

16.0 Appendix D – DOAS/VAV Electric Panels

Voltage: 480/277 Main Breaker: 800 A Feeder: 2 sets of 4 #500 MCM & 1#1/0 GRD - 3 1/2" C (#, size wire & conduit)

Description	LOAD (VA)			Brk. Trip (A)	Cond. Size	5HL1			LOAD (VA)			Brk. Trip (A)	Description
	A	B	C			Ckt. #	Cond. Size	A	B	C			
Panel 5HL4	21972			100	1 1/2	1	2	2 1/2	10000			50	Transformer T5-7
		21972		/	/	3	4	/		10000		/	
			20986	/	/	5	6	/			10000	/	
Transformer T5-3	375000			175	2	7	8	2 1/2	9432			200	Panel 5HL5
		375000		/	/	9	10	/		9432		/	
			375000	/	/	11	12	/			9432	/	
Panel 5HL6	30789			200	2 1/2	13	14		5600			30	Garage Door Openers
		30789		/	/	15	16	/		5600		/	
			28296	/	/	17	18	/			5600	/	
Transformer T5-5	10000			50	1	19	20		6000			30	Dock Levelers
		10000		/	/	21	22	/		6000		/	
			10000	/	/	23	24	/			6000	/	
Panel 5HL2	77972			300	3 1/2	25	26						
		77972		/	/	27	28	/				/	
			77972	/	/	29	30	/				/	
Panel 5HL3	51624			200	3	31	32						
		51624		/	/	33	34	/				/	
			49131	/	/	35	36	/				/	
				/	/	37	38	/				/	
				/	/	39	40	/				/	
				/	/	41	42	/				/	
	567357	567357	561385						31032	31032	31032		

Total Load on Phase A: 598,389 VA
 Total Load on Phase B: 598,389 VA
 Total Load on Phase C: 592,417 VA

Total Load on Panel: 1,789 kVA Demand
2,153 A

Voltage: 480/277 Main Breaker: 300 A Feeder: 4 #300 MCM & 1 #4 GRD in 3-1/2" C
 (#, size wire & conduit)

Description	LOAD (VA)			Brk. Trip (A)	5HL2			LOAD (VA)			Brk. Trip (A)	Description	
	A	B	C		Cond. Size	Ckt. #	Cond. Size	A	B	C			
						1	2		2493			20	Zone 4 Ltg
						3	4			2493		20	Zone 5 Ltg
						5	6				2493	20	Ltg
						7	8		2493			20	Office Ltg
						9	10			2493		20	Restroom Ltg
						11	12				2493	20	Break-Out Ltg
						13	14		2493			20	Restroom Ltg
						15	16			2493		20	Ltg
						17	18				2493	20	Ltg
						19	20		2493			20	Ltg
						21	22			2493		20	Ltg
						23	24				2493	20	Ltg
						25	26		13000			70	Eleveator South
						27	28	/		13000		/	/
						29	30	/			13000	/	/
						31	32		20000			100	Panel 5HL7
						33	34	/		20000		/	/
						35	36	/			20000	/	/
						37	38		35000			175	Transformer T5-2
						39	40	/		35000		/	/
						41	42	/			35000	/	/
	0	0	0						77972	77972	77972		

Total Load on Phase A: 77972 VA
 Total Load on Phase B: 77972 VA
 Total Load on Phase C: 77972 VA

Total Load on Panel: 234 kVA Demand
281 A

Voltage: 480/277 Main Breaker: 200 A Feeder: 4 #3/0 & 1 #8 GRD in 3" C
 (#, size wire & conduit)

Description	LOAD (VA)			Brk. Trip (A)	5HL3			LOAD (VA)			Brk. Trip (A)	Description	
	A	B	C		Cond. Size	Ckt. #	Cond. Size	A	B	C			
						1	2		2493			20	Open Office Ltg
						3	4			2493		20	Open Office Ltg
						5	6				2493	20	Mezzanine Ltg
						7	8		2493			20	Office Ltg
						9	10			2493		20	Exhibition Ltg
						11	12				2493	20	Exhibition Ltg
						13	14		2493			20	Lobby Ltg
						15	16			2493		20	Mezz Office Ltg
						17	18				2493	20	Open Office Ltg
						19	20		2493			20	Open Office Ltg
						21	22			2493		20	Open Office Ltg
						23	24				2493	20	Open Office Ltg
						25	26		2493			20	Office Ltg
Ltg - Atrium		2493		20		27	28			2493		20	Mezzanine Ltg
SPARE				20		29	30				2493	20	Restroom Ltg
SPARE				20		31	32		2493			20	Office Ltg
SPARE				20		33	34					20	SPARE
SPARE				20		35	36					20	SPARE
SPARE				20		37	38		36666			175	Transformer T5-1
SPARE				20		39	40			36666			
SPARE				20		41	42				36666		
	0	2493	0						51624	49131	49131		

