

SERVICE ENTRANCE																			
EP601																			
② AMPACITY																			
MAINS																			
3000																			
3000																			
SERVICE	480	277	3																
POLES	42																		
A	B	C	CB TRIP	WIRE	COND	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C
402.5			1600	(4) #600	(4) 3"	UB-SH2 via ATS			1	2			UB-UPSH2B	#350	3"	300	42.4		
	386.8								3	4								34.6	
		383.5							5	6									42.0
81.9			800	(2) #600	(2) 3"	SB-NH4A			7	8			UB-NH2	#4/0	2-1/2"	225	11.23		
	78.8								9	10								8.67	
		83.1							11	12									5.34
263.5			1600	(4) #600	(4) 3"	SB-NH1A			13	14			UB-NH1A	(2) #350	(2) 2-1/2"	600	95.9		
	263.4								15	16								100.9	
		256.6							17	18									103.8
						SPACE			19	20			CHILLER CH-04 (EXTREMELY LOW TEMP WATER)	#2	1-1/4"	100	16.6		
									21	22		47						16.6	
									23	24									16.6
70.4			300	#350	3"	CHILLER CH-01 (CHILLED WATER)	46a	M	25	26			CHILLER CH-05 (LOW TEMP WATER)	#1/0	2"	150	30.5		
	70.4							M	27	28								30.5	
		70.4							29	30									30.5
70.4			300	#350	3"	CHILLER CH-03 (CHILLED WATER)	46a		31	32			CHILLER CH-06 (LOW TEMP WATER)	#1/0	2"	150	30.5		
	70.4								33	34								30.5	
		70.4							35	36									30.5
						SURGE PROTECTION DEVICE			37	38									
									39	40									
									41	42									
									43	44									
									45	46									
									47	48									
									49	50									
									51	52									
									53	54									
888.7	869.8	864.0	TOTAL CONNECTED KVA														227.1	221.78	228.7
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD																			
							C			A			B			C			
										0.0			0.0			0.0			
										1045.4			1021.2			1022.3			
							M			88.0			88.0			88.0			
										1133.4			1109.2			1110.3			
										4091.67			4004.29			4008.21			
										3352.86									

BREAKER	CAPACITY	BREAKER	CAPACITY
1600	91%	300	51%
1600	87%	300	42%
1600	87%	300	51%
800	37%	225	18%
800	36%	225	14%
800	37%	225	9%
1600	59%	600	58%
1600	59%	600	61%
1600	58%	600	62%
1600	0%	100	60%
1600	0%	100	60%
1600	0%	100	60%
300	85%	150	73%
300	85%	150	73%
300	85%	150	73%
300	85%	150	73%
300	85%	150	73%
300	85%	150	73%
300	85%	150	73%
300	0%	150	0%
300	0%	150	0%
300	0%	150	0%
300	0%	150	0%
300	0%	150	0%
300	0%	150	0%
300	0%	150	0%
300	0%	150	0%

Actual wire ampacity as installed is 2000A per scheudle 200B (E701). 6 sets 500 KCM.
As-built: MECO 12 kV primary fuse size (40A) with 1000 kVA pad mount transformer.

Chillers 5&6 installed different than original specification. Installed with 1/0 wire and 150A fuse. Turn down breakers to from 200A to 150A.

PANEL UB-NH1B																			
EP601																			
AMPACITY																			
225																			
225																			
SERVICE POLES																			
480 277 3																			
42																			
A	B	C	CB TRIP	WIRE	COND	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C
7.5			50	#8	1"	CP-09 15 HP VIA VFD (LTW PUMP)		M	1	2	M		SPACE						
	7.5						M	3	4	M									
		7.5					M	5	6	M									
7.5			50	#8	1"	CP-10 15 HP VIA VFD (LTW PUMP)			7	8	M		CP-08 15 HP VIA VFD (FLUID COOLER PUMP)	#8	1"	50	7.5		
	7.5							9	10	M							7.5		
		7.5						11	12	M								7.5	
3.9			20	#12	3/4"	CP-13 5 HP VIA VFD (HW PUMP)			13	14									
	3.9							15	16										
		3.9						17	18										
3.9			20	#12	3/4"	CP-14 5 HP VIA VFD (HW PUMP)			19	20									
	3.9							21	22										
		3.9						23	24										
									25	26									
									27	28									
									29	30									
									31	32									
									33	34									
									35	36									
									37	38									
									39	40									
									41	42									
									43	44									
									45	46									
									47	48									
									49	50									
									51	52									
									53	54									
22.8	22.8	22.8	TOTAL CONNECTED KVA														7.5	7.5	7.5
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD								C	A	B	C	C							
									0.0	0.0	0.0								
									15.3	15.3	15.3								
								M	18.8	18.8	18.8	M							
									34.1	34.1	34.1								
									122.92	122.92	122.92								
								102.15											

	55%		
	55%		
BREAKER	CAPACITY	BREAKER	CAPACITY
50	54%		
50	54%		
50	54%		
50	54%	50	54%
50	54%	50	54%
50	54%	50	54%
20	70%		
20	70%		
20	70%		
20	70%		
20	70%		
20	70%		



PANEL UB-NL2																			
EP601																			
② AMPACITY																			
MAINS																			
225																			
200																			
SERVICE		208	120	3															
POLES		42																	
A	B	C	CB TRIP	WIRE	COND	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C
1.5									1	2			REC RM 250	#12	3/4"	20	0.7		
	1.5		30	#10	3/4"	WT-03 DE-IONIZER			3	4			REC RM 250	#12	3/4"	20		0.7	
		1.5							5	6			REC RM 250	#12	3/4"	20			0.5
3.9			50	#6	1"	WELDER RM 250	28a		7	8			SPARE	#12	3/4"	20			
	3.9								9	10			SPARE	#12	3/4"	20			
		0.6	20	#12	3/4"	FN-22			11	12	C		AHU-02 LTG CKT	#12	3/4"	20			1.2
0.9			20	#12	3/4"	FC-07		M	13	14			CV SPARE	#12	3/4"	20			
			20	#12	3/4"	SPARE			15	16			CV SPARE	#12	3/4"	20			
			20	#12	3/4"	SPARE			17	18			CV-32						0.2
			20	#12	3/4"	SPARE			19	20			CV SPARE	#12	3/4"	20			
			20	#12	3/4"	SPARE			21	22			SPACE						
						SPACE			23	24			SPACE						
						SPACE			25	26			SPACE						
						SPACE			27	28			SPACE						
						SPACE			29	30			SPACE						
						SPACE			31	32			SPACE						
						SPACE			33	34			SPACE						
						SPACE			35	36			SPACE						
						SPACE			37	38			SPACE						
						SPACE			39	40			SPACE						
						SPACE			41	42			SPACE						
									43	44									
									45	46									
									47	48									
									49	50									
									51	52									
									53	54									
6.3	5.4	2.1	TOTAL CONNECTED KVA														0.7	0.7	1.9
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD								C	A	B	C	C M							
									0.00	0.00	1.20								
									6.12	6.12	2.84								
								M	1.13	0.00	0.00								
									7.25	6.12	4.04								
									60.4	60.4	33.7								
								17.41											

BREAKER	CAPACITY	BREAKER	CAPACITY
30	42%	20	30%
30	42%	20	30%
30	42%	20	23%
50	65%	20	0%
50	65%	20	0%
20	25%	20	50%
20	38%	20	0%
20	0%	20	0%
20	0%	20	8%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%



PANEL UB-SL1																				
SERVICE POLES			208	120	3	② AMPACITY MAINS														100
			30																	100
A	B	C	CB TRIP	WIRE	COND	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C	
3.5						WT-02		M	1	2			CV-01, CV-04	#12	3/4"	20	0.4			
	3.5		30	#10	3/4"	RAIN WATER TRTMT 3 HP	38	M	3	4			CV-06, CV-08	#12	3/4"	20		0.4		
		3.5						M	5	6			CV-07, CV-12	#12	3/4"	20			0.4	
0.8			20	#12	3/4"	FIRE ALARM ANNUCIATOR			7	8			CV 09	#12	3/4"	20	0.2			
	0.7		20	#12	3/4"	FN-25 (0.25 HP)	39		9	10			UV LIGHT	#12	3/4"	20		0.8		
		0.5	20	#12	3/4"	TUNNEL SUMP PUMP			11	12			HEAT TRACE	#12	3/4"	20			1.5	
0.4			20	#12	3/4"	GENERATOR DAY TANK			13	14			SPARE	#12	3/4"	20				
						SPACE			15	16			SPARE	#12	3/4"	20				
						SPACE			17	18			SPACE							
						SPACE			19	20			SPACE							
						SPACE			21	22			SPACE							
						SPACE			23	24			SPACE							
									25	26			SPACE							
			100	#2	1-1/4"	SERVICE DISCONNECT			27	28			SPACE							
									29	30			SPACE							
									31	32										
									33	34										
									35	36										
									37	38										
									39	40										
									41	42										
									43	44										
									45	46										
									47	48										
									49	50										
									51	52										
									53	54										
4.7	4.2	4.0	TOTAL CONNECTED KVA														0.6	1.2	1.9	
							C	M	A	B	C	C								
CONTINUOUS KVA @ 125%									0.00	0.00	0.00									
NON-CONTINUOUS KVA (100% DEMAND FACTOR)									1.80	1.90	2.40	M								
LARGEST MOTOR KVA @ 125%									4.38	4.38	4.38									
TOTAL PHASE KVA PER NEC									6.18	6.28	6.78									
TOTAL PHASE AMPS PER NEC									51.46	52.29	56.46									
TOTAL KVA LOAD										19.23										

BREAKER	CAPACITY	BREAKER	CAPACITY
30	97%	20	17%
30	97%	20	17%
30	97%	20	17%
20	33%	20	8%
20	29%	20	33%
20	21%	20	63%
20	17%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
100	0%	20	0%
100	0%	20	0%
100	0%	20	0%
100	0%	20	0%
100	0%	20	0%
100	0%	20	0%
100	0%	20	0%
100	0%	20	0%
100	0%	20	0%



UPS UB-UPSH2A																	AMPACITY MAINS			800 500		
SERVICE POLES		480 6		277		3																
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C			
35.3			400			SB-EMH1			1	2			UB-EML1 VIA TUB2			50	7.5					
	29.8								3	4							3.6					
		27.8							5	6								3.5				
									7	8												
									9	10												
									11	12												
									13	14												
									15	16												
									17	18												
									19	20												
									21	22												
									23	24												
									25	26												
									27	28												
									29	30												
									31	32												
									33	34												
									35	36												
									37	38												
									39	40												
									41	42												
									43	44												
									45	46												
									47	48												
									49	50												
									51	52												
									53	54												
35.3	29.8	27.8	TOTAL CONNECTED KVA														7.5	3.6	3.5			
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C	A	B	C	C											
								0.00	0.00	0.00												
								42.76	33.41	31.33												
							M	0.00	0.00	0.00	M											
								42.76	33.41	31.33												
								154.37	120.61	113.09												
							107.50															



UPS UB-UPSH2B																										
SERVICE	480	277	3															AMPACITY	400							
POLES	6																	MAINS	400							
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C							
42.4			300			SB-UPSH1A			1	2																
	34.6								3	4																
		42.0							5	6																
									7	8																
									9	10																
									11	12																
									13	14																
									15	16																
									17	18																
									19	20																
									21	22																
									23	24																
									25	26																
									27	28																
									29	30																
									31	32																
									33	34																
									35	36																
									37	38																
									39	40																
									41	42																
									43	44																
									45	46																
									47	48																
									49	50																
									51	52																
									53	54																
42.4	34.6	42.0	TOTAL CONNECTED KVA															0.0	0.0	0.0						
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C		A	B	C	C														
									0.0	0.0	0.0															
							M		42.4	34.6	42.0	M														
									0.0	0.0	0.0															
									42.4	34.6	42.0															
									152.89	125.05	151.73															
									119.02																	



BREAKER	CAPACITY	BREAKER	CAPACITY
300	51%	0	#DIV/0!
300	42%	0	#DIV/0!
300	51%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!
300	0%	0	#DIV/0!

S&O RFI-017 regarding load feeder to SB-UPSH1A.

PANEL SB-NH1A																			
SERVICE POLES			480	277	3	AMPACITY MAINS										1600	1600		
A	B	C	CB TRIP	WIRE	COND	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C
						SPACE	1		2				SPACE						
							3		4										
							5		6										
							7		8										
						SPACE	9		10				SPACE						
							11		12										
							13		14										
							15		16				SPACE						
							17		18										
							19		20										
34.3							21		22				SPACE						
	34.3					200	#3/0		2-1/2"										
		34.3																	
38.1						225	#4/0		2-1/2"				FTS LOADS SUBFEED 6700-MCC-101						
	38.1																		
		38.1																	
80.2																			
	79.7					400	#600		4"				SB-NH2						
		77.2																	
						SPACE	31		32										
							33		34										
							35		36										
							37		38										
						SPACE	39		40										
							41		42										
							43		44										
						200													
							45		46										
							47		48										
							49		50										
24.7						225	#4/0		2-1/2"				SB-NH3						
	23.9																		
		22.2																	
53.4						400	#600		4"				SB-NH1B						
	49.0																		
		46.6																	
						SPACE	61		62										
							63		64										
							65		66										
							67		68										
						SPACE	69		70										
							71		72										
							73		74										
							75		76										
							77		78										



59%
59%

BREAKER CAPACITY BREAKER CAPACITY

200	62%		
200	62%		
200	62%		
225	61%		
225	61%	20	9%
225	61%	20	9%
400	72%	20	9%
400	72%	20	0%
400	70%	20	0%
400	0%	20	0%
400	0%	80	82%
400	0%	80	82%
400	0%	80	82%
400	0%	125	44%
400	0%	125	43%
200	0%	125	28%
200	0%	30	0%
200	0%	30	0%
225	40%	30	0%
225	38%	20	0%
225	36%	20	0%
400	48%	20	0%
400	44%	20	0%
400	42%	20	0%
		20	0%

Panel is physically balanced. Breakers on the right side are physically smaller frame size so more are present than left.
Total of 78 poles as-built.

