PANELBOARD: H1

LOCATION: ELECTRICAL ROOM 109
MOUNTING: SURFACE NEMA 1
MAIN DEVICE: 200 A MAIN CB
BUS AMPS: 400 AMPS
VOLTAGE: 480Y/277 V. 3 ø 4 W.
A.I.C. RATING: 14,000 K
SPECIAL: SE-RATED

LOAD DESCRIPTION	NOTE	BKR	POLES	CKT	A kVA	B kVA	C kVA	A kVA	B kVA	C kVA	CKT	POLES	BKR	NOTE	LOAD DESCRIPTION
LTG LEVEL 1		20 A	1	1	1.38			6.64			2	3	40 A		ELEVATOR 1
LTG LEVEL 2		20 A	1	3		1.43			6.64		4				
LTG LEVEL 3		20 A	1	5			1.21			6.64	6				
LTG RM 106		20 A	1	7	0.24			6.64			8	3	40 A		ELEVATOR 2
LTG ELEVATOR ROOM AND SHAFT		20 A	1	9		0.40			6.64		10				
LTG EXTERIOR LOT POLES		20 A	1	11			0.60			6.64	12				
SPARE		20 A	1	13	0.00			0.00			14	1	20 A		SPARE
SPARE		20 A	1	15		0.00			0.00		16	1	20 A		SPARE
SPARE		20 A	1	17			0.00			0.00	18	1	20 A		SPARE
SPARE		20 A	1	19	0.00			0.00			20	1	20 A		SPARE
SPARE		20 A	1	21		0.00			0.00		22	1	20 A		SPARE
SPARE		20 A	1	23			0.00			0.00	24	1	20 A		SPARE
SPARE		20 A	1	25	0.00			0.00			26	1	20 A		SPARE
SPARE		20 A	1	27		0.00			0.00		28	1	20 A		SPARE
SPARE		20 A	1	29			0.00			0.00	30	1	20 A		SPARE
SPARE		20 A	1	31	0.00			4.89			32	3	40 A		LIGHTING INVERTER
SPARE		20 A	1	33		0.00			6.26		34				
SPARE		20 A	1	35			0.00			5.19	36				
SPARE		20 A	1	37	0.00			5.16			38	3	60 A		PANEL 'L1'
SPARE		20 A	1	39		0.00			4.93		40				
SPARE		20 A	1	41			0.00			3.96	42				
		TOTAL LOAD:			24.94 kVA		26.30 kVA		24.24 kVA						
		TOTAL AMPS:			90 A		95 A		88 A						

LOAD CLASSIFICATION	CONNECTED	DEMAND	ESTIMATED	PANEL TOTALS	
MOTOR/HVAC	12.78 kVA	104.23%	13.32 kVA		
ELEVATOR	39.84 kVA	85.00%	33.86 kVA	CONNECTED LOAD:	76.62 kVA
RECEPTACLE (GENERAL)	3.65 kVA	100.00%	3.65 kVA	ESTIMATED DEMAND:	74.76 kVA
RECEPTACLE (DEDICATED)	5.50 kVA	100.00%	5.50 kVA	CONNECTED CURRENT:	92 A
LIGHTING	12.63 kVA	125.00%	15.78 kVA	EST. DEMAND CURRENT:	90 A
ELECTRIC HEAT	1.69 kVA	125.00%	2.12 kVA		
RCPT	0.54 kVA	100.00%	0.54 kVA		

NOTES:

PANELBOARD: INVH1

LOCATION: ELECTRICAL ROOM 109
MOUNTING: SURFACE NEMA 1
MAIN DEVICE: 30 A MAIN CB
BUS AMPS: 100 AMPS
VOLTAGE: 480Y/277 V. 3 ø 4 W.
A.I.C. RATING: 10,000 AMPS SYMMETRICAL
SPECIAL:

