EGC		
1	ACCU-2	HEAT PUMP OUTDOOR UNIT	6.960			29		240	1	0.75°C, (2)8 AWG, (1)10 AWG EGC		
1	BLR-1	BOILER	1.440					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	BLR-2	BOILER	1.440					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
3	CEF-1	EXHAUST FAN	0.020	FHP				120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	CP-1A	PRIMARY HYDRONIC PUMP	0.800					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	CP-1B	PRIMARY HYDRONIC PUMP	0.800					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	CP-21	BOILER CIRCULATION PUMP	0.500	1/6				120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	CP-22	BOILER CIRCULATION PUMP	0.500	1/6				120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	CP-31	WATER HEATER HEATING CIRCULATION PUMP	0.500	1/6				120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	CP-32	DOMESTIC HOT WATER CIRCULATION PUMP	0.500	1/6				120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	CP-41	WATER HEATER HEATING CIRCULATION PUMP	0.200					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
2	DRYER	DRYER, 30A/2P BRKR	5.000					240	1	0.75°C, (3)10 AWG, (1)10 AWG EGC		
2	EF-1	EXHAUST FAN	0.120					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
3	EF-1R	EXHAUST FAN	0.120					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	EF-2	EXHAUST FAN	0.200	FHP				120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
2	EF-3	EXHAUST FAN	0.200	FHP				120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	EF-4	EXHAUST FAN	0.200	FHP				120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	EF-5	EXHAUST FAN	0.200	FHP				120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
2	EF-6	LAUNDRY DRYER BOOSTER FAN	0.200	FHP				120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	EF-7	EXHAUST FAN	0.200	FHP				120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	FCU-11	CEILING RECESSED CASSETTE FAN COIL UNIT	0.250					240	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	FCU-12	CEILING RECESSED CASSETTE FAN COIL UNIT	0.250					240	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	FCU-13	CEILING RECESSED CASSETTE FAN COIL UNIT	0.250					240	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	FCU-21	CEILING RECESSED CASSETTE FAN COIL UNIT	0.250					240	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	FCU-22	CEILING RECESSED CASSETTE FAN COIL UNIT	0.250					240	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	FCU-23	CEILING RECESSED CASSETTE FAN COIL UNIT	0.250					240	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	HD-1	HOOD	1.200					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
3	HD-1R	HOOD	1.200					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	HRV-1	HEAT RECOVERY VENTILATOR	4.368					240	1	0.75°C, (2)10 AWG, (1)10 AWG EGC		
2	HT-1	DRAIN PAN HEAT TRACE	0.100					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	KEF-1	EXHAUST FAN	0.200	FHP				120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	LIFT	LIFT	1.440					240	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	OVEN	OVEN, 50A/2P BRKR	9.600					240	1	1°C, (3)6 AWG, (1)10 AWG EGC		
3	RANGE	RANGE, 50A/2P BRKR	8.000					240	1	1°C, (3)6 AWG, (1)10 AWG EGC		
1	RMB-1	RADIANT FLOOR SYSTEM ZONE PUMP	0.300					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	RMB-2	RADIANT FLOOR SYSTEM ZONE PUMP	0.300					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	RMB-3	RADIANT FLOOR SYSTEM ZONE PUMP	0.300					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	RMB-4	RADIANT FLOOR SYSTEM ZONE PUMP	0.300					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
2	SCREEN	PROJECTOR SCREEN	0.500					120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		
1	UH-1	UNIT HEATER	0.200	FHP				120	1	0.5°C, (2)12 AWG, (1)12 AWG EGC		

LUMINAIRE SCHEDULE						
NOTES						
(KEY) (x) DENOTES A GENERAL, NON-REFERENCED, NOTE. NUMBERED NOTES ARE REFERENCED IN THE SCHEDULE.						
(A) QUANTITIES/COUNTS SHOWN IN SCHEDULES ARE FOR CONVENIENCE ONLY. CONTRACTOR TO VERIFY ALL QUANTITIES/COUNTS FROM PLANS.						
(B) CATALOG NUMBERS ARE FOR GENERAL REFERENCE AND ARE NOT INCLUSIVE OF ALL OPTIONS OR REQUIREMENTS DENOTED ON PLANS AND SPECIFICATIONS.						
(C) REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND PROVIDE MOUNTING HARDWARE/FLANGES ETC FOR ALL LUMINAIRES FOR CEILING TYPES SHOWN.						
(D) LUMINAIRES NOTED ON THE FLOOR PLANS AS 'NL' (NIGHTLIGHT) SHALL BE CONNECTED TO UNSWITCHED POWER CIRCUIT NOTED ON DRAWINGS.						
(E) ALL LUMINAIRE POLES TO BE RATED FOR 100MPH WIND WITH 1.3 GUST FACTOR AT LUMINAIRE CONFIGURATION EPA.						
(F) PROVIDE ENGINEERED DRIVEN PILE LUMINAIRE POLE FOUNDATION WITH 3'-0" ABOVE GRADE CONCRETE PROTECTION BASE FOR OVERALL POLE HEIGHT OF xx'-0" (xx'-0" POLE + 3'-0" CONCRETE BASE). LUMINAIRE POLES TO INCLUDE ANCHOR BOLT TRIM COVERS.						
1 PROVIDE WITH LED RETROFIT BULB						
SCHEDULE						
QTY	TYPE	DESCRIPTION	LAMPS	MOUNTING	MANUFACTURER	MODEL
10	B1	14" ROUND CANOPY LIGHT	LED	SURFACE	TERON LIGHTING	NEC14-L25.0-120V-350mA-40K
13	D6	DOWNLIGHT	LED RETROFIT	SURFACE	HALO	H7CAT (HOUSING) AND RL560WH9940 (TRIM)
2	D41	4" OPEN LED DOWNLIGHT	893 LM LED	CEILING RECESSED	LITHONIA	LDN4 40/10 LO4AR LD MVOLT
14	D61	6" OPEN LED DOWNLIGHT	943 LM LED	CEILING RECESSED	LITHONIA	LDN6 40/10 LO6AR LD MVOLT
36	D62	6" OPEN LED DOWNLIGHT	1763 LM LED	CEILING RECESSED	LITHONIA	LDN6 40/20 LO6AR LD MVOLT
3	D62E	6" OPEN LED DOWNLIGHT W/ EMERGENCY BATTERY UNIT	1763 LM LED	CEILING RECESSED	LITHONIA	LDN6 40/20 LO6AR LD MVOLT EL
21	E2	EMERGENCY LIGHTING UNIT WITH TWO ADJUSTABLE LED LAMP HEADS	(2) 1.5W/3.6V LED	WALL +7'-0" OR CEILING	LITHONIA	ELM2 LED
4	ERA	ARCHITECTURAL EMERGENCY REMOTE HEAD WITH EXTERIOR RATING	(2) 6W/6V XENON	WALL ABOVE DOOR	LITHONIA	ELA AFNR DB
23	FN3	4FT DIMMING LED, EXTRUDED ALUMINUM, SATINE LENS, WHITE FINISH	2852 LM LED	CEILING RECESSED	PINNACLE	EV3A 40HO 4 Fx UNV 1D W
27	GB4	2' X 4' LED VOLUMETRIC TROFFER	4032 LM LED	CEILING GRID	LITHONIA	2BLT4 40L ADP MVOLT EZ1 LP840
5	GB23	2' X 2' LED VOLUMETRIC TROFFER	3312 LM LED	CEILING GRID	LITHONIA	2BLT2 33L ADP MVOLT EZ1 LP840
27	LB3	LOW PROFILE ARCHITECTURAL WRAP W/ PRISMATIC LENS	3105 LM LED	CEILING SURFACE	LITHONIA	LBL4 30L MVOLT EZ1 LP840
8	LB5	LOW PROFILE ARCHITECTURAL WRAP W/ PRISMATIC LENS	5250 LM LED	CEILING SURFACE	LITHONIA	LBL4 48L MVOLT EZ1 LP840
6	LL4	4FT LED LINEAR WRAP	4325 LM LED	CEILING SURFACE	LITHONIA	WL4 40L MVOLT EZ1 LP840
3	P1	18 INCH PENDANT LED	LED	PENDANT	TERON LIGHTING	NEP18-L25.0-120V-BN-40K
8	SN4	4FT DIMMING DIRECT/INDIRECT LED, EXTRUDED ALUMINUM, SATINE LENS, WHITE FINISH	1528 LM DN, 2288 LM UP LED	AIRCRAFT CABLE SUSPENSION	PINNACLE	EX3B A 0 40 40 4 ACx UNV 1D W
12	VCG	GENERIC LAMP HOLDER AND GUARD	GENERIC	CEILING SURFACE	GENERIC	GENERIC
1	WL2	4FT LED WALL BRACKET	2255 LM LED	WALL	LITHONIA	WL4 20L EZ1 LP840
6	WL22	2FT LED WALL BRACKET	2189 LM LED	WALL	LITHONIA	WL2 22L MVOLT EZ1 LP840
15	X	LED EXIT SIGN WITH BATTERY BACKUP	GREEN LED	WALL OR CEILING	LITHONIA	LOM S W 3 G 120/277 ELN
4	XR	LED EXIT SIGN, HIGH OUTPUT 6 V BATTERY BACKUP, 12W REMOTE CAPACITY	GREEN LED	WALL OR CEILING	LITHONIA	LHQM S W 3 G
4	ZD1	6" LED DOWNLIGHT WITH OPEN MATTE DIFFUSE REFLECTOR	1250 LM LED	CEILING RECESSED	KIRLIN	LRR-06018-41K
5	ZMX	OUTDOOR LED WALLPACK, 4000K LEDS, CAST-ALUMINUM	LED	WALL	LITHONIA	OLWX1 LED 13W 40K
4	ZW1	OUTDOOR LED WALL LUMINAIRE, 4000K LEDS, DIE-CAST ALUMINUM	1515LM LED	WALL	LITHONIA	DSXW1 LED 10C 350 40K TFTM MVOLT DDBXD

