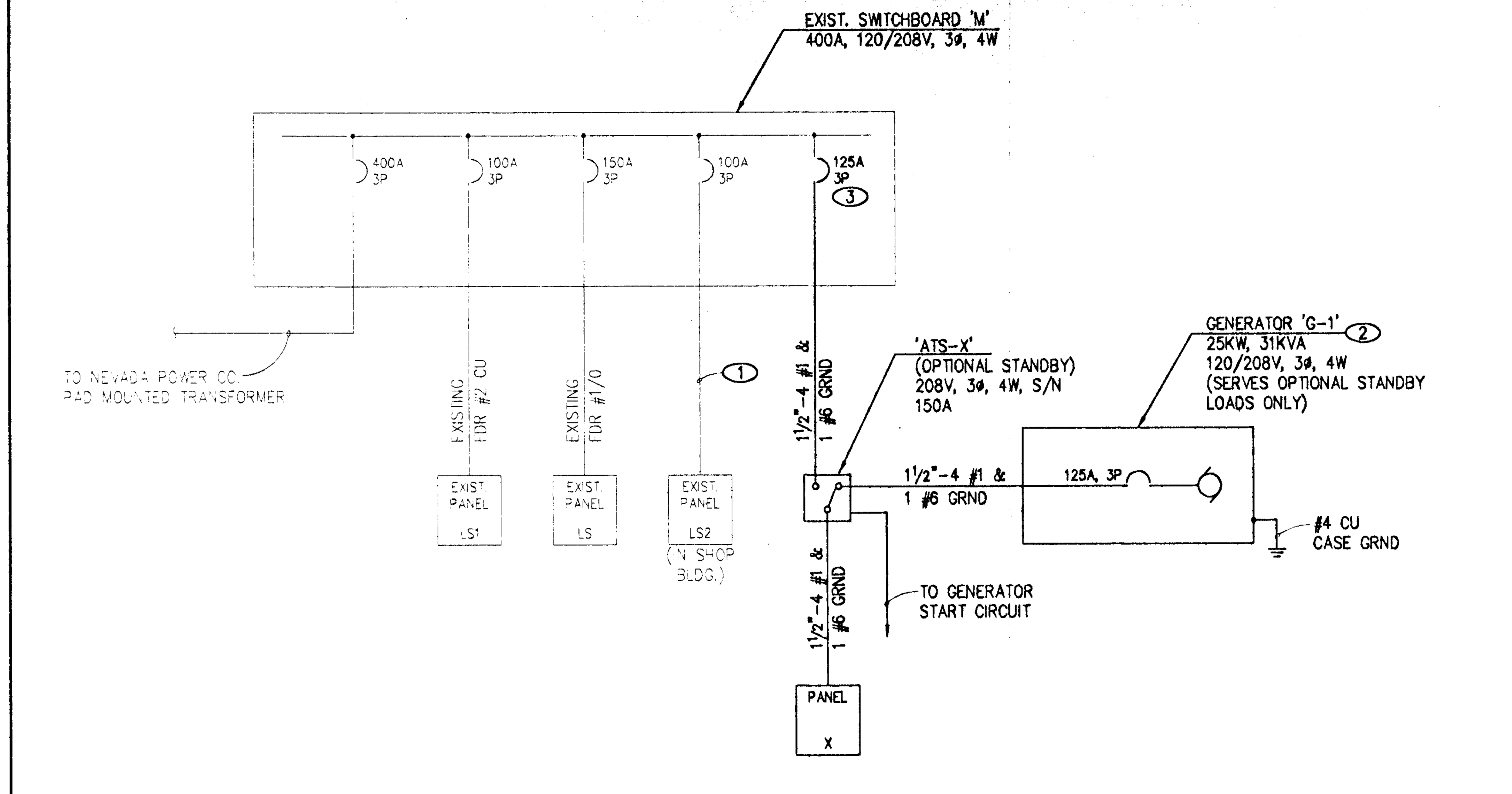

SINGLE LINE DIAGRAMS

N.T.S.

