



**SPECIFICATIONS**

**FOR**

**EQUIPMENT AND INSTALLATION**

**OF**

**UNINTERRUPTIBLE POWER SYSTEM**

**FOR**

**THE CITY OF LAGRANGE**  
**LAGRANGE TECHNOLOGY CENTER**  
**309 CHURCH ST**  
**LAGRANGE, GEORGIA**



## Part A: UPS Equipment

### Scope of work:

1. Vendor shall provide all materials & equipment required to perform the work detailed in this document and the attached drawings. All discrepancies shall be brought to the prompt attention of the engineer. The following is a list of equipment and services to be provided. While it identifies what is needed, it may not be all inclusive of the services, equipment and materials required to successfully complete the Project. Vendors are requested to provide a complete scope of services, equipment and materials needed to complete the Project in order to minimize Change Orders and allow the City to properly compare the services being offered by competing contractors.
2. Provide, at a minimum, the following list of equipment:
  - Qty 1 Eaton 93PM Three-Phase UPS System consisting of:
    - 100kVA/kW
    - (3) 50kW Power modules for N+1 Redundancy
    - Input: 480VAC Three-Phase Three-Wire + Ground
    - Output: 5 circuits 120/208VAC Three-Phase, Four-Wire + Ground
    - Utilize existing, external, maintenance bypass switch (See Drawing E1.3 Panel #8)
    - Communications: Power Xpert Network Communication Cards
    - Online Reverse Transfer Configuration 97% Efficiency in Double Conversion Mode
    - 6 pulse phase-controlled rectifier/charger & 6-Step/PWM 3-Level Transistorized Invertor
    - Input Filter with 4.6% THD at full output load
    - Automatic static transfer switch with redundant cooling fans
    - Microprocessor based monitoring with LCD display & autodial critical reporting.
  - Qty 1 Eaton 93PM Battery Pack System
    - Runtime: 20 min @ 100kW load
    - One String / One Cabinet
    - Battery Type: lead-acid (VRLA) Eaton 12V 540W PWHR12540W4FR
  - Qty 1 Eaton 93PM Integrated Distribution Accessory Cabinet (IAC-D)
    - Transformer Type: 100kVA / K13
    - Primary/Secondary Voltages: 480Delta – 120/208WYE
    - Five 250A Adjustable Trip Output Breakers
    - Integrated Input Circuit Breaker
    - Integrated Cabling for Line-and-Match Installations



## Part A: UPS Equipment

3. Vendor shall coordinate delivery with contractor on Part B.
4. Vendor shall furnish all drawings and manuals required to install UPS system.
5. Vendor shall perform a test and turn-up of UPS system to include 4-hour loadbank testing and full battery discharge test.
6. Vendor shall warranty all parts & labor for 3 years.
7. Vendor shall provide a biannual maintenance inspection and 24x7 emergency on-call coverage of UPS to include:
  - a. Perform transfer to and from bypass
  - b. Visually inspect
    - i. the proper operation of all cooling fans
    - ii. all power connections
    - iii. battery system
    - iv. jars/cells, looking for abnormalities
  - c. Measure Input voltage, current, real & apparent power
  - d. Measure Output voltage, current, real & apparent power
  - e. Measure Bypass voltage and Invertor voltage
  - f. Measure System KVA/KW
  - g. Download and evaluate alarm history
  - h. Measure Battery Charger output current and voltage
  - i. Check Batteries:
    - i. Battery date code, estimate expected remaining life
    - ii. Temperature of negative terminal
    - iii. Inspect battery monitoring equipment
    - iv. Inspect batteries for corrosion
    - v. Load test batteries
    - vi. Measure Cell/Jar open and float voltages
    - vii. Measure Internal resistance/impedance
    - viii. Re-torque as necessary
  - j. State all problems found



## Part B: UPS Installation

### Scope of work:

1. Contractor shall work with successful bidder of Part A: UPS equipment to coordinate delivery, test, and turn-up of UPS.
2. Contractor shall provide all materials & equipment required to perform the work detailed in this document and the attached drawings. All discrepancies shall be brought to the prompt attention of the engineer. The following is a list of materials and services to be provided. While it identifies what is needed, it may not be all inclusive of the scope and materials required to successfully complete the Project. Contractors are requested to provide a complete scope of services and materials needed to complete the Project in order to minimize Change Orders and allow the City to properly compare the services being offered by competing contractors.

3. Provide, at a minimum, the following list of materials:

Qty 3 - Square D Panelboard NQ442L2-PNLBD INT NQ 225A MLO 42 CKT 3P AL

208Y/120V 3 Ph 4W 60Hz SCCR:65kA

Feeders Rated w/QG Circuit Breaker

Single Main: 225A/3P QG Circuit Breaker

Incoming Conductors: #4 – 300kcmil

AL Ground Bar

Bus: 225A Rated Aluminum: Tin Plated

42 Circuit Interior, Type 1 Box, 50H x 20W x 5.75D

Box Cat No: MH50 Front Cat No: NC50S

Feeders:

Qty 84 – 20A/1P QOB

Qty 15 – 30A/2P QOB

Qty 5 – 50A/2P QOB

Qty 3 – Eaton 200A breakers (MIS, BIB, MBB) 225AF/200AT HFD 65k

for installation in Pow-R-Line Panelboard Type PRL-4B 10 480V 3 Ph 4W 225A Panel

Qty 1 – Square D 200A breaker

for installation in Square D Panelboard Cat #HCW50868 600VAC 800A

All Conduit, wire, and hardware to complete scope of work.

4. The contractor shall perform the work in Phases in order to minimize downtime to customers. Hot cuts will be scheduled at least one week in advance. Coordinate all work and project schedules with the project engineer. Contractor should verify all steps listed under each phase prior to execution.
5. All panelboards and breakers removed in this project will be returned to the City storage room for use on the next project.