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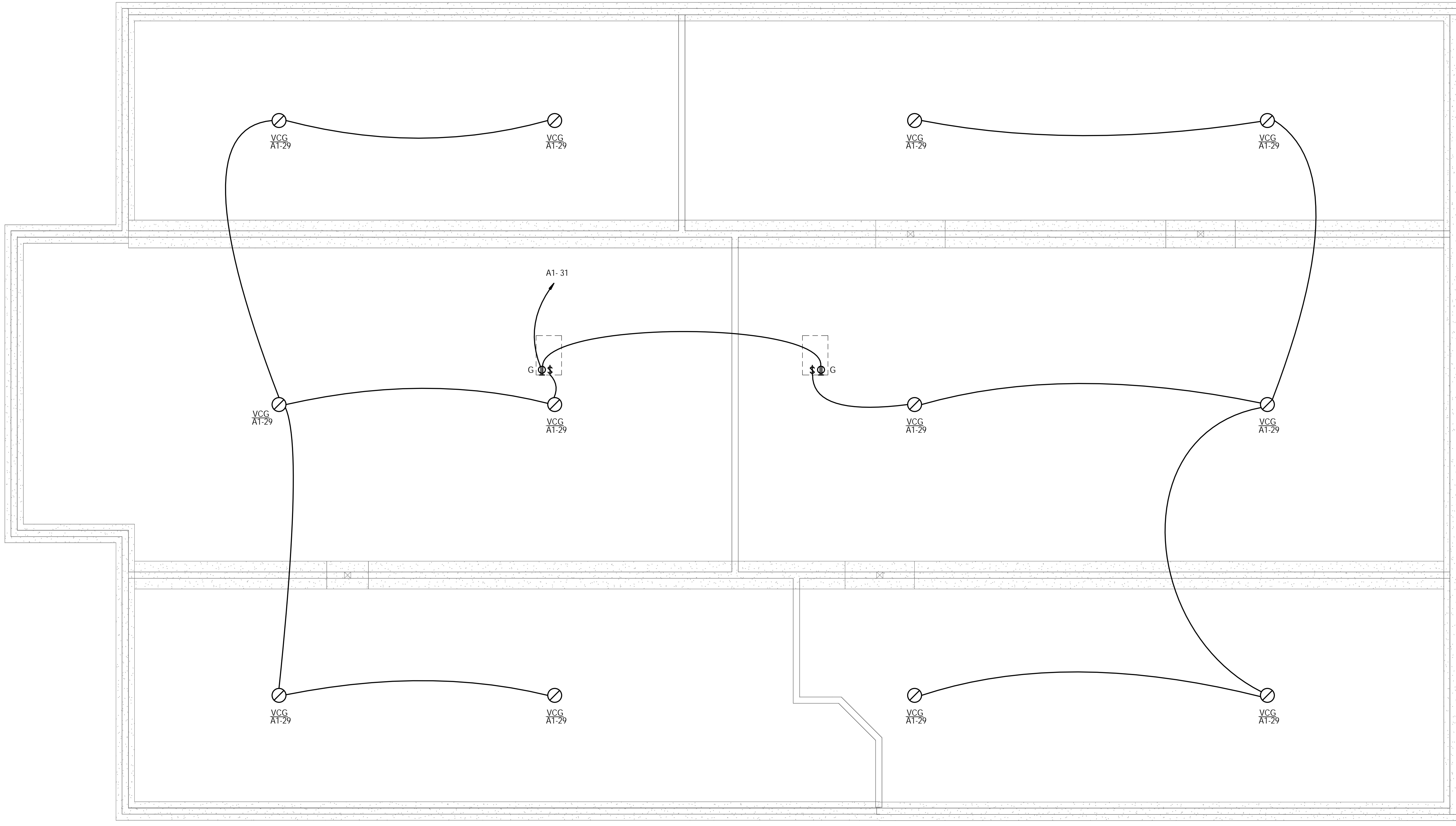
REVISIONS	NUM.	DATE	DESCRIPTION

SCOTT A. JONES
 SAJJ ARCHITECTURE, LLC
 550 E. TUDOR #202, ANCHORAGE, ALASKA 99503
 #907-440-6606 #907-258-6606 (FAX)

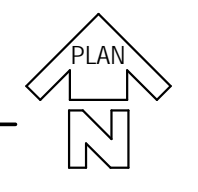
OUZINKIE OFFICE
 OUZINKIE NATIVE CORP.
 SPRUCE ISLAND, ALASKA

DR: KMM
 CK: EDC
 DT: 10/31/2017
 JB: OUZINKIE
 DWG: CRAWLSPACE ELECTRICAL PLAN

E1.1



EIC ENGINEERS, INC.
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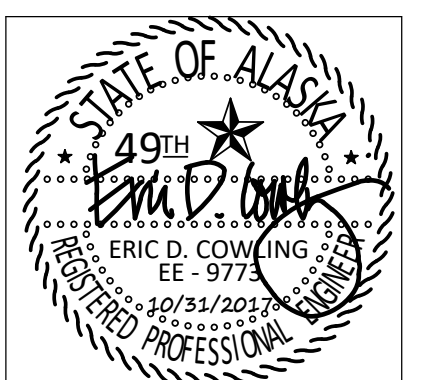


1 CRAWLSPACE ELECTRICAL PLAN
 E1.1 SCALE: 1/4" = 1'-0"

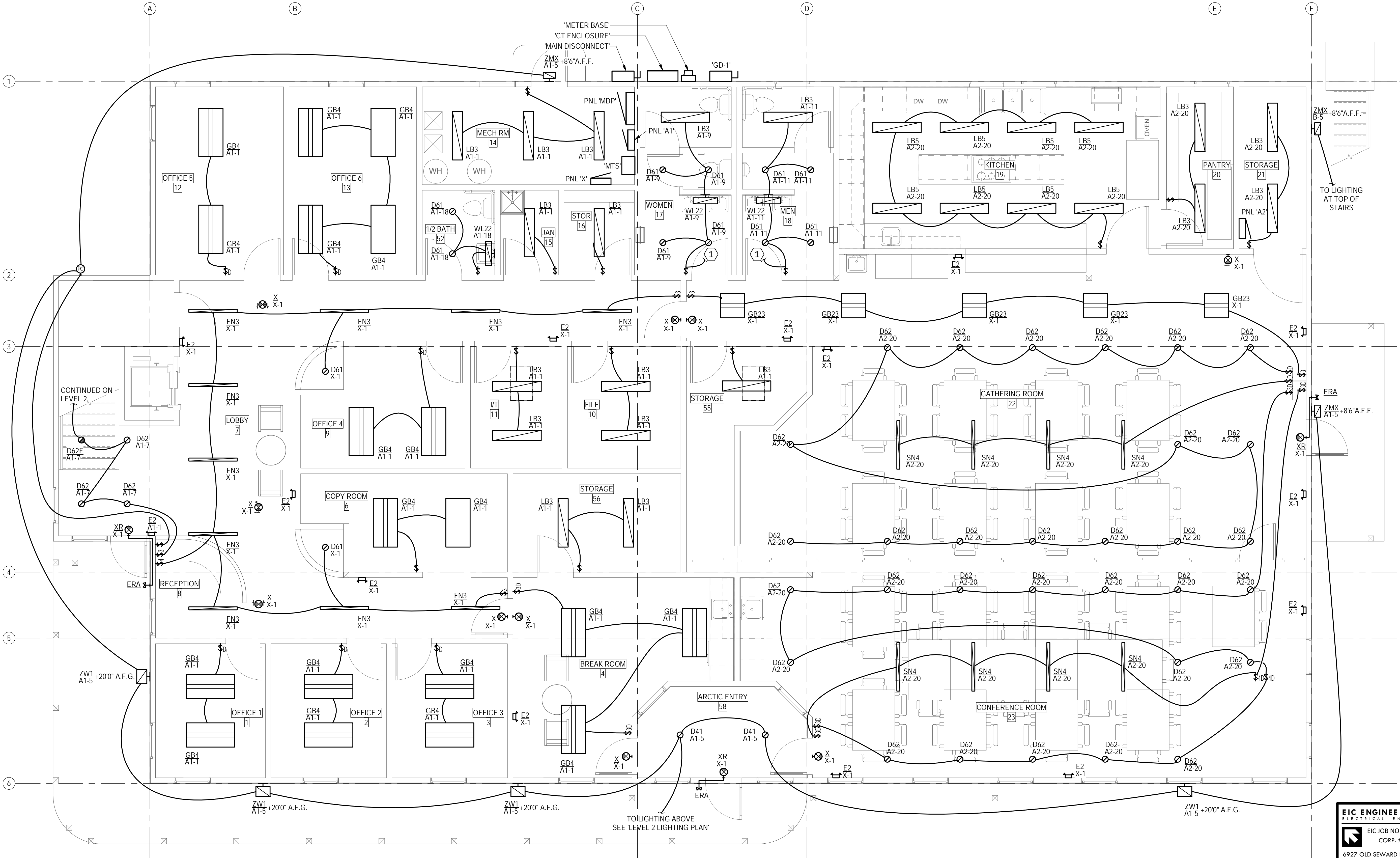
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REFERENCED SHEET NOTES (#)
 1. CONNECT TO LOCAL EXHAUST FAN. SEE POWER PLAN ON SHEET E3.1.



