

GENERAL NEW WORK NOTES

- ALL ELECTRICAL WIRING, CONDUIT, DEVICES, EQUIPMENT AND MATERIALS SHALL BE NEW UNLESS OTHERWISE NOTED.
- ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC SAFETY CODE (IEEE C-2) AND THE 2011 NATIONAL ELECTRIC CODE (NFPA 70).
- ALL CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED.
- ALL INTERIOR ELECTRICAL WIRING SHALL BE IN METALLIC CONDUIT UNLESS OTHERWISE NOTED.
- PROVIDE FLEXIBLE METALLIC CONDUIT TO ALL MOTOR OPERATED EQUIPMENT.
- MATCH CIRCUIT BREAKER KAIC RATINGS TO EXISTING PANELS.
- FURNISH ALL LABOR AND TOOLS NECESSARY. FURNISH AND INSTALL ALL MATERIALS AND EQUIPMENT IN A FASHION COMPLYING WITH ALL APPLICABLE CODES, UFC'S, AND AUTHORITY HAVING JURISDICTION REQUIREMENTS, INCLUDING ITEMS NOT REQUIRED BUT NOT NECESSARILY SHOWN SUCH AS LAMPS, COUPLINGS, HANGERS, BRACKETS, CLAMPS, BOXES, CONNECTORS, AND HARDWARE.
- BEFORE SUBMITTING THE BID PROPOSAL, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE JOB CONDITIONS, VERIFY SERVICE REQUIREMENTS, INCLUDING ALL NECESSARY PULLBOXES, SIZE AND NUMBER OF CONDUITS AND CONDUCTORS, PANELS, SWITCHBOARDS, DISCONNECT SWITCHES, CABLES, ETC., WHETHER SHOWN ON DRAWINGS OR NOT, BUT REQUIRED FOR PROVIDING A COMPLETE AND OPERABLE ELECTRICAL SYSTEM WITHOUT ADDITIONAL COST TO THE OWNER.
- ALL INTERIOR ENCLOSED DISCONNECT SWITCHES AND CIRCUIT BREAKERS SHALL BE NEMA 1, UNLESS OTHERWISE NOTED.
- ALL RECEPTACLES DENOTED WITH "G" GROUND FAULT CIRCUIT INTERRUPTION SHALL BE WIRED TO THE LINE TERMINALS ONLY. DOWNSTREAM "G" RECEPTACLES SHALL NOT BE FED BY THE LOAD TERMINALS OF UPSTREAM "G" DEVICES. (TYPICAL)

GENERAL DEMOLITION NOTES

- LOCATION OF EXISTING EQUIPMENT, CONDUITS, OUTLETS, DEVICES, CONTROLS AND ALL CONCEALED WORKS, ARE APPROXIMATE. NOT ALL CIRCUITS, SUPPORTS, DEVICES, AND FIXTURES ARE SHOWN.
- DURING THE LIFE OF THE CONTRACT, CONSTRUCTION AND DEMOLITION TO THE POINT OF BENEFICIAL OCCUPANCY BY OWNER, THE CONTRACTOR SHALL PROTECT ALL SYSTEMS OR PORTIONS OF SYSTEMS TO REMAIN FOR REUSE FROM DAMAGE. ALL SYSTEMS SHALL BE TESTED IN SERVICE AFTER COMPLETION OF CONSTRUCTION AND MADE COMPLETE AND OPERABLE AT NO ADDITIONAL COST TO THE GOVERNMENT.
- NOT ALL CIRCUITS AND DEVICES ARE INDICATED. FOR EACH DEVICE THERE IS A CIRCUIT OR FEEDER BACK TO THE POINT OF ORIGIN. WHERE WALLS, FLOORS OR CEILINGS ARE TO BE DEMOLISHED ALL DEVICES, WIRING, AND CONDUIT SHALL BE REMOVED UNLESS INDICATED OTHERWISE.
- SEE ARCHITECTURAL DRAWINGS AND SPECIFICATION FOR ADDITIONAL INFORMATION. COORDINATE ALL DEMOLITION WITH ALL TRADES INVOLVED.
- EXISTING PIPING AND/OR CONDUIT RUN CONCEALED IN FLOOR SLAB OR UNDERGROUND AND NOT INDICATED OR SPECIFIED FOR REUSE IN NEW WORK SHALL BE ABANDONED UNLESS NOTED OTHERWISE. CUT PIPING AND/OR CONDUIT AT FLOOR AND SEAL BY AN APPROVED METHOD.
- AREAS MADE BARE BY DEMOLITION SHALL BE PATCHED WITH APPROVED FILL TO MATCH ADJACENT SURFACE. ALL REPAIRS AND NEW FINISH SHALL BE BY TRADES SKILLED IN FINISH WORKS UNDER EMPLOY OF THE CONTRACTOR.
- ALL ELECTRIC WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC SAFETY CODE (IEEE C-2) AND THE 2008 EDITION OF THE NATIONAL ELECTRIC CODE (NFPA 70).
- IT IS THE DECLARED AND ACKNOWLEDGED INTENTION AND MEANING TO DEMOLISH ALL RECEPTACLES, DATA/COMM OUTLETS AND TELEPHONE OUTLETS IN THE INDICATED WORK AREA COMPLETE BACK TO POINT OF ORIGIN, INCLUDING BUT NOT LIMITED TO CONDUIT AND WIRING.

