Metropole
Project #6508378

Energy Analysis for Code Compliance
2015 Seattle Energy Code
Total Building Performance (Section C407)

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I. Executive Summary

Metropole is an existing four-story office building over basement and subbasement located at 423 2nd Ave Extension S, Seattle 98104. The building is being renovated to include new lighting and HVAC systems, glazing and some upgraded wall insulation. It is a substantial alteration and is required to be brought into full compliance with the Seattle Energy Code. Table 1 shows the breakdown of altered spaces covered by Section 503.2 and the unaltered spaces.

Table 1 - Area per Proposed Use Breakdown

Altered Spaces	
Office/childcare/meeting/support space	Area (ft2)
Basement and subbasement	12,271
Level 1	6,771
Level 2	6,945
Level 3	6,888
Level 4	3,152
Total Altered Space	36,027

The project is following Section C407, "Total Building Performance", of the 2015 Seattle Energy Code (SEC). Per Section 503.2 Exception 2, the proposed design must be no more than 110 percent of the annual energy consumption allowed by C407.3. This project is following C407.3.3, which requires the proposed building energy use to be no more than 93 percent of the standard reference design energy use. Therefore, the standard reference design energy budget for the proposed building is established using the equations below. The proposed building annual energy use shall be no more than 102.3% of the standard reference design energy consumption.

$$Energy\ Use_{prop} \leq Energy\ Use_{SRD(C407)} \times\ 0.93\ \times 1.10$$

$$Energy\ Use_{prop} \leq Energy\ Use_{SRD(C407)} \times\ 1.023$$

The project complies with all mandatory and prescriptive requirements of the 2015 SEC as listed in Section C503

The total energy consumption on a Btu-per-conditioned-square foot-per-year basis for both the standard reference and the proposed design is shown in Table 2, and includes all annual consumption for all end-uses including energy use of the unaltered portions of the building.

Table 2 - Estimated Annual Energy Consumption of Standard and Proposed Design

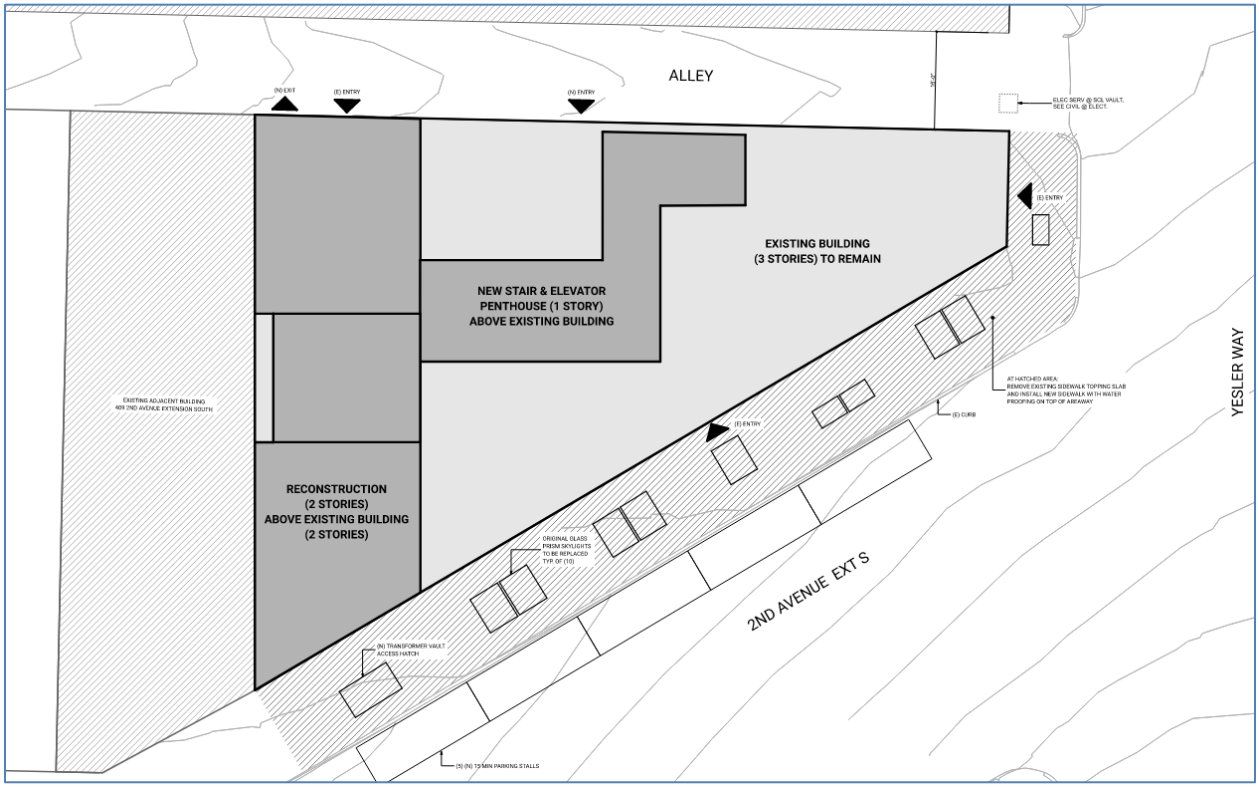
Design	Estimated Energy Consumption (kBtu/conditioned ft2/year)	
Standard	Modeled	18.16
	Allowed (102.3% of SRD)	18.58
Proposed	Modeled	17.93
	% of SRD	98.8%

Note that the project assumes that lighting will comply with C406.3 while the submission does not include a lighting design at this time. The permit applicant understands that : 1) an electrical permit application shall be submitted and approved prior to the issuance of the building permit per SEC C407.2 and TIP 423; and 2) the electrical/ lighting permit number and the Lighting Forms from the SDCI web site shall also be submitted for verification. All electrical documentation will be provided by others.

II. Project Description

The address of the project is 423 2nd Ave Extension S, Seattle 98104 and shown in Figure 1.

Figure 1 - Site Plan



The building includes four floors of self-storage space over a parking and vehicle storage ground floor and is approximately 56 feet tall.

The proposed HVAC system is described in Table 3

Table 3 - Proposed HVAC design

System	Proposed HVAC system
Heating and Cooling	Hydronic heating and cooling using air-to-water heat pumps serving mostly chilled beams and baseboard heating. Some spaces have 4-pipe fan coils.
Ventilation	Dedicated outside air systems directly serving the conditioned zones with fan operation decoupled from the primary heating and cooling systems.
Heated only spaces	Restrooms, corridors, and storage spaces are heated only. For the proposed design, these have been modeled with hot water heating and package air conditioners with a SEER of 14. As these areas are also served by DOAS systems, the fans of the air conditioners are modeled as cycling only when cooling is required (but not heating).

The project includes the following energy efficiency features:

- Hydronic chilled beam and baseboard heating eliminate fan energy of typical compared to the baseline package heat pump systems.
- All spaces include CO2 monitoring and VAV dampers on DOAS diffusers. DOAS ERVs are equipped with pressure regulated VSD fans that reduce overall flow rate when zonal dampers modulate.
- DOAS ERVs have higher sensible and latent effectiveness than required by Section C403.5.
- Openable windows are interlocked with cooling system greatly reducing mechanical cooling and ventilation needs during shoulder cooling periods.
- Service water heating system uses air-to-water heat pumps compared to electric resistance used in the baseline.
- Glazing U-Factor and SHGC exceed SEC requirements.

The following features of the building would not comply with prescriptive requirements:

- Opaque surface insulation: Most construction types, including below-grade walls, above grade mass walls and roofs over the area ways do not meet insulation requirements of Table C402.1.4.

Building Envelope

- **Opaque surfaces**: Table 4 summarizes the overall thermal performance of the opaque surfaces of the proposed and standard design.

Table 4 - Comparison of the Thermal Performance of the Proposed and Standard Design Opaque Envelope Components

Surface Type	Proposed Design Overall U-Value (Btu/h.ft2.F)	Standard Design Overall U-Value (Btu/h.ft2.F)
Exterior Wall (including Slab-Edge)	0.212	0.056
Underground Wall	0.068	0.070
Roof	0.063	0.030
Exposed Floors	0.098	0.029

- **Fenestration**: the proposed building has an overall glazing area of 4,665 ft2, which translates to a window-wall-ratio of 0.21. Table 5 and Table 6 summarize the overall thermal performance of the fenestration of the proposed and standard design.

Table 5 - Comparison of the U-Factor of the Proposed and Standard Design Fenestration Components

Proposed Design Overall U-Factor (Btu/h.ft2.F)	Standard Design Overall U-Factor (Btu/h.ft2.F)
0.207	0.365

Table 6 - Comparison of the Solar Heat Gain Coefficient (SHGC) of the Proposed and Standard Design Fenestration Components

Proposed Design Overall SHGC	Standard Design Overall SHGC	
0.518	North	0.53
	Non-North	0.35

Domestic Hot Water: Water heating is provided using three Sanden heat pump water heaters with external 119 storage tanks plus a single buffer tank with a supplemental electric heater. The heat pumps are controlled to produce a higher temperature than the building supply temperature (150F vs 120F), therefore it is not expected that the electric elements will operate.

HVAC: The primary HVAC system is chilled beams for cooling and baseboard heat for heating. Some spaces are served with four pipe fan coils. The hydronic loops are served by 12 identical air-to-water heat pumps. Ventilation is provide using decoupled DOAS systems with very high efficiency ERVs. DOE-2 does not have an explicit chilled beam plus radiant heat system type. However, it is accepted practice to use the Single Zone Reheat System (SZRH) with auto-sized airflow.

Lighting: Note that the project assumes that lighting will comply with C406.3 while the submission does note include a lighting design at this time. The permit applicant understands that : 1) an electrical permit application shall be submitted and approved prior to the issuance of the building permit per SEC C407.2 and TIP 423; and 2) the electrical/ lighting permit number and the Lighting Forms from the SDCI web site shall also be submitted for verification. All electrical documentation will be provided by others.

III. Methodology Description

The proposed and standard design models have been created using eQUEST 3.65, build 7175. The software used to run the simulation is DOE-2.3, version 50i. The combination of these versions of eQUEST and DOE-2 allow to model explicitly all the features included in both the proposed and standard reference designs. DOE-2 complies with all the requirements of Section C407.6. Figure 2 shows how the project appears in the eQUEST user interface.

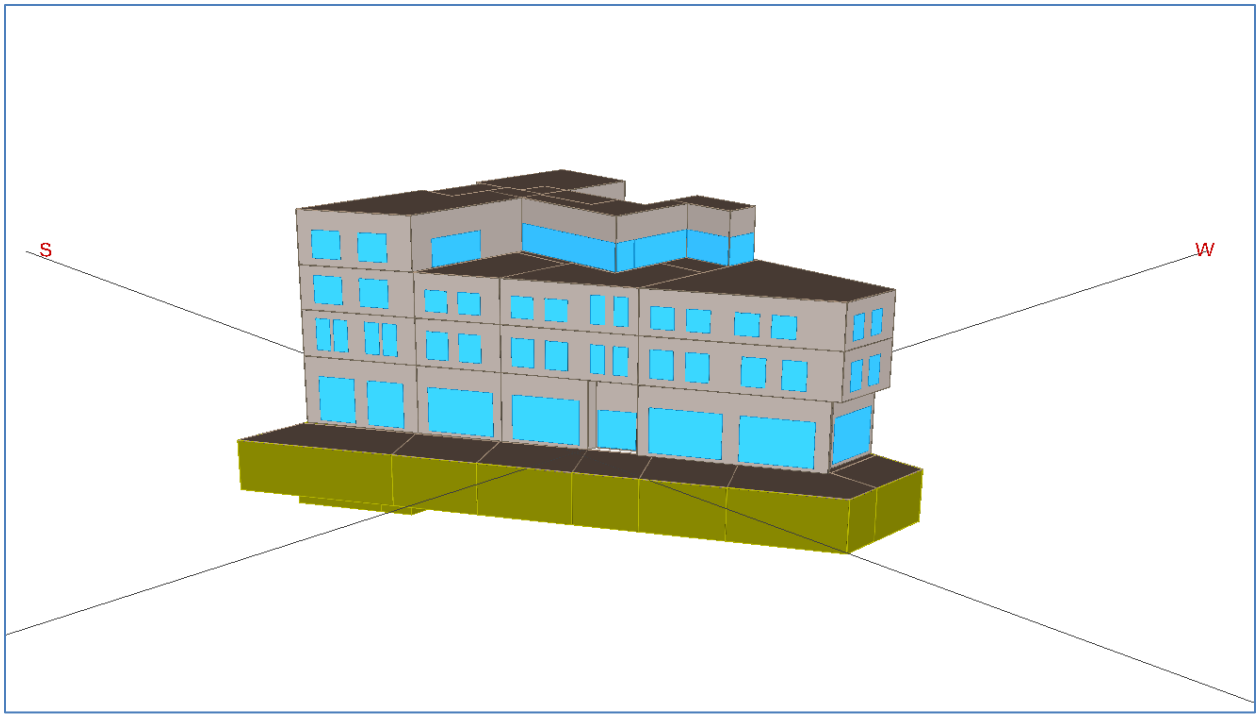


Figure 2 - EQUEST User Interface View

A. Operational Schedules

Operational schedules are based on the office occupancy from SEC Appendix E.

B. SRD HVAC System Determination

The proposed HVAC system consists of individually controlled arrays of chilled beams for cooling and baseboard heaters for heating with some areas equipped with four-pipe fan coils. Hydronic systems are served by air-to-water chiller/heat pumps that can operate in either heating or cooling mode.

The systems in this building are governed by C403.6 and therefore Table C407.5.1(2). According to Table C407.5.1(2) the proposed system falls into the category of: “Air/none” for Condenser Cooling Source and “Heat Pump” for Heating System Classification”. The SRD HVAC system is System 9, Package rooftop heat pump with decoupled DOAS meeting requirements of C503.6

C. Underground Surfaces

All below grade surfaces are modeled using DOE-2 UNDERGROUND-WALL input form using U-factors from SEC Appendix A.