REVISIONS	NUM.	DATE	DESCRIPTION

SAJJ ARCHITECTURE, LLC
 550 E. TUDOR #202, ANCHORAGE, ALASKA 99503
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Ouzinkie Office
Ouzinkie Native Corp.
 SPRUCE ISLAND, ALASKA

DR: KMM
 CK: EDC
 DT: 10/31/2017
 JB: Ouzinkie
 DWG: LEVEL 1 LIGHTING PLAN

EIC ENGINEERS, INC.
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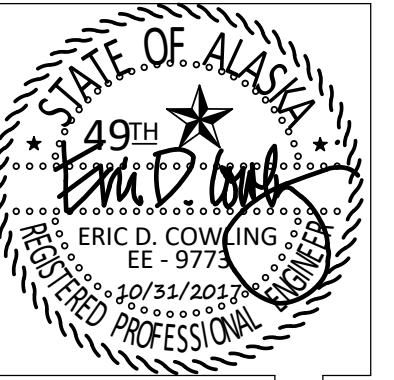
LEVEL 1 LIGHTING PLAN
 E2.1 SCALE: 1/4" = 1'-0"

"IIX17 DRAWINGS ARE HALF THE INDICATED SCALE"

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E2.1

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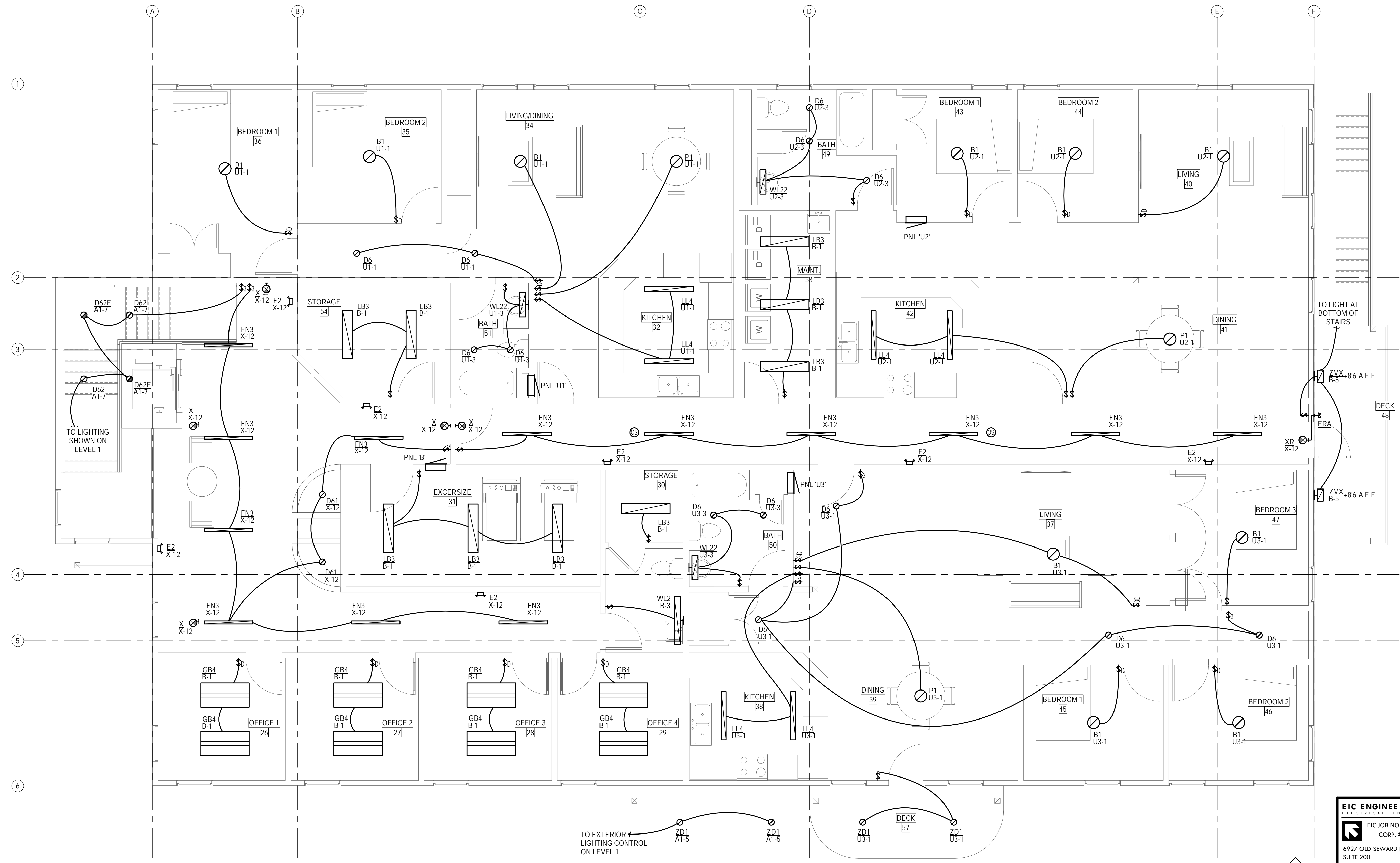
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OUZINKIE OFFICE
 OUZINKIE NATIVE CORP.
 SPRUCE ISLAND, ALASKA

DR: KMM
 CK: EDC
 DT: 10/31/2017
 JB: OUZINKIE
 DWG: LEVEL 2
 LIGHTING PLAN

EIC ENGINEERS, INC.
 ELECTRICAL ENGINEERS
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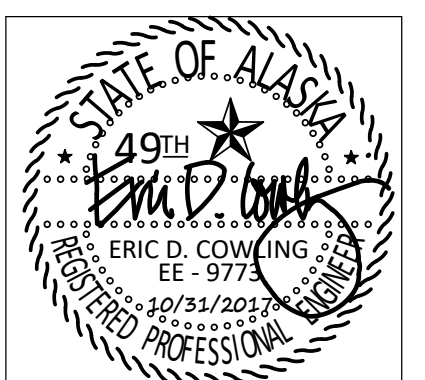


1 LEVEL 2 LIGHTING PLAN
 E2.2 SCALE: 1/4" = 1'-0"

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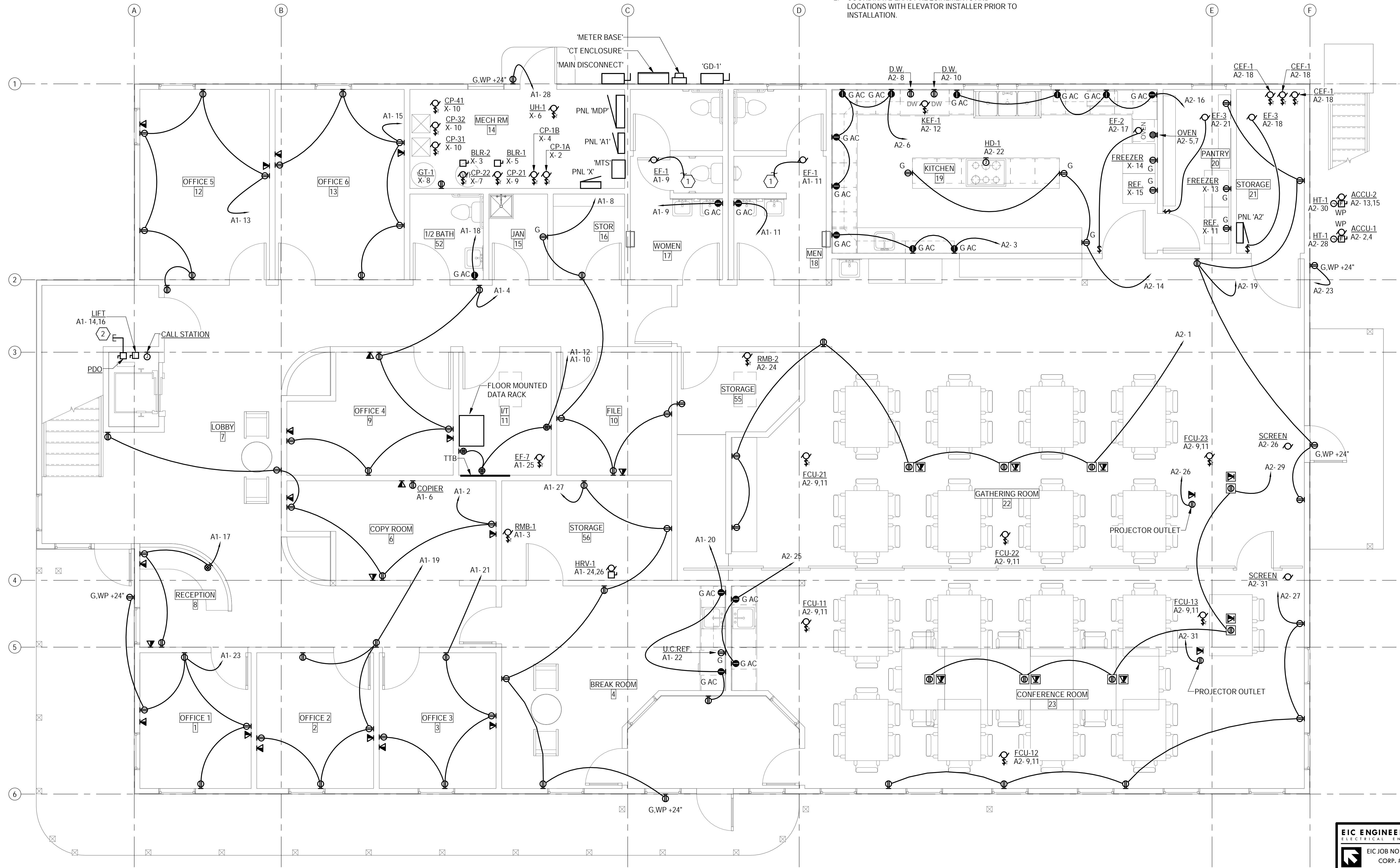
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REFERENCED SHEET NOTES (#)

- CONNECT TO LOCAL CONTROL. SEE LIGHTING PLAN ON SHEET E2.1
- COORDINATE EXACT REQUIREMENTS AND LOCATIONS WITH ELEVATOR INSTALLER PRIOR TO INSTALLATION.



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SCOTT A. JONES

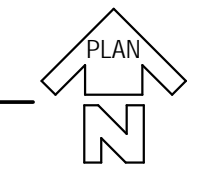
OUZINKIE OFFICE
 OUZINKIE NATIVE CORP.
 SPRUCE ISLAND, ALASKA

DR: KMM
 CK: EDC
 DT: 10/31/2017
 JB: OUZINKIE
 DWG: LEVEL 1
 POWER AND
 SIGNAL PLAN

EIC ENGINEERS, INC.
 ELECTRICAL ENGINEERS

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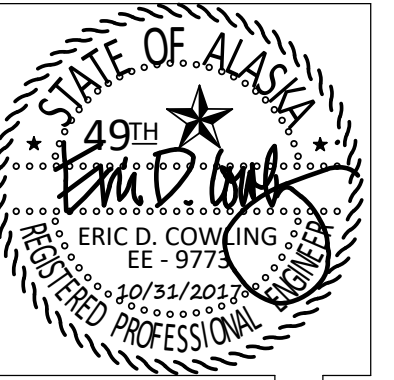
1 LEVEL 1 POWER AND SIGNAL PLAN
 E3.1 SCALE: 1/4" = 1'-0"