LOAD DESCRIPTION	NOTE	BKR	POLES	CKT	A	B	C	A	B	C	CKT	POLES	BKR	NOTE	LOAD DESCRIPTION
LTG LEVEL 1		20 A	1	1	0.69			0.00			2	1	20 A		SPARE
LTG LEVEL 2		20 A	1	3		0.64			0.00		4	1	20 A		SPARE
LTG LEVEL 3		20 A	1	5			0.81			0.00	6	1	20 A		SPARE
LTG WEST STAIR		20 A	1	7	0.25			0.00			8	1	20 A		SPARE
LTG EAST STAIR AND ELEVATOR		20 A	1	9		0.66			0.00		10	1	20 A		SPARE
LTG RM 107-109		20 A	1	11			0.36			0.00	12	1	20 A		SPARE
LTG BOLLARDS AND ACCENT		20 A	1	13	0.08			0.00			14	1	20 A		SPARE
SPARE		20 A	1	15		0.00			0.00		16	1	20 A		SPARE
SPARE		20 A	1	17			0.00			0.00	18	1	20 A		SPARE
SPARE		20 A	1	19	0.00			0.00			20	1	20 A		SPARE
SPARE		20 A	1	21		0.00			0.00		22	1	20 A		SPARE
SPARE		20 A	1	23			0.00			0.00	24	1	20 A		SPARE
SPARE		20 A	1	25	0.00			0.00			26	1	20 A		SPARE
SPARE		20 A	1	27		0.00			0.00		28	1	20 A		SPARE
SPARE		20 A	1	29			0.00			0.00	30	1	20 A		SPARE
SPARE		20 A	1	31	0.00			0.00			32	1	20 A		SPARE
SPARE		20 A	1	33		0.00			0.00		34	1	20 A		SPARE
SPARE		20 A	1	35			0.00			0.00	36	1	20 A		SPARE
SPARE		20 A	1	37	0.00			3.86			38	3	30 A		PANEL 'INVL1'
SPARE		20 A	1	39		0.00			4.99		40				
SPARE		20 A	1	41			0.00			4.08	42				
		TOTAL LOAD:			4.91 kVA		6.29 kVA		5.25 kVA						
		TOTAL AMPS:			18 A		23 A		19 A						

LOAD CLASSIFICATION	CONNECTED	DEMAND	ESTIMATED	PANEL TOTALS	
MOTOR/HVAC	7.69 kVA	107.03%	8.23 kVA		
RECEPTACLE (GENERAL)	0.41 kVA	100.00%	0.41 kVA	CONNECTED LOAD:	17.12 kVA
RECEPTACLE (DEDICATED)	5.50 kVA	100.00%	5.50 kVA	ESTIMATED DEMAND:	18.54 kVA
LIGHTING	3.52 kVA	125.00%	4.41 kVA	CONNECTED CURRENT:	21 A
				EST. DEMAND CURRENT:	22 A

NOTES:

PANELBOARD: L1

LOCATION: ELECTRICAL ROOM 109
MOUNTING: SURFACE NEMA 1
MAIN DEVICE: 100 A MAIN CB
BUS AMPS: 100 AMPS
VOLTAGE: 208Y/120 V. 3 ø 4 W.
A.I.C. RATING: 10,000 AMPS SYMMETRICAL
SPECIAL:

LOAD DESCRIPTION	NOTE	BKR	POLES	CKT	A kVA	B kVA	C kVA	A kVA	B kVA	C kVA	CKT	POLES	BKR	NOTE	LOAD DESCRIPTION
REC RM 106		20 A	1	1	0.18			1.92			2	1	20 A		ELEVATOR 1 CAB
REC RM 107		20 A	1	3		0.71			1.92		4	1	20 A		ELEVATOR 2 CAB
REC RM 108		20 A	1	5			0.70			1.20	6	1	20 A		ELEVATOR 1 SUMP
REC RM 109		20 A	1	7	0.36			1.20			8	1	20 A		ELEVATOR 2 SUMP
REC ELEVATOR		20 A	1	9		0.72			1.08		10	2	15 A		CU-110
REC WEST STAIR		20 A	1	11			0.54			1.08	12				
REC EAST STAIR		20 A	1	13	0.54			1.01			14	1	15 A		EUH-107-1,-2
HOT BOX		20 A	1	15		0.18			0.50		16	1	15 A		EUH-110
SPARE		20 A	1	17			0.00			0.48	18	1	15 A		EF-102
SPARE		20 A	1	19	0.00			0.05			20	1	15 A		EF-106
SPARE		20 A	1	21		0.00			0.00		22	1	20 A		SPARE
SPARE		20 A	1	23			0.00			0.00	24	1	20 A		SPARE
SPARE		20 A	1	25	0.00			0.00			26	1	20 A		SPARE
SPARE		20 A	1	27		0.00			0.00		28	1	20 A		SPARE
SPARE		20 A	1	29			0.00			0.00	30	1	20 A		SPARE
SPARE		20 A	1	31	0.00			0.00			32	1	20 A		SPARE
SPARE		20 A	1	33		0.00			0.00		34	1	20 A		SPARE
SPARE		20 A	1	35			0.00			0.00	36	1	20 A		SPARE
SPARE		20 A	1	37	0.00			0.00			38	1	20 A		SPARE
SPARE		20 A	1	39		0.00			0.00		40	1	20 A		SPARE
SPARE		20 A	1	41			0.00			0.00	42	1	20 A		SPARE
		TOTAL LOAD:			5.26 kVA		5.11 kVA		4.00 kVA						
		TOTAL AMPS:			45 A		44 A		33 A						

LOAD CLASSIFICATION	CONNECTED	DEMAND	ESTIMATED	PANEL TOTALS	
MOTOR/HVAC	5.09 kVA	110.62%	5.63 kVA		
RECEPTACLE (GENERAL)	3.24 kVA	100.00%	3.24 kVA	CONNECTED LOAD:	14.40 kVA
LIGHTING	3.84 kVA	125.00%	4.80 kVA	ESTIMATED DEMAND:	16.33 kVA
ELECTRIC HEAT	1.69 kVA	125.00%	2.12 kVA	CONNECTED CURRENT:	40 A
RCPT	0.54 kVA	100.00%	0.54 kVA	EST. DEMAND CURRENT:	45 A

NOTES:

PANELBOARD: INVL1

LOCATION: ELECTRICAL ROOM 109
MOUNTING: SURFACE NEMA 1
MAIN DEVICE: 50 A MAIN CB
BUS AMPS: 100 AMPS
VOLTAGE: 208Y/120 V. 3 ø 4 W.
A.I.C. RATING: 10,000 AMPS SYMMETRICAL
SPECIAL:

LOAD DESCRIPTION	NOTE	BKR	POLES	CKT	A	B	C	A	B	C	CKT	POLES	BKR	NOTE	LOAD DESCRIPTION
REC RM 108-109		20 A	1	1	0.35			1.08			2	2	15 A		CU-107
REC IT TCBB		20 A	1	3		1.01			1.08		4				
REC IT RACK		20 A	1	5			1.01			1.08	6	2	15 A		CU-108
REC SECURITY TCBB		20 A	1	7	1.01			1.08			8				
REC SECURITY RACK		20 A	1	9		1.01			1.08		10	2	[illegible]		CU-109
EMERGENCY PHONE WEST STAIR		20 A	1	11			0.02			1.08	12				
EMERGENCY PHONES EAST STAIR		20 A	1	13	0.05			0.00			14	[illegible]	[illegible]		SPARE
LEVEL 1 SLIDING DOOR		20 A	1	15		0.60			0.00		16	1	[illegible]		SPARE
LEVEL 4 SLIDING DOOR		20 A	1	17			0.60			0.00	[illegible]	1	20 A		SPARE
ERCSP		20 A	1	19	0.48			0.00			[illegible]	1	20 A		[illegible]
PACS		20 A	1	21		0.48			0.00		[illegible]	[illegible]	20 A		[illegible]
TCP		20 A	1	23			0.48			0.00	[illegible]	[illegible]	20 A		[illegible]
SPARE		20 A	1	25	0.00			0.00			26	[illegible]	[illegible]		SPARE
SPARE		20 A	1	27		0.00			0.00		28	[illegible]	[illegible]		SPARE
SPARE		20 A	1	29			0.00			0.00	30	1	[illegible]		SPARE
SPARE		20 A	1	31	0.00			[illegible]			32	1	[illegible]		SPARE
SPARE		20 A	1	33		0.00			0.00		34	1	20 A		SPARE
SPARE		20 A	1	35			[illegible]			[illegible]	36	1	20 A		SPARE
SPARE		20 A	1	37	0.00			[illegible]			38	1	20 A		SPARE
SPARE		20 A	1	39		[illegible]			[illegible]		40	1	20 A		SPARE
SPARE		20 A	1	41			0.00			[illegible]	42	1	20 A		SPARE
		TOTAL LOAD:			[illegible]		5.26 kVA		[illegible]						
		TOTAL AMPS:			34 A		[illegible]		[illegible]						

