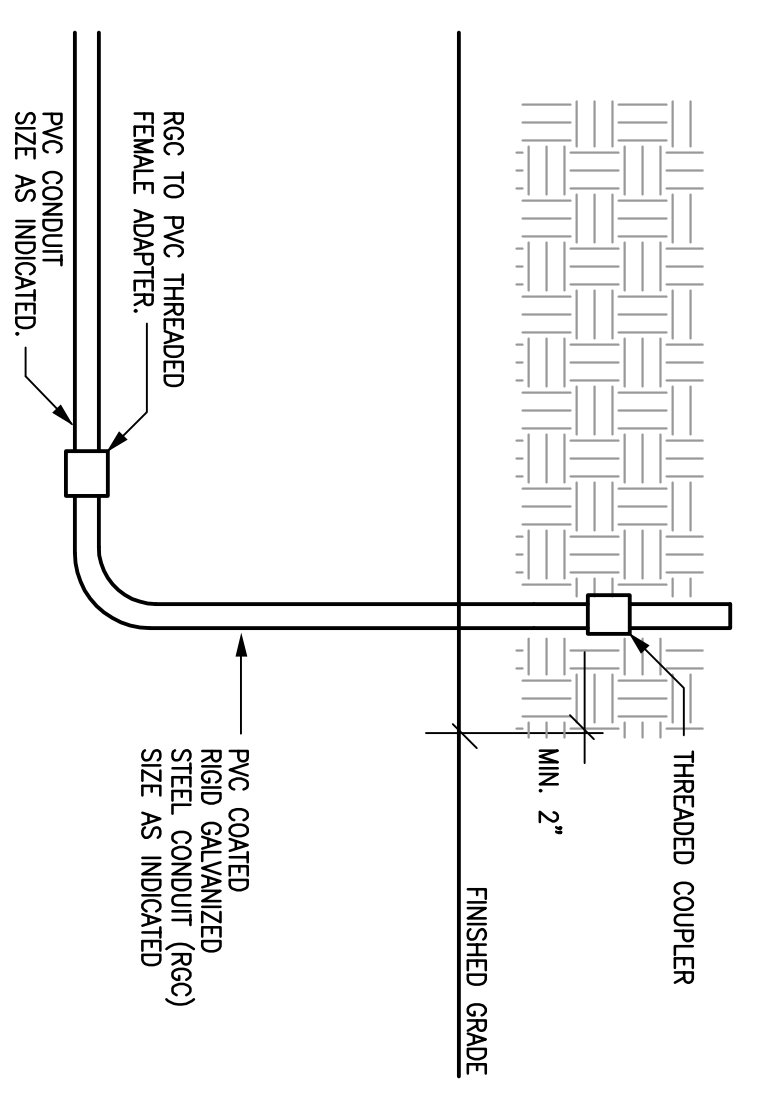
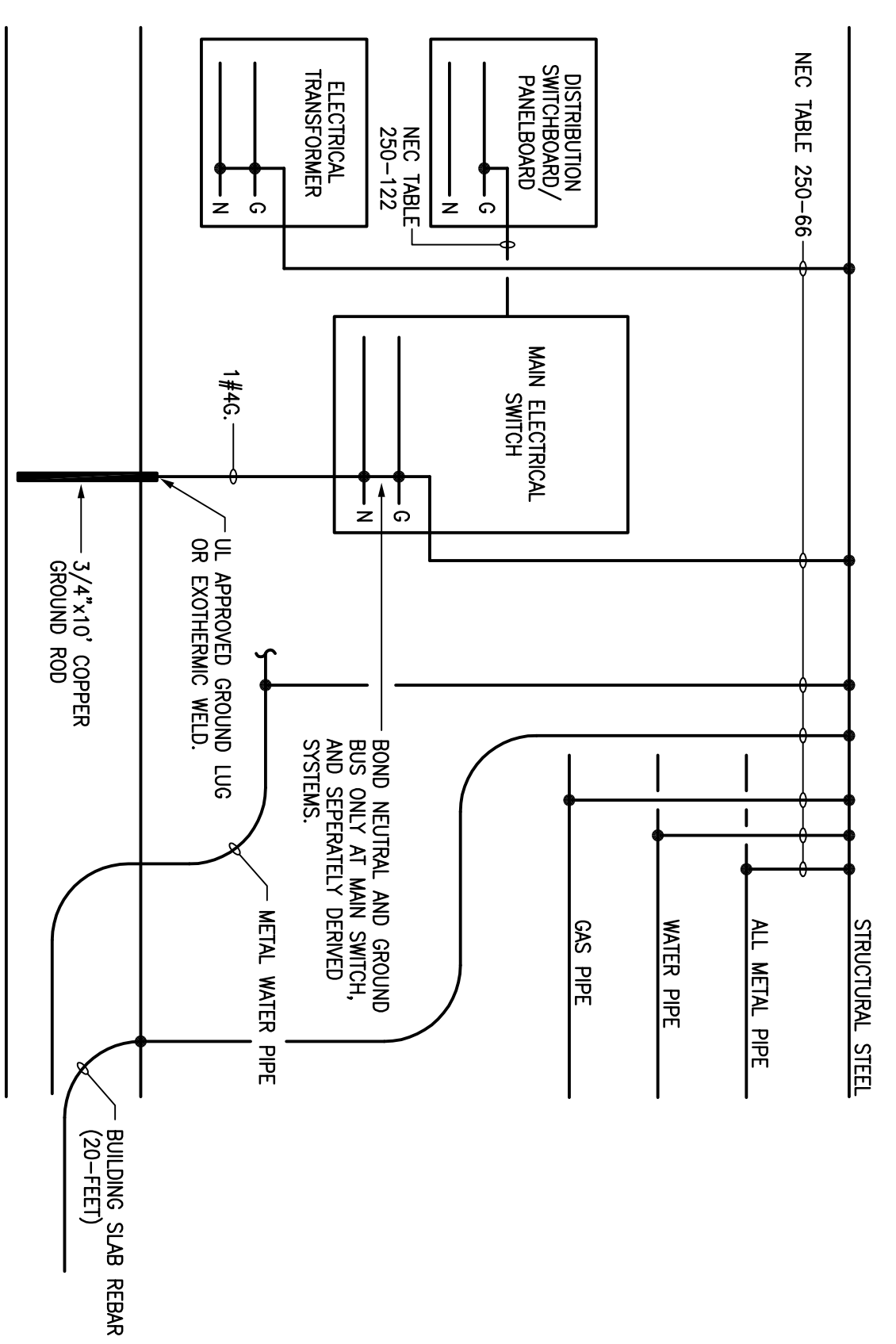