PANEL SB-NH1B													AMPACITY MAINS				400 400				
SERVICE POLES		480 42	277	3																	
A	B	C	CB TRIP	WIRE	COND	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C		
			20			SPARE		M	1	2	C	160a	LTG MECH EQUIPMENT RM	#12	3/4"	20	0.6				
									3	4	C	160a	LTG RECEIVING SHOP VEST	#12	3/4"	20			0.8		
									5	6	C	160a	LTG ENCLOSURE	#12	3/4"	20					1.0
2.2			20	#12	3/4"	FC-03 5 HP		M	7	8			FN-17 & FN-18 2 HP each	#12	3/4"	20	2.1				
	2.2								9	10							2.1		2.1		
		2.2							11	12									2.1		
			20	#12	3/4"	FN-07 & FN-08 2 HP each			13	14			FN-19 & FN-20 2 HP each	#12	3/4"	20	2.1				
									15	16							2.1		2.1		
									17	18									2.1		
			20	#12	3/4"	FN-09 & FN-10 2 HP each			19	20			SB-NL1A VIA TSB1A	#2	1-1/2"	110	7.4				
									21	22							7.3		5.6		
									23	24											
			20	#12	3/4"	FN-11 & FN-12 2 HP each			25	26							20				
									27	28							20				
									29	30											
			20	#12	3/4"	FN-13 & FN-14 2 HP each			31	32											
									33	34											
									35	36											
			20	#12	3/4"	FN-15 & FN-16 2 HP each			37	38			SB-NL1B VIA TSB1B	#2	1-1/2"	110	27.8				
									39	40							23.2				
									41	42									22.3		
									43	44											
									45	46											
									47	48											
									49	50											
									51	52											
									53	54											
12.7	12.7	12.7	TOTAL CONNECTED KVA														40.0	35.5	33.1		
							C	A	B	C	C										
CONTINUOUS KVA @ 125%								0.8	1.0	1.3											
NON-CONTINUOUS KVA (100% DEMAND FACTOR)							49.9	45.2	42.6												
LARGEST MOTOR KVA @ 125%							M	2.8	2.8	2.8	M										
TOTAL PHASE KVA PER NEC								53.4	49.0	46.6											
TOTAL PHASE AMPS PER NEC								192.85	176.79	168.30											
TOTAL KVA LOAD							149.01														



48%			
48%			
BREAKER	CAPACITY	BREAKER	CAPACITY
20	0%	20	11%
20	0%	20	14%
20	0%	20	18%
20	40%	20	38%
20	40%	20	38%
20	40%	20	38%
20	38%	20	38%
20	38%	20	38%
20	38%	110	24%
20	38%	110	24%
20	38%	110	18%
20	38%	20	0%
20	38%	20	0%
20	38%	20	0%
20	38%	20	0%
20	38%	110	91%
20	38%	110	76%
20	38%	110	73%

PANEL SB-NH1C (COUDE PANEL)																AMPACITY MAINS			200 200		
SERVICE POLES		480 42		277 3																	
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C		
			20			SPARE			1	2							4.0				
			20			SPARE			3	4			CRYO-NIRSP (CRYO COOLER #1)			30		4.0			
			20			SPARE			5	6									4.0		
			20			SPARE			7	8			CRYO-NIRSP (CRYO COOLER #2)			30		4.0			
			20			SPARE			9	10								4.0			
			20			SPARE			11	12									4.0		
			20			SPARE			13	14			CRYO-NIRSP (CRYO COOLER #3)			30		4.0			
			20			SPARE			15	16								4.0			
			20			SPARE			17	18									4.0		
			20			SPARE			19	20			CRYO-NIRSP (CRYO COOLER #4)			30		4.0			
			20			SPARE			21	22								4.0			
			20			SPARE			23	24									4.0		
						SPACE			25	26			SPACE								
						SPACE			27	28			SPACE								
						SPACE			29	30			SPACE								
1.2									31	32							1.4				
	1.2		20	3/4"	#10	FEED OPTICS THERMAL ELECTRIC COOLER 1.5.3	85		33	34			AHU-03 HUMIDIFIER	#10	3/4"	20		1.4			
		1.2							35	36									1.4		
11.4								M	37	38							1.4				
	11.4		125	1-1/4"	#2	COUDE ROTATOR DRIVE SYSTEM (93 KVa XFMR)* 1.1.4	133	M	39	40			AHU-04 HUMIDIFIER	#10	3/4"	20		1.4			
		11.4						M	41	42									1.4		
									43	44											
									45	46											
									47	48											
									49	50											
									51	52											
									53	54											
12.6	12.6	12.6	TOTAL CONNECTED KVA														18.8	18.8	18.8		
								C	A	B	C	C									
CONTINUOUS KVA @ 125%									0.0	0.0	0.0										
NON-CONTINUOUS KVA (100% DEMAND FACTOR)								M	20.0	20.0	20.0	M									
LARGEST MOTOR KVA @ 125%									14.3	14.3	14.3										
TOTAL PHASE KVA PER NEC									34.3	34.3	34.3										
TOTAL PHASE AMPS PER NEC									123.65	123.65	123.65										
TOTAL KVA LOAD								102.75													

BREAKER	CAPACITY	BREAKER	CAPACITY
20	0%	30	48%
20	0%	30	48%
20	0%	30	48%
20	0%	30	48%
20	0%	30	48%
20	0%	30	48%
20	0%	30	48%
20	0%	30	48%
20	0%	30	48%
20	0%	30	48%
20	0%	30	48%
20	0%	30	48%
20	0%	30	48%
20	0%	30	48%
20	0%	30	0%
20	0%	30	0%
20	0%	30	0%
20	22%	20	25%
20	22%	20	25%
20	22%	20	25%
125	33%	20	25%
125	33%	20	25%
125	33%	20	25%
125	0%	20	0%
125	0%	20	0%
125	0%	20	0%
125	0%	20	0%
125	0%	20	0%

Re-calcula

*XFMR R T

PANEL SB-NH3													AMPACITY				225			
SERVICE POLES													MAINS				225			
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C	
4.0			20	3/4"	#12	INST PREP LAB RECPT			1	2	C		LTG CONTROL RM, VEST	#12	3/4"	20	1.1			
	4.0								3	4	C		LTG COMPUTER RM	#12	3/4"	20			1.1	
		4.0							5	6	C		LTG ENCLOSURE	#12	3/4"	20				0.6
0.8			20	3/4"	#12	FC-05 1.5 HP		M	7	8			LTG COUDÉ PLATFORM	#12	3/4"	20	3.5			
	0.8								9	10			SPARE			20				
		0.8							11	12			SPARE			20				
0.6			20	3/4"	#12	FC-06 1 HP		M	13	14			SPARE			20				
	0.6								15	16			SPARE			20				
		0.6							17	18			SPARE			20				
0.8			20	3/4"	#12	FC-04 1.5 HP		M	19	20			SPARE			20				
	0.8								21	22			SPARE			20				
		0.8							23	24			SPARE			20				
0.9			20	3/4"	#12	AHU-01 2 HP Computer Room		M	25	26			FC-04 HUMIDIFIER	#12	3/4"	20	1.3			
	0.9								27	28					1.3		1.3			
		0.9							29	30			FC-05 HUMIDIFIER	#12	3/4"	20			1.3	
1.3			20	3/4"	#12	AHU-01 HUMIDIFIER Computer Room			31	32									1.3	
	1.3								33	34			FC-06 HUMIDIFIER	#12	3/4"	20			1.3	
									35	36									1.3	
						SPACE			37	38										
						SPACE			39	40										
						SPACE			41	42			SB-NL3 VIA TSB3A	#2	1-1/4"	110	8.0	10.7	11.0	
									43	44										
									45	46										
									47	48										
									49	50										
									51	52										
									53	54										
8.4	8.4	7.1	TOTAL CONNECTED KVA														15.2	14.4	14.2	
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD								C	A	B	C	C								
									1.4	1.4	0.8									
									19.4	18.6	17.6									
								M	3.9	3.9	3.9	M								
									24.7	23.9	22.2									
									88.99	86.10	80.23									
								70.73												

BREAKER	CAPACITY	BREAKER	CAPACITY
20	72%	20	20%
20	72%	20	20%
20	72%	20	11%
20	14%	20	63%
20	14%	20	0%
20	14%	20	0%
20	11%	20	0%
20	11%	20	0%
20	11%	20	0%
20	14%	20	0%
20	14%	20	0%
20	16%	20	23%
20	16%	20	23%
20	16%	20	23%
20	23%	20	23%
20	23%	20	23%
20	0%	20	23%
20	0%	110	26%
20	0%	110	35%
20	0%	110	36%
20	0%	110	0%
20	0%	110	0%
20	0%	110	0%
20	0%	110	0%
20	0%	110	0%

PANEL SB-NH4A													AMPACITY				800		
													MAINS				800		



37%			
37%			
BREAKER	CAPACITY	BREAKER	CAPACITY
		20	0%
		20	0%
		20	0%
		20	0%
		20	0%
		20	0%
		150	31%
		150	31%
		150	31%
		60	0%
		60	0%
		60	0%
		225	18%
		225	19%
		225	9%
		225	0%
		225	0%
		225	0%
20	0%	225	0%
20	0%	225	0%
20	0%	225	0%
20	0%	225	52%
20	0%	225	47%
20	0%	225	52%
225	33%	60	0%
225	33%	60	0%
225	45%	60	0%

PANEL SB-NH4E (MOUNT BASE PANEL)																																
SERVICE	480	277	3																													
POLES	42																															
AMPACITY MAINS																																
225 225																																
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C													
2.0			20	3/4"	#12	M1-APERTURE PUMP CABINET			1	2		159	MOUNT ALT & AZ DRIVES DISCONNECT (XFMR TSB4H) 1.1.2	#2	1-1/2"	110	10.7															
	2.0																														10.7	
		2.0																														10.7
2.2			30	3/4"	#10	M1 OSS RACK- CELL FANS			7	8		25	CABLE WRAP MOTORS/DRIVE MOUNT BASE 1.1.7	#12	3/4"	20	0.5															
	2.2																														0.5	
		2.2																														0.5
0.6			20	3/4"	#12	CLOSED COOLING LOOP TEC M6 1.5.1	124a		13	14			SPARE			20																
	0.6																															
		0.6																														
4.0			20	3/4"	#12	X-BOX REGENERATIVE COMPRESSOR	127b		15	16			SPARE			20																
	4.0																															
		4.0																														
3.0			30	3/4"	#10	SPARE	102		17	18			SPACE			20																
	3.0																															
		3.0																														
						SPACE			19	20			SPACE																			
						SPACE			21	22			SPACE																			
						SPACE			23	24			SPACE																			
						SPACE			25	26			SPACE																			
						SPACE			27	28			SPACE																			
						SPACE			29	30			SPACE																			
						SPACE			31	32			SPACE																			
						SPACE			33	34			SPACE																			
						SPACE			35	36			SPACE																			
						SPACE			37	38			SPACE																			
						SPACE			39	40			SB-NL4E VIA XFMR TSB4E	#2	1-1/2"	110	9.6	6.1														
						SPACE			41	42									9.6													
									43	44																						
									45	46																						
									47	48																						
									49	50																						
									51	52																						
									53	54																						
11.8	11.8	11.8	TOTAL CONNECTED KVA														20.8	17.3	20.8													
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C	A	B	C	C																					
								0.0	0.0	0.0																						
								32.6	29.1	32.6																						
							M	0.0	0.0	0.0	M																					
								32.6	29.1	32.6																						
117.69	105.05	117.69																														
							94.30																									

BREAKER	CAPACITY	BREAKER	CAPACITY
20	36%	110	35%
20	36%	110	35%
20	36%	110	35%
30	26%	20	9%
30	26%	20	9%
30	26%	20	9%
20	11%	20	0%
20	11%	20	0%
20	72%	20	0%
20	72%	20	0%
20	72%	20	0%
30	36%	20	0%
30	36%	20	0%
30	36%	20	0%
30	0%	20	0%
30	0%	20	0%
30	0%	20	0%
30	0%	110	32%
30	0%	110	20%
30	0%	110	32%
30	0%	110	0%
30	0%	110	0%
30	0%	110	0%
30	0%	110	0%
30	0%	110	0%



PANEL SB-NL1A																				
SERVICE	208	120	3	AMPACITY																
POLES	54			MAINS																
				225																
				200																
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	COND	WIRE	CB TRIP	A	B	C	
			20			SPARE			1			2	RECP RM 101,102,112 114	3/4"	#12	20	0.9			
	1.2		20	3/4"	#12	AD-1 AIR DRYER			3			4	RECP RM 101,102,112 114	3/4"	#12	20		0.9		
		0.4	20	3/4"	#12	ELEVATOR RECP DEDICATED			5			6	RECP RM 108, 114	3/4"	#12	20			0.9	
0.6			20	3/4"	#12	UH-01			7			8	RECP RM 108, 114	3/4"	#12	20	0.9			
	0.6		20	3/4"	#12	UH-02			9			10	MEZ FLR SPIKE/OFFICE RECP	3/4"	#12	20				
		0.6	20	3/4"	#12	UH-03			11			12	MEZ FLR SPIKE CONF RM	3/4"	#12	20				
			20			SPARE			13			14	SPARE			20				
			20			SPARE			15			16	SPARE			20				
			20			SPARE			17			18	RECP STAIR 2	3/4"	#12	20			1.1	
0.6			20	3/4"	#12	CONDENSATE PUMP			19			20	SPARE			20				
	1.4		20	3/4"	#12	CONTROL CIRCUITS			21			22	RECP EXTERIOR	3/4"	#12	20		1.1		
			20	3/4"	#12	CONTROL CIRCUITS (FUT.)			23			24	RECP STAIR 1	3/4"	#12	20			0.5	
1.5			20	3/4"	#12	CV-33,34,35			25			26	SPARE			30				
	1.2		20	3/4"	#12	CV-81			27			28	SPARE			30				
			20	3/4"	#12	SPARE			29			30	SPARE			30				
1.2			20	3/4"	#12	FC-08			31			32	SPARE			30				
	0.9		20	3/4"	#12	PP-04			33			34	SPARE			30				
		0.9	20	3/4"	#12	PP-05			35			36	CONTROLS (FUT.)	3/4"	#12	20				
1.7			20	3/4"	#12	ST-01			37			38	SPARE			20				
			20	3/4"	#12	SPARE			39			40	SPARE			20				
		1.2	20	3/4"	#12	CV-74,78			41			42	SPARE	3/4"	#12	20				
									43			44								
									45			46								
									47			48								
									49			50								
									51			52								
									53			54								
5.6	5.3	3.1	TOTAL CONNECTED KVA															1.8	2.0	2.5
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C	A	B	C	C									
								0.0												
							7.4													
							M	0.0												
								7.4												
								61.67												
								60.83												
								46.67												
								20.30												