LOAD CLASSIFICATION	CONNECTED	DEMAND	ESTIMATED	PANEL TOTALS	
MOTOR/HVAC	7.69 kVA	107.03%	[illegible]		
RECEPTACLE (GENERAL)	[illegible]	100.00%	[illegible]	CONNECTED LOAD:	13.59 kVA
RECEPTACLE (DEDICATED)	[illegible]	100.00%	[illegible]	ESTIMATED DEMAND:	14.13 kVA
				CONNECTED CURRENT:	38 A
				EST. DEMAND CURRENT:	39 A

NOTES:

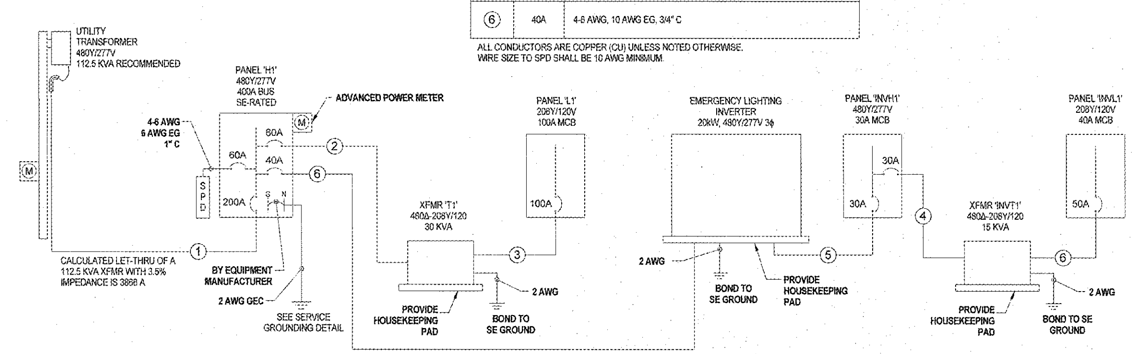
EQUIPMENT CONDUCTOR SCHEDULE

TAG	DESCRIPTION	VOLTS	PHASE	MAX LOAD	MOCP	CONDUCTORS	NEUTRAL	GROUND	CONDUIT	DISCONNECT TYPE	NOTE
--	ELEVATOR 1	480	3	25 A	40 A	(3) 6 AWG	--	10 AWG	1"	3P-60A FUSIBLE ELEVATOR DISCONNECT	FUSE PER NAMEPLATE (SEE SPECS FOR ELEVATOR DISCONNECT REQUIREMENTS)
--	ELEVATOR 2	480	3	25 A	40 A	(3) 6 AWG	--	10 AWG	1"	3P-60A FUSIBLE ELEVATOR DISCONNECT	FUSE PER NAMEPLATE (SEE SPECS FOR ELEVATOR DISCONNECT REQUIREMENTS)
--	ELEVATOR 1 CAB	120	1	16 A	20 A	(1) 12 AWG	12 AWG	12 AWG	3/4"	1P-20A FUSIBLE	20A FUSED
--	ELEVATOR 2 CAB	120	1	16 A	20 A	(1) 12 AWG	12 AWG	12 AWG	3/4"	1P-20A FUSIBLE	20A FUSED
CU-107	CONDENSING UNIT	208	1	10.4 A	15 A	(2) 12 AWG	--	12 AWG	3/4"	2P-20A	
CU-108	CONDENSING UNIT	208	1	10.4 A	15 A	(2) 12 AWG	--	12 AWG	3/4"	2P-20A	
CU-109	CONDENSING UNIT	208	1	10.4 A	15 A	(2) 12 AWG	--	12 AWG	3/4"	2P-20A	
CU-110	CONDENSING UNIT	208	1	10.4 A	15 A	(2) 12 AWG	--	12 AWG	3/4"	2P-20A	
EF-102	EXHAUST FAN	120	1	1/10 HP	15 A	(1) 12 AWG	12 AWG	12 AWG	3/4"	1P-20A NEMA 3R	
EF-106	EXHAUST FAN	120	1	46 W	15 A	(1) 12 AWG	12 AWG	12 AWG	3/4"	MRS	
EUH-107-1	UNIT HEATER	120	1	4.2 A	15 A	(1) 12 AWG	12 AWG	12 AWG	3/4"	MRS	
EUH-107-2	UNIT HEATER	120	1	4.2 A	15 A	(1) 12 AWG	12 AWG	12 AWG	3/4"	MRS	
