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Building Codes Division
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GENERAL NOTES

GENERAL CONDITIONS

A1 THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND IT IS THE INTENT AND MEANING OF THE CONTRACT DOCUMENTS THAT THE CONTRACTOR SHALL PROVIDE AN ELECTRICAL INSTALLATION THAT IS COMPLETE AND ALL ITEMS AND APPURTENANCES NECESSARY, REASONABLE INCIDENTAL, OR CUSTOMARILY INCLUDED, EVEN THOUGH EACH AND EVERY ITEM IS NOT SPECIFICALLY CALLED OUT OR SHOWN. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, LABOR, SUPERVISION AND SERVICE NECESSARY SO AS TO PROVIDE A COMPLETE, FUNCTIONING ELECTRICAL SYSTEM IN SAFE WORKING ORDER.

A2 SYMBOLS FOR VARIOUS ELEMENTS AND SYSTEMS ARE SHOWN ON THE DRAWINGS. SHOULD THERE BE ANY DOUBT REGARDING THE MEANING OR INTENT OF THE SYMBOLS USED, AN INTERPRETATION SHALL BE OBTAINED FROM THE ARCHITECT IN WRITING. THE DECISION OF THE ARCHITECT SHALL BE FINAL.

A3 IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO EXAMINE THE CONTRACT DOCUMENTS CAREFULLY BEFORE SUBMITTING HIS BID, WITH PARTICULAR ATTENTION TO ERRORS, OMISSIONS, CONFLICTS WITH PROVISIONS OF LAWS AND CODES HAVING JURISDICTION, CONFLICTS BETWEEN DRAWINGS OR DRAWINGS AND SPECIFICATIONS, AND AMBIGUOUS DEFINITION OF THE EXTENT OF COVERAGE BETWEEN CONTRACTS. ANY SUCH DISCREPANCY SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ARCHITECT FOR CORRECTION. SHOULD ANY OF THESE ERRORS, OMISSIONS, CONFLICTS, OR AMBIGUITIES EXIST, THE CONTRACTOR SHALL HAVE THEM EXPLAINED AND ADJUSTED IN WRITING BEFORE SIGNING THE CONTRACT OR PROCEEDING WITH THE WORK; OTHERWISE, HE SHALL, AT HIS OWN EXPENSE, SUPPLY THE PROPER MATERIALS AND LABOR TO MAKE GOOD ANY DAMAGE OR DEFECTS IN HIS WORK OR THE RESULTS OBTAINED THEREFROM, CAUSED BY SUCH DISCREPANCY.

A4 WHEREVER CONFLICTS OCCUR BETWEEN DIFFERENT PARTS OF THE CONTRACT DOCUMENTS, THE GREATER QUANTITY, THE BETTER QUALITY, OR LARGER SIZE SHALL PREVAIL UNLESS THE ARCHITECT INFORMS THE CONTRACTOR OTHERWISE IN WRITING.

A5 THE SCALE OF EACH DRAWING IS RELATIVELY ACCURATE; ANY DIMENSIONS SHOWN ARE APPROXIMATE TO CENTERLINE FROM ASSUMED BUILDING PERIMETER. THE CONTRACTOR SHALL OBTAIN THE NECESSARY DIMENSIONS FOR ANY EXACT TAKEOFFS FROM THE ARCHITECT. NO ADDITIONAL COST TO THE OWNER WILL BE CONSIDERED FOR FAILURE TO OBTAIN EXACT DIMENSIONS WHERE NOT CLEAR OR IN ERROR ON THE DRAWINGS. ANY DEVICE OR FIXTURE ROUGHED IN IMPROPERLY AND NOT POSITIONED ON IMPLIED CENTER-LINES OR AS REQUIRED BY GOOD PRACTICE MUST BE REPOSITIONED AT NO COST TO THE OWNER.

A6 ALL WORK AND MATERIALS SHALL BE GUARANTEED FREE FROM DEFECTS FOR A MINIMUM PERIOD OF ONE YEAR UNLESS NOTED OTHERWISE. THE WARRANTY PERIOD SHALL BEGIN AT THE DATE OF BENEFICIAL OCCUPANCY OF THE FACILITY.

A7 THE CONTRACTOR IS RESPONSIBLE FOR FILING AND PAYING ALL FEES AND OBTAINING NECESSARY PERMITS AND CERTIFICATES OF INSPECTION. THE CONTRACTOR SHALL DELIVER ALL CERTIFICATES OF INSPECTION TO OWNER/CONSTRUCTION MANAGER INCLUDING COPIES WITH MAINTENANCE MANUALS.

A8 ONLY EXPERIENCED CRAFTSMEN KNOWLEDGEABLE IN THEIR RESPECTIVE TRADE SHALL PERFORM THE WORK DESCRIBED IN THE CONSTRUCTION DOCUMENTS.

A9 ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADDITION OF NFPA STANDARD 70 (NATIONAL ELECTRICAL CODE). CONTRACTOR SHALL ALSO CONFORM TO ALL APPLICABLE LOCAL CODES AND AMENDMENTS.

A10 ALL ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO SWITCHGEAR, CONDUIT, WIRE, BOXES AND FITTINGS SHALL BE NEW AND SHALL MEET NEMA AND ANSI STANDARDS AND SHALL BEAR THE UL LABEL.

A11 PROVIDE SHOP DRAWINGS FOR ENGINEER'S REVIEW FOR ALL ELECTRICAL EQUIPMENT, DEVICES, AND MATERIALS PROPOSED TO BE PROVIDED UNDER THIS CONTRACT. ANY DEVIATIONS FROM ITEMS SPECIFIED SHALL BE CLEARLY IDENTIFIED AND SEPARATELY SUBMITTED WITH A FORMAL SUBSTITUTION REQUEST. REFER TO SPECIFICATIONS (PROJECT MANUAL) FOR REQUIREMENTS.

ELECTRICAL EQUIPMENT

B1 PROVIDE AN IDENTIFICATION NAMEPLATE FOR EACH ELECTRICAL EQUIPMENT, APPURTENANCE DEPICTING THE DESIGNATION INDICATED ON THE DRAWINGS. REFER TO SPECIFICATIONS FOR EXACT REQUIREMENTS.

B2 WEATHERPROOF ENCLOSURES SHALL BE PROVIDED FOR ALL ELECTRICAL EQUIPMENT, DEVICES AND APPURTENANCES (ALL SYSTEMS) INSTALLED OUTDOORS.

B3 CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL POWER OUTAGES WITH OWNER'S REPRESENTATIVE.

B4 CONTRACTOR SHALL NOT USE PERMANENT INK WHEN MAKING FIELD MARKINGS OR TEMPORARY CIRCUIT LABELS ON PANELS. CONTRACTOR SHALL USE REMOVABLE TAPE/TAGS FOR ALL TEMPORARY MARKINGS AND SHALL REMOVE THESE TEMPORARY MARKINGS AT THE CONCLUSION OF THIS PROJECT.

CONDUIT & RACEWAY

C1 ALL WORK SHALL BE COORDINATED SO THAT INTERFERENCES ARE AVOIDED. PROVIDE ALL NECESSARY OFFSETS IN CONDUITS, RACEWAYS, ETC., REQUIRED TO PROPERLY INSTALL THE WORK. EXPOSED WORK MUST BE KEPT AS CLOSE AS POSSIBLE TO WALLS, CEILINGS, COLUMNS, ETC., SO AS TO TAKE UP MINIMUM AMOUNT OF SPACE; ALL OFFSETS, FITTINGS, ETC., REQUIRED SHALL BE PROVIDED WITHOUT ADDITIONAL EXPENSE TO THE OWNER. WORK SHALL BE COORDINATED WITH OTHER TRADES.

C2 CONDUIT RUNS ARE DIAGRAMMATIC IN NATURE. CONTRACTOR IS RESPONSIBLE FOR SIZING AND LOCATING PULL BOXES PER N.E.C. AND FOR COORDINATION WITH OTHER DISCIPLINES.

C3 HOMERUN CIRCUITS FOR ISOLATED GROUND RECEPTACLES SHALL BE SEPARATED FROM OTHER CIRCUITS. EACH CIRCUIT SHALL HAVE ITS OWN NEUTRAL CONDUCTOR AND EACH HOMERUN SHALL CONTAIN AN ISOLATED AND EQUIPMENT GROUND CONDUCTOR.

C4 CONTRACTOR SHALL PROVIDE AND INSTALL ADEQUATE SUPPORTS NECESSARY FOR THE RACEWAY SYSTEM. THIS INCLUDES BUT IS NOT LIMITED TO BLOCKING FOR SURFACE AND FLUSH MOUNTED PANELS. CONTRACTOR SHALL REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SIZES AND QUANTITIES OF ALL SUPPORTING MEANS.

C5 PENETRATIONS OF WALLS, FLOORS, AND ROOFS FOR THE PASSAGE OF ELECTRICAL RACEWAYS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO THE COMMENCEMENT OF WORK. ALL SUCH PENETRATIONS SHALL BE PROPERLY SEALED OFF AFTER INSTALLATION OF RACEWAY SO AS TO MAINTAIN THE STRUCTURAL, WATER PROOF, AND FIRE PROOF INTEGRITY OF THE WALL, FLOOR, OR ROOF SYSTEM PENETRATED.

C6 THE CONTRACTOR SHALL SEAL ALL CONDUITS THAT PENETRATE THE BASEMENT FLOOR SLAB TO MAKE THEM WATER TIGHT. THE CONDUITS SHALL BE DRIED PRIOR TO INSTALLATION OF WIRE/CABLE AND SHALL BE SEALED AT TERMINATIONS.

C7 ALL PENETRATIONS THROUGH FIRE RATED WALLS OR PARTITIONS SHALL BE MADE IN ACCORDANCE WITH U.L. 483 "FIRE RESISTANCE DIRECTORY". PENETRATIONS SHALL BE SLEEVED AND SEALED WITH A UL APPROVED FIRE RATED SEALANT. REFER TO ARCHITECTURAL PLANS FOR FIRE RATED WALLS.

C8 ALL EMPTY CONDUIT SYSTEMS SHALL CONTAIN A PULL WIRE FOR FUTURE PULLING OF CONDUCTORS.

BRANCH CIRCUITS AND FEEDERS

D1 UNLESS NOTED OTHERWISE, ALL CIRCUITS 100' OR LESS SHALL BE MINIMUM #12 AWG WIRE SIZE. CIRCUITS OVER 100' BUT LESS THAN 200' SHALL BE MINIMUM #10 AWG WIRE SIZE. CIRCUITS OVER 200' SHALL BE MINIMUM #8 AWG WIRE SIZE.

D2 ALL POWER WIRING SHALL BE INSTALLED IN CONDUIT. CONDUCTOR SIZES #12 AWG AND SMALLER SHALL BE SOLID. CONDUCTOR SIZES #10 AWG AND LARGER MAY BE STRANDED.

D3 A SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE PULLED WITH THE CIRCUIT CONDUCTORS FOR GROUNDING WHETHER OR NOT INDICATED ON THE DRAWINGS. METAL RACEWAY, OR A CABLE ARMOR OR SHEATH SHALL NOT BE USED AS AN EQUIPMENT GROUNDING CONDUCTOR.

D4 CONTRACTOR SHALL GROUND ALL EQUIPMENT AND ELECTRICAL SYSTEM PER N.E.C.

WIRING DEVICES

E1 REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LOCATION AND MOUNTING HEIGHT OF ALL WALL AND FLOOR MOUNTED ELEMENTS (OUTLETS, LIGHT SWITCHES, CONTROLLERS, POKE-THRU, ETC). ALL WALL/FLOOR MOUNTED ITEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL DIMENSIONED DRAWINGS. IF LOCATION FOR AN ITEM IS NOT SHOWN ON THE ARCHITECTURAL DRAWINGS, VERIFY THE EXACT LOCATION OF THE ITEM WITH THE ARCHITECT PRIOR TO INSTALLATION. THESE REQUIREMENTS APPLY TO ALL WALL/FLOOR TYPES IN ALL AREAS. DO NOT SCALE OR DIMENSION LOCATIONS FROM THESE DRAWINGS.

E2 CONTRACTOR SHALL COORDINATE THE LOCATION AND INSTALLATION DETAIL OF OUTLETS IN MILLWORK WITH ARCHITECTURAL DRAWINGS (WALL ELEVATIONS, MILLWORK DETAILS, ETC.) AND WITH MILLWORK MANUFACTURER PRIOR TO ELECTRICAL ROUGH-IN.

E3 WALL AND FLOOR MOUNTED POWER RECEPTACLES SHOWN NEAR DATA OUTLETS SHALL BE LOCATED WITHIN SIX (6) INCHES OF THE DATA OUTLET. LOCATE AT SAME MOUNTING HEIGHT UNLESS NOTED OTHERWISE.

E4 PROVIDE METAL BACKBOX MOUNTING BRACKET (CADDY #RBS SERIES OR SIMILAR) TO MOUNT DEVICE BETWEEN METAL/WOOD STUDS AT SAME ELEVATION AND EQUAL SPACING.

E5 CONTRACTOR SHALL VERIFY THE EXACT POWER CONNECTION TYPE AND NEMA CONFIGURATION OF RECEPTACLES FOR EQUIPMENT FURNISHED BY THE OWNER, OTHER TRADES, OR UNDER A SEPARATE SECTION OF THIS CONTRACT PRIOR TO ELECTRICAL ROUGH-IN.

E6 MOUNT ALL RECEPTACLES THROUGHOUT THE PROJECT WITH THE GROUND POLE AT THE TOP OF THE CONFIGURATION WHEN MOUNTED VERTICALLY, AND ON THE RIGHT WHEN MOUNTED HORIZONTALLY.

E7 ALL RECEPTACLES WITHIN SIX FEET OF ANY PLUMBING FIXTURE AND/OR SINK SHALL BE EQUIPPED WITH GFCI FOR PERSONNEL PROTECTION.

E8 ALL RECEPTACLES LOCATED OUTSIDE THE BUILDING ENVELOPE SHALL BE HOUSED IN ENCLOSURES THAT ARE RATED 'WEATHER-PROOF-WHILE-IN-USE' AND SHALL BE EQUIPPED WITH GFCI FOR PERSONNEL PROTECTION.

E9 ALL GFCI RECEPTACLES SHALL BE CONNECTED SO THAT ALL DEVICES ON THE SAME CIRCUIT AS THE GFCI RECEPTACLE DO NOT DE-ENERGIZE UPON TRIPPING. ALL GFCI RECEPTACLES SHALL INCLUDE A LOCK-OUT FUNCTION TO PROTECT AGAINST THE USE OF MISWIRED DEVICES OR DEVICES THAT HAVE BEEN DAMAGED DUE TO DISABLING SURGES.

E10 FINISH COLORS OF DEVICES AND CORRESPONDING COVER PLATES SHALL BE SELECTED AND APPROVED BY THE ARCHITECT. SPECIALTY RECEPTACLES AND COVERPLATES (I.E. ISOLATED GROUND, EMERGENCY, CRITICAL BRANCH, SURGE SUPPRESSION, ETC.) SHALL BE THE COLOR NOTED IN ELECTRICAL CONSTRUCTION DOCUMENTS.

E11 POKE-THRU DEVICES SHALL BE BE LISTED AND LABLED FOR FIRE RATING OF FLOOR-CEILING ASSEMBLY. ALL FLOOR CORES SHALL BE LOCATED/SPACED IN A MANNER THAT DOES NOT DECREASE THE FIRE RATING OF THE FLOOR-CEILING ASSEMBLY BASED ON THE LATEST NFPA AND UL STANDARDS FOR FLOOR-CEILING ASSEMBLIES.

E12 PROVIDE SAFETY (TAMPER-PROOF) RECEPTACLES IN ALL DAY-CARE ROOMS AND PUBLIC WAITING SPACES.

LIGHTING SYSTEM

G1 REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LOCATION OF ALL CEILING ELEMENTS (LIGHTS, SPRINKLERS, DIFFUSERS, ETC). ALL CEILING MOUNTED ITEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL DIMENSIONED DRAWINGS. IF LOCATION FOR AN ITEM IS NOT SHOWN ON THE ARCHITECTURAL DRAWINGS, VERIFY THE EXACT LOCATION OF THE ITEM WITH THE ARCHITECT PRIOR TO INSTALLATION. THESE REQUIREMENTS APPLY TO ALL CEILING TYPES IN ALL AREAS. DO NOT SCALE OR DIMENSION LOCATIONS FROM THESE DRAWINGS.

G2 CONTRACTOR SHALL PROVIDE AND INSTALL ALL SUPPORTS FOR LIGHT FIXTURES. SUPPORTS SHALL BE INDEPENDENT OF THE CEILING GRID SUPPORT SYSTEM.

G3 LIGHT SWITCHES LOCATED IN A ROOM SHALL CONTROL ALL THE LIGHT FIXTURES IN THAT ROOM UNLESS NOTED OTHERWISE. CONTRACTOR SHALL GANG TOGETHER ALL SWITCHES/DIMMERS UNDER A SINGLE COVER PLATE IN ALL AREAS THAT REQUIRE MORE THAN ONE SWITCH TO CONTROL ELECTRICAL DEVICES.

G4 WALLBOX DIMMERS SHALL BE INSTALLED IN A MANNER SUCH THAT THEIR LISTED WATTAGE IS NOT DERATED DUE TO HEAT. SPACE ACCORDING TO DIMMER MANUFACTURER'S RECOMMENDATIONS AND PROVIDE 'WIDE-FIN' DESING DIMMERS WHERE REQUIRED.

G5 IN INSTANCES WHERE A TRACK LIGHTING SYSTEM, DIMMING SYSTEM, AND/OR LIGHTING CONTROL SYSTEM IS SPECIFIED, THE CONTRACTOR SHALL COORDINATE ALL NECESSARY COMPONENTS OF SUCH SYSTEM(S) WITH THE MANUFACTURER PRIOR TO BID AND INCLUDE ALL NECESSARY ACCESSORIES TO INSTALL A COMPLETE AND FUNCTIONING SYSTEM.

G6 ALL LIGHT FIXTURES SHALL BE INSTALLED WITH APPROPRIATE LAMPS AS INDICATED. FIXTURES SHALL ALSO BE INSTALLED WITH BALLASTS WHERE NECESSARY.

OCCUPANCY SENSOR NOTES:

G7 ALL SENSOR LOCATIONS ARE APPROXIMATE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO INSTALLATION.

G8 ULTRASONIC CEILING MOUNT SENSORS SHOULD BE LOCATED A MINIMUM OF SIX (6) FEET FROM HVAC SUPPLY/RETURN VENTS.

G9 CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS FOR NON-ADAPTIVE PRODUCTS, FOLLOWING THE MANUFACTURER'S RECOMMENDED PLACEMENT, AND FIELD VERIFICATION OF CIRCUITS WITH RESPECT TO POWER PACK PLACEMENT.

G10 CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF REQUIRED NUMBER OF POWER PACKS:
A. ONE POWER PACK IS REQUIRED FOR EACH CONTROLLED CIRCUIT;
B. SEVERAL SENSORS AND ADD-A-RELAYS CAN BE WIRED IN PARALLEL TO A SINGLE POWER PACK, NOT TO EXCEED 150mA TOTAL POWER CONSUMPTION;
C. IF MULTIPLE CIRCUITS ARE TO BE CONTROLLED BY A SINGLE SENSOR, AUXILIARY RELAYS MAY BE USED IN CONJUNCTION WITH A POWER PACK.

G11 SENSORS MOUNTED OVER DOORWAYS SHOULD BE PLACED ONE (1) FOOT INSIDE THRESHOLD.

MECHANICAL & PLUMBING COORDINATION

H1 CONTRACTOR SHALL REFERENCE THE MECHANICAL AND PLUMBING DRAWINGS FOR ALL EQUIPMENT NEEDING ELECTRICAL CONNECTIONS. MAKE ALL CONNECTIONS AND PROVIDE APPROPRIATE WIRE, CONDUIT, AND OVERCURRENT PROTECTION FOR ALL EQUIPMENT.

H2 DISCONNECTING MEANS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT SHALL BE MOUNTED INDEPENDENTLY OF THE EQUIPMENT.

H3 ALL CIRCUIT BREAKERS SERVING MECHANICAL EQUIPMENT SHALL BEAR AN 'HACR' RATING.

H4 CONTRACTOR SHALL COORDINATE BETWEEN TRADES AND PROVIDE CONTROL POWER FOR ALL VAV BOXES/DAMPERS/ETC, AS REQUIRED TO ENSURE A COMPLETE, FULLY FUNCTIONAL HVAC SYSTEM. SHOULD AN EXACT CIRCUIT NUMBER NOT BE INDICATED ON ELECTRICAL DRAWINGS, CONTRACTOR SHALL UTILIZE AVAILABLE 20A/1P SPACE FROM THE NEAREST 208V/120V PANEL OR FROM BUILDING CONTROL POWER DISTRIBUTION SYSTEM.

H5 CONTRACTOR SHALL COORDINATE MOTOR DISCONNECT AND CONTROL WITH MECHANICAL DRAWINGS AND BETWEEN TRADES.

H6 COORDINATE ALL REQUIRED ENERGY MANAGEMENT SYSTEM POINTS AND CONTACT CONNECTIONS TO ENSURE THE COMPLETE AND PROPER OPERATION OF ALL SYSTEMS.

H7 ALL DISCONNECTS DOWN STREAM OF VFDs SHALL BE PROVIDED WITH AUXILIARY CONTACTS TO SHUT DOWN UPSTREAM VFD WHEN SWITCH IS OPENED.

EMERGENCY POWER SYSTEM

I1 ALL EMERGENCY SYSTEMS SHALL BE RUN IN A SEPARATE RACEWAY/CONDUIT SYSTEM AND SHALL BE CLEARLY LABELED AS SUCH.

MISC

K1 REFER TO AND COORDINATE WITH MEDICAL EQUIPMENT PRODUCT DATA BOOKS FOR ELECTRICAL CONNECTION REQUIREMENTS FOR ALL MEDICAL EQUIPMENT. COORDINATE EXACT REQUIREMENTS PRIOR TO INSTALLATION.

K2 PROVIDE 120V LIFE SAFETY CIRCUIT CONNECTIONS TO ALL FIRE ALARM EXTENDER PANELS. COORDINATE WITH VENDOR SHOP DRAWINGS EXACT QUANTITY AND LOCATION OF ALL PANELS.

K3 PROVIDE 120V EQUIPMENT POWER CIRCUIT TO ALL PNEUMATIC TUBE TRANSFER STATIONS. COORDINATE WITH VENDOR SHOP DRAWINGS EXACT QUANTITY AND LOCATIONS OF ALL STATIONS. PROVIDE 480V CONNECTION TO PNEUMATIC TUBE BLOWER. BLOWER TO BE LOCATED ON SHOP DRAWINGS.