BREAKER	CAPACITY	BREAKER	CAPACITY
20	0%	20	38%
20	50%	20	38%
20	17%	20	38%
20	25%	20	38%
20	25%	20	0%
20	25%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	46%
20	25%	20	0%
20	58%	20	46%
20	0%	20	21%
20	63%	30	0%
20	50%	30	0%
20	0%	30	0%
20	50%	30	0%
20	38%	30	0%
20	38%	20	0%
20	71%	20	0%
20	0%	20	0%
20	50%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%

PANEL SB-NL1C (COUDE PANEL)																			
SERVICE POLES			208 42	120	3											AMPACITY MAINS	225 200		
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C
			20	3/4"	#12	SPARE			1	2			COUDE FLOOR RECP (FUT.)	#12	3/4"	20			
									3	4			COUDE FLOOR RECP (FUT.)	#12	3/4"	20			
									5	6			RECP (711.1) COUDE IN.RM.	#12	3/4"	20			1.2
4.5			50	1"	#8	WELDING RECP ROOM 109			7	8			RECP (711.2) HARD STOP RM.	#12	3/4"	20	1.2		
	4.5								9	10			LTG COUDE ROT CABS. 603	#12	3/4"	20		1.3	
						SPARE			11	12			AHU-03 CONT. AUX LIGHTS	#12	3/4"	20			0.5
0.7			20	3/4"	#12	REC OUTER PIER			13	14			AHU-04 CONT. AUX LIGHTS	#12	3/4"	20	0.5		
	0.7		20	3/4"	#12	REC OUTER PIER			15	16			SPARE	#12	3/4"	20			
		0.9	20	3/4"	#12	REC INNER PIER			17	18			SPARE	#12	3/4"	20			
0.9			20	3/4"	#12	REC INNER PIER			19	20			SPARE	#12	3/4"	20			
	1		20			SPARE			21	22			SPARE	#12	3/4"	20			
		0.9	20			SPARE			23	24			COUDE CABINET INFRASTRUCTURE 606	#12	3/4"	20	1.0		1.0
1.4			20	3/4"	#12	CONTROLS			25	26									
	1.4		20	3/4"	#12	CONTROLS			27	28									
			20			SPARE			29	30									
			20			SPACE			31	32			779	SYS INTER RACKS (15)	#12	1/2"	20	1.7	1.7
			20			SPACE			33	34									
			20			SPACE			35	36									
			20			SPACE			37	38									
1.7									39	40		780	SYS INTER RACKS (16)	#12	1/2"	20	1.7	1.7	
	1.7								41	42									1.7
									43	44									
									45	46									
									47	48									
									49	50									
									51	52									
									53	54									
9.2	9.3	3.5	TOTAL CONNECTED KVA														6.1	5.7	6.1
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C	A	B	C	C								
								0.0	0.0	0.0									
							M	15.3	15.0	9.6									
								0.0	0.0	0.0									
								15.3	15.0	9.6									
								127.50	125.00	80.00									
							39.90												

BREAKER	CAPACITY	BREAKER	CAPACITY
20	0%	20	0%
20	0%	20	0%
20	0%	20	50%
50	75%	20	50%
50	75%	20	54%
20	0%	20	21%
20	29%	20	21%
20	29%	20	0%
20	38%	20	0%
20	38%	20	0%
20	42%	20	0%
20	38%	20	42%
20	58%	20	42%
20	58%	20	42%
20	0%	20	0%
20	0%	20	71%
20	0%	20	71%
20	0%	20	71%
20	71%	20	71%
20	71%	20	71%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%



PANEL SB-NL2A																				
SERVICE POLES			208 42	120	3	AMPACITY MAINS												225 200		
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C	
0.7			20	3/4"	#12	FN-01	28b		1	2			RECP JANIT, BATH, CORR	#12	3/4"	20	0.5			
	2.2					WH-02 4kW			3	4				RECP JANIT, BATH, CORR	#12	3/4"	20		0.5	
		2.2	30	3/4"	#12				5	6				RECP OF RM 212, CONF RM 213	#12	3/4"	20			1.1
						SPACE			7	8				RECP OF RM 212, CONF RM 213	#12	3/4"	20	1.1		
			20	3/4"	#12	CONTROL CIRCUITS (FUT.)			9	10				RECP KITCHEN GFCI	#12	3/4"	20		1.1	
									11	12				RECP OFFICE RM 205/IDF	#12	3/4"	20			1.1
			30			SPARE			13	14				RECP OFFICE RM 205	#12	3/4"	20	1.1		
									15	16				RECP VESTIBULE RM206	#12	3/4"	20		0.5	
			30			SPARE			17	18				RECP PIER INR & OUTR	#12	3/4"	20			1.3
4.5			50	1"	#8	WELD RECP RM 208			19	20				RECP PIER INR & OUTR	#12	3/4"	20	1.3		
	4.5								21	22			MICROWAVE	#12	3/4"	20		1.5		
		0.5	20	3/4"	#12	PP-06 HW RECIRC			23	24			REFRIGERATOR	#12	3/4"	20			1.2	
			20			CV 37-38/UV LGT FCU-02			25	26			CONTROLS	#12	3/4"	20	0.5			
			20			CV 50-51/AHU-5/6			27	28			SMOKE DAMPER	#12	3/4"	20		0.5		
			20			CV 64-65/UV LGT FCU-01			29	30			INNER PIER DAMPER	#12	3/4"	20			0.6	
			20			CV (FUTURE)			31	32			INNER PIER DAMPER	#12	3/4"	20	0.6			
			20			CV (FUTURE)			33	34			INNER PIER DAMPER	#12	3/4"	20		0.6		
						SPACE			35	36			SPARE			20				
						SPACE			37	38			SPARE			20				
						SPACE			39	40			SPARE			20				
						SPACE			41	42			SPARE			20				
									43	44										
									45	46										
									47	48										
									49	50										
									51	52										
									53	54										
5.2	6.7	2.7	TOTAL CONNECTED KVA														5.1	4.7	5.3	
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD								C			A	B	C	C						
											0.0	0.0	0.0							
								M			10.3	11.4	8.0							
											0.0	0.0	0.0							
											10.3	11.4	8.0							
											85.83	95.00	66.67							
29.70																				

BREAKER	CAPACITY	BREAKER	CAPACITY
20	29%	20	21%
30	61%	20	21%
30	61%	20	46%
30	0%	20	46%
20	0%	20	46%
30	0%	20	46%
30	0%	20	46%
30	0%	20	21%
30	0%	20	54%
50	75%	20	54%
50	75%	20	63%
20	21%	20	50%
20	0%	20	21%
20	0%	20	21%
20	0%	20	25%
20	0%	20	25%
20	0%	20	25%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%



PANEL SB-NL2B													AMPACITY				225		
													MAINS				100		
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C
0.5			20	3/4"	#12	FC E-LAB UV			1	2			ELAB RECP (QUAD)	#12	3/4"	20	1.1		
			20			SPARE			3	4			ELAB RECP (QUAD)	#12	3/4"	20		1.1	
		0.5	20			ELAB SHADES			5	6			ELAB RECP (QUAD)	#12	3/4"	20			1.1
			20			SPARE			7	8			ELAB RECP (QUAD)	#12	3/4"	20	1.1		
			20			SPARE			9	10			ELAB RECP (QUAD)	#12	3/4"	20		1.1	
			20			SPARE			11	12			ELAB RECP (QUAD)	#12	3/4"	20			1.1
			20			SPARE			13	14			ELAB RECP (QUAD)	#12	3/4"	20	1.1		
			20			SPARE			15	16			ELAB RECP (QUAD)	#12	3/4"	20		1.1	
			20			SPARE			17	18			ELAB RECP (QUAD)	#12	3/4"	20			1.1
			20			SPARE			19	20			ELAB RECP (QUAD)	#12	3/4"	20	1.1		
			20			SPARE			21	22			ELAB RECP (QUAD) FUTURE			20			
			20			SPARE			23	24			SPACE						
						SPACE			25	26			SPACE						
						SPACE			27	28			SPACE						
						SPACE			29	30			SPACE						
						SPACE			31	32			SPACE						
						SPACE			33	34			SPACE						
						SPACE			35	36			SPACE						
									37	38							3.0		
			100			MAIN/PRINCIPAL			39	40			ELAB L21 3Ø TEST RECP			30		3.0	
									41	42									3.0
									43	44									
									45	46									
									47	48									
									49	50									
									51	52									
									53	54									
0.5	0.0	0.5	TOTAL CONNECTED KVA														7.4	6.3	6.3
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C	A	B	C	C	① Remote controlled electrically operated circuit breaker							
								0.0	0.0	0.0									
							M	7.9	6.3	6.8	M								
								0.0	0.0	0.0									
								7.9	6.3	6.8									
								65.67	52.33	56.50									
							20.94												



20	21%	20	45%
20	0%	20	45%
20	21%	20	45%
20	0%	20	46%
20	0%	20	46%
20	0%	20	46%
20	0%	20	46%
20	0%	20	46%
20	0%	20	46%
20	0%	20	46%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
100	0%	30	83%
100	0%	30	83%
100	0%	30	0%
100	0%	30	0%
100	0%	30	0%
100	0%	30	0%
100	0%	30	0%

PANEL SB-NL4B														AMPACITY			225								
SERVICE			208	120	3															MAINS			200		
POLES			42																						
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C						
1.1			20	3/4"	#12	RECP TELE DOG HSE STAIRS			1	2			RECP UTIL LVL OUT.PIER	#12	3/4"	20	0.5								
	1.1		20	3/4"	#12	RECP LVL 2 STAIR/LULA VEST			3	4			RECP UTIL LVL OUT.PIER	#12	3/4"	20		0.5							
		1.1	20	3/4"	#12	RECP TELE LVL 1 STAIRS			5	6			RECP UTIL LVL OUT.PIER	#12	3/4"	20			0.4						
1.1			20	3/4"	#12	DED ELEV. RECP/SHFT LTG			7	8			RECP VEST	#12	3/4"	20	0.5								
	1.5		20			SPARE			9	10			RECP CATWALK/PFLOW VEST	#12	3/4"	20		1.2							
		0.5	20	3/4"	#12	FIRE DAMPER			11	12			RECP CATWLK/WETHR ST.	#12	3/4"	20			1.2						
			20			SPARE			13	14			FTS 6700-P-104	#8	1"	50	2.8								
			20			SPARE			15	16							2.2								
			20			SPARE			17	18										1.6					
						SPACE			19	20															
						SPACE			21	22			WELDER RECP	#8	1"	50	4.5								
						SPACE			23	24			SPACE					4.5							
						SPACE			25	26			SPACE												
						SPACE			27	28			SPACE												
						SPACE			29	30			SPACE												
						SPACE			31	32			SPACE												
						SPACE			33	34			SPACE												
						SPACE			35	36			SPACE												
						SPACE			37	38			SPACE												
						SPACE			39	40			SPACE												
						SPACE			41	42			SPACE												
									43	44															
									45	46															
									47	48															
									49	50															
									51	52															
									53	54															
2.2	2.6	1.6	TOTAL CONNECTED KVA														8.3	8.4	3.2						
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C	A	B	C	C														
								0.0	0.0	0.0															
							M	10.5	11.0	4.8															
								0.0	0.0	0.0															
								10.5	11.0	4.8															
								87.17	91.50	40.00															
							26.24																		

BREAKER	CAPACITY	BREAKER	CAPACITY
20	46%	20	21%
20	46%	20	21%
20	46%	20	17%
20	46%	20	21%
20	63%	20	50%
20	21%	20	50%
20	0%	50	46%
20	0%	50	36%
20	0%	50	27%
20	0%	50	75%
20	0%	50	75%
20	0%	50	0%
20	0%	50	0%
20	0%	50	0%
20	0%	50	0%
20	0%	50	0%
20	0%	50	0%
20	0%	50	0%
20	0%	50	0%
20	0%	50	0%
20	0%	50	0%
20	0%	50	0%



