



KEY NOTES:

1 #3/0 CU - 1" TO GROUNDING ELECTRODE, COLD WATER SERVICE AND BUILDING STEEL PER NEC 250.

Project # 26043 Professional Design Associates, Inc.

Project Name: LORENZI PARK 07/16/2009

SHORT CIRCUIT ANALYSIS REPORT

BRANCH NUMBER	AVAILABLE SCA	AT EQUIPMENT	EQUIPMENT AIC RATING
10	21,653	UTILITY	N/A
11	14,786	MSA	25,000

Professional Design Associates, Inc. SWITCHBOARD: MSA PROJECT NAME: LORENZIPARK

PROJECT NUMBER: 26043

W.C. MAIN BUS RATING: 1200 AMPS

W.C. SHUNT TRIP MAIN NO

AC RATING: 25 X

FULLY RATED

SERIES RATED

50 D-M LINE 42" W X 66" D

POLES REQ'D: 18

LOAD SERVED	PHASE 'A'	PHASE 'B'	PHASE 'C'	CIRCUIT BREAKER NUMBER	CIRCUIT BREAKER POLE	CIRCUIT BREAKER AMP	PHASE 'A'	PHASE 'B'	PHASE 'C'	LOAD SERVED
PANEL-H1	24210			300	3	1	2	3	250	PANEL-H1
PANEL-H2	24210			300	3	1	2	3	250	PANEL-H2
PANEL-H3	21250			225	2	7	8	9	350	SWBD-MSB
XFMR-TL1	14880			125	2	10	14	1	0	STAGE
XFMR-TL2	14880			125	2	10	14	1	0	STAGE
SUB-FEED										SUB-FEED
SUB-TOTALS		53920	71040	71770			6455	8276	9216	SUB-TOTALS

CONNECTED VA - P-ASE A: 54497 CONNECTED AMPS - P-ASE A: 5575 CONNECTED KVA: 481.4

CONNECTED VA - P-ASE B: 69997 CONNECTED AMPS - P-ASE B: 8124 NEC DEMAND KVA: 486.0

CONNECTED VA - P-ASE C: 67796 CONNECTED AMPS - P-ASE C: 6946 NEC DEMAND KVA: 781.4

TOTAL CONNECTED VA: 192290 MAIN COVA P-ASE AMPS: 31' @ 61:4 NEC DEMAND AMPS: 3918.0

GENERAL NOTES:

1. ALL CIRCUIT BREAKERS SHALL BE ARRANGED AS INDICATED ABOVE PHASING DEVIATIONS WILL NOT BE ALLOWED

2. ALL CIRCUIT BREAKERS FEEDING REFRIGERATION EQUIPMENT SHALL BE "ACR" TYPE PER EQUIPMENT MANUFACTURER

3. ADDITIONAL UNDATED MAIN CIRCUIT BREAKER BACK-FEED MAIN CIRCUIT BREAKER WILL NOT BE ACCEPTED

4. PROVIDE GROUNDING BUS FOR EACH MAIN CIRCUIT BREAKER

N.E.C. DEMAND CALCULATIONS FOR PANEL - MSA

LOAD	VA	AMPS	KVA	LOAD	VA	AMPS	KVA
CONNECTED HEATING LOAD	392000	368	392	CONNECTED HEATING LOAD	392000	368	392
CONNECTED REFRIGERATION LOAD	20100	182	201	CONNECTED REFRIGERATION LOAD	20100	182	201
CONNECTED EQUIPMENT LOAD	20100	182	201	CONNECTED EQUIPMENT LOAD	20100	182	201
CONNECTED KITCHEN EQUIPMENT LOAD	0	0	0	CONNECTED KITCHEN EQUIPMENT LOAD	0	0	0
CONNECTED HEATING COOLING LOAD	0	0	0	CONNECTED HEATING COOLING LOAD	0	0	0
CONNECTED COOLING LOAD	0	0	0	CONNECTED COOLING LOAD	0	0	0
CONNECTED HEAT PUMP LOAD	0	0	0	CONNECTED HEAT PUMP LOAD	0	0	0
CONNECTED ELEVATOR LOAD	0	0	0	CONNECTED ELEVATOR LOAD	0	0	0
CONNECTED MISC MECHANICAL LOAD	0	0	0	CONNECTED MISC MECHANICAL LOAD	0	0	0
CONNECTED HOTEL GUEST ROOM LOAD PER NEC 210-11	0	0	0	CONNECTED HOTEL GUEST ROOM LOAD PER NEC 210-11	0	0	0
CONNECTED NON-CONCRETE LOAD	0	0	0	CONNECTED NON-CONCRETE LOAD	0	0	0
CONNECTED NON-CONCRETE LOAD (NON-ADJ) PER VA OF 'ADEQ' MOTOR	0	0	0	CONNECTED NON-CONCRETE LOAD (NON-ADJ) PER VA OF 'ADEQ' MOTOR	0	0	0
ADDITIONAL SPARE CAPACITY ADDED	0	0	0	ADDITIONAL SPARE CAPACITY ADDED	0	0	0
TOTAL CONNECTED:	481250	447	481.25	TOTAL DEMAND:	728898	672	728.898

