

REPORT- SV-A System Design Parameters for P1B (B.N11) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	464.0	1.	0.102	9.076	0.742	-8.168	0.266	0.271	-9.905

DESIGN DATA										MAX FAN		MIN FAN	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH						
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO		
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)		
SUPPLY	303.	1.00	0.091	0.93	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30		

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
P1B North Perim Zn (B.N11P	303.	0.	0.000	0.739	31.	0.00	0.00	3.78	0.00	-8.54 1.

REPORT- SV-A System Design Parameters for P1B (B.N13) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	2465.0	3.	0.108	45.685	0.742	-41.117	0.266	0.271	-49.862

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1524.	1.00	0.457	0.93	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
P1B North Perim Zn (B.N13P	1524.	0.	0.000	0.731	165.	0.00	0.00 19.86	0.00	-42.53	1.

REPORT- SV-A System Design Parameters for PlB (B.NE14) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	705.0	1.	0.102	13.783	0.742	-12.405	0.266	0.271	-15.043

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	460.	1.00	0.138	0.93	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
PlB NE Perim Zn (B.NE14) 1	460.	0.	0.000	0.739	47.	0.00	0.00	5.97	0.00	-12.97	1.

REPORT- SV-A System Design Parameters for L1A (G.E19) APT2 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1033.8	1.	0.127	16.303	0.742	-14.673	0.266	0.271	-17.793

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN	FAN	MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	PLACEMENT	CONTROL	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	544.	1.00	0.163	0.93	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST	FAN	MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	ZONE	
NAME	FLOW	FLOW		FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	MULT
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	
L1A East Perim Zn (G.E19)T	544.	0.	0.000	0.705	69.	0.00	0.00	10.29	0.00	-14.60	1.

REPORT- SV-A System Design Parameters for L1A (G.NNE24) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	749.2	1.	0.156	9.589	0.742	-8.630	0.266	0.271	-10.466

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	320.	1.00	0.096	0.93	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1A NNE Perim Zn (G.NNE24P	320.	0.	0.000	0.665	50.	0.00	0.00	9.70	0.00	-8.09	1.

REPORT- SV-A System Design Parameters for L1A (G.WNW27) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	493.5	1.	0.130	7.617	0.742	-6.855	0.266	0.271	-7.030

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	254.	1.00	0.076	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1A WNW Perim Zn (G.WNW27P	254.	0.	0.000	0.565	33.	0.00	0.00	7.66	0.00	-5.46	1.

REPORT- SV-A System Design Parameters for L1B (G.N5) APT4 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2580.0	3.	0.191	27.050	0.742	-24.345	0.266	0.271	-20.717
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	902.	1.00	0.271	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L1B North Perim Zn (G.N5)T	902.	0.	0.000	0.356	172.	0.00	0.00	23.14	0.00	-12.20

1.

REPORT- SV-A System Design Parameters for L1B (G.E6) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	668.0	1.	0.099	13.455	0.742	-12.110	0.266	0.271	-8.346
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	449.	1.00	0.135	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L1B East Perim Zn (G.E6) 1	449.	0.	0.000	0.363	45.	0.00	0.00	13.81	0.00	-6.19

1.

REPORT- SV-A System Design Parameters for L1B (G.W7) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	765.0	1.	0.114	13.379	0.742	-12.041	0.266	0.271	-14.602

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	446.	1.00	0.134	0.93	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L1B West Perim Zn (G.W7) 1	446.	0.	0.000	0.722	51.	0.00	0.00	8.85	0.00	-12.26

1.

REPORT- SV-A System Design Parameters for L1B (G.W8) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	654.5	1.	0.104	12.599	0.742	-11.339	0.266	0.271	-13.750
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	420.	1.00	0.126	0.93	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L1B West Perim Zn (G.W8) 1	420.	0.	0.000	0.736	44.	0.00	0.00	6.68	0.00	-11.78

1.

REPORT- SV-A System Design Parameters for L1B (G.E9) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	713.5	1.	0.111	12.883	0.742	-11.594	0.266	0.271	-14.060

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	430.	1.00	0.129	0.93	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L1B East Perim Zn (G.E9) 1	430.	0.	0.000	0.727	48.	0.00	0.00	10.71	0.00	-11.89

1.

REPORT- SV-A System Design Parameters for L1B (G.S11) APT5 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1978.0	3.	0.104	37.983	0.742	-34.184	0.266	0.271	-41.455

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1267.	1.00	0.380	0.93	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B South Perim Zn (G.S11P	1267.	0.	0.000	0.736	132.	0.00	0.00	17.07	0.00	-35.52	1.

REPORT- SV-A System Design Parameters for L1B (G.E29) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	429.5	1.	0.078	11.034	0.742	-9.931	0.266	0.271	-6.805

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	368.	1.00	0.110	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B East Perim Zn (G.E29)T	368.	0.	0.000	0.389	29.	0.00	0.00	10.56	0.00	-5.44	1.

REPORT- SV-A System Design Parameters for L2A (G.E14) APT3 PTHP							WEATHER FILE- SEATTLE BOEING FI WA			
SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING		HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	SENSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1947.8	2.	0.201	19.396	0.742	-17.456	0.266	0.271	-14.830
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	647.	1.00	0.194	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00
										0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L2A East Perim Zn (G.E14)T	647.	0.	0.000	0.342	130.	0.00	0.00	17.05	0.00	-8.40

1.