K4 PROVIDE BACKBOX AND CONDUIT PATHWAYS FOR ALL CM DRAWINGS. REFER TO CM DRAWINGS FOR EXACT QUANTITIES AND LOCATIONS OF SLEEVES, DEVICE BACKBOXES AND CONDUITS.

ELECTRCIAL ABBREVIATIONS

AAP	AREA ALARM PANEL	MH	MANHOLE
AFC	ABOVE FINISHED COUNTER	MLO	MAIN LUGS ONLY
AFF	ABOVE FINISHED FLOOR	MTD	MOUNT OR MOUNTED
ATS	AUTOMATIC TRANSFER SWITCH	N	NEW DEVICE
BFC	BELOW FINISHED CEILING	NC (N.C.)	NORMALLY CLOSED
BOF	BOTTOM OF FIXTURE	NEC	NATIONAL ELECTRIC CODE
C	CONDUIT	NF	NONFUSED
CB,C/B OR CKT BKR	CIRCUIT BREAKER	NIC	NOT IN CONTRACT
		NL	NIGHT LIGHT
CKT	CIRCUIT	NO (N.O.)	NORMALLY OPEN
CCTV	CLOSED CIRCUIT T.V.	PB	PULL BOX
CLG	CEILING	PNL	PANEL
CUH	CABINET HEATER	PWR	POWER
EC	EMPTY CONDUIT	R	REMOVE DEVICES
ELEC	ELECTRIC	RL	RELOCATED DEVICE
E	EMERGENCY	RCPT(S) OR RECEPT	RECEPTACLE(S)
EMS	ENERGY MANAGEMENT SYSTEM		
EP	EXPLOSION PROOF	RF	RETURN AIR FAN
EWC	ELECTRIC WATER COOLER	SEF	SMOKE EXHAUST FAN
EX	EXISTING	SF	SUPPLY AIR FAN
F	FUSE	SO (S.O.)	SPACE ONLY
FA	FIRE ALARM	SP	SPARE
FACP, FAP	FIRE ALARM CONTROL PANEL	ST (S.T.)	SHUNT TRIP
FCU	FAN COIL UNIT	SW	SWITCH
FIXT	FIXTURE	TEL	TELEPHONE
FLR	FLOOR	TF	TRANSFER FAN
FLUOR	FLUORESCENT	TP	TAMPER PROOF
FTP, FTS	FAN TERMINAL UNIT	TV	TELEVISION
FTU	FAN TERMINAL UNIT	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
FUT	FUTURE		
G, GND	GROUND (EQUIPMENT)	UF	UNDERFLOOR
GEF	GENERAL EXHAUST FAN	UG	UNDERGROUND
GEN	GENERATOR	UH	UNIT HEATER
GFCI, GFI	GROUND FAULT CIRCUIT INTERRUPTER	UNO (U.N.O.)	UNLESS NOTED OR INDICATED OTHERWISE
HP	HORSE POWER		
HV	HIGH VOLTAGE	V	VOLTAGE
HWAT	HEAT TRACE	VFD	VARIABLE FREQUENCY DRIVE
IC	INTERRUPTING CAPACITY	VP	VAPOR PROOF
ICAND	INCANDESCENT	VV	VARIABLE VOLUME UNIT
IG	ISOLATED GROUND	W	WIRE
JB	JUNCTION BOX	W/	WITH
KEF	KITCHEN EXHAUST FAN	WG	WIRE GUARD
LTG	LIGHTING	WP	WEATHER PROOF
LTS	LIGHTS	WT	WATER TIGHT
LV	LOW VOLTAGE	XFMR	TRANSFORMER
MATV	MASTER ANTENNA	+xx	MOUNTING HEIGHT IN INCHES. AFF UNO.
MCB	MAIN CIRCUIT BREAKER		
MCC	MOTOR CONTROL CENTER		
MDP	MAIN DISTRIBUTION PANEL		

KEY TO GENERAL NOTATIONS AND MOUNTING HEIGHTS

48" AFF INDICATES TO TOP OF DEVICE;
18" AFF INDICATES TO CENTER OF DEVICE;
60" AFF INDICATES TO BOTTOM OF DEVICE;
80" AFF INDICATES TO BOTTOM OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

(2) – LFGEND NOTES: DENOTES "SEE LEGEND NOTE NO. 2"

(7) – EQUIPMENT (ID) NUMBER FOR FOOD SERVICE EQUIPMENT. REFER TO FOOD SERVICE DOCUMENTS FOR DEFINITION AND REQUIREMENTS.

(717629) OR 717629 – EQUIPMENT (ID) NUMBER FOR OWNER PROVIDED EQUIPMENT. REFER TO OWNER'S EQUIPMENT BOOK / FF&E DOCUMENTS FOR DEFINITION AND REQUIREMENTS.

02/E-202 – DENOTES: REFERENCE 2 IN DRAWING (SHEET) E-202

20.4 – FEEDER TAG. FEEDER SIZES ARE DETERMINED BY THE FEEDER SCHEDULE ON E-6000.

MEP SYSTEM COORDINATION SCHEDULE

SYSTEM	FURNISHED BY	INSTALLED BY	POWER WIRING BY	CONTROL OR SUPERVISION WIRING BY
LIFE SAFETY SYSTEM	DIV 27	DIV 27	DIV 26	DIV 27
SMOKE DAMPER/ACTUATOR	DIV 23	DIV 23	DIV 26	DIV 27
FIRE/SMOKE DAMPER/ ACTUATOR	DIV 23	DIV 23	DIV 26	DIV 27
DUCT SMOKE DETECTOR	DIV 27	DIV 26	---	DIV 27
NURSE CALL/ FIRE ALARM INTERFACE	DIV 27	DIV 27	---	DIV 27
MEDICAL GAS ALARM	DIV 22	DIV 22	DIV 26	DIV 22
MOTOR STARTERS (INTEGRAL TO EQUIP.)	DIV 23	N/A	DIV 26	DIV 23
MOTOR STARTERS (NON-INTEGRAL)	DIV 23	DIV 26	DIV 26	DIV 23
COMB. MOTOR STARTER/DISCONNECT (INTEGRAL TO EQUIP.)	DIV 23	N/A	DIV 26	DIV 23
COMB. MOTOR STARTER/DISCONNECT (NON-INTEGRAL)	DIV 23	DIV 26	DIV 26	DIV 23
PUMPS	DIV 23	DIV 26	DIV 26	DIV 23
AIR HANDLERS	DIV 23	DIV 26	DIV 26	DIV 23
FANS	DIV 23	DIV 26	DIV 26	DIV 23
FAN POWERED BOXES	DIV 23	DIV 26	DIV 26	DIV 23
MISC. MOTORS	DIV 23	DIV 26	DIV 26	DIV 23
VARIABLE FREQUENCY DRIVES (VFD'S)	DIV 23	DIV 26	DIV 26	DIV 23
AIR HANDLING SYSTEMS	DIV 23	DIV 26	DIV 26	DIV 23
DISCONNECT SWITCHES (NON-INTEGRAL)	DIV 26	DIV 26	DIV 26	---
THIS TABLE IS PROVIDED AS A GUIDE TO THE DOCUMENT PREPARATION AND IN NO WAY INDICATES CONTRACTOR MEANS AND METHODS				

LIGHTING SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MTG. HT. UNO (SEE NOTE 1)
	2'x4' FLUORESCENT LIGHT FIXTURE ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	2'x4' FLUORESCENT LIGHT FIXTURE ON LIFE SAFETY CIRCUIT OR LEGALLY REQUIRED STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	2'x4' FLUORESCENT LIGHT FIXTURE ON CRITICAL CIRCUIT OR NON-ESSENTIAL STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	2'x4' FLUORESCENT LIGHT FIXTURE W/INBOARD LAMPS ON NORMAL CIRCUIT AND OUTBOARD LAMPS ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	2'x4' FLUORESCENT LIGHT FIXTURE W/INBOARD LAMPS ON LIFE SAFETY CIRCUIT AND OUTBOARD LAMPS ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	2'x4' FLUORESCENT LIGHT FIXTURE W/INBOARD LAMPS ON CRITICAL CIRCUIT AND OUTBOARD LAMPS ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	2'x2' FLUORESCENT LIGHT FIXTURE ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	2'x2' FLUORESCENT LIGHT FIXTURE ON LIFE SAFETY CIRCUIT OR LEGALLY REQUIRED STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	2'x2' FLUORESCENT LIGHT FIXTURE ON CRITICAL CIRCUIT OR NON-ESSENTIAL STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	2'x2' FLUORESCENT LIGHT FIXTURE W/INBOARD LAMPS ON NORMAL CIRCUIT AND OUTBOARD LAMPS ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	2'x2' FLUORESCENT LIGHT FIXTURE W/INBOARD LAMPS ON LIFE SAFETY CIRCUIT AND OUTBOARD LAMPS ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	2'x2' FLUORESCENT LIGHT FIXTURE W/INBOARD LAMPS ON CRITICAL CIRCUIT AND OUTBOARD LAMPS ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	WALL MOUNTED LINEAR FIXTURE ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	WALL MOUNTED LINEAR FIXTURE ON LIFE SAFETY CIRCUIT OR LEGALLY REQUIRED STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	WALL MOUNTED LINEAR FIXTURE ON CRITICAL CIRCUIT OR NON-ESSENTIAL STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	RECESSED/SURFACE MOUNTED LINEAR FIXTURE ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	RECESSED/SURFACE MOUNTED LINEAR FIXTURE ON LIFE SAFETY CIRCUIT OR LEGALLY REQUIRED STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	RECESSED/SURFACE MOUNTED LINEAR FIXTURE ON CRITICAL CIRCUIT OR NON-ESSENTIAL STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	RECESSED/SUSPENDED DOWNLIGHT FIXTURE ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	WALL MOUNTED FIXTURE ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	RECESSED/SUSPENDED DOWNLIGHT FIXTURE ON LIFE SAFTEY CIRCUIT OR LEGALLY REQUIRED STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	WALL MOUNTED FIXTURE ON LIFE SAFETY CIRCUIT OR LEGALLY REQUIRED STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	RECESSED/SUSPENDED DOWNLIGHT FIXTURE ON CRITICAL CIRCUIT OR NON-ESSENTIAL STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	WALL MOUNTED FIXTURE ON CRITICAL CIRCUIT OR NON-ESSENTIAL STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	RECESSED DOWNLIGHT FIXTURE WITH WALL WASH TRIM ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	RECESSED DOWNLIGHT FIXTURE WITH WALL WASH TRIM ON LIFE SAFETY CIRCUIT OR LEGALLY REQUIRED STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	RECESSED DOWNLIGHT FIXTURE WITH WALL WASH TRIM ON CRITICAL CIRCUIT OR NON-ESSENTIAL STANDBY SYSTEM.	SEE FIXTURE SCHEDULE
	WALL MOUNTED FIXTURE OR DECORATIVE SCONCE.	SEE FIXTURE SCHEDULE
	CEILING MOUNTED EXIT SIGN. SHADING INDICATES DOUBLE OR SINGAL FACE. ARROW INDICATE CHEVRON DIRECTIONS.	SEE FIXTURE SCHEDULE
	END MOUNTED EXIT SIGN. SHADING INDICATES DOUBLE OR SINGAL FACE. ARROW INDICATE CHEVRON DIRECTIONS.	SEE FIXTURE SCHEDULE
	WALL MOUNTED EXIT SIGN. SHADING INDICATES DOUBLE OR SINGAL FACE ARROW INDICATE CHEVRON DIRECTIONS.	SEE FIXTURE SCHEDULE
	WALL MOUNTED 90-MINUTE BATTERY-POWERED EGRESS LIGHTING.	SEE FIXTURE SCHEDULE
	EXTERIOR LIGHT POLE FIXTURE.	SEE FIXTURE SCHEDULE
	EXISTING EXTERIOR LIGHT POLE FIXTURE.	SEE FIXTURE SCHEDULE
X	SPOT LIGHT SWITCHED ON NORMAL CIRCUIT. LETTER INDICATES FIXTURE TYPE.	SEE FIXTURE SCHEDULE
X	FLOOD LIGHT SWITCHED ON NORMAL CIRCUIT. LETTER INDICATES FIXTURE TYPE.	SEE FIXTURE SCHEDULE
	TRACK LIGHTING	SEE FIXTURE SCHEDULE
$	WALL SWITCH SPST, 20A, 120/277V	48" AFF
$2	DOUBLE POLE TOGGLE SWITCH, 20A/208/480V	48" AFF
$3	3-WAY WALL SWITCH, 20A, 120/277V	48" AFF
$4	4-WAY WALL SWITCH, 20A, 120/277V	48" AFF
$DA	WALL BOX DIMMER SWITCH (A=600W, B=1000, C=1500, D=2000)	48" AFF
$K	KEY OPERATED WALL SWITCH	48" AFF
$T	WALL SWITCH WITH ADJUSTABLE COUNTDOWN TIMER	48" AFF
$3D	3-WAY WALL DIMMER SWITCH, 20A, 120/277V	48" AFF
$3K	3-WAY, KEY OPERATED WALL SWITCH, 20A, 120/277V	48" AFF
$MC	MOMENTARY WALL SWITCH, 20A, 120/277V	48" AFF
$B	LIGHTING CONTROL SWITCH BANK FOR MUTIPLE SWITCHES, REFER TO DETAIL FOR QUANTITY OF SWITCHES IN BANK.	48" AFF
$LV	LOW VOLTAGE WALL SWITCH	48" AFF
$OS(P,D)	WALL MOUNTED OCCUPANCY SENSOR SWITCH (PASSIVE, DUAL TECHNOLGY)	48" AFF
500	LEVITON CEILING MOUNTED MULTI-TECHNOLOGY #OSC05-MO	–
	LEVITON CEILING MOUNTED ULTRASONIC #OSC05-UO	–
	LEVITON CEILING MOUNTED MULTI-TECHNOLOGY #OSC10-MO	–
	LEVITON CEILING MOUNTED ULTRASONIC #OSC10-UO	–
	LEVITON CEILING MOUNTED MULTI-TECHNOLOGY #OSC20-MO	–
	LEVITON CEILING MOUNTED ULTRASONIC #OSC20-UO	–
	LEVITON POWER PACK FOR 120VAC SYSTEM #OSP20-070	–
	LEVITON ADD-A-RELAY POWER PACK FOR 120VAC SYSTEM #OSA20-R00	–
CN	LEVITON CENTURA DIMMING POWER PACK #CN100-0D0	–
PC	LEVITON CENTURA PHOTOCELL #OSCCP	–

FIRE ALARM SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MTG. HT. UNO (SEE NOTE 1)
F	FIRE ALARM PULL STATION	48"AFF
F	FIRE ALARM AUDIBLE VISUAL SIGNAL	80"AFF
F	FIRE ALARM AUDIBLE SIGNAL	80"AFF
F	FIRE ALARM VISUAL SIGNAL	80"AFF
FS	FIRE ALARM SPRINKLER FLOW SWITCH	–
TS	FIRE ALARM SPRINKLER TAMPER SWITCH	–
PS	FIRE ALARM SPRINKLER PRESSURE SWITCH	–
FD	SMOKE DETECTOR CEILING OR WALL MOUNTED	–
FD P	SMOKE DETECTOR PATIENT SLEEPING ROOM CEILING OR WALL MOUNTED	–
FH	HEAT DETECTOR CEILING OR WALL MOUNTED	–
FD	DUCT SMOKE DETECTOR	–
S	FIRE ALARM SPEAKER CEILING OR WALL MOUNTED	–
MHO	SMOKE DOOR MAGNETIC HOLD OPEN, CONNECT TO FIRE ALARM SYSTEM – STUB 3/4" C. ABOVE ACCESSIBLE CEILING FROM OUTLET	–
FACP	FIRE ALARM CONTROL PANEL	–
FAAP	FIRE ALARM ANNUNCIATOR PANEL	–
FP	TELEPHONE JACK FOR FIREMAN'S PHONE (BY FIRE ALARM CONTRACTOR). CONTRACTOR TO PROVIDE BACKBOX AND CONDUIT TO ABOVE ACCESSIBLE CEILING ONLY.	48" AFF
FPH	WARDEN STATION TELEPHONE FOR FIREMAN'S PERMANENT HANDSET (BY FIRE ALARM CONTRACTOR)	48" AFF
FPAP	FIRE PUMP ANNUNCIATOR PANEL	–
FCP	FIREFIGHTER'S CONTROL PANEL	–

WIRING DEVICE SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MTG. HT. UNO (SEE NOTE 1)
	SINGLE RECEPTACLE – 20A/125V/2P/3W/G NEMA 5-20R	18" AFF
	DUPLEX RECEPTACLE – 20A/125V/2P/3W/G NEMA 5-20R	18" AFF
	DUPLEX RCPT. SPLIT-WIRED – 20A/125V/2P/3W/G NEMA 5-20R	18" AFF
GFCI	DUPLEX RCPT. GFCI – 20A/125V/2P/3W/G NEMA 5-20R	18" AFF
	QUADRAPLEX RECEPTACLE (TWO DUPLEX RCPTS. UNDER ONE COVERPLATE)	18" AFF
H	DUPLEX RECEPTACLE MOUNTED HORIZONTALLY IN SPLASHGAURD	18" AFF
E	DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT	18" AFF
S	DUPLEX RECEPTACLE, SAFETY TYPE (TAMPERPROOF)	18" AFF
TP	DUPLEX RCPT, TAMPER PROOF-20A/125V/2P/3W/G NEMA 5-20R	18" AFF
	SPECIAL PURPOSE RECEPTACLE (NEMA NO. AS INDICATED)	18" AFF
	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTERTOP	8" AFC OR 42" AFF
	QUADRAPLEX RECEPTACLE (TWO DUPLEX RCPTS. UNDER ONE COVERPLATE) MOUNTED 8" ABOVE COUNTERTOP	8" AFC OR 42" AFF
E	DUPLEX RECEPTACLE MOUNTED 8" ABOVE COUNTERTOP ON EMERGENCY CIRCUIT	8" AFC OR 42" AFF
E	QUADRAPLEX RECEPTACLE (TWO DUPLEX RCPTS. UNDER ONE COVERPLATE) MOUNTED 8" ABOVE COUNTERTOP ON EMERG. CIRC.	8" AFC OR 42" AFF
	FLOOR MOUNTED RECEPTACLE – FLUSH MOUNTED, UNO	–
PM	DUPLEX RCPT FOR PATIENT MONITORING – PROVIDE AT SAME HEIGHT AS DATA OUTLET – REFER TO COMM. PLANS FOR MOUNTING HEIGHT	–
PROX CAB	DUPLEX RCPT FOR PROXIMITY CABINET – PROVIDE AT SAME HEIGHT AS DATA OUTLET – REFER TO COMM. PLANS FOR MOUNTING HEIGHT	–
J	JUNCTION BOX – SIZE & MOUNTING AS REQUIRED	AS REQUIRED
	MULTIOUTLET ASSEMBLY – LENGTH AND OUTLET SPACING AS INDICATED	AS REQUIRED
	PUSHBUTTON	48" AFF
PP	POWER POLE	–
30/30/3	DISCONNECT SWITCH – 30/30/3 INDICATES 30A, 30AMP FUSED, 3-POLE.	AS REQUIRED
30/-/3	DISCONNECT SWITCH – 30/-/3 INDICATES 30A, NONFUSED, 3-POLE.	AS REQUIRED
CB 30/3	CIRCUIT BREAKER DISCONNECT SWITCH – THERMAL MAGNETIC CB IN NEMA 1 ENCLOSURE; AMPS/POLES AS INDICATED	AS REQUIRED
2	MOTOR STARTER FVNR UNO; NUMBER INDICATES NEMA SIZE	AS REQUIRED
CB	COMBINATION MOTOR CONTROLLER/DISCONNECT SWITCH	AS REQUIRED
$M	MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD AND PILOT LIGHT	AS REQUIRED
	MOTOR	–
	208/120V PANELBOARD	–
	480/277V PANELBOARD	–
	DISTRUBUTION PANELBOARD	–
	EQUIPMENT CONNECTION	–
	CIRCUIT CONDUCTOR INDICATION (NEUTRAL, PHASE, EQUIPMENT GROUND, ISOLATED GROUND, SWITCH LEG)	–
	CIRCUIT HOMERUN TO PANELBOARD (2 #12, 1#12G, 3/4"C. 20A/1P CB UNO)	–
	CONDUIT INSTALLED IN CEILING SPACE OF FLOOR BELOW.	–
X,X,X	THREE SINGLE POLE DEVICE CIRCUIT NUMBERS	–
X/X/X	MULTI-POLE DEVICE CIRCUIT NUMBERS	–
RG	ROOM GROUND	AS REQUIRED
PG	PATIENT GROUND	AS REQUIRED
EPO	EMERGENCY POWER OFF BUTTON. WALL MOUNTED – REFER TO VENDOR DRAWINGS FOR ADDITIONAL REQUIREMENTS	AS REQUIRED
DHTA	DECONTAMINATION HOLDING TANK ALARM – PANEL PROVIDED UNDER DIV 22	AS REQUIRED
GAP	GENERATOR ANNUNCIATOR PANEL	AS REQUIRED
MGAP	MEDICAL GAS ALARM PANEL – PANEL PROVIDED UNDER DIV 22	AS REQUIRED
AAP	AREA ALARM PANEL – PANEL PROVIDED UNDER DIV 22	AS REQUIRED
	GROUND BAR	–
T	STEP-DOWN TRANSFORMER	–
TVSS	TRANSIENT VOLTAGE AND SURGE SUPPRESSOR DEVICE	–

SECURITY SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MTG. HT. UNO (SEE NOTE 1)
MD	MOTION DETECTOR	AS REQUIRED
CR	CARD READER	AS REQUIRED
KP	KEY PAD	AS REQUIRED
EX	EXCITER (INFANT SECURITY)	AS REQUIRED
SC	STROBE CHIME (INFANT SECURITY)	AS REQUIRED
DC	DOOR CONTACT	AS REQUIRED
PP	PUSH PLATE FOR AUTO-SWING DOOR.	AS REQUIRED
PB	PUSH BUTTON FOR RELEASE OF CONTROLED ACCESS DOOR.	AS REQUIRED
DACC	DOOR ACCESS CONTROL CABINET	AS REQUIRED
C	CCTV SECURITY CAMERA. CEILING MOUNTED. PROVIDE SINGLE GANG OULET BOX U.N.O.	–
CP	CCTV SECURITY CAMERA – PAN/TILT/ZOOM. CEILING MOUNTED. PROVIDE SINGLE GANG OULET BOX U.N.O.	–
PP	PUSH PAD	
KP	KEY PAD	
CR	CARD READER	

CONFIRM ALL BACKBOX SIZE WITH VENDOR SHOP DRAWINGS PRIOR TO ELECTRICAL ROUGH-IN. PROVIDE 3/4" CONDUIT STUBBED ABOVE NEAREST ACCESSIBLE CEILING WITH NYLON PULLCORD.

