

FEEDER SCHEDULE

FEEDER	AMPERE	CONDUIT AND WIRE (COPPER) THUN, 3Ø, 3W	GROUND	FEEDER	AMPERE	CONDUIT AND WIRE (COPPER) THUN, 3Ø, 4W	GROUND
1	20	1/2" - 3 - #12	#12	31	20	1/2" - 4 - #12	#12
2	30	1/2" - 3 - #10	#10	32	30	3/4" - 4 - #10	#10
3	40	3/4" - 3 - #8	#10	33	40	1" - 4 - #8	#10
4	50	1" - 3 - #6	#10	34	50	1 1/4" - 4 - #6	#10
5	60	1" - 3 - #6	#10	35	60	1 1/4" - 4 - #6	#10
6	70	1 1/4" - 3 - #4	#8	36	70	1 1/4" - 4 - #4	#8
7	80	1 1/4" - 3 - #4	#8	37	80	1 1/4" - 4 - #4	#8
8	100	1 1/4" - 3 - #2	#8	38	100	1 1/2" - 4 - #2	#8
9	125	1 1/2" - 3 - #1	#6	39	125	1 1/2" - 4 - #1	#6
10	150	1 1/2" - 3 - #1/0	#6	40	150	2" - 4 - #1/0	#6
11	175	2" - 3 - #2/0	#6	41	175	2" - 4 - #2/0	#6
12	200	2" - 3 - #3/0	#6	42	200	2" - 4 - #3/0	#6
13	225	2" - 3 - #4/0	#4	43	225	2 1/2" - 4 - #4/0	#4
14	250	3" - 3 - #50 K	#4	44	250	3" - 4 - #50 K	#4
15	300	4" - 3 - #50 K	#4	45	300	4" - 4 - #50 K	#4
16	350	4" - 3 - #50 K	#2	46	350	4" - 4 - #50 K	#2
17	400	4" - 3 - #50 K	#2	47	400	4" - 4 - #50 K	#2
18	500	(2) 3" - 6 - #250 K	(2) #2	48	500	(2) 3" - 8 - #250 K	(2) #2
19	600	(2) 4" - 6 - #50 K	(2) #1	49	600	(2) 4" - 8 - #50 K	(2) #1
20	800	(2) 4" - 6 - #50 K	(2) #1/0	50	800	(2) 4" - 8 - #50 K	(2) #1/0
21	1000	(4) 4" - 12 - #250 K	(4) #2/0	51	1000	(4) 4" - 16 - #50 K	(4) #2/0
22	1200	(4) 4" - 12 - #50 K	(4) #3/0	52	1200	(4) 4" - 16 - #50 K	(4) #3/0
23	1600	(5) 4" - 15 - #50 K	(5) #4/0	53	1600	(5) 4" - 20 - #50 K	(5) #4/0
24	2000	(6) 4" - 18 - #50 K	(6) #250 K	54	2000	(6) 4" - 24 - #50 K	(6) #250 K
25	2500	(7) 4" - 21 - #50 K	(7) #50 K	55	2500	(7) 4" - 28 - #50 K	(7) #50 K
26	3000	(8) 4" - 24 - #50 K	(8) #400 K	56	3000	(8) 4" - 32 - #50 K	(8) #400 K
27	4000	(11) 4" - 33 - #50 K	(11) #50 K	57	4000	(11) 4" - 44 - #50 K	(11) #50 K

SINGLE-LINE NOTES:

