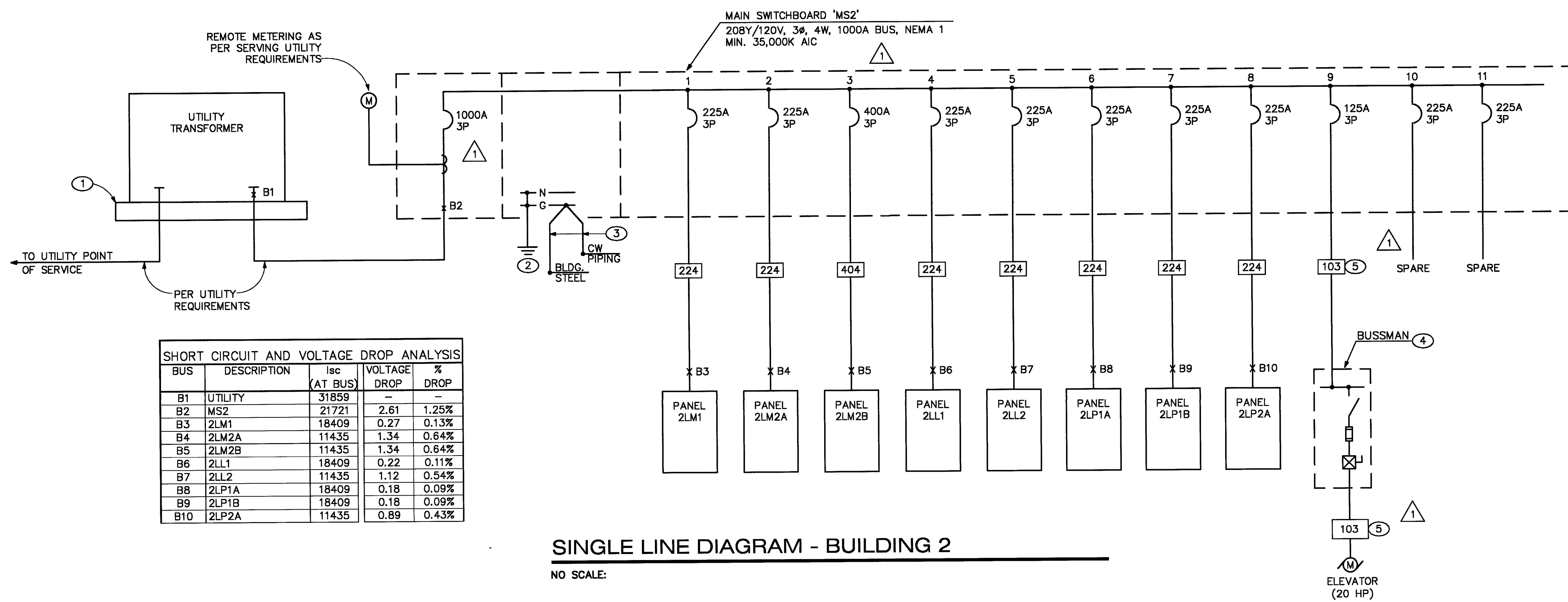
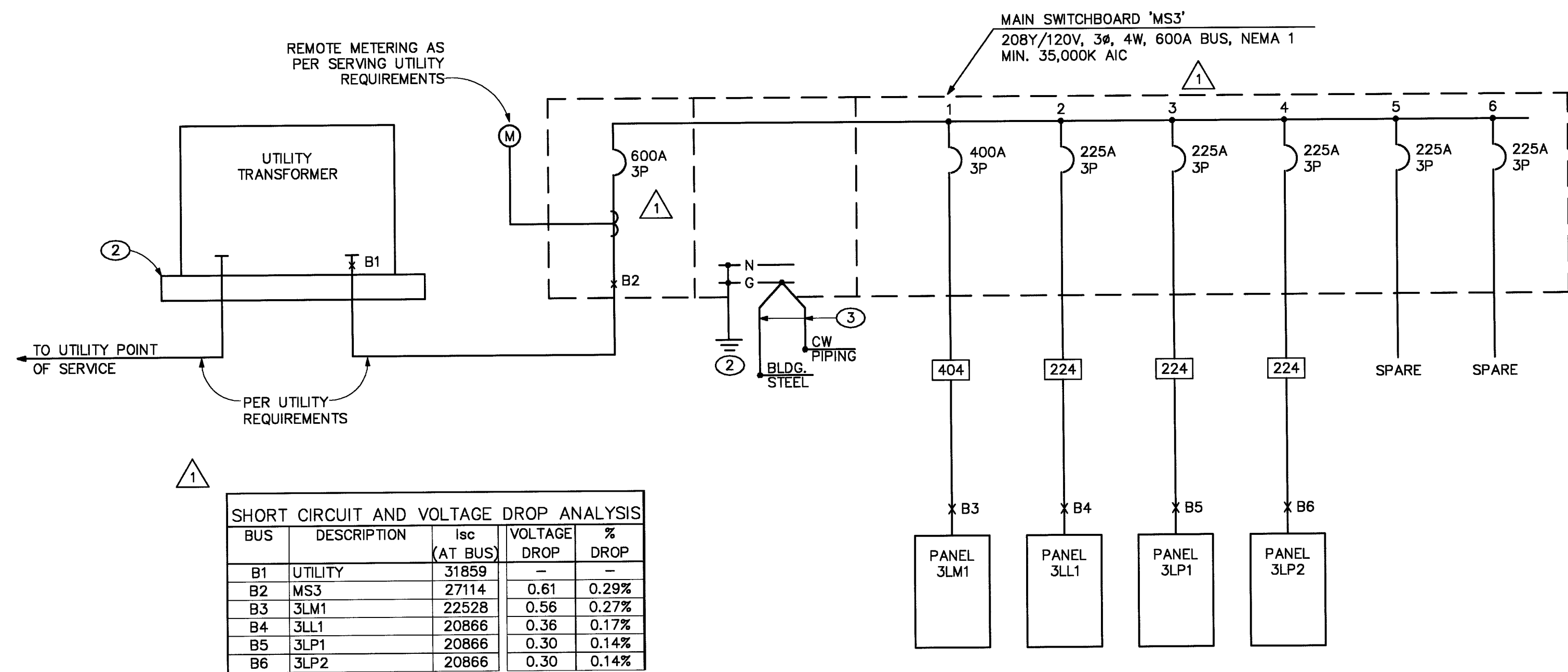