1 / E5.02

PANEL: X

DATE: 08/21/02 TIME: 15:23:07 (5) JOB: 6431

PANEL VOLTAGE: 208/120 3Φ 4 W BUS: 225A MAINS: L.O. AIC RATING: 10,000 LOCATION: IT COMPUTER A104 MOUNTING: SURFACE

CIRCUIT CODE: blank or N : NON-CONTINUOUS; L : LONG-CONTINUOUS; R : DEMANDABLE RECEPTACLES; K : KITCHEN NO. OF EQUIPMENT: 0

CKT NO	CODE	TRIP	POLE	DESCRIPTION	(NOTE)	M	R	L	ΦA	ΦB	ΦC	ABC	ΦA	ΦB	ΦC	L	R	M	(NOTE)	DESCRIPTION	TRIP	POLE	CODE	CKT NO
1	L	20	1	IT ROOM				16	1440				540				3			IT ROOM RECEPTS	20	1	R	2
3	N	30	1	COMM RACK						500				540			3			IT ROOM RECEPTS	20	1	R	4
5	N	20	1	COMM RACK							250				360		2			IT ROOM RECEPTS	20	1	R	6
7	N	20	1	COMM RACK					250				–							SPARE	20	1		8
9	N	30		SERVER RACK						500				–						SPARE	20	1		10
11	N		2	---							500				–					SPARE	20	1		12
13	N	20		SERVER RACK					500				–							SPARE	20	1		14
15	N		2	---						500				–						SPARE	20	1		16
17	N	20	1	SERVER RACK							500				–					SPARE	20	1		18
19	N	20	1	SERVER RACK					500				–							SPARE	20	1		20
21		20	1	SPARE						–				–						SPARE	20	1		22
23		20	1	SPARE							–				–					SPARE	20	1		24
25		20	1	SPARE					–				–							SPARE	20	1		26
27		20	1	SPARE						–				–						SPARE	20	1		28
29		20	1	SPARE							–				500					CHARGER	20	1	N	30
31		20	1	SPARE					–				500							TANK HEATER	20		N	32
33		20	1	SPARE						–				500						---		2	N	34
35		20	1	SPARE							–				4980					HP-2A	60		N	36
37		20	1	SPARE					–				4980							---		2	N	38
39		20	1	SPARE						–				840						HP-2B	15		N	40
41		20	1	SPARE							–				840					---		2	N	42

PANEL NOTES

PHASE TOTALS	ΦA: 8710	ΦB: 3380	ΦC: 7930	TOTAL CONNECTED VA	20020

CONNECTED VA (CODE N)	17140
CONNECTED VA (CODE L)	1440
CONNECTED VA (CODE R)	1440
CONNECTED VA (CODE K)	0
PANEL CONNECTED KVA	20.0
PANEL DEMAND KVA	20.4
PANEL DEMAND AMPS	56.6
HIGH Φ AMPS W/DEMAND	75.6

PANEL: LS1

DATE: 08/13/02 TIME: 06:39:14 JOB: 6431

PANEL VOLTAGE: 208/120 3Φ 4 W BUS: 225A MAINS: L.O. AIC RATING: 10,000 LOCATION: EXIST. ELECT. MOUNTING: SURFACE

CIRCUIT CODE: blank or N : NON-CONTINUOUS; L : LONG-CONTINUOUS; R : DEMANDABLE RECEPTACLES; K : KITCHEN NO. OF EQUIPMENT:

CKT NO	CODE	TRIP	POLE	DESCRIPTION	(NOTE)	M	R	L	ΦA	ΦB	ΦC	ABC	ΦA	ΦB	ΦC	L	R	M	(NOTE)	DESCRIPTION	TRIP	POLE	CODE	CKT NO
1		20	1	EXIST. LOAD					–				–							EXIST. LOAD	20	1		2
3		20	1	EXIST. LOAD						–				–						EXIST. LOAD	20	1		4
5		20	1	EXIST. LOAD							–				–					EXIST. LOAD	20	1		6
7		20	1	EXIST. LOAD					–				–							EXIST. LOAD	20	1		8
9		20	1	EXIST. LOAD						–				–						EXIST. LOAD	20	1		10
11		20	1	EXIST. LOAD							–				–					EXIST. LOAD	20	1		12
13		20	1	EXIST. LOAD					–				–							EXIST. LOAD	20	1		14
15		20	1	EXIST. LOAD						–				–						EXIST. LOAD	20	1		16
17		20	1	EXIST. LOAD							–				–					EXIST. LOAD	20	1		18
19		20	1	EXIST. LOAD					–				–							EXIST. LOAD	20	1		20
21		20	1	EXIST. LOAD						–				–						EXIST. LOAD	20	1		22
23		20	1	EXIST. LOAD							–				1800					HP-1A	25		N	24
25	N	30		HP-1B					2875				1800							---		2	N	26
27	N		2	---						2875				–						SPACE	–	1		28
29		–	1	SPACE							–				–					SPACE	–	1		30
31		–	1	SPACE					–				–							SPACE	–	1		32
33		–	1	SPACE						–				–						SPACE	–	1		34
35		–	1	SPACE							–				–					SPACE	–	1		36
37		–	1	SPACE					–				–							SPACE	–	1		38
39		–	1	SPACE						–				–						SPACE	–	1		40
41		–	1	SPACE							–				–					SPACE	–	1		42

PANEL NOTES:

PHASE TOTALS	ΦA:	ΦB:	ΦC:	TOTAL CONNECTED VA	

CONNECTED VA (CODE N)	
CONNECTED VA (CODE L)	
CONNECTED VA (CODE R)	
CONNECTED VA (CODE K)	
PANEL CONNECTED KVA	SEE LOAD CALC.
PANEL DEMAND KVA	
PANEL DEMAND AMPS	
HIGH Φ AMPS W/DEMAND	

PANEL: LS

DATE: 08/12/02 TIME: 17:18:42 JOB: 6431

PANEL VOLTAGE: 208/120 3Φ 4 W BUS: 100A MAINS: L.O. AIC RATING: 10,000 LOCATION: EXIST. ELECT. MOUNTING: SURFACE

CIRCUIT CODE: blank or N : NON-CONTINUOUS; L : LONG-CONTINUOUS; R : DEMANDABLE RECEPTACLES; K : KITCHEN NO. OF EQUIPMENT:

CKT NO	CODE	TRIP	POLE	DESCRIPTION	(NOTE)	M	R	L	ΦA	ΦB	ΦC	ABC	ΦA	ΦB	ΦC	L	R	M	(NOTE)	DESCRIPTION	TRIP	POLE	CODE	CKT NO
1		20	1	EXIST. LOAD					–				–							EXIST. LOAD	20	1		2
3		20	1	EXIST. LOAD						–				–						EXIST. LOAD	20	1		4
5		20	1	EXIST. LOAD							–				–					EXIST. LOAD	20	1		6
7		20	1	EXIST. LOAD					–				–							EXIST. LOAD	20	1		8
9		20	1	EXIST. LOAD						–				–						EXIST. LOAD	20	1		10
11		20	1	EXIST. LOAD							–				–					EXIST. LOAD	20	1		12
13		20	1	EXIST. LOAD					–				–							EXIST. LOAD	20	1		14
15		20	1	EXIST. LOAD						–				–						EXIST. LOAD	20	1		16
17		20	1	EXIST. LOAD							–				–					EXIST. LOAD	20	1		18
19		20	1	EXIST. LOAD					–				–							EXIST. LOAD	20	1		20
21		20	1	EXIST. LOAD						–				–						EXIST. LOAD	20	1		22
23		20	1	EXIST. LOAD							–				–					EXIST. LOAD	20	1		24
25		20	1	EXIST. LOAD					–				–							EXIST. LOAD	20	1		26
27		20	1	EXIST. LOAD						–				–						EXIST. LOAD	20	1		28
29		20	1	EXIST. LOAD							–				–					EXIST. LOAD	20	1		30
31		20	1	EXIST. LOAD					–				–							EXIST. LOAD	20	1		32
33		20	1	EXIST. LOAD						–				–						EXIST. LOAD	20	1		34
35		20	1	EXIST. LOAD							–				–					EXIST. LOAD	20	1		36
37		20	1	EXIST. LOAD					–				–							EXIST. LOAD	20	1		38
39	R	20	1	RECEPTS			6			1080				1080			6			RECEPTS	20	1	R	40
41	R	20	1	RECEPTS			6				1080				900					LIGHTS	20	1	L	42