D. Infiltration

Infiltration is calculated for each space using the total exterior surface area for that floor. Infiltration is modeled as an air-change-per-hour input. This allows DOE-2 to vary the infiltration rate due to varying windspeeds recorded in the TMY weather file. Table 7 summarizes infiltration inputs for each space.

Table 7 - Infiltration Summary

Space	Floor Area (ft2)	Volume (ft3)	Exterior Surface Area (ft2)	C407 Infiltration CFM	Modeled CFM	Modeled ACH
L1SW Perim Spc (G.SW1)	990	18,503	1,379	551.7	61.8	0.200
L1Core Spc (G.C2)	99	1,851	0	0.0	0.0	0.000
L1West Perim Spc (G.W3)	179	3,351	262	104.7	11.7	0.210
L1WNW Perim Spc (G.WNW4)	337	6,310	980	392.0	43.9	0.418
L1Core Spc (G.C5)	120	2,244	0	0.0	0.0	0.000
L1Core Spc (G.C6)	304	5,685	0	0.0	0.0	0.000
L1North Perim Spc (G.N7)	276	5,167	358	143.2	16.0	0.186
L1SSE Perim Spc (G.SSE8)	636	11,893	436	174.4	19.5	0.099
L1Core Spc (G.C9)	124	2,319	0	0.0	0.0	0.000
L1Core Spc (G.C10)	200	3,740	0	0.0	0.0	0.000
L1Core Spc (G.C11)	236	4,413	0	0.0	0.0	0.000
L1North Perim Spc (G.N12)	378	3,402	229	91.7	10.3	0.181
L1North Perim Spc (G.N13)	100	904	55	22.0	2.5	0.163
L1North Perim Spc (G.N14)	256	4,793	469	187.4	21.0	0.263
L1SSE Perim Spc (G.SSE15)	126	2,352	238	95.4	10.7	0.273
L1SE Perim Spc (G.SE16)	478	8,944	487	194.7	21.8	0.146
L1Core Spc (G.C17)	382	7,136	0	0.0	0.0	0.000
L1East Perim Spc (G.E18)	1,555	29,071	2,099	839.7	94.0	0.194
Space 84	479	4,643	306	122.5	13.7	0.177
L2SW Perim Spc (G.SW1)	916	11,721	944	377.6	42.3	0.216
L2Core Spc (G.C2)	173	2,212	0	0.0	0.0	0.000
L2West Perim Spc (G.W3)	243	3,113	243	97.3	10.9	0.210
L2West Perim Spc (G.W4)	68	866	111	44.5	5.0	0.346
L2Core Spc (G.C5)	120	1,536	0	0.0	0.0	0.000
L2NW Perim Spc (G.NW6)	857	10,975	674	269.6	30.2	0.165
L2SSE Perim Spc (G.SSE7)	580	7,424	298	119.4	13.4	0.108
L2Core Spc (G.C8)	180	2,304	0	0.0	0.0	0.000
L2Core Spc (G.C9)	200	2,560	0	0.0	0.0	0.000
L2Core Spc (G.C10)	381	4,874	0	0.0	0.0	0.000
L2North Perim Spc (G.N11)	297	3,798	166	66.6	7.5	0.118
L2North Perim Spc (G.N12)	212	2,715	218	87.0	9.7	0.215
L2North Perim Spc (G.N13)	253	3,239	269	107.6	12.0	0.223
L2SSE Perim Spc (G.SSE14)	1,033	13,215	467	186.6	20.9	0.095
L2East Perim Spc (G.E15)	1,425	18,243	1,461	584.4	65.5	0.215
L3SW Perim Spc (G.SW1)	916	11,080	929	371.5	41.6	0.225
L3Core Spc (G.C2)	173	2,091	0	0.0	0.0	0.000
L3West Perim Spc (G.W3)	186	2,253	230	92.0	10.3	0.274
L3WSW Perim Spc (G.WSW4)	111	1,348	142	56.6	6.3	0.282
L3Core Spc (G.C5)	120	1,452	0	0.0	0.0	0.000

Space	Floor Area (ft2)	Volume (ft3)	Exterior Surface Area (ft2)	C407 Infiltration CFM	Modeled CFM	Modeled ACH
L3NW Perim Spc (G.NW6)	814	9,846	637	254.9	28.5	0.174
L3SSE Perim Spc (G.SSE7)	580	7,018	282	112.9	12.6	0.108
L3Core Spc (G.C8)	180	2,178	0	0.0	0.0	0.000
L3Core Spc (G.C9)	200	2,420	0	0.0	0.0	0.000
L3Core Spc (G.C10)	381	4,607	0	0.0	0.0	0.000
L3North Perim Spc (G.N11)	297	3,590	157	62.9	7.0	0.118
L3North Perim Spc (G.N12)	212	2,566	206	82.3	9.2	0.215
L3North Perim Spc (G.N13)	253	3,062	254	101.7	11.4	0.223
L3SSE Perim Spc (G.SSE14)	1,033	12,493	441	176.4	19.8	0.095
L3East Perim Spc (G.E15)	1,425	17,245	1,381	552.4	61.9	0.215
L4 SSE Perim Spc (G.SSE1)	1,088	15,997	1,673	669.3	75.0	0.281
L4 West Perim Spc (G.W2)	186	2,737	279	111.7	12.5	0.274
L4 Core Spc (G.C3)	109	1,599	0	0.0	0.0	0.000
L4 NNW Perim Spc (G.NNW4)	811	11,920	1,275	509.9	57.1	0.287
L4 SSE Perim Spc (G.SSE5)	457	6,722	1,220	488.0	54.7	0.488
L4 North Perim Spc (G.N6)	205	3,014	301	120.5	13.5	0.269
L4 North Perim Spc (G.N7)	214	3,149	829	331.7	37.1	0.708
L4 Core Spc (G.C8)	81	1,191	0	0.0	0.0	0.000
B1SW Perim Spc (B.SW1)	1,235	17,043	1,356	542.3	60.7	0.214
B1Core Spc (B.C2)	506	6,981	0	0.0	0.0	0.000
B1West Perim Spc (B.W3)	154	2,127	104	41.4	4.6	0.131
B1West Perim Spc (B.W4)	247	3,409	266	106.5	11.9	0.210
B1Core Spc (B.C5)	110	1,524	0	0.0	0.0	0.000
B1West Perim Spc (B.W6)	270	3,732	179	71.8	8.0	0.129
B1SSE Perim Spc (B.SSE7)	385	5,318	315	125.9	14.1	0.159
B1Core Spc (B.C8)	637	8,789	0	0.0	0.0	0.000
B1Core Spc (B.C9)	140	1,932	0	0.0	0.0	0.000
B1Core Spc (B.C10)	636	8,770	0	0.0	0.0	0.000
B1SSE Perim Spc (B.SSE11)	291	4,016	233	93.2	10.4	0.156
B1SSE Perim Spc (B.SSE12)	411	5,666	344	137.4	15.4	0.163
B1Core Spc (B.C13)	389	5,361	0	0.0	0.0	0.000
B1SSE Perim Spc (B.SSE14)	370	5,108	298	119.3	13.4	0.157
B1Core Spc (B.C15)	200	2,760	0	0.0	0.0	0.000
B1NW Perim Spc (B.NW16)	418	5,762	567	226.9	25.4	0.265
B1North Perim Spc (B.N17)	103	1,427	97	38.6	4.3	0.182
B1North Perim Spc (B.N18)	221	3,047	184	73.4	8.2	0.162
B1North Perim Spc (B.N19)	271	3,745	231	92.2	10.3	0.166
B1SE Perim Spc (B.SE20)	506	6,987	550	220.0	24.6	0.212
B1NE Perim Spc (B.NE21)	261	3,606	451	180.5	20.2	0.336
B1North Perim Spc (B.N22)	1,843	25,434	943	377.1	42.2	0.100
B1Core Spc (B.C23)	180	2,484	0	0.0	0.0	0.000
B2SW Perim Spc (B.SW1)	643	5,468	525	210.2	23.5	0.258
B2East Perim Spc (B.E2)	663	5,632	538	215.2	24.1	0.257
B2West Perim Spc (B.W3)	247	2,100	164	65.6	7.3	0.210
B2North Perim Spc (B.N4)	926	7,869	802	320.9	35.9	0.274

Notes:

1. ACH is Infiltration Rate (CFM) X 60 min/hr / Floor Volume

IV. Discussion of Estimated Energy Consumption Differences

The estimated proposed design energy use intensity (EUI) is 5.77 kBtu per square foot of conditioned floor, which is 9% better than the allowed SRD energy use (see Table 8). Table 10 in Section V.A shows that the proposed design saves energy primarily in cooling, and ventilation fan end-uses, with a small amount of savings in lighting. The proposed building uses significantly more energy for heating. Each of these is discussed below:

Table 8 - Estimated Annual Energy Consumption of Standard and Proposed Design

Design	Estimated Energy Consumption (kBtu/conditioned ft2/year)	
Standard	Modeled	18.09
	Allowed (102.3% of SRD)	18.50
Proposed	Modeled	17.37
	% of SRD	96.0%

A. Heating (-10.7% total savings; -190% end-use savings)

Heating energy is greater primarily due to the proposed building roofs and walls having much higher U-factors than allowed by the code.

B. Cooling (1.0% total savings; 25.7% end-use savings)

Cooling is not a significant end-use in the building. The small savings are likely due to: primary cooling COP; the use of chilled beams without ventilation fans; low fenestration SHGC.

C. Ventilation Fans (5.4% total savings; 46.3% end-use savings)

There are two contributors to this savings: 1) The proposed system is primarily chilled beams and radiant heating without supply fans while the SRD system is rooftop heat pumps with fans. The SRD fans only operate when providing heating and cooling but still contribute to the SRD fan energy. 2) The proposed building is equipped with CO2 monitoring in all spaces served by DOAS systems with zonal dampers that reduce airflow from the DOAS. Each ERV is equipped with a VSD that will reduce airflow and fan power. Since none of the spaces is required to have DCV, the baseline DOAS is constant volume.

D. Water Heating (5.8% total savings; 41.9% end-use savings)

The heat pump water heating system is the primary contributor.

E. Pumping (-0.5% total savings; -46.5% end-use savings)

The proposed HVAC design includes hydronic heating and cooling systems while the baseline HVAC is dX unitary package heat pump equipment.

V. Appendices

A. Energy Analysis Summary Form

1. Energy Consumption by End-use

Table 9 - Project Information

SDCI Project Address:	423 2nd Ave Extension S, Seattle 98104			**SDCI Project Number:**	6508387
Project Name:	Metropole			**Date of this submittal:**	
Space Type:	**Conditioned Space**			**Unconditioned Space**	**Total**
Building Use:	**Group R**	**Commercial**	**Subtotal**		
Total Area (ft2)		36,027			

Table 10 - Energy Consumption by End-Use

		Standard Reference			Proposed Building			Differences		
Enduse	**Fuel**	**kBtu**	**Btu/sf**	**%SRD**	**kBtu**	**Btu/sf**	**%SRD**	**kBtu**	**Btu/sf**	**% SRD**
Lighting - interior	Elec	153,793	4,269	23.5%	153,793	4,269	23.5%	0	0	0.0%
Lighting - garage	Elec	0	0	0.0%	0	0	0.0%	0	0	0.0%
Lighting - exterior	Elec	0	0	0.0%	0	0	0.0%	0	0	0.0%
Space Heating	Elec	36,642	1,017	5.6%	106,312	2,951	16.3%	69,670	1934	10.7%
Heat Pump Supp. Heat	Elec	1,239	34	0.2%	0	0	0.0%	-1,239	-34	-0.2%
Space Cooling	Elec	25,140	698	3.8%	18,669	518	2.9%	-6,471	-180	-1.0%
Fans - interior ventilation	Elec	76,608	2,126	11.7%	41,113	1,141	6.3%	-35,495	-985	-5.4%
Fans - interior OA supply	Elec	7,242	201	1.1%	7,242	201	1.1%	0	0	0.0%
Fans - Parking garage	Elec	0	0	0.0%	0	0	0.0%	0	0	0.0%
Service water heating	Elec	89,861	2,494	13.7%	52,188	1,449	8.0%	-37,673	-1046	-5.8%
Pumps and Auxiliary	Elec	6,556	182	1.0%	9,604	267	1.5%	3,048	85	0.5%
Equipment	Elec	251,954	6,993	38.5%	251,954	6,993	38.5%	0	0	0.0%
Elevator & escalators	Elec	5,120	142	0.8%	5,120	142	0.8%	0	0	0.0%
Total	Elec	654,156	18,157	100.0%	645,996	17,931	98.8%	-8,160	-227	-1.2%

2. Design Parameter Comparison

Table 11 - Design Parameter Comparison

Element	Standard Design Value	(Page)	Proposed Design Value	(Page)
Glazing: total vertical + overhead area (ft2)	4,665	Page 57,LV-D Report	4,665	Page 304, LV-D Report
Vertical glazing area as a percentage of gross above-grade walls (%)	21.1	Page 57, LV-D Report	21.1	Page 304, LV-D Report
Vertical: total area (ft2)	4,665	Page 57, LV-D Report	4,665	Page 304, LV-D Report

