

COPPER FEEDER SCHEDULE				
MARK	CONDUCTORS	MIN. CONDUIT SIZE		
		4W+G	3W+G	2W+G
(A)	#12 WITH #12 GROUND	3/4"	3/4"	3/4"
(B)	#10 WITH #10 GROUND	3/4"	3/4"	3/4"
(C)	#8 WITH #10 GROUND	1"	3/4"	3/4"
(D)	#6 WITH #8 GROUND	1 1/4"	1"	1"
(E)	#4 WITH #8 GROUND	1 1/4"	1 1/4"	1 1/4"
(F)	#3 WITH #8 GROUND	1 1/4"	1 1/4"	1 1/4"
(G)	#2 WITH #6 GROUND	1 1/2"	1 1/4"	1 1/4"
(H)	#1 WITH #6 GROUND	2"	1 1/2"	1 1/2"
(I)	#1/0 WITH #6 GROUND	2"	1 1/2"	1 1/2"
(J)	#2/0 WITH #6 GROUND	2"	2"	2"
(K)	#3/0 WITH #6 GROUND	2 1/2"	2"	2"
(L)	#4/0 WITH #4 GROUND	2 1/2"	2"	2"
(M)	#250KCMIL WITH #4 GROUND	3"	2 1/2"	2 1/2"
(N)	#300KCMIL WITH #4 GROUND	3"	2 1/2"	2 1/2"
(O)	#350KCMIL WITH #3 GROUND	3"	3"	3"
(P)	#400KCMIL WITH #3 GROUND	3"	3"	3"
(Q)	#500KCMIL WITH #3 GROUND	3 1/2"	3"	3"
(R)	#600KCMIL WITH #2 GROUND	4"	3 1/2"	3 1/2"
(S)	#750KCMIL WITH #2 GROUND	4"	3 1/2"	3 1/2"
(T)	(2 SETS) #250KCMIL WITH #2 GROUND	3"	2 1/2"	
(U)	(2 SETS) #350KCMIL WITH #1 GROUND	3"	3"	
(V)	(2 SETS) #400KCMIL WITH #1/0 GROUND	3"	3"	
(W)	(2 SETS) #500KCMIL WITH #1/0 GROUND	3 1/2"	3"	
(X)	(3 SETS) #400KCMIL WITH #2/0 GROUND	3 1/2"	3"	
(Y)	(3 SETS) #600KCMIL WITH #3/0 GROUND	4"	3 1/2"	
(Z)	(4 SETS) #600KCMIL WITH #4/0 GROUND	4"	3 1/2"	

NUMERIC SUBSCRIPT INDICATES QUANTITY OF CURRENT CARRYING CONDUCTORS. IF THERE IS NO SUBSCRIPT, PROVIDE FOUR CURRENT CARRYING CONDUCTORS (3 PHASE PLUS NEUTRAL). SUBSCRIPT "N" INDICATES THAT THE FEEDER HAS BEEN UPSIZED FOR VOLTAGE DROP.
 EXAMPLES: (H) REPRESENTS 3#1 WITH #6 GROUND IN 1 1/2" CONDUIT.
 (I) REPRESENTS 4 #1 WITH #6 GROUND IN 2" CONDUIT.
 SEE SPECIFICATIONS FOR CONDUIT AND WIRE INSULATION REQUIREMENTS.