PANEL SB-NL4E (MOUNT BASE PANEL)																		AMPACITY MAINS			225 200		
SERVICE		208		120		3																	
POLES		42																					
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C						
2.4			30	3/4"	#10	THERMAL SYSTEM FANS 1.3.2		1	2						4.2								
	0.8		20	3/4"	#12	OSS RECP 91104	131	3	4		MOUNT CABINET MEJ1A HEAT EXCH & RECP	#6	1"	60		4.2							
		0.8	20	3/4"	#12	TOWER 1 RECP 91204	131	5	6								4.2						
0.8			20	3/4"	#12	OSS RECP 91004	131	7	8														
	0.8		20	3/4"	#12	TOWER 2 RECP 91304	131	9	10		SPARE			20									
		0.3	20	3/4"	#12	SYSTEM INT. 6.6.1	131	11	12														
			20	3/4"	#12	SYSTEM INT. 6.6.1	131	13	14		SPARE			20									
0.3			20	3/4"	#12	SYSTEM INT. 6.6.1	131	15	16														
	0.3		20	3/4"	#12	SYSTEM INT. 6.6.1	131	17	18														
			20	3/4"	#12	OSS PLATFORM LTG. (FUT.)		19	20						1.9								
			20	3/4"	#12	MOUNT LTG. (FUT.)		21	22		XBOX CHILLER 2P or 3P?	#12	3/4"	20									
		1.0	20	3/4"	#12	MEJ1A CAB LTG.		23	24								1.9						
			20			SPARE		25	26														
			20			SPARE		27	28		SPARE			20									
			20			SPARE		29	30														
			20			SPARE		31	32		SPACE												
			20			SPARE		33	34		SPACE												
			20			SPARE		35	36		SPACE												
			20			SPARE		37	38		SPACE												
			20			SPARE		39	40		SPACE												
		1.1	20	3/4"	#12	ENCL. CABLE WR RECP		41	42		SPACE												
								43	44														
								45	46														
								47	48														
								49	50														
								51	52														
								53	54														
3.5	1.9	3.5	TOTAL CONNECTED KVA												6.1	4.2	6.1						
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD																		C	A	B	C	C	
																			0.0	0.0	0.0		
																		M	9.6	6.1	9.6	M	
																			0.0	0.0	0.0		
																		9.6	6.1	9.6			
																		80.00	50.83	80.00			
25.30																							

BREAKER CAPACITY BREAKER CAPACITY

30	67%	60	58%
20	33%	60	58%
20	33%	60	58%
20	33%	20	0%
20	33%	20	0%
20	13%	20	0%
20	13%	20	0%
20	13%	20	0%
20	13%	20	0%
20	0%	20	79%
20	0%	20	0%
20	42%	20	79%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	46%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%

20,22,24 XBOX Chiller is 1Ø, only 2P used on 3P breaker, MAY NEED TO REPLACE

PANEL SB-EMH3																				
SERVICE		480		277		3				AMPACITY		225								
POLES		42								MAINS		225								
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C			
			20			SPARE		1	2		SPACE			20						
			20			SPARE		3	4		SPACE									
			20			SPARE		5	6		SPACE									
			20			SPARE		7	8		SPACE									
			20			SPARE		9	10		SPACE									
			20			SPARE		11	12		SPACE									
			20			SPARE		13	14		SPACE									
			20			SPARE		15	16		SPACE									
			20			SPARE		17	18		SPACE									
			20			SPARE		19	20		SPACE									
			20			SPARE		21	22		SPACE									
			20			SPARE		23	24		SPACE									
						SPACE		25	26		SPACE									
						SPACE		27	28		SPACE									
						SPACE		29	30		SPACE									
						SPACE		31	32		SB-EMH4	#2	1-1/4"	100	0.0					
						SPACE		33	34							0.0				
						SPACE		35	36								0.0			
11.1						ENCLOSURE AZIMUTH CABLE WRAP (UPS000)	147	37	38		SPACE									
	8.6		39	40				SPACE												
		8.1	41	42				SPACE												
			43	44																
			45	46																
			47	48																
			49	50																
			51	52																
			53	54																
11.1	8.6	8.1	TOTAL CONNECTED KVA												0.0	0.0	0.0			
							C					A	B	C						
												0.0	0.0	0.0						
												11.1	8.6	8.1						
							M					0.0	0.0	0.0	M					
												11.1	8.6	8.1						
												39.93	30.90	29.10						
TOTAL KVA LOAD							27.68													

BREAKER	CAPACITY	BREAKER	CAPACITY
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	100	0%
20	0%	100	0%
100	40%	100	0%
100	31%	100	0%
100	29%	100	0%
100	0%	100	0%
100	0%	100	0%
100	0%	100	0%
100	0%	100	0%
100	0%	100	0%
100	0%	100	0%



PANEL SB-EMH4 (MOUNT BASE PANEL)																	AMPACITY			100
SERVICE		480	277	3													MAINS		100	
POLES		42																		
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C			
			20			SPARE		1	2		SPACE									
			20			SPARE		3	4		SPACE									
			20			SPARE		5	6		SPACE									
			20			SPARE		7	8		SPACE									
			20			SPARE		9	10		SPACE									
			20			SPARE		11	12		SPACE									
						SPACE		13	14		SPACE									
						SPACE		15	16		SPACE									
						SPACE		17	18		SPACE									
						SPACE		19	20		SPACE									
						SPACE		21	22		SPACE									
						SPACE		23	24		SPACE									
						SPACE		25	26		SPACE									
						SPACE		27	28		SPACE									
						SPACE		29	30		SPACE									
						SPACE		31	32		SPACE									
						SPACE		33	34		SPACE									
				SPACE	35	36	SPACE													
			100A			MAIN BREAKER	37	38		SPACE										
							39	40		SPACE										
							41	42		SPACE										
							43	44												
							45	46												
							47	48												
							49	50												
						51	52													
						53	54													
0.0	0.0	0.0	TOTAL CONNECTED KVA												0.0	0.0	0.0			
							C	A	B	C	C									
								0.0	0.0	0.0										
								0.0	0.0	0.0										
							M	0.0	0.0	0.0	M									
								0.0	0.0	0.0										
								0.00	0.00	0.00										
TOTAL KVA LOAD				0.00																



PANEL SB-EML1 (COUDE PANEL)																	AMPACITY MAINS			400 400								
SERVICE POLES			208 42			120			3																			
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C											
18.6																												
	15.7		200	2-1/2"	#4/0	SUBFEED A: SB-EML4																						
		14.3																										
			20			UPS/GEN CKT 6.6.1	94	1	2						1.7													
			20			UPS/GEN CKT 6.6.1	94	3	4	722	CRYO-NIRSP Rack #1)	#12	3/4"	20		1.7												
			20			UPS/GEN CKT 6.6.1	94	5	6								1.7											
			20			UPS/GEN CKT 6.6.1	94	7	8																			
			20			DOOR SECURITY (FUT.)		9	10	719	CRYO-NIRSP Rack #2)	#12	3/4"	20	1.9	1.9												
			20			SPARE	138	11	12								1.9											
			20			Network IDF Rack	138	13	14						0.6													
			20			SPARE	138	15	16	604	COUDE LIC I/O CABLE WRAP #604	#12	3/4"	20		0.6												
			20			SPARE	138	17	18								0.6											
			20			SPARE	138	19	20	764	INSTRUMENT LIC CONTRL	#12	3/4"	20	0.6													
			20			CRYO-NIRSP FRAME EPDU	713.6	21	22		SPACE																	
			20			CAMERA SYS 3.6	713.7	23	24		SPACE																	
			20			CAMERA SYS 3.6	713.8	25	26	718	CAMERA SYS	#12	3/4"	20														
			20			CAMERA SYS 3.6	713.9	27	28	718.2	CAMERA SYS	#12	3/4"	20														
			20			CAMERA SYS 3.6	713.10	29	30		SPACE																	
			20			CAMERA SYS 3.6	713.11	31	32						0.8													
			20			FMS LIC (FUTURE)		33	34		SB-EML2	#2	1-1/4"	100		1.4												
			20			SPARE		35	36								1.2											
						SPACE		37	38		SPACE																	
						SPACE		39	40		SPACE																	
						SPACE		41	42		SPACE																	
								43	44																			
								45	46																			
								47	48																			
								49	50																			
								51	52																			
								53	54																			
18.6	15.7	14.3	TOTAL CONNECTED KVA												5.6	5.6	5.4											
							C	A	B	C	C																	
CONTINUOUS KVA @ 125%								0.0	0.0	0.0																		
NON-CONTINUOUS KVA (100% DEMAND FACTOR)							M	24.2	21.3	19.7	M																	
LARGEST MOTOR KVA @ 125%								0.0	0.0	0.0																		
TOTAL PHASE KVA PER NEC								24.2	21.3	19.7																		
TOTAL PHASE AMPS PER NEC								201.67	177.08	164.38																		
TOTAL KVA LOAD								65.18																				

BREAKER	CAPACITY	BREAKER	CAPACITY
200	78%		
200	65%		
200	60%		
20	0%	20	71%
20	0%	20	71%
20	0%	20	71%
20	0%	20	79%
20	0%	20	79%
20	0%	20	79%
20	0%	20	25%
20	0%	20	25%
20	0%	20	25%
20	0%	20	25%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	100	7%
20	0%	100	12%
20	0%	100	10%
20	0%	100	0%
20	0%	100	0%
20	0%	100	0%
20	0%	100	0%
20	0%	100	0%
20	0%	100	0%
20	0%	100	0%



PANEL SB-EML4 (MOUNT BASE PANEL)																	AMPACITY MAINS				200 200			
SERVICE POLES		208 42		120		3																		
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C							
1.8			20	3/4"	#12	GLOBAL INTERLOCK CONTROL	103	1	2		UPS 049 CAB 001	#12	3/4"	20	1.0									
			20			Xbox PLC		3	4		UPS 050 CAB 201	#12	3/4"	20		1.2								
			20			UPS/GEN CKT 6.6.1		5	6		SPACE													
			20			UPS/GEN CKT 6.6.1		7	8		SPARE			50										
			20			UPS/GEN CKT 6.6.1		9	10		SPARE			50										
			20			UPS/GEN CKT 6.6.1		11	12		SPARE			50										
			20			UPS/GEN CKT 6.6.1		13	14						2.3									
			20			UPS/GEN CKT 6.6.1		15	16	111	MOUNT LIC & I/O	#8	1"	40		2.3								
			20			UPS/GEN CKT 6.6.1		17	18								2.3							
0.4								19	20		SPACE													
	0.4		40	3/4"	#12	M1 COVER 1.1.7	110	21	22		SPACE													
		0.4						23	24		SPACE													
0.5			20	3/4"	#12	NETWORK IDF UTILITY LVL		25	26		SPACE													
			20			SPARE		27	28		SPACE													
			20			SPARE		29	30		SPACE													
			20			SPARE		31	32		SPACE													
			20			SPARE		33	34		SPACE													
			20			SPARE		35	36		SPACE													
1.1			20	3/4"	#12	FMS CAB PLC 3		37	38						11.5									
			20	3/4"	#12	FMS CAB PLC (FUTURE)		39	40		SB-EML3	#2	1-1/4"	100		11.8								
						SPACE		41	42								11.6							
								43	44															
								45	46															
								47	48															
								49	50															
								51	52															
								53	54															
3.8	0.4	0.4	TOTAL CONNECTED KVA												14.8	15.3	13.9							
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C	A	B	C	C													
								0.0	0.0	0.0														
							M	18.6	15.7	14.3	M													
								0.0	0.0	0.0														
								18.6	15.7	14.3														
								155.00	130.42	119.38														
								48.58																



PANEL SB-SH1																					
SERVICE POLES		480		277		3		AMPACITY MAINS										800		800	
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C				
8.3			40			BRIDGE CRANE RECEIVING AREA	10	1	2	52	FTS STANDBY SUBFEED 6700-MCC-101 7°C PUMP 15 HP			40	6.7						
	8.3							3	4												
		8.3						5	6									6.7			
6.7			30			M1 CART REC & STAGING RM105	116b	7	8		FTS COUDE INST -4°C PUMP			60	0.4						
	6.7							9	10									0.4			
		6.7						11	12									0.4			
			20			SPARE		13	14		SPARE			20							
			20			SPARE		15	16												
			20			SPARE		17	18												
			20			SPARE		19	20		SB-SL1A VIA XFMR TSB1G			110	9.3						
			20			SPARE		21	22							8.7					
			20			SPARE		23	24								8.7				
5.8			70			AIR COMPRESSOR #2 15 HP	53a	25	26		SPACE										
	5.8							27	28												
		5.8						29	30												
109.6			600			ENCLOSURE MEPS100 (CBL WRAP EME000)		31	32		SB-SH3			100	10.6						
	107.8							33	34								11.5				
		107.1						35	36									11.5			
39.6			225			SB-SH4		37	38		LEVATOR #1			60	13.3						
	35.4							39	40								13.3				
		35.7						41	42									13.3			
			150			AHU 3		43	44		SPACE										
								45	46												
								47	48												
			150			AHU 4		49	50	24	SURGE PROTECTION DEVICE BREAKER			60							
								51	52												
								53	54												
			800			MAIN BREAKER FEED		55	56	24	SURGE PROTECTION DEVICE										
								57	58												
								59	60												
170.0	163.94	163.58	TOTAL CONNECTED KVA												40.3	40.6	40.6				
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD								A	B	C											
								0.00	0.00	0.00											
								210.24	204.53	204.17											
								0.00	0.00	0.00											
								210.24	204.53	204.17											
								758.98	758.98	737.06											
								618.93													



95%				
95%				
BREAKER	CAPACITY	BREAKER	CAPACITY	
40	75%	40	60%	
40	75%	40	60%	
40	75%	40	60%	
30	80%	60	2%	
30	80%	60	2%	
30	80%	60	2%	
20	0%	20	0%	
20	0%	20	0%	
20	0%	20	0%	
20	0%	110	30%	
20	0%	110	28%	
20	0%	110	28%	
70	30%			
70	30%			
70	30%			
600	66%	100	38%	
600	65%	100	42%	
600	64%	100	42%	
225	64%	60	80%	
225	57%	60	80%	
225	57%	60	80%	

