

SYMBOL		ELECTRICAL LEGEND	
		DESCRIPTION	
B-2	STRIP LIGHTING FIXTURE, "B" INDICATES THE FIXTURE TYPE AND "2" INDICATES CIRCUIT NUMBER. HASH MARK IN FIXTURE DENOTES EMERGENCY FIXTURE. SURFACE MOUNTED UNLESS NOTED ON DRAWING OR LIGHTING FIXTURE SCHEDULE		
B-2	WALL MOUNTED LIGHT FIXTURE, "B" INDICATES THE FIXTURE TYPE AND "2" INDICATES CIRCUIT NUMBER (IF NOTED). HASH MARK IN FIXTURE DENOTES EMERGENCY FIXTURE.		
HOME RUN	HOME RUN TO PANEL BOARD - LETTER(S) INDICATE PANEL BOARD, NUMBERS INDICATE CIRCUIT NUMBERS. CROSS HATCHING REPRESENTS GROUND, NEUTRAL AND HOT RESPECTIVELY. USE #12 GAUGE, 75C WIRE UNLESS OTHERWISE NOTED. DASHED LINE INDICATES BURIED CONDUIT RUN.		
B-2	CEILING MOUNTED LIGHT FIXTURE, "B" INDICATES THE FIXTURE TYPE AND "2" INDICATES CIRCUIT NUMBER (IF NOTED). HASH MARK IN FIXTURE DENOTES EMERGENCY FIXTURE.		
B-2	T-BAR CEILING LAY-IN FIXTURE, "B" INDICATES THE FIXTURE TYPE AND "2" INDICATES CIRCUIT NUMBER. HASH MARK IN FIXTURE DENOTES EMERGENCY FIXTURE.		
4	RECESSED FLOOR BOX WITH 2 GANGS - DUPLEX CONVENIENCE OUTLET GANG 1 & 2 (BACK), "4" DENOTES CIRCUIT #		
4	EMERGENCY LIGHTING FIXTURE, WALL OR CLG. MOUNTED AS SHOWN ON DRAWINGS. FIXTURE TYPE "H"		
4	SINGLE FACE, LIGHTED EXIT SIGN W/EGRESS LIGHTS, (ARROWS), WHERE SHOWN, INDICATE DIRECTION OF EGRESS. SHADED AREA INDICATED FACE OF SIGN. FIXTURE TYPE 1 MOUNT 90° AFF		
4	CEILING MOUNTED, LIGHTED EXIT SIGN, SHADED AREA REPRESENTS FACE(S) OF SIGN. FIXTURE TYPE 1		
4	WALL MOUNTED, LIGHTED EXIT SIGN, SHADED AREA INDICATED FACE(S) OF SIGN. MOUNT AT 90° AFF		
4	QUADRUPLEX CONVENIENCE OUTLET, GFCI IN ONE GANG, DUPLEX OUTLET IN SECOND GANG. GFCI TO BE WIRED TO PROVIDE PROTECTION FOR DUPLEX OUTLET. +45° AFF UNLESS NOTED, "4" CIRCUIT #		
4	DUPLEX CONVENIENCE OUTLET, +18" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED, "4" INDICATES THE CIRCUIT NUMBER. "WP" WHERE SHOWN INDICATES WEATHER PROOF ENCLOSURE.		
4	DUPLEX CONVENIENCE OUTLET, MOUNTED ABOVE COUNTER, +45" ABOVE FINISHED FLOOR. "4" INDICATES THE CIRCUIT NUMBER. "WP" WHERE SHOWN INDICATES WEATHER PROOF ENCLOSURE.		
4	QUADRUPLEX CONVENIENCE OUTLET, +45" TO CENTERLINE ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED. "4" INDICATES THE CIRCUIT NUMBER		
4	DUPLEX CONVENIENCE OUTLET, GFCI TYPE, +18" ABOVE FINISHED FLOOR, "4" INDICATES THE CIRCUIT NUMBER. "WP" WHERE SHOWN INDICATES WEATHER PROOF OUTLET ENCLOSURE.		
4	DUPLEX CONVENIENCE OUTLET, GFCI TYPE, +45" ABOVE FINISHED FLOOR, "4" INDICATES THE CIRCUIT NUMBER. "WP" WHERE SHOWN INDICATES WEATHER PROOF OUTLET ENCLOSURE.		
WATER HEATER			
2	EQUIPMENT CONNECTION, "2" DENOTES EQUIPMENT ITEM NUMBER ON EQUIPMENT SCHEDULE.		
4	CEILING MOUNTED MOTION SWITCH, PIR/ULTRASONIC TYPE. COLOR TO BE WHITE UNLESS OTHERWISE NOTED		
4	EXHAUST FAN - SWITCH WITH BATHROOM LIGHT CIRCUIT UNLESS OTHERWISE NOTED		
4	SINGLE POLE TOGGLE SWITCH, +48" MOUNTING HEIGHT ABOVE FINISHED FLOOR.		
4	LIGHT CONTROL, SWITCH/MOTION SENSOR WITH AUTOMATIC/MANUAL CONTROL, +48" MOUNTING HEIGHT ABOVE FINISHED FLOOR.		
4	THREE WAY SWITCH AS INDICATED, +48" MOUNTING HEIGHT ABOVE FINISHED FLOOR. "M" DENOTES MOTION SENSING TYPE WITH AUTOMATIC/MANUAL CONTROL.		
4	DIMMER SWITCH, SINGLE POLE, THREE, OR FOUR WAY SWITCH CONFIGURATION, +48" MOUNTING HEIGHT ABOVE FINISHED FLOOR. "3" OR "4" DENOTES ANY 3WAY/4WAY SWITCHING CONFIGURATION		
2	INTERCOM/PA EQUIPMENT, "2" DENOTES EQUIPMENT ITEM NUMBER ON EQUIPMENT SCHEDULE. +60" MOUNTING HEIGHT AFF		
4	PENETRATION FOR CIRCUITS TO ROOF MOUNT UNITS AND/OR ROOF TOP RECEPTACLES.		
4	1 PORT TELEPHONE WALL JACK, RJ11, +18" AFF UNLESS NOTED OTHERWISE		
4	PANELBOARD/CONTROL BOX - SEE NOTES & SCHEDULE.		
4	TWO PORT JACK - (1) DATA PORT (RJ45), (1) TELEPHONE JACK RJ11, +18" AFF, HALF SHADED RECEPTACLES, +48" AFF		
4	SIX PORT JACK - (6) DATA PORT (RJ45), +18" AFF		
4	WiFi ACCESS POINT, CEILING MOUNTED, "4" INDICATES EQUIPMENT NUMBER ON LOW VOLTAGE EQUIPMENT SCHEDULE, PROVIDE 1 RJ45 CAT6 OUTLET		
L1	CCTV POE POWERED CAMERA, "4" INDICATES EQUIPMENT NUMBER ON LOW VOLTAGE EQUIPMENT SCHEDULE		
4	DISCONNECT SWITCH, SIZE AS NOTED ON DRAWINGS. FUSED PER MANUFACTURER'S NAME PLATE OF EQUIPMENT SERVED.		
4	FIRE ALARM DUAL ACTION PULL STATION, +48" MOUNTING HEIGHT ABOVE FINISHED FLOOR TO OPERATING HANDLE		
4	FIRE ALARM STROBE/SIREN - RED HOUSING - +80" MOUNTING HEIGHT TO BOTTOM ABOVE FINISHED FLOOR		
4	FIRE ALARM STROBE/SPEAKER - RED HOUSING - +80" MOUNTING HEIGHT TO BOTTOM ABOVE FINISHED FLOOR		
4	PHOTOELECTRIC SMOKE DETECTOR, CEILING MOUNTED		
4	HEAT DETECTOR, CEILING MOUNTED		