MISC. HOSPITAL SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MTG. HT. UNO (SEE NOTE 1)
TV	COMBINATION POWER AND MATV OUTLET FOR WALL MOUNTED TELEVISION. PROVIDE THREE GANG BOX WITH (1) 20A DUPLEX RCPT & MATV SIGNAL OUTLET AND TV CONTROLS. COORDINATE WITH VENDOR SHOP DRAWINGS.	REFER TO ARCH. ELEVS.
HE	HEAD-END EQUIPMENT	AS REQUIRED
MPR	MUSIC AND PAGING SYSTEM CENTRAL EQUIPMENT CABINET	AS REQUIRED
TVJ	MATV SYSTEM JUNCTION BOARD (SIZE AS REQUIRED)	–
SSA	STEREO CABINET. WALL MOUNTED – STUB 3/4" C. ABOVE ACCESSIBLE CEILING FROM OUTLET BOX.	60" AFF
C	CLOCK OUTLET. CONFIRM BACKBOX SIZE WITH VENDOR SHOP DRAWINGS. PROVIDE 3/4" CONDUIT STUBBED ABOVE NEAREST ACCESSIBLE CEILING WITH NYLON PULLCORD.	80" AFF
	ELAPSE TIME CLOCK OUTLET. CONFIRM BACKBOX SIZE WITH VENDOR SHOP DRAWINGS. PROVIDE 3/4" CONDUIT STUBBED ABOVE NEAREST ACCESSIBLE CEILING WITH NYLON PULLCORD.	80" AFF
EMS	EMS RADIO CONSOLE	X
H	EMERGENCY RADIO HEAR CONSOLE	X
HB	HEAR BASE STATION	X
MAP	MEDICAL GAS ALARM PANEL	X

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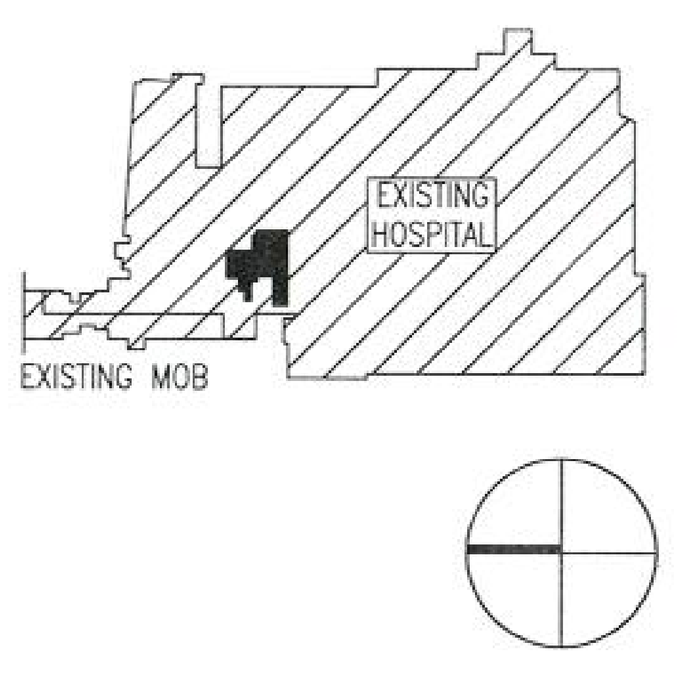
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KEY PLAN
FIRST FLOOR



COLORADO LICENSED PROFESSIONAL ENGINEER 31031
3/4/09

Revisions

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ELECTRICAL LEGENDS & NOTES

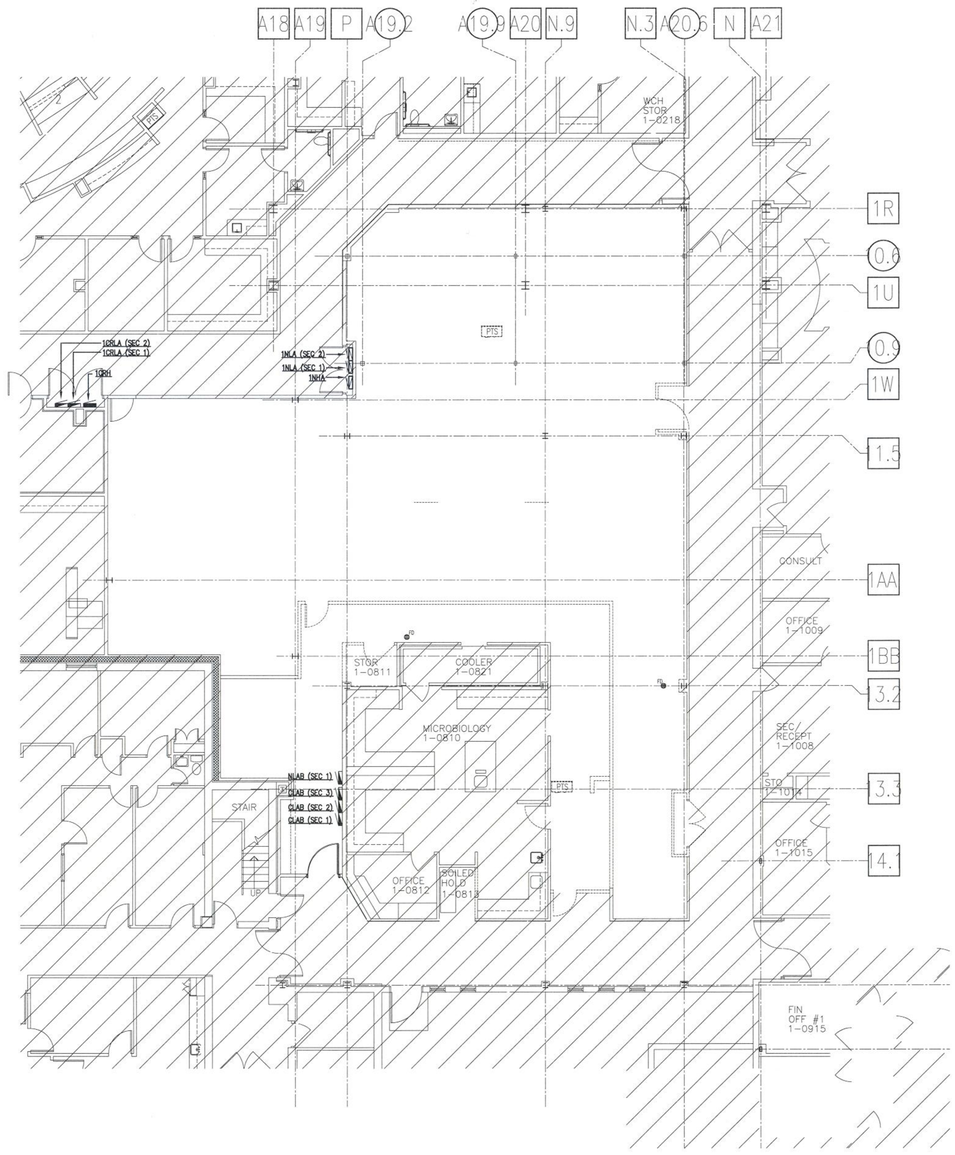
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01 PARTIAL FIRST FLOOR DEMOLITION PLAN - POWER

SCALE: 1/8" = 1'-0"

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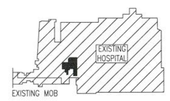
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POWER DEMOLITION PLAN
FIRST FLOOR

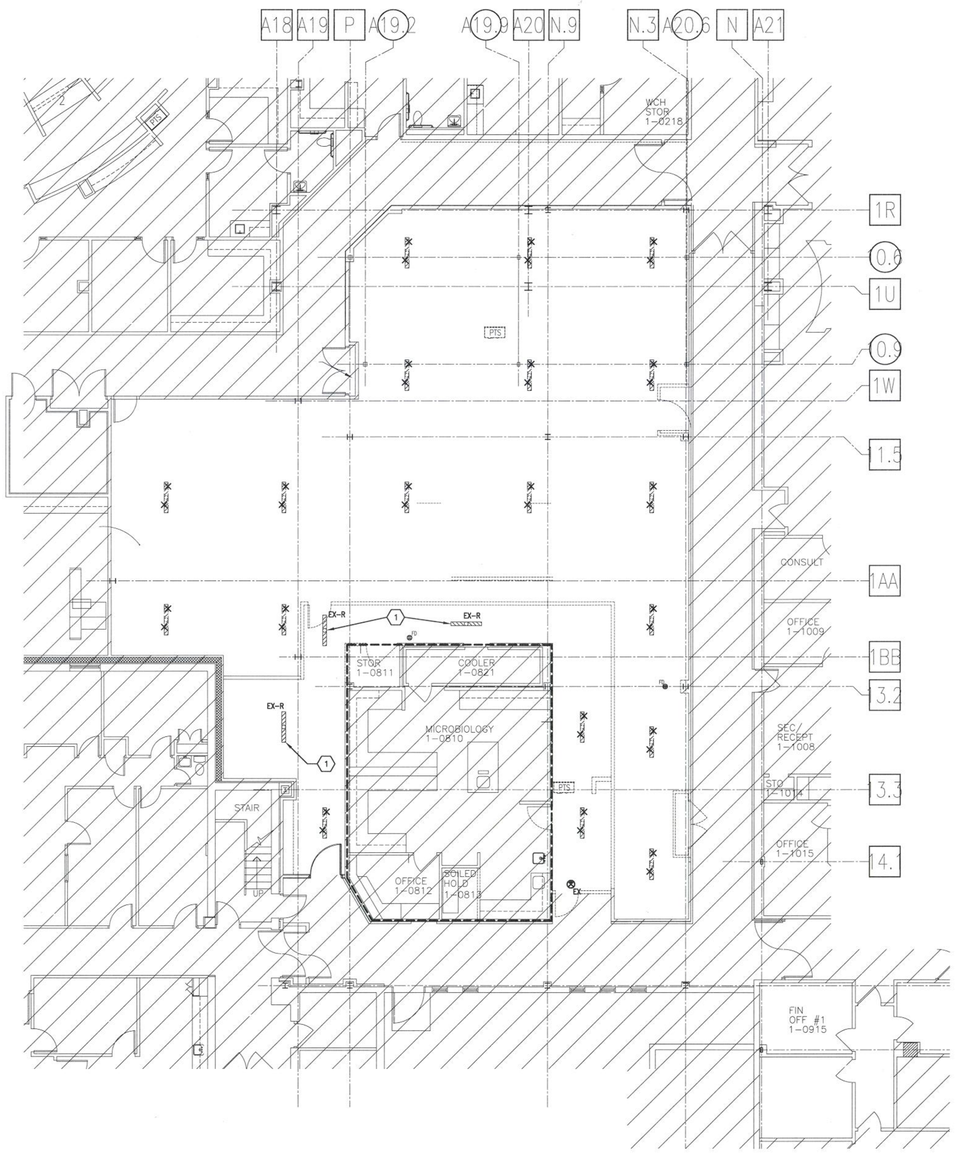
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01 PARTIAL FIRST FLOOR DEMOLITION PLAN - LIGHTING

SCALE: 1/8" = 1'-0"

LEGEND NOTES

(1) RELOCATE EXISTING LIGHT FIXTURE. THOROUGHLY CLEEAN AND RELAMP PRIOR TO RE-INSALLATION.

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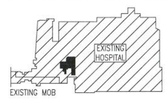
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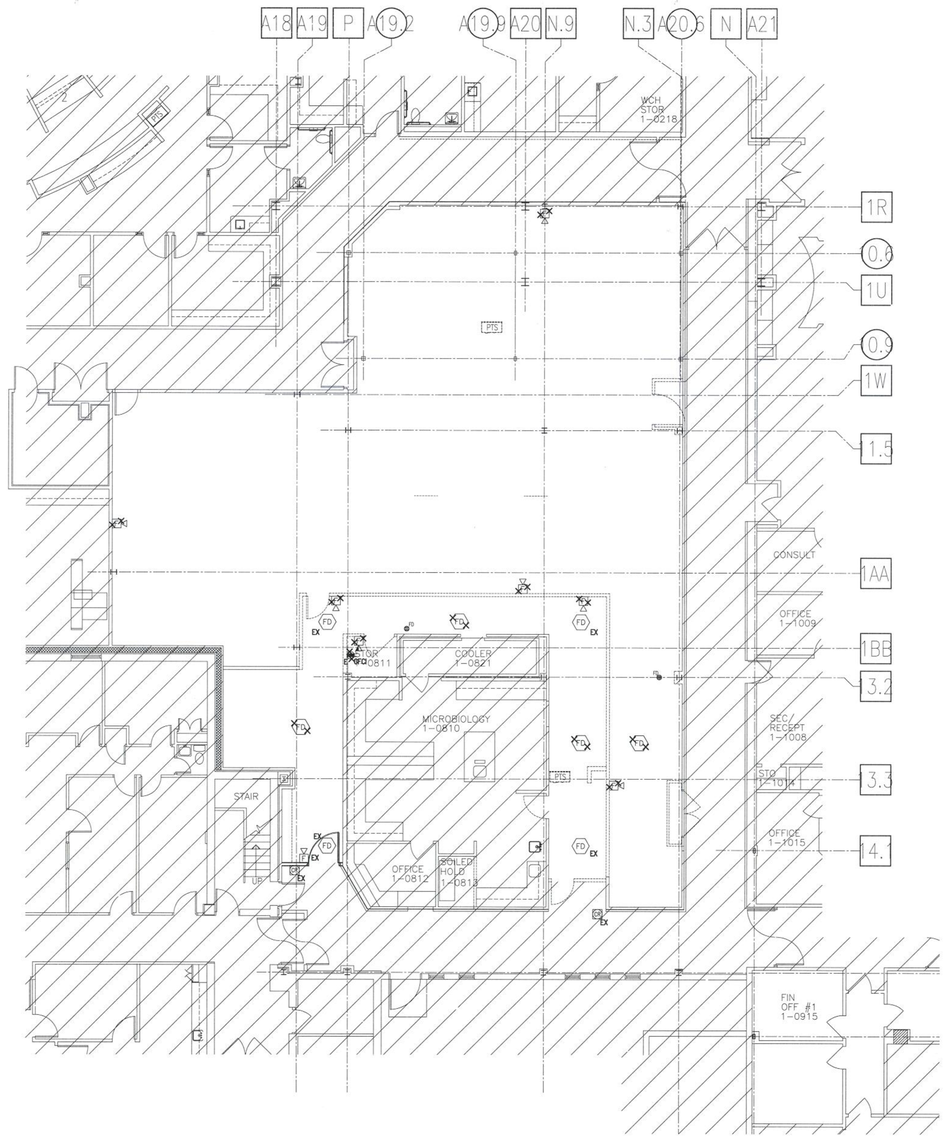
LIGHTING DEMOLITION PLAN FIRST FLOOR

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01 PARTIAL FIRST FLOOR DEMOLITION PLAN - FIRE ALARM

SCALE: 1/8" = 1'-0"

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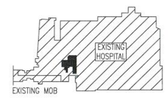
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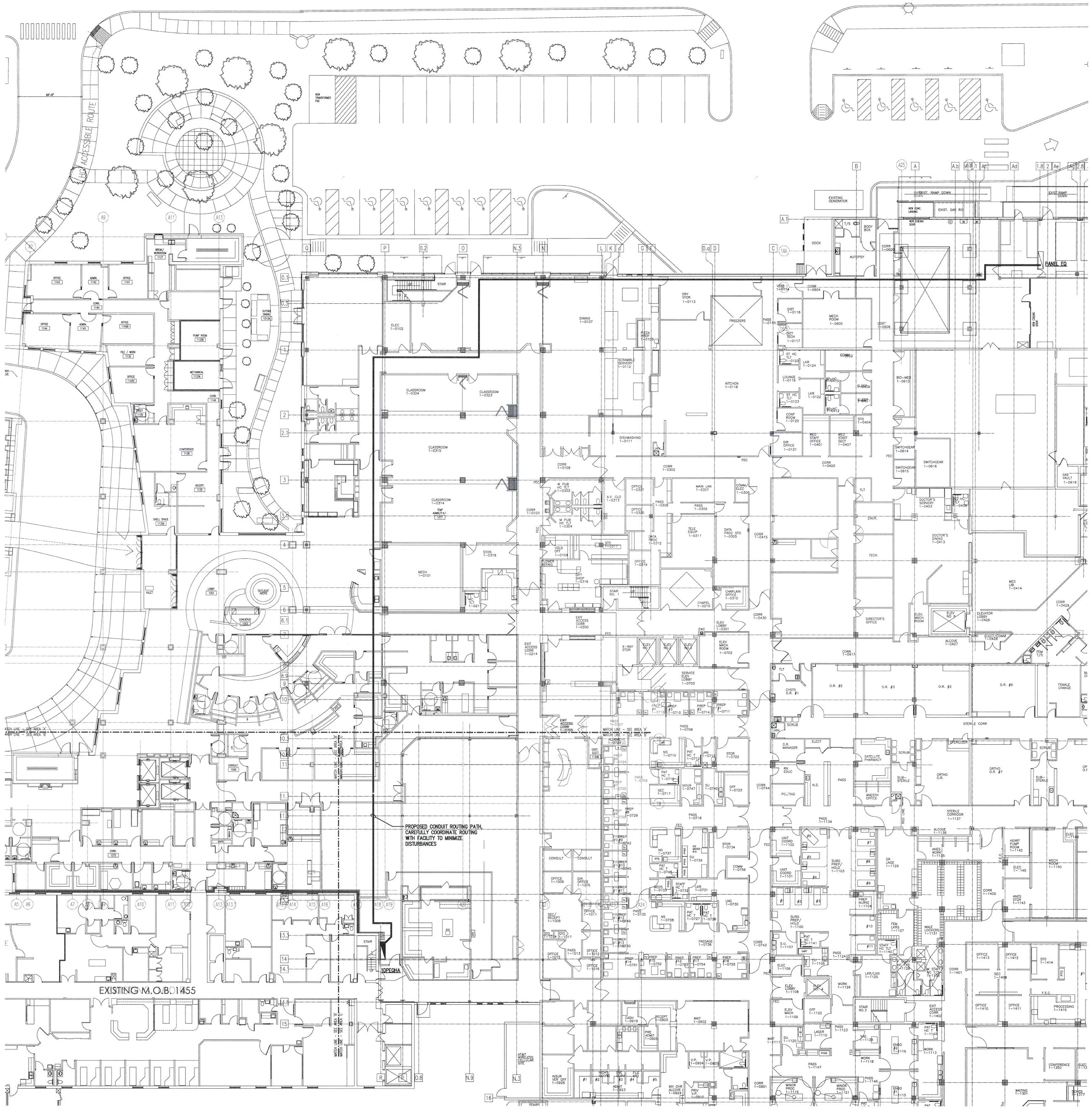
FIRE ALARM
DEMOLITION PLAN
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01 PARTIAL FIRST FLOOR PLAN - OVERALL
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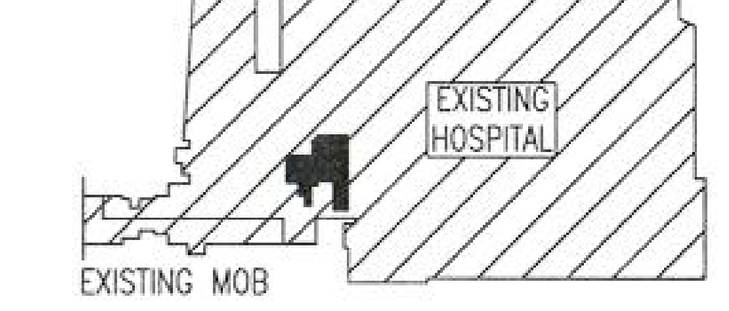
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POWER
OVERALL PLAN
FIRST FLOOR

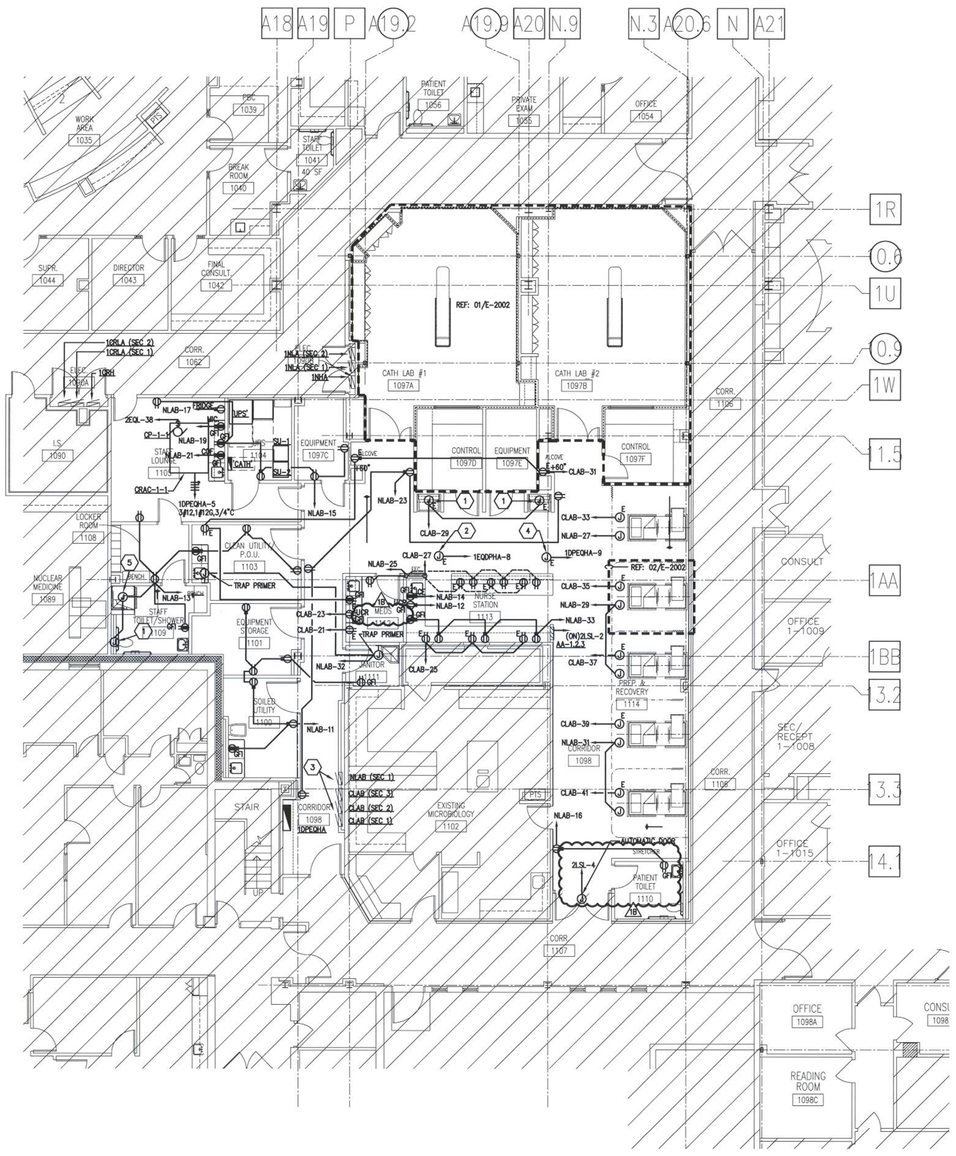
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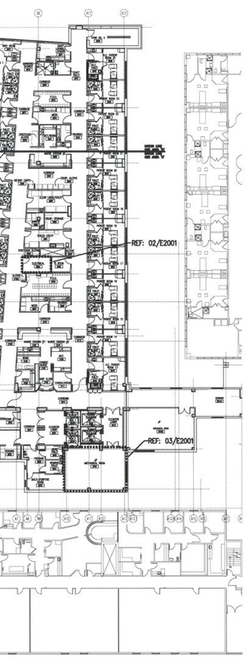
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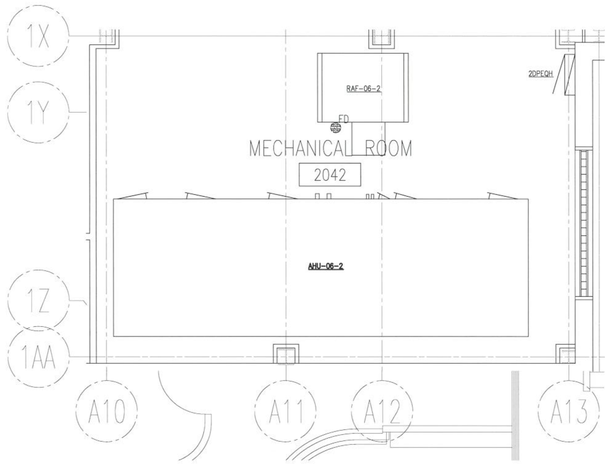
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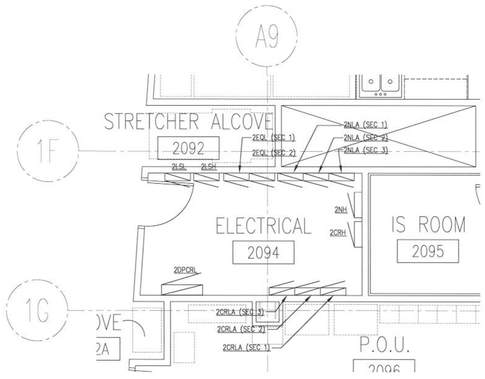
01 PARTIAL FIRST FLOOR PLAN - POWER
SCALE: 1/8" = 1'-0"



