	LIGHTS	TASK LIGHTS	MISC EQUIP	SPACE HEATING	SPACE COOLING	HEAT REJECT	PUMPS & AUX	VENT FANS	REFRIG DISPLAY	HT PUMP SUPPLEM	DOMEST HOT WTR	EXT USAGE	TOTAL
EM1- ELECTRI	CITY												
MBTU	153.8	0.0	2156.0	400.8	162.8	0.0	41.6	79.9	0.0	0.0	0.0	0.0	2995.3
EM2- ELECTRI	CITY												
MBTU	425.9	45.1	116.6	44.9	1.1	0.0	433.2	410.6	59.5	0.0	522.9	35.8	2095.5
EM3- ELECTRI	CITY												
MBTU	33.7	0.0	188.3	151.6	9.6	0.0	1.6	40.0	0.0	0.0	52.2	0.0	477.1
FM1 NATURAL	-GAS												
MBTU	0.0	0.0	188.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	188.3
	======	======	======	======	======	======	======		======	======	======	======	
MBTU	613.4	45.1	2650.0	597.3	173.5	0.0	476.4	530.6	59.5	0.0	575.1	35.8	5756.2

TOTAL SITE ENERGY 5756.16 MBTU 33.6 KBTU/SQFT-YR GROSS-AREA 33.6 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 16891.90 MBTU 98.5 KBTU/SQFT-YR GROSS-AREA 98.5 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 2.10 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.08 = 161 = 23 HOURS ANY ZONE ABOVE COOLING THROTTLING RANGE HOURS ANY ZONE BELOW HEATING THROTTLING RANGE

NOTE: ENERGY IS APPORTIONED HOURLY TO ALL END-USE CATEGORIES.

	LIGHTS	TASK LIGHTS	MISC EQUIP	SPACE HEATING	SPACE COOLING	HEAT REJECT	PUMPS & AUX	VENT FANS	REFRIG DISPLAY	HT PUMP SUPPLEM	DOMEST HOT WTR	EXT USAGE	TOTAL
EM1- ELECT KWH	FRICITY 45074.	0.	631811.	117440.	47691.	0.	12185.	23421.	0.	0.	0.	0.	877617.
EM2- ELECT	TRICITY 124779.	13200.	34166.	13144.	319.	0.	126934.	120308.	17441.	0.	153209.	10481.	613979.
EM3- ELECT	TRICITY 9883.	0.	55183.	44433.	2817.	0.	460.	11723.	0.	0.	15291.	0.	139790.
FM1 NATUR	RAL-GAS	0.	1002	0.	0.	0.	0.	0.	0.	0.	0.	0.	1883.
THERM	0.	0.	1883.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1883.
	TOTAL ELECTI		1631386. 1883.		9.513 I 0.011 T			ROSS-AREA ROSS-AREA			/SQFT-YR I		

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 2.10 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.08 HOURS ANY ZONE ABOVE COOLING THROTTLING RANGE = 161 HOURS ANY ZONE BELOW HEATING THROTTLING RANGE = 23

NOTE: ENERGY IS APPORTIONED HOURLY TO ALL END-USE CATEGORIES.

	- AIR FLOW -		PO	WER CONSUMPT	ION	
OUTDOOR	EXHAUST	PURGE	OA FAN	EXH FAN	HT EXCH	PREHEAT
(CFM )	(CFM )	(CFM )	(KW)	(KW)	(KW)	(KBTU/HR)
2800.	2000.	0.	0.000	0.000	0.000	0.

		SENS	TBLE	TO	ГАТ,	EXCESS S	SENSIBLE	POWER -	PREI	HEAT	HC	URS -
		HEATING	COOLING	HEATING	COOLING	HEATING	COOLING	FANS&HX	HEATING	ELECTRIC		COOL
	SUM	(MBTU)	(MBTU)	(MBTU)	(MBTU)	(MBTU)	(MBTU)	(KWH)	(MBTU)	(KWH)		
MON	PEAK	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	(KW)	(KBTU/HR)	(KW)		
JAN	SUM	-41.125	0.000	-41.129	0.000	-0.783	0.000	0.000	0.000	0.000	744	0
OIL.	PEAK	-96.027	0.000	-96.338	0.000	-49.879	0.000	0.000	0.000	0.000	,	Ü
D	AY/HR	4/24	0/ 0	4/24	0/ 0	30/ 2	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-35.083	0.000	-35.100	0.000	-1.655	0.000	0.000	0.000	0.000	672	0
1 111	PEAK	-80.891	0.000	-82.756	0.000	-56.521	0.000	0.000	0.000	0.000	072	0
D	AY/HR	27/ 7	0/ 0	27/ 7	0/ 0	23/ 6	0/0	0/ 0	0/ 0	0/ 0		
	a	22 550	0.000	22 516	0.000	10 000	0.000	0.000	0.000	0.000		_
MAR	SUM	-33.750	0.030	-33.716	0.022	-12.983	0.030	0.000	0.000	0.000	739	5
-	PEAK	-74.439	9.937	-78.578	7.870	-64.658	9.937	0.000	0.000	0.000		
L	AY/HR	2/ 5	29/15	2/ 5	29/16	31/ 5	29/15	0/ 0	0/ 0	0/ 0		
APR	SUM	-30.309	0.000	-30.270	0.000	-27.106	0.000	0.000	0.000	0.000	720	0
	PEAK	-71.464	0.000	-73.122	0.000	-69.360	0.000	0.000	0.000	0.000		
D	AY/HR	24/ 5	0/ 0	24/ 5	0/ 0	23/ 1	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-27.947	0.000	-27.938	0.000	-27.947	0.000	0.000	0.000	0.000	744	0
	PEAK	-61.401	0.000	-73.278	0.000	-61.401	0.000	0.000	0.000	0.000		
Γ	AY/HR	6/ 6	0/ 0	9/17	0/ 0	6/ 6	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-23.044	0.000	-23.014	0.000	-22.341	0.000	0.000	0.000	0.000	720	0
0 021	PEAK	-49.778	0.000	-52.703	0.000	-49.778	0.000	0.000	0.000	0.000	,20	Ü
Г	AY/HR	12/ 2	0/ 0	12/ 3	0/ 0	12/ 2	0/0	0/ 0	0/ 0	0/ 0		
		,		,			.,					
JUL	SUM	-18.019	0.401	-18.059	0.383	-12.119	0.000	0.000	0.000	0.000	683	61
	PEAK	-49.720	21.202	-51.171	20.903	-49.720	0.000	0.000	0.000	0.000		
Ε	AY/HR	31/ 6	23/17	1/ 7	23/17	31/ 6	0/ 0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-18.441	0.227	-18.296	0.146	-11.411	0.000	0.000	0.000	0.000	710	34
	PEAK	-46.616	20.691	-51.831	16.913	-46.616	0.000	0.000	0.000	0.000		
D	AY/HR	1/ 5	10/18	22/24	10/16	1/ 5	0/ 0	0/ 0	0/ 0	0/ 0		
SEP	SUM	-23.214	0.076	-23.214	0.039	-21.970	0.005	0.000	0.000	0.000	700	20
	PEAK	-60.704	7.941	-71.117	10.251	-60.704	3.241	0.000	0.000	0.000		
D	AY/HR	28/ 7	19/16	19/ 4	19/12	28/ 7	8/16	0/ 0	0/ 0	0/ 0		
OCT	SUM	-30.458	0.019	-30.486	0.000	-30.458	0.019	0.000	0.000	0.000	740	4
	PEAK	-67.697	7.942	-74.527	0.000	-67.697	7.943	0.000	0.000	0.000		
D	AY/HR	22/ 7	6/15	30/ 4	0/ 0	22/ 7	6/15	0/ 0	0/ 0	0/ 0		
NOV	SUM	-33.456	0.000	-33.468	0.000	-17.098	0.000	0.000	0.000	0.000	720	0
1101	PEAK	-67.684	0.000	-70.599	0.000	-63.696	0.000	0.000	0.000	0.000	, 20	U
г	AY/HR	5/ 2	0/0	27/ 5	0/0	1/ 6	0/0	0/0	0/0	0/0		
		3, 2	3, 0	2., 3	3, 0	1, 0	٥, ٥	٥, ٥	3, 0	3, 0		

POTTECT	3 65	Residential	Multi	Family	Tem

DOE-2.3-50h 1/26/2023 9:30:35 BDL RUN 9

REPORT- ER	V Energy Rec	overy Summar	y for: RT	U−1 (Corrido	WEATHER FILE- SEATTLE BOEING FI WA							
						(CONTINUED)						
DEG GIM	20 620	0.000	-39.650	0.000	-2.131	0.000	0.000	0.000	0.000	744	0	
DEC SUM	-39.620	0.000	-39.650	0.000	-2.131	0.000	0.000	0.000	0.000	744	0	
PEAK	-77.653	0.000	-84.295	0.000	-52.368	0.000	0.000	0.000	0.000			
DAY/HR	24/22	0/ 0	24/22	0/ 0	16/23	0/ 0	0/ 0	0/ 0	0/ 0			
										====	====	
YR SUM	-354.466	0.753	-354.339	0.590	-188.001	0.054	0.000	0.000	0.000	8636	124	
PEAK	-96.027	21.202	-96.338	20.903	-69.360	9.937	0.000	0.000	0.000			
MON/DAY	1/ 4	7/23	1/ 4	7/23	4/23	3/29	0/ 0	0/ 0	0/ 0			

		EXHAUST	OUTLET		 MAKE-UP	OOLLEL		CONDENSATI
	1	WET	FROST	ΓED	WET	FROST	ΓED	CONTROL
ANNUAL HOURS:		0		0	0		0	(

	- AIR FLOW		PC	WER CONSUMPT	ION	
OUTDOOR	EXHAUST	PURGE	OA FAN	EXH FAN	HT EXCH	PREHEAT
(CFM )	(CFM )	(CFM )	(KW)	(KW)	(KW)	(KBTU/HR)

845. 845. 0. 0.000 0.000 0.000 0.

		SENS	IBLE	TO	ΓAL	EXCESS	SENSIBLE	POWER -	PREI	HEAT	HO	URS -
		HEATING	COOLING	HEATING	COOLING	HEATING	COOLING	FANS&HX	HEATING	ELECTRIC		COOL
	SUM	(MBTU)	(MBTU)	(MBTU)	(MBTU)	(MBTU)	(MBTU)	(KWH)	(MBTU)	(KWH)		
MON	PEAK	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	(KW)	(KBTU/HR)	(KW)		
JAN	SUM	-4.637	0.000	-6.512	0.000	-2.218	0.000	0.000	0.000	0.000	384	0
	PEAK	-22.640	0.000	-27.143	0.000	-8.130	0.000	0.000	0.000	0.000		
DA	AY/HR	5/8	0/ 0	3/16	0/ 0	15/14	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-3.931	0.000	-5.619	0.000	-2.261	0.000	0.000	0.000	0.000	352	0
	PEAK	-18.741	0.000	-23.768	0.000	-8.591	0.000	0.000	0.000	0.000		
	Y/HR	27/ 7	0/ 0	4/ 7	0/ 0	22/20	0/ 0	0/0	0/ 0	0/0		
	,	=-, -	2, 2	-, .	2, 2	,	2, 2	-, -	٥, ٠	-, -		
MAR	SUM	-3.589	0.016	-5.433	0.000	-2.677	0.000	0.000	0.000	0.000	388	8
	PEAK	-15.976	3.634	-20.320	0.000	-8.655	0.000	0.000	0.000	0.000		
DA	AY/HR	2/ 7	29/15	2/ 7	0/ 0	30/14	0/ 0	0/ 0	0/ 0	0/ 0		
APR	SUM	-3.155	0.000	-4.891	0.000	-2.686	0.000	0.000	0.000	0.000	400	0
	PEAK	-15.420	0.000	-19.515	0.000	-8.698	0.000	0.000	0.000	0.000		
DA	Y/HR	24/ 7	0/ 0	29/ 7	0/ 0	25/16	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-2.488	0.005	-3.947	0.000	-2.325	0.000	0.000	0.000	0.000	389	11
	PEAK	-12.742	1.204	-23.285	0.000	-8.739	0.000	0.000	0.000	0.000		
DA	AY/HR	6/ 7	15/19	9/17	0/ 0	8/16	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-1.772	0.010	-2.816	0.002	-1.769	0.000	0.000	0.000	0.000	361	19
	PEAK	-9.827	1.671	-13.313	0.948	-8.718	0.000	0.000	0.000	0.000		
DA	AY/HR	12/ 7	20/17	12/ 7	29/18	6/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUL	SUM	-1.007	0.250	-1.618	0.225	-1.007	0.000	0.000	0.000	0.000	297	103
	PEAK	-8.252	7.139	-13.663	9.166	-8.252	0.000	0.000	0.000	0.000		
DA	AY/HR	5/8	23/17	1/ 7	23/20	5/8	0/ 0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-1.161	0.129	-1.487	0.103	-1.161	0.000	0.000	0.000	0.000	350	62
	PEAK	-8.295	7.160	-10.797	5.275	-8.295	0.000	0.000	0.000	0.000	330	02
	Y/HR	14/ 7	10/18	26/ 7	10/16	14/ 7	0.000	0/0	0/0	0.000		
DH	MI/II	14/ /	10/16	20/ /	10/10	14/ /	0/ 0	0/ 0	07 0	0/ 0		
SEP	SUM	-1.667	0.060	-2.631	0.014	-1.624	0.000	0.000	0.000	0.000	333	35
	PEAK	-12.878	3.838	-17.036	4.862	-9.375	0.000	0.000	0.000	0.000		
DA	Y/HR	28/ 8	19/16	28/ 7	19/12	23/11	0/ 0	0/ 0	0/ 0	0/ 0		
OCT	SUM	-3.113	0.006	-4.776	0.000	-2.793	0.000	0.000	0.000	0.000	395	5
	PEAK	-14.986	2.292	-20.352	0.000	-8.810	0.000	0.000	0.000	0.000		
DA	AY/HR	22/ 7	7/17	22/ 7	0/ 0	7/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
NOV	SUM	-3.585	0.000	-5.356	0.000	-2.517	0.000	0.000	0.000	0.000	364	0
	PEAK	-15.091	0.000	-21.216	0.000	-8.670	0.000	0.000	0.000	0.000	204	U
	Y/HR	5/ 7	0/0	18/ 7	0/0	14/16	0.000	0/0	0/0	0.000		
DA	/ 1110	3, 1	3, 0	10, /	3, 0	11/10	0, 0	0, 0	3, 0	3, 0		

AOIIECT	3 65	Residential	Multi	Family	Tom

DOE-2.3-50h 1/26/2023 9:30:35 BDL RUN 9

REPORT- ER	V Energy Rec	overy Summar	WE	WEATHER FILE- SEATTLE BOEING FI WA							
								(CONTINU	ED)		
DEC SUM	-4.443	0.000	-6.353	0.000	-2.291	0.000	0.000	0.000	0.000	384	0
PEAK	-17.852	0.000	-22.746	0.000	-7.971	0.000	0.000	0.000	0.000		
DAY/HR	24/22	0/ 0	26/19	0/ 0	16/15	0/0	0/ 0	0/ 0	0/ 0		
	=======	=======	=======	=======	=======	=======	=======	=======	=======		====
YR SUM	-34.547	0.474	-51.440	0.345	-25.329	0.000	0.000	0.000	0.000	4397	243
IK SUM			-31.440							4331	243
PEAK	-22.640	7.160	-27.143	9.166	-9.375	0.000	0.000	0.000	0.000		
MON/DAY	1/ 5	8/10	1/ 3	7/23	9/23	0/ 0	0/ 0	0/ 0	0/ 0		

	EXHAUST WET	OUTLET FROSTED	MAKE-UP WET	OUTLET FROSTED	CONDENSATE CONTROL
ANNUAL HOURS:	0	0	0	0	0

REPORT- ERV Energy Recovery Summary for: Amenity ERV

	AIR FLOW -		POV	VER CONSUMPTI	ON	
OUTDOOR	EXHAUST	PURGE	OA FAN	EXH FAN	HT EXCH	PREHEAT
(CFM )	(CFM )	(CFM )	(KW)	(KW)	(KW)	(KBTU/HR)
97.	97.	0.	0.000	0.000	0.000	0.

		SENS	TRLE	TO	ΓΑΤ	EXCESS	SENSIBLE	POWER -	PREI	IEAT	НО	IIRS -
		HEATING	COOLING	HEATING	COOLING	HEATING	COOLING	FANS&HX	HEATING	ELECTRIC		COOL
	SUM	(MBTU)	(MBTU)	(MBTU)	(MBTU)	(MBTU)	(MBTU)	(KWH)	(MBTU)	(KWH)		
MON	PEAK	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	(KW)	(KBTU/HR)	(KW)		
JAN	SUM	-1.639	0.000	-1.642	0.000	-1.639	0.000	0.000	0.000	0.000	744	0
	PEAK	-3.882	0.000	-4.089	0.000	-3.882	0.000	0.000	0.000	0.000		
Ι	DAY/HR	5/ 9	0/ 0	3/19	0/ 0	5/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-1.500	0.000	-1.496	0.000	-1.500	0.000	0.000	0.000	0.000	672	0
	PEAK	-3.431	0.000	-3.529	0.000	-3.431	0.000	0.000	0.000	0.000	0,2	Ü
г	DAY/HR	27/ 7	0/ 0	27/ 7	0/ 0	27/ 7	0/ 0	0/ 0	0/ 0	0/0		
-	2111 / 1110	2,,,,	0, 0	277 7	0, 0	2// /	0, 0	0, 0	0, 0	0, 0		
MAR	SUM	-1.442	0.000	-1.438	0.000	-1.442	0.000	0.000	0.000	0.000	743	1
	PEAK	-3.036	0.320	-3.287	0.097	-3.036	0.000	0.000	0.000	0.000		
Ι	DAY/HR	2/ 5	29/16	2/ 5	29/16	2/ 5	0/ 0	0/ 0	0/ 0	0/ 0		
	arm.	1 241	0.000	1 224	0.000	1 241	0.000	0.000	0.000	0.000		•
APR	SUM	-1.341	0.000	-1.334	0.000	-1.341	0.000	0.000	0.000	0.000	720	0
	PEAK	-2.903	0.000	-3.090	0.000	-2.903	0.000	0.000	0.000	0.000		
1	DAY/HR	23/ 1	0/ 0	23/ 1	0/ 0	23/ 1	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-1.229	0.000	-1.190	0.001	-1.229	0.000	0.000	0.000	0.000	744	0
	PEAK	-2.641	0.000	-3.270	0.199	-2.641	0.000	0.000	0.000	0.000		
Ι	DAY/HR	25/ 6	0/ 0	9/17	15/17	25/ 6	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-0.965	0.000	-0.895	0.013	-0.965	0.000	0.000	0.000	0.000	716	4
	PEAK	-2.147	0.111	-2.166	1.259	-2.147	0.000	0.000	0.000	0.000		
Ι	DAY/HR	6/10	20/17	14/ 4	30/15	6/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUL	SUM	-0.779	0.030	-0.661	0.088	-0.779	0.000	0.000	0.000	0.000	666	78
	PEAK	-2.131	1.139	-2.224	1.786	-2.131	0.000	0.000	0.000	0.000		
Ι	DAY/HR	31/ 6	23/17	31/ 6	23/17	31/ 6	0/0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-0.774	0.019	-0.589	0.073	-0.774	0.000	0.000	0.000	0.000	703	41
	PEAK	-2.115	1.263	-2.220	1.597	-2.115	0.000	0.000	0.000	0.000		
Ι	DAY/HR	1/ 7	10/18	15/ 8	10/15	1/ 7	0/ 0	0/ 0	0/ 0	0/ 0		
SEP	SUM	-0.964	0.008	-0.913	0.020	-0.964	0.000	0.000	0.000	0.000	690	30
DLL	PEAK	-2.598	0.605	-3.229	1.203	-2.598	0.000	0.000	0.000	0.000	050	50
г	DAY/HR	28/ 7	22/14	19/ 4	19/12	28/ 7	0/0	0/ 0	0/ 0	0/0		
-	2117 1110	207 7	22/11	13/ 1	13/12	20/ /	0, 0	0, 0	0, 0	0, 0		
OCT	SUM	-1.222	0.001	-1.213	0.001	-1.222	0.000	0.000	0.000	0.000	738	6
	PEAK	-2.663	0.439	-3.101	0.385	-2.663	0.000	0.000	0.000	0.000		
Ι	DAY/HR	24/ 6	6/15	30/ 4	8/16	24/ 6	0/ 0	0/ 0	0/ 0	0/ 0		
NOV	SUM	-1.300	0.000	-1.301	0.000	-1.300	0.000	0.000	0.000	0.000	720	0
140 V	PEAK	-2.689	0.000	-2.732	0.000	-2.689	0.000	0.000	0.000	0.000	, 20	U
Т	DAY/HR	5/ 2	0/0	1/6	0/0	5/ 2	0/0	0/0	0/0	0.000		
	/ 1110	5, 2	0, 0	1, 0	0, 0	5, 2	0, 0	3, 0	0, 0	0, 0		

AOIIECT	3 65	Residential	Multi	Family	Tom

DOE-2.3-50h 1/26/2023 9:30:35 BDL RUN 9

REPORT- ER	V Energy Rec	overy Summar	y for: Am	enity ERV			WE	ATHER FILE-	SEATTLE BOEI	NG FI	WA
									(CONTINU	ED)	
DEC SUM	-1.562	0.000	-1.569	0.000	-1.562	0.000	0.000	0.000	0.000	744	0
PEAK	-3.307	0.000	-3.475	0.000	-3.307	0.000	0.000	0.000	0.000		
DAY/HR	26/19	0/ 0	26/19	0/0	26/19	0/ 0	0/ 0	0/ 0	0/ 0		
										====	====
YR SUM	-14.717	0.059	-14.241	0.195	-14.717	0.000	0.000	0.000	0.000	8600	160
PEAK	-3.882	1.263	-4.089	1.786	-3.882	0.000	0.000	0.000	0.000		
MON/DAY	1/5	8/10	1/ 3	7/23	1/5	0/0	0/0	0/0	0/0		

	EXHAUST	OUTLET	MAKE-UP	OUTLET	CONDENSATI
	WET	FROSTED	WET	FROSTED	CONTROL
ANNUAL HOURS:	0	0	0	0	(

HEATING LOAD

DESIGN DAY WEATHER FILE- SEATTLE BOEING FI WA

\*\*\* BUILDING \*\*\*

FLOOR AREA 171490 SQFT 15931 M2 VOLUME 1767951 CUFT 50068 M3

COOLING LOAD

			NG LOAD			HEATING LOAD				
		========					==			
TIME		JUN	21 7PM		DEC 21	4AM				
DRY-BULB TEMP		83 F	2	28 C	24 F	-4 C				
WET-BULB TEMP		64 F	1	.8 C	20 F	-7 C				
TOT HORIZONTAL SOLAR RA	D	112 BTU/H.	SQFT 35	2 W/M2	0 BTU/H.SQF	r 0 W/M	12			
WINDSPEED AT SPACE		4.3 KTS	2.	2 M/S	8.7 KTS	4.5 M/S	3			
CLOUD AMOUNT 0(CLEAR)-1	0	0			10					
	SE	NSIBLE	LAT	ENT	SEN	SIBLE				
	(KBTU/H)	( KW )	(KBTU/H)	( KW )	(KBTU/H)	( KW )				
WALL CONDUCTION	85.935	25.179	0.000	0.000	-186.816	-54.737				
ROOF CONDUCTION	18.397	5.390	0.000	0.000	-19.088	-5.593				
WINDOW GLASS+FRM COND	43.929	12.871	0.000	0.000	-227.923	-66.781				
WINDOW GLASS SOLAR	354.333	103.820	0.000	0.000	5.075	1.487				
DOOR CONDUCTION	0.000	0.000	0.000	0.000	0.000	0.000				
INTERNAL SURFACE COND	0.000	0.000	0.000	0.000	0.000	0.000				
UNDERGROUND SURF COND			0.000	0.000	-41.972	-12.298				
OCCUPANTS TO SPACE	55.968	16.399	44.125	12.929	0.213	0.062				
LIGHT TO SPACE	91.096	26.691	0.000	0.000	30.973	9.075				
EQUIPMENT TO SPACE	616.804	180.724	32.232	9.444	5.036	1.476				
PROCESS TO SPACE	12.069	3.536	8.781	2.573	0.000	0.000				
INFILTRATION	8.383	2.456			-40.539	-11.878				
TOTAL		374.579			-475.041					
TOTAL / AREA	0.007	0.024	0.000	0.002	-0.003	-0.009				
TOTAL LOAD	1363.648	KBTU/H	399.549	KW	-475.041 KBTU/H	-139.187	KW			
TOTAL LOAD / AREA	7.95	BTU/H.SQFT	25.078	W/M2	2.770 BTU/H.SQF	г 8.736	W/M2			

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \* NOTE 1)THE ABOVE LOADS EXCLUDE OUTSIDE VENTILATION AIR LOADS 2) TIMES GIVEN IN STANDARD TIME FOR THE LOCATION IN CONSIDERATION 3) THE ABOVE LOADS ARE CALCULATED ASSUMING A CONSTANT INDOOR SPACE TEMPERATURE

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\*\*\* BUILDING \*\*\*

TOTAL LOAD TOTAL LOAD / AREA

FLOOR AREA 171490 SQFT 15931 M2 VOLUME 1767951 CUFT 50068 M3

		COOLI	NG LOAD			HEATING	LOAD
				=====	====		
TIME		JUL	23 8PM			JAN 5	5AM
DRY-BIILB TEMP		88 F	3	1 C	21	F	-6 C
WET-BULB TEMP		68 F	-	0 C	18	=	-8 C
TOT HORIZONTAL SOLAR RA	.D						0 W/M2
WINDSPEED AT SPACE		2.7 KTS	-			KTS	
CLOUD AMOUNT 0(CLEAR)-1		0		1 11/ 0	10		0.0 11, 5
CLOOD INICONI O(CLLIN, I	. •	Ü			10		
		SIBLE	LAT				IBLE
	(KBTU/H)	( KW )	(KBTU/H)	( KW )		(KBTU/H)	( KW )
WALL CONDUCTION	104.225	30.538	0.000	0.000		-184.477	-54.052
ROOF CONDUCTION	18.176	5.325	0.000	0.000		-23.582	-6.909
WINDOW GLASS+FRM COND	59.719	17.498	0.000	0.000		-223.195	-65.396
WINDOW GLASS SOLAR	335.465	98.291	0.000	0.000		23.595	6.913
DOOR CONDUCTION	0.000	0.000	0.000	0.000		0.000	0.000
INTERNAL SURFACE COND	0.000	0.000	0.000	0.000		0.000	0.000
UNDERGROUND SURF COND	-4.571	-1.339	0.000	0.000		-49.265	-14.435
OCCUPANTS TO SPACE	36.966	10.831	36.415	10.670		36.803	10.783
LIGHT TO SPACE	72.027	21.104	0.000	0.000		34.916	10.231
EQUIPMENT TO SPACE	437.400	128.158	22.492	6.590		92.510	27.105
PROCESS TO SPACE	7.067	2.071	4.829	1.415		3.323	0.974
INFILTRATION	11.897	3.486	3.375	0.989		-44.197	-12.950
TOTAL	1078.371	315.963	67.111	10 664		-333.569	07 726
	0.006	0.020	0.000	0.001			-0.006
TOTAL / AREA	0.006	0.020	0.000	0.001		-0.002	-0.006

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \* NOTE 1)THE ABOVE LOADS EXCLUDE OUTSIDE VENTILATION AIR LOADS 2) TIMES GIVEN IN STANDARD TIME FOR THE LOCATION IN CONSIDERATION 3) THE ABOVE LOADS ARE CALCULATED ASSUMING A CONSTANT INDOOR SPACE TEMPERATURE \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1145.482 KBTU/H 335.626 KW -333.569 KBTU/H -97.736 KW 6.68 BTU/H.SQFT 21.066 W/M2 1.945 BTU/H.SQFT 6.135 W/M2

NUMBER OF	SPACES	216	EXTERIOR	160	INTERIOR	56

SPACE	SPACE*FLOOR MULTIPLIER		AZIM	LIGHTS (WATT / SQFT )	PEOPLE	EQUIP (WATT / SQFT )	INFILTRATION METHOD	ACH	AREA	VOLUME (CUFT )
Spaces on floor: P2 Below-Gr	ade Flr									
P2A Core Spc (B.C1) STR	1.0	INT	0.0	0.34	0.0	0.20	NO-INFILT.	0.00	170.0	1749.3
P2A Core Spc (B.C2) ELV	1.0	INT	0.0	0.60	0.0	0.00	NO-INFILT.	0.00	161.5	1661.8
P2A Core Spc (B.C3) COR	1.0	INT	0.0	0.39	0.0	0.20	NO-INFILT.	0.00	237.5	2443.9
P2B Core Spc (B.C4) MECH	1.0	INT	0.0	0.46	0.0	0.00	NO-INFILT.	0.00	900.0	9261.0
P2B Core Spc (B.C5) STR	1.0	INT	0.0	0.34	0.0	0.20	NO-INFILT.	0.00	241.5	2485.0
P2B NW Perim Spc (B.NW6) XFM	IR 1.0	INT	90.0	0.51	0.0	0.00	NO-INFILT.	0.00	957.0	9847.5
P2A Core Spc (B.C7) STO	1.0	INT	0.0	0.30	0.0	0.20	NO-INFILT.	0.00	221.0	2274.1
P2B SE Perim Spc (B.SE8) MEC		INT	-90.0	0.46	0.0	0.00	NO-INFILT.	0.00	378.0	3889.6
P2B NE Perim Spc (B.NE9) STC		INT	180.0	0.30	0.0	0.20	NO-INFILT.	0.00	414.0	4260.1
P2B South Perim Spc (B.S10)		INT	0.0	0.09	0.0	0.00	AIR-CHANGE	4.37	12495.5	128578.7
P2B NNE Perim Spc (B.NNE11)		INT	-90.0	0.46	0.0	0.00	NO-INFILT.	0.00	1885.0	19396.7
P2B NNE Perim Spc (B.NNE12)		INT	90.0	0.09	0.0	0.00	AIR-CHANGE	4.37	6201.0	63808.3
P2A NNW Perim Spc (B.NNW13)	PKG 1.0	INT	180.0	0.09	0.0	0.00	AIR-CHANGE	4.37	1518.0	15620.2
Spaces on floor: P1 Below-Gr	ade Flr									
P1A Core Spc (B.C1) STR	1.0	EXT	0.0	0.34	0.0	0.20	NO-INFILT.	0.00	170.0	1700.0
P1A Core Spc (B.C2) ELV	1.0	EXT	0.0	0.60	0.0	0.00	NO-INFILT.	0.00	161.5	1615.0
P1A Core Spc (B.C3) COR	1.0	EXT	0.0	0.39	0.0	0.20	NO-INFILT.	0.00	237.5	2375.0
P1B Core Spc (B.C4) STR	1.0	EXT	0.0	0.34	0.0	0.20	NO-INFILT.	0.00	241.5	2415.0
P1B SE Perim Spc (B.SE5) MEC	H 1.0	EXT	-90.0	0.46	0.0	0.00	NO-INFILT.	0.00	238.0	2380.0
P1B South Perim Spc (B.S6) F	KG 1.0	EXT	0.0	0.09	0.0	0.00	AIR-CHANGE	4.50	12847.5	128475.0
P1A West Perim Spc (B.W7) TR	SH 1.0	EXT	0.0	0.30	0.0	0.00	NO-INFILT.	0.00	2435.0	24350.0
P1A NNW Perim Spc (B.NNW8) M	ECH 1.0	EXT	90.0	0.46	0.0	0.00	NO-INFILT.	0.00	1150.0	11500.0
P1B NNE Perim Spc (B.NNE9) F	KG 1.0	EXT	-90.0	0.09	0.0	0.00	AIR-CHANGE	4.50	3916.0	39160.0
P1B ENE Perim Spc (B.ENE10)	MECH 1.0	EXT	180.0	0.46	0.0	0.00	NO-INFILT.	0.00	271.5	2715.0
P1B North Perim Spc (B.N11)	APT1 1.0	EXT	180.0	0.41	0.6	1.38	AIR-CHANGE	0.07	464.0	4640.0
P1B Core Spc (B.C12) COR	1.0	EXT	0.0	0.39	0.0	0.20	NO-INFILT.	0.00	460.0	4600.0
P1B North Perim Spc (B.N13)	APT4 1.0	EXT	180.0	0.41	3.1	1.38	AIR-CHANGE	0.07	2465.0	24650.0
P1B NE Perim Spc (B.NE14) AF	T1 1.0	EXT	-90.0	0.41	0.9	1.38	AIR-CHANGE	0.07	705.0	7050.0
Spaces on floor: L1 Ground F	'lr									
L1A Core Spc (G.C1) STR	1.0	EXT	180.0	0.34	0.0	0.20	NO-INFILT.	0.00	556.8	5406.0
L1A Core Spc (G.C2) ELV	1.0	EXT	0.0	0.60	0.0	0.00	NO-INFILT.	0.00	161.5	1568.2
L1B Core Spc (G.C3) STR	1.0	EXT	-90.0	0.34	0.0	0.20	NO-INFILT.	0.00	500.0	4855.0
L1B Core Spc (G.C4) COR	1.0	EXT	180.0	0.39	0.0	0.20	NO-INFILT.	0.00	869.0	8438.0
L1B North Perim Spc (G.N5) A		EXT	180.0	0.41	3.3	1.38	AIR-CHANGE	0.08	2580.0	25051.8
L1B East Perim Spc (G.E6) AF		EXT	0.0	0.41	0.8	1.38	AIR-CHANGE	0.16	668.0	6486.3
L1B West Perim Spc (G.W7) AF		EXT	0.0	0.41	1.0	1.38	AIR-CHANGE	0.15	765.0	7428.1
L1B West Perim Spc (G.W8) AF		EXT	90.0	0.41	0.8	1.38	AIR-CHANGE	0.10	654.5	6355.2
L1B East Perim Spc (G.E9) AF		EXT	-90.0	0.41	0.9	1.38	AIR-CHANGE	0.10	713.5	6928.1
L1B East Perim Spc (G.E10) A		EXT	-90.0	0.41	0.7	1.38	AIR-CHANGE	0.21	519.0	5039.5
L1B South Perim Spc (G.S11)	APT5 1.0	EXT	0.0	0.41	2.5	1.38	AIR-CHANGE	0.09	1978.0	19206.4

7458.8

7692.8

REPORT- LV-B Summary of Spaces										EATTLE BOEING	
										(CONTINUED	)
L5B South Perim Spc (G.S10) APT7	1.0	EXT	90.0	0.41	5.1	1.38	AIR-CHANGE		3981.5	38819.6	
L5B Core Spc (G.C11) ELEC	1.0	INT	0.0	0.46	0.0	0.00	NO-INFILT.	0.00	57.8	563.1	
L5A East Perim Spc (G.E12) GSHF	1.0		-90.0	0.60	0.0	0.00	AIR-CHANGE		38.2	372.9	
L5A East Perim Spc (G.E13) APT4	1.0		180.0	0.41	2.8	1.38	AIR-CHANGE	0.07	2229.8	21740.1	
L5A Core Spc (G.C14) TSHF	1.0	INT	0.0	0.60	0.0	0.00	AIR-CHANGE		27.0	263.2	
L5A Core Spc (G.C15) TRSH	1.0	INT	0.0	0.30	0.0	0.00	NO-INFILT.		54.0	526.5	
L5A Core Spc (G.C16) ELEC	1.0	INT	0.0	0.46	0.0	0.00	NO-INFILT.		65.0	633.8	
L5A NW Perim Spc (G.NW17) APT1	1.0	EXT	0.0	0.41	1.2	1.38	AIR-CHANGE		915.5	8926.1	
L5A North Perim Spc (G.N18) APT3	1.0		180.0	0.41	2.0	1.38	AIR-CHANGE		1566.5	15273.4	
L5B East Perim Spc (G.E19) APT1	1.0	EXT	0.0	0.41	0.9	1.38	AIR-CHANGE	0.18	714.0	6961.5	
L5A Core Spc (G.C20) STR	1.0	INT	0.0	0.34	0.0	0.20	NO-INFILT.	0.00	144.5	1408.9	
L5A West Perim Spc (G.W21) APT4	1.0		180.0	0.41	3.2	1.38		0.08	2478.2	24162.9	
L5A SW Perim Spc (G.SW22) APT1	1.0	EXT	0.0	0.41	1.2	1.38	AIR-CHANGE	0.12	944.2	9206.4	
L5A Core Spc (G.C23) COR	1.0	INT	0.0	0.39	0.0	0.20	NO-INFILT.	0.00	681.2	6642.2	
L5A South Perim Spc (G.S24) APT3	1.0	EXT	-90.0	0.41	2.3	1.38	AIR-CHANGE	0.08	1832.5	17866.9	
Spaces on floor: L6 Ground Flr											
L6A Core Spc (G.C1) ELV	1.0	INT	0.0	0.60	0.0	0.00	NO-INFILT.	0.00	161.5	1574.6	
L6B Core Spc (G.C2) STR	1.0	INT	0.0	0.34	0.0	0.20	NO-INFILT.	0.00	241.5	2354.6	
L6B North Perim Spc (G.N3) COR	1.0		180.0	0.39	0.0	0.20	AIR-CHANGE	0.06	1748.2	17045.4	
L6B North Perim Spc (G.N4) APT4	1.0	EXT	180.0	0.41	3.7	1.38	AIR-CHANGE	0.08	2928.0	28548.0	
L6B East Perim Spc (G.E5) APT1	1.0	EXT	0.0	0.41	1.3	1.38	AIR-CHANGE	0.13	984.0	9594.0	
L6B West Perim Spc (G.W6) APT1	1.0	EXT	0.0	0.41	1.0	1.38	AIR-CHANGE		765.0	7458.8	
L6B West Perim Spc (G.W7) APT1	1.0	EXT	90.0	0.41	0.8	1.38	AIR-CHANGE		654.5	6381.4	
L6B East Perim Spc (G.E8) APT1	1.0		-90.0	0.41	0.8	1.38	AIR-CHANGE	0.11	628.5	6127.9	
L6B East Perim Spc (G.E9) APT1	1.0	EXT	0.0	0.41	1.0	1.38	AIR-CHANGE	0.16	789.0	7692.8	
L6B South Perim Spc (G.S10) APT7	1.0	EXT	90.0	0.41	5.1	1.38	AIR-CHANGE		3981.5	38819.6	
L6B Core Spc (G.C11) ELEC	1.0	INT	0.0	0.46	0.0	0.00	NO-INFILT.	0.00	57.8	563.1	
L6A East Perim Spc (G.E12) GSHF	1.0		-90.0	0.60	0.0	0.00	AIR-CHANGE		38.2	372.9	
L6A East Perim Spc (G.E13) APT4	1.0		180.0	0.41	2.8	1.38	AIR-CHANGE	0.07	2229.8	21740.1	
L6A Core Spc (G.C14) TSHF	1.0	INT	0.0	0.60	0.0	0.00	AIR-CHANGE		27.0	263.2	
L6A Core Spc (G.C15) TRSH	1.0	INT	0.0	0.30	0.0	0.00	NO-INFILT.	0.00	54.0	526.5	
L6A Core Spc (G.C16) ELEC	1.0	INT	0.0	0.46	0.0	0.00	NO-INFILT.	0.00	65.0	633.8	
L6A NW Perim Spc (G.NW17) APT1	1.0	EXT	90.0	0.41	0.9	1.38	AIR-CHANGE		731.2	7129.7	
L6A North Perim Spc (G.N18) APT3	1.0		180.0	0.41	1.8	1.38	AIR-CHANGE		1404.0	13689.0	
L6B East Perim Spc (G.E19) APT1	1.0	EXT	0.0	0.41	0.8	1.38	AIR-CHANGE		659.0	6425.2	
L6A Core Spc (G.C20) STR	1.0	INT	0.0	0.34	0.0	0.20	NO-INFILT.	0.00	144.5	1408.9	
L6A West Perim Spc (G.W21) APT4	1.0		180.0	0.41	3.2	1.38	AIR-CHANGE		2478.2	24162.9	
L6A SW Perim Spc (G.SW22) APT1	1.0	EXT	0.0	0.41	1.2	1.38	AIR-CHANGE		944.2	9206.4	
L6A Core Spc (G.C23) COR	1.0	EXT	0.0	0.39	0.0	0.20	NO-INFILT.		681.2	6642.2	
L6A South Perim Spc (G.S24) APT3	1.0		-90.0	0.41	2.3	1.38	AIR-CHANGE		1832.5		
Spaces on floor: L7 Ground Flr											
L7A Core Spc (G.C1) ELV	1.0	INT	0.0	0.60	0.0	0.00	NO-INFILT.	0.00	161.5	1681.2	
L7B Core Spc (G.C2) STR	1.0	EXT	0.0	0.34	0.0	0.20	NO-INFILT.		241.5	2514.0	
L7B North Perim Spc (G.N3) COR	1.0	EXT	0.0	0.39	0.0	0.20	AIR-CHANGE	0.08	1748.2	18199.3	
L7B North Perim Spc (G.N4) APT4	1.0		180.0	0.39	3.4	1.38	AIR-CHANGE		2668.0	27773.9	
L7B East Perim Spc (G.E5) APT1	1.0	EXT	0.0	0.41	1.2	1.38	AIR-CHANGE	0.13	919.0	9566.8	
L7B West Perim Spc (G.W6) APT1	1.0	EXT	0.0	0.41	1.0	1.38		0.15	765.0	7963.6	
L7B West Perim Spc (G.W7) APT1 L7B West Perim Spc (G.W7) APT1	1.0	EXT	90.0	0.41	0.8	1.38	AIR-CHANGE	0.10	654.5	6813.3	
L7B East Perim Spc (G.E8) APT1	1.0		-90.0	0.41	0.8	1.38	AIR-CHANGE	0.10	628.5	6542.7	
L7B East Perim Spc (G.E0) APT1 L7B East Perim Spc (G.E9) APT1	1.0	EXT	0.0	0.41	1.0	1.38	AIR-CHANGE		789.0	8213.5	
L7B SSW Perim Spc (G.SSW10) APT7	1.0	EXT	0.0	0.41	5.1	1.38	AIR-CHANGE	0.15	3981.5	41447.4	
L7B Core Spc (G.C11) ELEC	1.0	EXT	0.0	0.41	0.0	0.00	NO-INFILT.	0.00	57.8	601.2	
L7A East Perim Spc (G.E12) GSHF	1.0		-90.0	0.40	0.0	0.00		5.76	38.2	398.2	
	0		20.0	0.00	0.0	0.00	CHIMOD	3.70	50.2	370.2	

REPORT- LV-B Summary of Spaces								WEATH	HER FILE- SEA	ATTLE BOEING FI V
L7A East Perim Spc (G.E13) APT2			-90.0	0.41	1.2	1.38	AIR-CHANGE			9959.8
L7A Core Spc (G.C14) TSHF		INT	0.0	0.60	0.0	0.00	AIR-CHANGE		27.0	
L7A Core Spc (G.C15) TRSH		INT	0.0	0.30	0.0	0.00	NO-INFILT.		54.0	562.1
L7A Core Spc (G.C16) ELEC		INT	0.0	0.46	0.0	0.00	NO-INFILT.	0.00	65.0	
L7A Core Spc (G.C17) STR	1.0	INT	0.0	0.34	0.0	0.20	NO-INFILT.	0.00	144.5	1504.2
JA West Perim Spc (G.W18) APT2	1.0	EXT	0.0	0.41	1.3	1.38	AIR-CHANGE	0.08	999.0	10399.6
7A SW Perim Spc (G.SW19) APT1	1.0	EXT	0.0	0.41	1.1	1.38	AIR-CHANGE	0.11	891.8	9283.1
7A Core Spc (G.C20) COR		EXT	180.0	0.39	0.0	0.20	NO-INFILT.	0.00	623.0	6485.4
7A NW Perim Spc (G.NW21) AMN		EXT	90.0	0.39	0.0	0.50	AIR-CHANGE	0.13	778.0	8099.0
7A NE Perim Spc (G.NE22) AMN	1.0	EXT	180.0	0.39	0.0	0.50	AIR-CHANGE	0.12	829.5	8635.1
7A SSE Perim Spc (G.SSE23) APT2	1.0	EXT	-90.0	0.41	1.6	1.38	AIR-CHANGE	0.09	1282.5	13350.8
Spaces on floor: L8 Ground Flr										
.8A Core Spc (G.C1) ELV	1.0	EXT	0.0	0.60	0.0	0.00	NO-INFILT.	0.00	161.5	1574.6
8A East Perim Spc (G.E2) GSHF	1.0	EXT	-90.0	0.60	0.0	0.00	AIR-CHANGE	6.15	38.2	372.9
8A East Perim Spc (G.E3) APT2	1.0	EXT	-90.0	0.41	1.2	1.38	AIR-CHANGE	0.08	956.8	9328.3
8A Core Spc (G.C4) TSHF	1.0	EXT	0.0	0.60	0.0	0.00	AIR-CHANGE	6.15	27.0	263.2
8A Core Spc (G.C5) TRSH	1.0	EXT	0.0	0.30	0.0	0.00	NO-INFILT.	0.00	54.0	526.5
8A Core Spc (G.C6) ELEC	1.0	EXT	0.0	0.46	0.0	0.00	NO-INFILT.	0.00	65.0	633.8
8A Core Spc (G.C7) STR	1.0	EXT	0.0	0.34	0.0	0.20	NO-INFILT.	0.00	144.5	1408.9
8A West Perim Spc (G.W8) APT2	1.0	EXT	0.0	0.41	1.1	1.38	AIR-CHANGE	0.10	891.0	8687.2
8A SW Perim Spc (G.SW9) APT1	1.0	EXT	0.0	0.41	0.9	1.38	AIR-CHANGE	0.14	688.5	6712.9
8A Core Spc (G.C10) COR	1.0	EXT	0.0	0.39	0.0	0.20	NO-INFILT.	0.00	749.5	7307.6
8A NW Perim Spc (G.NW11) APT1	1.0	EXT	90.0	0.41	1.0	1.38	AIR-CHANGE	0.14	776.5	7570.9
8A NE Perim Spc (G.NE12) APT1	1.0	EXT	180.0	0.41	1.2	1.38	AIR-CHANGE	0.11	948.8	9250.3
8A South Perim Spc (G.S13) APT1	1.0	EXT	0.0	0.41	0.7	1.38	AIR-CHANGE	0.14	540.0	5265.0
8A SE Perim Spc (G.SE14) APT1	1.0	EXT	0.0	0.41		1.38	AIR-CHANGE	0.17		5265.0
UILDING TOTALS				0.36	366.7	0.96			217166.2	2231328.8

CONDITIONED FLOOR AREA = 171490.0 SQFT
TOTAL INSTALLED LIGHTING POWER = 78.396 KW
TOTAL INSTALLED EQUIPMENT POWER = 207.938 KW

NUMBER OF EXTERIOR SURFACES1003 (U-VALUE INCLUDES OUTSIDE FILM; WINDOW INCLUDES FRAME AND CURB, IF DEFINED)

	WINDOW	S	WALL		-WALL+WIN	DOWS-	
SURFACE	U-VALUE	AREA	U-VALUE	AREA	U-VALUE	AREA	AZIMUTH
	(BTU/HR-SQFT-F)	(SQFT)	(BTU/HR-SQFT-F)	(SQFT)	(BTU/HR-SQFT-F)	(SQFT)	
P1 East Wall (B.NE14.U16) 2	0.000	0.00	0.048	275.00	0.048	275.00	NORTH
in space: P1B NE Perim Spc (B.							
L1 East Slab (G.C3.S2)	0.000	0.00	0.235	3.35	0.235	3.35	NORTH
in space: L1B Core Spc (G.C3)	STR						
L1 East Wall (G.C3.E2)	0.000	0.00	0.048	45.20	0.048	45.20	NORTH
in space: L1B Core Spc (G.C3)	STR						
L1 East Slab (G.E6.S6)	0.000	0.00	0.235	19.43	0.235	19.43	NORTH
in space: L1B East Perim Spc (	G.E6) APT1						
L1 East Wall (G.E6.E6)	0.186	62.70	0.048	199.46	0.081	262.16	NORTH
in space: L1B East Perim Spc (	G.E6) APT1						
L1 East Slab (G.E9.S12)	0.000	0.00	0.235	12.06	0.235	12.06	NORTH
in space: L1B East Perim Spc (	G.E9) APT1						
L1 East Wall (G.E9.E12)	0.186	38.92	0.048	123.80	0.081	162.72	NORTH
in space: L1B East Perim Spc (	G.E9) APT1						
L1 East Wall (G.E10.E13)	0.186	60.54	0.048	192.58	0.081	253.12	NORTH
in space: L1B East Perim Spc (	G.E10) APT1						
L1 East Slab (G.S17.S25)	0.000	0.00	0.235	0.67	0.235	0.67	NORTH
in space: L1A South Perim Spc	(G.S17) LOB						
L1 East Wall (G.S17.E25)	0.373	7.07	0.048	1.97	0.302	9.04	NORTH
in space: L1A South Perim Spc	(G.S17) LOB						
L1 East Slab (G.E18.S26) \$X	0.000	0.00	0.235	5.70	0.235	5.70	NORTH
in space: L1A East Perim Spc (							
L1 East Wall (G.E18.E26) \$X	0.000	0.00	0.048	76.84	0.048	76.84	NORTH
in space: L1A East Perim Spc (			*****		*****		
L1 East Slab (G.E19.S27)	0.000	0.00	0.235	19.10	0.235	19.10	NORTH
in space: L1A East Perim Spc (		0.00	0.233	17.10	0.233	17.10	11011111
L1 East Wall (G.E19.E27)	0.186	61.62	0.048	196.02	0.081	257.64	NORTH
in space: L1A East Perim Spc (		01.02	0.010	150.02	0.001	237.01	WORTH
L1 East Slab (G.NNE24.S30)	0.000	0.00	0.235	12.40	0.235	12.40	NORTH
in space: L1A NNE Perim Spc (G		0.00	0.233	12.10	0.233	12.10	WORTH
L1 East Wall (G.NNE24.E30)	0.186	40.00	0.048	127.24	0.081	167.24	МОВТИ
in space: L1A NNE Perim Spc (G		40.00	0.040	127.24	0.001	107.24	NORTH
L1 East Slab (G.E29.S43)	0.000	0.00	0.235	0.67	0.235	0.67	NORTH
in space: L1B East Perim Spc (		0.00	0.233	0.07	0.233	0.07	NORTH
L1 East Wall (G.E29.E43)	0.000	0.00	0.048	9.04	0.048	0.04	NORTH
		0.00	0.040	9.04	0.040	9.04	NORTH
in space: L1B East Perim Spc (		0.00	0.235	16.42	0.235	16.42	NODELL
L1 East Slab (G.E29.S45) in space: L1B East Perim Spc (	0.000	0.00	0.235	10.42	0.235	10.42	NORTH
_		52.97	0.040	168.51	0.001	221 40	MODELL
L1 East Wall (G.E29.E45)	0.186	52.97	0.048	108.51	0.081	221.48	NORTH
in space: L1B East Perim Spc (		0.00	0 025	2 25	0 225	2 25	MODELL
L2 East Slab (G.N4.S3)	0.000	0.00	0.235	3.35	0.235	3.35	NORTH
in space: L2B North Perim Spc				=			
L2 East Wall (G.N4.E3)	0.186	10.81	0.048	53.34	0.071	64.15	NORTH
in space: L2B North Perim Spc							
L2 East Slab (G.N4.S7)	0.000	0.00	0.235	3.35	0.235	3.35	NORTH
in space: L2B North Perim Spc		10.00	0.000	F0 0:	0.055	c	
L2 East Wall (G.N4.E7)	0.186	10.81	0.048	53.34	0.071	64.15	NORTH
in space: L2B North Perim Spc	(G.N4) APT4						

in space: L2A WNW Perim Spc (G.WNW18) APT1

REPORT- LV-D Details of Exterior Surfaces					WEATHER FILE- SE		ING FI WA
L2 East Wall (G.WNW18.E58) in space: L2A WNW Perim Spc (G.WNW18) AP	0.186	10.81	0.048	53.34	0.071		NORTH
	0.000	0.00	0.235	3.35	0.235	3.35	NORTH
	0.186	10.81	0.048	53.34	0.071	64.15	NORTH
	0.000	0.00	0.235	3.35	0.235	3.35	NORTH
	0.186	10.81	0.048	53.34	0.071	64.15	NORTH
in space: L2A North Perim Spc (G.N19) AP		0.00	0.235	3.35	0.235		NORTH
L2 East Wall (G.N19.E70) in space: L2A North Perim Spc (G.N19) AP	0.186 T2	10.81	0.048	53.34	0.071	64.15	NORTH
L2 East Slab (G.SW20.S74) in space: L2A SW Perim Spc (G.SW20) RST	0.000	0.00	0.235	8.38	0.235	8.38	NORTH
L2 East Wall (G.SW20.E74) in space: L2A SW Perim Spc (G.SW20) RST	0.373	88.42	0.048	71.95	0.227	160.38	NORTH
L2 East Slab (G.E23.S78) in space: L2B East Perim Spc (G.E23) APT:	0.000 1	0.00	0.235	21.77	0.235	21.77	NORTH
L2 East Wall (G.E23.E78) in space: L2B East Perim Spc (G.E23) APT:	0.186 1	70.26	0.048	346.71	0.071	416.98	NORTH
L2 East Slab (G.E23.S80) in space: L2B East Perim Spc (G.E23) APT:	0.000 1	0.00	0.235	3.35	0.235	3.35	NORTH
L2 East Wall (G.E23.E80) in space: L2B East Perim Spc (G.E23) APT:	0.186 1	10.81	0.048	53.34	0.071	64.15	NORTH
L3 East Slab (G.N3.S2) in space: L3B North Perim Spc (G.N3) COR	0.000	0.00	0.235	0.67	0.235	0.67	NORTH
L3 East Wall (G.N3.E2) in space: L3B North Perim Spc (G.N3) COR	0.186	2.16	0.048	6.92	0.081	9.08	NORTH
L3 East Slab (G.N4.S4) in space: L3B North Perim Spc (G.N4) APT	0.000 4	0.00	0.235	3.35	0.235	3.35	NORTH
L3 East Wall (G.N4.E4) in space: L3B North Perim Spc (G.N4) APT	0.186 4	10.81	0.048	34.59	0.081	45.40	NORTH
L3 East Slab (G.N4.S8) in space: L3B North Perim Spc (G.N4) APT	0.000 4	0.00	0.235	3.35	0.235	3.35	NORTH
L3 East Wall (G.N4.E8) in space: L3B North Perim Spc (G.N4) APT	0.186 4	10.81	0.048	34.59	0.081	45.40	NORTH
L3 East Slab (G.N4.Sl2) in space: L3B North Perim Spc (G.N4) APT	0.000 4	0.00	0.235	3.35	0.235	3.35	NORTH
L3 East Wall (G.N4.E12) in space: L3B North Perim Spc (G.N4) APT	0.186 4	10.81	0.048	34.59	0.081	45.40	NORTH
L3 East Slab (G.N4.S16) in space: L3B North Perim Spc (G.N4) APT	0.000 4	0.00	0.235	3.35	0.235	3.35	NORTH
L3 East Wall (G.N4.E16) in space: L3B North Perim Spc (G.N4) APT	0.186 4	10.81	0.048	34.59	0.081	45.40	NORTH
L3 East Slab (G.E5.S20) in space: L3B East Perim Spc (G.E5) APT1	0.000	0.00	0.235	22.78	0.235	22.78	NORTH
L3 East Wall (G.E5.E20) in space: L3B East Perim Spc (G.E5) APT1	0.186	73.51	0.048	235.21	0.081	308.72	NORTH
L3 East Slab (G.E5.S22) in space: L3B East Perim Spc (G.E5) APT1	0.000	0.00	0.235	3.35	0.235	3.35	NORTH
	0.186	10.81	0.048	34.59	0.081	45.40	NORTH
	0.000	0.00	0.235	11.39	0.235	11.39	NORTH
	0.186	36.75	0.048	117.61	0.081	154.36	NORTH

in space: L5A North Perim Spc (G.N18) APT3

REPORT- LV-D Details of Exterior Surfaces					WEATHER FILE- SEATTLE BOEING FI WA			
L2 South Wall (G.SSW12.E47) in space: L2B SSW Perim Spc (G.SSW12)	0.373	99.03	0.048	80.59	0.227	179.62		
L1 South Slab (G.WNW27.S38) in space: L1A WNW Perim Spc (G.WNW27)	0.000	0.00	0.235	10.05	0.235	10.05	EAST	
L3 South Slab (G.S10.S38) in space: L3B South Perim Spc (G.S10)	0.000	0.00	0.235	2.35	0.235	2.35	EAST	
L5 South Wall (G.E5.E19) in space: L5B East Perim Spc (G.E5) A	0.186	77.83	0.048	136.67	0.098	214.50	EAST	
L3 South Wall (G.S10.E38) in space: L3B South Perim Spc (G.S10)	0.186	12.38	0.048	19.40	0.102	31.78	EAST	
L3 South Slab (G.S10.S40) in space: L3B South Perim Spc (G.S10)	0.000	0.00	0.235	8.71	0.235	8.71	EAST	
L5 South Wall (G.W6.E25) in space: L5B West Perim Spc (G.W6) A	0.000	0.00	0.048	175.50	0.048	175.50	EAST	
L3 South Wall (G.S10.E40) in space: L3B South Perim Spc (G.S10)	0.186	45.99	0.048	72.05	0.102	118.04	EAST	
L5 South Wall (G.E9.E30) in space: L5B East Perim Spc (G.E9) A	0.186 PT1	15.92	0.048	27.95	0.098	43.88	EAST	
L5 South Wall (G.E9.E32) in space: L5B East Perim Spc (G.E9) A	0.186 PT1	51.30	0.048	90.08	0.098	141.38	EAST	
L1 South Wall (G.WNW27.E38) in space: L1A WNW Perim Spc (G.WNW27)	0.000	0.00	0.048	135.60	0.048	135.60	EAST	
L5 South Wall (G.S10.E36) in space: L5B South Perim Spc (G.S10)	0.186 APT7	7.08	0.048	12.42	0.098	19.50	EAST	
L2 South Slab (G.SSW12.S50) in space: L2B SSW Perim Spc (G.SSW12)	0.000 LOB	0.00	0.235	20.10	0.235	20.10	EAST	
L5 South Wall (G.S10.E38) in space: L5B South Perim Spc (G.S10)	0.186 APT7	12.38	0.048	21.74	0.098	34.12	EAST	
L5 South Wall (G.S10.E40) in space: L5B South Perim Spc (G.S10)	0.186 APT7	45.99	0.048	80.76	0.098	126.75	EAST	
L3 South Slab (G.S10.S42) in space: L3B South Perim Spc (G.S10)	0.000 APT7	0.00	0.235	3.02	0.235	3.02	EAST	
L5 South Wall (G.S10.E42) in space: L5B South Perim Spc (G.S10)	0.186 APT7	15.92	0.048	27.95	0.098	43.88	EAST	
L5 South Wall (G.S10.E44) in space: L5B South Perim Spc (G.S10)	0.186 APT7	45.99	0.048	80.76	0.098	126.75	EAST	
L3 South Wall (G.S10.E42) in space: L3B South Perim Spc (G.S10)	0.186 APT7	15.92	0.048	24.94	0.102	40.86	EAST	
L5 South Wall (G.S10.E46) in space: L5B South Perim Spc (G.S10)	0.186 APT7	15.92	0.048	27.95	0.098	43.88	EAST	
L5 South Wall (G.S10.E48) in space: L5B South Perim Spc (G.S10)	0.186 APT7	45.99	0.048	80.76	0.098	126.75	EAST	
L3 South Slab (G.S10.S44) in space: L3B South Perim Spc (G.S10)	0.000 APT7	0.00	0.235	8.71	0.235	8.71	EAST	
L5 South Wall (G.S10.E50) in space: L5B South Perim Spc (G.S10)	0.186 APT7	15.92	0.048	27.95	0.098	43.88	EAST	
L5 South Wall (G.S10.E52) in space: L5B South Perim Spc (G.S10)	0.186 APT7	44.22	0.048	77.65	0.098	121.88	EAST	
L3 South Wall (G.S10.E44) in space: L3B South Perim Spc (G.S10)	0.186 APT7	45.99	0.048	72.05	0.102	118.04	EAST	
L5 South Wall (G.S10.E54) in space: L5B South Perim Spc (G.S10)	0.186 APT7	15.92	0.048	27.95	0.098	43.88	EAST	
L5 South Wall (G.S10.E56) in space: L5B South Perim Spc (G.S10)	0.186 APT7	45.99	0.048	80.76	0.098	126.75		
L2 South Wall (G.SSW12.E50) in space: L2B SSW Perim Spc (G.SSW12)	0.373 LOB	212.22	0.048	172.68	0.227	384.90	EAST	
L5 South Wall (G.S10.E58) in space: L5B South Perim Spc (G.S10)	0.186 APT7	15.92	0.048	27.95	0.098	43.88	EAST	

in space: L5A North Perim Spc (G.N18) APT3

in space: L2B East Perim Spc (G.E23) APT1

in space: L2B North Perim Spc (G.N4) APT4

REPORT- LV-D Details of Exterior Surfaces					E- SEATTLE BOE	
I.E. Nowth Well (G. N10, E70) 0.106	30.60	0.049	67.65		(CONTIN	- ,
L5 North Wall (G.N18.E78) 0.186 in space: L5A North Perim Spc (G.N18) APT3	39.60	0.048	67.65	0.099	107.25	WEST
L2 North Slab (G.E23.S81) 0.000	0.00	0.235	7.37	0.235	7.37	WEST
in space: L2B East Perim Spc (G.E23) APT1						
L5 North Wall (G.N18.E80) 0.186	23.40	0.048	39.97	0.099	63.38	WEST
in space: L5A North Perim Spc (G.N18) APT3						
L4 North Wall (G.N4.E11) 0.186	36.00	0.048	61.50	0.099	97.50	WEST
in space: L4B North Perim Spc (G.N4) APT4	27.00	0.040	64.55	0.000	100 20	
L5 North Wall (G.N18.E82) 0.186 in space: L5A North Perim Spc (G.N18) APT3	37.80	0.048	64.57	0.099	102.38	WEST
L2 North Wall (G.E23.E81) 0.186	39.60	0.048	101.53	0.087	141.13	WEST
in space: L2B East Perim Spc (G.E23) APT1	33.00	0.010	101.55	0.007	111.13	WEDI
L5 North Wall (G.N18.E84) 0.186	23.40	0.048	39.97	0.099	63.38	WEST
in space: L5A North Perim Spc (G.N18) APT3						
L4 North Wall (G.N4.E13) 0.186	46.80	0.048	79.95	0.099	126.75	WEST
in space: L4B North Perim Spc (G.N4) APT4						
L5 North Wall (G.N18.E86) 0.186	39.60	0.048	67.65	0.099	107.25	WEST
in space: L5A North Perim Spc (G.N18) APT3 L1 North Wall (G.WNW27.E39) 0.186	75.61	0.048	114.23	0.103	189.84	WEST
in space: L1A WNW Perim Spc (G.WNW27) APT1	/5.01	0.046	114.23	0.103	109.04	MESI
L4 North Wall (G.N4.E15) 0.186	36.00	0.048	61.50	0.099	97.50	WEST
in space: L4B North Perim Spc (G.N4) APT4						
L1 North Wall (G.S17.E24) 0.373	265.27	0.048	73.73	0.302	339.00	WEST
in space: L1A South Perim Spc (G.S17) LOB						
L5 North Wall (G.E19.E90) 0.186	27.00	0.048	46.12	0.099	73.12	WEST
in space: L5B East Perim Spc (G.E19) APT1	4.5.00					
L4 North Wall (G.N4.E17) 0.186	46.80	0.048	79.95	0.099	126.75	WEST
in space: L4B North Perim Spc (G.N4) APT4 L5 North Wall (G.E19.E92) 0.186	39.60	0.048	67.65	0.099	107.25	WEST
in space: L5B East Perim Spc (G.E19) APT1	33.00	0.040	07.03	0.055	107.25	WEDI
L2 North Slab (G.NNW24.S83) 0.000	0.00	0.235	17.42	0.235	17.42	WEST
in space: L2A NNW Perim Spc (G.NNW24) STR						
L5 North Wall (G.W21.E94) 0.186	18.00	0.048	30.75	0.099	48.75	WEST
in space: L5A West Perim Spc (G.W21) APT4						
L2 North Wall (G.NNW24.E83) 0.000	0.00	0.048	333.58	0.048	333.58	WEST
in space: L2A NNW Perim Spc (G.NNW24) STR L2 North Slab (G.N4.S16) 0.000	0.00	0.235	8.71	0.235	8.71	WEST
in space: L2B North Perim Spc (G.N4) APT4	0.00	0.235	0.71	0.235	0.71	MESI
L4 North Wall (G.E5.E21) 0.186	46.80	0.048	79.95	0.099	126.75	WEST
in space: L4B East Perim Spc (G.E5) APT1						
L5 North Wall (G.W21.E98) 0.186	18.00	0.048	30.75	0.099	48.75	WEST
in space: L5A West Perim Spc (G.W21) APT4						
L2 North Wall (G.N4.E16) 0.186	46.80	0.048	119.99	0.087	166.79	WEST
in space: L2B North Perim Spc (G.N4) APT4	4.5.00					
L4 North Wall (G.E5.E23) 0.186 in space: L4B East Perim Spc (G.E5) APT1	46.80	0.048	79.95	0.099	126.75	WEST
L1 North Slab (G.C4.S3) 0.000	0.00	0.235	2.35	0.235	2.35	WEST
in space: L1B Core Spc (G.C4) COR						
L5 North Wall (G.W21.E102) 0.186	18.00	0.048	30.75	0.099	48.75	WEST
in space: L5A West Perim Spc (G.W21) APT4						
L1 North Slab (G.W7.S9) 0.000	0.00	0.235	15.08	0.235	15.08	WEST
in space: L1B West Perim Spc (G.W7) APT1						
L4 North Wall (G.W6.E26) 0.186	81.01	0.048	138.37	0.099	219.38	WEST
in space: L4B West Perim Spc (G.W6) APT1 L1 North Wall (G.W7.E9) 0.186	81.01	0.048	122.39	0.103	203.40	WEST
in space: L1B West Perim Spc (G.W7) APT1	01.01	0.010	122.37	0.103	203.10	
L1 North Slab (G.N28.S42) 0.000	0.00	0.235	34.84	0.235	34.84	WEST
in space: L1A North Perim Spc (G.N28) APT3						