- ### GENERAL ELECTRICAL NOTES
- ALL MECHANICAL AND ELECTRICAL EQUIPMENT AND INSTALLATIONS SHALL CONFORM WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, THE INTERNATIONAL BLOC CODE, THE STATE EMERGENCY CODE AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
  - PRIOR TO PURCHASING ANY MATERIALS OR STARTING ANY WORK, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, EQUIPMENT LOCATIONS, DIMENSIONS, ETC. SHOWN ON THE DRAWINGS OR AFFECTING THE WORK AND SHALL REPORT ANY DEVIATIONS TO THE ARCHITECT.
  - DO NOT SCALE DRAWINGS TO LOCATE EQUIPMENT OR OUTLETS.
  - MOUNTING HEIGHTS AS INDICATED ON THE LEGEND SHALL BE FROM THE FINISHED FLOOR TO THE CENTER LINE OF THE OUTLET BOX.
  - THE ELECTRICAL DRAWINGS ARE ONE COMPONENT OF THE CONTRACT DOCUMENTS FOR THE PROJECT. ALL OF THE DRAWINGS AND SPECIFICATIONS MUST BE REVIEWED FOR THE INTERRELATIONSHIP AND REQUIRED COORDINATION BETWEEN DISCIPLINES.
  - PRIOR TO PROJECT COMPLETION, ELECTRICAL CONTRACTOR SHALL OBTAIN FINAL SPACE NUMBERS FROM OWNER AND/OR ARCHITECT. TYPEWRITTEN PANELBOARD DIRECTORIES SHALL REFLECT SPACE DESIGNATION OF EACH CIRCUIT. NO EXCEPTIONS.
  - ALL CONDUIT ROUTED FROM SLAB UP TO PANELS AND EXPOSED CONDUIT ROUTED BELOW 48" A.F.F. SHALL BE GALVANIZED RIGID STEEL UNLESS OTHERWISE NOTED ON SPECIFIC LAYOUT NOTES.
  - PROVIDE CONCRETE HOUSEKEEPING CURB AT ALL TRANSFORMERS.
  - PRIOR TO ROUGH-IN OF OUTLETS, COORDINATE AN ON SITE MEETING TO REVIEW EXACT LOCATION WITH FURNITURE PLAN.
  - ALL LOW VOLTAGE CABLES ROUTED UNDERGROUND SHALL BE WEST PENN "AQUASEAL" OR EQUIVALENT. ALL CABLEING NOT IN CONDUIT SHALL BE PENNAN RATED.
  - ALL RAMPY CONDUITS SHALL BE PROVIDED WITH PULL STRINGS.
  - THERE SHALL BE NO BACK TO BACK RECEPTACLES, SWITCHES, DATA/TELECOMMUNICATION OUTLETS, ETC.
  - NO PIRING, DUCT, OR EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION SHALL BE INSTALLED ABOVE ANY ELECTRICAL PANEL BOARD, MOTOR CONTROL CENTER, OR SWITCHBOARD. PER NEC ARTICLE 110-21 (A) (3)
  - ALL 120V SINGLE PHASE CIRCUITS SHALL HAVE DEDICATED NEUTRALS. NO SHARED NEUTRALS SHALL BE ALLOWED. ALL CIRCUITS SHOULD CONTAIN A DEDICATED GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH THE NEC.
  - INCREASE HAMBRUN CONDUCTOR SIZE TO #10 GAUGE FOR LIGHTING AND RECEPTACLE CIRCUITS WHICH ARE SERVED AT 120 VOLTS AND ARE MORE THAN 100 FEET IN LENGTH OR SERVED AT 277 VOLTS AND MORE THAN 150 FEET IN LENGTH.
  - ALL FEEDER CONDUCTORS SHALL BE 98% CONDUCTIVITY, COPPER, AWG SIZE AS NOTED, 90% INSULATION, BODY RATED, UNLESS OTHERWISE NOTED.
  - ALL BRANCH CIRCUIT CONDUCTORS SHALL BE 98% CONDUCTIVITY, COPPER, MINIMUM #12 AWG SIZE, THIN/THIN, WITH DUAL RATED 75/90 DEG. C INSULATION, 600V RATED. UNLESS OTHERWISE NOTED, 120V CIRCUITS MORE THAN 125FT FROM CENTER OF LOAD TO PANEL SHALL BE #10 AWG.
  - AFCI PROTECTION TO BE INSTALLED AS REQUIRED PER THE NEC AND ANY OTHER APPLICABLE CODES.
  - ALL CONDUITS SHALL CONTAIN AN INSULATED, GREEN, COPPER EQUIPMENT GROUND WIRE SIZED IN ACCORDANCE WITH TABLE 250-122(NEC)
  - THE CONTRACTOR SHALL PROVIDE CONDUCTORS, CONDUIT, AND CIRCUIT ALL EQUIPMENT, MOTORS, AND OTHER ITEMS NOT EXPLICITLY SHOWN, BUT IMPLICITLY SHOWN IN CONTRACT DOCUMENTS OR IN SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION BY SMO ITEMS BETWEEN TRADES. PROVIDE CONDUIT AND BOXES FOR CONTROL WIRING WHERE REQUIRED FOR PROTECTION OR BY EQUIPMENT MANUFACTURER.
  - THE CONTRACTOR SHALL PROVIDE A WRITTEN RECORD OF THE GROUND-FAULT PERFORMANCE TEST RESULTS TO THE CHIEF ELECTRICAL INSPECTOR HAVING JURISDICTION AND THE ELECTRICAL PLANS EXAMINER PRIOR TO THE FINAL ELECTRICAL INSPECTION PER NEC ARTICLE 230-95 (C)
  - ALL CIRCUITS SHOWN WITH GFCI RECEPTACLES ARE TO BE WIRED SO AS THE GFCI OUTLET IS THE FIRST CONNECTED OUTLET FROM THE PANEL, THIS PROVIDING GFCI PROTECTION FOR ALL DOWNSTREAM OUTLETS.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIAL AND LABOR FOR A COMPLETE AND FULLY FUNCTIONAL ELECTRICAL SYSTEM.