Element	Standard Design Value	(Page)	Proposed Design Value	(Page)
Vertical: U-factor (weighted-average)	0.348	The U-Value reported in DOE-2's LV-D report do not correspond to the U-Factor at NFRC rating conditions, the value provided correspond to a weighted average of the inputs to the model	0.201	The U-Value reported in DOE-2's LV-D report do not correspond to the U-Factor at NFRC rating conditions, the value provided correspond to a weighted average of the inputs to the model
Vertical SHGC (weighted-average)	(modeled, not avg) North: 0.53 Non-North: 0.35	The SHGC value reported is a weighted average of the input.	0.288	The SHGC value reported is a weighted average of the input.
Roof: total area (ft2)	9,893	Page 57, LV-D Report	9,893	Page 304, LV-D Report
Opaque roof: net area (ft2)	9,893	Page 57, LV-D Report	9,893	Page 304, LV-D Report
Opaque roof U-value (weighted-average)	0.027	Page 57, LV-D Report	0.101	Page 296, LV-D Report
Wall: total above-grade area (ft2)	27,615	Page 57, LV-D Report	27,615	Page 298, LV-D Report
Opaque above-grade wall: net area (ft2) Above-grade wall U-Value (weighted-average)	0.055	Page 57, LV-D Report	0.154	Page 298, LV-D Report
Below-grade wall: net area (ft2)	8,145	Page 57, LV-D Report (note LV-D report includes below grade floors of 12,263 sf)	8,145 (note LV-D report includes below grade floors of 12,263 sf)	Page 298, LV-D Report
Below-grade wall U-Value (weighted-average)	0.070	Page 113, LV-I Report "InsUWCons"	0.350	Page 330, LV-I Report "NoInsUWCons"
Opaque Door: area (ft2)		-		
Opaque door U-Value (weighted-average)				
Exterior floor: area (ft2)				
Exterior floor U-Value:				
Slab-on-grade floor: perimeter (linear feet)				-
Slab-on-grade F-Factor (weighted-average)				-
Below-grade slab floor: net area (ft2)	12,263	Page 58, LV-E Report	12,263	Page 205, LV-E Report
Infiltration rate	0.040 cfm/ft2 of envelope area	Page 41, LV-B Report	0.040 cfm/ft2 of envelope area	Page 288, LV-B Report
Design heating load	187.5 kBtu/h	Page 88, LS-C Report	291.5 kBtu/h	Page 335, LS-C Report
Design sensible cooling load	265.0 kBtu/h	Page 88, LS-C Report	239.1 kBtu/h	Page 335, LS-C Report
Design total cooling load	314.6 kBtu/h	Page 88, LS-C Report	288.4 kBtu/h	Page 335, LS-C Report
Lighting				
Watts/ft2:	0.51	Page 41, LV-B Report	0.51	Page 278, LV-B Report
Façade (Exterior): total area (ft2)	-	-	-	-
Total watts				

Element	Standard Design Value	(Page)	Proposed Design Value	(Page)
HVAC System Description	DOAS	Pp 157 SV-A/SV-C Table 12 SRD columns	DOAS	Pp 346-365 SV-A/SV-C Table 12 Prop columns
	Rooftop Heat Pump	Pp 95-156 SV-A/SV-C Table 12 SRD columns	Chilled Beam w/Baseboard Heating	Pp 366-409 SV-A/SV-C Table 12 Prop columns
			Default Cooling w/Baseboard Heating	Pp 410-423 SV-A/SV-C Table 12 Prop columns
Central Plant Equipment	None		Air-to-water heat pumps	Pp 577-610 PS-H
Economizer	None	OA control not documented in DOE-2 output reports. See Table 12 SRD rows	None	OA control not documented in DOE-2 output reports. See Table 12 Prop rows
Supply Fan Power	DOAS	Pp 157 SV-A/SV-C Table 12 SRD columns	DOAS	Pp 346-365 SV-A/SV-C Table 12 Prop columns
	Rooftop Heat Pump	Pp 95-156 SV-A/SV-C Table 12 SRD columns	Chilled Beam w/Baseboard Heating	Pp 366-409 SV-A/SV-C Table 12 Prop columns
			Default Cooling w/Baseboard Heating	Pp 410-423 SV-A/SV-C Table 12 Prop columns
Elevator and escalator: capacity (kW)	1,500 kWh/year	P271 BEPU, “MISC EQUIP” for “Spar” ELECTRICITY METER	1,500 kWh/year	P271 BEPU, “MISC EQUIP” for “Spar” ELECTRICITY METER
C411 Renewable Energy Requirements (PV generating capacity)	None		None	

Table 12 - Proposed and Standard HVAC System Comparison

	System Description		Proposed Building					SRD Baseline Building					
			Airflow		Capacity kBtuh		Efficiency	Airflow		Capacity kBtuh		Efficiency	
System	Prop	Base	CFM	W/cfm	Clg	Htg	SEER/EIR	CFM	W/cfm	Clg	Htg	SEER/EIR	HSPF/EIR
ERV-B-2	DOAS	n/a – Proposed System Only	960	0.643	0	0	n/a	n/a – Proposed System Only					
ERV-B-1			370	1.399	0	0							
ERV-1-1			405	1.751	0	0							
ERV-1-2			410	1.721	0	0							
ERV-MEZZ			60	3.817	0	0							
ERV-2-2			340	1.897	0	0							
ERV-2-1			560	1.524	0	0							
ERV-3-2			360	1.556	0	0							
ERV-3-1			540	1.598	0	0							
ERV-4-1			170	1.488	0	0							
Sys1CB	Chilled Beam/Radiant Heat	Rooftop Heat Pump	Auto	0.000	18.6	23.3	n/a	946	0.779	29.8	25.8	14/0.262	8.2/0.25
Sys2CB			Auto	0.000	2.8	11.4		362		3.1	9.0		
Sys3CB			Auto	0.000	10.6	11.2		473		15.2	13.0		
Sys4CB			Auto	0.000	13.2	25.5		940		22.9	21.7		
Sys5CB			Auto	0.000	40.1	50.3		1714		58.2	42.9		
Sys6CB			Auto	0.000	15.9	36.6		709		28.7	19.7		
Sys7CB			Auto	0.000	16.4	16.5		660		19.7	13.9		
Sys8CB			Auto	0.000	9.0	8.5		275		12.1	6.6		
Sys9FC			306	0.090	9.1	8.3		376		18.0	4.5		
Sys10CB			Auto	0.000	14.5	14.8		507		18.4	12.8		
Sys11CB			Auto	0.000	23.9	35.8		1179		37.0	23.1		
Sys12CB			Auto	0.000	15.9	20.8		880		21.3	17.3		
Sys13CB			Auto	0.000	16.4	14.5		642		17.2	13.5		
Sys14CB			Auto	0.000	9.0	9.5		327		12.2	6.8		
Sys15FC			306	0.090	9.1	11.7		456		21.9	5.4		
Sys16CB			Auto	0.000	14.5	15.3		576		19.1	11.9		
Sys17CB			Auto	0.000	29.0	39.4		1285		50.4	25.2		
Sys18CB			Auto	0.000	16.9	18.2		923		32.2	18.1		
Sys19CB			Auto	0.000	17.1	14.2		744		33.7	14.6		
Sys20FC			3730	0.306	56.0	106.7		3202		104.0	81.4		
Sys21FC			2110	0.400	32.5	61.2		750		35.7	17.5		
Sys22CB			Auto	0.000	5.3	7.7		240		6.8	5.4		

System	System Description		Proposed Building					SRD Baseline Building					
			Airflow		Capacity kBtuh		Efficiency	Airflow		Capacity kBtuh		Efficiency	
	Prop	Base	CFM	W/cfm	Clg	Htg	SEER/EIR	CFM	W/cfm	Clg	Htg	SEER/EIR	HSPF/EIR
Sys23DfltClg	AC w/Hot Water Heat		78	0.779	2.1	1.9	14/0.262	81	0.779	2.4	2.1	14/0.262	8.2/0.25
Sys24DfltClg			67	0.779	2.0	3.8		115		2.5	2.3		
Sys25DfltClg			573	0.779	15.2	12.7		800		17.4	15.7		
Sys26DfltClg			256	0.779	6.8	4.7		280		7.4	6.6		
Sys27DfltClg			114	0.779	4.3	9.1		132		6.3	5.7		
Sys28DfltClg			83	0.779	2.3	2.7		76		2.2	1.9		
Sys29DfltClg			110	0.779	3.3	6.7		175		4.1	3.7		
DOAS-Base	n/a – Baseline System Only	DOAS	n/a – Baseline System Only					4175	0.779	0	0	n/a	n/a

B. General Information

1. Site Plan

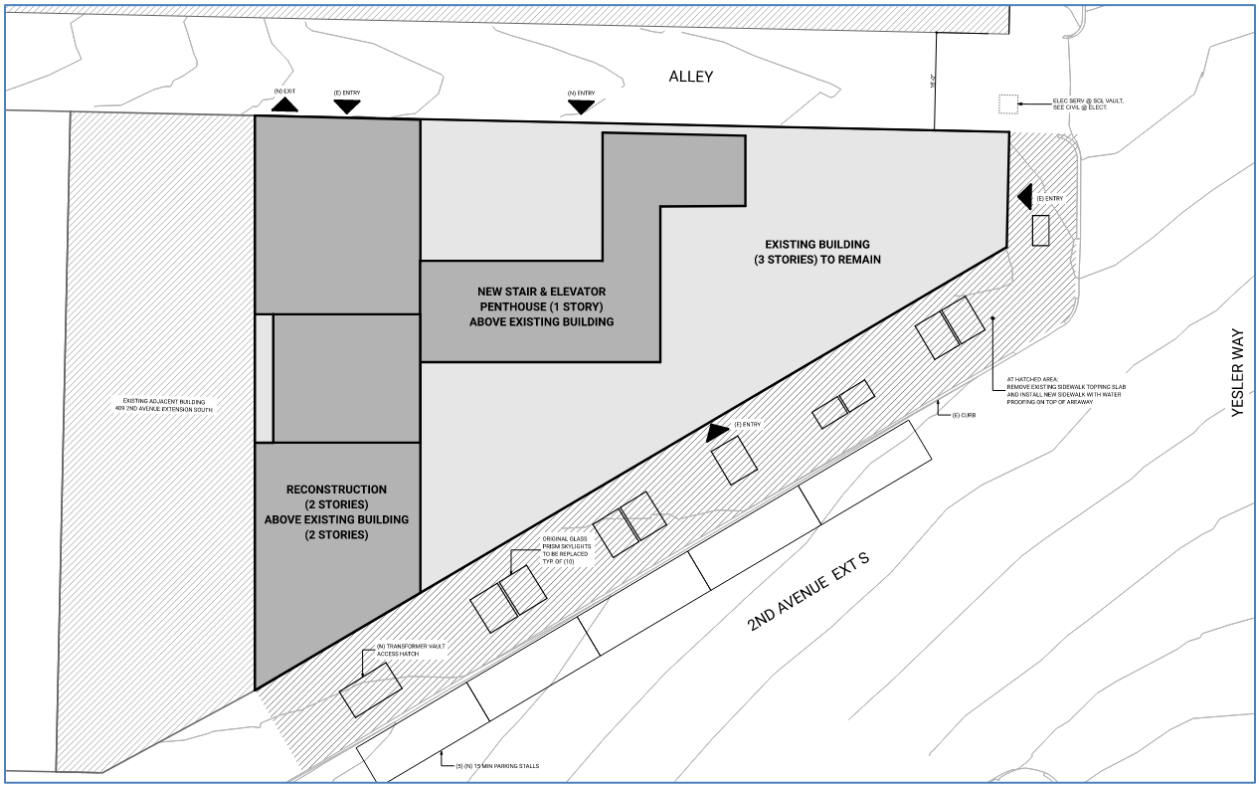


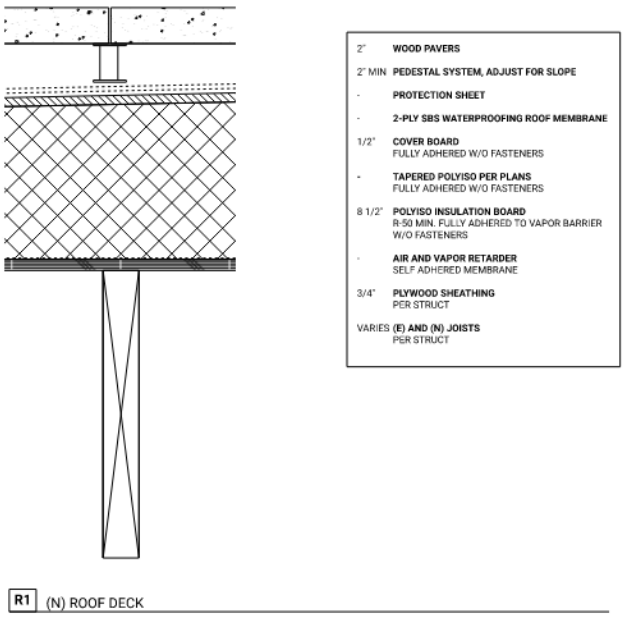
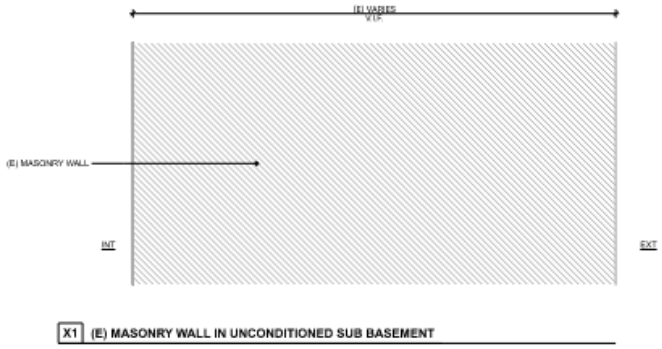
Figure 3 - Site Layout

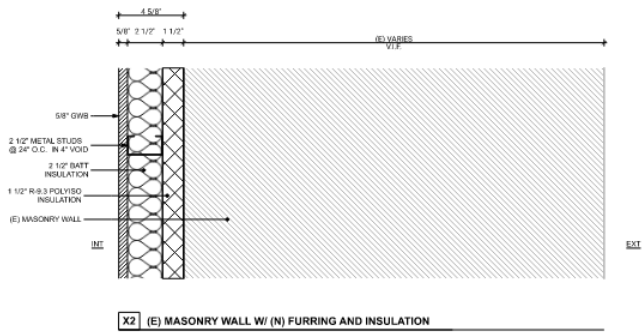
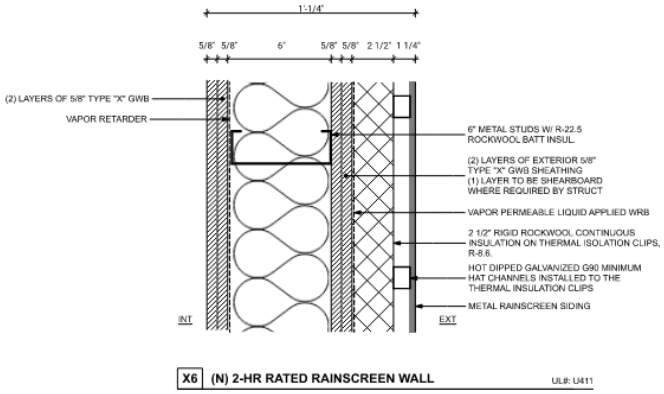
C. Building Envelope

