GENERAL NOTES:

1. PENETRATION OF CONDUITS, RACEWAYS AND WIRING THROUGH FIRE RATED WALLS AND CEILINGS SHALL BE FIRE-STOPPED. FIRE STOPPING MATERIALS AND METHODS SHALL BE A U.L. LISTED ASSEMBLY.
2. METHODS AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION NEC. EQUIPMENT SHALL BE IN ACCORDANCE WITH THE STANDARDS OF NEMA AND ANSI. EQUIPMENT SHALL BE NEW AND LISTED BY U.L. AND INSTALLED IN ACCORDANCE WITH THE CONDITIONS STATED IN THAT LISTING.
3. BEFORE ENERGIZING, EQUIPMENT SHALL BE TESTED TO BE FREE OF GROUNDS AND SHORTS.
4. RECEPTACLES, OUTLETS, SWITCHES, DISCONNECT, CONDUITS AND JUNCTION BOXES (ABOVE AND BELOW CEILING) SHALL BE PERMANENTLY MARKED AS TO INDICATE THE CIRCUIT NUMBER AND SOURCE PANELBOARD. PERMANENT MARKING FOR BELOW THE CEILING DEVICES SHALL BE CLEAR 3/16" WIDE STICK-ON LABEL WITH BLACK LETTERING. PERMANENT MARKING FOR ABOVE THE CEILING DEVICES MAY BE HAND LABELED WITH PERMANENT MARKER.
5. UNLESS OTHERWISE INDICATED, POWER AND LIGHTING CONDUCTORS SHALL BE TYPE THHN/THWN, 600 VOLT, SOLID OR STRANDED COPPER AND NOT SMALLER THAN #12 AWG FOR POWER AND LIGHTING CIRCUITS AND #14 AWG FOR CONTROL CIRCUITS.
6. ALL EQUIPMENT SHALL BE PROPERLY GROUNDED IN STRICT ACCORDANCE WITH THE LATEST NATIONAL ELECTRIC CODE (NEC). PROVIDE EQUIPMENT GROUNDING CONDUCTORS. CONDUIT CANNOT BE USED AS THE ONLY MEANS OF GROUNDING.
7. FIXTURES AND EQUIPMENT SHALL BE SUPPORTED/MOUNTED TO COMPLY WITH THE SEISMIC REQUIREMENTS OF THE IBC, STATE AND COUNTY REGULATIONS.
8. CONDUIT CONNECTIONS TO MOTORS SHALL BE MADE WITH FLEXIBLE METAL OR LIQUID TIGHT FLEXIBLE CONDUIT NOT MORE THAN 6 FEET LONG.
9. MECHANICAL ELECTRICALLY OPERATED EQUIPMENT SHALL BE PROVIDED WITH "WITHIN SIGHT" DISCONNECTING SWITCH CONSISTING OF HORSEPOWER RATED SWITCH OR MOLDED CASE CIRCUIT BREAKER. OUT OF SIGHT LOCKABLE DISCONNECTING DEVICES ARE NOT ACCEPTABLE TO MEET THIS REQUIREMENT.