REPORT- SV-A System Design Parameters for L2A (G.WNW18) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1270.5	2.	0.132	19.207	0.742	-17.286	0.266	0.271	-14.717

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	641.	1.00	0.192	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2A WNW Perim Zn (G.WNW18P	641.	0.	0.000	0.436	85.	0.00	0.00	18.38	0.00	-10.59	1.

REPORT- SV-A System Design Parameters for L2A (G.N19) APT2 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1039.0	1.	0.163	12.787	0.742	-11.509	0.266	0.271	-8.958

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	427.	1.00	0.128	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING CAPACITY	ADDITION	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L2A North Perim Zn (G.N19P	427.	0.	0.000	0.342	69.	0.00	0.00	11.88	0.00	-5.54

REPORT- SV-A System Design Parameters for L2B (G.E5) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	984.0	1.	0.098	20.059	0.742	-18.053	0.266	0.271	-11.962

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	669.	1.00	0.201	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B East Perim Zn (G.E5) 1	669.	0.	0.000	0.346	66.	0.00	0.00	19.63	0.00	-8.77	1.

REPORT- SV-A System Design Parameters for L2B (G.W7) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	654.5	1.	0.232	5.633	0.742	-5.070	0.266	0.271	-3.394

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	188.	1.00	0.056	0.94	0.8	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING CAPACITY	ADDITION	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L2B West Perim Zn (G.W7) 1	188.	0.	0.000	0.232	44.	0.00	0.00	4.54	0.00	-1.22

REPORT- SV-A System Design Parameters for L2B (G.E8) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	628.5	1.	0.147	8.568	0.742	-7.711	0.266	0.271	-3.856

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	286.	1.00	0.086	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION		HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B East Perim Zn (G.E8) 1	286.	0.	0.000	0.147	42.	0.00	0.00	8.36	0.00	-1.39	1.

REPORT- SV-A System Design Parameters for L2B (G.S10) APT6 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2721.0	3.	0.217	25.051	0.742	-22.546	0.266	0.271	-19.754

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	836.	1.00	0.251	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION		
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	
L2B South Perim Zn (G.S10P	836.	0.	0.000	0.339	182.	0.00	0.00	20.27	0.00	-10.75	1.

REPORT- SV-A System Design Parameters for L2B (G.E23) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	714.0	1.	0.086	16.645	0.742	-14.981	0.266	0.271	-10.306

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	555.	1.00	0.166	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B East Perim Zn (G.E23)T	555.	0.	0.000	0.381	48.	0.00	0.00 16.76	0.00	-8.02	1.

REPORT- SV-A System Design Parameters for L3A (G.E13) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	2229.8	3.	0.210	21.205	0.742	-19.084	0.266	0.271	-13.088

DESIGN DATA										MAX FAN	MIN FAN
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH				
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	707.	1.00	0.212	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3A East Perim Zn (G.E13)T	707.	0.	0.000	0.211	149.	0.00	0.00 17.14	0.00	-5.66	1.

REPORT- SV-A System Design Parameters for L3A (G.NW17) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	915.5	1.	0.126	14.562	0.742	-13.106	0.266	0.271	-8.997

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	486.	1.00	0.146	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3A NW Perim Zn (G.NW17) 1	486.	0.	0.000	0.326	61.	0.00	0.00	14.83	0.00	-6.00	1.

REPORT- SV-A System Design Parameters for L3A (G.N18) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1566.5	2.	0.172	18.243	0.742	-16.418	0.266	0.271	-11.672

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	609.	1.00	0.182	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING CAPACITY	ADDITION	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L3A North Perim Zn (G.N18P	609.	0.	0.000	0.281	105.	0.00	0.00	15.43	0.00	-6.49

REPORT- SV-A System Design Parameters for L3A (G.W21) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2478.2	3.	0.156	31.811	0.742	-28.630	0.266	0.271	-17.615

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1061.	1.00	0.318	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3A West Perim Zn (G.W21)T	1061.	0.	0.000	0.234	165.	0.00	0.00	30.21	0.00	-9.40	1.

REPORT- SV-A System Design Parameters for L3A (G.SW22) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	944.2	1.	0.144	13.160	0.742	-11.844	0.266	0.271	-8.182

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	439.	1.00	0.132	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3A SW Perim Zn (G.SW22) 1	439.	0.	0.000	0.305	63.	0.00	0.00 14.17	0.00	-5.07	1.

REPORT- SV-A System Design Parameters for L3A (G.S24) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1832.5	2.	0.222	16.483	0.742	-14.834	0.266	0.271	-11.926

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	550.	1.00	0.165	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	EXTRACTION RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3A South Perim Zn (G.S24P	550.	0.	0.000	0.280	122.	0.00	0.00	13.40	0.00	-5.84	1.

REPORT- SV-A System Design Parameters for L3B (G.N4) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2928.0	4.	0.177	33.004	0.742	-29.704	0.266	0.271	-20.490

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN	FAN	MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	PLACEMENT	CONTROL	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	1101.	1.00	0.330	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST	FAN	MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	ZONE	
NAME	FLOW	FLOW		FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	MULT
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	
L3B North Perim Zn (G.N4)T	1101.	0.	0.000	0.258	195.	0.00	0.00	27.75	0.00	-10.78	1.

