

PANEL HI

VOLTAGE	480 /277	MAIN AMPS	600A	LOCATION	ELECTRICAL ROOM 114
PHASE	3	A.I.C. RATING	22,000	MOUNTING	SURFACE
WIRE	4				LUGS

SERVING	LOAD (KVA)	BREAKER	OKT	BREAKER	LOAD (KVA)	SERVING		
LTS	REC	AMPS	NO.	NO.	LTS	REC	HVAC	MISC
RELAY PANEL RPIT	0.6	20	1	2	2.3	IT DEPARTMENT LIGHTS		
FLAG POLE LIGHTS	0.6	20	1	4	2.0	IT DEPARTMENT LIGHTS		
SPARE		20	1	6	1.0	IT DEPARTMENT LIGHTS		
SPARE		20	1	8		SPARE		
SPARE		20	1	10		SPARE		
SPARE		20	1	12		SPARE		
SPARE		20	1	14		SPARE		
SPARE		20	1	16		SPARE		
SPARE		20	1	18		SPARE		
SPARE		20	1	20		SPARE		
SPARE		20	1	22		SPARE		
SPARE		20	1	24		SPARE		
IT-VRF-1	18.3	40	3	28	15.8	IT-VRF-2		
		20	3	30				
TRANSFORMER TDC	14.2	70	3	32	26.3	IT-DOAS-1		
		35		34				
TRANSFORMER TIM	41.6	3	37	38	51.7	TRANSFORMER TI		
		39		40				
		41		42				

LOAD ANALYSIS

LIGHTING LOAD (KVA)	5.9	X 125%	7.4
RECEPTACLE LOAD (KVA)	###	NEC 220.44	0.0
HVAC LOAD (KVA)	76.2	X 100%	76.2
MISC LOAD (KVA)	108.1	X 100%	108.1
TOTAL DEMAND KVA			191.7
TOTAL AMPERAGE			230.6

PANEL LI1

VOLTAGE	208 /120	MAIN AMPS	225A	LOCATION	ELECTRICAL ROOM 114
PHASE	3	A.I.C. RATING	10,000	MOUNTING	SURFACE
WIRE	4				BREAKER

SERVING	LOAD (KVA)	BREAKER	OKT	BREAKER	LOAD (KVA)	SERVING		
LTS	REC	HVAC	MISC	NO.	LTS	REC	HVAC	MISC
RECEPTACLES 114,115	1.0	20	1	2	1.0	RECEPTACLE 100		
RECEPTACLES 111,112,113	0.6	20	1	4	0.4	SPRINKLER RECEPTACLES 100R		
RECEPTACLES 100A,100B	0.8	20	1	6	0.4	FLOOR BOX 100		
REFRIGERATOR 101		0.9	20G	1	7	1.2	REFRIGERATOR 101	
APPLIANCE 101		1.2	20	1	9	1.2	APPLIANCE 101	
APPLIANCE 101		1.2	20	1	11		RECEPTACLES 102,102A	
RECEPTACLES 102	0.8	20	1	13	1.4	RECEPTACLES 103		
RECEPTACLES 102	0.6	20	1	15	1.4	RECEPTACLES 104		
FLOOR BOXES 102	0.8	20	1	17	1.4	RECEPTACLES 105		
RECEPTACLES 106	1.4	20	1	19	1.4	RECEPTACLES 119		
RECEPTACLES 108	1.0	20	1	21	1.4	RECEPTACLES 120		
RECEPTACLES 109	1.0	20	1	23	1.4	RECEPTACLES 121		
RECEPTACLES 117	1.4	20	1	25	1.0	RECEPTACLES 100C		
RECEPTACLES 118	1.4	20	1	27	1.0	RECEPTACLES 100C		
RECEPTACLES 133	0.6	20	1	29	0.8	RECEPTACLES 100D		
WATER COOLER		0.4	20G	1	31	0.8	RECEPTACLES 125, 127	
WATER COOLER		0.4	20G	1	33	1.2	RECEPTACLES 127	
RECEPT 125A,131,132,134	0.8	20	1	35		APPLIANCE 127		
APPLIANCE 127		1.2	20	1	37	1.5	COPIER 100A	
APPLIANCE 127		1.2	20	1	39	1.5	COPIER 100A	
REFRIGERATOR 127		0.9	20G	1	41		SPARE	
WARMING STATION 127		1.5	20	1	43		SPARE	
WARMING STATION 127		1.5	20	1	45		SPARE	
WARMING STATION 127		1.5	20	1	47		SPARE	
ROAD SIGN	1.0	20	1	49			TVSS	
ROAD SIGN	1.0	20	1	51				
ROAD SIGN	1.0	20	1	53				

