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

WEATHER FILE- SEATTLE BOEING FI WA

				•					-	-	-
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	464.0	1.	0.00	00 12.4	09	0.742	-12.759	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	n fan	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN'	T CONTROL	(FRAC)	(FRAC)
SUPPLY	414.	1.00	0.024	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE 2	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) N	MULT
P1B North Perim Zn (B.N11P	414.	43.	0.007	0.745	0.	0.00	0.00	9.11	0.00	-11.66	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

REFORT DV	- A Dybeem					v 1(1						w
		FLOOR		OUTSI	DE COOLII	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI	ry sei	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/HI	R.)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	2465.0	3.	0.0	00 55.59	99	0.742	-57.186	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	· FA	n fan	RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)	
SUPPLY	1855.	1.00	0.107	0.18	0.2	0.37	0.62	DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	I	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE Z	ONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) M	IULT
P1B North Perim Zn (B.N13P	1855.	227.	0.038	0.738	0.	0.00	0.00	42.68	0.00	-51.72	1.

REPORT- SV-A System Design Parameters for P1B (B.NE14) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SOFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	705.0	1.	0.0	00 17.6	63	0.742	-18.160	0.000	0.000	0.000
FVVI	1.001	703.0	Δ.	0.0	00 17.0	0.5	0.742	10.100	0.000	0.000	0.000
					ama m r a						
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	Į.		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	' FA	an fan	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)
SUPPLY	589.	1.00	0.034	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEI	1.00	0.30
DOLLEI	505.	1.00	0.051	0.10	0.1	0.23	0.02	Didiw IIII	CO DI DDI	1.00	0.50

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	H	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
P1B NE Perim Zn (B.NE14) 1	589.	65.	0.011	0.737	0.	0.00	0.00	13.62	0.00	-16.46	1.

SYSTEM ALTITUDE

REPORT- SV-A System Design Parameters for L1A (G.SSW15) FIT VRF

MAX

FLOOR

AREA

WEATHER FILE- SEATTLE BOEING FI WA HEATING COOLING HEATING HEAT PUMP AIR CAPACITY SENSIBLE CAPACITY EIR EIR SUPP-HEAT

TYPE	FACTOR	(SQFT)	PEOPLE	RATIO	(KBTU/HR)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1300.5	0.	0.000	29.441	0.742	-30.386	0.000	0.000	0.000

OUTSIDE COOLING

MECH DIVERSITY POWER FAN STATIC FACTOR DEMAND DELTA-T PRESSURE STATIC TOTAL DIVERSITY MAX FAN MIN FAN FAN FAN FAN CAPACITY EFF EFF RATIO RATIO TYPE (CFM) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC) 0.1 0.30 0.62 DRAW-THRU SPEED 1.00 0.30 SUPPLY 982. 1.00 0.056 0.18

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1A SSW Perim Zn (G.SSW15I	982.	0.	0.000	0.715	0.	0.00	0.00	-0.13	0.00	-26.71	1.

REPORT- SV-A System Design Parameters for L1A (G.S17) LOB VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1541.0	51.	0.0	00 29.7	11	0.742	-30.585	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	r FA	N FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	L (FRAC)	(FRAC)
SUPPLY	991.	1.00	0.057	0.18	0.1	0.30	0.62	DRAW-THE	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
I.1A South Perim Zn (G.S170	991.	0.	0.000	0.736	257.	0.00	0.00	22.34	0.00	-27.65	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1033.8	1.	0.00	00 19.3	87	0.742	-19.945	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	AN FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	L (FRAC)	(FRAC)
SUPPLY	647.	1.00	0.037	0.18	0.1	0.25	0.62	P DRAW-THE	RU SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1A East Perim Zn (G.E19)T	647.	95.	0.016	0.750	0.	0.00	0.00	14.40	0.00	-18.29	1.

REPORT- SV-A System Design Parameters for L1A (G.NNE24) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	749.2	1.	0.0	000 11.0	81	0.742	-11.395	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	AN FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	(FRAC)	(FRAC)
				, ,	,						
SUPPLY	370.	1.00	0.021	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
IJA NNE Perim Zn (G.NNE24P	370.	69.	0.012	0.745	0.	0.00	0.00	8.33	0.00	-10.42	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	493.5	1.	0.0	9.0	74	0.742	-9.331	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH]		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	· FA	n FAN	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)
SUPPLY	303.	1.00	0.017	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE 2	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) N	MULT
IJA WNW Perim Zn (G.WNW27P	303.	45.	0.008	0.521	0.	0.00	0.00	6.46	0.00	-6.65	1.

REPORT- SV-A System Design Parameters for L1A (G.N28) APT3 VRF

WEATHER FILE- SEATTLE BOEING FI WA

	=			· ·							
		FLOOR		OUTSII	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1326.0	2.	0.00	00 22.5	49	0.742	-23.190	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	ī		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF		n fan		
TYPE	(CFM)	(FRAC)	(KW)		(IN-WATER)	(FRAC)	(FRAC)				(FRAC)
SUPPLY	752.	1.00	0.043	0.18	0.1	0.30	0.62	DRAW-THR	U SPEEL	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
Ila North Perim Zn (G.N28P	752.	122.	0.020	0.478	0.	0.00	0.00	15.68	0.00	-15.47	1.

REPORT- SV-A System Design Parameters for L1B (G.N5) APT4 VRF

WEATHER FILE- SEATTLE BOEING FI WA

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SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE		AIR CAPACI	TY SE	NSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)	
PVVT	1.001	2580.0	3.	0.0	000 40.9	37	0.742	-42.102	0.000	0.000	0.000	
FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	F.F.				
SUPPLY	1366.	1.00	0.078	0.18	0.2	0.34	0.62	DRAW-THE	RU SPEEL	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	I	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B North Perim Zn (G.N5)T	1366.	238.	0.040	0.403	0.	0.00	0.00	28.29	0.00	-24.56	1.

REPORT- SV-A System Design Parameters for L1B (G.E6) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		J		,					-	-	-
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	668.0	1.	0.0	000 10.5	65	0.742	-10.864	0.000	0.000	0.000
		D TI IID O TIMI	DOMED		OM3 MT G	moma r	MEGN	,		MAY 5733	WTM 5733
		DIVERSITY	POWER	FAN	STATIC	TOTAL				MAX FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	N FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
SUPPLY	352.	1.00	0.020	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B East Perim Zn (G.E6) 1	352.	62.	0.010	0.524	0.	0.00	0.00	7.45	0.00	-7.75	1.

REPORT- SV-A System Design Parameters for L1B (G.W7) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

				, -					-	-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	765.0	1.	0.0	14.8	11	0.742	-15.236	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	T		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	N FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
SUPPLY	494.	1.00	0.028	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B West Perim Zn (G.W7) 1	494.	70.	0.012	0.739	0.	0.00	0.00	11.27	0.00	-13.83	1.

REPORT- SV-A System Design Parameters for L1B (G.W8) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	654.5	1.	0.00	00 14.2	04	0.742	-14.611	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
SUPPLY	474.	1.00	0.027	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B West Perim Zn (G.W8) 1	474.	60.	0.010	0.782	0.	0.00	0.00	10.48	0.00	-13.82	1.

REPORT- SV-A System Design Parameters for L1B (G.E9) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		J		, -					-	-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	713.5	1.	0.0	15.0	26	0.742	-15.459	0.000	0.000	0.000
								_			
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	N FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
SUPPLY	501.	1.00	0.029	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
IlB East Perim Zn (G.E9) 1	501.	66.	0.011	0.754	0.	0.00	0.00	11.19	0.00	-14.23	1.

REPORT- SV-A System Design Parameters for L1B (G.E10) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

			, -						-		
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	519.0	1.	0.0	13.4	60	0.742	-13.845	0.000	0.000	0.000
		D TI IID O TIMI	DOMED		CM3 MT C	moma r	MEGN	,		MAY 5733	. MTN 5331
		DIVERSITY	POWER	FAN	STATIC	TOTAL				MAX FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	n fai	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	L (FRAC)	(FRAC)
SUPPLY	449.	1.00	0.026	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	F	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B East Perim Zn (G.E10)T	449.	48.	0.008	0.739	0.	0.00	0.00	10.24	0.00	-12.56	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

naroni by n bybeem bebign rarameters for				222 (0	J. DII , 111 1 J	****			""		DD DODIN	J 11 1111
SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE		AIR CAPACI	TY SE	NSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)	
PVVT	1.001	1978.0	3.	0.0	000 46.7	30	0.742	-48.043	0.000	0.000	0.000	
FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)		F FA				
SUPPLY	1559.	1.00	0.090	0.18	0.2	0.34	0.62	2 DRAW-THE	RU SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	I	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE ZO	ONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) MU	ULT
L1B South Perim Zn (G.S11P	1559.	182.	0.030	0.739	0.	0.00	0.00	34.91	0.00	-43.62	1.

