ELECTRICAL NOTES

APPLICABLE TO ALL ELECTRICAL SHEETS:

1. ALL WORK SHALL COMPLY WITH NEC, NFPA, AND ALL APPLICABLE FEDERAL CODES.
2. ALL RECEPTACLES SHALL HAVE THE NEMA 5-20R CONFIGURATION, UNO. EACH RECEPTACLE SHALL BE CAPABLE OF ACCEPTING 15A OR 20A PLUGS.
3. ALL BRANCH CIRCUITS SHALL BE RUN WITH DEDICATED NEUTRALS: NO SHARED NEUTRALS.
4. IT IS ANTICIPATED THAT ANY CRITICAL WORK (SHUTDOWNS, ETC.), AFFECTING OTHER AREAS, WILL BE DONE DURING OFF HOURS (NIGHTS, WEEK-ENDS, HOLIDAYS, ETC.) AND INTERESTED CONTRACTORS SHOULD PLAN ACCORDINGLY. A TWO (2) WEEK ADVANCE NOTIFICATION IS REQUIRED. INTENSIVE PLANNING IS REQUIRED TO ALLOW SCHEDULED WORK TO BE ACCOMPLISHED DURING SCHEDULED SHUTDOWN PERIODS.
5. ALL EXISTING CIRCUITS THAT ARE TO BE RE-FED, ARE TO BE INTERCEPTED AT THE CLOSEST POSSIBLE POINT OF THE EXISTING CIRCUIT SOURCE (ELECTRICAL CLOSET, PANELBOARD, DISCONNECT, ETC.) TO MINIMIZE DISRUPTION WHILE REPLACING FEEDER CIRCUITS.
6. IT IS ANTICIPATED THIS PROJECT WILL INVOLVE WORK ON OR VERY NEAR LIVE CIRCUITS. ANY SUCH WORK WILL REQUIRE A WRITTEN, TASK SPECIFIC, DETAILED PLAN OF ACTION THAT IS AGREEABLE TO BOTH THE CONTRACTOR AND COTR, SIGNED BY BOTH, AND SUBMITTED TWO (2) WEEKS PRIOR TO STARTING THE TASK. ADDITIONALLY, DUE TO THE COMPLEXITY AND INHERENT EXPOSURES OF THIS TYPE WORK, ALL ELECTRICAL WORKERS SHALL MEET THE MINIMUM TRAINING/EXPERIENCE REQUIREMENTS AS DESCRIBED IN THE SPECIFICATIONS. CONTRACTOR SHALL BE TRAINED ON ARC FLASH SAFETY PROCEDURES AND SHALL POSSESS THE PROTECTIVE EQUIPMENT. CONTRACTOR SHALL COMPLY WITH THE VAMC INTERNAL PROCEDURES FOR WORKING ON ENERGIZED CIRCUITS
7. ALL PATIENT CARE AREAS MUST COMPLETE EQUIPOTENTIAL TESTING/CERTIFICATION, PRIOR TO RETURNING TO OPERATIONAL STATUS.
8. ALL CONDUITS SHALL BE CLEAN AND FREE OF DEBRIS PRIOR TO INSTALLING NEW CONDUCTORS.
9. ALL CONDUCTORS SHALL BE INSTALLED IN CONDUIT. GENERAL DESIGN INTENT IS TO USE EMT INDOORS AND TO USE SCHED. 40 PVC UNDERGROUND.
10. ALL ELECTRICAL DEVICES SHALL BE FED WITH (1)#12, (1) #12 N, AND (1) #12 G, UNO.

CONTRACTOR REQUIRED INVESTIGATIVE TESTING AND LAYOUT

PRIOR TO LAYOUT AND INSTALLATION OF NEW PLUMBING PIPING, MEDICAL GAS PIPING, HVAC PIPING AND ELECTRICAL CONDUIT REQUIRING NEW PENETRATIONS OF THE 2ND OR 3RD FLOORS, THE CONTRACTOR SHALL SUBMIT TO THE COTR THE TESTING AND INVESTIGATION SERVICE (TIS) WHICH WILL BE USED TO LOCATE THE EXISTING SLAB REINFORCEMENT FOR APPROVAL. THE TIS SHALL HAVE A MINIMUM OF 5 YEARS OF EXPERIENCE IN THE USE OF X-RAY AND GROUND PENETRATING RADAR (GPR). THE CONTRACTOR SHALL SUBMIT THE INVESTIGATIVE TESTING SERVICES WORK PLAN AND SCHEDULE FOR APPROVAL. THE TIS SHALL USE X-RAY, GPR OR OTHER SUITABLE NON-DESTRUCTIVE TESTING METHODOLOGY TO ACCURATELY IDENTIFY THE SLAB REINFORCING, FROM WHICH ADJUSTMENTS TO THE PIPING PENETRATIONS WILL BE MADE SO NOT TO COMPROMISE THE STRUCTURAL INTEGRITY OF THE EXISTING CONCRETE FLOOR SLABS. THE X-RAY OR GPR SHALL BE A CONTINUOUS 3-D GRID PROCESS (SCANNING GRID OF 2" ON CENTER) FOR AN AREA OF 24" BEYOND THE PROPOSED PIPE PENETRATION IN ALL DIRECTIONS. THE IDENTIFIED X-RAY OR GPR OF THE REINFORCING SHALL BE IDENTIFIED BY PIPE TYPE AND COLUMN GRID LINE DESIGNATION. THE AREA SHALL BE SURVEYED, MAPPED AND SUBMITTED TO THE COTR FOR RECORD PURPOSES. THE REINFORCING SHALL BE MARKED ON THE CONCRETE SLAB AND USE DIFFERING COLORS FOR THE IDENTIFICATION OF TOP AND BOTTOM REINFORCING. THE CONTRACTOR SHALL GIVE THE COTR 72 HOURS NOTICE PRIOR TO ANY INVESTIGATIVE TESTING WORK REQUIRING ACCESS TO THE 1ST FLOOR.

