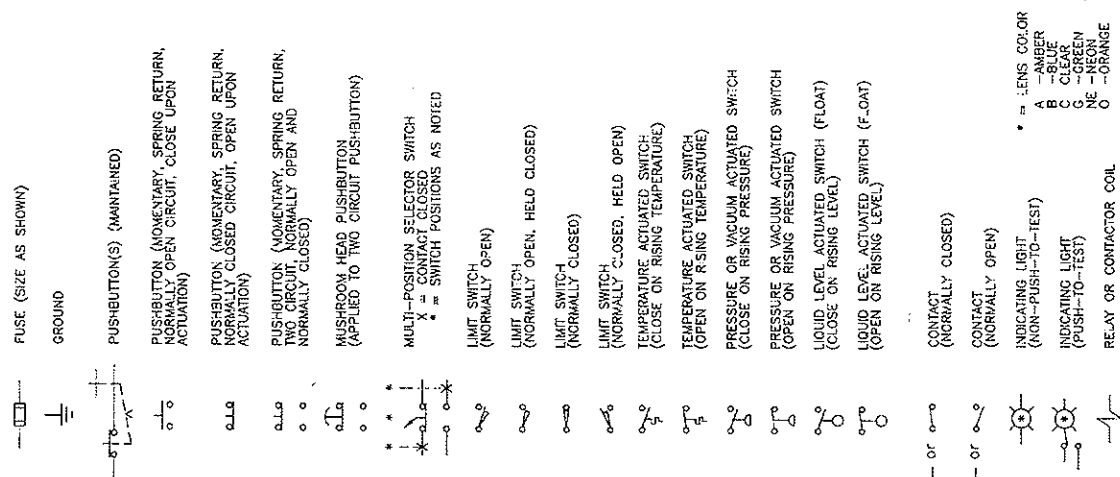


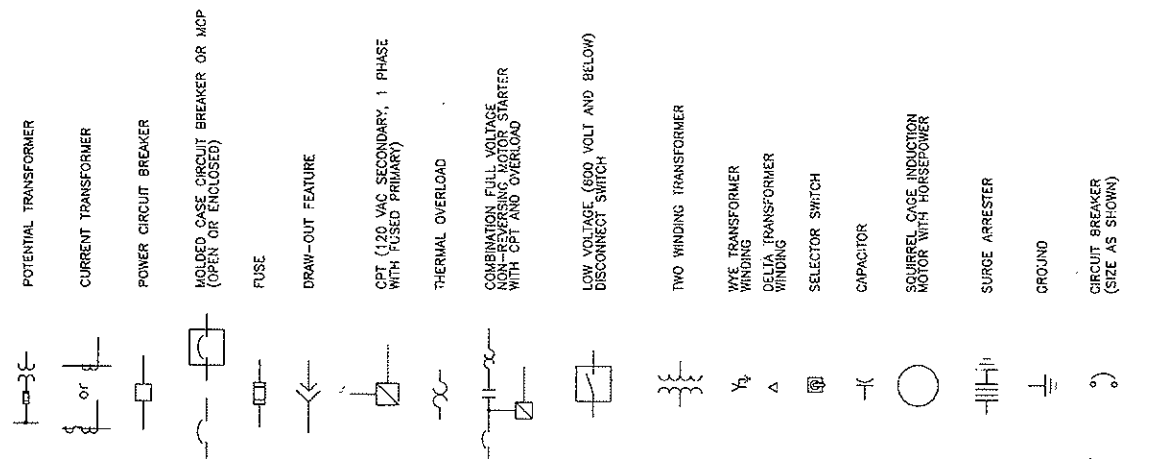
SYMBOLS

ELEMENTARY DIAGRAM SYMBOLS

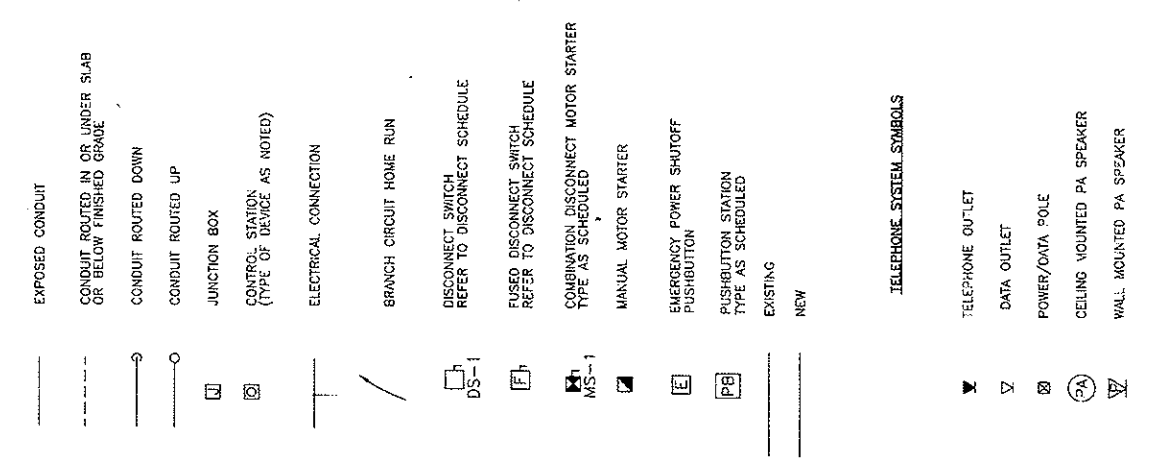
NOTE: UNLESS OTHERWISE NOTED, ALL SWITCHES AND CONTACTS ARE SHOWN WITH ACTUATING DEVICES IN THE DE-ENERGIZED, OR NON-OPERATED POSITION