PANEL SB-SH3																					
SERVICE			480	277	3	② AMPACITY												100			
POLES			42	MAINS												100					
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C				
			20			SPARE		1	2		5 TON BRIDGE CRANE INSTRUMENT PREP LAB	#10	3/4"	30	5.3						
			20			SPARE		3	4										5.3		
			20			SPARE		5	6											5.3	
			20			SPARE		7	8												
			20			SPARE		9	10			5 TON MONORAIL CRANE COUDÉ LAB	#10	3/4"	30	5.3					
			20			SPARE		11	12											5.3	
			20			SPARE		13	14							SPACE					
			20			SPARE		15	16							SPACE					
			20			SPARE		17	18							SPACE					
			20			SPARE		19	20							SPACE					
			20			SPARE		21	22		SPACE										
			20			SPARE		23	24		SPACE										
						SPACE		25	26	64	SB-SL3 VIA XFMR TSB3B	#6	1 1/4"	60	0.0						
						SPACE		27	28											0.9	
						SPACE		29	30												0.9
						SPACE		31	32												
						SPACE		33	34												
						SPACE		35	36												
								37	38												
								39	40												
								41	42												
								43	44												
								45	46												
								47	48												
								49	50												
								51	52												
								53	54												
0.0	0.0	0.0	TOTAL CONNECTED KVA												10.6	11.5	11.5				
<table><tr><td>CONTINUOUS KVA @ 125%</td></tr><tr><td>NON-CONTINUOUS KVA (100% DEMAND FACTOR)</td></tr><tr><td>LARGEST MOTOR KVA @ 125%</td></tr><tr><td>TOTAL PHASE KVA PER NEC</td></tr><tr><td>TOTAL PHASE AMPS PER NEC</td></tr><tr><td>TOTAL KVA LOAD</td></tr></table>						CONTINUOUS KVA @ 125%	NON-CONTINUOUS KVA (100% DEMAND FACTOR)	LARGEST MOTOR KVA @ 125%	TOTAL PHASE KVA PER NEC	TOTAL PHASE AMPS PER NEC	TOTAL KVA LOAD	C	A	B	C	C					
						CONTINUOUS KVA @ 125%															
						NON-CONTINUOUS KVA (100% DEMAND FACTOR)															
						LARGEST MOTOR KVA @ 125%															
						TOTAL PHASE KVA PER NEC															
						TOTAL PHASE AMPS PER NEC															
TOTAL KVA LOAD																					
0.00	0.00	0.00																			
M	10.60	11.50	11.50	M																	
	0.00	0.00	0.00																		
	10.60	11.50	11.50																		
	38.27	41.52	41.52																		
33.60																					

BREAKER	CAPACITY	BREAKER	CAPACITY
20	0%	30	64%
20	0%	30	64%
20	0%	30	64%
20	0%	30	64%
20	0%	30	64%
20	0%	30	64%
20	0%	30	0%
20	0%	30	0%
20	0%	30	0%
20	0%	30	0%
20	0%	30	0%
20	0%	60	0%
20	0%	60	5%
20	0%	60	5%
20	0%	60	0%
20	0%	60	0%
20	0%	60	0%
100	0%	60	0%
100	0%	60	0%
100	0%	60	0%
100	0%	60	0%
100	0%	60	0%
100	0%	60	0%
100	0%	60	0%



PANEL SB-SL1A										AMPACITY		200														
SERVICE		208	120	3											MAINS		200									
POLES		42																								
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID		POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C								
0.5			20	3/4"	#12	SYSTEM INTER ELECT RACKS COOLING 6.6.1 (1)	765	M	1	2	C	772	SYSTEM INTER ELECT RACKS COOLING 6.6.1 (8)	#12	3/4"	20		0.5	0.5							
		0.5																	3	4						
																			5	6						
0.5			20	3/4"	#12	SYSTEM INTER ELECT RACKS COOLING 6.6.1 (2)	766	C	7	8	C	773	SYSTEM INTER ELECT RACKS COOLING 6.6.1 (9)	#12	3/4"	20	0.5		0.5							
	0.5																		9	10						
																			11	12						
			20	3/4"	#12	SYSTEM INTER ELECT RACKS COOLING 6.6.1 (3)	767	C	13	14	C	774	SYSTEM INTER ELECT RACKS COOLING 6.6.1 (10)	#12	3/4"	20		0.5								
	0.5																		15	16						
		0.5																	17	18						
			20	3/4"	#12	SYSTEM INTER ELECT RACKS COOLING 6.6.1 (4)	768	C	19	20	C	775	SYSTEM INTER ELECT RACKS COOLING 6.6.1 (11)	#12	3/4"	20		0.5	0.5							
	0.5																		21	22						
		0.5																	23	24						
0.5			20	3/4"	#12	SYSTEM INTER ELECT RACKS COOLING 6.6.1 (5)	769	C	25	26	C	776	SYSTEM INTER ELECT RACKS COOLING 6.6.1 (12)	#12	3/4"	20	0.5									
																			27	28						
		0.5																	29	30						
0.5			20	3/4"	#12	SYSTEM INTER ELECT RACKS COOLING 6.6.1 (6)	770	C	31	32	C	777	SYSTEM INTER ELECT RACKS COOLING 6.6.1 (13)	#12	3/4"	20	0.5									
																			33	34						
		0.5																	35	36						
			20	3/4"	#12	SYSTEM INTER ELECT RACKS COOLING 6.6.1 (7)	771	C	37	38		PANEL SB-SL1B	#2	1-1/4"	100	4.9										
	0.5																	39	40						1.8	
		0.5																41	42						3.3	
									43	44																
									45	46																
									47	48																
									49	50																
									51	52																
									53	54																
2.0	2.0	3.0	TOTAL CONNECTED KVA													6.4	3.8	5.7								
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD								C	A	B	C	C														
									3.8	0.0	0.0															
									4.9	5.8	8.7															
								M	0.6	0.0	0.0															
									9.3	5.8	8.7															
									77.08	48.33	72.33	M														
								23.73																		

39%			
39%			
20	21%	20	0%
20	0%	20	21%
20	21%	20	21%
20	21%	20	21%
20	0%	20	0%
20	0%	20	0%
20	21%	20	21%
20	21%	20	19%
20	0%	20	0%
20	21%	20	21%
20	21%	20	19%
20	21%	20	21%
20	0%	20	0%
20	21%	20	21%
20	0%	20	0%
20	21%	20	21%
20	0%	100	41%
20	21%	100	15%
20	21%	100	28%
20	0%	100	0%
20	0%	100	0%
20	0%	100	0%
20	0%	100	0%
20	0%	100	0%
20	0%	100	0%

Racks are 2P single phase 208V instead of 3P.
May need to be changed to 2 pole.



PANEL SB-SL3																															
SERVICE POLES			208 42	120	3	AMPACITY MAINS													100 100												
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	C/M	POLE	POLE	C/M	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C												
			20			SPARE			1	2			SPARE			20															
									3	4			SPARE			20															
			20			SPARE			5	6			SPARE			20															
									7	8			SPARE			20															
	0.9		20	3/4"	12	P-LIFT DOOR 301A			9	10			SPARE			20															
		0.9	20	3/4"	12	P-LIFT DOOR 301B			11	12			SPARE			20															
			20			SPARE			13	14			SPARE			20															
			20			SPARE			15	16			SPARE			20															
			20			SPARE			17	18			SPARE			20															
			20			SPARE			19	20			SPARE			20															
			20			SPARE			21	22			SPARE			20															
			20			SPARE			23	24			SPARE			20															
						SPACE			25	26			SPACE																		
						SPACE			27	28			SPACE																		
						SPACE			29	30			SPACE																		
						SPACE			31	32			SPACE																		
						SPACE			33	34			SPACE																		
						SPACE			35	36			SPACE																		
									37	38			SPACE																		
			100			MAIN/PRINCIPAL			39	40			SPACE																		
									41	42			SPACE																		
									43	44																					
									45	46																					
									47	48																					
									49	50																					
									51	52																					
									53	54																					
0.0	0.9	0.9	TOTAL CONNECTED KVA														0.0	0.0	0.0												
<table><tr><td>CONTINUOUS KVA @ 125%</td></tr><tr><td>NON-CONTINUOUS KVA (100% DEMAND FACTOR)</td></tr><tr><td>LARGEST MOTOR KVA @ 125%</td></tr><tr><td>TOTAL PHASE KVA PER NEC</td></tr><tr><td>TOTAL PHASE AMPS PER NEC</td></tr><tr><td>TOTAL KVA LOAD</td></tr></table>							CONTINUOUS KVA @ 125%	NON-CONTINUOUS KVA (100% DEMAND FACTOR)	LARGEST MOTOR KVA @ 125%	TOTAL PHASE KVA PER NEC	TOTAL PHASE AMPS PER NEC	TOTAL KVA LOAD	C	A	B	C	C														
							CONTINUOUS KVA @ 125%																								
							NON-CONTINUOUS KVA (100% DEMAND FACTOR)																								
							LARGEST MOTOR KVA @ 125%																								
							TOTAL PHASE KVA PER NEC																								
							TOTAL PHASE AMPS PER NEC																								
TOTAL KVA LOAD																															
0.0	0.0	0.0	0.0																												
0.0	0.9	0.9																													
M	0.0	0.0	0.0	M																											
	0.0	0.9	0.9																												
	0.00	7.50	7.50																												
							1.80																								

BREAKER	CAPACITY	BREAKER	CAPACITY
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	38%	20	0%
20	38%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
100	0%		
100	0%		
100	0%		



PANEL SB-UPSH1A											AMPACITY				400		
SERVICE		480		277		3				MAINS		300					
POLES		42															
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C
			20			SPARE		1	2		SPACE						
			20			SPARE		3	4		SPACE						
			20			SPARE		5	6		SPACE						
			20			SPARE		7	8		SPACE						
			20			SPARE		9	10		SPACE						
			20			SPARE		11	12		SPACE						
			20			SPARE		13	14		SPACE						
			20			SPARE		15	16		SPACE						
			20			SPARE		17	18		SPACE						
			20			SPARE		19	20		SPACE						
			20			SPARE		21	22		SPACE						
			20			SPARE		23	24		SPACE						
						SPACE		25	26		SURGE PROTECTION DEVICE						
						SPACE		27	28								
						SPACE		29	30								
13.9								31	32		SB-UPSL3A VIA XFMR TSB1E				21.0		
	10.1		110	1-1/2"	#2	SB-UPSL1A VIA XFMR TSB2C		33	34			#4/0	2-1/2"	200		21.0	
		15.9						35	36								21.0
						SPACE		37	38		PNL SB-UPSH4				7.5		
						SPACE		39	40			#4/0	2-1/2"	225		3.5	
						SPACE		41	42								5.1
								43	44								
								45	46								
								47	48								
								49	50								
								51	52								
								53	54								
13.9	10.1	15.9	TOTAL CONNECTED KVA												28.5	24.5	26.1
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C	A	B	C	C						
								0.0	0.0	0.0							
							M	42.4	34.6	42.0							
								0.0	0.0	0.0							
								42.4	34.6	42.0							
								152.89	125.05	151.73							
								119.02									

BREAKER	CAPACITY	BREAKER	CAPACITY
---------	----------	---------	----------

20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		

110	45%	200	38%
110	33%	200	38%
110	52%	200	38%
110	0%	225	12%
110	0%	225	6%
110	0%	225	8%

PANEL SB-UPSH4													AMPACITY			225						
SERVICE			480			277			3			MAINS			225							
POLES			42																			
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C					
			20			SPARE		1	2		SPACE			20								
			20			SPARE		3	4		SPACE											
			20			SPARE		5	6		SPACE											
			20			SPARE		7	8		SPACE											
			20			SPARE		9	10		SPACE											
			20			SPARE		11	12		SPACE											
			20			SPARE		13	14		SPACE											
			20			SPARE		15	16		SPACE											
			20			SPARE		17	18		SPACE											
			20			SPARE		19	20		SPACE											
			20			SPARE		21	22		SPACE											
			20			SPARE		23	24		SPACE											
						SPACE		25	26		SPACE											
						SPACE		27	28		SPACE											
						SPACE		29	30		SPACE											
						SPACE		31	32		SPACE											
						SPACE		33	34		SPACE											
						SPACE		35	36		SPACE											
						SPACE		37	38		SB-UPSL4A VIA XFMR TSB4G				7.5							
						SPACE		39	40					110		3.5						
						SPACE		41	42								5.1					
								43	44													
								45	46													
								47	48													
								49	50													
								51	52													
								53	54													
0.0	0.0	0.0	TOTAL CONNECTED KVA												7.5	3.5	5.1					
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C	A	B	C	C											
								0.0	0.0	0.0												
							M	7.5	3.5	5.1	M											
								0.0	0.0	0.0												
								7.5	3.5	5.1												
								27.08	12.64	18.41												
16.10																						

	12%		
	12%		
BREAKER	CAPACITY	BREAKER	CAPACITY
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
20	0%		
110	25%		
110	11%		
110	17%		



UPS SB-UPSH4A														AMPACITY			30
														MAINS			30
SERVICE	480	277	3														
POLES	42																
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C
			30			SPACE		1	2		SB-UPSEMH4A				7.5		
						SPACE		3	4						4.0		
						SPACE		5	6						5.1		
						SPACE		7	8								
						SPACE		9	10								
						SPACE		11	12								
						SPACE		13	14								
						SPACE		15	16								
						SPACE		17	18								
						SPACE		19	20								
						SPACE		21	22								
						SPACE		23	24								
						SPACE		25	26								
						SPACE		27	28								
						SPACE		29	30								
						SPACE		31	32								
						SPACE		33	34								
						SPACE		35	36								
						SPACE		37	38								
						SPACE		39	40								
						SPACE		41	42								
								43	44								
								45	46								
								47	48								
								49	50								
								51	52								
								53	54								
0.0	0.0	0.0				TOTAL CONNECTED KVA											
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD						C	A	B	C	C							
							0.0	0.0	0.0								
							7.5	4.0	5.1								
						M	0.0	0.0	0.0	M							
							7.5	4.0	5.1								
							27.04	14.58	18.48								
						16.65											