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L5 North Wall (G.N4.E9) 0.186	46.80	0.048	79.95	0.099	(CONTIN 126.75	
in space: L5B North Perim Spc (G.N4) APT4	40.00	0.048	79.95	0.033	120.75	MESI
L3 North Slab (G.W6.S26) 0.000	0.00	0.235	15.08	0.235	15.08	WEST
in space: L3B West Perim Spc (G.W6) APT1						
L5 North Wall (G.N4.E11) 0.186	36.00	0.048	61.50	0.099	97.50	WEST
in space: L5B North Perim Spc (G.N4) APT4						
L3 North Wall (G.W6.E26) 0.186	81.01	0.048	123.29	0.103	204.30	WEST
in space: L3B West Perim Spc (G.W6) APT1	46.00				404 55	
L5 North Wall (G.N4.E13) 0.186	46.80	0.048	79.95	0.099	126.75	WEST
in space: L5B North Perim Spc (G.N4) APT4 L2 North Slab (G.E9.S30) 0.000	0.00	0.235	14.07	0.235	14.07	WEST
L2 North Slab (G.E9.S30) 0.000 in space: L2B East Perim Spc (G.E9) APT1	0.00	0.235	14.07	0.235	14.07	MEDI
L5 North Wall (G.N4.E15) 0.186	36.00	0.048	61.50	0.099	97.50	WEST
in space: L5B North Perim Spc (G.N4) APT4	30.00	0.010	01.00	0.033	37.30	
L3 North Slab (G.E19.S90) 0.000	0.00	0.235	5.03	0.235	5.03	WEST
in space: L3B East Perim Spc (G.E19) APT1						
L5 North Wall (G.N4.E17) 0.186	46.80	0.048	79.95	0.099	126.75	WEST
in space: L5B North Perim Spc (G.N4) APT4						
L3 North Wall (G.E19.E90) 0.186	27.00	0.048	41.10	0.103	68.10	WEST
in space: L3B East Perim Spc (G.E19) APT1						
L2 North Slab (G.WNW18.S63) 0.000	0.00	0.235	12.73	0.235	12.73	WEST
in space: L2A WNW Perim Spc (G.WNW18) APT1						
L2 North Wall (G.WNW18.E63) 0.186	68.41	0.048	175.36	0.087	243.77	WEST
in space: L2A WNW Perim Spc (G.WNW18) APT1 L5 North Wall (G.E5.E21) 0.186	46.80	0.048	79.95	0.099	126.75	WEST
in space: L5B East Perim Spc (G.E5) APT1	40.00	0.048	79.95	0.033	120.75	MESI
L3 North Slab (G.E19.S92) 0.000	0.00	0.235	7.37	0.235	7.37	WEST
in space: L3B East Perim Spc (G.E19) APT1						
L5 North Wall (G.E5.E23) 0.186	46.80	0.048	79.95	0.099	126.75	WEST
in space: L5B East Perim Spc (G.E5) APT1						
L3 North Wall (G.E19.E92) 0.186	39.60	0.048	60.28	0.103	99.88	WEST
in space: L3B East Perim Spc (G.E19) APT1						
L2 North Wall (G.E9.E30) 0.186	75.61	0.048	193.82	0.087	269.43	WEST
in space: L2B East Perim Spc (G.E9) APT1			400.00			
L5 North Wall (G.W6.E26) 0.186	81.01	0.048	138.37	0.099	219.38	WEST
in space: L5B West Perim Spc (G.W6) APT1 L1 North Slab (G.WNW25.S34) \$X 0.000	0.00	0.235	12.40	0.235	12.40	WEST
in space: L1A WNW Perim Spc (G.WNW25) STO	0.00	0.233	12.40	0.233	12.40	MEGI
L3 North Slab (G.W21.S94) 0.000	0.00	0.235	3.35	0.235	3.35	WEST
in space: L3A West Perim Spc (G.W21) APT4				*****		
L3 North Wall (G.W21.E94) 0.186	18.00	0.048	27.40	0.103	45.40	WEST
in space: L3A West Perim Spc (G.W21) APT4						
L2 North Slab (G.N19.S65) 0.000	0.00	0.235	4.36	0.235	4.36	WEST
in space: L2A North Perim Spc (G.N19) APT2						
L2 North Wall (G.N19.E65) 0.186	23.40	0.048	59.99	0.087	83.39	WEST
in space: L2A North Perim Spc (G.N19) APT2						
L2 North Slab (G.N4.S4) 0.000	0.00	0.235	8.71	0.235	8.71	WEST
in space: L2B North Perim Spc (G.N4) APT4 L2 North Wall (G.N4.E4) 0.186	46.80	0.048	119.99	0.087	166.79	WEST
in space: L2B North Perim Spc (G.N4) APT4	40.00	0.048	119.99	0.007	100.79	MESI
L5 North Wall (G.E9.E34) 0.186	79.21	0.048	135.29	0.099	214.50	WEST
in space: L5B East Perim Spc (G.E9) APT1	,,,,,,	0.010	233.23	0.033	211.50	
L2 North Slab (G.N19.S67) 0.000	0.00	0.235	7.37	0.235	7.37	WEST
in space: L2A North Perim Spc (G.N19) APT2						
L2 North Wall (G.N19.E67) 0.186	39.60	0.048	101.53	0.087	141.13	WEST
in space: L2A North Perim Spc (G.N19) APT2						
L3 North Slab (G.W21.S98) 0.000	0.00	0.235	3.35	0.235	3.35	WEST
in space: L3A West Perim Spc (G.W21) APT4						

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L1 Flr (G.E9.I50) in space: L1B East Perim Spc (G.E9) APT1		.00	0.033	713.50	0.033	713.50	
	0.000 0	.00	0.033	13.50	0.033	13.50	FLOOR
	0.000 0	.00	0.033	42.00	0.033	42.00	FLOOR
	0.000 0	.00	0.033	3916.00	0.033	3916.00	FLOOR
	0.000 0	.00	0.033	42.00	0.033	42.00	FLOOR
L3 Flr (G.SW22) 1 in space: L3A SW Perim Spc (G.SW22) APT1		.00	0.033	52.50	0.033	52.50	FLOOR
in space: L3A Core Spc (G.C23) COR			0.033	33.00	0.033	33.00	
in space: L2A West Perim Spc (G.W25) STO	1		0.033	52.00	0.033	52.00	
in space: P1B ENE Perim Spc (B.ENE10) ME	СН		0.033	271.50	0.033	271.50	
in space: L3B East Perim Spc (G.E9) APT1			0.033	231.00	0.033	231.00	
in space: L1B East Perim Spc (G.E10) APT	1		0.033	18.00	0.033	18.00	
in space: L2A Core Spc (G.C26) COR			0.033	231.00	0.033	231.00	
in space: L2A Core Spc (G.C26) COR			0.033	591.75	0.033	591.75	
in space: L3A South Perim Spc (G.S24) AP L2 Flr (G.C26) 3		.00	0.033	38.50	0.033	38.50	FLOOR
		.00	0.033	2580.00	0.033	2580.00	FLOOR
	0.000 0	.00	0.033	464.00	0.033	464.00	FLOOR
<pre>in space: P1B North Perim Spc (B.N11) AP L1 Flr (G.SW26) 1 in space: L1A SW Perim Spc (G.SW26) ELEC</pre>	0.000 0	.00	0.033	42.00	0.033	42.00	FLOOR
	0.000 0	.00	0.033	157.50	0.033	157.50	FLOOR
	0.000 0	.00	0.033	493.50	0.033	493.50	FLOOR
		.00	0.033	170.00	0.033	170.00	FLOOR
L1 Flr (G.E6.I43) in space: L1B East Perim Spc (G.E6) APT1		.00	0.033	668.00	0.033	668.00	FLOOR
P1 Flr (B.C12.I47) in space: P1B Core Spc (B.C12) COR	0.000 0	.00	0.033	460.00	0.033	460.00	FLOOR
in space: L1B South Perim Spc (G.S11) AP	T5			1978.00	0.033	1978.00	
in space: P1B North Perim Spc (B.N13) AP	Т4			2465.00	0.033	2465.00	
in space: L1B Core Spc (G.C12) ELEC			0.033	82.50	0.033	82.50	
in space: L1A WNW Perim Spc (G.WNW27) AP	Т1		0.033	493.50 1326.00	0.033	493.50	
in space: L1A North Perim Spc (G.N28) AP	Т3		0.033	222.50	0.033	1326.00	
in space: L2A WNW Perim Spc (G.WNW18) AP				<del>-</del>			"

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L2 Flr (G.WNW18) 2 0.000 in space: L2A WNW Perim Spc (G.WNW18) APT1	0.00	0.033	11.25	0.033	11.25	
in space: L2A WNW Perim Spc (G.MNW18) APT1  in space: L2A WNW Perim Spc (G.WNW18) APT1	0.00	0.033	55.00	0.033	55.00	FLOOR
in space: L1B SSW Perim Spc (G.SSW13) CONF	0.00	0.033	437.50	0.033	437.50	FLOOR
L1 Flr (G.C14.162) 0.000 in space: L1B Core Spc (G.C14) OFF	0.00	0.033	367.50	0.033	367.50	FLOOR
L1 Flr (G.SSW15.163) 0.000 in space: L1A SSW Perim Spc (G.SSW15) FIT	0.00	0.033	1300.50	0.033	1300.50	FLOOR
L1 Flr (G.C16.167) 0.000 in space: L1A Core Spc (G.C16) RR	0.00	0.033	218.50	0.033	218.50	FLOOR
L1 Flr (G.S17.I68) 0.000 in space: L1A South Perim Spc (G.S17) LOB	0.00	0.033	1541.00	0.033	1541.00	FLOOR
P1 Flr (B.C2.I2) 0.000 in space: P1A Core Spc (B.C2) ELV	0.00	0.033	161.50	0.033	161.50	FLOOR
L2 Flr (G.N4) 1 0.000 in space: L2B North Perim Spc (G.N4) APT4	0.00	0.033	65.00	0.033	65.00	FLOOR
L2 Flr (G.N4) 2 0.000 in space: L2B North Perim Spc (G.N4) APT4	0.00	0.033	65.00	0.033	65.00	
L2 Flr (G.N4) 3 0.000 in space: L2B North Perim Spc (G.N4) APT4	0.00	0.033	65.00	0.033	65.00	
L2 Flr (G.N4) 4 0.000 in space: L2B North Perim Spc (G.N4) APT4	0.00	0.033	65.00 1326.00	0.033	65.00	
L1 Flr (G.N28) 1 0.000 in space: L1A North Perim Spc (G.N28) APT3 L1 Flr (G.E29.I120) 0.000	0.00	0.033	429.50	0.033	1326.00 429.50	
in space: L1B East Perim Spc (G.E29) APT1 P1 Flr (B.NE14.153) 0.000	0.00	0.033	705.00	0.033		FLOOR
in space: P1B NE Perim Spc (B.NE14) APT1 P1 Flr (B.C3.I4) 0.000	0.00	0.033	237.50	0.033	237.50	
in space: P1A Core Spc (B.C3) COR P1 Flr (B.C4.I5) 0.000	0.00	0.033	241.50	0.033		FLOOR
in space: P1B Core Spc (B.C4) STR L2 Flr (G.S10) 1 0.000	0.00	0.033	84.00	0.033	84.00	FLOOR
in space: L2B South Perim Spc (G.S10) APT6 L2 Flr (G.N19) 1 0.000	0.00	0.033	55.00	0.033	55.00	FLOOR
in space: L2A North Perim Spc (G.N19) APT2 L2 Flr (G.N19) 2 0.000	0.00	0.033	52.50	0.033	52.50	FLOOR
in space: L2A North Perim Spc (G.N19) APT2 L2 Flr (G.N19) 3 0.000	0.00	0.033	24.75	0.033	24.75	FLOOR
in space: L2A North Perim Spc (G.N19) APT2 L2 Flr (G.N19) 4 0.000 in space: L2A North Perim Spc (G.N19) APT2	0.00	0.033	26.25	0.033	26.25	FLOOR
in space: L2A North Perim Spc (G.N19) AP12 L2 Flr (G.S10) 2 in space: L2B South Perim Spc (G.S10) APT6	0.00	0.033	88.00	0.033	88.00	FLOOR
L2 Flr (G.S10) 3 0.000 in space: L2B South Perim Spc (G.S10) APT6	0.00	0.033	88.00	0.033	88.00	FLOOR
L1 Flr (G.E18.183) 0.000 in space: L1A East Perim Spc (G.E18) GSHF	0.00	0.033	38.25	0.033	38.25	FLOOR
L1 Flr (G.W7.147) 0.000 in space: L1B West Perim Spc (G.W7) APT1	0.00	0.033	765.00	0.033	765.00	FLOOR
L1 Flr (G.C1.I1) 0.000 in space: L1A Core Spc (G.C1) STR	0.00	0.033	556.75	0.033	556.75	FLOOR
L1 Flr (G.E19.184) 0.000 in space: L1A East Perim Spc (G.E19) APT2	0.00	0.033	1033.75	0.033	1033.75	FLOOR
P1 Flr (B.SE5.I6) \$X 0.000 in space: P1B SE Perim Spc (B.SE5) MECH	0.00	0.033	238.00	0.033	238.00	FLOOR

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P1 Flr (B.S6.I7) \$X 0.000	0.00	0.033	12847.50	0.033	12847.50	- ,
in space: PIB South Perim Spc (B.S6) PKG L2 Flr (G.SW20) 1 0.000	0.00	0.033	63.00	0.033	63.00	FLOOR
<pre>in space: L2A SW Perim Spc (G.SW20) RST L1 Flr (G.C20.194)</pre>	0.00	0.033	27.00	0.033	27.00	FLOOR
in space: L2B East Perim Spc (G.E5) APT1  0.000	0.00	0.033	284.00	0.033	284.00	FLOOR
12 Flr (G.E5) 2 0.000 in space: L2B East Perim Spc (G.E5) APT1	0.00	0.033	65.00	0.033	65.00	FLOOR
L1 Flr (G.E29) 1 0.000 in space: L1B East Perim Spc (G.E29) APT1	0.00	0.033	429.50	0.033	429.50	FLOOR
L1 Flr (G.C21.197) 0.000 in space: L1A Core Spc (G.C21) COR	0.00	0.033	54.00	0.033	54.00	FLOOR
L1 Flr (G.C22.I101) 0.000 in space: L1A Core Spc (G.C22) COR	0.00	0.033	244.00	0.033	244.00	FLOOR
L1 Flr (G.C23.I106) 0.000 in space: L1A Core Spc (G.C23) ELEC	0.00	0.033	65.00	0.033	65.00	FLOOR
L1 Flr (G.NNE24.I107) 0.000 in space: L1A NNE Perim Spc (G.NNE24) APT1	0.00	0.033	749.25	0.033	749.25	FLOOR
L1 Flr (G.C2.I12) 0.000 in space: L1A Core Spc (G.C2) ELV	0.00	0.033	161.50	0.033	161.50	FLOOR
L1 Flr (G.C3.I14) 0.000 in space: L1B Core Spc (G.C3) STR	0.00	0.033	500.00	0.033	500.00	FLOOR
P1 Flr (B.W7.I30) \$X 0.000 in space: P1A West Perim Spc (B.W7) TRSH	0.00	0.033	2435.00	0.033	2435.00	FLOOR
L1 Flr (G.W8.I49) 0.000 in space: L1B West Perim Spc (G.W8) APT1	0.00	0.033	654.50	0.033	654.50	FLOOR
L2 Flr (G.E23) 1 0.000 in space: L2B East Perim Spc (G.E23) APT1	0.00	0.033	229.50	0.033	229.50	FLOOR
L8 Flr (G.NW11) 1 0.000 in space: L8A NW Perim Spc (G.NW11) APT1	0.00	0.033	16.50	0.033	16.50	FLOOR
L2 Flr (G.E23) 2 0.000 in space: L2B East Perim Spc (G.E23) APT1	0.00	0.033	55.00	0.033	55.00	FLOOR
L3 Flr (G.S10) 1 0.000 in space: L3B South Perim Spc (G.S10) APT7	0.00	0.033	914.50	0.033	914.50	FLOOR
L8 Flr (G.NE12) 1 0.000 in space: L8A NE Perim Spc (G.NE12) APT1	0.00	0.033	17.25	0.033	17.25	FLOOR
P1 Flr (B.NNW8.I34) \$X 0.000 in space: P1A NNW Perim Spc (B.NNW8) MECH	0.00	0.033	1150.00	0.033	1150.00	FLOOR
L1 Flr (G.C4.I23) 0.000 in space: L1B Core Spc (G.C4) COR	0.00	0.033	869.00	0.033	869.00	FLOOR
L3 Flr (G.W21) 1 0.000 in space: L3A West Perim Spc (G.W21) APT4	0.00	0.033	867.75	0.033	867.75	FLOOR
P1 Roof (B.NNW8) 1 0.000 in space: P1A NNW Perim Spc (B.NNW8) MECH	0.00	0.017	1150.00	0.017	1150.00	ROOF
L1 Roof (G.SSW15) 1 0.000 in space: L1A SSW Perim Spc (G.SSW15) FIT	0.00	0.017	319.00	0.017	319.00	ROOF
P1 Roof (B.S6) 2 0.000 in space: P1B South Perim Spc (B.S6) PKG	0.00	0.017	412.00	0.017	412.00	ROOF
L7 Roof (G.E5) 1 0.000 in space: L7B East Perim Spc (G.E5) APT1	0.00	0.017	919.00	0.017	919.00	ROOF
L6 Roof (G.E19) 1 0.000 in space: L6B East Perim Spc (G.E19) APT1	0.00	0.017	659.00	0.017	659.00	ROOF
P1 Roof (B.NNE9) 1 0.000 in space: P1B NNE Perim Spc (B.NNE9) PKG	0.00	0.017	2027.75	0.017	2027.75	ROOF
L5 Roof (G.E19) 1 0.000 in space: L5B East Perim Spc (G.E19) APT1	0.00	0.017	55.00	0.017	55.00	ROOF

in space: P1A West Perim Spc (B.W7) TRSH

WEATHER FILE- SEATTLE BOEING FI WA

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---WINDOWS---- - - - W A L L - - - --W A L L + W I N D O W S-SURFACE AREA U-VALUE AREA U-VALUE U-VALUE AREA (BTU/HR-SQFT-F) (SQFT) (BTU/HR-SQFT-F) (SQFT) (BTU/HR-SQFT-F) (SQFT) P2 Flr (B.C7.U9) 0.000 0.00 0.500 221.00 0.500 221.00 UNDERGRND in space: P2A Core Spc (B.C7) STO 378.00 UNDERGRND P2 Flr (B.SE8.U10) 0.000 0.00 0.500 378.00 0.500 in space: P2B SE Perim Spc (B.SE8) MECH P2 East Wall (B.SE8.U11) \$X 0 000 0.00 0.500 216.09 0.500 216.09 UNDERGRND in space: P2B SE Perim Spc (B.SE8) MECH P2 South Wall (B.SE8.U12) \$X 0.000 0.00 0.500 185.22 0.500 185.22 UNDERGRND in space: P2B SE Perim Spc (B.SE8) MECH P2 Flr (B.NE9.U13) 0.000 0.00 0.500 414.00 0.500 414.00 UNDERGRND in space: P2B NE Perim Spc (B.NE9) STO 0.000 P2 North Wall (B.NE9.U14) \$X 0.00 0.500 185.22 0.500 185.22 UNDERGRND in space: P2B NE Perim Spc (B.NE9) STO P2 East Wall (B.NE9.U15) \$X 0.000 0.00 0.500 236.67 0.500 236.67 UNDERGRND in space: P2B NE Perim Spc (B.NE9) STO P2 Flr (B.S10.U16) 0.000 0.00 0.500 12495.50 0.500 12495.50 UNDERGRND in space: P2B South Perim Spc (B.S10) PKG P2 South Wall (B.S10.U17) \$X 0.000 0.00 0.500 2387.28 0.500 2387.28 UNDERGRND in space: P2B South Perim Spc (B.S10) PKG P2 East Wall (B.S10.U18) \$X 0.000 0.00 0.500 360.15 0.500 360.15 UNDERGRND in space: P2B South Perim Spc (B.S10) PKG P2 West Wall (B.S10.U19) \$X 648.27 UNDERGRND 0.000 0.00 0.500 648.27 0.500 in space: P2B South Perim Spc (B.S10) PKG 0 000 P2 Flr (B.NNE11.U20) 0 00 0 500 1885 00 0 500 1885 00 INDERGRND in space: P2B NNE Perim Spc (B.NNE11) ELEC P2 East Wall (B.NNE11.U21) \$X 0.000 0.00 0.500 164.64 0.500 164.64 UNDERGRND in space: P2B NNE Perim Spc (B.NNE11) ELEC 164.64 UNDERGRND P2 North Wall (B.NNE11.U22) \$X 0.000 0.00 0.500 164.64 0.500 in space: P2B NNE Perim Spc (B.NNE11) ELEC P2 West Wall (B.NNE11.U23) \$X 0.000 0.00 0.500 61.74 0.500 61.74 UNDERGRND in space: P2B NNE Perim Spc (B.NNE11) ELEC 0.000 0.00 6201.00 6201.00 UNDERGRND P2 Flr (B.NNE12.U24) 0.500 0.500 in space: P2B NNE Perim Spc (B.NNE12) PKG P2 East Wall (B.NNE12.U25) \$X 0.000 267.54 267.54 UNDERGRND 0.00 0.500 0.500 in space: P2B NNE Perim Spc (B.NNE12) PKG P2 North Wall (B.NNE12.U26) \$X 1203.93 UNDERGRND 0.000 0.00 0.500 1203.93 0.500 in space: P2B NNE Perim Spc (B.NNE12) PKG P2 Flr (B.NNW13.U27) 0.000 0.00 0.500 1518.00 0.500 1518.00 UNDERGRND in space: P2A NNW Perim Spc (B.NNW13) PKG P2 North Wall (B.NNW13.U28) \$X 0.000 0.00 0.500 679.14 0.500 679.14 UNDERGRND in space: P2A NNW Perim Spc (B.NNW13) PKG P2 West Wall (B.NNW13.U29) \$X 0.000 0.00 0.500 236.67 0.500 236.67 UNDERGRND in space: P2A NNW Perim Spc (B.NNW13) PKG P1 East Wall (B.SE5.U1) \$X 0.00 0.500 170.00 0.500 170.00 UNDERGRND in space: P1B SE Perim Spc (B.SE5) MECH 140.00 UNDERGRND P1 South Wall (B.SE5.U2) \$X 0.000 0.00 0.500 140.00 0.500 in space: P1B SE Perim Spc (B.SE5) MECH P1 South Wall (B.S6.U3) \$X 0.00 0.500 2360.00 0.500 2360.00 UNDERGRND in space: P1B South Perim Spc (B.S6) PKG 0.000 P1 East Wall (B.S6.U4) \$X 0.00 0.500 230.00 0.500 230.00 UNDERGRND in space: P1B South Perim Spc (B.S6) PKG 0.00 P1 West Wall (B.S6.U5) \$X 0.500 400.00 0.500 400.00 UNDERGRND in space: P1B South Perim Spc (B.S6) PKG P1 West Wall (B.W7.U6) 0.000 0.00 0.500 580.00 0.500 580.00 UNDERGRND

in space: L1A WNW Perim Spc (G.WNW25) STO

in space: L1A WNW Perim Spc (G.WNW25) STO

in space: L1A WNW Perim Spc (G.WNW25) STO

L1 North Slab (G.WNW25.S32) \$X

L1 North Wall (G.WNW25.E32) \$X

WEATHER FILE- SEATTLE BOEING FI WA

----(CONTINUED)-----

---WINDOWS---- - - - W A L L - - - --W A L L + W I N D O W S-SURFACE AREA U-VALUE AREA U-VALUE U-VALUE AREA (BTU/HR-SQFT-F) (SQFT) (BTU/HR-SQFT-F) (SQFT) (BTU/HR-SQFT-F) (SQFT) P1 West Wall (B.NNW8.U7) \$X 0.000 0.00 0.500 230.00 0.500 230.00 UNDERGRND in space: P1A NNW Perim Spc (B.NNW8) MECH 500.00 UNDERGRND P1 North Wall (B.NNW8.U8) \$X 0.000 0.00 0.500 500.00 0.500 in space: P1A NNW Perim Spc (B.NNW8) MECH P1 East Wall (B.NNE9.U9) \$X 0 000 0.00 0.500 310.00 0.500 310.00 UNDERGRND in space: P1B NNE Perim Spc (B.NNE9) PKG P1 North Wall (B.NNE9.U10) \$X 0.000 0.00 0.500 650.00 0.500 650.00 UNDERGRND in space: P1B NNE Perim Spc (B.NNE9) PKG P1 North Wall (B.NNE9.U11) \$X 0.000 0.00 0.500 30.00 0.500 30.00 UNDERGRND in space: P1B NNE Perim Spc (B.NNE9) PKG 0.000 110.00 110.00 UNDERGRND P1 North Wall (B.ENE10.U12) 0.00 0.500 0.500 in space: P1B ENE Perim Spc (B.ENE10) MECH P1 East Wall (B.ENE10.U13) 0.000 0.00 0.500 225.00 0.500 225.00 UNDERGRND in space: P1B ENE Perim Spc (B.ENE10) MECH L1 East Slab (G.E10.S13) 0.000 0.00 0.500 18.76 0.500 18.76 UNDERGRND in space: L1B East Perim Spc (G.E10) APT1 L1 South Slab (G.S11.S16) 0.000 0.00 0.500 305.63 0.500 305.63 UNDERGRND in space: L1B South Perim Spc (G.S11) APT5 L1 South Slab (G.SSW13.S17) 0.000 0.00 0.500 23.45 0.500 23.45 UNDERGRND in space: L1B SSW Perim Spc (G.SSW13) CONF L1 South Wall (G.SSW13.E17) 316.40 UNDERGRND 0.000 0.00 0.500 316.40 0.500 in space: L1B SSW Perim Spc (G.SSW13) CONF L1 West Slab (G.SSW13.S18) 0 000 0 00 0 500 4 69 0 500 4 69 INDERGRND in space: L1B SSW Perim Spc (G.SSW13) CONF L1 West Wall (G.SSW13.E18) 0.000 0.00 0.500 63.28 0.500 63.28 UNDERGRND in space: L1B SSW Perim Spc (G.SSW13) CONF 33.50 UNDERGRND L1 South Slab (G.SSW15.S19) 0.000 0.00 0.500 33.50 0.500 in space: L1A SSW Perim Spc (G.SSW15) FIT L1 South Wall (G.SSW15.E19) 0.000 0.00 0.500 452.00 0.500 452.00 UNDERGRND in space: L1A SSW Perim Spc (G.SSW15) FIT 0.000 0.00 8.38 UNDERGRND L1 East Slab (G.SSW15.S20) 0.500 8.38 0.500 in space: L1A SSW Perim Spc (G.SSW15) FIT 0.000 L1 East Wall (G.SSW15.E20) 113.00 113.00 UNDERGRND 0.00 0.500 0.500 in space: L1A SSW Perim Spc (G.SSW15) FIT 5.36 UNDERGRND L1 South Slab (G.SSW15.S21) 0.000 0.00 0.500 5.36 0.500 in space: L1A SSW Perim Spc (G.SSW15) FIT 72.32 UNDERGRND L1 South Wall (G.SSW15.E21) 0.000 0.00 0.500 72.32 0.500 in space: L1A SSW Perim Spc (G.SSW15) FIT L1 West Slab (G.SSW15.S22) 0.000 0.00 0.500 19.43 0.500 19.43 UNDERGRND in space: L1A SSW Perim Spc (G.SSW15) FIT L1 West Wall (G.SSW15.E22) 0.000 0.00 0.500 262.16 0.500 262.16 UNDERGRND in space: L1A SSW Perim Spc (G.SSW15) FIT L1 South Slab (G.S17.S23) 0.500 31.49 0.500 31.49 UNDERGRND in space: L1A South Perim Spc (G.S17) LOB 0.000 424.88 UNDERGRND L1 South Wall (G.S17.E23) 0.00 0.500 424.88 0.500 in space: L1A South Perim Spc (G.S17) LOB L1 West Slab (G.WNW25.S31) \$X 0.000 0.00 0.500 21.11 0.500 21.11 UNDERGRND in space: L1A WNW Perim Spc (G.WNW25) STO 284.76 L1 West Wall (G.WNW25.E31) \$X 0.000 0.00 0.500 0.500 284.76 UNDERGRND

0.00

0.00

0.000

0.000

0.500

0.500

9.38

126.56

0.500

0.500

9.38 UNDERGRND

126.56 UNDERGRND

DOE-2.3-50h 1/26/2023 9:30:35 BDL RUN 9

WEATHER FILE- SEATTLE BOEING FI WA REPORT- LV-D Details of Exterior Surfaces -----(CONTINUED)------

W I N D O W S		W A L L		-W A L L + W I N D O W S-			
SURFACE	U-VALUE	AREA	U-VALUE	AREA	U-VALUE	AREA	AZIMUTH
	(BTU/HR-SQFT-F)	(SQFT)	(BTU/HR-SQFT-F)	(SQFT)	(BTU/HR-SQFT-F)	(SQFT)	
L1 West Slab (G.WNW25.S33) \$X	0.000	0.00	0.500	21.77	0.500	21.77	UNDERGRND
in space: L1A WNW Perim Spc	(G.WNW25) STO						
L1 West Wall (G.WNW25.E33) \$X	0.000	0.00	0.500	293.80	0.500	293.80	UNDERGRND
in space: L1A WNW Perim Spc	(G.WNW25) STO						

	AVERAGE U-VALUE/WINDOWS (BTU/HR-SQFT-F)	AVERAGE U-VALUE/WALLS (BTU/HR-SQFT-F)	AVERAGE U-VALUE WALLS+WINDOWS (BTU/HR-SQFT-F)	WINDOW AREA (SQFT)	WALL AREA (SQFT)	WINDOW+WALL AREA (SQFT)
NORTH	0.191	0.054	0.082	3836.00	14621.93	18457.93
EAST	0.206	0.054	0.103	7176.42	15059.55	22235.99
SOUTH	0.206	0.060	0.109	5794.50	11557.55	17352.07
WEST	0.197	0.056	0.106	8825.36	16149.72	24975.07
FLOOR	0.000	0.033	0.033	0.00	53373.25	53373.25
ROOF	0.000	0.017	0.017	0.00	33528.25	33528.25
ALL WALLS	0.201	0.056	0.100	25632.38	57388.71	83021.05
WALLS+ROOFS	0.201	0.041	0.076	25632.38	90916.97	116549.30
UNDERGRND	0.000	0.497	0.497	0.00	42262.29	42262.29
BUILDING	0.201	0.142	0.149	25632.38	186552.52	212184.84

## NUMBER OF UNDERGROUND SURFACES 64

SURFACE		AREA	CONSTRUCTION	U-VALUE
NAME	MULTIPLIER	(SQFT )	NAME	(BTU/HR-SQFT-F)
		4.00		
P2 Flr (B.C1.U1)	1.0 1.0	170.00	Below-Grade Wall Const	0.500
P2 Flr (B.C2.U2)		161.50	Below-Grade Wall Const	0.500
P2 Flr (B.C3.U3)	1.0 1.0	237.50	Proposed ALL Joist Floor Const Below-Grade Wall Const	0.033
P2 Flr (B.C4.U4) P2 Flr (B.C5.U5)	1.0	900.00 241.50	Below-Grade Wall Const Below-Grade Wall Const	0.500 0.500
P2 F1r (B.C5.U5) P2 F1r (B.NW6.U6)	1.0	957.00	Below-Grade Wall Const Below-Grade Wall Const	0.500
P2 F11 (B.NW0.U0) P2 West Wall (B.NW6.U7) \$X	1.0	298.41	Below-Grade Wall Const	0.500
P2 West Wall (B.NW6.U7) \$X P2 North Wall (B.NW6.U8) \$X	1.0	339.57	Below-Grade Wall Const	0.500
P2 Flr (B.C7.U9)	1.0	221.00	Below-Grade Wall Const	0.500
P2 F1r (B.C7.09) P2 F1r (B.SE8.U10)	1.0	378.00	Below-Grade Wall Const	0.500
P2 East Wall (B.SE8.U11) \$X	1.0	216.09	Below-Grade Wall Const	0.500
P2 South Wall (B.SE8.U12) \$X		185.22	Below-Grade Wall Const	0.500
P2 Flr (B.NE9.U13)	1.0	414.00	Below-Grade Wall Const	0.500
P2 North Wall (B.NE9.U14) \$X		185.22	Below-Grade Wall Const	0.500
P2 East Wall (B.NE9.U15) \$X	1.0	236.67	Below-Grade Wall Const	0.500
P2 Flr (B.S10.U16)	1.0	12495.50	Below-Grade Wall Const	0.500
P2 South Wall (B.S10.U17) \$X		2387.28	Below-Grade Wall Const	0.500
P2 East Wall (B.S10.U18) \$X	1.0	360.15	Below-Grade Wall Const	0.500
P2 West Wall (B.S10.U19) \$X	1.0	648.27	Below-Grade Wall Const	0.500
P2 Flr (B.NNE11.U20)	1.0	1885.00	Below-Grade Wall Const	0.500
P2 East Wall (B.NNE11.U21) \$		164.64	Below-Grade Wall Const	0.500
P2 North Wall (B.NNE11.U22)		164.64	Below-Grade Wall Const	0.500
P2 West Wall (B.NNE11.U23) \$	•	61.74	Below-Grade Wall Const	0.500
P2 Flr (B.NNE12.U24)	1.0	6201.00	Below-Grade Wall Const	0.500
P2 East Wall (B.NNE12.U25) \$		267.54	Below-Grade Wall Const	0.500
P2 North Wall (B.NNE12.U26)		1203.93	Below-Grade Wall Const	0.500
P2 Flr (B.NNW13.U27)	1.0	1518.00	Below-Grade Wall Const	0.500
P2 North Wall (B.NNW13.U28)		679.14	Below-Grade Wall Const	0.500
P2 West Wall (B.NNW13.U29) \$	x 1.0	236.67	Below-Grade Wall Const	0.500
P1 East Wall (B.SE5.U1) \$X	1.0	170.00	Below-Grade Wall Const	0.500
P1 South Wall (B.SE5.U2) \$X	1.0	140.00	Below-Grade Wall Const	0.500
P1 South Wall (B.S6.U3) \$X	1.0	2360.00	Below-Grade Wall Const	0.500
P1 East Wall (B.S6.U4) \$X	1.0	230.00	Below-Grade Wall Const	0.500
P1 West Wall (B.S6.U5) \$X	1.0	400.00	Below-Grade Wall Const	0.500
P1 West Wall (B.W7.U6)	1.0	580.00	Below-Grade Wall Const	0.500
P1 West Wall (B.NNW8.U7) \$X	1.0	230.00	Below-Grade Wall Const	0.500
P1 North Wall (B.NNW8.U8) \$X	1.0	500.00	Below-Grade Wall Const	0.500
P1 East Wall (B.NNE9.U9) \$X	1.0	310.00	Below-Grade Wall Const	0.500
P1 North Wall (B.NNE9.U10) \$	1.0	650.00	Below-Grade Wall Const	0.500
P1 North Wall (B.NNE9.U11) \$	1.0	30.00	Below-Grade Wall Const	0.500
Pl North Wall (B.ENE10.U12)	1.0	110.00	Below-Grade Wall Const	0.500
P1 East Wall (B.ENE10.U13)	1.0	225.00	Below-Grade Wall Const	0.500
L1 East Slab (G.E10.S13)	1.0	18.76	Below-Grade Wall Const	0.500
L1 South Slab (G.S11.S16)	1.0	305.63	Below-Grade Wall Const	0.500
L1 South Slab (G.SSW13.S17)	1.0	23.45	Below-Grade Wall Const	0.500
L1 South Wall (G.SSW13.E17)	1.0	316.40	Below-Grade Wall Const	0.500
L1 West Slab (G.SSW13.S18)	1.0	4.69	Below-Grade Wall Const	0.500
L1 West Wall (G.SSW13.E18)	1.0	63.28	Below-Grade Wall Const	0.500
L1 South Slab (G.SSW15.S19)	1.0	33.50	Below-Grade Wall Const	0.500
L1 South Wall (G.SSW15.E19)	1.0	452.00	Below-Grade Wall Const	0.500
L1 East Slab (G.SSW15.S20)	1.0	8.38	Below-Grade Wall Const	0.500
L1 East Wall (G.SSW15.E20)	1.0	113.00	Below-Grade Wall Const	0.500

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SURFACE NAME	MULTIPLIER	AREA (SQFT )	CONSTRUCTION NAME	U-VALUE (BTU/HR-SQFT-F)
L1 South Slab (G.SSW15.S21)	1.0	5.36	Below-Grade Wall Const	0.500
L1 South Wall (G.SSW15.E21)	1.0	72.32	Below-Grade Wall Const	0.500
L1 West Slab (G.SSW15.S22)	1.0	19.43	Below-Grade Wall Const	0.500
L1 West Wall (G.SSW15.E22)	1.0	262.16	Below-Grade Wall Const	0.500
L1 South Slab (G.S17.S23)	1.0	31.49	Below-Grade Wall Const	0.500
L1 South Wall (G.S17.E23)	1.0	424.88	Below-Grade Wall Const	0.500
L1 West Slab (G.WNW25.S31) \$X	1.0	21.11	Below-Grade Wall Const	0.500
L1 West Wall (G.WNW25.E31) \$X	1.0	284.76	Below-Grade Wall Const	0.500
L1 North Slab (G.WNW25.S32) \$	X 1.0	9.38	Below-Grade Wall Const	0.500
L1 North Wall (G.WNW25.E32) \$	X 1.0	126.56	Below-Grade Wall Const	0.500
L1 West Slab (G.WNW25.S33) \$X	1.0	21.77	Below-Grade Wall Const	0.500
L1 West Wall (G.WNW25.E33) \$X	1.0	293.80	Below-Grade Wall Const	0.500

NUMBER OF SCHEDULES 175

Schedule: Misc Fans kW Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Nonres Heating Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN SAT HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

Schedule: T24 Nonres Cooling Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Nonres Lights Ann Type of Schedule: FRACTION

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.10 0.10 0.10 0.10 0.10 0.20 0.40 0.70 0.90 0.90 0.90 0.85 0.85 0.50 0.50 0.50 0.20 0.15 0.80 0.35 0.10 0.10 0.10 0.10 0.10

FOR DAYS HDD

FOR DAYS CDD

Schedule: T24 Nonres Equipment Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

 -----(CONTINUED)------

FOR DAYS SAT

FOR DAYS HDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00$ 

FOR DAYS CDD

Schedule: T24 Nonres Fans Ann Type of Schedule: ON/OFF

THROUGH 31 12

FOR DAYS SUN HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

0. 0. 0. 0. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 0. 0. 0. 0. 0. 0. 0. 0. 0.

Schedule: T24 Nonres Infiltration Ann Type of Schedule: FRACTION

-----(CONTINUED)-----

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: T24 Nonres People Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 HOUR 1 2 3 4 5  $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.05\ 0.05\ 0.05\ 0.05\ 0.05\ 0.05\ 0.05\ 0.05\ 0.05\ 0.05\ 0.05\ 0.05$ 

FOR DAYS MON TUE WED THU FRI

 $0.00\ 0.00\ 0.00\ 0.00\ 0.05\ 0.10\ 0.25\ 0.65\ 0.65\ 0.65\ 0.65\ 0.65\ 0.65\ 0.65\ 0.65\ 0.65\ 0.65\ 0.40\ 0.25\ 0.10\ 0.05\ 0.05\ 0.05$ 

FOR DAYS SAT

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.05\ 0.15\ 0.15\ 0.15\ 0.15\ 0.15\ 0.15\ 0.15\ 0.15\ 0.15\ 0.15\ 0.05\ 0.05\ 0.05\ 0.00\ 0.00\ 0.00\ 0.00$ 

FOR DAYS HDD

HOUR 1 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24  $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00$ 

FOR DAYS CDD

Schedule: T24 Nonres Hot Water Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: T24 Hotel Equipment Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

FOR DAYS HDD

FOR DAYS CDD

Schedule: T24 Hotel Infiltration Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Hotel People Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

FOR DAYS HDD

FOR DAYS CDD

Schedule: T24 Hotel Hot Water Ann Type of Schedule: FRACTION

9:30:35 BDL RUN 9

REPORT- LV-G Details of Schedules

WEATHER FILE- SEATTLE BOEING FI WA

-----(CONTINUED)------

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Res Setback Heating Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Res Setback Cooling Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Res no Setback Heating Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Res no Setback Cooling Ann Type of Schedule: TEMPERATURE

-----(CONTINUED)------

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Res Lights Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

0.10 0.10 0.10 0.10 0.10 0.30 0.45 0.45 0.45 0.45 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.60 0.80 0.90 0.80 0.60 0.30

FOR DAYS HDD

FOR DAYS CDD

Schedule: T24 Res Equipment Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

FOR DAYS HDD

 eQUEST 3.65 Residential Multi Family Tem

DOE-2.3-50h 1/26/2023 9:30:35 BDL RUN 9

REPORT- LV-G Details of Schedules WEATHER FILE- SEATTLE BOEING FI WA

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FOR DAYS CDD

 $1.00\ 1.00$ 

Schedule: T24 Res Fans Ann Type of Schedule: ON/OFF

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Res Infiltration Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Res People Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

FOR DAYS HDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

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REPORT- LV-G Details of Schedules

WEATHER FILE- SEATTLE BOEING FI WA

FOR DAYS CDD

Schedule: T24 Res Hot Water Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.01 0.01 0.01 0.01 0.02 0.04 0.09 0.11 0.09 0.07 0.05 0.04 0.04 0.03 0.03 0.03 0.03 0.04 0.05 0.05 0.05 0.04 0.04 0.04 0.02

Schedule: T24 Retail Heating Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Retail Cooling Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Retail Lights Ann Type of Schedule: FRACTION

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $0.20\ 0.20\ 0.20\ 0.20\ 0.20\ 0.30\ 0.40\ 0.65\ 0.90\ 0.90\ 0.90\ 0.90\ 0.90\ 0.90\ 0.90\ 0.90\ 0.90\ 0.90\ 0.90\ 0.80\ 0.65\ 0.50\ 0.35\ 0.25$ 

FOR DAYS HDD

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00$ 

FOR DAYS CDD

Schedule: T24 Retail Equipment Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $0.20\ 0.20\ 0.20\ 0.20\ 0.20\ 0.25\ 0.30\ 0.45\ 0.60\ 0.75\ 0.75\ 0.75\ 0.75\ 0.75\ 0.75\ 0.75\ 0.75\ 0.75\ 0.65\ 0.55\ 0.45\ 0.35\ 0.25\ 0.20$ 

FOR DAYS HDD

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FOR DAYS CDD

Schedule: T24 Retail Fans Ann Type of Schedule: ON/OFF

REPORT- LV-G Details of Schedules

WEATHER FILE- SEATTLE BOEING FI WA

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Retail Infiltration Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: T24 Retail People Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

FOR DAYS HDD

FOR DAYS CDD

Schedule: T24 Retail Hot Water Ann Type of Schedule: FRACTION

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: ASHRAE Assembly Occupancy Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

FOR DAYS HDD

FOR DAYS CDD

Schedule: ASHRAE Assembly Lighting Ann Type of Schedule: FRACTION

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FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS HDD

FOR DAYS CDD

Schedule: ASHRAE Assembly HVAC Ann Type of Schedule: ON/OFF

THROUGH 31 12

FOR DAYS SUN SAT HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

Schedule: ASHRAE Assembly Hot Water Ann Type of Schedule: FRACTION

THROUGH 31 12

WEATHER FILE- SEATTLE BOEING FI WA

FOR DAYS SUN HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00$ 

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Assembly Heating Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0$ 

FOR DAYS MON TUE WED THU FRI HDD CDD

Schedule: ASHRAE Assembly Cooling Ann Type of Schedule: TEMPERATURE

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FOR DAYS SUN SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS MON TUE WED THU FRI HDD CDD

Schedule: ASHRAE Health Occupancy Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.05\ 0.05\ 0.05\ 0.05\ 0.05\ 0.05\ 0.05\ 0.05\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00$ 

FOR DAYS MON TUE WED THU FRI

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.10\ 0.50\ 0.80\ 0.80\ 0.80\ 0.80\ 0.80\ 0.80\ 0.80\ 0.80\ 0.80\ 0.50\ 0.30\ 0.30\ 0.20\ 0.20\ 0.00\ 0.00$ 

FOR DAYS SAT

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.10\ 0.30\ 0.40\ 0.40\ 0.40\ 0.40\ 0.40\ 0.40\ 0.40\ 0.40\ 0.30\ 0.00\ 0.20\ 0.20\ 0.20\ 0.00$ 

FOR DAYS HDD

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FOR DAYS CDD

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Schedule: ASHRAE Health Lighting Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN SAT

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $0.10\ \ 0.10\ \ 0.10\ \ 0.10\ \ 0.10\ \ 0.10\ \ 0.10\ \ 0.20\ \ 0.40\ \ 0.40\ \ 0.40\ \ 0.40\ \ 0.40\ \ 0.40\ \ 0.40\ \ 0.40\ \ 0.10\ \ 0.10\ \ 0.10\ \ 0.10\ \ 0.10\ \ 0.10$ 

FOR DAYS MON TUE WED THU FRI

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $0.10\ 0.10\ 0.10\ 0.10\ 0.10\ 0.10\ 0.10\ 0.50\ 0.90\ 0.90\ 0.90\ 0.90\ 0.90\ 0.90\ 0.90\ 0.30\ 0.30\ 0.30\ 0.30\ 0.30\ 0.30\ 0.30\ 0.30$ 

FOR DAYS HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

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FOR DAYS HDD

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FOR DAYS CDD

Schedule: ASHRAE Health HVAC Ann Type of Schedule: ON/OFF

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Schedule: ASHRAE Health Hot Water Ann Type of Schedule: FRACTION

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FOR DAYS SUN SAT

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS HOL

Schedule: ASHRAE Health Elevator Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Health Heating Ann Type of Schedule: TEMPERATURE

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: ASHRAE Health Cooling Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: ASHRAE Homotel Occupancy Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

FOR DAYS HDD

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FOR DAYS CDD

Schedule: ASHRAE Homotel Lighting Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

FOR DAYS HDD

FOR DAYS CDD

Schedule: ASHRAE Homotel HVAC Ann Type of Schedule: ON/OFF

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FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: ASHRAE Homotel Hot Water Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.25 0.20 0.20 0.20 0.20 0.30 0.50 0.50 0.50 0.55 0.50 0.40 0.40 0.30 0.30 0.30 0.40 0.40 0.50 0.40 0.40 0.50 0.40 0.20

FOR DAYS MON TUE WED THU FRI HDD CDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.20 0.15 0.15 0.15 0.20 0.25 0.50 0.60 0.55 0.45 0.40 0.45 0.40 0.35 0.30 0.30 0.30 0.40 0.55 0.60 0.55 0.45 0.25

FOR DAYS SAT

Schedule: ASHRAE Homotel Elevator Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.55 0.55 0.43 0.43 0.43 0.43 0.52 0.52 0.65 0.65 0.65 0.53 0.60 0.53 0.51 0.50 0.44 0.64 0.62 0.65 0.63 0.63 0.40 0.40 0.40

FOR DAYS MON TUE WED THU FRI HDD CDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.40 0.33 0.33 0.33 0.33 0.33 0.42 0.42 0.52 0.52 0.40 0.51 0.51 0.51 0.51 0.51 0.51 0.63 0.80 0.86 0.70 0.70 0.70 0.45 0.45

REPORT- LV-G Details of Schedules

WEATHER FILE- SEATTLE BOEING FI WA

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FOR DAYS SAT

Schedule: ASHRAE Homotel Heating Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: ASHRAE Homotel Cooling Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: ASHRAE Lt Manf Occupancy Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

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Schedule: ASHRAE Lt Manf Lighting Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

FOR DAYS HDD

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FOR DAYS CDD

Schedule: ASHRAE Lt Manf HVAC Ann Type of Schedule: ON/OFF

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Lt Manf Hot Water Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

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FOR DAYS SAT

Schedule: ASHRAE Lt Manf Elevator Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Lt Manf Heating Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

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FOR DAYS SAT

Schedule: ASHRAE Lt Manf Cooling Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Office Occupancy Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

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FOR DAYS SAT

FOR DAYS HDD CDD

Schedule: ASHRAE Office Lighting Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

FOR DAYS HDD

FOR DAYS CDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Schedule: ASHRAE Office HVAC Ann Type of Schedule: ON/OFF

THROUGH 31 12

FOR DAYS SUN HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Office Hot Water Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

 $0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.07\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.06\ 0.06\ 0.09\ 0.06\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.07\ 0.04\ 0.09$ 

FOR DAYS MON TUE WED THU FRI HDD CDD

 $0.05\ 0.05\ 0.05\ 0.05\ 0.05\ 0.08\ 0.07\ 0.19\ 0.35\ 0.38\ 0.39\ 0.47\ 0.57\ 0.54\ 0.34\ 0.33\ 0.44\ 0.26\ 0.21\ 0.15\ 0.17\ 0.08\ 0.05\ 0.05$ 

FOR DAYS SAT

0.05 0.05 0.05 0.05 0.05 0.08 0.07 0.11 0.15 0.21 0.19 0.23 0.20 0.19 0.15 0.12 0.14 0.07 0.07 0.07 0.07 0.09 0.05 0.05

Schedule: ASHRAE Office Elevator Ann Type of Schedule: FRACTION

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Office Heating Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Office Cooling Ann Type of Schedule: TEMPERATURE

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FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Restaurant Occupancy Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

FOR DAYS HDD

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FOR DAYS CDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Schedule: ASHRAE Restaurant Lighting Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

 $0.20\ 0.15\ 0.15\ 0.15\ 0.15\ 0.15\ 0.15\ 0.30\ 0.30\ 0.50\ 0.50\ 0.70\ 0.70\ 0.70\ 0.70\ 0.70\ 0.70\ 0.60\ 0.60\ 0.60\ 0.60\ 0.60\ 0.60\ 0.60\ 0.50\ 0.30$ 

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

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FOR DAYS HDD

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00$ 

FOR DAYS CDD

Schedule: ASHRAE Restaurant HVAC Ann Type of Schedule: ON/OFF

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FOR DAYS SUN HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Restaurant Hot Water Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

 $0.25\ \ 0.20\ \ 0.20\ \ 0.00\ \ 0.00\ \ 0.00\ \ 0.00\ \ 0.00\ \ 0.50\ \ 0.50\ \ 0.40\ \ 0.30\ \ 0.30\ \ 0.30\ \ 0.40\ \ 0.50\ \ 0.50\ \ 0.40\ \ 0.50$ 

FOR DAYS MON TUE WED THU FRI HDD CDD

0.20 0.15 0.15 0.00 0.00 0.00 0.00 0.60 0.55 0.45 0.40 0.45 0.40 0.35 0.30 0.30 0.30 0.40 0.55 0.60 0.55 0.45 0.25

FOR DAYS SAT

Schedule: ASHRAE Restaurant Heating Ann Type of Schedule: TEMPERATURE

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FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Restaurant Cooling Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Retail Occupancy Ann Type of Schedule: FRACTION

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FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

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FOR DAYS CDD

Schedule: ASHRAE Retail Lighting Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

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FOR DAYS SAT

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

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FOR DAYS HDD

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FOR DAYS CDD

Schedule: ASHRAE Retail HVAC Ann Type of Schedule: ON/OFF

THROUGH 31 12

FOR DAYS SUN HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

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FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Retail Hot Water Ann Type of Schedule: FRACTION

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FOR DAYS SUN HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.07 0.07 0.07 0.06 0.06 0.06 0.07 0.10 0.12 0.14 0.29 0.31 0.36 0.36 0.34 0.35 0.37 0.34 0.25 0.27 0.21 0.16 0.10 0.06

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.11 0.10 0.08 0.06 0.06 0.06 0.07 0.20 0.24 0.27 0.42 0.54 0.59 0.60 0.49 0.48 0.47 0.46 0.44 0.36 0.29 0.22 0.16 0.13

Schedule: ASHRAE Retail Elevator Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Retail Heating Ann Type of Schedule: TEMPERATURE

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Retail Cooling Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE School Occupancy Ann Type of Schedule: FRACTION

(CONTINUED)

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS HDD

FOR DAYS CDD

Schedule: ASHRAE School Lighting Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

(CONTINUED) ------

FOR DAYS SAT

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

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FOR DAYS HDD

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FOR DAYS CDD

Schedule: ASHRAE School HVAC Ann Type of Schedule: ON/OFF

THROUGH 31 12

FOR DAYS SUN HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

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Schedule: ASHRAE School Hot Water Ann Type of Schedule: FRACTION

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FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Schedule: ASHRAE School Elevator Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN SAT HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

Schedule: ASHRAE School Heating Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN HOL

-----(CONTINUED)-----

FOR DAYS MON TUE WED THU FRI HDD CDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0\ 68.0$ 

FOR DAYS SAT

 $60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0$ 

Schedule: ASHRAE School Cooling Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: ASHRAE Warehouse Occupancy Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

----- ( CONTINUED ) -----

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

FOR DAYS HDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS CDD

Schedule: ASHRAE Warehouse Lighting Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

-----(CONTINUED)------

FOR DAYS HDD

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00$ 

FOR DAYS CDD

Schedule: ASHRAE Warehouse HVAC Ann Type of Schedule: ON/OFF

THROUGH 31 12

FOR DAYS SUN HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS MON TUE WED THU FRI HDD CDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS SAT

0. 0. 0. 0. 0. 0. 0. 1. 1. 1. 1. 1. 1. 1. 1. 0. 0. 0. 0. 0. 0. 0. 0.

Schedule: ASHRAE Warehouse Hot Water Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

-----(CONTINUED)------

FOR DAYS MON TUE WED THU FRI HDD CDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.02 0.02 0.02 0.02 0.02 0.07 0.07 0.10 0.30 0.36 0.36 0.46 0.57 0.43 0.38 0.40 0.30 0.18 0.03 0.03 0.03 0.03 0.03 0.03

FOR DAYS SAT

Schedule: ASHRAE Warehouse Elevator Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN SAT HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

Schedule: ASHRAE Warehouse Heating Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

-----(CONTINUED)-----

FOR DAYS SAT

Schedule: ASHRAE Warehouse Cooling Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: eQUEST Res Ltg Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN

FOR DAYS MON TUE WED THU FRI

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.04 0.03 0.03 0.03 0.05 0.08 0.12 0.40 0.12 0.05 0.04 0.04 0.04 0.04 0.04 0.04 0.08 0.15 0.40 0.20 0.12 0.10 0.05 0.05

----- ( CONTINUED ) -----

FOR DAYS SAT

FOR DAYS HOL HDD CDD

Schedule: eQUEST Res El Eqp Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN SAT

FOR DAYS MON TUE WED THU FRI HOL HDD CDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.15 0.15 0.15 0.15 0.15 0.20 0.30 0.80 0.40 0.20 0.20 0.20 0.20 0.20 0.20 0.30 0.40 0.60 0.80 0.60 0.40 0.30 0.15 0.15

Schedule: eQUEST Res Gas Eqp Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN

FOR DAYS MON TUE WED THU FRI HOL

-----(CONTINUED)-----

FOR DAYS SAT

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.05\ 0.20\ 0.40\ 0.40\ 0.10\ 0.05\ 0.05\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00$ 

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00$ 

FOR DAYS CDD

FOR DAYS HDD

Schedule: eQUEST Res Inf Sch Type of Schedule: MULTIPLIER

THROUGH 31 3

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

THROUGH 31 8

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: eQUEST Retail Inf Sch Type of Schedule: FRACTION -----(CONTINUED)------

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: eQUEST Retail Fans Sch Type of Schedule: ON/OFF/FLAG

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: eQUEST Stair Occ Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: eQUEST Parking Lobby Ht-T Sch Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: eQUEST Parking Lobby Cl-T Sch Type of Schedule: TEMPERATURE

\_\_\_\_\_\_

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Schedule: eQUEST Low-Use Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: eQUEST On/Off/Flag Sch Type of Schedule: ON/OFF/FLAG

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: eQUEST Always On Sch Fraction Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: eQUEST Always Off Sch Fraction Type of Schedule: FRACTION

-----(CONTINUED)------

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00$ 

Schedule: eQUEST Always On Sch On/Off/Flag Type of Schedule: ON/OFF/FLAG

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Schedule: eQUEST Always Off Sch On/Off/Fla Type of Schedule: ON/OFF/FLAG

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Schedule: eQUEST Temperature On/Off/Flag S Type of Schedule: ON/OFF/FLAG

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: eQUEST Dummy Tempered Air Sch Type of Schedule: TEMPERATURE

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: eQUEST No Heat Ht-T Sch Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: eQUEST Ext Lighting Sch Type of Schedule: FRACTION

THROUGH 31 1

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 28 2

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.25 0.70 0.90 0.90 0.90 0.80 0.70

THROUGH 31 3

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 4

(CONTINUED)------

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 5

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 6

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 7

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 8

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 9

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $0.60\ 0.60\ 0.60\ 0.60\ 0.60\ 0.45\ 0.25\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.10\ 0.50\ 0.90\ 0.90\ 0.90\ 0.80\ 0.70$ 

THROUGH 31 10

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 11

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: eQUEST Office MinOA Sch Type of Schedule: FRAC/DESIGN

THROUGH 31 12

FOR DAYS SUN SAT HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

Schedule: eQUEST Retail MinOA Sch Type of Schedule: FRAC/DESIGN

THROUGH 31 12

FOR DAYS SUN

0.00 0.00

FOR DAYS MON TUE WED THU FRI HDD CDD

0.00 0.