### THROUGH-PENETRATION FIRE STOP SYSTEMS

THROUGH-PENETRATIONS	VERTICAL FLOOR/CEILING PENETRATION		HORIZONTAL INTERIOR WALL PENETRATION		CEILING PENETRATION AT ROOF ASSEMBLY		HORIZONTAL EXTERIOR WALL PENETRATION	
	RATING	SYSTEM	RATING	SYSTEM	RATING	SYSTEM	RATING	SYSTEM
SOB, WASTE, AND VENT PIPING 3/4" 40 CAST IRON	1 HR.	FC1008 FC2013 FC2026	1 HR.	ML1052	1 HR.	FC1010	1 HR.	ML1039
WATER PIPING (COPPER) AND ELECTRICAL CONDUIT (EWT)	1 HR.	FC1006	1 HR.	ML1052	2 HR.	FC1010	2 HR.	ML1039
TOILET EXHAUST SUB-DUCT (24 GA.)	---	---	1 HR.	ML7001	---	---	---	---
PVC PIPE	1 HR.	FC2007 FC2011 FC2018 FC2022	1 HR.	ML2083	1 HR.	FC2020	1 HR.	ML2036
ROMEX	1 HR.	NEC9008(C) OR NEC9009(C)	---	---	---	---	---	---

- ### SCHEDULE NOTES
- ALL DUCT PENETRATIONS OF FIRE AND/OR SMOKE RATED ASSEMBLIES NOT ADDRESSED IN SCHEDULE ABOVE SHALL BE FIRESTOPPED AS REQUIRED TO RESTORE ASSEMBLY TO ORIGINAL INTEGRITY.
  - FIRE BARRIER PRODUCTS SHALL BE MANUFACTURED BY 3M CO. (OR COMPANY WITH EQUAL PRODUCTS). PRODUCTS SHALL BE CPFS CALX, CS195 COMPOSITE PANEL, FSWAR/STRIP, PFS 3RD SERIES SYSTEM. INSTALL AS RECOMMENDED BY THE MANUFACTURER FOR THE PARTICULAR APPLICATION OR EQUIVALENT SYSTEM AS RECOMMENDED BY LOCAL CODE OFFICIALS.

### PANEL SCHEDULE "MDP1"

CIRCUIT NO.	TRIP/POLE	DESCRIPTION	CONNECTED LOAD (KVA)			DESCRIPTION	TRIP/POLE	CIRCUIT NO.
			PHASE A	PHASE B	PHASE C			
			MOUNTING SURFACE					
1	125/3	FEED TO XFMR2 FOR PANEL P1	20.57 / 20.98			1503	2	
3	-	FEED TO XFMR2 FOR PANEL P1		15.99 / 20.98			4	
5	-	FEED TO XFMR2 FOR PANEL P1			17.84 / 20.1		6	
7	125/3	FEED TO XFMR3 FOR PANEL P2	16.04 / 4.5			251	8	
9	-	FEED TO XFMR3 FOR PANEL P2		13.54 / 3.44			10	
11	-	FEED TO XFMR3 FOR PANEL P2			13.64 / 3.44		12	
13	35/3	10HP-1	3.88 / 3.75				14	
15	-	10HP-1		3.88 / 0			16	
17	-	10HP-1			3.88 / 0		18	
19	35/3	10HP-2	3.88 / 0				20	
21	-	10HP-2		3.88 / 0			22	
23	-	10HP-2			3.88 / 0		24	
25	20/3	SHP-1	2.11 / 0				26	
27	-	SHP-1		2.11 / 0			28	
29	-	SHP-1			2.11 / 0		30	
31	20/3	SHP-2	2.11 / 0				32	
33	-	SHP-2		2.11 / 0			34	
35	-	SHP-2			2.11 / 0		36	
37	20/3	SHP-3	2.11 / 0				38	
39	-	SHP-3		2.11 / 0			40	
41	-	SHP-3			2.11 / 0		42	

PHASE A - 78.9, PHASE B - 68.0, PHASE C - 68.9

MINIMUM BREAKER AIC: 22,000 AIC

NOTES: PROVIDE COPPER GROUND BUS, LOCKING COVER, NEMA 3R

TOTAL LOAD: 216.8KVA (261.2 AMPS)