REPORT- SV-A System Design Parameters for L1B (G.SSW13) CONF VRF

WEATHER FILE- SEATTLE BOEING FI WA

			, -		-			-	-	-		
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
	SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
	TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
	PVVT	1.001	437.5	15.	0.0	000 11.2	49	0.742	-11.576	0.000	0.000	0.000
				D.011777		ama m. r. a	mom	ar				
			DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	Į.		MAX FAN	MIN FAN
	FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	' FA	N FAI	N RATIO	RATIO
	TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	L (FRAC)	(FRAC)
	SUPPLY	375.	1.00	0.022	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B SSW Perim Zn (G.SSW130	375.	0.	0.000	0.742	73.	0.00	0.00	7.76	0.00	-10.71	1.

REPORT- SV-A System Design Parameters for L1B (G.C14) OFF VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	. A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	367.5	3.	0.0	00 5.7	66	0.742	-5.937	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	Į.		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	n fan	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)	
SUPPLY	192.	1.00	0.011	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEL	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE Z	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) M	MULT
L1B Core Zn (G.C14) OFF	192.	0.	0.000	0.771	22.	0.00	0.00	4.46	0.00	-5.57	1.

REPORT- SV-A System Design Parameters for L1B (G.E29) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSII	DE COOLI	NC		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX		IR CAPACI		NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	429.5	1.	0.00	00 7.8	72	0.742	-8.095	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA.	N FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	L (FRAC)	(FRAC)
SUPPLY	263.	1.00	0.015	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B East Perim Zn (G.E29)T	263.	40.	0.007	0.547	0.	0.00	0.00	5.61	0.00	-5.95	1.

REPORT- SV-A System Design Parameters for L2A (G.E14) APT3 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		J		,	,						
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1947.8	2.	0.0	15.1	73	0.742	-15.604	0.000	0.000	0.000
		DIVERSITY	DOMED	F13.37	GM3 MT G	moma r	MEGN	,		MAY 531	MIN DAN
			POWER	FAN	STATIC	TOTAL				MAX FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	n fai	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	L (FRAC)	(FRAC)
SUPPLY	506.	1.00	0.029	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2A East Perim Zn (G.E14)T	506.	179.	0.030	0.749	0.	0.00	0.00	10.34	0.00	-14.35	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSII	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	AI	IR CAPACI'	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RATI	O (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1270.5	2.	0.00	00 21.6	90	0.742	-22.308	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	Į.		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F) ((IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	L (FRAC)	(FRAC)
SUPPLY	724.	1.00	0.042	0.18	0.1	0.30	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
I.2A WNW Perim Zn (G.WNW18P	724.	117.	0.020	0.457	0.	0.00	0.00	15.10	0.00	-14.39	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE		R CAPACIT	Y SEI	NSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1039.0	1.	0.00	0 15.41	.8	0.742	-15.856	0.000	0.000	0.000
FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F) (STATIC PRESSURE IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)				
SUPPLY	514.	1.00	0.030	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEL	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2A North Perim Zn (G.N19P	514.	96.	0.016	0.429	0.	0.00	0.00	10.84	0.00	-9.75	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

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SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE		AIR CAPACI	TY SE	NSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)	
PVVT	1.001	2287.5	76.	0.0	371.4	89	0.742	-382.406	0.000	0.000	0.000	
FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)		FA FA				
SUPPLY	12393.	1.00	0.712	0.18	0.3	0.51	0.62	2 DRAW-THE	RU SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 13 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	XTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2A SW Perim Zn (G.SW20)	12393.	8006.	2.347	0.128	8006.	0.00	0.00	160.01	0.00	-79.46	1.

REPORT- SV-A System Design Parameters for L2A (G.C21) MAIL VRF

WEATHER FILE- SEATTLE BOEING FI WA

		J		, -						_	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	368.5	0.	0.00	3.8	86	0.742	-4.018	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	r		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF			N FAN		
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)
SUPPLY	100.	1.00	0.006	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2A Core Zn (G.C21) MAIL	100.	0.	0.000	0.010	0.	0.00	0.00	2.91	0.00	-0.00	1.

REPORT- SV-A System Design Parameters for L2A (G.C22) MAIL VRF

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE		IR CAPACI	TY SEI	NSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	172.5	0.	0.0	0.5	09	0.742	-0.526	0.000	0.000	0.000
FAN	CAPACITY	DIVERSITY FACTOR	POWER DEMAND	FAN DELTA-T	STATIC PRESSURE	TOTAL	MECH EFF	· FA			RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F) 0.18	(IN-WATER)	(FRAC)	(FRAC)			, -,	(FRAC) 0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	XTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2A Core Zn (G.C22) MAIL	17.	0.	0.000	1.000	0.	0.00	0.00	0.37	0.00	-0.59	1.

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		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	2928.0	4.	0.0	00 41.1	35	0.742	-42.303	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	' FA	N FAN	RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)	
SUPPLY	1372.	1.00	0.079	0.18	0.2	0.34	0.62	DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B North Perim Zn (G.N4)T	1372.	270.	0.045	0.412	0.	0.00	0.00	28.91	0.00	-25.07	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	984.0	1.	0.0	000 14.7	31	0.742	-15.149	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	N FAI	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTRO	L (FRAC)	(FRAC)	
SUPPLY	491.	1.00	0.028	0.18	0.1	0.25	0.62	DRAW-THR	U SPEE	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	F	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B East Perim Zn (G.E5) 1	491.	91.	0.015	0.541	0.	0.00	0.00	10.43	0.00	-11.07	1.

