NOTES:

PP-13A

480 VOLTS
3ø, 3 WIRE

TYPE: NF
MOUNT: SURFACE

MAIN BKR
225 A 3 P

DESCRIPTION	WIRE	CKT BKR TRIP	CKT BKR POLE	CKT BKR NO	VOLT AMPERE øA	VOLT AMPERE øB	VOLT AMPERE øC	VOLT AMPERE øA	VOLT AMPERE øB	VOLT AMPERE øC	CKT BKR NO	CKT BKR POLE	CKT BKR TRIP	WIRE	DESCRIPTION
MOG-12105 & MOG-12115	2	20	3	1	500			500			2	3	20	2	MOG-12101 & MOG-12114
				3		500			500		4				
				5			500			500	6				
MOG-12102 & MOG-12113	2	20	3	7	500			500			8	3	20	2	MOG-12103 & MOG-12112
				9		500			500		10				
				11			500			500	12				
MOG-12104 & MOG-12111	2	20	3	13	500			500			14	3	20	2	MOG-12121 & MOG-12131
				15		500			500		16				
				17			500			500	18				
MOG-12122 & MOG-12132	2	20	3	19	500			500			20	3	20	2	MOG-12123 & MOG-12133
				21		500			500		22				
				23			500			500	24				
MOG-12141, MOG-12144, & MOG-12147	2	20	3	25	750			750			26	3	20	2	MOG-12143, MOG-12146, & MOG-12149
				27		750			750		28				
				29			750			750	30				
MOG-12143, MOG-12146, MOG-12149	2	20	3	31	750			2000			32	3	20	2	SPARE
				33		750			2000		34				
				35			750			2000	36				
SPARE	2	20	3	37	500						38	3	20		SPARE
				39		500					40				
				41			500				42				
TVSS NEMA 12				TOTAL	4000	4000	4000	4750	4750	4750	TOTAL				
					PHASE TOTAL			TOTAL LOAD							
					8750	8750	8750	26250							

LP-13A

120/208 VOLTS
3ø, 4 WIRE

TYPE:
MOUNT: SURFACE

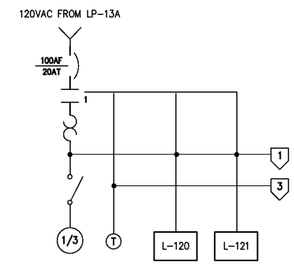
MAIN BKR
100 A 3 P

DESCRIPTION	WIRE	CKT BKR TRIP	CKT BKR POLE	CKT BKR NO	VOLT AMPERE øA	VOLT AMPERE øB	VOLT AMPERE øC	VOLT AMPERE øA	VOLT AMPERE øB	VOLT AMPERE øC	CKT BKR NO	CKT BKR POLE	CKT BKR TRIP	WIRE	DESCRIPTION
ELECTRICAL ROOM LIGHTS	1	20	1	1	1700			1200			2	1	20	1	SCEENINGS AREA RECEPTACLES
PLC-13	1	20	1	3		500			1000		4	1	20	1	OUTDOOR LIGHTS
ELECTRICAL ROOM - RECEPTACLES	1	20	1	5			1000			1500	6	1	20	1	SCREENINGS AREA LIGHTS
SCREENINGS AREA LIGHTS	1	20	1	7	1200			1200			8	1	20	1	SCREENINGS AREA LIGHTS
SCREENINGS AREA LIGHTS	1	20	1	9		1200			1200		10	1	20	1	SCREENINGS AREA LIGHTS
CLASSIFIER AREA LIGHTS	1	20	1	11			1200			1200	12	1	20	1	CLASSIFIER AREA LIGHTS
STAIR LIGHTS	1	20	1	13	400			1500			14	1	20	1	SPARE
SPARE	1	20	1	15		1500			800		16	1	20	1	GRIT PUMP ROOM LIGHTS
OUTSIDE LIGHTS	1	20	1	17			500			500	18	1	20	1	OUTDOOR LIGHTS
SPARE	1	20	1	19	500			400			20	1	20	1	STAIR LIGHTS
STAIR LIGHTS	1	20	1	21		300			100		22	1	20	1	LIT-10400
LDIT-12401	1	20	1	23			100			100	24	1	20	1	LDIT-12402
LDIT-12403	1	20	1	25	100			100			26	1	20	1	LDIT-12404
LIT-12500	1	20	1	27		100			500		28	1	20	1	EF-124 MOTOR STARTER
EF-121 MOTOR STARTER	1	20	1	29			1000			500	30	1	20	1	EF-120 MOTOR STARTER
SPARE	1	20	1	31	1000			400			32	1	20	1	SPARE
SPARE	1	20	1	33		1000			1000		34	1	20	1	SPARE
SPARE	1	20	1	35			1000			1000	36	1	20	1	SPARE
GRIT PUMP ROOM RECEPTACLES	1	20	1	37	400			600			38	1	20	1	SPARE
SPARE		20	1	39							40	1	20		SPARE
SPARE		20	1	41							42	1	20		SPARE
TVSS NEMA 12				TOTAL	5300	4600	4800	5400	4600	4800	TOTAL				
					PHASE TOTAL			TOTAL LOAD							
					10700	9200	9600	29500							