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E3.1

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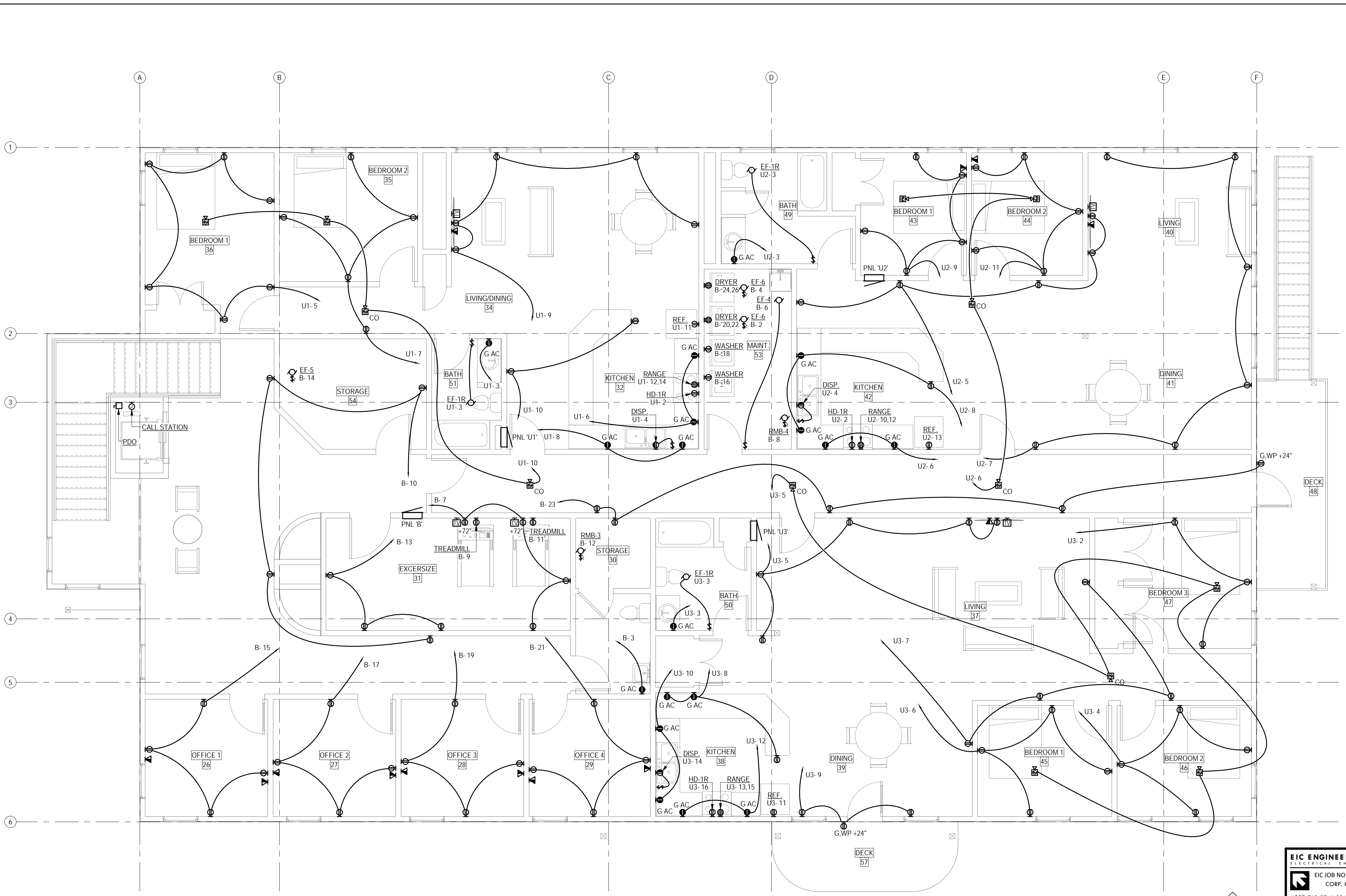
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OUZINKIE OFFICE
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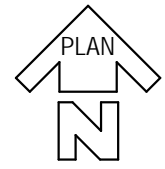
DR: KMM
 CK: EDC
 DT: 10/31/2017
 JB: OUZINKIE
 DWG: LEVEL 2
 POWER AND SIGNAL PLAN

E3.2



1 LEVEL 2 POWER AND SIGNAL PLAN
 E3.2 SCALE: 1/4" = 1'-0"

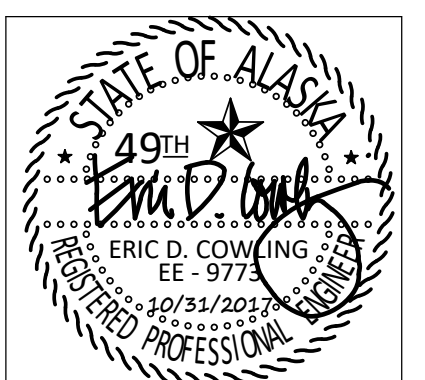
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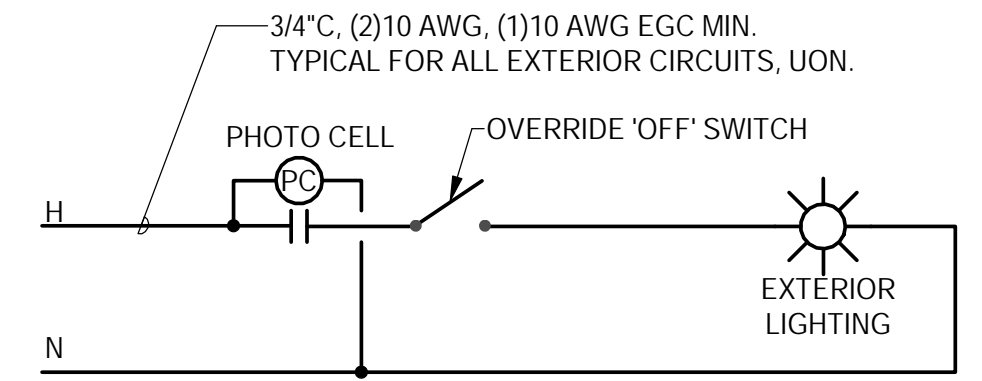
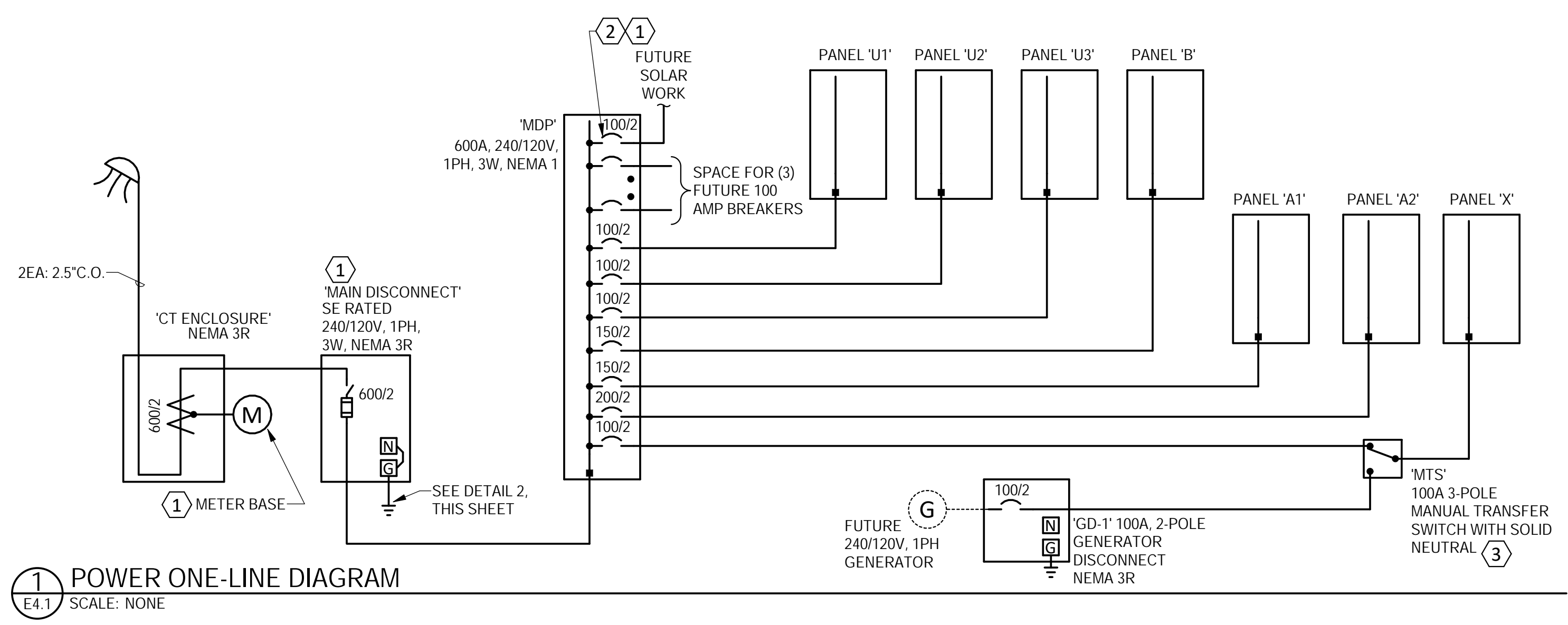
* 31 OCTOBER 2017 * BID SET *

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REFERENCED SHEET NOTES #

- EQUIPMENT TO BE BACK-FEED RATED FOR FUTURE SOLAR SYSTEM INSTALLATION.
- BREAKER TO BE SHUNT TRIPPED FOR FUTURE SOLAR SYSTEM INSTALLATION. LOCATE BREAKER AT OPPOSITE END OF PANEL FROM INPUT FEEDER LUGS.
- DO NOT SWITCH NEUTRAL. SPARE POLE PROVIDED TO ALLOW RECONFIGURATION TO SEPARATELY DERIVED DEPENDING ON GENERATOR INSTALLED IN FUTURE PHASE.



DETAIL NOTES
1. MOUNT PHOTOCELL ON NORTH SIDE OF BUILDING BELOW ROOF LINE.