REPORT- SV-A System Design Parameters for L2B (G.W6) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	A.	IR CAPACI'	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	765.0	1.	0.00	00 9.9	69	0.742	-10.250	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	n fan	RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)
SUPPLY	333.	1.00	0.019	0.18	0.1	0.25	0.62	DRAW-THR	U SPEED	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	XTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B West Perim Zn (G.W6) 1	333.	70.	0.012	0.588	0.	0.00	0.00	7.15	0.00	-7.95	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		J		, -						-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	654.5	1.	0.0	000 5.6	27	0.742	-5.786	0.000	0.000	0.000
			D 01177		ama m. r. a		·				
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	N FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)
SUPPLY	188.	1.00	0.011	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
I.2B West Perim Zn (G.W7) 1	188.	60.	0.010	0.502	0.	0.00	0.00	3.85	0.00	-4.01	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		J		, -						-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	628.5	1.	0.0	100 5.3	96	0.742	-5.548	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	T		MAX FAN	MIN FAN
	~~~~~~~~										
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	N FAN	N RATIO	RATIO
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	L (FRAC)	(FRAC)
SUPPLY	180.	1.00	0.010	0.18	0.1	0.25	0.62	P DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B East Perim Zn (G.E8) 1	180.	58.	0.010	0.510	0.	0.00	0.00	3.72	0.00	-3.89	1.

REPORT- SV-A System Design Parameters for L2B (G.E9) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	'IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	558.0	1.	0.0	00 6.8	82	0.742	-7.077	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	İ		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF		AN FAN		
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)
SUPPLY	230.	1.00	0.013	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEL	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B East Perim Zn (G.E9) 1	230.	51.	0.009	0.726	0.	0.00	0.00	4.88	0.00	-6.35	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

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SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT )	MAX PEOPLE		AIR CAPACI	TY SEI	NSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)	
PVVT	1.001	2721.0	3.	0.0	30.5	73	0.742	-31.443	0.000	0.000	0.000	
FAN TYPE	CAPACITY (CFM )	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FA FA				
SUPPLY	1020.	1.00	0.059	0.18	0.1	0.30	0.62	2 DRAW-THE	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	I	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE ZO	ONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) MU	ULT
L2B South Perim Zn (G.S10P	1020.	251.	0.042	0.521	0.	0.00	0.00	21.50	0.00	-22.30	1.

## REPORT- SV-A System Design Parameters for L2B (G.SSW12) LOB VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	'IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	1513.5	50.	0.0	100 29.6	09	0.742	-30.469	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAI	N RATIO	RATIO	
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTRO	L (FRAC)	(FRAC)	
SUPPLY	988.	1.00	0.057	0.18	0.1	0.30	0.62	DRAW-THR	U SPEE	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
I2B SSW Perim Zn (G.SSW120	988.	0.	0.000	0.246	252.	0.00	0.00	20.61	0.00	-11.72	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	714.0	1.	0.0	00 10.9	02	0.742	-11.211	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	' FA	n fan	N RATIO	RATIO
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)
SUPPLY	364.	1.00	0.021	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEL	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	364.	66.	0.011	0.604	0.	0.00	0.00	7.76	0.00	-8.86	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2229.8	3.	0.00	00 17.3	88	0.742	-17.881	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAN	N RATIO	RATIO
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN'	T CONTROL	(FRAC)	(FRAC)
SUPPLY	580.	1.00	0.033	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE 2	ZONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) N	MULT
L3A East Perim Zn (G.E13)T	580.	205.	0.034	0.604	0.	0.00	0.00	11.95	0.00	-14.12	1.

REPORT- SV-A System Design Parameters for L3A (G.NW17) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		J			,	-				-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	915.5	1.	0.0	14.2	55	0.742	-14.659	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	ī		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF		N FAI		
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
SUPPLY	476.	1.00	0.027	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE Z	ZONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) M	1ULT
L3A NW Perim Zn (G.NW17) 1	476.	84.	0.014	0.421	0.	0.00	0.00	10.73	0.00	-8.84	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSII	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	. Al	R CAPACI	TY SEN	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	O (KBTU/H	₹)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	1566.5	2.	0.00	00 21.7	37	0.742	-22.355	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAN	N RATIO	RATIO	
TYPE	(CFM )	(FRAC)	(KW)	(F)	IN-WATER)	(FRAC)	(FRAC)	PLACEMEN'	T CONTROL	(FRAC)	(FRAC)	
SUPPLY	725.	1.00	0.042	0.18	0.1	0.30	0.62	DRAW-THR	U SPEED	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3A North Perim Zn (G.N18P	725.	144.	0.024	0.405	0.	0.00	0.00	15.16	0.00	-13.08	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

	FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
ALTITUDE	AREA	MAX	. A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
FACTOR	(SQFT )	PEOPLE	RAT	'IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
1.001	2478.2	3.	0.0	100 26.9	55	0.742	-27.722	0.000	0.000	0.000
	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	AN FAN	N RATIO	RATIO
(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	NT CONTROL	(FRAC)	(FRAC)
899.	1.00	0.052	0.18	0.1	0.30	0.62	DRAW-THE	RU SPEED	1.00	0.30
	FACTOR 1.001 CAPACITY (CFM )	ALTITUDE AREA FACTOR (SQFT )  1.001 2478.2  DIVERSITY FACTOR (CFM ) (FRAC)	ALTITUDE AREA MAX FACTOR (SQFT) PEOPLE  1.001 2478.2 3.  DIVERSITY POWER CAPACITY FACTOR DEMAND (KW)	ALTITUDE AREA MAX A FACTOR (SQFT) PEOPLE RATE AND A SQFT (SQFT) POWER FAN CAPACITY FACTOR DEMAND DELTA-T (CFM) (FRAC) (KW) (F)	ALTITUDE AREA MAX AIR CAPACI FACTOR (SQFT) PEOPLE RATIO (KBTU/H 1.001 2478.2 3. 0.000 26.9  DIVERSITY POWER FAN STATIC CAPACITY FACTOR DEMAND DELTA-T PRESSURE (CFM) (FRAC) (KW) (F) (IN-WATER)	ALTITUDE AREA MAX AIR CAPACITY SET FACTOR (SQFT) PEOPLE RATIO (KBTU/HR)  1.001 2478.2 3. 0.000 26.955  DIVERSITY POWER FAN STATIC TOTAL CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF (CFM) (FRAC) (KW) (F) (IN-WATER) (FRAC)	ALTITUDE AREA MAX AIR CAPACITY SENSIBLE FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR)  1.001 2478.2 3. 0.000 26.955 0.742  DIVERSITY POWER FAN STATIC TOTAL MECH CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF (CFM) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC)	ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR)  1.001 2478.2 3. 0.000 26.955 0.742 -27.722  DIVERSITY POWER FAN STATIC TOTAL MECH CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FF (CFM) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT	ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU)  1.001 2478.2 3. 0.000 26.955 0.742 -27.722 0.000  DIVERSITY POWER FAN STATIC TOTAL MECH CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FAN FAN (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL	ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR EIR FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU)  1.001 2478.2 3. 0.000 26.955 0.742 -27.722 0.000 0.000  DIVERSITY POWER FAN STATIC TOTAL MECH MECH AMAX FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FAN FAN RATIO (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC)

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3A West Perim Zn (G.W21)T	899.	228.	0.038	0.506	0.	0.00	0.00	18.88	0.00	-19.23	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT )	MAX PEOPLE		IR CAPACI	TY SE	NSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	944.2	1.	0.0	14.4	49	0.742	-14.858	0.000	0.000	0.000
FAN	CAPACITY	DIVERSITY FACTOR	POWER DEMAND	FAN DELTA-T	STATIC PRESSURE	TOTAL EFF			an fai	MAX FAN N RATIO	
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				(FRAC)
SUPPLY	482.	1.00	0.028	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	XTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	482.	87.	0.015	0.407	0.	0.00	0.00	11.06	0.00	-8.76	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	A 2	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	1832.5	2.	0.0	00 21.4	24	0.742	-22.033	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	ī		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF			N FAI			
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	L (FRAC)	(FRAC)	
SUPPLY	715.	1.00	0.041	0.18	0.1	0.30	0.62	DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	XTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3A South Perim Zn (G.S24P	715.	169.	0.028	0.474	0.	0.00	0.00	15.22	0.00	-14.59	1.

KEFORT SV	A Dyscem								WEAIII	EK FIDE SE		, r. v
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	'IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	2928.0	4.	0.0	00 39.5	28	0.742	-40.653	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	F F	AN FAI	N RATIO	RATIO	
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	NT CONTROL	L (FRAC)	(FRAC)	
SUPPLY	1319.	1.00	0.076	0.18	0.2	0.34	0.62	2 DRAW-THE	RU SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	XTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3B North Perim Zn (G.N4)T	1319.	270.	0.045	0.405	0.	0.00	0.00	27.30	0.00	-23.76	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	984.0	1.	0.0	000 13.8	86	0.742	-14.280	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	AN FAI	N RATIO	RATIO
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	(FRAC)	(FRAC)
SUPPLY	463.	1.00	0.027	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	463.	91.	0.015	0.503	0.	0.00	0.00	9.70	0.00	-9.85	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	765.0	1.	0.0	00 9.9	90	0.742	-10.274	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	' FA	AN FAI	N RATIO	RATIO
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
SUPPLY	333.	1.00	0.019	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	333.	70.	0.012	0.538	0.	0.00	0.00	7.04	0.00	-7.46	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

			(	,								
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	. A	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	654.5	1.	0.0	00 5.9	31	0.742	-6.099	0.000	0.000	0.000	
			201122		ama ma a	moma r	umar					
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	N FAI	N RATIO	RATIO	
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)	
SUPPLY	198.	1.00	0.011	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE 2	ZONE
NAME	(CFM)	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) N	MULT
L3B West Perim Zn (G.W7) 1	198.	60.	0.010	0.510	0.	0.00	0.00	4.08	0.00	-4.26	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI'	ry sei	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	628.5	1.	0.0	00 5.6	25	0.742	-5.784	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	1		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	' FA	N FAN	N RATIO	RATIO
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROL	(FRAC)	(FRAC)
SUPPLY	188.	1.00	0.011	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEL	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3B East Perim Zn (G.E8) 1	188.	58.	0.010	0.512	0.	0.00	0.00	3.89	0.00	-4.05	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

	•	-								_	
		FLOOR		OUTSII	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	789.0	1.	0.00	00 9.2	37	0.742	-9.499	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	ī		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF		N FAN		