FOR DAYS SAT

0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

FOR DAYS HOL

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00$ 

Schedule: eQUEST School MinOA Sch Type of Schedule: FRAC/DESIGN

THROUGH 31 12

FOR DAYS SUN SAT HOL

REPORT- LV-G Details of Schedules

WEATHER FILE- SEATTLE BOEING FI WA

FOR DAYS MON TUE WED THU FRI HDD CDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

Schedule: eQUEST Off Equipment Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04\ 0.04$ 

FOR DAYS MON TUE WED THU FRI

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $0.12\ \ 0.12\ \ 0.12\ \ 0.12\ \ 0.12\ \ 0.12\ \ 0.12\ \ 0.12\ \ 0.12\ \ 0.12\ \ 0.12\ \ 0.12\ \ 0.12\ \ 0.12\ \ 0.12\ \ 0.12$ 

FOR DAYS HDD

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00$ 

FOR DAYS CDD

0.12 0.12 0.12 0.12 0.12 0.12 0.22 0.76 0.90 0.90 0.90 0.74 0.74 0.90 0.90 0.90 0.82 0.42 0.22 0.26 0.16 0.16 0.12 0.12

Schedule: EQUEST Conf Occupancy Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

-----(CONTINUED)------

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

FOR DAYS HDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS CDD

Schedule: EQUEST Conf Equip Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

FOR DAYS HDD

FOR DAYS CDD

Schedule: EQUEST Conf Lighting Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

FOR DAYS HDD

FOR DAYS CDD

Schedule: Storage Lighting Sch Type of Schedule: FRACTION

----(CONTINUED)-----

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: eQUEST Garage Exh Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Resi Exh Fan Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Freeze Protect Heat Sch Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Corridor Heat Sch Type of Schedule: TEMPERATURE

AND STATE OF SCHOOL OF SCH

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Corridor Cool Sch Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: NYES Residential Ltq Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Hourly Report Schedule Type of Schedule: ON/OFF

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS HDD CDD

Schedule: Misc Fans Sch Type of Schedule: FRACTION

REPORT- LV-G Details of Schedules

WEATHER FILE- SEATTLE BOEING FI WA

-----(CONTINUED)-----

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Corr Ltg Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: No Cooling Sch Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: SCLRSCElecYear Type of Schedule: FLAG

(CONTINUED)

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 28 2

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 3

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 4

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 5

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 6

-----(CONTINUED)------

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

THROUGH 31 7

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 8

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 9

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 10

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 11

-----(CONTINUED)------

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: SCLMDCElecYear Type of Schedule: FLAG

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: SCLSMCElecYear Type of Schedule: FLAG

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: SCLLGCElecYear Type of Schedule: FLAG

eQUEST 3.65 Residential Multi Family Tem

DOE-2.3-50h 1/26/2023

9:30:35 BDL RUN 9

REPORT- LV-G Details of Schedules

WEATHER FILE- SEATTLE BOEING FI WA

-----(CONTINUED)------

FOR DAYS SUN HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR DAYS MON TUE WED THU FRI SAT HDD CDD

Schedule: SCLHDCElecYear Type of Schedule: FLAG

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI SAT HDD CDD

Schedule: PSERate25ElecYear Type of Schedule: FLAG

THROUGH 31 3

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 9

-----(CONTINUED)------

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: PSERate26ElecYear Type of Schedule: FLAG

THROUGH 31 3

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 9

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Booster Pump Ann Type of Schedule: FRACTION

-----(CONTINUED)-----

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: RS-29 Resi Inf Ann Type of Schedule: MULTIPLIER

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: RS-29 Non Res Inf Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

FOR DAYS SAT

Schedule: RS-29 Retail Inf Ann Type of Schedule: FRACTION

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Min Cooling Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: EQUEST Lobby Occupancy Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Resi Setback Heating ANN Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Resi Setback Cooling ANN Type of Schedule: TEMPERATURE

(CONTINUED)

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

 $78.0 \ 78.0 \ 78.0 \ 78.0 \ 78.0 \ 78.0 \ 78.0 \ 78.0 \ 78.0 \ 78.0 \ 78.0 \ 80.0 \ 80.0 \ 80.0 \ 80.0 \ 80.0 \ 80.0 \ 80.0 \ 78.0 \$ 

Schedule: Resi Fan Cycling Sch Type of Schedule: ON/OFF/FLAG

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Schedule: Res Amenity Occ Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN SAT HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.50\ 0.50\ 0.50\ 0.50\ 0.50\ 0.00\ 0.00\ 0.00\ 0.00$ 

Schedule: Res Amenity Ltg Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN SAT HOL

-----(CONTINUED)------

FOR DAYS MON TUE WED THU FRI HDD CDD

Schedule: Res Amenity Eqp Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN SAT HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

Schedule: Res Amenity Htg Sch Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN SAT HOL

FOR DAYS MON TUE WED THU FRI HDD CDD

Schedule: Res Amenity Clg Sch Type of Schedule: TEMPERATURE

-----(CONTINUED)------

FOR DAYS SUN SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $82.0\ 82.0\ 82.0\ 82.0\ 82.0\ 82.0\ 82.0\ 82.0\ 74.0$ 

FOR DAYS MON TUE WED THU FRI HDD CDD

Schedule: Res Amenity Fan Sch Type of Schedule: ON/OFF/FLAG

THROUGH 31 12

FOR DAYS SUN SAT HOL

0. 0. 0. 0. 0. 0. 0. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 0. 0. 0. 0

FOR DAYS MON TUE WED THU FRI HDD CDD

Schedule: RS-29 Res Heating Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

 $70.0\ 70.0\ 70.0\ 70.0\ 70.0\ 70.0\ 70.0\ 72.0$ 

Schedule: RS-29 Res Cooling Ann Type of Schedule: TEMPERATURE

REPORT- LV-G Details of Schedules

WEATHER FILE- SEATTLE BOEING FI WA

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

 $78.0 \ 78.0 \$ 

Schedule: Pool Water Heat Boiler Annual Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

 $0.25\ 0.25\ 0.25\ 0.25\ 0.25\ 0.25\ 0.25\ 0.25\ 0.25\ 0.25\ 0.25\ 0.75\ 0.75\ 0.75\ 0.75\ 0.75\ 0.75\ 0.75\ 0.75\ 0.75\ 0.75$ 

Schedule: Pool Air Heat Temp Annual Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $78.0 \ 78.0 \$ 

Schedule: Pool Air Cool Temp Annual Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Pool Ventilation on/off Annual Type of Schedule: ON/OFF/FLAG

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Schedule: Dummy Schedule Annual Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Ext Lighting Sch Type of Schedule: FRACTION

THROUGH 31 1

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 28 2

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 3

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 4

(CONTINUED)------

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 5

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 6

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 7

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 8

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 9

----- (CONTINUED)-----

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 10

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 11

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: DHW Eqp NRes Sch Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

-----(CONTINUED)------

FOR DAYS MON TUE WED THU FRI

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

0.05 0.05 0.05 0.05 0.05 0.20 0.80 0.70 0.50 0.40 0.20 0.20 0.20 0.30 0.50 0.50 0.70 0.70 0.40 0.40 0.20 0.20 0.10 0.10

FOR DAYS SAT CDD

 $0.08\ 0.05\ 0.05\ 0.05\ 0.05\ 0.05\ 0.06\ 0.12\ 0.27\ 0.47\ 0.47\ 0.33\ 0.32\ 0.47\ 0.76\ 0.72\ 0.69\ 0.63\ 0.55\ 0.47\ 0.40\ 0.37\ 0.23\ 0.14$ 

FOR DAYS HDD

 $0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00\ 0.00$ 

Schedule: S1 Sys1 (PVVT) Fan Sch Type of Schedule: ON/OFF/FLAG

THROUGH 31 12

FOR DAYS SUN SAT HOL HDD CDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

1. 1. 1. 1. 1. 1. 1. 1. 0. 0. 0. 0. 0. 0. 1. 1. 1. 1. 1. 1. 1. 1

FOR DAYS MON TUE WED THU FRI

1. 1. 1. 1. 1. 1. 0. 0. 0. 0. 0. 0. 0. 0. 0. 1. 1. 1. 1. 1. 1. 1.

Schedule: S1 Sys1 (PVVT) Cool Sch Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

 $78.0 \ 78.0 \$ 

Schedule: S1 Sys1 (PVVT) Heat Sch Type of Schedule: TEMPERATURE

9:30:35 BDL RUN 9

REPORT- LV-G Details of Schedules

WEATHER FILE- SEATTLE BOEING FI WA

-----(CONTINUED)-----

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: XFRM Cooling Ann Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: 2015 SEC DHW Inlet Temp Type of Schedule: TEMPERATURE

THROUGH 31 1

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 28 2

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

THROUGH 30 4

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 5

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 6

FOR DAYS SUN MON THE WED THE FRE SAT HOLE

THROUGH 31 7

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 8

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FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

THROUGH 30 9

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 31 10

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

THROUGH 30 11

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

 $60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0\ 60.0$ 

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Schedule: Always Off Type of Schedule: ON/OFF

(CONTINUED)

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Res Cooling BadBOI Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Res Heating BadBOI Type of Schedule: TEMPERATURE

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: Constant Res HW Ann Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN SAT HOL

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.01 0.01 0.01 0.01 0.02 0.04 0.09 0.11 0.09 0.07 0.05 0.04 0.04 0.03 0.03 0.03 0.03 0.04 0.05 0.05 0.05 0.04 0.04 0.04 0.02

FOR DAYS MON TUE WED THU FRI HDD CDD

HOUR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0.01 0.01 0.01 0.01 0.02 0.04 0.09 0.11 0.09 0.07 0.05 0.04 0.04 0.03 0.03 0.03 0.04 0.05 0.05 0.05 0.04 0.04 0.02

Schedule: MF Lobby Occupancy Ann Type of Schedule: FRACTION

-----(CONTINUED)-----

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

Schedule: ASHRAE RST Exhaust - Low Type of Schedule: FRACTION

THROUGH 31 12

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS SAT

FOR DAYS HDD

FOR DAYS CDD

Schedule: ASHRAE RST Exhaust - High Type of Schedule: FRACTION

-----(CONTINUED)-----

FOR DAYS SUN HOL

FOR DAYS MON TUE WED THU FRI

FOR DAYS HDD

FOR DAYS SAT

FOR DAYS CDD

Schedule: CHW Supply Temp Reset Type of Schedule: RESET-TEMP

THROUGH 31 12

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 80.0 60.0 54.0 44.0 1. 24. 0.0 0.0 0.0 0.0

Schedule: Dirt Depre Windows Type of Schedule: FRACTION

DOE-2.3-50h 1/26/2023 9:30:35 BDL RUN 9

REPORT- LV-G Details of Schedules

WEATHER FILE- SEATTLE BOEING FI WA

.....(CONTINUED)------

FOR DAYS SUN MON TUE WED THU FRI SAT HOL

NUMBER OF WINDOWS 593

|                               | LOCATION OF ORIGIN |         |        |       |        |         |       |      |           |         |
|-------------------------------|--------------------|---------|--------|-------|--------|---------|-------|------|-----------|---------|
|                               |                    | GLASS   | GLASS  | GLASS | IN     | SURFACE | FRAME | CURB | FRAME     | CURB    |
| WINDOW                        |                    | AREA    | HEIGHT | WIDTH | COOR   | DINATES | AR    | EA   | U-VAI     | LUE     |
| NAME                          | MULTIPLIER         | (SQFT ) | (FT)   | (FT)  | X (FT) | Y (FT)  | (SQF  | т)   | (BTU/HR-S | SQFT-F) |
| Window 593                    | 1.0                | 57.60   | 3.60   | 16.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| Window 593                    | 1.0                | 306.03  | 3.60   | 85.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| Window 591                    | 1.0                | 72.01   | 3.60   | 20.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 North Win (G.C4.E3.W1)     | 1.0                | 12.60   | 3.60   | 3.50  | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 North Win (G.N5.E4.W1)     | 1.0                | 331.23  | 3.60   | 92.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 South Win (G.E6.E5.W1)     | 1.0                | 56.61   | 3.54   | 16.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 East Win (G.E6.E6.W1)      | 1.0                | 62.70   | 2.16   | 29.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 North Win (G.E6.E7.W1)     | 1.0                | 72.01   | 3.60   | 20.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 North Win (G.W7.E9.W1)     | 1.0                | 81.01   | 3.60   | 22.50 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 West Win (G.W7.E10.W1)     | 1.0                | 111.61  | 3.28   | 34.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 West Win (G.W8.E11.W1)     | 1.0                | 49.24   | 3.28   | 15.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 East Win (G.E9.E12.W1)     | 1.0                | 38.92   | 2.16   | 18.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 East Win (G.E10.E13.W1)    | 1.0                | 60.54   | 2.16   | 28.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 North Win (G.E10.E14.W1)   | 1.0                | 75.61   | 3.60   | 21.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 South Win (G.E10.E15.W1)   | 1.0                | 63.68   | 3.54   | 18.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 South Win (G.S11.E16.W1)   | 1.0                | 304.26  | 3.54   | 86.00 | 0.00   | 0.10    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 North Win (G.S17.E24.W1)   | 1.0                | 265.27  | 7.07   | 37.50 | 0.00   | 1.00    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 East Win (G.S17.E25.W1)    | 1.0                | 7.07    | 7.07   | 1.00  | 0.00   | 1.00    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 East Win (G.E19.E27.W1)    | 1.0                | 61.62   | 2.16   | 28.50 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 East Win (G.NNE24.E30.W1)  | 1.0                | 40.00   | 2.16   | 18.50 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 West Win (G.WNW27.E37.W1)  | 1.0                | 60.73   | 3.28   | 18.50 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 North Win (G.WNW27.E39.W1) | 1.0                | 75.61   | 3.60   | 21.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 North Win (G.N28.E42.W1)   | 1.0                | 187.22  | 3.60   | 52.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 East Win (G.E29.E45.W1)    | 1.0                | 52.97   | 2.16   | 24.50 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L1 North Win (G.E29.E46.W1)   | 1.0                | 61.21   | 3.60   | 17.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 North Win (G.C3.E1.W1)     | 1.0                | 12.60   | 3.60   | 3.50  | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 North Win (G.N4.E2.W1)     | 1.0                | 36.00   | 3.60   | 10.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 East Win (G.N4.E3.W1)      | 1.0                | 10.81   | 2.16   | 5.00  | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 North Win (G.N4.E4.W1)     | 1.0                | 46.80   | 3.60   | 13.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 West Win (G.N4.E5.W1)      | 1.0                | 16.41   | 3.28   | 5.00  | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 North Win (G.N4.E6.W1)     | 1.0                | 36.00   | 3.60   | 10.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 East Win (G.N4.E7.W1)      | 1.0                | 10.81   | 2.16   | 5.00  | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 North Win (G.N4.E8.W1)     | 1.0                | 46.80   | 3.60   | 13.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 West Win (G.N4.E9.W1)      | 1.0                | 16.41   | 3.28   | 5.00  | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 North Win (G.N4.E10.W1)    | 1.0                | 36.00   | 3.60   | 10.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 East Win (G.N4.E11.W1)     | 1.0                | 10.81   | 2.16   | 5.00  | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 North Win (G.N4.E12.W1)    | 1.0                | 46.80   | 3.60   | 13.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 West Win (G.N4.E13.W1)     | 1.0                | 16.41   | 3.28   | 5.00  | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 North Win (G.N4.E14.W1)    | 1.0                | 36.00   | 3.60   | 10.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 East Win (G.N4.E15.W1)     | 1.0                | 10.81   | 2.16   | 5.00  | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 North Win (G.N4.E16.W1)    | 1.0                | 46.80   | 3.60   | 13.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 West Win (G.N4.E17.W1)     | 1.0                | 16.41   | 3.28   | 5.00  | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 South Win (G.E5.E18.W1)    | 1.0                | 77.83   | 3.54   | 22.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 East Win (G.E5.E19.W1)     | 1.0                | 73.51   | 2.16   | 34.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 North Win (G.E5.E20.W1)    | 1.0                | 46.80   | 3.60   | 13.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 East Win (G.E5.E21.W1)     | 1.0                | 10.81   | 2.16   | 5.00  | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 North Win (G.E5.E22.W1)    | 1.0                | 46.80   | 3.60   | 13.00 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 West Win (G.E5.E23.W1)     | 1.0                | 16.41   | 3.28   | 5.00  | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
| L2 North Win (G.W6.E25.W1)    | 1.0                | 81.01   | 3.60   | 22.50 | 0.00   | 3.12    | 0.00  | 0.00 | 0.384     | 0.000   |
|                               |                    |         |        |       |        |         |       |      |           |         |

-----(CONTINUED)------

|  |            | GLASS          | GLASS        | GLASS | LOCATION OF | ORIGIN       | FRAME | CURB | FRAME    | CURB  |
|--|------------|----------------|--------------|-------|-------------|--------------|-------|------|----------|-------|
| WINDOW   |            | AREA           | HEIGHT       | WIDTH |             | DINATES      | AR    |      | U-VA     |       |
| NAME   | MULTIPLIER | (SQFT )        | (FT)         | (FT)  | X (FT)      | Y (FT)       | (SQF  |      | (BTU/HR- |       |
|  |            |                |              |       |             |              |       |      |          |       |
| L2 West Win (G.W6.E26.W1)                                  | 1.0        | 111.61         | 3.28         | 34.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 West Win (G.W7.E27.W1)                                  | 1.0        | 49.24          | 3.28         | 15.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.E8.E28.W1)                                  | 1.0        | 36.75          | 2.16         | 17.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.E9.E29.W1)                                  | 1.0        | 60.54          | 2.16         | 28.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 North Win (G.E9.E30.W1)                                 | 1.0        | 75.61          | 3.60         | 21.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.E9.E31.W1)                                  | 1.0        | 2.16           | 2.16         | 1.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 South Win (G.E9.E32.W1)                                 | 1.0        | 63.68          | 3.54         | 18.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 West Win (G.S10.E33.W1)                                 | 1.0        | 13.13          | 3.28         | 4.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 South Win (G.S10.E34.W1)                                | 1.0        | 74.30<br>8.65  | 3.54<br>2.16 | 21.00 | 0.00        | 3.12<br>3.12 | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.S10.E35.W1) L2 South Win (G.S10.E36.W1)     | 1.0        | 45.99          | 3.54         | 13.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 West Win (G.S10.E30.W1)                                 | 1.0        | 13.13          | 3.28         | 4.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 South Win (G.S10.E37.W1)                                | 1.0        | 77.83          | 3.54         | 22.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.S10.E39.W1)                                 | 1.0        | 8.65           | 2.16         | 4.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 South Win (G.S10.E40.W1)                                | 1.0        | 45.99          | 3.54         | 13.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 West Win (G.S10.E41.W1)                                 | 1.0        | 13.13          | 3.28         | 4.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 South Win (G.S10.E42.W1)                                | 1.0        | 77.83          | 3.54         | 22.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.S10.E43.W1)                                 | 1.0        | 8.65           | 2.16         | 4.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 South Win (G.S10.E44.W1)                                | 1.0        | 21.23          | 3.54         | 6.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 South Win (G.S10.E45.W1)                                | 1.0        | 35.38          | 3.54         | 10.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 West Win (G.SSW12.E46.W1)                               | 1.0        | 49.52          | 7.07         | 7.00  | 0.00        | 1.00         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 South Win (G.SSW12.E47.W1)                              | 1.0        | 99.03          | 7.07         | 14.00 | 0.00        | 1.00         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 North Win (G.SSW12.E48.W1)                              | 1.0        | 265.27         | 7.07         | 37.50 | 0.00        | 1.00         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.SSW12.E49.W1)                               | 1.0        | 7.07           | 7.07         | 1.00  | 0.00        | 1.00         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 South Win (G.SSW12.E50.W1)                              | 1.0        | 212.22         | 7.07         | 30.00 | 0.00        | 1.00         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 South Win (G.SSW12.E51.W1)                              | 1.0        | 35.37          | 7.07         | 5.00  | 0.00        | 1.00         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 North Win (G.E14.E53.W1)                                | 1.0        | 12.60          | 3.60         | 3.50  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.E14.E54.W1)                                 | 1.0        | 17.30          | 2.16         | 8.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.E14.E55.W1)                                 | 1.0        | 119.99         | 2.16         | 55.50 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 North Win (G.WNW18.E57.W1)                              | 1.0        | 23.40          | 3.60         | 6.50  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.WNW18.E58.W1)                               | 1.0        | 10.81          | 2.16         | 5.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 North Win (G.WNW18.E59.W1)                              | 1.0        | 39.60          | 3.60         | 11.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 West Win (G.WNW18.E60.W1)                               | 1.0        | 16.41          | 3.28         | 5.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 North Win (G.WNW18.E61.W1) L2 East Win (G.WNW18.E62.W1) | 1.0        | 25.20<br>10.81 | 3.60<br>2.16 | 7.00  | 0.00        | 3.12<br>3.12 | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 North Win (G.WNW18.E63.W1)                              | 1.0        | 68.41          | 3.60         | 19.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 West Win (G.WNW18.E64.W1)                               | 1.0        | 100.12         | 3.28         | 30.50 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 North Win (G.N19.E65.W1)                                | 1.0        | 23.40          | 3.60         | 6.50  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.N19.E66.W1)                                 | 1.0        | 10.81          | 2.16         | 5.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 North Win (G.N19.E67.W1)                                | 1.0        | 39.60          | 3.60         | 11.00 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 West Win (G.N19.E68.W1)                                 | 1.0        | 16.41          | 3.28         | 5.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 North Win (G.N19.E69.W1)                                | 1.0        | 23.40          | 3.60         | 6.50  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.N19.E70.W1)                                 | 1.0        | 10.81          | 2.16         | 5.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 North Win (G.N19.E71.W1)                                | 1.0        | 37.80          | 3.60         | 10.50 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 West Win (G.N19.E72.W1)                                 | 1.0        | 16.41          | 3.28         | 5.00  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 South Win (G.SW20.E73.W1)                               | 1.0        | 275.88         | 7.07         | 39.00 | 0.00        | 1.00         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.SW20.E74.W1)                                | 1.0        | 88.42          | 7.07         | 12.50 | 0.00        | 1.00         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 South Win (G.SW20.E75.W1)                               | 1.0        | 56.59          | 7.07         | 8.00  | 0.00        | 1.00         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 West Win (G.SW20.E76.W1)                                | 1.0        | 583.60         | 7.07         | 82.50 | 0.00        | 1.00         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 South Win (G.E23.E77.W1)                                | 1.0        | 83.14          | 3.54         | 23.50 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 East Win (G.E23.E78.W1)                                 | 1.0        | 70.26          | 2.16         | 32.50 | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
| L2 North Win (G.E23.E79.W1)                                | 1.0        | 27.00          | 3.60         | 7.50  | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000 |
|  |            |                |              |       |             |              |       |      |          |       |

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|  |            | GI NGG         | GT 3 GG         | GT NGG         | LOCATION OF |              | ED AME      | GLID D | ED ME         | GIID D  |
|--|------------|----------------|-----------------|----------------|-------------|--------------|-------------|--------|---------------|---------|
| WINDOW   |            | GLASS<br>AREA  | GLASS<br>HEIGHT | GLASS<br>WIDTH |             | SURFACE      | FRAME<br>AR | CURB   | FRAME<br>U-VA | CURB    |
| NAME   | MULTIPLIER | (SQFT )        | (FT)            | (FT)           | X (FT)      | Y (FT)       | (SQF        |        | (BTU/HR-      |         |
| WIND   | MODITIBLE  | (bgii )        | (11)            | (11)           | 21 (11)     | 1 (11)       | (501)       | ± /    | (DIO) IIIC    | DQII I) |
| L2 East Win (G.E23.E80.W1)                           | 1.0        | 10.81          | 2.16            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L2 North Win (G.E23.E81.W1)                          | 1.0        | 39.60          | 3.60            | 11.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L2 West Win (G.E23.E82.W1)                           | 1.0        | 16.41          | 3.28            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L2 South Win (G.S27.E88.W1)                          | 1.0        | 84.89          | 7.07            | 12.00          | 0.00        | 1.00         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 North Win (G.N3.E1.W1)                            | 1.0        | 147.61         | 3.60            | 41.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 East Win (G.N3.E2.W1)                             | 1.0        | 2.16           | 2.16            | 1.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 North Win (G.N4.E3.W1)                            | 1.0        | 36.00          | 3.60            | 10.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 East Win (G.N4.E4.W1)                             | 1.0        | 10.81          | 2.16            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 North Win (G.N4.E5.W1)                            | 1.0        | 46.80          | 3.60            | 13.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 West Win (G.N4.E6.W1)                             | 1.0        | 16.41          | 3.28            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 North Win (G.N4.E7.W1)                            | 1.0        | 36.00          | 3.60            | 10.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 East Win (G.N4.E8.W1)                             | 1.0        | 10.81          | 2.16            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 North Win (G.N4.E9.W1)                            | 1.0        | 46.80          | 3.60            | 13.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 West Win (G.N4.E10.W1)                            | 1.0        | 16.41          | 3.28            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 North Win (G.N4.E11.W1)                           | 1.0        | 36.00          | 3.60            | 10.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 East Win (G.N4.E12.W1)                            | 1.0        | 10.81          | 2.16            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 North Win (G.N4.E13.W1)                           | 1.0        | 46.80          | 3.60            | 13.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 West Win (G.N4.E14.W1)                            | 1.0        | 16.41          | 3.28            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 North Win (G.N4.E15.W1)                           | 1.0        | 36.00          | 3.60            | 10.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 East Win (G.N4.E16.W1)                            | 1.0        | 10.81          | 2.16            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 North Win (G.N4.E17.W1)                           | 1.0        | 46.80          | 3.60            | 13.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 West Win (G.N4.E18.W1)                            | 1.0        | 16.41          | 3.28            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 South Win (G.E5.E19.W1)                           | 1.0        | 77.83          | 3.54            | 22.00          | 0.00        | 3.12         |             | 0.00   | 0.384         | 0.000   |
| L3 East Win (G.E5.E20.W1) L3 North Win (G.E5.E21.W1) | 1.0        | 73.51<br>46.80 | 2.16<br>3.60    | 34.00<br>13.00 | 0.00        | 3.12<br>3.12 | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 East Win (G.E5.E21.W1)                            | 1.0        | 10.81          | 2.16            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 North Win (G.E5.E23.W1)                           | 1.0        | 46.80          | 3.60            | 13.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 West Win (G.E5.E24.W1)                            | 1.0        | 16.41          | 3.28            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 North Win (G.W6.E26.W1)                           | 1.0        | 81.01          | 3.60            | 22.50          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 West Win (G.W6.E27.W1)                            | 1.0        | 111.61         | 3.28            | 34.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 West Win (G.W7.E28.W1)                            | 1.0        | 49.24          | 3.28            | 15.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 East Win (G.E8.E29.W1)                            | 1.0        | 36.75          | 2.16            | 17.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 South Win (G.E9.E30.W1)                           | 1.0        | 15.92          | 3.54            | 4.50           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 West Win (G.E9.E31.W1)                            | 1.0        | 6.57           | 3.28            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 South Win (G.E9.E32.W1)                           | 1.0        | 51.30          | 3.54            | 14.50          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 East Win (G.E9.E33.W1)                            | 1.0        | 84.32          | 2.16            | 39.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 North Win (G.E9.E34.W1)                           | 1.0        | 79.21          | 3.60            | 22.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 West Win (G.S10.E35.W1)                           | 1.0        | 26.26          | 3.28            | 8.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 South Win (G.S10.E36.W1)                          | 1.0        | 7.08           | 3.54            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 East Win (G.S10.E37.W1)                           | 1.0        | 4.32           | 2.16            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 South Win (G.S10.E38.W1)                          | 1.0        | 12.38          | 3.54            | 3.50           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 West Win (G.S10.E39.W1)                           | 1.0        | 6.57           | 3.28            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 South Win (G.S10.E40.W1)                          | 1.0        | 45.99          | 3.54            | 13.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 East Win (G.S10.E41.W1)                           | 1.0        | 4.32           | 2.16            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 South Win (G.S10.E42.W1)                          | 1.0        | 15.92          | 3.54            | 4.50           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 West Win (G.S10.E43.W1)                           | 1.0        | 6.57           | 3.28            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 South Win (G.S10.E44.W1)                          | 1.0        | 45.99          | 3.54            | 13.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 East Win (G.S10.E45.W1)                           | 1.0        | 4.32           | 2.16            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 South Win (G.S10.E46.W1)                          | 1.0        | 15.92          | 3.54            | 4.50           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 West Win (G.S10.E47.W1)                           | 1.0        | 6.57           | 3.28            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 South Win (G.S10.E48.W1)                          | 1.0        | 45.99          | 3.54            | 13.00          | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
| L3 East Win (G.S10.E49.W1)                           | 1.0        | 4.32           | 2.16            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00   | 0.384         | 0.000   |
|  |            |                |                 |                |             |              |             |        |               |         |

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|   |            | ar 3 aa         | 97.3.99         | ar 1 aa        | LOCATION OF |              |             | arm.n |               | arm n   |
|---|------------|-----------------|-----------------|----------------|-------------|--------------|-------------|-------|---------------|---------|
| WINDOW  |            | GLASS<br>AREA   | GLASS<br>HEIGHT | GLASS<br>WIDTH |             | SURFACE      | FRAME<br>AR | CURB  | FRAME<br>U-VA | CURB    |
| NAME  | MULTIPLIER | (SOFT )         | (FT)            | (FT)           | X (FT)      | Y (FT)       | (SQF        |       | (BTU/HR-      |         |
| MANTE   | MODITEDIEK | (SQFI)          | (11)            | (11)           | A (F1)      | 1 (11)       | (501        | 1 /   | (DIO/IIIC)    | JQFI F) |
| L3 South Win (G.S10.E50.W1)                             | 1.0        | 15.92           | 3.54            | 4.50           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.S10.E51.W1)                              | 1.0        | 6.57            | 3.28            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 South Win (G.S10.E52.W1)                             | 1.0        | 44.22           | 3.54            | 12.50          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 East Win (G.S10.E53.W1)                              | 1.0        | 4.32            | 2.16            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 South Win (G.S10.E54.W1)                             | 1.0        | 15.92           | 3.54            | 4.50           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.S10.E55.W1)                              | 1.0        | 6.57            | 3.28            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 South Win (G.S10.E56.W1)                             | 1.0        | 45.99           | 3.54            | 13.00          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 East Win (G.S10.E57.W1)                              | 1.0        | 4.32            | 2.16            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 South Win (G.S10.E58.W1)                             | 1.0        | 15.92           | 3.54            | 4.50           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.S10.E59.W1)                              | 1.0        | 6.57            | 3.28            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 South Win (G.S10.E60.W1)                             | 1.0        | 45.99           | 3.54            | 13.00          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 East Win (G.S10.E61.W1)                              | 1.0        | 4.32            | 2.16            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 South Win (G.S10.E62.W1)                             | 1.0        | 15.92           | 3.54            | 4.50           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.S10.E63.W1)                              | 1.0        | 6.57            | 3.28            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 South Win (G.S10.E64.W1)                             | 1.0        | 44.22           | 3.54            | 12.50          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 East Win (G.S10.E65.W1)                              | 1.0        | 4.32            | 2.16            | 2.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 North Win (G.E13.E67.W1)                             | 1.0        | 12.60           | 3.60            | 3.50           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 East Win (G.E13.E68.W1)                              | 1.0        | 17.30           | 2.16            | 8.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 East Win (G.E13.E69.W1)                              | 1.0        | 119.99          | 2.16            | 55.50          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 South Win (G.NW17.E70.W1)                            | 1.0        | 12.38           | 3.54            | 3.50           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.NW17.E71.W1)                             | 1.0        | 22.98           | 3.28            | 7.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 North Win (G.NW17.E72.W1)                            | 1.0        | 25.20           | 3.60            | 7.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 East Win (G.NW17.E73.W1)                             | 1.0        | 10.81           | 2.16            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 North Win (G.NW17.E74.W1)                            | 1.0        | 68.41           | 3.60<br>3.28    | 19.00          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.NW17.E75.W1) L3 North Win (G.N18.E76.W1) | 1.0<br>1.0 | 100.12<br>23.40 | 3.28            | 30.50<br>6.50  | 0.00        | 3.12<br>3.12 | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 East Win (G.N18.E77.W1)                              | 1.0        | 10.81           | 2.16            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 North Win (G.N18.E78.W1)                             | 1.0        | 39.60           | 3.60            | 11.00          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.N18.E79.W1)                              | 1.0        | 16.41           | 3.28            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 North Win (G.N18.E80.W1)                             | 1.0        | 23.40           | 3.60            | 6.50           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 East Win (G.N18.E81.W1)                              | 1.0        | 10.81           | 2.16            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 North Win (G.N18.E82.W1)                             | 1.0        | 37.80           | 3.60            | 10.50          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.N18.E83.W1)                              | 1.0        | 16.41           | 3.28            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 North Win (G.N18.E84.W1)                             | 1.0        | 23.40           | 3.60            | 6.50           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 East Win (G.N18.E85.W1)                              | 1.0        | 10.81           | 2.16            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 North Win (G.N18.E86.W1)                             | 1.0        | 39.60           | 3.60            | 11.00          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.N18.E87.W1)                              | 1.0        | 16.41           | 3.28            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 South Win (G.E19.E88.W1)                             | 1.0        | 83.14           | 3.54            | 23.50          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 East Win (G.E19.E89.W1)                              | 1.0        | 70.26           | 2.16            | 32.50          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 North Win (G.E19.E90.W1)                             | 1.0        | 27.00           | 3.60            | 7.50           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 East Win (G.E19.E91.W1)                              | 1.0        | 10.81           | 2.16            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 North Win (G.E19.E92.W1)                             | 1.0        | 39.60           | 3.60            | 11.00          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.E19.E93.W1)                              | 1.0        | 16.41           | 3.28            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 North Win (G.W21.E94.W1)                             | 1.0        | 18.00           | 3.60            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.W21.E95.W1)                              | 1.0        | 34.47           | 3.28            | 10.50          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 South Win (G.W21.E96.W1)                             | 1.0        | 17.69           | 3.54            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.W21.E97.W1)                              | 1.0        | 32.83           | 3.28            | 10.00          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 North Win (G.W21.E98.W1)                             | 1.0        | 18.00           | 3.60            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.W21.E99.W1)                              | 1.0        | 96.83           | 3.28            | 29.50          | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 South Win (G.W21.E100.W1)                            | 1.0        | 17.69           | 3.54            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 West Win (G.W21.E101.W1)                             | 1.0        | 31.18           | 3.28            | 9.50           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
| L3 North Win (G.W21.E102.W1)                            | 1.0        | 18.00           | 3.60            | 5.00           | 0.00        | 3.12         | 0.00        | 0.00  | 0.384         | 0.000   |
|   |            |                 |                 |                |             |              |             |       |               |         |

-----(CONTINUED)------

|  |            | GLASS          | GLASS        | GLASS         | LOCATION OF | ORIGIN       | FRAME | CURB | FRAME    | CURB    |
|--|------------|----------------|--------------|---------------|-------------|--------------|-------|------|----------|---------|
| WINDOW   |            | AREA           | HEIGHT       | WIDTH         |             | DINATES      | AR    |      | U-VA     |         |
| NAME   | MULTIPLIER | (SQFT )        | (FT)         | (FT)          | X (FT)      | Y (FT)       | (SQF  | т)   | (BTU/HR- | SQFT-F) |
| L3 West Win (G.W21.E103.W1)                          | 1.0        | 32.83          | 3.28         | 10.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L3 West Win (G.W21.E104.W1)                          | 1.0        | 19.70          | 3.28         | 6.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L3 South Win (G.SW22.E105.W1)                        | 1.0        | 90.22          | 3.54         | 25.50         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L3 West Win (G.SW22.E106.W1)                         | 1.0        | 22.98          | 3.28         | 7.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L3 South Win (G.SW22.E107.W1)                        | 1.0        | 26.53          | 3.54         | 7.50          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L3 West Win (G.SW22.E108.W1)                         | 1.0        | 88.63          | 3.28         | 27.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L3 East Win (G.S24.E109.W1)                          | 1.0        | 7.57           | 2.16         | 3.50          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L3 South Win (G.S24.E110.W1)                         | 1.0        | 77.83          | 3.54         | 22.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L3 South Win (G.S24.E111.W1)                         | 1.0        | 159.21         | 3.54         | 45.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 North Win (G.N3.E1.W1)                            | 1.0        | 147.61         | 3.60         | 41.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 East Win (G.N3.E2.W1)                             | 1.0        | 2.16           | 2.16         | 1.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 North Win (G.N4.E3.W1)                            | 1.0        | 36.00          | 3.60         | 10.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 East Win (G.N4.E4.W1) L4 North Win (G.N4.E5.W1)   | 1.0        | 10.81<br>46.80 | 2.16<br>3.60 | 5.00<br>13.00 | 0.00        | 3.12<br>3.12 | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 West Win (G.N4.E5.W1)                             | 1.0        | 16.41          | 3.28         | 5.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 West Win (G.N4.E6.WI) L4 North Win (G.N4.E7.W1)   | 1.0        | 36.00          | 3.60         | 10.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 East Win (G.N4.E8.W1)                             | 1.0        | 10.81          | 2.16         | 5.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 North Win (G.N4.E9.W1)                            | 1.0        | 46.80          | 3.60         | 13.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 West Win (G.N4.E10.W1)                            | 1.0        | 16.41          | 3.28         | 5.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 North Win (G.N4.E11.W1)                           | 1.0        | 36.00          | 3.60         | 10.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 East Win (G.N4.E12.W1)                            | 1.0        | 10.81          | 2.16         | 5.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 North Win (G.N4.E13.W1)                           | 1.0        | 46.80          | 3.60         | 13.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 West Win (G.N4.E14.W1)                            | 1.0        | 16.41          | 3.28         | 5.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 North Win (G.N4.E15.W1)                           | 1.0        | 36.00          | 3.60         | 10.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 East Win (G.N4.E16.W1)                            | 1.0        | 10.81          | 2.16         | 5.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 North Win (G.N4.E17.W1)                           | 1.0        | 46.80          | 3.60         | 13.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 West Win (G.N4.E18.W1)                            | 1.0        | 16.41          | 3.28         | 5.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 South Win (G.E5.E19.W1)                           | 1.0        | 77.83          | 3.54         | 22.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 East Win (G.E5.E20.W1)                            | 1.0        | 73.51          | 2.16         | 34.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 North Win (G.E5.E21.W1)                           | 1.0        | 46.80          | 3.60         | 13.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 East Win (G.E5.E22.W1)                            | 1.0        | 10.81          | 2.16         | 5.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 North Win (G.E5.E23.W1)                           | 1.0        | 46.80          | 3.60         | 13.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 West Win (G.E5.E24.W1)                            | 1.0        | 16.41          | 3.28         | 5.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 North Win (G.W6.E26.W1)                           | 1.0        | 81.01          | 3.60         | 22.50         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 West Win (G.W6.E27.W1)                            | 1.0        | 111.61         | 3.28         | 34.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 West Win (G.W7.E28.W1)                            | 1.0        | 49.24          | 3.28         | 15.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 East Win (G.E8.E29.W1) L4 South Win (G.E9.E30.W1) | 1.0<br>1.0 | 36.75<br>15.92 | 2.16<br>3.54 | 17.00<br>4.50 | 0.00        | 3.12<br>3.12 | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 West Win (G.E9.E30.W1)                            | 1.0        | 6.57           | 3.28         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 South Win (G.E9.E31.W1)                           | 1.0        | 51.30          | 3.54         | 14.50         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 East Win (G.E9.E32.W1)                            | 1.0        | 84.32          | 2.16         | 39.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 North Win (G.E9.E34.W1)                           | 1.0        | 79.21          | 3.60         | 22.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 West Win (G.S10.E35.W1)                           | 1.0        | 26.26          | 3.28         | 8.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 South Win (G.S10.E36.W1)                          | 1.0        | 7.08           | 3.54         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 East Win (G.S10.E37.W1)                           | 1.0        | 4.32           | 2.16         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 South Win (G.S10.E38.W1)                          | 1.0        | 12.38          | 3.54         | 3.50          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 West Win (G.S10.E39.W1)                           | 1.0        | 6.57           | 3.28         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 South Win (G.S10.E40.W1)                          | 1.0        | 45.99          | 3.54         | 13.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 East Win (G.S10.E41.W1)                           | 1.0        | 4.32           | 2.16         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 South Win (G.S10.E42.W1)                          | 1.0        | 15.92          | 3.54         | 4.50          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 West Win (G.S10.E43.W1)                           | 1.0        | 6.57           | 3.28         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 South Win (G.S10.E44.W1)                          | 1.0        | 45.99          | 3.54         | 13.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
|  |            |                |              |               |             |              |       |      |          |         |

-----(CONTINUED)------

|  |            | GLASS          | GLASS        | GLASS         |        | SURFACE      | FRAME | CURB | FRAME     | CURB    |
|--|------------|----------------|--------------|---------------|--------|--------------|-------|------|-----------|---------|
| WINDOW   |            | AREA           | HEIGHT       | WIDTH         |        | DINATES      | AR    |      | U-VAI     |         |
| NAME   | MULTIPLIER | (SQFT )        | (FT)         | (FT)          | X (FT) | Y (FT)       | (SQF  | T )  | (BTU/HR-S | SQFT-F) |
| L4 East Win (G.S10.E45.W1)                             | 1.0        | 4.32           | 2.16         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 South Win (G.S10.E46.W1)                            | 1.0        | 15.92          | 3.54         | 4.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 West Win (G.S10.E47.W1)                             | 1.0        | 6.57           | 3.28         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 South Win (G.S10.E48.W1)                            | 1.0        | 45.99          | 3.54         | 13.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 East Win (G.S10.E49.W1)                             | 1.0        | 4.32           | 2.16         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 South Win (G.S10.E50.W1)                            | 1.0        | 15.92          | 3.54         | 4.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 West Win (G.S10.E51.W1)                             | 1.0        | 6.57           | 3.28         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 South Win (G.S10.E52.W1)                            | 1.0        | 44.22          | 3.54         | 12.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 East Win (G.S10.E53.W1)                             | 1.0        | 4.32           | 2.16         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 South Win (G.S10.E54.W1)                            | 1.0        | 15.92          | 3.54         | 4.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 West Win (G.S10.E55.W1)                             | 1.0        | 6.57           | 3.28         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 South Win (G.S10.E56.W1)                            | 1.0        | 45.99          | 3.54         | 13.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 East Win (G.S10.E57.W1)                             | 1.0        | 4.32           | 2.16         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 South Win (G.S10.E58.W1)                            | 1.0        | 15.92          | 3.54         | 4.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 West Win (G.S10.E59.W1)                             | 1.0        | 6.57           | 3.28         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 South Win (G.S10.E60.W1)                            | 1.0        | 45.99          | 3.54<br>2.16 | 13.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 East Win (G.S10.E61.W1) L4 South Win (G.S10.E62.W1) | 1.0        | 4.32<br>15.92  | 3.54         | 4.50          | 0.00   | 3.12<br>3.12 | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 West Win (G.S10.E62.W1)                             | 1.0        | 6.57           | 3.28         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 South Win (G.S10.E64.W1)                            | 1.0        | 44.22          | 3.54         | 12.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 East Win (G.S10.E65.W1)                             | 1.0        | 4.32           | 2.16         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 North Win (G.E13.E67.W1)                            | 1.0        | 12.60          | 3.60         | 3.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 East Win (G.E13.E68.W1)                             | 1.0        | 17.30          | 2.16         | 8.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 East Win (G.E13.E69.W1)                             | 1.0        | 119.99         | 2.16         | 55.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 South Win (G.NW17.E70.W1)                           | 1.0        | 12.38          | 3.54         | 3.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 West Win (G.NW17.E71.W1)                            | 1.0        | 22.98          | 3.28         | 7.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 North Win (G.NW17.E72.W1)                           | 1.0        | 25.20          | 3.60         | 7.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 East Win (G.NW17.E73.W1)                            | 1.0        | 10.81          | 2.16         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 North Win (G.NW17.E74.W1)                           | 1.0        | 68.41          | 3.60         | 19.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 West Win (G.NW17.E75.W1)                            | 1.0        | 100.12         | 3.28         | 30.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 North Win (G.N18.E76.W1)                            | 1.0        | 23.40          | 3.60         | 6.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 East Win (G.N18.E77.W1)                             | 1.0        | 10.81          | 2.16         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 North Win (G.N18.E78.W1)                            | 1.0        | 39.60          | 3.60         | 11.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 West Win (G.N18.E79.W1)                             | 1.0        | 16.41          | 3.28         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 North Win (G.N18.E80.W1)                            | 1.0        | 23.40          | 3.60         | 6.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 East Win (G.N18.E81.W1)                             | 1.0        | 10.81          | 2.16         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 North Win (G.N18.E82.W1)                            | 1.0        | 37.80          | 3.60         | 10.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 West Win (G.N18.E83.W1)                             | 1.0        | 16.41          | 3.28         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 North Win (G.N18.E84.W1)                            | 1.0        | 23.40          | 3.60         | 6.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 East Win (G.N18.E85.W1) L4 North Win (G.N18.E86.W1) | 1.0        | 10.81<br>39.60 | 2.16<br>3.60 | 5.00<br>11.00 | 0.00   | 3.12<br>3.12 | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 West Win (G.N18.E87.W1)                             | 1.0        | 16.41          | 3.28         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 South Win (G.E19.E88.W1)                            | 1.0        | 83.14          | 3.54         | 23.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 East Win (G.E19.E89.W1)                             | 1.0        | 70.26          | 2.16         | 32.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 North Win (G.E19.E90.W1)                            | 1.0        | 27.00          | 3.60         | 7.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 East Win (G.E19.E91.W1)                             | 1.0        | 10.81          | 2.16         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 North Win (G.E19.E92.W1)                            | 1.0        | 39.60          | 3.60         | 11.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 West Win (G.E19.E93.W1)                             | 1.0        | 16.41          | 3.28         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 North Win (G.W21.E94.W1)                            | 1.0        | 18.00          | 3.60         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 West Win (G.W21.E95.W1)                             | 1.0        | 34.47          | 3.28         | 10.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 South Win (G.W21.E96.W1)                            | 1.0        | 17.69          | 3.54         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L4 West Win (G.W21.E97.W1)                             | 1.0        | 32.83          | 3.28         | 10.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
|  |            |                |              |               |        |              |       |      |           |         |

-----(CONTINUED)------

| NAME (NAME) (N. 12), 189, 1811   1.0   18.0  |   |              |        |       |       | LOCATION OF |        |       |      |          |         |
|--|---|--------------|--------|-------|-------|-------------|--------|-------|------|----------|---------|
| MANUTIPLIER  | HINDON                                  |              | GLASS  | GLASS | GLASS |             |        | FRAME | CURB | FRAME    | CURB    |
| L4 North Win (G, W21,E98,W1)   |   | MIII TOT TED |        |       |       |             |        |       |      |          |         |
| L4 West Win (G.W21.E10.W1)  L5 West Win (G.W21.E10.W1)  L6 West Win (G.W21.E10.W1)  L7 West Win (G.W21.E10.W1)  L7 West Win (G.W21.E10.W1)  L8 West Win (G.W21.E10.W1)  L9 West Win (G.W21.E10.W1)  L9 West Win (G.W21.E10.W1)  L1 West Win (G.W21.E10.W1)  L2 West Win (G.W21.E10.W1)  L2 West Win (G.W21.E10.W1)  L1 West Win (G.W21.E10.W1)  L2 | NAME                                    | MODITATIER   | (SQFI) | (FI)  | (FI)  | A (F1)      | 1 (F1) | (SQF  | 1 )  | (BIU/HR- | SQFI-F) |
| L4 South Win (G.W21_EDIO.W1)   | L4 North Win (G.W21.E98.W1)             | 1.0          | 18.00  | 3.60  | 5.00  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 Meet Win (G.W2L.E102.W1)  | L4 West Win (G.W21.E99.W1)              | 1.0          | 96.83  | 3.28  | 29.50 | 0.00        | 3.12   | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 North Min (G.W21_E102_M1)  L4 Waser Min (G.W21_E103_N1)  L0 32_83 3_82 8_0.00 0_0.00 3.12 0_0.00 0_0.00 0_384 0_0.00  L4 West Min (G.W21_E104_M1)  L0 19.70 3_28 6_0.00 0_0.00 3.12 0_0.00 0_0.00 0_384 0_0.00  L4 West Min (G.W21_E104_M1)  L0 19.70 3_28 6_0.00 0_0.00 3.12 0_0.00 0_0.00 0_384 0_0.00  L4 West Min (G.W22_E106_M1)  L0 22_98 3_28 7_0.00 0_0.00 3.12 0_0.00 0_0.00 0_384 0_0.00  L4 West Min (G.W22_E106_M1)  L0 22_98 3_28 7_0.00 0_0.00 3.12 0_0.00 0_0.00 0_384 0_0.00  L4 West Min (G.W22_E106_M1)  L0 86_633 3_54 7_0.00 0_0.00 3_12 0_0.00 0_0.00 0_384 0_0.00  L4 West Min (G.W22_E106_M1)  L0 88_63 3_28 0_0.00 0_0.00 3_12 0_0.00 0_0.00 0_384 0_0.00  L4 West Min (G.W22_E106_M1)  L0 77_83 3_54 0_0.00 0_0.00 3_12 0_0.00 0_0.00 0_384 0_0.00  L4 South Min (G.W24_E110_M1)  L0 77_83 3_55 0_0.00 0_0.00 3_12 0_0.00 0_0.00 0_384 0_0.00  L5 North Min (G.W24_E110_M1)  L0 147_61 3_60 0_40 0_0.00 3_12 0_0.00 0_0.00 0_384 0_0.00  L5 North Min (G.W34_E11M1)  L0 147_61 3_60 0_40 0_0.00 0_0.00 3_12 0_0.00 0_0.03 0_384 0_0.00  L5 North Min (G.W34_E1M1)  L0 36_600 3_60 0_0.00 0_0.00 3_12 0_0.00 0_0.00 0_384 0_0.00  L5 North Min (G.W34_EN)  L5 Race Min (G.W34_EN)  L0 46_800 3_60 0_360 0_0.00 0_0.00 3_12 0_0.00 0_0.00 0_384 0_0.00  L5 North Min (G.W34_EN)  L5 Race Min (G.W34_EN)  L0 46_800 3_60 0_360 0_0.00 0_0.00 3_12 0_0.00 0_0.00 0_384 0_0.00  L5 North Min (G.W34_EN)  L5 Race Min (G.W34_EN)  L0 46_800 3_60 0_360 0_0.00 0_0.00 3_12 0_0.00 0_0.00 0_384 0_0.00  L5 North Min (G.W34_EN)  L5 Race Min (G.W34_EN)  L0 46_800 3_60 0_360 0_0.00 0_0.00 0_312 0_0.00 0_0.00 0_384 0_0.00  L5 North Min (G.W34_EN)  L0 46_800 3_60 0_0.00 0_0.00 0_312 0_0.00 0_0.00 0_384 0_0.00  L5 North Min (G.W34_EN)  L0 46_800 3_60 0_0.00 0_0.00 0_312 0_0.00 0_0.00 0_384 0_0.00  L5 North Min (G.W34_EN)  L0 46_800 3_60 0_0.00 0_0.00 0_312 0_0.00 0_0.00 0_384 0_0.00  L5 North Min (G.W34_EN)  L0 46_800 3_60 0_0.00 0_0.00 0_312 0_0.00 0_0.00 0_384 0_0.00  L5 North Min (G.W34_EN)  L0 46_800 3_60 0_0.00 0_0.00 0_312 0_0.00 0_0.00 0_384 0_0.00  L5 North Min (G.W34_ | L4 South Win (G.W21.E100.W1)            | 1.0          | 17.69  | 3.54  | 5.00  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 Mest Min (G.W21_E103.W1)  | L4 West Win (G.W21.E101.W1)             | 1.0          | 31.18  | 3.28  | 9.50  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384    | 0.000   |
| LA Mear Win (G. NR2_LE10A_W1)  | L4 North Win (G.W21.E102.W1)            | 1.0          | 18.00  | 3.60  | 5.00  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384    | 0.000   |
| LA SOUTH WIN (G.SW22.E107.W1)  |   |              |        |       |       |             |        |       |      |          |         |
| LA Mest Win (G.SW22.E106.W1)   | L4 West Win (G.W21.E104.W1)             | 1.0          | 19.70  | 3.28  | 6.00  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 SOUTH MIN (G.SM22_E107.M1)  | L4 South Win (G.SW22.E105.W1)           | 1.0          | 90.22  | 3.54  | 25.50 | 0.00        | 3.12   | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 Mest Win (G.S24.E109.W1)  | L4 West Win (G.SW22.E106.W1)            | 1.0          | 22.98  | 3.28  |       | 0.00        | 3.12   |       | 0.00 | 0.384    |         |
| L4 Rast Win (G.S24.R109.W1)  |   | 1.0          | 26.53  | 3.54  | 7.50  | 0.00        | 3.12   |       | 0.00 |          |         |
| L4 South Win (G.S24.El10.Wil)  | L4 West Win (G.SW22.E108.W1)            | 1.0          | 88.63  | 3.28  | 27.00 | 0.00        | 3.12   | 0.00  | 0.00 | 0.384    | 0.000   |
| L4 SOUTH WIN (G.S24.ElIL.WI) 1.0 159.21 3.54 45.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N3.E2.WI) 1.0 12.16 2.16 1.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E3.WI) 1.0 36.00 3.60 10.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E3.WI) 1.0 36.00 3.60 10.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E5.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E5.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E5.WI) 1.0 36.00 3.60 0.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E5.WI) 1.0 36.00 3.60 0.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E5.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E9.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E9.WI) 1.0 46.80 3.60 10.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E9.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E1.WI) 1.0 46.80 3.60 10.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E1.WI) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E1.WI) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E1.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E1.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E1.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E1.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E1.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E1.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E1.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E1.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E1.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N4.E1.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North WIN (G.N5.E.E2.WI) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.0 | L4 East Win (G.S24.E109.W1)             | 1.0          | 7.57   | 2.16  | 3.50  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 North Win (G.N3.E1.W1)  L5 Satt Win (G.N3.E2.W1)  L5 Satt Win (G.N3.E2.W1)  L5 Satt Win (G.N3.E2.W1)  L5 Satt Win (G.N4.E1.W1)  L5 West Win (G.N4.E1.W1)  L6 West Win (G.W4.E1.W1)  L6 West Win (G.W4.E1.W1)  L6 West Win (G.W4 |   | 1.0          | 77.83  | 3.54  |       | 0.00        | 3.12   |       |      |          |         |
| L5 East win (G.NA.E2.W1)   |   |              |        |       |       |             |        |       |      |          |         |
| L5 North Win (G.N4.E3.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 Sast Win (G.N4.E5.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E5.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E7.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E8.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 Sast Win (G.N4.E8.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 Sast Win (G.N4.E8.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E10.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E10.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E11.W1) 1.0 16.40 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E11.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E13.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E13.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E15.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E15.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E15.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E15.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E18.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E18.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E18.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E18.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N4.E18.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000   L5 North Win (G.N5.E22.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000   L5 North Win (G.ES.E22.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000   L5 North Win (G.ES.E23.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000   L5 North W |   |              |        |       |       |             |        |       |      |          |         |
| L5 East Win (G.M. E4, WI)  | L5 East Win (G.N3.E2.W1)                |              |        | 2.16  |       | 0.00        | 3.12   |       |      |          |         |
| L5 North Win (G.N4.E5.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.N4.E6.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.N4.E8.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.N4.E9.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E10.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.N4.E12.W1) 1.0 16.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E12.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E12.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E13.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E13.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E13.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E15.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E15.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E15.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E15.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E15.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E15.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E5.E20.W1) 1.0 77.83 3.54 2.200 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E5.E22.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E5.E22.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E5.E22.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E5.E22.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E5.E22.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E5.E22.W1) 1.0 46.80 3.60 0.300 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E5.E22.W1) 1.0 46.80 3.60 0.300 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E5.E23.W1) 1.0 46.80 3.60 0.300 0.00 3.12 0.00 0.0 |   |              | 36.00  |       |       | 0.00        | 3.12   |       | 0.00 |          |         |
| L5 West Win (G.N4.E6.W1)   | L5 East Win (G.N4.E4.W1)                | 1.0          | 10.81  | 2.16  | 5.00  | 0.00        | 3.12   | 0.00  | 0.00 |          | 0.000   |
| L5 North Win (G.N4.E7.W1)  | L5 North Win (G.N4.E5.W1)               | 1.0          | 46.80  | 3.60  | 13.00 | 0.00        | 3.12   | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 East Win (G.N4.EB.W1)   | L5 West Win (G.N4.E6.W1)                | 1.0          | 16.41  | 3.28  | 5.00  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 North Win (G.N4.E9.W1)  |   |              |        |       |       |             |        |       |      |          |         |
| L5 West Win (G.N4.E10.W1)  |   |              |        |       |       |             | 3.12   |       |      |          |         |
| L5 North Win (G.N4.E12.W1)   |   |              | 46.80  |       |       |             |        |       |      |          |         |
| L5 East Win (G.N4.E12.W1) L5 North Win (G.N4.E13.W1) L1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E13.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N4.E15.W1) 1.0 36.00 3.60 10.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.N4.E16.W1) 1.0 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.N4.E16.W1) 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0   | L5 West Win (G.N4.E10.W1)               | 1.0          | 16.41  | 3.28  | 5.00  | 0.00        | 3.12   |       | 0.00 | 0.384    | 0.000   |
| L5 North Win (G.N4.E13.W1)   | , |              |        |       |       |             |        |       |      |          |         |
| L5 West Win (G.N4.E14.W1)  | L5 East Win (G.N4.E12.W1)               |              | 10.81  | 2.16  | 5.00  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384    |         |
| L5 North Win (G.N4.E15.W1)   | , |              |        |       |       |             |        |       |      |          |         |
| L5 East Win (G.N4.E16.W1)  |   |              |        |       |       |             |        |       |      |          |         |
| L5 North Win (G.N4.E17.W1)   |   |              |        |       |       |             |        |       |      |          |         |
| L5 West Win (G.N4.E18.W1)  |   |              |        |       |       |             |        |       |      |          |         |
| L5 South Win (G.E5.E19.W1)   |   |              |        |       |       |             |        |       |      |          |         |
| L5 East Win (G.E5.E20.W1)  |   |              |        |       |       |             |        |       |      |          |         |
| L5 North Win (G.E5.E21.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E5.E22.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E5.E23.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.E5.E24.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.W6.E26.W1) 1.0 81.01 3.60 22.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.W6.E27.W1) 1.0 111.61 3.28 34.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.W7.E28.W1) 1.0 49.24 3.28 15.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E8.E29.W1) 1.0 36.75 2.16 17.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E33.W1) 1.0 15.92 3.54 4.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E32.W1) 1.0 48.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.S10.E35.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.S10.E35.W1) 1.0 4.32 2.16 3.28 8.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3 |   |              |        |       |       |             |        |       |      |          |         |
| L5 East Win (G.E5.E22.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E5.E23.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.E5.E24.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.W6.E26.W1) 1.0 81.01 3.60 22.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.W6.E27.W1) 1.0 111.61 3.28 34.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.W7.E28.W1) 1.0 49.24 3.28 15.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E8.E29.W1) 1.0 49.24 3.28 15.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E30.W1) 1.0 15.92 3.54 4.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.E9.E31.W1) 1.0 6.57 3.28 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E32.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E33.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E33.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E33.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E34.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E34.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 4.32 2.16 2.00 0.00 3.12 |   |              |        |       |       |             |        |       |      |          |         |
| L5 North Win (G.E5.E23.W1) 1.0 46.80 3.60 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.E5.E24.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.W6.E26.W1) 1.0 81.01 3.60 22.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.W6.E27.W1) 1.0 111.61 3.28 34.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.W7.E28.W1) 1.0 49.24 3.28 15.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E8.E29.W1) 1.0 36.75 2.16 17.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E33.W1) 1.0 15.92 3.54 4.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.E9.E31.W1) 1.0 6.57 3.28 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E32.W1) 1.0 51.30 3.54 14.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E33.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E34.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.E35.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 26.26 3.28 8.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 |   |              |        |       |       |             |        |       |      |          |         |
| L5 West Win (G.E5.E24.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.W6.E26.W1) 1.0 81.01 3.60 22.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.W6.E27.W1) 1.0 111.61 3.28 34.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.W7.E28.W1) 1.0 49.24 3.28 15.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E9.E30.W1) 1.0 36.75 2.16 17.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.E9.E33.W1) 1.0 15.92 3.54 4.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E31.W1) 1.0 6.57 3.28 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E32.W1) 1.0 51.30 3.54 14.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E34.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.E35.W1) 1.0 26.26 3.28 8.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E36.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 |   |              |        |       |       |             |        |       |      |          |         |
| L5 North Win (G.W6.E26.W1) 1.0 81.01 3.60 22.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.W6.E27.W1) 1.0 111.61 3.28 34.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.W7.E28.W1) 1.0 49.24 3.28 15.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E8.E29.W1) 1.0 36.75 2.16 17.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E30.W1) 1.0 15.92 3.54 4.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.E9.E31.W1) 1.0 6.57 3.28 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E32.W1) 1.0 51.30 3.54 14.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E33.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E34.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.E35.W1) 1.0 26.26 3.28 8.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 4.32 2.16 2.00 0.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000                                       |   |              |        |       |       |             |        |       |      |          |         |
| L5 West Win (G.W6.E27.W1) 1.0 111.61 3.28 34.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.W7.E28.W1) 1.0 49.24 3.28 15.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E8.E29.W1) 1.0 36.75 2.16 17.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E30.W1) 1.0 15.92 3.54 4.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.E9.E31.W1) 1.0 6.57 3.28 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E32.W1) 1.0 51.30 3.54 14.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E34.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.E35.W1) 1.0 26.26 3.28 8.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 12.38 3.54 3.50 0.00 3.12 0.00 0.00 0.384 0.000  |   |              |        |       |       |             |        |       |      |          |         |
| L5 West Win (G.W7.E28.W1) 1.0 49.24 3.28 15.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E8.E29.W1) 1.0 36.75 2.16 17.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E30.W1) 1.0 15.92 3.54 4.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.E9.E31.W1) 1.0 6.57 3.28 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E32.W1) 1.0 51.30 3.54 14.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E33.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.E35.W1) 1.0 26.26 3.28 8.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E35.W1) 1.0 7.08 3.54 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 12.38 3.54 3.50 0.00 3.12 0.00 0.00 0.00 0.384 0.000   |   |              |        |       |       |             |        |       |      |          |         |
| L5 East Win (G.E8.E29.W1) 1.0 36.75 2.16 17.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E30.W1) 1.0 15.92 3.54 4.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.E9.E31.W1) 1.0 6.57 3.28 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E32.W1) 1.0 51.30 3.54 14.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E34.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.E35.W1) 1.0 26.26 3.28 8.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 7.08 3.54 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E36.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 12.38 3.54 3.50 0.00 3.12 0.00 0.00 0.00 0.384 0.000  |   |              |        |       |       |             |        |       |      |          |         |
| L5 South Win (G.E9.E31.W1) 1.0 15.92 3.54 4.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.E9.E31.W1) 1.0 6.57 3.28 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E32.W1) 1.0 51.30 3.54 14.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E34.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.E35.W1) 1.0 26.26 3.28 8.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 7.08 3.54 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E36.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 12.38 3.54 3.50 0.00 3.12 0.00 0.00 0.384 0.000  |   |              |        |       |       |             |        |       |      |          |         |
| L5 West Win (G.E9.E31.W1) 1.0 6.57 3.28 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E9.E32.W1) 1.0 51.30 3.54 14.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E34.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.E35.W1) 1.0 26.26 3.28 8.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 7.08 3.54 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 12.38 3.54 3.50 0.00 3.12 0.00 0.00 0.384 0.000  |   |              |        |       |       |             |        |       |      |          |         |
| L5 South Win (G.E9.E33.W1) 1.0 51.30 3.54 14.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E34.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.E35.W1) 1.0 26.26 3.28 8.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 7.08 3.54 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 12.38 3.54 3.50 0.00 3.12 0.00 0.00 0.384 0.000   |   |              |        |       |       |             |        |       |      |          |         |
| L5 East Win (G.E9.E33.W1) 1.0 84.32 2.16 39.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E9.E34.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.E35.W1) 1.0 26.26 3.28 8.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 7.08 3.54 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 12.38 3.54 3.50 0.00 3.12 0.00 0.00 0.384 0.000   |   |              |        |       |       |             |        |       |      |          |         |
| L5 North Win (G.E9.E34.W1) 1.0 79.21 3.60 22.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.E35.W1) 1.0 26.26 3.28 8.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 7.08 3.54 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 12.38 3.54 3.50 0.00 3.12 0.00 0.00 0.384 0.000  |   |              |        |       |       |             |        |       |      |          |         |
| L5 West Win (G.S10.E35.W1) 1.0 26.26 3.28 8.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E36.W1) 1.0 7.08 3.54 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 12.38 3.54 3.50 0.00 3.12 0.00 0.00 0.384 0.000  |   |              |        |       |       |             |        |       |      |          |         |
| L5 South Win (G.S10.E36.W1) 1.0 7.08 3.54 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 12.38 3.54 3.50 0.00 3.12 0.00 0.00 0.384 0.000   |   |              |        |       |       |             |        |       |      |          |         |
| L5 East Win (G.S10.E37.W1) 1.0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.S10.E38.W1) 1.0 12.38 3.54 3.50 0.00 3.12 0.00 0.00 0.384 0.000  |   |              |        |       |       |             |        |       |      |          |         |
| L5 South Win (G.S10.E38.W1) 1.0 12.38 3.54 3.50 0.00 3.12 0.00 0.00 0.384 0.000  |   |              |        |       |       |             |        |       |      |          |         |
|  |   |              |        |       |       |             |        |       |      |          |         |
| LD WEST WIN (G.DIU.E39.WI) 1.0 0.57 3.28 2.00 0.00 3.12 0.00 0.00 0.384 0.000  |   |              |        |       |       |             |        |       |      |          |         |
|  | LO WEST WIR (G.SIU.E39.WI)              | 1.0          | 0.5/   | 3.28  | ∠.00  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384    | 0.000   |