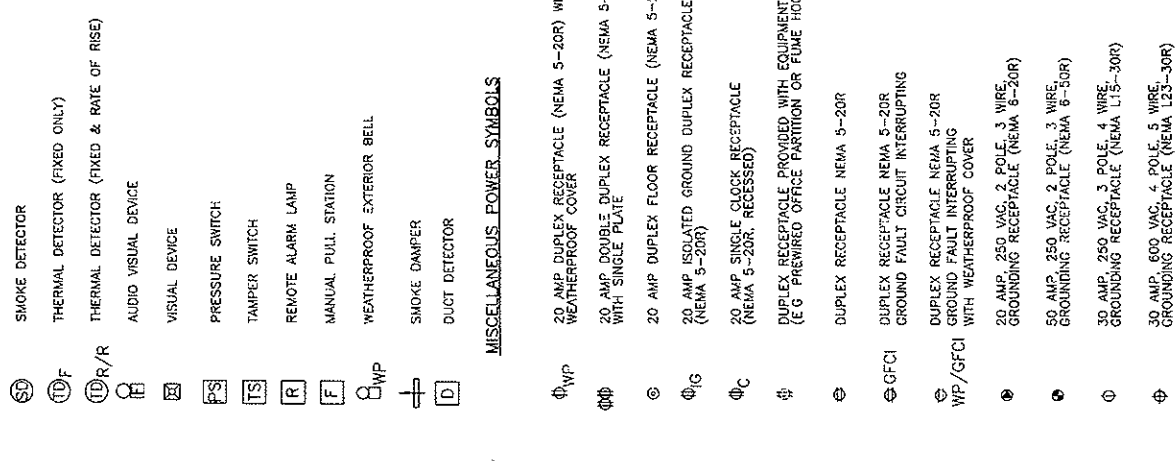
ONE-LINE DIAGRAM SYMBOLS



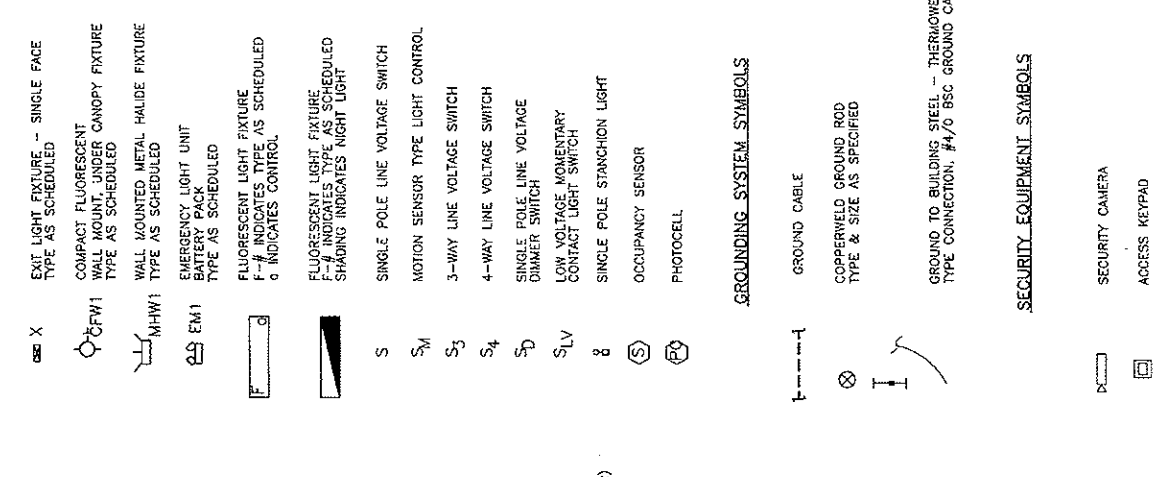
GENERAL ELECTRICAL SYMBOLS



FIRE ALARM SYSTEM SYMBOLS



LIGHTING SYSTEM SYMBOLS



REVISIONS

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SHEET E-1