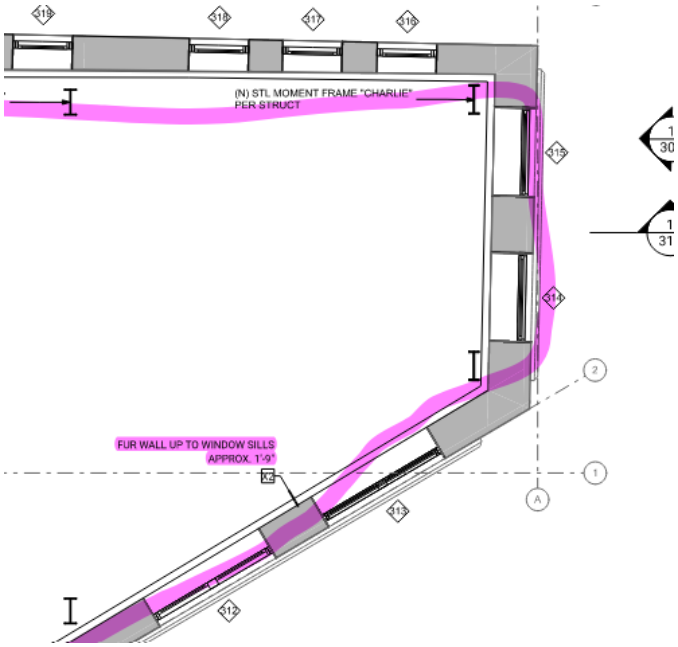
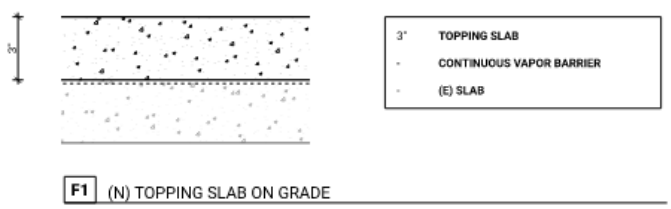
1. Fenestration

2. Opaque Constructions

Table 13 - Opaque Construction Performance

Assembly	Performance Documentation
 **Figure 4 – F1/F2 Roof**	DOE-2 Construction: Roof Cons Finishes F1: Wood Pavers F2: Green roof Proposed U-Factor: 0.019 Reference: A102.1 SRD U-Factor: 0.027
 **Figure 5 - X1 Concrete Wall (Below or Above Grade)**	DOE-2 Constructions: Below Grade: NoInsUWCons Above Grade: MasonEWall Con Below Grade: Proposed U-Factor: 0.350 Reference: A104.1 Above Grade: Proposed U-Factor: 0.47 Reference: A105.3.7.1(1) SRD U-Factor (above grade): 0.057 SRD U-Factor (below grade): 0.070

Assembly	Performance Documentation
 **Figure 6 – X2 Concrete Wall (Below or Above Grade)**	DOE-2 Constructions Below Grade: InsUWCons Above Grade: FullInsMasEWall Con Proposed U-Factor: 0.042 Reference: A103.3.7.1(4) SRD U-Factor (above grade): 0.057 SRD U-Factor (below grade): 0.070
 **Figure 7 – X4/X6 Exterior Wall**	DOE-2 Constructions: MtlEWall Cons Finishes X4: Brick Veneer X6: Metal Siding Proposed U-Factor: 0.050 Reference: A103.3.6.1(1) SRD U-Factor: 0.055

Assembly	Performance Documentation
 **Figure 8 – Weighted average of X1 & X2**	DOE-2 Constructions: PartInsMasEWall Con Reference: $$\frac{UVal^1 * weight^1 + UVal^2 * weight^2}{weight^1 + weight^2}$$ $$\frac{0.042 * 3.5 + 0.471 * 21.4}{3.5 + 21.4}$$ Where the weights are equal to height of either the insulated or non insulated sections of the walls on floors 2 and 3. Proposed U-Factor: 0.410 SRD U-Factor: 0.057
 **Figure 9 - W8/W23 Wall Separating Unconditioned Space**	

3. Shading

Figure 10 Shows the project and surrounding buildings that have been represented in the models using BUILDING-SHADE commands.

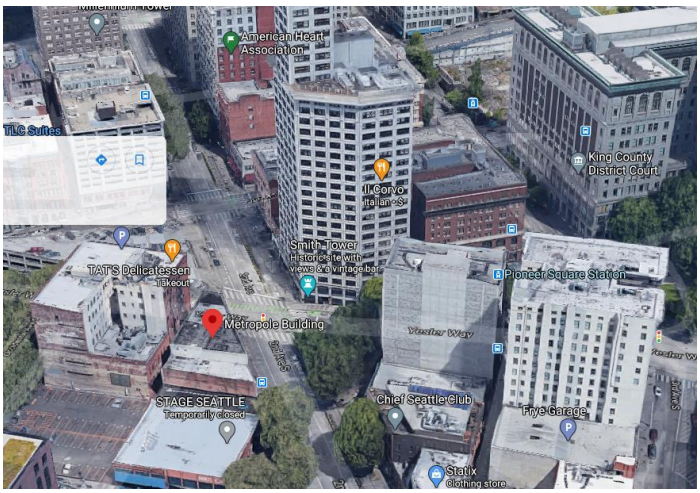


Figure 10 - Surrounding Buildings

4. Infiltration

Infiltration is calculated and input as required by Section C407. The maximum air leakage rate is 0.40 cfm/sf of exterior surface area under a pressure differential of 75 Pascals. Using the conversion constant for atmospheric conditions of 0.112 listed in Table C407.5.1(1) results in a program input value of 0.045 cfm/sf of exterior surface area. This in turn was converted to an air change/hour value using the volume of the space. Space level infiltration rates are shown in **Error! Reference source not found.**. For dwelling units, infiltration is assumed to be constant, adjusted for windspeed from the TMY3 weather file. Whole house fan exhaust is added to the infiltration rate.

D. HVAC Zoning

All HVAC systems are modeled explicitly and match the zoning of the actual building.