-----(CONTINUED)------

| Name   |   |            | GLASS | GLASS | GLASS | LOCATION OF | ORIGIN | FRAME | CURB | FRAME | CURB  |
|--|---|------------|-------|-------|-------|-------------|--------|-------|------|-------|-------|
| Lange   MULTIPLIER   (SQFT   (FT)   (FT)   (FT)   (SQFT   (SQFT   F)   | WINDOW                                  |            |       |       |       |             |        |       |      |       |       |
| 1.5 South Win (G.S10.840.W1)   |   | MULTIPLIER |       |       |       |             |        |       |      |       |       |
| 1.5 S acat Min (G.S10.842.M1)  |   |            |       |       |       |             |        |       |      |       |       |
| LS Sacuth Win (G.S10.E42.W1)   | L5 South Win (G.S10.E40.W1)             | 1.0        | 45.99 | 3.54  | 13.00 | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |
| LS Meat Win (G.SID.643.W1)   |   |            |       |       |       |             |        |       |      |       |       |
| 1.5 Sachth Win (G.SID.R44 MI)  |   |            |       |       |       |             |        |       |      |       |       |
| L5 Baat Min (G.SID.845.M1)   |   |            |       |       |       |             |        |       |      |       |       |
| L5 South Min (G.SID.E46.W1) L5 West Win (G.SID.E48.W1) L5 West Win (G.SID.E48.W1) L5 South Min (G.SID.E50.W1) L5 S |   |            |       |       |       |             |        |       |      |       |       |
| L5 Seat Win (G. SIO, E47, WI)  L5 South Win (G. SIO, E48, WI)  L0 43.99 3.54 13.00 0.00 3.12 0.00 0.00 0.304 0.000  L5 East Win (G. SIO, E49, WI)  L0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.324 0.000  L5 West Win (G. SIO, E51, WI)  L0 4.32 2.16 2.00 0.00 3.12 0.00 0.00 0.324 0.000  L5 West Win (G. SIO, E51, WI)  L5 West Win (G. SIO, E51, WI)  L5 West Win (G. SIO, E51, WI)  L6 Kest Win (G. SIO, E51, WI)  L7 West Win (G. SIO, E51, WI)  L8 West Win (G. SIO, E51, WI)  L9 West Win (G. SIO, E52, WI)  L9 West Win (G. SIO, E51, WI)  L9 West Win (G. SIO, E52, WI)  L9 West Win (G. SIO, E52, WI)  L9 West Win (G. SIO, E51, WI)  L9 West Win (G. SIO, E52, WI)  |   |            |       |       |       |             |        |       |      |       |       |
| L5 South Min (G.SID.E48.Wi) L5 Satt Min (G.SID.E48.Wi) L1 0  |   |            |       |       |       |             |        |       |      |       |       |
| L5 East Win (G.S10.E59.Wi) 1.0   |   |            |       |       |       |             |        |       |      |       |       |
| L5 South Win (G.S10.E50.W1)  |   |            |       |       |       |             |        |       |      |       |       |
| L5   Sect Min (G.SIO.ESI.MI)   |   |            |       |       |       |             |        |       |      |       |       |
| L5 Sauth Win (G.S10.ES2.WI) 1.0 44.22 3.54 12.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 Sauth Win (G.S10.ES5.WI) 1.0 15.92 3.54 4.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.ES5.WI) 1.0 6.57 3.28 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.ES5.WI) 1.0 6.57 3.28 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 Sauth Win (G.S10.ES5.WI) 1.0 45.99 3.54 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES5.WI) 1.0 45.99 3.54 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 Sauth Win (G.S10.ES5.WI) 1.0 45.99 3.54 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.ES5.WI) 1.0 45.99 3.54 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.ES5.WI) 1.0 45.99 3.54 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.S10.ES5.WI) 1.0 45.99 3.54 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 45.99 3.54 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 45.99 3.54 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 45.99 3.54 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 45.99 3.54 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 45.99 3.54 13.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 44.22 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 44.22 3.54 12.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 4.22 3.54 12.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 12.38 3.50 3.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 12.38 3.50 3.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 12.38 3.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 12.38 3.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 12.38 3.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 12.38 3.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 12.38 3.50 0.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.S10.ES6.WI) 1.0 12.38 3.50 0.00 0.00 3.12 0.00 0.00 0.384 0.0 |   |            |       |       |       |             |        |       |      |       |       |
| L5 East Win (G.S10.ES5.W1)   |   |            |       |       |       |             |        |       |      |       |       |
| L5 South Min (G.S10.E54.W1)  |   |            |       |       |       |             |        |       |      |       |       |
| L5 Mest Win (G.S10.E55.W1)   |   |            |       |       |       |             |        |       |      |       |       |
| L5 South Win (G.S10.E56.W1)  |   |            |       |       |       |             |        |       |      |       |       |
| L5 East Win (G.S10.ES7.W1)   |   |            |       |       |       |             |        |       |      |       |       |
| L5 South Win (G.SIO.E58.W1)  |   | 1.0        |       |       |       | 0.00        |        |       | 0.00 |       |       |
| L5 South Win (G.S10.E60.W1)  |   | 1.0        | 15.92 | 3.54  | 4.50  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |
| L5 East Win (G.S10.E61.W1)   | L5 West Win (G.S10.E59.W1)              | 1.0        | 6.57  | 3.28  | 2.00  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |
| L5 South Win (G.S10.E62.Wi) 1.0 15.92 3.54 4.50 0.00 3.12 0.00 0.00 0.384 0.000 1.5 West Win (G.S10.E63.Wi) 1.0 6.57 3.28 2.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 South Win (G.S10.E65.Wi) 1.0 44.22 3.54 12.50 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.S10.E65.Wi) 1.0 44.22 2.16 2.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.S13.E67.Wi) 1.0 12.60 3.60 3.50 0.00 3.12 0.00 0.00 0.384 0.000 1.5 South Win (G.E13.E67.Wi) 1.0 12.60 3.60 3.50 0.00 3.12 0.00 0.00 0.384 0.000 1.5 South Win (G.E13.E67.Wi) 1.0 119.99 2.16 55.50 0.00 3.12 0.00 0.00 0.384 0.000 1.5 South Win (G.E13.E69.Wi) 1.0 119.99 2.16 55.50 0.00 3.12 0.00 0.00 0.384 0.000 1.5 South Win (G.NW17.E70.Wi) 1.0 12.38 3.54 3.50 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NW17.E71.Wi) 1.0 22.98 3.28 7.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NW17.E73.Wi) 1.0 25.20 3.60 7.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NW17.E73.Wi) 1.0 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NW17.E74.Wi) 1.0 1.0 16.81 3.60 19.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NW17.E75.Wi) 1.0 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NW17.E75.Wi) 1.0 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NN17.E75.Wi) 1.0 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NN18.E79.Wi) 1.0 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NN18.E80.Wi) 1.0 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NN18.E80.Wi) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NN18.E80.Wi) 1.0 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NN18.E80.Wi) 1.0 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NN18.E80.Wi) 1.0 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NN18.E80.Wi) 1.0 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NN18.E80.Wi) 1.0 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 1.5 North Win (G.NN18.E85.Wi) 1.0 1 | L5 South Win (G.S10.E60.W1)             | 1.0        | 45.99 | 3.54  | 13.00 | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |
| L5 West Win (G.S10.E63.W1)   | L5 East Win (G.S10.E61.W1)              | 1.0        | 4.32  | 2.16  | 2.00  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |
| L5 South Win (G.S10.E64.W1)  | L5 South Win (G.S10.E62.W1)             | 1.0        | 15.92 | 3.54  | 4.50  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |
| L5 East Win (G.S10.E65.W1)   | L5 West Win (G.S10.E63.W1)              | 1.0        | 6.57  | 3.28  | 2.00  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |
| L5 North Win (G.E13.E67.W1)  | L5 South Win (G.S10.E64.W1)             | 1.0        | 44.22 | 3.54  | 12.50 | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |
| L5 East Win (G.E13.E68.W1)   |   |            |       |       |       |             |        |       |      |       |       |
| L5 East Win (G.E13.E69.W1)   |   |            |       |       |       |             |        |       |      |       |       |
| L5 South Win (G.NW17.E70.W1)   |   |            |       |       |       |             |        |       |      |       |       |
| L5 West Win (G.NW17.E71.W1)  |   |            |       |       |       |             |        |       |      |       |       |
| L5 North Win (G.NW17.E72.W1)   |   |            |       |       |       |             |        |       |      |       |       |
| L5 East Win (G.NW17.E73.W1)  |   |            |       |       |       |             |        |       |      |       |       |
| L5 North Win (G.NW17.E74.W1)   |   |            |       |       |       |             |        |       |      |       |       |
| L5 West Win (G.NW17.E75.W1)  |   |            |       |       |       |             |        |       |      |       |       |
| L5 North Win (G.N18.E76.W1) 1.0 23.40 3.60 6.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.N18.E77.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N18.E79.W1) 1.0 39.60 3.60 11.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 West Win (G.N18.E79.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N18.E81.W1) 1.0 23.40 3.60 6.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.N18.E81.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 West Win (G.N18.E82.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 West Win (G.N18.E83.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 West Win (G.N18.E83.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N18.E84.W1) 1.0 23.40 3.60 6.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N18.E83.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N18.E85.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N18.E85.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N18.E85.W1) 1.0 39.60 3.60 11.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 South Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 South Win (G.E19.E88.W1) 1.0 16.41 3.54 23.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 South Win (G.E19.E88.W1) 1.0 70.26 2.16 32.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.E19.E89.W1) 1.0 70.26 2.16 32.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.E19.E99.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.E19.E99.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E99.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E99.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E99.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E99.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E99.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 |   |            |       |       |       |             |        |       |      |       |       |
| L5 East Win (G.N18.E77.W1)   |   |            |       |       |       |             |        |       |      |       |       |
| L5 North Win (G.N18.E78.W1) 1.0 39.60 3.60 11.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 West Win (G.N18.E879.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N18.E80.W1) 1.0 23.40 3.60 6.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.N18.E81.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N18.E82.W1) 1.0 37.80 3.60 10.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N18.E83.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N18.E83.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N18.E85.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.N18.E85.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.N18.E86.W1) 1.0 39.60 3.60 11.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 West Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 South Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 South Win (G.E19.E88.W1) 1.0 83.14 3.54 23.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.E19.E89.W1) 1.0 70.26 2.16 32.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.E19.E99.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.E19.E99.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E99.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E99.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E99.W1) 1.0 0.00 0.00 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E99.W1) 1.0 0.00 0.00 0.00 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E99.W1) 1.0 0.00 0.00 0.00 0.00 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E99.W1) 1.0 0.00 0.00 0.00 0.00 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E99.W1) 1.0 0.00 0.00 0.00 0.00 0.00 0.00 0.0  |   |            |       |       |       |             |        |       |      |       |       |
| L5 West Win (G.N18.E89.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E80.W1) 1.0 23.40 3.60 6.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.N18.E81.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E83.W1) 1.0 37.80 3.60 10.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.N18.E83.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E84.W1) 1.0 23.40 3.60 6.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.N18.E85.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E85.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.N18.E85.W1) 1.0 39.60 3.60 11.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E19.E88.W1) 1.0 83.14 3.54 23.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E19.E89.W1) 1.0 70.26 2.16 32.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E19.E89.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E19.E90.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E90.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000  |   |            |       |       |       |             |        |       |      |       |       |
| L5 North Win (G.N18.E80.W1) 1.0 23.40 3.60 6.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.N18.E81.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E82.W1) 1.0 37.80 3.60 10.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.N18.E83.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E84.W1) 1.0 23.40 3.60 6.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.N18.E85.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E86.W1) 1.0 39.60 3.60 11.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E88.W1) 1.0 83.14 3.54 23.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E19.E89.W1) 1.0 70.26 2.16 32.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E19.E90.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E90.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E91.W1)  |   |            |       |       |       |             |        |       |      |       |       |
| L5 East Win (G.N18.E81.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E82.W1) 1.0 37.80 3.60 10.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.N18.E83.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E85.W1) 1.0 23.40 3.60 6.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.N18.E85.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E86.W1) 1.0 39.60 3.60 11.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.N18.E86.W1) 1.0 39.60 3.60 11.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E19.E88.W1) 1.0 83.14 3.54 23.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E89.W1) 1.0 70.26 2.16 32.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E19.E90.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   |   |            |       |       |       |             |        |       |      |       |       |
| L5 West Win (G.N18.E83.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E84.W1) 1.0 23.40 3.60 6.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.N18.E85.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E86.W1) 1.0 39.60 3.60 11.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E19.E88.W1) 1.0 83.14 3.54 23.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E89.W1) 1.0 70.26 2.16 32.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E19.E99.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E99.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000  |   |            |       |       |       |             |        |       |      |       |       |
| L5 North Win (G.N18.E84.W1) 1.0 23.40 3.60 6.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.N18.E85.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E86.W1) 1.0 39.60 3.60 11.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E19.E88.W1) 1.0 83.14 3.54 23.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E89.W1) 1.0 70.26 2.16 32.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E19.E90.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   |   | 1.0        | 37.80 | 3.60  | 10.50 | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |
| L5 East Win (G.N18.E85.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.N18.E86.W1) 1.0 39.60 3.60 11.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 West Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E19.E88.W1) 1.0 83.14 3.54 23.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E89.W1) 1.0 70.26 2.16 32.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E19.E90.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   | L5 West Win (G.N18.E83.W1)              | 1.0        | 16.41 | 3.28  | 5.00  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |
| L5 North Win (G.N18.E86.W1) 1.0 39.60 3.60 11.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 West Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000   L5 South Win (G.E19.E88.W1) 1.0 83.14 3.54 23.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E89.W1) 1.0 70.26 2.16 32.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 North Win (G.E19.E90.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000   L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000  | L5 North Win (G.N18.E84.W1)             | 1.0        | 23.40 | 3.60  | 6.50  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |
| L5 West Win (G.N18.E87.W1) 1.0 16.41 3.28 5.00 0.00 3.12 0.00 0.00 0.384 0.000 L5 South Win (G.E19.E88.W1) 1.0 83.14 3.54 23.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E89.W1) 1.0 70.26 2.16 32.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E19.E90.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   | L5 East Win (G.N18.E85.W1)              | 1.0        |       | 2.16  | 5.00  | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |
| L5 South Win (G.E19.E88.W1) 1.0 83.14 3.54 23.50 0.00 3.12 0.00 0.00 0.384 0.000<br>L5 East Win (G.E19.E89.W1) 1.0 70.26 2.16 32.50 0.00 3.12 0.00 0.00 0.384 0.000<br>L5 North Win (G.E19.E90.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000<br>L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   | L5 North Win (G.N18.E86.W1)             | 1.0        | 39.60 | 3.60  | 11.00 | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |
| L5 East Win (G.E19.E89.W1) 1.0 70.26 2.16 32.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 North Win (G.E19.E90.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   | , |            | 16.41 |       |       |             | 3.12   | 0.00  |      |       |       |
| L5 North Win (G.E19.E90.W1) 1.0 27.00 3.60 7.50 0.00 3.12 0.00 0.00 0.384 0.000 L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   |   |            |       |       |       |             |        |       |      |       |       |
| L5 East Win (G.E19.E91.W1) 1.0 10.81 2.16 5.00 0.00 3.12 0.00 0.00 0.384 0.000   |   |            |       |       |       |             |        |       |      |       |       |
|  |   |            |       |       |       |             |        |       |      |       |       |
| L5 North Win (G.El9.E92.W1) 1.0 39.60 3.60 11.00 0.00 3.12 0.00 0.00 0.384 0.000   |   |            |       |       |       |             |        |       |      |       |       |
|  | L5 North Win (G.E19.E92.W1)             | 1.0        | 39.60 | 3.60  | 11.00 | 0.00        | 3.12   | 0.00  | 0.00 | 0.384 | 0.000 |

WEATHER FILE- SEATTLE BOEING FI WA -----(CONTINUED)------

|  |            |                 |              |                | LOCATION O | F ORIGIN     |       |      |          |         |
|--|------------|-----------------|--------------|----------------|------------|--------------|-------|------|----------|---------|
|  |            | GLASS           | GLASS        | GLASS          |            | SURFACE      | FRAME | CURB | FRAME    | CURB    |
| WINDOW   |            | AREA            | HEIGHT       | WIDTH          | C001       | RDINATES     | AR    | EA   | U-VA     | LUE     |
| NAME   | MULTIPLIER | (SQFT )         | (FT)         | (FT)           | X (FT)     | Y (FT)       | (SQF  | т)   | (BTU/HR- | SQFT-F) |
| L5 West Win (G.E19.E93.W1)                                   | 1.0        | 16.41           | 3.28         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 North Win (G.W21.E94.W1)                                  | 1.0        | 18.00           | 3.60         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 West Win (G.W21.E95.W1)                                   | 1.0        | 34.47           | 3.28         | 10.50          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 South Win (G.W21.E96.W1)                                  | 1.0        | 17.69           | 3.54         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 West Win (G.W21.E97.W1)                                   | 1.0        | 32.83           | 3.28         | 10.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 North Win (G.W21.E98.W1)                                  | 1.0        | 18.00           | 3.60         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 West Win (G.W21.E99.W1)                                   | 1.0        | 96.83           | 3.28         | 29.50          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 South Win (G.W21.E100.W1)                                 | 1.0        | 17.69           | 3.54         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 West Win (G.W21.E101.W1)                                  | 1.0        | 31.18           | 3.28         | 9.50           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 North Win (G.W21.E102.W1)                                 | 1.0        | 18.00           | 3.60         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 West Win (G.W21.E103.W1)                                  | 1.0        | 32.83           | 3.28         | 10.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 West Win (G.W21.E104.W1)                                  | 1.0        | 19.70           | 3.28         | 6.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 South Win (G.SW22.E105.W1)                                | 1.0        | 90.22           | 3.54         | 25.50          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 West Win (G.SW22.E106.W1)                                 | 1.0        | 22.98           | 3.28         | 7.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 South Win (G.SW22.E107.W1)                                | 1.0        | 26.53           | 3.54         | 7.50           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 West Win (G.SW22.E108.W1)                                 | 1.0        | 88.63           | 3.28<br>2.16 | 27.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 East Win (G.S24.E109.W1)                                  |            | 7.57            |              |                | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L5 South Win (G.S24.E110.W1)<br>L5 South Win (G.S24.E111.W1) | 1.0<br>1.0 | 77.83<br>159.21 | 3.54<br>3.54 | 22.00<br>45.00 | 0.00       | 3.12<br>3.12 | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 North Win (G.N3.E1.W1)                                    | 1.0        | 147.61          | 3.60         | 41.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 East Win (G.N3.E1.W1)                                     | 1.0        | 2.16            | 2.16         | 1.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 North Win (G.N4.E3.W1)                                    | 1.0        | 36.00           | 3.60         | 10.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 East Win (G.N4.E4.W1)                                     | 1.0        | 10.81           | 2.16         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 North Win (G.N4.E5.W1)                                    | 1.0        | 46.80           | 3.60         | 13.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 West Win (G.N4.E6.W1)                                     | 1.0        | 16.41           | 3.28         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 North Win (G.N4.E7.W1)                                    | 1.0        | 36.00           | 3.60         | 10.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 East Win (G.N4.E8.W1)                                     | 1.0        | 10.81           | 2.16         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 North Win (G.N4.E9.W1)                                    | 1.0        | 46.80           | 3.60         | 13.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 West Win (G.N4.E10.W1)                                    | 1.0        | 16.41           | 3.28         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 North Win (G.N4.E11.W1)                                   | 1.0        | 36.00           | 3.60         | 10.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 East Win (G.N4.E12.W1)                                    | 1.0        | 10.81           | 2.16         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 North Win (G.N4.E13.W1)                                   | 1.0        | 46.80           | 3.60         | 13.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 West Win (G.N4.E14.W1)                                    | 1.0        | 16.41           | 3.28         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 North Win (G.N4.E15.W1)                                   | 1.0        | 36.00           | 3.60         | 10.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 East Win (G.N4.E16.W1)                                    | 1.0        | 10.81           | 2.16         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 North Win (G.N4.E17.W1)                                   | 1.0        | 46.80           | 3.60         | 13.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 West Win (G.N4.E18.W1)                                    | 1.0        | 16.41           | 3.28         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 South Win (G.E5.E19.W1)                                   | 1.0        | 77.83           | 3.54         | 22.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 East Win (G.E5.E20.W1)                                    | 1.0        | 73.51           | 2.16         | 34.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 North Win (G.E5.E21.W1)                                   | 1.0        | 46.80           | 3.60         | 13.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 East Win (G.E5.E22.W1)                                    | 1.0        | 10.81           | 2.16         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 North Win (G.E5.E23.W1)                                   | 1.0        | 46.80           | 3.60         | 13.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 West Win (G.E5.E24.W1)                                    | 1.0        | 16.41           | 3.28         | 5.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 North Win (G.W6.E26.W1)                                   | 1.0        | 81.01           | 3.60         | 22.50          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 West Win (G.W6.E27.W1)                                    | 1.0        | 111.61          | 3.28         | 34.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 West Win (G.W7.E28.W1)                                    | 1.0        | 49.24           | 3.28         | 15.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 East Win (G.E8.E29.W1)                                    | 1.0        | 36.75           | 2.16         | 17.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 South Win (G.E9.E30.W1)                                   | 1.0        | 15.92           | 3.54         | 4.50           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 West Win (G.E9.E31.W1)                                    | 1.0        | 6.57            | 3.28         | 2.00           | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 South Win (G.E9.E32.W1)                                   | 1.0        | 51.30           | 3.54         | 14.50          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 East Win (G.E9.E33.W1)                                    | 1.0        | 84.32           | 2.16         | 39.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 North Win (G.E9.E34.W1)                                   | 1.0        | 79.21           | 3.60         | 22.00          | 0.00       | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |

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|  |            | GLASS          | GLASS        | GLASS         |        | SURFACE      | FRAME | CURB | FRAME     | CURB    |
|--|------------|----------------|--------------|---------------|--------|--------------|-------|------|-----------|---------|
| WINDOW   |            | AREA           | HEIGHT       | WIDTH         |        | DINATES      | AR    |      | U-VAI     |         |
| NAME   | MULTIPLIER | (SQFT )        | (FT)         | (FT)          | X (FT) | Y (FT)       | (SQF  | Г)   | (BTU/HR-S | SQFT-F) |
| L6 West Win (G.S10.E35.W1)                             | 1.0        | 26.26          | 3.28         | 8.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.S10.E36.W1)                            | 1.0        | 7.08           | 3.54         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 East Win (G.S10.E37.W1)                             | 1.0        | 4.32           | 2.16         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.S10.E38.W1)                            | 1.0        | 12.38          | 3.54         | 3.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.S10.E39.W1)                             | 1.0        | 6.57           | 3.28         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.S10.E40.W1)                            | 1.0        | 45.99          | 3.54         | 13.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 East Win (G.S10.E41.W1)                             | 1.0        | 4.32           | 2.16         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.S10.E42.W1)                            | 1.0        | 15.92          | 3.54         | 4.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.S10.E43.W1)                             | 1.0        | 6.57           | 3.28         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.S10.E44.W1)                            | 1.0        | 45.99          | 3.54         | 13.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 East Win (G.S10.E45.W1)                             | 1.0        | 4.32           | 2.16         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.S10.E46.W1)                            | 1.0        | 15.92          | 3.54         | 4.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.S10.E47.W1)                             | 1.0        | 6.57           | 3.28         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.S10.E48.W1)                            | 1.0        | 45.99          | 3.54         | 13.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 East Win (G.S10.E49.W1)                             | 1.0        | 4.32           | 2.16         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.S10.E50.W1)                            | 1.0        | 15.92          | 3.54         | 4.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.S10.E51.W1)                             | 1.0        | 6.57           | 3.28         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.S10.E52.W1)                            | 1.0        | 44.22          | 3.54         | 12.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 East Win (G.S10.E53.W1)                             | 1.0        | 4.32           | 2.16         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
|  | 1.0        | 15.92<br>6.57  | 3.54         | 4.50          | 0.00   | 3.12<br>3.12 | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.S10.E55.W1) L6 South Win (G.S10.E56.W1) | 1.0        | 45.99          | 3.28         | 13.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 East Win (G.S10.E50.W1)                             | 1.0        | 4.32           | 2.16         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.S10.E57.W1)                            | 1.0        | 15.92          | 3.54         | 4.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.S10.E59.W1)                             | 1.0        | 6.57           | 3.28         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.S10.E60.W1)                            | 1.0        | 45.99          | 3.54         | 13.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 East Win (G.S10.E61.W1)                             | 1.0        | 4.32           | 2.16         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.S10.E62.W1)                            | 1.0        | 15.92          | 3.54         | 4.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.S10.E63.W1)                             | 1.0        | 6.57           | 3.28         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.S10.E64.W1)                            | 1.0        | 44.22          | 3.54         | 12.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 East Win (G.S10.E65.W1)                             | 1.0        | 4.32           | 2.16         | 2.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 North Win (G.E13.E67.W1)                            | 1.0        | 12.60          | 3.60         | 3.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 East Win (G.E13.E68.W1)                             | 1.0        | 17.30          | 2.16         | 8.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 East Win (G.E13.E69.W1)                             | 1.0        | 119.99         | 2.16         | 55.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.NW17.E70.W1)                            | 1.0        | 106.68         | 3.28         | 32.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 North Win (G.NW17.E71.W1)                           | 1.0        | 81.01          | 3.60         | 22.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 North Win (G.N18.E72.W1)                            | 1.0        | 187.22         | 3.60         | 52.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.E19.E73.W1)                            | 1.0        | 83.14          | 3.54         | 23.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 East Win (G.E19.E74.W1)                             | 1.0        | 70.26          | 2.16         | 32.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 North Win (G.E19.E75.W1)                            | 1.0        | 66.61          | 3.60         | 18.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 North Win (G.W21.E76.W1)                            | 1.0        | 18.00          | 3.60         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.W21.E77.W1)                             | 1.0        | 34.47          | 3.28         | 10.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.W21.E78.W1)                            | 1.0        | 17.69          | 3.54         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.W21.E79.W1)                             | 1.0        | 32.83          | 3.28         | 10.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 North Win (G.W21.E80.W1)                            | 1.0        | 18.00          | 3.60         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.W21.E81.W1) L6 South Win (G.W21.E82.W1) | 1.0<br>1.0 | 96.83<br>17.69 | 3.28<br>3.54 | 29.50<br>5.00 | 0.00   | 3.12<br>3.12 | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.W21.E82.W1)                             | 1.0        | 31.18          | 3.54         | 9.50          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 North Win (G.W21.E83.W1)                            | 1.0        | 18.00          | 3.28         | 5.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.W21.E84.W1)                             | 1.0        | 32.83          | 3.80         | 10.00         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 West Win (G.W21.E85.W1)                             | 1.0        | 19.70          | 3.28         | 6.00          | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
| L6 South Win (G.SW22.E87.W1)                           | 1.0        | 90.22          | 3.54         | 25.50         | 0.00   | 3.12         | 0.00  | 0.00 | 0.384     | 0.000   |
|  | 1.0        | 20.22          | 3.31         | 23.30         | 0.00   | J.12         | 3.00  | 5.00 | 0.501     | 5.000   |

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|  |            | GLASS          | GLASS        | GLASS         | LOCATION OF | ORIGIN       | FRAME | CURB | FRAME    | CURB    |
|--|------------|----------------|--------------|---------------|-------------|--------------|-------|------|----------|---------|
| WINDOW   |            | AREA           | HEIGHT       | WIDTH         |             | DINATES      | AR    |      | U-VA     |         |
| NAME   | MULTIPLIER | (SQFT )        | (FT)         | (FT)          | X (FT)      | Y (FT)       | (SQF  | т)   | (BTU/HR- | SQFT-F) |
| L6 West Win (G.SW22.E88.W1)                                | 1.0        | 22.98          | 3.28         | 7.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 South Win (G.SW22.E89.W1)                               | 1.0        | 26.53          | 3.54         | 7.50          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 West Win (G.SW22.E90.W1)                                | 1.0        | 88.63          | 3.28         | 27.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 East Win (G.S24.E91.W1)                                 | 1.0        | 7.57           | 2.16         | 3.50          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 South Win (G.S24.E92.W1)                                | 1.0        | 77.83          | 3.54         | 22.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L6 South Win (G.S24.E93.W1)                                | 1.0        | 159.21         | 3.54         | 45.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.N3.E1.W1)                                  | 1.0        | 77.83          | 3.54         | 22.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 North Win (G.N3.E2.W1)<br>L7 East Win (G.N3.E3.W1)      | 1.0        | 147.61<br>2.16 | 3.60<br>2.16 | 41.00<br>1.00 | 0.00        | 3.12<br>3.12 | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 East Win (G.N3.E3.W1) L7 North Win (G.N4.E4.W1)         | 1.0        | 331.23         | 3.60         | 92.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.E5.E5.W1)                                  | 1.0        | 77.83          | 3.54         | 22.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 East Win (G.E5.E6.W1)                                   | 1.0        | 73.51          | 2.16         | 34.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 North Win (G.E5.E7.W1)                                  | 1.0        | 93.61          | 3.60         | 26.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 North Win (G.W6.E9.W1)                                  | 1.0        | 81.01          | 3.60         | 22.50         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 West Win (G.W6.E10.W1)                                  | 1.0        | 111.61         | 3.28         | 34.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 West Win (G.W7.E11.W1)                                  | 1.0        | 49.24          | 3.28         | 15.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 East Win (G.E8.E12.W1)                                  | 1.0        | 36.75          | 2.16         | 17.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.E9.E13.W1)                                 | 1.0        | 15.92          | 3.54         | 4.50          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 West Win (G.E9.E14.W1)                                  | 1.0        | 6.57           | 3.28         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.E9.E15.W1)                                 | 1.0        | 51.30          | 3.54         | 14.50         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 East Win (G.E9.E16.W1)                                  | 1.0        | 84.32          | 2.16         | 39.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 North Win (G.E9.E17.W1)                                 | 1.0        | 79.21          | 3.60         | 22.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E18.W1)                              | 1.0        | 7.08           | 3.54         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 East Win (G.SSW10.E19.W1)                               | 1.0        | 4.32           | 2.16         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E20.W1)                              | 1.0        | 12.38          | 3.54         | 3.50          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 West Win (G.SSW10.E21.W1)                               | 1.0        | 6.57           | 3.28         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E22.W1) L7 East Win (G.SSW10.E23.W1) | 1.0        | 45.99<br>4.32  | 3.54<br>2.16 | 13.00         | 0.00        | 3.12<br>3.12 | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E23.W1)                              | 1.0        | 15.92          | 3.54         | 4.50          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 West Win (G.SSW10.E24.W1)                               | 1.0        | 6.57           | 3.28         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E26.W1)                              | 1.0        | 45.99          | 3.54         | 13.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 East Win (G.SSW10.E27.W1)                               | 1.0        | 4.32           | 2.16         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E28.W1)                              | 1.0        | 15.92          | 3.54         | 4.50          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 West Win (G.SSW10.E29.W1)                               | 1.0        | 6.57           | 3.28         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E30.W1)                              | 1.0        | 45.99          | 3.54         | 13.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 East Win (G.SSW10.E31.W1)                               | 1.0        | 4.32           | 2.16         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E32.W1)                              | 1.0        | 15.92          | 3.54         | 4.50          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 West Win (G.SSW10.E33.W1)                               | 1.0        | 6.57           | 3.28         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E34.W1)                              | 1.0        | 44.22          | 3.54         | 12.50         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 East Win (G.SSW10.E35.W1)                               | 1.0        | 4.32           | 2.16         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E36.W1)                              | 1.0        | 15.92          | 3.54         | 4.50          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 West Win (G.SSW10.E37.W1)                               | 1.0        | 6.57           | 3.28         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E38.W1)                              | 1.0        | 45.99          | 3.54         | 13.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 East Win (G.SSW10.E39.W1)                               | 1.0        | 4.32           | 2.16         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E40.W1) L7 West Win (G.SSW10.E41.W1) | 1.0        | 15.92<br>6.57  | 3.54         | 4.50          | 0.00        | 3.12<br>3.12 | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 West Win (G.SSW10.E41.W1) L7 South Win (G.SSW10.E42.W1) | 1.0        | 45.99          | 3.28         | 13.00         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 East Win (G.SSW10.E42.W1)                               | 1.0        | 4.32           | 2.16         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E43.W1)                              | 1.0        | 15.92          | 3.54         | 4.50          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 West Win (G.SSW10.E44.W1)                               | 1.0        | 6.57           | 3.28         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 South Win (G.SSW10.E46.W1)                              | 1.0        | 44.22          | 3.54         | 12.50         | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
| L7 East Win (G.SSW10.E47.W1)                               | 1.0        | 4.32           | 2.16         | 2.00          | 0.00        | 3.12         | 0.00  | 0.00 | 0.384    | 0.000   |
|  |            |                |              |               |             |              |       |      |          |         |

-----(CONTINUED)------

|                               |            |         |        |       | LOCATION OF   | ORIGIN |       |       |           |         |
|-------------------------------|------------|---------|--------|-------|---------------|--------|-------|-------|-----------|---------|
|                               |            | GLASS   | GLASS  | GLASS | IN S          | URFACE | FRAME | CURB  | FRAME     | CURB    |
| WINDOW                        |            | AREA    | HEIGHT | WIDTH | COORD         | INATES | ARE   | ľΑ    | U-VAI     | LUE     |
| NAME                          | MULTIPLIER | (SQFT ) | (FT)   | (FT)  | X (FT)        | Y (FT) | (SQFT | . )   | (BTU/HR-S | SQFT-F) |
|                               |            |         |        |       |               |        |       |       |           |         |
| L7 West Win (G.SSW10.E48.W1)  | 1.0        | 108.32  | 3.28   | 33.00 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L7 East Win (G.E13.E50.W1)    | 1.0        | 61.62   | 2.16   | 28.50 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L7 West Win (G.W18.E51.W1)    | 1.0        | 118.17  | 3.28   | 36.00 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L7 South Win (G.SW19.E52.W1)  | 1.0        | 90.22   | 3.54   | 25.50 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L7 West Win (G.SW19.E53.W1)   | 1.0        | 111.61  | 3.28   | 34.00 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L7 North Win (G.C20.E54.W1)   | 1.0        | 41.40   | 3.60   | 11.50 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L7 West Win (G.NW21.E55.W1)   | 1.0        | 222.83  | 7.07   | 31.50 | 0.00          | 1.00   | 0.00  | 0.00  | 0.384     | 0.000   |
| L7 North Win (G.NW21.E56.W1)  | 1.0        | 194.53  | 7.07   | 27.50 | 0.00          | 1.00   | 0.00  | 0.00  | 0.384     | 0.000   |
| L7 North Win (G.NE22.E57.W1)  | 1.0        | 222.83  | 7.07   | 31.50 | 0.00          | 1.00   | 0.00  | 0.00  | 0.384     | 0.000   |
| L7 East Win (G.NE22.E58.W1)   | 1.0        | 191.00  | 7.07   | 27.00 | 0.00          | 1.00   | 0.00  | 0.00  | 0.384     | 0.000   |
| L7 East Win (G.SSE23.E59.W1)  | 1.0        | 61.62   | 2.16   | 28.50 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L7 South Win (G.SSE23.E60.W1) | 1.0        | 159.21  | 3.54   | 45.00 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L8 East Win (G.E3.E4.W1)      | 1.0        | 61.62   | 2.16   | 28.50 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L8 West Win (G.W8.E10.W1)     | 1.0        | 118.17  | 3.28   | 36.00 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L8 South Win (G.SW9.E12.W1)   | 1.0        | 79.60   | 3.54   | 22.50 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L8 West Win (G.SW9.E13.W1)    | 1.0        | 96.83   | 3.28   | 29.50 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L8 East Win (G.C10.E15.W1)    | 1.0        | 19.46   | 2.16   | 9.00  | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L8 West Win (G.NW11.E17.W1)   | 1.0        | 105.04  | 3.28   | 32.00 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L8 North Win (G.NW11.E18.W1)  | 1.0        | 118.81  | 3.60   | 33.00 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L8 North Win (G.NE12.E20.W1)  | 1.0        | 124.21  | 3.60   | 34.50 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L8 East Win (G.NE12.E21.W1)   | 1.0        | 59.45   | 2.16   | 27.50 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L8 South Win (G.S13.E23.W1)   | 1.0        | 79.60   | 3.54   | 22.50 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L8 South Win (G.SE14.E25.W1)  | 1.0        | 79.60   | 3.54   | 22.50 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| L8 East Win (G.SE14.E26.W1)   | 1.0        | 51.89   | 2.16   | 24.00 | 0.00          | 3.12   | 0.00  | 0.00  | 0.384     | 0.000   |
| zo zabe win (e.bzii.zze.wi)   | 2.0        | 31.03   | 2.10   | 21.00 | 0.00          | 3.12   | 0.00  | 0.00  | 0.501     | 0.000   |
|                               |            |         |        |       |               |        |       |       |           |         |
|                               |            | GLASS   | NUMBE  | lR.   | CENTER-OF     | _      | GLASS | GLASS | SURFACI   | E TO    |
| WINDOW                        | SETBACK    | SHADING | 0      | F     | GLASS U-VALU  | E VI   | SIBLE | SOLAR | ROUGH (   | OPEN    |
| NAME                          | (FT)       | COEFF   | PANE   | S (   | BTU/HR-SQFT-F | )      | TRANS | TRANS | AREA RA   | ATIO    |
|                               |            |         |        |       |               |        |       |       |           |         |
| Window 593                    | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| Window 592                    | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| Window 591                    | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 North Win (G.C4.E3.W1)     | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 North Win (G.N5.E4.W1)     | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 South Win (G.E6.E5.W1)     | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 East Win (G.E6.E6.W1)      | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 North Win (G.E6.E7.W1)     | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 North Win (G.W7.E9.W1)     | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 West Win (G.W7.E10.W1)     | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 West Win (G.W8.E11.W1)     | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 East Win (G.E9.E12.W1)     | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 East Win (G.E10.E13.W1)    | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 North Win (G.E10.E14.W1)   | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 South Win (G.E10.E15.W1)   | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 South Win (G.S11.E16.W1)   | 0.00       | 0.26    |        | 1     | 0.18          |        | 0.400 | 0.878 | 1.000     |         |
| L1 North Win (G.S17.E24.W1)   | 0.00       | 0.39    |        | 1     | 0.37          |        | 0.609 | 0.878 | 1.000     |         |
| L1 East Win (G.S17.E25.W1)    | 0.00       | 0.39    |        | 1     | 0.37          |        | 0.609 | 0.878 | 1.000     |         |
| L1 East Win (G.E19.E27.W1)    | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 East Win (G.NNE24.E30.W1)  | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 West Win (G.WNW27.E37.W1)  | 0.00       | 0.26    |        | 1     | 0.18          | 6      | 0.400 | 0.878 | 1.000     | )       |
| L1 North Win (G.WNW27.E39.W1) | 0.00       | 0.26    |        | 1     | 0.18          |        | 0.400 | 0.878 | 1.000     |         |
|                               |            |         |        |       |               |        |       |       |           |         |

|                               |         | GLASS   | NUMBER | CENTER-OF-      | GLASS   | GLASS | SURFACE TO |
|-------------------------------|---------|---------|--------|-----------------|---------|-------|------------|
| WINDOW                        | SETBACK | SHADING | OF     | GLASS U-VALUE   | VISIBLE | SOLAR | ROUGH OPEN |
| NAME                          | (FT)    | COEFF   | PANES  | (BTU/HR-SOFT-F) | TRANS   | TRANS | AREA RATIO |
|                               | (/      |         |        | (===,======,    |         |       |            |
| L1 North Win (G.N28.E42.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L1 East Win (G.E29.E45.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L1 North Win (G.E29.E46.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 North Win (G.C3.E1.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 North Win (G.N4.E2.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 East Win (G.N4.E3.W1)      | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 North Win (G.N4.E4.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 West Win (G.N4.E5.W1)      | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 North Win (G.N4.E6.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 East Win (G.N4.E7.W1)      | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 North Win (G.N4.E8.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 West Win (G.N4.E9.W1)      | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 North Win (G.N4.E10.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 East Win (G.N4.E11.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 North Win (G.N4.E12.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 West Win (G.N4.E13.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 North Win (G.N4.E14.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 East Win (G.N4.E15.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 North Win (G.N4.E16.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 West Win (G.N4.E17.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 South Win (G.E5.E18.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 East Win (G.E5.E19.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 North Win (G.E5.E20.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 East Win (G.E5.E21.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 North Win (G.E5.E22.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 West Win (G.E5.E23.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 North Win (G.W6.E25.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 West Win (G.W6.E26.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 West Win (G.W7.E27.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 East Win (G.E8.E28.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 East Win (G.E9.E29.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 North Win (G.E9.E30.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 East Win (G.E9.E31.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 South Win (G.E9.E32.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 West Win (G.S10.E33.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 South Win (G.S10.E34.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 East Win (G.S10.E35.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 South Win (G.S10.E36.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 West Win (G.S10.E37.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 South Win (G.S10.E38.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 East Win (G.S10.E39.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 South Win (G.S10.E40.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 West Win (G.S10.E41.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 South Win (G.S10.E42.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 East Win (G.S10.E43.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 South Win (G.S10.E44.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 South Win (G.S10.E45.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L2 West Win (G.SSW12.E46.W1)  | 0.00    | 0.39    | 1      | 0.373           | 0.609   | 0.878 | 1.000      |
| L2 South Win (G.SSW12.E47.W1) | 0.00    | 0.39    | 1      | 0.373           | 0.609   | 0.878 | 1.000      |
| L2 North Win (G.SSW12.E48.W1) | 0.00    | 0.39    | 1      | 0.373           | 0.609   | 0.878 | 1.000      |
| L2 East Win (G.SSW12.E49.W1)  | 0.00    | 0.39    | 1      | 0.373           | 0.609   | 0.878 | 1.000      |
| L2 South Win (G.SSW12.E50.W1) | 0.00    | 0.39    | 1      | 0.373           | 0.609   | 0.878 | 1.000      |
| L2 South Win (G.SSW12.E51.W1) | 0.00    | 0.39    | 1      | 0.373           | 0.609   | 0.878 | 1.000      |
| L2 North Win (G.E14.E53.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
|                               |         |         |        |                 |         |       |            |

|  |         | GLASS   | NUMBER | CENTER-OF-      | GLASS   | GLASS          | SURFACE TO |
|--|---------|---------|--------|-----------------|---------|----------------|------------|
| WINDOW   | SETBACK | SHADING | OF     | GLASS U-VALUE   | VISIBLE | SOLAR          | ROUGH OPEN |
| NAME   | (FT)    | COEFF   | PANES  | (BTU/HR-SQFT-F) | TRANS   | TRANS          | AREA RATIO |
| L2 East Win (G.E14.E54.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 East Win (G.E14.E54.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 North Win (G.WNW18.E57.W1)                          | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 East Win (G.WNW18.E58.W1)                           | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 North Win (G.WNW18.E59.W1)                          | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 West Win (G.WNW18.E60.W1)                           | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 North Win (G.WNW18.E61.W1)                          | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 East Win (G.WNW18.E62.W1)                           | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 North Win (G.WNW18.E63.W1)                          | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 West Win (G.WNW18.E64.W1)                           | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 North Win (G.N19.E65.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 East Win (G.N19.E66.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 North Win (G.N19.E67.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 West Win (G.N19.E68.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 West Win (G.N19.E66.W1) L2 North Win (G.N19.E69.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 East Win (G.N19.E70.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
|  |         | 0.26    | 1      | 0.186           | 0.400   |                |            |
| L2 North Win (G.N19.E71.W1) L2 West Win (G.N19.E72.W1) | 0.00    | 0.26    | 1      |                 | 0.400   | 0.878<br>0.878 | 1.000      |
|  |         |         | 1      | 0.186           |         |                | 1.000      |
| L2 South Win (G.SW20.E73.W1)                           | 0.00    | 0.39    |        | 0.373           | 0.609   | 0.878          | 1.000      |
| L2 East Win (G.SW20.E74.W1)                            | 0.00    | 0.39    | 1<br>1 | 0.373           | 0.609   | 0.878          | 1.000      |
| L2 South Win (G.SW20.E75.W1)                           | 0.00    | 0.39    | 1      | 0.373           | 0.609   | 0.878          | 1.000      |
| L2 West Win (G.SW20.E76.W1)                            | 0.00    | 0.39    |        | 0.373           | 0.609   | 0.878          | 1.000      |
| L2 South Win (G.E23.E77.W1)                            | 0.00    | 0.26    | 1<br>1 | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 East Win (G.E23.E78.W1)                             | 0.00    | 0.26    |        | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 North Win (G.E23.E79.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 East Win (G.E23.E80.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 North Win (G.E23.E81.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 West Win (G.E23.E82.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L2 South Win (G.S27.E88.W1)                            | 0.00    | 0.39    | 1      | 0.373           | 0.609   | 0.878          | 1.000      |
| L3 North Win (G.N3.E1.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.N3.E2.W1)                               | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.N4.E3.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.N4.E4.W1)                               | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.N4.E5.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.N4.E6.W1)                               | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.N4.E7.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.N4.E8.W1)                               | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.N4.E9.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.N4.E10.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.N4.E11.W1)                             | 0.00    | 0.26    |        | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.N4.E12.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.N4.E13.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.N4.E14.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.N4.E15.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.N4.E16.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.N4.E17.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.N4.E18.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.E5.E19.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.E5.E20.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.E5.E21.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.E5.E22.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.E5.E23.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.E5.E24.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.W6.E26.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |

|  |         | GLASS   | NUMBER | CENTER-OF-      | GLASS   | GLASS          | SURFACE TO |
|--|---------|---------|--------|-----------------|---------|----------------|------------|
| WINDOW   | SETBACK | SHADING | OF     | GLASS U-VALUE   | VISIBLE | SOLAR          | ROUGH OPEN |
| NAME   | (FT)    | COEFF   | PANES  | (BTU/HR-SQFT-F) | TRANS   | TRANS          | AREA RATIO |
| L3 West Win (G.W6.E27.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.W7.E28.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.E8.E29.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.E9.E30.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.E9.E31.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.E9.E32.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.E9.E33.W1)                              | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.E9.E34.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.S10.E35.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S10.E36.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.S10.E37.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S10.E38.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.S10.E39.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S10.E40.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.S10.E41.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S10.E42.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.S10.E42.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S10.E43.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
|  | 0.00    | 0.26    | 1      | 0.186           | 0.400   |                | 1.000      |
| L3 East Win (G.S10.E45.W1) L3 South Win (G.S10.E46.W1) |         |         | 1      |                 |         | 0.878          |            |
| ,  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878<br>0.878 | 1.000      |
| L3 West Win (G.S10.E47.W1)                             |         | 0.26    |        | 0.186           | 0.400   |                |            |
| L3 South Win (G.S10.E48.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.S10.E49.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S10.E50.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.S10.E51.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S10.E52.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.S10.E53.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S10.E54.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.S10.E55.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S10.E56.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.S10.E57.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S10.E58.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.S10.E59.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S10.E60.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.S10.E61.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S10.E62.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.S10.E63.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S10.E64.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.S10.E65.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.E13.E67.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.E13.E68.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.E13.E69.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.NW17.E70.W1)                           | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.NW17.E71.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.NW17.E72.W1)                           | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.NW17.E73.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.NW17.E74.W1)                           | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.NW17.E75.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.N18.E76.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.N18.E77.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.N18.E78.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.N18.E79.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.N18.E80.W1)                            | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.N18.E81.W1)                             | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
|  |         |         |        |                 |         |                |            |

|  |         | GLASS        | NUMBER | CENTER-OF-      | GLASS   | GLASS          | SURFACE TO |
|--|---------|--------------|--------|-----------------|---------|----------------|------------|
| WINDOW   | SETBACK | SHADING      | OF     | GLASS U-VALUE   | VISIBLE | SOLAR          | ROUGH OPEN |
| NAME   | (FT)    | COEFF        | PANES  | (BTU/HR-SQFT-F) | TRANS   | TRANS          | AREA RATIO |
| L3 North Win (G.N18.E82.W1)                          | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.N18.E83.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.N18.E84.W1)                          | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.N18.E85.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.N18.E86.W1)                          | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.N18.E87.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.E19.E88.W1)                          | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.E19.E89.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.E19.E90.W1)                          | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.E19.E91.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.E19.E92.W1)                          | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.E19.E93.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.W21.E94.W1)                          | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.W21.E95.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.W21.E96.W1)                          | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.W21.E97.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.W21.E98.W1)                          | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.W21.E99.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.W21.E100.W1)                         | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.W21.E101.W1)                          | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 North Win (G.W21.E102.W1)                         | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.W21.E103.W1)                          | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.W21.E104.W1)                          | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.SW22.E105.W1)                        | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.SW22.E106.W1)                         | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.SW22.E107.W1)                        | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 West Win (G.SW22.E108.W1)                         | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 East Win (G.S24.E109.W1)                          | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S24.E110.W1)                         | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L3 South Win (G.S24.E111.W1)                         | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.N3.E1.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.N3.E2.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.N4.E3.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.N4.E4.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.N4.E5.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.N4.E6.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.N4.E7.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.N4.E8.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.N4.E9.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.N4.E10.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.N4.E11.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.N4.E12.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.N4.E13.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.N4.E14.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.N4.E15.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.N4.E16.W1)                            | 0.00    | 0.26<br>0.26 | 1      | 0.186<br>0.186  | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.N4.E17.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.N4.E18.W1) L4 South Win (G.E5.E19.W1) | 0.00    | 0.26         | 1      |                 | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.E5.E19.W1) L4 East Win (G.E5.E20.W1) | 0.00    | 0.26         | 1      | 0.186<br>0.186  | 0.400   | 0.878<br>0.878 | 1.000      |
| L4 East Win (G.E5.E20.WI) L4 North Win (G.E5.E21.W1) | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.E5.E21.W1) L4 East Win (G.E5.E22.W1) | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.E5.E22.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.E5.E24.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| DI WEST MITT (G.E3.E24.WI)                           | 0.00    | 0.20         | Τ.     | 0.100           | 0.400   | 0.0/0          | 1.000      |

|  |         | GLASS        | NUMBER | CENTER-OF-      | GLASS   | GLASS          | SURFACE TO |
|--|---------|--------------|--------|-----------------|---------|----------------|------------|
| WINDOW   | SETBACK | SHADING      | OF     | GLASS U-VALUE   | VISIBLE | SOLAR          | ROUGH OPEN |
| NAME   | (FT)    | COEFF        | PANES  | (BTU/HR-SQFT-F) | TRANS   | TRANS          | AREA RATIO |
|  | , ,     |              |        |                 |         |                |            |
| L4 North Win (G.W6.E26.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.W6.E27.W1)                              | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.W7.E28.W1)                              | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.E8.E29.W1)                              | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.E9.E30.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.E9.E31.W1)                              | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.E9.E32.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.E9.E33.W1)                              | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.E9.E34.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.S10.E35.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E36.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.S10.E37.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E38.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.S10.E39.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E40.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.S10.E41.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E42.W1)                            | 0.00    | 0.26         | 1<br>1 | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.S10.E43.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E44.W1) L4 East Win (G.S10.E45.W1) | 0.00    | 0.26<br>0.26 | 1      | 0.186<br>0.186  | 0.400   | 0.878<br>0.878 | 1.000      |
| L4 East Win (G.SIU.E45.WI) L4 South Win (G.S10.E46.W1) | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.S10.E47.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E47.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.S10.E49.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E50.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.S10.E51.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E52.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.S10.E53.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E54.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.S10.E55.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E56.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.S10.E57.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E58.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.S10.E59.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E60.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.S10.E61.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E62.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.S10.E63.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.S10.E64.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.S10.E65.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.E13.E67.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.E13.E68.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.E13.E69.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 South Win (G.NW17.E70.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.NW17.E71.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.NW17.E72.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.NW17.E73.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.NW17.E74.W1)                           | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 West Win (G.NW17.E75.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.N18.E76.W1)                            | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 East Win (G.N18.E77.W1)                             | 0.00    | 0.26         | 1      | 0.186           | 0.400   | 0.878          | 1.000      |
| L4 North Win (G.N18.E78.W1) L4 West Win (G.N18.E79.W1) | 0.00    | 0.26<br>0.26 | 1<br>1 | 0.186           | 0.400   | 0.878<br>0.878 | 1.000      |
| L4 West Win (G.N18.E/9.W1) L4 North Win (G.N18.E80.W1) | 0.00    | 0.26         | 1      | 0.186<br>0.186  | 0.400   | 0.878          | 1.000      |
| DE MOLCH WIN (G.MIO.EOU.WI)                            | 0.00    | 0.20         | 1      | 0.100           | 0.400   | 0.070          | 1.000      |

|                               |         | GLASS   | NUMBER | CENTER-OF-      | GLASS   | GLASS | SURFACE TO |
|-------------------------------|---------|---------|--------|-----------------|---------|-------|------------|
| WINDOW                        | SETBACK | SHADING | OF     | GLASS U-VALUE   | VISIBLE | SOLAR | ROUGH OPEN |
| NAME                          | (FT)    | COEFF   | PANES  | (BTU/HR-SQFT-F) | TRANS   | TRANS | AREA RATIO |
| L4 East Win (G.N18.E81.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 North Win (G.N18.E82.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 West Win (G.N18.E83.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 North Win (G.N18.E84.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 East Win (G.N18.E85.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 North Win (G.N18.E86.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 West Win (G.N18.E87.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 South Win (G.E19.E88.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 East Win (G.E19.E89.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 North Win (G.E19.E90.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 East Win (G.E19.E91.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 North Win (G.E19.E92.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 West Win (G.E19.E93.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 North Win (G.W21.E94.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 West Win (G.W21.E95.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 South Win (G.W21.E96.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 West Win (G.W21.E97.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 North Win (G.W21.E98.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 West Win (G.W21.E99.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 South Win (G.W21.E100.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 West Win (G.W21.E101.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 North Win (G.W21.E102.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 West Win (G.W21.E103.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 West Win (G.W21.E104.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 South Win (G.SW22.E105.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 West Win (G.SW22.E106.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 South Win (G.SW22.E107.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 West Win (G.SW22.E108.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 East Win (G.S24.E109.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 South Win (G.S24.E110.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L4 South Win (G.S24.E111.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 North Win (G.N3.E1.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 East Win (G.N3.E2.W1)      | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 North Win (G.N4.E3.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 East Win (G.N4.E4.W1)      | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 North Win (G.N4.E5.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 West Win (G.N4.E6.W1)      | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 North Win (G.N4.E7.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 East Win (G.N4.E8.W1)      | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 North Win (G.N4.E9.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 West Win (G.N4.E10.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 North Win (G.N4.E11.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 East Win (G.N4.E12.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 North Win (G.N4.E13.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 West Win (G.N4.E14.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 North Win (G.N4.E15.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 East Win (G.N4.E16.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 North Win (G.N4.E17.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 West Win (G.N4.E18.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 South Win (G.E5.E19.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 East Win (G.E5.E20.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 North Win (G.E5.E21.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 East Win (G.E5.E22.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L5 North Win (G.E5.E23.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
|                               |         |         |        |                 |         |       |            |

|  |         | CI ACC           | MIMDED       | GENTED OF                   | GI AGG           | CT ACC         | CUDEAGE TO               |
|--|---------|------------------|--------------|-----------------------------|------------------|----------------|--------------------------|
| WINDOW   | SETBACK | GLASS<br>SHADING | NUMBER<br>OF | CENTER-OF-<br>GLASS U-VALUE | GLASS<br>VISIBLE | GLASS<br>SOLAR | SURFACE TO<br>ROUGH OPEN |
| NAME   | (FT)    | COEFF            | PANES        | (BTU/HR-SQFT-F)             | TRANS            | TRANS          | AREA RATIO               |
|  | , ,     |                  |              |                             |                  |                |                          |
| L5 West Win (G.E5.E24.W1)                              | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 North Win (G.W6.E26.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.W6.E27.W1)                              | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.W7.E28.W1)                              | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 East Win (G.E8.E29.W1)                              | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.E9.E30.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.E9.E31.W1)                              | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.E9.E32.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 East Win (G.E9.E33.W1)                              | 0.00    | 0.26<br>0.26     | 1<br>1       | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 North Win (G.E9.E34.W1) L5 West Win (G.S10.E35.W1)  | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.S10.E35.W1) L5 South Win (G.S10.E36.W1) | 0.00    | 0.26             | 1            | 0.186<br>0.186              | 0.400            | 0.878<br>0.878 | 1.000                    |
| L5 East Win (G.S10.E37.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.S10.E38.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.S10.E39.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.S10.E40.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 East Win (G.S10.E41.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.S10.E42.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.S10.E43.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.S10.E44.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 East Win (G.S10.E45.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.S10.E46.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.S10.E47.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.S10.E48.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 East Win (G.S10.E49.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.S10.E50.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.S10.E51.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.S10.E52.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 East Win (G.S10.E53.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.S10.E54.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.S10.E55.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.S10.E56.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 East Win (G.S10.E57.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.S10.E58.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.S10.E59.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.S10.E60.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 East Win (G.S10.E61.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.S10.E62.W1) L5 West Win (G.S10.E63.W1) | 0.00    | 0.26<br>0.26     | 1<br>1       | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.S10.E63.W1) L5 South Win (G.S10.E64.W1) | 0.00    | 0.26             | 1            | 0.186<br>0.186              | 0.400            | 0.878<br>0.878 | 1.000                    |
| L5 East Win (G.S10.E65.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 North Win (G.E13.E67.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 East Win (G.E13.E68.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 East Win (G.E13.E69.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 South Win (G.NW17.E70.W1)                           | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.NW17.E71.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 North Win (G.NW17.E72.W1)                           | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 East Win (G.NW17.E73.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 North Win (G.NW17.E74.W1)                           | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.NW17.E75.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 North Win (G.N18.E76.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 East Win (G.N18.E77.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 North Win (G.N18.E78.W1)                            | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
| L5 West Win (G.N18.E79.W1)                             | 0.00    | 0.26             | 1            | 0.186                       | 0.400            | 0.878          | 1.000                    |
|  |         |                  |              |                             |                  |                |                          |

|  |         | GT 3 GG          |   | grumpp or                   | GT 3 GG          | ar 1 a a       | arm = 1 an                              |
|--|---------|------------------|---|-----------------------------|------------------|----------------|---|
| WINDOW   | SETBACK | GLASS<br>SHADING | NUMBER<br>OF                            | CENTER-OF-<br>GLASS U-VALUE | GLASS<br>VISIBLE | GLASS<br>SOLAR | SURFACE TO<br>ROUGH OPEN                |
| NAME   | (FT)    | COEFF            | PANES                                   | (BTU/HR-SQFT-F)             | TRANS            | TRANS          | AREA RATIO                              |
| 11.1.1.  | (11)    | 00211            | 111111111111111111111111111111111111111 | (210)1111 0211 1)           | 114110           | 114110         | 111111111111111111111111111111111111111 |
| L5 North Win (G.N18.E80.W1)                            | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 East Win (G.N18.E81.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 North Win (G.N18.E82.W1)                            | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 West Win (G.N18.E83.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 North Win (G.N18.E84.W1)                            | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 East Win (G.N18.E85.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 North Win (G.N18.E86.W1)                            | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 West Win (G.N18.E87.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 South Win (G.E19.E88.W1)                            | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 East Win (G.E19.E89.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 North Win (G.E19.E90.W1)                            | 0.00    | 0.26             | 1<br>1                                  | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 East Win (G.E19.E91.W1) L5 North Win (G.E19.E92.W1) | 0.00    | 0.26<br>0.26     | 1                                       | 0.186<br>0.186              | 0.400            | 0.878<br>0.878 | 1.000                                   |
| L5 West Win (G.E19.E92.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 North Win (G.W21.E94.W1)                            | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 West Win (G.W21.E94.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 South Win (G.W21.E96.W1)                            | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 West Win (G.W21.E97.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 North Win (G.W21.E98.W1)                            | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 West Win (G.W21.E99.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 South Win (G.W21.E100.W1)                           | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 West Win (G.W21.E101.W1)                            | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 North Win (G.W21.E102.W1)                           | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 West Win (G.W21.E103.W1)                            | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 West Win (G.W21.E104.W1)                            | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 South Win (G.SW22.E105.W1)                          | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 West Win (G.SW22.E106.W1)                           | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 South Win (G.SW22.E107.W1)                          | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 West Win (G.SW22.E108.W1)                           | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 East Win (G.S24.E109.W1)                            | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 South Win (G.S24.E110.W1)                           | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L5 South Win (G.S24.E111.W1)                           | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 North Win (G.N3.E1.W1)                              | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 East Win (G.N3.E2.W1)                               | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 North Win (G.N4.E3.W1)                              | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 East Win (G.N4.E4.W1)                               | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 North Win (G.N4.E5.W1)                              | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 West Win (G.N4.E6.W1)                               | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 North Win (G.N4.E7.W1)                              | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 East Win (G.N4.E8.W1)                               | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 North Win (G.N4.E9.W1)                              | 0.00    | 0.26<br>0.26     | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 West Win (G.N4.E10.W1)                              | 0.00    | 0.26             | 1<br>1                                  | 0.186<br>0.186              | 0.400            | 0.878<br>0.878 | 1.000                                   |
| L6 North Win (G.N4.E11.W1) L6 East Win (G.N4.E12.W1)   | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 North Win (G.N4.E12.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 West Win (G.N4.E14.W1)                              | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 North Win (G.N4.E14.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 East Win (G.N4.E16.W1)                              | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 North Win (G.N4.E17.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 West Win (G.N4.E18.W1)                              | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 South Win (G.E5.E19.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 East Win (G.E5.E20.W1)                              | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 North Win (G.E5.E21.W1)                             | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
| L6 East Win (G.E5.E22.W1)                              | 0.00    | 0.26             | 1                                       | 0.186                       | 0.400            | 0.878          | 1.000                                   |
|  |         |                  |   |                             |                  |                |   |

| MINDOM                       | CEMPACK         | GLASS            | NUMBER      | CENTER-OF-                       | GLASS            | GLASS          | SURFACE TO               |
|------------------------------|-----------------|------------------|-------------|----------------------------------|------------------|----------------|--------------------------|
| WINDOW<br>NAME               | SETBACK<br>(FT) | SHADING<br>COEFF | OF<br>PANES | GLASS U-VALUE<br>(BTU/HR-SQFT-F) | VISIBLE<br>TRANS | SOLAR<br>TRANS | ROUGH OPEN<br>AREA RATIO |
| NAME                         | (FI)            | COEFF            | PANES       | (BIU/HR-SQFI-F)                  | IRANS            | IKANS          | AREA RAIIO               |
| L6 North Win (G.E5.E23.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.E5.E24.W1)    | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 North Win (G.W6.E26.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.W6.E27.W1)    | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.W7.E28.W1)    | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 East Win (G.E8.E29.W1)    | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.E9.E30.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.E9.E31.W1)    | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.E9.E32.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 East Win (G.E9.E33.W1)    | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 North Win (G.E9.E34.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.S10.E35.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E36.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 East Win (G.S10.E37.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E38.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.S10.E39.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E40.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 East Win (G.S10.E41.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E42.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.S10.E43.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E44.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 East Win (G.S10.E45.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E46.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.S10.E47.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E48.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 East Win (G.S10.E49.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E50.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.S10.E51.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E52.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 East Win (G.S10.E53.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E54.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.S10.E55.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E56.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 East Win (G.S10.E57.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E58.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.S10.E59.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E60.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 East Win (G.S10.E61.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E62.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.S10.E63.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.S10.E64.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 East Win (G.S10.E65.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 North Win (G.E13.E67.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 East Win (G.E13.E68.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 East Win (G.E13.E69.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.NW17.E70.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 North Win (G.NW17.E71.W1) | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 North Win (G.N18.E72.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.E19.E73.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 East Win (G.E19.E74.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 North Win (G.E19.E74.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 North Win (G.W21.E76.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 West Win (G.W21.E77.W1)   | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| L6 South Win (G.W21.E77.W1)  | 0.00            | 0.26             | 1           | 0.186                            | 0.400            | 0.878          | 1.000                    |
| TO SOUCH WIN (G.WZI.E/O.WI)  | 0.00            | 0.40             | 1           | 0.186                            | 0.400            | 0.0/8          | 1.000                    |

|                               |         | GLASS   | NUMBER | CENTER-OF-      | GLASS   | GLASS | SURFACE TO |
|-------------------------------|---------|---------|--------|-----------------|---------|-------|------------|
| WINDOW                        | SETBACK | SHADING | OF     | GLASS U-VALUE   | VISIBLE | SOLAR | ROUGH OPEN |
| NAME                          | (FT)    | COEFF   | PANES  | (BTU/HR-SQFT-F) | TRANS   | TRANS | AREA RATIO |
|                               |         |         |        |                 |         |       |            |
| L6 West Win (G.W21.E79.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 North Win (G.W21.E80.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 West Win (G.W21.E81.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 South Win (G.W21.E82.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 West Win (G.W21.E83.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 North Win (G.W21.E84.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 West Win (G.W21.E85.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 West Win (G.W21.E86.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 South Win (G.SW22.E87.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 West Win (G.SW22.E88.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 South Win (G.SW22.E89.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 West Win (G.SW22.E90.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 East Win (G.S24.E91.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 South Win (G.S24.E92.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L6 South Win (G.S24.E93.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.N3.E1.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 North Win (G.N3.E2.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.N3.E3.W1)      | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 North Win (G.N4.E4.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.E5.E5.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.E5.E6.W1)      | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 North Win (G.E5.E7.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 North Win (G.W6.E9.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 West Win (G.W6.E10.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 West Win (G.W7.E11.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.E8.E12.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.E9.E13.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 West Win (G.E9.E14.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.E9.E15.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.E9.E16.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 North Win (G.E9.E17.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E18.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.SSW10.E19.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E20.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 West Win (G.SSW10.E21.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E22.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.SSW10.E23.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E24.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 West Win (G.SSW10.E25.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E26.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.SSW10.E27.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E28.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 West Win (G.SSW10.E29.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E30.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.SSW10.E31.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E32.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 West Win (G.SSW10.E33.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E34.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.SSW10.E35.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E36.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 West Win (G.SSW10.E37.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E38.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.SSW10.E39.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E40.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |

|                               |         | GLASS   | NUMBER | CENTER-OF-      | GLASS   | GLASS | SURFACE TO |
|-------------------------------|---------|---------|--------|-----------------|---------|-------|------------|
| WINDOW                        | SETBACK | SHADING | OF     | GLASS U-VALUE   | VISIBLE | SOLAR | ROUGH OPEN |
| NAME                          | (FT)    | COEFF   | PANES  | (BTU/HR-SQFT-F) | TRANS   | TRANS | AREA RATIO |
|                               |         |         |        |                 |         |       |            |
| L7 West Win (G.SSW10.E41.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E42.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.SSW10.E43.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E44.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 West Win (G.SSW10.E45.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSW10.E46.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.SSW10.E47.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 West Win (G.SSW10.E48.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.E13.E50.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 West Win (G.W18.E51.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SW19.E52.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 West Win (G.SW19.E53.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 North Win (G.C20.E54.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 West Win (G.NW21.E55.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 North Win (G.NW21.E56.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 North Win (G.NE22.E57.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.NE22.E58.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 East Win (G.SSE23.E59.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L7 South Win (G.SSE23.E60.W1) | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L8 East Win (G.E3.E4.W1)      | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L8 West Win (G.W8.E10.W1)     | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L8 South Win (G.SW9.E12.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L8 West Win (G.SW9.E13.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L8 East Win (G.C10.E15.W1)    | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L8 West Win (G.NW11.E17.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L8 North Win (G.NW11.E18.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L8 North Win (G.NE12.E20.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L8 East Win (G.NE12.E21.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L8 South Win (G.S13.E23.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L8 South Win (G.SE14.E25.W1)  | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| L8 East Win (G.SE14.E26.W1)   | 0.00    | 0.26    | 1      | 0.186           | 0.400   | 0.878 | 1.000      |
| DO DODE WITH (G.DELT.EZU.WI)  | 0.00    | 0.20    | _      | 0.100           | 0.700   | 0.070 | 1.000      |