TRANSFORMER FEEDERS		
SIZE (kVA)	FEEDERS	
	PRIMARY 480V DELTA	SECONDARY 208Y/120V
9	3 #12, #12 G IN 1/2" C.	4 #8, #8 G IN 1" C.
15	3 #10, #10 G IN 1/2" C.	4 #6, #6 G IN 1 1/4" C.
30	3 #8, #10 G IN 3/4" C.	4 #2, #6 G IN 1 1/4" C.
45	3 #4, #8 G IN 1 1/4" C.	4 #2/0, #4 G IN 2" C.
75	3 #1, #6 G IN 1 1/2" C.	4 #250KCMIL, #2 G IN 3" C.
112.5	3 #2/0, #6 G IN 2" C.	4 #600KCMIL, #1/0 G IN 4" C.
150	3 #4/0, #4 G IN 2" C.	2 SETS 4 #350KCMIL, #2/0 G IN 3" C.
225	3 #500KCMIL, #3 G IN 3" C.	2 SETS 4 #600KCMIL, #3/0 G IN 4" C.
300	3 #750KCMIL, #2 G IN 3 1/2" C.	3 SETS 4 #400KCMIL, #3/0 G IN 3 1/2" C.
500	2 SETS 4 #500KCMIL, #1/0 G IN 3 1/2" C.	5 SETS 4 #600KCMIL, #3/0 G IN 4" C.
750	3 SETS 4 #600KCMIL, #3/0 G IN 4" C.	6 SETS 4 #600KCMIL, #3/0 G IN 4" C.

THE GROUNDING ELECTRODE CONDUCTOR FOR THE TRANSFORMER SECONDARY SHALL BE THE SAME SIZE AS THE SECONDARY FEEDER EQUIPMENT GROUNDING CONDUCTOR. SEE NFPA 70 ARTICLE 250.30 FOR ADDITIONAL REQUIREMENTS OF GROUNDING SEPARATELY DERIVED SYSTEMS.

OTHER		
SYMBOL	DESCRIPTION	MTG. HT.
	FLUORESCENT LIGHTING FIXTURE-NORMAL SYSTEM-SURFACE OR RECESSED (TYPE DETERMINES MOUNTING)	SEE LIGHTING FIXTURE SCHEDULE
	FLUORESCENT LIGHTING FIXTURE-CRITICAL BRANCH-SURFACE OR RECESSED (TYPE DETERMINES MOUNTING)	SEE LIGHTING FIXTURE SCHEDULE
	FLUORESCENT LIGHTING FIXTURE-LIFE SAFETY BRANCH-SURFACE OR RECESSED (TYPE DETERMINES MOUNTING)	SEE LIGHTING FIXTURE SCHEDULE
	LIGHTING FIXTURE-LIFE SAFETY BRANCH-WALL BRACKET OR SCORCE (TYPE DETERMINES MOUNTING)	SEE LIGHTING FIXTURE SCHEDULE
	EXIT SIGN	SEE LIGHTING FIXTURE SCHEDULE
S	SINGLE POLE SWITCH-IVORY TOGGLE	3'-10" AFF
\$	SINGLE POLE SWITCH-RED TOGGLE	3'-10" AFF
⊕	THREE WAY SWITCH- RED TOGGLE	3'-10" AFF
⊖	120V. DUPLEX RECEPTACLE ON NORMAL POWER	1'-6" AFF
⊖ c	120V. QUADPLEX RECEPTACLE ON CRITICAL POWER	1'-6" AFF
⊖ c	120V. DUPLEX RECEPTACLE ON CRITICAL POWER	1'-6" AFF
◁	DATA OUTLET	1'-6" AFF

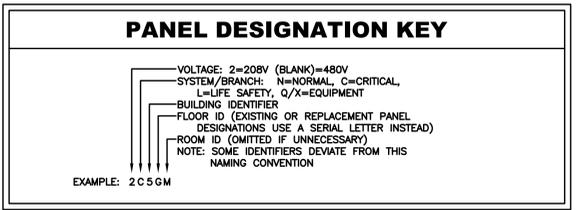
CONDUITS	
SYMBOL	DESCRIPTION
	CONDUIT CONCEALED IN WALL, CEILING, FLOOR OR CASEWORK
	HOME RUN CONDUIT (QUANTITY OF ARROWS DETERMINES NUMBER OF CIRCUITS)
	CONDUIT BELOW GRADE ON SITE OR UNDER FLOOR
	EXPOSED CONDUIT ON WALL OR CEILING
	CONDUIT TURNED UP : CONDUIT TURNED DOWN
	JUNCTION BOX