### Phase 1

6. Remove existing Liebert AP346 UPS and properly dispose of batteries.



## Part B: UPS Installation

7. Change breakers in Panel #2 & Panel #8 from 150A to 200A. Check wire size between panels. If not 3/0 copper, pull new wire.
8. Remove wiring to all breakers in UPS-B Main Panel except breakers 1-3, 9, 27, 36/38, which are hot and should be the only breakers that are ON. Verify this before proceeding. Label each wire as shown in drawing E1.6.
9. Move **hot** customers from Panel UPS-B-SP1 to UPS-B Main Panel (E1.7). (Scheduled window required during normal business hours.)
  - a. Remove wire from SP1-7 and terminate on UPS-B-Main-7. Label "#8 Radio Cage 1."
  - b. Remove wire from SP1-15 and terminate on UPS-B-Main-11. Label "#45 CPAK Cage 6."
  - c. Remove wire from SP1-20 and terminate on UPS-B-Main-13. Label "#42 CBT Cage 3."
  - d. Remove wire from SP1-17 and terminate on UPS-B-Main-15. Label "#44 CBT Cage 3."
10. Verify all remaining breakers in panel SP1 are off.
11. Turn off breaker UPS-B-Main-1/2/3 (Feed to SP1).
12. Remove all wiring from SP1, label all wires as shown on E1.6.
13. Remove Panel UPS-B-SP1 and associated conduit & wiring.
14. Install a new Square D Panelboard in the same location and label as UPS-B-1.
15. Coordinate delivery of UPS and install in electrical room.
16. Wire UPS to Panel #8. (See E1.3)
17. Install conduit and wire from UPSB IAC-D Circuit 1 (Cabinet #7) to Panel UPS-B-1 in caged colo room.
18. Coordinate test & turn-up of UPS with vendor awarded in Part A: UPS Equipment.

### Phase 2

19. Move **hot** customers from Panel UPS-B-SP2 & UPS-B Main to Panel UPS-B-1 (E1.7) (Scheduled window required during normal business hours.)
  - a. Remove wire from UPS-B-Main-7 and terminate on UPS-B-1-7 Label "Caged Colo Wall."
  - b. Remove wire from UPS-B-Main-9 and terminate on UPS-B-1-9. Label "#8 Radio Cage 1."
  - c. Remove wire from UPS-B-Main-11 and terminate on UPS-B-1-25. Label "#45 CPAK Cage 6."
  - d. Remove wire from UPS-B-Main-13 and terminate on UPS-B-1-13. Label "#42 CBT Cage 3."
  - e. Remove wire from UPS-B-Main-15 and terminate on UPS-B-1-15. Label "#44 CBT Cage 3."
  - f. Remove wire from UPS-B-Main-27 and terminate on UPS-B-1-27. Label "#TelecomX #27."
  - g. Remove wire from UPS-B-Main-36/38 and terminate on UPS-B-1-36/38. Label "#College Cage 2 B-1-36/38."
  - h. Remove wire from UPS-B-SP2-1 and terminate on UPS-B-1-1. Label "City Telecom #1."
  - i. Remove wire from UPS-B-SP2-3 and terminate on UPS-B-1-3. Label "City Telecom #3."
  - j. Remove wire from UPS-B-SP2-26 and terminate on UPS-B-1-5. Label "City Telecom #26."
  - k. Remove wire from UPS-B-SP2-13 and terminate on UPS-B-1-2. Label "IT Cage 8 #13."
  - l. Remove wire from UPS-B-SP2-15 and terminate on UPS-B-1-4. Label "IT Cage 8 #15."
  - m. Remove wire from UPS-B-SP2-28 and terminate on UPS-B-1-6. Label "IT Cage 8 #28."
  - n. Remove wire from UPS-B-SP2-30 and terminate on UPS-B-1-8. Label "IT Cage 8 #30."
  - o. Remove wire from UPS-B-SP2-32 and terminate on UPS-B-1-10. Label "IT Cage 8 #32."

## Part B: UPS Installation

- p. Remove wire from UPS-B-SP2-34 and terminate on UPS-B-1-12. Label "IT Cage 8 #34."
  - q. Remove wire from UPS-B-SP2-14 and terminate on UPS-B-1-14. Label "Security Panel."
  - r. Remove wire from UPS-B-SP2-17/19 and terminate on UPS-B-1-31/33. Label "City Telecom Eaton48 SP2-17/19."
  - s. Remove wire from UPS-B-SP2-21/23 and terminate on UPS-B-1-35/37. Label "City Telecom Eaton48 SP2-21/23."
  - t. Remove wire from UPS-B-SP2-20/22 and terminate on UPS-B-1-39/41. Label "City Telecom Eaton48 SP2-20/22."
  - u. Remove wire from UPS-B-SP2-16/18 and terminate on UPS-B-1-40/42. Label "IT Cage 8 SP2-16/18."
  - v. Remove wire from UPS-B-SP2-10/12 and terminate on UPS-B-1-32/34. Label "CBT Cage 3 SP2-10/12."
  - w. Remove wire from UPS-B-SP2-5/7 and terminate on UPS-B-1-28/30. Label "CPAK Cage 6 SP2-5/7."
20. Verify that all remaining breakers in Panels UPS-B-Main and SP2 are off. Remove remaining wiring on each panel and label each wire as shown on drawing E1.5.
21. Remove Panels UPS-B-Main and UPS-B-SP2 and associated conduit & wiring.
22. Remove the Manual Transfer Switch (Panel #13) and associated conduit & wiring.

### Phase 3

23. Install a new Square D Panelboard In the same location as UPS-B Main was and label as UPS-B-2.
24. Install conduit and wire from UPSB IAC-D Circuit 2 (Cabinet #7) to Panel UPS-B-2 in caged colo room.
25. Move wire from UPS-B-1-31/33 and terminate on UPS-B-2-39/41. Label "City Telecom Eaton48 SP2-17/19."
26. Terminate remaining wires on Panels UPS-B-1 & UPS-B-2 per drawing E1.8. The only connections left unterminated should be:
- a. TelecomX #28
  - b. TelecomX #30
  - c. #6 BY CAGE 11
  - d. #53 SHARED R19C6
  - e. WGHS A2 B-32/34
  - f. Cage 10 B-SP1-22/24
  - g. Cage 5 B-SP2-2/4
  - h. Cage 11 B-SP2-9/11

### Phase 4

27. Remove all wiring from LP1 and label as shown on E1.8.
28. Install a new Square D Panel in the same location and label as UPS-B-3.
29. Install conduit and wire from UPSB IAC-D Circuit 3 (Cabinet #7) to Panel UPS-B-3 in caged colo room.



## **Part B: UPS Installation**

30. Terminate remaining wires on Panels UPS-B-3 per drawing E1.9.
31. Move wire from B-1-39/41 to B-3-39/41. Label as "Telecom Eaton 48 21/23."