3 ROOFTOP RECEPTACLE MOUNTING DETAIL
SCALE: NONE



2 CONDUIT STUB UP DETAIL
SCALE: NONE



1 GROUNDING DETAIL
SCALE: NONE

ELECTRICAL LOAD ANALYSIS
480/277V, 3PH, 4W

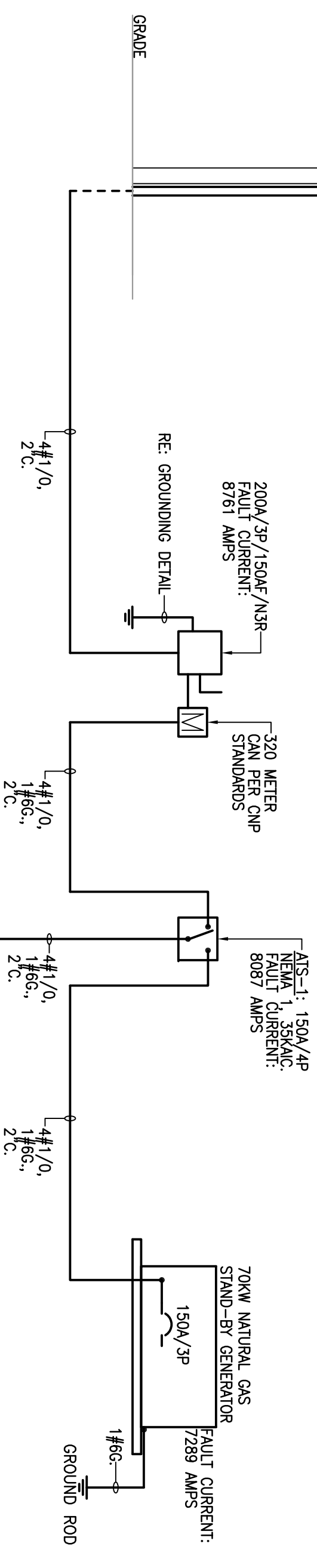
LOAD DESCRIPTION	LOAD KVA
LIGHTING - CALC. 6500 SF x 3W x 1.25	24.4
CONNECTED - KVA	(14.3)
RECEPTACLES - (1ST 10KVA @ 100%) - KVA	10.0
REMAINDER @ 50% (NEC 220-44) - KVA	3.6
MISCELLANEOUS - KVA	18.1
COOLING - KVA	38.0
25% LARGEST MOTOR - KVA	1.0
TOTAL	95.7