NUMBER OF CONSTRUCTIONS 29 DELAYED 25 QUICK 4

| CONSTRUCTION                    | U-VALUE    | SURFACE     | SURFACE | SURFACE | NUMBER OF<br>RESPONSE |
|---------------------------------|------------|-------------|---------|---------|-----------------------|
|                                 |            |             |         |         |                       |
| NAME (BTU/F                     | IR-SQFT-F) | ABSORPTANCE | INDEX   | TYPE    | FACTORS               |
| 2015 SEC ALL Deck Roof Const    | 0.027      | 0.70        | 3       | DELAYED | 4                     |
| 2015 SEC ALL Mass Wall Const    | 0.057      | 0.70        | 3       | DELAYED | 9                     |
| 2015 SEC ALL Stl Fm Wall Const  | 0.055      | 0.70        | 3       | DELAYED | 6                     |
| 2015 SEC ALL BG Mass Wall Const | 0.070      | 0.70        | 3       | DELAYED | 9                     |
| 2015 SEC ALL Joist Floor Const  | 0.029      | 0.75        | 3       | DELAYED | 6                     |
| Proposed ALL Deck Roof Const    | 0.017      | 0.70        | 3       | DELAYED | 4                     |
| Proposed ALL Mass Wall Const    | 0.285      | 0.70        | 3       | DELAYED | 9                     |
| Proposed ALL Stl Fm Wall Const  | 0.164      | 0.70        | 3       | DELAYED | 6                     |
| Proposed ALL BG Mass Wall Const | 0.196      | 0.70        | 3       | DELAYED | 9                     |
| Proposed ALL Joist Floor Const  | 0.033      | 0.75        | 3       | DELAYED | 6                     |
| A90.1-07 NR_R Roof Const        | 0.048      | 0.70        | 3       | DELAYED | 5                     |
| A90.1-07 NR Abv-G Wall Const    | 0.065      | 0.70        | 3       | DELAYED | 6                     |
| A90.1-07 R Abv-G Wall Const     | 0.065      | 0.70        | 3       | DELAYED | 6                     |
| A90.1-07 NR Floor Const         | 0.038      | 0.70        | 3       | DELAYED | 6                     |
| A90.1-07 R Floor Const          | 0.038      | 0.70        | 3       | DELAYED | 6                     |
| A90.1-07 NR Mass Wall Const     | 0.104      | 0.70        | 3       | DELAYED | 9                     |
| A90.1-07 R Mass Wall Const      | 0.090      | 0.70        | 3       | DELAYED | 9                     |
| Interior CMU Wall Const         | 0.491      | 0.70        | 3       | DELAYED | 6                     |
| Interior Frame Wall Const       | 0.132      | 0.70        | 3       | DELAYED | 4                     |
| Interior Ceiling Const          | 0.514      | 0.70        | 3       | DELAYED | 3                     |
| Interior Floor Const            | 0.813      | 0.70        | 3       | DELAYED | 5                     |
| Exposed Slab Edge Const         | 0.260      | 0.70        | 3       | DELAYED | 9                     |
| Below-Grade Wall Const          | 0.500      | 0.70        | 3       | QUICK   | 0                     |
| Concrete Slab Wall Const        | 0.743      | 0.70        | 3       | DELAYED | 7                     |
| Resi Core Walls Const           | 0.283      | 0.70        | 3       | DELAYED | 15                    |
| Default Air Wall Construction   | 2.700      | 0.70        | 3       | QUICK   | 0                     |
| Below Grade Unins Concrete Wall | 0.278      | 0.70        | 3       | QUICK   | 0                     |
| Exposed Garage Walls            | 0.740      | 0.70        | 3       | QUICK   | 0                     |
| Proposed ALL Wd Fm Wall Const   | 0.049      | 0.70        | 3       | DELAYED | 6                     |

|                         | LIGHTS           | TASK<br>LIGHTS | MISC<br>EQUIP     | SPACE<br>HEATING  | SPACE<br>COOLING | HEAT<br>REJECT | PUMPS<br>& AUX   | VENT<br>FANS     | REFRIG<br>DISPLAY | HT PUMP | DOMEST<br>HOT WTR | EXT<br>USAGE  | TOTAL              |
|-------------------------|------------------|----------------|-------------------|-------------------|------------------|----------------|------------------|------------------|-------------------|---------|-------------------|---------------|--------------------|
|                         |                  |                |                   |                   |                  |                |                  |                  |                   |         |                   |               |                    |
| T237                    |                  |                |                   |                   |                  |                |                  |                  |                   |         |                   |               |                    |
| JAN<br>KWH              | 15278.           | 1121.          | 61235.            | 41467.            | 1.               | 0.             | 12944.           | 13230.           | 1482.             | 0.      | 17249.            | 1156.         | 165161.            |
| MAX KW                  | 41.235           | 6.028          | 176.161           | 254.900           | 0.412            | 0.000          | 18.085           | 34.068           | 3.329             | 0.000   | 54.890            | 2.984         | 503.813            |
| DAY/HR                  | 2/ 8             | 1/ 8           | 2/21              | 5/ 8              | 19/14            | 0/0            | 14/24            | 3/19             | 2/19              | 0/ 0    | 23/ 8             | 1/18          | 4/21               |
| PEAK ENDUSE             | 22.024           | 0.000          | 176.161           | 222.474           | 0.000            | 0.000          | 17.203           | 34.011           | 2.710             | 0.000   | 26.247            | 2.984         |                    |
| PEAK PCT                | 4.4              | 0.0            | 35.0              | 44.2              | 0.0              | 0.0            | 3.4              | 6.8              | 0.5               | 0.0     | 5.2               | 0.6           |                    |
|                         |                  |                |                   |                   |                  |                |                  |                  |                   |         |                   |               |                    |
| FEB                     |                  |                |                   |                   | 4.50             |                |                  |                  |                   |         |                   |               |                    |
| KWH<br>MAX KW           | 13786.<br>41.235 | 1013.<br>6.028 | 55311.<br>176.161 | 27701.<br>136.432 | 159.<br>8.344    | 0.<br>0.000    | 11699.<br>18.096 | 11936.<br>33.860 | 1338.<br>3.329    | 0.000   | 15306.<br>55.115  | 812.<br>2.984 | 139059.<br>378.588 |
| DAY/HR                  | 1/8              | 1/ 8           | 1/0.101           | 136.432           | 22/16            | 0.000          | 22/24            | 27/19            | 1/19              | 0.000   | 7/ 8              | 1/20          | 13/ 8              |
| PEAK ENDUSE             | 41.235           | 6.028          | 95.219            | 136.432           | 0.000            | 0.000          | 17.123           | 28.991           | 1.626             | 0.000   | 51.935            | 0.000         | 13/ 0              |
| PEAK PCT                | 10.9             | 1.6            | 25.2              | 36.0              | 0.0              | 0.0            | 4.5              | 7.7              | 0.4               | 0.0     | 13.7              | 0.0           |                    |
|                         |                  |                |                   |                   |                  |                |                  |                  |                   |         |                   |               |                    |
| MAR                     |                  |                |                   |                   |                  |                |                  |                  |                   |         |                   |               |                    |
| KWH                     | 15243.           | 1121.          | 61236.            | 19198.            | 534.             | 0.             | 12501.           | 13198.           | 1482.             | 0.      | 15901.            | 899.          | 141313.            |
| MAX KW                  | 41.235           | 6.028          | 176.161           | 89.916            | 31.324           | 0.000          | 18.113           | 33.837           | 3.329             | 0.000   | 54.890            | 2.984         | 348.252            |
| DAY/HR                  | 1/ 8             | 1/ 8           | 1/21              | 2/ 8              | 29/16            | 0/0            | 23/24            | 4/19             | 1/19              | 0/ 0    | 5/8               | 1/20          | 5/21               |
| PEAK ENDUSE             | 22.024           | 0.000          | 176.161           | 69.564            | 0.000            | 0.000          | 17.848           | 33.800           | 2.710             | 0.000   | 23.161            | 2.984         |                    |
| PEAK PCT                | 6.3              | 0.0            | 50.6              | 20.0              | 0.0              | 0.0            | 5.1              | 9.7              | 0.8               | 0.0     | 6.7               | 0.9           |                    |
| APR                     |                  |                |                   |                   |                  |                |                  |                  |                   |         |                   |               |                    |
| KWH                     | 14793.           | 1085.          | 59332.            | 10542.            | 1572.            | 0.             | 11609.           | 12792.           | 1431.             | 0.      | 14440.            | 870.          | 128466.            |
| MAX KW                  | 41.235           | 6.028          | 176.161           | 58.200            | 23.099           | 0.000          | 18.130           | 33.785           | 3.329             | 0.000   | 54.313            | 2.984         | 327.017            |
| DAY/HR                  | 1/8              | 1/ 8           | 1/21              | 24/ 8             | 20/16            | 0/0            | 21/24            | 18/19            | 1/19              | 0/ 0    | 24/ 8             | 1/20          | 23/21              |
| PEAK ENDUSE             | 22.024           | 0.000          | 176.161           | 49.485            | 0.003            | 0.000          | 17.956           | 33.748           | 2.710             | 0.000   | 21.946            | 2.984         |                    |
| PEAK PCT                | 6.7              | 0.0            | 53.9              | 15.1              | 0.0              | 0.0            | 5.5              | 10.3             | 0.8               | 0.0     | 6.7               | 0.9           |                    |
|                         |                  |                |                   |                   |                  |                |                  |                  |                   |         |                   |               |                    |
| MAY                     |                  |                |                   |                   |                  |                |                  |                  |                   |         |                   |               |                    |
| KWH                     | 15286.           | 1121.          | 61277.            | 5894.             | 4157.            | 0.             | 11296.           | 13182.           | 1480.             | 0.      | 13799.            | 540.          | 128032.            |
| MAX KW                  | 41.235           | 6.028<br>1/8   | 176.161           | 39.187            | 40.064           | 0.000          | 18.134           | 34.031           | 3.329             | 0.000   | 51.885            | 2.652         | 306.557<br>9/21    |
| DAY/HR<br>PEAK ENDUSE   | 1/ 8<br>22.024   | 0.000          | 1/21<br>176.161   | 9/13<br>33.249    | 16/16<br>0.001   | 0/ 0<br>0.000  | 25/ 3<br>18.007  | 15/19<br>33.721  | 1/19<br>2.710     | 0.000   | 9/ 9<br>19.855    | 1/22<br>0.829 | 9/21               |
| PEAK ENDOSE<br>PEAK PCT | 7.2              | 0.0            | 57.5              | 10.8              | 0.001            | 0.00           | 5.9              | 11.0             | 0.9               | 0.0     | 6.5               | 0.829         |                    |
| I EPIK I CI             | 7.2              | 0.0            | 37.3              | 10.0              | 0.0              | 0.0            | 3.9              | 11.0             | 0.5               | 0.0     | 0.5               | 0.5           |                    |
| JUN                     |                  |                |                   |                   |                  |                |                  |                  |                   |         |                   |               |                    |
| KWH                     | 14742.           | 1085.          | 59248.            | 2482.             | 6767.            | 0.             | 10457.           | 12748.           | 1435.             | 0.      | 12318.            | 522.          | 121802.            |
| MAX KW                  | 41.235           | 6.028          | 176.161           | 15.983            | 46.077           | 0.000          | 18.132           | 34.132           | 3.329             | 0.000   | 34.847            | 2.652         | 303.635            |
| DAY/HR                  | 3/8              | 1/ 8           | 3/21              | 11/20             | 20/11            | 0/0            | 12/ 2            | 20/20            | 3/19              | 0/ 0    | 20/10             | 1/22          | 20/21              |
| PEAK ENDUSE             | 22.024           | 0.000          | 176.161           | 0.111             | 38.091           | 0.000          | 14.598           | 33.988           | 2.710             | 0.000   | 15.123            | 0.829         |                    |
| PEAK PCT                | 7.3              | 0.0            | 58.0              | 0.0               | 12.5             | 0.0            | 4.8              | 11.2             | 0.9               | 0.0     | 5.0               | 0.3           |                    |
| JUL                     |                  |                |                   |                   |                  |                |                  |                  |                   |         |                   |               |                    |
| KWH                     | 15285.           | 1121.          | 61278.            | 720.              | 14624.           | 0.             | 10833.           | 13271.           | 1480.             | 0.      | 11824.            | 540.          | 130975.            |
| MAX KW                  | 41.235           | 6.028          | 176.161           | 6.133             | 72.919           | 0.000          | 14.862           | 35.050           | 3.329             | 0.000   | 35.237            | 2.652         | 328.753            |
| DAY/HR                  | 1/ 8             | 1/ 8           | 1/21              | 5/ 8              | 23/20            | 0/0            | 23/20            | 23/20            | 1/19              | 0/ 0    | 22/ 9             | 1/22          | 23/20              |
| PEAK ENDUSE             | 27.058           | 2.411          | 158.870           | 0.092             | 72.919           | 0.000          | 14.862           | 35.050           | 2.710             | 0.000   | 14.780            | 0.000         |                    |
| PEAK PCT                | 8.2              | 0.7            | 48.3              | 0.0               | 22.2             | 0.0            | 4.5              | 10.7             | 0.8               | 0.0     | 4.5               | 0.0           |                    |
|                         |                  |                |                   |                   |                  |                |                  |                  |                   |         |                   |               |                    |
| AUG                     |                  |                |                   |                   |                  |                |                  |                  |                   |         |                   |               |                    |
| KWH                     | 15265.           | 1121.          | 61279.            | 597.              | 13584.           | 0.             | 10821.           | 13284.           | 1481.             | 0.      | 11706.            | 966.          | 130105.            |
| MAX KW                  | 41.235           | 6.028          | 176.161           | 4.852             | 66.547           | 0.000          | 14.844           | 34.287           | 3.329             | 0.000   | 35.055            | 2.984         | 315.168            |
| DAY/HR                  | 1/8              | 1/8            | 1/21              | 1/8               | 10/16            | 0/0            | 10/19            | 9/19             | 1/19              | 0/0     | 9/9               | 1/19          | 9/21               |
| PEAK ENDUSE             | 22.024           | 0.000          | 176.161           | 0.000             | 48.539           | 0.000          | 14.763           | 34.104           | 2.710             | 0.000   | 13.884            | 2.984         |                    |
| PEAK PCT                | 7.0              | 0.0            | 55.9              | 0.0               | 15.4             | 0.0            | 4.7              | 10.8             | 0.9               | 0.0     | 4.4               | 0.9           |                    |

-----(CONTINUED)-----SEP 0 10581 12729 1085 59246 0 11846 935 122848 KWH 14763 2019 8211 1434 MAX KW 41.235 6.028 176.161 17.086 51.460 0.000 18.172 34.021 3.329 0.000 34.639 2.984 299.635 3/21 28/ 8 0/0 21/10 DAY/HR 3/8 1/8 19/16 0/0 1/ 6 13/19 3/19 1/19 PEAK ENDUSE 22.024 0.000 176.161 0.000 32.720 0.000 14.582 33.912 2.710 0.000 2.984 14.542 PEAK PCT 7.4 0.0 0.0 0.0 4.9 11.3 4.9 1.0 0.0 58.8 10.9 0.9 OCT 1121. 61278. 8838. 6.028 176.161 48.566 0. 11612. 0.000 18.158 0. 13506. 0.000 51.043 15285. 1197. 13155. 1480. 966. 128438. 2.984 301.768 KWH 3.329 MAX KW 41.235 31.192 33.732 1/8 1/21 DAY/HR 1/8 22/8 6/16 0/0 5/24 7/20 1/19 0/0 24/9 1/19 31/21 PEAK ENDUSE 22.024 0.000 176.161 27.795 0.000 0.000 18.029 33.700 2.710 0.000 18.366 2.984 0.0 58.4 PEAK PCT 7.3 9.2 0.0 0.0 6.0 11.2 0.9 0.0 6.1 NOV 0. 12212. 12715. 0.000 18.133 33.863 0. 1119. 137429. 2.984 337.682 KWH 14751 1085. 59204. 20552 14 1438 14338 3.329 MAX KW 41.235 6.028 176.161 68.045 1.646 33.863 0.000 53.784 DAY/HR 1/8 1/8 1/21 27/13 1/16 0/0 7/24 27/19 1/19 0/0 5/8 1/18 26/21 PEAK ENDUSE 0.000 176.161 0.000 0.000 17.803 2.710 0.000 22.024 60.944 33.803 21.254 2.984 6.5 52.2 0.0 6.3 PEAK POT 0 0 18 0 0 0 0 0 5 3 10 0 0.8 0 9 DEC 5. KWH 15262. 1121. 61235. 35007. 0. 13012. 13212. 1482. 0. 16267. 1156. 157758. 6.028 176.161 144.630 3.329 2.984 416.823 41.235 1.080 0.000 18.100 33.969 0.000 54.299 MAX KW DAY/HR 2 / 8 1/8 2/21 26/19 21/15 0/0 11/24 26/19 2/19 0/0 13/8 1/18 26/21 0.000 17.516 33.906 PEAK ENDUSE 22.024 0.000 176.161 134.202 0.000 2.710 0.000 27.320 2.984 PEAK PCT 5.3 0.0 42.3 32.2 0.0 0.0 4.2 8.1 0.7 0.0 6.6 0.7 ------KWH 179737. 13200. 721157. 175017. 50826. 0. 139578. 155452. 17441. 0. 168500. 10481. 1631386. 6.028 176.161 254.900 72.919 0.000 18.172 35.050 3.329 0.000 55.115 41.235 1/2 1/1 1/2 1/5 7/23 0/0 9/1 7/23 1/ 2 0/0 2/7 1/1 1/4 MON/DY 2.710 PEAK ENDUSE 0.000 17.203 22.024 0.000 176.161 222.474 0.000 34.011 0.000 26.247 2.984 PEAK PCT 4.4 0.0 35.0 44.2 0.0 0.0 3.4 6.8 0.5 0.0 5.2 0.6

|                         | LIGHTS      | TASK<br>LIGHTS | MISC<br>EQUIP | SPACE<br>HEATING | SPACE<br>COOLING | HEAT<br>REJECT | PUMPS<br>& AUX | VENT<br>FANS | REFRIG<br>DISPLAY | HT PUMP<br>SUPPLEM | DOMEST<br>HOT WTR | EXT<br>USAGE | TOTAL |
|-------------------------|-------------|----------------|---------------|------------------|------------------|----------------|----------------|--------------|-------------------|--------------------|-------------------|--------------|-------|
| JAN                     |             |                |               |                  |                  |                |                |              |                   |                    |                   |              |       |
| MBTU                    | 0.          | 0.             | 16.           | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.                 | 0.                | 0.           | 16.   |
| MAX MBTU/HR             | 0.0         | 0.0            | 0.0           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          | 0.0   |
| DAY/HR                  | 0/0         | 0/ 0           | 1/10          | 0/ 0             | 0/ 0             | 0/0            | 0/0            | 0/ 0         | 0/ 0              | 0/ 0               | 0/0               | 0/ 0         | 1/10  |
| PEAK ENDUSE<br>PEAK PCT | 0.0         | 0.0            | 0.0           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          |       |
| PEAK PCI                | 0.0         | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          |       |
| FEB                     |             |                |               |                  |                  |                |                |              |                   |                    |                   |              |       |
| MBTU                    | 0.          | 0.             | 14.           | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.                 | 0.                | 0.           | 14.   |
| MAX MBTU/HR             | 0.0         | 0.0            | 0.0           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          | 0.0   |
| DAY/HR                  | 0/0         | 0/ 0           | 1/10          | 0/ 0             | 0/0              | 0/0            | 0/0            | 0/ 0         | 0/0               | 0/0                | 0/0               | 0/ 0         | 1/10  |
| PEAK ENDUSE<br>PEAK PCT | 0.0         | 0.0            | 0.0           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          |       |
| FEAR FCI                | 0.0         | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          |       |
| MAR                     |             |                |               |                  |                  |                |                |              |                   |                    |                   |              |       |
| MBTU                    | 0.          | 0.             | 16.           | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.                 | 0.                | 0.           | 16.   |
| MAX MBTU/HR             | 0.0         | 0.0            | 0.0           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          | 0.0   |
| DAY/HR<br>PEAK ENDUSE   | 0/0         | 0/0            | 1/10          | 0/ 0             | 0/ 0             | 0/0            | 0/ 0           | 0/ 0         | 0/ 0              | 0/ 0               | 0/0               | 0/0          | 1/10  |
| PEAK ENDOSE<br>PEAK PCT | 0.0         | 0.0            | 0.0           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          |       |
| TEMETOT                 | 0.0         | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          |       |
| APR                     |             |                |               |                  |                  |                |                |              |                   |                    |                   |              |       |
| MBTU                    | 0.          | 0.             | 15.           | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.                 | 0.                | 0.           | 15.   |
| MAX MBTU/HR             | 0.0         | 0.0            | 0.0           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          | 0.0   |
| DAY/HR<br>PEAK ENDUSE   | 0/0         | 0/0            | 1/10          | 0/0              | 0/0              | 0/0            | 0/ 0           | 0/0          | 0/ 0              | 0/0                | 0/0               | 0/0          | 1/10  |
| PEAK ENDUSE<br>PEAK PCT | 0.0         | 0.0            | 0.0           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          |       |
| TEMETOT                 | 0.0         | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          |       |
| MAY                     |             |                |               |                  |                  |                |                |              |                   |                    |                   |              |       |
| MBTU                    | 0.          | 0.             | 16.           | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.                 | 0.                | 0.           | 16.   |
| MAX MBTU/HR             | 0.0         | 0.0            | 0.0           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          | 0.0   |
| DAY/HR<br>PEAK ENDUSE   | 0/0         | 0/0            | 1/10          | 0/0              | 0/0              | 0/0            | 0/0            | 0/0          | 0/0               | 0/0                | 0/ 0<br>0.0       | 0/0          | 1/10  |
| PEAK ENDUSE<br>PEAK PCT | 0.0         | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          |       |
| TEMETOT                 | 0.0         | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          |       |
| JUN                     |             |                |               |                  |                  |                |                |              |                   |                    |                   |              |       |
| MBTU                    | 0.          | 0.             | 15.           | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.                 | 0.                | 0.           | 15.   |
| MAX MBTU/HR             | 0.0         | 0.0            | 0.0           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          | 0.0   |
| DAY/HR<br>PEAK ENDUSE   | 0/0         | 0/0            | 1/10          | 0/0              | 0/ 0<br>0.0      | 0/0            | 0/ 0<br>0.0    | 0/0          | 0/0               | 0/0                | 0/ 0<br>0.0       | 0/0          | 1/10  |
| PEAK ENDOSE<br>PEAK PCT | 0.0         | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          |       |
|                         |             |                |               |                  |                  |                |                |              |                   |                    |                   |              |       |
| JUL                     |             |                |               |                  |                  |                |                |              |                   |                    |                   |              |       |
| MBTU                    | 0.          | 0.             | 16.           | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.                 | 0.                | 0.           | 16.   |
| MAX MBTU/HR             | 0.0         | 0.0            | 0.0           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          | 0.0   |
| DAY/HR<br>PEAK ENDUSE   | 0/ 0<br>0.0 | 0/0            | 1/10          | 0/0              | 0/ 0<br>0.0      | 0/0            | 0/ 0<br>0.0    | 0/0          | 0/0               | 0/0                | 0/ 0<br>0.0       | 0/0          | 1/10  |
| PEAK ENDOSE<br>PEAK PCT | 0.0         | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          |       |
|                         | 0.0         | 0.0            | _30.0         | 0.0              | 0.0              | 0.0            |                | 0.0          | 0.0               | 0.0                | 0.0               |              |       |
| AUG                     |             |                |               |                  |                  |                |                |              |                   |                    |                   |              |       |
| MBTU                    | 0.          | 0.             | 16.           | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.                 | 0.                | 0.           | 16.   |
| MAX MBTU/HR             | 0.0         | 0.0            | 0.0           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          | 0.0   |
| DAY/HR<br>PEAK ENDUSE   | 0/0         | 0/0            | 1/10          | 0/0              | 0/0              | 0/0            | 0/ 0<br>0.0    | 0/0          | 0/0               | 0/0                | 0/ 0<br>0.0       | 0/0          | 1/10  |
| PEAK ENDOSE<br>PEAK PCT | 0.0         | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0                | 0.0               | 0.0          |       |
|                         |             |                | ,             |                  |                  |                |                |              |                   |                    |                   |              |       |

|             |      |      |       |      |      |     |      |      |      | (CONTINUED) |     |      |      |
|-------------|------|------|-------|------|------|-----|------|------|------|-------------|-----|------|------|
| SEP         |      |      |       |      |      |     |      |      |      |             |     |      |      |
| MBTU        | 0.   | 0.   | 15.   | 0.   | 0.   | 0.  | 0.   | 0.   | 0.   | 0.          | 0.  | 0.   | 15.  |
| MAX MBTU/HR | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  | 0.0  |
| DAY/HR      | 0.0  | 0.0  | 1/10  | 0.0  | 0.0  | 0.0 | 0/0  | 0.0  | 0.0  | 0/0         | 0/0 | 0.0  | 1/10 |
| PEAK ENDUSE | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  | 1/10 |
| PEAK PCT    | 0.0  | 0.0  | 100.0 | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  |      |
|             |      |      |       |      |      |     |      |      |      |             |     |      |      |
| OCT         |      |      |       |      |      |     |      |      |      |             |     |      |      |
| MBTU        | 0.   | 0.   | 16.   | 0.   | 0.   | 0.  | 0.   | 0.   | 0.   | 0.          | 0.  | 0.   | 16.  |
| MAX MBTU/HR | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  | 0.0  |
| DAY/HR      | 0/ 0 | 0/ 0 | 1/10  | 0/ 0 | 0/ 0 | 0/0 | 0/ 0 | 0/ 0 | 0/ 0 | 0/ 0        | 0/0 | 0/ 0 | 1/10 |
| PEAK ENDUSE | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  |      |
| PEAK PCT    | 0.0  | 0.0  | 100.0 | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  |      |
| NOV         |      |      |       |      |      |     |      |      |      |             |     |      |      |
| MBTU        | 0.   | 0.   | 15.   | 0.   | 0.   | 0.  | 0.   | 0.   | 0.   | 0.          | 0.  | 0.   | 15.  |
| MAX MBTU/HR | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  | 0.0  |
| DAY/HR      | 0.0  | 0.0  | 1/10  | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  | 1/10 |
| PEAK ENDUSE | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  | 1/10 |
| PEAK PCT    | 0.0  | 0.0  | 100.0 | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  |      |
| FEAR FCI    | 0.0  | 0.0  | 100.0 | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  |      |
| DEC         |      |      |       |      |      |     |      |      |      |             |     |      |      |
| MBTU        | 0.   | 0.   | 16.   | 0.   | 0.   | 0.  | 0.   | 0.   | 0.   | 0.          | 0.  | 0.   | 16.  |
| MAX MBTU/HR | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  | 0.0  |
| DAY/HR      | 0/ 0 | 0/ 0 | 1/10  | 0/ 0 | 0/ 0 | 0/0 | 0/ 0 | 0/ 0 | 0/ 0 | 0/ 0        | 0/0 | 0/ 0 | 1/10 |
| PEAK ENDUSE | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  |      |
| PEAK PCT    | 0.0  | 0.0  | 100.0 | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  |      |
|             |      |      |       |      |      |     |      |      |      |             |     |      |      |
| MBTU        | 0.   | 0.   | 188.  | 0.   | 0.   | 0.  | 0.   | 0.   | 0.   | 0.          | 0.  | 0.   | 188. |
| MAX MBTU/HR | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  | 0.0  |
| MON/DY      | 0/0  | 0/0  | 1/ 1  | 0/0  | 0/ 0 | 0/0 | 0/0  | 0/0  | 0/0  | 0/0         | 0/0 | 0/0  | 1/ 1 |
| PEAK ENDUSE | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  | -/ - |
| PEAK PCT    | 0.0  | 0.0  | 100.0 | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  | 0.0  | 0.0         | 0.0 | 0.0  |      |
|             |      |      |       |      |      |     |      |      |      |             |     |      |      |

|                         | LIGHTS          | TASK<br>LIGHTS | MISC<br>EQUIP     | SPACE<br>HEATING | SPACE<br>COOLING | HEAT<br>REJECT | PUMPS<br>& AUX | VENT<br>FANS   | REFRIG<br>DISPLAY | HT PUMP<br>SUPPLEM | DOMEST<br>HOT WTR | EXT<br>USAGE  | TOTAL   |
|-------------------------|-----------------|----------------|-------------------|------------------|------------------|----------------|----------------|----------------|-------------------|--------------------|-------------------|---------------|---------|
|                         |                 |                |                   |                  |                  |                |                |                |                   |                    |                   |               |         |
| JAN                     |                 |                |                   |                  |                  |                |                |                |                   |                    |                   |               |         |
| KWH                     | 3845.           | 0.             | 53661.            | 27062.           | 1.               | 0.             | 2083.          | 2043.          | 0.                | 0.                 | 0.                | 0.            | 88695.  |
| MAX KW                  | 22.119          | 0.000          | 167.514           | 110.957          | 0.412            | 0.000          | 3.464          | 4.443          | 0.000             | 0.000              | 0.000             | 0.000         | 244.001 |
| DAY/HR<br>PEAK ENDUSE   | 1/ 8<br>6.636   | 0/0            | 1/21<br>167.514   | 5/ 8<br>64.619   | 19/14<br>0.000   | 0/ 0<br>0.000  | 14/24<br>2.655 | 6/10<br>2.578  | 0/ 0<br>0.000     | 0/ 0<br>0.000      | 0/ 0<br>0.000     | 0/ 0<br>0.000 | 4/21    |
| PEAK PCT                | 2.7             | 0.00           | 68.7              | 26.5             | 0.0              | 0.00           | 1.1            | 1.1            | 0.00              | 0.00               | 0.00              | 0.0           |         |
|                         |                 |                |                   |                  |                  |                |                |                |                   |                    |                   |               |         |
| FEB                     | 2457            | 0.             | 40460             | 17050            | 150              | 0              | 1000           | 1010           | 0                 | 0                  | 0.                | 0             | 73634.  |
| KWH<br>MAX KW           | 3457.<br>22.119 | 0.000          | 48468.<br>167.514 | 17852.<br>75.290 | 150.<br>7.275    | 0.<br>0.000    | 1889.<br>3.476 | 1819.<br>4.265 | 0.<br>0.000       | 0.000              | 0.000             | 0.<br>0.000   | 204.410 |
| DAY/HR                  | 1/ 8            | 0.000          | 1/21              | 13/ 8            | 22/16            | 0.000          | 22/24          | 27/10          | 0/0               | 0/0                | 0.000             | 0/0           | 27/21   |
| PEAK ENDUSE             | 6.636           | 0.000          | 167.514           | 24.648           | 0.000            | 0.000          | 3.200          | 2.413          | 0.000             | 0.000              | 0.000             | 0.000         | 27,21   |
| PEAK PCT                | 3.2             | 0.0            | 81.9              | 12.1             | 0.0              | 0.0            | 1.6            | 1.2            | 0.0               | 0.0                | 0.0               | 0.0           |         |
| MAR                     |                 |                |                   |                  |                  |                |                |                |                   |                    |                   |               |         |
| KWH                     | 3805.           | 0.             | 53661.            | 12836.           | 502.             | 0.             | 1658.          | 1981.          | 0.                | 0.                 | 0.                | 0.            | 74442.  |
| MAX KW                  | 22.119          | 0.000          | 167.514           | 60.526           | 28.548           | 0.000          | 3.493          | 4.246          | 0.000             | 0.000              | 0.000             | 0.000         | 198.189 |
| DAY/HR                  | 1/8             | 0/ 0           | 1/21              | 2/ 8             | 29/16            | 0/0            | 23/24          | 3/11           | 0/ 0              | 0/ 0               | 0/0               | 0/ 0          | 5/21    |
| PEAK ENDUSE             | 6.636           | 0.000          | 167.514           | 18.374           | 0.000            | 0.000          | 3.280          | 2.385          | 0.000             | 0.000              | 0.000             | 0.000         |         |
| PEAK PCT                | 3.3             | 0.0            | 84.5              | 9.3              | 0.0              | 0.0            | 1.7            | 1.2            | 0.0               | 0.0                | 0.0               | 0.0           |         |
| APR                     |                 |                |                   |                  |                  |                |                |                |                   |                    |                   |               |         |
| KWH                     | 3716.           | 0.             | 51930.            | 6884.            | 1537.            | 0.             | 1134.          | 1895.          | 0.                | 0.                 | 0.                | 0.            | 67095.  |
| MAX KW                  | 22.119          | 0.000          | 167.514           | 40.462           | 22.016           | 0.000          | 3.509          | 4.234          | 0.000             | 0.000              | 0.000             | 0.000         | 191.768 |
| DAY/HR                  | 1/ 8            | 0/ 0           | 1/21              | 6/8              | 20/16            | 0/0            | 21/24          | 20/13          | 0/ 0              | 0/0                | 0/0               | 0/ 0          | 23/21   |
| PEAK ENDUSE             | 6.636           | 0.000          | 167.514           | 11.892           | 0.003            | 0.000          | 3.380          | 2.343          | 0.000             | 0.000              | 0.000             | 0.000         |         |
| PEAK PCT                | 3.5             | 0.0            | 87.4              | 6.2              | 0.0              | 0.0            | 1.8            | 1.2            | 0.0               | 0.0                | 0.0               | 0.0           |         |
| MAY                     |                 |                |                   |                  |                  |                |                |                |                   |                    |                   |               |         |
| KWH                     | 3846.           | 0.             | 53661.            | 3902.            | 4039.            | 0.             | 497.           | 1958.          | 0.                | 0.                 | 0.                | 0.            | 67901.  |
| MAX KW                  | 22.119          | 0.000          | 167.514           | 28.865           | 37.409           | 0.000          | 3.513          | 4.457          | 0.000             | 0.000              | 0.000             | 0.000         | 206.791 |
| DAY/HR                  | 1/ 8            | 0/ 0           | 1/21              | 10/ 8            | 16/16            | 0/ 0           | 25/ 3          | 16/11          | 0/ 0              | 0/ 0               | 0/ 0              | 0/ 0          | 15/21   |
| PEAK ENDUSE             | 6.636           | 0.000          | 167.514           | 0.267            | 29.846           | 0.000          | 0.000          | 2.528          | 0.000             | 0.000              | 0.000             | 0.000         |         |
| PEAK PCT                | 3.2             | 0.0            | 81.0              | 0.1              | 14.4             | 0.0            | 0.0            | 1.2            | 0.0               | 0.0                | 0.0               | 0.0           |         |
| JUN                     |                 |                |                   |                  |                  |                |                |                |                   |                    |                   |               |         |
| KWH                     | 3674.           | 0.             | 51930.            | 1867.            | 6496.            | 0.             | 23.            | 1902.          | 0.                | 0.                 | 0.                | 0.            | 65892.  |
| MAX KW                  | 22.119          | 0.000          | 167.514           | 8.771            | 43.451           | 0.000          | 3.512          | 4.649          | 0.000             | 0.000              | 0.000             | 0.000         | 212.393 |
| DAY/HR                  | 3/8             | 0/0            | 1/21              | 12/ 8            | 20/11            | 0/0            | 12/ 2          | 20/11          | 0/0               | 0/0                | 0/0               | 0/ 0          | 20/21   |
| PEAK ENDUSE<br>PEAK PCT | 6.636<br>3.1    | 0.000          | 167.514<br>78.9   | 0.056            | 35.511<br>16.7   | 0.000          | 0.108          | 2.568<br>1.2   | 0.000             | 0.000              | 0.000             | 0.000         |         |
|                         |                 |                |                   |                  |                  |                |                |                |                   |                    |                   |               |         |
| JUL                     | 2045            | 0              | 52661             | 6.41             | 12520            | 0              |                | 0006           |                   |                    |                   |               | B2B65   |
| KWH                     | 3845.           | 0.             | 53661.            | 641.             | 13539.           | 0.             | 52.            | 2026.          | 0.                | 0.                 | 0.                | 0.            | 73765.  |
| MAX KW                  | 22.119<br>1/8   | 0.000          | 167.514           | 5.379<br>4/9     | 63.500           | 0.000          | 0.372          | 4.839<br>23/11 | 0.000             | 0.000              | 0.000             | 0.000         | 232.138 |
| DAY/HR<br>PEAK ENDUSE   | 6.636           | 0/0            | 167.514           | 0.000            | 23/20<br>54.774  | 0.000          | 23/20<br>0.337 | 2.877          | 0/0               | 0.000              | 0/ 0<br>0.000     | 0.000         | 23/21   |
| PEAK PCT                | 2.9             | 0.00           | 72.2              | 0.0              | 23.6             | 0.00           | 0.337          | 1.2            | 0.0               | 0.0                | 0.0               | 0.00          |         |
| AUG                     |                 |                |                   |                  |                  |                |                |                |                   |                    |                   |               |         |
| KWH                     | 3819.           | 0.             | 53661.            | 559.             | 12608.           | 0.             | 40.            | 2010.          | 0.                | 0.                 | 0.                | 0.            | 72697.  |
| MAX KW                  | 22.119          | 0.000          | 167.514           | 4.113            | 59.440           | 0.000          | 0.354          | 4.883          | 0.000             | 0.000              | 0.000             | 0.000         | 220.355 |
| DAY/HR                  | 1/ 8            | 0.000          | 1/21              | 24/ 8            | 10/16            | 0.000          | 10/19          | 10/11          | 0.000             | 0.000              | 0.000             | 0.000         | 9/21    |
| PEAK ENDUSE             | 6.636           | 0.000          | 167.514           | 0.000            | 43.264           | 0.000          | 0.273          | 2.668          | 0.000             | 0.000              | 0.000             | 0.000         | 2/21    |
| PEAK PCT                | 3.0             | 0.0            | 76.0              | 0.0              | 19.6             | 0.0            | 0.1            | 1.2            | 0.0               | 0.0                | 0.0               | 0.0           |         |

-----(CONTINUED)------SEP 0. 0 51930 0. 0. KWH 3701 1450 7672 144 1910 0 Ω 66806 0.000 206.884 MAX KW 22.119 0.000 167.514 16.559 46.911 0.000 3.551 4.528 0.000 0.000 0.000 28/ 8 0/0 DAY/HR 2/8 0/0 1/21 19/16 0/0 1/6 22/13 0/0 0/0 0/0 13/21 PEAK ENDUSE 6.636 0.000 167.514 0.000 30.081 0.000 0.133 2.519 0.000 0.000 0.000 0.000 0.0 0.0 PEAK PCT 3.2 0.0 0.0 0.0 0.0 81.0 0.1 0.0 14.5 1.2 OCT 0. 53661. 5932. 0.000 167.514 43.671 3845. 1128. 0. 801. 1935. 0. 0. 0. 0. KWH 67302. 0.000 0.000 191.232 MAX KW 22.119 0.000 3.537 4.205 0.000 0.000 28.296 0/0 1/21 DAY/HR 1/8 22/8 6/16 0/0 5/24 7/13 0/0 0/0 0/0 0/ 0 6/21 PEAK ENDUSE 8.295 0.000 167.514 0.879 12.174 0.000 0.000 2.370 0.000 0.000 0.000 0.000 0.0 87.6 PEAK PCT 4.3 0.5 6.4 0.0 0.0 1.2 0.0 0.0 0.0 0.0 NOV 0. 0. 73633. 0.000 201.178 KWH 3690 0. 51930. 14370 13. 1716 1915 0 0 0 MAX KW 0.000 0.000 0.000 167.514 22.119 54.117 1.543 3.512 4.214 0.000 0.000 5/8 0/ 0 DAY/HR 1/8 0/ 0 1/21 1/16 0/0 7/24 27/10 0/0 0/0 0/0 26/21 PEAK ENDUSE 0.000 167.514 21.395 0.000 0.000 0.000 0.000 0.000 0.000 6.636 3.243 2.390 3.3 PEAK POT 0 0 83.3 10 6 0 0 0 0 1 6 1 2 0 0 0 0 0 0 0 0 DEC 5. 0. 2149. 2028. 0. KWH 3829. 0. 53661. 24086. 0. 0. 0. 85757. 0.000 167.514 77.516 1.080 0.000 3.479 21/15 0/0 11/24 0.000 4.318 0.000 22.119 0.000 ±0,... 0/ 0 1/21 0.000 0.000 224.542 MAX KW DAY/HR 2/8 27/ 9 27/10 0/0 0/0 0/0 0/0 26/21 PEAK ENDUSE 6.636 0.000 167.514 44.952 0.000 0.000 2.957 2.484 0.000 0.000 0.000 0.000 PEAK PCT 3.0 0.0 74.6 20.0 0.0 0.0 1.3 1.1 0.0 0.0 0.0 0.0 KWH 45074. 0. 631811. 117440. 47691. 0. 12185. 23421. 0. 0. 0. 0. 877617. 0.000 167.514 110.957 0.000 3.551 0.000 0.000 0.000 0.000 244.001 22.119 63.500 4.883 1/ 1 0/0 1/1 1/5 7/23 0/0 9/1 8/10 0/0 0/0 0/0 0/0 1/ 4 MON/DY 0.000 0.000 PEAK ENDUSE 6.636 0.000 167.514 64.619 0.000 0.000 2.655 2.578 0.000 0.000 PEAK PCT 2.7 0.0 68.7 26.5 0.0 0.0 1.1 1.1 0.0 0.0 0.0 0 0

YEARLY TRANSFORMER LOSSES = 0.0 KWH

|                       | LIGHTS           | TASK<br>LIGHTS | MISC<br>EQUIP  | SPACE<br>HEATING | SPACE<br>COOLING | HEAT<br>REJECT | PUMPS<br>& AUX   | VENT<br>FANS     | REFRIG<br>DISPLAY | HT PUMP | DOMEST<br>HOT WTR | EXT<br>USAGE  | TOTAL             |
|-----------------------|------------------|----------------|----------------|------------------|------------------|----------------|------------------|------------------|-------------------|---------|-------------------|---------------|-------------------|
|                       |                  |                |                |                  |                  |                |                  |                  |                   |         |                   |               |                   |
| JAN                   |                  |                |                |                  |                  |                |                  |                  |                   |         |                   |               |                   |
| KWH                   | 10597.           | 1121.          | 2887.          | 5008.            | 0.               | 0.             | 10781.           | 10205.           | 1482.             | 0.      | 15904.            | 1156.         | 59141.            |
| MAX KW                | 18.992           | 6.028          | 6.961          | 142.082          | 0.000            | 0.000          | 14.490           | 27.623           | 3.329             | 0.000   | 52.273            | 2.984         | 257.406           |
| DAY/HR                | 2/18             | 1/ 8           | 2/10           | 5/8              | 0/ 0             | 0/ 0           | 1/ 1             | 5/10             | 2/19              | 0/ 0    | 20/8              | 1/18          | 5/8               |
| PEAK ENDUSE           | 18.236           | 6.028          | 2.789          | 142.082          | 0.000            | 0.000          | 14.490           | 26.412           | 1.239             | 0.000   | 45.136            | 0.995         |                   |
| PEAK PCT              | 7.1              | 2.3            | 1.1            | 55.2             | 0.0              | 0.0            | 5.6              | 10.3             | 0.5               | 0.0     | 17.5              | 0.4           |                   |
| FEB                   |                  |                |                |                  |                  |                |                  |                  |                   |         |                   |               |                   |
| KWH                   | 9572.            | 1013.          | 2610.          | 2945.            | 0.               | 0.             | 9737.            | 9225.            | 1338.             | 0.      | 14084.            | 812.          | 51336.            |
| MAX KW                | 18.992           | 6.028          | 6.961          | 62.656           | 0.000            | 0.000          | 14.490           | 27.609           | 3.329             | 0.000   | 52.498            | 2.984         | 176.563           |
| DAY/HR                | 1/18             | 1/ 8           | 1/10           | 27/ 7            | 0/ 0             | 0/0            | 1/ 1             | 9/10             | 1/19              | 0/ 0    | 7/8               | 1/20          | 13/ 8             |
| PEAK ENDUSE           | 18.333           | 6.028          | 5.672          | 54.840           | 0.000            | 0.000          | 14.490           | 26.256           | 1.626             | 0.000   | 49.318            | 0.000         |                   |
| PEAK PCT              | 10.4             | 3.4            | 3.2            | 31.1             | 0.0              | 0.0            | 8.2              | 14.9             | 0.9               | 0.0     | 27.9              | 0.0           |                   |
| MAR                   |                  |                |                |                  |                  |                |                  |                  |                   |         |                   |               |                   |
| KWH                   | 10598.           | 1121.          | 2889.          | 1223.            | 0.               | 0.             | 10781.           | 10221.           | 1482.             | 0.      | 14558.            | 899.          | 53771.            |
| MAX KW                | 18.992           | 6.028          | 6.961          | 35.032           | 0.000            | 0.000          | 14.490           | 27.604           | 3.329             | 0.000   | 52.273            | 2.984         | 149.075           |
| DAY/HR                | 1/18             | 1/ 8           | 1/10           | 2/ 7             | 0/ 0             | 0/0            | 1/ 1             | 2/10             | 1/19              | 0/ 0    | 5/8               | 1/20          | 2/ 8              |
| PEAK ENDUSE           | 18.236           | 6.028          | 2.789          | 29.045           | 0.000            | 0.000          | 14.490           | 26.251           | 1.239             | 0.000   | 50.997            | 0.000         |                   |
| PEAK PCT              | 12.2             | 4.0            | 1.9            | 19.5             | 0.0              | 0.0            | 9.7              | 17.6             | 0.8               | 0.0     | 34.2              | 0.0           |                   |
|                       |                  |                |                |                  |                  |                |                  |                  |                   |         |                   |               |                   |
| APR<br>KWH            | 10256.           | 1085.          | 2867.          | 584.             | 0.               | 0.             | 10433.           | 9916.            | 1431.             | 0.      | 13151.            | 870.          | 50593.            |
| MAX KW                | 18.992           | 6.028          | 6.961          | 25.028           | 0.000            | 0.000          | 14.490           | 27.603           | 3.329             | 0.000   | 51.696            | 2.984         | 140.299           |
| DAY/HR                | 1/18             | 1/ 8           | 1/10           | 24/ 7            | 0/0              | 0/0            | 1/ 2             | 20/10            | 1/19              | 0/0     | 24/ 8             | 1/20          | 24/ 8             |
| PEAK ENDUSE           | 18.333           | 6.028          | 5.672          | 16.210           | 0.000            | 0.000          | 14.490           | 26.245           | 1.626             | 0.000   | 51.696            | 0.000         |                   |
| PEAK PCT              | 13.1             | 4.3            | 4.0            | 11.6             | 0.0              | 0.0            | 10.3             | 18.7             | 1.2               | 0.0     | 36.8              | 0.0           |                   |
|                       |                  |                |                |                  |                  |                |                  |                  |                   |         |                   |               |                   |
| MAY                   | 10500            | 1101           | 0000           | 200              |                  | ^              | 10001            | 10005            | 1.400             | •       | 10405             | F 4.0         | F0400             |
| KWH                   | 10598.<br>18.992 | 1121.<br>6.028 | 2930.<br>6.961 | 309.<br>0.841    | 0.<br>0.000      | 0.<br>0.000    | 10781.<br>14.490 | 10225.<br>27.602 | 1480.<br>3.329    | 0.000   | 12497.<br>49.466  | 540.<br>2.652 | 50480.<br>119.472 |
| MAX KW<br>DAY/HR      | 1/18             | 1/8            | 1/10           | 6/7              | 0.000            | 0.000          | 14.490           | 16/10            | 1/19              | 0.000   | 5/9               | 1/22          | 119.472           |
| PEAK ENDUSE           | 13.969           | 6.028          | 6.501          | 0.768            | 0.000            | 0.000          | 14.490           | 26.237           | 2.013             | 0.000   | 49.466            | 0.000         | 10/ 3             |
| PEAK PCT              | 11.7             | 5.0            | 5.4            | 0.6              | 0.0              | 0.0            | 12.1             | 22.0             | 1.7               | 0.0     | 41.4              | 0.0           |                   |
|                       |                  |                |                |                  |                  |                |                  |                  |                   |         |                   |               |                   |
| JUN                   |                  |                |                |                  |                  |                |                  |                  |                   |         |                   |               |                   |
| KWH                   | 10256.           | 1085.          | 2782.          | 141.             | 5.               | 0.             | 10433.           | 9884.            | 1435.             | 0.      | 11086.            | 522.          | 47630.            |
| MAX KW                | 18.992           | 6.028          | 6.961          | 0.460            | 0.352            | 0.000          | 14.490           | 27.611           | 3.329             | 0.000   | 32.769            | 2.652         | 104.844           |
| DAY/HR<br>PEAK ENDUSE | 3/18<br>18.333   | 1/ 8<br>6.028  | 3/10<br>5.672  | 12/ 7<br>0.103   | 20/18            | 0/ 0<br>0.000  | 1/ 2<br>14.490   | 20/10<br>26.249  | 3/19<br>1.626     | 0/0     | 20/10<br>32.343   | 1/22          | 20/8              |
| PEAK PCT              | 17.5             | 5.7            | 5.672          | 0.103            | 0.0              | 0.00           | 13.8             | 25.0             | 1.626             | 0.00    | 30.8              | 0.00          |                   |
|                       |                  |                |                |                  |                  |                |                  |                  |                   |         |                   |               |                   |
| JUL                   |                  |                |                |                  |                  |                |                  |                  |                   |         |                   |               |                   |
| KWH                   | 10598.           | 1121.          | 2930.          | 26.              | 168.             | 0.             | 10781.           | 10232.           | 1480.             | 0.      | 10567.            | 540.          | 48442.            |
| MAX KW                | 18.992           | 6.028          | 6.961          | 0.197            | 1.556            | 0.000          | 14.490           | 27.637           | 3.329             | 0.000   | 32.934            | 2.652         | 104.600           |
| DAY/HR                | 1/18             | 1/8            | 1/10           | 5/ 7             | 23/20            | 0/0            | 1/2              | 22/10            | 1/19              | 0/ 0    | 22/ 9             | 1/22          | 9/8               |
| PEAK ENDUSE           | 18.333           | 6.028          | 5.672          | 0.061            | 0.000            | 0.000          | 14.490           | 26.239           | 1.626             | 0.000   | 32.151            | 0.000         |                   |
| PEAK PCT              | 17.5             | 5.8            | 5.4            | 0.1              | 0.0              | 0.0            | 13.9             | 25.1             | 1.6               | 0.0     | 30.7              | 0.0           |                   |
| AUG                   |                  |                |                |                  |                  |                |                  |                  |                   |         |                   |               |                   |
| KWH                   | 10599.           | 1121.          | 2932.          | 5.               | 124.             | 0.             | 10781.           | 10248.           | 1481.             | 0.      | 10454.            | 966.          | 48710.            |
| MAX KW                | 18.992           | 6.028          | 6.961          | 0.078            | 1.402            | 0.000          | 14.490           | 27.650           | 3.329             | 0.000   | 32.769            | 2.984         | 104.573           |
| DAY/HR                | 1/18             | 1/ 8           | 1/10           | 1/ 7             | 10/19            | 0/0            | 1/ 2             | 10/10            | 1/19              | 0/ 0    | 9/9               | 1/19          | 13/ 8             |
| PEAK ENDUSE           | 18.333           | 6.028          | 5.672          | 0.000            | 0.175            | 0.000          | 14.490           | 26.228           | 1.626             | 0.000   | 32.021            | 0.000         |                   |
| PEAK PCT              | 17.5             | 5.8            | 5.4            | 0.0              | 0.2              | 0.0            | 13.9             | 25.1             | 1.6               | 0.0     | 30.6              | 0.0           |                   |

REPORT- PS-F Energy End-Use Summary for EM2-Non-Residential

WEATHER FILE- SEATTLE BOEING FI WA

|             |         |        |        | EMZ-1   |        |        |         |         | WEATHER FILE SEATTLE BUEING FI WA |        |         |        |         |
|-------------|---------|--------|--------|---------|--------|--------|---------|---------|-----------------------------------|--------|---------|--------|---------|
| SEP         |         |        |        |         |        |        |         |         |                                   |        |         |        |         |
| KWH         | 10255.  | 1085.  | 2781.  | 35.     | 22.    | 0.     | 10433.  | 9869.   | 1434.                             | 0.     | 10640.  | 935.   | 47488.  |
| MAX KW      | 18.992  | 6.028  | 6.961  | 0.527   | 0.667  | 0.000  | 14.490  | 27.631  | 3.329                             | 0.000  | 32.476  | 2.984  | 104.485 |
| DAY/HR      | 3/18    | 1/ 8   | 3/10   | 28/ 8   | 13/18  | 0/0    | 1/ 2    | 3/10    | 3/19                              | 0/ 0   | 13/10   | 1/19   | 13/ 8   |
| PEAK ENDUSE | 18.333  | 6.028  | 5.672  | 0.021   | 0.000  | 0.000  | 14.490  | 26.228  | 1.626                             | 0.000  | 32.088  | 0.000  |         |
| PEAK PCT    | 17.5    | 5.8    | 5.4    | 0.0     | 0.0    | 0.0    | 13.9    | 25.1    | 1.6                               | 0.0    | 30.7    | 0.0    |         |
| OCT         |         |        |        |         |        |        |         |         |                                   |        |         |        |         |
| KWH         | 10598.  | 1121.  | 2930.  | 226.    | 0.     | 0.     | 10781.  | 10222.  | 1480.                             | 0.     | 12234.  | 966.   | 50557.  |
| MAX KW      | 18.992  | 6.028  | 6.961  | 0.785   | 0.000  | 0.000  | 14.490  | 27.600  | 3.329                             | 0.000  | 48.695  | 2.984  | 118.600 |
| DAY/HR      | 1/18    | 1/ 8   | 1/10   | 22/ 7   | 0/ 0   | 0/0    | 1/ 2    | 7/10    | 1/19                              | 0/ 0   | 24/ 9   | 1/19   | 24/ 9   |
| PEAK ENDUSE | 13.969  | 6.028  | 6.501  | 0.670   | 0.000  | 0.000  | 14.490  | 26.234  | 2.013                             | 0.000  | 48.695  | 0.000  |         |
| PEAK PCT    | 11.8    | 5.1    | 5.5    | 0.6     | 0.0    | 0.0    | 12.2    | 22.1    | 1.7                               | 0.0    | 41.1    | 0.0    |         |
| NOV         |         |        |        |         |        |        |         |         |                                   |        |         |        |         |
| KWH         | 10256.  | 1085.  | 2739.  | 498.    | 0.     | 0.     | 10433.  | 9859.   | 1438.                             | 0.     | 13088.  | 1119.  | 50515.  |
| MAX KW      | 18.992  | 6.028  | 6.961  | 8.294   | 0.000  | 0.000  | 14.490  | 27.599  | 3.329                             | 0.000  | 51.240  | 2.984  | 131.279 |
| DAY/HR      | 1/18    | 1/ 8   | 1/10   | 5/ 7    | 0/ 0   | 0/0    | 1/ 2    | 23/10   | 1/19                              | 0/ 0   | 5/8     | 1/18   | 5/8     |
| PEAK ENDUSE | 18.333  | 6.028  | 5.672  | 6.651   | 0.000  | 0.000  | 14.490  | 26.245  | 1.626                             | 0.000  | 51.240  | 0.995  |         |
| PEAK PCT    | 14.0    | 4.6    | 4.3    | 5.1     | 0.0    | 0.0    | 11.0    | 20.0    | 1.2                               | 0.0    | 39.0    | 0.8    |         |
| DEC         |         |        |        |         |        |        |         |         |                                   |        |         |        |         |
| KWH         | 10597.  | 1121.  | 2887.  | 2143.   | 0.     | 0.     | 10781.  | 10203.  | 1482.                             | 0.     | 14947.  | 1156.  | 55317.  |
| MAX KW      | 18.992  | 6.028  | 6.961  | 32.702  | 0.000  | 0.000  | 14.490  | 27.612  | 3.329                             | 0.000  | 51.696  | 2.984  | 154.754 |
| DAY/HR      | 2/18    | 1/ 8   | 2/10   | 26/21   | 0/ 0   | 0/0    | 1/ 1    | 28/10   | 2/19                              | 0/ 0   | 13/ 8   | 1/18   | 27/ 8   |
| PEAK ENDUSE | 18.333  | 6.028  | 5.672  | 31.372  | 0.000  | 0.000  | 14.490  | 26.255  | 1.626                             | 0.000  | 49.984  | 0.995  |         |
| PEAK PCT    | 11.8    | 3.9    | 3.7    | 20.3    | 0.0    | 0.0    | 9.4     | 17.0    | 1.1                               | 0.0    | 32.3    | 0.6    |         |
|             | ======  | ====== | ====== | ======  | ====== | ====== | ======  | ======  | ======                            | ====== | ======  | ====== | ======  |
| KWH         | 124779. | 13200. | 34166. | 13144.  | 319.   | 0.     | 126934. | 120308. | 17441.                            | 0.     | 153209. | 10481. | 613979. |
| MAX KW      | 18.992  | 6.028  | 6.961  | 142.082 | 1.556  | 0.000  | 14.490  | 27.650  | 3.329                             | 0.000  | 52.498  | 2.984  | 257.406 |
| MON/DY      | 1/ 2    | 1/ 1   | 1/ 2   | 1/ 5    | 7/23   | 0/0    | 1/ 1    | 8/10    | 1/ 2                              | 0/0    | 2/ 7    | 1/ 1   | 1/ 5    |
| PEAK ENDUSE | 18.236  | 6.028  | 2.789  | 142.082 | 0.000  | 0.000  | 14.490  | 26.412  | 1.239                             | 0.000  | 45.136  | 0.995  |         |
| PEAK PCT    | 7.1     | 2.3    | 1.1    | 55.2    | 0.0    | 0.0    | 5.6     | 10.3    | 0.5                               | 0.0    | 17.5    | 0.4    |         |