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)
SUPPLY	308.	1.00	0.018	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE 2	ZONE
NAME	(CFM)	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) N	MULT
L3B East Perim Zn (G.E9) 1	308.	73.	0.012	0.662	0.	0.00	0.00	6.47	0.00	-7.98	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

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SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT )	MAX PEOPLE		AIR CAPACI	TY SE	NSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)	
PVVT	1.001	3981.5	5.	0.0	000 43.3	88	0.742	-44.622	0.000	0.000	0.000	
FAN TYPE	CAPACITY (CFM )	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)		FA FA				
SUPPLY	1447.	1.00	0.083	0.18	0.2	0.34	0.62	2 DRAW-THE	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	I	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE Z	ONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) M	ULT
L3B South Perim Zn (G.S10P	1447.	367.	0.061	0.503	0.	0.00	0.00	31.03	0.00	-30.85	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

	FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
ALTITUDE	AREA	MAX	Α 2	IR CAPACI	TY SEN	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
FACTOR	(SQFT )	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
1 001	714 0	1	0.0	00 10 2	66	0 742	10 557	0 000	0 000	0.000
1.001	714.0	1.	0.0	00 10.2	00	0.742	-10.557	0.000	0.000	0.000
	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	n fan	N RATIO	RATIO
(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN'	T CONTROL	(FRAC)	(FRAC)
342.	1.00	0.020	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30
-	FACTOR 1.001 CAPACITY	ALTITUDE AREA (SQFT )  1.001 714.0  DIVERSITY FACTOR (CFM ) (FRAC)	ALTITUDE AREA MAY FACTOR (SQFT) PEOPLE 1.001 714.0 1.  DIVERSITY POWER CAPACITY FACTOR DEMAND (CFM) (FRAC) (KW)	ALTITUDE AREA MAX A FACTOR (SQFT ) PEOPLE RAT  1.001 714.0 1. 0.0  DIVERSITY POWER FAN CAPACITY FACTOR DEMAND DELTA-T (CFM ) (FRAC) (KW) (F)	ALTITUDE AREA MAX AIR CAPACT FACTOR (SQFT) PEOPLE RATIO (KBTU/H 1.001 714.0 1. 0.000 10.2  DIVERSITY POWER FAN STATIC CAPACTY FACTOR DEMAND DELTA-T PRESSURE (CFM ) (FRAC) (KW) (F) (IN-WATER)	ALTITUDE AREA MAX AIR CAPACITY SER FACTOR (SQFT ) PEOPLE RATIO (KBTU/HR)  1.001 714.0 1. 0.000 10.266  DIVERSITY POWER FAN STATIC TOTAL CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC)	ALTITUDE AREA MAX AIR CAPACITY SENSIBLE FACTOR (SQFT ) PEOPLE RATIO (KBTU/HR) (SHR)  1.001 714.0 1. 0.000 10.266 0.742  DIVERSITY POWER FAN STATIC TOTAL MECH CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC)	ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR)  1.001 714.0 1. 0.000 10.266 0.742 -10.557  DIVERSITY POWER FAN STATIC TOTAL MECH CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FACTOR (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT	ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU)  1.001 714.0 1. 0.000 10.266 0.742 -10.557 0.000  DIVERSITY POWER FAN STATIC TOTAL MECH CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FAN FAN (CFM) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL	ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR ER FACTOR (SQFT ) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU)  1.001 714.0 1. 0.000 10.266 0.742 -10.557 0.000 0.000  DIVERSITY POWER FAN STATIC TOTAL MECH MAX FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FAN FAN RATIO (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC)

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	XTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	342.	66.	0.011	0.550	0.	0.00	0.00	7.21	0.00	-7.79	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

				, -					-	_	-
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	A A	IR CAPACI	TY SEN	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2229.8	3.	0.0	00 17.4	50	0.742	-17.944	0.000	0.000	0.000
								_			
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	[		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	' FA	N FAN	N RATIO	RATIO
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN'	T CONTROL	(FRAC)	(FRAC)
SUPPLY	582.	1.00	0.033	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4A East Perim Zn (G.E13)T	582.	205.	0.034	0.585	0.	0.00	0.00	12.01	0.00	-13.85	1.

REPORT- SV-A System Design Parameters for L4A (G.NW17) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	915.5	1.	0.0	000 14.3	63	0.742	-14.769	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	N FAI	N RATIO	RATIO	
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	(FRAC)	(FRAC)	
SUPPLY	479.	1.00	0.028	0.18	0.1	0.25	0.62	2 DRAW-THR	tu speei	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
I.4A NW Perim Zn (G.NW17) 1	479.	84.	0.014	0.394	0.	0.00	0.00	10.80	0.00	-8.45	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT )	MAX PEOPLE		R CAPACIT	Y SEI	NSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1566.5	2.	0.00	0 21.88	30	0.742	-22.502	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	
FAN TYPE	CAPACITY (CFM )	FACTOR (FRAC)	DEMAND (KW)	DELTA-T (F) (	PRESSURE IN-WATER)	EFF (FRAC)	EFF (FRAC)	FA PLACEMEN			RATIO (FRAC)
SUPPLY	730.	1.00	0.042	0.18	0.1	0.30	0.62	DRAW-THR	U SPEEL	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	XTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4A North Perim Zn (G.N18P	730.	144.	0.024	0.388	0.	0.00	0.00	15.28	0.00	-12.71	1.

REPORT- SV-A System Design Parameters for L4A (G.W21) APT4 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	2478.2	3.	0.0	27.0	27	0.742	-27.795	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAI	N RATIO	RATIO	
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	L (FRAC)	(FRAC)	
SUPPLY	902.	1.00	0.052	0.18	0.1	0.30	0.62	DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE 2	ZONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) N	MULT
I4A West Perim Zn (G.W21)T	902.	228.	0.038	0.462	0.	0.00	0.00	18.97	0.00	-17.99	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

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SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT )	MAX PEOPLE		IR CAPACI	TY SE	NSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)	
PVVT	1.001	944.2	1.	0.0	00 14.6	73	0.742	-15.089	0.000	0.000	0.000	
FAN TYPE	CAPACITY (CFM )	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)		FA				
SUPPLY	489.	1.00	0.028	0.18	0.1	0.25	0.62	P DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4A SW Perim Zn (G.SW22) 1	489.	87.	0.015	0.386	0.	0.00	0.00	11.23	0.00	-8.50	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

												Ĺ
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	_
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	1832.5	2.	0.0	00 21.5	01	0.742	-22.113	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	r FA	n fan	N RATIO	RATIO	
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN'	T CONTROL	(FRAC)	(FRAC)	
SUPPLY	717.	1.00	0.041	0.18	0.1	0.30	0.62	DRAW-THR	U SPEED	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4A South Perim Zn (G.S24P	717.	169.	0.028	0.432	0.	0.00	0.00	15.37	0.00	-13.61	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

	A Dybeem	Debign rara			, mii v						ATTED DOBING	
		FLOOR		OUTSI	IDE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	2928.0	4.	0.0	39.8	36	0.742	-40.969	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	F FA	an fai	N RATIO	RATIO	
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	L (FRAC)	(FRAC)	
SUPPLY	1329.	1.00	0.076	0.18	0.2	0.34	0.62	2 DRAW-THE	RU SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	I	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	1329.	270.	0.045	0.389	0.	0.00	0.00	27.52	0.00	-23.15	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

			J		, -						-	-
			FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SY	STEM	ALTITUDE	AREA	MAX	A 2	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
	TYPE	FACTOR	(SQFT )	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	!	1.001	984.0	1.	0.0	00 14.0	55	0.742	-14.454	0.000	0.000	0.000
			DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
	FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA:	n fai	N RATIO	RATIO
	TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
SU	JPPLY	469.	1.00	0.027	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30
st			FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA PLACEMEN	T CONTROI	N RATIO	RA' (FR

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) I	MULT
L4B East Perim Zn (G.E5) 1	469.	91.	0.015	0.472	0.	0.00	0.00	9.82	0.00	-9.51	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	765.0	1.	0.0	10.9	58	0.742	-11.269	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	AN FAI	N RATIO	RATIO
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTRO	L (FRAC)	(FRAC)
SUPPLY	366.	1.00	0.021	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4B West Perim Zn (G.W6) 1	366.	70.	0.012	0.465	0.	0.00	0.00	7.71	0.00	-7.33	1.

REPORT- SV-A System Design Parameters for L4B (G.W7) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

TUDE OFFEE DV	11 0/0000	CCCLD LOI	212 (0	,				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		DD DODIN	0 11 1111	
SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT )	MAX PEOPLE		IR CAPACI	TY SEI	NSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)	
PVVT	1.001	654.5	1.	0.0	00 6.0	19	0.742	-6.189	0.000	0.000	0.000	
FAN TYPE	CAPACITY (CFM )	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FA.				
SUPPLY	201.	1.00	0.012	0.18	0.1	0.25	0.62	P DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4B West Perim Zn (G.W7) 1	201.	60.	0.010	0.488	0.	0.00	0.00	4.15	0.00	-4.18	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

				, -						-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	628.5	1.	0.0	000 5.6	75	0.742	-5.835	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	ī		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF		N FAN		
PAN	CAPACITI	FACTOR	DEMAND	DELIA-I	PRESSURE	EFF	EFF	r A	N PAP	N RAIIO	RATIO
TYPE	(CFM )	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	L (FRAC)	(FRAC)
SUPPLY	189.	1.00	0.011	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	XTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM )	(CFM )	(KW)	(FRAC)	(CFM )	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
I.4B East Perim Zn (G.E8) 1	189.	58.	0.010	0.491	0.	0.00	0.00	3.92	0.00	-3.96	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

				, -						-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX		IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT )	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	789.0	1.	0.0	9.2	87	0.742	-9.550	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	T		MAX FAN	MIN FAN
	~~~~~~~~										
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	N FAN	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	L (FRAC)	(FRAC)
SUPPLY	310.	1.00	0.018	0.18	0.1	0.25	0.62	P DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	310.	73.	0.012	0.601	0.	0.00	0.00	6.49	0.00	-7.50	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		(-										
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	. A	AIR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	3981.5	5.	0.0	000 43.4	73	0.742	-44.709	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	F FA	N FAI	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROL	L (FRAC)	(FRAC)	
SUPPLY	1450.	1.00	0.083	0.18	0.2	0.34	0.62	2 DRAW-THR	tu speei	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	I	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE 2	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) N	MULT
L4B South Perim Zn (G.S10P	1450.	367.	0.061	0.467	0.	0.00	0.00	31.12	0.00	-29.22	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A.	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	714.0	1.	0.0	00 10.5	48	0.742	-10.847	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAI	RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
SUPPLY	352.	1.00	0.020	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
I.4B East Perim Zn (G.E19)T	352.	66.	0.011	0.506	0.	0.00	0.00	7.40	0.00	-7.53	1.