LOAD ANALYSIS

LIGHTING LOAD (KVA)	3.0	X 125%	3.8
RECEPTACLE LOAD (KVA)	27.0	NEC 220.44	18.5
HVAC LOAD (KVA)	###	X 100%	###
MISC LOAD (KVA)	19.7	X 100%	19.7
TOTAL DEMAND KVA			41.9
TOTAL AMPERAGE			116.4

NOTES

- 1" C" AFTER AMPERAGE INDICATED FOR BREAKER.
- PROVIDE FEED THRU LUGS.
- PROVIDE PANEL WITH 200% NEUTRAL.
- 5
- 5

PANEL LI2

VOLTAGE	208 /120	MAIN AMPS	225A	LOCATION	ELECTRICAL ROOM 114
PHASE	3	A.I.C. RATING	10,000	MOUNTING	SURFACE
WIRE	4				LUGS

SERVING	LOAD (KVA)	BREAKER	OKT	BREAKER	LOAD (KVA)	SERVING		
LTS	REC	HVAC	MISC	NO.	LTS	REC	HVAC	MISC
RECEPTACLES 128	0.2	20	1	2	0.2	RECEPTACLES 128		
RECEPTACLES 129	0.2	20	1	4	0.2	RECEPTACLES 128		
RECEPTACLES 129	0.2	20	1	6	0.2	RECEPTACLES 128		
RECEPTACLES 129	1.0	20	1	8	1.2	RECEPTACLES 128		
RECEPTACLES 129	0.4	20	1	10	0.4	RECEPTACLES 128		
RECEPTACLES 130	0.2	20	1	12	0.2	GENERATOR RECEPTACLE		
RECEPTACLES 130	0.2	20	1	14	1.0	GENERATOR HEATER		
RECEPTACLES 130	0.2	20	1	16	1.0	SPARE		
RECEPTACLES 130	1.2	20	1	18	1.0	SPARE		
RECEPTACLES 130	0.4	20	1	20	1.0	SPARE		
SPARE		20	1	22	1.0	SPARE		
SPARE		20	1	24	1.0	SPARE		
SPARE		20	1	26	1.0	SPARE		
SPARE		20	1	28	1.0	SPARE		
SPARE		20	1	30	1.0	SPARE		
SPARE		20	1	32	1.0	SPARE		
SPARE		20	1	34	1.0	SPARE		
SPARE		20	1	36	1.0	SPARE		
SPARE		20	1	38	1.0	SPARE		
SPARE		20	1	40	1.0	SPARE		
SPARE		20	1	42	1.0	SPARE		
SPARE		20	1	44	1.0	SPARE		
SPARE		20	1	46	1.0	SPARE		
SPARE		20	1	48	1.0	SPARE		
SPARE		20	1	50	1.0	SPARE		
SPARE		20	1	52	1.0	SPARE		
SPARE		20	1	54	1.0	SPARE		

LOAD ANALYSIS

LIGHTING LOAD (KVA)	###	X 125%	###
RECEPTACLE LOAD (KVA)	6.6	NEC 220.44	2
HVAC LOAD (KVA)	###	X 100%	###
MISC LOAD (KVA)	1.5	X 100%	1.5
TOTAL DEMAND KVA			9.8
TOTAL AMPERAGE			27.2

NOTES

- PROVIDE PANEL WITH 200% NEUTRAL.
- 2
- 3
- 4
- 5

PANEL LDC

VOLTAGE	208 /120	MAIN AMPS	150A	LOCATION	DATA CENTER 123
PHASE	3	A.I.C. RATING	10,000	MOUNTING	SURFACE
WIRE	4				BREAKER

SERVING	LOAD (KVA)	BREAKER	OKT	BREAKER	LOAD (KVA)	SERVING		
LTS	REC	HVAC	MISC	NO.	LTS	REC	HVAC	MISC
RECEPTACLES 122	0.2	20	1	2	0.2	RECEPTACLES 122		
RECEPTACLES 122	0.2	20	1	4	0.2	RECEPTACLES 122		
RECEPTACLES 122	0.2	20	1	6	0.4	RECEPTACLES 116		
RECEPTACLES 116	0.4	20	1	8	0.4	RECEPTACLES 116		
RECEPTACLES 116	0.4	20	1	10	0.4	RECEPTACLES 116		
RECEPTACLES 116	0.4	20	1	12	0.4	MDF RECEPTACLES 123		
MDF RECEPTACLES 123	0.4	20	1	14	0.6	MDF RECEPTACLES 123		
MDF RECEPTACLES 123	0.4	20	1	16		SPARE		
SPARE		20	1	18		SPARE		
SPARE		20	1	20		SPARE		
SPARE		20	1	22		SPARE		
SPARE		20	1	24		SPARE		
SPARE		20	1	26		SPARE		
SPARE		20	1	28		SPARE		
SPARE		20	1	30		SPARE		
SPARE		20	1	32		SPARE		
SPARE		20	1	34		SPARE		
MDF UPS 123	4.5	30	2	36	1.0	TVSS		
MDF UPS 123	4.5	30	2	38	3.0			
		40		40				
		41		42				