ELECTRICAL LEGEND

GENERAL ELECTRICAL DEVICES:

- RECEPTACLE, DUPLEX, SUBSCRIPT INDICATES AS FOLLOWS:
 - 84" = INDICATES HEIGHT ABOVE FINISH FLOOR.
 - TVSS = TRANSIENT VOLTAGE SURGE SUPPRESSION RECEPTACLE.
 - WP = INDICATES RECEPTACLE WITH WEATHER PROOF ENCLOSURE.
 - IG = INDICATES ISOLATED GROUND (IG) RECEPTACLE. PROVIDE IG CONDUCTOR AS WELL AS EGC.
- RECEPTACLE, DUPLEX WITH EMERGENCY POWER
- RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER
- RECEPTACLE, QUADRAPLEX
- RECEPTACLE, QUADRAPLEX ON EMERGENCY POWER
- RECEPTACLE, SINGLE
- RECEPTACLE, SINGLE WITH SWITCH
- RECEPTACLE, SWITCHED DUPLEX
- DUPLEX RECEPTACLE NEMA 5-20R, MOUNTED FACE DOWN IN CEILING
- RECEPTACLE, SPECIAL NEMA, SUBSCRIPT AS FOLLOWS:
 - A = 120V, 20A, 1 PHASE, 2-POLE, 3W, NEMA 5-20R
 - B = 208V, 20A, 1 PHASE, 2-POLE, 3W, NEMA 6-20R
 - C = 120V, 30A, 1 PHASE, 2-POLE, 3W, NEMA 5-30R
 - D = 208V, 30A, 1 PHASE, 2-POLE, 3W, NEMA 6-30R
 - E = 208V, 60A, 1 PHASE, 3-POLE, 4W, NEMA 14-60R
 - F = 208V, 30A, 3 PHASE, 3-POLE, 4W, NEMA 15-30R
 - G = 208V, 50A, 3 PHASE, 3-POLE, 4W, NEMA 15-50R
 - H = 208V, 60A, 3 PHASE, 3-POLE, 4W, NEMA 15-60R
- JUNCTION BOX
 - SWITCH, SUBSCRIPT AS FOLLOWS:
 - Blank = SINGLE POLE
 - M = MANUAL MOTOR STARTING
 - LV1 = LOW VOLTAGE SWITCH WITH SINGLE ZONE CONTROL AND DIMMING OPERATION. (SENSOR SWITCH SPODM SA D V OR EQUAL)
 - LVIM = LOW VOLTAGE MASTER SWITCH
 - TD = SWITCH WITH TIME DELAY SHUTOFF

DISTRIBUTION AND POWER EQUIPMENT:

- PANELBOARD, MOUNT AS INDICATED. SEE PANELBOARD SCHEDULES.
- DISTRIBUTION PANELBOARD, MOUNT AS INDICATED. SEE PANELBOARD SCHEDULES.
- CONTROL PANEL
- DISCONNECT SWITCH, FUSED
- DISCONNECT SWITCH, UNFUSED
- STARTER, COMBINATION WITH DISCONNECT SWITCH
- STARTER OR MOTOR CONTROLLER

ATS

TRANSFORMER, MOUNT AS INDICATED. SEE XFMR SCHEDULE FOR SIZE AND TYPE.

SWITCHBOARD, SWITCHGEAR OR MCC, MOUNT ON CONCRETE HOUSEKEEPING PAD AS INDICATED. SEE PANELBOARD SCHEDULES.