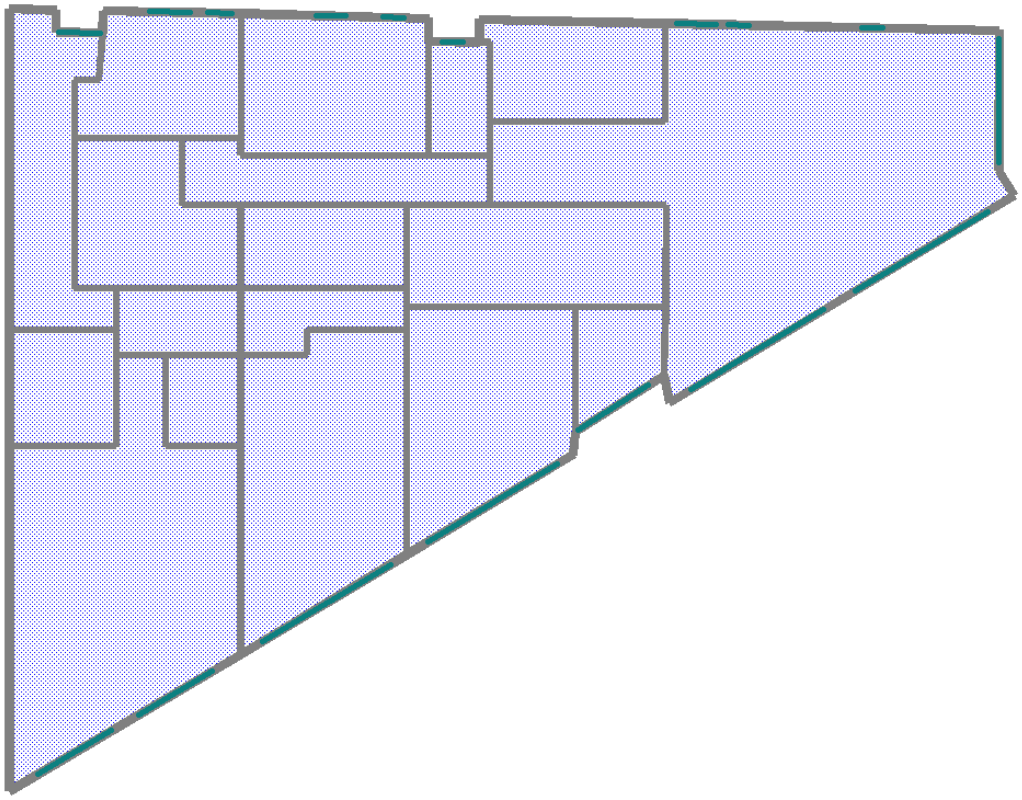


Figure 11 - Level 1

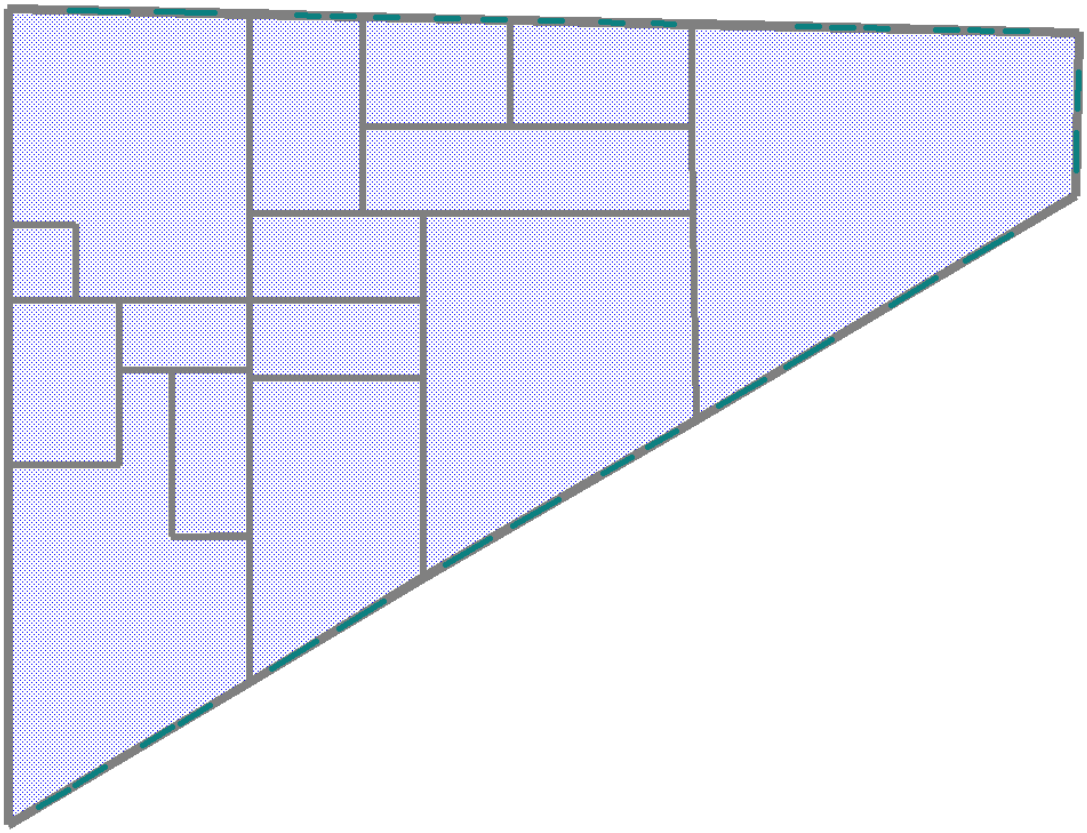


Figure 12 - Level 2

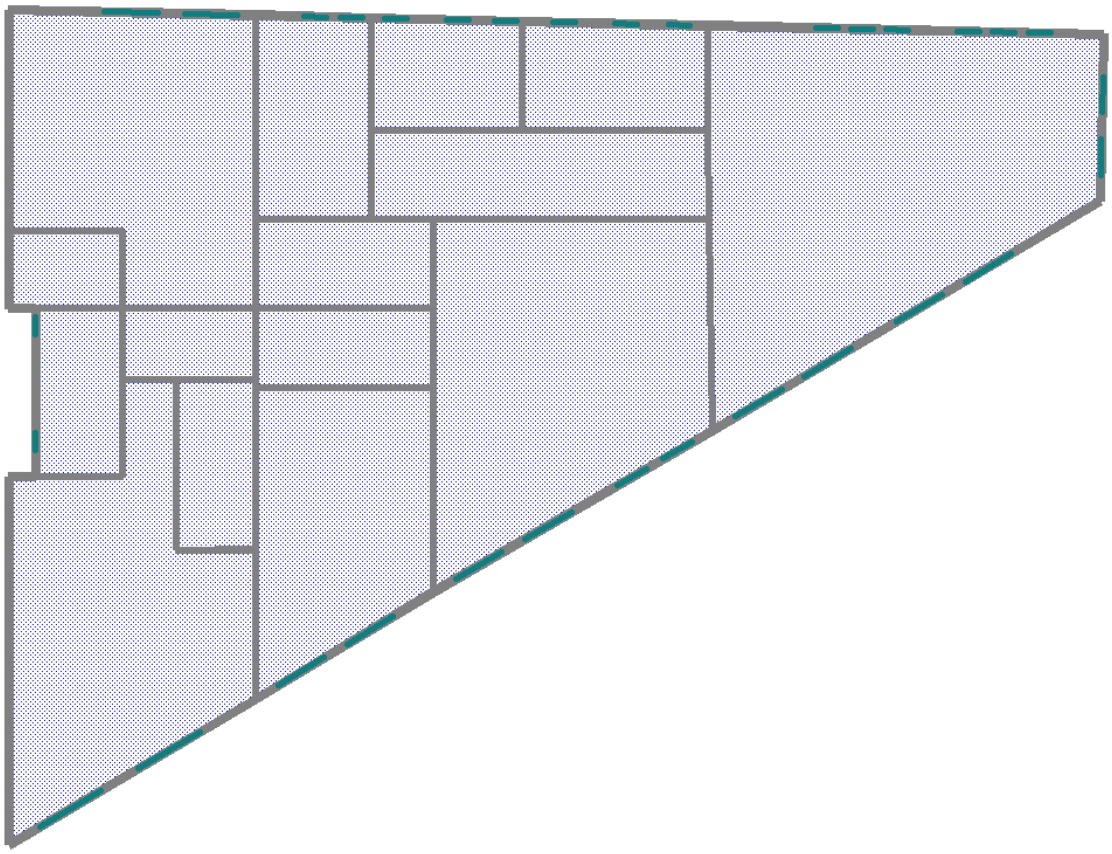


Figure 13 - Level 3

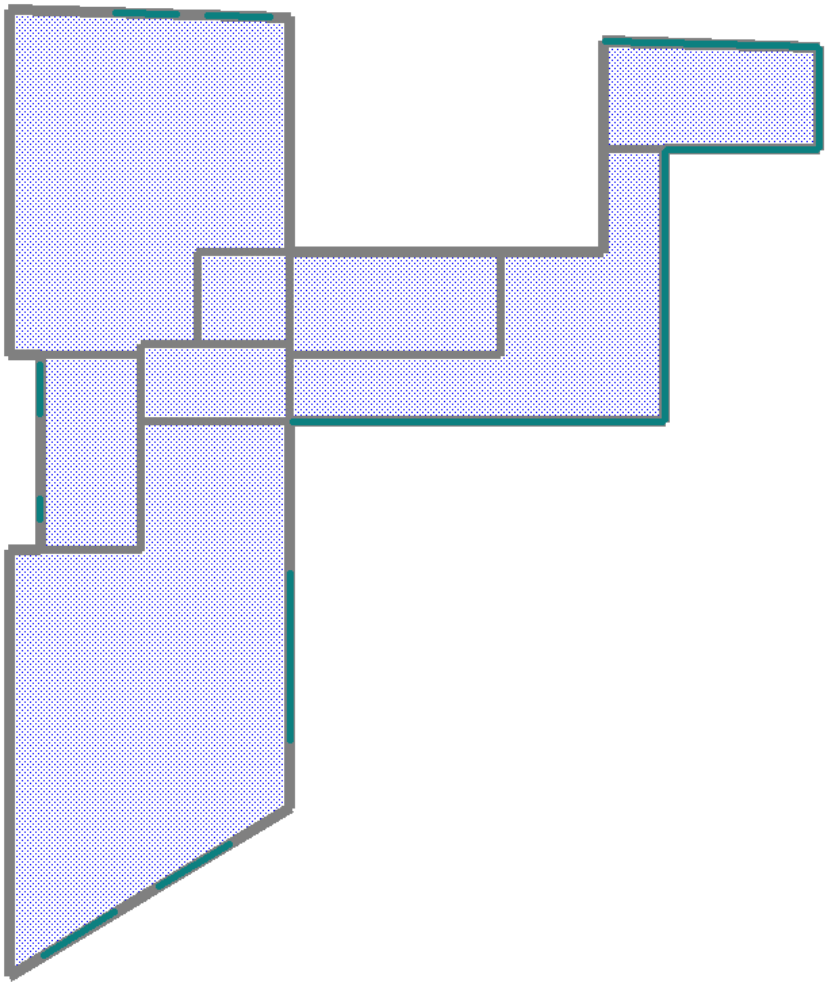


Figure 14 - Level 4

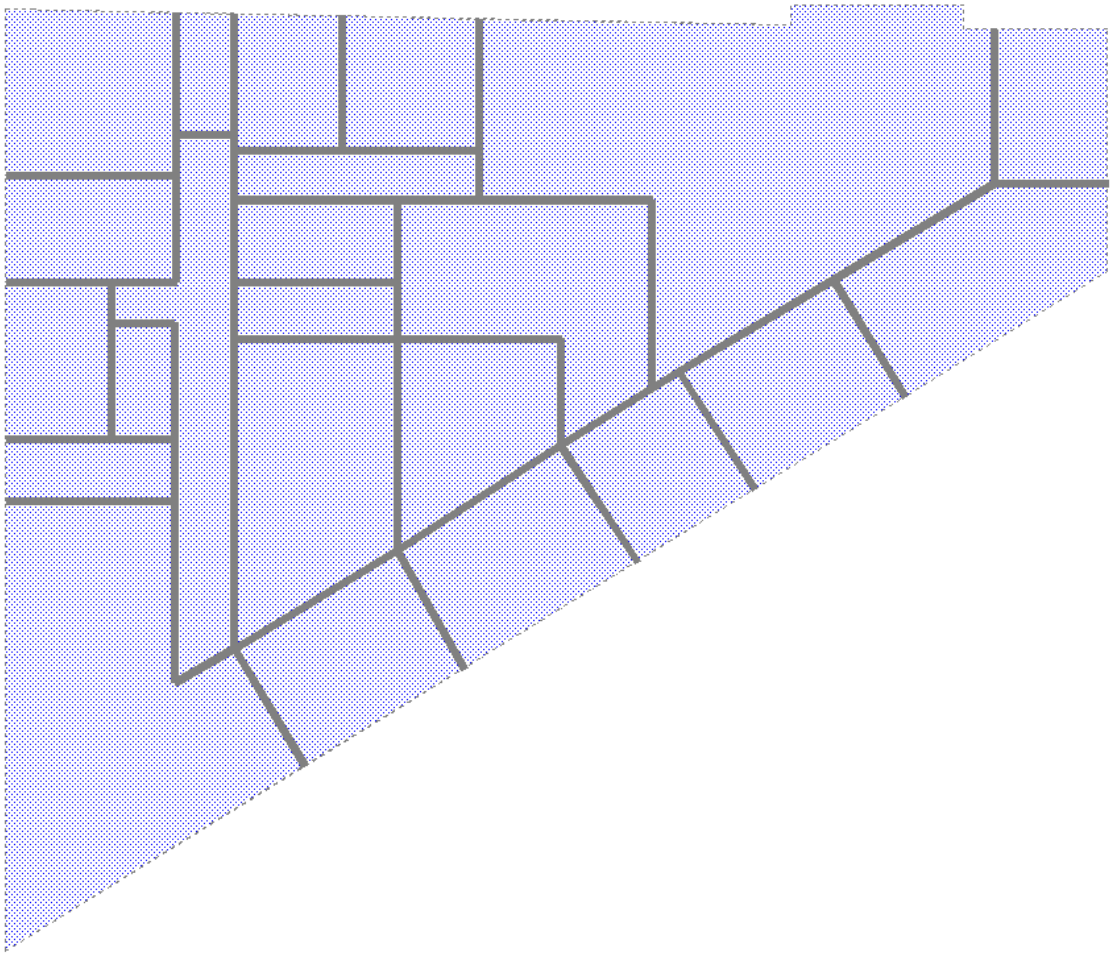


Figure 15 – Basement

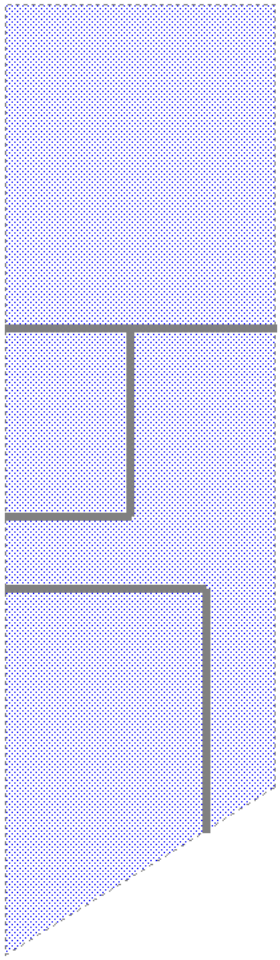


Figure 16 - Sub-Basement

E. Lighting System

The project assumes that lighting will comply with C406.3 while the submission does not include a lighting design at this time. The permit applicant understands that : 1) an electrical permit application shall be submitted and approved prior to the issuance of the building permit per SEC C407.2 and TIP 423; and 2) the electrical/ lighting permit number and the Lighting Forms from the SDCI web site shall also be submitted for verification. All electrical documentation will be provided by others.

Table 14 - Modeled Lighting Power Density

Space Type	C404 LPD	C406.3 LPD
Child care	0.90	0.6750
Storage	0.45	0.3375
Stairs	0.50	0.3750
Corridor	0.48	0.3600
Trash	0.45	0.3375
Kitchens	0.71	0.5325
Elevator and shaft	0	0
Vestibule	0.65	0.4875
Lobby	0.65	0.4875
Event space	0.88	0.6600
Bathrooms	0.70	0.5250
Open office	0.70	0.5250
Lounge	0.52	0.3900
Transformer vault	0.68	0.5100
Electrical/ Mechanical rooms	0.68	0.5100
Meeting room	0.88	0.6600

F. Space Heating and Space Cooling

1. Manufacturer's Specifications

HVAC schedules from permit drawings:

ENERGY RECOVERY VENTILATORS

TAG	LOCATION/ SERVICE	MANUFACTURER	MODEL	FLOW (CFM)	ECOVERY EFFICIENC		WEIGHT (LBS)	ELECTRICAL		NOTES
					SENSIBLE	LATENT		V/PH	MCA	
ERV-B-1	BASEMENT / EVENT	VENTACITY	VS400CM	370	86%	79%	260	208V/1Ph	15.1	
ERV-B-2	BASEMENT / EVENT	VENTACITY	VS1200CM	960	86%	77%	550	208V/1Ph	36.7	
ERV-1-1	LEVEL 1 / CHILDCARE	VENTACITY	VS900CM	405	86%	79%	400	208V/1Ph	29.1	
ERV-1-2	LEVEL 1 / EVENT	VENTACITY	VS900CM	410	86%	79%	400	208V/1Ph	29.1	
ERV-MEZZ	MEZZANINE	VENTACITY	VS250CM	60	85%	75%	160	208V/1Ph	8.2	
ERV-2-1	LEVEL 2 / CHILDCARE	VENTACITY	VS900CM	560	86%	79%	400	208V/1Ph	29.1	
ERV-2-2	LEVEL 2 / OFFICE	VENTACITY	VS400CM	340	86%	79%	260	208V/1Ph	15.1	
ERV-3-1	LEVEL 3 / CHILDCARE	VENTACITY	VS900CM	540	86%	79%	400	208V/1Ph	29.1	
ERV-3-2	LEVEL 3 / OFFICE	VENTACITY	VS400CM	360	86%	79%	260	208V/1Ph	15.1	
ERV-4-1	LEVEL 4 / CHILDCARE	VENTACITY	VS250CM	170	85%	75%	160	208V/1Ph	8.2	

NOTES:

1. BMS SHALL CONTROL FANS BASED ON STANDARD OCCUPANCY SCHEDULE. POWER FANS ON 1 HR BEFORE BUILDING OPENS AND 1 HOUR AFTER BUILDING CLOSES, OPEN AND SHUT MOTORIZED DAMPERS ALONG WITH FANS.

INVERTER DRIVEN AIR SOURCE HEAT PUMP

TAG	LOCATION / SERVICE	MFR	MODEL	REFRIGERANT	NOMINAL HEATING CAPACITY (BTUH)	NOMINAL COOLING CAPACITY (BTUH)	FLOW (GPM)		/ATER TEMP (HEATIN		/ATER TEMP (COOLIN		EER (SEER)	COP (@ 47°F)	VOLTS/ PHASE	MCA	WEIGHT (LBS)
							HEATING	COOLING	EWT (°F)	LWT (°F)	EWT (°F)	LWT (°F)					
ASHP-1	HEATING/COOLING	AERMEC	ANKI-045H-J5	R410A	41,300	40,800	5.9	9.7	95	105	65	55	10.63	3.04	220V/1Ph	34.6	525
ASHP-2	HEATING/COOLING	AERMEC	ANKI-045H-J5	R410A	41,300	40,800	5.9	9.7	95	105	65	55	10.63	3.04	220V/1Ph	34.6	525
ASHP-3	HEATING/COOLING	AERMEC	ANKI-045H-J5	R410A	41,300	40,800	5.9	9.7	95	105	65	55	10.63	3.04	220V/1Ph	34.6	525
ASHP-4	HEATING/COOLING	AERMEC	ANKI-045H-J5	R410A	41,300	40,800	5.9	9.7	95	105	65	55	10.63	3.04	220V/1Ph	34.6	525
ASHP-5	HEATING/COOLING	AERMEC	ANKI-045H-J5	R410A	41,300	40,800	5.9	9.7	95	105	65	55	10.63	3.04	220V/1Ph	34.6	525
ASHP-6	HEATING/COOLING	AERMEC	ANKI-045H-J5	R410A	41,300	40,800	5.9	9.7	95	105	65	55	10.63	3.04	220V/1Ph	34.6	525
ASHP-7	HEATING/COOLING	AERMEC	ANKI-045H-J5	R410A	41,300	40,800	5.9	9.7	95	105	65	55	10.63	3.04	220V/1Ph	34.6	525
ASHP-8	HEATING/COOLING	AERMEC	ANKI-045H-J5	R410A	41,300	40,800	5.9	9.7	95	105	65	55	10.63	3.04	220V/1Ph	34.6	525
ASHP-9	HEATING/COOLING	AERMEC	ANKI-045H-J5	R410A	41,300	40,800	5.9	9.7	95	105	65	55	10.63	3.04	220V/1Ph	34.6	525
ASHP-10	HEATING/COOLING	AERMEC	ANKI-045H-J5	R410A	41,300	40,800	5.9	9.7	95	105	65	55	10.63	3.04	220V/1Ph	34.6	525
ASHP-11	HEATING/COOLING	AERMEC	ANKI-045H-J5	R410A	41,300	40,800	5.9	9.7	95	105	65	55	10.63	3.04	220V/1Ph	34.6	525
ASHP-12	HEATING/COOLING	AERMEC	ANKI-045H-J5	R410A	41,300	40,800	5.9	9.7	95	105	65	55	10.63	3.04	220V/1Ph	34.6	525