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PROJECT

POWER PLAN
 FIRST FLOOR

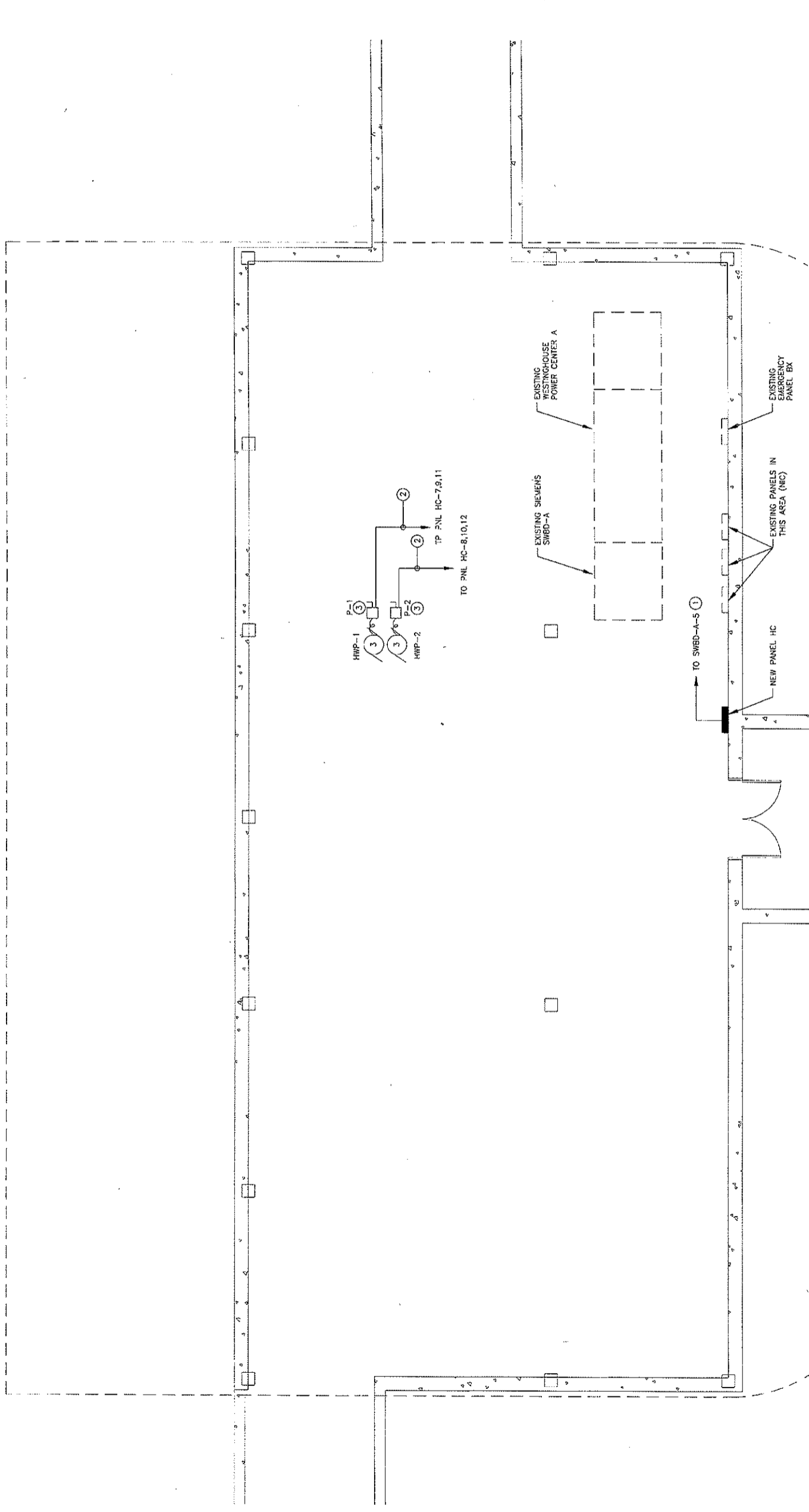
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 PROJECT NO. 39930
 FILE NO. 39930E3