# LAGRANGE TECHNOLOGY CENTER

309 Church St. LaGrange, GA 30240

## PROJECT INFORMATION

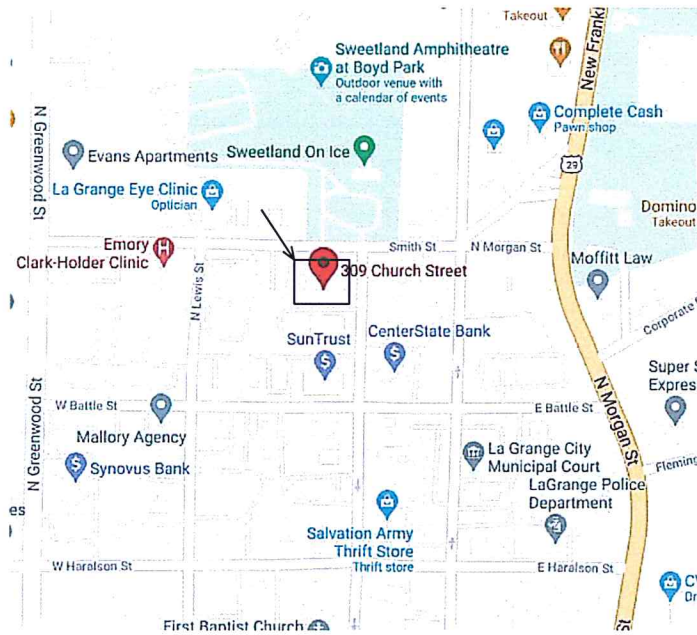
THE SCOPE OF WORK PROVIDED BY THIS PROJECT IS THE REPLACEMENT AND UPGRADE OF A PORTION OF THE UNINTERRUPTIBLE POWER SYSTEM PRESENTLY SERVING THIS FACILITY. ALL WORK SHALL CONFORM TO THE DRAWINGS AND ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES.


### CONTACTS

ENGINEER - MICHELLE HARRY 706-883-2004  
PURCHASING - JEREMY ANDREWS 706-883-2046

## DRAWING INDEX

NO.	TITLE	DATE
E1.0	COVER	9-3-20
E1.1	DATACENTER FLOORPLAN	9-1-20
E1.2	DATACENTER POWER NOW	9-2-20
E1.3	DATACENTER POWER PHASE 1	9-2-20
E1.4	DATACENTER POWER PHASE 2	9-2-20
E1.5	DATACENTER POWER PHASE 3 & 4	9-2-20
E1.6	PANELBOARD SCHEDULE NOW	9-3-20
E1.7	PANELBOARD SCHEDULE PHASE 1	9-17-20
E1.8	PANELBOARD SCHEDULE PHASE 2	9-17-20
E1.9	PANELBOARD SCHEDULE PHASE 3	9-17-20
E1.10	PANELBOARD SCHEDULE PHASE 4	9-18-20



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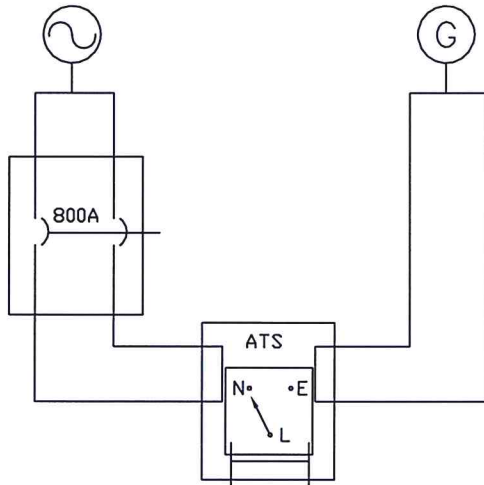




City of LaGrange  
Parallel 400A Feeds

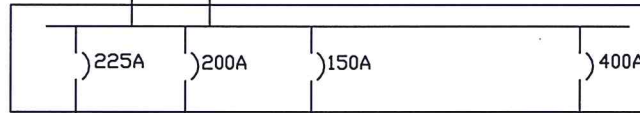
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120V @ 1503.6A

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Square D Safety Switch  
Cat # H367M

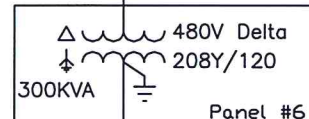


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480 V 3φ 800A

Panel #1  
Cutler-Hammer Panelboard  
PNL Type PRL-2A  
480V 3φ 4W 225A



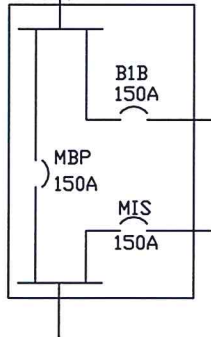
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600VAC 800A



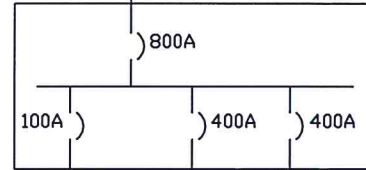
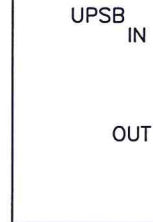
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Cabinets #1-4  
Eaton 93PM UPS  
IN 480VAC 100kW  
OUT 208/120VAC 100kW

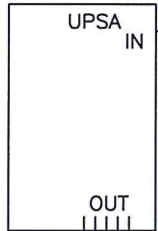
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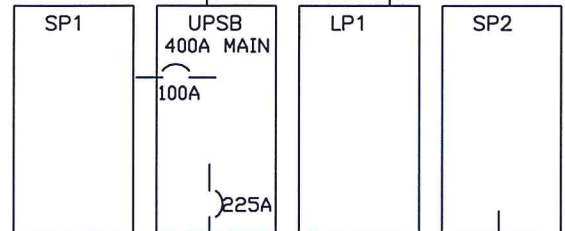
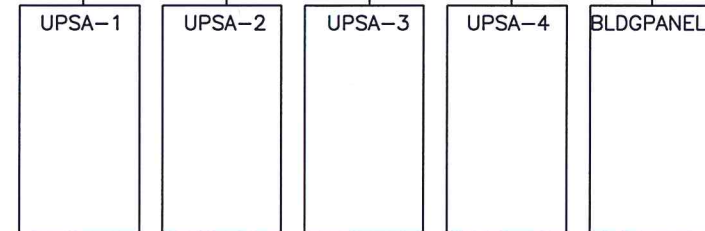
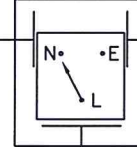
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OUT 208V 111A 32kW



Panel #7  
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Cat # HCW36868M  
600VAC 800A