SINGLE LINE DIAGRAM - BUILDING 2

NO SCALE:



SINGLE LINE DIAGRAM - BUILDING 3

NO SCALE:

Feeder Tag	Conduit and THHN/THWN Wire (75 Deg C Cu)
021	3/4" - 2 #12 & 1 #12 GND
023	3/4" - 3 #12 & 1 #12 GND
031	3/4" - 2 #10 & 1 #10 GND
033	3/4" - 3 #10 & 1 #10 GND
041	3/4" - 2 #8 & 1 #10 GND
043	1" - 3 #8 & 1 #10 GND
051	1" - 2 #6 & 1 #10 GND
053	1-1/4" - 3 #6 & 1 #10 GND
061	1" - 2 #4 & 1 #10 GND
063	1-1/4" - 3 #4 & 1 #10 GND
073	1-1/4" - 3 #4 & 1 #8 GND
103	1-1/2" - 3 #2 & 1 #8 GND
153	2" - 3 #1/0 & 1 #6 GND
224	2-1/2" - 4 #4/0 & 1 #4 GND
404	4" - 4 #500KCMIL & 1 #3 GND

THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED VOLTAGE DROP CALCULATIONS WITHIN THE SCOPE OF THIS PROJECT.

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

ALL OVERCURRENT PROTECTION DEVICES AND ELECTRICAL DISTRIBUTION EQUIPMENT SHALL BE FULLY (100%) RATED FOR AVAILABLE FAULT CURRENT INDICATED.