ELECTRICAL CIRCUIT:

- CIRCUIT RUN CONCEALED ABOVE CEILING OR IN WALL
- LOW VOLTAGE CIRCUIT.

HOMERUN TO PANELBOARD. ANY CIRCUIT WITHOUT FURTHER DESIGNATION SHALL BE 2#12, #12G, 12"C. TICK MARKS INDICATE # OF CONDUCTORS (EGC NOT SHOWN). MINIMUM SIZE ON 120V HOMERUNS GREATER THAN 50 FEET SHALL BE #10 AWG. MINIMUM SIZE ON 120V HOMERUNS GREATER THAN 100 FEET SHALL BE #8 AWG. MINIMUM SIZE ON 277V HOMERUNS GREATER THAN 160 FEET SHALL BE #6 AWG. MINIMUM SIZE ON 277V HOMERUNS GREATER THAN 100 FEET SHALL BE #10 AWG. INCREASE CONDUIT SIZE AS REQUIRED PER NEC. UNDERLINED TEXT INDICATES CIRCUIT DESIGNATION.

EMERGENCY (NEC ART. 700) CIRCUIT RUN CONCEALED ABOVE CEILING OR IN WALL.

TELECOMMUNICATIONS SYSTEM:

- OUTLET, COMBINATION TELEPHONE/DATA COMMUNICATION, SUBSCRIPT AS FOLLOWS:
 - D# = INDICATES THE QUANTITY OF DATA JACKS.
 - T# = INDICATES THE QUANTITY OF VOICE JACKS.
 - V# = INDICATES THE QUANTITY OF VIDEO JACKS.
 - A# = INDICATES THE QUANTITY OF AUDIO JACKS.
 - 84" = MOUNTING HEIGHT AFF.
- OUTLET TELEPHONE ONLY.
- OUTLET DATA ONLY
- CEILING MOUNTED OUTLET- DATA ONLY

[WAP] WIRELESS ACCESS POINT.

SPEAKER, CEILING MOUNTED, SUBSCRIPT AS FOLLOWS:

- IP CAMERA WITH PAN-TILT ZOOM
- FIXED IP CAMERA
- DURRESS PUSH BUTTON
- CEILING MOUNTED SPEAKER
- KEYPAD DEVICE

NURSE CALL SYSTEM:

- NURSE CALL STATION, SUBSCRIPT AS FOLLOWS:
 - 2 = DUPLICATE FACILITIES FOR TWO BEDS (SEPARATE INDICATORS AT MASTER STATION) MTD 5'-0" [1524mm] AFF UNLESS OTHERWISE NOTED.
 - CODE BLUE STATION, MTD 5'-0" [1524mm] AFF UNLESS NOTED OTHERWISE.
 - DUTY STATION, MTD 5'-0" [1524mm] AFF UNLESS NOTED OTHERWISE.
 - MTD 6'-0" [1829mm] AFF FOR SHOWER LOCATION, MTD 4'-0" [1372mm] AFF FOR TUB LOCATION, & MTD 3'-0" [914mm] AFF FOR TOILET LOCATION.
 - PSYCHIATRIC CORRIDOR STATION WITH KEY SWITCH
 - AUDIO VISUAL MALL STATION (STAFF) MTD 5'-0" [1524mm] AFF UNLESS OTHERWISE NOTED.
 - UTILITY CALL STATION, MTD 5'-0" [1524mm] AFF UNLESS OTHERWISE NOTED.

NURSE CALL DOME LIGHT MOUNTED 6" ABOVE DOOR UNO, SUBSCRIPT AS FOLLOWS:

- 2 = INDICATES NUMBER OF LAMPS
- D = CORRIDOR DOME LIGHT
- I = AUXILIARY INTERSECTIONAL DOME LIGHT

NURSE CALL MASTER STATION

LIGHTING FIXTURES:

- RECESSED FLUORESCENT GRID TROFFER, DIRECT INDIRECT, REFERENCE FIXTURE SCHEDULE FOR SPECIFIC INFORMATION.
- RECESSED FLUORESCENT GRID TROFFER LIGHTING FIXTURE, EQUIP ACRYLIC LENS, REFERENCE FIXTURE SCHEDULE FOR SPECIFIC INFORMATION.
- SUSPENDED 4" INDUSTRIAL STRIP FLUORESCENT LIGHTING FIXTURE, REFERENCE FIXTURE SCHEDULE FOR SPECIFIC INFORMATION.
- DOWNLIGHT LIGHTING FIXTURE. REFERENCE FIXTURE SCHEDULE FOR SPECIFIC INFORMATION.
- WALL MOUNTED 4' FLUORESCENT LIGHT FIXTURE, REFERENCE FIXTURE SCHEDULE FOR SPECIFIC INFORMATION.
- RECESSED LED STRIP LIGHTING FIXTURE, REFERENCE FIXTURE SCHEDULE FOR SPECIFIC INFORMATION.
- WALL MOUNTED EXTERNAL LIGHTING FIXTURE, REFERENCE FIXTURE SCHEDULE FOR SPECIFIC INFORMATION.
- EXIT LIGHT, WALL OR CEILING WITH DIRECTIONAL ARROWS AS INDICATED ON PLANS. (DARKENED AREA INDICATES LIGHTED FACE) WITH EMERGENCY BATTERY BACKUP. REFERENCE FIXTURE SCHEDULE FOR SPECIFIC INFORMATION.

- FIXTURES WITH SOLID FILLED CENTER INDICATE THE FIXTURE IS TO BE CIRCUITED TO GENERATOR POWER.
- FIXTURES WITH HALF FILLED CENTER INDICATE THE FIXTURE IS TO RECEIVE A BATTERY BACKUP.

OCCUPANCY SENSORS:

- WALL MOUNTED LINE VOLTAGE DUAL TECHNOLOGY SWITCH WITH SINGLE RELAY, MOUNT 48" AFF UNLESS NOTED OTHERWISE. SENSOR SWITCH nWSX-PDT-LV OR EQUAL.
- CEILING MOUNTED LOW VOLTAGE BI-DIRECTIONAL WIDE DUAL TECHNOLOGY (PASSIVE INFRARED & ULTRASONIC) OCCUPANCY SENSOR. SENSOR SWITCH nCM-PDT-9 OR EQUAL.
- DAYLIGHT HARVESTING SENSOR
- POWER PACK- PROVIDE WITH NEMA-1 ENCLOSURE. SENSOR SWITCH nPP16 OR EQUAL.
- POWER PACK WITH 2 RELAYS FOR 2 CIRCUITS- PROVIDE WITH NEMA-1 ENCLOSURE. PP2 2P OR EQUAL.