REPORT- SV-A System Design Parameters for L3B (G.E5) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	984.0	1.	0.106	18.616	0.742	-16.754	0.266	0.271	-10.327

DESIGN DATA										MAX FAN		MIN FAN	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH						
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO		
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)		
SUPPLY	621.	1.00	0.186	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30		

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3B East Perim Zn (G.E5) 1	621.	0.	0.000	0.302	66.	0.00	0.00 17.87	0.00	-7.11	1.

REPORT- SV-A System Design Parameters for L3B (G.W6) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	765.0	1.	0.189	8.113	0.742	-7.302	0.266	0.271	-7.655

DESIGN DATA										DESIGN DATA	
FAN		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN		RATIO	RATIO
(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL		(FRAC)	(FRAC)
SUPPLY	271.	1.00	0.081	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3B West Perim Zn (G.W6) 1	271.	0.	0.000	0.502	51.	0.00	0.00	6.95	0.00	-5.16 1.

REPORT- SV-A System Design Parameters for L3B (G.W7) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	654.5	1.	0.232	5.654	0.742	-5.089	0.266	0.271	-3.759

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	189.	1.00	0.057	0.94	0.8	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L3B West Perim Zn (G.W7) 1	189.	0.	0.000	0.232	44.	0.00	0.00	4.43	0.00	-1.58 1.

REPORT- SV-A System Design Parameters for L3B (G.E8) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	628.5	1.	0.152	8.290	0.742	-7.461	0.266	0.271	-3.731

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	277.	1.00	0.083	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3B East Perim Zn (G.E8) 1	277.	0.	0.000	0.154	42.	0.00	0.00	7.77	0.00	-1.61	1.

REPORT- SV-A System Design Parameters for L3B (G.E9) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	789.0	1.	0.093	16.931	0.742	-15.238	0.266	0.271	-9.348

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	565.	1.00	0.169	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING CAPACITY	ADDITION	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L3B East Perim Zn (G.E9) 1	565.	0.	0.000	0.317	53.	0.00	0.00	16.65	0.00	-6.78

REPORT- SV-A System Design Parameters for L3B (G.S10) APT7 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	3981.5	5.	0.218	36.467	0.742	-32.821	0.266	0.271	-26.173

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1217.	1.00	0.365	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT	
L3B South Perim Zn (G.S10P	1217.	0.	0.000	0.281	266.	0.00	0.00	30.22	0.00	-12.95	1.

REPORT- SV-A System Design Parameters for L3B (G.E19) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	714.0	1.	0.093	15.327	0.742	-13.794	0.266	0.271	-8.792

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	511.	1.00	0.153	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3B East Perim Zn (G.E19)T	511.	0.	0.000	0.334	48.	0.00	0.00 15.06	0.00	-6.48	1.

REPORT- SV-A System Design Parameters for L4A (G.E13) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	2229.8	3.	0.200	22.343	0.742	-20.108	0.266	0.271	-12.707

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	745.	1.00	0.223	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L4A East Perim Zn (G.E13)T	745.	0.	0.000	0.200	149.	0.00	0.00	19.02	0.00	-5.28 1.

REPORT- SV-A System Design Parameters for L4A (G.NW17) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	915.5	1.	0.126	14.513	0.742	-13.062	0.266	0.271	-8.412
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	484.	1.00	0.145	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L4A NW Perim Zn (G.NW17) 1	484.	0.	0.000	0.294	61.	0.00	0.00	15.58	0.00	-5.40

1.

REPORT- SV-A System Design Parameters for L4A (G.N18) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1566.5	2.	0.171	18.366	0.742	-16.530	0.266	0.271	-11.271

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	613.	1.00	0.184	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4A North Perim Zn (G.N18P	613.	0.	0.000	0.262	105.	0.00	0.00 15.56	0.00	-6.08	1.

REPORT- SV-A System Design Parameters for L4A (G.W21) APT4 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2478.2	3.	0.159	31.092	0.742	-27.983	0.266	0.271	-15.681

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1037.	1.00	0.311	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4A West Perim Zn (G.W21)T	1037.	0.	0.000	0.189	165.	0.00	0.00	29.77	0.00	-7.43	1.

REPORT- SV-A System Design Parameters for L4A (G.SW22) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	944.2	1.	0.143	13.202	0.742	-11.882	0.266	0.271	-7.776

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	440.	1.00	0.132	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4A SW Perim Zn (G.SW22) 1	440.	0.	0.000	0.279	63.	0.00	0.00	12.72	0.00	-4.66	1.

REPORT- SV-A System Design Parameters for L4A (G.S24) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1832.5	2.	0.222	16.520	0.742	-14.868	0.266	0.271	-10.564

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	551.	1.00	0.165	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L4A South Perim Zn (G.S24P	551.	0.	0.000	0.222	122.	0.00	0.00	13.40	0.00	-4.46 1.

REPORT- SV-A System Design Parameters for L4B (G.N4) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	2928.0	4.	0.176	33.254	0.742	-29.929	0.266	0.271	-19.829

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1109.	1.00	0.333	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4B North Perim Zn (G.N4)T	1109.	0.	0.000	0.240	195.	0.00	0.00 28.03	0.00	-10.11	1.