### PANEL SCHEDULE "P1"

CIRCUIT NO.	TRIP/POLE	DESCRIPTION	CONNECTED LOAD (KVA)			DESCRIPTION	TRIP/POLE	CIRCUIT NO.
			PHASE A	PHASE B	PHASE C			
			MOUNTING SURFACE					
1	-	SPARE	0 / 0.36				2	
3	-	SPARE		0 / 1.08			4	
5	20/1	DF-1			0.8 / 0.36		6	
7	30/2	ODU-1	1.62 / 1.26				8	
9	-	ODU-1		1.62 / 0.9			10	
11	50/2	ODU-2			2.66 / 0.13		12	
13	-	ODU-2	2.66 / 0.72				14	
15	20/2	ELH-1		1.13 / 0			16	
17	-	ELH-1			1.13 / 0.47		18	
19	20/1	WOMENS RESTROOM	1.61 / 0.36				20	
21	20/1	GUH-10		0.47 / 0.47			22	
23	20/1	MW-1			1.44 / 2.5		24	
25	20/1	MENS RESTROOM	1.61 / 2.5				26	
27	20/1	OFFICE LIGHTS		0.48 / 4.48			28	
29	20/1	REF-1			1.02 / 4.48		30	
31	-	SPARE	0 / 4.48				32	
33	-	SPARE		0 / 4.48			34	
35	-	SPARE			0 / 1.89		36	
37	20/1	BREAKROOM OUTLETS	1.5 / 1.89				38	
39	20/1	OUTDOOR LIGHTING		0.88 / 0			40	
41	20/1	OFFICE/CONF/HALL LIGHTS			0.96 / 0		42	

PHASE A - 20.5, PHASE B - 15.9, PHASE C - 17.8

MINIMUM BREAKER AIC: 10,000 AMPS

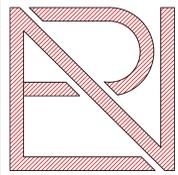
NOTES: PROVIDE COPPER GROUND BUS, LOCKING COVER, NEMA 3R

TOTAL LOAD: 54.2KVA (150.6 AMPS)