ELECTRICAL ABBREVIATIONS

A	AMPS	MCM	THOUSAND CIRCULAR MILS
AC	ABOVE COUNTER	MH	MANHOLE
AF	AMP FRAME	MIN	MINIMUM
AFF	ABOVE FINISH FLOOR	MISC	MISCELLANEOUS
AFG	ABOVE FINISH GRADE	MLO	MAIN LUGS ONLY
AHU	AIR HANDLING UNIT	MNT	MOUNTING HEIGHT
AL	ALUMINUM	MTG	MOUNTING
ARCH	ARCHITECT OR ARCHITECTURAL	MV	MEDIUM VOLTAGE
AT	AMP TRIP	N1	NEMA 1
ATS	AUTOMATIC TRANSFER SWITCH	NSR	NEMA 3R
ATU	AIR TERMINAL UNIT	NA	NOT APPLICABLE
AWG	AMERICAN WIRE GAUGE	NA	NOT APPLICABLE
BAS	BUILDING AUTOMATION SYSTEM	NEC	NATIONAL ELECTRICAL CODE
BJ	BONDING JUMPER	NESC	NATIONAL ELECTRICAL SAFETY CODE
BKR	CIRCUIT BREAKER	NEU	NEUTRAL
BLDG	BUILDING	OCPO	OVERCURRENT PROTECTION DEVICE
BOD	BASIS OF DESIGN	OFI	OWNER FURNISHED OWNER INSTALLED
C	CONDUIT	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
C/B	CIRCUIT BREAKER	OH	OVERHEAD
CL	CURRENT LIMITING	OHE	OVERHEAD ELECTRIC
CL	CENTERLINE	OHF	OVERHEAD PRIMARY
CLG	CEILING	OHS	OVERHEAD SECONDARY
CKT	CIRCUIT	PBL	PANELBOARD
CT	CURRENT TRANSFORMER	PF	POWER FACTOR
CU	COPPER	PNL	PANELBOARD
DDC	DIRECT DIGITAL CONTROL	PT	POTENTIAL TRANSFORMER
DEMO	DEMOLISH	PWR	POWER
EC	ELECTRICAL CONTRACTOR	RCPT	RECEPTACLE
EGC	EQUIPMENT GROUNDING CONDUCTOR	REQD	REQUIRED
ELEC	ELECTRICAL	RM	ROOM
EF	ENTRANCE FACILITY	RGS	RIGID GALVANIZED STEEL CONDUIT
EGC	EQUIPMENT GROUNDING CONDUCTOR	RNC	RIGID NON-METALLIC CONDUIT
EMGB	ELECTRICAL MAIN GROUNDING BUSBAR	RVSS	REDUCED VOLTAGE SOLID STATE SURGE ARRESTER
EWC	ELECTRIC WATER COOLER	SA	SHORT CIRCUIT AMPS
EX	EXISTING TO REMAIN	SCA	SUPPLY FAN
EMT	ELECTRICAL METALLIC TUBING	SP	SPECIFICATION
EQUIP	EQUIPMENT	SWBD	SWITCHBOARD
FACP	FIRE ALARM SYSTEM CONTROL PANEL	SWGR	SWITCHGEAR
FU	FUSE	TBB	TELECOMMUNICATIONS BONDING BACKBONE
FIA	FIRE ALARM	TR	TELECOMMUNICATIONS ROOM
FLA	FULL LOAD AMPS	TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
FLR	FLOOR	TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
FVNR	FULL VOLTAGE NON-REVERSING	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
GFCI	GROUND FAULT INTERRUPTER	TYP	TYPICAL
G	GROUND (OR GFI FOR RECEPTACLE SUBSCRIPT)	UFR	UNDERFLOOR RACEWAY
GC	GENERAL CONTRACTOR	UG	UNDERGROUND
GND	GROUND	UGE	UNDERGROUND ELECTRIC
GEQ	GROUNDING ELECTRODE CONDUCTOR	UGP	UNDERGROUND PRIMARY
HH	HANDHOLE	UGS	UNDERGROUND SECONDARY
HOA	HAND-OFF-AUTOMATIC	UL	UNDERWRITERS' LABORATORIES
HP	HEAT PUMP OR HORSEPOWER	UNO	UNLESS NOTED OTHERWISE
HVAC	HEATING, VENTILATION, & AIR-CONDITIONING	UPS	UNINTERRUPTIBLE POWER SUPPLY
IG	ISOLATED GROUND	V	VOLT
IMC	INTERMEDIATE METAL CONDUIT	VA	VOLT-AMPERES
JB	JUNCTION BOX	VAR	VOLT-AMPERES REACTIVE
K	KILO	VAV	VARIABLE AIR VOLUME UNIT
KAIC	KILO-AMPERE INTERRUPTING CAPABILITY	W	WATTS
KMIL	THOUSAND CIRCULAR MILS	WP	WEATHERPROOF
LCP	LIGHTING CONTROL PANEL	WTR	WITHSTAND RATING
LTG	LIGHTING	WSR	WITHSTAND RATING
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT	XFMR	TRANSFORMER
LV	LOW VOLTAGE	XP	EXPLOSION PROOF
LV	LOW VOLTAGE	#	PHASE
MAX	MAXIMUM	Δ	DEGREES
MCA	MINIMUM CIRCUIT AMPACITY	Δ	DELTA
MCC	MOTOR CONTROL CENTER	Ω	OHMS
MCE	MAIN COMMUNICATIONS EQUIPMENT ROOM		

CONSTRUCTION DOCUMENTS FULLY SPRINKLERED

2	ADDENDUM #2	05/04/16	Approved: Patient Safety Nurse	Approved: Energy Engineer	Approved: Safety Manager	Approved: Service Chief	Drawing Title LEGEND, NOTES, & ABBREVIATIONS	Project Title RELOCATE AND EXPAND RENAL DIALYSIS	Date 2016.01.22	Project No. 658-315	Drawing No. E1001	Sheet 120 of 144	Veterans Affairs
				Approved: Chief of Police	Approved: Infection Control Officer	Approved: Chief of Staff	Approved: Chief of Facility Management Svc.	Building Number 2	Checked MCE				
				Approved: Chief of Mental Health Service	Approved: GEMS Coordinator	Approved: Associate Director	Approved: Medical Center Director						