LOAD ANALYSIS

LIGHTING LOAD (KVA)	###	X 125%	###
RECEPTACLE LOAD (KVA)	5.2	NEC 220.44	5.2
HVAC LOAD (KVA)	###	X 100%	###
MISC LOAD (KVA)	9.0	X 100%	9.0
TOTAL DEMAND KVA			14.2
TOTAL AMPERAGE			39.4

NOTES

- PROVIDE PANEL WITH 200% NEUTRAL.
- 2
- 3
- 4
- 5

- #### KEYED NOTES:
- 1 125°C. TO REMOTE GENERATOR ANNUNCIATOR. SEE MANUFACTURER'S PUBLISHED DATA FOR # OF CONDUCTORS REQUIRED. SEE SHEET E5.0 FOR GENERATOR ANNUNCIATOR LOCATION.
 - 2 (-) 1'C. TO TRANSFER SWITCH FOR CONTROL WIRES.
 - 3 EXISTING "MSB". SEE SHEET E1.1 FOR "MSB" LOCATION.
 - 4 EXISTING (4") CONDUITS ROUTED FROM EXISTING "MSB" TO IT DEPARTMENT DISCONNECT. SEE SHEET E1.1 FOR APPROXIMATE ROUTING LOCATION. PROVIDE MISCELLANEOUS MATERIAL AS REQUIRED TO EXTEND (2) EXISTING 4" CONDUITS TO IT DEPARTMENT DISCONNECT AS INDICATED. (2) EXISTING 4" CONDUITS SHALL REMAIN AT CEILING SPACE. PROVIDE CAPS ON EXISTING REMAINING CONDUITS.
 - 5 PROVIDE CONDUCTORS AS INDICATED IN FEEDER SCHEDULE FROM "MSB" TO IT DEPARTMENT DISCONNECT. TERMINATE AT EXISTING 600AMP BREAKER LABELED "SPARE". PROVIDE NEW LABEL AT BREAKER TO READ "IT DEPARTMENT DISCONNECT/IT DEPARTMENT".
 - 6 EQUIPMENT TRANSFER SWITCH, 3 POLE, 600 AMPS.
 - 7 SEE SHEET E7.1 FOR DRY TYPE TRANSFORMER CONNECTION DETAIL TRANSFORMER PAD DETAIL AND STACKING REQUIREMENTS.
 - 8 SEE SHEET E7.0 DETAIL 9/E7.0 FOR GROUNDING DETAIL TO GROUND RING.
 - 9 SEE SHEET E6.1 DETAIL 1/E6.1 FOR RELAY PANEL REQUIREMENTS ALONG WITH CONNECTIONS TO EXISTING RELAY PANELS.

FEEDER SCHEDULE

DESIGNATION	AMPERES	CONDUIT	COPPER CONDUCTORS
1	70A	1.5"	3#4, 1#8G
2	90A	1.5"	3#2, 1#8G
3	225A	2"	4#2, 1#3/0, 1#8G (200% NEUTRAL)
4	600A	2.50"	5#4/0, 1#2G (200% NEUTRAL)
5	600A	2 SETS 4"	4#3/0MCM, 1#1G (IN EACH)

PANEL LIM

VOLTAGE	208 /120	MAIN AMPS	150A	LOCATION	ELECTRICAL ROOM 114
PHASE	3	A.I.C. RATING	10,000	MOUNTING	SURFACE
WIRE	4				BREAKER

SERVING	LOAD (KVA)	BREAKER	OKT	BREAKER	LOAD (KVA)	SERVING		
LTS	REC	HVAC	MISC	NO.	LTS	REC	HVAC	MISC
RECEPTACLES 122	0.2	20	1	2	0.2	RECEPTACLES 122		
RECEPTACLES 122	0.2	20	1	4	0.2	RECEPTACLES 122		
RECEPTACLES 122	0.2	20	1	6	0.4	RECEPTACLES 116		
RECEPTACLES 116	0.4	20	1	8	0.4	RECEPTACLES 116		
RECEPTACLES 116	0.4	20	1	10	0.4	RECEPTACLES 116		
RECEPTACLES 116	0.4	20	1	12	0.4	MDF RECEPTACLES 123		
MDF RECEPTACLES 123	0.4	20	1	14	0.6	MDF RECEPTACLES 123		
MDF RECEPTACLES 123	0.4	20	1	16		SPARE		
SPARE		20	1	18		SPARE		
SPARE		20	1	20		SPARE		
SPARE		20	1	22		SPARE		
SPARE		20	1	24		SPARE		
SPARE		20	1	26		SPARE		
SPARE		20	1	28		SPARE		
SPARE		20	1	30		SPARE		
SPARE		20	1	32		SPARE		
SPARE		20	1	34		SPARE		
SPARE		20	1	36		SPARE		
SPARE		20	1	38		SPARE		
SPARE		20	1	40		SPARE		
SPARE		20	1	42		SPARE		
SPARE		20	1	44		SPARE		
SPARE		20	1	46		SPARE		
SPARE		20	1	48		SPARE		
SPARE		20	1	50		SPARE		
SPARE		20	1	52		SPARE		
SPARE		20	1	54		SPARE		