FEEDER SCHEDULE

ID	AMPERAGE	FEEDER (MINIMUM) CU UON
MAIN DISCONNECT	600	2EA: 2.5°C, (3)350 KCMIL, (1)2/0 AWG BJ
MDP	600	2EA: 2.5°C, (3)350 KCMIL, (1)1 AWG EGC
A2	200	2°C, (3)3/0 AWG, (1)6 AWG EGC
A1	150	1.5°C, (3)1/0 AWG, (1)6 AWG EGC
B	150	1.5°C, (3)1/0 AWG, (1)6 AWG EGC
MTS	100	1.25°C, (3)2 AWG, (1)6 AWG EGC
U1	100	1.25°C, (3)2 AWG, (1)6 AWG EGC
U2	100	1.25°C, (3)2 AWG, (1)6 AWG EGC
U3	100	1.25°C, (3)2 AWG, (1)6 AWG EGC
X	100	1.25°C, (3)2 AWG, (1)6 AWG EGC

EQUIPMENT SCCR SCHEDULE

ALL EQUIPMENT TO HAVE SCCR EXCEEDING THE AVAILABLE SCA AT THE CALCULATED X/R RATIO. WHERE X/R RATIO IS GREATER THAN THE INDUSTRY STANDARD TEST X/R RATIOS THE APPROPRIATE MULTIPLICATION FACTOR SHALL BE APPLIED TO PROPERLY RATE THE EQUIPMENT. DOWNSTREAM EQUIPMENT AND ASSOCIATED CIRCUIT BREAKER RATINGS MAY BE SATISFIED BY USING FULLY RATED EQUIPMENT OR MANUFACTURER TESTED COMBINATIONS FOR BRANCH CIRCUITS RATED 100 AMPS OR LESS PER NEC 240.86(B) TO SERIES RATE FOR THE AVAILABLE SCA AT EQUIPMENT. ALL SERIES RATED EQUIPMENT TO BE CLEARLY LABELED & IDENTIFIED PER NEC 110.22(C). SERIES RATED EQUIPMENT MOTOR LOADS CANNOT EXCEED 1% OF AIC RATING PER NEC 240.86(C).

CONTRACTOR TO VERIFY ACTUAL EQUIPMENT TO BE PROVIDED WITH SERVING UTILITY PRIOR TO EQUIPMENT PROCUREMENT. ANY DECREASE OF TRANSFORMER %Z, CONDUCTOR LENGTHS, OR INCREASE IN TRANSFORMER KVA OR CABLE SIZES TO BE REPORTED TO CONTRACT OFFICER FOR RECALCULATION OF AVAILBLE FAULT CURRENT PRIOR TO PROCUREMENT OF EQUIPMENT. PROVIDE WARNING PLACARD INSTALLED ON SERVICE DISCONNECT PER NEC 110.24 DENOTING ALL PROJECT PARAMETERS REQUIRED BY NEC.

ASSUMED UTILITY SYSTEM CONFIGURATION (BASIS FOR CALCULATION)

SERVICE TRANSFORMER

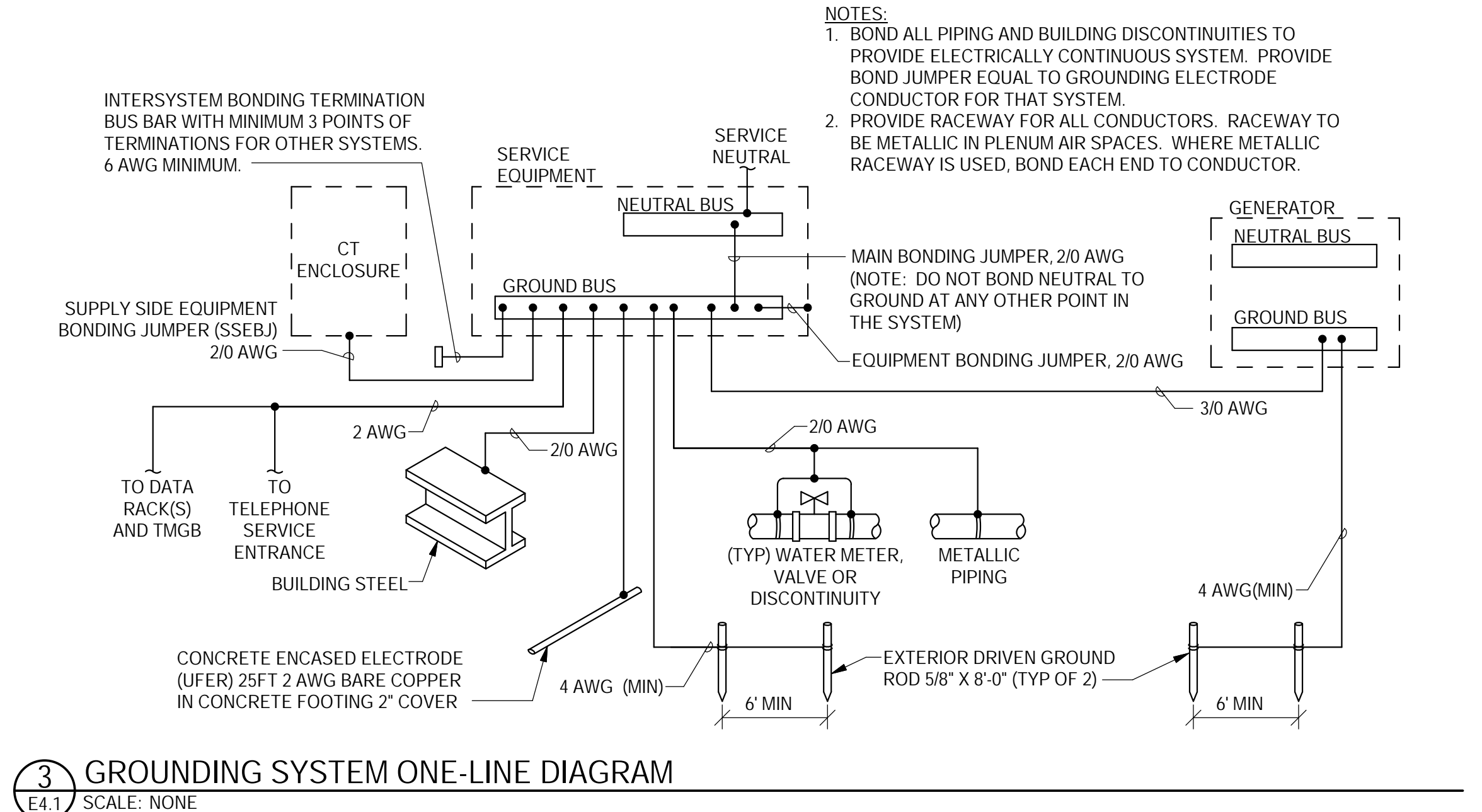
KVA	%Z	X/R	SCA (PRI.)	SCA (SEC.)
100	1.20	2.75	1,000,000	34,700

SERVICE AMPS - FOR FAULT CURRENT CALCULATION ONLY -

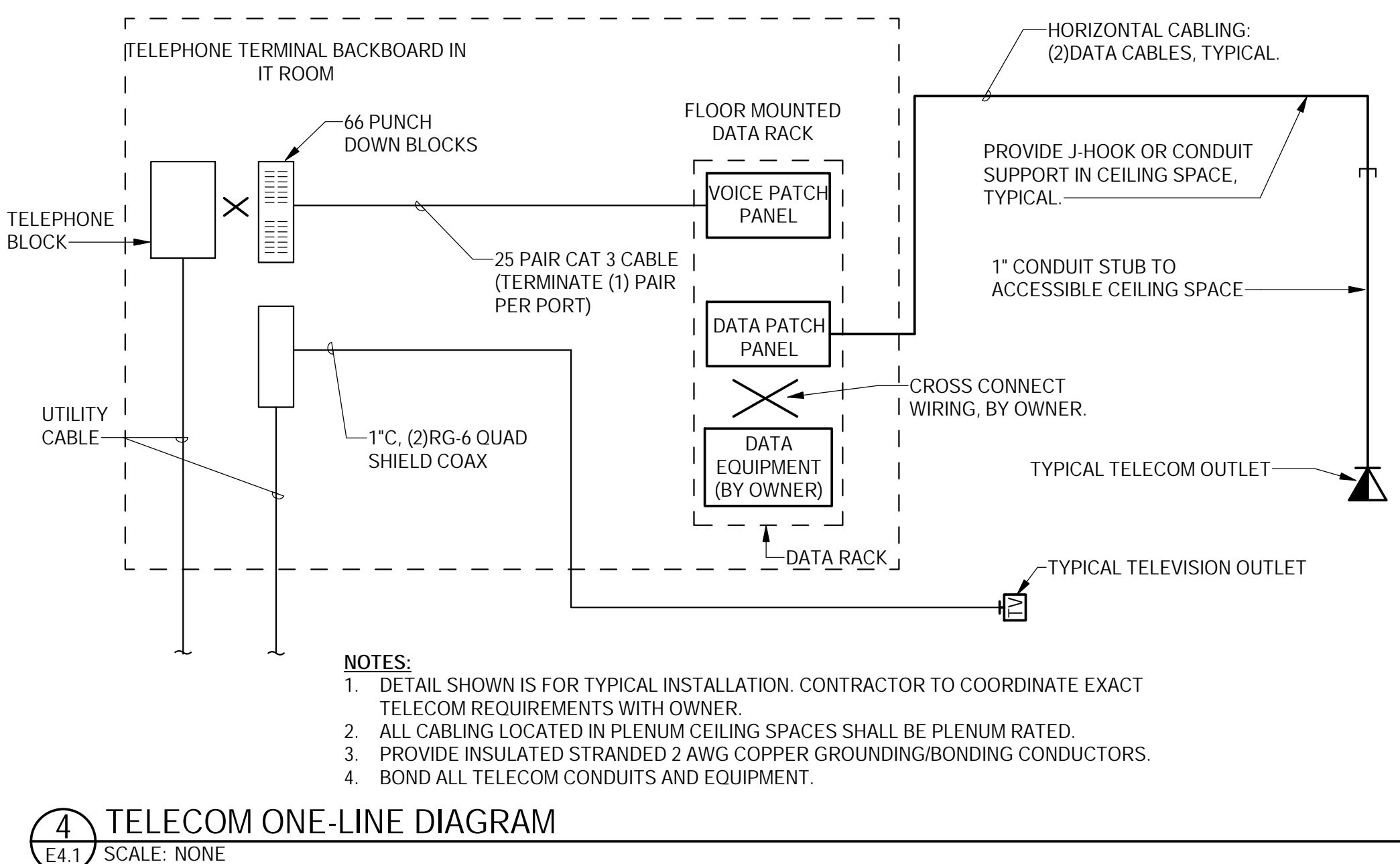
SERVICE AMPS	SERVICE LATERAL	FT
600	2EA: 2.5°C, (3)350 KCMIL, (1)2/0 AWG BJ	99

EQUIPMENT ID **SCAmps** **X/R**

CT ENCLOSURE	22,577	1.76
MAIN DISCONNECT	22,205	1.74
MDP	21,649	1.71
A1	20,858	1.59
MTS	18,638	1.26
B	13,641	0.93
A2	13,587	1.06
U1	13,052	0.79
U2	12,934	0.78
U3	11,488	0.70
X	16,393	1.03



NOTES:
1. BOND ALL PIPING AND BUILDING DISCONTINUITIES TO PROVIDE ELECTRICALLY CONTINUOUS SYSTEM. PROVIDE BOND JUMPER EQUAL TO GROUNDING ELECTRODE CONDUCTOR FOR THAT SYSTEM.
2. PROVIDE RACEWAY FOR ALL CONDUCTORS. RACEWAY TO BE METALLIC IN PLENUM AIR SPACES. WHERE METALLIC RACEWAY IS USED, BOND EACH END TO CONDUCTOR.