90%
90%



PANEL SB-UPSL1A (COUDE PANEL)																				
SERVICE POLES			208 42	120	3												AMPACITY MAINS		225 200	
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C			
1.1			20	3/4"	#12	WFC 110 COUDE FLR ePDU	712	1	2	762	WFC DM M10 (Inst. Rack #10)	#12	3/4"	20	1.3					
			20	3/4"	#12	SPARE		3	4							1.3				
		1.7	20	3/4"	#12	NCSP	717.1	5	6								1.3			
1.8			20	3/4"	#12	DL CRYO TIGER COMP EPDU	717.2	7	8	720	VBI-BLUE 3.2.1	#12	3/4"	20	0.7					
			20	3/4"	#12	FACILITY RACK #6 EPDU	713.1	9	10							0.7				
		2.2	20	3/4"	#12	FMS PLC4-RC	713.2	11	12								0.7			
0.7			20	3/4"	#12	VBI RED	760	13	14	721	VISP INST (Rack #13)	#12	3/4"	20	1.7					
	0.7							15	16							1.7				
		0.7						17	18								1.7			
			20	3/4"	#12	19, 21, 23 are 1P	725	19	20	723	WFC MC Rack #9)	#12	3/4"	20	1.1					
								21	22							1.1				
								23	24								1.1			
			20	3/4"	#12	SPARE	763	25	26	724	VTF	#12	3/4"	20	0.9					
								27	28							0.9				
								29	30								0.9			
1.2			20	3/4"	#12	DL NlRSP (Inst. Rack #4)	708	31	32	713.3	DL-NlRSP TABLE EPDU	#12	3/4"	20						
	0.9							33	34		FUT CAMERA 3.6	#12	3/4"	20						
		1.0						35	36	713.4	16°C CHILLER #1	#12	3/4"	30			1.8			
1.6			20	3/4"	#12	DL NlRSP (Inst. Rack #5)	710	37	38	713.5	16°C CHILLER #2	#12	3/4"	30	1.8					
	1.1							39	40							1.8				
		1.1						41	42								1.8			
								43	44											
								45	46											
								47	48											
								49	50											
								51	52											
								53	54											
6.4	2.6	6.6	TOTAL CONNECTED KVA												7.5	7.5	9.3			
							C	A	B	C										
								0.0	0.0	0.0										
								M	13.9	10.1	15.9									
									0.0	0.0	0.0									
									13.9	10.1	15.9									
									115.42	84.50	132.75									
								39.92												

BREAKER	CAPACITY	BREAKER	CAPACITY
20	46%	20	54%
20	0%	20	54%
20	71%	20	54%
20	75%	20	29%
20	0%	20	29%
20	92%	20	29%
20	29%	20	71%
20	29%	20	71%
20	0%	20	46%
20	0%	20	46%
20	0%	20	38%
20	0%	20	38%
20	50%	20	0%
20	36%	20	0%
20	40%	30	50%
20	65%	20	75%
20	45%	30	50%
20	45%	30	50%
20	0%	30	0%
20	0%	30	0%
20	0%	30	0%
20	0%	30	0%
20	0%	30	0%
20	0%	30	0%



PANEL SB-UPSL3A (COMPUTER ROOM)																		
SERVICE POLES			208 42	120	3											AMPACITY MAINS	400 400	
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C	
17.1			225	2-1/2"	#4/0	SUBFEED UPS3LB	SB- C C C											
	17.1																	
		17.1																
			20	3/4"	#12	COMP RM RACK B4 (FUTURE)	C	1	2	C	COMP RM RACK C1	#12	3/4"	30	2.8			
								C	3	4					C		2.8	
								C	5	6					C			2.8
2.8			30	3/4"	#12	COMP RM RACK B3	C	7	8	C	COMP RM RACK C2	#12	3/4"	30	2.8			
	2.8							C	9	10					C		2.8	
		2.8						C	11	12					C			2.8
2.8			30	3/4"	#12	COMP RM RACK B2	C	13	14	C	COMP RM RACK C3	#12	3/4"	30	2.8			
	2.8							C	15	16					C		2.8	
		2.8						C	17	18					C			2.8
2.8			30	3/4"	#12	COMP RM RACK B1	C	19	20	C	COMP RM RACK C4 (FUTURE)	#12	3/4"	20				
	2.8							C	21	22					C			
		2.8						C	23	24					C			
			20			SPARE	C	25	26		SPARE			20				
								27	28									
								29	30									
			20			SPARE	C	31	32		SPARE			20				
								33	34		SPARE			20				
								35	36		SPARE			20				
			20			SPARE	C	37	38		SPACE							
								39	40		SPACE							
								41	42		SPACE							
									44									
									46									
									48									
									49									
									51									
									53									
8.4	8.4	8.4	TOTAL CONNECTED KVA											8.4	8.4	8.4		
							C	A	B	C	C							
CONTINUOUS KVA @ 125%								21.0	21.0	21.0								
NON-CONTINUOUS KVA (100% DEMAND FACTOR)							M	0.0	0.0	0.0	M							
LARGEST MOTOR KVA @ 125%								0.0	0.0	0.0								
TOTAL PHASE KVA PER NEC								21.0	21.0	21.0								
TOTAL PHASE AMPS PER NEC								100.96	100.96	100.96								
TOTAL KVA LOAD							63.00											

BREAKER CAPACITY BREAKER CAPACITY

25%
25%

20	0%	30	45%
20	0%	30	45%
20	0%	30	45%
30	45%	30	45%
30	45%	30	45%
30	45%	30	45%
30	45%	30	45%
30	45%	30	45%
30	45%	20	0%
30	45%	20	0%
30	45%	20	0%
		20	0%
		20	0%
		20	0%
		20	0%
		20	0%

PANEL SB-UPSL3B (COMPUTER ROOM)																		AMPACITY MAINS			225 225		
SERVICE POLES			208 42	120	3																		
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C						
2.8			30	3/4"	#12	COMP RM RACK D1	C	1	2		COMP RM SPARE			20									
	2.8							3	4		COMP RM SPARE			20									
		2.8						5	6		COMP RM SPARE			20									
2.8			30	3/4"	#12	COMP RM RACK D2	C	7	8		INST PREP LAB L21 RECP INST RACK	#12	3/4"	20	1.9								
	2.8							9	10							1.9							
		2.8						11	12								1.9						
2.8			30	3/4"	#12	COMP RM RACK D3	C	13	14		INST PREP LAB L21 RECP INST RACK	#12	3/4"	20	1.9								
	2.8							15	16							1.9							
		2.8						17	18								1.9						
			20	3/4"	#12	COMP RM RACK D4 (FUTURE)	C	19	20		INST PREP LAB L21 RECP COMP RACK	#12	3/4"	30	2.8								
								21	22							2.8							
								23	24								2.8						
			20	3/4"	#12	SPARE		25	26		SPARE	#12	3/4"	20									
								27	28														
								29	30														
			20	3/4"	#12	SPARE		31	32		SPARE	#12	3/4"	20									
								33	34														
								35	36														
			20	3/4"	#12	SPARE		37	38		SPARE			20									
								39	40														
								41	42														
			20			SPARE		43	44					20									
								45	46														
								47	48														
								49	50														
								51	52														
								53	54														
8.4	8.4	8.4	TOTAL CONNECTED KVA												6.6	6.6	6.6						
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C	A	B	C	C												
								10.5	10.5	10.5													
								6.6	6.6	6.6													
							M	0.0	0.0	0.0	M												
								17.1	17.1	17.1													
								142.50	142.50	142.50													
							51.30																

BREAKER	CAPACITY	BREAKER	CAPACITY
30	78%	20	0%
30	78%	20	0%
30	78%	20	0%
30	78%	20	79%
30	78%	20	79%
30	78%	20	79%
30	78%	20	79%
30	78%	20	79%
20	0%	30	78%
20	0%	30	78%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%



PANEL SB-UPSL4B (MOUNT BASE PANEL)																				
SERVICE POLES	208 42	120	3	AMPACITY MAINS															225 200	
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID		POLE		POLE		ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C
			20	3/4"	#12	SPARE			1		2			OSS RACK M1CS/M2 CONT	#10	3/4"	30	2.8		
			20	3/4"	#12	SPARE			3		4			SPARE	#10	3/4"	30			
			20	3/4"	#12	SPARE			5		6			SPARE	#10	3/4"	30			
			20	3/4"	#12	SPARE			7		8			SPARE	#8	3/4"	40			
			20	3/4"	#12	SPARE			9		10									
			20	3/4"	#12	SPARE			11		12			SPARE	#10	3/4"	20			
			20	3/4"	#12	SPARE			13		14			PA&C RACK	#12	3/4"	20			1.7
			20	3/4"	#12	SPARE			15		16									
			20	3/4"	#12	SPARE			17		18									
			20	3/4"	#12	SPARE			19		20									
			20	3/4"	#12	SPARE			21		22							SPACE		
		1.7	20	3/4"	#12	GOS BLOWER/PA&C THERM.			23		24			SPACE						
1.8			20	3/4"	#12	M3/M4/M6 THERMAL RACK			25		26			SPACE						
	1.8								27		28			SPACE						
		1.7	20	3/4"	#12	M5 CONTROL RACK MER3			29		30			SPACE						
1.2			20	3/4"	#12	M5 THERMAL RACK MER2			31		32			SPACE						
			20			SPARE			33		34			SPACE						
			20			SPARE			35		36			SPACE						
			20			SPARE			37		38			SPACE						
			20			SPARE			39		40			SPACE						
			20			SPARE			41		42			SPACE						
									43		44									
									45		46									
									47		48									
									49		50									
									51		52									
									53		54									
3.0	1.8	3.4	TOTAL CONNECTED KVA															4.5	1.7	1.7
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C	A	B	C	C									
								0.0	0.0	0.0										
							M	7.5	3.5	5.1	M									
								0.0	0.0	0.0										
								7.5	3.5	5.1										
								62.50	29.17	42.50										
16.10																				

BREAKER	CAPACITY	BREAKER	CAPACITY
20	0%	30	78%
20	0%	30	0%
20	0%	30	0%
20	0%	40	0%
20	0%	40	0%
20	0%	40	0%
20	0%	20	0%
20	0%	20	71%
20	0%	20	71%
20	0%	20	71%
20	0%		
20	71%		
20	75%		
20	75%		
20	71%		
20	50%		



PANEL SB-UPSEMH1A (EMERGENCY LIGHTING)																	
SERVICE POLES		480 12	277	3											AMPACITY MAINS	100 30	
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C
0.6			20	3/4"	#12	LTG REC 105, MACH SH 106	160b	C	1	2	C	ELEV CAB LTG VIA TSB1F	#12	3/4"	20	1.8	
	0.6		20	3/4"	#12	LTG MECH RM 114	160b	C	3	4		SPACE					
		0.6	20	3/4"	#12	LTG STAIR 2	160b	C	5	6		SPACE					
0.6			20	3/4"	#12	LTG GND PIER 108,109,110		C	7	8		SPACE					
	0.6		20	3/4"	#12	LTG MEZZ S&O		C	9	10		SPACE					
		0.6	20	3/4"	#12	LTG MEZZ IN/OUT PIER		C	11	12		SPACE					
									13	14							
									15	16							
									17	18							
									19	20							
									21	22							
									23	24							
									25	26							
									27	28							
									29	30							
									31	32							
									33	34							
									35	36							
									37	38							
									39	40							
									41	42							
									43	44							
									45	46							
									47	48							
									49	50							
									51	52							
									53	54							
1.2	1.2	1.2	TOTAL CONNECTED KVA												1.8	0.0	0.0
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD								C	A	B	C	C					
									3.8	1.5	1.5						
									0.0	0.0	0.0						
								M	0.0	0.0	0.0	M					
									3.8	1.5	1.5						
									13.54	5.42	5.42						
								6.75									

				14%
BREAKER	CAPACITY	BREAKER	CAPACITY	45%
20	11%	20	32%	
20	11%	20	0%	
20	11%	20	0%	
20	11%	20	0%	
20	11%	20	0%	
20	11%	20	0%	



PANEL SB-UPSEMH4A (EMERGENCY LIGHTING)																	AMPACITY MAINS		100 30
SERVICE POLES	480 30	277	3																27% 90%
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C		
0.9			20	3/4"	#12	LTG COUDÉ LAB		C	1	2					3.8				
	0.8		20	3/4"	#12	LTG UTILITY, CABLE WRAP		C	3	4	SB-UPSEMH1A	#10	3/4"	30		1.5			
		1.8	20	3/4"	#12	LU/LA CAB LTG VIA TSB4C		C	5	6							1.5		
0.9			20	3/4"	#12	LTG COUDÉ LV S&O/OUT PIER		C	7	8	MELU100				1.5				
	0.8		20	3/4"	#12	LTG UTILITY MECH OUTER		C	9	10	ENCLOSURE EM. LTG. VIA XFMR TSB4A	#12	3/4"	20		0.5			
		0.6	20	3/4"	#12	LTG UPPER STAIR #2		C	11	12							0.6		
						SPACE			13	14	SPARE			20					
						SPACE			15	16	SPARE			20					
						SPACE			17	18	SPARE			20					
						SPACE			19	20	SPARE			20					
						SPACE			21	22	SPARE			20					
						SPACE			23	24	SPARE			20					
						SPACE			25	26	SPACE								
						MAIN/PRINCIPAL			27	28	SPACE								
									29	30	SPACE								
									31	32									
									33	34									
									35	36									
									37	38									
									39	40									
									41	42									
									43	44									
									45	46									
									47	48									
									49	50									
									51	52									
									53	54									
1.8	1.6	2.4	TOTAL CONNECTED KVA													5.2	2.0	2.1	
							C	A	B	C	C								
								2.3	2.0	3.0									
								5.2	2.0	2.1									
							M	0.0	0.0	0.0	M								
								7.5	4.0	5.1									
								27.04	14.58	18.48									
								16.65											