PROJECT # 1715  
DESIGNER:  
DATE: 1/24/2018  
REV. DATE: 2/16/2018

### EQUIPMENT SCHEDULE

EQUIPMENT TAG	DESCRIPTION	EQUIPMENT CHARACTERISTICS	CIRCUIT	FEEDER	DISCONNECT SWITCH			REMARKS	
					SIZE (AMPS)	POLE	FUSE		FEATURES
BLR-1	BALER #1	480 3 60.31 75.7	MDP1-2,4,6 - 150A, 3 POLE	3#30 + 1#60 - 2" C	200	3	NOT FUSED	NEMA 3R	CIRCUIT SIZED FOR ALUMINUM CONDUCTORS AND COPPER GROUND. VERIFY FINAL ELECTRICAL SPECS WITH OWNER PRIOR TO INSTALL.
10HP-1	10HP FOR EQUIPMENT #1	480 3 10 14	MDP1-13,15,17 - 35A, 3 POLE	3#8 + 1#10G - 3/4" C	30	3	NOT FUSED	NEMA 3R	BASIS OF DESIGN IS 10HP3PH480V VERIFY FINAL EQUIPMENT SPECS WITH OWNER PRIOR TO INSTALL.
10HP-2	10HP FOR EQUIPMENT #2	480 3 10 14	MDP1-19,21,23 - 35A, 3 POLE	3#8 + 1#10G - 3/4" C	30	3	NOT FUSED	NEMA 3R	BASIS OF DESIGN IS 10HP3PH480V VERIFY FINAL EQUIPMENT SPECS WITH OWNER PRIOR TO INSTALL.
SHP-1	SHP FOR EQUIPMENT #1	480 3 5 7.6	MDP1-25,27,29 - 20A, 3 POLE	3#10 + 1#10G - 3/4" C	30	3	NOT FUSED	NEMA 3R	BASIS OF DESIGN IS SHP3PH480V VERIFY FINAL EQUIPMENT SPECS WITH OWNER PRIOR TO INSTALL.
SHP-2	SHP FOR EQUIPMENT #2	480 3 5 7.6	MDP1-31,33,35 - 20A, 3 POLE	3#10 + 1#10G - 3/4" C	30	3	NOT FUSED	NEMA 3R	BASIS OF DESIGN IS SHP3PH480V VERIFY FINAL EQUIPMENT SPECS WITH OWNER PRIOR TO INSTALL.
SHP-3	SHP FOR EQUIPMENT #3	480 3 5 7.6	MDP1-37,39,41 - 20A, 3 POLE	3#10 + 1#10G - 3/4" C	30	3	NOT FUSED	NEMA 3R	BASIS OF DESIGN IS SHP3PH480V VERIFY FINAL EQUIPMENT SPECS WITH OWNER PRIOR TO INSTALL.
EW-H1	ELECTRIC WATER HEATER	277 1 4.49 16.2	MDP1-8 - 25A, 1 POLE	2#10 + 1#10G - 3/4" C	30	1	NOT FUSED	NEMA 1	277V, (2) NON-SIMULTANEOUS 4.9KW ELEMENTS
MW-1	MICROWAVE	120 1 1.44 12	P1-23 - 20A, 1 POLE	2#12 + 1#12G - 1/2" C	-	-	-	-	BASIS OF DESIGN IS FRIGIDAIRE MODEL PFSS2614Q. VERIFY WITH OWNER
REF-1	REFRIGERATOR	120 1 1.02 8.5	P1-29 - 20A, 1 POLE	2#12 + 1#12G - 1/2" C	-	-	-	-	BASIS OF DESIGN IS FRIGIDAIRE MODEL PFSS2614Q. VERIFY WITH OWNER
WA-1	WASHER	120 1 1.50 0.0	P2-8 - 20A, 1 POLE	2#12 + 1#12G - 1/2" C	-	-	-	-	BASIS OF DESIGN IS SPEED QUEEN MODEL AWNE82. VERIFY WITH OWNER
DR-1	DRYER	208 1 5.60 26.9	P2-5,7 - 30A, 2 POLE	2#10 + 1#10G - 3/4" C	-	-	-	-	BASIS OF DESIGN IS SPEED QUEEN MODEL ADEBR. VERIFY WITH OWNER