NOTES:
1. DETAIL SHOWN IS FOR TYPICAL INSTALLATION. CONTRACTOR TO COORDINATE EXACT TELECOM REQUIREMENTS WITH OWNER.
2. ALL CABLING LOCATED IN PLENUM CEILING SPACES SHALL BE PLENUM RATED.
3. PROVIDE INSULATED STRANDED 2 AWG COPPER GROUNDING/BONDING CONDUCTORS.
4. BOND ALL TELECOM CONDUITS AND EQUIPMENT.

REVISIONS

NUM	DATE	DESCRIPTION

SAJJ ARCHITECTURE, LLC
550 E. TUDOR #202, ANCHORAGE, ALASKA 99503
#907-440-6606 #907-258-6606 (FAX)
SCOTT A. JONES

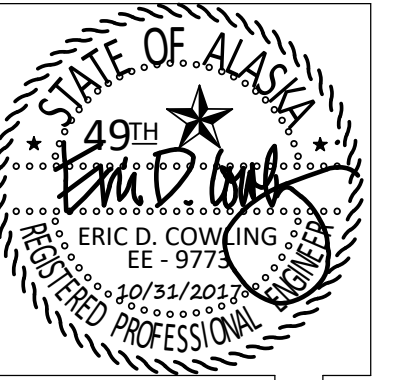
OUZINKIE OFFICE
OUZINKIE NATIVE CORP.
SPRUCE ISLAND, ALASKA

DR: KMM
CK: EDC
DT: 10/31/2017
JB: OUZINKIE
DWG: ONE-LINE
DIAGRAMS, DETAILS, AND SCHEDULES

EIC ENGINEERS, INC.
ELECTRICAL ENGINEERS
EIC JOB NO: E16-2514
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6927 OLD SEWARD HWY
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OUZINKIE OFFICE
 OUZINKIE NATIVE CORP.
 SPRUCE ISLAND, ALASKA

DR: KMM
 CK: EDC
 DT: 10/31/2017
 JB: OUZINKIE
 DWG: PANEL SCHEDULES

E5.1

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LOAD CLASSIFICATIONS SCHEDULE		
NOTES		
(KEY)	(x)	NOTES ARE REFERENCED IN THE SCHEDULE.
(A)		NOT ALL LOAD CLASSIFICATIONS ARE NECESSARILY USED. ONLY CLASSIFICATIONS FROM LOADS THAT ARE CONNECTED TO EACH PANEL ARE SHOWN IN THE SUMMARY SECTION OF THE PANEL SCHEDULES.
(B)		PANELBOARD BUS RATINGS TO EQUAL OR EXCEED OPD RATINGS SHOWN IN PANEL SCHEDULES UNLESS OTHERWISE NOTED.
1		THE NEC DEMAND PERCENTAGE IS SHOWN AS A WEIGHTED AVERAGE. FOR EXAMPLE 125% OF 100VA PLUS 100% OF 100VA WILL SHOW THE WEIGHTED AVERAGE PERCENTAGE OF 112.5% RESULTING IN 225VA.
SCHEDULE		
CLASS.	NEC REFERENCE	DESCRIPTION
CONT	NEC 2014: 210.20(A)	125% OF THE CONTINUOUS LOAD
ETR	NEC 2014: 220.87	RECORDED DEMAND LOAD * 125%
KTCH	NEC 2014: 220.56	TABLE 220.56 - DEMAND FACTORS FOR KITCHEN EQUIPMENT.
LTG	NEC 2014: 210.20(A)	LIGHTING LOADS CONSIDERED TO BE CONTINUOUS. 125% OF THE CONTINUOUS LOAD.
LTGE	NEC 2014: 210.20(A)	CALCULATED SAME AS 'LTG' BUT EXCLUDED FROM ENERGY LIGHTING POWER DENSITY CALCULATIONS.
MTR	NEC 2014: 430.24	125% OF THE FULL-LOAD CURRENT RATING OF THE HIGHEST RATED MOTOR PLUS THE SUM OF THE FULL-LOAD CURRENT RATINGS OF ALL OTHER MOTORS. (SEE NOTE 1)
NCDN	NEC 2014: 220.60	NONCOINCIDENT LOADS: WHERE IT IS UNLIKELY THAT TWO OR MORE NONCOINCIDENT LOADS WILL BE IN USE SIMULTANEOUSLY, THE LARGEST LOAD WILL BE USED. LOADS CLASSIFIED AS NCDN WILL HAVE ZERO LOAD.
NCNT	NEC 2014: 210.20(A)	100% OF THE NON-CONTINUOUS LOAD
REC	NEC 2014: 220.44	NON-DWELLING RECEPTACLE LOADS = FIRST 10KVA OR LESS AT 100% PLUS REMAINDER OVER 10KVA AT 50%. (SEE NOTE 1)
MCA	(SEE MTR)	THE LOAD IS BASED ON THE GIVEN MCA (MINIMUM CIRCUIT AMPACITY) WHICH INCLUDES 125% OF THE LARGEST MOTOR OF THE UNIT. 100% OF THE MCA LOAD.

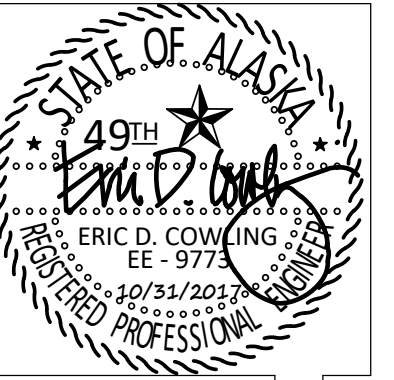
PANEL SCHEDULE NOTES	
REF	NOTE
(KEY)	(x) DENOTES A GENERAL, NON-REFERENCED, NOTE. NUMBERED NOTES ARE REFERENCED FROM THE PANEL SCHEDULES DENOTED BY [#]. (NOT ALL NUMBERED NOTES ARE REFERENCED.)
(A)	REFER TO POWER ONE-LINE DIAGRAMS FOR ADDITIONAL PANEL CONFIGURATION AND REQUIREMENTS.
(B)	REFER TO EQUIPMENT SCCR SCHEDULE FOR PANEL SHORT CIRCUIT RATINGS.
[1]	PROVIDE RED BREAKER IDENTIFICATION WITH OEM DEVICE THAT CAN BE LOCKED IN THE "ON" POSITION FOR FIRE ALARM CIRCUITS.
[2]	PROVIDE 30mA GFPE CIRCUIT BREAKER.
[3]	PROVIDE OEM DEVICE THAT CAN BE LOCKED IN THE "OFF" POSITION FOR USE AS DISCONNECT PER NEC.
[4]	PROVIDE SHUNT TRIP CIRCUIT BREAKER CONTROLLED BY FIRE SUPPRESSION SYSTEM.
[5]	PROVIDE 6mA GFCI PROTECTED CIRCUIT BREAKER.
[6]	PROVIDE UL LISTED COMBINATION-TYPE AFCI CIRCUIT BREAKER.
[7]	PROVIDE BREAKER RATED FOR "BACKFEED" USE.
[8]	EXISTING LOAD TO REMAIN.
[9]	NEW LOAD ON EXISTING BREAKER.
[10]	PROVIDE CIRCUIT BREAKER FOR NEW LOAD.

PANEL "MDP" SCHEDULE										
VOLTAGE: 240/120V, 1PH, 3W OPD RATING: 600 A					LOCATION: MECH RM 14 ENCLOSURE: NEMA 1 MOUNTING: SURFACE					
CKT	LOAD DESCRIPTION	AMP	P	A	B	P	AMP	LOAD DESCRIPTION	CKT	
1	PNL 'A1'	150	2	11.43	8.31		2	100	PNL 'U1'	2
3	--	--	--		11.71	9.44	--	--	--	4
5	PNL 'A2'	200	2	19.95	9.69		2	100	PNL 'U2'	6
7	--	--	--		19.77	8.41	--	--	--	8
9	MTS	100	2	6.14	8.93		2	100	PNL 'U3'	10
11	--	--	--		5.93	10.01	--	--	--	12
13	PNL 'B'	150	2	11.57	0.00					14
15	--	--	--		11.76	0.00	--	--	--	16
17	- SPACE -	--	--	0.00	0.00		--	--	- SPACE -	18
19	- SPACE -	--	--		0.00	0.00	--	--	- SPACE -	20
21	- SPACE -	--	--	0.00	0.00		--	--	- SPACE -	22
23	- SPACE -	--	--		0.00	0.00	--	--	- SPACE -	24
25	- SPACE -	--	--	0.00	0.00		--	--	- SPACE -	26
27	- SPACE -	--	--		0.00	0.00	2	100	FUTURE SOLAR SYSTEM	28
29	- SPACE -	--	--	0.00	0.00		--	--	--	30
TOTAL KVA/PHASE:				76.0			77.0			
TOTAL AMPS/PHASE:				633.5			641.9			
PHASE BALANCE %: A-B				1						
SUMMARY BY LOAD TYPE										
LOAD CLASSIFICATION	CONNECTED	NEC FACTORS	TOTAL NEC		PANEL TOTALS					
CONT	1.400 kVA	125.00%	1.750 kVA		CONNECTED KVA: 153.043 kVA					
GNR	19.335 kVA	45.09%	8.717 kVA		NEC CALCULATED KVA: 128.859 kVA					
LTG	5.424 kVA	125.00%	6.780 kVA		CONNECTED AMPS: 638 A					
MTR	32.768 kVA	105.31%	34.508 kVA		NEC CALCULATED AMPS: 537 A					
NCNT	45.800 kVA	100.00%	45.800 kVA							
REC	24.120 kVA	70.73%	17.060 kVA							
RNGE1	24.000 kVA	58.33%	13.999 kVA							
LTGE	0.196 kVA	125.00%	0.245 kVA							