04 2ND FLOOR OVERALL PLAN
SCALE: 1/32" = 1'-0"



03 ENLARGED 2ND FLOOR MECHANICAL ROOM
SCALE: 1/4" = 1'-0"



02 ENLARGED 2ND FLOOR ELECTRICAL ROOM
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1B ALL CONDUIT AND FITTINGS SHALL BE SUITABLE FOR USE AS A GROUND PATH. ADDITIONALLY, A GROUND CONDUCTOR SHALL BE SUPPLIED WITHIN ALL CONDUIT SYSTEMS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. 1B

LEGEND NOTES

1. PROVIDE 120V CONNECTION TO I.R. CONTROLS.
2. FOR CONNECTION TO VAV CONTROLS. PROVIDE 277V CONNECTION TO EACH VAV BOX. REFER TO MECHANICAL DRAWINGS FOR EXACT BOX LOCATIONS.
3. PROVIDE #10G CONNECTION BETWEEN THESE PANELS, REF: 08/E6001.
4. PROVIDE 277V CONNECTION TO FIRE/SMOKE DAMPERS. PROVIDE 277V/CONTROL VOLTAGE TRANSFORMER EQUAL TO SQUARE D T-TYPE. COORDINATE CONTROL VOLTAGE AND (VA) REQUIREMENTS WITH CONTROLS CONTRACTOR.
5. FOR CONNECTION TO INTEGRAL SHOWER LIGHT. REFER E3001 FOR SWITCHING.

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KEY PLAN
FIRST FLOOR



COLORADO LICENSED MICHAEL MOSER A. PARKER 41486 04/29/09 PROFESSIONAL ENGINEER

Revisions

1B	ADDENDUM #1B	04-29-09

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POWER PLAN FIRST FLOOR

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GENERAL NOTES

A. ALL CONDUIT AND FITTINGS SHALL BE SUITABLE FOR USE AS A GROUND PATH. ADDITIONALLY, A GROUND CONDUCTOR SHALL BE SUPPLIED WITHIN ALL CONDUIT SYSTEMS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. /1B

CATH LAB GENERAL NOTES

A. ELECTRICAL CONTRACTOR SHALL REFER TO PHILIPS INSTALLATION DRAWINGS FOR ADDITIONAL INFORMATION AND REQUIREMENTS FOR INSTALLATION OF CATH EQUIPMENT. PLACEMENT OF EQUIPMENT AND SUPPORT SYSTEMS SHOWN ON THIS DRAWING ARE NOT INDICATIVE OF THE EXACT PLACEMENTS OF THE SYSTEM. ELECTRICAL CONTRACTOR MUST COORDINATE WITH PHILIPS INSTALLATION DRAWINGS FOR THE EXACT PLACEMENT AND SIZING OF THE SYSTEMS. SEE PHILIPS INSTALLATION DRAWINGS FOR COMPLETE DETAILS.

B. ADDITIONAL INTERCONNECTING CONDUITS AND WIRING FOR EQUIPMENT TO BE PROVIDED BY ELECTRICAL CONTRACTOR ARE SHOWN ON PHILIPS INSTALLATION DRAWINGS. REFER TO THE PHILIPS INSTALLATION DRAWINGS FOR ADDITIONAL CONDUITS, RACEWAY, AND WIRING REQUIREMENTS FOR INSTALLATION.

C. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL TRENCH, UNDER FLOOR, VERTICAL, SURFACE, AND ABOVE CEILING DUCT AND CONDUITS SHOWN ON PHILIPS INSTALLATION DRAWINGS.

D. ELECTRICAL CONTRACTOR IS REQUIRED TO PROVIDE AND INSTALL ALL CONTRACTOR/OWNER PROVIDED EQUIPMENT, CONDUITS, AND WIRING INDICATED ON DRAWINGS.

E. PDU IS A SEPARATELY DERIVED SYSTEM. PROVIDE #1 GROUNDING ELECTRODE IN 3/4"C FROM PDU TO BUILDING STEEL. REFER TO PHILIPS GROUNDING BUSBAR DIAGRAM ON 'ED2' FOR ADDITIONAL GROUNDING REQUIREMENTS.

F. CONTRACTOR SHALL PROVIDE ALL NECESSARY LIGHTING RELAYS AS DETAILED ON PHILIPS SHEET 'ED2'. CONTRACTOR SHALL ALSO PROVIDE 120/24V CONTROL TRANSFORMER FOR CONTROL OF LIGHTING. REFER TO PHILIPS SHEET 'ED2' FOR ADDITIONAL INFORMATION.

G. ALL CONDUIT SHALL BE UNDERFLOOR, WITHIN PARTITION OR ABOVE THE CEILING. THERE SHALL BE NO EXPOSED CONDUIT EXCEPT OVERHEAD CONDUIT IN ROOMS WITHOUT CEILINGS.

CATH LAB LEGEND NOTES

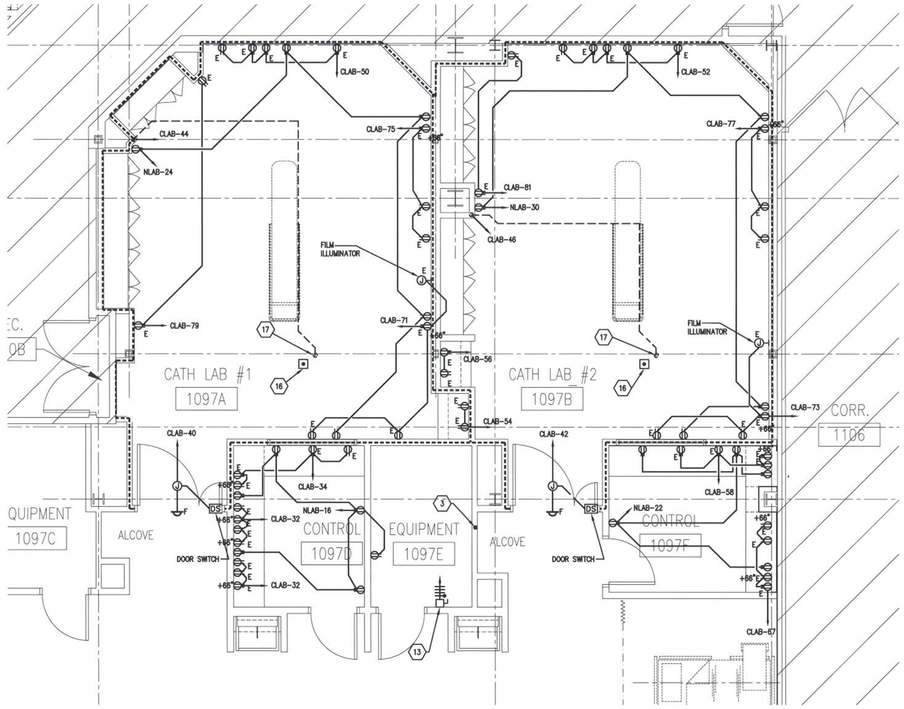
(3) PROVIDE A CENTRAL GROUND BUSBAR MOUNTED IN 12"W X 12"H X 4"D PULL BOX WITH HINGED COVER. SURFACE MOUNT TO ABOVE UPPER WALL RACEWAY. PROVIDE #12G IN 3/4"C FROM GROUND BUSBAR TO ALL ROOM RECEPTACLES.

(5) TRANSFORMER FOR SURGICAL LAMP. LOCATE IN EQUIPMENT CLOSET ON TOP OF 40E CABINET. COORDINATE EXACT TRANSFORMER LOCATION WITH PHILIPS. PROVIDE 120V POWER FROM ???-?? VIA 2#12,1#12G,3/4"C.

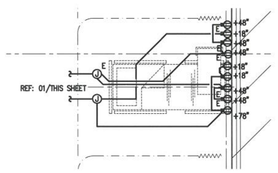
(13) PROVIDE 200/125/3P ENLOSED CIRCUIT BREAKER DISCONNECT. CIRCUIT BREAKER SHALL BE PROVIDED WITH SHUNT TRIP OPERATOR. PROVIDE POWER TO SHUNT TRIP OPERATOR FROM CIRCUIT CLAB-40 (CATH #1) AND CLAB-42 (CATH #2) VIA 2#12,1#12G,3/4"C. PROVIDE POWER FROM PANEL 1DPOH-10 (CATH #1) AND 1DPOH-11 (CATH #2) VIA 3#3/0,1#1/0G, 3"C.

(16) PROVIDE (1)120V CIRCUIT FROM PANEL CLAB-57 & CLAB-59 (CATH #1, CATH #2 RESPECTIVELY) AND (1)120V CIRCUIT FROM PANEL NLAB-18 & NLAB-20 (CATH #1, CATH #2 RESPECTIVELY) VIA 2#12,1#12G,3/4"C FOR CONNECTION TO BOOM MOUNTED CONVENIENCE AND EMERGENCY POWER RECEPTACLES.

(17) FLOOR PEDESTAL. PROVIDE (4) EMERGENCY OUTLETS IN FLOOR PEDESTAL. COORDINATE EXACT LOCATION WITH PHILLIPS EQUIPMENT AND ARCHITECTURAL PLANS.



01 ENLARGED CATH LAB PLAN - POWER
SCALE: 1/4" = 1'-0"



03 ENLARGED TYPICAL PACU PLAN - POWER
SCALE: 1/4" = 1'-0"

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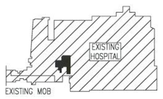
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KEY PLAN
FIRST FLOOR



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41486
PROFESSIONAL ENGINEER

Revisions

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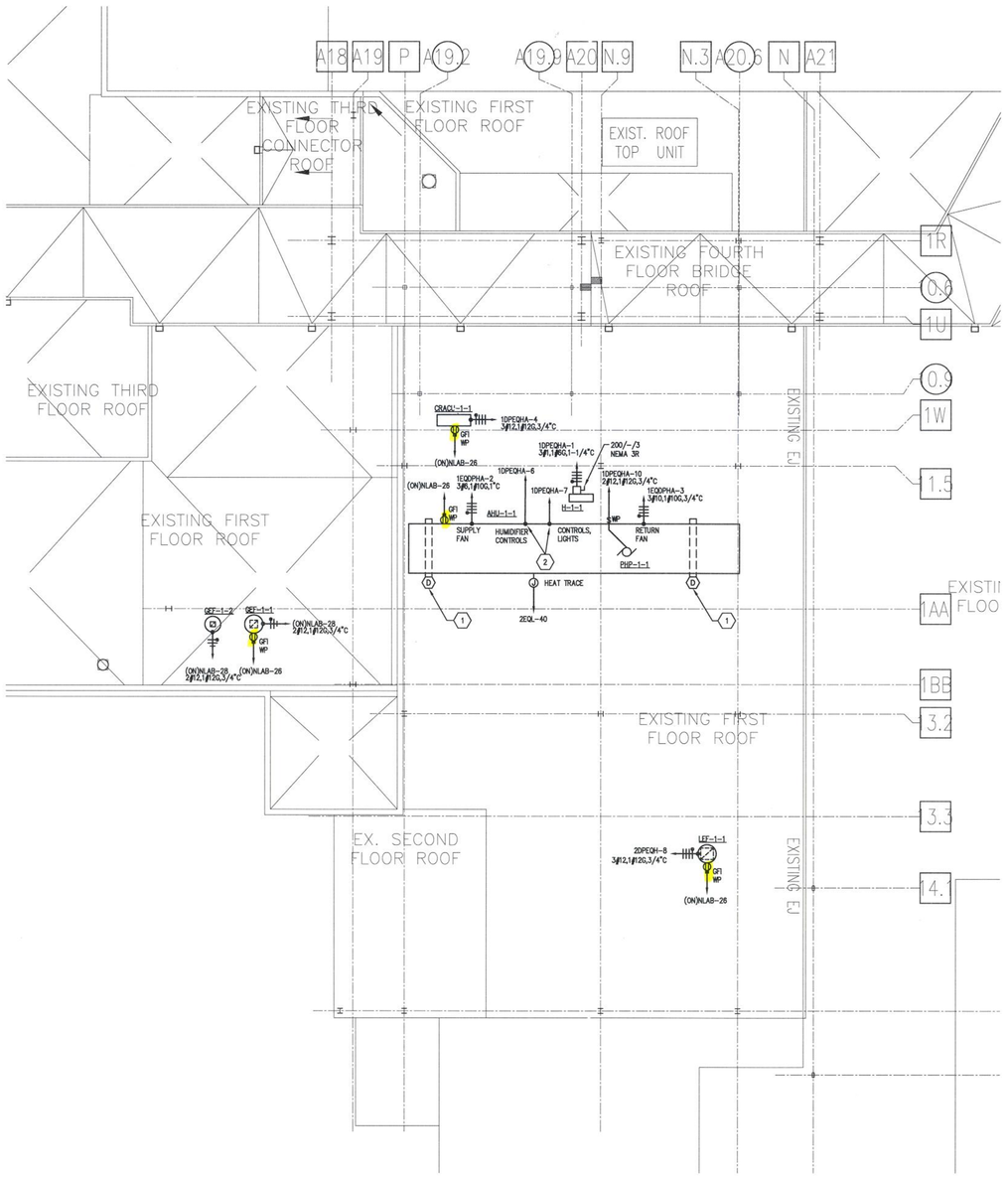
POWER PLAN FIRST FLOOR

Sheet

E-2002

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01 PARTIAL ROOF PLAN - POWER

SCALE: 1/8" = 1'-0"

LEGEND NOTES

1. PROVIDE CONNECTION TO FIRE ALARM SYSTEM.
2. PROVIDE 277V/CONTROL VOLTAGE TRANSFORMER EQUAL TO SQU. T-TYPE. COORDINATE CONTROL VOLTAGE AND (VA) REQUIREMENT WITH CONTROLS CONTRACTOR.

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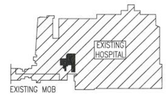
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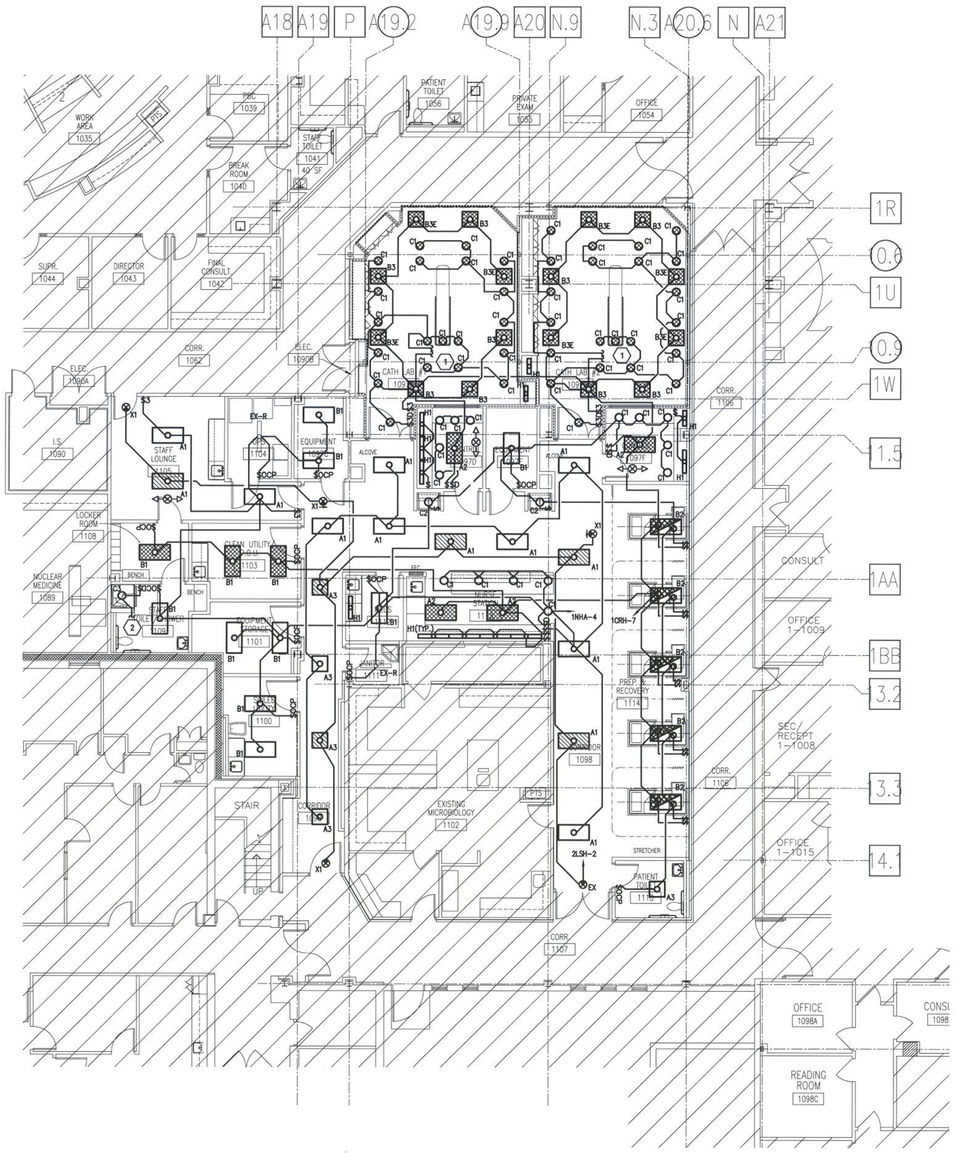
POWER PLAN ROOF

Sheet

E-200R

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01 PARTIAL FIRST FLOOR PLAN - LIGHTING
SCALE: 1/8" = 1'-0"

GENERAL NOTES

A. PROVIDE INSTANT START, <10XTHD BALLASTS FOR FIXTURES ON LIFE-SAFETY CIRCUITS.

B. CONNECT ALL TYPE 'HI' FIXTURES TO NEAREST 120V NORMAL RECEPTACLE CIRCUIT.

C. ALL CONDUIT AND FITTINGS SHALL BE SUITABLE FOR USE AS A GROUND PATH. ADDITIONALLY, A GROUND CONDUCTOR SHALL BE SUPPLIED WITHIN ALL CONDUIT SYSTEMS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. 1B

LEGEND NOTES

1. TO FOOT SWITCH. REFER TO PHILIPS DRAWING 'ED2' FOR ROOM LIGHTING CONNECTION AND CONTROL DETAIL. PROVIDE ALL NECESSARY RELAYS, CONTROL, ETC FOR CONNECTION AND CONTROL WITH PHILIPS CATH EQUIPMENT.
2. CONNECT TO 120V NORMAL RECEPTACLE SERVING TOILET ROOM.

Provide emergency illumination equipment that complies with 2008 NEC 700-12 (F) or 2008 NEC 700.