SHEET E-3

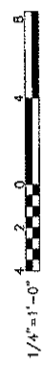


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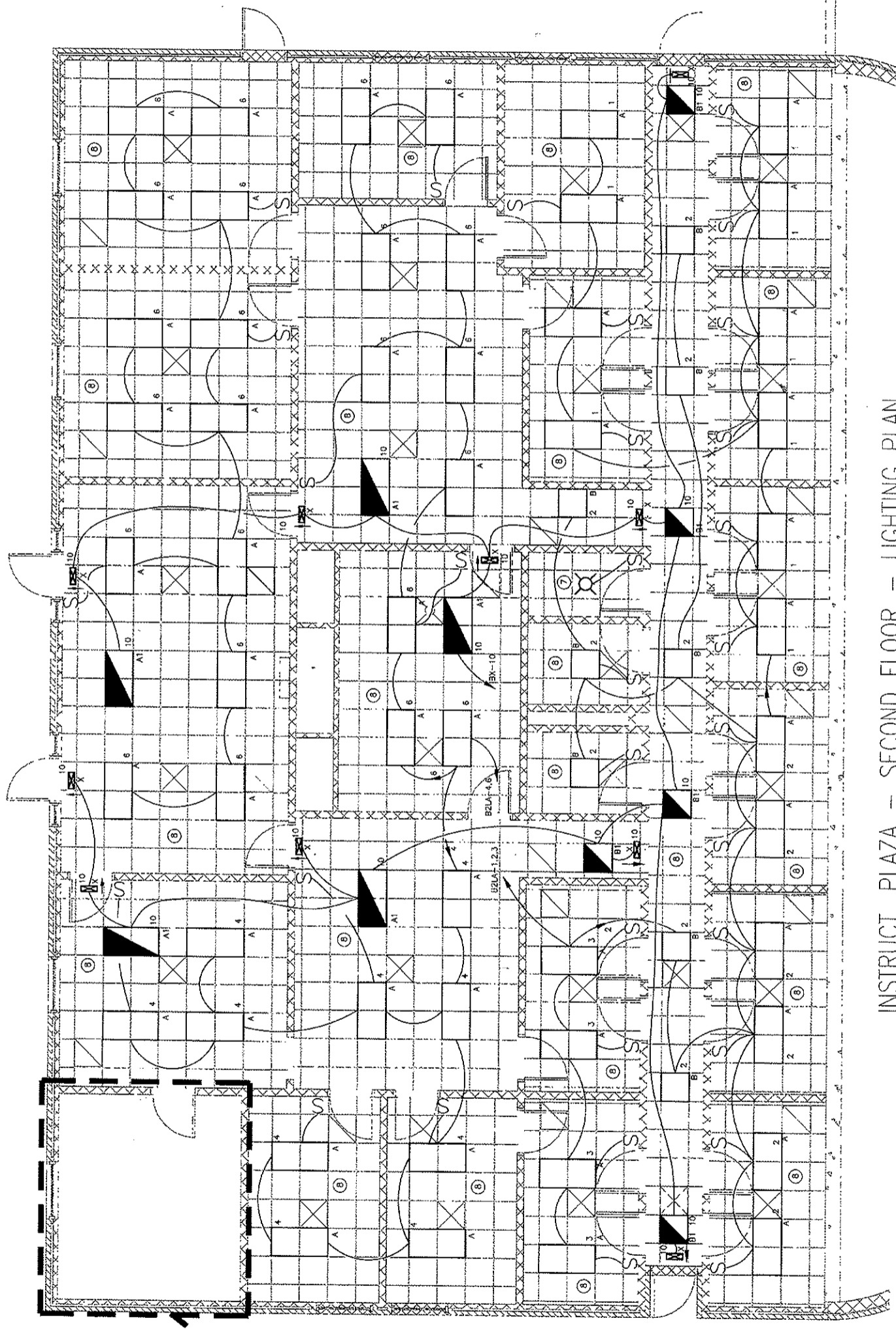