SYMBOLS

LIGHTING

- A / a — 2' X 4' FLOURESCENT LIGHT FIXTURE, CONNECTED TO NORMAL CIRCUIT; A = LIGHT FIXTURE TYPE; a = SWITCHING DESIGNATION
- 2' X 4' FLUORESCENT LIGHT FIXTURE, CONNECTED TO CRITICAL CIRCUIT
- WALL MOUNTED FLUORESCENT LINEAR LIGHT FIXTURE
- $ — TOGGLE SWITCH
- $3 — TOGGLE SWITCH, 3-WAY
- LC — SURGICAL LIGHT CONTROLLER

POWER

- PANELBOARD, SURFACE MOUNTED
- TRANSFORMER
- DUPLEX RECEPTACLE, MTD. +18" UNO
- DUPLEX RECEPTACLE MTD. ABOVE COUNTER, MTD. +44" UNO
- DUPLEX RECEPTACLE ON CRITICAL POWER
- QUADPLEX RECEPTACLE
- QUADPLEX RECEPTACLE ON CRITICAL POWER
- GROUNDING JACKS
- J — JUNCTION BOX, MOUNTED ABOVE CEILING
- JC — RECESSED CLOCK OUTLET BOX FOR CONNECTION TO CLOCKS, MOUNTED +84", UNO.
- JD — JUNCTION BOX FOR AUTOMATIC DOOR POWER CONNECTION, MOUNTED ABOVE DOOR FRAME.
- CONDUIT CONCEALED IN WALL OR CLG.
- CONDUIT UNDER FLOOR
- HOMERUN TO PNL WITH (2) #12, #12G IN 3/4"C, UNO.

SYSTEMS

- DATA/TELEPHONE OUTLET, MOUNTED +18", UNO
- DATA/TELEPHONE J-BOX MTD. ABOVE CEILING FOR CONNECTION TO CEILING MOUNTED EQUIPMENT
- DPP PUSH PLATE OPERATOR FOR DOOR OPENER

SHEET SYMBOLS

- 1 — SHEET KEYNOTE SYMBOL, SEE RIGHT BORDER FOR TEXT
- D2 / E201 — DETAIL NUMBER; SHEET NUMBER WHERE DETAIL CAN BE FOUND
- DENOTES SCOPE OF DEMOLITION ON RISER

ABBREVIATIONS

A	AMPERE
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
BKR	BREAKER
BR	BRANCH
CKT	CIRCUIT
CLG	CEILING
COORD	COORDINATE
CRI	COLOR RENDITION INDEX
CTRL	CONTROL
DISC	DISCONNECT
ENCL	ENCLOSURE
ETR	EXISTING TO REMAIN
EXIST	EXISTING
FACP	FIRE ALARM CONTROL PANEL
FLUOR	FLUORESCENT
GFI	GROUND FAULT INTERRUPT
GWB	GYPSUM WALL BOARD
HD	HEAVY DUTY
JB	JUNCTION BOX
K	KELVIN
KA	KILO-AMPERES
KAIC	KILO-AMPERES INTERRUPTING CURRENT
KW	KILO-WATT
LED	LIGHT EMITTING DIODE
LS	LIFE SAFETY
LT	LIGHT FIXTURE
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
MTD	MOUNTED
NEC	NATIONAL ELECTRICAL CODE
NF	NON-FUSED
NTS	NOT TO SCALE
OEM	ORIGINAL EQUIPMENT MANUFACTURER
P	POLE
PB	PULL BOX
PACP	PHYSICAL ACCESS CONTROL PANEL
PACS	PHYSICAL ACCESS CONTROL SYSTEM
PBPU	PREFABRICATED BEDSIDE PATIENT UNIT
PH	PHASE
PNL	PANEL
PRI	PRIMARY
PTS	PNEUMATIC TUBE SYSTEM
SEC	SECONDARY
SS	STAINLESS STEEL
SW	SWITCH
THD	TOTAL HARMONIC DISTORTION
TPH	TWISTED PAIR HORIZONTAL
TR	TAMPER RESISTANT
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
V	VOLT
VAC	VOLTS ALTERNATING CURRENT
W	WIRE OR WATT
WP	WEATHERPROOF
XFMR	TRANSFORMER
X/R	REACTANCE TO RESISTANCE RATIO

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