DISCONNECTS/CIRCUIT BREAKER/OTHER	
SYMBOL	DESCRIPTION
	FUSED DISCONNECT (AMP RATING/#POLES/FUSE SIZE/ENCLOSURE)
	NON FUSED DISCONNECT (AMP RATING /# POLES/ENCLOSURE)
	COMBINATION ACROSS THE LINE MAGNETIC STARTER & DISCONNECT COORDINATE SIZE/RATING WITH MOTOR
	ENCLOSED CIRCUIT BREAKER (AMP RATING/# POLES/SHUNT TRIP/ ENCLOSURE)
	CONNECTION TO MOTOR, NUMBER DENOTES HORSEPOWER
	CONNECTION TO FRACTIONAL HORSEPOWER EXHAUST FAN MOTOR
	DISTRIBUTION PANEL
	SURFACE MOUNTED PANEL
	FLUSH MOUNTED PANEL
	SWITCHBOARD SECTION
	TRANSFORMER (DASHED INDICATES SUSPENDED OVERHEAD)
	REMOTE GENERATOR ANNUNCIATOR
	MANUAL MOTOR STARTER SWITCH

ABBREVIATIONS	
SYMBOL	DESCRIPTION
AMP	AMPACTY OR AMPERE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
C	CRITICAL POWER
EQ	EQUIPMENT POWER
EX	EXISTING
ETR	EXISTING TO REMAIN
FPMR	FUSE PER MANUFACTURER'S RECOMMENDATIONS
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
IG	ISOLATED GROUND
LS	LIFE SAFETY POWER
M	MONITORING DEVICE
S	SAFETY TYPE RECEPTACLE
T	TAMPER RESISTANT
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
UON	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF
②	KEYED NOTE REFERENCE - REFER TO NOTE INDICATED
3R	NEMA 3R ENCLOSURE
4X	NEMA 4X ENCLOSURE
COTR	CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (MAY ALSO REFER TO THE RESIDENT ENGINEER).