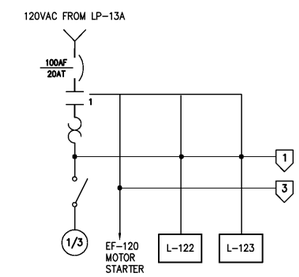
CONDUIT AND WIRE LEGEND

(NUMBERS REFERENCE THIS SHEET ONLY)

NO.	DESCRIPTION
1	2#12, #12G, 3/4"C
2	3#12, #12G, 3/4"C
3	2#14, #14G, 3/4"C
4	3#10, #10G, 1"C



EF-120 MOTOR STARTER
WIRING DIAGRAM



EF-121 MOTOR STARTER
WIRING DIAGRAM

PP-13B

480 VOLTS
3ø, 3 WIRE

TYPE: NF
MOUNT: SURFACE

MAIN BKR
225 A 3 P

DESCRIPTION	WIRE	CKT BKR TRIP	CKT BKR POLE	CKT BKR NO	VOLT AMPERE øA	VOLT AMPERE øB	VOLT AMPERE øC	VOLT AMPERE øA	VOLT AMPERE øB	VOLT AMPERE øC	CKT BKR NO	CKT BKR POLE	CKT BKR TRIP	WIRE	DESCRIPTION
MOG-10101, MOG-10102, MOG-10103, MOG-10104, MOG-10105,MOG 10110,MOG-10120	4	30	3	1	3000			1500			2	3	20	2	MOG-12150, MOG-12151, & MOG-12152
				3		3000			1500		4				
				5			3000			1500	6				
CU-120	2	20	3	7	500			3333			8	3	20	2	UH-126
				9		500			3333		10				
				11			500			3333	12				
UH-127 & UH-128	4	30	3	13	5000			6667			14	3	30	4	UH-120
				15		5000			6667		16				
				17			5000			6667	18				
UH-121	4	30	3	19	6667			6667			20	3	30	4	UH-122
				21		6667			6667		22				
				23			6667			6667	24				
UH-123	4	30	3	25	6667			6667			26	3	30	4	UH-124
				27		6667			6667		28				
				29			6667			6667	30				
AC-120	4	50	3	31	10558						32	3	20		SPARE
				33		10558					34				
				35			10558				36				
UH-125	4	30	3	37	3333						38	3	20		SPARE
				39		3333					40				
				41			3333				42				
TVSS NEMA 12				TOTAL	35725	35725	35725	24834	24834	24834	TOTAL				
					PHASE TOTAL			TOTAL LOAD							
					60559	60559	60559	181677							