BREAKER CAPACITY BREAKER CAPACITY

20	16%	30	45%
20	14%	30	18%
20	32%	30	18%
20	16%	20	27%
20	14%	20	10%
20	11%	20	11%
		20	0%
		20	0%
		20	0%
		20	0%
		20	0%
		20	0%
30	0%		
30	0%		
30	0%		

PANEL MEPS100										AMPACITY				800			
SERVICE		480		277		3				MAINS		500					
POLES		54															
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C
1.4			30	3/4"	#10	STANDBY LIGHTING SWITCHBOARD (FUT.) MEEL 100		1	2		REAR DOOR CABINET 406			15	1.6		
	1.5							3	4							1.6	
		0.9						5	6								1.6
42.1			300	3"	#350	SHUTTER DRIVE CABINET 302		7	8		AZIMUTH DRIVE CABINET 304			175	21.1		
	42.1							9	10							21.1	
		42.1						11	12								21.1
8.7			80	1-1/4"	#4	BRIDGE CRANE		13	14		AZIMUTH DRIVE CABINET 305			175	21.1		
	8.7							15	16							21.1	
		8.7						17	18								21.1
2.2			20	3/4"	#12	JIB CRANE		19	20		MAIN VENT GATE SWITCHBOARD MEVG 100			110	11.5		
	2.2							21	22							9.5	
		2.2						23	24								9.5
								25	26								
								27	28								
								29	30								
								31	32								
								33	34								
								35	36								
								37	38								
								39	40								
								41	42								
								43	44								
								45	46								
								47	48								
								49	50								
								51	52								
								53	54								
54.4	54.5	53.9	TOTAL CONNECTED KVA												55.3	53.3	53.3
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C	A	B	C	C						
								0.0	0.0	0.0							
							M	109.6	107.8	107.1	M						
								0.0	0.0	0.0							
								109.6	107.8	107.1							
								395.74	389.10	386.71							
							324.52										

				49%
				79%
BREAKER	CAPACITY	BREAKER	CAPACITY	
30	16%	15	38%	
30	18%	15	38%	
30	10%	15	38%	
300	51%	175	44%	
300	51%	175	44%	
300	51%	175	44%	
80	39%	175	44%	
80	39%	175	44%	
80	39%	175	44%	
20	40%	110	38%	
20	40%	110	31%	
20	40%	110	31%	

PANEL MRPS100				AMPACITY	400
SERVICE	480	277	3	MAINS	200
POLES	30				

A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C			
1.8			15	1/2"	#14	APERTURE STOP (FUTURE)		1	2		TEOA PLATFORM CABINET 504	#14	1/2"	15	2.1					
	1.8														2.1					
		1.8														2.1				
12.8			125	2"	#1	LIGHTING & DISTRIBUTION MRLS100 VIA TRDR100		7	8			FACILITY THERMAL SYSTEM 6700-P-101	#2	1-1/4"	100	4.0				
	12.5																4.0			
		20.5																4.0		
							11	12												
							13	14												
							15	16												
							17	18												
							19	20												
							21	22												
							23	24												
							25	26												
							27	28												
							29	30												
							31	32												
											33	34								
											35	36								
										37	38									
											39	40								
											41	42								
							43	44												
							45	46												
							47	48												
							49	50												
							51	52												
							53	54												
14.5	14.3	22.3	TOTAL CONNECTED KVA												6.1	6.1	6.1			

		A	B	C	
C	CONTINUOUS KVA @ 125%	0.0	0.0	0.0	C
	NON-CONTINUOUS KVA (100% DEMAND FACTOR)	20.6	20.3	28.3	
M	LARGEST MOTOR KVA @ 125%	0.0	0.0	0.0	M
	TOTAL PHASE KVA PER NEC	20.6	20.3	28.3	
	TOTAL PHASE AMPS PER NEC	74.37	73.41	102.29	
	TOTAL KVA LOAD	69.27			

[illegible]

[illegible]

10%		24%	
BREAKER	CAPACITY	BREAKER	CAPACITY
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	14%	20	14%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
20	0%	20	0%
30	24%	20	0%
30	0%	20	0%
30	0%	20	0%

PANEL 6700-MCC-101																			
SERVICE POLES		480	277	3	AMPACITY MAINS													600	225
A	B	C	CB TRIP	COND	WIRE	LOAD NAME	ID	POLE	POLE	ID	LOAD NAME	WIRE	COND	CB TRIP	A	B	C		
6.2			60	1-1/4"	#6	Tamb -4°C TMW Pump 1 67122-CP-101	M	1	2		6714-VAC-101 Vacuum Pump 1	#6	1-1/4"	60	6.2				
	6.2						M	3	4							6.2			
		6.2					M	5	6								6.2		
6.2			60	1-1/4"	#6	Tamb -4°C TMW Pump 2 67122-CP-102		7	8		6714-VAC-102 Vacuum Pump 2	#8	1"	50	6.2				
	6.2							9	10							6.2			
		6.2						11	12								6.2		
			60	1-1/4"	#6	SPARE		13	14		SPARE	#8	1"	50					
								15	16										
								17	18										
3.7			35	3/4"	#8	T = 7°C TAC Pump 1 67126-CP-101		19	20		SPARE	#10	3/4"	30					
	3.7							21	22										
		3.7						23	24										
3.7			35	3/4"	#8	T = 7°C TAC Pump 2 67126-CP-102		25	26		SPARE	#10	3/4"	30					
	3.7							27	28										
		3.7						29	30										
			20	3/4"	#12	SPARE		31	32		DYNALENE MAKE-UP PUMP #2	#14	1/2"	15	2.1				
								33	34							2.1			
								35	36								2.1		
2.1			15	1/2"	#14	DYNALENE MAKE-UP PUMP #1		37	38		SPACE								
	2.1							39	40		SPACE								
		2.1						41	42		SPACE								
								43	44										
								45	46										
								47	48										
								49	50										
								51	52										
								53	54										
22.0	22.0	22.0	TOTAL CONNECTED KVA													14.5	14.5	14.5	
CONTINUOUS KVA @ 125% NON-CONTINUOUS KVA (100% DEMAND FACTOR) LARGEST MOTOR KVA @ 125% TOTAL PHASE KVA PER NEC TOTAL PHASE AMPS PER NEC TOTAL KVA LOAD							C	A	B	C	C								
								0.0	0.0	0.0									
								30.3	30.3	30.3									
							M	7.8	7.8	7.8									
								38.1	38.1	38.1									
								137.46	137.46	137.46									
								114.23			M								

23%		61%	
BREAKER	CAPACITY	BREAKER	CAPACITY
60	37%	60	37%
60	37%	60	37%
60	37%	60	37%
60	37%	50	45%
60	37%	50	45%
60	37%	50	45%
60	0%	50	0%
60	0%	50	0%
60	0%	50	0%
35	38%	30	0%
35	38%	30	0%
35	38%	30	0%
35	38%	30	0%
35	38%	30	0%
20	0%	15	51%
20	0%	15	51%
20	0%	15	51%
15	51%	15	0%
15	51%	15	0%
15	51%	15	0%
15	0%	15	0%
15	0%	15	0%
15	0%	15	0%
15	0%	15	0%
15	0%	15	0%
15	0%	15	0%

[illegible]

[illegible]

[illegible]

[illegible]

Sheet Name		Fed from	PANEL VOLTAGE	TOTAL KVA			MAXIMUM M CURRENT	AMPACITY	MAINS			
				A	B	C						
SES	SERVICE ENTRANCE		480/277	1133.4	1109.2	1110.3	3352.9	4091.7	3000	136%	3000	136%
UB-NH1A	PANEL UB-NH1A		480/277	95.9	100.9	103.8	300.6	346.3	600	58%	600	58%
UB-NH1B	PANEL UB-NH1B		480/277	34.1	34.1	34.1	102.2	122.9	225	55%	225	55%
UB-NH2	PANEL UB-NH2		480/277	11.2	8.7	5.3	25.2	8.5	225	4%	225	4%
UB-NL1	PANEL UB-NL1		208/120	5.9	9.9	12.6	28.4	49.2	225	22%	200	25%
UB-NL2	PANEL UB-NL2		208/120	7.2	6.1	4.0	17.4	60.4	225	27%	200	30%
UB-SH2	PANEL UB-SH2		480/277	402.5	386.8	383.5	1172.8	0.0	1600	0%	1600	0%
UB-SL1	PANEL UB-SL1		208/120	6.2	6.3	6.8	19.2	51.5	100	51%	100	51%
UB-UPSEMH2	PANEL UB-UPSEMH2		480/277	2.1	1.4	0.0	3.5	7.7	100	8%	30	26%
UB-EML1	PANEL UB-EML1		208/120	7.5	3.6	3.5	14.6	62.5	100	63%	100	63%
UPS UB-UPSH2A	UPS UB-UPSH2A		480/277	42.8	33.4	31.3	107.5	154.4	800	19%	500	31%
UPS UB-UPSH2B	UPS UB-UPSH2B		480/277	42.4	34.6	42.0	119.0	152.9	400	38%	400	38%
UPS UB-UPSH2C	UPS UB-UPSH2C		480/277	2.1	1.4	0.0	3.5	7.7	30	26%	20	38%
SB-NH1A	PANEL SB-NH1A		480/277	263.5	263.4	256.6	783.5	69.0	1600	4%	1600	4%
SB-NH1B	PANEL SB-NH1B		480/277	53.4	49.0	46.6	149.0	192.9	400	48%	400	48%
SB-NH1C	PANEL SB-NH1C		480/277	34.3	34.3	34.3	102.8	123.6	200	62%	200	62%
SB-NH2	PANEL SB-NH2		480/277	80.2	79.7	77.2	237.1	47.1	400	12%	400	12%
SB-NH3	PANEL SB-NH3		480/277	24.7	23.9	22.2	70.7	89.0	225	40%	225	40%
SB-NH4A	PANEL SB-NH4A		480/277	81.9	78.8	83.1	243.8	65.6	800	8%	800	8%
SB-NH4B	PANEL SB-NH4B		480/277	11.1	11.7	5.8	28.6	40.0	225	18%	225	18%
SB-NH4D	PANEL SB-NH4D		480/277	1.3	1.3	0.0	2.6	4.7	225	2%	225	2%
SB-NH4E	PANEL SB-NH4E		480/277	32.6	29.1	32.6	94.3	117.7	225	52%	225	52%
SB-NL1A	PANEL SB-NL1A		208/120	7.4	7.3	5.6	20.3	61.7	225	27%	200	31%
SB-NL1B	PANEL SB-NL1B		208/120	27.8	23.2	22.3	73.4	231.8	225	103%	200	116%
SB-NL1C	PANEL SB-NL1C		208/120	15.3	15.0	9.6	39.9	127.5	225	57%	200	64%
SB-NL2A	PANEL SB-NL2A		208/120	10.3	11.4	8.0	29.7	85.8	225	38%	200	43%
SB-NL2B	PANEL SB-NL2B		208/120	7.9	6.3	6.8	20.9	65.7	225	29%	100	66%
SB-NL3	PANEL SB-NL3		208/120	8.0	10.7	11.0	29.7	66.7	225	30%	200	33%
SB-NL4B	PANEL SB-NL4B		208/120	10.5	11.0	4.8	26.2	87.2	225	39%	200	44%
SB-NL4D	PANEL SB-NL4D		208/120	1.3	1.3	0.0	2.6	10.8	225	5%	200	5%
SB-NL4E	PANEL SB-NL4E		208/120	9.6	6.1	9.6	25.3	80.0	225	36%	200	40%
SB-EMH1	PANEL SB-EMH1		480/277	35.3	29.8	27.8	92.9	35.3	400	9%	400	9%
SB-EMH3	PANEL SB-EMH3		480/277	11.1	8.6	8.1	27.7	39.9	225	18%	225	18%
SB-EMH4	PANEL SB-EMH4		480/277	0.0	0.0	0.0	0.0	0.0	100	0%	100	0%
SB-EML1	PANEL SB-EML1		208/120	24.2	21.3	19.7	65.2	24.2	400	6%	400	6%
SB-EML2	PANEL SB-EML2		208/120	1.2	0.8	1.4	3.4	10.0	200	5%	100	10%
SB-EML3	PANEL SB-EML3		480/120	11.5	11.8	11.6	34.9	95.8	100	96%	100	96%
SB-EML4	PANEL SB-EML4		208/120	18.6	15.7	14.3	48.6	155.0	200	78%	200	78%
SB-SH1	PANEL SB-SH1		480/277	210.2	204.5	204.2	618.9	210.2	800	26%	800	26%
SB-SH3	PANEL SB-SH3		480/277	10.6	11.5	11.5	33.6	38.3	100	38%	100	38%
SB-SH4	PANEL SB-SH4		480/277	49.0	47.2	44.1	140.3	176.8	225	79%	225	79%
SB-SL1A	PANEL SB-SL1A		208/120	9.3	5.8	8.7	23.7	77.1	200	39%	200	39%
SB-SL1B	PANEL SB-SL1B		208/120	4.9	1.8	3.3	10.0	40.6	100	41%	100	41%
SB-SL3	PANEL SB-SL3		208/120	0.0	0.9	0.9	1.8	1.8	100	2%	100	2%
SB-SL4	PANEL SB-SL4		208/120	7.6	9.3	5.1	22.0	63.3	100	63%	100	63%
SB-UPSH1A	PANEL SB-UPSH1A		480/277	42.4	34.6	42.0	119.0	152.9	400	38%	300	51%
SB-UPSH4	PANEL SB-UPSH4		480/277	7.5	3.5	5.1	16.1	27.1	225	12%	225	12%
UPS SB-UPSH4A	UPS SB-UPSH4A		480/277	7.5	4.0	5.1	16.7	27.0	30	90%	30	90%
SB-UPSL1A	PANEL SB-UPSL1A		208/120	13.9	10.1	15.9	39.9	115.4	225	51%	200	58%
SB-UPSL3A	PANEL SB-UPSL3A		208/120	21.0	21.0	21.0	63.0	21.0	400	5%	400	5%
SB-UPSL3B	PANEL SB-UPSL3B		208/120	17.1	17.1	17.1	51.3	142.5	225	63%	225	63%
SB-UPSL4A	PANEL SB-UPSL4A		208/120	7.5	3.5	5.1	16.1	7.5	200	4%	200	4%
SB-UPSL4B	PANEL SB-UPSL4B		208/120	7.5	3.5	5.1	16.1	62.5	225	28%	200	31%
SB-UPSEMH1A	PANEL SB-UPSEMH1A		480/277	3.8	1.5	1.5	6.8	13.5	100	14%	30	45%
SB-UPSEMH4A	PANEL SB-UPSEMH4A		480/277	7.5	4.0	5.1	16.7	27.0	100	27%	30	90%
MRPS100	PANEL MRPS100		480/277	20.6	20.3	28.3	69.3	74.4	400	19%	200	37%
MEPS100	PANEL MEPS100		480/277	109.6	107.8	107.1	324.5	395.7	800	49%	500	79%
MUPS100	PANEL MUPS100		208/120	11.1	8.6	8.1	27.7	92.2	250	37%	150	61%
MELU100	PANEL MELU100		208/120	1.5	0.5	0.6	2.7	12.4	100	12%	100	12%
MEEL100	PANEL MEEL100		208/120	1.4	1.5	0.9	3.7	11.3	100	11%	30	38%
MRLS100	PANEL MRLS100		208/120	12.8	12.5	20.5	45.8	106.6	250	43%	225	47%
6700-MCC-101	PANEL 6700-MCC-101		480/277	38.1	38.1	38.1	114.2	137.5	600	23%	225	61%
6700-MCC-102	PANEL 6700-MCC-102		480/277	13.1	13.1	13.1	39.2	47.2	200	24%	150	31%
6700-P-101	PANEL 6700-P-101		480/277	4.0	4.0	4.0	12.0	14.4	100	14%	80	18%
6700-P-101 (2)	PANEL 6700-P-101		208/120	0.0	0.0	0.0	0.0	0.0	200	0%	150	0%
6700-P-102	PANEL 6700-P-102		208/120	0.8	0.6	0.6	2.0	6.7	100	7%	50	13%
6700-P-103	PANEL 6700-P-103		208/120	1.8	1.0	1.3	4.1	15.3	100	15%	30	51%
6700-P-104	PANEL 6700-P-104		208/120	2.8	2.2	1.6	6.5	23.0	225	10%	100	23%
6700-P-105	PANEL 6700-P-105		208/120	1.0	1.0	0.0	2.0	8.3	100	8%	40	21%
6700-P-106	PANEL 6700-P-106		208/120	3.0	2.5	3.0	8.5	25.0	100	25%	35	71%
6700-P-107	PANEL 6700-P-107		208/120	1.7	1.3	1.2	4.2	14.0	100	14%	50	28%
67254-P-101	PANEL 67254-P-101		208/120	6.4	1.2	1.3	8.8	53.1	100	53%	60	88%
67254-P-201	PANEL 67254-P-101		208/120	6.4	1.2	1.3	8.8	53.1	100	53%	60	88%