YEARLY TRANSFORMER LOSSES = 0.0 KWH

REPORT- PS-F Energy End-Use Summary for Garage Exhaust Fans

|   | LIGHTS                              | TASK<br>LIGHTS                      | MISC<br>EQUIP                      | SPACE<br>HEATING                   | SPACE<br>COOLING                    | HEAT<br>REJECT                      | PUMPS<br>& AUX                      | VENT<br>FANS                              | REFRIG<br>DISPLAY                  | HT PUMP                            | DOMEST<br>HOT WTR                   | EXT<br>USAGE                        | TOTAL                   |
|---|-------------------------------------|-------------------------------------|------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---|------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|-------------------------|
| JAN<br>KWH<br>MAX KW<br>DAY/HR<br>PEAK ENDUSE             | 0.<br>0.000<br>0/ 0<br>0.000        | 0.<br>0.000<br>0/ 0<br>0.000        | 0.<br>0.000<br>0/ 0<br>0.000       | 0.<br>0.000<br>0/ 0<br>0.000       | 0.<br>0.000<br>0/ 0<br>0.000        | 0.<br>0.000<br>0/ 0<br>0.000        | 0.<br>0.000<br>0/ 0<br>0.000        | 4820.<br>18.510<br>1/7<br>18.510          | 0.<br>0.000<br>0/ 0                | 0.<br>0.000<br>0/ 0<br>0.000       | 0.<br>0.000<br>0/ 0<br>0.000        | 0.<br>0.000<br>0/ 0<br>0.000        | 4820.<br>18.510<br>1/ 7 |
| PEAK PCT  | 0.0                                 | 0.0                                 | 0.0                                | 0.0                                | 0.0                                 | 0.0                                 | 0.0                                 | 100.0                                     | 0.0                                | 0.0                                | 0.0                                 | 0.0                                 |                         |
| FEB KWH MAX KW DAY/HR PEAK ENDUSE PEAK PCT                | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 4354.<br>18.510<br>1/7<br>18.510<br>100.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 4354.<br>18.510<br>1/7  |
| MAR<br>KWH<br>MAX KW<br>DAY/HR<br>PEAK ENDUSE<br>PEAK PCT | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 4820.<br>18.510<br>1/7<br>18.510<br>100.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 4820.<br>18.510<br>1/ 7 |
| APR KWH MAX KW DAY/HR PEAK ENDUSE PEAK PCT                | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000        | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 4665.<br>18.510<br>1/7<br>18.510<br>100.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.00 | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 4665.<br>18.510<br>1/ 7 |
| MAY<br>KWH<br>MAX KW<br>DAY/HR<br>PEAK ENDUSE<br>PEAK PCT | 0.<br>0.000<br>0/0<br>0.000<br>0.00 | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.00 | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 4820.<br>18.510<br>1/7<br>18.510<br>100.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.00 | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 4820.<br>18.510<br>1/ 7 |
| JUN KWH MAX KW DAY/HR PEAK ENDUSE PEAK PCT                | 0.<br>0.000<br>0/0<br>0.000<br>0.00 | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 4665.<br>18.510<br>1/7<br>18.510<br>100.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 4665.<br>18.510<br>1/ 7 |
| JUL<br>KWH<br>MAX KW<br>DAY/HR<br>PEAK ENDUSE<br>PEAK PCT | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000        | 0.<br>0.000<br>0/0<br>0.000<br>0.00 | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 4820.<br>18.510<br>1/7<br>18.510<br>100.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.00 | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 4820.<br>18.510<br>1/ 7 |
| AUG KWH MAX KW DAY/HR PEAK ENDUSE PEAK PCT                | 0.<br>0.000<br>0/0<br>0.000<br>0.00 | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/ 0<br>0.000<br>0.0 | 4820.<br>18.510<br>1/7<br>18.510<br>100.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0 | 0.<br>0.000<br>0/0<br>0.000<br>0.0  | 0.<br>0.000<br>0/0<br>0.000<br>0.00 | 4820.<br>18.510<br>1/ 7 |

|             |        |        |        |        |        |        |        |        |        |        | ·(C    | ONTINUED) |        |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|--------|
| SEP         |        |        |        |        |        |        |        |        |        |        |        |           |        |
| KWH         | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 4665.  | 0.     | 0.     | 0.     | 0.        | 4665.  |
| MAX KW      | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 18.510 | 0.000  | 0.000  | 0.000  | 0.000     | 18.510 |
| DAY/HR      | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 16.510 | 0.000  | 0.000  | 0.000  | 0.000     | 1/ 7   |
| PEAK ENDUSE | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 18.510 | 0.000  | 0.000  | 0.000  | 0.000     | 1/ /   |
| PEAK PCT    | 0.0    | 0.00   | 0.0    | 0.0    | 0.0    | 0.00   | 0.00   | 100.0  | 0.0    | 0.00   | 0.00   | 0.0       |        |
| FEAR FCI    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 100.0  | 0.0    | 0.0    | 0.0    | 0.0       |        |
| OCT         |        |        |        |        |        |        |        |        |        |        |        |           |        |
| KWH         | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 4820.  | 0.     | 0.     | 0.     | 0.        | 4820.  |
| MAX KW      | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 18.510 | 0.000  | 0.000  | 0.000  | 0.000     | 18.510 |
| DAY/HR      | 0/0    | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 0/0    | 0/ 0   | 1/ 7   | 0/ 0   | 0/ 0   | 0/0    | 0/ 0      | 1/ 7   |
| PEAK ENDUSE | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 18.510 | 0.000  | 0.000  | 0.000  | 0.000     |        |
| PEAK PCT    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 100.0  | 0.0    | 0.0    | 0.0    | 0.0       |        |
|             |        |        |        |        |        |        |        |        |        |        |        |           |        |
| NOV         |        |        |        |        |        |        |        |        |        |        |        |           |        |
| KWH         | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 4665.  | 0.     | 0.     | 0.     | 0.        | 4665.  |
| MAX KW      | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 18.510 | 0.000  | 0.000  | 0.000  | 0.000     | 18.510 |
| DAY/HR      | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 1/ 7   | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0      | 1/ 7   |
| PEAK ENDUSE | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 18.510 | 0.000  | 0.000  | 0.000  | 0.000     |        |
| PEAK PCT    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 100.0  | 0.0    | 0.0    | 0.0    | 0.0       |        |
| DEC         |        |        |        |        |        |        |        |        |        |        |        |           |        |
| KWH         | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 4820.  | 0.     | 0.     | 0.     | 0.        | 4820.  |
| MAX KW      | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 18.510 | 0.000  | 0.000  | 0.000  | 0.000     | 18.510 |
| DAY/HR      | 0/0    | 0/ 0   | 0/ 0   | 0/0    | 0/0    | 0/0    | 0/ 0   | 1/ 7   | 0/ 0   | 0/0    | 0/0    | 0/0       | 1/ 7   |
| PEAK ENDUSE | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 18.510 | 0.000  | 0.000  | 0.000  | 0.000     | Ξ/ /   |
| PEAK PCT    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 100.0  | 0.0    | 0.0    | 0.0    | 0.0       |        |
| 121111 101  | ====== | ====== | ====== | ====== | ====== | ====== | ====== | ====== | ====== | ====== | ====== | ======    | ====== |
|             |        |        |        |        |        |        |        |        |        |        |        |           |        |
| KWH         | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 56752. | 0.     | 0.     | 0.     | 0.        | 56752. |
| MAX KW      | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 18.510 | 0.000  | 0.000  | 0.000  | 0.000     | 18.510 |
| MON/DY      | 0/0    | 0/ 0   | 0/ 0   | 0/0    | 0/0    | 0/0    | 0/ 0   | 1/ 1   | 0/0    | 0/0    | 0/0    | 0/ 0      | 1/ 1   |
| PEAK ENDUSE | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 18.510 | 0.000  | 0.000  | 0.000  | 0.000     |        |
| PEAK PCT    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 100.0  | 0.0    | 0.0    | 0.0    | 0.0       |        |
|             |        |        |        |        |        |        |        |        |        |        |        |           |        |

0.0 KWH YEARLY TRANSFORMER LOSSES =

REPORT- PS-F Energy End-Use Summary for EM3-Retail Non-Res

|                         | LIGHTS        | TASK<br>LIGHTS | MISC<br>EQUIP  | SPACE<br>HEATING | SPACE<br>COOLING | HEAT<br>REJECT | PUMPS<br>& AUX | VENT<br>FANS  | REFRIG<br>DISPLAY | HT PUMP<br>SUPPLEM | DOMEST<br>HOT WTR | EXT<br>USAGE | TOTAL  |
|-------------------------|---------------|----------------|----------------|------------------|------------------|----------------|----------------|---------------|-------------------|--------------------|-------------------|--------------|--------|
|                         |               |                |                |                  |                  |                |                |               |                   |                    |                   |              |        |
| JAN                     | 0.25          | 0.             | 4605           | 0205             | 0.               | ^              | 0.0            | 000           |                   |                    | 1245              |              | 17326. |
| KWH<br>MAX KW           | 835.<br>1.760 | 0.000          | 4687.<br>9.650 | 9397.<br>75.237  | 0.000            | 0.<br>0.000    | 80.<br>0.131   | 982.<br>6.464 | 0.000             | 0.000              | 1345.<br>2.617    | 0.000        | 93.117 |
| MAX KW<br>DAY/HR        | 2/11          | 0.000          | 1/10           | 5/20             | 0.000            | 0.000          | 1/ 1           | 5/20          | 0.000             | 0.000              | 2.617             | 0.000        | 5/20   |
| PEAK ENDUSE             | 1.760         | 0.000          | 7.077          | 75.237           | 0.000            | 0.000          | 0.050          | 6.464         | 0.000             | 0.000              | 2.529             | 0.000        | 3,20   |
| PEAK PCT                | 1.9           | 0.0            | 7.6            | 80.8             | 0.0              | 0.0            | 0.1            | 6.9           | 0.0               | 0.0                | 2.7               | 0.0          |        |
| FEB                     |               |                |                |                  |                  |                |                |               |                   |                    |                   |              |        |
| KWH                     | 757.          | 0.             | 4233.          | 6904.            | 9.               | 0.             | 73.            | 892.          | 0.                | 0.                 | 1222.             | 0.           | 14089. |
| MAX KW                  | 1.760         | 0.000          | 9.650          | 46.060           | 1.069            | 0.000          | 0.131          | 6.453         | 0.000             | 0.000              | 2.617             | 0.000        | 63.656 |
| DAY/HR                  | 1/11          | 0/ 0           | 1/10           | 28/21            | 22/16            | 0/ 0           | 1/ 1           | 9/20          | 0/ 0              | 0/ 0               | 1/ 8              | 0/ 0         | 23/20  |
| PEAK ENDUSE             | 1.760         | 0.000          | 7.077          | 45.749           | 0.000            | 0.000          | 0.093          | 6.441         | 0.000             | 0.000              | 2.537             | 0.000        |        |
| PEAK PCT                | 2.8           | 0.0            | 11.1           | 71.9             | 0.0              | 0.0            | 0.1            | 10.1          | 0.0               | 0.0                | 4.0               | 0.0          |        |
| MAR                     |               |                |                |                  |                  |                |                |               |                   |                    |                   |              |        |
| KWH                     | 840.          | 0.             | 4687.          | 5139.            | 33.              | 0.             | 63.            | 996.          | 0.                | 0.                 | 1344.             | 0.           | 13100. |
| MAX KW                  | 1.760         | 0.000          | 9.650          | 38.055           | 3.290            | 0.000          | 0.131          | 6.453         | 0.000             | 0.000              | 2.617             | 0.000        | 53.270 |
| DAY/HR                  | 1/11          | 0/ 0           | 1/10           | 5/21             | 29/14            | 0/0            | 1/ 1           | 16/20         | 0/0               | 0/0                | 1/8               | 0/ 0         | 5/21   |
| PEAK ENDUSE             | 1.760         | 0.000          | 5.790          | 38.055           | 0.000            | 0.000          | 0.078          | 5.171         | 0.000             | 0.000              | 2.415             | 0.000        |        |
| PEAK PCT                | 3.3           | 0.0            | 10.9           | 71.4             | 0.0              | 0.0            | 0.1            | 9.7           | 0.0               | 0.0                | 4.5               | 0.0          |        |
| APR                     |               |                |                |                  |                  |                |                |               |                   |                    |                   |              |        |
| KWH                     | 820.          | 0.             | 4536.          | 3074.            | 35.              | 0.             | 42.            | 981.          | 0.                | 0.                 | 1289.             | 0.           | 10778. |
| MAX KW                  | 1.760         | 0.000          | 9.650          | 33.583           | 1.716            | 0.000          | 0.131          | 6.452         | 0.000             | 0.000              | 2.617             | 0.000        | 50.035 |
| DAY/HR                  | 1/11          | 0/ 0           | 1/10           | 23/21            | 21/10            | 0/0            | 1/ 2           | 6/20          | 0/0               | 0/0                | 2/8               | 0/ 0         | 23/20  |
| PEAK ENDUSE             | 1.760<br>3.5  | 0.000          | 7.077          | 33.328<br>66.6   | 0.000            | 0.000          | 0.090          | 5.163         | 0.000             | 0.000              | 2.617<br>5.2      | 0.000        |        |
| PEAK PCT                | 3.5           | 0.0            | 14.1           | 00.0             | 0.0              | 0.0            | 0.2            | 10.3          | 0.0               | 0.0                | 5.2               | 0.0          |        |
| MAY                     |               |                |                |                  |                  |                |                |               |                   |                    |                   |              |        |
| KWH                     | 842.          | 0.             | 4687.          | 1684.            | 118.             | 0.             | 18.            | 999.          | 0.                | 0.                 | 1302.             | 0.           | 9651.  |
| MAX KW                  | 1.760         | 0.000          | 9.650          | 25.258           | 3.015            | 0.000          | 0.131          | 6.445         | 0.000             | 0.000              | 2.557             | 0.000        | 43.038 |
| DAY/HR                  | 1/11          | 0/ 0           | 1/10           | 4/20             | 15/19            | 0/0            | 1/5            | 4/20          | 0/0               | 0/0                | 10/8              | 0/0          | 4/20   |
| PEAK ENDUSE             | 1.760         | 0.000          | 7.077<br>16.4  | 25.258<br>58.7   | 0.000            | 0.000          | 0.080          | 6.445<br>15.0 | 0.000             | 0.000              | 2.418             | 0.000        |        |
| PEAK PCT                | 4.1           | 0.0            | 10.4           | 50.7             | 0.0              | 0.0            | 0.2            | 15.0          | 0.0               | 0.0                | 5.6               | 0.0          |        |
| JUN                     |               |                |                |                  |                  |                |                |               |                   |                    |                   |              |        |
| KWH                     | 812.          | 0.             | 4536.          | 474.             | 265.             | 0.             | 1.             | 962.          | 0.                | 0.                 | 1232.             | 0.           | 8281.  |
| MAX KW                  | 1.760         | 0.000          | 9.650          | 10.462           | 3.710            | 0.000          | 0.131          | 6.468         | 0.000             | 0.000              | 2.490             | 0.000        | 26.730 |
| DAY/HR                  | 1/18          | 0/ 0           | 1/10           | 11/21            | 20/14            | 0/0            | 12/ 2          | 29/20         | 0/0               | 0/0                | 12/8              | 0/0          | 11/20  |
| PEAK ENDUSE<br>PEAK PCT | 1.760<br>6.6  | 0.000          | 7.077<br>26.5  | 10.249<br>38.3   | 0.000            | 0.000          | 0.000          | 5.156<br>19.3 | 0.000             | 0.000              | 2.489<br>9.3      | 0.000        |        |
| JUL                     |               |                |                |                  |                  |                |                |               |                   |                    |                   |              |        |
| KWH                     | 842.          | 0.             | 4687.          | 53.              | 917.             | 0.             | 0.             | 1012.         | 0.                | 0.                 | 1257.             | 0.           | 8768.  |
| MAX KW                  | 1.760         | 0.000          | 9.650          | 3.773            | 7.934            | 0.000          | 0.000          | 6.468         | 0.000             | 0.000              | 2.448             | 0.000        | 25.917 |
| DAY/HR                  | 1/11          | 0/ 0           | 1/10           | 3/21             | 23/18            | 0/0            | 0/ 0           | 6/20          | 0/ 0              | 0/ 0               | 5/8               | 0/ 0         | 23/19  |
| PEAK ENDUSE             | 1.760         | 0.000          | 8.364          | 0.000            | 7.863            | 0.000          | 0.000          | 5.641         | 0.000             | 0.000              | 2.289             | 0.000        |        |
| PEAK PCT                | 6.8           | 0.0            | 32.3           | 0.0              | 30.3             | 0.0            | 0.0            | 21.8          | 0.0               | 0.0                | 8.8               | 0.0          |        |
| AUG                     |               |                |                |                  |                  |                |                |               |                   |                    |                   |              |        |
| KWH                     | 847.          | 0.             | 4687.          | 34.              | 852.             | 0.             | 0.             | 1027.         | 0.                | 0.                 | 1252.             | 0.           | 8699.  |
| MAX KW                  | 1.760         | 0.000          | 9.650          | 2.397            | 7.737            | 0.000          | 0.000          | 6.601         | 0.000             | 0.000              | 2.427             | 0.000        | 25.111 |
| DAY/HR                  | 1/11          | 0/ 0           | 1/10           | 23/22            | 10/19            | 0/0            | 0/0            | 10/20         | 0/0               | 0/0                | 1/8               | 0/ 0         | 10/20  |
| PEAK ENDUSE             | 1.760         | 0.000          | 7.077          | 0.000            | 7.399            | 0.000          | 0.000          | 6.601         | 0.000             | 0.000              | 2.274             | 0.000        |        |
| PEAK PCT                | 7.0           | 0.0            | 28.2           | 0.0              | 29.5             | 0.0            | 0.0            | 26.3          | 0.0               | 0.0                | 9.1               | 0.0          |        |

-----(CONTINUED)-----SEP 534. 0. 5. 0. 0. KWH 807 Ω 4536 517 950 1206 Ω 8554 MAX KW 1.760 0.000 9.650 10.351 5.554 0.000 0.131 6.468 0.000 0.000 2.435 0.000 25.891 DAY/HR 3/11 0/0 1/10 30/21 19/14 0/0 1/6 14/20 0/0 0/0 27/8 0/0 30/13 0.000 PEAK ENDUSE 1.760 0.000 9.007 0.000 0.000 5.154 0.000 0.000 8.052 0.000 1.919 0.0 PEAK PCT 6.8 0.0 0.0 0.0 0.0 0.0 0.0 34.8 31.1 19.9 7.4 OCT 842. 0. 4687. 2680. 69. 0. 30. 999. 0. 0. 1272. 0. 10579. KWH 0.000 1.760 0.000 MAX KW 0.000 9.650 23.109 0.000 0.131 6.450 0.000 2.896 2.482 41.084 DAY/HR 1/11 0/0 1/10 30/13 6/16 0/0 2/4 19/20 0/0 0/0 22/8 0/0 30/13 PEAK ENDUSE 1.760 0.000 9.007 23.109 0.000 0.000 0.092 5.163 0.000 0.000 1.952 0.000 PEAK PCT 4.3 0.0 21.9 56.2 0.0 0.0 0.2 12.6 0.0 0.0 4.8 NOV KWH 805. 0 4536. 5684. 1 0 64. 941 Ο 0 1250 Ο 13281 0.000 0.000 1.760 MAX KW 0.000 9.650 38.203 1.047 0.131 6.455 0.000 0.000 2.544 54.638 0/0 0/0 DAY/HR 1/11 1/10 26/21 10/10 0/0 1/ 2 23/20 0/0 5/8 0/0 26/20 PEAK ENDUSE 0.000 38.015 0.000 0.000 0.000 0.000 0.000 1.760 7.077 0.074 5.170 2.541 3.2 0.0 PEAK PCT 0 0 13 0 69 6 0.0 0 0 0 1 9 5 0 0 4 7 0 0 DEC 0. 0. KWH 835. 0. 4687. 8778. 83. 981. 0. 0. 1320. 0. 16684. 0.000 0.000 0.131 1.760 9.650 56.549 0.000 0.000 6.458 0.000 2.609 0.000 73.843 MAX KW DAY/HR 2/11 0/0 1/10 26/21 0/0 0/0 1 / 1 14/20 0/0 0/0 26/20 0/0 26/19 PEAK ENDUSE 1.760 0.000 8.364 56.008 0.000 0.000 0.078 5.165 0.000 0.000 2.469 0.000 PEAK PCT 2.4 0.0 11.3 75.8 0.0 0.0 0.1 7.0 0.0 0.0 3.3 0.0 -------KWH 9883. 0. 55183. 44433. 2817. 0. 460. 11723. 0. 0. 15291. 0. 139790. 0.000 9.650 75.237 0.000 0.131 0.000 0.000 0.000 93.117 1.760 7.934 6.601 2.617 1/2 0/0 1/ 1 1/5 7/23 0/0 8/10 0/0 0/0 1/2 0/0 MON/DY 1 / 1 1/5 0.000 6.464 0.000 7.077 0.000 PEAK ENDUSE 1.760 0.000 75.237 0.000 0.050 2.529 0.000 2.7 PEAK PCT 1.9 0.0 7.6 80.8 0.0 0.0 0.1 6.9 0.0 0.0 0 0

YEARLY TRANSFORMER LOSSES = 0.0 KWH

WEATHER FILE- SEATTLE BOEING FI WA REPORT- PS-F Energy End-Use Summary for FM1

|                         | LIGHTS     | TASK<br>LIGHTS | MISC<br>EQUIP | SPACE<br>HEATING | SPACE<br>COOLING | HEAT<br>REJECT | PUMPS<br>& AUX | VENT<br>FANS | REFRIG<br>DISPLAY | HT PUMP | DOMEST<br>HOT WTR | EXT<br>USAGE | TOTAL       |
|-------------------------|------------|----------------|---------------|------------------|------------------|----------------|----------------|--------------|-------------------|---------|-------------------|--------------|-------------|
| JAN                     |            |                |               |                  |                  |                |                |              |                   |         |                   |              |             |
| THERM                   | 0.         | 0.             | 160.          | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.      | 0.                | 0.           | 160.        |
| MAX THERM/HR            | 0.0        | 0.0            | 0.3           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          | 0.3         |
| DAY/HR                  | 0/0        | 0/ 0           | 1/10          | 0/0              | 0/ 0             | 0/0            | 0/ 0           | 0/ 0         | 0/ 0              | 0/ 0    | 0/ 0              | 0/ 0         | 1/10        |
| PEAK ENDUSE             | 0.0        | 0.0            | 0.3           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          |             |
| PEAK PCT                | 0.0        | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          |             |
| FEB                     |            |                |               |                  |                  |                |                |              |                   |         |                   |              |             |
| THERM                   | 0.         | 0.             | 144.          | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.      | 0.                | 0.           | 144.        |
| MAX THERM/HR            | 0.0        | 0.0            | 0.3           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          | 0.3         |
| DAY/HR                  | 0/0        | 0/0            | 1/10          | 0/0              | 0/ 0             | 0/0            | 0/ 0           | 0/0          | 0/0               | 0/ 0    | 0/0               | 0/ 0         | 1/10        |
| PEAK ENDUSE<br>PEAK PCT | 0.0        | 0.0            | 0.3<br>100.0  | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          |             |
| MAR                     |            |                |               |                  |                  |                |                |              |                   |         |                   |              |             |
| THERM                   | 0.         | 0.             | 160.          | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.      | 0.                | 0.           | 160.        |
| MAX THERM/HR            | 0.0        | 0.0            | 0.3           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          | 0.3         |
| DAY/HR                  | 0/0        | 0/ 0           | 1/10          | 0/ 0             | 0/ 0             | 0/0            | 0/ 0           | 0/ 0         | 0/ 0              | 0/ 0    | 0/ 0              | 0/ 0         | 1/10        |
| PEAK ENDUSE             | 0.0        | 0.0            | 0.3           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          |             |
| PEAK PCT                | 0.0        | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          |             |
| APR                     |            |                |               |                  |                  |                |                |              |                   |         |                   |              |             |
| THERM                   | 0.         | 0.             | 155.          | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.      | 0.                | 0.           | 155.        |
| MAX THERM/HR            | 0.0        | 0.0            | 0.3           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          | 0.3         |
| DAY/HR                  | 0/0        | 0/ 0           | 1/10          | 0/0              | 0/ 0             | 0/0            | 0/0            | 0/0          | 0/0               | 0/0     | 0/0               | 0/ 0         | 1/10        |
| PEAK ENDUSE<br>PEAK PCT | 0.0        | 0.0            | 0.3           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          |             |
| PEAR PCI                | 0.0        | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          |             |
| MAY                     |            |                |               |                  |                  |                |                |              |                   |         |                   |              |             |
| THERM                   | 0.         | 0.             | 160.          | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.      | 0.                | 0.           | 160.        |
| MAX THERM/HR            | 0.0<br>0/0 | 0.0<br>0/0     | 0.3<br>1/10   | 0.0              | 0.0<br>0/0       | 0.0<br>0/0     | 0.0<br>0/0     | 0.0          | 0.0               | 0.0     | 0.0<br>0/0        | 0.0<br>0/0   | 0.3<br>1/10 |
| DAY/HR<br>PEAK ENDUSE   | 0.0        | 0.0            | 0.3           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          | 1/10        |
| PEAK PCT                | 0.0        | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          |             |
|                         |            |                |               |                  |                  |                |                |              |                   |         |                   |              |             |
| JUN<br>THERM            | 0.         | 0.             | 155.          | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.      | 0.                | 0.           | 155.        |
| MAX THERM/HR            | 0.0        | 0.0            | 0.3           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          | 0.3         |
| DAY/HR                  | 0/0        | 0/0            | 1/10          | 0/0              | 0/0              | 0/0            | 0/0            | 0/0          | 0/0               | 0/0     | 0/0               | 0/ 0         | 1/10        |
| PEAK ENDUSE             | 0.0        | 0.0            | 0.3           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          | 1,10        |
| PEAK PCT                | 0.0        | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          |             |
| JUL                     |            |                |               |                  |                  |                |                |              |                   |         |                   |              |             |
| THERM                   | 0.         | 0.             | 160.          | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.      | 0.                | 0.           | 160.        |
| MAX THERM/HR            | 0.0        | 0.0            | 0.3           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          | 0.3         |
| DAY/HR                  | 0/0        | 0/ 0           | 1/10          | 0/ 0             | 0/ 0             | 0/ 0           | 0/ 0           | 0/ 0         | 0/ 0              | 0/ 0    | 0/ 0              | 0/ 0         | 1/10        |
| PEAK ENDUSE             | 0.0        | 0.0            | 0.3           | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          |             |
| PEAK PCT                | 0.0        | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          |             |
| AUG                     |            |                |               |                  |                  |                |                |              |                   |         |                   |              |             |
| THERM                   | 0.         | 0.             | 160.          | 0.               | 0.               | 0.             | 0.             | 0.           | 0.                | 0.      | 0.                | 0.           | 160.        |
| MAX THERM/HR            | 0.0        | 0.0            | 1/10          | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          | 0.3         |
| DAY/HR<br>PEAK ENDUSE   | 0/0        | 0/0            | 1/10          | 0/0              | 0/0              | 0/ 0<br>0.0    | 0/ 0<br>0.0    | 0/0          | 0/0               | 0/0     | 0/ 0<br>0.0       | 0/0          | 1/10        |
| PEAK ENDUSE<br>PEAK PCT | 0.0        | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          |             |
| I DAK FCI               | 0.0        | 0.0            | 100.0         | 0.0              | 0.0              | 0.0            | 0.0            | 0.0          | 0.0               | 0.0     | 0.0               | 0.0          |             |

| REPORT- PS-F | Energy En | d-Use Sum | mary for | FM1    |        |        |        |        |        |        |        | E BOEING<br>CONTINUED) |        |
|--------------|-----------|-----------|----------|--------|--------|--------|--------|--------|--------|--------|--------|------------------------|--------|
| SEP          |           |           |          |        |        |        |        |        |        |        |        |                        |        |
| THERM        | 0.        | 0.        | 155.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.                     | 155.   |
| MAX THERM/HR | 0.0       | 0.0       | 0.3      | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    | 0.3    |
| DAY/HR       | 0/0       | 0/ 0      | 1/10     | 0/ 0   | 0/ 0   | 0/0    | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 0/0    | 0/ 0                   | 1/10   |
| PEAK ENDUSE  | 0.0       | 0.0       | 0.3      | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    |        |
| PEAK PCT     | 0.0       | 0.0       | 100.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    |        |
| OCT          |           |           |          |        |        |        |        |        |        |        |        |                        |        |
| THERM        | 0.        | 0.        | 160.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.                     | 160    |
| MAX THERM/HR | 0.0       | 0.0       | 0.3      | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    | 0.3    |
| DAY/HR       | 0/0       | 0/ 0      | 1/10     | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0                   | 1/10   |
| PEAK ENDUSE  | 0.0       | 0.0       | 0.3      | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    |        |
| PEAK PCT     | 0.0       | 0.0       | 100.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    |        |
| NOV          |           |           |          |        |        |        |        |        |        |        |        |                        |        |
| THERM        | 0.        | 0.        | 155.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.                     | 155    |
| MAX THERM/HR | 0.0       | 0.0       | 0.3      | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    | 0.3    |
| DAY/HR       | 0/0       | 0/ 0      | 1/10     | 0/0    | 0/ 0   | 0/0    | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 0/0    | 0/ 0                   | 1/10   |
| PEAK ENDUSE  | 0.0       | 0.0       | 0.3      | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    |        |
| PEAK PCT     | 0.0       | 0.0       | 100.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    |        |
| DEC          |           |           |          |        |        |        |        |        |        |        |        |                        |        |
| THERM        | 0.        | 0.        | 160.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.                     | 160    |
| MAX THERM/HR | 0.0       | 0.0       | 0.3      | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    | 0.     |
| DAY/HR       | 0/0       | 0/ 0      | 1/10     | 0/ 0   | 0/ 0   | 0/0    | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 0/0    | 0/ 0                   | 1/10   |
| PEAK ENDUSE  | 0.0       | 0.0       | 0.3      | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    |        |
| PEAK PCT     | 0.0       | 0.0       | 100.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    |        |
|              | ======    | ======    | ======   | ====== | ====== | ====== | ====== | ====== | ====== | ====== | ====== | ======                 | ====== |
| THERM        | 0.        | 0.        | 1883.    | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.     | 0.                     | 1883   |
| MAX THERM/HR | 0.0       | 0.0       | 0.3      | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    | 0.3    |
| MON/DY       | 0/0       | 0/ 0      | 1/ 1     | 0/ 0   | 0/ 0   | 0/0    | 0/ 0   | 0/ 0   | 0/ 0   | 0/ 0   | 0/0    | 0/ 0                   | 1/     |
| PEAK ENDUSE  | 0.0       | 0.0       | 0.3      | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    |        |
| PEAK PCT     | 0.0       | 0.0       | 100.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0                    |        |

CU-8-2 L6B

VRF-HEAT-RCVR Cooling Coils

Heating Coils

| *** CIRCULATION                                | 1 LOOPS ***                    |                       |       |                  |         |                              |            |                          |            |
|--|--------------------------------|-----------------------|-------|------------------|---------|------------------------------|------------|--------------------------|------------|
| DEMAND   | COOLING<br>DEMAND<br>(MBTU/HR) | LOOP<br>FLOW<br>(GPM) | HEAD  |                  | LOSS DT | RETURN UA PRODUCT (BTU/HR-F) | LOSS DT    | VOLUME                   |            |
|  |                                |                       |       |                  |         |                              |            |                          |            |
| DHW Plant 1 Res                                |                                | 10.0                  | 23.4  | 0.0              | 0.00    | 0.0                          | 0.00       | 15.0                     | 1.00       |
|  | _                              |                       |       |                  |         |                              |            |                          |            |
| Restaurant DHW -0.020                          | 0.000                          | 0.1                   | 23.4  | 0.0              | 0.00    | 0.0                          | 0.00       | 0.2                      | 1.00       |
| DEFAULT-CHW                                    |                                |                       |       |                  |         |                              |            |                          |            |
| 0.000  | 0.000                          | 0.0                   | 0.0   | 0.0              | 0.00    | 0.0                          | 0.00       | 0.0                      | 1.00       |
| DEFAULT-CW 0.000                               | 0.000                          | 0.0                   | 0.0   | 0.0              | 0.00    | 0.0                          | 0.00       | 0.0                      | 1.00       |
| *** PUMPS ***                                  |                                |                       | FLOW  |                  |         | CAPACITY<br>CONTROL          |            | MECHANICAL<br>EFFICIENCY | EFFICIENCY |
|  | ATTACHED TO                    |                       | (GPM) | ( FT)            | ( FT)   |                              | (KW)       | (FRAC)                   | (FRAC)     |
| DEFAULT-CHW-PUN<br>DEFAULT-CHW<br>PRIMARY LOOF |                                | 1 PUM                 | P(s)  | 62.5             | 0.0     | ONE-SPEED                    | 0.000      | 0.770                    | 0.000      |
| DEFAULT-CW-PUME<br>DEFAULT-CW<br>PRIMARY LOOF  |                                | 1 PUM                 | P(s)  | 55.9             | 0.0     | ONE-SPEED                    | 0.000      | 0.770                    | 0.000      |
| Primary CHW Pun<br>Chiller 1<br>EVAPORATOR     |                                | 1 PUM                 | P(s)  | 0.0              | 0.0     | ONE-SPEED                    | 0.000      | 0.770                    | 0.000      |
| *** PRIMARY EQU                                | JIPMENT ***                    |                       |       |                  |         |                              |            |                          |            |
| EQUIPMENT TY                                   | /PE                            | ATTACHE               | D TO  | CAPACI<br>(MBTU/ |         |                              |            |                          |            |
| Chiller 1                                      |                                |                       |       |                  |         |                              |            |                          |            |
| ELEC-SCREW                                     | DEFAUL:                        |                       |       |                  |         |                              | 5.0<br>5.0 |                          |            |
| GU D1 1 D1                                     |                                |                       |       |                  |         |                              |            |                          |            |
| CU-P1-1 P1<br>VRF-HEAT-RCVF                    | R Cooling<br>Heating           | •                     |       |                  |         |                              | 0.0        |                          |            |
|  |                                |                       |       |                  |         |                              |            |                          |            |
| CU-8-1 L7B<br>VRF-HEAT-RCVF                    | R Cooling<br>Heating           |                       |       | 0.<br>-0.        |         |                              | 0.0        |                          |            |
|  |                                |                       |       |                  |         |                              |            |                          |            |

0.240 0.0 0.0 -0.249 0.0 0.0

0.0

0.0

-0.249

| REPORT- PV-A PIANC          | Design Parameters        |        |     |      | (CONTINUED) |
|-----------------------------|--------------------------|--------|-----|------|-------------|
|                             |                          |        |     |      | (CONTINUED) |
| CU-8-3 L5B                  |                          |        |     |      |             |
| VRF-HEAT-RCVR               | Cooling Coils            | 0.240  | 0.0 | 0.0  |             |
|                             | Heating Coils            | -0.249 | 0.0 | 0.0  |             |
| orr 0 4 7 4 B               |                          |        |     |      |             |
| CU-8-4 L4B<br>VRF-HEAT-RCVR | Cooling Coils            | 0.240  | 0.0 | 0.0  |             |
| VKF-HEAI-KCVK               | Heating Coils            | -0.249 | 0.0 | 0.0  |             |
|                             | neading colls            | 0.213  | 0.0 | 0.0  |             |
| CU-8-5 L3B                  |                          |        |     |      |             |
| VRF-HEAT-RCVR               | Cooling Coils            | 0.240  | 0.0 | 0.0  |             |
|                             | Heating Coils            | -0.249 | 0.0 | 0.0  |             |
| CU-8-6 L2B                  |                          |        |     |      |             |
| VRF-HEAT-RCVR               | Cooling Coils            | 0.266  | 0.0 | 0.0  |             |
| VICE HERE ICON              | Heating Coils            | -0.282 | 0.0 | 0.0  |             |
|                             |                          |        |     |      |             |
| CU-8-7 L1B                  |                          |        |     |      |             |
| VRF-HEAT-RCVR               | Cooling Coils            | 0.170  | 0.0 | 0.0  |             |
|                             | Heating Coils            | -0.180 | 0.0 | 0.0  |             |
| arr n 1 103                 |                          |        |     |      |             |
| CU-R-1 L8A<br>VRF-HEAT-RCVR | Cooling Coils            | 0.170  | 0.0 | 0.0  |             |
| VKF HEAT KCVK               | Heating Coils            | -0.180 | 0.0 | 0.0  |             |
|                             |                          |        |     |      |             |
| CU-R-2 L7A                  |                          |        |     |      |             |
| VRF-HEAT-RCVR               | Cooling Coils            | 0.200  | 0.0 | 0.0  |             |
|                             | Heating Coils            | -0.206 | 0.0 | 0.0  |             |
| CU-R-3 L6A                  |                          |        |     |      |             |
| VRF-HEAT-RCVR               | Cooling Coils            | 0.240  | 0.0 | 0.0  |             |
| VICE HERE ICON              | Heating Coils            | -0.249 | 0.0 | 0.0  |             |
|                             | 3                        |        |     |      |             |
| CU-R-4 L5A                  |                          |        |     |      |             |
| VRF-HEAT-RCVR               | Cooling Coils            | 0.240  | 0.0 | 0.0  |             |
|                             | Heating Coils            | -0.249 | 0.0 | 0.0  |             |
| CU-R-5 L4A                  |                          |        |     |      |             |
| VRF-HEAT-RCVR               | Cooling Coils            | 0.240  | 0.0 | 0.0  |             |
| VIII 112111 110VII          | Heating Coils            | -0.249 | 0.0 | 0.0  |             |
|                             |                          |        |     |      |             |
| CU-R-6 L3A                  |                          |        |     |      |             |
| VRF-HEAT-RCVR               | Cooling Coils            | 0.240  | 0.0 | 0.0  |             |
|                             | Heating Coils            | -0.249 | 0.0 | 0.0  |             |
| CU-R-7 L2A                  |                          |        |     |      |             |
| VRF-HEAT-RCVR               | Cooling Coils            | 0.240  | 0.0 | 0.0  |             |
|                             | Heating Coils            | -0.249 | 0.0 | 0.0  |             |
|                             |                          |        |     |      |             |
| CU-R-RST                    |                          |        |     |      |             |
| VRF-HEAT-RCVR               | Cooling Coils            | 0.124  | 0.0 | 0.0  |             |
|                             | Heating Coils            | -0.129 | 0.0 | 0.0  |             |
| CT-1                        |                          |        |     |      |             |
| OPEN-TWR                    | DEFAULT-CW               | 0.000  | 0.9 | 20.0 |             |
|                             |                          |        |     |      |             |
| RCC-1                       |                          |        |     |      |             |
| HEAT-PUMP DW-HTR            | DHW Plant 1 Res Loop (1) | -0.114 | 3.6 |      |             |

| eQUEST | 3 . | . 65 | Residential | Multi | Family | Tem |
|--------|-----|------|-------------|-------|--------|-----|
|--------|-----|------|-------------|-------|--------|-----|

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| REPORT- PV-A Plant | 5                        |        | SEATTLE BOEING FI WA |                 |
|--------------------|--------------------------|--------|----------------------|-----------------|
|                    |                          |        |                      | <br>(CONTINUED) |
| RCC-2              |                          |        |                      |                 |
| HEAT-PUMP DW-HTR   | DHW Plant 1 Res Loop (1) | -0.114 | 3.6                  |                 |
| RCC-3              |                          |        |                      |                 |
| HEAT-PUMP DW-HTR   | DHW Plant 1 Res Loop (1) | -0.114 | 3.6                  |                 |
| RST DHW Heater     |                          |        |                      |                 |
| ELEC DW-HEATER     | Restaurant DHW Loop      | -0.006 | 0.1                  |                 |

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REPORT- SV-A System Design Parameters for P1B (B.N11) APT1 VRF WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR   |        | OUTSIDE | 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) |
|        |          |         |        |         |           |          |           |           |           |           |
| PVVT   | 1.001    | 464.0   | 1.     | 0.000   | 11.702    | 0.742    | -12.042   | 0.000     | 0.000     | 0.000     |

DIVERSITY POWER FAN STATIC TOTAL MECH FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF MAX FAN MIN FAN FAN FAN RATIO RATIO SUPPLY 390. 1.00 0.022 0.18 0.1 0.25 0.62 DRAW-THRU SPEED 1.00 0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

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

|                            | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | F        | 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.N11P | 390.   | 31.     | 0.005 | 0.738   | 0.       | 0.00      | 0.00     | 8.87       | 0.00      | -10.98      | 1.   |

PVVT

1.001

0.000

0.000

51.891 0.742 -53.373 0.000

FLOOR OUTSIDE 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)

DIVERSITY POWER FAN STATIC TOTAL MECH MAX FAN MIN FAN FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC)

SUPPLY 1731. 1.00 0.099 0.18 0.2 0.37 0.62 DRAW-THRU SPEED 1.00 0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

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

2465.0 3. 0.000

\*\*\* 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 |
| P1B North Perim Zn (B.N13P | 1731.  | 165.    | 0.028 | 0.727   | 0.       | 0.00      | 0.00     | 39.39     | 0.00      | -47.99    | 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    | I       | AIR CAPACI  | TY SE  | NSIBLE | CAPACITY  | EIR        | EIR       | SUPP-HEAT |  |
| TYPE   | FACTOR   | (SQFT )   | PEOPLE | RAT     | CIO (KBTU/H | IR)    | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |  |
| PVVT   | 1.001    | 705.0     | 1.     | 0.0     | 16.4        | :16    | 0.742  | -16.893   | 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 FAN     | N RATIO   | RATIO     |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEME   | NT CONTROL | (FRAC)    | (FRAC)    |  |
| SUPPLY | 548.     | 1.00      | 0.031  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-TH   | RU SPEEI   | 1.00      | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

|                            | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | I        | 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 | IULT |
|                            |        |         |       |         |          |           |          |            |           |             |      |
| P1B NE Perim Zn (B.NE14) 1 | 548.   | 47.     | 0.008 | 0.736   | 0.       | 0.00      | 0.00     | 12.42      | 0.00      | -15.35      | 1.   |

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REPORT- SV-A System Design Parameters for L1A (G.SSW15) FIT VRF WEATHER FILE- SEATTLE BOEING FI WA

FLOOR OUTSIDE COOLING HEATING COOLING 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)

PVVT 1.001 1300.5 0. 0.000 28.093 0.742 -28.995 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 FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC) SUPPLY 937. 1.00 0.054 0.18 0.1 0.30 0.62 DRAW-THRU SPEED 1.00 0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

|                            | 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 SSW Perim Zn (G.SSW15I | 937.   | 0.      | 0.000 | 0.715   | 0.       | 0.00      | 0.00     | -0.12      | 0.00      | -25.48    | 1.   |

WEATHER FILE- SEATTLE BOEING FI WA

| REPORT- SV |          |           |        |         | LOB V       |        |        |           | WEAINI     |           | AIILE BOEIN |  |
|------------|----------|-----------|--------|---------|-------------|--------|--------|-----------|------------|-----------|-------------|--|
|            |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |        | 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     | rio (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR)   |  |
| PVVT       | 1.001    | 1541.0    | 51.    | 0.0     | 30.0        | 60     | 0.742  | -30.940   | 0.000      | 0.000     | 0.000       |  |
|            |          | DIVERSITY | POWER  | FAN     | STATIC      | TOTAL  | MECH   | ł         |            | 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) | PLACEME   | NT CONTROL | L (FRAC)  | (FRAC)      |  |
| SUPPLY     | 1003.    | 1.00      | 0.058  | 0.18    | 0.1         | 0.30   | 0.62   | 2 DRAW-TH | RU SPEEI   | 1.00      | 0.30        |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

|                            | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | F        | 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 |
|                            |        |         |       |         |          |           |          |            |           |             |     |
| L1A South Perim Zn (G.S170 | 1003.  | 0.      | 0.000 | 0.730   | 257.     | 0.00      | 0.00     | 22.45      | 0.00      | -27.90      | 1.  |

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

WEATHER FILE- SEATTLE BOEING FI WA

| KEFORT SV |          |           |        | AF12    | VICE        |        |        | WEATH     |           |           |           |  |
|-----------|----------|-----------|--------|---------|-------------|--------|--------|-----------|-----------|-----------|-----------|--|
|           |          | 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     | rio (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU) | (BTU/BTU) | (KBTU/HR) |  |
|           |          |           |        |         |             |        |        |           |           |           |           |  |
| PVVT      | 1.001    | 1033.8    | 1.     | 0.0     | 000 18.1    | 76     | 0.742  | -18.699   | 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    | 606.     | 1.00      | 0.035  | 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   | 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 |
|                            |        |         |       |         |          |           |          |            |           |             |     |
| L1A East Perim Zn (G.E19)T | 606.   | 69.     | 0.012 | 0.732   | 0.       | 0.00      | 0.00     | 14.08      | 0.00      | -16.94      | 1.  |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR      |        | OUTSI   | IDE COOLI   | NG     |        | 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     | TIO (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU) | (BTU/BTU) | (KBTU/HR) |  |
|        |          |            |        |         |             |        |        |           |           |           |           |  |
| PVVT   | 1.001    | 749.2      | 1.     | 0.0     | 000 10.0    | 43     | 0.742  | -10.334   | 0.000     | 0.000     | 0.000     |  |
|        |          |            |        |         |             |        |        |           |           |           |           |  |
|        |          | DILIDDOTTI | DOMED  | T13.37  | OMA MIT O   | moma r | MEGI   |           |           | M27 F27   | MIN DAN   |  |
|        |          | DIVERSITY  | POWER  | FAN     | STATIC      | TOTAL  |        |           |           | MAX 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 CONTROL | L (FRAC)  | (FRAC)    |  |
|        |          |            |        |         |             |        |        |           |           |           |           |  |
| SUPPLY | 335.     | 1.00       | 0.019  | 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   | I        | EXTRACTION | HEATING   | ADDITION     |     |
|--------|----------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|--------------|-----|
| Z      | ONE                  | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZO      | ONE |
| N      | AME                  | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MU | JLT |
|        |                      |        |         |       |         |          |           |          |            |           |              |     |
| L1A NN | E Perim Zn (G.NNE24P | 335.   | 50.     | 0.008 | 0.737   | 0.       | 0.00      | 0.00     | 7.78       | 0.00      | -9.42        | 1.  |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          | J         |        | , -     | ,           | -      |        |           |           | -         | -         |  |
|--------|----------|-----------|--------|---------|-------------|--------|--------|-----------|-----------|-----------|-----------|--|
|        |          | FLOOR     |        | OUTSI   | DE COOLI    | NG     |        | HEATING   | COOLING   | HEATING   | HEAT PUMP |  |
| SYSTEM | ALTITUDE | AREA      | MAX    |         | 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    | 493.5     | 1.     | 0.0     | 000 9.2     | 89     | 0.742  | -9.554    | 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 CONTROL | L (FRAC)  | (FRAC)    |  |
|        |          |           |        |         |             |        |        |           |           |           |           |  |
| SUPPLY | 310.     | 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   | F        | EXTRACTION | HEATING   | ADDITION      |              |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|--------------|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | E            |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | $\mathbf{T}$ |
|                            |        |         |       |         |          |           |          |            |           |               |              |
| L1A WNW Perim Zn (G.WNW27P | 310.   | 33.     | 0.006 | 0.471   | 0.       | 0.00      | 0.00     | 6.67       | 0.00      | -6.30 1       |              |

REPORT- SV-A System Design Parameters for L1A (G.N28) APT3 VRF WEATHER FILE- SEATTLE BOEING FI WA

| SYSTEM<br>TYPE | ALTITUDE<br>FACTOR | FLOOR<br>AREA<br>(SQFT ) | MAX<br>PEOPLE | OUTSIDE<br>AIR<br>RATIO | COOLING<br>CAPACITY<br>(KBTU/HR) | SENSIBLE (SHR) | HEATING<br>CAPACITY<br>(KBTU/HR) | COOLING<br>EIR<br>(BTU/BTU) | HEATING<br>EIR<br>(BTU/BTU) | HEAT PUMP<br>SUPP-HEAT<br>(KBTU/HR) |
|----------------|--------------------|--------------------------|---------------|-------------------------|----------------------------------|----------------|----------------------------------|-----------------------------|-----------------------------|-------------------------------------|
| PVVT           | 1.001              | 1326.0                   | 2.            | 0.000                   | 23.407                           | 0.742          | -24.077                          | 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    | FAN       | FAN     | RATIO   | RATIO   |
| TYPE   | (CFM)    | (FRAC)    | (KW)   | (F)     | (IN-WATER) | (FRAC) | (FRAC) | PLACEMENT | CONTROL | (FRAC)  | (FRAC)  |
|        |          |           |        |         |            |        |        |           |         |         |         |
| SUPPLY | 781.     | 1.00      | 0.045  | 0.18    | 0.1        | 0.30   | 0.62   | DRAW-THRU | SPEED   | 1.00    | 0.30    |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

|                            | 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 |
|                            |        |         |       |         |          |           |          |            |           |             |      |
| L1A North Perim Zn (G.N28P | 781.   | 89.     | 0.015 | 0.407   | 0.       | 0.00      | 0.00     | 16.41      | 0.00      | -14.16      | 1.   |

|         |      |        | - 1    | -          | _   | - 1 - | ( ~ >== ) | 3.00.4 |      |
|---------|------|--------|--------|------------|-----|-------|-----------|--------|------|
| REPORT- | SV-A | System | Design | Parameters | Ior | PTR   | (G.N5)    | APT4   | VRF. |

WEATHER FILE- SEATTLE BOEING FI WA

|        |            |           | IOI    | (C      | AF14 V      |        |        |           |            |           |           |  |
|--------|------------|-----------|--------|---------|-------------|--------|--------|-----------|------------|-----------|-----------|--|
|        |            | FLOOR     |        | OUTSI   | DE COOLI    | NG     |        | HEATING   | COOLING    | HEATING   | HEAT PUMP |  |
| SYSTEM | M 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      | 2580.0    | 3.     | 0.0     | 000 42.9    | 32     | 0.742  | -44.161   | 0.000      | 0.000     | 0.000     |  |
|        |            | DIVERSITY | POWER  | FAN     | STATIC      | TOTAL  | MECH   | ł         |            | MAX FAN   | MIN FAN   |  |
| FAI    | N CAPACITY | FACTOR    | DEMAND | DELTA-T | PRESSURE    | EFF    | EFF    | F F       | an fai     | N RATIO   | RATIO     |  |
| TYI    | PE (CFM )  | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEME   | NT CONTROL | L (FRAC)  | (FRAC)    |  |
| SUPPLY | 1432.      | 1.00      | 0.082  | 0.18    | 0.2         | 0.34   | 0.62   | 2 DRAW-TH | 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   | 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 |
|                            |        |         |       |         |          |           |          |           |           |           |      |
| L1B North Perim Zn (G.N5)T | 1432.  | 172.    | 0.029 | 0.319   | 0.       | 0.00      | 0.00     | 29.97     | 0.00      | -21.25    | 1.   |

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

WEATHER FILE- SEATTLE BOEING FI WA

| TELL OIGH D | , 11 0,000 | Debign rara |        | 212 (0  | ,           |        |        |           | *************************************** |  | 202111    | 0 11 1111 |
|-------------|------------|-------------|--------|---------|-------------|--------|--------|-----------|---|--|-----------|-----------|
|             |            | 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     | TIO (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU)                               | (BTU/BTU)                                  | (KBTU/HR) |           |
|             |            |             |        |         |             |        |        |           |   |  |           |           |
| PVVT        | 1.001      | 668.0       | 1.     | 0.0     | 000 11.2    | 65     | 0.742  | -11.588   | 0.000                                   | 0.000                                      | 0.000     |           |
|             |            |             |        |         |             |        |        |           |   |  |           |           |
|             |            | DILIDDOTTI  | DOMED  |         | OMA MIT O   | moma r | MEGI   |           |   | M2 W 77 77 77 77 77 77 77 77 77 77 77 77 7 | MIN DAN   |           |
|             |            | DIVERSITY   | POWER  | FAN     | STATIC      | TOTAL  |        |           |   | MAX 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      | 376.       | 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   | F        | EXTRACTION | HEATING   | ADDITION      |    |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|----|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | ΙE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | Т  |
| L1B East Perim Zn (G.E6) 1 | 376.   | 45.     | 0.007 | 0.426   | 0.       | 0.00      | 0.00     | 7.89       | 0.00      | -7.07 1       | ١. |

0.1 0.25 0.62 DRAW-THRU SPEED 1.00 0.30

(FRAC) (FRAC)

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

FLOOR OUTSIDE COOLING HEATING COOLING HEATING HEAT PUMP MAX AIR CAPACITY SENSIBLE CAPACITY EIR EIR SUPP-HEAT PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) (KBTU/HR) SYSTEM ALTITUDE AREA (SQFT ) TYPE FACTOR PVVT 1.001 765.0 1. 0.000 13.630 0.742 -14.021 0.000 0.000 FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF MAX FAN MIN FAN FAN FAN RATIO RATIO

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

(FRAC)

TYPE (CFM )

455.

SUPPLY

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

1.00 0.026 0.18

|     |                        | 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 |
|     |                        |        |         |       |         |          |           |          |            |           |             |      |
| L1B | West Perim Zn (G.W7) 1 | 455.   | 51.     | 0.009 | 0.738   | 0.       | 0.00      | 0.00     | 10.38      | 0.00      | -12.76      | 1.   |

(KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL

| REPORT- SV-P | System Design | n Parameters fo | r L1B | (G.W8) | APT1 VRF |  |
|--------------|---------------|-----------------|-------|--------|----------|--|
|--------------|---------------|-----------------|-------|--------|----------|--|

WEATHER FILE- SEATTLE BOEING FI WA

|        | ,        |           |        |         | ,           |        |        |            |            |           |           |  |
|--------|----------|-----------|--------|---------|-------------|--------|--------|------------|------------|-----------|-----------|--|
|        |          | FLOOR     |        | OUTS    | 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 | IR)    | (SHR)  | (KBTU/HR)  | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |  |
| PVVT   | 1.001    | 654.5     | 1.     | 0.0     | 000 13.8    | 324    | 0.742  | -14.223    | 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 F        | an fai     | N RATIO   | RATIO     |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEMEN   | NT CONTROL | L (FRAC)  | (FRAC)    |  |
| SUPPLY | 461.     | 1.00      | 0.026  | 0.18    | 0.1         | 0.25   | 0.62   | 2 DRAW-THI | RU SPEEI   | 1.00      | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

|                            | 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 |
|                            |        |         |       |         |          |           |          |            |           |             |      |
| L1B West Perim Zn (G.W8) 1 | 461.   | 44.     | 0.007 | 0.756   | 0.       | 0.00      | 0.00     | 10.39      | 0.00      | -13.15      | ⊥.   |

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

WEATHER FILE- SEATTLE BOEING FI WA

|          |                                       |  |  | AFII V   |   |   |   | WEATH  | SK FIDE SE   |  | , P. W.   |
|----------|---------------------------------------|--|--|--|---|---|---|--|--|--|---|
|          | FLOOR                                 |  | OUTSI  | DE COOLI   | NG  |   | HEATING   | COOLING  | HEATING  | HEAT PUMP  |   |
| ALTITUDE | AREA                                  | MAX  | . I  | AIR CAPACI   | TY SE   | NSIBLE  | CAPACITY  | EIR  | EIR  | SUPP-HEAT  |   |
| FACTOR   | (SQFT )                               | PEOPLE   | RAT  | CIO (KBTU/H  | R)  | (SHR)   | (KBTU/HR)   | (BTU/BTU)  | (BTU/BTU)  | (KBTU/HR)  |   |
|          |                                       |  |  |  |   |   |   |  |  |  |   |
| 1.001    | 713.5                                 | 1.   | 0.0  | 000 14.1   | 93  | 0.742   | -14.602   | 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 FA   | an fan   | N RATIO  | RATIO  |   |
| (CFM )   | (FRAC)                                | (KW)   | (F)  | (IN-WATER)   | (FRAC)  | (FRAC)  | PLACEMEN  | T CONTROL  | L (FRAC)   | (FRAC)   |   |
|          |                                       |  |  |  |   |   |   |  |  |  |   |
| 473.     | 1.00                                  | 0.027  | 0.18   | 0.1  | 0.25  | 0.62  | DRAW-THR  | RU SPEEI   | 1.00   | 0.30   |   |
|          | ALTITUDE FACTOR 1.001 CAPACITY (CFM ) | FLOOR ALTITUDE AREA FACTOR (SQFT )  1.001 713.5  DIVERSITY CAPACITY FACTOR (CFM ) (FRAC) | FLOOR ALTITUDE AREA MAX FACTOR (SQFT ) PEOPLE  1.001 713.5 1.  DIVERSITY POWER CAPACITY FACTOR DEMAND (CFM ) (FRAC) (KW) | FLOOR OUTSI ALTITUDE AREA MAX F FACTOR (SQFT ) PEOPLE RAT  1.001 713.5 1. 0.0  DIVERSITY POWER FAN CAPACITY FACTOR DEMAND DELTA-T (CFM ) (FRAC) (KW) (F) | FLOOR OUTSIDE COOLI ALTITUDE AREA MAX AIR CAPACI FACTOR (SQFT) PEOPLE RATIO (KBTU/H  1.001 713.5 1. 0.000 14.1  DIVERSITY POWER FAN STATIC CAPACITY FACTOR DEMAND DELTA-T PRESSURE (CFM) (FRAC) (KW) (F) (IN-WATER) | FLOOR OUTSIDE COOLING ALTITUDE AREA MAX AIR CAPACITY SE FACTOR (SQFT ) PEOPLE RATIO (KBTU/HR)  1.001 713.5 1. 0.000 14.193  DIVERSITY POWER FAN STATIC TOTAL CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) | FLOOR OUTSIDE COOLING ALTITUDE AREA MAX AIR CAPACITY SENSIBLE FACTOR (SQFT ) PEOPLE RATIO (KBTU/HR) (SHR)  1.001 713.5 1. 0.000 14.193 0.742  DIVERSITY POWER FAN STATIC TOTAL MECH CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) | FLOOR OUTSIDE COOLING HEATING ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY FACTOR (SQFT ) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR)  1.001 713.5 1. 0.000 14.193 0.742 -14.602  DIVERSITY POWER FAN STATIC TOTAL MECH CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FA (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMEN | FLOOR OUTSIDE COOLING HEATING COOLING ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR FACTOR (SQFT ) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU)  1.001 713.5 1. 0.000 14.193 0.742 -14.602 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 | FLOOR OUTSIDE COOLING HEATING COOLING HEATING ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR EIR FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU)  1.001 713.5 1. 0.000 14.193 0.742 -14.602 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) | FLOOR OUTSIDE COOLING HEATING COOLING HEATING HEAT PUMP ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR EIR SUPP-HEAT FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) (KBTU/HR)  1.001 713.5 1. 0.000 14.193 0.742 -14.602 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   | F        | 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 East Perim Zn (G.E9) 1 | 473.   | 48.     | 0.008 | 0.745   | 0.       | 0.00      | 0.00     | 10.70      | 0.00      | -13.37       | 1.  |

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

WEATHER FILE- SEATTLE BOEING FI WA

| KEFORI SV |          |           | IOI    |         | AFII        | VICE   |        |           |            |           | ATTHE BOETNO |  |
|-----------|----------|-----------|--------|---------|-------------|--------|--------|-----------|------------|-----------|--------------|--|
|           |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |        | 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     | TIO (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR)    |  |
| PVVT      | 1.001    | 519.0     | 1.     | 0.0     | 000 12.5    | 06     | 0.742  | -12.866   | 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) | PLACEME   | NT CONTROL | L (FRAC)  | (FRAC)       |  |
| SUPPLY    | 417.     | 1.00      | 0.024  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-TH   | RU 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 ZO      | NE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MU | LT |
|                            |        |         |       |         |          |           |          |            |           |              |    |
| L1B East Perim Zn (G.E10)T | 417.   | 35.     | 0.006 | 0.739   | 0.       | 0.00      | 0.00     | 9.53       | 0.00      | -11.72       | 1. |

| REPORT- SV- | A System | Design | Parameters | for | L1B | (G.S11) | APT5 | 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    | 1978.0    | 3.     | 0.0     | 000 43.3    | 42     | 0.742  | -44.598   | 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.A       | AN FAI     | N RATIO   | RATIO     |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEMEN  | NT CONTROL | L (FRAC)  | (FRAC)    |  |
| SUPPLY | 1446.    | 1.00      | 0.083  | 0.18    | 0.2         | 0.34   | 0.62   | DRAW-THE  | RU SPEEI   | 1.00      | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

<sup>\*\*\*</sup> 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 |
| L1B South Perim Zn (G.S11P | 1446.  | 132.    | 0.022 | 0.737   | 0.       | 0.00      | 0.00     | 32.57      | 0.00      | -40.54    | 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 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       | 437.5     | 15.    | 0.0     | 10.7        | 31     | 0.742  | -11.041   | 0.000      | 0.000     | 0.000     |  |
|        |             |           |        |         |             |        |        |           |            |           |           |  |
|        |             | DIVERSITY | POWER  | FAN     | STATIC      | TOTAL  | MECH   | ı         |            | MAX FAN   | MIN FAN   |  |
|        | ~~ ~~ ~~ ~~ |           |        |         |             |        |        |           |            |           |           |  |
| FAN    | CAPACITY    | FACTOR    | DEMAND | DELTA-T | PRESSURE    | EFF    | EFF    | e E.      | an fai     | N RATIO   | RATIO     |  |
| TYPE   | (CFM )      | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEME   | NT CONTROL | (FRAC)    | (FRAC)    |  |
|        |             |           |        |         |             |        |        |           |            |           |           |  |
| SUPPLY | 358.        | 1.00      | 0.021  | 0.18    | 0.1         | 0.25   | 0.62   | 2 DRAW-TH | RU 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 ZO      | ONE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MU | JLT |
|                            |        |         |       |         |          |           |          |            |           |              |     |
| L1B SSW Perim Zn (G.SSW130 | 358.   | 0.      | 0.000 | 0.743   | 73.      | 0.00      | 0.00     | 6.85       | 0.00      | -10.14       | 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    |         | 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    | 367.5     | 3.     | 0.0     | 000 5.9     | 58     | 0.742  | -6.133    | 0.000     | 0.000     | 0.000     |  |
|        |          | DIVERSITY | POWER  | FAN     | STATIC      | TOTAL  | MECH   | ı         |           | MAX FAN   | MIN FAN   |  |
| FAN    | CAPACITY | FACTOR    | DEMAND | DELTA-T | PRESSURE    | EFF    |        |           | N FAN     |           |           |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   |         | (IN-WATER)  | (FRAC) |        |           |           |           | (FRAC)    |  |
| SUPPLY | 199.     | 1.00      | 0.011  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-THR  | RU SPEEI  | 1.00      | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

|    |                       | 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 |
|    |                       |        |         |       |         |          |           |          |            |           |             |     |
| L1 | B Core Zn (G.C14) OFF | 199.   | 0.      | 0.000 | 0.753   | 22.      | 0.00      | 0.00     | 4.57       | 0.00      | -5.65       | 1.  |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          |           |        |         | , AFII      |        |        |           |            | ER FIDE SE | ATTE BOEING F |
|--------|----------|-----------|--------|---------|-------------|--------|--------|-----------|------------|------------|---------------|
|        |          | FLOOR     |        | OUTSI   | DE COOLI    | NG     |        | 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    | 429.5     | 1.     | 0.0     | 000 8.2     | 81     | 0.742  | -8.517    | 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) | PLACEME   | NT CONTROL | L (FRAC)   | (FRAC)        |
| SUPPLY | 276.     | 1.00      | 0.016  | 0.18    | 0.1         | 0.25   | 0.62   | 2 DRAW-TH | RU SPEEI   | D 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 ZON      | ΙE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | T  |
| IID Book Doving Go (G DOO) | 276    | 20      | 0 005 | 0.460   | 0        | 0.00      | 0.00     | F 00       | 0.00      | F F0 1        |    |
| L1B East Perim Zn (G.E29)T | 276.   | 29.     | 0.005 | 0.469   | υ.       | 0.00      | 0.00     | 5.89       | 0.00      | -5.58 1       | ٠. |

PVVT

1.001

0.000

REPORT- SV-A System Design Parameters for L2A (G.E14) APT3 VRF WEATHER FILE- SEATTLE BOEING FI WA

18.220 0.742 -18.741 0.000

FLOOR OUTSIDE 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)

DIVERSITY POWER FAN STATIC TOTAL MECH MAX FAN MIN FAN TAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC) SUPPLY 608. 1.00 0.035 0.18 0.1 0.25 0.62 DRAW-THRU SPEED 1.00 0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

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

1947.8 2. 0.000

|                            | 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 |
|                            |        |         |       |         |          |           |          |            |           |           |      |
| L2A East Perim Zn (G.E14)T | 608.   | 130.    | 0.022 | 0.505   | 0.       | 0.00      | 0.00     | 12.59      | 0.00      | -13.05    | 1.   |