SINGLE-LINE DIAGRAM
SCALE: NTS

PROJECT #: 26043 Professional Design Associates, Inc. 16-Jul-09

PROJECT NAME: LORENZI PARK

TRANSFORMER SCHEDULE

TRANSFORMER DESIGNATION	KVA RATING	PRIMARY VOLTAGE	SECONDARY VOLTAGE	MATERIAL (WINDINGS)	DEGREE C TEMP. RISE	MOUNTING METHOD	ENCLOSURE TYPE	GROUND SIZE NEC 250	REMARKS
TL1	75	480-3Ø	208Y/120	ALUM	115	FLOOR	OUTDOOR	1 #4 - 1/2" C.	
TL2	45	480-3Ø	208Y/120	ALUM	115	FLOOR	OUTDOOR	1 #6 - 1/2" C.	

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FEEDER SCHEDULE

FEEDER SCHEDULE NOTES:

1. SIZING INFORMATION BASED ON THHN/THWN CONDUCTORS IN METALLIC CONDUIT UNLESS OTHERWISE NOTED, PER 2005 N.E.C.

2. CONDUCTOR SIZES BASED ON 75°C. REQUIREMENTS. ALL TERMINATIONS SHALL BE 75°C RATED.

FEEDER NUMBER	FROM	TO	CONDUCTOR INFORMATION AND SIZES				CONDUIT INFORMATION			REMARKS					
			NEUTRAL CAPACITY	MATERIAL CU OR AL	VOLTS DROP	% DROP	PHASE	NEUTRAL	GROUND		MATERIAL	SIZE	QUANTITY		
1	UTILITY	MSA	100%	CU	3.65	1.78	3	500 kcmil	1	500 kcmil	#3	NON-METALLIC	4"	4	CONDUCTORS BY NEVADA POWER
2	PNL L1	PNL RR	100%	CU	3.65	1.78	3	500 kcmil	1	500 kcmil	#3	METALLIC	3 1/2"	1	
3	MSA	MSB	100%	CU	6.53	1.78	3	500 kcmil	1	500 kcmil	#1/0	METALLIC	3 1/2"	2	PARALLEL FEEDERS

RECORD DRAWINGS NOT FOR CONSTRUCTION

1. TO ALTER THESE DOCUMENTS FOR ANOTHER PROJECT BY ANYONE OTHER THAN THE ORIGINAL ARCHITECT IS A VIOLATION OF NRS 623.

2. THIS RECORD DRAWING HAS BEEN PREPARED IN PART, BASED UPON INFORMATION FURNISHED BY THE GENERAL CONTRACTOR. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THE DESIGN PROFESSIONAL CANNOT ASSURE ITS ACCURACY, AND THIS IS NOT RESPONSIBLE FOR THE ACCURACY OF THIS RECORD DRAWING OR FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO IT AS A RESULT. THE DESIGN PROFESSIONAL CANNOT AND DOES NOT WARRANT THEIR ACCURACY.

3. INFORMATION THAT MAY BE INCLUDED WOULD BE SIGNIFICANT CHANGES TO PLANTING OR IRRIGATION LAYOUT PLANS AND ASSOCIATED DRAWINGS, MINOR DIMENSION OR CONSTRUCTION DETAIL CHANGES MAY NOT BE INCLUDED.

THE DESIGN PROFESSIONAL HAS PERFORMED ALL REQUIRED VOLTAGE DROP CALCULATIONS AND ALL BRANCH CIRCUITS AND FEEDERS COMPLY WITH NEC 210-19(A)(1) FPN No. 4.

THE DESIGN PROFESSIONAL HAS PERFORMED ALL REQUIRED SHORT CIRCUIT CALCULATIONS AND THE AIC RATINGS INDICATED FOR EACH DEVICE IS ADEQUATE TO PROTECT THE EQUIPMENT AND ELECTRICAL SYSTEM.

REVISIONS

7-10-09 Record Drawing

CONSULTANT

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DRAWN: JCF

FILE: 06-263

DATE: LINE 2/01

SCALE: AS SHOWN

REVISED

E5.01

Lorenzi Park Renovations Phase 1 SINGLE LINE DIAGRAM