TRANSFORMER	FEEDS				TOTAL KVA			
		RATING	DERATED		TOTAL	A	B	C
TUB1	UB-NL2	75	70.5	25%	17.4	7.2	6.1	4.0
TUB2	UB-EML1	30	28.2	52%	14.6	7.5	3.6	3.5
TUB3	UB-SL1	30	28.2	68%	19.2	6.2	6.3	6.8
TUB4	UB-NL1	75	70.5	40%	28.4	5.9	9.9	12.6
TSB1A	SB-NL1A	75	70.5	29%	20.3	7.4	7.3	5.6
TSB1B	SB-NL1B	75	70.5	104%	73.4	27.8	23.2	22.3
TSB1C	SB-NL1C	75	70.5	57%	39.9	15.3	15.0	9.6
TSB1D	SB-EML1	150	141	46%	65.2	24.2	21.3	19.7
TSB1E	SB-UPSL3A	150	141	45%	63.0	21.0	21.0	21.0
TSB1F	ELEV LTG	3	2.82	64%	1.8	1.8	0.0	0.0
TSB1G	SB-SL1A	75	70.5	34%	23.7	9.3	5.8	8.7
TSB2A	SB-NL2A	75	70.5	42%	29.7	10.3	11.4	8.0
TSB2B	SB-NL2B	45	42.3	50%	20.9	7.9	6.3	6.8
TSB2C	SB-UPSL1A	75	70.5	57%	39.9	13.9	10.1	15.9
TSB3A	SB-NL3	75	70.5	42%	29.7	8.0	10.7	11.0
TSB3B	SB-SL3	45	42.3	4%	1.8	0.0	0.9	0.9
TSB4A	MELU100	6	5.64	47%	2.7	1.5	0.5	0.6
TSB4B	SB-NL4B	75	70.5	37%	26.2	10.5	11.0	4.8
TSB4C	LULA LTG	3	2.82	64%	1.8	1.8	0.0	0.0
TSB4D	SB-NL4D	75	70.5	4%	2.6	1.3	1.3	0.0
TSB4E	SB-NL4E	75	70.5	36%	25.3	9.6	6.1	9.6
TSB4F	SB-SL4	45	42.3	16%	6.6	2.2	2.2	2.2
TSB4G	SB-UPSL4A	75	70.5	23%	16.1	7.5	3.5	5.1
TRDE100	MEEL100	15	14.1	26%	3.7	1.4	1.5	0.9
TRDR100	MRLS100	75	70.5	65%	45.8	12.8	12.5	20.5
TRDV100	MEVG100	75	70.5	43%	30.4	11.5	9.5	9.5
TRDU100	MUPS100	45	42.3	65%	27.7	11.1	8.6	8.1
6700-TR-100	6700-P-101 (2)	45	42.3	0%	0.0	0.0	0.0	0.0

UPS	FEEDS	RATING		TOTAL KVA			
				TOTAL	A	B	C
SB-UPSH4A	SB-UPSEMH4A	15	111%	16.7	7.5	4.0	5.1
UB-UPSH2A	UPS UB-UPSH2A	300	36%	107.5	42.8	33.4	31.3
UB-UPSH2B	SB-UPSH1A	200	60%	119.0	42.4	34.6	42.0
UB-UPSH2C	UB-UPSEMH2	10	35%	3.5	2.1	1.4	0.0

AMPACITY OF COPPER ≤3 IN CABLE OR RACEWAY			IN FREE AIR			Q
SIZE	AMPACITY					
	75° THWN	90° THHN	90°	ohms/1000 ft	ohms/1000 ft	
#14	15	15	35	3.1000	3.1400	0.9873
#12	20	20	40	2.0000	1.9800	1.0101
#10	30	30	55	1.2000	1.2400	0.9677
#8	50	55	80	0.7800	0.7780	1.0026
#6	65	75	105	0.4900	0.4910	0.9980
#4	85	95	140	0.3100	0.3080	1.0065
#3	100	110	165	0.2500	0.2450	1.0204
#2	115	130	190	0.2000	0.1940	1.0309
#1	130	150	220	0.1600	0.1540	1.0390
#1/0	150	170	260	0.1300	0.1220	1.0656
#2/0	175	195	300	0.1000	0.0967	1.0341
#3/0	200	225	350	0.0820	0.0766	1.0705
#4/0	230	260	405	0.0670	0.0608	1.1020
250 kcmil	255	290	455	0.0570	0.0515	1.1068
300 kcmil	285	320	505	0.0490	0.0429	1.1422
350 kcmil	310	350	570	0.0430	0.0367	1.1717
400 kcmil	335	380	615	0.0380	0.0321	1.1838
500 kcmil	380	430	700	0.0320	0.0258	1.2403
600 kcmil	420	475	780	0.0280	0.0214	1.3084
700 kcmil	460	520	855	0.0240	0.0184	1.3043
750 kcmil	475	535	885	0.0190	0.0171	1.1111
800 kcmil	490	555				
900 kcmil	520	585				
1000 kcmil	545	615				
1250 kcmil	590	665				
1500 kcmil	625	705				
1750 kcmil	650	735				
2000 kcmil	665	750				
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Minimum Ground Conductor 250.122 (2002)	
OCPD	AWG
15	14
20	12
60	10
100	8
200	6
300	4
400	3
500	2
600	1
800	1/0
1000	2/0
1200	3/0

STANDARD BREAKER	COND	WIRE	ohms/1000 ft
	1/2"	#14	
15			3.1000
20	3/4"	#12	2.0000
25	3/4"	#10	1.2000
30	3/4"	#10	1.2000
35	3/4"	#8	0.7800
40	3/4"	#8	0.7800
45	3/4"	#8	0.7800
50	1"	#8	0.7800
60	1-1/4"	#6	0.4900
70	1-1/4"	#4	0.3100
80	1-1/4"	#4	0.3100
90	1-1/4"	#3	0.2500
100	1-1/4"	#2	0.2000
110	1-1/2"	#2	0.2000
125	2"	#1	0.1600
150	2"	#1/0	0.1300
175	2"	#2/0	0.1000
200	2-1/2"	#3/0	0.0820
225	2-1/2"	#4/0	0.0670
250	2-1/2"	#250	0.0570
300	3"	#350	0.0430
350	3"	#400	0.0380
400	3"	#600	0.0280
450	4"	#600	0.0280
500	4"	(2) #250	0.0285
600	(2) 2-1/2"	(2) #350	0.0215
700	(2) 3"	(2) #400	0.0190
800	(2) 3"	(2) #600	0.0140
1000	(2) 4"	(4) #250	
1200	(4) 3"	(4) #350	
1600	(4) 3"	(4) #600	0.0070
2000	(6) 3"	(6) #500	0.0053
2500			
3000	(8) 3"	(8) #500	0.0040
4000			
5000			
6000			
NEC 240.6 (A)			

STANDARD TRANSFORMER SIZES		
SINGLE PHASE		THREE PHASE
5		15
10		30
15		45
25		75
37.5		112.5
50		150
75		225
100		300
167		500
250		750
333		1000
500		1500
—		2000
833		2500
1250		3750
1667		5000
2500		7500

THREE PHASE MOTOR						VFD
HP	KVA	208 V		460 V		
		FLA	BREAKER	FLA	BREAKER	
0.5	0.88	2.4	15	1.1	15	15
0.75	1.27	3.5	15	1.6	15	15
1	1.67	4.6	15	2.1	15	15
1.5	2.39	6.6	15	3	15	15
2	2.71	7.5	15	3.4	15	15
3	3.82	10.6	20	4.8	15	15
5	6.06	16.8	30	7.6	15	15
7.5	8.76	24.3	45	11	20	15
10	11.15	31.0	60	14	30	20
15	16.73	46.4	70	21	40	30
20	21.51	59.7	100	27	50	40
25	27.09	75.2	100	34	50	45
30	31.87	88.5	125	40	70	50
40	41.43	115.0	175	52	100	70
50	51.79	143.8	200	65	150	90

AWG	mm2	mm-Dia Stranded	60° C Amps	75° C Amps	90° C Amps
18	0.823	1.16	-	-	14
16	1.31	1.46	-	-	-
14	2.08	1.85	20	20	25
12	3.31	2.32	25	25	30
10	5.261	2.95	30	35	40
8	8.367	3.71	40	50	55
6	13.3	4.67	55	65	75
4	21.15	5.89	70	85	95
3	26.67	6.6	85	100	110
2	33.62	7.42	95	115	130
1	42.41	8.43	110	130	150
1/0	53.49	9.45	125	150	170
2/0	67.43	10.62	145	175	195
3/0	85.01	11.94	165	200	225
4/0	107.2	13.41	195	230	260
250kcmil	127	14.61	215	255	290
300kcmil	152	16	240	285	320
350kcmil	177	17.3	260	310	350
400kcmil	203	18.49	280	335	380
500kcmil	253	20.65	320	380	430
600kcmil	304	22.68	355	420	475
700kcmil	355	24.49	385	460	520
750kcmil	380	25.35	400	475	535
800kcmil	405	26.16	410	490	555
900kcmil	456	27.79	435	520	585
1000kcmil	507	29.26	455	545	615
1250kcmil	633	32.74	495	590	665
1500kcmil	760	35.86	520	625	705
1750kcmil	887	38.76	545	650	735
2000kcmil	1013	41.45	560	665	750

[illegible]

Limiting Distance Calculator

Conductor	#12	2	2.0000
Voltage	24	0.72	
Current	1.3		
Distance (feet)	138		
Distance (m)	42.2		

#14	3.1000	4107
#1	0.1600	83690
#1/0	0.1300	105531
#10	1.2000	10383
#12	2.0000	6530
#2	0.2000	663698
#2/0	0.1000	133072
#250	0.0570	250000
#3	0.2500	52633
#3/0	0.0820	167800
#350	0.0430	350000
#4	0.3100	41740
#4/0	0.0670	211592
#400	0.0380	400000
#6	0.4900	26351
#600	0.0280	600000
#8	0.7800	16509
(2) #250	0.0285	500000
(2) #350	0.0215	700000
(2) #400	0.0190	800000
(2) #600	0.0140	1200000
(4) #250		1000000
(4) #350		1400000
(4) #600	0.0070	2400000
(6) #500	0.0053	3000000
(8) #500	0.0040	4000000

Single Phase

Conductor	#6	5	0.4900
Voltage	120	3.6	
Current	50		
Distance (feet)	53	2.5725	2.1%
Distance (m)	16.0		

Three Phase

Conductor	#12	2	2.0000
Voltage	480		
Current	14		
Distance (feet)	75	3.637306	0.8%
Distance (m)	22.9		