







Name		LBD	Main Bus Rating (A)					100	Voltage		120/208	Phase		3	<div><div><input type="checkbox"/> Surface</div><div><input type="checkbox"/> PDU</div><div><input type="checkbox"/> Flush</div><div><input type="checkbox"/> 200% Neutral</div></div>															
Fed From:		LDB	Main Lugs Only						SCCR		10,000	Wire		4																
Wire&Conduit		Info	For Panel Loads Only (VA)					VA	Physical		Phase			VA	Info	Loads Only (VA)					Info	Wire&Conduit								
Wire Size	Cond. (in)	Type	Name:	L	R	LM	M	ME	K	Total:	Breaker	Phase	Circuit	A	B	C	Circuit	Phase	Breaker	Total:	Name:	L	R	LM	M	ME	K	Type	Cond. (in)	Wire Size
12	3/4	R	N. Wiremold							540	20	1	1	1260			2	1	20	720	O.H. Wiremold						R	3/4	12	
12	3/4	R	N. Wiremold							540	20	1	3			1860	4	2	20	1320	Pump 1 Heater (NEMA L6-15R)						M	3/4	12	
12	3/4	R	N. Wiremold, Window Shades							1140	20	1	5			2460	6	-	-	1320	-						M	-	-	
12	3/4	R	E. Wiremold							540	20	1	7	1635			8	1	20	1095	O.H. Wiremold & Pump 7						R	3/4	12	
12	3/4	R	E. Wiremold							360	20	1	9			720	10	1	20	360	General Purpose Wall Rec.						R	3/4	12	
12	3/4	ME	E. Wall, RAA Microscope							1800	20	1	11			1980	12	1	20	180	W. Wall Polisher						R	3/4	12	
12	3/4	ME	E. Wall, RAA Microscope							1800	20	1	13	3000			14	1	20	1200	Fume Hood						R	3/4	12	
12	3/4	ME	E. Wall, RAB Microscope							1500	20	1	15			2220	16	1	20	720	W. Wiremold						R	3/4	12	
-	-	ME	E. Wall, RAC Analyzer							1500	20	1	17			3540	18	1	20	2040	Dedicated Chiller Rec. (NEMA 5-20R)						R	3/4	12	
-	-	ME	SPARE								20	1	19	1320			20	2	20	1320	Pump 7 Heater (NEMA L6-15R)						M	3/4	12	
-	-	ME	SPARE								20	1	21			1320	22	-	-	1320	-						M	-	-	
12	3/4	ME	S. Wall, RAF Unit							1800	20	1	23			1800	24	1	20		SPARE							-	-	
12	3/4	ME	S. Wall, RAG Unit							1800	20	1	25	1800			26	1	20		SPARE							-	-	
12	3/4	R	S. Wall Wiremold							360	20	1	27			360	28	1	20		SPARE							-	-	
12	3/4	LM	Vacuum Pump, W. Casework							1200	20	1	29			1200	30				SPACE							-	-	
12	3/4	M	Pump 1 (NEMA L15-20R)							186.5	20	3	31	186.5			32				SPACE							-	-	
-	-	M	-							186.5	-	-	33			186.5	34				SPACE							-	-	
-	-	M	-							186.5	-	-	35			186.5	36				SPACE							-	-	
-	-		SPACE							125	-	-	37	125			38	3	50		TVSS Unit							3/4	8	
-	-		SPACE							125	-	-	39			125	40	-	-		-							-	-	
-	-		SPACE							125	-	-	41			125	42	-	-		-							-	-	
Phase Totals										A	B	C																		
										9326.5	6791.5	11292																		
Load Summary																														
Connected VA															Demand Factor					Demand VA					Notes:					
L - Lighting															0					0										
R - Receptacles (1st 10,000 VA)															9795					9795										
R - Receptacles (Remaining)															0					0										
LM - Largest Motor															1200					1500										
M - Remaining HVAC															5839.5					5839.5										
ME - Mechanical/Miscellaneous															10200					10200										
K - Kitchen															0					0										
Total Connected VA															27034.5															
Total Demand VA															27,335															
Total Demand Amps															76															
Spare Ampacity In Panel															24.1%															