REPORT- SV-A System Design Parameters for L5A (G.E13) APT4 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		J							-	-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	ζ 2	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	E RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2229.8	3.	0.0	17.5	53	0.742	-18.051	0.000	0.000	0.000
			n or ren		ama m a	mom	·				
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	N FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	L (FRAC)	(FRAC)
SUPPLY	586.	1.00	0.034	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	H	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5A East Perim Zn (G.E13)T	586.	205.	0.034	0.582	0.	0.00	0.00	12.09	0.00	-13.88	1.

REPORT- SV-A System Design Parameters for L5A (G.NW17) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	915.5	1.	0.0	00 14.7	49	0.742	-15.167	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	AN FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
	, ,	, ,	, ,	(-)	,	/	/			,,	, ,
SUPPLY	492.	1.00	0.028	0.18	0.1	0.25	0.62	PRAW-THE	RU SPEEI	1.00	0.30
SSITEI	172.	1.00	0.020	3.10	0.1	3.23	0.02	. Diam iii	CO DI DDI	1.00	0.50

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5A NW Perim Zn (G.NW17) 1	492.	84.	0.014	0.393	0.	0.00	0.00	11.10	0.00	-8.65	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSII	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A.	IR CAPACI	TY SEN	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	O (KBTU/H	R.)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1566.5	2.	0.00	00 22.4	23	0.742	-23.060	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	ſ		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF		N FAN		
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)
SUPPLY	748.	1.00	0.043	0.18	0.1	0.30	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5A North Perim Zn (G.N18P	748.	144.	0.024	0.384	0.	0.00	0.00	16.72	0.00	-12.92	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

	-				- , -	,				-	-	
			FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
	SYSTEM	ALTITUDE	AREA	MAX	. A	AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
	TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PV	VT	1.001	2478.2	3.	0.0	000 27.5	37	0.742	-28.320	0.000	0.000	0.000
			DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	ī		MAX FAN	MIN FAN
	FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF		N FAI		
	TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
	SUPPLY	919.	1.00	0.053	0.18	0.1	0.30	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5A West Perim Zn (G.W21)T	919.	228.	0.038	0.454	0.	0.00	0.00	19.54	0.00	-18.08	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		J			,				-	-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	944.2	1.	0.0	000 14.7	01	0.742	-15.117	0.000	0.000	0.000
		DILIDDOTTI	DOMED	F13.37	CM3 MT C	moma r	MEGN	,		MAY 5733	MAN DAN
		DIVERSITY	POWER	FAN	STATIC	TOTAL				MAX FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	n fai	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
SUPPLY	490.	1.00	0.028	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	490.	87.	0.015	0.385	0.	0.00	0.00	11.25	0.00	-8.51	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

				- , -						_		
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	1832.5	2.	0.0	00 21.5	13	0.742	-22.125	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH]		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	' FA	n fan	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	L (FRAC)	(FRAC)	
SUPPLY	718.	1.00	0.041	0.18	0.1	0.30	0.62	DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
I.5A South Perim Zn (G.S24P	718.	169.	0.028	0.431	0.	0.00	0.00	15.42	0.00	-13.61	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

KEIOKI DV	A Dybeem	Debign rara	MCCCID IOI	ESE (C	,, mil v	111			""	IN LIDE OF	MIIDD DODIN	3 11 1111
SYSTEM	ALTITUDE	FLOOR AREA	MAX		IR CAPACI	TY SE	NSIBLE	HEATING CAPACITY	COOLING EIR	HEATING EIR	HEAT PUMP	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	2928.0	4.	0.0	39.9	63	0.742	-41.100	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	[MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAN	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	L (FRAC)	(FRAC)	
SUPPLY	1333.	1.00	0.077	0.18	0.2	0.34	0.62	DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5B North Perim Zn (G.N4)T	1333.	270.	0.045	0.387	0.	0.00	0.00	27.61	0.00	-23.12	1.

REPORT- SV-A System Design Parameters for L5B (G.E5) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	984.0	1.	0.0	000 14.1	18	0.742	-14.518	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	r FA	an fai	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTRO	L (FRAC)	(FRAC)
SUPPLY	471.	1.00	0.027	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE Z	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) M	MULT
L5B East Perim Zn (G.E5) 1	471.	91.	0.015	0.470	0.	0.00	0.00	9.86	0.00	-9.52	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	765.0	1.	0.0	000 11.5	04	0.742	-11.830	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	AN FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)
SUPPLY	384.	1.00	0.022	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	384.	70.	0.012	0.443	0.	0.00	0.00	8.62	0.00	-7.42	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		J		- , -					-	-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	654.5	1.	0.0	000 6.0	96	0.742	-6.269	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	ī		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF		N FAI		
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				(FRAC)
	(,	(,	(,	(- /	(=== ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(,	(,			(,	(,
SUPPLY	203.	1.00	0.012	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	203.	60.	0.010	0.482	0.	0.00	0.00	4.21	0.00	-4.20	1.

REPORT- SV-A System Design Parameters for L5B (G.E8) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

				(-								
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	628.5	1.	0.0	000 5.6	97	0.742	-5.858	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	F FA	N FAI	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	L (FRAC)	(FRAC)	
SUPPLY	190.	1.00	0.011	0.18	0.1	0.25	0.62	2 DRAW-THR	tu speei	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE ZO	ONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) MU	JLT
L5B East Perim Zn (G.E8) 1	190.	58.	0.010	0.489	0.	0.00	0.00	3.94	0.00	-3.96	1.

REPORT- SV-A System Design Parameters for L5B (G.E9) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		5		,						-		
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	789.0	1.	0.0	9.3	67	0.742	-9.633	0.000	0.000	0.000	
		DIVIDDOTTIV	DOMED		OM3 MT G	moma r	MEG	•		M237 E237		
		DIVERSITY	POWER	FAN	STATIC	TOTAL				MAX FAN		
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	in fai	N RATIO	RATIO	
TYP	E (CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	L (FRAC)	(FRAC)	
SUPPLY	312.	1.00	0.018	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5B East Perim Zn (G.E9) 1	312.	73.	0.012	0.596	0.	0.00	0.00	6.55	0.00	-7.52	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

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SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE		AIR CAPACI	TY SEI	NSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)	
PVVT	1.001	3981.5	5.	0.0	000 43.5	03	0.742	-44.739	0.000	0.000	0.000	
FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)		FA				
SUPPLY	1451.	1.00	0.083	0.18	0.2	0.34	0.62	P DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5B South Perim Zn (G.S10P	1451.	367.	0.061	0.466	0.	0.00	0.00	31.15	0.00	-29.22	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A.	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	714.0	1.	0.0	00 10.8	19	0.742	-11.126	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	' FA	N FAN	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	(FRAC)	(FRAC)
SUPPLY	361.	1.00	0.021	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5B East Perim Zn (G.E19)T	361.	66.	0.011	0.498	0.	0.00	0.00	7.59	0.00	-7.63	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	A:	IR CAPACI'	ry sei	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2229.8	3.	0.00	00 18.3	39	0.742	-18.858	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAN	RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)
SUPPLY	612.	1.00	0.035	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEL	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6A East Perim Zn (G.E13)T	612.	205.	0.034	0.572	0.	0.00	0.00	12.67	0.00	-14.32	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	731.2	1.	0.0	000 13.1	44	0.742	-13.515	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	r FA	AN FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	(FRAC)	(FRAC)
SUPPLY	438.	1.00	0.025	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEI	1.00	0.30
					**-						

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	438.	67.	0.011	0.385	0.	0.00	0.00	9.93	0.00	-7.58	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

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		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	. A	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	1404.0	2.	0.0	00 23.0	10	0.742	-23.663	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH]		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	' FA	n fai	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)	
SUPPLY	768.	1.00	0.044	0.18	0.1	0.30	0.62	DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6A North Perim Zn (G.N18P	768.	129.	0.022	0.351	0.	0.00	0.00	16.14	0.00	-12.31	1.

REPORT- SV-A System Design Parameters for L6A (G.W21) APT4 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	_
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SEN	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	2478.2	3.	0.0	00 29.0	04	0.742	-29.829	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA:	n fan	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)	
SUPPLY	968.	1.00	0.056	0.18	0.1	0.30	0.62	DRAW-THR	U SPEED	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6A West Perim Zn (G.W21)T	968.	228.	0.038	0.448	0.	0.00	0.00	21.23	0.00	-18.87	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

	-	-									
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	944.2	1.	0.0	000 14.8	95	0.742	-15.317	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	r FA	AN FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	(FRAC)	(FRAC)
SUPPLY	497.	1.00	0.029	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6A SW Perim Zn (G.SW22) 1	497.	87.	0.015	0.383	0.	0.00	0.00	11.42	0.00	-8.58	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1832.5	2.	0.0	000 21.4	26	0.742	-22.035	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	1		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	· FA	AN FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	L (FRAC)	(FRAC)
SUPPLY	715.	1.00	0.041	0.18	0.1	0.30	0.62	DRAW-THR	RU SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6A South Perim Zn (G.S24P	715.	169.	0.028	0.451	0.	0.00	0.00	15.00	0.00	-14.02	1.