10. DRAWINGS SHOWN ARE SCHEMATIC ONLY. THE CONTRACTOR SHALL FIELD VERIFY SITE CONDITIONS AND ENSURE SHOP DRAWINGS ARE PROVIDED BEFORE DETAILING COMPLETE UTILITY LAYOUT AND INSTALLATION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ROUTE NEW CONDUITS, DUCTS, PIPING AND SIMILAR LINES TO AVOID POTENTIAL INTERFERENCES, AND WHERE THIS CANNOT BE ACCOMPLISHED, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REMOVE, REROUTE, ADJUST AND REINSTALL THE INTERFERENCE SUCH THAT IT NO LONGER POSES A PROBLEM. THESE ITEMS ARE TO BE ADDRESSED AND CORRECTED AT NO ADDITIONAL COST TO THE GOVERNMENT.
11. CONTRACTOR SHALL COORDINATE ELECTRICAL WORK WITH OTHER TRADES.
12. LABEL AND IDENTIFY ALL PANEL SCHEDULES.
13. DEDICATED NEUTRAL SHALL BE PROVIDED FOR EACH 120V AND 277V CIRCUITS.
14. ALL CONDUITS SHALL BE CONCEALED WHENEVER POSSIBLE. CONDUITS SHALL RUN ABOVE THE CEILING OR BEHIND THE FINISH WALL, UNLESS OTHERWISE NOTED.
15. "PROVIDE" MEANS "FURNISH AND INSTALL".
16. FOR UTILITY INTERRUPTIONS OF LESS THAN 15 MINUTES IN DURATION, THE CONTRACTOR SHALL SUBMIT A REQUEST TO INTERRUPT ANY SUCH SERVICES TO COTR, IN WRITING, FIVE (5) WORKING DAYS IN ADVANCE OF PROPOSED INTERRUPTION. FOR UTILITY INTERRUPTIONS EXCEEDING 15 MINUTES IN DURATION, THE CONTRACTOR SHALL SUBMIT A REQUEST TO INTERRUPT ANY SUCH SERVICES TO COTR, IN WRITING, TEN (10) WORKING DAYS IN ADVANCE OF PROPOSED INTERRUPTION. REQUEST SHALL STATE REASON, DATE, EXACT TIME OF, AND APPROXIMATE DURATION OF SUCH INTERRUPTION.
17. ALL ELECTRICAL CONSTRUCTION WORK, METHODS AND MATERIALS SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND APPLICABLE GOVERNMENT AND VETERANS ADMINISTRATION RULES AND REGULATIONS.
18. ROUTE ALL TELECOMMUNICATION CIRCUITS 18" MINIMUM APART FROM ELECTRICAL CIRCUITS. IN LOCATIONS WHERE MINIMUM SEPARATION CAN NOT BE OBTAINED, WRAP TELECOMMUNICATION CIRCUITS WITH GROUNDED METALLIC SHEET TO REDUCE NOISE INTERFERENCE.
19. ALL ABOVE CEILING RACEWAYS, OUTLETS, J.B's AND PULL BOXES SHALL BE HUNG ON THE CONCRETE SLAB. WALL MOUNTING IS NOT PERMITTED.
20. PROVIDE ADDITIONAL ACCESS PANEL, AS REQUIRED, ON HARD CEILING FOR ELECTRICAL DEVICES, EQUIPMENT, J.B. ETC. ACCESS.