REPORT- SV-A System Design Parameters for  $\,$  L2A (G.WNW18) 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 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    | 1270.5    | 2.     | 0.0     | 000 22.2    | 15     | 0.742  | -22.851   | 0.000     | 0.000     | 0.000     |  |
|        |          | DIVERSITY | POWER  | FAN     | STATIC      | TOTAL  | MECH   | ı         |           | MAX FAN   | MIN FAN   |  |
| FAN    | CAPACITY | FACTOR    | DEMAND | DELTA-T | PRESSURE    | EFF    |        |           | AN FAI    |           |           |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   |         | (IN-WATER)  | (FRAC) |        |           |           |           | (FRAC)    |  |
| SUPPLY | 741.     | 1.00      | 0.043  | 0.18    | 0.1         | 0.30   | 0.62   | DRAW-THE  | RU SPEEI  | 1.00      | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

|                            | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | F        | 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 |
|                            |        |         |       |         |          |           |          |            |           |              |     |
| L2A WNW Perim Zn (G.WNW18P | 741.   | 85.     | 0.014 | 0.389   | 0.       | 0.00      | 0.00     | 15.58      | 0.00      | -12.96       | 1.  |

REPORT- SV-A System Design Parameters for L2A (G.N19) APT2 VRF WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR   |        | OUTSIDE | 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) |
|        |          |         |        |         |           |          |           |           |           |           |
| PVVT   | 1.001    | 1039.0  | 1.     | 0.000   | 16.240    | 0.742    | -16.704   | 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    | FAN       | FAN     | RATIO   | RATIO   |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER) | (FRAC) | (FRAC) | PLACEMENT | CONTROL | (FRAC)  | (FRAC)  |
|        |          |           |        |         |            |        |        |           |         |         |         |
| SUPPLY | 542.     | 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   | F        | 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 |
|                            |        |         |       |         |          |           |          |            |           |             |      |
| L2A North Perim Zn (G.N19P | 542.   | 69.     | 0.012 | 0.334   | 0.       | 0.00      | 0.00     | 11.52      | 0.00      | -8.35       | 1.   |

| REPORT- SV-A System Design Parameters for | L2A (G.SW20) RST VRF | WEATHER FILE- SEATTLE BOEING FI WA |
|---|----------------------|------------------------------------|
|   |                      |                                    |

FLOOR OUTSIDE COOLING HEATING COOLING HEATING HEAT PUMP AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR EIR SUPP-HEAT SQFT ) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) (KBTU/HR) FLOOR SYSTEM ALTITUDE AREA
TYPE FACTOR (SQFT) PVVT 1.001 2287.5 76. 0.000 285.230 0.742 -293.395 0.000 0.000 0.000 FAN STATIC TOTAL MECH ELTA-T PRESSURE EFF EFF DIVERSITY POWER MAX FAN MIN FAN FAN FAN FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF RATIO RATIO (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) TYPE (CFM ) (FRAC) SUPPLY 9515. 1.00 0.547 0.18 0.2 0.48 0.62 DRAW-THRU SPEED 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: 10 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) | 9515.  | 8006.   | 2.347 | 0.094   | 8006.    | 0.00      | 0.00     | 149.49    | 0.00      | -45.18    | 1.   |

PVVT

1.001

DOE-2.3-50h 1/26/2023

0.000

0.000

9:30:35 BDL RUN 9

REPORT- SV-A System Design Parameters for L2A (G.C21) MAIL VRF WEATHER FILE- SEATTLE BOEING FI WA

FLOOR OUTSIDE 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)

3.732 0.742 -3.859

DIVERSITY POWER FAN STATIC TOTAL MECH MAX FAN MIN FAN FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC) SUPPLY 100. 1.00 0.006 0.18 0.1 0.25 0.62 DRAW-THRU SPEED 1.00 0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

368.5

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

0. 0.000

|                          | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | I        | EXTRACTION | HEATING   | ADDITION      |    |
|--------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|----|
| ZONE                     | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | ΛE |
| NAME                     | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | ΔT |
|                          |        |         |       |         |          |           |          |            |           |               |    |
| L2A Core Zn (G.C21) MAIL | 100.   | 0.      | 0.000 | 0.010   | 0.       | 0.00      | 0.00     | 3.03       | 0.00      | 0.03 1        | 1. |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          | J         |        | , -     | ,           |        |        |           |            |           |           |  |
|--------|----------|-----------|--------|---------|-------------|--------|--------|-----------|------------|-----------|-----------|--|
|        |          | 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    | 172.5     | 0.     | 0.0     | 0.6         | 91     | 0.742  | -0.714    | 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 | 23.      | 1.00      | 0.001  | 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   | F        | EXTRACTION | HEATING   | ADDITION      |    |
|--------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|----|
| ZONE                     | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | ΙE |
| NAME                     | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | ъT |
| 707 7 7 (7 700) 1777     | 0.2    | 2       | 0 000 | 0 504   | •        | 0.00      | 0.00     | 0 54       | 0.00      | 0.65 1        |    |
| L2A Core Zn (G.C22) MAIL | 23.    | 0.      | 0.000 | 0.794   | 0.       | 0.00      | 0.00     | 0.54       | 0.00      | -0.67 1       |    |

| REPORT- SV-A System Design Parameters for | L2B (G.N4) APT4 VRF | WEATHER FILE- SEATTLE BOEING FI WA |
|---|---------------------|------------------------------------|
|   |                     |                                    |

FLOOR OUTSIDE HEATING COOLING HEATING HEAT PUMP COOLING MAX SYSTEM ALTITUDE AREA AIR CAPACITY SENSIBLE CAPACITY ETR ETR SUPP-HEAT (SQFT ) RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) (KBTU/HR) TYPE FACTOR PEOPLE PVVT 1.001 2928.0 4. 0.000 43.090 0.742 -44.318 0.000 0.000 0.000 DIVERSITY POWER FAN STATIC TOTAL MECH MAX FAN MIN FAN FAN FACTOR DEMAND DELTA-T PRESSURE FAN CAPACITY EFF EFF FAN RATIO RATIO TYPE (CFM ) (FRAC) (F) (IN-WATER) (FRAC) (FRAC) CONTROL (FRAC) (KW) PLACEMENT (FRAC) 1.00 SUPPLY 1437. 1.00 0.083 0.18 0.2 0.34 0.62 DRAW-THRU SPEED 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        | XTRACTION | 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 |
| L2R North Derim 7n (C NA)T | 1437   | 105     | 0 033 | 0 310   | 0        | 0 00      | 0 00     | 30 80     | 0 00      | -20 78      | 1    |

REPORT- SV-A System Design Parameters for L2B (G.E5) APT1 VRF WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR   |        | OUTSIDE | 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) |
| PVVT   | 1.001    | 984.0   | 1.     | 0.000   | 15.557    | 0.742    | -16.001   | 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    | FAN       | FAN     | RATIO   | RATIO   |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER) | (FRAC) | (FRAC) | PLACEMENT | CONTROL | (FRAC)  | (FRAC)  |
|        |          |           |        |         |            |        |        |           |         |         |         |
| SUPPLY | 519.     | 1.00      | 0.030  | 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   | I        | 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 | IULT |
|                |             |        |         |       |         |          |           |          |            |           |             |      |
| L2B East Perim | Zn (G.E5) 1 | 519.   | 66.     | 0.011 | 0.434   | 0.       | 0.00      | 0.00     | 11.11      | 0.00      | -9.88       | 1.   |

WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |        | 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     | TIO (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU) | (BTU/BTU) | (KBTU/HR) |
|        |          |           |        |         |             |        |        |           |           |           |           |
| PVVT   | 1.001    | 765.0     | 1.     | 0.0     | 000 10.6    | 47     | 0.742  | -10.951   | 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         | AN FAI    | N RATIO   | RATIO     |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEMEN  | NT CONTRO | L (FRAC)  | (FRAC)    |
|        |          |           |        |         |             |        |        |           |           |           |           |
| SUPPLY | 355.     | 1.00      | 0.020  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-THI  | RU SPEE   | D 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 |  |
| I 2D West Denim Fr (C W6) 1 | 255    | E1      | 0 000 | 0 461   | 0        | 0 00      | 0 00     | 7 65       | 0 00      | -7.09 1.       |  |
| L2B West Perim Zn (G.W6) 1  | 355.   | 51.     | 0.009 | 0.461   | υ.       | 0.00      | 0.00     | 7.65       | 0.00      | -/.U9 I.       |  |

REPORT- SV-A System Design Parameters for L2B (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 6.7      | 45     | 0.742  | -6.937     | 0.000      | 0.000     | 0.000     |  |
|        |          | DIVERSITY | POWER  | FAN     | STATIC      | TOTAL  | MECH   | ł          |            | 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 | 225.     | 1.00      | 0.013  | 0.18    | 0.1         | 0.25   | 0.62   | 2 DRAW-THE | RU 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 ZON      | ΙE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | т  |
|                            |        |         |       |         |          |           |          |            |           |               |    |
| L2B West Perim Zn (G.W7) 1 | 225.   | 44.     | 0.007 | 0.305   | 0.       | 0.00      | 0.00     | 4.77       | 0.00      | -3.21 1       |    |

REPORT- SV-A System Design Parameters for  $\,$  L2B (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   | 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 6.4      | 39     | 0.742  | -6.623    | 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 fan    | N RATIO   | RATIO     |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEMEN  | T CONTROI | (FRAC)    | (FRAC)    |  |
|        |          |           |        |         |             |        |        |           |           |           |           |  |
| SUPPLY | 215.     | 1.00      | 0.012  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-THR  | RU 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) i | MULT |
|                     |         |        |         |       |         |          |           |          |            |           |             |      |
| L2B East Perim Zn ( | G.E8) 1 | 215.   | 42.     | 0.007 | 0.310   | 0.       | 0.00      | 0.00     | 4.49       | 0.00      | -3.11       | 1.   |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          |           |        |         | NIII V      |        |        |           |            |           |           |
|--------|----------|-----------|--------|---------|-------------|--------|--------|-----------|------------|-----------|-----------|
|        |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |        | 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     | TIO (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |
|        |          |           |        |         |             |        |        |           |            |           |           |
| PVVT   | 1.001    | 558.0     | 1.     | 0.0     | 000 7.3     | 18     | 0.742  | -7.527    | 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 | 244.     | 1.00      | 0.014  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-THI  | RU 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      | Z |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MULT | Г |
| L2B East Perim Zn (G.E9) 1 | 244.   | 37.     | 0.006 | 0.583   | 0        | 0.00      | 0.00     | 5.20       | 0.00      | -5.80 1.       |   |
|                            |        |         |       |         |          |           |          |            |           |                |   |

| REPORT- SV-A System Design Parameters for | L2B (G.S10) APT6 VRF | WEATHER FILE- SEATTLE BOEING FI WA |
|---|----------------------|------------------------------------|
|   |                      |                                    |

FLOOR OUTSIDE HEATING COOLING HEATING HEAT PUMP COOLING MAX SYSTEM ALTITUDE AREA AIR CAPACITY SENSIBLE CAPACITY ETR ETR SUPP-HEAT (SQFT ) RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) (KBTU/HR) TYPE FACTOR PEOPLE PVVT 1.001 2721.0 3. 0.000 36.146 0.742 -37.178 0.000 0.000 0.000 DIVERSITY POWER FAN STATIC TOTAL MECH MAX FAN MIN FAN FAN FACTOR DEMAND DELTA-T PRESSURE FAN CAPACITY EFF EFF FAN RATIO RATIO TYPE (CFM ) (FRAC) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (KW) (FRAC) 0.18 1.00 SUPPLY 1206. 1.00 0.069 0.2 0.34 0.62 DRAW-THRU SPEED 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 ZO      | NE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR) | (KBTU/HR) | (KBTU/HR) MU | LT |
| LOB South Derim 7n (C S10D | 1206   | 182     | 0 030 | 0 353   |          | 0 00      | 0 00     | 25 79     | 0 00      | _10 42       | _  |

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

WEATHER FILE- SEATTLE BOEING FI WA

| KEFORI SV |          |           |        |         |             |        |        |           | WEATH     |           | BOBING FI |
|-----------|----------|-----------|--------|---------|-------------|--------|--------|-----------|-----------|-----------|-----------|
|           |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |        | 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     | TIO (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU) | (BTU/BTU) | (KBTU/HR) |
|           |          |           |        |         |             |        |        |           |           |           |           |
| PVVT      | 1.001    | 1513.5    | 50.    | 0.0     | 000 28.2    | 35     | 0.742  | -29.060   | 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  | T CONTROL | L (FRAC)  | (FRAC)    |
|           |          |           |        |         |             |        |        |           |           |           |           |
| SUPPLY    | 942.     | 1.00      | 0.054  | 0.18    | 0.1         | 0.30   | 0.62   | DRAW-THE  | RU SPEEI  | 1.00      | 0.30      |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(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 | SSW Perim Zn (G.SSW120 | 942.   | 0.      | 0.000 | 0.307   | 252.     | 0.00      | 0.00     | 19.41      | 0.00      | -13.53    | 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     | AIR CAPACI  | TY SE  | NSIBLE | CAPACITY   | EIR        | EIR       | SUPP-HEAT |  |
| TYPE   | FACTOR   | (SQFT )   | PEOPLE | RAT     | rio (KBTU/H | IR)    | (SHR)  | (KBTU/HR)  | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |  |
| PVVT   | 1.001    | 714.0     | 1.     | 0.0     | 000 11.3    | 07     | 0.742  | -11.629    | 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 F        | AN FAI     | N RATIO   | RATIO     |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEMEN   | NT CONTROL | L (FRAC)  | (FRAC)    |  |
| SUPPLY | 377.     | 1.00      | 0.022  | 0.18    | 0.1         | 0.25   | 0.62   | 2 DRAW-THI | 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 |
| L2B East Perim Zn (G.E23)T | 377.   | 48.     | 0.008 | 0.505   | 0.       | 0.00      | 0.00     | 8.12       | 0.00      | -8.06     | 1.   |

REPORT- SV-A System Design Parameters for L3A (G.E13) APT4 VRF WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR   |        | OUTSIDE | 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) |
|        |          |         |        |         |           |          |           |           |           |           |
| PVVT   | 1.001    | 2229.8  | 3.     | 0.000   | 20.806    | 0.742    | -21.400   | 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    | FAN       | FAN     | RATIO   | RATIO   |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER) | (FRAC) | (FRAC) | PLACEMENT | CONTROL | (FRAC)  | (FRAC)  |
|        |          |           |        |         |            |        |        |           |         |         |         |
| SUPPLY | 694.     | 1.00      | 0.040  | 0.18    | 0.1        | 0.30   | 0.62   | DRAW-THRU | SPEED   | 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 ZOI      | NE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUI | LT |
|                            |        |         |       |         |          |           |          |            |           |               |    |
| L3A East Perim Zn (G.E13)T | 694.   | 149.    | 0.025 | 0.379   | 0.       | 0.00      | 0.00     | 14.58      | 0.00      | -11.90        | 1. |

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

WEATHER FILE- SEATTLE BOEING FI WA

| REPORT S |          | Design Fara | IOI    |         | APII         | VKF    |        |           | wEAIRI    | ER FILE- SE | BOEING    |  |
|----------|----------|-------------|--------|---------|--------------|--------|--------|-----------|-----------|-------------|-----------|--|
|          |          | FLOOR       |        | OUTSI   | IDE COOLI    | NG     |        | 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     | rio (KBTU/H  | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU) | (BTU/BTU)   | (KBTU/HR) |  |
|          |          |             |        |         |              |        |        |           |           |             |           |  |
| PVVT     | 1.001    | 915.5       | 1.     | 0.0     | 0.000 14.463 |        | 0.742  | -14.875   | 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 | L (FRAC)    | (FRAC)    |  |
|          |          |             |        |         |              |        |        |           |           |             |           |  |
| SUPPLY   | 482.     | 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   | I        | EXTRACTION | HEATING   | ADDITION      |    |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|----|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | ΙE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | Т  |
| L3A NW Perim Zn (G.NW17) 1 | 482.   | 61.     | 0.010 | 0.358   | 0.       | 0.00      | 0.00     | 10.34      | 0.00      | -7.86 1       |    |

REPORT- SV-A System Design Parameters for  $\,$  L3A (G.N18) 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    | 1566.5    | 2.     | 0.0     | 00 23.1     | 73     | 0.742  | -23.836    | 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 CONTROL | L (FRAC)  | (FRAC)    |
|        |          |           |        |         |             |        |        |            |           |           |           |
| SUPPLY | 773.     | 1.00      | 0.044  | 0.18    | 0.1         | 0.30   | 0.62   | DRAW-THR   | U SPEEI   | 1.00      | 0.30      |
| SUPPLY | 773.     | 1.00      | 0.044  | 0.18    | 0.1         | 0.30   | 0.62   | P DRAW-THE | RU SPEEI  | 1.00      | 0.3       |

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 Z       | ONE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MU | ULT |
| L3A North Perim Zn (G.N18P | 773.   | 105.    | 0.017 | 0.300   | 0.       | 0.00      | 0.00     | 16.38      | 0.00      | -10.88       | 1.  |

## WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR     |        | OUTSI   | DE COOLI   | NG     |        | HEATING   | COOLING   | HEATING   | HEAT PUMP |  |
|--------|----------|-----------|--------|---------|------------|--------|--------|-----------|-----------|-----------|-----------|--|
| SYSTEM | ALTITUDE | AREA      | MAX    | A       | IR CAPACI  | ry se  | NSIBLE | CAPACITY  | EIR       | EIR       | SUPP-HEAT |  |
| TYPE   | FACTOR   | (SQFT )   | PEOPLE | RAT     | IO (KBTU/H | ₹)     | (SHR)  | (KBTU/HR) | (BTU/BTU) | (BTU/BTU) | (KBTU/HR) |  |
| PVVT   | 1.001    | 2478.2    | 3.     | 0.0     | 00 30.5    | 29     | 0.742  | -31.404   | 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 | (FRAC)    | (FRAC)    |  |
| SUPPLY | 1018.    | 1.00      | 0.059  | 0.18    | 0.1        | 0.30   | 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 |
| L3A West Perim Zn (G.W21)T | 1018.  | 165.    | 0.028 | 0.370   | 0.       | 0.00      | 0.00     | 21.23      | 0.00      | -17.09    | 1.   |

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

WEATHER FILE- SEATTLE BOEING FI WA

| KEFORI SV |          |           |        | ) ACL   | AFII        |        |         |           | WEATIN    |           | AIIDE DOEING F. |
|-----------|----------|-----------|--------|---------|-------------|--------|---------|-----------|-----------|-----------|-----------------|
|           |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |         | HEATING   | COOLING   | HEATING   | HEAT PUMP       |
| SYSTEM    | ALTITUDE | AREA      | MAX    | . I     | AIR CAPACI  | TY SE  | ENSIBLE | 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 13.9    | 47     | 0.742   | -14.344   | 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  | T CONTROL | L (FRAC)  | (FRAC)          |
|           |          |           |        |         |             |        |         |           |           |           |                 |
| SUPPLY    | 465.     | 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   | F        | EXTRACTION | HEATING   | ADDITION      |    |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|----|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | ΛE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUI | T  |
|                            |        |         |       |         |          |           |          |            |           |               |    |
| L3A SW Perim Zn (G.SW22) 1 | 465.   | 63.     | 0.011 | 0.358   | 0.       | 0.00      | 0.00     | 9.95       | 0.00      | -7.59 1       | 1. |

REPORT- SV-A System Design Parameters for L3A (G.S24) APT3 VRF WEATHER FILE- SEATTLE BOEING FI WA

FLOOR OUTSIDE 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)

PVVT 1.001 1832.5 2. 0.000 25.767 0.742 -26.505 0.000 0.000 0.000

DIVERSITY POWER FAN STATIC TOTAL MECH MAX FAN MIN FAN TATIC TOTAL MECH MECH MAX FAN MIN FAN TATIC TOTAL MECH FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC) SUPPLY 860. 1.00 0.049 0.18 0.1 0.30 0.62 DRAW-THRU SPEED 1.00 0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

|                            | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | F        | 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 |
|                            |        |         |       |         |          |           |          |            |           |             |     |
| L3A South Perim Zn (G.S24P | 860.   | 122.    | 0.020 | 0.315   | 0.       | 0.00      | 0.00     | 18.00      | 0.00      | -12.60      | 1.  |

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

WEATHER FILE- SEATTLE BOEING FI WA

| REPORT - SV-A System Design Parameters in |          |           |        |         | AFIT V      |        |        |           | WEATH     | SK FIDE SE | AIILE BOEING |  |
|---|----------|-----------|--------|---------|-------------|--------|--------|-----------|-----------|------------|--------------|--|
|   |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |        | 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     | TIO (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU) | (BTU/BTU)  | (KBTU/HR)    |  |
|   |          |           |        |         |             |        |        |           |           |            |              |  |
| PVVT                                      | 1.001    | 2928.0    | 4.     | 0.0     | 000 42.4    | 62     | 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    | FA        | an fan    | N RATIO    | RATIO        |  |
| TYPE                                      | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEMEN  | T CONTROL | L (FRAC)   | (FRAC)       |  |
|   |          |           |        |         |             |        |        |           |           |            |              |  |
| SUPPLY                                    | 1416.    | 1.00      | 0.081  | 0.18    | 0.2         | 0.34   | 0.62   | DRAW-THR  | RU SPEEI  | 1.00       | 0.30         |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

<sup>\*\*\*</sup> 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 | 1416.  | 195.    | 0.033 | 0.295   | 0.       | 0.00      | 0.00     | 29.83     | 0.00      | -19.61    | 1.   |

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

WEATHER FILE- SEATTLE BOEING FI WA

| TELLORI D | v n bybecm | Debign rara |        |         | ni ii v     |        |        |           |            |           |           |  |
|-----------|------------|-------------|--------|---------|-------------|--------|--------|-----------|------------|-----------|-----------|--|
|           |            | FLOOR       |        | OUTSI   | IDE COOLI   | NG     |        | 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     | TIO (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |  |
|           |            |             |        |         |             |        |        |           |            |           |           |  |
| PVVT      | 1.001      | 984.0       | 1.     | 0.0     | 000 14.9    | 39     | 0.742  | -15.366   | 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  | NT CONTROL | L (FRAC)  | (FRAC)    |  |
|           |            |             |        |         |             |        |        |           |            |           |           |  |
| SUPPLY    | 498.       | 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   | F        | 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 |
|                            |        |         |       |         |          |           |          |            |           |              |     |
| L3B East Perim Zn (G.E5) 1 | 498.   | 66.     | 0.011 | 0.386   | 0.       | 0.00      | 0.00     | 10.44      | 0.00      | -8.65        | 1.  |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        | ,        |           |        | ( -     | ,           |        |        |           |            |           |           |  |
|--------|----------|-----------|--------|---------|-------------|--------|--------|-----------|------------|-----------|-----------|--|
|        |          | FLOOR     |        | OUTS    | DE COOLI    | NG     |        | 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     | rio (KBTU/H | IR)    | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |  |
| PVVT   | 1.001    | 765.0     | 1.     | 0.0     | 000 11.0    | 54     | 0.742  | -11.370   | 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) | PLACEME   | NT CONTROL | L (FRAC)  | (FRAC)    |  |
| SUPPLY | 369.     | 1.00      | 0.021  | 0.18    | 0.1         | 0.25   | 0.62   | 2 DRAW-TH | RU SPEEI   | D 1.00    | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

|                              | 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 |
| I 2D Wast Davin Gr. (G MC) 1 | 260    | F1      | 0 000 | 0 400   | 0        | 0.00      | 0.00     | 7 77       | 0.00      | 6 61        | 1    |
| L3B West Perim Zn (G.W6) 1   | 369.   | 51.     | 0.009 | 0.402   | υ.       | 0.00      | 0.00     | /.//       | 0.00      | -6.61       | Ι.   |

WEATHER FILE- SEATTLE BOEING FI WA

1.00 0.30

SPEED

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

|        |          | FLOOR               |                 | OUTSIDE          | 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)        |
| PVVT   | 1.001    | 654.5               | 1.              | 0.000            | 7.097              | 0.742      | -7.300       | 0.000       | 0.000              | 0.000            |
| FAN    | CAPACITY | DIVERSITY<br>FACTOR | POWER<br>DEMAND | FAN<br>DELTA-T E | STATIC<br>PRESSURE |            | CCH<br>CFF F | 'AN FAN     | MAX FAN<br>N RATIO | MIN FAN<br>RATIO |
| TYPE   | (CFM )   | (FRAC)              | (KW)            | (F) (IN          | N-WATER) (         | FRAC) (FRA | AC) PLACEME  | INT CONTROL | L (FRAC)           | (FRAC)           |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

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

SUPPLY 237. 1.00 0.014 0.18 0.1 0.25 0.62 DRAW-THRU

|                            | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | F        | EXTRACTION | HEATING   | ADDITION     |    |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|--------------|----|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZO      | NE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MU | LT |
| L3B West Perim Zn (G.W7) 1 | 237.   | 44.     | 0.007 | 0.324   | 0.       | 0.00      | 0.00     | 4.92       | 0.00      | -3.56        | 1. |

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

WEATHER FILE- SEATTLE BOEING FI WA

| REPORT SV A System Design Farameters IC |          |           |        |         | AFII V      |        |        |            |           |           |           |  |
|---|----------|-----------|--------|---------|-------------|--------|--------|------------|-----------|-----------|-----------|--|
|   | FLOOR    |           |        | OUTSI   | IDE COOLI   | NG     |        | 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     | TIO (KBTU/H | R)     | (SHR)  | (KBTU/HR)  | (BTU/BTU) | (BTU/BTU) | (KBTU/HR) |  |
|   |          |           |        |         |             |        |        |            |           |           |           |  |
| PVVT                                    | 1.001    | 628.5     | 1.     | 0.0     | 000 6.7     | 49     | 0.742  | -6.942     | 0.000     | 0.000     | 0.000     |  |
|   |          |           |        |         |             |        |        |            |           |           |           |  |
|   |          | DIVERSITY | POWER  | FAN     | STATIC      | TOTAL  | MECH   | H          |           | 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                                  | 225.     | 1.00      | 0.013  | 0.18    | 0.1         | 0.25   | 0.62   | 2 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 ZO      | NE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MU | LT |
|                            | 005    | 4.0     | 0 005 | 0 200   | •        | 0.00      | 0.00     | 4 51       | 0.00      | 2.25         | 1  |
| L3B East Perim Zn (G.E8) 1 | 225.   | 42.     | 0.007 | 0.320   | 0.       | 0.00      | 0.00     | 4.71       | 0.00      | -3.35        | Ι. |

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

WEATHER FILE- SEATTLE BOEING FI WA

| TIEL OILL D    | 11 0/0000          | Debigni rara                  |                         | 252 (0.                 |                                 |                        |                 |                                  | *************************************** |                             | DD DODIN                            | 0 11 1111 |
|----------------|--------------------|-------------------------------|-------------------------|-------------------------|---------------------------------|------------------------|-----------------|----------------------------------|---|-----------------------------|-------------------------------------|-----------|
| SYSTEM<br>TYPE | ALTITUDE<br>FACTOR | FLOOR<br>AREA<br>(SQFT )      | MAX<br>PEOPLE           |                         | R CAPACI                        | TY SEI                 | NSIBLE<br>(SHR) | HEATING<br>CAPACITY<br>(KBTU/HR) | COOLING<br>EIR<br>(BTU/BTU)             | HEATING<br>EIR<br>(BTU/BTU) | HEAT PUMP<br>SUPP-HEAT<br>(KBTU/HR) |           |
| PVVT           | 1.001              | 789.0                         | 1.                      | 0.00                    | 10.2                            | 56                     | 0.742           | -10.550                          | 0.000                                   | 0.000                       | 0.000                               |           |
| FAN<br>TYPE    | CAPACITY<br>(CFM ) | DIVERSITY<br>FACTOR<br>(FRAC) | POWER<br>DEMAND<br>(KW) | FAN<br>DELTA-T<br>(F) ( | STATIC<br>PRESSURE<br>IN-WATER) | TOTAL<br>EFF<br>(FRAC) |                 | FA FA                            |   |                             |                                     |           |
| SUPPLY         | 342.               | 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   | F        | EXTRACTION | HEATING   | ADDITION       |   |
|------------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|----------------|---|
| ZONE                         | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZONE      | Z |
| NAME                         | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MULT | Г |
| L3B East Perim Zn (G.E9) 1   | 342.   | 53.     | 0.009 | 0.503   | 0        | 0.00      | 0.00     | 7 10       | 0.00      | -7.30 1.       |   |
| LID EAST PELLIN ZII (G.EJ) I | 344.   | 55.     | 0.009 | 0.303   | υ.       | 0.00      | 0.00     | / . 1 2    | 0.00      | -/.JU I        |   |

| REPORT- SV-A System Design Parameters for | L3B (G.S10) APT7 VRF | WEATHER FILE- SEATTLE BOEING FI WA |
|---|----------------------|------------------------------------|
|   |                      |                                    |

FLOOR OUTSIDE COOLING HEATING COOLING HEAT PUMP
AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR EIR SUPP-HEAT
(SQFT ) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) (KBTU/HR) SYSTEM ALTITUDE AREA
TYPE FACTOR (SQFT) 1.001 3981.5 5. 0.000 51.865 0.742 -53.350 0.000 PVVT 0.000 FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF MAX FAN MIN FAN FAN FAN RATIO RATIO SUPPLY 1730. 1.00 0.099 0.18 0.2 0.37 0.62 DRAW-THRU SPEED 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        | 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 South Perim Zn (G.S10P | 1730.  | 266.    | 0.044 | 0.334   | 0.       | 0.00      | 0.00     | 36.24     | 0.00      | -26.68    | 1.   |

REPORT- SV-A System Design Parameters for L3B (G.E19) APT1 VRF WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR   |        | OUTSIDE | 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) |
|        |          |         |        |         |           |          |           |           |           |           |
| PVVT   | 1.001    | 714.0   | 1.     | 0.000   | 10.926    | 0.742    | -11.239   | 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    | FAN       | FAN     | RATIO   | RATIO   |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER) | (FRAC) | (FRAC) | PLACEMENT | CONTROL | (FRAC)  | (FRAC)  |
|        |          |           |        |         |            |        |        |           |         |         |         |
| SUPPLY | 364.     | 1.00      | 0.021  | 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   | F        | EXTRACTION | HEATING   | ADDITION      |   |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|---|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | Œ |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | T |
| 12D Back Davin Gr. (G P10) | 264    | 4.0     | 0 000 | 0 427   | 0        | 0.00      | 0.00     | 7.60       | 0.00      | -6.97 1       |   |
| L3B East Perim Zn (G.E19)T | 364.   | 48.     | 0.008 | 0.437   | υ.       | 0.00      | 0.00     | 7.69       | 0.00      | -6.9/ I       |   |

|        | 1        |           |        |         |             |        |        |            |            |           |           |  |
|--------|----------|-----------|--------|---------|-------------|--------|--------|------------|------------|-----------|-----------|--|
|        |          | FLOOR     |        | OUTS    | DE COOLI    | NG     |        | 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     | rio (KBTU/H | IR)    | (SHR)  | (KBTU/HR)  | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |  |
| PVVT   | 1.001    | 2229.8    | 3.     | 0.0     | 000 20.8    | 73     | 0.742  | -21.469    | 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    | F FA       | AN FAI     | N RATIO   | RATIO     |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEMEN   | NT CONTROL | L (FRAC)  | (FRAC)    |  |
| SUPPLY | 696.     | 1.00      | 0.040  | 0.18    | 0.1         | 0.30   | 0.62   | 2 DRAW-THE | RU SPEEI   | 1.00      | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

|                            | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | I        | EXTRACTION | HEATING   | ADDITION     |     |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|--------------|-----|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZO      | NE  |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MU | JLT |
|                            |        |         |       |         |          |           |          |            |           |              |     |
| L4A East Perim Zn (G.E13)T | 696.   | 149.    | 0.025 | 0.362   | 0.       | 0.00      | 0.00     | 14.64      | 0.00      | -11.48       | 1.  |

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

WEATHER FILE- SEATTLE BOEING FI WA

| KEPORT- SV | -A System | Design Para | meters for | L4A (G  | NWI/) APTI | VKF    |        |           | WEATH      | EK FILE- SE | ATTLE BOEIN | G 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     | 915.5       | 1.         | 0.0     | 14.5       | 15     | 0.742  | -14.928   | 0.000      | 0.000       | 0.000       |         |
|            |           |             |            |         |            |        |        |           |            |             |             |         |
|            |           | DIVIDDOTEN  | DOMED      | F13.37  | GMA MT G   | moma r | MEGI   | *         |            | M27 F27     | MIN DAN     |         |
|            |           | DIVERSITY   | POWER      | FAN     | STATIC     | TOTAL  |        |           |            | MAX 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) | PLACEME   | NT CONTROL | L (FRAC)    | (FRAC)      |         |
|            |           |             |            |         |            |        |        |           |            |             |             |         |
| SUPPLY     | 484.      | 1.00        | 0.028      | 0.18    | 0.1        | 0.25   | 0.62   | DRAW-TH   | RU 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 ZON      | ΙE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | T  |
|                            |        |         |       |         |          |           |          |            |           |               |    |
| L4A NW Perim Zn (G.NW17) 1 | 484.   | 61.     | 0.010 | 0.323   | 0.       | 0.00      | 0.00     | 10.39      | 0.00      | -7.24 1       | ٠. |

| REPORT- SV-A System Design Parameters for | L4A (G.N18) APT3 VRF | WEATHER FILE- SEATTLE BOEING FI WA |
|---|----------------------|------------------------------------|
|   |                      |                                    |

FLOOR OUTSIDE COOLING HEATING COOLING HEAT PUMP
AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR EIR SUPP-HEAT
(SQFT ) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) (KBTU/HR) SYSTEM ALTITUDE AREA PACTOR (SQFT ) PVVT 1.001 1566.5 2. 0.000 23.299 0.742 -23.965 0.000 0.000 0.000 FAN STATIC TOTAL MECH ELTA-T PRESSURE EFF EFF DIVERSITY POWER MAX FAN MIN FAN FAN FAN FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC) 777. SUPPLY 1.00 0.045 0.18 0.1 0.30 0.62 DRAW-THRU 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 North Perim Zn (G.N18P | 777.   | 105.    | 0.017 | 0.283   | 0.       | 0.00      | 0.00     | 16.48      | 0.00      | -10.38    | 1.   |

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

|        |          | FLOOR     |        | OUTSIL  | DE COOLIN  | IG     |        | HEATING   | COOLING   | HEATING   | HEAT PUMP |
|--------|----------|-----------|--------|---------|------------|--------|--------|-----------|-----------|-----------|-----------|
| SYSTEM | ALTITUDE | AREA      | MAX    | AI      | R CAPACIT  | TY SEI | NSIBLE | CAPACITY  | EIR       | EIR       | SUPP-HEAT |
| TYPE   | FACTOR   | (SQFT )   | PEOPLE | RATI    | O (KBTU/HF | 2)     | (SHR)  | (KBTU/HR) | (BTU/BTU) | (BTU/BTU) | (KBTU/HR) |
|        |          |           |        |         |            |        |        |           |           |           |           |
| PVVT   | 1.001    | 2478.2    | 3.     | 0.00    | 30.39      | 97     | 0.742  | -31.267   | 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 fan    | RATIO     | RATIO     |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F) (   | IN-WATER)  | (FRAC) | (FRAC) | PLACEMEN  | T CONTROL | (FRAC)    | (FRAC)    |
|        |          |           |        |         |            |        |        |           |           |           |           |
| SUPPLY | 1014.    | 1.00      | 0.058  | 0.18    | 0.1        | 0.30   | 0.62   | DRAW-THR  | U SPEEI   | 1.00      | 0.30      |
|        |          |           |        |         |            |        |        |           |           |           |           |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

<sup>\*\*\*</sup> 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 |
| L4A West Perim Zn (G.W21)T | 1014.  | 165.    | 0.028 | 0.324   | 0.       | 0.00      | 0.00     | 21.14      | 0.00      | -15.22    | 1.   |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |        | 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     | rio (KBTU/H | IR)    | (SHR)  | (KBTU/HR) | (BTU/BTU) | (BTU/BTU) | (KBTU/HR) |  |
|        |          |           |        |         |             |        |        |           |           |           |           |  |
| PVVT   | 1.001    | 944.2     | 1.     | 0.0     | 000 14.0    | 67     | 0.742  | -14.468   | 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  | T CONTROL | L (FRAC)  | (FRAC)    |  |
|        |          |           |        |         |             |        |        |           |           |           |           |  |
| SUPPLY | 469.     | 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   | I        | EXTRACTION | HEATING   | ADDITION     |    |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|--------------|----|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZO      | NE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MU | LT |
|                            |        |         |       |         |          |           |          |            |           |              |    |
| L4A SW Perim Zn (G.SW22) 1 | 469.   | 63.     | 0.011 | 0.330   | 0.       | 0.00      | 0.00     | 10.01      | 0.00      | -7.15        | 1. |

REPORT- SV-A System Design Parameters for L4A (G.S24) APT3 VRF WEATHER FILE- SEATTLE BOEING FI WA

FLOOR OUTSIDE 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) (KBTU/HR)

PVVT 1.001 1832.5 2. 0.000 25.332 0.742 -26.057 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 FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC)

SUPPLY 845. 1.00 0.049 0.18 0.1 0.30 0.62 DRAW-THRU SPEED 1.00 0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

|       |                        | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | I        | 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 | IULT |
|       |                        |        | 400     |       |         |          |           |          |            |           |             |      |
| L4A S | South Perim Zn (G.S24P | 845.   | 122.    | 0.020 | 0.280   | 0.       | 0.00      | 0.00     | 17.72      | 0.00      | -11.20      | Ι.   |

| REPORT- SV-A System Design Parameters for | L4B (G.N4) APT4 VRF | WEATHER FILE- SEATTLE BOEING FI WA |
|---|---------------------|------------------------------------|
|   |                     |                                    |

| SYSTEM<br>TYPE | ALTITUDE<br>FACTOR | FLOOR<br>AREA<br>(SQFT )      | MAX<br>PEOPLE           |                       | IR CAPACI                        | TY SE                  | NSIBLE<br>(SHR)       | HEATING<br>CAPACITY<br>(KBTU/HR) | COOLING<br>EIR<br>(BTU/BTU) | HEATING<br>EIR<br>(BTU/BTU) | HEAT PUMP<br>SUPP-HEAT<br>(KBTU/HR) |
|----------------|--------------------|-------------------------------|-------------------------|-----------------------|----------------------------------|------------------------|-----------------------|----------------------------------|-----------------------------|-----------------------------|-------------------------------------|
| PVVT           | 1.001              | 2928.0                        | 4.                      | 0.0                   | 00 42.6                          | 84                     | 0.742                 | -43.905                          | 0.000                       | 0.000                       | 0.000                               |
| FAN<br>TYPE    | CAPACITY (CFM )    | DIVERSITY<br>FACTOR<br>(FRAC) | POWER<br>DEMAND<br>(KW) | FAN<br>DELTA-T<br>(F) | STATIC<br>PRESSURE<br>(IN-WATER) | TOTAL<br>EFF<br>(FRAC) | MECH<br>EFF<br>(FRAC) | FA FA                            |                             |                             |                                     |
| SUPPLY         | 1424.              | 1.00                          | 0.082                   | 0.18                  | 0.2                              | 0.34                   | 0.62                  | DRAW-THR                         | 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   | 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 |
|                            |        |         |       |         |          |           |          |           |           |           |      |
| L4B North Perim Zn (G.N4)T | 1424.  | 195.    | 0.033 | 0.279   | 0.       | 0.00      | 0.00     | 30.00     | 0.00      | -18.77    | 1.   |

DOE-2.3-50h 1/26/2023

9:30:35 BDL RUN 9

REPORT- SV-A System Design Parameters for L4B (G.E5) APT1 VRF WEATHER FILE- SEATTLE BOEING FI WA

FLOOR OUTSIDE 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)

PVVT 1.001 984.0 1. 0.000 15.085 0.742 -15.517 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 FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC)

SUPPLY 503. 1.00 0.029 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   | I        | EXTRACTION | HEATING   | ADDITION     |     |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|--------------|-----|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZO      | NE  |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MU | JLT |
|                            | = 0.0  |         |       |         |          |           |          |            |           |              | _   |
| L4B East Perim Zn (G.E5) 1 | 503.   | 66.     | 0.011 | 0.356   | 0.       | 0.00      | 0.00     | 10.55      | 0.00      | -8.17        | ⊥.  |

DOE-2.3-50h 1/26/2023

9:30:35 BDL RUN 9

REPORT- SV-A System Design Parameters for L4B (G.W6) APT1 VRF WEATHER FILE- SEATTLE BOEING FI WA

FLOOR OUTSIDE 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) (KBTU/HR)

PVVT 1.001 765.0 1. 0.000 11.696 0.742 -12.031 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 FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC) SUPPLY 390. 1.00 0.022 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 ZON      | NE |
| NAME                          | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUI | LΤ |
| TAR Mark Production (C. MC) 1 | 200    | F.1     | 0.000 | 0 250   | 0        | 0.00      | 0.00     | 0 00       | 0.00      | c 20 -        | 1  |
| L4B West Perim Zn (G.W6) 1    | 390.   | 51.     | 0.009 | 0.352   | 0.       | 0.00      | 0.00     | 8.20       | 0.00      | -6.28 1       | Ι. |

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

WEATHER FILE- SEATTLE BOEING FI WA

| REFORT BY |          |           |        |         | , ALII V    |        |        |           |            |           |           | J I I 1121 |
|-----------|----------|-----------|--------|---------|-------------|--------|--------|-----------|------------|-----------|-----------|------------|
|           |          | FLOOR     |        | OUTSI   | DE COOLI    | NG     |        | 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     | 7.1         | 56     | 0.742  | -7.361    | 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  | NT CONTROL | L (FRAC)  | (FRAC)    |            |
|           |          |           |        |         |             |        |        |           |            |           |           |            |
| SUPPLY    | 239.     | 1.00      | 0.014  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-TH   | RU 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 |  |
|                            | 020    | 4.4     | 0 005 | 0 205   | •        | 0.00      | 0.00     | 4 05       | 0.00      | 2 42 1         |  |
| L4B West Perim Zn (G.W7) 1 | 239.   | 44.     | 0.007 | 0.307   | 0.       | 0.00      | 0.00     | 4.97       | 0.00      | -3.43 1.       |  |

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

WEATHER FILE- SEATTLE BOEING FI WA

| REPORT- SV | /-A System | Design Para | meters for |         | 5.E8) APTI V | KF<br> |        |           | WEATH!     | EK FILE- SE | ATTLE BOEIN | G FI WA |
|------------|------------|-------------|------------|---------|--------------|--------|--------|-----------|------------|-------------|-------------|---------|
|            |            | FLOOR       |            | OUTSI   | IDE COOLI    | NG     |        | 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     | TIO (KBTU/H  | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU)   | (KBTU/HR)   |         |
|            |            |             |            |         |              |        |        |           |            |             |             |         |
| PVVT       | 1.001      | 628.5       | 1.         | 0.0     | 000 6.7      | 93     | 0.742  | -6.987    | 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    | r FA      | AN FAI     | N RATIO     | RATIO       |         |
| TYPE       | (CFM )     | (FRAC)      | (KW)       | (F)     | (IN-WATER)   | (FRAC) | (FRAC) | PLACEMEN  | NT CONTROL | L (FRAC)    | (FRAC)      |         |
|            |            |             |            |         |              |        |        |           |            |             |             |         |
| SUPPLY     | 227.       | 1.00        | 0.013      | 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   | F        | 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 |
| L4B East Perim Zn (G.E8) 1   | 227.   | 42.     | 0.007 | 0.303   | 0        | 0.00      | 0.00     | 4.75       | 0.00      | -3.21        | 1   |
| L4B East Perill ZII (G.E6) I | 221.   | 42.     | 0.007 | 0.303   | υ.       | 0.00      | 0.00     | 4./5       | 0.00      | -3.21        | Ι.  |

DOE-2.3-50h 1/26/2023

9:30:35 BDL RUN 9

REPORT- SV-A System Design Parameters for L4B (G.E9) APT1 VRF WEATHER FILE- SEATTLE BOEING FI WA

FLOOR OUTSIDE 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)

PVVT 1.001 789.0 1. 0.000 10.270 0.742 -10.564 0.000 0.000 0.000

DIVERSITY POWER FAN STATIC TOTAL MECH MAX FAN MIN FAN TAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC)

SUPPLY 343. 1.00 0.020 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   | I        | EXTRACTION | HEATING   | ADDITION     |    |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|--------------|----|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZO      | NE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MU | LT |
| L4B East Perim Zn (G.E9) 1 | 343.   | 53.     | 0.009 | 0.442   | 0        | 0.00      | 0.00     | 7 17       | 0.00      | -6.62        | 1  |

## 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    | 3981.5    | 5.     | 0.0     | 00 51.1     | 38     | 0.742  | -52.603   | 0.000      | 0.000     | 0.000     |  |
|        |          | DIVERSITY | POWER  | FAN     | STATIC      | TOTAL  | MECH   | ł.        |            | MAX FAN   | MIN FAN   |  |
| FAN    | CAPACITY | FACTOR    | DEMAND | DELTA-T | PRESSURE    | EFF    | EFF    | F F       | AN FAI     | RATIO     | RATIO     |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEME   | NT CONTROL | (FRAC)    | (FRAC)    |  |
| SUPPLY | 1706.    | 1.00      | 0.098  | 0.18    | 0.2         | 0.37   | 0.62   | 2 DRAW-TH | 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   | E        | XTRACTION | 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 |
| IAR South Derim 7n (C S10D | 1706   | 266     | 0 044 | 0 304   |          | 0 00      | 0 00     | 35 63     | 0 00      | -24 26      | _   |

WEATHER FILE- SEATTLE BOEING FI WA

| REPORT - SV-A System Design Parameters 10 |          |           | merera ioi | 9) d#L  | ) APII      | VKF    |        |           | MEAINI     |           | AIILE BOEIN |  |
|---|----------|-----------|------------|---------|-------------|--------|--------|-----------|------------|-----------|-------------|--|
|   |          | 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    | 714.0     | 1.         | 0.0     | 000 11.1    | 85     | 0.742  | -11.505   | 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) | PLACEME   | NT CONTROL | L (FRAC)  | (FRAC)      |  |
| SUPPLY                                    | 373.     | 1.00      | 0.021      | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-TH   | RU 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 ZON      | NE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUI | LΤ |
| L4B East Perim Zn (G.E19)T | 373.   | 48.     | 0.008 | 0.394   | 0        | 0 00      | 0.00     | 7.87       | 0.00      | -6.58 1       | 1  |
| L4B East Perim Zn (G.Er9/1 | 3/3.   | 40.     | 0.000 | 0.394   | υ.       | 0.00      | 0.00     | /.0/       | 0.00      | -0.50         | ⊥. |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR     |        | OUTSI   | DE COOLI    | NG     |        | 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    | 2229.8    | 3.     | 0.0     | 000 21.0    | 03     | 0.742  | -21.603   | 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     |           |           |  |
| LAIN   | CAPACITI | PACIOR    | DEMAND | DELIA-1 | PKESSUKE    | EFF    | EFF    | r F       | uv rai    | N RAIIO   | KAIIO     |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEMEN  | T CONTROL | L (FRAC)  | (FRAC)    |  |
|        |          |           |        |         |             |        |        |           |           |           |           |  |
| SUPPLY | 701.     | 1.00      | 0.040  | 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   | F        | EXTRACTION | HEATING   | ADDITION      |    |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|----|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | ΙE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | Л  |
|                            |        |         |       |         |          |           |          |            |           |               |    |
| L5A East Perim Zn (G.E13)T | 701.   | 149.    | 0.025 | 0.360   | 0.       | 0.00      | 0.00     | 14.74      | 0.00      | -11.49 1      | L. |

WEATHER FILE- SEATTLE BOEING FI WA

| REPORT SV | System Design |             | LDA (G.NWI/) AFII VRF  |                     |        |               |           | WEATHER FILE- SEATILE BOEING FI WA |                     |             |            |
|-----------|---------------|-------------|------------------------|---------------------|--------|---------------|-----------|------------------------------------|---------------------|-------------|------------|
|           | F             | OUTSI       | OUTSIDE COOLING HEATIN |                     |        |               | COOLING   | HEATING                            | HEAT PUMP           |             |            |
| SYSTEM    | ALTITUDE 2    | AREA MA     | X A                    | IR CAPACI           | TY SEI | NSIBLE        | CAPACITY  | EIR                                | EIR                 | SUPP-HEAT   |            |
| TYPE      | FACTOR (SQI   | FT ) PEOPL  | E RAT                  | 'IO (KBTU/H         | R)     | (SHR)         | (KBTU/HR) | (BTU/BTU)                          | (BTU/BTU)           | (KBTU/HR)   |            |
| D         | 1 001         | 15.5        | 0.0                    | 14.0                |        | 0 540         | 15 000    | 0.000                              | 0.000               | 0.000       |            |
| PVVT      | 1.001 93      | 15.5 1      | . 0.0                  | 000 14.8            | 60     | 0.742         | -15.283   | 0.000                              | 0.000               | 0.000       |            |
|           |               |             |                        |                     |        |               |           |                                    |                     |             |            |
|           | DIVERS        | SITY POWER  | FAN                    | STATIC              | TOTAL  | MECH          | I         |                                    | MAX FAN             | MIN FAN     |            |
| FAN       | CAPACITY FAC  | CTOR DEMAND | DELTA-T                | PRESSURE            | EFF    | EFF           | F.        | AN FAI                             | N RATIO             | RATIO       |            |
| TYPE      | (CFM ) (FI    | RAC) (KW)   | (F)                    | (IN-WATER)          | (FRAC) | (FRAC)        | PLACEMEN  | NT CONTROL                         | L (FRAC)            | (FRAC)      |            |
|           |               |             |                        |                     |        |               |           |                                    |                     |             |            |
| SUPPLY    | 496.          | 1.00 0.028  | 0.18                   | 0.1                 | 0.25   | 0.62          | DRAW-THE  | RU SPEEI                           | D 1.00              | 0.30        |            |
| TYPE      | CAPACITY FAC  | CTOR DEMAND | DELTA-T                | PRESSURE (IN-WATER) | EFF    | EFF<br>(FRAC) | PLACEMEN  | NT CONTROL                         | N RATIO<br>L (FRAC) | RAT<br>(FRA | rio<br>AC) |

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      | 3 |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MULT |   |
|                            |        |         |       |         |          |           |          |            |           |                |   |
| L5A NW Perim Zn (G.NW17) 1 | 496.   | 61.     | 0.010 | 0.323   | 0.       | 0.00      | 0.00     | 10.63      | 0.00      | -7.41 1.       |   |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |        | 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     | rio (KBTU/H | IR)    | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |  |
|        |          |           |        |         |             |        |        |           |            |           |           |  |
| PVVT   | 1.001    | 1566.5    | 2.     | 0.0     | 000 23.7    | 77     | 0.742  | -24.456   | 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) | PLACEME   | NT CONTROI | (FRAC)    | (FRAC)    |  |
|        |          |           |        |         |             |        |        |           |            |           |           |  |
| SUPPLY | 793.     | 1.00      | 0.046  | 0.18    | 0.1         | 0.30   | 0.62   | DRAW-TH   | 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 |
| L5A North Perim Zn (G.N18P | 793.   | 105.    | 0.017 | 0.281   | 0.       | 0.00      | 0.00     | 16.81      | 0.00      | -10.55    | 1.   |

| REPORT- SV-A System Design Parameters for | L5A (G.W21) APT4 VRF | WEATHER FILE- SEATTLE BOEING FI WA |
|---|----------------------|------------------------------------|
|   |                      |                                    |

| SYSTEM<br>TYPE | ALTITUDE<br>FACTOR | FLOOR<br>AREA<br>(SQFT )      | MAX<br>PEOPLE           |                       | IR CAPACI                        | TY SEI                 | NSIBLE<br>(SHR)       | HEATING<br>CAPACITY<br>(KBTU/HR) | COOLING<br>EIR<br>(BTU/BTU) | HEATING<br>EIR<br>(BTU/BTU) | HEAT PUMP<br>SUPP-HEAT<br>(KBTU/HR) |
|----------------|--------------------|-------------------------------|-------------------------|-----------------------|----------------------------------|------------------------|-----------------------|----------------------------------|-----------------------------|-----------------------------|-------------------------------------|
| PVVT           | 1.001              | 2478.2                        | 3.                      | 0.0                   | 00 30.4                          | 26                     | 0.742                 | -31.297                          | 0.000                       | 0.000                       | 0.000                               |
| FAN<br>TYPE    | CAPACITY<br>(CFM ) | DIVERSITY<br>FACTOR<br>(FRAC) | POWER<br>DEMAND<br>(KW) | FAN<br>DELTA-T<br>(F) | STATIC<br>PRESSURE<br>(IN-WATER) | TOTAL<br>EFF<br>(FRAC) | MECH<br>EFF<br>(FRAC) | F.F.                             |                             |                             |                                     |
| SUPPLY         | 1015.              | 1.00                          | 0.058                   | 0.18                  | 0.1                              | 0.30                   | 0.62                  | DRAW-THE                         | RU SPEEI                    | 1.00                        | 0.30                                |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

<sup>\*\*\*</sup> 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      | 1 |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR) | (KBTU/HR) | (KBTU/HR) MULT |   |
| 15A West Derim 7n (G W21)T | 1015   | 165     | 0 028 | 0 333   |          | 0 00      | 0 00     | 21 16     | 0 00      | _15 22 1       |   |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR     |        | OUTSI   | DE COOLI    | NG     |        | 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 | IR)    | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |  |
| PVVT   | 1.001    | 944.2     | 1.     | 0.0     | 000 14.1    | .54    | 0.742  | -14.558   | 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 fan     | N RATIO   | RATIO     |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEME   | NT CONTROL | L (FRAC)  | (FRAC)    |  |
| SUPPLY | 472.     | 1.00      | 0.027  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-TH   | RU SPEEI   | 1.00      | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

|                            | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | I        | EXTRACTION | HEATING   | ADDITION      |    |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|----|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | NE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUI | LΤ |
|                            |        |         |       |         |          |           |          |            |           |               |    |
| L5A SW Perim Zn (G.SW22) 1 | 472.   | 63.     | 0.011 | 0.328   | 0.       | 0.00      | 0.00     | 10.08      | 0.00      | -7.16 1       | 1. |

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    | 1832.5    | 2.     | 0.0     | 00 25.3    | 47     | 0.742  | -26.073   | 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 | 846.     | 1.00      | 0.049  | 0.18    | 0.1        | 0.30   | 0.62   | PRAW-THR  | U SPEED   | 1.00      | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

|                            | 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 |
| L5A South Perim Zn (G.S24P | 846.   | 122.    | 0.020 | 0.280   | 0.       | 0.00      | 0.00     | 17.73      | 0.00      | -11.20    | 1.   |

REPORT- SV-A System Design Parameters for  $\,$  L5B (G.N4) APT4 VRF WEATHER FILE- SEATTLE BOEING FI WA

| SYSTEM<br>TYPE | ALTITUDE<br>FACTOR | FLOOR<br>AREA<br>(SQFT )      | MAX<br>PEOPLE           |                       | IR CAPACI                        | TY SEI                 | NSIBLE<br>(SHR)       | HEATING<br>CAPACITY<br>(KBTU/HR) | COOLING<br>EIR<br>(BTU/BTU) | HEATING<br>EIR<br>(BTU/BTU) | HEAT PUMP<br>SUPP-HEAT<br>(KBTU/HR) |
|----------------|--------------------|-------------------------------|-------------------------|-----------------------|----------------------------------|------------------------|-----------------------|----------------------------------|-----------------------------|-----------------------------|-------------------------------------|
| PVVT           | 1.001              | 2928.0                        | 4.                      | 0.0                   | 100 42.7                         | 91                     | 0.742                 | -44.015                          | 0.000                       | 0.000                       | 0.000                               |
| FAN<br>TYPE    | CAPACITY (CFM )    | DIVERSITY<br>FACTOR<br>(FRAC) | POWER<br>DEMAND<br>(KW) | FAN<br>DELTA-T<br>(F) | STATIC<br>PRESSURE<br>(IN-WATER) | TOTAL<br>EFF<br>(FRAC) | MECH<br>EFF<br>(FRAC) | FA                               |                             |                             | MIN FAN<br>RATIO<br>(FRAC)          |
| SUPPLY         | 1427.              | 1.00                          | 0.082                   | 0.18                  | 0.2                              | 0.34                   | 0.62                  | DRAW-THE                         | RU SPEEI                    | 1.00                        | 0.30                                |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

<sup>\*\*\*</sup> 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 ZO      | NE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR) | (KBTU/HR) | (KBTU/HR) MU | LT |
| ISB North Derim 7n (C NA)T | 1427   | 105     | 0 033 | 0 278   |          | 0 00      | 0 00     | 30 08     | 0 00      | _18 77       | _  |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR     |        | OUTS    | IDE COOLI   | NG     |        | HEATING    | COOLING   | HEATING   | HEAT PUMP |  |
|--------|----------|-----------|--------|---------|-------------|--------|--------|------------|-----------|-----------|-----------|--|
| SYSTEM | ALTITUDE | AREA      | MAX    | ζ 2     | AIR CAPACI  | TY SE  | NSIBLE | CAPACITY   | EIR       | EIR       | SUPP-HEAT |  |
| TYPE   | FACTOR   | (SQFT )   | PEOPLE | RA'     | rio (KBTU/H | IR)    | (SHR)  | (KBTU/HR)  | (BTU/BTU) | (BTU/BTU) | (KBTU/HR) |  |
| PVVT   | 1.001    | 984.0     | 1.     | 0.0     | 000 15.1    | 48     | 0.742  | -15.582    | 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   | T CONTROL | L (FRAC)  | (FRAC)    |  |
| SUPPLY | 505.     | 1.00      | 0.029  | 0.18    | 0.1         | 0.25   | 0.62   | 2 DRAW-THE | RU SPEEI  | 1.00      | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

|                            | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | ]        | EXTRACTION | HEATING   | ADDITION      |    |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|----|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | ΙE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | T  |
|                            |        |         |       |         |          |           |          |            |           |               |    |
| L5B East Perim Zn (G.E5) 1 | 505.   | 66.     | 0.011 | 0.354   | 0.       | 0.00      | 0.00     | 10.59      | 0.00      | -8.17 1       | L. |

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       | 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    | 765.0     | 1.     | 0.0     | 00 11.8    | 29     | 0.742  | -12.167    | 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    | F F1       | AN FAI     | N RATIO   | RATIO     |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER) | (FRAC) | (FRAC) | PLACEMEN   | NT CONTROL | L (FRAC)  | (FRAC)    |  |
| SUPPLY | 395.     | 1.00      | 0.023  | 0.18    | 0.1        | 0.25   | 0.62   | 2 DRAW-THE | RU 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 ZON      | ЛE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | ĴΤ |
| L5B West Perim Zn (G.W6) 1 | 395.   | 51.     | 0.009 | 0.349   | 0.       | 0.00      | 0.00     | 8.30       | 0.00      | -6.30 1       | 1. |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |        | 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     | TIO (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |
|        |          |           |        |         |             |        |        |           |            |           |           |
| PVVT   | 1.001    | 654.5     | 1.     | 0.0     | 000 7.2     | 96     | 0.742  | -7.505    | 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 | 243.     | 1.00      | 0.014  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-THI  | 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.W7) 1 | 243.   | 44.     | 0.007 | 0.301   | 0.       | 0.00      | 0.00     | 5.09       | 0.00      | -3.44     | 1.   |

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

FLOOR OUTSIDE 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)

PVVT 1.001 628.5 1. 0.000 6.814 0.742 -7.009 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 FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC) SUPPLY 227. 1.00 0.013 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   | 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 |
|                            |        |         |       |         |          |           |          |            |           |              |     |
| L5B East Perim Zn (G.E8) 1 | 227.   | 42.     | 0.007 | 0.302   | 0.       | 0.00      | 0.00     | 4.76       | 0.00      | -3.21        | 1.  |

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

WEATHER FILE- SEATTLE BOEING FI WA

| REFORT DV | A Dybeem |           |        |         | , ALII V    |        |        |           |           |           | ATTED DOBIN |  |
|-----------|----------|-----------|--------|---------|-------------|--------|--------|-----------|-----------|-----------|-------------|--|
|           |          | FLOOR     |        | OUTSI   | DE COOLI    | NG     |        | 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     | CIO (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU) | (BTU/BTU) | (KBTU/HR)   |  |
|           |          |           |        |         |             |        |        |           |           |           |             |  |
| PVVT      | 1.001    | 789.0     | 1.     | 0.0     | 10.6        | 96     | 0.742  | -11.002   | 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 CONTROL | L (FRAC)  | (FRAC)      |  |
|           |          |           |        |         |             |        |        |           |           |           |             |  |
| SUPPLY    | 357.     | 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   | I        | EXTRACTION | HEATING   | ADDITION      |    |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|----|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | ΙE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUI | JΤ |
|                            |        |         |       |         |          |           |          |            |           |               |    |
| L5B East Perim Zn (G.E9) 1 | 357.   | 53.     | 0.009 | 0.425   | 0.       | 0.00      | 0.00     | 7.48       | 0.00      | -6.68 1       | Ĺ. |

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

WEATHER FILE- SEATTLE BOEING FI WA

| REPORT SV | -A System |           | merera ioi | D) dc1  | .510) AP17 | v.r.<br> |        |           | mEAINI    | SE        | BOEING    |  |
|-----------|-----------|-----------|------------|---------|------------|----------|--------|-----------|-----------|-----------|-----------|--|
|           |           | 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     | 3981.5    | 5.         | 0.0     | 00 51.1    | 59       | 0.742  | -52.624   | 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 CONTROL | L (FRAC)  | (FRAC)    |  |
|           |           |           |            |         |            |          |        |           |           |           |           |  |
| SUPPLY    | 1707.     | 1.00      | 0.098      | 0.18    | 0.2        | 0.37     | 0.62   | 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   | 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 | 1707.  | 266.    | 0.044 | 0.304   | 0.       | 0.00      | 0.00     | 35.65      | 0.00      | -24.26    | 1.   |

DOE-2.3-50h 1/26/2023

9:30:35 BDL RUN 9

| REPORT- SV-A System Design Parameters for | L5B (G.E19) APT1 VRF | WEATHER FILE- SEATTLE BOEING FI |
|---|----------------------|---------------------------------|
|   |                      |                                 |

FLOOR OUTSIDE COOLING HEATING COOLING HEAT PUMP
AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR EIR SUPP-HEAT
(SQFT ) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) (KBTU/HR) SYSTEM ALTITUDE AREA
TYPE FACTOR (SQFT) PVVT 1.001 714.0 1. 0.000 11.482 0.742 -11.810 0.000 0.000 DIVERSITY POWER FAN STATIC TOTAL MECH FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF MAX FAN MIN FAN FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC) 383. 1.00 0.022 0.18 SUPPLY 0.1 0.25 0.62 DRAW-THRU SPEED 1.00 0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

|                     | 5       | 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) I | MULT |
|                     |         |        |         |       |         |          |           |          |            |           |             |      |
| L5B East Perim Zn ( | G.E19)T | 383.   | 48.     | 0.008 | 0.387   | 0.       | 0.00      | 0.00     | 8.07       | 0.00      | -6.66       | 1.   |