TOTAL / $480 / \sqrt{3} = 115.2$ AMPS
150 AMP SERVICE PROVIDED

GENERATOR LOAD ANALYSIS
480/277V, 3PH, 4W

LOAD DESCRIPTION	LOAD KVA
LIGHTING - CONNECTED x 1.25	17.8
RECEPTACLES - (1ST 10KVA @ 100%) - KVA	10.0
REMAINDER @ 50% (NEC 220-44) - KVA	3.6
MISCELLANEOUS - KVA	17.1
COOLING - KVA	38.0
25% LARGEST MOTOR - KVA	1.0
TOTAL	87.5

GENERATOR CAPACITY - 70KW X 1.25 = 87.5 KVA



PANEL '1A'
120/208V, 3PH, 4W
150 AMP MCB
MOUNTING: SURFACE
NEMA-1
10 K ISCA

CKT	LOAD	KVA	WIRE BKR	BKR	WIRE	KVA	LOAD	CKT
1	BATTERY CHARGER	0.4	#12 20/1	20/1	#12	0.4	SERVER RECEPTACLE	2
3	CRANKCASE HEATER	1.0	#12 20/2	30/2	#10	1.5	UPS RECEPTACLE	4
5					#10			6
7	GEN ANNUNCIATOR	0.2	#12 20/1	20/1	#12	0.4	RECEPTACLES	8
9	RECEPTACLES	0.2	#12 20/1	20/1	#12	0.5	DRINKING FOUNTAIN	10
11	RECEPTACLES	1.1	#12 20/1	20/1	#12	0.2	CP-1	14
13	RECEPTACLES	0.5	#12 20/1	20/1	#12	0.2	GWH-1	16
15	RECEPTACLES	1.1	#12 20/1	20/1	#12	0.7	RECEPTACLES	18
17	RECEPTACLES	1.1	#12 20/1	20/1	#12	0.2	RECEPTACLE	20
19	RECEPTACLES	0.5	#12 20/1	20/1	#12	1.0	VENDING MACHINE	22
21	RECEPTACLES	0.5	#12 20/1	20/1	#12	0.2	RECEPTACLE	24
23	RECEPTACLES	0.7	#12 20/1	20/1	#12	0.2	RANGE HOOD	26
25	RECEPTACLES	0.7	#12 20/1	40/2	#8	5.3	RANGE	28
29	RECEPTACLES	0.5	#12 20/1		#8			30
31	RECEPTACLES	0.7	#12 20/1	20/1	#12	0.2	RECEPTACLE	32
33	RECEPTACLES	0.9	#12 20/1	20/1	#12	0.8	COFFEE MAKER	34
35	RECEPTACLES	0.5	#12 20/1	20/1	#12	0.8	REFRIGERATOR	36
37	RECEPTACLES	1.1	#12 20/1	20/1	#12	0.8	REFRIGERATOR	38
39	TELEPHONE BOARD	0.2	#12 20/1	20/1	#12	1.2	DISPENSER	40
41	SECURITY PANEL	0.2	#12 20/1	20/1	#12	0.5	EXTENSION RECEPTACLES	42
43	SECURITY GATE	0.4	#12 20/1	20/1	#12	0.5	RECEPTACLES	46
45	RECEPTACLES	0.4	#12 20/1	20/1	#12	0.5	RECEPTACLES	48
47	AW	0.5	#12 20/1	20/1	#12	0.4	ROOFTOP RECEPTACLES	50
49	EF-1 (1/6HP)	0.5	#12 20/1	20/1	#10	1.9	ROOFTOP RECEPTACLES	52
51	EF-2 (1/4HP)	0.7	#12 20/1	20/1	#10	0.4	ROOFTOP RECEPTACLES	54
53	EF-3 (1/6HP)	0.5	#12 20/1	20/1	#12	0.4	CASE LIGHTING	56
55	EF-4,5,6 (50W EA)	0.2	#12 20/1	20/1	#12	0.4	CASE LIGHTING	58
57	RECEPTACLES	0.4	#12 20/1	20/1	#12	0.4	CASE LIGHTING	60
59	RECEPTACLES	0.4	#12 20/1	20/1	#12	1.0	VENDING MACHINE	62
61	RECEPTACLES	0.4	#12 20/1	20/1	#12	0.4	SPARE	64
63	RECEPTACLES	0.4	#12 20/1	20/1	#12	0.4	SPARE	66
65	RECEPTACLES	0.4	#12 20/1	20/1	#12	0.4	SPARE	68
67	SIGNAL	0.2	#12 20/1	20/1	#12	0.4	SPARE	70
69	SPARE	20/1	20/1	20/1	20/1	20/1	SPARE	72
71	SPARE	20/1	20/1	20/1	20/1	20/1	SPARE	74
73	SPARE	20/1	20/1	20/1	20/1	20/1	SPARE	76
75	SPARE	20/1	20/1	20/1	20/1	20/1	SPARE	78
77	SPARE	20/1	20/1	20/1	20/1	20/1	SPARE	80
79	SPARE	20/1	20/1	20/1	20/1	20/1	SPARE	82
81	SPARE	20/1	20/1	20/1	20/1	20/1	SPARE	84
83	SPARE	20/1	20/1	20/1	20/1	20/1	SPARE	86