LEGEND

Symbol	Description
J / [J]	JUNCTION BOX
	DUPLEX RECEPTACLE, NEMA 5-20R, GROUNDING TYPE
	QUAD-RECEPTACLE (DOUBLE DUPLEX), NEMA 5-20R, GROUNDING TYPE
GFCI	DUPLEX RECEPTACLE, NEMA 5-20R, GROUNDING TYPE WITH GROUND FAULT CIRCUIT INTERRUPTER (GFCI)
GFCI	QUAD-RECEPTACLE (DOUBLE DUPLEX), NEMA 5-20R, GROUNDING TYPE WITH GROUND FAULT CIRCUIT INTERRUPTER
	RECEPTACLE, NEMA 6-20R, GROUNDING TYPE
C	COMBINATION ON CEILING DUPLEX RECEPTACLE AND TELECOMMUNICATION RECEPTACLE (4 OUTLETS MINIMUM-1 VOICE & 3 DATA TELECOM OUTLET.)
F	COMBINATION IN FLOOR DUPLEX RECEPTACLE AND TELECOMMUNICATION RECEPTACLE (4 OUTLETS MINIMUM-1 VOICE & 3 DATA TELECOM OUTLET.)
	CONDUIT OR WIRE RUN EXPOSED OR ABOVE THE CEILING
— — —	CONDUIT OR WIRE RUN UNDERGROUND
GROUND / NEUTRAL / PHASE CONDUCTOR; A-1,3	BRANCH CIRCUIT HOMERUN TO PANELBOARD; LETTER AND NUMBER NOTATION IDENTIFIES PANEL AND CIRCUIT NUMBER(S). HASH MARKS INDICATES NUMBER OF PHASE, NEUTRAL AND GREEN GROUND WIRES
[E]	EXIT SIGN
	TELEPHONE RECEPTACLE (1 VOICE)
	TELECOMMUNICATION RECEPTACLE, QUAD (1 VOICE, 3 DATA)
1	TELECOMMUNICATION RECEPTACLE, QUAD (1 VOICE, 2 DATA AND 1 BLANK)
	TELECOMMUNICATION RECEPTACLE, DUPLEX (2 DATA)
	TELECOMMUNICATION RECEPTACLE, DUPLEX (1 DATA AND 1 VIDEO)
T	THERMOSTAT
S	SWITCH, 20A, 1 POLE, 120/277 V, UNLESS OTHERWISE INDICATED SUFFIX OF: A, B, C INDICATES SEPARATE CONTROL OF CIRCUITS AS DESIGNATED 3 3 WAY SWITCH 4 4 WAY SWITCH D DIMMER
PC	PHOTOCELL
M	MOTOR, NUMBER INDICATES HORSEPOWER
	DISCONNECT SWITCH, UNFUSED
[F]	DISCONNECT SWITCH, FUSED
[F]	COMBINATION MOTOR STARTER, FUSED TYPE
[CB]	COMBINATION MOTOR STARTER, CIRCUIT BREAKER TYPE
[CB]	CIRCUIT BREAKER, ENCLOSED
	ELECTRIC PANELBOARD, SURFACE MOUNTED
	ELECTRIC PANELBOARD, FLUSH MOUNTED
	CONDUIT/WIRE TURN UP
	CONDUIT/WIRE TURN DOWN
[MS]	MOTION SENSOR
[PB] /	PUSHBUTTON
[PS]	POWER SUPPLY
[T]	TRANSFORMER
[TC]	24 HOUR TIMECLOCK
[CR]	CARD READER
	TV COAXIAL CABLE OUTLET
OS	OCCUPANCY SENSOR – CEILING MOUNTED
[OS]	OCCUPANCY SENSOR – WALL MOUNTED
[VFD]	VARIABLE FREQUENCY DRIVE

LEGEND (CONTINUED)

Symbol	Description
	LIGHT FIXTURE, SEE LIGHTING SCHEDULE
	LED FIXTURE ON NORMAL POWER (TYP.)
	LED FIXTURE ON EMERGENCY POWER (TYP.)

1. RECEPTACLE SHALL BE MOUNTED 18" AFF AND SWITCH SHALL BE MOUNTED 48" AFF, UNLESS OTHERWISE NOTED.
2. RECEPTACLE, TELECOMMUNICATION OUTLET AND SWITCH SUFFIX OF:

-A	MOUNTED 6" ABOVE COUNTERTOP OR BACKSPLASH.
-B	MOUNTED 6" ABOVE AND 6" FROM THE EDGE OF THE SINK TOP
-C	MOUNTED ON CEILING
-F	MOUNTED ON FLOOR
-W	MOUNTED 48" AFF
-H	MOUNTED 12" BELOW CEILING LINE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
SC	SAFETY TYPE
WP	WEATHER PROTECTED (NEMA 3R) ENCLOSURE
	HATCHED GRAY THIN LINE INDICATES DEMOLISH PER DRAWING NOTES
	BOLD LINE INDICATES NEW WORK
1	NOTE REFERENCE
3	DETAIL NUMBER
E-1	DRAWING NUMBER ON WHICH DETAIL IS TAKEN
E-3	DRAWING NUMBER ON WHICH DETAIL IS DRAWN