Total Load on Phase A: 51624 VA
 Total Load on Phase B: 51624 VA
 Total Load on Phase C: 49131 VA

Total Load on Panel: 152 kVA Demand
183 A

Voltage: 480/277 Main Breaker: 100 A Feeder: 4 #3 & 1 #10 GRD in 1-1/2" C
 (#, size wire & conduit)

Description	LOAD (VA)			Brk. Trip (A)	5HL4			LOAD (VA)			Brk. Trip (A)	Description	
	A	B	C		Cond. Size	Ckt. #	Cond. Size	A	B	C			
						1	2		2493			20	Warehouse Ltg
Mech Eq Ltg		2493		20		3	4			2493		20	Corridor Ltg
						5	6				2493	20	Ltg
						7	8		2493			20	Pack. Puri. Water Ltg.
						9	10			2493		20	Ltg
						11	12				4000	20	Manufacturing Ltg
						13	14		4000			20	Manufacturing Ltg
						15	16			4000		20	Manufacturing Ltg
						17	18				4000	20	Manufacturing Ltg
						19	20		4000			20	Manufacturing Ltg
						21	22			4000		20	Manufacturing Ltg
						23	24				4000	20	Manufacturing Ltg
						25	26		4000			20	Manufacturing Ltg
						27	28			4000		20	Manufacturing Ltg
						29	30				4000	20	Manufacturing Ltg
SPARE						31	32		2493			20	Locker Room Ltg
SPARE						33	34			2493		20	Ltg
SPARE						35	36				2493	20	Ltg
SPARE						37	38		2493			20	Restroom Ltg
SPARE						39	40					20	SPARE
SPARE						41	42					20	SPARE
	0	2493	0						21972	19479	20986		

Total Load on Phase A: 21972 VA

Total Load on Phase B: 21972 VA

Total Load on Phase C: 20986 VA

Total Load on Panel: 65 kVA Demand

78 A

Voltage: 480/277 Main Breaker: 500 A Feeder: 2 Sets of 4 #250 MCM &
 1 #3 GRD IN 3-1/2" C
 (#, size wire & conduit)

Description	LOAD (VA)			Brk. Trip (A)	2MCC-1				LOAD (VA)			Brk. Trip (A)	Description
	A	B	C		Cond. Size	Ckt. #	Cond. Size	A	B	C			
RTU-1	2800			20	3/4	1	2	2	27901			150	RTU-6
		2800		/	/	3	4	/		27901		/	
			2800	/	/	5	6	/			27901	/	
RTU-2	2333			20	3/4	7	8	2	27901			150	RTU-7
		2333		/	/	9	10	/		27901		/	
			2333	/	/	11	12	/			27901	/	
RTU-3	700			20	3/4	13	14	2	27901			150	RTU-8
		700		/	/	15	16	/		27901		/	
			700	/	/	17	18	/			27901	/	
RTU-4	1933			20	3/4	19	20	3/4	388			-	PRV-3
		1933		/	/	21	22	/		388		/	
			1933	/	/	23	24	/			388	/	
				20	3/4	25	26	3/4	388			-	PRV-16
				/	/	27	28	/		388		/	
				/	/	29	30	/			388	/	
						31	32	3/4	693			-	CP-1
				/	/	33	34	/		693		/	
				/	/	35	36	/			693	/	
RTU-5	27901			150	2	37	38	3/4	5540			20	EAC-1
		27901		/	/	39	40	/		5540		/	
			27901	/	/	41	42	/			5540	/	
	35667	35667	35667						90712	90712	90712		

Total Load on Phase A: 126379 VA
 Total Load on Phase B: 126379 VA
 Total Load on Phase C: 126379 VA

Total Load on Panel: 379 kVA Demand
456 A

Voltage: 480/277 Main Breaker: 25 A Feeder: 4 #10 & 1#12 GRD IN 3/4" C
 (#, size wire & conduit)

Description	LOAD (VA)			Brk. Trip (A)	10MCC-1			LOAD (VA)			Brk. Trip (A)	Description
	A	B	C		Cond. Size	Ckt. #	Cond. Size	A	B	C		
						1 2	3/4	1330			-	PUMP P6
						3 4			1330			
						5 6				1330		
				-		7 8	3/4	1330			-	PUMP P7
						9 10			1330			
						11 12				1330		
						13 14	3/4	1330			-	PUMP P8
						15 16			1330			
						17 18				1330		
						19 20						SPARE
						21 22						
						23 24						
						25 26						SPARE
						27 28						
						29 30						
						31 32						SPARE
						33 34						
						35 36						
PUMP P5	1330			-	3/4	37 38						SPARE
		1330				39 40						
			1330			41 42						
	1330	1330	1330					3990	3990	3990		

Total Load on Phase A: 5320 VA
 Total Load on Phase B: 5320 VA
 Total Load on Phase C: 5320 VA

Total Load on Panel: 16 kVA Demand
19 A