REPORT- SV-A System Design Parameters for L6B (G.N4) APT4 VRF

WEATHER FILE- SEATTLE BOEING FI WA

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		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	P	AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	2928.0	4.	0.0	000 40.8	36	0.742	-41.998	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	· FA	AN FAI	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	L (FRAC)	(FRAC)	
SUPPLY	1362.	1.00	0.078	0.18	0.2	0.34	0.62	DRAW-THE	RU SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6B North Perim Zn (G.N4)T	1362.	270.	0.045	0.382	0.	0.00	0.00	28.22	0.00	-23.42	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

			FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYS'	TEM	ALTITUDE	AREA	MAX	. A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
T	YPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT		1.001	984.0	1.	0.0	00 14.4	04	0.742	-14.813	0.000	0.000	0.000
			DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
	FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAI	N RATIO	RATIO
	TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	(FRAC)	(FRAC)
SUP	PLY	481.	1.00	0.028	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	481.	91.	0.015	0.464	0.	0.00	0.00	10.07	0.00	-9.62	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

				(-								
SYSTEM	ALTITUDE	FLOOR AREA	MAX	OUTSI	IDE COOLI AIR CAPACI		NSIBLE	HEATING CAPACITY	COOLING EIR	HEATING EIR	HEAT PUMP	
TYPE	FACTOR	(SOFT)	PEOPLE				(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
1111	THOTOR	(5011)	1 101 11	1011	(10)	,	(DIIIC)	(RB10/III)	(B10/B10)	(DIO/DIO)	(RDIO/IIIC)	
PVVT	1.001	765.0	1.	0.0	000 11.7	38	0.742	-12.071	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	F FA	N FAI	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	(FRAC)	(FRAC)	
SUPPLY	392.	1.00	0.022	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30	
SUPPLI	392.	1.00	0.022	0.10	0.1	0.25	0.62	Z DRAW-IHR	U SPEEL	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6B West Perim Zn (G.W6) 1	392.	70.	0.012	0.434	0.	0.00	0.00	8.80	0.00	-7.45	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

AT PUMP
PP-HEAT
BTU/HR)
0.000
MIN FAN
RATIO
(FRAC)
0.20
0.30
MIN R (F

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	210.	60.	0.010	0.467	0.	0.00	0.00	4.75	0.00	-4.23	1.

REPORT- SV-A System Design Parameters for L6B (G.E8) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		5							-	-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	628.5	1.	0.0	000 5.7	36	0.742	-5.899	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	ī		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF		N FAI		
TYPE		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				(FRAC)
1111	(0111)	(11410)	(2017)	(- /	(111 /1111111)	(11410)	(11010)	1 2110211211		(11410)	(11410)
SUPPLY	191.	1.00	0.011	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
I6B East Perim Zn (G.E8) 1	191.	58.	0.010	0.486	0.	0.00	0.00	3.98	0.00	-3.97	1.

REPORT- SV-A System Design Parameters for L6B (G.E9) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	789.0	1.	0.0	000 10.0	17	0.742	-10.301	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	AN FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
SUPPLY	334.	1.00	0.019	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE 2	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) N	MULT
L6B East Perim Zn (G.E9) 1	334.	73.	0.012	0.557	0.	0.00	0.00	7.07	0.00	-7.67	1.

REPORT- SV-A System Design Parameters for L6B (G.S10) APT7 VRF

WEATHER FILE- SEATTLE BOEING FI WA

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SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE		AIR CAPACI	TY SEI	NSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)	
PVVT	1.001	3981.5	5.	0.0	000 43.5	56	0.742	-44.795	0.000	0.000	0.000	
FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FA				
SUPPLY	1453.	1.00	0.083	0.18	0.2	0.34	0.62	P DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	I	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE ZO	ONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) MU	JLT
L6B South Perim Zn (G.S10P	1453.	367.	0.061	0.466	0.	0.00	0.00	31.20	0.00	-29.23	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

	-								-	-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	659.0	1.	0.00	00 11.1	19	0.742	-11.434	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	r		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF		N FAN		
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)
SUPPLY	371.	1.00	0.021	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
I.6B East Perim Zn (G.E19)T	371.	61.	0.010	0.482	0.	0.00	0.00	7.84	0.00	-7.65	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	A:	IR CAPACI	ry sei	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/HI	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	956.8	1.	0.00	00 8.4	14	0.742	-8.653	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	1		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	' FA	N FAN	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROL	(FRAC)	(FRAC)
SUPPLY	281.	1.00	0.016	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEL	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	281.	88.	0.015	0.552	0.	0.00	0.00	5.82	0.00	-6.40	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	. A	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	999.0	1.	0.0	00 11.9	55	0.742	-12.294	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	r		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF			N FAI			
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)	
SUPPLY	399.	1.00	0.023	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
I.7A West Perim Zn (G.W18)T	399.	92.	0.015	0.449	0.	0.00	0.00	8.84	0.00	-7.78	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		J		,	,	-			-	-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	891.8	1.	0.0	13.1	69	0.742	-13.543	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	T		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	N FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
SUPPLY	439.	1.00	0.025	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE 2	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) 1	MULT
I/7A SW Perim Zn (G.SW19) 1	439.	82.	0.014	0.413	0.	0.00	0.00	9.22	0.00	-8.03	1.

REPORT- SV-A System Design Parameters for L7A (G.NW21) AMN VRF

WEATHER FILE- SEATTLE BOEING FI WA

	=	_									
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	A 2	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	778.0	0.	0.0	00 18.2	34	0.742	-18.768	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	r		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF			N FAN		
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)
SUPPLY	608.	1.00	0.035	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
I.7A NW Perim Zn (G.NW21)	608.	0.	0.000	0.182	0.	0.00	0.00	12.72	0.00	-5.42	1.

REPORT- SV-A System Design Parameters for L7A (G.NE22) AMN VRF

WEATHER FILE- SEATTLE BOEING FI WA

		J		, -	,						
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	829.5	0.	0.0	15.6	34	0.742	-16.085	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	r		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF		N FAN		
r AIN	CAPACITY	FACTOR	DEMAND	DELIA-I	PRESSURE	EFF	EFF	r A	IN PAP	N RAIIO	RAIIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	L (FRAC)	(FRAC)
SUPPLY	522.	1.00	0.030	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30
SUPPLI	522.	1.00	0.030	0.10	0.1	0.25	0.62	DRAW-IHR	O SPEEL	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7A NE Perim Zn (G.NE22)	522.	0.	0.000	0.228	0.	0.00	0.00	10.92	0.00	-5.72	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

	FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
1.001	1282.5	2.	0.0	00 15.6	57	0.742	-16.103	0.000	0.000	0.000	
	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN	
CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAN	N RATIO	RATIO	
(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)	
522.	1.00	0.030	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEL	1.00	0.30	
	FACTOR 1.001 CAPACITY (CFM)	ALTITUDE AREA FACTOR (SQFT) 1.001 1282.5 DIVERSITY FACTOR (CFM) (FRAC)	ALTITUDE AREA MAX FACTOR (SQFT) PEOPLE 1.001 1282.5 2. DIVERSITY POWER CAPACITY FACTOR DEMAND (KW)	ALTITUDE AREA MAX A. FACTOR (SQFT) PEOPLE RAT: 1.001 1282.5 2. 0.00 DIVERSITY POWER FAN CAPACITY FACTOR DEMAND DELTA-T (CFM) (FRAC) (KW) (F)	ALTITUDE AREA MAX AIR CAPACT FACTOR (SQFT) PEOPLE RATIO (KBTU/H 1.001 1282.5 2. 0.000 15.6 DIVERSITY POWER FAN STATIC CAPACTY FACTOR DEMAND DELTA-T PRESSURE (CFM) (FRAC) (KW) (F) (IN-WATER)	ALTITUDE AREA MAX AIR CAPACITY SELECTION (SQFT) PEOPLE RATIO (KETU/HR) 1.001 1282.5 2. 0.000 15.657 DIVERSITY POWER FAN STATIC TOTAL CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF (CFM) (FRAC) (KW) (F) (IN-WATER) (FRAC)	ALTITUDE AREA MAX AIR CAPACITY SENSIBLE FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) 1.001 1282.5 2. 0.000 15.657 0.742 DIVERSITY POWER FAN STATIC TOTAL MECH CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF (CFM) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC)	ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) 1.001 1282.5 2. 0.000 15.657 0.742 -16.103 DIVERSITY POWER FAN STATIC TOTAL MECH CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FACTOR (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMEN	ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) 1.001 1282.5 2. 0.000 15.657 0.742 -16.103 0.000 DIVERSITY POWER FAN STATIC TOTAL MECH CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FAN FAN (CFM) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL	ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR ER FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) 1.001 1282.5 2. 0.000 15.657 0.742 -16.103 0.000 0.000 DIVERSITY POWER FAN STATIC TOTAL MECH MAX FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FAN FAN RATIO (CFM) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC)	ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY ER EIR SUPP-HEAT FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) (KBTU/HR) 1.001 1282.5 2. 0.000 15.657 0.742 -16.103 0.000 0.000 0.000 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)

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7A SSE Perim Zn (G.SSE23P	522.	118.	0.020	0.482	0.	0.00	0.00	11.22	0.00	-10.78	1.