POWER PLAN - FIRST FLOOR

- NOTES:
- 1 PROVIDE NEW 100A BREAKER AT SWBD A-5 SPACE BREAKER SHALL MATCH EXISTING BOARD A/C SHORT CIRCUIT RATING WIRING AND CONDUIT SHALL BE 3/2" & 1/2" C, METALLIC EMT
 - 2 PUMP FEEDERS WIRING & CONDUIT SHALL BE 3/4" & 1/2" GND - 3/4" C EACH TO NEW PANEL HC
 - 3 REFER TO DISCONNECT SCHEDULE, SHT-E-5



NO WORK IN THIS ROOM



INSTRUCT. PLAZA - SECOND FLOOR - LIGHTING PLAN

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	TYPICAL APPLICATION (FOR INFORMATION ONLY)	QUANTITY	LAMPS TYPE	VOLTAGE	MANUFACTURER #1 - MODEL	REMARKS
A	18 CELL PARABOLIC TROFFER 2x4	RECESSED MOUNT	3	32W/8	277	LITHONIA #ZPH06302 18L5 1/3	
A1	SAME AS ABOVE EXCEPT ON EMERGENCY CIRCUIT						
B	12 CELL PARABOLIC 2x2	RECESSED MOUNT	3	17W/8	277	LITHONIA #ZPH0317 12L5	
B1	SAME AS ABOVE EXCEPT ON EMERGENCY CIRCUIT						
C	INDUSTRIAL FLUORESCENT STRIP	HUNG FROM CEILING	3	32W/8	277	LITHONIA UN332 1/3	MH=10", COLOR WHITE
C1	SAME AS ABOVE EXCEPT ON EMERGENCY CIRCUIT						
D	OUTDOOR WALL PACK	WALL MOUNT	3	E-17	277	LITHONIA TWR 150 277 5F, PE, RHP, LPI	MH=10", PHOTCELL
X	EXIT LIGHT, SINGLE FACE	CEILING MOUNT	1	LED	277	LITHONIA 50P W 1 GW LDA 277 TM	LED ON EMERGENCY GENERATOR