REPORT- SV-A System Design Parameters for L4B (G.E5) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	984.0	1.	0.104	18.892	0.742	-17.003	0.266	0.271	-9.906

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	630.	1.00	0.189	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING CAPACITY	ADDITION	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) MULT
L4B East Perim Zn (G.E5) 1	630.	0.	0.000	0.280	66.	0.00	0.00	18.20	0.00	-6.68 1.

REPORT- SV-A System Design Parameters for L4B (G.W6) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	765.0	1.	0.179	8.544	0.742	-7.690	0.266	0.271	-7.309

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	285.	1.00	0.085	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L4B West Perim Zn (G.W6) 1	285.	0.	0.000	0.444	51.	0.00	0.00	7.73	0.00	-4.80 1.

REPORT- SV-A System Design Parameters for L4B (G.E8) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	628.5	1.	0.150	8.393	0.742	-7.553	0.266	0.271	-3.777

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	280.	1.00	0.084	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4B East Perim Zn (G.E8) 1	280.	0.	0.000	0.150	42.	0.00	0.00	7.87	0.00	-1.50	1.

REPORT- SV-A System Design Parameters for L4B (G.E9) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	789.0	1.	0.092	17.076	0.742	-15.368	0.266	0.271	-8.591

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	570.	1.00	0.171	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4B East Perim Zn (G.E9) 1	570.	0.	0.000	0.279	53.	0.00	0.00 16.85	0.00	-6.01	1.

REPORT- SV-A System Design Parameters for L4B (G.S10) APT7 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	3981.5	5.	0.219	36.388	0.742	-32.749	0.266	0.271	-23.827

DESIGN DATA										MAX FAN		MIN FAN	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH						
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO		
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)		
SUPPLY	1214.	1.00	0.364	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30		

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION		HEATING	ADDITION	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	SENSIBLE (FRAC)	RATE (KBTU/HR)	CAPACITY (KBTU/HR)	RATE (KBTU/HR)	ZONE MULT
L4B South Perim Zn (G.S10P	1214.	0.	0.000	0.229	266.	0.00	0.00	29.97	0.00	-10.57	1.

REPORT- SV-A System Design Parameters for L4B (G.E19) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR		OUTSIDE	COOLING		HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	MAX	AIR	CAPACITY	SENSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)	PEOPLE	RATIO	(KBTU/HR)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	714.0	1.	0.091	15.641	0.742	-14.077	0.266	0.271	-8.410

DESIGN DATA										DESIGN DATA	
FAN		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN		RATIO	RATIO
(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL		(FRAC)	(FRAC)
SUPPLY	522.	1.00	0.156	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION		HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4B East Perim Zn (G.E19)T	522.	0.	0.000	0.308	48.	0.00	0.00	15.42	0.00	-6.09	1.

REPORT- SV-A System Design Parameters for L5A (G.NW17) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	915.5	1.	0.122	14.983	0.742	-13.485	0.266	0.271	-8.795

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	500.	1.00	0.150	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION		
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5A NW Perim Zn (G.NW17) 1	500.	0.	0.000	0.306	61.	0.00	0.00	14.52	0.00	-5.79	1.

REPORT- SV-A System Design Parameters for L5A (G.N18) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1566.5	2.	0.158	19.849	0.742	-17.864	0.266	0.271	-11.622

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	662.	1.00	0.198	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING CAPACITY	ADDITION	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L5A North Perim Zn (G.N18P	662.	0.	0.000	0.256	105.	0.00	0.00	17.45	0.00	-6.43

REPORT- SV-A System Design Parameters for L5A (G.W21) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2478.2	3.	0.159	31.119	0.742	-28.007	0.266	0.271	-15.682

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1038.	1.00	0.311	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5A West Perim Zn (G.W21)T	1038.	0.	0.000	0.189	165.	0.00	0.00	29.79	0.00	-7.43	1.

REPORT- SV-A System Design Parameters for L5A (G.SW22) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	944.2	1.	0.143	13.225	0.742	-11.903	0.266	0.271	-7.776

DESIGN DATA										MAX FAN	MIN FAN
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH				
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	441.	1.00	0.132	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5A SW Perim Zn (G.SW22) 1	441.	0.	0.000	0.279	63.	0.00	0.00 12.74	0.00	-4.66	1.

REPORT- SV-A System Design Parameters for L5A (G.S24) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1832.5	2.	0.221	16.565	0.742	-14.908	0.266	0.271	-10.564

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	553.	1.00	0.166	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L5A South Perim Zn (G.S24P	553.	0.	0.000	0.221	122.	0.00	0.00	13.43	0.00	-4.46 1.

REPORT- SV-A System Design Parameters for L5B (G.N4) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2928.0	4.	0.175	33.407	0.742	-30.066	0.266	0.271	-19.830

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1114.	1.00	0.334	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5B North Perim Zn (G.N4)T	1114.	0.	0.000	0.239	195.	0.00	0.00	28.15	0.00	-10.11	1.

REPORT- SV-A System Design Parameters for L5B (G.W6) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	765.0	1.	0.177	8.654	0.742	-7.788	0.266	0.271	-7.313

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	289.	1.00	0.087	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5B West Perim Zn (G.W6) 1	289.	0.	0.000	0.439	51.	0.00	0.00 7.80	0.00	-4.81	1.