REPORT- SV-A System Design Parameters for L7B (G.N4) APT4 VRF

WEATHER FILE- SEATTLE BOEING FI WA

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		FLOOR		OUTSI	IDE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	. A	AIR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	2668.0	3.	0.0	000 42.4	73	0.742	-43.676	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	F FA	N FAI	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)) PLACEMEN	IT CONTROI	L (FRAC)	(FRAC)	
SUPPLY	1417.	1.00	0.081	0.18	0.2	0.34	0.62	2 DRAW-THR	tu speei	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION		HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7B North Perim Zn (G.N4)T	1417.	246.	0.041	0.369	0.	0.00	0.00	30.18	0.00	-23.70	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	919.0	1.	0.0	15.5	20	0.742	-15.960	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	F FA	N FAI	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	L (FRAC)	(FRAC)	
SUPPLY	518.	1.00	0.030	0.18	0.1	0.25	0.62	2 DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	518.	85.	0.014	0.447	0.	0.00	0.00	10.95	0.00	-10.08	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

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		FLOOR		OUTSI				HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	. P	AIR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	765.0	1.	0.0	13.2	87	0.742	-13.664	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	r FA	N FAI	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	L (FRAC)	(FRAC)	
SUPPLY	443.	1.00	0.025	0.18	0.1	0.25	0.62	2 DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE 2	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) N	MULT
L7B West Perim Zn (G.W6) 1	443.	70.	0.012	0.437	0.	0.00	0.00	9.96	0.00	-8.48	1.

REPORT- SV-A System Design Parameters for L7B (G.W7) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

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		FLOOR		OUTSI				HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	. I	AIR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	654.5	1.	0.0	7.9	39	0.742	-8.164	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	F FA	N FAI	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)) PLACEMEN	T CONTROI	L (FRAC)	(FRAC)	
SUPPLY	265.	1.00	0.015	0.18	0.1	0.25	0.62	2 DRAW-THR	U SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7B West Perim Zn (G.W7) 1	265.	60.	0.010	0.475	0.	0.00	0.00	5.66	0.00	-5.40	1.

REPORT- SV-A System Design Parameters for L7B (G.E8) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

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		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	A A	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	628.5	1.	0.0	00 7.0	41	0.742	-7.240	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	r		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF			N FAN		
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	(FRAC)	(FRAC)
SUPPLY	235.	1.00	0.013	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE 2	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) N	MULT
L7B East Perim Zn (G.E8) 1	235.	58.	0.010	0.508	0.	0.00	0.00	5.03	0.00	-5.05	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	789.0	1.	0.00	00 13.3	27	0.742	-13.705	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAN	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN'	T CONTROL	(FRAC)	(FRAC)
SUPPLY	445.	1.00	0.026	0.18	0.1	0.25	0.62	DRAW-THR	U SPEED	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	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	445.	73.	0.012	0.467	0.	0.00	0.00	9.42	0.00	-8.95	1.

REPORT- SV-A System Design Parameters for L7B (G.SSW10) APT7 VRF

WEATHER FILE- SEATTLE BOEING FI WA

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		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	A	AIR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PVVT	1.001	3981.5	5.	0.0	000 51.1	38	0.742	-52.592	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	F FA	AN FAI	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	NT CONTROL	L (FRAC)	(FRAC)	
SUPPLY	1706.	1.00	0.098	0.18	0.2	0.37	0.62	2 DRAW-THE	RU SPEEI	1.00	0.30	

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

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

*** THE NUMBER OF VRF BRANCH LOOPS WAS SET TO: 2 TO SATISFY THE MAX-CAP/UNIT LIMIT OF 30000.(BTU/HR)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	I	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE Z	ONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) M	IULT
L7B SSW Perim Zn (G.SSW10P	1706.	367.	0.061	0.484	0.	0.00	0.00	36.91	0.00	-35.29	1.

REPORT- SV-A System Design Parameters for L8A (G.E3) APT2 VRF

WEATHER FILE- SEATTLE BOEING FI WA

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		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	956.8	1.	0.0	000 9.5	74	0.742	-9.846	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	F.F.F	AN FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	NT CONTROL	(FRAC)	(FRAC)
SUPPLY	319.	1.00	0.018	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L8A East Perim Zn (G.E3) 2	319.	88.	0.015	0.572	0.	0.00	0.00	6.72	0.00	-7.47	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

		J		- , -						-	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX		AIR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	CIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	891.0	1.	0.0	12.4	07	0.742	-12.760	0.000	0.000	0.000
		DIVERSITY	DOMED	T7337	GM3 MT G	moma r	MEGN	•		MAN 57.17	
			POWER	FAN	STATIC	TOTAL				MAX FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	in fai	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROI	L (FRAC)	(FRAC)
SUPPLY	414.	1.00	0.024	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	XTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L8A West Perim Zn (G.W8) 2	414.	82.	0.014	0.453	0.	0.00	0.00	9.05	0.00	-8.14	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

				- , -	,					_	
		FLOOR		OUTSI	DE COOLI	ng		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SEN	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	688.5	1.	0.0	00 11.5	17	0.742	-11.845	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN'	T CONTROL	(FRAC)	(FRAC)
SUPPLY	384.	1.00	0.022	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE 2	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) 1	MULT
I.8A SW Perim Zn (G.SW9) A	384.	63.	0.011	0.416	0.	0.00	0.00	8.08	0.00	-7.05	1.

REPORT- SV-A System Design Parameters for L8A (G.NW11) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	TIO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	776.5	1.	0.0	000 16.5	70	0.742	-17.041	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA FA	AN FAI	N RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	L (FRAC)	(FRAC)
SUPPLY	553.	1.00	0.032	0.18	0.1	0.25	0.62	DRAW-THE	RU SPEEI	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	H	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L8A NW Perim Zn (G.NW11) 1	553.	72.	0.012	0.342	0.	0.00	0.00	12.10	0.00	-8.67	1.

REPORT- SV-A System Design Parameters for L8A (G.NE12) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

FLOOR OUTSIDE COOLING HEATING COOLING HEAT	ING HEAT PUMP
SYSTEM ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR	EIR SUPP-HEAT
TYPE FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BT	TU) (KBTU/HR)
PVVT 1.001 948.8 1. 0.000 16.138 0.742 -16.597 0.000 0.0	0.000
DIVERSITY POWER FAN STATIC TOTAL MECH MAX	FAN MIN FAN
	ATIO RATIO
	AIIO RAIIO
TYPE (CFM) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FI	RAC) (FRAC)
SUPPLY 538. 1.00 0.031 0.18 0.1 0.25 0.62 DRAW-THRU SPEED :	1 00 0 20
SUPPLY 538. 1.00 0.031 0.18 0.1 0.25 0.62 DRAW-THRU SPEED	1.00 0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L8A NE Perim Zn (G.NE12) 1	538.	87.	0.015	0.393	0.	0.00	0.00	11.20	0.00	-9.46	1.

REPORT- SV-A System Design Parameters for L8A (G.S13) APT1 VRF

WEATHER FILE- SEATTLE BOEING FI WA

		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI'	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	540.0	1.	0.0	00 7.4	52	0.742	-7.664	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH]		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	' FA	N FAN	RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	IT CONTROL	(FRAC)	(FRAC)
SUPPLY	249.	1.00	0.014	0.18	0.1	0.25	0.62	DRAW-THR	U SPEEL	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L8A South Perim Zn (G.S13P	249.	50.	0.008	0.436	0.	0.00	0.00	5.24	0.00	-4.74	1.

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

WEATHER FILE- SEATTLE BOEING FI WA

				- , -	,	-			-	_	
		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP
SYSTEM	ALTITUDE	AREA	MAX	. A:	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	540.0	1.	0.0	00 7.8	80	0.742	-8.104	0.000	0.000	0.000
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	,		MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF		n fan		
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN'	T CONTROL	(FRAC)	(FRAC)
SUPPLY	263.	1.00	0.015	0.18	0.1	0.25	0.62	DRAW-THR	U SPEED	1.00	0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	E	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
	0.60	F.0	0 000	0 501		0.00	0.00	F 66	0.00	F F0	1
L8A SE Perim Zn (G.SE14) 1	263.	50.	0.008	0.501	0.	0.00	0.00	5.66	0.00	-5.59	⊥.