Panel #13  
Manual Transfer Switch



No.	DATE	BY	REVISION	DESCRIPTION		
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**LaGrange Georgia**  
SMART MOVE®

City of LaGrange  
Parallel 400A feeds

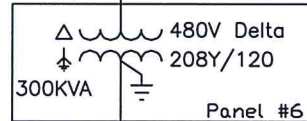
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120V @ 1503.6A

Panel #4  
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Cat # H367M

Panel #3  
powerCommand Transfer  
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600VAC 800A

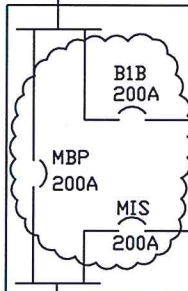
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PNL Type PRL-2A  
480V 3φ 4W 225A



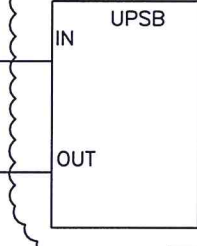
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Distribution Transformer  
Cat #V48M28T33K  
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Cabinets #1-4  
Eaton 93PM UPS  
IN 480VAC 100kW  
OUT 208/120VAC 100kW

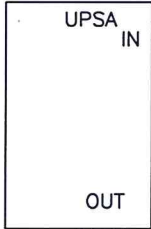
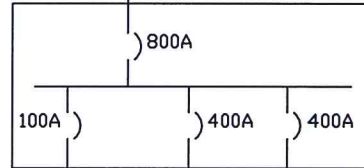
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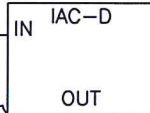
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480VAC 100kW



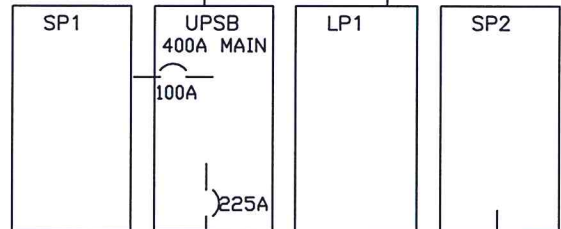
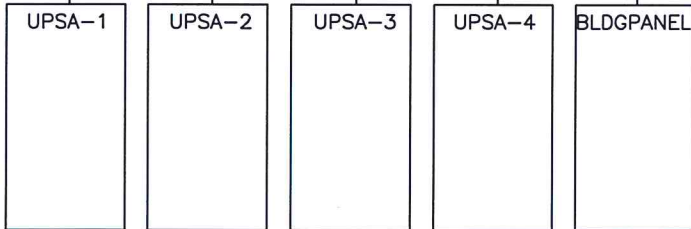
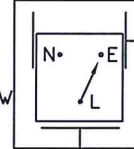
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Cat # HCW36868M  
600VAC 800A



Cabinets #7  
Eaton IAC-D  
IN 480VAC 100kW  
OUT 208/120VAC 100kW



Panel #13  
Manual Transfer Switch

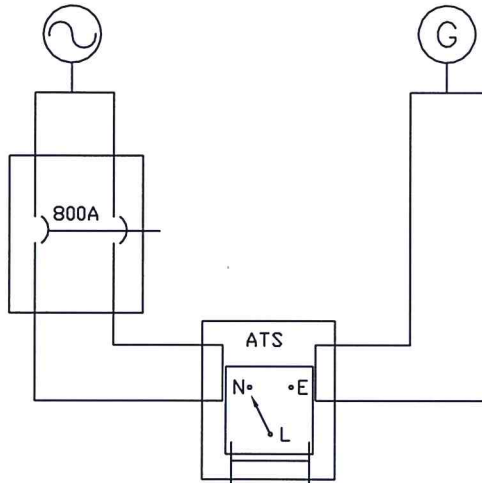


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					<b>SMART MOVE</b> ®	

City of LaGrange  
Parallel 400A feeds

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120V @ 1503.6A

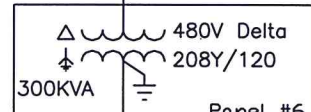
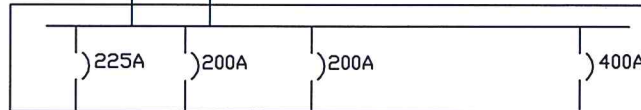
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Cat # H367M



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480 V 3φ 800A

Panel #2  
Square D Panelboard  
Cat # HCW50868  
600VAC 800A

Panel #1  
Cutler-Hammer Panelboard  
PNL Type PRL-2A  
480V 3φ 4W 225A



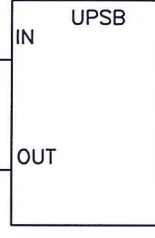
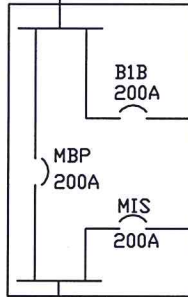
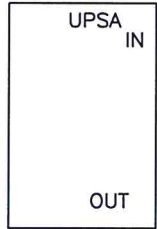
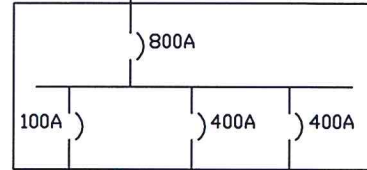
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Distribution Transformer  
Cat #V48M28T33K  
Serial #J01C1627

Cabinets #1-4  
Eaton 93PM UPS  
IN 480VAC 100kW  
OUT 208/120VAC 100kW

Panel #8  
Pow-R-Line Panelboard  
PNL Type PRL-4B 10  
480V 3φ 4W 225A

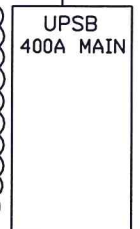
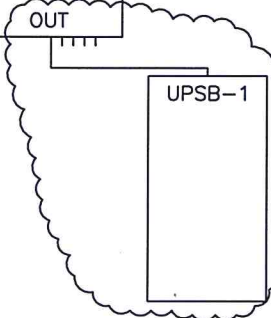
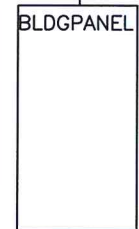
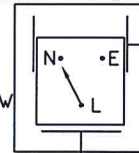
Cabinets #5-6  
Eaton 93PM UPS  
480VAC 100kW