REPORT- SV-A System Design Parameters for L5B (G.W7) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	654.5	1.	0.222	5.911	0.742	-5.320	0.266	0.271	-3.649

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	197.	1.00	0.059	0.94	0.8	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5B West Perim Zn (G.W7) 1	197.	0.	0.000	0.222	44.	0.00	0.00 6.38	0.00	-1.47	1.

REPORT- SV-A System Design Parameters for L5B (G.E8) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	628.5	1.	0.148	8.522	0.742	-7.669	0.266	0.271	-3.835
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	284.	1.00	0.085	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L5B East Perim Zn (G.E8) 1	284.	0.	0.000	0.148	42.	0.00	0.00	7.98	0.00	-1.50

1.

REPORT- SV-A System Design Parameters for L5B (G.E9) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	789.0	1.	0.092	17.133	0.742	-15.420	0.266	0.271	-8.591

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	572.	1.00	0.171	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L5B East Perim Zn (G.E9) 1	572.	0.	0.000	0.278	53.	0.00	0.00	16.91	0.00	-6.01

1.

REPORT- SV-A System Design Parameters for L5B (G.S10) APT7 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	3981.5	5.	0.218	36.474	0.742	-32.827	0.266	0.271	-23.827

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1217.	1.00	0.365	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT	
L5B South Perim Zn (G.S10P	1217.	0.	0.000	0.229	266.	0.00	0.00	30.03	0.00	-10.57	1.

REPORT- SV-A System Design Parameters for L5B (G.E19) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	714.0	1.	0.090	15.947	0.742	-14.353	0.266	0.271	-8.532

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	532.	1.00	0.159	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING CAPACITY	ADDITION	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L5B East Perim Zn (G.E19)T	532.	0.	0.000	0.308	48.	0.00	0.00	15.74	0.00	-6.21

REPORT- SV-A System Design Parameters for L6A (G.E13) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2229.8	3.	0.160	27.929	0.742	-25.136	0.266	0.271	-13.479

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	932.	1.00	0.279	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6A East Perim Zn (G.E13)T	932.	0.	0.000	0.171	149.	0.00	0.00	24.91	0.00	-6.05	1.

REPORT- SV-A System Design Parameters for L6A (G.NW17) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	731.2	1.	0.107	13.633	0.742	-12.270	0.266	0.271	-8.208

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	455.	1.00	0.136	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6A NW Perim Zn (G.NW17) 1	455.	0.	0.000	0.338	49.	0.00	0.00 14.24	0.00	-5.83	1.

REPORT- SV-A System Design Parameters for L6A (G.N18) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1404.0	2.	0.140	20.064	0.742	-18.058	0.266	0.271	-11.571

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	669.	1.00	0.201	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6A North Perim Zn (G.N18P	669.	0.	0.000	0.273	94.	0.00	0.00	19.19	0.00	-6.94	1.

REPORT- SV-A System Design Parameters for L6A (G.W21) APT4 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2478.2	3.	0.154	32.203	0.742	-28.983	0.266	0.271	-17.257
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	1074.	1.00	0.322	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L6A West Perim Zn (G.W21)T	1074.	0.	0.000	0.222	165.	0.00	0.00	31.63	0.00	-9.03

1.

REPORT- SV-A System Design Parameters for L6A (G.SW22) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	944.2	1.	0.141	13.360	0.742	-12.024	0.266	0.271	-7.890

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	446.	1.00	0.134	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6A SW Perim Zn (G.SW22) 1	446.	0.	0.000	0.283	63.	0.00	0.00	12.91	0.00	-4.78	1.

REPORT- SV-A System Design Parameters for L6A (G.S24) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1832.5	2.	0.209	17.566	0.742	-15.809	0.266	0.271	-11.745

		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	586.	1.00	0.176	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	EXTRACTION RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6A South Perim Zn (G.S24P	586.	0.	0.000	0.254	122.	0.00	0.00	14.33	0.00	-5.65	1.

REPORT- SV-A System Design Parameters for L6B (G.E5) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	984.0	1.	0.102	19.224	0.742	-17.302	0.266	0.271	-10.048

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	641.	1.00	0.192	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6B East Perim Zn (G.E5) 1	641.	0.	0.000	0.281	66.	0.00	0.00 18.54	0.00	-6.83	1.

REPORT- SV-A System Design Parameters for L6B (G.W6) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	765.0	1.	0.163	9.367	0.742	-8.431	0.266	0.271	-7.323

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	312.	1.00	0.094	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L6B West Perim Zn (G.W6) 1	312.	0.	0.000	0.406	51.	0.00	0.00	9.75	0.00	-4.82 1.

REPORT- SV-A System Design Parameters for L6B (G.W7) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	654.5	1.	0.213	6.146	0.742	-5.531	0.266	0.271	-3.652

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	205.	1.00	0.061	0.94	0.8	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6B West Perim Zn (G.W7) 1	205.	0.	0.000	0.213	44.	0.00	0.00 5.84	0.00	-1.47	1.