REPORT- SV-A System Design Parameters for RTU-1 (Corridor DOAS)

REPORT- SV	/-A System	Design Para	meters for	RTU-1 ((Corridor D	DAS)		WEATHER FILE- SEATTLE BOEING FI WA				
		FLOOR		OUTSII	DE COOLII	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	A)	IR CAPACI	ry sei	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RATI	O (KBTU/H	₹)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
PSZ	1.001 16630.2		0.	0.972 0.000		00	0.000	0.000	0.251	0.274	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	F FA	N FAN	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F) ((IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	L (FRAC)	(FRAC)	
SUPPLY	2802.	1.00	3.457	3.87	5.7	0.54	0.62	2 DRAW-THR	U CONSTANT	τ 1.00	0.30	

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

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	1	EXTRACTION	HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1A Core Zn (G.C21) COR	9.	0.	0.000	1.000	9.	0.00	0.00	0.02	0.00	-0.13	1.
P1B Core Zn (B.C12) COR	78.	0.	0.000	1.000	75.	0.00	0.00	0.21	0.00	-1.54	1.
L1A Core Zn (G.C22) COR	41.	0.	0.000	1.000	40.	0.00	0.00	0.14	0.00	-0.66	1.
L1B Core Zn (G.C4) COR	146.	0.	0.000	1.000	142.	0.00	0.00	1.11	0.00	-1.81	1.
L2A Core Zn (G.C26) COR	172.	0.	0.000	1.000	167.	0.00	0.00	1.66	0.00	-1.96	1.
L2B Core Zn (G.C3) COR	193.	0.	0.000	1.000	187.	0.00	0.00	2.95	0.00	-1.74	1.
L3A Core Zn (G.C23) COR	115.	0.	0.000	1.000	112.	0.00	0.00	1.72	0.00	-0.96	1.
L3B North Perim Zn (G.N3)R	295.	0.	0.000	1.000	286.	0.00	0.00	3.64	0.00	-2.05	1.
L4A Core Zn (G.C23) COR	115.	0.	0.000	1.000	112.	0.00	0.00	1.73	0.00	-0.95	1.
L4B North Perim Zn (G.N3)R	295.	0.	0.000	1.000	286.	0.00	0.00	3.70	0.00	-1.97	1.
L5A Core Zn (G.C23) COR	115.	0.	0.000	1.000	112.	0.00	0.00	1.73	0.00	-0.95	1.
L5B North Perim Zn (G.N3)R	295.	0.	0.000	1.000	286.	0.00	0.00	3.70	0.00	-1.92	1.
L6A Core Zn (G.C23) COR	115.	0.	0.000	1.000	112.	0.00	0.00	1.66	0.00	-0.92	1.
L6B North Perim Zn (G.N3)R	295.	0.	0.000	1.000	286.	0.00	0.00	3.70	0.00	-1.83	1.
L7A Core Zn (G.C20) COR	105.	0.	0.000	1.000	102.	0.00	0.00	1.41	0.00	-0.54	1.
L7B North Perim Zn (G.N3)R	295.	0.	0.000	1.000	286.	0.00	0.00	2.93	0.00	-1.49	1.
L8A Core Zn (G.C10) COR	126.	0.	0.000	1.000	123.	0.00	0.00	1.44	0.00	-0.78	1.

REPORT- SV-A System Design Parameters for Freeze Protect

REPORT- SV	V-A System D	esign Parame	eters for	Freeze Pr	otect			WEATHER FILE- SEATTLE BOEING FI WA				
	FLOOR				COOLING		HEATING	COOLING	HEATING	HEAT PUMP		
SYSTEM	ALTITUDE	AREA	MAX	AIR	CAPACITY	SENSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT		
TYPE	FACTOR	(SQFT)	PEOPLE	RATIO	(KBTU/HR)	(SHR)	(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		

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	SENSIBLE	EXTRACTION RATE	HEATING CAPACITY	ADDITION RATE ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) MULT
L2B South Perim Zn (G.S27E	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 1. (BASEBOARDS)
L6A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	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	0.00	0.00 1.
L2A Core Zn (G.C16) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) 0.00 1.
L3A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) 0.00 1.
L4A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) 0.00 1.
L5A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	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	0.00	(BASEBOARDS) 0.00 1.
L7A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) 0.00 1.
L8A Core Zn (G.C5) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) 0.00 1.
P2A NNW Perim Zn (B.NNW13K	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) -25.15 1.
P2B NW Perim Zn (B.NW6) X	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	-25.15 0.00	(BASEBOARDS) 0.00 1.
P2B South Perim Zn (B.S10K	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) -232.17 1.
P2B NNE Perim Zn (B.NNE12K	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) -60.45 1.
P1B South Perim Zn (B.S6)G	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	-60.45 0.00	(BASEBOARDS) -78.89 1.
P1B NNE Perim Zn (B.NNE9)G	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	-78.89 0.00	(BASEBOARDS) -49.23 1.
L1A East Perim Zn (G.E18)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	-49.23 0.00	(BASEBOARDS) -0.13 1.
L1A Core Zn (G.C20) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	-0.13 0.00	(BASEBOARDS) -0.56 1.
L2A East Perim Zn (G.E13)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	-0.56 0.00	(BASEBOARDS) -0.44 1.
L2A Core Zn (G.C15) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	-0.44 0.00	(BASEBOARDS) 0.00 1.
L3A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) -0.62 1.
L3A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	-0.62 0.00	(BASEBOARDS) 0.00 1.
L4A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.59 1.
L4A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) 0.00 1.
L5A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) -0.60 1.
L5A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) 0.00 1.
L6A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) -0.60 1.
L6A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) 0.00 1.
L7A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) -0.60 1.
L7A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) 0.00 1.
L8A East Perim Zn (G.E2) F	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) -0.66 1.
L8A Core Zn (G.C4) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) 0.00 1.
P2A Core Zn (B.C1) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) 0.00 1.
P2A Core Zn (B.C2) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) 0.00 1.
P2B Core Zn (B.C4) MECH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	(BASEBOARDS) 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.
PlA 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 OFFICE DOAS ERV

REPORT- SV-A System Design Parameters fo				OFFICE	DOAS ERV		WEATHER FILE-					G FI WA
	FLOOR			OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI	TY SEI	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
DOAS	1.001 4228.0 119.		1.0	1.000 0.000		0.000 -15.88		0.000 0.0		0.000		
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I.		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FA	N FAN	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROI	(FRAC)	(FRAC)	
SUPPLY	1236.	0.00	1.920	4.86	7.1	0.54	0.62	DRAW-THR	U CONSTANT	τ 1.10	0.10	

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

	OA	ATTACHED TO	
SYSTEM NAME	MIXED AIR	ZONE	
ZONE NAME	(CFM)	(CFM)	MULT
L1A (G.S17) LOB VRF			
L1A South Perim Zn (G.S17) LOB	0.	257.	1.
L1B (G.SSW13) CONF VRF			
L1B SSW Perim Zn (G.SSW13) CONF	0.	73.	1.
L1B (G.C14) OFF VRF			
L1B Core Zn (G.C14) OFF	0.	22.	1.
L2A (G.C21) MAIL VRF			
L2A Core Zn (G.C21) MAIL	0.	0.	1.
L2B (G.SSW12) LOB VRF			
L2B SSW Perim Zn (G.SSW12) LOB	0.	252.	1.
TOTAL:	0.	605.	

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		FLOOR		OUTSI	DE COOLI	NG		HEATING	COOLING	HEATING	HEAT PUMP	
SYSTEM	ALTITUDE	AREA	MAX	A	IR CAPACI	TY SE	NSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT	
TYPE	FACTOR	(SQFT)	PEOPLE	RAT	IO (KBTU/H	R)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)	
DOAS	1.001	2287.5	76.	1.0	0.0	00	0.000	-354.694	0.000	0.000	0.000	
		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	I		MAX FAN	MIN FAN	
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	' FA	N FAI	N RATIO	RATIO	
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMEN	T CONTROL	L (FRAC)	(FRAC)	
SUPPLY	8006.	0.00	5.480	2.15	3.2	0.55	0.62	DRAW-THR	U SPEEI	1.10	0.10	

		OA	ATTACHED TO	
SYSTEM NAME		MIXED AIR		MIII M
ZONE NAME		(CFM)	(CFM)	MULT
L2A (G.SW20) RST VRF L2A SW Perim Zn (G.S	W20) RST	0.	8006.	1.
	TOTAL:	0.	8006.	

REP

REPORT- SV-A System Design Parameters for				FN-2-1 WEATHER FILE- SEATTLE BOEING FI						G FI WA		
SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACIT (KBTU/HR	Y SEN	ISIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)	
PSZ	1.001	475.0	0.	0.181	0.00	0	0.000	-16.536	0.251	1.000	0.000	
FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)		STATIC PRESSURE I-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)					

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

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	1	EXTRACTION	HEATING	ADDITION
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) MULT
P2A Core Zn (B.C3) COR	60.	0.	0.000	1.000	39.	0.00	0.00	0.46	0.00	-2.42 1.
										(BASEBOARDS)
P1A Core Zn (B.C3) COR	370.	0.	0.000	1.000	39.	0.00	0.00	2.81	0.00	-5.74 1.
									-4.60	(BASEBOARDS)

 SUPPLY
 430.
 1.00
 0.060
 0.43
 0.4
 0.30
 0.62
 DRAW-THRU
 CONSTANT
 1.00
 0.30