CHILLED BEAMS

TAG	LOCATION/ SERVICE	MFR	MODEL	COOLING CAPACITY (BTUH)	EWT (°F)	LWT (°F)	FLOW (GPM)	PRESS DROP (ft wg)	DRY WEIGHT (LBS/ft.)	FILLED WEIGHT (LBS/ft.)	NOTES
CB-4	SEE PLANS / COOLING	SWEGON	FRB c-430-1.2-H	916	57	58.5	1.2	2.1	4.9	5.4	
CB-5	SEE PLANS / COOLING	SWEGON	FRB c-430-1.5-H	1156	57	58.9	1.2	2.5	4.9	5.4	
CB-6	SEE PLANS / COOLING	SWEGON	FRB c-430-1.8-H	1389	57	59.3	1.2	2.9	4.9	5.4	
CB-7	SEE PLANS / COOLING	SWEGON	FRB c-430-2.1-H	1614	57	59.7	1.2	3.4	4.9	5.4	
CB-8	SEE PLANS / COOLING	SWEGON	FRB c-430-2.4-H	1833	57	60.1	1.2	3.8	4.9	5.4	
CB-9	SEE PLANS / COOLING	SWEGON	FRB c-430-2.7-H	2046	57	60.4	1.2	4.2	4.9	5.4	
CB-10	SEE PLANS / COOLING	SWEGON	FRB c-430-3.0-H	2253	57	60.7	1.2	4.6	4.9	5.4	
CB-11	SEE PLANS / COOLING	SWEGON	FRB c-430-3.3-H	2453	57	61.1	1.2	5.0	4.9	5.4	
CB-12	SEE PLANS / COOLING	SWEGON	FRB c-430-3.6-H	2649	57	61.4	1.2	5.4	4.9	5.4	
CB-13	SEE PLANS / COOLING	SWEGON	FRB c-430-3.9-H	2838	57	61.7	1.2	5.9	4.9	5.4	

NOTES:

FAN COIL UNITS

TAG	LOCATION / SERVICE	MFR	MODEL	HEAT EXCHANGE FLUID	NOMINAL	NOMINAL	FLOW (GPM)		CHW WATER TEMP		HHW WATER TEMP		CFM	ESP (in wg)	VOLTS/ PHASE	MOT OR	WEIGHT (LBS)
					HEATING	COOLING	HEATING	COOLING	EWT (°F)	LWT (°F)	EWT (°F)	LWT (°F)					
FCU-BRK2	LEVEL 2 BREAK / HTG & CLG	SONKOR	PCG-08	WATER	4,878	9,129	0.2	1.8	57	67	103	88	306		120V/1	18	67
FCU-BRK3	LEVEL 3 BREAK / HTG & CLG	SONKOR	PCG-08	WATER	4,878	9,129	0.2	1.8	57	67	103	88	306		120V/1	18	67
FCU-EV2-1	BASEMENT EVENT / HTG & CLG	SONKOR	PDWB(4R+2)-1600	WATER	15,912	16,241	2.1	6.7	57	67	103	88	1055	0.24	208V/1	220	
FCU-EV2-2	BASEMENT EVENT / HTG & CLG	SONKOR	PDWB(4R+2)-1600	WATER	15,912	16,241	2.1	6.7	57	67	103	88	1055	0.24	208V/1	220	110
FCU-EV9-1	BASEMENT EVENT / HTG & CLG	SONKOR	PDWB(4R+2)-1200	WATER	27,481	27,978	3.6	11.4	57	67	103	88	1865	0.25	208V/1	220	128
FCU-EV9-2	BASEMENT EVENT / HTG & CLG	SONKOR	PDWB(4R+2)-1200	WATER	27,481	27,978	3.6	11.4	57	67	103	88	1865	0.25	208V/1	220	128

2. Energy Efficiency Ratings per AHRI Standards

Primary heating and cooling is provided by six identical air-to-water heat pumps with rated performance shown in Figure 17. Ventilation is provided using Ventacity energy recovery ventilators with rated performance shown in Figure 18.

PERFORMANCE SPECIFICATIONS

ANKI - (°)

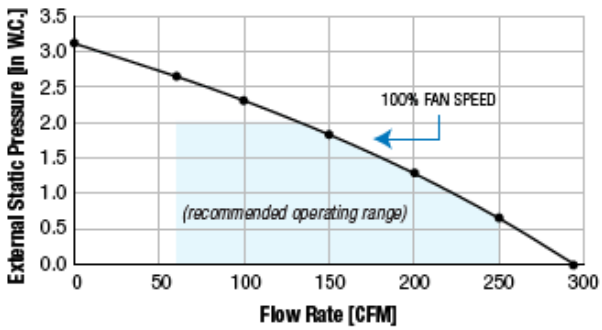
Size		020	025	040	045
Cooling performance 54.1 °F / 44.1 °F (1)					
Cooling capacity	ton	1.7	2.1	2.7	3.4
Input power	kW	2.0	2.6	3.1	4.2
Cooling total input current	A	8.0	11.0	14.0	18.0
EER	BTU/W	10.16	9.55	10.18	9.51
IPLV	BTU/W	17.81	17.87	16.25	17.55
Water flow rate system side	gpm	4.5	5.5	7.1	8.9
Pressure drop system side	ft H_2O	5.35	7.36	4.34	6.35
Heating performance 104 °F / 113 °F (2)					
Heating capacity	BTU/h	21,261	26,600	31,915	42,077
Input power	kW	1.9	2.5	3.1	4.1
Heating total input current	A	8.0	10.0	13.0	18.0
COP	kW/kW	3.22	3.17	3.05	3.00
Water flow rate system side	gpm	4.7	6.0	7.3	9.4
Pressure drop system side	ft H_2O	4.68	7.02	3.34	5.68

(1) Data: System side water heat exchanger 54.1 °F / 44.1 °F; External air 95 °F
(2) Data: System side water heat exchanger 104 °F / 113 °F; External air 44.6 °F

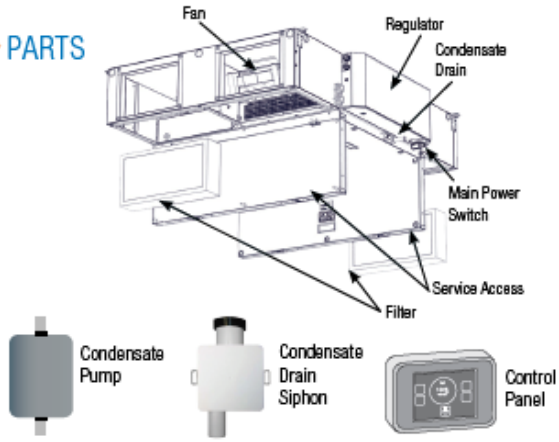
Figure 17 – Air-to-Water Heat Pumps

FAN OPERATING RANGE

60 – 250 CFM
0 – 2.0" W.C. ESP

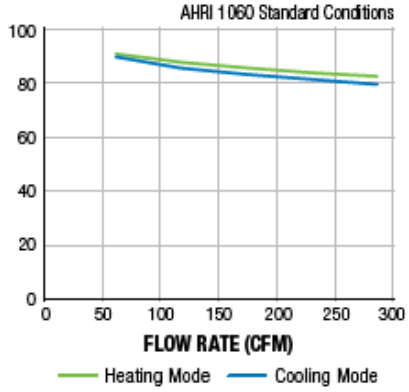


PARTS



HEAT RECOVERY EFFICIENCY

AHRI 1060 Standard Conditions



FAN VOLUME

Ext. Static Pressure (in. W.C.)	0.67	1.30	1.85	2.33	2.67
Maximum Flow (CFM)	250	200	150	100	60
System Power (Watts)	245	253	253	244	229

FAN POWER*

Airflow (CFM)	250	200	150	100	60
CFM/WATT (2 Fans)	1.6	2.1	2.6	2.9	2.5
System Power (Watts)	175	117	78	55	44

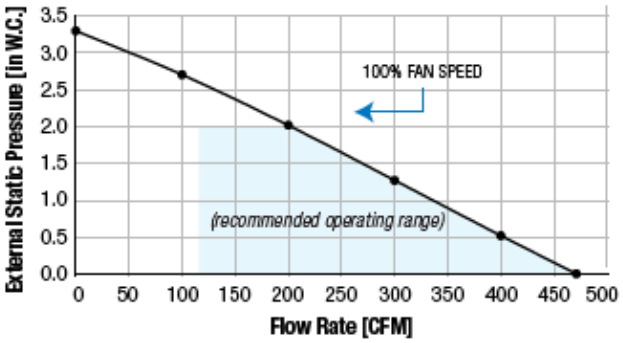
* at 1/8" water column

3

Figure 18 – Ventacity VS250CM: ERVs: ERV-MEZZ, ERV-4-1

FAN OPERATING RANGE

120 – 480 CFM
0 – 2.0" W.C. ESP



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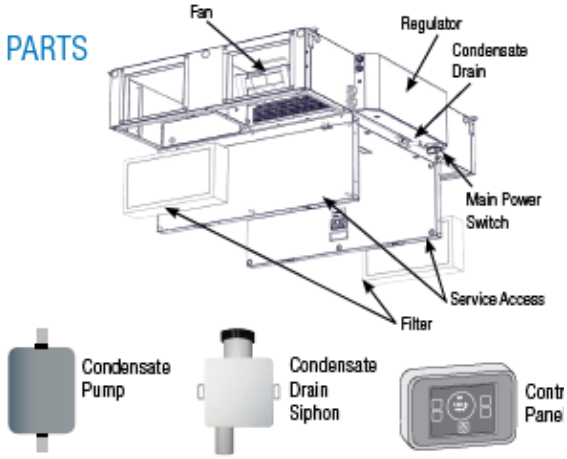
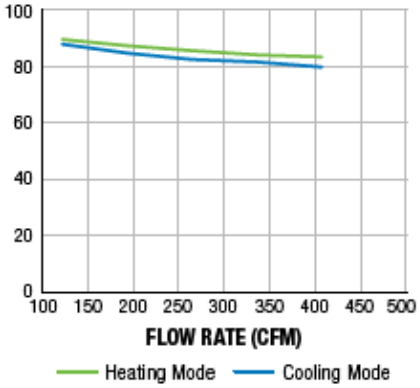


HEAT RECOVERY EFFICIENCY

AHRI 1060 Standard Conditions



FAN VOLUME

Ext. Static Pressure (in. W.C.)	0.52	1.27	2.01	2.70
Maximum Flow (CFM)	400	300	200	100
System Power (Watts)	815	390	389	357

FAN POWER*

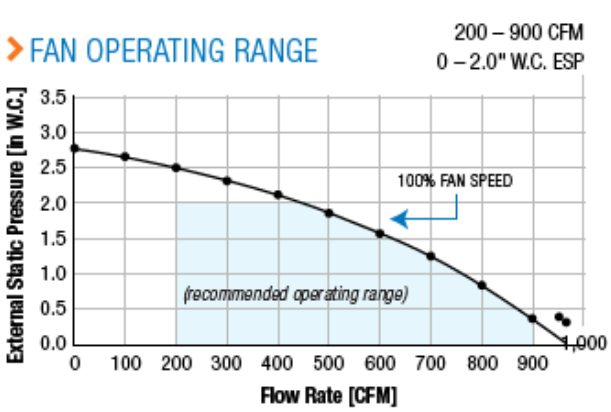
Airflow (CFM)	450	400	300	200	100
CFM/WATT (2 Fans)	1.3	1.5	2.1	2.6	2.7
System Power (Watts)	361	282	166	96	57

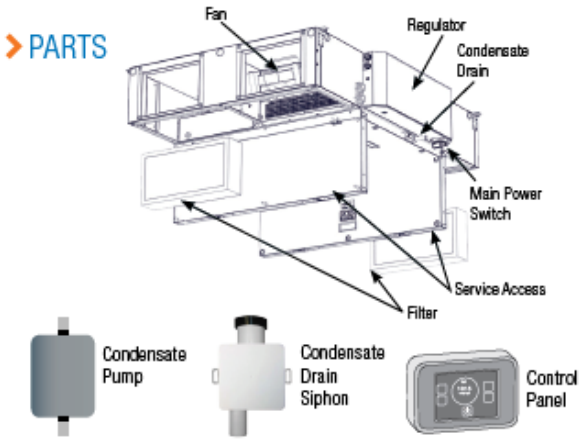
* at 1/8" water column

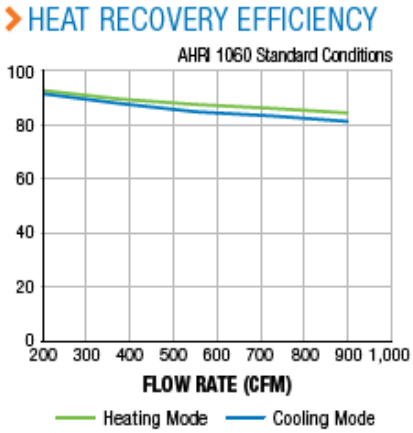
Rev 01.03

3

Figure 19 - Ventacity VS400CM: ERV-B-1, ERV-2-2, ERV-3-2







FAN VOLUME

Ext. Static Pressure (in. W.C.)	0.34	1.20	1.83	2.28	2.61
Maximum Flow (CFM)	900	700	500	300	100
System Power (Watts)	797	882	786	640	429