PANEL NOTES:

PHASE TOTALS	ΦA:	ΦB:	ΦC:	TOTAL CONNECTED VA	

CONNECTED VA (CODE N)	
CONNECTED VA (CODE L)	
CONNECTED VA (CODE R)	
CONNECTED VA (CODE K)	
PANEL CONNECTED KVA	SEE LOAD CALC.
PANEL DEMAND KVA	
PANEL DEMAND AMPS	
HIGH Φ AMPS W/DEMAND	

NOTICE

1. EXISTING SHOWN LIGHT, NEW SHOWN BOLD.

NOTES

(1) PROTECT FEEDER IN PLACE, FIELD LOCATE AND PROVIDE ALL REQUIRED IDENTIFICATION AND PROTECTION.

(2) DIESEL ELECTRIC GENERATOR WITH WP ENCLOSURE, 25 GAL. BASE MOUNTED FUEL TANK AND CRITICAL EXHAUST SILENCER.

(3) PROVIDE BREAKER IN EXISTING SPACE, MATCH EXISTING MANUFACTURER AND TYPE.

LOAD CALCULATIONS

SWITCHBOARD 'M'

NEVADA POWER CO. PEAK DEMAND, 30KW	
30KW @ .8PF x .125	= 47KVA
LOAD ADDED, PANEL X	= 20KVA
TOTAL	= 67KVA/ 208V, 3ø = 186A

PANEL 'LS1'

EXIST. LOAD, 8KVA x 1.25	= 10KVA
EXIST. LS-42, 900VA x 1.25	= 1.2KVA
RECEPTS, LS-39,40,41, 18 @ 180VA	= 3.3KVA
TOTAL	= 14.5KVA/ 208V, 3ø = 40A

PANEL 'LS'

EXIST. LOAD, 12KVA x 1.25	= 15KVA
LOAD ADDED, HP-1A	= 3.6KVA
LOAD ADDED, HP-1B	= 5.75KVA
TOTAL	= 24KVA/ 208V, 3ø = 67A

RECEIVED MAR 18 2003 CITY OF LAS VEGAS PERMITS

584262

APPROVAL IS FOR CLOUDED AREAS ONLY. SEE ORIGINALS (5)

PLANS APPROVED ELECTRICAL

MAR 20 2003

DEPARTMENT OF PUBLIC WORKS

REVISIONS: (5) MAR. 14, 2003 OWNER REVISION

CONSULTANT: TATE SNYDER KIMSEY ARCHITECTS

CITY OF LAS VEGAS WEST SERVICE YARD
BUFFALO DRIVE AND PEAK ROAD
LAS VEGAS, NEVADA
SINGLE LINE DIAGRAM

STAMP: PROFESSIONAL ENGINEER STATE OF NEVADA ELECTRICAL

OWNER: CITY OF LAS VEGAS DEPARTMENT OF PUBLIC WORKS ARCHITECTURAL SERVICES
400 EAST STEWART AVENUE LAS VEGAS, NEVADA 89101
PHONE: (702) 229-6535
FAX: (702) 382-3232
TDD: (702) 386-9108

DRAWN	TES
FILE	6431E502.DWG
DATE	10.16.02
SCALE	NONE
BID NO	02.15341.09
CLV DWG NO	107-V3548
SHT NO	E5.02

jba CONSULTING ENGINEERS
3040 WEST EDNA LAS VEGAS NEVADA 89146 (702) 362-9200
3070 BRISTOL STREET SUITE 580 COSTA MESA CALIFORNIA 92626 (714) 751-3354

#6431