REPORT- SV-A System Design Parameters for L6B (G.E8) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	628.5	1.	0.144	8.702	0.742	-7.832	0.266	0.271	-3.916

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	290.	1.00	0.087	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L6B East Perim Zn (G.E8) 1	290.	0.	0.000	0.144	42.	0.00	0.00	8.11	0.00	-1.50

1.

REPORT- SV-A System Design Parameters for L6B (G.E9) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	789.0	1.	0.092	17.214	0.742	-15.493	0.266	0.271	-8.593

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	574.	1.00	0.172	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L6B East Perim Zn (G.E9) 1	574.	0.	0.000	0.276	53.	0.00	0.00	16.99	0.00	-6.02

1.

REPORT- SV-A System Design Parameters for L6B (G.S10) APT7 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	3981.5	5.	0.217	36.653	0.742	-32.987	0.266	0.271	-23.828
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	1223.	1.00	0.367	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L6B South Perim Zn (G.S10P	1223.	0.	0.000	0.228	266.	0.00	0.00	30.12	0.00	-10.57

1.

REPORT- SV-A System Design Parameters for L6B (G.E19) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	659.0	1.	0.081	16.251	0.742	-14.626	0.266	0.271	-8.939

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	542.	1.00	0.163	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6B East Perim Zn (G.E19)T	542.	0.	0.000	0.331	44.	0.00	0.00 16.12	0.00	-6.81	1.

REPORT- SV-A System Design Parameters for L7A (G.E13) APT2 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	956.8	1.	0.136	14.077	0.742	-12.670	0.266	0.271	-6.335

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	470.	1.00	0.141	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7A East Perim Zn (G.E13)T	470.	0.	0.000	0.177	64.	0.00	0.00 13.56	0.00	-3.14	1.

REPORT- SV-A System Design Parameters for L7A (G.W18) APT2 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	999.0	1.	0.142	14.106	0.742	-12.695	0.266	0.271	-7.212

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	471.	1.00	0.141	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7A West Perim Zn (G.W18)T	471.	0.	0.000	0.219	67.	0.00	0.00 13.77	0.00	-3.90	1.

REPORT- SV-A System Design Parameters for L7A (G.SW19) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	891.8	1.	0.133	13.380	0.742	-12.042	0.266	0.271	-7.749

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	446.	1.00	0.134	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7A SW Perim Zn (G.SW19) 1	446.	0.	0.000	0.284	60.	0.00	0.00	13.11	0.00	-4.81	1.

REPORT- SV-A System Design Parameters for L7A (G.SSE23) APT2 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1282.5	2.	0.142	18.008	0.742	-16.207	0.266	0.271	-10.219

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	601.	1.00	0.180	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7A SSE Perim Zn (G.SSE23P	601.	0.	0.000	0.263	86.	0.00	0.00 17.08	0.00	-5.98	1.

REPORT- SV-A System Design Parameters for L7B (G.N4) APT4 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2668.0	3.	0.142	37.608	0.742	-33.847	0.266	0.271	-22.558
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	1255.	1.00	0.376	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L7B North Perim Zn (G.N4)T	1255.	0.	0.000	0.289	178.	0.00	0.00	33.53	0.00	-13.76

1.

REPORT- SV-A System Design Parameters for L7B (G.E5) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	919.0	1.	0.090	20.367	0.742	-18.331	0.266	0.271	-11.163

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	679.	1.00	0.204	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7B East Perim Zn (G.E5) 1	679.	0.	0.000	0.318	61.	0.00	0.00 19.99	0.00	-8.18	1.

REPORT- SV-A System Design Parameters for L7B (G.W6) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	765.0	1.	0.127	12.062	0.742	-10.856	0.266	0.271	-9.184

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	402.	1.00	0.121	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7B West Perim Zn (G.W6) 1	402.	0.	0.000	0.439	51.	0.00	0.00 10.86	0.00	-6.71	1.

REPORT- SV-A System Design Parameters for L7B (G.W7) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	654.5	1.	0.156	8.369	0.742	-7.532	0.266	0.271	-5.804

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	279.	1.00	0.084	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7B West Perim Zn (G.W7) 1	279.	0.	0.000	0.345	44.	0.00	0.00	6.74	0.00	-3.65	1.

REPORT- SV-A System Design Parameters for L7B (G.E9) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	789.0	1.	0.079	19.952	0.742	-17.957	0.266	0.271	-10.442

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	666.	1.00	0.200	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7B East Perim Zn (G.E9) 1	666.	0.	0.000	0.313	53.	0.00	0.00 19.88	0.00	-7.89	1.

REPORT- SV-A System Design Parameters for L7B (G.SSW10) APT7 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	3981.5	5.	0.164	48.591	0.742	-43.732	0.266	0.271	-35.610

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1621.	1.00	0.486	0.94	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7B SSW Perim Zn (G.SSW10P	1621.	0.	0.000	0.366	266.	0.00	0.00	41.67	0.00	-22.52	1.

REPORT- SV-A System Design Parameters for L8A (G.W8) APT2 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	891.0	1.	0.127	14.061	0.742	-12.655	0.266	0.271	-8.325

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	469.	1.00	0.141	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L8A West Perim Zn (G.W8) 2	469.	0.	0.000	0.304	59.	0.00	0.00	13.90	0.00	-5.40	1.