Panel #7  
Square D Panelboard  
Cat # HCW36868M  
600VAC 800A



Cabinets #7  
Eaton IAC-D  
IN 480VAC 100kW  
OUT 208/120VAC 100kW

Panel #13  
Manual Transfer Switch



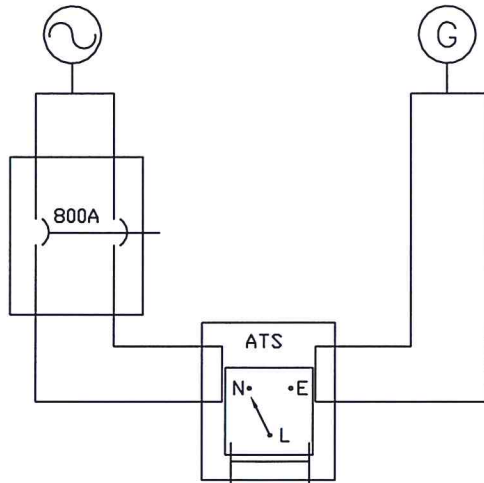
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					SMART MOVE®	



City of LaGrange  
Parallel 400A feeds

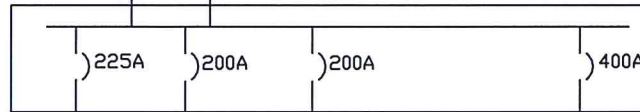
ONAN GenSet  
Model#500DEED-1715  
Serial #C010220260 Spec F  
480V @751.8A  
120V @ 1503.6A

Panel #4  
Main Disconnect  
Square D Safety Switch  
Cat # H367M

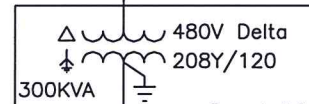


Panel #3  
powerCommand Transfer  
Switch  
Model #OTPCD-4960293  
Serial #E010236243  
480 V 3φ 800A

Panel #1  
Cutler-Hammer Panelboard  
PNL Type PRL-2A  
480V 3φ 4W 225A



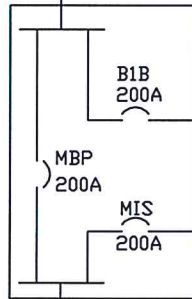
Panel #2  
Square D Panelboard  
Cat # HCW50868  
600VAC 800A



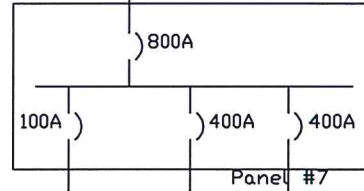
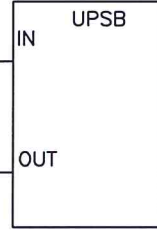
Panel #6  
Cutler-Hammer Dry Type  
Distribution Transformer  
Cat #V48M28T33K  
Serial #J01C1627

Cabinets #1-4  
Eaton 93PM UPS  
IN 480VAC 100kW  
OUT 208/120VAC 100kW

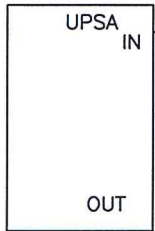
Panel #8  
Pow-R-Line Panelboard  
PNL Type PRL-4B 10  
480V 3φ 4W 225A



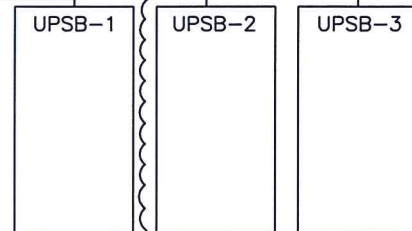
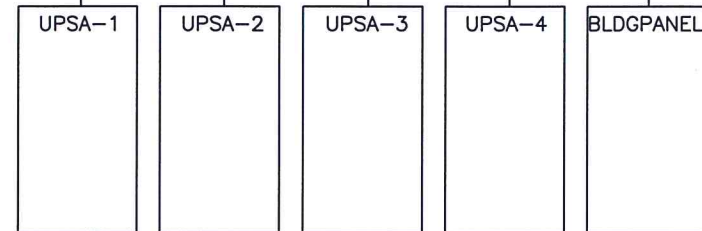
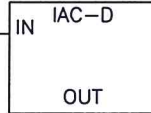
Cabinets #5-6  
Eaton 93PM UPS  
480VAC 100kW



Panel #7  
Square D Panelboard  
Cat # HCW36868M  
600VAC 800A



Cabinets #7  
Eaton IAC-D  
IN 480VAC 100kW  
OUT 208/120VAC 100kW




No.	DATE	BY	REVISION	DESCRIPTION		
1	9-2-20	MH	DRAWING CREATED	DATA CENTER POWER Phase3 & Phase4	<b>LaGRANGE</b> <i>georgia</i> SMART MOVE®	E1.5

PANEL SP1 - FED FROM UPSB-MAIN PANEL						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1				2		
3	20			4		
5	20	#7 RADIO CAGE 1		6	20	#56 CITY TELECOM
7	20	#8 RADIO CAGE 1		8	20	#53 SHARED R19C6
9	20	#10 COLLEGE CAGE 2		10	20	#52 CITY TELECOM
11	20	#50 CAGE 9		12	20	#49 BY CAGE 5
13	20	#48 CAGE 10		14	20	#47 BY CAGE 5/6
15	20	#45 CPAK CAGE 6		16	20	#46 CAGE 9
17	20	#44 CBT CAGE 3		18	20	#43 CPAK CAGE 6
19	20	#41 IT CAGE 8		20	20	#42 CBT CAGE 3
21	30	CAGE 10		22	30	CAGE 10
23		B-SP1-21/23		24		B-SP1-22/24
25	20	#3 CAGE 11		26	30	CITY TELECOM
27	20	#4 CAGE 11		28		B-SP1-26/28
29	20	#5 CAGE 11		30	20	#6 BY CAGE 11

UPS-B-MAIN FED FROM PANEL 13						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1				2	20	CAGE 5 #40
3	100	SP1		4	20	CAGE 5 #39
5				6	20	
7	20	SHARED COLD WALL		8	20	CAGE 4 #30
9	20	CAGED COLD WALL		10	20	CAGE 4 #29
11	20			12	20	BY CAGE 4 #27
13	20	IT CAGE 8 #31		14	20	CAGE 4 #28
15	20	CAGE 7 #32		16	20	CAGE 10 #26
17	20	CAGE 7 #33		18	20	CAGE 10 #25
19	20	CAGE 7 #34		20	20	CAGE 9 #23
21	20	CAGE 7 #35		22	20	CAGE 10 #24
23	20	CAGE 5/7 #36		24	30	CBT CAGE 3
25	20	CAGE 5 #38		26		B-24/26
27	20	TELECOMX #27		28	20	TELECOMX #28
29	20	BY CAGE 5 #37		30	20	TELECOMX #30
31	20	CAGE 11 #21		32	30	WGHS A2
33	20	CAGE 11 #22		34		B-32/34
35	30	CAGE 9		36	30	COLLEGE CAGE 2
37		B-35/37		38		B-36/38
39	30	CAGE 7		40	30	CAGE 4
41		B-39/41		42		B-40/42