ELECTRICAL INDEX		
SHEET	SHEET TITLE	FILE NAME
ES.001	ELECTRICAL LEGEND & INDEX	E-001-ES-001.dwg
ES.002	ELECTRICAL LUMINAIRE SCHEDULE AND NOTES	E-002-ES-002.dwg
ES.1001	ELECTRICAL SITE PLAN	E-003-ES-101-Site.dwg
ES.1002	ELECTRICAL ENLARGED SITE PLAN	E-004-ES-102-Site.dwg
ES.400	ELECTRICAL MEDIUM VOLTAGE ONE-LINE DIAGRAM	E-005-ES-400-MV one-line.dwg
4-ED.300	ELECTRICAL RISER DIAGRAM BUILDING 4 DEMOLITION	E-004-ED-300-Riser Demo.dwg
4-ES.100	ELECTRICAL FLOOR PLAN BUILDING 4 GROUND FLOOR	E-004-ES-100.dwg
4-ES.101	ELECTRICAL FLOOR PLAN BUILDING 4 FIRST FLOOR	E-004-ES-101.dwg
4-ES.200	ELECTRICAL ENLARGED PLANS BUILDING 4	E-004-ES-200.dwg
4-ES.400	ELECTRICAL RISER DIAGRAM BUILDING 4 NEW CONSTRUCTION	E-004-ES-400-Riser NC.dwg
5-ED.300	ELECTRICAL RISER DIAGRAM BUILDING 5 DEMOLITION	E-005-ED-300-Riser Demo.dwg
5-ES.100	ELECTRICAL FLOOR PLAN BUILDING 5 GROUND FLOOR	E-005-ES-100.dwg
5-ES.101	ELECTRICAL FLOOR PLAN BUILDING 5 FIRST FLOOR	E-005-ES-101.dwg
5-ES.102	ELECTRICAL FLOOR PLAN BUILDING 5 SECOND FLOOR	E-005-ES-102.dwg
5-ES.200	ELECTRICAL ENLARGED PLANS BUILDING 5 GROUND FLOOR	E-005-ES-200.dwg
5-ES.201	ELECTRICAL ENLARGED PLANS BUILDING 5 1ST AND 2ND FLOOR	E-005-ES-201.dwg
5-ES.400	ELECTRICAL RISER DIAGRAM BUILDING 5 NEW CONSTRUCTION	E-005-ES-400-Riser NC.dwg
6-ED.300	ELECTRICAL RISER DIAGRAM BUILDING 6 DEMOLITION	E-006-ED-300-Riser Demo.dwg
6-ES.100	ELECTRICAL FLOOR PLAN BUILDING 6 GROUND FLOOR	E-006-ES-100.dwg
6-ES.101	ELECTRICAL FLOOR PLAN BUILDING 6 FIRST FLOOR	E-006-ES-101.dwg
6-ES.102	ELECTRICAL FLOOR PLAN BUILDING 6 SECOND FLOOR	E-006-ES-102.dwg
6-ES.200	ELECTRICAL ENLARGED PLANS BUILDING 6 GROUND FLOOR	E-006-ES-200.dwg
6-ES.201	ELECTRICAL ENLARGED PLANS BUILDING 6 1ST AND 2ND FLOOR	E-006-ES-201.dwg
6-ES.400	ELECTRICAL RISER DIAGRAM BUILDING 6 NEW CONSTRUCTION	E-006-ES-400-Riser NC.dwg
107-ED.300	ELECTRICAL RISER DIAGRAM BUILDING 107 DEMOLITION	E-107-ED-300-Riser Demo.dwg
107-ES.100	ELECTRICAL FLOOR PLAN BUILDING 107 GROUND FLOOR	E-107-ES-100.dwg
107-ES.101	ELECTRICAL FLOOR PLAN BUILDING 107 FIRST FLOOR	E-107-ES-101.dwg
107-ES.200	ELECTRICAL ENLARGED PLANS BUILDING 107	E-107-ES-200.dwg
107-ES.400	ELECTRICAL RISER DIAGRAM BLDG. 107 NEW CONSTRUCTION	E-107-ES-400-Riser NC.dwg
ES.501	ELECTRICAL DISTRIBUTION PANEL SCHEDULES - BLDG. 4 & 5	ES-501-Pnl Schedules.dwg
ES.502	ELECTRICAL DISTRIBUTION PANEL SCHEDULES - BLDG. 6 & 107	ES-502-Pnl Schedules.dwg
ES.503	ELECTRICAL PANEL SCHEDULES	ES-503-Pnl Schedules.dwg
ES.601	ELECTRICAL DETAILS	ES-601-Details.dwg

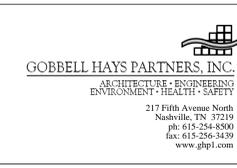
LEGEND NOTES:
 LG1. MOUNTING HEIGHTS ON LEGENDS ARE DEFAULT VALUES TO BE USED IF NO HEIGHT IS OTHERWISE INDICATED. COORDINATE DEVICE MOUNTING LOCATIONS AS DESCRIBED IN ELECTRICAL GENERAL NOTES ON SHEET E0.02.
 LG2. MOUNTING HEIGHTS SHOWN ARE TO CENTER LINE OF DEVICE, AFF, UON.
 LG3. LEGENDS ARE GENERAL IN NATURE AND SYMBOLS MAY APPEAR IN LEGENDS THAT ARE NOT USED ON THE PLANS OR REQUIRED FOR THE WORK.



Revisions	Date



Tennessee Valley Healthcare System



Project Title:	UPGRADE ELECTRICAL DISTRIBUTION PHASE 3
Drawing Title:	ELECTRICAL LEGEND & INDEX
Approved By:	
Building Number:	N/A
Checked By:	R. STR.
Drawn By:	R. SULL.

Date:	OCTOBER 31, 2012
Project No.:	626A4-11-202
Drawing No.:	E5.001
Dwg.:	65 of 97



Department of Veterans Affairs