WLDR-1	WELDER	208 1 6.24 30.0	P2-1,3 - 30A, 2 POLE	2#10 + 1#10G - 3/4" C	60	2	NOT FUSED	NEMA 3R	VERIFY FINAL EQUIPMENT SPECS WITH OWNER PRIOR TO INSTALL.
ICE-1	ICE MACHINE	120 1 1.50 12.5	P2-18 - 20A, 1 POLE	2#12 + 1#12G - 1/2" C	-	-	-	-	BASIS OF DESIGN IS 120V/1PH/12.5A ICE MACHINE. VERIFY WITH OWNER
ODU-1	OUTDOOR HVAC UNIT 1	208 1 3.24 15.6	P1,7,9 - 30A, 2 POLE	2#12 + 1#12G - 3/4" C	30	3	NOT FUSED	NEMA 3R	VERIFY FINAL LOCATION AND EQUIPMENT SPECS WITH MECHANICAL PLANS PRIOR TO INSTALL.
ODU-2	OUTDOOR HVAC UNIT 2	208 1 5.32 25.6	P1-11,13 - 50A, 2 POLE	2#8 + 1#10G - 3/4" C	60	NOT FUSED	NEMA 3R	VERIFY FINAL LOCATION AND EQUIPMENT SPECS WITH MECHANICAL PLANS PRIOR TO INSTALL.	
IDU-1	INDOOR HVAC UNIT 1	208 1 8.95 43.0	P1-29,30 - 60A, 2 POLE	2#6 + 1#8G - 1" C	60	NOT FUSED	NEMA 1	VERIFY FINAL LOCATION AND EQUIPMENT SPECS WITH MECHANICAL PLANS PRIOR TO INSTALL.	
IDU-2	INDOOR HVAC UNIT 2	208 1 8.95 43.0	P1-32,34 - 60A, 2 POLE	2#6 + 1#8G - 1" C	60	NOT FUSED	NEMA 1	VERIFY FINAL LOCATION AND EQUIPMENT SPECS WITH MECHANICAL PLANS PRIOR TO INSTALL.	
IDU-22	INDOOR HVAC UNIT 2	208 1 3.78 18.2	P1-36,38 - 25A, 2 POLE	2#10 + 1#10G - 3/4" C	30	NOT FUSED	NEMA 1	VERIFY FINAL LOCATION AND EQUIPMENT SPECS WITH MECHANICAL PLANS PRIOR TO INSTALL.	
ODU-IDU-3	MINI SPLIT #3	208 1 1	P1-24,26 - 25A, 2 POLE	2#10 + 1#10G - 3/4" C	30	NOT FUSED	NEMA 3R	VERIFY FINAL LOCATION AND EQUIPMENT SPECS WITH MECHANICAL PLANS PRIOR TO INSTALL.	
CP-1	CIRCULATION PUMP	120 1 0.13 1.1	P1-12 - 20A, 1 POLE	2#12 + 1#12G - 1/2" C	-	-	-	-	VERIFY CONNECTION TYPE WITH MECHANICAL CONTRACTOR PRIOR TO INSTALL.
DF-1	DRINKING FOUNTAIN	120 1 0.60 5.0	P1-5 - 20A, 1 POLE	2#12 + 1#12G - 1/2" C	-	-	-	-	
EF-1	EXHAUST FAN	120 1 0.17 1.4	P1-25	-	-	-	-	-	SWITCH WITH LIGHT
EF-2	EXHAUST FAN	120 1 0.17 1.4	P1-19	-	-	-	-	-	SWITCH WITH LIGHT
EF-3	EXHAUST FAN	120 1 0.08 0.7	P2-27	-	-	-	-	-	SWITCH WITH LIGHT
EF-4	EXHAUST FAN	120 1 0.08 0.7	P1-2	-	-	-	-	-	PROVIDE WALL SWITCH FOR OPERATION AS SHOWN ON MECHANICAL PLAN
AIR-1	AIR COMPRESSOR	208 1 8.32 40.0	P2-17,19 - 40A, 2 POLE	2#8 + 1#10G - 3/4" C	60	2	NOT FUSED	NEMA 3R	BASIS OF DESIGN IS 208V/48A AIR COMPRESSOR. VERIFY FINAL EQUIPMENT SPECS WITH OWNER PRIOR TO INSTALL.
GUH-1	GAS HEATER 1	120 1 0.47 3.9	P2-23 - 20A, 1 POLE	2#12 + 1#12G - 1/2" C	30	1	NOT		