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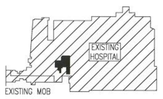
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KEY PLAN
FIRST FLOOR



COLORADO LICENSED PROFESSIONAL ENGINEER 41486 04/29/09

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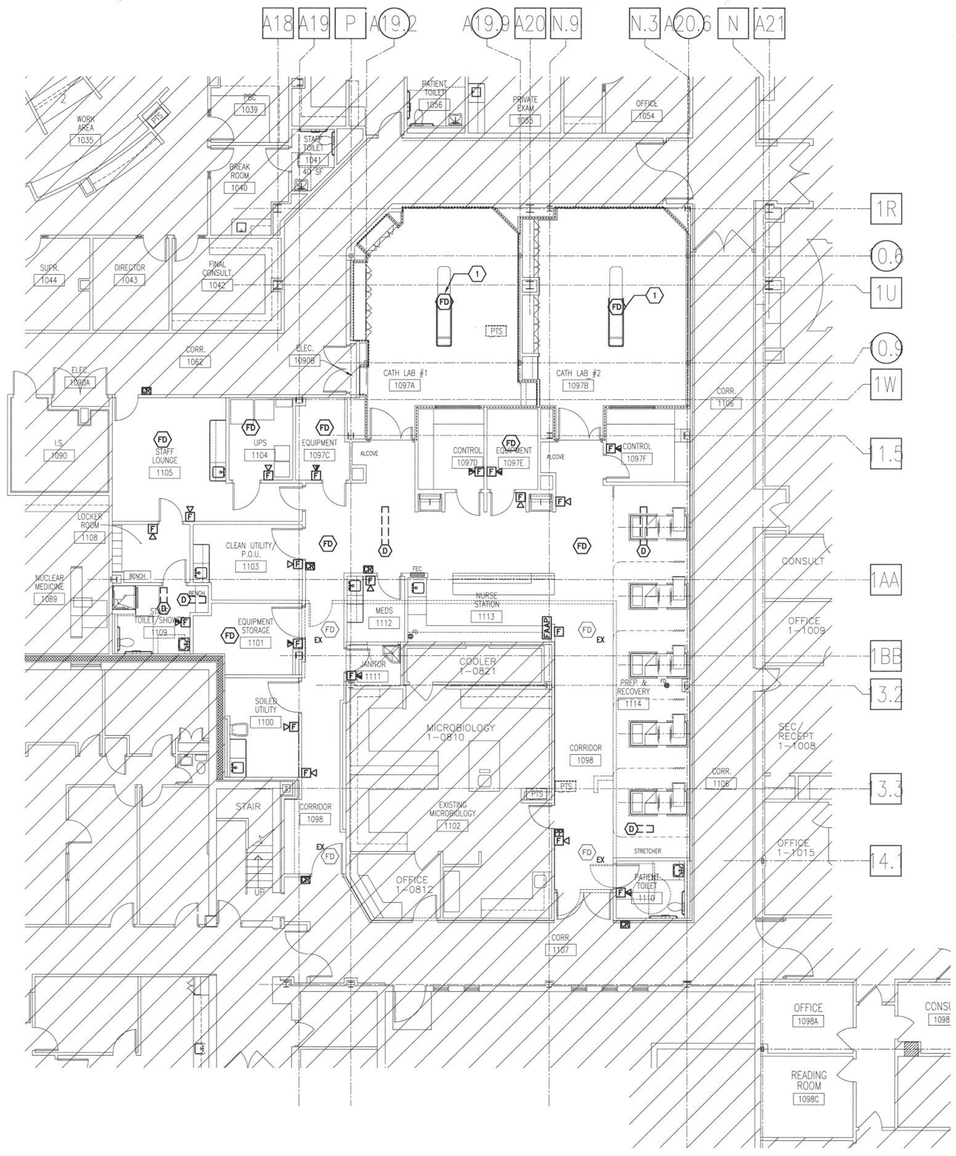
LIGHTING PLAN FIRST FLOOR

Sheet

E-3001

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01 PARTIAL FIRST FLOOR PLAN - FIRE ALARM
SCALE: 1/8" = 1'-0"

LEGEND NOTES

1. FOR CONNECTION TO SMOKE PURGE SYSTEM. COORDINATE CONNECTIONS WITH AHU AND FIRE ALARM SYSTEM.

09 -387421

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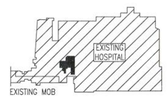
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KEY PLAN
FIRST FLOOR



COLORADO LICENSED 31081 PROFESSIONAL ENGINEER

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FIRE ALARM PLAN FIRST FLOOR

Sheet

E-4001

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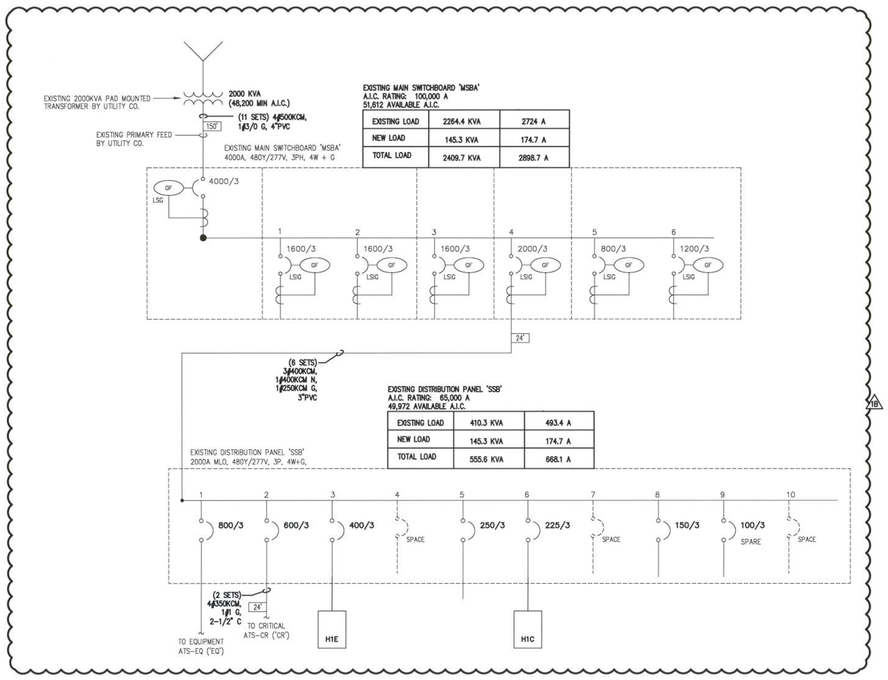
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GENERAL NOTES:

A. REFER TO E-7001 FOR CONDUIT/CONDUCTOR SIZING SCHEDULES.

LEGEND NOTES:

(1) PROVIDE NEW LUG KIT CAPABLE OF ACCEPTING LARGER CONDUCTOR SIZE (#300KCM)

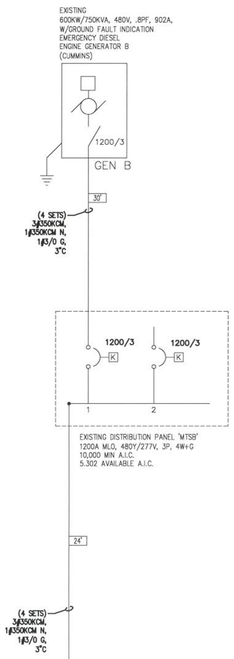


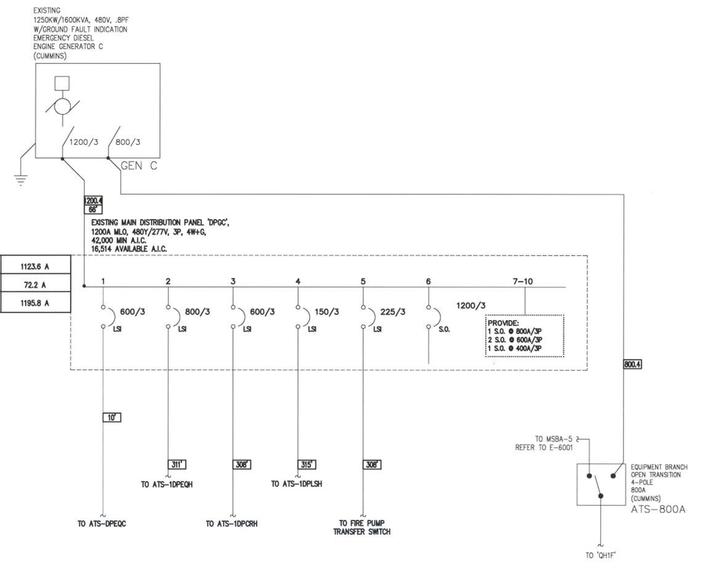
EXISTING MAIN SWITCHBOARD 'MSBA'
A.I.C. RATING: 100,000 A
51,612 AVAILABLE A.I.C.

EXISTING LOAD	2264.4 KVA	2724 A
NEW LOAD	145.3 KVA	174.7 A
TOTAL LOAD	2409.7 KVA	2898.7 A

EXISTING DISTRIBUTION PANEL 'SSB'
A.I.C. RATING: 65,000 A
49,972 AVAILABLE A.I.C.

EXISTING LOAD	410.3 KVA	493.4 A
NEW LOAD	145.3 KVA	174.7 A
TOTAL LOAD	555.6 KVA	668.1 A



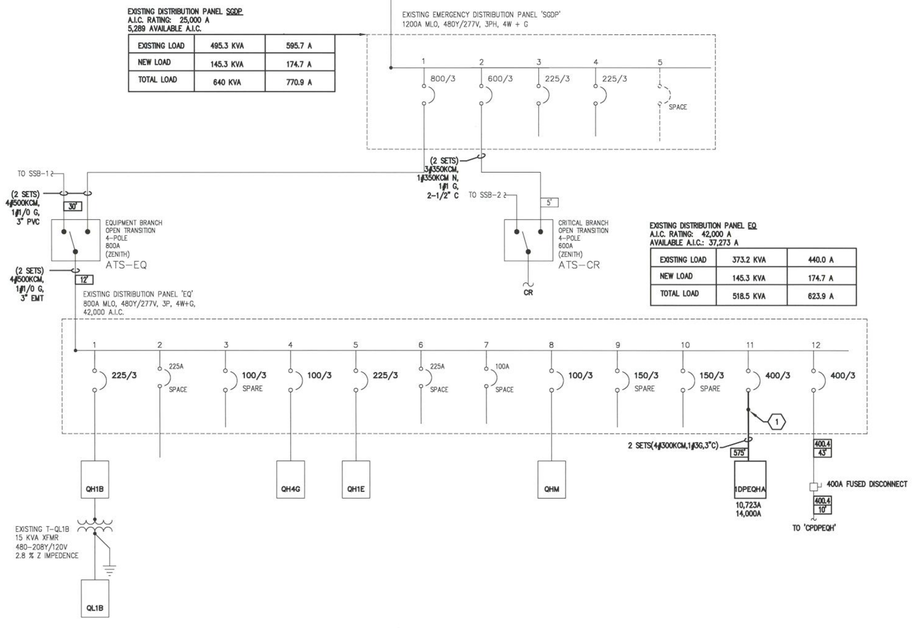


EXISTING DISTRIBUTION PANEL DPEQC
A.I.C. RATING: 42,000 A
AVAILABLE A.I.C. 16,514 A

EXISTING LOAD	934.2 KVA	1123.6 A
NEW LOAD	60.0 KVA	72.2 A
TOTAL LOAD	994.2 KVA	1195.8 A

EXISTING DISTRIBUTION PANEL SGDP
A.I.C. RATING: 25,000 A
5,289 AVAILABLE A.I.C.

EXISTING LOAD	495.3 KVA	595.7 A
NEW LOAD	145.3 KVA	174.7 A
TOTAL LOAD	640 KVA	770.9 A



EXISTING DISTRIBUTION PANEL EQ
A.I.C. RATING: 42,000 A
AVAILABLE A.I.C.: 37,273 A

EXISTING LOAD	373.2 KVA	440.0 A
NEW LOAD	145.3 KVA	174.7 A
TOTAL LOAD	518.5 KVA	623.9 A

Locate the required overcurrent protection per 2008 NEC 240-21.

Legibly identify each breaker or switch for it's use or purpose on the circuit directory in the panel/switchboard per 2008 NEC 408.4.

Wiring in air handling spaces must comply with 2008 NEC 300-22. Firestop penetrations per 2008 NEC 300-21. Secure and support eqipment per 2008 NEC 300-11.

01 EXISTING EMERGENCY POWER ONE-LINE DIAGRAM
NO SCALE

09-387421

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COLORADO LICENSED 41486 REGISTERED PROFESSIONAL ENGINEER 04/17/09

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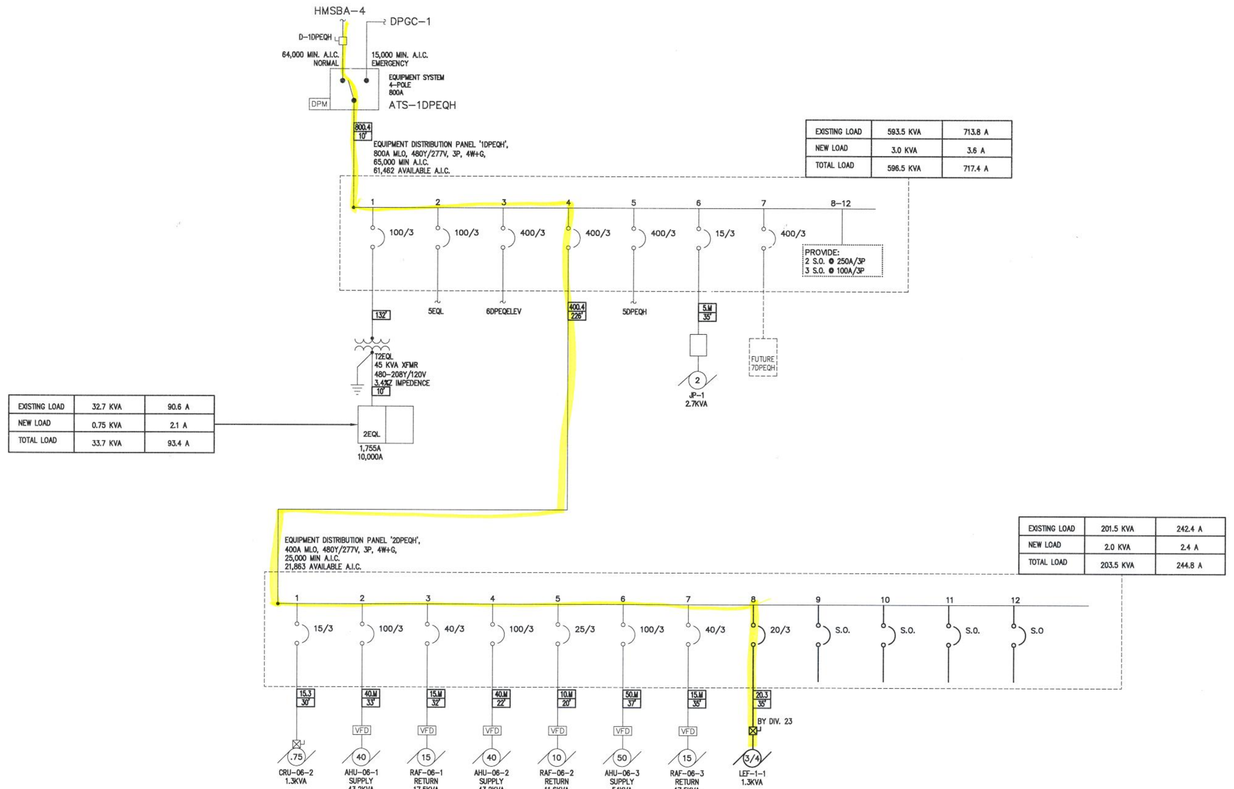
ELECTRICAL ONE-LINE DIAGRAM

Sheet

E-5003

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PARTIAL EXISTING EMERGENCY POWER ONE-LINE DIAGRAM

01 NO SCALE

GENERAL NOTES:

A. REFER TO E-7001 FOR CONDUIT/CONDUCTOR SIZING SCHEDULES.

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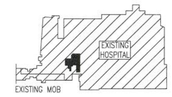
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ELECTRICAL ONE-LINE DIAGRAM

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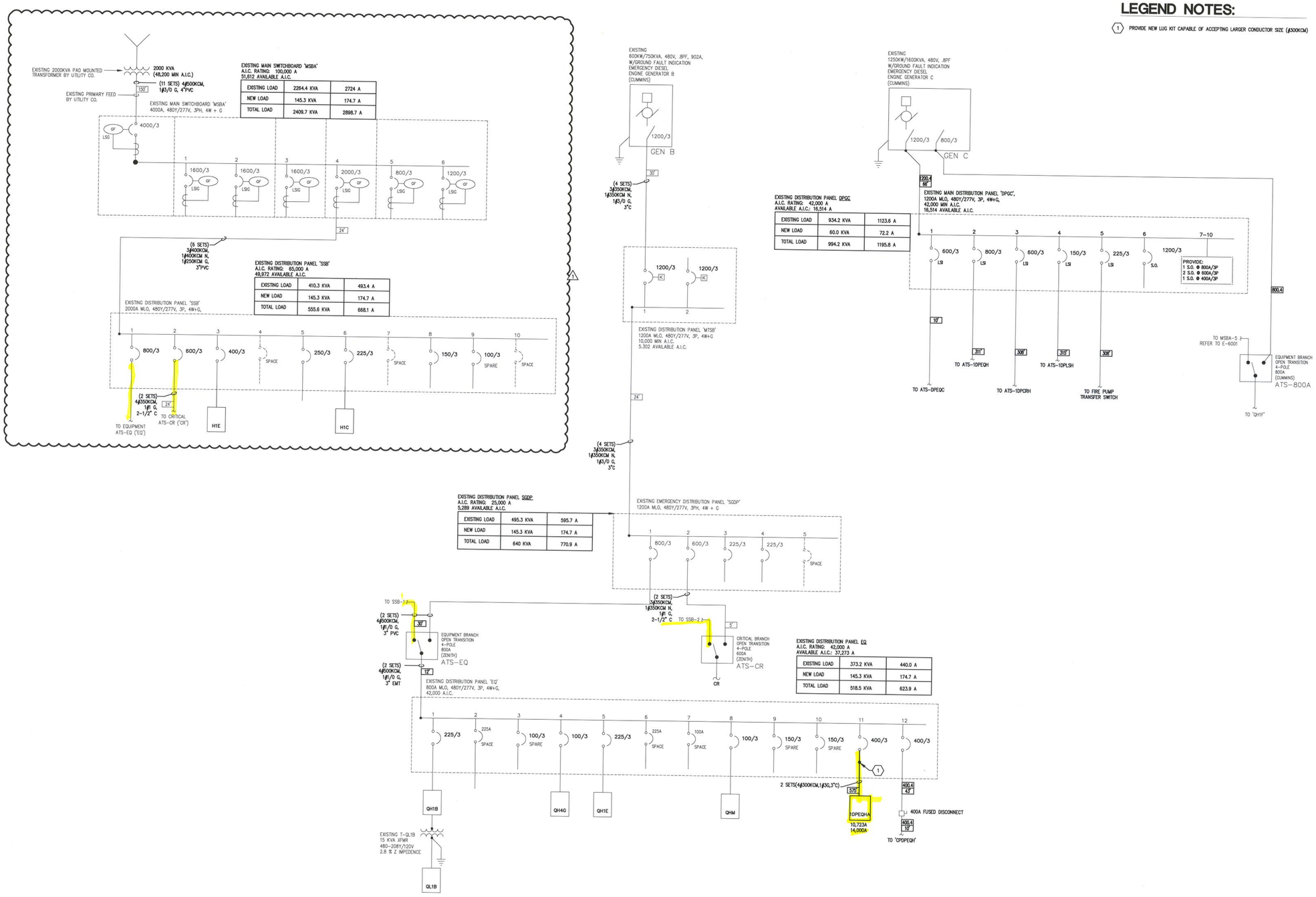
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GENERAL NOTES:

A. REFER TO E-7001 FOR CONDUIT/CONDUCTOR SIZING SCHEDULES.

LEGEND NOTES:

(1) PROVIDE NEW LUG KIT CAPABLE OF ACCEPTING LARGER CONDUCTOR SIZE (#300KCM)



EXISTING EMERGENCY POWER ONE-LINE DIAGRAM

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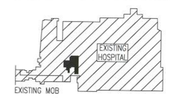
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ELECTRICAL ONE-LINE DIAGRAM

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OCCUPANCY SENSOR GENERAL NOTES

A. IT IS THE INTENT OF THESE DOCUMENTS THAT THE OCCUPANCY SENSOR SYSTEM SHALL COVER THE ENTIRE ROOM. THE CONTRACTOR SHALL HAVE THE SELECTED DEVICE MANUFACTURER LAYOUT AND ADJUST SENSOR TYPES OR QUANTITIES AS NEEDED TO PROVIDE COMPLETE COVERAGE. SHOP DRAWINGS SHALL BE SUBMITTED AS DESCRIBED IN THE SPECIFICATIONS ON THIS PAGE FOR ENGINEERS REVIEW PRIOR TO PROCUREMENT. COST FOR ANY ADJUSTMENTS OR ADDITIONS TO THE SENSOR LAYOUT SHALL BE INCLUDED IN THE CONTRACTOR BID PRICE. NO ADDITIONAL COSTS WILL BE CONSIDERED FOR THESE PRODUCT SPECIFIC ADJUSTMENTS.

B. THESE WIRING DETAILS ARE A GENERAL REPRESENTATION OF TYPICAL INSTALLATION PRACTICES. THE CONTRACTOR SHALL COORDINATE ALL DEVICE PLACEMENT, COVERAGE PATTERNS, WIRING DETAILS, SWITCH PACK QUANTITIES AND CONDUIT REQUIREMENTS DURING THE SHOP DRAWING PROCESS WITH THE SELECTED LIGHTING CONTROLS VENDOR.

C. NO MORE THAN (3) LOW VOLTAGE DEVICES SHOULD BE POWERED FROM A SINGLE SWITCH PACK. VERIFY REQUIREMENTS WITH SYSTEM MANUFACTURER DURING SHOP DRAWING PHASE.

D. SWITCH PACK CONTACTS SHOULD FAIL TO THE CLOSED("ON") POSITION TO ALLOW LIGHTING OPERATION IN THE EVENT OF A RELAY OR SENSOR FAILURE.

SUBMITTALS

A. SUBMIT THE FOLLOWING IN ACCORDANCE WITH DIVISION 1 SUBMITTAL PROCEDURES.

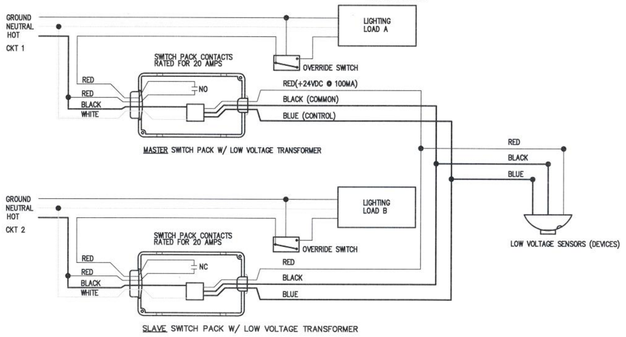
B. COMPLETE BILL OF MATERIALS LISTING ALL PARTS NEEDED TO FULLY INSTALL SELECTED SENSOR SYSTEM.

C. PRODUCT DATA SHEETS FOR EACH PRODUCT SPECIFIED. DATA SHEETS SHOULD INCLUDE CATALOG CUT SHEETS WITH TECHNICAL SPECIFICATIONS AND INSTALLATION INSTRUCTIONS..

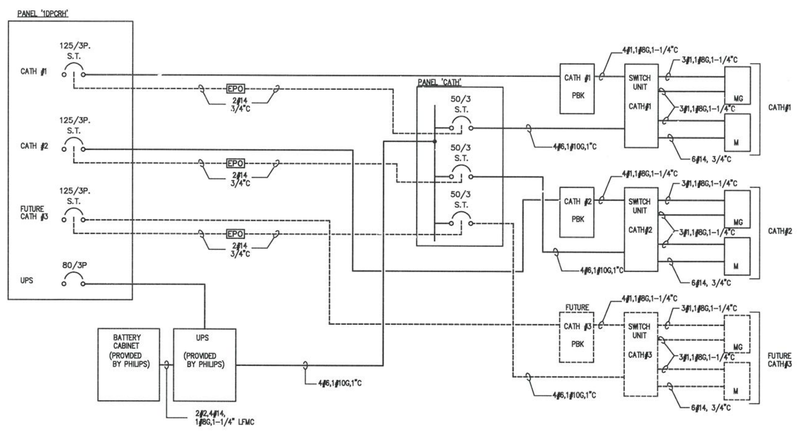
D. SHOP DRAWINGS DETAILING ALL MECHANICAL AND ELECTRICAL EQUIPMENT REQUIRED TO INSTALL COMPETE SENSOR SYSTEM. SHOP DRAWINGS SHOULD BE 1/8"=1'-0" SCALE OR LARGER. DRAWINGS SHOULD INCLUDE ONE-LINE DIAGRAMS, WIRE COUNTS, COVERAGE PATTERNS, AND PHYSICAL DIMENSIONS OF EACH ITEM.