REPORT- SV-A System Design Parameters for L8A (G.SW9) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	688.5	1.	0.121	11.410	0.742	-10.269	0.266	0.271	-7.507

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	381.	1.00	0.114	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L8A SW Perim Zn (G.SW9) A	381.	0.	0.000	0.364	46.	0.00	0.00	11.43	0.00	-5.26	1.

REPORT- SV-A System Design Parameters for L8A (G.NW11) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	776.5	1.	0.099	15.677	0.742	-14.110	0.266	0.271	-9.384
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	523.	1.00	0.157	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L8A NW Perim Zn (G.NW11) 1	523.	0.	0.000	0.346	52.	0.00	0.00	14.45	0.00	-6.86

1.

REPORT- SV-A System Design Parameters for L8A (G.S13) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	540.0	1.	0.167	6.475	0.742	-5.828	0.266	0.271	-4.551

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	216.	1.00	0.065	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L8A South Perim Zn (G.S13P	216.	0.	0.000	0.338	36.	0.00	0.00	5.61	0.00	-2.77	1.

REPORT- SV-A System Design Parameters for L8A (G.SE14) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	540.0	1.	0.089	12.155	0.742	-10.939	0.266	0.271	-6.453

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	405.	1.00	0.122	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L8A SE Perim Zn (G.SE14) 1	405.	0.	0.000	0.306	36.	0.00	0.00 12.14	0.00	-4.70	1.

REPORT- SV-A System Design Parameters for Freeze Protect

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
UHT	1.001	55590.5	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST	MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	AIR FLOW	CAPACITY	SENSIBLE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L2B South Perim Zn (G.S27E	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L6A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
P1A West Perim Zn (B.W7) H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L2A Core Zn (G.C16) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L3A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L4A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L5A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L6A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L7A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L8A Core Zn (G.C5) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
P2A NNW Perim Zn (B.NNW13K	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
P2B NW Perim Zn (B.NW6) X	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
P2B South Perim Zn (B.S10K	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
P2B NNE Perim Zn (B.NNE12K	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
P1B South Perim Zn (B.S6)G	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
P1B NNE Perim Zn (B.NNE9)G	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L1A East Perim Zn (G.E18)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L1A Core Zn (G.C20) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L2A East Perim Zn (G.E13)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L2A Core Zn (G.C15) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L3A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L3A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L4A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L4A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L5A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L5A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L6A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L6A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L7A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L7A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L8A East Perim Zn (G.E2) F	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.
L8A Core Zn (G.C4) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	1.

P2A Core Zn (B.C1) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P2A Core Zn (B.C2) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P2B Core Zn (B.C4) MECH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P2B Core Zn (B.C5) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P2B SE Perim Zn (B.SE8) M	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P1A Core Zn (B.C1) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P1A Core Zn (B.C2) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
P1A NNW Perim Zn (B.NNW8)C	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
P1B Core Zn (B.C4) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P1B SE Perim Zn (B.SE5) M	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P1B ENE Perim Zn (B.ENE10E	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
L1A Core Zn (G.C1) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
L1A Core Zn (G.C2) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	

REPORT- SV-A System Design Parameters for	Freeze Protect							WEATHER FILE- SEATTLE BOEING FI WA				
(CONTINUED)												
L1B Core Zn (G.C3) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L2A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L2A NNW Perim Zn (G.NNW24T	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L2B Core Zn (G.C2) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L3A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L3A Core Zn (G.C20) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L3B Core Zn (G.C2) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L4A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L4A Core Zn (G.C20) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L4B Core Zn (G.C2) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L5A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L5A Core Zn (G.C20) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L5B Core Zn (G.C2) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L6A Core Zn (G.C20) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L6B Core Zn (G.C2) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L7A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L7A Core Zn (G.C17) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L7B Core Zn (G.C2) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L8A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L8A Core Zn (G.C7) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
P2B NNE Perim Zn (B.NNE11L	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L1A Core Zn (G.C23) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L1A SW Perim Zn (G.SW26) C	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L1B Core Zn (G.C12) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L2A Core Zn (G.C17) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L2B Core Zn (G.C11) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L3A Core Zn (G.C16) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L3B Core Zn (G.C11) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L4A Core Zn (G.C16) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L4B Core Zn (G.C11) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L5A Core Zn (G.C16) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L5B Core Zn (G.C11) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L6A Core Zn (G.C16) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L6B Core Zn (G.C11) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L7A Core Zn (G.C16) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L7B Core Zn (G.C11) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L8A Core Zn (G.C6) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
P2A Core Zn (B.C7) STO	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
P2B NE Perim Zn (B.NE9) S	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L1A Core Zn (G.C16) RR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L1A WNW Perim Zn (G.WNW25T	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	
L2A West Perim Zn (G.W25)O	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.	

REPORT- SV-A System Design Parameters for L2A (G.SW20) RST PSZHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PSZ	1.001	2287.5	76.	0.045	380.487	0.742	-342.439	0.251	0.274	-415.269

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN	FAN	MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	PLACEMENT	CONTROL	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	12693.	1.00	9.626	2.36	3.5	0.55	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST	FAN	MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	ZONE	
NAME	FLOW	FLOW		FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	MULT
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	
L2A SW Perim Zn (G.SW20)	12693.	12693.	3.722	1.000	572.	0.00	0.00	77.06	0.00	-30.97	1.