PANEL "A1" SCHEDULE										
VOLTAGE: 240/120V, 1PH, 3W OPD RATING: 150 A					LOCATION: MECH RM 14 ENCLOSURE: NEMA 1 MOUNTING: SURFACE					
CKT	LOAD DESCRIPTION	AMP	P	A	B	P	AMP	LOAD DESCRIPTION	CKT	
1	LTG: RM 1,10,11,12,13,14,15,16	20	1	0.99	0.90		1	20	REC: RM 6,7	2
3	MTR STORAGE 56 RMB-1	20	1		0.30	0.90	1	20	REC: RM 7,9	4
5	LTG: EXTERIOR LTG	20	1	0.16	1.20		1	20	NCNT: RM 6 COPIER	6
7	LTG: RM 7,8	20	1		0.18	1.08	1	20	REC: RM 10,15,16,55	8
9	LTG: RM 17	20	1	0.40	1.08		1	20	NCNT: RM 11 TTBS	10
11	LTG: RM 18	20	1		0.40	1.08	1	20	NCNT: I/T 11	12
13	REC: RM 12	20	1	1.08	0.72		2	15	MTR: LIFT	14
15	REC: RM 13	20	1		0.90	0.72	--	--	--	16
17	REC: RM 8	20	1	0.72	0.23		1	20	LTG: RM 52	18
19	REC: RM 2,7	20	1		0.90	0.54	1	20	REC: RM 4	20
21	REC: RM 3	20	1	0.72	0.60		1	20	NCNT BREAK ROOM 4 [5]	22
23	REC: RM 1	20	1		0.90	2.18	2	25	MTR STORAGE 56 HRV-1	24
25	MTR: RM 11 EF-7	20	1	0.20	2.18		--	--	--	26
27	REC: RM 4,56	20	1		1.08	0.18	1	20	REC: EXT. NORTH	28
29	LTG:	20	1	0.24	0.00		1	20	SPARE	30
31	REC: RM 11,55	20	1		0.36	0.00	1	20	SPARE	32
33	SPARE	20	1	0.00	0.00		1	20	SPARE	34
35	SPARE	20	1		0.00	0.00	1	20	SPARE	36
37	- SPACE -	--	--	0.00	0.00		--	--	- SPACE -	38
39	- SPACE -	--	--		0.00	0.00	--	--	- SPACE -	40
41	- SPACE -	--	--	0.00	0.00		--	--	- SPACE -	42
TOTAL KVA/PHASE:				11.4			11.7			
TOTAL AMPS/PHASE:				95.2			97.6			
PHASE BALANCE %: A-B				2						
SUMMARY BY LOAD TYPE										
LOAD CLASSIFICATION	CONNECTED	NEC FACTORS	TOTAL NEC		PANEL TOTALS					
LTG	1.824 kVA	125.00%	2.280 kVA		CONNECTED KVA: 23.137 kVA					
MTR	6.548 kVA	116.68%	7.640 kVA		NEC CALCULATED KVA: 24.286 kVA					
NCNT	3.960 kVA	100.00%	3.960 kVA		CONNECTED AMPS: 96 A					
REC	10.800 kVA	96.30%	10.400 kVA		NEC CALCULATED AMPS: 101 A					
LTGE	0.005 kVA	125.00%	0.006 kVA							

PANEL "B" SCHEDULE										
VOLTAGE: 240/120V, 1PH, 3W OPD RATING: 150 A					LOCATION: LOBBY 2 59 ENCLOSURE: NEMA 1 MOUNTING: RECESSED					
CKT	LOAD DESCRIPTION	AMP	P	A	B	P	AMP	LOAD DESCRIPTION	CKT	
1	LTG: RM 26,27,28,29,30,31,53,5	20	1	0.52	0.20		1	20	MTR: RM 53 EF-6 SOUTH	2
3	REC/LTG:	20	1		0.20	0.20	1	20	MTR: RM 53 EF-6 NORTH	4
5	LTG: RM 48	20	1	0.04	0.20		1	20	MTR: RM 53 EF-4	6
7	REC: RM 31 TV	20	1		0.72	0.30	1	20	MTR: RM 53 RMB-4	8
9	NCNT: RM 31 TREADMILL WEST	20	1	1.20	0.72		1	20	REC: RM 54	10
11	NCNT: RM 31 TREADMILL EAST	20	1		1.20	0.30	1	20	MTR: RM 30 RMB-3	12
13	REC: RM 31	20	1	0.54	0.20		1	20	MTR: RM 54 EF-5	14
15	REC: RM 26	20	1		0.72	1.50	1	20	NCNT: RM 53 WASHER SOUTH	16
17	REC: RM 27	20	1	0.72	1.50		1	20	NCNT: RM 53 WASHER NORTH	18
19	REC: RM 28	20	1		0.72	2.50	2	30	NCNT: RM 53 DRYER SOUTH	20
21	REC: RM 29	20	1	0.72	2.50		--	--	--	22
23	REC: RM 30,48	20	1		0.90	2.50	2	30	NCNT: RM 53 DRYER NORTH	24
25	SPARE	20	1	0.00	2.50		--	--	--	26
27	SPARE	20	1		0.00	0.00	1	20	SPARE	28
29	SPARE	20	1	0.00	0.00		1	20	SPARE	30
31	SPARE	20	1		0.00	0.00	1	20	SPARE	32
33	- SPACE -	--	--	0.00	0.00		--	--	- SPACE -	34
35	- SPACE -	--	--		0.00	0.00	--	--	- SPACE -	36
37	- SPACE -	--	--	0.00	0.00		--	--	- SPACE -	38
39	- SPACE -	--	--		0.00	0.00	--	--	- SPACE -	40
41	- SPACE -	--	--	0.00	0.00		--	--	- SPACE -	42
TOTAL KVA/PHASE:				11.6			11.8			
TOTAL AMPS/PHASE:				96.4			98.0			
PHASE BALANCE %: A-B				2						
SUMMARY BY LOAD TYPE										
LOAD CLASSIFICATION	CONNECTED	NEC FACTORS	TOTAL NEC		PANEL TOTALS					
LTG	0.584 kVA	125.00%	0.730 kVA		CONNECTED KVA: 23.324 kVA					
MTR	1.400 kVA	105.36%	1.475 kVA		NEC CALCULATED KVA: 23.545 kVA					
NCNT	15.400 kVA	100.00%	15.400 kVA		CONNECTED AMPS: 97 A					
REC	5.940 kVA	100.00%	5.940 kVA		NEC CALCULATED AMPS: 98 A					

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REVISIONS	NUM.	DATE	DESCRIPTION

SAJJ ARCHITECTURE, LLC
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 #907-440-6606 #907-258-6606 (FAX)

OUZINKIE OFFICE
 OUZINKIE NATIVE CORP.
 SPRUCE ISLAND, ALASKA

DR: KMM
 CK: EDC
 DT: 10/31/2017
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PANEL "A2" SCHEDULE

VOLTAGE: 240/120V, 1PH, 3W LOCATION: STORAGE 21
 OPD RATING: 200 A ENCLOSURE: NEMA 1
 MOUNTING: SURFACE

CKT	LOAD DESCRIPTION	AMP	P	A	B	P	AMP	LOAD DESCRIPTION	CKT	
1	REC: RM 22	20	1	1.08	3.48		2	35	MTR: ACCU-1	2
3	REC: RM 19 SOUTH WALL	20	1		0.54	3.48	--	--		4
5	NCNT KITCHEN 19	50	2	4.80	0.72		1	20	REC: RM 19 WEST/NORTH WALL	6
7	--	--	--	--	4.80	1.20	1	20	NCNT: RM 19 D.W. WEST	8
9	MTR ROOM 22, 23	20	2	0.75	1.20		1	20	NCNT: RM 19 D.W. EAST	10
11	--	--	--	--	0.75	0.20	1	20	MTR: RM 19 KEF-1	12
13	MTR: ACCU-2	35	2	3.48	0.54		1	20	REC: RM 19 ISLAND, END OF COUNTER	14
15	--	--	--	--	3.48	0.72	1	20	REC: RM 19	16
17	MTR: RM 19 EF-2	20	1	0.20	0.26		1	20	MTR: RM 21 EF-3	18
19	REC: RM 20,21,22	20	1		0.90	1.54	1	20	LTG: RM 22,23	20
21	MTR: RM 20 EF-3	20	1	0.20	1.20		1	20	NCNT: RM 19 HD-1	22
23	REC: EXT EAST	20	1		0.18	0.30	1	20	MTR: RM 55 RMB-2	24
25	REC: RM 23	20	1	0.36	0.68		1	20	MTR/REC: RM 22 SCREEN	26
27	REC CONFERENCE ROOM 23	20	1		0.90	0.10	1	20	CONT: HT-1s [2]	28
29	REC ROOM 23, 22	20	1	0.90	0.10		1	20	CONT: HT-1 [2]	30
31	REC: RM 23 PROJECTOR	20	1		0.68	0.00	1	20	SPARE	32
33	SPARE	20	1	0.00	0.00		1	20	SPARE	34
35	SPARE	20	1		0.00	0.00	1	20	SPARE	36
37	- SPACE -	--	--	0.00	0.00		--	--	- SPACE -	38
39	- SPACE -	--	--	--	0.00	0.00	--	--	- SPACE -	40
41	- SPACE -	--	--	--	0.00	0.00	--	--	- SPACE -	42
TOTAL KVA/PHASE:				20.0	19.8					
TOTAL AMPS/PHASE:				166.3	164.8					
PHASE BALANCE %: A-B				1						

LOAD CLASSIFICATION	CONNECTED	NEC FACTORS	TOTAL NEC
CONTR	1.400 KVA	125.00%	1.750 KVA
LTG	1.541 KVA	125.00%	1.926 KVA
MTR	17.580 KVA	109.90%	19.320 KVA
NCNT	12.000 KVA	100.00%	12.000 KVA
REC	7.200 KVA	100.00%	7.200 KVA

PANEL TOTALS
 CONNECTED KVA: 39.721 KVA
 NEC CALCULATED KVA: 42.196 KVA
 CONNECTED AMPS: 166 A
 NEC CALCULATED AMPS: 176 A