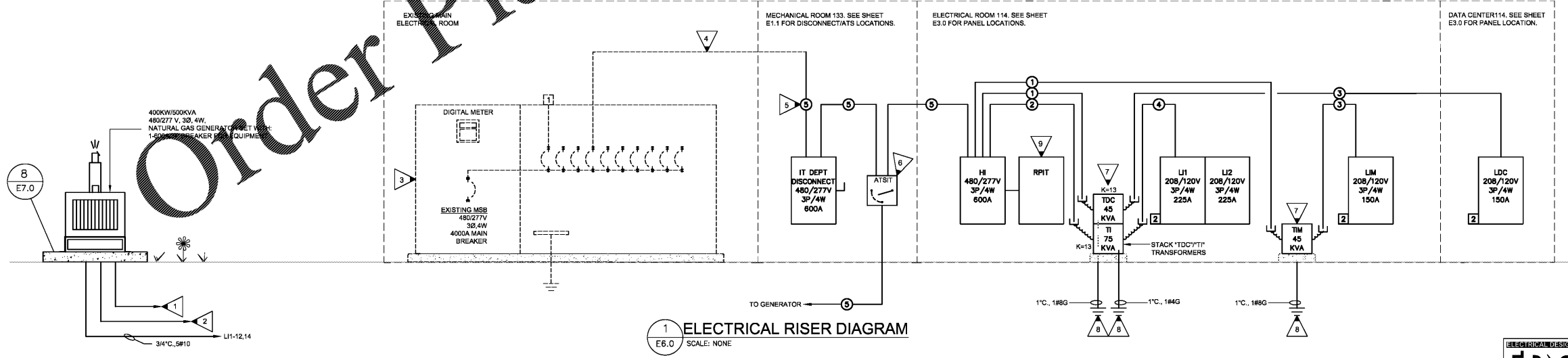
LOAD ANALYSIS

LIGHTING LOAD (KVA)	###	X 125%	###
RECEPTACLE LOAD (KVA)	###	NEC 220.44	0.0
HVAC LOAD (KVA)	32.2	X 100%	32.2
MISC LOAD (KVA)	9.4	X 100%	9.4
TOTAL DEMAND KVA			41.6
TOTAL AMPERAGE			115.5

NOTES

- 1
- 2
- 3
- 4
- 5

- #### TVSS LEGEND:
- 1 SEE SPECIFICATION FOR DETAILS
 - 2 DISTRIBUTION PANEL (120/208 VOLTS, 3 PHASE) - 80,000 AMP RATED
- #### GENERAL NOTES:
- CONTRACTOR SHALL CONFIRM ALL PANELBOARDS ARE PROVIDED WITH APPROPRIATE LUGS (SIZE AND QUANTITY) TO ACCEPT THE FEEDERS SHOWN ABOVE. PROVIDE COORDINATION LETTER WITH SUBMITTALS NOTING SUCH.
 - PROVIDE FOR 200% NEUTRAL CONDUCTOR CAPACITY ON THE SECONDARY SIDE OF ALL K-FACTOR RATED TRANSFORMERS. SEE SPECIFICATION FOR DESCRIPTION. PROVIDE K-FACTOR RATED TRANSFORMER WHERE NOTED.



ELECTRICAL RISER DIAGRAM
 SCALE: NONE

KEY PLAN:

REVISIONS:

Date	Description

CCSD I.T./TRAINING DEPARTMENT
 FOR COLUMBIA COUNTY SCHOOL DISTRICT
 4395 RIVERWATCH PARKWAY
 EVANS, GA 30809

DRAWING TITLE
ELECTRICAL RISER AND PANELBOARD SCHEDULES

PROJECT NO.	20-04C	DRAWING NO.	
DATE	10/26/2020		
DRAWN BY	JH		
PAPER	24"x36"		
ISSUE	CD		

E6.0

EDC ELECTRICAL ENGINEERS
 1201 BROAD ST., SUITE 1-A
 AUGUSTA, GA 30901
 PH: (706) 724-3551
 FAX: (706) 724-8507
 EDC PROJECT #: 19130