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**FLOYD COUNTY PUBLIC WORKS**  
**FLOYD RECYCLE CENTER**  
 LAVENDER DRIVE  
 Rome, Georgia 30165

FAULT CURRENT ANALYSIS			
DEVICE NAME	DEVICE RATING	AVAILABLE FAULT CURRENT	REMARKS
		14,434 AMPS	*ASSUMED (3) 100KVA OVERHEAD TRANSFORMER BANK, Z=2.5%
MDP1- 400A FUSED DISCONNECT	22,000 AIC	13,479 AMPS	*ASSUMED 35' AL CABLE IN PVC CONDUIT
PANEL MDP1	22,000 AIC	14,566 AMPS	*ASSUMED 10' 250KCM (X2) AL CABLE IN METALLIC CONDUIT + MOTOR CONTRIBUTION
PANEL P1	10,000 AIC	7,865 AMPS	*ASSUMED 10' 40 CU CABLE IN METALLIC CONDUIT, 75KVA TRANSFORMER WITH Z=2.4%
PANEL P2	10,000 AIC	7,231 AMPS	*ASSUMED 10' 40 CU CABLE IN METALLIC CONDUIT, 75KVA TRANSFORMER WITH Z=2.4%

NOTES: AVAILABLE FAULT CURRENT FOR MAIN SERVICE DISCONNECT TO BE POSTED AT SERVICE ENTRANCE WITH DATE LISTED ON THIS DRAWING. CONTRACTOR IS RESPONSIBLE FOR RE-CALCULATING AVAILABLE FAULT CURRENT VALUES AND ADJUSTING DEVICE RATINGS IF ACTUAL INSTALL CONDITIONS DIFFER FROM DESIGN ASSUMPTIONS STATED.

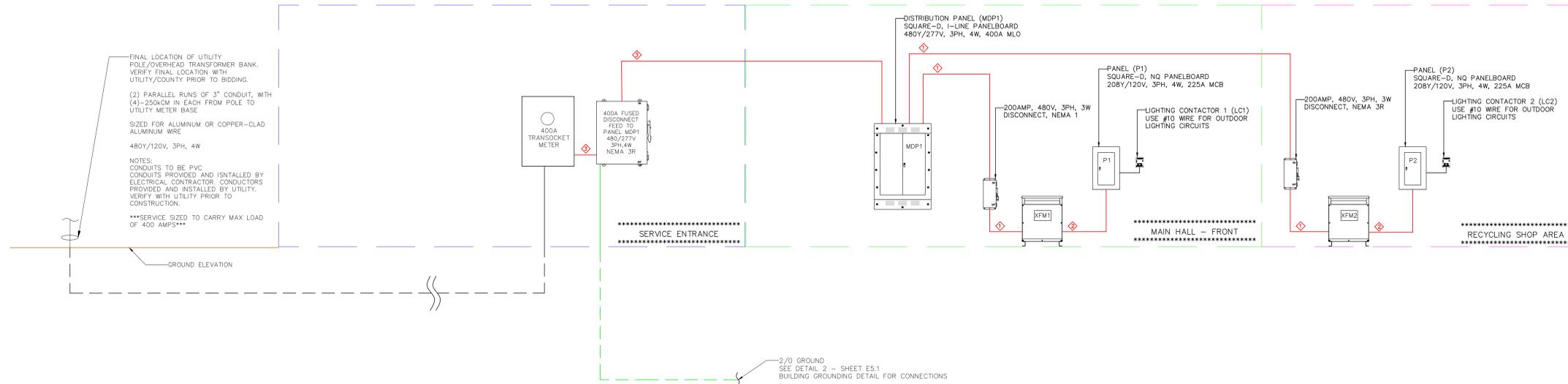
TRANSFORMER SCHEDULE			
DEVICE NAME	SIZE	PRIMARY VOLTAGE	SECONDARY VOLTAGE
XFM1	75KVA	480 A	208Y/120
XFM2	75KVA	480 A	208Y/120