FAN POWER*

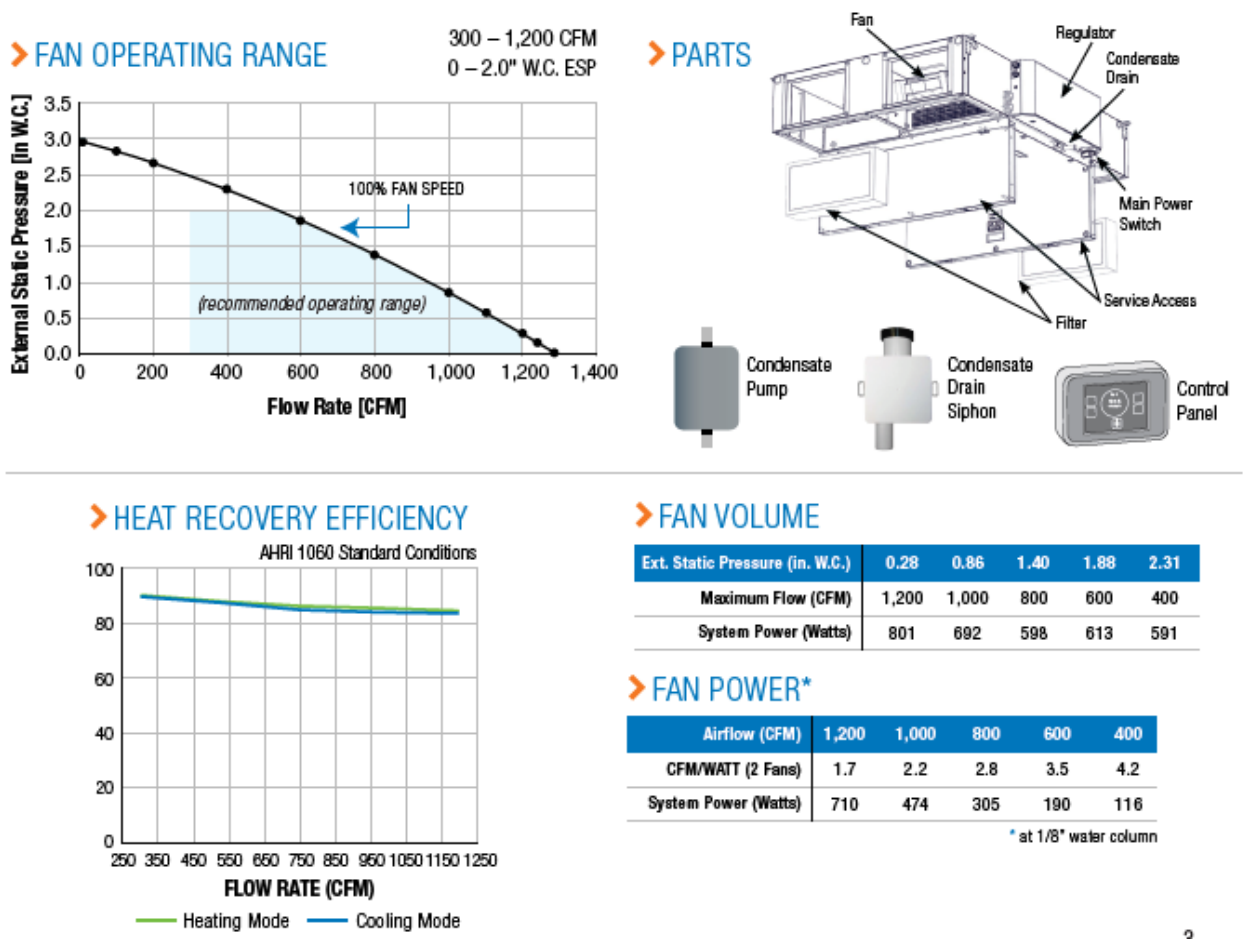
Airflow (CFM)	900	700	500	300	100
CFM/WATT (2 Fans)	1.1	1.5	2.2	3.1	2.4
System Power (Watts)	816	472	245	116	62

* at 1/8" water column

Rev 01.03

3

Figure 20 - Ventacity VS900CM: ERV-1-1, ERV-2-1, ERV-3-1



Ext. Static Pressure (in. W.C.)	0.28	0.86	1.40	1.88	2.31
Maximum Flow (CFM)	1,200	1,000	800	600	400
System Power (Watts)	801	692	598	613	591

Airflow (CFM)	1,200	1,000	800	600	400
CFM/WATT (2 Fans)	1.7	2.2	2.8	3.5	4.2
System Power (Watts)	710	474	305	190	116

Figure 21 - Ventacity VS1200CM: ERV-B-2

3. Standard Design Equipment Size

The system heating and cooling capacities in the standard reference design were obtained by doing a sizing run of the standard reference design with a heating and cooling sizing ratio that is the identical to the ratio of heating and cooling capacity of the proposed design capacity to the capacity obtained from a sizing run of the proposed case. Table 12 shows that heating and cooling sizing ratios are identical for the proposed and SRD simulations. Seattle cooling and heating design day conditions are from the 2017 ASHRAE Fundamentals Handbook. As required by Table C407.5.1(1) of the 2015 SEC, Table 15 shows a total of fours hours of unmet loads for the SRD and proposed models.

Table 15 - Unmet Load Hours

	Standard Reference Design	Proposed Design
Cooling unmet load hours	1	0
Heating unmet load hours	3	4

Table 16 - Proposed and Standard Design Sizing Ratio Capacity

	Proposed Building						SRD Baseline Building					
	Sim kBtuh		Auto kBtuh		Sizing Ratio		Sim kBtuh		Auto kBtuh		Sizing Ratio	
System	Clg	Htg	Clg	Htg	Clg	Htg	Clg	Htg	Clg	Htg	Clg	Htg
Sys1CB	18.6	23.3	18.0	23.3	1.04	1.00	29.8	25.8	28.7	25.8	1.04	1.00
Sys2CB	2.8	11.4	9.1	11.4	0.31	1.00	3.1	9.0	9.9	9.0	0.31	1.00
Sys3CB	10.6	11.2	10.2	11.2	1.04	1.00	15.2	13.0	14.5	13.0	1.05	1.00
Sys4CB	13.2	25.5	14.0	25.5	0.94	1.00	22.9	21.7	24.1	21.7	0.95	1.00
Sys5CB	40.1	50.3	33.0	50.3	1.22	1.00	58.2	42.9	47.7	42.9	1.22	1.00
Sys6CB	15.9	36.6	12.1	36.6	1.31	1.00	28.7	19.7	21.9	19.7	1.31	1.00
Sys7CB	16.4	16.5	12.9	16.5	1.27	1.00	19.7	13.9	15.5	13.9	1.27	1.00
Sys8CB	9.0	8.5	5.5	8.5	1.63	1.00	12.1	6.6	7.4	6.6	1.64	1.00
Sys9FC	9.1	8.3	2.5	8.3	3.60	1.00	18.0	4.5	5.0	4.5	3.60	1.00
Sys10CB	14.5	14.8	11.2	14.8	1.30	1.00	18.4	12.8	14.2	12.8	1.30	1.00
Sys11CB	23.9	35.8	16.6	35.8	1.43	1.00	37.0	23.1	25.7	23.1	1.44	1.00
Sys12CB	15.9	20.8	14.3	20.8	1.11	1.00	21.3	17.3	19.2	17.3	1.11	1.00
Sys13CB	16.4	14.5	14.3	14.5	1.15	1.00	17.2	13.5	15.0	13.5	1.15	1.00
Sys14CB	9.0	9.5	5.6	9.5	1.61	1.00	12.2	6.8	7.6	6.8	1.61	1.00
Sys15FC	9.1	11.7	2.5	11.7	3.63	1.00	21.9	5.4	6.0	5.4	3.64	1.00
Sys16CB	14.5	15.3	10.1	15.3	1.43	1.00	19.1	11.9	13.3	11.9	1.44	1.00
Sys17CB	29.0	39.4	16.2	39.4	1.79	1.00	50.4	25.2	28.0	25.2	1.80	1.00
Sys18CB	16.9	18.2	10.6	18.2	1.59	1.00	32.2	18.1	20.1	18.1	1.60	1.00
Sys19CB	17.1	14.2	8.2	14.2	2.08	1.00	33.7	14.6	16.2	14.6	2.08	1.00
Sys20FC	56.0	106.7	48.8	106.7	1.15	1.00	104.0	81.4	90.5	81.4	1.15	1.00
Sys21FC	32.5	61.2	17.8	61.2	1.82	1.00	35.7	17.5	19.5	17.5	1.83	1.00
Sys22CB	5.3	7.7	4.7	7.7	1.14	1.00	6.8	5.4	6.0	5.4	1.14	1.00
Sys23DfltClg	2.1	1.9	2.1	1.9	1.00	1.00	2.4	2.1	2.4	2.1	1.00	1.00
Sys24DfltClg	2.0	3.8	2.0	3.8	1.00	1.00	2.5	2.3	2.5	2.3	1.00	1.00
Sys25DfltClg	19.7	12.7	19.7	12.7	1.00	1.00	17.4	15.7	17.4	15.7	1.00	1.00
Sys26DfltClg	2.2	4.7	2.2	4.7	1.00	1.00	7.4	6.6	7.4	6.6	1.00	1.00
Sys27DfltClg	6.8	9.1	6.8	9.1	1.00	1.00	6.3	5.7	6.3	5.7	1.00	1.00
Sys28DfltClg	1.1	2.7	1.1	2.7	1.00	1.00	2.2	1.9	2.2	1.9	1.00	1.00
Sys29DfltClg	4.1	6.7	4.1	6.7	1.00	1.00	4.1	3.7	4.1	3.7	1.00	1.00

G. Ventilation

1. Space Conditioning Supply Fan Power

Standard Reference Design: The SRD system consists of rooftop package heat pumps. According to Table C407.5.1, fan power should be modeled as follow:

$$P_{fan} = \frac{746 \times BHP}{Fan\ Motor\ Efficiency}$$

Where "BHP" is the brake horsepower for constant volume fans from Table C403.2.11.1[1]. The final baseline fan input at 0.779 W/cfm.

Proposed Design: There are six fan coils serving event space and break rooms with supply fans. These are modeled as only running when there is a demand for heating or cooling. There are also several spaces with only baseboard heating and no cooling. These are modeled with package rooftop air conditioners and hot water baseboard heat. Fans are simulated as only operating when there is a cooling demand in the space. Fan power is modeled identically to the SRD at 0.779 W/cfm. Fan power for all proposed and SRD systems is shown in Table 12.

2. Outside Air Supply Fan Power

Outside air is supplied through DOAS systems. There are 10 DOAS systems with ERVs in the proposed building and a single DOAS with ERV in the SRD. Fan power for all proposed and SRD systems is shown in Table 12. Refer to energy efficiency ratings above for documentation of fan power for the proposed ERVs.

H. Interior Exhaust Fans

(not applicable)

I. Parking Garage Fans

(not applicable)

J. Service Water Heating

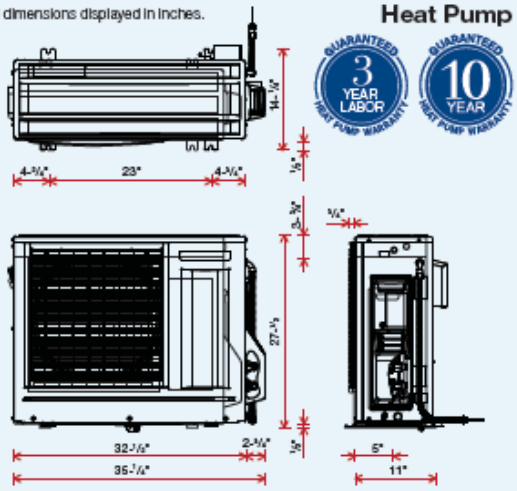
Water heating is provided using three Sanden heat pump water heaters with external 119 storage tanks plus a single buffer tank with a supplemental electric heater. The heat pumps are controlled to produce a higher temperature than the building supply temperature (150F vs 120F), therefore it is not expected that the electric elements will operate. The SRD baseline is configured identically with all water heating being electric resistance.

[1] 0.00094 BHP/cfm

SANCO2 GEN3 Specifications

All dimensions displayed in inches.

Heat Pump

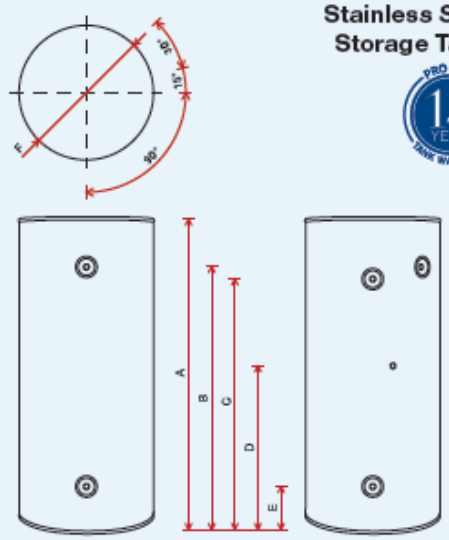


Outdoor Unit (Heat Pump) Model No. GS3-45HPA-US

Performance	43-gal. sys.	83-gal. sys.	119-gal. sys.
Uniform Energy Factor	2.85	3.34	3.23
First Hour Rating	65 gallons	109 gallons	130 gallons

Specifications	
Water Temperature Setting	130°F to 175°F
Ambient Air Operating Temperature	-20°F to +110°F
Heat Pump Capacity	15,400 Btu/h
Heat Pump Capacity	4.5 kW
Heat Pump COP	5.2
Refrigerant Type	R744 (CO_2)
Compressor Type	Inverter
Power Voltage	208/230v –1Ph – 60Hz
Breaker Size	15 Amps
MCA	13 Amps
Outdoor Operating Noise Level	37 dB
Weight	106 lbs
Pipe Size (Tank to Heat Pump)	1/2" (Hot & Cold)
Max Length Inc Vertical	50 ft
Max Vertical Separation	16 ft
Max Water Pressure	95 Psig

Stainless Steel Storage Tank*



Tank Model No:	SAN-43SSAQA	SAN-83SSAQA	SAN-119GLBK*
A Height	38-1/4"	68-7/8"	63-1/2"
B Hot Water Outlet & PR Valve	29-1/2"	60-1/4"	56"
C Heat Pump Return	29-1/2"	60-1/4"	60-1/4"
D Sensor Port	9-3/4"	40 3/8"	56"
E Cold Water Inlet / Cold Water to HP	8-3/4"	8-3/4"	4"
F Diameter	24-1/2"	24-1/2"	28"
Weight (lbs)	88 lbs	115 lbs	345 lbs
Tank Capacity (gallons)	43 gallons	83 gallons	119 gallons
Warranty	15 years	15 years	10 years*

Connection Sizes	
Cold Water Inlet	3/4" NPT
Hot Water Outlet	3/4" NPT
Cold Water to Heat Pump	3/4" NPT
Hot Water Return from Heat Pump	3/4" NPT
Pressure Relief Valve Setting (Psig)	125 Psig

*SAN-119GLBK tank is a glass-lined steel tank with a 10 year warranty.
Note: Materials and specifications are subject to change without notice.