- NOTES:**
- ALL NORMAL POWER LIGHTING FIXTURES SHALL BE WIRED TO PANEL B2LA TO EXISTING CIRCUIT BREAKERS AS SHOWN
 - ALL EMERGENCY LIGHTING SHALL BE WIRED TO PANEL BX IN THE MECHANICAL ROOM, FIRST FLOOR, CIRCUIT AS SHOWN
 - ALL EXISTING LIGHTING CIRCUITS SHALL BE REPLACED WITH NEW 12 AWG IN EXISTING CONDUIT PROVIDE NEW CONDUIT AND WIRING AS REQUIRED TO CONNECT ALL FIXTURES
 - ALL WIRING ABOVE THE CEILING SHALL BE IN METALLIC CONDUIT OR PLENUM RATED NO OTHER WIRING INSTALLATION SHALL BE APPROVED ABOVE THE CEILING SHOULD THE CONTRACTOR ENCOUNTER ANY WIRING ASSEMBLY NOT MEETING THIS REQUIREMENT, IT WILL BE CONSIDERED AS PART OF THIS SCOPE FOR HIM TO NOTIFY THE OWNER AND THE ENGINEER OF THIS CONDITION
 - THE SCOPE OF THIS PROJECT EXCLUDED FIRE ALARM SYSTEMS OR DEVICES- THESE WILL BE DONE BY THE OWNER UNDER A SEPARATE CONTRACT
 - ALL MANUFACTURER'S AND CATALOG NUMBERS ARE SUBJECT TO BE CONSIDERED AS EQUAL TO OTHER COMPETITIVE BRANDS
 - REPLACE EXISTING 150W LAMP WITH EQUIVALENT 150W SCREW-IN SPIRAL, WARM WHITE FLUORESCENT LAMP
 - ALL SWITCHING SHALL BE REPLACED IN SAME LOCATION PROVIDE NEW SWITCH & REWIRE WITH NEW CONDUCTORS PER EXISTING CONNECTION / SWITCHING PATTERN
- DEMOLITION NOTES:**
- ALL EXISTING LIGHT FIXTURES SHALL BE REMOVED, CLEANED, AND TURNED OVER TO UGA
 - ALL EXISTING ELECTRICAL WIRING RELATED TO EXISTING LIGHTING SHALL BE REMOVED BACK TO ITS SOURCE PANEL

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 FILE NO.: 39930E-4

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SECOND FLOOR LIGHTING PLAN

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PROJECT

ELECTRICAL
 RISERS & DETAILS

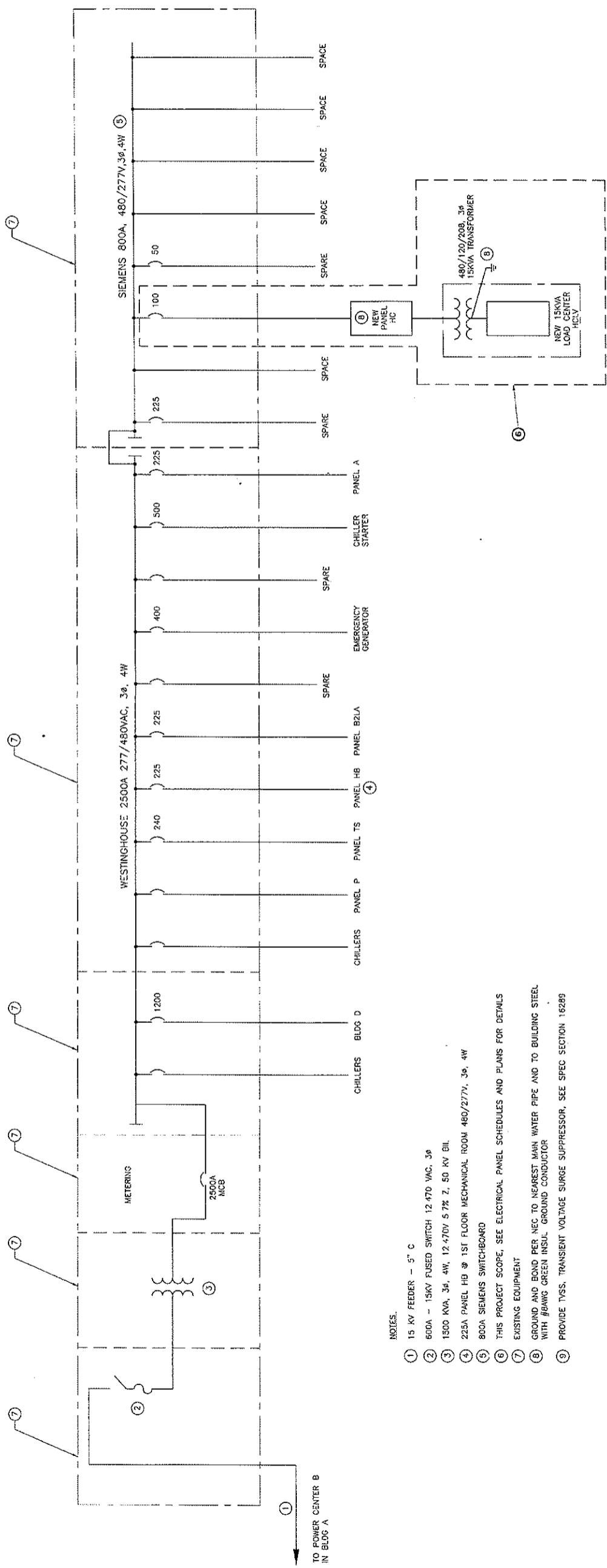
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 FILE NO.: 39930E7