GENERAL NOTES

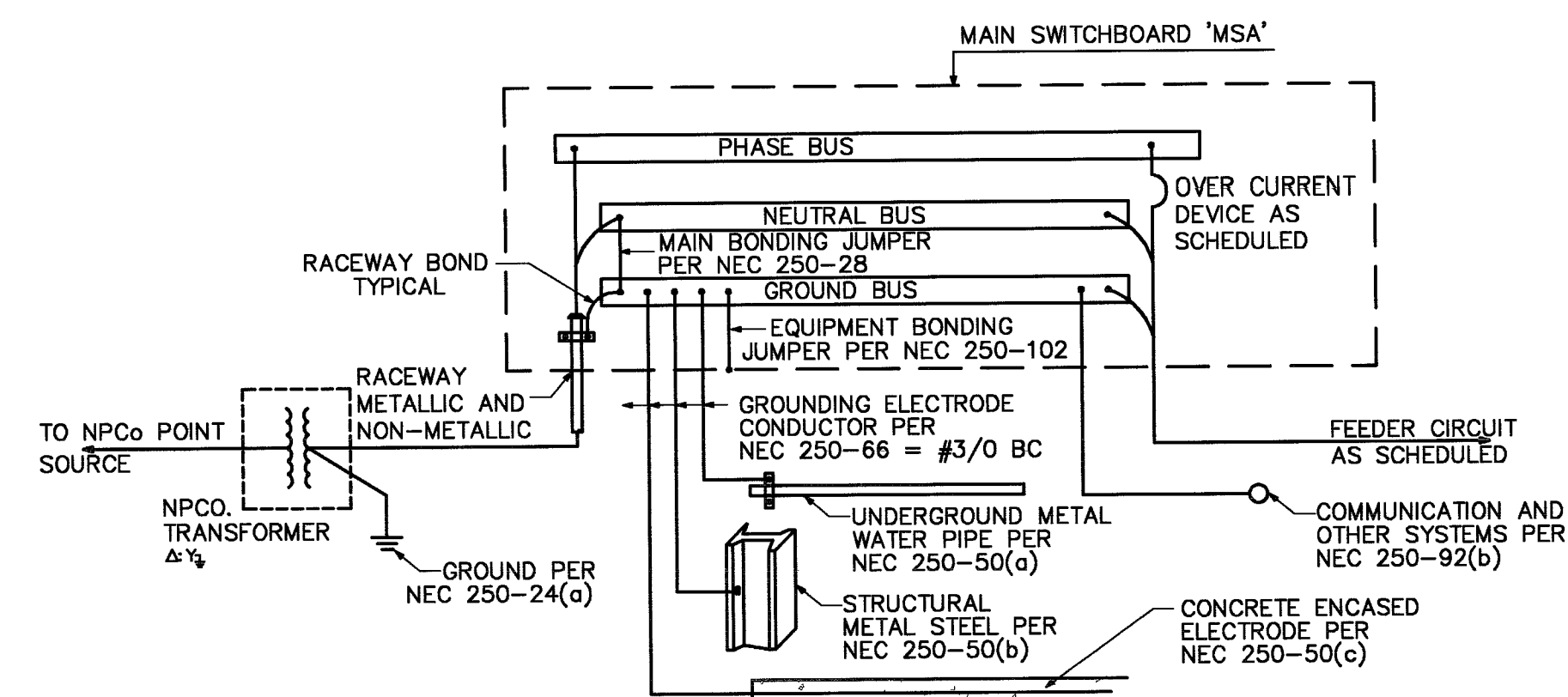
- ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT SHALL HAVE A HOUSEKEEPING PAD.
- CONTRACTOR SHALL CONFIRM EXACT SERVICE REQUIREMENTS WITH UTILITY COMPANY SERVICE PLANNER PRIOR TO ORDERING ANY EQUIPMENT AND SHALL PROVIDE ALL MATERIAL AND EQUIPMENT PER FINAL APPROVED SERVICE PLAN DRAWINGS.
- ALL ELECTRICAL SYSTEMS SHALL BE CONSTRUCTED PER THE NATIONAL ELECTRICAL CODE. WHERE REGULATIONS APPLY, CONSTRUCTION SHALL MEET REQUIREMENTS OF SERVING UTILITY.
- ALL ELECTRICAL EQUIPMENT AND DEVICES SHALL BE FULLY RATED TO WITHSTAND THE AVAILABLE FAULT CURRENT.
- ALL CONDUIT AND CONDUCTORS SHOWN SHALL NOT BE ROUTED EXPOSED TO AMBIENT CONDITIONS.
- PROVIDE LOCK OUT CAPABILITY ON ALL MOTOR STARTERS AND FEEDERS FOR MAINTENANCE.
- VERIFY EXACT REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SUBMITTED MECHANICAL EQUIPMENT PRIOR TO ROUGH-IN.
- PROVIDE BUSSED SPACE IN ALL ELECTRICAL DISTRIBUTION EQUIPMENT.