REPORT- SV-A System Design Parameters for Sys 8 - VAV+PFP L1 WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PIU	1.001	2105.5	17.	0.605	11.090	0.742	0.000	0.000	0.000	0.000
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	286.	1.00	0.324	3.53	5.3	0.55	0.72	DRAW-THRU	SPEED	1.10

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B SSW Perim Zn (G.SSW130	303.	0.	0.080	0.699	73.	0.00	0.00	2.33	-12.82	-11.41	1.
L1B Core Zn (G.C14) OFF	170.	0.	0.052	0.213	22.	0.00	0.00	2.37	-8.27	-7.82	1.
L1A SSW Perim Zn (G.SSW15I	675.	0.	0.209	1.000	78.	0.00	0.00	1.27	-33.33	-31.65	1.

REPORT- SV-A System Design Parameters for Sys 8 - VAV+PFP Corr (L1-L8)

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PIU	1.001	20700.8	102.	0.810	73.608	0.742	0.000	0.000	0.000	0.000

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN	FAN	MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	PLACEMENT	CONTROL	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	1898.	0.98	2.145	3.53	6.0	0.62	0.72	DRAW-THRU	SPEED	1.10	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L8A Core Zn (G.C10) COR	59.	0.	0.005	0.805	45.	0.00	0.00	1.85	-0.76	-0.21
L1A Core Zn (G.C21) COR	5.	0.	0.001	1.000	3.	0.00	0.00	0.09	-0.12	-0.10
P1B Core Zn (B.C12) COR	72.	0.	0.016	1.000	28.	0.00	0.00	0.54	-2.49	-2.60
L1A Core Zn (G.C22) COR	36.	0.	0.007	1.000	15.	0.00	0.00	0.36	-1.16	-1.19
L1B Core Zn (G.C4) COR	65.	0.	0.005	1.000	52.	0.00	0.00	1.25	-0.70	-0.25
L2A Core Zn (G.C26) COR	77.	0.	0.005	1.000	61.	0.00	0.00	1.48	-0.83	0.00
L2B Core Zn (G.C3) COR	86.	0.	0.006	1.000	69.	0.00	0.00	1.77	-0.93	0.00
L3A Core Zn (G.C23) COR	51.	0.	0.004	1.000	41.	0.00	0.00	1.08	-0.55	0.00
L3B North Perim Zn (G.N3)R	131.	0.	0.009	1.000	105.	0.00	0.00	2.90	-1.42	0.00
L4A Core Zn (G.C23) COR	51.	0.	0.004	1.000	41.	0.00	0.00	1.08	-0.55	0.00
L4B North Perim Zn (G.N3)R	131.	0.	0.009	1.000	105.	0.00	0.00	2.94	-1.42	0.00
L5A Core Zn (G.C23) COR	51.	0.	0.004	1.000	41.	0.00	0.00	1.08	-0.55	0.00
L5B North Perim Zn (G.N3)R	131.	0.	0.009	1.000	105.	0.00	0.00	2.99	-1.42	0.00
L6A Core Zn (G.C23) COR	51.	0.	0.004	1.000	41.	0.00	0.00	1.11	-0.55	0.00
L6B North Perim Zn (G.N3)R	131.	0.	0.009	1.000	105.	0.00	0.00	3.02	-1.42	0.00
L7A Core Zn (G.C20) COR	47.	0.	0.003	1.000	37.	0.00	0.00	1.12	-0.51	0.00
L7B North Perim Zn (G.N3)R	131.	0.	0.009	1.000	105.	0.00	0.00	3.24	-1.42	-0.32
P2A Core Zn (B.C3) COR	60.	0.	0.005	0.238	14.	0.00	0.00	0.77	-0.81	-0.81
P1A Core Zn (B.C3) COR	22.	0.	0.003	1.000	14.	0.00	0.00	0.41	-0.45	-0.38
L1A South Perim Zn (G.S170	814.	0.	0.195	1.000	257.	0.00	0.00	5.21	-31.07	-24.65
L2B SSW Perim Zn (G.SSW120	555.	0.	0.106	0.480	252.	0.00	0.00	11.95	-16.84	-11.04
L2A Core Zn (G.C21) MAIL	64.	0.	0.006	0.010	0.	0.00	0.00	1.33	-0.86	-0.81
L2A Core Zn (G.C22) MAIL	14.	0.	0.002	0.010	0.	0.00	0.00	0.30	-0.38	-0.37

REPORT- SV-A System Design Parameters for Sys 4 -PSZ-HP Amenities

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PIU	1.001	1607.5	0.	0.077	38.482	0.742	-34.634	0.360	0.370	-17.317

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN	FAN	MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	PLACEMENT	CONTROL	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	1254.	1.00	1.016	2.53	4.2	0.60	0.72	DRAW-THRU	CONSTANT	1.10	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST	FAN	MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	ZONE	
NAME	FLOW	FLOW		FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	MULT
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	
L7A NW Perim Zn (G.NW21)	901.	0.	0.124	1.000	47.	0.00	0.00	13.70	-22.16	-10.94	1.
L7A NE Perim Zn (G.NE22)	1113.	0.	0.142	1.000	50.	0.00	0.00	14.83	-25.70	-11.03	1.