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- NOTES:
- 15 KV FEEDER - 5" C
 - 600A - 15KV FUSED SWITCH 12.470 VAC, 3Ø
 - 1500 KVA, 3Ø, 4W, 12.470V 5 7/8", 50 KV BIL
 - 225A PANEL HB @ 1ST FLOOR MECHANICAL ROOM 480/277V, 3Ø, 4W
 - 800A SIEMENS SWITCHBOARD
 - THIS PROJECT SCOPE, SEE ELECTRICAL PANEL SCHEDULES AND PLANS FOR DETAILS
 - EXISTING EQUIPMENT
 - GROUND AND BOND PER NEC TO NEAREST MAIN WATER PIPE AND TO BUILDING STEEL WITH #8AWG GREEN INSUL GROUND CONDUCTOR
 - PROVIDE TVSS, TRANSIENT VOLTAGE SURGE SUPPRESSOR, SEE SPEC SECTION 16289

BUILDING B -- ELECTRICAL RISER DIAGRAM

UGA INSTRUCTIONAL PLAZA PROJECT LOAD SUMMARY			
ITEM	EXISTING KVA	DELETED NEW KVA	ADDED NEW KVA
LIGHTING	11.64	7.32	4.32
HVAC	10.3	25	14.7
NET LOAD INCREASE		32.32	10.38

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EXISTING SWITCHBOARD A		LOCATION BUILDING B, MECHANICAL BASEMENT	
UNIT	MINIMUM ALC	60,000	
AD	INCUMING FROM POWER CENTER A	800	3
D2	CHILLER STARTER	500	3
D3	PANEL A (1/2 SP)	225	3
D3	SPARE (1/2 SP)	225	3
D4	NEW PANEL HC	100	3
D4	SPACE (1/2 SP)	50	3
TOTAL CONN LOAD (KVA)		352.97	
TOTAL DEMAND LOAD (A)		424.57	
SWBD CAPACITY (KVA)		650	
EXISTING LOAD (KVA)		353	
REMAINING CAPACITY (KVA)		312	

EXISTING SWITCHBOARD A

NEW DISTRIBUTION PANEL HC		LOCATION: WALL IN NEW MEDICAL ROOM	
BOLT-ON CBS		AS NOTED	
TYPE	277480 V/3PH/4W	BRANCHES	60 A
SERVICE	100 AMPS	BUSSES	TOP (LOAD CENTER)
WMS	100 AMPS	FEED	
CABINET	NEW	AC (AMPS)	10,000 A SHORT CIRCUIT CAPACITY
LOAD DESCRIPTION*	TRIP POLE CD	TRIP	LOAD DESCRIPTION
UHL-1012	20 1 1 2	3	20 EF-1, EF-2
HVAC CTL PNL 2ND FLR	20 1 3 3	4	20 SPARE
Spare	20 1 5	5	20 RECEPT MECH & STORAGE
Spare	20 1 7	6	20 Spare
Spare	20 1 9	8	20 Spare
Spare	20 1 11	10	20 Spare
Spare	20 1 13	12	20 Spare
Spare	20 1 15	14	20 Spare
Spare	20 1 17	16	20 Spare
TOTAL PHASE VA		135	0.72
TOTAL KVA		337	
MAXIMUM CONNECTED AMPS		11	
PHASE VOLTAGE		120	