SHEET NOTES

- PROVIDE TRANSFORMER PAD PER NPCo. REQUIREMENTS.
- PROVIDE GROUND ROD.
- 3/4" - #3/0 STRANDED BC.
- BUSMANN POWER MODULE WITH FUSIBLE DISCONNECT SWITCH, SHUNT TRIP ATTACHMENT, CONTROL POWER TRANSFORMER, AND FIRE ALARM INTERFACE CONNECTION POINT. PROVIDE 208 VOLT CONNECTION TO ELEVATOR MOTOR. PROVIDE 3/4" EC TO FIRE ALARM CONTROL PANEL 'FACP2' FOR RECALL SIGNAL. COORDINATE LOCATION AND EXACT REQUIREMENTS OF ELEVATOR SWITCH WITH ELEVATOR SHOP DRAWINGS AND ELEVATOR CONTRACTOR PRIOR TO ROUGH-IN.
- PROVIDE #6 AWG GROUND PER NEC 250.122 AND NEC 430 REQUIREMENTS.

DATE:	9/11/2003	SERVICE VOLTAGE:	208/120V	
JOB:	CLV DOWNTOWN SENIOR CENTER	PHASE & WIRE:	3ø, 4W	
SERVICE DESIGNATION:	MS2	SERVICE SIZE (AMPS):	1000	
LOAD	CALCULATION	TOTAL LOAD (VA)	DEMAND FACTOR	TOTAL DEMAND (VA)
LIGHTING	13132 f12 @ 3.5 VA/f12	45,962	1.25	57,453
RECEPTACLES	13132 f12 @ 2 VA/f12			
	FIRST 10000 VA		1.00	10,000
	REMAINDER 16264 VA		0.50	8,132
HVAC EQUIPMENT	66 TONS @ 2160 VA/TON	142,560	1.00	142,560
ELEVATORS	EST @ 20HP19500 VA	19,500	1.00	19,500
25% LARGEST MOTOR	19500 VA		0.25	4,875
CONNECTED LOAD	242.52 KVA	673.2 A		
FUTURE CAPACITY (25%)	60.63 KVA	168.3 A		
TOTAL CALCULATED LOAD	303.15 KVA	841.5 A		

DATE:	9/11/2003		SERVICE VOLTAGE:	208/120V	
JOB:	CLV DOWNTOWN SENIOR CENTER		PHASE & WIRE:	3φ,4W	
SERVICE DESIGNATION:	MS3		SERVICE SIZE (AMPS):	600	
LOAD	CALCULATION		TOTAL LOAD (VA)	DEMAND FACTOR	TOTAL DEMAND (VA)
LIGHTING	7376 f12 Ⓢ	3.5 VA/f12	25,816	1.25	32,270
RECEPTACLES	7376 f12 Ⓢ	2 VA/f12			
	FIRST	10000 VA		1.00	10,000
	REMAINDER	4752 VA		0.50	2,376
HVAC EQUIPMENT	37 TONS Ⓢ	2160 VA/TON	79,920	1.00	79,920
25% LARGEST MOTOR		19500 VA		0.25	4,875
CONNECTED LOAD	129.44 KVA		359.3 A		
FUTURE CAPACITY (25%)	32.36 KVA		89.8 A		
TOTAL CALCULATED LOAD	161.80 KVA		449.1 A		



MAIN SERVICE SWITCHBOARD GROUNDING

NO SCALE

RECORD DRAWINGS
 Date 01/25/08 This record drawing has been prepared in part, based upon information furnished by others. While this information is believed to be reliable, Harris Consulting Engineers LLC cannot assure its accuracy, and 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. Those relying on this record drawing are advised to obtain independent verification of its accuracy before applying it for any purposes.

PROJECT NO: 23154-30
 DESIGNED BY: S. PAY
 CHECKED BY: E. WISENHUNT
 DRAWN BY: R. PUERNER
 PNC: G. GOINS

5-21-04 PLAN CHECK

01-25-08 RECORD DRAWING

CONSTANT

JMA ARCHITECTURE STUDIOS

15150 CONTINENTAL CROSS DRIVE LAS VEGAS, NEVADA 89144 (702) 731-1000

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DEPARTMENT OF PUBLIC WORKS

ARCHITECTURAL SERVICES

OWNER: CITY OF LAS VEGAS

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DRAWN: R. PUERNER

FILE: E5.01.DWG

DATE: September 8, 2004

SCALE: NONE

NO NO: 04.03.01

CLV DWS NO: 501-281

ELECTRICAL SINGLE LINE DIAGRAM

NO NO:

E5.01