NOTES:  
 - ALL TRANSFORMERS ARE 3 PHASE PRIMARY AND SECONDARY  
 - BASIS OF DESIGN FOR 75KVA TRANSFORMERS: SQUARE-D MODEL EX7513K  
 - MAINTAIN 6" CLEARANCE AROUND ALL VENTILATED TRANSFORMERS FOR PROPER COOLING

CONDUIT/CABLE SCHEDULE								
NOTE	CONDUITS	CONDUCTORS	GROUND	PHASE	WIRE	VOLTAGE	FED FROM	FEED TO
◇	(1) 2"	(3) 2/0 - ALUMINUM	(1) #6	3	3	480A	MDP1	XFM1 OR XFM2
◇	(1) 2-1/2"	(4) 4/0	(1) #4	3	4	208Y/120	XFM1 OR XFM2	P1 OR P2
◇	(2) 3"	(4) 250KCM ALUMINUM IN EACH CONDUIT	(1) #3	3	4	480Y/277	FUSED DISCONNECT	MDP1

NOTES: SIZING BASED ON COPPER CONDUCTORS UNLESS OTHERWISE NOTED

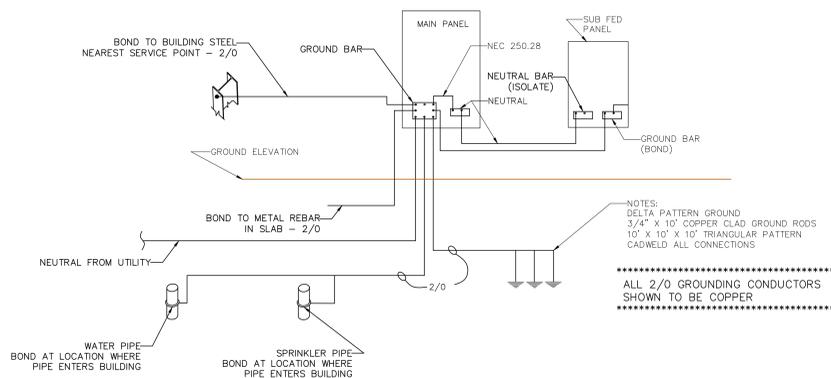
**CALCULATED LOADS FOR SERVICE**  
 -CALCULATED LOADING FOR DISTRIBUTION PANELS-  
 (FLOYD RECYCLING) - PANEL MDP1(480Y/277V) - 261.2 AMPS  
 (FLOYD RECYCLING) - PANEL P1(208Y/120V) - 150.6 AMPS  
 (FLOYD RECYCLING) - PANEL P2(208Y/120V) - 120.1 AMPS  
 -----  
 TOTAL = 261.2 AMPS @ 480Y/277V UTILITY SERVICE LATERAL  
 -----



**1 ELECTRICAL RISER DIAGRAM**  
 E5.1 SCALE: NOT SCALED

**GENERAL POWER NOTES - THIS SHEET ONLY**

- EQUIPMENT LOCATIONS AND CIRCUIT LOCATIONS SHOWN ARE DIAGRAMMATIC AND ARE INTENDED TO SHOW THE INTENT OF THE DESIGN. COORDINATE FINAL LOCATION AND ROUTING WITH ACTUAL FIELD CONDITIONS
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT LAYOUT AND NOTIFY ARCHITECT OF ANY ITEMS NEEDING CLARIFICATION
- CONTRACTOR RESPONSIBLE FOR PROVIDING ALL MATERIAL AND LABOR FOR A COMPLETE AND FULLY FUNCTIONAL ELECTRICAL SYSTEM
- CONTRACTOR TO PROVIDE AND INSTALL HOUSEKEEPING PAD FOR TRANSFORMERS XFM1 AND XFM2 OR WALL/SUSPEND MOUNT SAID TRANSFORMERS. VERIFY FINAL PREFERENCE WITH OWNER.



**2 BUILDING GROUNDING DETAIL**  
 E5.1 SCALE: NOT SCALED

**ELECTRICAL RISER**

PROJECT # 1715  
 DESIGNER:  
 DATE: 1/24/2018  
 REV. DATE: 2/16/2018

**WT**  
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**E5.1**