Service Load Justification		
Marquez		
Service Size (kVA):	2000	
Service Size (A):	2407	Phase: 3
Voltage:	277 / 480	Power Factor: 0.91 (Campus Avg = 0.93)
Billed Peak (kW):	167.4	
12/2017-09/2021 on 11/2018		
Corrected Power (kVA)	167.4 kW / 0.9 =	186.0
NEC 220.87 Adjusted Peak (kVA)	186 kVA x 125% =	232.5
Existing building demand	kVA	Amps
Load added to electrical service as a result of this project	232.50	279.78
Hi Pressure Oven	5.72	6.88
Recombination Apparatus	4.56	5.48
Pumps 1,3,7	9.44	11.36
Chiller	2.04	2.45
New Ampacity		305.96
Existing electrical service size		2,407.00
Spare ampacity on electrical service (A)	87%	2,101.04

Name		LBF	Main Bus Rating (A)					150	Voltage		120/208	Phase		3	<div><div><input type="checkbox"/> Surface</div><div><input type="checkbox"/> PDU</div><div><input type="checkbox"/> Flush</div><div><input type="checkbox"/> 200% Neutral</div></div>																
Fed From:		LDB	Main Lugs Only						SCCR		10,000	Wire		4																	
Wire&Conduit		Info	For Panel Loads Only (VA)					VA	Physical		Phase		Physical		VA	Info		Loads Only (VA)					Info	Wire&Conduit							
Wire Size	Cond. (n)	Type	Name:	L	R	LM	M	ME	K	Total:	Breaker	Phase	Circuit	A	B	C	Circuit	Phase	Breaker	Total:	Name:	L	R	LM	M	ME	K	Type	Cond. (n)	Wire Size	
12	3/4	R	N. Wiremold							540	20	1	1	1260			2	1	20	720	O.H. Wiremold						R	3/4	12		
12	3/4	R	N. Wiremold							540	20	1	3			1860	4	2	20	1320	Pump 3 Heater (NEMA L6-15R)						M	3/4	12		
12	3/4	R	N. Wiremold, Window Shades							1140	20	1	5			2460	6	-	-	1320		-						M	-	-	
12	3/4	R	E. Wiremold							540	20	1	7	1260			8	1	20	720	O.H. Wiremold						R	3/4	12		
12	3/4	R	E. Wiremold							540	20	1	9			900	10	1	20	360	General Purpose Wall Rec.						R	3/4	12		
12	3/4	R	S. Wiremold, RBC-Core Measurement								20	1	11			1200	12	1	20	1200	Fume Hood						ME	3/4	12		
12	3/4	R	S. Wiremold, RBD-PDPK								20	1	13	940			14	1	20	940	W. Wiremold, RBF-SURF Area Analyzer						R	3/4	12		
12	3/4	R	S. Wiremold							720	20	1	15			1520	16	1	20	800	RBE - Refrigerator						LM	3/4	12		
10	3/4	M	Hi Pressure System Oven (NEMA L6-30R)							2860	30	2	17			2860	18	1	20		SPARE							-	-		
-	-	M	-							2860	-	-	19	2860			20	1	20		SPARE							-	-		
-	-		SPARE								20	1	21			0	22	1	20		SPARE							-	-		
-	-		SPARE								20	1	23			0	24	1	20		SPARE							-	-		
-	-		SPARE										25	0			26				SPACE							-	-		
12	3/4	M	Recombination Apparatus (Motor) (NEMA L6-20R)							613.5	20	2	27			613.5	28				SPACE							-	-		
-	-	M	-							613.5	-	-	29				30				SPACE							-	-		
12	3/4	M	Recombination Apparatus (Heater) (NEMA L6-20R)							1664	20	2	31	1664			32				SPACE							-	-		
-	-	M	-							1664	-	-	33			1664	34				SPACE							-	-		
-	-		SPACE										35				36											-	-		
12	3/4	M	Pump 3 (NEMA L15-20R)							192	20	3	37	3542			38	-	-	3350	-						ME	1 1/4	4		
-	-	M	-							192	-	-	39			2592	40	2	30	2400	RBB - Vacuum Oven, E. Wall						ME	3/4	10		
-	-	M	-							192	-	-	41				42	-	-	2400	-						ME	-	-		
														A	B	C															
														11526	9149.5	13076															
Load Summary																															