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

WEATHER FILE- SEATTLE BOEING FI WA

| KEFORI SV |          |           | IOI    | O) AUL  | EIS/ AFI4   |        |        |           |            |           | BOEIN     |  |
|-----------|----------|-----------|--------|---------|-------------|--------|--------|-----------|------------|-----------|-----------|--|
|           |          | 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    | 2229.8    | 3.     | 0.0     | 00 21.5     | 75     | 0.742  | -22.191   | 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    | 720.     | 1.00      | 0.041  | 0.18    | 0.1         | 0.30   | 0.62   | DRAW-TH   | RU SPEEI   | 1.00      | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(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) I | MULT |
| L6A East Perim Zn (G.E13)T | 720.   | 149.    | 0.025 | 0.361   | 0.       | 0.00      | 0.00     | 15.20      | 0.00      | -11.85      | 1.   |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          |           |        | TOT DON (C.IMIT) ALTI VICE MENTION TIED CONTROLL IN |             |        |        |           |            |           |           |  |
|--------|----------|-----------|--------|---|-------------|--------|--------|-----------|------------|-----------|-----------|--|
|        |          | FLOOR     |        | OUTSI   | DE COOLI    | NG     |        | HEATING   | COOLING    | HEATING   | HEAT PUMP |  |
| SYSTEM | ALTITUDE | AREA      | MAX    | P   | 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    | 731.2     | 1.     | 0.0   | 12.9        | 28     | 0.742  | -13.295   | 0.000      | 0.000     | 0.000     |  |
|        |          | DIVERSITY | POWER  | FAN   | STATIC      | TOTAL  | MECH   | ł.        |            | 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) | PLACEME   | NT CONTROL | L (FRAC)  | (FRAC)    |  |
| SUPPLY | 431.     | 1.00      | 0.025  | 0.18  | 0.1         | 0.25   | 0.62   | 2 DRAW-TH | 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 | 431.   | 49.     | 0.008 | 0.323   | 0.       | 0.00      | 0.00     | 9.33       | 0.00      | -6.44     | 1.   |

DOE-2.3-50h 1/26/2023

9:30:35 BDL RUN 9

REPORT- SV-A System Design Parameters for L6A (G.N18) APT3 VRF WEATHER FILE- SEATTLE BOEING FI WA

FLOOR OUTSIDE 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)

PVVT 1.001 1404.0 2. 0.000 23.806 0.742 -24.485 0.000 0.000 0.000

DIVERSITY POWER FAN STATIC TOTAL MECH MAX FAN MIN FAN TATIC TOTAL MECH MECH MAX FAN MIN FAN TATIC TOTAL MECH FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC) SUPPLY 794. 1.00 0.046 0.18 0.1 0.30 0.62 DRAW-THRU SPEED 1.00 0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

|   |                           | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | F        | 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 | IULT |
| Т | 6A North Perim Zn (G.N18P | 794.   | 94.     | 0.016 | 0.262   | 0        | 0.00      | 0.00     | 16.90      | 0.00      | -9.90       | 1    |

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

WEATHER FILE- SEATTLE BOEING FI WA

| REPORT SV |          | Design Fara | merera ioi | DOA (G  | WZI) API4   | vKr<br> |        |           | MEAINI     | SE        | AIILE BOEIN |  |
|-----------|----------|-------------|------------|---------|-------------|---------|--------|-----------|------------|-----------|-------------|--|
|           |          | 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    | 2478.2      | 3.         | 0.0     | 000 32.1    | 91      | 0.742  | -33.113   | 0.000      | 0.000     | 0.000       |  |
|           |          | DIVERSITY   | POWER      | FAN     | STATIC      | TOTAL   | MECH   | ł         |            | 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) | PLACEME   | NT CONTROL | L (FRAC)  | (FRAC)      |  |
| SUPPLY    | 1074.    | 1.00        | 0.062      | 0.18    | 0.1         | 0.30    | 0.62   | 2 DRAW-TH | RU SPEEI   | 1.00      | 0.30        |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

<sup>\*\*\*</sup> 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 |
| L6A West Perim Zn (G.W21)T | 1074.  | 165.    | 0.028 | 0.321   | 0.       | 0.00      | 0.00     | 22.40     | 0.00      | -15.98    | 1.   |

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

WEATHER FILE- SEATTLE BOEING FI WA

| REPORT S |                   | Design Fara | IOI    | LOA (G.SW22) AFII VRF |             |        |         |           | WEATHER FILE SEATILE BORING FI WA |           |           |  |
|----------|-------------------|-------------|--------|-----------------------|-------------|--------|---------|-----------|-----------------------------------|-----------|-----------|--|
|          |                   |             | OUTSI  | DE COOLI              | NG          |        | 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     | VVT 1.001 944.2 1 |             | 0.0    | 000 14.1              | 94          | 0.742  | -14.598 | 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 CONTROL                         | L (FRAC)  | (FRAC)    |  |
|          |                   |             |        |                       |             |        |         |           |                                   |           |           |  |
| SUPPLY   | 473.              | 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   | 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 |  |
|                            |        |         |       |         |          |           |          |            |           |                |  |
| L6A SW Perim Zn (G.SW22) 1 | 473.   | 63.     | 0.011 | 0.329   | 0.       | 0.00      | 0.00     | 10.14      | 0.00      | -7.20 1.       |  |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |        | 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     | TIO (KBTU/H | IR)    | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |  |
| PVVT   | 1.001    | 1832.5    | 2.     | 0.0     | 000 25.9    | 60     | 0.742  | -26.704   | 0.000      | 0.000     | 0.000     |  |
|        |          | DIVERSITY | POWER  | FAN     | STATIC      | TOTAL  | MECH   | ł         |            | 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 | 866.     | 1.00      | 0.050  | 0.18    | 0.1         | 0.30   | 0.62   | 2 DRAW-TH | RU SPEEI   | 1.00      | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

|                            | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | F        | 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 |
| L6A South Perim Zn (G.S24P | 866.   | 122.    | 0.020 | 0.287   | 0.       | 0.00      | 0.00     | 18.17      | 0.00      | -11.71      | 1.  |

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

|        |          | 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    | 2928.0    | 4.     | 0.0     | 000 43.5    | 58     | 0.742  | -44.804   | 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 | 1453.    | 1.00      | 0.083  | 0.18    | 0.2         | 0.34   | 0.62   | DRAW-THI  | RU SPEEI   | 1.00      | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

<sup>\*\*\*</sup> 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 |
| L6B North Perim Zn (G.N4)T | 1453.  | 195.    | 0.033 | 0.277   | 0.       | 0.00      | 0.00     | 30.63     | 0.00      | -19.05    | 1.   |

|        |          |           |        |         |            |        |        |           | WEATHER THE BEATTER BOSING IT |           |           |  |
|--------|----------|-----------|--------|---------|------------|--------|--------|-----------|-------------------------------|-----------|-----------|--|
|        |          | 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    | 984.0     | 1.     | 0.0     | 00 15.4    | 85     | 0.742  | -15.929   | 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 | 517.     | 1.00      | 0.030  | 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   | 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 |
|                |               |        |         |       |         |          |           |          |            |           |             |      |
| L6B East Perin | n Zn (G.E5) 1 | 517.   | 66.     | 0.011 | 0.349   | 0.       | 0.00      | 0.00     | 10.82      | 0.00      | -8.26       | 1.   |

|        |          | 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    | 765.0     | 1.     | 0.0     | 11.9        | 96     | 0.742  | -12.339   | 0.000      | 0.000     | 0.000     |  |
|        |          |           |        |         |             |        |        |           |            |           |           |  |
|        |          | DIVEDCIEV | DOMED  | EAN     | CMA MT C    | moma r | MEGI   | T         |            | MAY EAN   | MIN EAN   |  |
|        |          | DIVERSITY | POWER  | FAN     | STATIC      | TOTAL  |        |           |            | MAX 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) | PLACEME   | NT CONTROL | L (FRAC)  | (FRAC)    |  |
|        |          |           |        |         |             |        |        |           |            |           |           |  |
| SUPPLY | 400.     | 1.00      | 0.023  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-TH   | RU 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 ZOI      | NE |
| NAME                         | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUI | LT |
| L6B West Perim Zn (G.W6) 1   | 400.   | 51.     | 0.009 | 0.344   | 0        | 0.00      | 0.00     | 8.42       | 0.00      | -6.31         | 1  |
| LOD WEST PELLIN ZII (G.WO) I | 400.   | JI.     | 0.009 | 0.344   | υ.       | 0.00      | 0.00     | 0.42       | 0.00      | -0.31         | Δ. |

| KEFORI SV |          |           |        |         |             |        |        |           | WEATH     |           |           |  |
|-----------|----------|-----------|--------|---------|-------------|--------|--------|-----------|-----------|-----------|-----------|--|
|           |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |        | 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     | TIO (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU) | (BTU/BTU) | (KBTU/HR) |  |
|           |          |           |        |         |             |        |        |           |           |           |           |  |
| PVVT      | 1.001    | 654.5     | 1.     | 0.0     | 000 7.5     | 16     | 0.742  | -7.731    | 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  | T CONTROL | L (FRAC)  | (FRAC)    |  |
|           |          |           |        |         |             |        |        |           |           |           |           |  |
| SUPPLY    | 251.     | 1.00      | 0.014  | 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   | F        | EXTRACTION | HEATING   | ADDITION      |   |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|---|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | E |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | Г |
| ICD Want Davin Go (C MZ) 1 | 251    | 4.4     | 0 007 | 0 202   | 0        | 0.00      | 0.00     | F 0F       | 0.00      | 2 46 1        |   |
| L6B West Perim Zn (G.W7) 1 | 251.   | 44.     | 0.007 | 0.293   | υ.       | 0.00      | 0.00     | 5.25       | 0.00      | -3.46 1       |   |

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

WEATHER FILE- SEATTLE BOEING FI WA

| HEATING | HEAT PUMP                               |
|---------|---|
| EIR     | SUPP-HEAT                               |
| TU/BTU) | (KBTU/HR)                               |
|         |   |
| 0.000   | 0.000                                   |
|         |   |
| MAX FAN | MIN FAN                                 |
| RATIO   | RATIO                                   |
| (FRAC)  | (FRAC)                                  |
|         |   |
| 1.00    | 0.30                                    |
| T       | EIR U/BTU)  0.000  MAX FAN RATIO (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 |
| L6B East Perim Zn (G.E8) 1 | 229.   | 42.     | 0.007 | 0.300   | 0.       | 0.00      | 0.00     | 4.80       | 0.00      | -3.22     | 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       | 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    | 789.0     | 1.     | 0.0     | 00 11.5    | 67     | 0.742  | -11.898   | 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) | PLACEME   | NT CONTROL | L (FRAC)  | (FRAC)    |
|        |          |           |        |         |            |        |        |           |            |           |           |
| SUPPLY | 386.     | 1.00      | 0.022  | 0.18    | 0.1        | 0.25   | 0.62   | DRAW-TH   | 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) I | MULT |
| L6B East Perim Zn (G.E9) 1 | 386.   | 53.     | 0.009 | 0.393   | 0.       | 0.00      | 0.00     | 8.12       | 0.00      | -6.79       | 1.   |

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

WEATHER FILE- SEATTLE BOEING FI WA

| KEFORI SV | A System |           | IOI    | OD (0   | AF17        |        |        |           |            | ER FIDE SE | BOEIN     |  |
|-----------|----------|-----------|--------|---------|-------------|--------|--------|-----------|------------|------------|-----------|--|
|           |          | 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    | 3981.5    | 5.     | 0.0     | 00 51.2     | 12     | 0.742  | -52.679   | 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    | 1708.    | 1.00      | 0.098  | 0.18    | 0.2         | 0.37   | 0.62   | DRAW-TH   | RU SPEEI   | 1.00       | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

<sup>\*\*\*</sup> 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 |
| L6B South Perim Zn (G.S10P | 1708.  | 266.    | 0.044 | 0.303   | 0.       | 0.00      | 0.00     | 35.69     | 0.00      | -24.26    | 1.   |

DOE-2.3-50h 1/26/2023

9:30:35 BDL RUN 9

REPORT- SV-A System Design Parameters for L6B (G.E19) APT1 VRF WEATHER FILE- SEATTLE BOEING FI WA

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)

PVVT 1.001 659.0 1. 0.000 11.697 0.742 -12.032 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 FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC)

SUPPLY 390. 1.00 0.022 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   | 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) I | MULT |
|                   |          |        |         |       |         |          |           |          |            |           |             |      |
| L6B East Perim Zn | (G.E19)T | 390.   | 44.     | 0.007 | 0.378   | 0.       | 0.00      | 0.00     | 8.22       | 0.00      | -6.65       | ⊥.   |

DOE-2.3-50h 1/26/2023

9:30:35 BDL RUN 9

REPORT- SV-A System Design Parameters for L7A (G.E13) APT2 VRF WEATHER FILE- SEATTLE BOEING FI WA

FLOOR OUTSIDE COOLING HEATING COOLING HEATING HEAT PUMP MAX AIR CAPACITY SENSIBLE CAPACITY EIR EIR SUPP-HEAT PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) (KBTU/HR) SYSTEM ALTITUDE AREA (SQFT ) TYPE FACTOR PVVT 1.001 956.8 1. 0.000 9.770 0.742 -10.049 0.000 0.000

FAN STATIC TOTAL MECH ELTA-T PRESSURE EFF EFF DIVERSITY POWER MAX FAN MIN FAN FAN FAN FACTOR DEMAND DELTA-T PRESSURE EFF FAN CAPACITY RATIO RATIO (FRAC) TYPE (CFM ) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC) 0.18 1.00 0.30 SUPPLY 326. 1.00 0.019 0.1 0.25 0.62 DRAW-THRU SPEED

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

| SUPPLY | EXHAUST |                            | MINIMUM                          | OUTSIDE                                      | COOLING  | E   | EXTRACTION  | HEATING  | ADDITION  |  |
|--------|---------|----------------------------|----------------------------------|--|--|---|---|--|---|--|
| FLOW   | FLOW    | FAN                        | FLOW                             | AIR FLOW                                     | CAPACITY   | SENSIBLE  | RATE  | CAPACITY   | RATE  | ZONE   |
| (CFM ) | (CFM )  | (KW)                       | (FRAC)                           | (CFM )                                       | (KBTU/HR)  | (FRAC)  | (KBTU/HR)   | (KBTU/HR)  | (KBTU/HR)   | MULT   |
|        |         |                            |                                  |  |  |   |   |  |   |  |
| 326.   | 64.     | 0.011                      | 0.360                            | 0.   | 0.00   | 0.00  | 6.85  | 0.00   | -5.35   | 1.   |
|        | FLOW    | FLOW FLOW<br>(CFM ) (CFM ) | FLOW FLOW FAN (CFM ) (CFM ) (KW) | FLOW FLOW FAN FLOW (CFM ) (CFM ) (KW) (FRAC) | FLOW FLOW FAN FLOW AIR FLOW (CFM ) (CFM ) (KW) (FRAC) (CFM ) | FLOW FLOW FAN FLOW AIR FLOW CAPACITY (CFM ) (CFM ) (KW) (FRAC) (CFM ) (KBTU/HR) | FLOW FLOW FAN FLOW AIR FLOW CAPACITY SENSIBLE (CFM ) (CFM ) (KW) (FRAC) (CFM ) (KBTU/HR) (FRAC) | FLOW FLOW FAN FLOW AIR FLOW CAPACITY SENSIBLE RATE (CFM ) (CFM ) (KW) (FRAC) (CFM ) (KBTU/HR) (FRAC) (KBTU/HR) | FLOW FLOW FAN FLOW AIR FLOW CAPACITY SENSIBLE RATE CAPACITY (CFM ) (CFM ) (KW) (FRAC) (CFM ) (KBTU/HR) (FRAC) (KBTU/HR) (KBTU/HR) | FLOW FLOW FAN FLOW AIR FLOW CAPACITY SENSIBLE RATE CAPACITY RATE (CFM ) (CFM ) (KW) (FRAC) (CFM ) (KBTU/HR) (FRAC) (KBTU/HR) (KBTU/HR) (KBTU/HR) |

REPORT- SV-A System Design Parameters for L7A (G.W18) APT2 VRF WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR   |        | OUTSIDE | 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) |
| PVVT   | 1.001    | 999.0   | 1.     | 0.000   | 12.801    | 0.742    | -13.168   | 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    | FAN       | FAN     | RATIO   | RATIO   |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER) | (FRAC) | (FRAC) | PLACEMENT | CONTROL | (FRAC)  | (FRAC)  |
|        |          |           |        |         |            |        |        |           |         |         |         |
| SUPPLY | 427.     | 1.00      | 0.025  | 0.18    | 0.1        | 0.25   | 0.62   | DRAW-THRU | SPEED   | 1.00    | 0.30    |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

|                        | SUPPL    | Y EXHAUST | '     | MINIMUM | OUTSIDE  | COOLING   | 1        | EXTRACTION | HEATING   | ADDITION    |      |
|------------------------|----------|-----------|-------|---------|----------|-----------|----------|------------|-----------|-------------|------|
| ZONE                   | FLO      | W 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 |
|                        |          |           |       |         |          |           |          |            |           |             |      |
| L7A West Perim Zn (G.W | 18)T 427 | . 67.     | 0.011 | 0.338   | 0.       | 0.00      | 0.00     | 9.01       | 0.00      | -6.64       | 1.   |

|        |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |        | 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     | TIO (KBTU/H | IR)    | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |
|        |          |           |        |         |             |        |        |           |            |           |           |
| PVVT   | 1.001    | 891.8     | 1.     | 0.0     | 000 14.0    | 164    | 0.742  | -14.466   | 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.F   | AN FAI     | N RATIO   | RATIO     |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEMEN  | NT CONTROL | L (FRAC)  | (FRAC)    |
|        |          |           |        |         |             |        |        |           |            |           |           |
| SUPPLY | 469.     | 1.00      | 0.027  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-THE  | RU SPEEI   | D 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 ZO      | NE |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MU | LT |
| L7A SW Perim Zn (G.SW19) 1 | 469.   | 60.     | 0.010 | 0.318   | 0        | 0.00      | 0.00     | 9.84       | 0.00      | -6.93        | 1  |
| LIA SW PELIM ZH (G.SWIF) I | 405.   | 00.     | 0.010 | 0.310   | υ.       | 0.00      | 0.00     | 9.04       | 0.00      | -0.53        | Δ. |

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       | 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    | 778.0     | 0.     | 0.0     | 15.7        | 49     | 0.742  | -16.200   | 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    |           | AN FAI     |           |           |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEMEN  | NT CONTROL | L (FRAC)  | (FRAC)    |  |
|        |          |           |        |         |             |        |        |           |            |           |           |  |
| SUPPLY | 525.     | 1.00      | 0.030  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-TH   | RU 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      | 2 |
| NAME                     | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MULT |   |
| L7A NW Perim Zn (G.NW21) | 525.   | 0.      | 0.000 | 0.240   | 47.      | 0.00      | 0.00     | 11.05      | 0.00      | -6.07 1.       |   |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        | 1        |           |        |         |             |        |        |           |            |           |           |  |
|--------|----------|-----------|--------|---------|-------------|--------|--------|-----------|------------|-----------|-----------|--|
|        |          | FLOOR     |        | OUTS    | DE COOLI    | NG     |        | 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     | rio (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |  |
| PVVT   | 1.001    | 829.5     | 0.     | 0.0     | 000 15.1    | 13     | 0.742  | -15.546   | 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 | 504.     | 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   | F        | EXTRACTION | HEATING   | ADDITION      |    |
|--------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|----|
| ZONE                     | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | 1E |
| NAME                     | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUI | ΔT |
| L7A NE Perim Zn (G.NE22) | 504.   | 0.      | 0.000 | 0.251   | 50.      | 0.00      | 0.00     | 10.61      | 0.00      | -6.05 1       | L. |

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

WEATHER FILE- SEATTLE BOEING FI WA

| REFORT 5 |          |           |        |         | AFI         |        |        |           | WEATH      |           | ATTHE BOEING |  |
|----------|----------|-----------|--------|---------|-------------|--------|--------|-----------|------------|-----------|--------------|--|
|          |          | FLOOR     |        | OUTSI   | IDE COOLI   | NG     |        | 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     | TIO (KBTU/H | R)     | (SHR)  | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR)    |  |
| PVVT     | 1.001    | 1282.5    | 2.     | 0.0     | 000 18.4    | 12     | 0.742  | -18.940   | 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    | EFI    | FA FA     | in fai     | N RATIO   | RATIO        |  |
| TYPE     | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC  | PLACEMEN  | IT CONTROL | L (FRAC)  | (FRAC)       |  |
| SUPPLY   | 614.     | 1.00      | 0.035  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-THR  | U SPEEI    | D 1.00    | 0.30         |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

|                            | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | I        | EXTRACTION | HEATING   | ADDITION       |   |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|----------------|---|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZONE      | Z |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MULT | Γ |
|                            |        |         |       |         |          |           |          |            |           |                |   |
| L7A SSE Perim Zn (G.SSE23P | 614.   | 86.     | 0.014 | 0.324   | 0.       | 0.00      | 0.00     | 12.91      | 0.00      | -9.22 1.       |   |

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

| SYSTEM<br>TYPE | ALTITUDE<br>FACTOR | FLOOR<br>AREA<br>(SQFT )      | MAX<br>PEOPLE           |                       | IR CAPACI                        | TY SE                  | NSIBLE<br>(SHR) | HEATING<br>CAPACITY<br>(KBTU/HR) | COOLING<br>EIR<br>(BTU/BTU) | HEATING<br>EIR<br>(BTU/BTU) | HEAT PUMP<br>SUPP-HEAT<br>(KBTU/HR) |
|----------------|--------------------|-------------------------------|-------------------------|-----------------------|----------------------------------|------------------------|-----------------|----------------------------------|-----------------------------|-----------------------------|-------------------------------------|
| PVVT           | 1.001              | 2668.0                        | 3.                      | 0.0                   | 00 45.3                          | 12                     | 0.742           | -46.608                          | 0.000                       | 0.000                       | 0.000                               |
| FAN<br>TYPE    | CAPACITY (CFM )    | DIVERSITY<br>FACTOR<br>(FRAC) | POWER<br>DEMAND<br>(KW) | FAN<br>DELTA-T<br>(F) | STATIC<br>PRESSURE<br>(IN-WATER) | TOTAL<br>EFF<br>(FRAC) |                 | FA                               |                             |                             |                                     |
| SUPPLY         | 1512.              | 1.00                          | 0.087                   | 0.18                  | 0.2                              | 0.34                   | 0.62            | DRAW-THE                         | RU SPEEI                    | 1.00                        | 0.30                                |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.625(IN)

<sup>\*\*\*</sup> 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 |
|                            |        |         |       |         |          |           |          |           |           |           |      |
| L7B North Perim Zn (G.N4)T | 1512.  | 178.    | 0.030 | 0.269   | 0.       | 0.00      | 0.00     | 31.87     | 0.00      | -19.34    | 1.   |

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

WEATHER FILE- SEATTLE BOEING FI WA

| TELL OIGH D | , 11 0,000 | Debign rara | mederb ror | 2.2 (   | J. 25 / 112 12 V |        |        |           | *************************************** | 02        |           |  |
|-------------|------------|-------------|------------|---------|------------------|--------|--------|-----------|---|-----------|-----------|--|
|             |            | FLOOR       |            | OUTS    | DE COOLI         | NG     |        | 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     | rio (KBTU/H      | IR)    | (SHR)  | (KBTU/HR) | (BTU/BTU)                               | (BTU/BTU) | (KBTU/HR) |  |
|             |            |             |            |         |                  |        |        |           |   |           |           |  |
| PVVT        | 1.001      | 919.0       | 1.         | 0.0     | 000 16.4         | 27     | 0.742  | -16.898   | 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  | T CONTROL                               | L (FRAC)  | (FRAC)    |  |
|             |            |             |            |         |                  |        |        |           |   |           |           |  |
| SUPPLY      | 548.       | 1.00        | 0.031      | 0.18    | 0.1              | 0.25   | 0.62   | DRAW-THE  | 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 ZON      | E |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | Т |
| L7B East Perim Zn (G.E5) 1 | 548.   | 61.     | 0.010 | 0.343   | 0        | 0 00      | 0.00     | 11 46      | 0 00      | -8.62 1       |   |
| L/B East Perim Zn (G.E5) I | 548.   | bΙ.     | 0.010 | 0.343   | υ.       | 0.00      | 0.00     | 11.46      | 0.00      | -0.0Z I       |   |

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

WEATHER FILE- SEATTLE BOEING FI WA

| REFORT BY | , H Dybeem |           |        |         | , ALII V    |        |        |           |            |           | ATTED DOBIN |  |
|-----------|------------|-----------|--------|---------|-------------|--------|--------|-----------|------------|-----------|-------------|--|
|           |            | FLOOR     |        | OUTSI   | DE COOLI    | NG     |        | 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      | 765.0     | 1.     | 0.0     | 000 13.4    | 37     | 0.742  | -13.821   | 0.000      | 0.000     | 0.000       |  |
|           |            |           |        |         |             |        |        |           |            |           |             |  |
|           |            | DIVERSITY | POWER  | FAN     | STATIC      | TOTAL  | MECH   | ł         |            | MAX FAN   | MIN FAN     |  |
| FAN       | CAPACITY   | FACTOR    | DEMAND | DELTA-T | PRESSURE    | EFF    | EFF    | F F       | AN FAN     | N RATIO   | RATIO       |  |
| TYPE      | (CFM )     | (FRAC)    | (KW)   | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEME   | NT CONTROL | (FRAC)    | (FRAC)      |  |
|           |            |           |        |         |             |        |        |           |            |           |             |  |
| SUPPLY    | 448.       | 1.00      | 0.026  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-TH   | RU SPEEI   | 1.00      | 0.30        |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

|                             | SUPPLY | EXHAUST |       | MINIMUM | OUTSIDE  | COOLING   | I        | EXTRACTION | HEATING   | ADDITION      |    |
|-----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|----|
| ZONE                        | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | ΙE |
| NAME                        | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUL | т  |
| I TD Mark Davin Gr (C MC) 1 | 4.40   | F1      | 0.000 | 0 252   | 0        | 0.00      | 0.00     | 0 41       | 0.00      | 7 00 1        |    |
| L7B West Perim Zn (G.W6) 1  | 448.   | 51.     | 0.009 | 0.353   | υ.       | 0.00      | 0.00     | 9.41       | 0.00      | -7.22 1       |    |

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

WEATHER FILE- SEATTLE BOEING FI WA

| REPORT- SV |          | Design Para |        |         | 3.W/) APII V |        |        |            | mrain      | SK FILE- SE | AIILE BOEING | FI V |
|------------|----------|-------------|--------|---------|--------------|--------|--------|------------|------------|-------------|--------------|------|
|            |          | FLOOR       |        | OUTSI   | IDE COOLI    | NG     |        | 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     | rio (KBTU/H  | R)     | (SHR)  | (KBTU/HR)  | (BTU/BTU)  | (BTU/BTU)   | (KBTU/HR)    |      |
| PVVT       | 1.001    | 654.5       | 1.     | 0.0     | 000 9.2      | 25     | 0.742  | -9.489     | 0.000      | 0.000       | 0.000        |      |
|            |          | DIVERSITY   | POWER  | FAN     | STATIC       | TOTAL  | MECH   | H          |            | 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     | 308.     | 1.00        | 0.018  | 0.18    | 0.1          | 0.25   | 0.62   | 2 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 ZON      | E |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR) | (KBTU/HR) | (KBTU/HR) MUL | Т |
| L7B West Perim Zn (G.W7) 1 | 308.   | 44.     | 0.007 | 0.323   | 0.       | 0.00      | 0.00     | 6.49      | 0.00      | -4.61 1       |   |

SPEED

(FRAC) (FRAC)

1.00 0.30

REPORT- SV-A System Design Parameters for  $\,$  L7B (G.E8) APT1 VRF  $\,$ WEATHER FILE- SEATTLE BOEING FI WA

| SYSTEM<br>TYPE | ALTITUDE<br>FACTOR | FLOOR<br>AREA<br>(SQFT ) | MAX<br>PEOPLE   | OUTSIDE<br>AIR<br>RATIO | COOLING<br>CAPACIT | Y S   | ENSIBLE (SHR) | HEATING<br>CAPACITY<br>(KBTU/HR) | COOLING<br>EIR<br>(BTU/BTU) | HEATING<br>EIR<br>(BTU/BTU) | HEAT PUMP<br>SUPP-HEAT<br>(KBTU/HR) |  |
|----------------|--------------------|--------------------------|-----------------|-------------------------|--------------------|-------|---------------|----------------------------------|-----------------------------|-----------------------------|-------------------------------------|--|
| PVVT           | 1.001              | 628.5                    | 1.              | 0.000                   | 7.97               | 2     | 0.742         | -8.200                           | 0.000                       | 0.000                       | 0.000                               |  |
| FAN            | CAPACITY           | DIVERSITY<br>FACTOR      | POWER<br>DEMAND | FAN<br>DELTA-T E        | STATIC<br>PRESSURE | TOTA: |               |                                  | AN FAI                      | MAX FAN<br>N RATIO          | MIN FAN<br>RATIO                    |  |

(FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

266.

TYPE (CFM )

SUPPLY

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

1.00 0.015 0.18

|                            | 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 |
| L7B East Perim Zn (G.E8) 1 | 266.   | 42.     | 0.007 | 0.350   | 0        | 0.00      | 0.00     | 5.56       | 0.00      | -4.27     | 1    |

0.1 0.25 0.62 DRAW-THRU

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

WEATHER FILE- SEATTLE BOEING FI WA

| REPORT- SV |          | Design Para | meters for |         | APII V      |        |        |           | mrain      | EK FILE- SE | AIILE BOEING | 3 FI W |
|------------|----------|-------------|------------|---------|-------------|--------|--------|-----------|------------|-------------|--------------|--------|
|            |          | FLOOR       |            | OUTSI   | DE COOLI    | NG     |        | HEATING   | COOLING    | HEATING     | HEAT PUMP    |        |
| SYSTEM     | ALTITUDE | AREA        | MAX        | P       | 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    | 789.0       | 1.         | 0.0     | 14.3        | 09     | 0.742  | -14.718   | 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 F       | AN FAI     | N RATIO     | RATIO        |        |
| TYPE       | (CFM )   | (FRAC)      | (KW)       | (F)     | (IN-WATER)  | (FRAC) | (FRAC) | PLACEMEN  | NT CONTROL | L (FRAC)    | (FRAC)       |        |
| SUPPLY     | 477.     | 1.00        | 0.027      | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-THI  | RU 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 ZON      | 1E |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUI | ΔT |
| L7B East Perim Zn (G.E9) 1 | 477.   | 53.     | 0.009 | 0.360   | 0.       | 0.00      | 0.00     | 10.02      | 0.00      | -7.82 1       | L. |

REPORT- SV-A System Design Parameters for  $\,$  L7B (G.SSW10) APT7 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    | 3981.5    | 5.     | 0.0     | 000 58.1    | 16     | 0.742  | -59.781   | 0.000     | 0.000     | 0.000     |
|        |          |           |        |         |             |        |        | _         |           |           |           |
|        |          | DIVERSITY | POWER  | FAN     | STATIC      | TOTAL  |        |           |           | MAX 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 | 1939.    | 1.00      | 0.111  | 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   | 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 |
| L7B SSW Perim Zn (G.SSW10P | 1939.  | 266.    | 0.044 | 0.337   | 0.       | 0.00      | 0.00     | 40.63     | 0.00      | -30.06    | 1.   |

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

WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR     |        | OUTSI   | IDE COOLI     | NG      |         | 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     | TIO (KBTU/H   | IR)     | (SHR)   | (KBTU/HR)   | (BTU/BTU) | (BTU/BTU) | (KBTU/HR) |  |
|        |          |           |        |         |               |         |         |             |           |           |           |  |
| PVVT   | 1.001    | 956.8     | 1.     | 0.0     | 10.8          | 49      | 0.742   | -11.159     | 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     |         |             | an fai    |           |           |  |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)    | (FRAC)  | (FRAC)  |             |           |           | (FRAC)    |  |
|        | (0111 )  | (11410)   | (2211) | (-)     | (111 1111111) | (11410) | (11110) | 1 211021121 |           | (11410)   | (11410)   |  |
| SUPPLY | 362.     | 1.00      | 0.021  | 0.18    | 0.1           | 0.25    | 0.62    | 2 DRAW-TH   | RU SPEEI  | D 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 ZONI      | E |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MULT | Γ |
|                            |        |         |       |         |          |           |          |            |           |                |   |
| L8A East Perim Zn (G.E3) 2 | 362.   | 64.     | 0.011 | 0.391   | 0.       | 0.00      | 0.00     | 7.58       | 0.00      | -6.34 1        |   |

REPORT- SV-A System Design Parameters for  $\,$  L8A (G.W8) 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 SE   | NSIBLE  | CAPACITY   | EIR  | EIR  | SUPP-HEAT   |   |
| FACTOR   | (SQFT )                               | PEOPLE   | RAT  | CIO (KBTU/H  | R)  | (SHR)   | (KBTU/HR)  | (BTU/BTU)  | (BTU/BTU)  | (KBTU/HR)   |   |
|          |                                       |  |  |  |   |   |  |  |  |   |   |
| 1.001    | 891.0                                 | 1.   | 0.0  | 13.3   | 32  | 0.742   | -13.714  | 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 FA  | N FAI  | N RATIO  | RATIO   |   |
| (CFM )   | (FRAC)                                | (KW)   | (F)  | (IN-WATER)   | (FRAC)  | (FRAC)  | PLACEMEN   | T CONTROI  | L (FRAC)   | (FRAC)  |   |
|          |                                       |  |  |  |   |   |  |  |  |   |   |
| 445.     | 1.00                                  | 0.026  | 0.18   | 0.1  | 0.25  | 0.62  | DRAW-THR   | U SPEEI  | 1.00   | 0.30  |   |
|          | ALTITUDE FACTOR 1.001 CAPACITY (CFM ) | FLOOR ALTITUDE AREA FACTOR (SQFT)  1.001 891.0  DIVERSITY CAPACITY FACTOR (CFM) (FRAC) | FLOOR ALTITUDE AREA MAX FACTOR (SQFT ) PEOPLE  1.001 891.0 1.  DIVERSITY POWER CAPACITY FACTOR DEMAND (CFM ) (FRAC) (KW) | FLOOR OUTSI ALTITUDE AREA MAX F FACTOR (SQFT ) PEOPLE RAT  1.001 891.0 1. 0.0  DIVERSITY POWER FAN CAPACITY FACTOR DEMAND DELTA-T (CFM ) (FRAC) (KW) (F) | FLOOR OUTSIDE COOLI ALTITUDE AREA MAX AIR CAPACI FACTOR (SQFT ) PEOPLE RATIO (KBTU/H  1.001 891.0 1. 0.000 13.3  DIVERSITY POWER FAN STATIC CAPACITY FACTOR DEMAND DELTA-T PRESSURE (CFM ) (FRAC) (KW) (F) (IN-WATER) | FLOOR OUTSIDE COOLING ALTITUDE AREA MAX AIR CAPACITY SE FACTOR (SQFT ) PEOPLE RATIO (KBTU/HR)  1.001 891.0 1. 0.000 13.332  DIVERSITY POWER FAN STATIC TOTAL CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) | FLOOR OUTSIDE COOLING ALTITUDE AREA MAX AIR CAPACITY SENSIBLE FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR)  1.001 891.0 1. 0.000 13.332 0.742  DIVERSITY POWER FAN STATIC TOTAL MECH CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) | FLOOR OUTSIDE COOLING HEATING ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY FACTOR (SQFT ) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR)  1.001 891.0 1. 0.000 13.332 0.742 -13.714  DIVERSITY POWER FAN STATIC TOTAL MECH CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FA (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMEN | FLOOR OUTSIDE COOLING HEATING COOLING ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR FACTOR (SQFT ) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU)  1.001 891.0 1. 0.000 13.332 0.742 -13.714 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 | FLOOR OUTSIDE COOLING HEATING COOLING HEATING ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR EIR FACTOR (SQFT ) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU)  1.001 891.0 1. 0.000 13.332 0.742 -13.714 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) | FLOOR OUTSIDE COOLING HEATING COOLING HEATING HEAT PUMP ALTITUDE AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR EIR SUPP-HEAT FACTOR (SQFT) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) (KBTU/HR)  1.001 891.0 1. 0.000 13.332 0.742 -13.714 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   | F        | EXTRACTION | HEATING   | ADDITION      |    |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|---------------|----|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZON      | 1E |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MUI | JT |
| L8A West Perim Zn (G.W8) 2 | 445.   | 59.     | 0.010 | 0.344   | 0.       | 0.00      | 0.00     | 9.34       | 0.00      | -7.01 1       | L. |

FACTOR

TYPE

DOE-2.3-50h 1/26/2023

9:30:35 BDL RUN 9

REPORT- SV-A System Design Parameters for  $\,$  L8A (G.SW9) APT1 VRF  $\,$ WEATHER FILE- SEATTLE BOEING FI WA

FLOOR OUTSIDE COOLING HEATING COOLING HEATING HEAT PUMP MAX AIR CAPACITY SENSIBLE CAPACITY EIR EIR SUPP-HEAT PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) (KBTU/HR) SYSTEM ALTITUDE AREA

(SQFT ) 688.5 PVVT 1.001 1. 0.000 12.166 0.742 -12.514 0.000 0.000

FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF MAX FAN MIN FAN FAN FAN RATIO RATIO TYPE (CFM ) (FRAC) (FRAC) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL SUPPLY 406. 1.00 0.023 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   | 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 |
| L8A SW Perim Zn (G.SW9) A | 406.   | 46.     | 0.008 | 0.325   | 0.       | 0.00      | 0.00     | 8.49       | 0.00      | -6.10     | 1.   |

|        |          |           |        |         | MIII        |        |        |           |           |           |           |  |
|--------|----------|-----------|--------|---------|-------------|--------|--------|-----------|-----------|-----------|-----------|--|
|        |          | 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    | 776.5     | 1.     | 0.0     | 000 16.5    | 33     | 0.742  | -17.007   | 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  | NT CONTRO | L (FRAC)  | (FRAC)    |  |
| SUPPLY | 552.     | 1.00      | 0.032  | 0.18    | 0.1         | 0.25   | 0.62   | DRAW-TH   | RU SPEE   | D 1.00    | 0.30      |  |

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

|                            | 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 |
| L8A NW Perim Zn (G.NW11) 1 | 552.   | 52.     | 0.009 | 0.284   | 0.       | 0.00      | 0.00     | 11.53      | 0.00      | -7.40     | 1.   |

FAN FAN

RATIO

RATIO

REPORT- SV-A System Design Parameters for  $\,$  L8A (G.NE12) APT1 VRF WEATHER FILE- SEATTLE BOEING FI WA

| SYSTEM<br>TYPE | ALTITUDE<br>FACTOR | FLOOR<br>AREA<br>(SQFT ) | MAX<br>PEOPLE | OUTSIDE<br>AIR<br>RATIO | COOLING<br>CAPACITY<br>(KBTU/HR) | SENSIBLE (SHR) | HEATING<br>CAPACITY<br>(KBTU/HR) | COOLING<br>EIR<br>(BTU/BTU) | HEATING<br>EIR<br>(BTU/BTU) | HEAT PUMP<br>SUPP-HEAT<br>(KBTU/HR) |  |
|----------------|--------------------|--------------------------|---------------|-------------------------|----------------------------------|----------------|----------------------------------|-----------------------------|-----------------------------|-------------------------------------|--|
| PVVT           | 1.001              | 948.8                    | 1.            | 0.000                   | 16.758                           | 0.742          | -17.238                          | 0.000                       | 0.000                       | 0.000                               |  |
|                |                    | DIVERSITY                | POWER         | FAN                     | STATIC :                         | TOTAL MEC      | Н                                |                             | MAX FAN                     | MIN FAN                             |  |

TYPE (CFM ) (FRAC) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC) 559. 1.00 0.032 0.18 0.1 0.25 0.62 DRAW-THRU SPEED SUPPLY 1.00 0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

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

FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF

|                            | 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 |
| L8A NE Perim Zn (G.NE12) 1 | 559.   | 63.     | 0.011 | 0.301   | 0.       | 0.00      | 0.00     | 11.72      | 0.00      | -7.88     | 1.   |

PVVT

1.001

0.000

0.000

-8.988

0.000

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

FLOOR OUTSIDE 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)

DIVERSITY POWER FAN STATIC TOTAL MECH MAX FAN MIN FAN FACTOR DEMAND DELTA-T PRESSURE EFF FAN FAN FAN CAPACITY EFF RATIO RATIO (FRAC) TYPE (CFM ) (KW) (F) (IN-WATER) (FRAC) (FRAC) PLACEMENT CONTROL (FRAC) (FRAC) 1.00 0.017 0.18 SUPPLY 291. 0.1 0.25 0.62 DRAW-THRU SPEED 1.00 0.30

VRF BRANCH GAS PIPE NOMINAL DIA: 0.500(IN)

540.0

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

1. 0.000

|                            | 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 | 291.   | 36.     | 0.006 | 0.291   | 0.       | 0.00      | 0.00     | 6.15       | 0.00      | -3.99     | 1.   |

8.738 0.742

REPORT- SV-A System Design Parameters for L8A (G.SE14) APT1 VRF WEATHER FILE- SEATTLE BOEING FI WA

|        |          | FLOOR   |        | OUTSIDE | 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) |  |
|        |          |         |        |         |           |          |           |           |           |           |  |
| PWWT   | 1 001    | 540 0   | 1      | 0 000   | 9 005     | 0 742    | -9 263    | 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    | FAN       | FAN     | RATIO   | RATIO   |
| TYPE   | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER) | (FRAC) | (FRAC) | PLACEMENT | CONTROL | (FRAC)  | (FRAC)  |
|        |          |           |        |         |            |        |        |           |         |         |         |
| SUPPLY | 300.     | 1.00      | 0.017  | 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   | I        | EXTRACTION | HEATING   | ADDITION       |   |
|----------------------------|--------|---------|-------|---------|----------|-----------|----------|------------|-----------|----------------|---|
| ZONE                       | FLOW   | FLOW    | FAN   | FLOW    | AIR FLOW | CAPACITY  | SENSIBLE | RATE       | CAPACITY  | RATE ZONE      | E |
| NAME                       | (CFM ) | (CFM )  | (KW)  | (FRAC)  | (CFM )   | (KBTU/HR) | (FRAC)   | (KBTU/HR)  | (KBTU/HR) | (KBTU/HR) MULT | Γ |
|                            |        |         |       |         |          |           |          |            |           |                |   |
| L8A SE Perim Zn (G.SE14) 1 | 300.   | 36.     | 0.006 | 0.355   | 0.       | 0.00      | 0.00     | 6.34       | 0.00      | -4.87 1.       |   |

| REPORT- SV | /-A System | RTU-1     | (Corridor D | OAS)    |             |        | WEATHER FILE- SEATTLE BOEING FI WA |           |            |           |           |  |
|------------|------------|-----------|-------------|---------|-------------|--------|------------------------------------|-----------|------------|-----------|-----------|--|
|            |            | FLOOR     |             | OUTSI   | IDE COOLI   | NG     |                                    | 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     | rio (KBTU/H | R)     | (SHR)                              | (KBTU/HR) | (BTU/BTU)  | (BTU/BTU) | (KBTU/HR) |  |
|            |            |           |             |         |             |        |                                    |           |            |           |           |  |
| SZRH       | 1.001      | 16630.2   | 0.          | 0.9     | 972 0.0     | 00     | 0.000                              | -20.472   | 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 FAN      | N RATIO   | RATIO     |  |
| TYPE       | (CFM )     | (FRAC)    | (KW)        | (F)     | (IN-WATER)  | (FRAC) | (FRAC)                             | PLACEMEN  | IT CONTROL | (FRAC)    | (FRAC)    |  |
|            |            |           |             |         |             |        |                                    |           |            |           |           |  |
| SUPPLY     | 2802.      | 1.00      | 3.457       | 3.84    | 5.7         | 0.54   | 0.62                               | DRAW-THE  | U CONSTANT | 1.00      | 0.30      |  |

|                            | 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    | 21.    | 0.      | 0.000 | 1.000   | 9.       | 0.00      | 0.00     | 0.01       | 0.00      | -0.12     | 1.   |
| P1B Core Zn (B.C12) COR    | 419.   | 0.      | 0.000 | 1.000   | 75.      | 0.00      | 0.00     | -1.53      | 0.00      | -4.20     | 1.   |
| L1A Core Zn (G.C22) COR    | 119.   | 0.      | 0.000 | 1.000   | 40.      | 0.00      | 0.00     | -0.24      | 0.00      | -0.94     | 1.   |
| L1B Core Zn (G.C4) COR     | 123.   | 0.      | 0.000 | 1.000   | 142.     | 0.00      | 0.00     | -0.14      | 0.00      | -1.11     | 1.   |
| L2A Core Zn (G.C26) COR    | 144.   | 0.      | 0.000 | 1.000   | 167.     | 0.00      | 0.00     | 0.12       | 0.00      | -1.16     | 1.   |
|                            |        |         |       |         |          |           |          |            |           |           |      |
| L2B Core Zn (G.C3) COR     | 162.   | 0.      | 0.000 | 1.000   | 187.     | 0.00      | 0.00     | 1.24       | 0.00      | -1.06     | 1.   |
| L3A Core Zn (G.C23) COR    | 96.    | 0.      | 0.000 | 1.000   | 112.     | 0.00      | 0.00     | 0.72       | 0.00      | -0.52     | 1.   |
| L3B North Perim Zn (G.N3)R | 247.   | 0.      | 0.000 | 1.000   | 286.     | 0.00      | 0.00     | 1.17       | 0.00      | -0.98     | 1.   |
| L4A Core Zn (G.C23) COR    | 96.    | 0.      | 0.000 | 1.000   | 112.     | 0.00      | 0.00     | 0.74       | 0.00      | -0.52     | 1.   |
| L4B North Perim Zn (G.N3)R | 247.   | 0.      | 0.000 | 1.000   | 286.     | 0.00      | 0.00     | 1.24       | 0.00      | -0.94     | 1.   |
|                            |        |         |       |         |          |           |          |            |           |           |      |
| L5A Core Zn (G.C23) COR    | 96.    | 0.      | 0.000 | 1.000   | 112.     | 0.00      | 0.00     | 0.74       | 0.00      | -0.52     | 1.   |
| L5B North Perim Zn (G.N3)R | 247.   | 0.      | 0.000 | 1.000   | 286.     | 0.00      | 0.00     | 1.24       | 0.00      | -0.91     | 1.   |
| L6A Core Zn (G.C23) COR    | 96.    | 0.      | 0.000 | 1.000   | 112.     | 0.00      | 0.00     | 0.68       | 0.00      | -0.49     | 1.   |
| L6B North Perim Zn (G.N3)R | 247.   | 0.      | 0.000 | 1.000   | 286.     | 0.00      | 0.00     | 1.24       | 0.00      | -0.87     | 1.   |
| L7A Core Zn (G.C20) COR    | 88.    | 0.      | 0.000 | 1.000   | 102.     | 0.00      | 0.00     | 0.49       | 0.00      | -0.21     | 1.   |
|                            |        |         |       |         |          |           |          |            |           |           |      |
| L7B North Perim Zn (G.N3)R | 247.   | 0.      | 0.000 | 1.000   | 286.     | 0.00      | 0.00     | 0.85       | 0.00      | -0.35     | 1.   |
| L8A Core Zn (G.C10) COR    | 106.   | 0.      | 0.000 | 1.000   | 123.     | 0.00      | 0.00     | 0.40       | 0.00      | -0.27     | 1.   |

|        |          | FLOOR   |        | OUTSIDE | 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     |

|                            | GIIDDI V       | EVIINICE        |       | MINITMIN        | OUTTO               | GOOT TNG            | ,        | aven a cert on     | HEADING             | ADDITION                   |
|----------------------------|----------------|-----------------|-------|-----------------|---------------------|---------------------|----------|--------------------|---------------------|----------------------------|
| ZONE                       | SUPPLY<br>FLOW | EXHAUST<br>FLOW | FAN   | MINIMUM<br>FLOW | OUTSIDE<br>AIR FLOW | COOLING<br>CAPACITY | SENSIBLE | EXTRACTION<br>RATE | HEATING<br>CAPACITY | ADDITION<br>RATE ZONE      |
| NAME                       | (CFM )         | (CFM )          | (KW)  | (FRAC)          |                     | (KBTU/HR)           |          |                    |                     | (KBTU/HR) MULT             |
| L2B South Perim Zn (G.S27E | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | 0.00 1.                    |
| L6A Core Zn (G.C1) ELV     | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | (BASEBOARDS)<br>0.00 1.    |
| PlA West Perim Zn (B.W7) H | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | (BASEBOARDS)<br>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)<br>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)<br>0.00 1.    |
| L4A Core Zn (G.C15) TRSH   | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               |                     | (BASEBOARDS)<br>0.00 1.    |
|                            |                |                 |       |                 |                     |                     |          |                    | 0.00                | (BASEBOARDS)               |
| L5A Core Zn (G.C15) TRSH   | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | 0.00 1.<br>(BASEBOARDS)    |
| L6A Core Zn (G.C15) TRSH   | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | 0.00 1.<br>(BASEBOARDS)    |
| L7A Core Zn (G.C15) TRSH   | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | 0.00 1.<br>(BASEBOARDS)    |
| L8A Core Zn (G.C5) TRSH    | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | 0.00 1.<br>(BASEBOARDS)    |
| P2A NNW Perim Zn (B.NNW13K | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | -15.70 1.                  |
| P2B NW Perim Zn (B.NW6) X  | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | (BASEBOARDS)<br>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)<br>-161.86 1. |
| P2B NNE Perim Zn (B.NNE12K | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | -161.86<br>0.00     | (BASEBOARDS)<br>-27.28 1.  |
| PlB South Perim Zn (B.S6)G | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | -27.28<br>0.00      | (BASEBOARDS)<br>-42.77 1.  |
| P1B NNE Perim Zn (B.NNE9)G | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | -42.77<br>0.00      | (BASEBOARDS)<br>-34.74 1.  |
|                            |                |                 |       |                 |                     |                     |          |                    | -34.74              | (BASEBOARDS)               |
| L1A East Perim Zn (G.E18)H | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               |                     | -0.19 1.<br>(BASEBOARDS)   |
| L1A Core Zn (G.C20) TSHF   | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00<br>-0.41       | -0.41 1.<br>(BASEBOARDS)   |
| L2A East Perim Zn (G.E13)H | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00<br>-0.23       | -0.23 1.<br>(BASEBOARDS)   |
| L2A Core Zn (G.C15) TSHF   | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | 0.00 1.<br>(BASEBOARDS)    |
| L3A East Perim Zn (G.E12)H | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | -0.43 1.<br>(BASEBOARDS)   |
| L3A Core Zn (G.C14) TSHF   | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | 0.00 1.                    |
| L4A East Perim Zn (G.E12)H | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | (BASEBOARDS)<br>-0.40 1.   |
| L4A Core Zn (G.C14) TSHF   | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | -0.40<br>0.00       | (BASEBOARDS)<br>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)<br>-0.40 1.   |
| L5A Core Zn (G.C14) TSHF   | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | -0.40<br>0.00       | (BASEBOARDS)<br>0.00 1.    |
| L6A East Perim Zn (G.E12)H | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               |                     | (BASEBOARDS)<br>-0.40 1.   |
|                            |                |                 |       |                 |                     |                     |          |                    | -0.40               | (BASEBOARDS)               |
| L6A Core Zn (G.C14) TSHF   | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               |                     | 0.00 1.<br>(BASEBOARDS)    |
| L7A East Perim Zn (G.E12)H | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00<br>-0.40       | -0.40 1.<br>(BASEBOARDS)   |
| L7A Core Zn (G.C14) TSHF   | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | 0.00 1.<br>(BASEBOARDS)    |
| L8A East Perim Zn (G.E2) F | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | -0.45 1.<br>(BASEBOARDS)   |
| L8A Core Zn (G.C4) TSHF    | 0.             | 0.              | 0.000 | 0.000           | 0.                  | 0.00                | 0.00     | 0.00               | 0.00                | 0.00 1.                    |
|                            |                |                 |       |                 |                     |                     |          |                    | 0.00                | (BASEBOARDS)               |

| P2A Core Zn (B.C1) STR     | 0. | 0. | 0.000 | 0.000 | 0. | 0.00 | 0.00 | 0.00 | 0.00 0.00 1.      |
|----------------------------|----|----|-------|-------|----|------|------|------|-------------------|
|                            |    |    |       |       |    |      |      |      | 0.00 (BASEBOARDS) |
| P2A Core Zn (B.C2) ELV     | 0. | 0. | 0.000 | 0.000 | 0. | 0.00 | 0.00 | 0.00 | 0.00 0.00 1.      |
|                            |    |    |       |       |    |      |      |      | 0.00 (BASEBOARDS) |
| P2B Core Zn (B.C4) MECH    | 0. | 0. | 0.000 | 0.000 | 0. | 0.00 | 0.00 | 0.00 | 0.00 0.00 1.      |
|                            |    |    |       |       |    |      |      |      | 0.00 (BASEBOARDS) |
| P2B Core Zn (B.C5) STR     | 0. | 0. | 0.000 | 0.000 | 0. | 0.00 | 0.00 | 0.00 | 0.00 0.00 1.      |
|                            |    |    |       |       |    |      |      |      | 0.00 (BASEBOARDS) |
| P2B SE Perim Zn (B.SE8) M  | 0. | 0. | 0.000 | 0.000 | 0. | 0.00 | 0.00 | 0.00 | 0.00 0.00 1.      |
|                            |    |    |       |       |    |      |      |      | 0.00 (BASEBOARDS) |
| PlA 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 Design                 |          |          | ze Protect |       |          |      |      | R FILE- SEA |      |                         |
|---|----------|----------|------------|-------|----------|------|------|-------------|------|-------------------------|
| L1B Core Zn (G.C3) STR                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L2A Core Zn (G.C1) ELV                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | (BASEBOARDS)<br>0.00 1. |
| L2A NNW Perim Zn (G.NNW24T                        | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L2B Core Zn (G.C2) STR                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L3A Core Zn (G.C1) ELV                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L3A Core Zn (G.C20) STR                           | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L3B Core Zn (G.C2) STR                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L4A Core Zn (G.C1) ELV                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L4A Core Zn (G.C20) STR                           | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| I.4D G G. (G. G2) GED                             | 0        | 0        | 0.000      | 0.000 | 0        | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1                  |
| L4B Core Zn (G.C2) STR                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L5A Core Zn (G.C1) ELV                            | 0.<br>0. | 0.<br>0. | 0.000      | 0.000 | 0.<br>0. | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.<br>0.00 1.      |
| L5A Core Zn (G.C20) STR                           | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L5B Core Zn (G.C2) STR<br>L6A Core Zn (G.C20) STR | 0.       | 0.       | 0.000      |       | 0.       | 0.00 | 0.00 |             | 0.00 |                         |
| Loa Core Zn (G.C20) Sir                           | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L6B Core Zn (G.C2) STR                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L7A Core Zn (G.C1) ELV                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L7A Core Zn (G.C17) STR                           | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L7B Core Zn (G.C2) STR                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L8A Core Zn (G.C1) ELV                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L8A Core Zn (G.C7) STR                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| P2B NNE Perim Zn (B.NNE11L                        | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L1A Core Zn (G.C23) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L1A SW Perim Zn (G.SW26) C                        | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L1B Core Zn (G.C12) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| EID COIC EM (C.CIE) EEDC                          | ٠.       | ٠.       | 0.000      | 0.000 | ٠.       | 0.00 | 0.00 | 0.00        |      | (BASEBOARDS)            |
|   |          |          |            |       |          |      |      |             |      |                         |
| L2A Core Zn (G.C17) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| L2B Core Zn (G.C11) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | (BASEBOARDS)<br>0.00 1. |
| HZB COTE ZH (G.CII) EHEC                          | 0.       | ٠.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        |      | (BASEBOARDS)            |
| L3A Core Zn (G.C16) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| DJA COTE ZII (G.CTO) EDEC                         | 0.       | ٥.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        |      | (BASEBOARDS)            |
| L3B Core Zn (G.C11) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| 232 0010 211 (0.011) 2220                         | ٠.       | ٠.       | 0.000      | 0.000 | ٠.       | 0.00 | 0.00 | 0.00        |      | (BASEBOARDS)            |
| L4A Core Zn (G.C16) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
|   |          |          |            |       |          |      |      |             | 0.00 | (BASEBOARDS)            |
| L4B Core Zn (G.C11) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
|   |          |          |            |       |          |      |      |             | 0.00 | (BASEBOARDS)            |
| L5A Core Zn (G.C16) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
|   |          |          |            |       |          |      |      |             | 0.00 | (BASEBOARDS)            |
| L5B Core Zn (G.C11) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
|   |          |          |            |       |          |      |      |             |      | (BASEBOARDS)            |
| L6A Core Zn (G.C16) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| 7.65 6 7 40 611) 5756                             | •        | 0        | 0.000      | 0.000 |          | 0.00 | 0.00 | 0.00        |      | (BASEBOARDS)            |
| L6B Core Zn (G.C11) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| 173 Gama Fr. (G. G16), FILEG                      | 0        | 0        | 0.000      | 0.000 | 0        | 0.00 | 0.00 | 0.00        |      | (BASEBOARDS)            |
| L7A Core Zn (G.C16) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.<br>(BASEBOARDS) |
| L7B Core Zn (G.C11) ELEC                          | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| E/B Core Zii (G.Cii) EDEC                         | 0.       | ٥.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        |      | (BASEBOARDS)            |
| L8A Core Zn (G.C6) ELEC                           | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,           |          |          |            |       |          |      |      |             |      | (BASEBOARDS)            |
| P2A Core Zn (B.C7) STO                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
|   |          |          |            |       |          |      |      |             | 0.00 | (BASEBOARDS)            |
| P2B NE Perim Zn (B.NE9) S                         | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
|   |          |          |            |       |          |      |      |             | 0.00 | (BASEBOARDS)            |
| L1A Core Zn (G.C16) RR                            | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
|   |          |          |            |       |          |      |      |             |      | (BASEBOARDS)            |
| L1A WNW Perim Zn (G.WNW25T                        | 0.       | 0.       | 0.000      | 0.000 | 0.       | 0.00 | 0.00 | 0.00        | 0.00 | 0.00 1.                 |
| 103 Mart Paris 7 (2 707)                          | •        | 0        | 0.000      | 0.000 | 0        | 0.00 | 0.00 | 0.00        |      | (BASEBOARDS)            |
| L2A West Perim Zn (G.W25)0                        | 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  | OFFICE DOAS ERV |        |        |           |            | 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) |  |  |  |
|   |          |           |        |         |                 |        |        |           |            |                                    |           |  |  |  |
| DOAS                                      | 1.001    | 4228.0    | 119.   | 1.00    | 0.0             | 00     | 0.000  | -13.650   | 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    | ' FAI     | n fan      | N RATIO                            | RATIO     |  |  |  |
| TYPE                                      | (CFM )   | (FRAC)    | (KW)   | (F)     | (IN-WATER)      | (FRAC) | (FRAC) | PLACEMEN' | r control  | (FRAC)                             | (FRAC)    |  |  |  |
|   |          |           |        |         |                 |        |        |           |            |                                    |           |  |  |  |
| SUPPLY                                    | 1236.    | 0.00      | 1.920  | 4.84    | 7.1             | 0.54   | 0.62   | DRAW-THR  | J CONSTANT | 1.10                               | 0.10      |  |  |  |
|   |          |           |        |         |                 |        |        |           |            |                                    |           |  |  |  |

<sup>\*\*\*</sup> 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.        |      |
|                                 |           |             |      |

| REPORT SV |          |           | IOI    |         | OA5<br>    |        |        |            | WEATH     | SK FILE- SE |           | G 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) |         |
| DOAS      | 1.001    | 2287.5    | 76.    | 1.0     | 0.0        | 00     | 0.000  | -311.437   | 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    | 8006.    | 0.00      | 5.480  | 2.13    | 3.2        | 0.55   | 0.62   | P DRAW-THR | U SPEEI   | 1.10        | 0.10      |         |

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

| REPORT- | SV-A | System | Design | Parameters | for | FN-2-1 | WEATHE | R FILE |
|---------|------|--------|--------|------------|-----|--------|--------|--------|
|         |      |        |        |            |     |        |        |        |

ILE- SEATTLE BOEING FI WA FLOOR OUTSIDE COOLING HEATING COOLING HEATING HEAT PUMP AREA MAX AIR CAPACITY SENSIBLE CAPACITY EIR EIR SUPP-HEAT (SQFT ) PEOPLE RATIO (KBTU/HR) (SHR) (KBTU/HR) (BTU/BTU) (BTU/BTU) (KBTU/HR) SYSTEM ALTITUDE AREA
TYPE FACTOR (SQFT) PSZ 1.001 475.0 0. 0.181 0.000 0.000 -14.211 0.251 1.000 FAN CAPACITY FACTOR DEMAND DELTA-T PRESSURE EFF EFF FAN FAN RATIO RATIO 430. 1.00 0.060 0.43 0.4 0.30 0.62 DRAW-THRU CONSTANT 1.00 0.30 SUPPLY

|                        | 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 |
|                        |        |         |       |         |          |           |          |            |           |                |
| P2A Core Zn (B.C3) COR | 60.    | 0.      | 0.000 | 1.000   | 39.      | 0.00      | 0.00     | 0.40       | 0.00      | -2.15 1.       |
|                        |        |         |       |         |          |           |          |            | -1.41     | (BASEBOARDS)   |
| P1A Core Zn (B.C3) COR | 370.   | 0.      | 0.000 | 1.000   | 39.      | 0.00      | 0.00     | 2.46       | 0.00      | -4.13 1.       |
|                        |        |         |       |         |          |           |          |            | -3.73     | (BASEBOARDS)   |

| REPORT- SV-A System Design Parameters for |          |           | Amenity | Amenity ERV |           |        |        |            | WEATHER FILE- SEATTLE BOEING FI WA |           |           |  |
|---|----------|-----------|---------|-------------|-----------|--------|--------|------------|------------------------------------|-----------|-----------|--|
|   |          | FLOOR     |         | OUTSII      | E COOLI   | 1G     |        | HEATING    | COOLING                            | HEATING   | HEAT PUMP |  |
| SYSTEM                                    | ALTITUDE | AREA      | MAX     | A]          | R CAPACI  | TY SEN | NSIBLE | CAPACITY   | EIR                                | EIR       | SUPP-HEAT |  |
| TYPE                                      | FACTOR   | (SQFT )   | PEOPLE  | RATI        | O (KBTU/H | ٤)     | (SHR)  | (KBTU/HR)  | (BTU/BTU)                          | (BTU/BTU) | (KBTU/HR) |  |
| DOAS                                      | 1.001    | 1607.5    | 0.      | 1.00        | 0.00      | 00     | 0.000  | 0.000      | 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                          | L (FRAC)  | (FRAC)    |  |
| SUPPLY                                    | 97.      | 0.00      | 0.119   | 3.85        | 3.9       | 0.37   | 0.62   | 2 DRAW-THR | U CONSTANT                         | г 1.10    | 0.10      |  |

|                          |        | OA        | ATTACHED TO |      |
|--------------------------|--------|-----------|-------------|------|
| SYSTEM NAME              |        | MIXED AIR | ZONE        |      |
| ZONE NAME                |        | (CFM )    | (CFM )      | MULT |
|                          |        |           |             |      |
| L7A (G.NW21) AMN VRF     |        |           |             |      |
| L7A NW Perim Zn (G.NW21) | AMN    | 0.        | 47.         | 1.   |
| L7A (G.NE22) AMN VRF     |        |           |             |      |
| L7A NE Perim Zn (G.NE22) | AMN    | 0.        | 50.         | 1.   |
|                          |        |           |             |      |
|                          |        |           |             |      |
|                          | TOTAL: | 0.        | 97.         |      |