PANEL "U1" SCHEDULE

VOLTAGE: 240/120V, 1PH, 3W LOCATION: LIVING/DINING 34
 OPD RATING: 100 A ENCLOSURE: NEMA 1
 MOUNTING: RECESSED

CKT	LOAD DESCRIPTION	AMP	P	A	B	P	AMP	LOAD DESCRIPTION	CKT	
1	LTG: RM 32,34,35,36	20	1	0.08	1.20		1	20	NCNT KITCHEN 32 HOOD	2
3	LTG: RM 51	20	1		0.14	1.18	1	20	NCNT KITCHEN 32 DISPOSAL	4
5	GNR: RM 36	20	1	0.00	0.00		1	20	GNR: RM 32 KITCH EAST	6
7	GNR: RM 34,35	20	1		0.00	0.00	1	20	GNR: RM 32 KITCH SOUTH	8
9	GNR: RM 34	20	1	0.00	0.12		1	20	GNR: RM 32,34	10
11	NCNT KITCHEN 32 REF.	20	1		1.20	4.00	2	50	NCNT KITCHEN 32 RANGE	12
13	SPARE	20	1	0.00	4.00		--	--		14
15	SPARE	20	1		0.00	0.00	1	20	SPARE	16
17	SPARE	20	1	0.00	0.00		1	20	SPARE	18
19	SPARE	20	1		0.00	0.00	1	20	SPARE	20
21	- SPACE -	--	--	0.00	0.00		--	--	- SPACE -	22
23	- SPACE -	--	--	--	0.00	0.00	--	--	- SPACE -	24
TOTAL KVA/PHASE:				8.3	9.4					
TOTAL AMPS/PHASE:				69.3	78.6					
PHASE BALANCE %: A-B				13						

LOAD CLASSIFICATION	CONNECTED	NEC FACTORS	TOTAL NEC
GNR	5.949 KVA	67.78%	4.032 KVA
LTG	0.101 KVA	125.00%	0.126 KVA
MTR	0.120 KVA	125.00%	0.150 KVA
NCNT	3.580 KVA	100.00%	3.580 KVA
RNGE1	8.000 KVA	100.00%	8.000 KVA

PANEL TOTALS
 CONNECTED KVA: 17.750 KVA
 NEC CALCULATED KVA: 15.888 KVA
 CONNECTED AMPS: 74 A
 NEC CALCULATED AMPS: 66 A

NOTES:
 PROVIDE UL LISTED COMBINATION-TYPE ARC-FAULT CIRCUIT-INTERRUPTER (AFCI) BREAKER PROTECTION FOR ALL BRANCH CIRCUITS IN DWELLING UNITS.

PANEL "X" SCHEDULE

VOLTAGE: 240/120V, 1PH, 3W LOCATION: MECH RM 14
 OPD RATING: 100 A ENCLOSURE: NEMA 1
 MOUNTING: SURFACE

CKT	LOAD DESCRIPTION	AMP	P	A	B	P	AMP	LOAD DESCRIPTION	CKT	
1	LTG/LTGE: RM 22,23,4,7,8	20	1	0.70	0.80		1	20	MTR: RM 14 CP-1A	2
3	MTR: RM 14 BLR-2	15	1		1.44	0.80	1	20	MTR: RM 14 CP-1B	4
5	MTR: RM 14 BLR-1	15	1	1.44	0.20		1	20	MTR: RM 14 UH-1	6
7	MTR: RM 14 CP-22	20	1		0.50	0.18	1	20	REC: RM 14 GT-1	8
9	MTR: RM 14 CP-21	20	1	0.50	1.20		1	20	MTR: RM 14 CP-31,CP-32,CP-41	10
11	NCNT: RM 20 REF. [5]	20	1		1.20	0.61	1	20	LTG/LTGE:	12
13	NCNT: RM 20 FREEZER [5]	20	1	0.65	0.65		1	20	NCNT: RM 19 FREEZER [5]	14
15	NCNT: RM 19 REF. [5]	20	1		1.20	0.00	1	20	SPARE	16
17	SPARE	20	1	0.00	0.00		1	20	SPARE	18
19	SPARE	20	1		0.00	0.00	1	20	SPARE	20
21	SPARE	20	1	0.00	0.00		1	20	SPARE	22
23	- SPACE -	--	--	--	0.00	0.00	--	--	- SPACE -	24
25	- SPACE -	--	--	0.00	0.00		--	--	- SPACE -	26
27	- SPACE -	--	--	--	0.00	0.00	--	--	- SPACE -	28
29	- SPACE -	--	--	--	0.00	0.00	--	--	- SPACE -	30
TOTAL KVA/PHASE:				6.1	5.9					
TOTAL AMPS/PHASE:				51.2	49.4					
PHASE BALANCE %: A-B				4						

LOAD CLASSIFICATION	CONNECTED	NEC FACTORS	TOTAL NEC
LTG	1.122 KVA	125.00%	1.403 KVA
MTR	6.880 KVA	105.23%	7.240 KVA
NCNT	3.700 KVA	100.00%	3.700 KVA
REC	0.180 KVA	100.00%	0.180 KVA
LTGE	0.191 KVA	125.00%	0.239 KVA

PANEL TOTALS
 CONNECTED KVA: 12.073 KVA
 NEC CALCULATED KVA: 12.761 KVA
 CONNECTED AMPS: 50 A
 NEC CALCULATED AMPS: 53 A

PANEL "U2" SCHEDULE

VOLTAGE: 240/120V, 1PH, 3W LOCATION: LIVING 60
 OPD RATING: 100 A ENCLOSURE: NEMA 1
 MOUNTING: RECESSED

CKT	LOAD DESCRIPTION	AMP	P	A	B	P	AMP	LOAD DESCRIPTION	CKT	
1	LTG: RM 40,41,42,43,44,49	20	1	0.08	1.20		1	20	NCNT KITCHEN 42 HOOD	2
3	LTG: RM 49	20	1		0.14	1.18	1	20	NCNT KITCHEN 42 DISP.	4
5	GNR: RM 40	20	1	0.00	0.12		1	20	GNR KITCHEN 42 SOUTH WALL	6
7	GNR: RM 40,41	20	1		0.00	0.00	1	20	GNR: RM 42	8
9	GNR: RM 43	20	1	0.00	4.00		2	50	NCNT KITCHEN 42 RANGE	10
11	GNR: RM 44	20	1		0.00	4.00	--	--		12
13	NCNT KITCHEN 42 REF.	20	1	1.20	0.00		1	20	SPARE	14
15	SPARE	20	1		0.00	0.00	1	20	SPARE	16
17	SPARE	20	1	0.00	0.00		1	20	SPARE	18
19	SPARE	20	1		0.00	0.00	1	20	SPARE	20
21	- SPACE -	--	--	0.00	0.00		--	--	- SPACE -	22
23	- SPACE -	--	--	--	0.00	0.00	--	--	- SPACE -	24
TOTAL KVA/PHASE:				9.7	8.4					
TOTAL AMPS/PHASE:				80.7	70.1					
PHASE BALANCE %: A-B				14						

LOAD CLASSIFICATION	CONNECTED	NEC FACTORS	TOTAL NEC
GNR	6.294 KVA	65.98%	4.153 KVA
LTG	0.101 KVA	125.00%	0.126 KVA
MTR	0.120 KVA	125.00%	0.150 KVA
NCNT	3.580 KVA	100.00%	3.580 KVA
RNGE1	8.000 KVA	100.00%	8.000 KVA

PANEL TOTALS
 CONNECTED KVA: 18.095 KVA
 NEC CALCULATED KVA: 16.009 KVA
 CONNECTED AMPS: 75 A
 NEC CALCULATED AMPS: 67 A

NOTES:
 PROVIDE UL LISTED COMBINATION-TYPE ARC-FAULT CIRCUIT-INTERRUPTER (AFCI) BREAKER PROTECTION FOR ALL BRANCH CIRCUITS IN DWELLING UNITS.

PANEL "U3" SCHEDULE

VOLTAGE: 240/120V, 1PH, 3W LOCATION: LIVING 37
 OPD RATING: 100 A ENCLOSURE: NEMA 1
 MOUNTING: RECESSED

CKT	LOAD DESCRIPTION	AMP	P	A	B	P	AMP	LOAD DESCRIPTION	CKT	
1	LTG: RM 37,38,39,45,46,47,57	20	1	0.13	0.00		1	20	GNR: RM 47	2
3	LTG: RM 50	20	1		0.14	0.00	1	20	GNR: RM 46	4
5	GNR: RM 37	20	1	0.15	0.00		1	20	GNR: RM 45	6
7	GNR: RM 37,39	20	1		0.00	0.00	1	20	GNR: RM 38 ISLAND	8
9	GNR: RM 38,39,57	20	1	0.00	0.00		1	20	GNR: RM 38 WEST	10
11	NCNT KITCHEN 38 REF.	20	1		1.20	0.00	1	20	GNR: RM 38 SOUTH	12
13	NCNT KITCHEN 38 RANGE	50	2	4.00	1.18		1	20	NCNT KITCHEN 38 DISP	14
15	--	--	--	--	4.00	1.20	1	20	NCNT KITCHEN 38 HOOD	16
17	SPARE	20	1	0.00	0.00		1	20	SPARE	18
19	SPARE	20	1		0.00	0.00	1	20	SPARE	20
21	SPARE	20	1	0.00	0.00		1	20	SPARE	22
23	SPARE	20	1		0.00	0.00	1	20	SPARE	24
TOTAL KVA/PHASE:				8.9	10.0					
TOTAL AMPS/PHASE:				74.4	83.4					
PHASE BALANCE %: A-B				11						

LOAD CLASSIFICATION	CONNECTED	NEC FACTORS	TOTAL NEC
GNR	7.092 KVA	62.50%	4.432 KVA
LTG	0.151 KVA	125.00%	0.189 KVA
MTR	0.120 KVA	125.00%	0.150 KVA
NCNT	3.580 KVA	100.00%	3.580 KVA
RNGE1	8.000 KVA	100.00%	8.000 KVA

PANEL TOTALS
 CONNECTED KVA: 18.943 KVA
 NEC CALCULATED KVA: 16.351 KVA
 CONNECTED AMPS: 79 A
 NEC CALCULATED AMPS: 68 A

NOTES:
 PROVIDE UL LISTED COMBINATION-TYPE ARC-FAULT CIRCUIT-INTERRUPTER (AFCI) BREAKER PROTECTION FOR ALL BRANCH CIRCUITS IN DWELLING UNITS.