1. ALL SWITCHGEAR, PANELBOARDS, ETC. ARE TO BE UL LISTED FOR THEIR LOCATION AND INTENDED USE. ALL EQUIPMENT SHALL BE BRACED FOR FAULT CURRENT RATINGS ASSOCIATED WITH THEIR VOLTAGE AND LOCATION WITHIN THE SYSTEM.
2. ALL EQUIPMENT, FEEDERS, CIRCUITS, SERVICES, ETC. SHALL BE GROUNDED PER NEC ARTICLE 250.
3. ALL FEEDERS ARE BASED ON COPPER CONDUCTORS AND SHALL CARRY A SEPARATE GROUNDING CONDUCTOR.
4. ALL SWITCHES OR CIRCUIT BREAKERS ARE THREE POLE UNLESS OTHERWISE NOTED.
5. ALL SWITCHBOARDS SHALL BE OF SWITCHBOARD CONSTRUCTION WITH COPPER BUSING AND ALL SECTIONS SHALL ALIGN IN FRONT. MAIN SWITCHBOARDS SHALL CONTAIN CUSTOMER METERING FOR VOLTAGE, AMPLACITY, DEMAND AND PEAK DEMAND PER PHASE.
6. ALL MAIN SWITCHBOARDS SHALL HAVE FACTORY INSTALLED TRANSIENT VOLTAGE SURGE PROTECTION. COORDINATE WITH LOCAL UTILITY COMPANY.
7. ALL DISTRIBUTION BOARDS SHALL BE OF SWITCHBOARD CONSTRUCTION WITH COPPER BUSING AND ALL SECTIONS SHALL ALIGN IN FRONT.
8. ALL DISTRIBUTION PANELBOARDS SHALL BE OF GMR/COB CONSTRUCTION WITH COPPER BUSING WITH A DEPTH OF LESS THAN 14" AND ALL SECTIONS SHALL ALIGN IN FRONT.
9. PANELBOARDS SHALL HAVE FLUSH MONO-FLAT TRIM, PIANO HINGED DOORS AND COVER (DOOR-IN-DOOR) WITH LOCKABLE MASTER-KEYED FLUSH CATCHES AND BOLT-ON CIRCUIT BREAKERS. FLUSH MOUNTED PANELS SHALL HAVE EMPTY CONDUITS STUBBED TO ACCESSIBLE ATTIC SPACE: (1) 1" CONDUIT FOR EACH (4) SPARE/SPACE CIRCUITS.
10. ALL PANELBOARDS INSTALLED IN GARAGES OR AREAS COMPLYING WITH ARTICLE 500, 511 AND/OR 514 SHALL BE INSTALLED 18" ABOVE FLOOR LINE TO BOTTOM OF PANEL AND SHALL BE IN MULTIPLE PANELS AS REQUIRED WITH TOP FOOT BREAKER NO HIGHER THAN 6'-1" AFF. PER ARTICLE 380.
11. ALL ELECTRICAL EQUIPMENT (I.E. SWITCHBOARDS, PANELBOARDS, DISCONNECTS, STARTERS, ETC.) SHALL HAVE A NAMEPLATE. THE NAMEPLATE SHALL BE PHENOLIC WITH ENGRAVED WHITE LETTERS AND SHALL PROVIDE THE FOLLOWING INFORMATION:
 LINE 1 - "EQUIPMENT NAME"
 LINE 2 - "RED FROM"
 LINE 3 - "VOLTAGE, AMPLACITY, PHASE"
 LINE 4 - "DATE INSTALLED"
 NAMEPLATES SHALL BE SIZED BASED ON THE FOLLOWING:
 SWITCHBOARDS, DISTRIBUTION BOARDS, TRANSFORMERS:
 * LINE 1 - 1/2" LETTERS, LINES 2, 3, 4 - 1/4" LETTERS
 PANELBOARDS, MOTOR CONTROL CENTERS, DISCONNECTS, STARTERS, ETC.:
 * LINE 1 - 3/8" LETTERS, LINES 2, 3, 4 - 1/4" LETTERS
 NAMEPLATE COLORS SHALL BE AS FOLLOWS:
 BLACK - NORMAL POWER
 RED - LIFE SAFETY/EMERGENCY POWER
 BLUE - STANDBY POWER
 GREEN - INVERTOR POWER
 ALL NAMEPLATES SHALL BE FASTENED WITH A MINIMUM OF TWO (2) SCREWS. NO SELF ADHESIVE NAMEPLATES ARE ALLOWED.
12. ALL CONDUCTORS HAVE BEEN REVIEWED FOR VOLTAGE DROP. CONTRACTOR IS TO NOTIFY ENGINEER IF FIELD CONDITIONS SUBSTANTIALLY INCREASE CONDUCTOR LENGTH.
13. ALL FLOOR-STANDING EQUIPMENT LOCATED AT GRADE OR BELOW SHALL HAVE A MINIMUM 4" HIGH HOUSEKEEPING PAD INSTALLED UNDER THEM. PAD SHALL EXTEND 4" BEYOND EQUIPMENT FOOTPRINT IN ALL DIRECTIONS. THE INSTALLATION OF A PAD SHALL ALSO APPLY TO EQUIPMENT THAT MIGHT BE SUSCEPTIBLE TO WATER DAMAGE THAT IS LOCATED IN AREAS OTHER THAN AT GRADE.
14. PROVIDE PROTECTIVE RELAYS FOR PHASE FAILURE AND UNDERVOLTAGE FOR ALL MOTOR-RELATED CIRCUITS.
15. PROVIDE ALL ASSOCIATED COSTS FOR THIRD PARTY TESTING FOR ALL EQUIPMENT, CONDUCTORS, GROUND FAULT, ETC.

TRANSFORMER SCHEDULE

DESIGNATION	RATING KVA	WINDINGS		TEMPERATURE RISE		SECONDARY GROUND	COMMENTS
		CU	AL	150° C	100° C		
T1	15	●				#8	
T2	30	●				#8	
T3	45	●				#6	
T4	75	●				#2	
T5	125	●				#1/0	
T6	150	●				#1/0	
T7	225	●				#2/0	
T8	300	●				#3/0	
T9	500	●				#3/0	
T10	750	●				#3/0	
T11	10	●	●			(E)	(E) 480V 1Ø TO, 240/120V, 1Ø, 3W

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CITY OF LAS VEGAS
FREEDOM PARK RENOVATION
850 NORTH MOJAVE, LAS VEGAS, NEVADA 89101
SCHEDULES AND NOTES

Russ Maninger
 Russ Maninger
 Roche Constructors, Inc.

RECORD DRAWINGS
01-31-2010

OWNER: CITY OF LAS VEGAS
 DEPARTMENT OF PUBLIC WORKS
 ARCHITECTURAL SERVICES

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 LAS VEGAS, NEVADA 89101
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 TDD: (702) 386-9108

DATE: JANUARY 31, 2010
 SCALE: AS NOTED
 SHEET NO: 070354
 CIV DWG NO: 650.22-18
E0-03A

RECORD DRAWING
 THESE MODIFIED OR RECORD DRAWINGS HAVE BEEN PREPARED IN WHOLE OR IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY THE CONTRACTOR OR OTHERS INVOLVED WITH THE PROJECT. MSA ENGINEERING CONSULTANTS IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT. CAREFUL EXAMINATION OF ACTUAL EXISTING CONDITIONS SHOULD BE UNDERTAKEN PRIOR TO EXCAVATION, CUTTING, MODIFICATION, OR CONNECTION OF SUBSEQUENT CONSTRUCTION.

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