E. SUBMIT SAMPLES FOR FINISH, COLOR, AND TEXTURE TO ARCHITECT FOR APPROVAL.

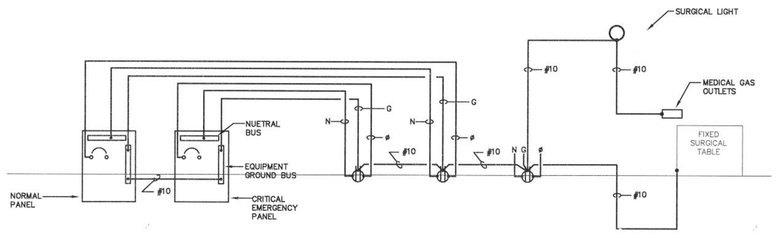
NOTE:
1. DETAIL USED IN APPLICATIONS WHERE ROOM IS SERVED BY TWO SEPARATE LIGHTING CIRCUITS (I.E. CRITICAL & NORMAL OR 120V & 277V).
2. LIGHTING LOADS 'A' AND 'B' TURN ON WHEN AT LEAST ONE SENSORS DETECTS MOTION.
3. DO NOT CONNECT THE RED LOW VOLTAGE WIRES TOGETHER BETWEEN SWITCH PACKS.



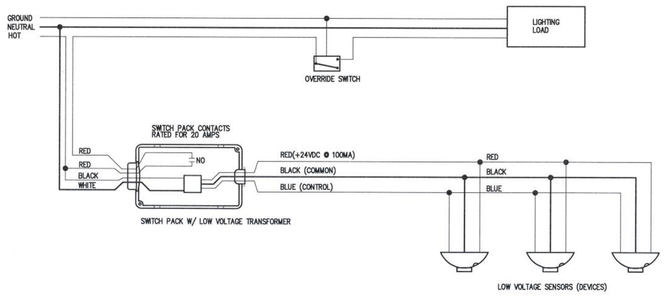
LOW VOLTAGE OCCUPANCY SENSORS
09 W/ 2-CIRCUITS & LINE-VOLTAGE OVERRIDE SWITCH
NO SCALE



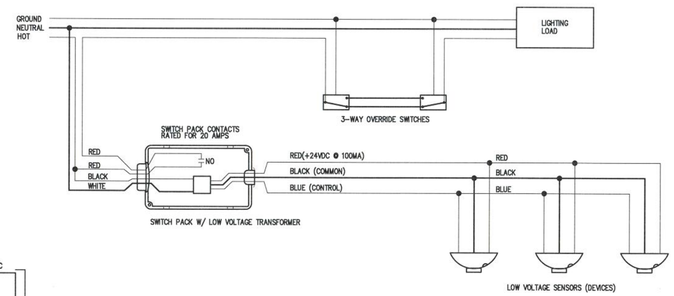
07 UPS ONE-LINE DIAGRAM
NO SCALE



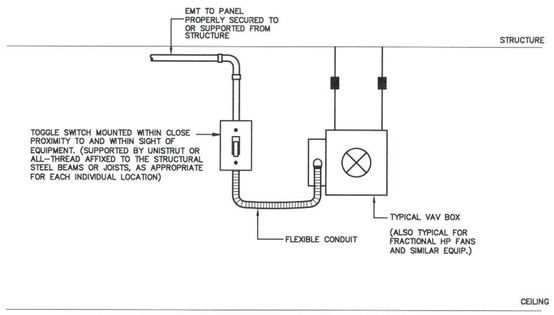
10 CRITICAL CARE PATIENT VICINITY GROUNDING DETAIL
NO SCALE



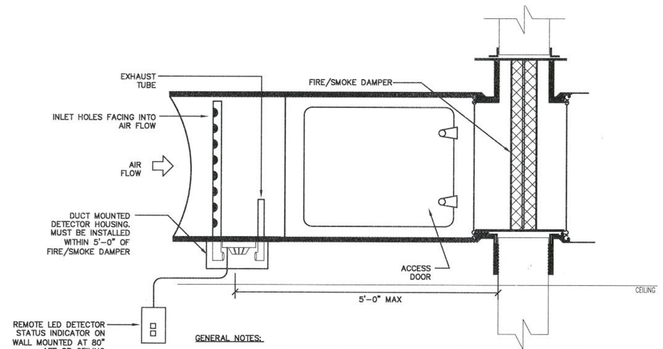
LOW VOLTAGE OCCUPANCY SENSORS
08 W/ LINE-VOLTAGE OVERRIDE SWITCH
NO SCALE



LOW VOLTAGE OCCUPANCY SENSORS
06 W/ 3-WAY LINE-VOLTAGE OVERRIDE SWITCH
NO SCALE



05 TYPICAL VAV BOX DISCONNECT
NO SCALE



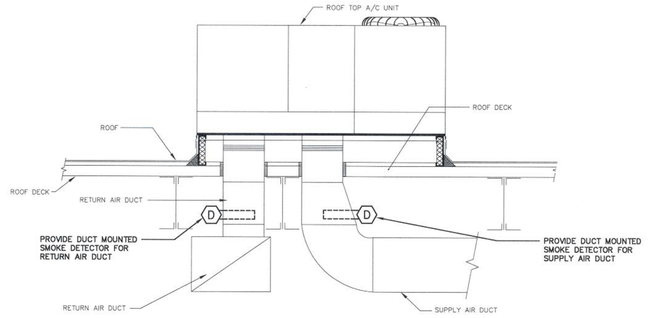
GENERAL NOTES:

A. THIS DETAIL SHALL PERTAIN TO DAMPERS INSTALLED IN SUPPLY AIR DUCTS, RETURN AIR DUCTS, AND RETURN AIR OPENINGS AS REQUIRED BY THE SPECIFICATIONS AND GOVERNING CODES.

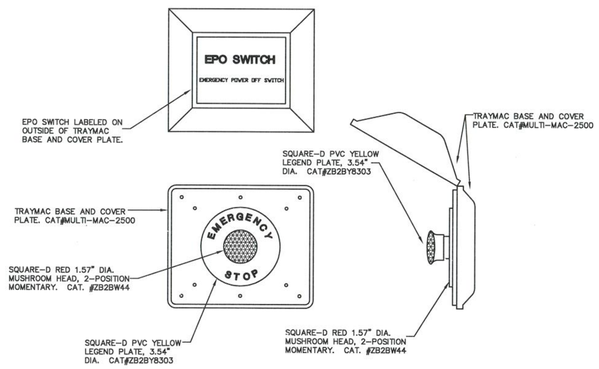
B. PROVIDE SMOKE DETECTORS AT ALL FIRE/SMOKE DAMPER LOCATIONS. COORDINATE EXACT LOCATION OF ALL FIRE/SMOKE DAMPERS WITH DIVISION 15 FLOOR PLANS. AS REQUIRED BY LOCAL AUTHORITY HOUSING JURISDICTION.

C. INSTALL DUCT DETECTORS IN ACCORDANCE WITH DUCT MOUNTED SMOKE DETECTOR DETAIL.

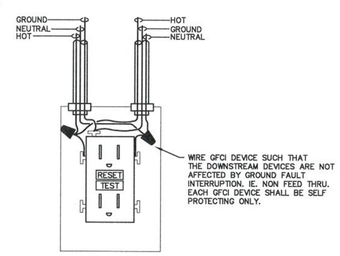
04 FIRE/SMOKE DAMPER INSTALLATION DETAIL
NO SCALE



ROOFTOP UNIT DUCT MOUNTED SMOKE DETECTOR DETAIL
03
NO SCALE



02 EPO SWITCH DETAIL
NO SCALE



01 GFCI RECEPTACLE - WIRING DIAGRAM
NO SCALE

09 -387421

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KEY PLAN
FIRST FLOOR



COLORADO LICENSED 31031 PROFESSIONAL ENGINEER
3/6/09

Revisions

NO.	ISSUE	DATE

CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED
DATE APPROVED: APR 01 2009

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Date	03-06-2009
Job Number	142542.000
Drawn	MM
Checked	MM
Approved	MM

Title

ELECTRICAL DETAILS

Sheet

E-6001

Issued for Construction

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MOTOR FEEDER SCHEDULE
480 VOLT 3 PHASE

MOTOR FEEDER TAG	HP	FLA	CB	FEEDER DESCRIPTION
5.M	5	7.6	15	3#12, 1#12 G, 3/4" C
7.5.M	7-1/2	11	20	3#12, 1#12 G, 3/4" C
10.M	10	14	25	3#12, 1#10 G, 3/4" C
15.M	15	21	40	3#10, 1#10 G, 3/4" C
20.M	20	27	50	3#8, 1#10 G, 3/4" C
25.M	25	34	60	3#6, 1#10 G, 3/4" C
30.M	30	40	70	3#6, 1#8 G, 3/4" C
40.M	40	52	100	3#4, 1#8 G, 1" C
50.M	50	65	125	3#3, 1#8 G, 1-1/4" C
60.M	60	77	150	3#1, 1#6 G, 1 1/4" C
75.M	75	96	175	3#1, 1#6 G, 1 1/4" C
100.M	100	124	225	3#2/0, 1#4 G, 2" C
125.M	125	156	300	3#3/0, 1#4 G, 2" C
150.M	150	180	350	3#4/0, 1 #3 G, 2" C
200.M	200	240	450	3#350KCM, 1#2 G, 2-1/2" C

FEEDER SCHEDULE
600V MAX.

FEEDER TAG & AMPERE RATING	FEEDER DESCRIPTION
15.3, 20.3 15.4, 20.4 15.4i, 20.4i	3#12, 1#12 G, 3/4" C 3#12, 1#12 N, 1#12 G, 3/4" C 3#12, 1#12 N, 1#12 G, 1#12 IG, 3/4" C
25.3, 30.3 25.4, 30.4 25.4i, 30.4i	3#10, 1#10 G, 3/4" C 3#10, 1#10 N, 1#10 G, 3/4" C 3#10, 1#10 N, 1#10 G, 1#10 IG, 3/4" C
35.3, 40.3 35.4, 40.4 35.4i, 40.4i	3#8, 1#10 G, 3/4" C 3#8, 1#8 N, 1#10 G, 3/4" C 3#8, 1#8 N, 1#10 G, 1#10 IG, 1" C
45.3, 50.3 45.4, 50.4 45.4i, 50.4i	3#6, 1#10 G, 3/4" C 3#6, 1#6 N, 1#10 G, 1" C 3#6, 1#6 N, 1#10 G, 1#10 IG, 1" C
60.3 60.4 60.4i	3#4, 1#10 G, 1" C 3#4, 1#4 N, 1#10 G, 1 1/4" C 3#4, 1#4 N, 1#10 G, 1#10 IG, 1-1/4" C
70.3 70.4 70.4i	3#4, 1#8 G, 1" C 3#4, 1#4 N, 1#8 G, 1-1/4" C 3#4, 1#4 N, 1#8 G, 1#8 IG, 1-1/4" C
80.3 80.4 80.4i	3#3, 1#8 G, 1-1/4" C 3#3, 1#3 N, 1#8 G, 1-1/4" C 3#3, 1#3 N, 1#8 G, 1#8 IG, 1-1/4" C
90.3 90.4 90.4i	3#2, 1#8 G, 1-1/4" C 3#2, 1#2 N, 1#8 G, 1-1/4" C 3#2, 1#2 N, 1#8 G, 1#8 IG, 1-1/4" C
100.3 100.4 100.4i	3#1, 1#8 G, 1-1/4" C 3#1, 1#1 N, 1#8 G, 1-1/2" C 3#1, 1#1 N, 1#8 G, 1#8 IG, 1-1/2" C
110.3 110.4 110.4i	3#1, 1#6 G, 1-1/4" C 3#1, 1#1 N, 1#6 G, 1-1/2" C 3#1, 1#1 N, 1#6 G, 1#6 IG, 1-1/2" C
125.3, 150.3 125.4, 150.4 125.4i, 150.4i	3#1/0, 1#6 G, 1-1/2" C 3#1/0, 1#1/0 N, 1#6 G, 2" C 3#1/0, 1#1/0 N, 1#6 G, 1#6 IG, 2" C
175.3 175.4 175.4i	3#2/0, 1#6 G, 2" C 3#2/0, 1#2/0 N, 1#6 G, 2" C 3#2/0, 1#2/0 N, 1#6 G, 1#6 IG, 2" C
200.3 200.4 200.4i	3#3/0, 1#6 G, 2" C 3#3/0, 1#3/0 N, 1#6 G, 2" C 3#3/0, 1#3/0 N, 1#6 G, 1#6 IG, 2" C
225.3 225.4 225.4i	3#4/0, 1#4 G, 2" C 3#4/0, 1#4/0 N, 1#4 G, 2-1/2" C 3#4/0, 1#4/0 N, 1#4 G, 1#4 IG, 2-1/2" C
250.3 250.4 250.4i	3#250KCM, 1#4 G, 2-1/2" C 3#250KCM, 1-250KCM N, 1#4 G, 2-1/2" C 3#250KCM, 1-250KCM N, 1#4 G, 1#4 IG, 2-1/2" C
300.3 300.4 300.4i	3#350KCM, 1#4 G, 2-1/2" C 3#350KCM, 1-350KCM N, 1#4 G, 3" C 3#350KCM, 1-350KCM N, 1#4 G, 1#4 IG, 3" C
350.3 350.4 350.4i	3#500KCM, 1#3 G, 3" C 3#500KCM, 1-500KCM N, 1#3 G, 3-1/2" C 3#500KCM, 1-500KCM N, 1#3 G, 1#3 IG, 3-1/2" C
400.3 400.4 400.4i	2 SETS EACH OF [3#3/0, 1#3 G, 2" C] 2 SETS EACH OF [3#3/0, 1#3/0 N, 1#3 G, 2-1/2" C] 2 SETS EACH OF [3#3/0, 1#3/0 N, 1#3 G, 1#3 IG, 2-1/2" C]
450.3 450.4 450.4i	2 SETS EACH OF [3#4/0, 1#2 G, 2" C] 2 SETS EACH OF [3#4/0, 1#4/0 N, 1#2 G, 2-1/2" C] 2 SETS EACH OF [3#4/0, 1#4/0 N, 1#2 G, 1#2 IG, 2-1/2" C]
500.3 500.4 500.4i	2 SETS EACH OF [3#250KCM, 1#2 G, 2-1/2" C] 2 SETS EACH OF [3#250KCM, 1#250KCM N, 1#2 G, 2-1/2" C] 2 SETS EACH OF [3#250KCM, 1#250KCM N, 1#2 G, 1#2 IG, 2-1/2" C]
600.3 600.4 600.4i	2 SETS EACH OF [3#350KCM, 1#1 G, 2-1/2" C] 2 SETS EACH OF [3#350KCM, 1#350KCM N, 1#1 G, 2-1/2" C] 2 SETS EACH OF [3#350KCM, 1#350KCM N, 1#1 G, 1#1 IG, 3" C]
700.3 700.4 700.4i	2 SETS EACH OF [3#500KCM, 1#1/0 G, 3" C] 2 SETS EACH OF [3#500KCM, 1#500KCM N, 1#1/0 G, 3-1/2" C] 2 SETS EACH OF [3#500KCM, 1#500KCM N, 1#1/0 G, 1#1/0 IG, 3-1/2" C]
800.3 800.4 800.4i	3 SETS EACH OF [3#300KCM, 1#1/0 G, 3" C] 3 SETS EACH OF [3#300KCM, 1#300KCM N, 1#1/0 G, 3" C] 3 SETS EACH OF [3#300KCM, 1#300KCM N, 1#1/0 G, 1#1/0 IG, 3" C]
900.3 900.4 900.4i	3 SETS EACH OF [3#350KCM, 1#2/0 G, 3" C] 3 SETS EACH OF [3#350KCM, 1#350KCM N, 1#2/0 G, 3" C] 3 SETS EACH OF [3#350KCM, 1#350KCM N, 1#2/0 G, 1#2/0 IG, 3" C]
1000.3 1000.4 1000.4i	3 SETS EACH OF [3#400KCM, 1#2/0 G, 3" C] 3 SETS EACH OF [3#400KCM, 1#400KCM N, 1#2/0 G, 3" C] 3 SETS EACH OF [3#400KCM, 1#400KCM N, 1#2/0 G, 1#2/0 IG, 3" C]
1200.3 1200.4 1200.4i	4 SETS EACH OF [3#350KCM, 1#3/0 G, 3" C] 4 SETS EACH OF [3#350KCM, 1#350KCM N, 1#3/0 G, 3" C] 4 SETS EACH OF [3#350KCM, 1#350KCM N, 1#3/0 G, 1#3/0 IG, 3-1/2" C]
1400.3 1400.4 1400.4i	4 SETS EACH OF [3#500KCM, 1#4/0 G, 3" C] 4 SETS EACH OF [3#500KCM, 1#500KCM N, 1#4/0 G, 3-1/2" C] 4 SETS EACH OF [3#500KCM, 1#500KCM N, 1#4/0 G, 1#4/0 IG, 3-1/2" C]
1600.3 1600.4 1600.4i	5 SETS EACH OF [3#400KCM, 1#4/0 G, 3" C] 5 SETS EACH OF [3#400KCM, 1#400KCM N, 1#4/0 G, 3" C] 5 SETS EACH OF [3#400KCM, 1#400KCM N, 1#4/0 G, 1#4/0 IG, 3-1/2" C]
2000.3 2000.4 2000.4i	6 SETS EACH OF [3#400KCM, 1#250KCM G, 3" C] 6 SETS EACH OF [3#400KCM, 1#400KCM N, 1#250KCM G, 3" C] 6 SETS EACH OF [3#400KCM, 1#400KCM N, 1#250KCM G, 1#250KCM IG, 3-1/2" C]
2500.3 2500.4 2500.4i	7 SETS EACH OF [3#500KCM, 1#350KCM G, 3-1/2" C] 7 SETS EACH OF [3#500KCM, 1#500KCM N, 1#350KCM G, 3-1/2" C] 7 SETS EACH OF [3#500KCM, 1#500KCM N, 1#350KCM G, 1#350KCM IG, 4" C]
3000.3 3000.4 3000.4i	8 SETS EACH OF [3#500KCM, 1#400KCM G, 3" C] 8 SETS EACH OF [3#500KCM, 1#500KCM N, 1#400KCM G, 3-1/2" C] 8 SETS EACH OF [3#500KCM, 1#500KCM N, 1#400KCM G, 1#400KCM IG, 4" C]
4000.3 4000.4 4000.4i	11 SETS EACH OF [3#500KCM, 1#500KCM G, 3-1/2" C] 11 SETS EACH OF [3#500KCM, 1#500KCM N, 1#500KCM G, 3-1/2" C] 11 SETS EACH OF [3#500KCM, 1#500KCM N, 1#500KCM G, 1#500KCM IG, 4" C]