ELECTRICAL ABBREVIATIONS:

Abbreviation	Meaning	Abbreviation	Meaning
A/AMP	AMPERE	MTD	MOUNTED
AFF	ABOVE FINISHED FLOOR	MTG	MOUNTING
AIC	AMPS INTERRUPTING CAPACITY	N/A	NOT APPLICABLE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	NEC	NATIONAL ELECTRICAL CODE
AWG	AMERICAN WIRE GAUGE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
B.C.	BARE COPPER	NF	NON-FUSED
BLDG	BUILDING	NO.	NUMBER
C	CONDUIT	NTS	NOT TO SCALE
C.B.	CIRCUIT BREAKER	O.L.	OVERLOAD
CAT	CATALOG	P	POLE
CLG	CEILING	PA	PUBLIC ADDRESS
CO	CONTRACTING OFFICER	PC	PHOTO CELL
COMM	COMMUNICATION	PNL	PANEL
CONN	CONNECTED	PR	PAIR
COTR	CONTRACTING OFFICER TECHNICAL REPRESENTATIVE	PH	PHASE
CKT	CIRCUIT	PRI	PRIMARY
CT	CURRENT TRANSFORMER	PVC	POLYVINYL CHLORIDE
CU	COPPER	PWR	POWER
DISC	DISCONNECT	RECEPT	RECEPTACLE
DIST	DISTRIBUTION	RGS	RIGID GALVANIZED STEEL
DWG	DRAWING	RM	ROOM
ELECT	ELECTRIC	SCHED	SCHEDULE
ELEC'L	ELECTRICAL	ST	STREET
ELEV	ELEVATION	SW	SWITCH
EMT	ELECTRICAL METALLIC TUBING	SWBD	SWITCHBOARD
EQUIP	EQUIPMENT	TELE/TEL.	TELEPHONE
EXIST/(E)	EXISTING	TELECOM	TELECOMMUNICATION
FA	FIRE ALARM	TV	TELEVISION
FACP	FIRE ALARM CONTROL PANEL	TEMP	TEMPORARY
FT	FOOT, FEET	TERM	TERMINAL
FLA	FULL LOAD AMPS	TWP	TWISTED WIRE PAIR, SHIELDED
FLD	FLOOD	TYP	TYPICAL
FLR	FLOOR	U/G	UNDERGROUND
FSD	FIRE SMOKE DAMPER	UBC	UNIFORM BUILDING CODE
GALV	GALVANIZED	UL	UNDERWRITERS LABORATORIES
GFCI	GROUND FAULT CIRCUIT-INTERRUPTER	UON	UNLESS OTHERWISE NOTED
GFP	GROUND FAULT PROTECTION	V	VOLT
GND	GROUND	VA	VOLT AMPS
GOV	GOVERNMENT	VAMC	VETERANS AFFAIRS MEDICAL CENTER
GRN	GREEN	VFD	VARIABLE FREQUENCY DRIVE
HPS	HIGH PRESSURE SODIUM	W	WIRE
HT	HEIGHT	WP	WEATHERPROOF
Hz	HERTZ	WT	WIRE TROUGH
IBC	INTERNATIONAL BUILDING CODE	XFMR	TRANSFORMER
J.B.	JUNCTION BOX	+12"A.F.F.	MOUNTING HEIGHT ABOVE FINISHED FLOOR OR GRADE
KA	KILO-AMPERES	ø	PHASE
KVA	KILOVOLT-AMPERE		
KV	KILOVOLT		
KW	KILOWATT		
LOC	LOCATION		
LTG	LIGHT		
MAX	MAXIMUM		
MECH'L	MECHANICAL		
MH	METAL HALIDE		
MIN	MINIMUM		
MISC	MISCELLANEOUS		

MECHANICAL EQUIPMENT:

Symbol	Description
T	THERMOSTAT
SD	SMOKE DAMPER
TU	TERMINAL UNIT

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