PANEL LP1 - FED FROM Panel #7						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1	20	LGHTS HVAC/TELE		2	20	CAGE COLD LIGHTS
3	20	FIRE SUPPRESSION		4	20	CAGE COLD LIGHTS
5	20	DOOR SECURITY		6	20	CAGE COLD LIGHTS
7	20			8	20	CAGE COLD LIGHTS
9	20	RM203/204 LIGHTS		10	20	FIRE SMOKE/PULL
11	20	ELECTRIC RM LGHTS		12	20	FIRE SMOKE/PULL
13	20	SHARED COLD LGHTS		14	60	
15	20	SHARED COLD LGHTS		16		
17	20	SHARED COLD WALL		18	20	CAGE COLD LIGHTS
19	20	RM 201 OUTLETS		20	20	FIRE PANEL
21	20	RM 201 LIGHTS		22	20	SHARED COLD #30
23	20	RM 203/204 WALL		24	20	SHARED COLD #28
25	20	RM 203/204 WALL		26	20	SHARED COLD #24
27	60			28	20	SHARED COLD #26
29				30	20	SHARED COLD #22

PANEL SP2 - FED FROM UPSB-MAIN PANEL						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1	20	#1 CITY TELECOM		2	30	CAGE 5
3	20	#3 CITY TELECOM		4		B-SP2-2/4
5	30	CPAK CAGE 6		6	30	CAGE 1
7		B-SP2-5/7		8		B-SP2-6/8
9	30	CAGE 11		10	30	CAGE 3 CBT
11		B-SP2-9/11		12		B-SP2-10/12
13	20	IT CAGE 8 #13		14	20	SECURITY PANEL
15	20	IT CAGE 8 #15		16	30	IT CAGE 8
17	50	TELECOM-EATON 48		18		B-SP2-16/18
19		B-SP2-17/19		20	50	TELECOM-EATON 48
21	50	TELECOM-EATON 48		22		B-SP2-20/22
23		B-SP2-21/23		24	20	#24 CITY TELECOM
25	20	IT CAGE 8 #25		26	20	#26 CITY TELECOM
27	20	IT CAGE 8 #27		28	20	IT CAGE 8 #28
29	20	IT CAGE 8 #29		30	20	IT CAGE 8 #30
31				32	20	IT CAGE 8 #32
33				34	20	IT CAGE 8 #34
35				36		
37				38		
39				40		
41				42		

No.	DATE	BY	REVISION	DESCRIPTION		
1	9-3-20	MH	DRAWING CREATED	UPS-B PANEL SCHEDULE NOW		E1.6




PANEL SP1 - FED FROM UPSB-MAIN PANEL						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1				2		
3	20			4		
5	20			6	20	
7	20			8	20	
9	20			10	20	
11	20			12	20	
13	20			14	20	
15	20			16	20	
17	20			18	20	
19	20			20	20	
21	30			22	30	
23				24		
25	20			26	30	
27	20			28		
29	20			30	20	

UPS-B-MAIN FED FROM PANEL 13						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1				2	20	
3	100	SP1		4	20	
5				6	20	
7	20	#8 RADIO CAGE 1		8	20	
9	20	CAGED COLO WALL		10	20	
11	20	#45 CPAK CAGE 6		12	20	
13	20	#42 CBT CAGE 3		14	20	
15	20	#44 CBT CAGE 3		16	20	
17	20			18	20	
19	20			20	20	
21	20			22	20	
23	20			24	30	
25	20			26		
27	20	TELECOMX #27		28	20	
29	20			30	20	
31	20			32	30	
33	20			34		
35	30			36	30	COLLEGE CAGE 2
37				38		B-36/38
39	30			40	30	
41				42		

PANEL LP1 - FED FROM Panel #7						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1	20	LGHTS HVAC/TELE		2	20	CAGE COLO LIGHTS
3	20	FIRE SUPPRESSION		4	20	CAGE COLO LIGHTS
5	20	DOOR SECURITY		6	20	CAGE COLO LIGHTS
7	20			8	20	CAGE COLO LIGHTS
9	20	RM203/204 LIGHTS		10	20	FIRE SMOKE/PULL
11	20	ELECTRIC RM LGHTS		12	20	FIRE SMOKE/PULL
13	20	SHARED COLO LGHTS		14	60	
15	20	SHARED COLO LGHTS		16		
17	20	SHARED COLO WALL		18	20	CAGE COLO LIGHTS
19	20	RM 201 OUTLETS		20	20	FIRE PANEL
21	20	RM 201 LIGHTS		22	20	SHARED COLO #30
23	20	RM 203/204 WALL		24	20	SHARED COLO #28
25	20	RM 203/204 WALL		26	20	SHARED COLO #24
27	60			28	20	SHARED COLO #26
29				30	20	SHARED COLO #22

PANEL SP2 - FED FROM UPSB-MAIN PANEL						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1	20	#1 CITY TELECOM		2	30	CAGE 5
3	20	#3 CITY TELECOM		4		B-SP2-2/4
5	30	CPAK CAGE 6		6	30	CAGE 1
7		B-SP2-5/7		8		B-SP2-6/8
9	30	CAGE 11		10	30	CAGE 3 CBT
11		B-SP2-9/11		12		B-SP2-10/12
13	20	IT CAGE 8 #13		14	20	SECURITY PANEL
15	20	IT CAGE 8 #15		16	30	IT CAGE 8
17	50	TELECOM-EATON 48		18		B-SP2-16/18
19		B-SP2-17/19		20	50	TELECOM-EATON 48
21	50	TELECOM-EATON 48		22		B-SP2-20/22
23		B-SP2-21/23		24	20	#24 CITY TELECOM
25	20	IT CAGE 8 #25		26	20	#26 CITY TELECOM
27	20	IT CAGE 8 #27		28	20	IT CAGE 8 #28
29	20	IT CAGE 8 #29		30	20	IT CAGE 8 #30
31				32	20	IT CAGE 8 #32
33				34	20	IT CAGE 8 #34
35				36		
37				38		
39				40		
41				42		