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	TYPE	DESCRIPTION
A1	DESCRIPTION: 2X4 DIRECT/INDIRECT FLUORESCENT, RECESSED MOUNTE WITH FLUSH BRACKET, STATIC, DIE FORMED 20GA STEEL HOUSING, 20GA STEEL REFLECTOR WITH MATTIE WHITE POWDERCOAT FINISH, LAMP COMPARTMENT CONSISTING OF 25GA PERFORATED REFRACTOR "BASKET" WITH .11" THICK WHITE ACRYLIC LENS INSERT, REMOVABLE BALLAST/LAMP MODULE TRAY, DUST COVER. LAMP(S): 2- FO32/841/ECO BALLAST(S): PROGRAM START ELECTRONIC BALLAST, <10%THD, U.N.O. VOLTAGE: 277 INSTALLATION: RECESSED LAY-IN GRID (OR DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) MANF: FOCAL POINT #FLU-24-B-2-TB-S-XXX-G-PS-DC-WH ACCEPT. MFR: METALUX WILLIAMS	*E	DESCRIPTION: FIXTURE TYPES WITH AN 'E' SUFFIX SHALL BE PROVIDED WITH A SELF TEST/ SELF DIAG. FLUOR. EMERGENCY BALLAST, HIGH-TEMP MAINT.-FREE NICAD BATTERY, CHARGER & ELECTRONIC CIRCUITRY IN ONE RED METAL CASE, SOLID-STATE STATUS INDICATOR LT. & AUDIBLE ALARM (USER SELECTABLE), TEST SWITCH, UL LISTED FOR 2 LAMP, 3000 LUMEN OUTPUT (INITIAL) FOR 90 MIN. LAMP(S): N/A BALLAST(S): FLUORESCENT EMERGENCY BALLAST VOLTAGE: 120/277V MULTI-TAP BALLAST INSTALLATION: TEST SWITCH TO BE LOCATED ON WALL MANF: BODINE #B30ST REDITEST
A2	DESCRIPTION: SAME AS 'A1' BUT 3-LAMP LAMP(S): 3- FO32/841/ECO BALLAST(S): PROGRAM START ELECTRONIC BALLAST, <10%THD, U.N.O. VOLTAGE: 277 INSTALLATION: RECESSED LAY-IN GRID (OR DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) MANF: FOCAL POINT #FLU-24-B-3-TB-S-XXX-G-PS-DC-WH ACCEPT. MFR: METALUX WILLIAMS	F	DESCRIPTION: CAST ALUMINUM "IN-USE" SIGN, WHITE FACE, RED LETTERS, SINGLE FACE. LAMP(S): LED BALLAST(S): N/A VOLTAGE: 120 INSTALLATION: SURFACE MANF: DUAL-LITE #SESRW-SW3 WILLIAMS SURE-LITE
A3	DESCRIPTION: SAME AS 'A1' BUT 2X2 LAMP(S): 2- FO17/841/ECO BALLAST(S): PROGRAM START ELECTRONIC BALLAST, <10%THD, U.N.O. VOLTAGE: 277 INSTALLATION: RECESSED LAY-IN GRID (OR DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) MANF: FOCAL POINT #FLU-22-B-2-TB-S-XXX-G-PS-DC-WH ACCEPT. MFR: METALUX WILLIAMS	H1	DESCRIPTION: SOLID FRONT UNDERCABINET LIGHT, 20 GA. STEEL HOUSING, PLIABLE NON-YELLOWNG FLAY P-12 PRISMATIC ACRYLIC LENS. 2'-0", 3'-0", 4'-0" AS REQUIRED. PROVIDE VARYING LENGTHS AS REQUIRED BY ARCHITECTURAL DETAILS AND ELEVATIONS TO RUN FIXTURES END TO END CONTINUOUSLY TO MAXIMIZE LENGTHS. PROVIDE INTEGRAL ROCKER SWITCH UNLESS NOTED OTHERWISE. LAMP(S): 2- F8T5/841/ECO AND 1-F13T5/841/ECO, 2-F13T5/841/ECO BALLAST(S): PROGRAM START ELECTRONIC BALLAST, <10%THD VOLTAGE: 120 INSTALLATION: SURFACE MANF: KENALL #UCSL(24)(33)(42)-SB-120-PRS-(SW) NULITE WILLIAMS
B1	DESCRIPTION: 2' X 4' K12.125 PATTERN ACRYLIC LENSED TROFFER, SPECIFICATION PREMIUM STATIC TROFFER, 20GA ROLLED EDGE DIE-FORMED STEEL HOUSING, HINGED AND LATCHED FROM EITHER SIDE, ENCLOSED SPRING LOADED CAM LATCH, WHITE REGRESSED ALUMINUM DOOR WITH MITERED CORNERS, PAINT AFTER FABRICATION LAMP(S): 2 - FO32/841/ECO BALLAST(S): PROGRAM START ELECTRONIC BALLAST, <10%THD VOLTAGE: 277 INSTALLATION: RECESSED LAY-IN GRID (OR DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) MANF: COLUMBIA #4PS24-232G-FAA12-3E277-PAF ACCEPT. MFR: METALUX WILLIAMS	X1	DESCRIPTION: SINGLE FACE, RED LED EDGE-LIT EXIT SIGN, EXTRUDED ALUMINUM HOUSING, SATIN ALUMINUM FINISH LAMP(S): LED BALLAST(S): N/A VOLTAGE: 277 INSTALLATION: CEILING MOUNTED MANF: DUAL-LITE #LECSRNA INFINITY LIGHTOLIER
B2	DESCRIPTION: SAME AS 'B1' BUT WITH 3-LAMPS, AND DUAL SWITCHED. CENTER LAMP SWITCHING SHALL BE SEPARATE FROM THE OUTBOARD LAMPS. 2 - LAMPS ON CRITICAL CIRCUIT, 1 - LAMP ON NORMAL CIRCUIT. LAMP(S): 3 - FO32/841/ECO BALLAST(S): DUAL PROGRAM START ELECTRONIC BALLAST, <10%THD VOLTAGE: 277 INSTALLATION: RECESSED LAY-IN GRID (OR DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) MANF: COLUMBIA #4PS24-332G-FAA12-2(2E)277-PAF ACCEPT. MFR: WILLIAMS LIGHTOLIER	X2	DESCRIPTION: DUAL FACE, RED LED EDGE-LIT EXIT SIGN, EXTRUDED ALUMINUM HOUSING, SATIN ALUMINUM FINISH LAMP(S): LED BALLAST(S): N/A VOLTAGE: 277 INSTALLATION: CEILING MOUNTED MANF: DUAL-LITE #LECDRNA INFINITY LIGHTOLIER
B3	DESCRIPTION: SAME AS 'B1' EXCEPT 2X2 AND 3-LAMP. LAMP(S): 3 - F017/835/ECO BALLAST(S): PROGRAM START ELECTRONIC BALLAST, <10%THD VOLTAGE: 277 INSTALLATION: RECESSED LAY-IN GRID (OR DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) MANF: COLUMBIA #4PS22-317G-FAA12-2E277-PAF ACCEPT. MFR: WILLIAMS LIGHTOLIER		LIGHT FIXTURE SCHEDULE NOTES: 1. FAILURE TO SUBMIT PROPER LAMP AND BALLAST INFORMATION WITH LIGHT FIXTURE SUBMITTAL WILL RESULT IN AN AUTOMATIC REJECTION OF SUBMITTAL. 2. DIMMING BALLASTS SHALL BE 100% COMPATIBLE WITH DIMMING SWITCHES. 3. CONFORMANCE TO A PARTICULAR LIGHT FIXTURE PACKAGE SHALL NOT BE THE SOLE REASON FOR SUBSTITUTIONS. 4. CONTRACTOR SHALL VERIFY ALL CEILING TYPES AND TRIM KITS PRIOR TO ORDERING FIXTURE PACKAGE.
C1	DESCRIPTION: 6" FLUORESCENT DOWNLIGHT WITH VERTICAL LAMP, SELF FLANGED REFLECTOR, ANONDIZED LOW IRIDESCENT SEMI-SPECULAR RELFECTOR FINISH, 20GA STEEL HOUSING, 18GA SUPPORTING YOKE ASSEMBLY, JUNCTION BOX FOR THRU WIRING, WITH MINIMUM EFFICIENCY OF 55% AND MAX CANDELA/SQUARE METER IN 65-DEGREE CONE. LAMP(S): 1 - CFTR26W/GX24Q/841 BALLAST(S): ADVANCE MARK 10 PROGRAM START DIMMING ELECTRONIC BALLAST, <10%THD VOLTAGE: 277 INSTALLATION: RECESSED LAY-IN GRID (OR DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) MANF: PRESCOLITE #CFT632EB-ADVANCE MARK 10 - WTF602HMFC-WRL26 ACCEPT. MFR: PORTFOLIO ZUMTOBEL		
C2	DESCRIPTION: SAME AS TYPE 'C1' WITHOUT DIMMING BALLAST LAMP(S): 1 - CFTR26W/GX24Q/841 BALLAST(S): PROGRAM START ELECTRONIC BALLAST, <10%THD VOLTAGE: 277 INSTALLATION: RECESSED LAY-IN GRID (OR DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) MANF: PRESCOLITE #CFT632EB - WTF602HMFC-WRL26 ACCEPT. MFR: PORTFOLIO ZUMTOBEL		
C3	DESCRIPTION: 6" FLUORESCENT DOWNLIGHT WITH VERTICAL LAMP, SELF FLANGED REFLECTOR, ANONDIZED LOW IRIDESCENT SEMI-SPECULAR RELFECTOR FINISH, 20GA STEEL HOUSING, 18GA SUPPORTING YOKE ASSEMBLY, JUNCTION BOX FOR THRU WIRING, WITH MINIMUM EFFICIENCY OF 55% AND MAX CANDELA/SQUARE METER IN 65-DEGREE CONE. PROVIDE WITH DIFFUSE LENS. LAMP(S): 1 - CFTR26W/GX24Q/841 BALLAST(S): PROGRAM START ELECTRONIC BALLAST, <10%THD VOLTAGE: 120 INSTALLATION: DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM MANF: PRESCOLITE #CFT632EB-STF602MFCDL ACCEPT. MFR: PORTFOLIO ZUMTOBEL		

DEMAND FACTOR TABLE

LOAD TYPES	FACTORS											NEC REFERENCE
LIGHTS	1.00											220.42
RECEPTACLES	0-10kVA	>10kVA										
	1.00	0.50										220.44
MOTORS	MAX	ALL OTHERS										
	1.25	1.00										220.50
HOSPITAL	0-50kVA	>50kVA										
	0.40	0.20										220.42 & 220.44
DIAGNOSTIC	1 PIECE OF EQUIPMENT		OVER 1 PIECE OF EQUIPMENT									
	1		1	2	3 or more							
	1.00		0.50	0.25	0.10							517.73(2)
ELEVATOR	1	2	3	4	5	6	7	8	9	10 or more		
	1.00	0.95	0.9	0.85	0.82	0.79	0.77	0.75	0.73	0.72		620.14
KITCHEN	1	2	3	4	5	6 or more						
	1.00	1.00	0.90	0.80	0.70	0.65						220.56
HEAT	1.00											220.51
MISCELLANEOUS	1.00											210.19
MISCELLANEOUS 2	1.00											

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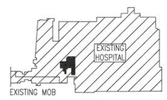
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KEY PLAN
FIRST FLOOR





Revisions

NO.	ISSUE	DATE

CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED
DATE APPROVED APR 01 2009

Sheet Information

Date	03-06-2009
Job Number	142542.000
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Checked	MM
Approved	MM

Title

ELECTRICAL SCHEDULES

Sheet

E-7001

Issued for Construction

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DISTRIBUTION PANEL: 1DPEQHA — EQUIPMENT

FED FROM: EQ
LOCATION: CORRIDOR 1098
MAIN BUS: 400A
MCB: N/A
VOLTAGE: 480/277
AIC: 14,000A

WIRES: 4W + G
ENCLOSURE: NEMA 1
BUS TYPE: Copper
MOUNTING: Recessed
PANEL LUGS: Main Lugs Only

NEUTRAL BUS: Yes
GROUND BUS: Yes
ISOLATED GROUND BUS: No
200% NEUTRAL: No

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	LOAD (VA) LTS	RCPTS	MTRS	HEAT	MISC	CIRCUIT BREAKER AMPS	POLES	REMARKS
1	H-1-1	72000				72000		--	3	
2	AHU-1-1 SF	33333			33333			90	3	30 HP
3	AHU-1-1 RF	11600			11600			30	3	10 HP
4	CRAC-1 CONDENSING UNIT	6150			6150			20	3	
5	CRAC-1	10968			10968			20	3	
6	HUMIDIFIER CONTROLS	500					500	20	1	
7	AHU CONTROLS	500					500	20	1	
8	VAV CONTROLS	500					500	20	1	
9	F/S DAMPERS	500					500	20	1	
10	PHP-1-1	500			500			20	1	
11	SPARE	--						--	3	
12	SPARE	--						--	3	
13	SPARE	--						--	3	
14	SPARE	--						--	3	
15	SPARE	--						--	3	

NOTES:

"1DPEQHA" LOAD SUMMARY

	LTS	RCPTS	MTRS	HEAT	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	0.0	0.0	62.6	72.0	2.0	136.6	164.2
DEMAND FACTOR	SEE DEMAND FACTOR TABLE						
TOTAL DEMAND LOAD	0.0	0.0	71.3	72.0	2.0	145.3	174.7
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00	1.00	1.00		
TOTAL DESIGN LOAD	0.0	0.0	71.3	72.0	2.0	145.3	174.7

PANEL: CATH — CRITICAL

LOCATION: UPS 1104
MAIN BUS: 100A
MCB: N/A
VOLTAGE: 480/277
AIC: 14,000A

FED FROM: UPS
WIRES: 4W + G
ENCLOSURE: NEMA 1
BUS TYPE: Copper
MOUNTING: Surface
PANEL LUGS: Main Lugs Only

NEUTRAL BUS: Yes
GROUND BUS: Yes
ISOLATED GROUND BUS: No
200% NEUTRAL: No
FEED THROUGH LUGS: Yes

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	POLES	PHASE	CIRCUIT BREAKER AMPS	POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
1	CATH #1	--	50	3	A	50	3	--	CATH #3	2
3	--	--			B			--		4
5	--	--			C			--		6
7	CATH #2	--	50	3	A		3	--	S.O.	8
9		--			B			--		10
11		--			C			--		12

NOTES:
REFER TO 07/E6001 FOR ADDITIONAL PANEL INFORMATION.

"CATH" LOAD SUMMARY

	LTS	RCPTS	X-RAY	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	0.0	0.0	0.0	0.0	0.0	0.0
DEMAND FACTOR	SEE DEMAND FACTOR TABLE					
TOTAL DEMAND LOAD	0.0	0.0	0.0	0.0	0.0	0.0
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00	1.00		
TOTAL DESIGN LOAD	0.0	0.0	0.0	0.0	0.0	0.0

EXISTING PANEL: 2LSH — LIFE SAFETY

LOCATION: ELEC. 2094
MAIN BUS: 100A
MCB: N/A
VOLTAGE: 480/277
AIC: 14,000A

FED FROM: 1DPLSH
WIRES: 4W + G
ENCLOSURE: NEMA 1
BUS TYPE: Copper
MOUNTING: Surface
PANEL LUGS: Main Lugs Only

NEUTRAL BUS: Yes
GROUND BUS: Yes
ISOLATED GROUND BUS: No
200% NEUTRAL: No
FEED THROUGH LUGS: No

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	POLES	PHASE	CIRCUIT BREAKER AMPS	POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
1	LTG. CORRIDORS 2ND FL.	3036	20	1	A	20	1	470	LTG. CATH LAB	2
3	LTG. CORRIDORS 3RD FL.	2400	20	1	B	20	1	--	SPARE	4
5	SPARE	--	20	1	C	20	1	--	SPARE	6
7	LTG. CORRIDORS 1ST FL.	3200	20	1	A	20	1	--	SPARE	8
9	LTG. CORRIDORS 1ST FL.	1400	20	1	B	20	1	--	SPARE	10
11	SPARE	--	20	1	C	20	1	--	SPARE	12
13	SPARE	--	20	1	A	20	1	--	SPARE	14
15	SPARE	--	20	1	B	20	1	--	SPARE	16
17	SPARE	--	20	1	C	20	1	--	SPARE	18
19	SPARE	--	20	1	A	20	1	--	SPARE	20
21	SPARE	--	20	1	B	20	1	--	SPARE	22
23	SPARE	--	20	1	C	20	1	--	SPARE	24
25	SPARE	--	20	1	A	20	1	--	SPARE	26
27	SPARE	--	20	1	B	20	1	--	SPARE	28
29	SPARE	--	20	1	C	20	1	--	SPARE	30
31	SPARE	--	20	1	A	20	1	--	SPARE	32
33	SPARE	--	20	1	B	20	1	--	SPARE	34
35	SPARE	--	20	1	C	20	1	--	SPARE	36
37	SPARE	--	20	1	A	25	3	2700	PANEL '2LSL'	38
39	SPARE	--	20	1	B			1700	VIA XFMR	40
41	SPARE	--	20	1	C			1700	"	42

NOTES:

"2LSH" LOAD SUMMARY

	LTS	RCPTS	HSPTL	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	10.5	0.0	1.2	4.9	16.6	20.0
DEMAND FACTOR	SEE DEMAND FACTOR TABLE					
TOTAL UEMAND LOAD	11.0	0.0	0.4	5.0	16.4	19.7
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00	1.00		
TOTAL DESIGN LOAD	13.8	0.0	0.4	5.0	19.2	23.0

EXISTING PANEL: 2LSL — LIFE SAFETY

LOCATION: ELEC. 2094
MAIN BUS: 100A
MCB: N/A
VOLTAGE: 208/120
AIC: 10,000A

FED FROM: 2LSH
WIRES: 4W + G
ENCLOSURE: NEMA 1
BUS TYPE: Copper
MOUNTING: Surface
PANEL LUGS: Main Lugs Only

NEUTRAL BUS: Yes
GROUND BUS: Yes
ISOLATED GROUND BUS: No
200% NEUTRAL: No
FEED THROUGH LUGS: No

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	POLES	PHASE	CIRCUIT BREAKER AMPS	POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
1	J-BOX AUTO DOOR 1ST FL.	1000	20	1	A	20	1	500	MGAA - CATH SUITE	2
3	MGAP RM'S 2097-2083	400	20	1	B	20	1	--	SPARE	4
5	MGAP RM 3060	400	20	1	C	20	1	--	SPARE	6
7	MGAP RM. 1022A	400	20	1	A	20	1	--	SPARE	8
9	J-BOX AUTO DOOR 2ND FL.	400	20	1	B	20	1	--	SPARE	10
11	J-BOX AUTO DOOR 3RD FL.	400	20	1	C	20	1	--	SPARE	12
13	3RD FLOOR FIRE ALARM NAC	400	20	1	A	20	1	--	SPARE	14
15	2ND FLOOR FIRE ALARM NAC	400	20	1	B	20	1	--	SPARE	16
17	1ST FLOOR FIRE ALARM NAC	400	20	1	C	20	1	--	SPARE	18
19	1ST FLOOR FIRE ALARM NAC	400	20	1	A	20	1	--	SPARE	20
21	FACP1	500	20	1	B	20	1	--	SPARE	22
23	FACP2	500	20	1	C	20	1	--	SPARE	24
25	SPARE	--	20	1	A	20	1	--	SPARE	26
27	SPARE	--	20	1	B	20	1	--	SPARE	28
29	SPARE	--	20	1	C	20	1	--	SPARE	30
31	SPARE	--	20	1	A	20	1	--	SPARE	32
33	SPARE	--	20	1	B	20	1	--	SPARE	34
35	SPARE	--	20	1	C	20	1	--	SPARE	36
37	SPARE	--	20	1	A	20	1	--	SPARE	38
39	SPARE	--	20	1	B	20	1	--	SPARE	40
41	SPARE	--	20	1	C	20	1	--	SPARE	42

NOTES:

"2LSL" LOAD SUMMARY

	LTS	RCPTS	HSPTL	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	0.0	0.0	1.2	4.9	6.1	16.9
DEMAND FACTOR	SEE DEMAND FACTOR TABLE					
TOTAL DEMAND LOAD	0.0	0.0	0.4	5.0	5.4	15.0
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00	1.00		
TOTAL DESIGN LOAD	0.0	0.0	0.4	5.0	5.4	15.0

EXISTING DISTRIBUTION PANEL: 1DPCRH — CRITICAL

FED FROM: DPDC
LOCATION: MAIN ELEC. 1133
MAIN BUS: 600A
MCB: 500A
VOLTAGE: 480/277
AIC: 65,000A

WIRES: 4W + G
ENCLOSURE: NEMA 1
BUS TYPE: Copper
MOUNTING: Surface
PANEL LUGS: Main Circuit Breaker

NEUTRAL BUS: Yes
GROUND BUS: Yes
ISOLATED GROUND BUS: No
200% NEUTRAL: No

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	LOAD (VA) LTS	RCPTS	MTRS	HSPTL	X-RAY	MISC	CIRCUIT BREAKER AMPS	POLES	REMARKS
1	PANEL '1CRH'	13500	2040			11460			100	3	
2	PANEL '2DPCRL' VIA XFMR	268540		22120		243076		3344	225	3	
3	PANEL '2CRH'	13442				13442			100	3	
4	PANEL '3CRH'	5500				5500			100	3	
5	PANEL '4CRH'	13226				13226			100	3	
6	PANEL '4DPCRL' VIA XFMR	136130	734	22560		112336		500	225	3	
7	PANEL '5CRH'	69496			55770	13726			100	3	
8	SPARE	--							--	3	FUTURE 6TH FLOOR
9	SPARE	--							--	3	FUTURE 7TH FLOOR
10	CATH #1	49860					49860		125	3	
11	CATH #2	49860					49860		125	3	
12	FUTURE CATH #3	49860					49860		125	3	
13	UPS	12465						12465	80	3	
14	SPACE	--							--	3	100A FRAME

NOTES:

"1DPCRH" LOAD SUMMARY

	LTS	RCPTS	MTRS	HSPTL	X-RAY	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	2.8	44.7	55.8	412.8	149.6	16.3	681.9	820.2
DEMAND FACTOR	SEE DEMAND FACTOR TABLE							
TOTAL DEMAND LOAD	3.0	27.5	64.3	92.6	42.5	16.0	245.8	295.7
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00	1.00	1.00	1.00		
TOTAL DESIGN LOAD	3.8	27.5	64.3	92.6	42.5	16.0	246.6	296.6

EXISTING DISTRIBUTION PANEL: 2DPEQH — EQUIPMENT

FED FROM: 1DPEQH
LOCATION: MECH. 2042
MAIN BUS: 400A
MCB: N/A
VOLTAGE: 480/277
AIC: 65,000A

WIRES: 4W + G
ENCLOSURE: NEMA 1
BUS TYPE: Copper
MOUNTING: Surface
PANEL LUGS: Main Lugs Only

NEUTRAL BUS: Yes
GROUND BUS: Yes
ISOLATED GROUND BUS: No
200% NEUTRAL: No

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	LOAD (VA) LTS	RCPTS	MTRS	HSPTL	HEAT	MISC	CIRCUIT BREAKER AMPS	POLES	REMARKS
1	CRU-06-02	1329			1329				15	3	.75 HP
2	AHU-06-1	43233			43233				100	3	40 HP
3	RAF-06-1	17460			17460				40	3	15 HP
4	AHU-06-2	43233			43233				100	3	40 HP
5	RAF-06-2	11640			11640				25	3	10 HP
6	AHU-06-3	54042			54042				125	3	50 HP
7	RAF-06-3	17460			17460				40	3	15 HP
8	LEF-1-1	1332			1332				20	3	
9	S.O.	--							--	3	
10	S.O.	--							--	3	
11	S.O.	--							--	3	
12	S.O.	--							--	3	

NOTES:

"2DPEQH" LOAD SUMMARY

	LTS	RCPTS	MTRS	HSPTL	HEAT	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	0.0	0.0	189.7	0.0	0.0	0.0	189.7	228.2
DEMAND FACTOR	SEE DEMAND FACTOR TABLE							
TOTAL DEMAND LOAD	0.0	0.0	203.5	0.0	0.0	0.0	203.5	244.8
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00	1.00	1.00	1.00		
TOTAL DESIGN LOAD	0.0	0.0	203.5	0.0	0.0	0.0	203.5	244.8

EXISTING PANEL: 2EQL — EQUIPMENT

LOCATION: ELEC. 2094
MAIN BUS: 225A
MCB: 150A
VOLTAGE: 208/120
AIC: 10,000A

FED FROM: 1DPEQH
WIRES: 4W + G
ENCLOSURE: NEMA 1
BUS TYPE: Copper
MOUNTING: Surface
PANEL LUGS: Main Circuit Breaker