DC	Load Type	Load (kVA)	DF Multiplier	Demand (kA)
0	Spare			
1	Lighting	0.53	1.25	0.66
2	Heat	2.02	1	2.02
3	A/C Conditioning	0.72	1.25	0.90
4	Receptacles	0.72	1	0.72
5	Misc Cont Loads	1.26	1	1.26
6	Misc non-cont loads			
7	Misc non-cont loads			
TOTALS				3.27

NEW PANEL HCLV

NEW DISTRIBUTION PANEL HC		LOCATION: BRANCHES	
BOLT-ON CBS		AS NOTED	
TYPE	277480 V/3PH/4W	BRANCHES	100 A
SERVICE	100 AMPS	BUSSES	BOTTOM
WMS	100 AMPS	FEED	
CABINET	NEW	AC (AMPS)	35,000 A SHORT CIRCUIT CAPACITY
LOAD DESCRIPTION*	TRIP POLE CD	TRIP	LOAD DESCRIPTION
PUL 2, 10B, 11B, 2A, 2B, 3 (2nd fl)	20 1 1 3	3	20 AHU 2A (2nd fl Mech Rm)
PUL 4, 5, 8, 12A, 12B (2nd fl)	20 1 3 3	4	20 Spare
PUL 6, 11A, 10A (2nd fl)	20 1 5 3	5	20 Spare
HWP-1 (1st fl)	20 3 7 2	6	20 HWP-2 (1st fl)
	20 9 2	7	20 Spare
	20 11 2	8	20 Spare
1st floor lighting, mechanical rooms	20 1 13 1	9	20 Spare
Ls for Pnl HCLV (2nd fl Rm)	20 3 15 6	10	20 Spare
	20 17 6	11	20 Spare
Spare	20 1 21	12	20 Spare
Spare	20 1 23	13	20 Spare
Spare	20 1 25	14	20 Spare
Spare	20 1 27	15	20 Spare
Spare	20 1 29	16	20 Spare
TOTAL PHASE VA		14.88	11.87
TOTAL KVA		49.85	
MAXIMUM CONNECTED AMPS		53	
PHASE VOLTAGE		277	

DC	Load Type	Load (kVA)	DF Multiplier	Demand (kA)
0	Spare			
1	Lighting	0.60	1.25	0.75
2	Heat	7.08	1	7.08
3	A/C Conditioning	17.07	1.25	21.34
4	Receptacles	0.00	1	0.00
5	Misc Cont Loads	16.00	1	16.00
6	Misc non-cont loads			
7	Misc non-cont loads			
TOTALS				44.35

NEW DISTRIBUTION PANEL HC

EXISTING PANEL BX (EMERGENCY)		LOCATION: LEVEL 1, IN SPACE BEHIND POWER CTR A	
BOLT-ON CBS		AS NOTED	
TYPE	277480 V/3PH/4W	BRANCHES	225 A
SERVICE	225 AMPS	BUSSES	TOP
WMS	225 AMPS	FEED	
CABINET	NEW	AC (AMPS)	14,000 A SHORT CIRCUIT CAPACITY
LOAD DESCRIPTION*	TRIP POLE CD	TRIP	LOAD DESCRIPTION
Control Room, Pnl Low	20 1 1 1	1	20 Spare
2nd floor emergency lighting	20 1 3 1	2	20 Spare
Spine	20 1 5	3	20 Spare
Telephone Stand Outlets	20 1 7 6	4	20 Spare
Spare	20 1 9	5	20 Spare
Spare	20 1 11	6	20 Spare
Spare	20 1 13 6	7	20 Spare
Fire Alarm Power	20 1 15 0	8	20 Spare
Fire Alarm Power	20 1 17 0	9	20 Spare
Spare	20 1 19	10	20 Spare
Spare	20 1 21	11	20 Spare
Spare	20 1 23	12	20 Spare
TOTAL PHASE VA		8.8	10
TOTAL KVA		38.89	
MAXIMUM CONNECTED AMPS		36	
PHASE VOLTAGE		277	

EXISTING PANEL BX (EMERGENCY)

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