No.	DATE	BY	REVISION	DESCRIPTION		
1	9-17-20	MH	DRAWING CREATED	UPS-B PANEL SCHEDULE PHASE1		E1.7

UPS-B-1 FED FROM UPS Cabinet 7 Ckt #1						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1	20	#1 CITY TELECOM		2	20	IT CAGE 8 #13
3	20	#3 CITY TELECOM		4	20	IT CAGE 8 #15
5	20	#26 CITY TELECOM		6	20	IT CAGE 8 #28
7	20	CAGED COLO WALL		8	20	IT CAGE 8 #30
9	20	#8 RADIO CAGE 1		10	20	IT CAGE 8 #32
11	20			12	20	IT CAGE 8 #34
13	20	#42 CBT CAGE 3		14	20	
15	20	#44 CBT CAGE 3		16	20	
17	20			18	20	
19	20			20	20	
21	20			22	20	
23	20			24	20	
25	20	#45 CPAK CAGE 6		26	20	
27	20	TELECOMX #27		28	30	CPAK CAGE 6
29	20			30		B-SP2-5/7
31	50	TELECOM-EATON 48		32	30	CAGE 3 CBT
33		B-SP2-17/19		34		B-SP2-10/12
35	50	TELECOM-EATON 48		36	30	COLLEGE CAGE 2
37		B-SP2-21/23		38		B-36/38
39	50	TELECOM-EATON 48		40	30	IT CAGE 8
41		B-SP2-20/22		42		B-SP2-16/18

UPS-B-MAIN FED FROM PANEL 13						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1				2	20	
3	100	SP1		4	20	
5				6	20	
7	20			8	20	
9	20			10	20	
11	20			12	20	
13	20			14	20	
15	20			16	20	
17	20			18	20	
19	20			20	20	
21	20			22	20	
23	20			24	30	
25	20			26		
27	20			28	20	
29	20			30	20	
31	20			32	30	
33	20			34		
35	30			36	30	
37				38		
39	30			40	30	
41				42		

PANEL LP1 - FED FROM Panel #7						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1	20	LGHTS HVAC/TELE		2	20	CAGE COLO LIGHTS
3	20	FIRE SUPPRESSION		4	20	CAGE COLO LIGHTS
5	20	DDOR SECURITY		6	20	CAGE COLO LIGHTS
7	20			8	20	CAGE COLO LIGHTS
9	20	RM203/204 LIGHTS		10	20	FIRE SMOKE/PULL
11	20	ELECTRIC RM LGHTS		12	20	FIRE SMOKE/PULL
13	20	SHARED COLO LGHTS		14	60	
15	20	SHARED COLO LGHTS		16		
17	20	SHARED COLO WALL		18	20	CAGE COLO LIGHTS
19	20	RM 201 OUTLETS		20	20	FIRE PANEL
21	20	RM 201 LIGHTS		22	20	SHARED COLO #30
23	20	RM 203/204 WALL		24	20	SHARED COLO #28
25	20	RM 203/204 WALL		26	20	SHARED COLO #24
27	60			28	20	SHARED COLO #26
29				30	20	SHARED COLO #22

PANEL SP2 - FED FROM UPSB-MAIN PANEL						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1	20			2	30	
3	20			4		
5	30			6	30	
7				8		
9	30			10	30	
11				12		
13	20			14	20	
15	20			16	30	
17	50			18		
19				20	50	
21	50			22		
23				24	20	
25	20			26	20	
27	20			28	20	
29	20			30	20	
31				32	20	
33				34	20	
35				36		
37				38		
39				40		
41				42		

No.	DATE	BY	REVISION	DESCRIPTION	
1	9-17-20	MH	DRAWING CREATED	UPS-B PANEL SCHEDULE PHASE 2	


E1.8



UPS-B-1 FED FROM UPS Cabinet 7 Ckt #1						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1	20	#1 CITY TELECOM		2	20	IT CAGE 8 #13
3	20	#3 CITY TELECOM		4	20	IT CAGE 8 #15
5	20	#26 CITY TELECOM		6	20	IT CAGE 8 #28
7	20	CAGED COLD WALL		8	20	IT CAGE 8 #30
9	20	#8 RADIO CAGE 1		10	20	IT CAGE 8 #32
11	20	#10 COLLEGE CAGE2		12	20	IT CAGE 8 #34
13	20	#42 CBT CAGE 3		14	20	CAGE 7 #32
15	20	#44 CBT CAGE 3		16	20	CAGE 7 #33
17	20	BY CAGE 4 #27		18	20	#46 CAGE 9
19	20	CAGE 4 #28		20	20	CAGE 10 #24
21	20	CAGE 5 #38		22	20	CAGE 10 #25
23	20	CAGE 5 #39		24	20	#3 CAGE 11
25	20	#45 CPAK CAGE 6		26	20	#4 CAGE 11
27	20	TELECOMX #27		28	30	CPAK CAGE 6
29	20			30		B-SP2-5/7
31	50			32	30	CAGE 3 CBT
33				34		B-SP2-10/12
35	50	TELECOM-EATON 48		36	30	COLLEGE CAGE 2
37		B-SP2-21/23		38		B-36/38
39	50	TELECOM-EATON 48		40	30	IT CAGE 8
41		B-SP2-20/22		42		B-SP2-16/18

UPS-B-2 FED FROM UPS Cabinet 7 Ckt #2						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1	20	#24 CITY TELECOM		2	20	IT CAGE 8 #25
3	20	#52 CITY TELECOM		4	20	IT CAGE 8 #27
5	20	#56 CITY TELECOM		6	20	IT CAGE 8 #29
7	20	#7 RADIO CAGE 1		8	20	IT CAGE 8 #31
9	20	CAGE 4 #30		10	20	#41 IT CAGE 8
11	20	CAGE 4 #29		12	20	CAGE 5/7 #36
13	20	BY CAGE 5 #37		14	20	CAGE 9 #23
15	20	#49 BY CAGE 5		16	20	#50 CAGE 9
17	20	#47 BY CAGE 5/6		18	20	CAGE 10 #26
19	20	CAGE 5 #40		20	20	#48 CAGE 10
21	20	#43 CPAK CAGE 6		22	20	CAGE 11 #21
23	20	CAGE 7 #34		24	20	CAGE 11 #22
25	20	CAGE 7 #35		26	20	#5 CAGE 11
27	30	CAGE 10		28	30	CAGE 9
29		B-SP1-21/23		30		B-35/37
31	30	CAGE 1		32	30	CBT CAGE 3
33		B-SP2-6/8		34		B-24/26
35	30	CITY TELECOM		36	30	CAGE 4
37		B-SP1-26/28		38		B-40/42
39	50	TELECOM-EATON 48		40	30	CAGE 7
41		B-SP2-17/19		42		B-39/41