NEUTRAL BUS: Yes
GROUND BUS: Yes
ISOLATED GROUND BUS: No
200% NEUTRAL: No
FEED THROUGH LUGS: Yes

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	POLES	PHASE	CIRCUIT BREAKER AMPS	POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
1	SPARE	500	20	1	A	20	1	500	J-BOX FIRE SM. DAM. 1ST FL.	2
3	J-BOX VAV BOXES 1ST FL.	500	20	1	B	20	1	500	J-BOX VAV BOXES 1ST FL.	4
5	J-BOX FIRE SM. DAM. 3RD FL.	500	20	1	C	20	1	500	J-BOX FIRE SM. DAM. 1ST FL.	6
7	J-BOX VAV BOXES 3RD FL.	500	20	1	A	20	1	500	J-BOX VAV BOXES 1ST FL.	8
9	SUMP PUMP ELEV #1	400	20	1	B	20	1	400	J-BOX COIL. SMK DOOR 1ST FL.	10
11	SUMP PUMP ELEV #2	400	20	1	C	20	1	600	J-BOX COIL. SMK DOOR 2ND FL.	12
13	SUMP PUMP ELEV #3	400	20	1	A	20	1	600	J-BOX COIL. SMK DOOR 3RD FL.	14
15	SUMP PUMP ELEV #4	400	20	1	B	20	1	500	J-BOX FIRE SM. DAM. 1ST FL.	16
17	J-BOX FIRE SM. DAM. 1ST FL.	500	20	1	C	20	1	500	J-BOX VAV BOXES 1ST FL.	18
19	J-BOX VAV BOXES 1ST FL.	500	20	1	A	20	1	500	3RD FLOOR DDC CONTROLS	20
21	J-BOX FIRE SM. DAM. 1ST FL.	500	20	1	B	20	1	500	2ND FLOOR DDC CONTROLS	22
23	J-BOX VAV BOXES 1ST FL.	500	20	1	C	20	1	500	2ND FLOOR DDC CONTROLS	24
25	J-BOX PTS	500	20	1	A	20	1	1000	J-BOX PTS	26
27	J-BOX PTS	500	20	1	B	20	1	500	J-BOX PTS TRANSFER	28
29	J-BOX PTS	500	20	1	C	20	1	500	J-BOX PTS TRANSFER	30
31	J-BOX PTS	500	20	1	A	20	1	500	J-BOX PTS TRANSFER	32
33	J-BOX PTS TRANSFER	500	20	1	B	20	1	500	J-BOX FIRE SM. DAM. 1ST FL.	34
35	1ST FLOOR DDC CONTROLS	500	20	1	C	20	1	--	SPARE	36
37	SPARE	--	20	1	A	20	1	--	SPARE	38
39	SPARE	--	20	1	B	20	1	750	HEAT TRACE	40
41	SPARE	--	20	1	C	20	1	--	SPARE	42

NOTES:

EXISTING PANEL: 2EQL (SECTION 2) — EQUIPMENT

LOCATION: ELEC. 2094
MAIN BUS: 225A
MCB: N/A
VOLTAGE: 208/120
AIC: 10,000A

WIRES: 4W + G
ENCLOSURE: NEMA 1
BUS TYPE: Copper
MOUNTING: Surface
PANEL LU'GS: Main Lugs Only

NEUTRAL BUS: Yes
GROUND BUS: Yes
ISOLATED GROUND BUS: No
200% NEUTRAL: No
FEED THROUGH LUGS: No

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	POLES	PHASE	CIRCUIT BREAKER AMPS	POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
43	GEF-06-3 1/4 HP	667	15	1	A	20	1	1127	GEF-06-4 1/2 HP	44
45	GEF-06-5 1/3 HP	828	15	1	B	20	1	--	SPARE	46
47	PHP-06-1 1/4 HP	667	15	1	C	15	1	667	PHP-06-2 1/4 HP	48
49	PHP-06-3 1/4 HP	667	15	1	A	20	1	500	PRE-ACTION CNTRL PANEL	50
51	DRY PIPE COMPRESSOR	1127	20	1	B	20	1	1627	PRE-ACTION COMPRESSOR	52
53	J-BOX COILING FIRE DOOR 2ND	500	20	1	C	20	1	500	J-BOX FIRE SM. DAM. 2ND FL.	54
55	J-BOX FIRE SM. DAM. 2ND FL.	500	20	1	A	20	1	500	J-BOX FIRE SM. DAM. 2ND FL.	56
57	J-BOX FIRE SM. DAM. 2ND FL.	500	20	1	B	20	1	500	J-BOX FIRE SM. DAM. 2ND FL.	58
59	J-BOX FIRE SM. DAM. 2ND FL.	500	20	1	C	20	1	500	J-BOX VAV BOXES 2ND FL.	60
61	J-BOX VAV BOXES 2ND FL.	500	20	1	A	20	1	500	J-BOX VAV BOXES 2ND FL.	62
63	J-BOX VAV BOXES 2ND FL.	500	20	1	B	20	1	500	J-BOX VAV BOXES 2ND FL.	64
65	J-BOX VAV BOXES 2ND FL.	500	20	1	C	20	1	--	SPARE	66
67	GEN QUICK CONNECT HEAT	500	20	1	A	20	1	--	SPARE	68
69	SPARE	--	20	1	B	20	1	--	SPARE	70
71	SPARE	--	20	1	C	20	1	--	SPARE	72
73	SPARE	--	20	1	A	20	1	--	SPARE	74
75	SPARE	--	20	1	B	20	1	--	SPARE	76
77	SPARE	--	20	1	C	20	1	--	SPARE	78
79	SPARE	--	20	1	A	20	1	--	SPARE	80
81	SPARE	--	20	1	B	20	1	--	SPARE	82
83	SPARE	--	20	1	C	20	1	--	SPARE	84

NOTES:

"2EQL" LOAD SUMMARY

	LTS	RCPTS	MTRS	HSPTL	HEAT	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	0.0	0.0	6.9	0.8	0.8	24.9	33.3	92.5
DEMAND FACTOR	SEE DEMAND FACTOR TABLE							
TOTAL DEMAND LOAD	0.0	0.0	7.3	0.4	1.0	25.0	33.7	93.4
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00	1.00	1.00	1.00		
TOTAL DESIGN LOAD	0.0	0.0	7.3	0.4	1.0	25.0	33.7	93.4

	1EQDPHA	1DPCRH1
	CATH	2DPEQH
	2LSH	2EQL SEC 1
	2LSL	2EQL SEC 2

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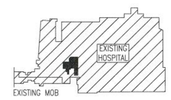
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KEY PLAN
FIRST FLOOR



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3/4/09

Revisions

NO.	ISSUE	DATE

CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED
DATE APPROVED APR 04 2009

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Checked	MM
Approved	MM

Title

ELECTRICAL SCHEDULES

Sheet

E-7002

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EXISTING PANEL: CLAB — CRITICAL

LOCATION: LAB 1097 | MAIN BUS: 225A | MCB: N/A | VOLTAGE: 208/120 | AIC: 10,000A
FED FROM: 2DPCRL | WIRES: 4W + G | ENCLOSURE: NEMA 1 | BUS TYPE: Copper | MOUNTING: Surface | PANEL LUGS: Main Lugs Only
NEUTRAL BUS: Yes | GROUND BUS: Yes | ISOLATED GROUND BUS: No | 200% NEUTRAL: No | FEED THROUGH LUGS: Yes

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	PHASE	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
1	LAB PLUG MOLD	540	20	1	A	20	1	500	FAX-COPIER	2
3	LAB PLUG MOLD	540	20	1	B	20	1	540	MICRO-PLUG MOLD	4
5	HALL	360	20	1	C	20	1	360	STORAGE LAB	6
7	SMOKE DAMPER	150	20	1	A	20	1	540	MICRO-PLUG MOLD	8
9	WALK-IN COMPRESSOR	750	20	2	B	20	1	360	MICRO RCPT	10
11		750			C	20	1	540	MICRO-PLUG MOLD	12
13	WALK-IN LTS/FAN	1000	20	1	A	20	1	360	MICRO RCPT	14
15	SECURITY CAMERA	250	20	1	B	20	1	360	MICRO RCPT	16
17	SECURITY CAMERA	250	20	1	C	20	1	360	MICRO OFFICE	18
19	LAB FRIDGE	500	20	1	A	20	1	540	MICRO RCPT	20
21	**MEDS/PICK**	**720**	**20**	1	B	20	1	1200	EX. LOAD (VERIFY AND RENAME)	22
23	**UCR/MEDS**	**900**	**20**	**1**	C	20	1	1200	EX. LOAD (VERIFY AND RENAME)	24
25	**R-NURSE STATION**	**540**	**20**	**1**	A	20	1	360	MICRO RCPT	26
27	**R-NURSE STATION**	**540**	**20**	**1**	B	20	1	540	MICRO-PLUG MOLD	28
29	**R-CORRIDOR**	**360**	**20**	**1**	C	20	1	360	MICRO RCPT	30
31	**R- ALCOVE**	**720**	**20**	**1**	A	**20**	**1**	**720**	**R-CATH CONTROL**	**32**
33	**R- RECOVER**	**1080**	**20**	**1**	B	**20**	**1**	**720**	**R-CATH CONTROL**	**34**
35	**R-RECOVER**	**1080**	**20**	**1**	C	20	1	--	SPARE	36
37	**R-RECOVER**	**1080**	**20**	**1**	A	20	1	200	J-BOX PT.S RM. 1102	38
39	**R-RECOVER**	**1080**	**20**	**1**	B	**20**	**1**	**600**	**CATH #1 S.T./DS/W.L.**	**40**
41	**R-RECOVER**	**1080**	**20**	**1**	C	**20**	**1**	**600**	**CATH #2 S.T./DS/W.L.**	**42**

NOTES:

EXISTING PANEL: CLAB (SECTION 2) — CRITICAL

LOCATION: LAB 1097 | MAIN BUS: 225A | MCB: N/A | VOLTAGE: 208/120 | AIC: 10,000A
WIRES: 4W + G | ENCLOSURE: NEMA 1 | BUS TYPE: Copper | MOUNTING: Surface | PANEL LUGS: Main Lugs Only
NEUTRAL BUS: Yes | GROUND BUS: Yes | ISOLATED GROUND BUS: No | 200% NEUTRAL: No | FEED THROUGH LUGS: Yes

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	PHASE	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
43	SAFETY HOOD "M1" RM. 1102	1920	20	1	A	**20**	**1**	**720**	**R- CATH #1**	**44**
45	INCUBATOR "M2" RM. 1102	840	20	1	B	**20**	**1**	**720**	**R- CATH #2**	**46**
47	BACTEC 9240 "M3" RM. 1102	1068	20	1	C	20	1	1800	MEDIA REFG. "M10" RM. 1102	48
49	BACTEC 9240 "M4" RM. 1102	1068	20	1	A	**20**	**1**	**720**	**R- CATH #1**	**50**
51	MICROSCAN "M5" RM. 1102	1200	20	1	B	**20**	**1**	**720**	**R- CATH #2**	**52**
53	SPARE	--	20	1	C	**20**	**1**	**540**	**R- CATH #1**	**54**
55	REFRIG/FREZ "M7" RM. 1102	1200	20	1	A	**20**	**1**	**540**	**R- CATH #2**	**56**
57	**CATH #1 BOOM**	**720**	**20**	**1**	B	**20**	**1**	**720**	**R - CATH CONTROL**	**58**
59	**CATH#2 BOOM**	**720**	**20**	**1**	C	**20**	**1**	**540**	**R - CATH CONTROL**	**60**
61	SPARE	--	20	1	A	20	1	--	SPARE	62
63	RCPT'S RM. 1102	540	20	1	B	20	1	--	SPARE	64
65	RCPT'S RM. 1102	540	20	1	C	20	1	--	SPARE	66
67	**R - CATH CONTROL**	**720**	**20**	**1**	A	20	1	--	SPARE	68
69	**R - CATH CONTROL**	**360**	**20**	**1**	B	20	1	--	SPARE	70
71	**R- CATH #1**	**640**	**20**	**1**	C	20	1	--	SPARE	72
73	**R- CATH #2**	**640**	**20**	**1**	A	20	1	--	SPARE	74
75	**R - CATH #1**	**--**	**20**	**1**	B	20	1	--	SPARE	76
77	**R - CATH #2**	**540**	**20**	**1**	C	20	1	--	SPARE	78
79	**R- CATH #1**	**540**	**20**	**1**	A	20	1	--	SPARE	80
81	**R - CATH #2**	**540**	**20**	**1**	B	20	1	--	SPARE	82
83	SPARE	--	20	1	C	20	1	--	SPARE	84

NOTES:

EXISTING PANEL: CLAB (SECTION 3) — CRITICAL

LOCATION: LAB 1097 | MAIN BUS: 225A | MCB: N/A | VOLTAGE: 208/120 | AIC: 10,000A
WIRES: 4W + G | ENCLOSURE: NEMA 1 | BUS TYPE: Copper | MOUNTING: Surface | PANEL LUGS: Main Lugs Only
NEUTRAL BUS: Yes | GROUND BUS: Yes | ISOLATED GROUND BUS: No | 200% NEUTRAL: No

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	PHASE	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
85	SPARE	--	20	1	A	20	1	--	SPARE	86
87	SPARE	--	20	1	B	20	1	--	SPARE	88
89	SPARE	--	20	1	C	20	1	--	SPARE	90
91	SPARE	--	20	1	A	20	1	--	SPARE	92
93	SPARE	--	20	1	B	20	1	--	SPARE	94
95	SPARE	--	20	1	C	20	1	--	SPARE	96
97	SPARE	--	20	1	A	20	1	--	SPARE	98
99	SPARE	--	20	1	B	20	1	--	SPARE	100
101	SPARE	--	20	1	C	20	1	--	SPARE	102
103	SPARE	--	20	1	A	20	1	--	SPARE	104
105	SPARE	--	20	1	B	20	2	--	SPARE	106
107	SPARE	--	20	1	C			--	--	108
109	SPARE	--	20	1	A	20	2	--	SPARE	110
111	SPARE	--	20	1	B			--	--	112
113	SPARE	--	20	1	C	20	2	--	SPARE	114
115	SPARE	--	20	1	A			--	--	116
117	SPARE	--	20	1	B	20	1	--	SPARE	118
119	SPARE	--	20	1	C	20	1	--	SPARE	120
121	SPARE	--	20	1	A	20	1	--	SPARE	122
123	SPARE	--	20	1	B	20	1	--	SPARE	124
125	SPARE	--	20	1	C	20	1	--	SPARE	126

NOTES:

"CLAB" LOAD SUMMARY

	LTS	RCPTS	HSPTL	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	0.4	20.8	15.7	9.2	46.0	127.8
DEMAND FACTOR	SEE DEMAND FACTOR TABLE					
TOTAL DEMAND LOAD	0.0	15.5	6.4	9.0	30.9	85.8
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00	1.00		
TOTAL DESIGN LOAD	0.0	15.5	6.4	9.0	30.9	85.8

EXISTING PANEL: 1CRH — CRITICAL

LOCATION: ELEC. CLOSET 1090A | MAIN BUS: 100A | MCB: N/A | VOLTAGE: 480/277 | AIC: 10,000A
FED FROM: 1DPCRH | WIRES: 4W + G | ENCLOSURE: NEMA 1 | BUS TYPE: Copper | MOUNTING: Surface | PANEL LUG'S: Main Lugs Only
NEUTRAL BUS: Yes | GROUND BUS: Yes | ISOLATED GROUND BUS: No | 200% NEUTRAL: No | FEED THROUGH LUGS: No

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	PHASE	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
1	LTG. RM'S 1133A-1138	2400	20	1	A	20	1	1500	LTG. RM'S 1039-1055	2
3	LTG. RM'S 1005-1009	1060	20	1	B	20	1	3500	LTG. LAB RM. 1097	4
5	LTG. RM'S 1067-1090A	2400	20	1	C	20	1	600	LTG. RM'S 1018-1022	6
7	**LTG. CATH SUITE**	**3320**	**20**	**1**	A	20	1	--	SPARE	8
9	SPARE	--	20	1	B	20	1	--	SPARE	10
11	SPARE	--	20	1	C	20	1	--	SPARE	12
13	SPARE	--	20	1	A	20	1	--	SPARE	14
15	SPARE	--	20	1	B	20	1	--	SPARE	16
17	SPARE	--	20	1	C	20	1	--	SPARE	18
19	SPARE	--	20	1	A	20	1	--	SPARE	20
21	SPARE	--	20	1	B	20	1	--	SPARE	22
23	SPARE	--	20	1	C	20	1	--	SPARE	24
25	SPARE	--	20	1	A	20	1	--	SPARE	26
27	SPARE	--	20	1	B	20	1	--	SPARE	28
29	SPARE	--	20	1	C	20	1	--	SPARE	30
31	SPARE	--	20	1	A	20	1	--	SPARE	32
33	SPARE	--	20	1	B	20	1	--	SPARE	34
35	SPARE	--	20	1	C	20	1	--	SPARE	36
37	SPARE	--	20	1	A	20	1	--	SPARE	38
39	SPARE	--	20	1	B	20	1	--	SPARE	40
41	SPARE	--	20	1	C	20	1	--	SPARE	42

NOTES:

"1CRH" LOAD SUMMARY

	LTS	RCPTS	MTRS	HSPTL	HEAT	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	3.3	0.0	0.0	11.5	0.0	0.0	14.8	17.8
DEMAND FACTOR	SEE DEMAND FACTOR TABLE							
TOTAL DEMAND LOAD	3.0	0.0	0.0	4.4	0.0	0.0	7.4	8.9
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00	1.00	1.00	1.00		
TOTAL DESIGN LOAD	3.8	0.0	0.0	4.4	0.0	0.0	8.2	9.8

EXISTING PANEL: 1NHA — NORMAL

LOCATION: CORR. 1062 | MAIN BUS: 100A | MCB: N/A | VOLTAGE: 480/277 | AIC: 10,000A
FED FROM: 1DPNH | WIRES: 4W + G | ENCLOSURE: NEMA 1 | BUS TYPE: Copper | MOUNTING: Recessed | PANEL LUGS: Main Lugs Only
NEUTRAL BUS: Yes | GROUND BUS: Yes | ISOLATED GROUND BUS: No | 200% NEUTRAL: No | FEED THROUGH LUGS: No

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	PHASE	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
1	LTG. LAB RM. 1097	1700	20	1	A	20	1	800	LTG. RM'S 1018-1022	2
3	LTG. LAB RM. 1097	3800	20	1	B	**20**	**1**	**2850**	**LTG - CATH SUITE**	**4**
5	LTG. RM'S 1135-1146A	--	20	1	C	20	1	--	SPARE	6
7	AIR COMPRESSOR	2106	15	3	A	20	1	--	SPARE	8
9	--	2106			B	20	1	--	SPARE	10
11	--	2106			C	20	1	--	SPARE	12
13	SPARE	--	20	1	A	20	1	--	SPARE	14
15	SPARE	--	20	1	B	20	1	--	SPARE	16
17	SPARE	--	20	1	C	20	1	--	SPARE	18
19	SPARE	--	20	1	A	20	1	--	SPARE	20
21	SPARE	--	20	1	B	20	1	--	SPARE	22
23	SPARE	--	20	1	C	20	1	--	SPARE	24
25	SPARE	--	20	1	A	20	1	--	SPARE	26
27	SPARE	--	20	1	B	20	1	--	SPARE	28
29	SPARE	--	20	1	C	20	1	--	SPARE	30
31	SPARE	--	20	1	A	20	1	--	SPARE	32
33	SPARE	--	20	1	B	20	1	--	SPARE	34
35	SPARE	--	20	1	C	20	1	--	SPARE	36
37	SPARE	--	20	1	A	20	1	--	SPARE	38
39	SPARE	--	20	1	B	20	1	--	SPARE	40
41	SPARE	--	20	1	C	20	1	--	SPARE	42

NOTES:

"1NHA" LOAD SUMMARY

	LTS	RCPTS	MTRS	HSPTL	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	2.9	0.0	6.3	6.3	0.0	15.5	18.6
DEMAND FACTOR	SEE DEMAND FACTOR TABLE						
TOTAL DEMAND LOAD	3.0	0.0	7.5	2.4	0.0	12.9	15.5
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00	1.00	1.00		
TOTAL DESIGN LOAD	3.8	0.0	7.5	2.4	0.0	13.7	16.4

EXISTING PANEL: NLAB — NORMAL

LOCATION: LAB 1097 | MAIN BUS: 100A | MCB: N/A | VOLTAGE: 208/120 | AIC: 10,000A
FED FROM: 1DPNL | WIRES: 4W + G | ENCLOSURE: NEMA 1 | BUS TYPE: Copper | MOUNTING: Surface | PANEL LUGS: Main Lugs Only
NEUTRAL BUS: Yes | GROUND BUS: Yes | ISOLATED GROUND BUS: No | 200% NEUTRAL: No | FEED THROUGH LUGS: Yes

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	PHASE	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
1	MECH RM RCPTS	540	20	1	A	20	1	360	LAB RCPT	2
3	MECH. RM PUMPS	500	20	1	B	20	1	540	HALL RCPT	4
5	MECH RM PUMPS	500	20	1	C	20	1	540	HALL RCPT	6
7	CHEM FUME HOOD	750	20	1	A	20	1	540	LAB PLUGMOLD	8
9	HALL RCPTS	540	20	1	B	20	1	540	LAB PLUGMOLD	10
11	**R-EQUIP/SOILED**	**1260**	**20**	**1**	C	**20**	**1**	**900**	**UCR/NURSE STATION**	**12**
13	**R-TOILET/UTILITY**	**1110**	**20**	**1**	A	**20**	**1**	**1200**	**ICE MAKER**	**14**
15	**R-UPS/EQUIPMENT**	**1440**	**20**	**1**	B	**20**	**1**	**1080**	**R - CATH CONTROL**	**16**
17	**FRIDGE**	**900**	**20**	**1**	C	**20**	**1**	**720**	**CATH #1 BOOM**	**18**
19	**MICROWAVE**	**1200**	**20**	**1**	A	**20**	**1**	**720**	**CATH #2 BOOM**	**20**
21	**COFFEE**	**1200**	**20**	**1**	B	**20**	**1**	**900**	**R - CATH CONTROL**	**22**
23	**R-CORRIDOR**	**720**	**20**	**1**	C	**20**	**1**	**720**	**R - CATH #1**	**24**
25	**R-NURSE STATION/MEDS**	**900**	**20**	**1**	A	**20**	**1**	**540**	**R - CATH ROOF**	**26**
27	**R -RECOVERY**	**540**	**20**	**1**	B	**20**	**1**	**1330**	**GEF-1-(1,2)**	**28**
29	**R- RECOVERY**	**1440**	**20**	**1**	C	**20**	**1**	**720**	**R - CATH #2**	**30**
31	**R- RECOVERY**	**1080**	**20**	**1**	A	20	1	--	SPARE	32
33	**R-NURSE STATION**	**720**	**20**	**1**	B	20	1	--	SPARE	34
35	RCPT'S. RM. 1103	360	20	1	C	20	1	--	SPARE	36
37	* PANEL "LPQA"	4693	**60	3	A	20	1	--	SPARE	38
39	--	4693			B	20	1	--	SPARE	40
41	--	4693			C	20	1	--	SPARE	42

NOTES:

"NLAB" LOAD SUMMARY

	LTS	RCPTS	MTRS	HSPTL	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	0.0	5.6	1.3	13.0	21.2	41.1	114.2
DEMAND FACTOR	SEE DEMAND FACTOR TABLE						
TOTAL DEMAND LOAD	0.0	6.0	1.3	5.2	21.0	33.4	92.8
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00	1.00	1.00		
TOTAL DESIGN LOAD	0.0	6.0	1.3	5.2	21.0	33.4	92.8

	CLAB SEC. 1	1CRH
	CLAB SEC. 2	1NHA
	CLAB SEC. 3	NLAB

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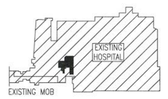
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KEY PLAN
FIRST FLOOR





Revisions

NO.	ISSUE	DATE

CITY OF AURORA
BUILDING DIVISION
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Approved	MM

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ELECTRICAL SCHEDULES

Sheet

E-7003

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