EUH-110	UNIT HEATER	120	1	4.2 A	15 A	(1) 12 AWG	12 AWG	12 AWG	3/4"	MRS	
FCU-107	FAN COIL UNIT	208	1	--	--	(2) 12 AWG	--	12 AWG	3/4"	--	FED FROM CU
FCU-108	FAN COIL UNIT	208	1	--	--	(2) 12 AWG	--	12 AWG	3/4"	--	FED FROM CU
FCU-109	FAN COIL UNIT	208	1	--	--	(2) 12 AWG	--	12 AWG	3/4"	--	FED FROM CU
FCU-110	FAN COIL UNIT	208	1	--	--	(2) 12 AWG	--	12 AWG	3/4"	--	FED FROM CU
SP-1 (EACH)	SUMP PUMP	120	1	1/2 HP	20 A	(1) 12 AWG		12 AWG	3/4"	SIMPLEX RECEPTA[illegible]	

ELECTRICAL EQUIPMENT FEEDER SCHEDULE

1	200A	4-3/0 AWG, 2" C
2	60A	3-6 AWG, 10 AWG EG, 1" C
3	100A	4-3 AWG, 8 AWG EG, 1-1/4" C
4	30A	3-10 AWG, 10 AWG EG IN 3/4" C
5	30A	4-10 AWG, 10 AWG EG, 3/4" C
6	40A	4-8 AWG, 10 AWG EG, 3/4" C

ALL CONDUCTORS ARE COPPER (CU) UNLESS NOTED OTHERWISE.
WIRE SIZE TO SPD SHALL BE 10 AWG MINIMUM.



1 SINGLE-LINE DIAGRAM
NTS

Revisions: | Date

VA U.S. Department of Veterans Affairs
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1030 JEFFERSON AVE, MEMPHIS, TN 38104

JOHN KEVIN MASON REGISTERED ENGINEER AGRICULTURE COMMERCE No. 115709 STATE OF TENNESSEE

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BID SET

Drawing Title: SINGLE-LINE, PANEL SCHEDULES, EQUIPMENT CONDUCTOR SCHEDULE	Project Title: CONSTRUCT PARKING GARAGE ON WEST LOT	Project Number: 15-412	OFFICE OF FACILITIES MANAGEMENT
		Building Number:	
Approved for Design Concept: FACILITY MANAGEMENT DIVISION MANAGER	Location: MEMPHIS, TN	Drawing Number: EE601	VA Project Number: 614-319
	Date: 11/14/2016 · Checked By: JKM · Drawn By: SCB		VA U.S. Department of Veterans Affairs

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