PANEL LP1 - FED FROM Panel #7						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1	20	LGHTS HVAC/TELE		2	20	CAGE COLD LIGHTS
3	20	FIRE SUPPRESSION		4	20	CAGE COLD LIGHTS
5	20	DOOR SECURITY		6	20	CAGE COLD LIGHTS
7	20			8	20	CAGE COLD LIGHTS
9	20	RM203/204 LIGHTS		10	20	FIRE SMOKE/PULL
11	20	ELECTRIC RM LGHTS		12	20	FIRE SMOKE/PULL
13	20	SHARED COLD LGHTS		14	60	
15	20	SHARED COLD LGHTS		16		
17	20	SHARED COLD WALL		18	20	CAGE COLD LIGHTS
19	20	RM 201 OUTLETS		20	20	FIRE PANEL
21	20	RM 201 LIGHTS		22	20	SHARED COLD #30
23	20	RM 203/204 WALL		24	20	SHARED COLD #28
25	20	RM 203/204 WALL		26	20	SHARED COLD #24
27	60			28	20	SHARED COLD #26
29				30	20	SHARED COLD #22


No.	DATE	BY	REVISION	DESCRIPTION	
1	9-17-20	MH	DRAWING CREATED	UPSB PANEL SCHEDULE PHASE3	

E1.9

UPS-B-1 FED FROM UPS Cabinet 7 Ckt #1						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1	20	#1 CITY TELECOM		2	20	IT CAGE 8 #13
3	20	#3 CITY TELECOM		4	20	IT CAGE 8 #15
5	20	#26 CITY TELECOM		6	20	IT CAGE 8 #28
7	20	CAGED COLD WALL		8	20	IT CAGE 8 #30
9	20	#8 RADIO CAGE 1		10	20	IT CAGE 8 #32
11	20	#10 COLLEGE CAGE 2		12	20	IT CAGE 8 #34
13	20	#42 CBT CAGE 3		14	20	CAGE 7 #32
15	20	#44 CBT CAGE 3		16	20	CAGE 7 #33
17	20	BY CAGE 4 #27		18	20	#46 CAGE 9
19	20	CAGE 4 #28		20	20	CAGE 10 #24
21	20	CAGE 5 #38		22	20	CAGE 10 #25
23	20	CAGE 5 #39		24	20	#3 CAGE 11
25	20	#45 CPAK CAGE 6		26	20	#4 CAGE 11
27	20	TELECOMX #27		28	30	CPAK CAGE 6
29	20			30		B-SP2-5/7
31	50			32	30	CAGE 3 CBT
33				34		B-SP2-10/12
35	50			36	30	COLLEGE CAGE 2
37				38		B-36/38
39	50	TELECOM-EATON 48		40	30	IT CAGE 8
41		B-SP2-20/22		42		B-SP2-16/18

UPS-B-2 FED FROM UPS Cabinet 7 Ckt #2						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1	20	#24 CITY TELECOM		2	20	IT CAGE 8 #25
3	20	#52 CITY TELECOM		4	20	IT CAGE 8 #27
5	20	#56 CITY TELECOM		6	20	IT CAGE 8 #29
7	20	#7 RADIO CAGE 1		8	20	IT CAGE 8 #31
9	20	CAGE 4 #30		10	20	#41 IT CAGE 8
11	20	CAGE 4 #29		12	20	CAGE 5/7 #36
13	20	BY CAGE 5 #37		14	20	CAGE 9 #23
15	20	#49 BY CAGE 5		16	20	#50 CAGE 9
17	20	#47 BY CAGE 5/6		18	20	CAGE 10 #26
19	20	CAGE 5 #40		20	20	#48 CAGE 10
21	20	#43 CPAK CAGE 6		22	20	CAGE 11 #21
23	20	CAGE 7 #34		24	20	CAGE 11 #22
25	20	CAGE 7 #35		26	20	#5 CAGE 11
27	30	CAGE 10		28	30	CAGE 9
29		B-SP1-21/23		30		B-35/37
31	30	CAGE 1		32	30	CBT CAGE 3
33		B-SP2-6/8		34		B-24/26
35	30	CITY TELECOM		36	30	CAGE 4
37		B-SP1-26/28		38		B-40/42
39	50	TELECOM-EATON 48		40	30	CAGE 7
41		B-SP2-17/19		42		B-39/41

UPS-B-3 FED FROM UPS Cabinet 7 Ckt #3						
CKT	AMPS	SERVICE TO	ABC	CKT	AMPS	SERVICE TO
1	20	LGHTS HVAC/TELE		2	20	CAGE COLD LIGHTS
3	20	FIRE SUPPRESSION		4	20	CAGE COLD LIGHTS
5	20	DOOR SECURITY		6	20	CAGE COLD LIGHTS
7	20	TELECOMX #28		8	20	CAGE COLD LIGHTS
9	20	RM203/204 LIGHTS		10	20	FIRE SMOKE/PULL
11	20	ELECTRIC RM LGHTS		12	20	FIRE SMOKE/PULL
13	20	SHARED COLD LGHTS		14	20	TELECOMX #30
15	20	SHARED COLD LGHTS		16	20	#6 BY CAGE 11
17	20	SHARED COLD WALL		18	20	CAGE COLD LIGHTS
19	20	RM 201 OUTLETS		20	20	FIRE PANEL
21	20	RM 201 LIGHTS		22	20	SHARED COLD #30
23	20	RM 203/204 WALL		24	20	SHARED COLD #28
25	20	RM 203/204 WALL		26	20	SHARED COLD #24
27	20	#53 SHARED R19C6		28	20	SHARED COLD #26
29	20			30	20	SHARED COLD #22
31	30	CAGE 5		32	30	
33		B-SP2-2/4		34		
35	30	CAGE 10		36	30	CAGE 11
37		B-SP1-22/24		38		B-SP2-9/11
39	50	TELECOM-EATON 48		40	30	WGHS A2
41		B-SP2-21/23		42		B-32/34

No.	DATE	BY	REVISION	DESCRIPTION	
1	9-18-20	MH	DRAWING CREATED	UPS B PANEL SCHEDULE PHASE 4	

E1.10