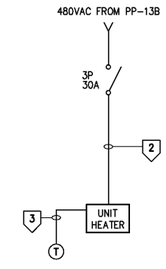
LP-13B

120/208 VOLTS
3ø, 4 WIRE

TYPE:
MOUNT: SURFACE

MAIN BKR
100 A 3 P

DESCRIPTION	WIRE	CKT BKR TRIP	CKT BKR POLE	CKT BKR NO	VOLT AMPERE øA	VOLT AMPERE øB	VOLT AMPERE øC	VOLT AMPERE øA	VOLT AMPERE øB	VOLT AMPERE øC	CKT BKR NO	CKT BKR POLE	CKT BKR TRIP	WIRE	DESCRIPTION
INFP.S. LIGHTING	1	20	1	1	1000			500			2	1	20	1	INFP.S. LIGHTING
INFP.S. LIGHTING	1	20	1	3		750			500		4	1	20	1	INFP.S. LIGHTING
OUTSIDE LIGHTING	1	20	1	5			1000			100	6	1	20	1	AIS-12411
AIS-12412	1	20	1	7	100			100			8	1	20	1	AIS-12413
SPARE	1	20	1	9		500			500		10	1	20	1	SAMPLER UNIT
ROADWAY LIGHTING	1	20	1	11			1000				12	1	20		SPARE
DUMPSTER AREA LIGHTS	1	20	1	13	750						14	1	20	1	ROOF RECEPTACLE GFI
SPARE		20	1	15							16	1	20		SPARE
DUMPSTER AREA LIGHTS	1	20	1	17							18	1	20		SPARE
SPARE		20	1	19							20	1	20	1	POWER TO LOUVERS
SPARE		20	1	21							22	1	20		SPARE
SPARE		20	1	23							24	1	20		SPARE
SPARE		20	1	25							26	1	20		SPARE
SPARE		20	1	27							28	1	20		SPARE
SPARE		20	1	29							30	1	20		SPARE
EF-101	1	20	1	31							32	1	20	1	DUMPSTER AREA RECEPTACLES
EF-102	1	20	1	33							34	1	20	1	EF-103
EF-104	1	20	1	35							36	1	20	1	EF-105
SPARE		20	1	37							38	1	20	1	CLASSIFIER AREA RECEPTACLES
SPARE		20	1	39							40	1	20		SPARE
SPARE		20	1	41							42	1	20	1	ROLL UP DOORS
TVSS NEMA 12				TOTAL	1100	1250	1000	600	1000	100	TOTAL				
					PHASE TOTAL			TOTAL LOAD							
					1700	2250	1100	5050							



UH-120-UH-128
WIRING DIAGRAM

NO.	ISSUED FOR	DATE	BY
	RECORD DRAWINGS	MAR 2008	RLT
	CONSTRUCTION	MAR 2004	RLT
	REGULATORY APPROVAL	NOV 2003	RLT
	PRELIMINARY DESIGN	NOV 2002	RLT

DESIGNED BRL
DRAWN BRL
CHECKED
PROJ. ENGR. DAN
APPROVED

THIS DOCUMENT ORIGINALLY ISSUED FOR CONSTRUCTION AND SEALED BY ROBERT S. DIFIORE, SEAL NO. 22769

THIS DOCUMENT ORIGINALLY ISSUED FOR CONSTRUCTION AND SEALED BY RONALD L. TAYLOR, SEAL NO. 024649

RECORD DRAWING

THIS DRAWING HAS BEEN MODIFIED TO REFLECT FIELD CHANGES REPORTED BY THE CONTRACTOR OR ANOTHER PARTY, BUT NOT VERIFIED BY THE CERTIFYING ENGINEER. THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY GERALD J. RATASKY, 026535. THIS MEDIA SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT.

HAZEN AND SAWYER
Environmental Engineers & Scientists
4011 WestChase Blvd, Raleigh, North Carolina 27607

CITY OF ROANOKE
VIRGINIA

REGIONAL WATER POLLUTION CONTROL PLANT
WET WEATHER IMPROVEMENTS

PRELIMINARY TREATMENT FACILITY
ELECTRICAL
PANEL SCHEDULES AND WIRING DIAGRAMS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

DATE JULY 2003
H & S JOB NUMBER 30788A
CONTRACT NUMBER A
DRAWING NUMBER E128

PLOT DATE 07/09/03 12:11pm FILE= H:\30788\30788A\ELEC\e128 by BLISK XREFs=30788b\vmlac\30788tb,