CONTINUOUS (1/3) LOAD x 1.25 = 2.0 KVA
NON-CONTINUOUS (2/3) LOAD x 1.25 = 3.2 KVA
TOTAL KVA = 40.2 KVA
SPD: C680

PANEL '1A'
277/480V, 3PH, 4W
150 AMP MLO
MOUNTING: SURFACE
NEMA-1
18 K ISCA

CKT	LOAD	KVA	WIRE BKR	BKR	WIRE	KVA	LOAD	CKT
1	RTU-1	12.9	#10 30/3	30/3	#10	10.3	RTU-3	2
3					#10			4
5					#10			6
7	RTU-2	12.9	#10 30/3	70/3	#4	40.2	XMR '1A'	8
9					#10			10
11					#10			12
13	LIGHTING	2.1	#12 20/1	20/2	#12	1.8	SITE LIGHTING	14
15	LIGHTING	1.9	#12 20/1	20/1	#12			16
17	LIGHTING	1.5	#12 20/1	20/1	#12			18
19	LIGHTING	1.5	#12 20/1	20/1	#12			20
21	LIGHTING	1.6	#12 20/1	20/1	#12			22
23	EXTERIOR LIGHTING	1.6	#12 20/1	20/1	#12			24
25	SPACE	20/1	20/1	20/1	20/1	20/1	SPACE	26
27	SPACE	20/1	20/1	20/1	20/1	20/1	SPACE	28
29	SPACE	20/1	20/1	20/1	20/1	20/1	SPACE	30
31	SPACE	20/1	20/1	20/1	20/1	20/1	SPACE	32
33	SPACE	20/1	20/1	20/1	20/1	20/1	SPACE	34
35	SPACE	20/1	20/1	20/1	20/1	20/1	SPACE	36
37	SPACE	20/1	20/1	20/1	20/1	20/1	SPACE	38
39	SPACE	20/1	20/1	20/1	20/1	20/1	SPACE	40
41	SPACE	20/1	20/1	20/1	20/1	20/1	SPACE	42

CONTINUOUS (1/3) LOAD x 1.25 = 15.8 KVA
NON-CONTINUOUS (2/3) LOAD x 1.25 = 82.1 KVA
TOTAL KVA = 97.9 KVA

- 1 PROVIDE A LOCK-ON DEVICE.
- 2 CIRCUIT CONTROLLED VIA CONTACTOR 'C1'. CONTACTOR CONTROLLED VIA PROGRAMMABLE TIMELOCK. LOCATE CONTACTOR ADJACENT TO PANEL.
- 3 CIRCUIT CONTROLLED VIA CONTACTOR 'C2'. CONTACTOR CONTROLLED VIA PROGRAMMABLE TIMELOCK. LOCATE CONTACTOR ADJACENT TO PANEL.

- 1 CIRCUIT CONTROLLED VIA CONTACTOR 'C1'. CONTACTOR CONTROLLED VIA PROGRAMMABLE TIMELOCK. LOCATE CONTACTOR ADJACENT TO PANEL.
- 2 CIRCUIT CONTROLLED VIA CONTACTOR 'C2'. CONTACTOR CONTROLLED VIA PROGRAMMABLE TIMELOCK. LOCATE CONTACTOR ADJACENT TO PANEL.

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Shaw's Jewelers
West Gray
1021 West Gray Ave.
Houston, Texas

Shaw's Jewelers
1014 West Gray Street
Houston, Texas 77019

DATE: 08.31.2011
PROJECT NO.: 1102100
DRAWN BY: DES
CHECKED BY: MR

ELECTRICAL DETAILS/ SCHEDULES

E4.01

K&E PROJECT # 090013
AKME
K&E ELECTRICAL ENGINEERING, INC.
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REVISION: 08/31/2011

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