REV 050219

ENERGY STAR
Excludes SAN-119GLBK

For more information, please call **1-844-SANDCO2** or email **info@sandenwaterheater.com**.

K. Other End Uses

1. Elevators: Elevator energy use is estimated to be 1,500 kWh per year for both the proposed and SRD models.
2. Miscellaneous Equipment: Per SEC Appendix E.

L. Computer Printout of Inputs and Outputs

Standard Reference Design

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- LV-B Summary of Spaces WEATHER FILE- SEATTLE BOEING FI WA

NUMBER OF SPACES 84 EXTERIOR 50 INTERIOR 34

SPACE	SPACE*FLOOR MULTIPLIER	SPACE TYPE	AZIM	LIGHTS (WATT / SQFT)	PEOPLE	EQUIP (WATT / SQFT)	INFILTRATION METHOD	ACH	AREA (SQFT)	VOLUME (CUFT)
Spaces on floor: L1Ground Flr										
L1SW Perim Spc (G.SW1)	1.0	EXT	-30.6	0.67	13.2	0.50	AIR-CHANGE	0.20	989.5	18503.2
L1Core Spc (G.C2)	1.0	INT	0.0	0.34	0.4	0.78	AIR-CHANGE	0.00	99.0	1851.3
L1West Perim Spc (G.W3)	1.0	EXT	0.0	0.37	0.7	0.75	AIR-CHANGE	0.21	179.2	3351.0
L1WNW Perim Spc (G.WNW4)	1.0	EXT	181.0	0.36	1.2	0.75	AIR-CHANGE	0.42	337.4	6309.9
L1Core Spc (G.C5)	1.0	INT	0.0	0.36	0.4	0.78	AIR-CHANGE	0.00	120.0	2244.0
L1Core Spc (G.C6)	1.0	INT	0.0	0.67	4.1	0.53	AIR-CHANGE	0.00	304.0	5684.8
L1North Perim Spc (G.N7)	1.0	EXT	92.2	0.34	1.0	0.75	AIR-CHANGE	0.19	276.3	5166.9
L1SSE Perim Spc (G.SSE8)	1.0	EXT	0.0	0.53	2.3	0.75	AIR-CHANGE	0.10	636.0	11893.2
L1Core Spc (G.C9)	1.0	INT	0.0	0.36	0.5	0.78	AIR-CHANGE	0.00	124.0	2318.8
L1Core Spc (G.C10)	1.0	INT	0.0	0.00	0.0	0.03	AIR-CHANGE	0.00	200.0	3740.0
L1Core Spc (G.C11)	1.0	INT	0.0	0.36	0.9	0.78	AIR-CHANGE	0.00	236.0	4413.2
L1North Perim Spc (G.N12)	1.0	EXT	-90.0	0.34	1.4	0.75	AIR-CHANGE	0.18	378.0	3401.9
L1North Perim Spc (G.N13)	1.0	EXT	90.0	0.36	0.4	0.75	AIR-CHANGE	0.16	100.4	903.8
L1North Perim Spc (G.N14)	1.0	EXT	90.0	0.38	0.9	0.75	AIR-CHANGE	0.26	256.3	4792.8
L1SSE Perim Spc (G.SSE15)	1.0	EXT	-32.5	0.49	0.5	0.75	AIR-CHANGE	0.27	125.8	2351.8
L1SE Perim Spc (G.SE16)	1.0	EXT	-90.0	0.49	1.7	0.75	AIR-CHANGE	0.15	478.3	8943.8
L1Core Spc (G.C17)	1.0	INT	0.0	0.49	1.4	0.78	AIR-CHANGE	0.00	381.6	7135.7
L1East Perim Spc (G.E18)	1.0	EXT	79.7	0.66	31.1	0.75	AIR-CHANGE	0.19	1554.6	29070.5
Space 84	1.0	EXT	-90.0	0.34	1.7	0.75	AIR-CHANGE	0.18	478.6	4642.7
Spaces on floor: L2Ground Flr										
L2SW Perim Spc (G.SW1)	1.0	EXT	-30.6	0.67	12.2	0.51	AIR-CHANGE	0.22	915.7	11721.2
L2Core Spc (G.C2)	1.0	INT	0.0	0.52	0.6	0.75	AIR-CHANGE	0.00	172.8	2211.8
L2West Perim Spc (G.W3)	1.0	EXT	0.0	0.37	0.9	0.76	AIR-CHANGE	0.26	243.2	3113.0
L2West Perim Spc (G.W4)	1.0	EXT	0.0	0.52	0.2	0.76	AIR-CHANGE	0.35	67.6	865.8
L2Core Spc (G.C5)	1.0	INT	0.0	0.36	0.4	0.75	AIR-CHANGE	0.00	120.0	1536.0
L2NW Perim Spc (G.NW6)	1.0	EXT	90.0	0.67	11.4	0.51	AIR-CHANGE	0.17	857.4	10974.8
L2SSE Perim Spc (G.SSE7)	1.0	EXT	0.0	0.53	2.1	0.76	AIR-CHANGE	0.11	580.0	7424.0
L2Core Spc (G.C8)	1.0	INT	0.0	0.36	0.7	0.75	AIR-CHANGE	0.00	180.0	2304.0
L2Core Spc (G.C9)	1.0	INT	0.0	0.00	0.0	0.00	AIR-CHANGE	0.00	200.0	2560.0
L2Core Spc (G.C10)	1.0	INT	0.0	0.36	1.4	0.75	AIR-CHANGE	0.00	380.8	4873.6
L2North Perim Spc (G.N11)	1.0	EXT	0.0	0.52	1.1	0.76	AIR-CHANGE	0.12	296.7	3798.1
L2North Perim Spc (G.N12)	1.0	EXT	0.0	0.39	0.8	0.76	AIR-CHANGE	0.22	212.1	2714.6
L2North Perim Spc (G.N13)	1.0	EXT	0.0	0.38	0.9	0.76	AIR-CHANGE	0.22	253.1	3239.0
L2SSE Perim Spc (G.SSE14)	1.0	EXT	0.0	0.53	3.8	0.76	AIR-CHANGE	0.10	1032.5	13215.4
L2East Perim Spc (G.E15)	1.0	EXT	-88.8	0.52	5.2	0.76	AIR-CHANGE	0.22	1425.2	18242.7

Spaces on floor: L3Ground Flr

L3SW Perim Spc (G.SW1)	1.0	EXT	-30.6	0.67	12.2	0.51	AIR-CHANGE	0.23	915.7	11080.0
L3Core Spc (G.C2)	1.0	INT	0.0	0.52	0.6	0.75	AIR-CHANGE	0.00	172.8	2090.9
L3West Perim Spc (G.W3)	1.0	EXT	0.0	0.37	0.7	0.76	AIR-CHANGE	0.28	186.2	2253.0
L3WSW Perim Spc (G.WSW4)	1.0	EXT	0.0	0.52	0.4	0.76	AIR-CHANGE	0.28	111.4	1347.5

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REPORT- LV-B Summary of Spaces WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

L3Core Spc (G.C5)	1.0	INT	0.0	0.36	0.4	0.75	AIR-CHANGE	0.00	120.0	1452.0
L3NW Perim Spc (G.NW6)	1.0	EXT	90.0	0.68	10.8	0.51	AIR-CHANGE	0.17	813.7	9845.6
L3SSE Perim Spc (G.SSE7)	1.0	EXT	0.0	0.53	2.1	0.76	AIR-CHANGE	0.33	580.0	7018.0
L3Core Spc (G.C8)	1.0	EXT	0.0	0.36	0.7	0.75	AIR-CHANGE	0.06	180.0	2178.0
L3Core Spc (G.C9)	1.0	INT	0.0	0.00	0.0	0.00	AIR-CHANGE	0.00	200.0	2420.0
L3Core Spc (G.C10)	1.0	EXT	0.0	0.36	1.4	0.75	AIR-CHANGE	0.19	380.8	4607.1
L3North Perim Spc (G.N11)	1.0	EXT	0.0	0.52	1.1	0.76	AIR-CHANGE	0.34	296.7	3590.4
L3North Perim Spc (G.N12)	1.0	EXT	0.0	0.39	0.8	0.76	AIR-CHANGE	0.44	212.1	2566.1
L3North Perim Spc (G.N13)	1.0	EXT	0.0	0.38	0.9	0.76	AIR-CHANGE	0.26	253.1	3061.9
L3SSE Perim Spc (G.SSE14)	1.0	EXT	0.0	0.53	3.8	0.76	AIR-CHANGE	0.26	1032.5	12492.7
L3East Perim Spc (G.E15)	1.0	EXT	-88.8	0.52	5.2	0.76	AIR-CHANGE	0.44	1425.2	17245.1
Spaces on floor: L4 Ground Flr										
L4 SSE Perim Spc (G.SSE1)	1.0	EXT	-31.1	0.52	4.0	0.76	AIR-CHANGE	0.47	1088.3	15997.4
L4 West Perim Spc (G.W2)	1.0	EXT	0.0	0.37	0.7	0.76	AIR-CHANGE	0.46	186.2	2737.1
L4 Core Spc (G.C3)	1.0	EXT	-90.0	0.36	0.4	0.75	AIR-CHANGE	0.18	108.8	1598.6
L4 NNW Perim Spc (G.NNW4)	1.0	EXT	0.0	0.52	2.9	0.76	AIR-CHANGE	0.47	810.9	11919.6
L4 SSE Perim Spc (G.SSE5)	1.0	EXT	0.0	0.36	1.7	0.76	AIR-CHANGE	0.67	457.2	6721.6
L4 North Perim Spc (G.N6)	1.0	EXT	90.0	0.00	0.0	0.84	AIR-CHANGE	0.45	205.0	3013.5
L4 North Perim Spc (G.N7)	1.0	EXT	90.0	0.38	0.8	0.76	AIR-CHANGE	0.89	214.2	3148.7
L4 Core Spc (G.C8)	1.0	EXT	180.0	0.52	0.3	0.75	AIR-CHANGE	0.18	81.0	1190.7
Spaces on floor: B1Below-Grade Flr										
B1SW Perim Spc (B.SW1)	1.0	EXT	-31.9	0.51	4.5	0.76	AIR-CHANGE	0.10	1235.0	17043.4
B1Core Spc (B.C2)	1.0	INT	0.0	0.36	1.8	0.76	AIR-CHANGE	0.00	505.9	6981.1
B1West Perim Spc (B.W3)	1.0	INT	0.0	0.51	0.6	0.76	AIR-CHANGE	0.00	154.1	2126.9
B1West Perim Spc (B.W4)	1.0	INT	0.0	0.37	0.9	0.76	AIR-CHANGE	0.00	247.0	3409.2
B1Core Spc (B.C5)	1.0	INT	0.0	0.53	0.4	0.76	AIR-CHANGE	0.00	110.4	1524.0
B1West Perim Spc (B.W6)	1.0	INT	0.0	0.51	1.0	0.76	AIR-CHANGE	0.00	270.4	3731.5
B1SSE Perim Spc (B.SSE7)	1.0	EXT	0.0	0.66	7.7	0.76	AIR-CHANGE	0.20	385.4	5318.0
B1Core Spc (B.C8)	1.0	INT	0.0	0.66	12.7	0.76	AIR-CHANGE	0.00	636.9	8788.6
B1Core Spc (B.C9)	1.0	INT	0.0	0.36	0.5	0.76	AIR-CHANGE	0.00	140.0	1932.0
B1Core Spc (B.C10)	1.0	INT	0.0	0.49	2.3	0.76	AIR-CHANGE	0.00	635.5	8769.6
B1SSE Perim Spc (B.SSE11)	1.0	EXT	0.0	0.66	5.8	0.76	AIR-CHANGE	0.20	291.0	4016.3
B1SSE Perim Spc (B.SSE12)	1.0	EXT	0.0	0.66	8.2	0.76	AIR-CHANGE	0.20	410.6	5666.3
B1Core Spc (B.C13)	1.0	INT	0.0	0.38	1.4	0.76	AIR-CHANGE	0.00	388.5	5361.3
B1SSE Perim Spc (B.SSE14)	1.0	EXT	0.0	0.66	7.4	0.76	AIR-CHANGE	0.20	370.1	5107.8
B1Core Spc (B.C15)	1.0	INT	0.0	0.00	0.0	0.01	AIR-CHANGE	0.00	200.0	2760.0
B1NW Perim Spc (B.NW16)	1.0	INT	90.0	0.51	1.5	0.76	AIR-CHANGE	0.00	417.6	5762.3
B1North Perim Spc (B.N17)	1.0	INT	0.0	0.51	0.4	0.76	AIR-CHANGE	0.00	103.4	1427.3
B1North Perim Spc (B.N18)	1.0	INT	0.0	0.52	0.8	0.76	AIR-CHANGE	0.00	220.8	3046.8
B1North Perim Spc (B.N19)	1.0	INT	0.0	0.52	1.0	0.76	AIR-CHANGE	0.00	271.4	3745.0
B1SE Perim Spc (B.SE20)	1.0	EXT	-90.0	0.66	10.1	0.76	AIR-CHANGE	0.20	506.3	6986.6
B1NE Perim Spc (B.NE21)	1.0	EXT	180.0	0.34	1.0	0.76	AIR-CHANGE	0.20	261.3	3606.2
B1North Perim Spc (B.N22)	1.0	EXT	-90.0	0.66	36.9	0.76	AIR-CHANGE	0.01	1843.0	25434.0
B1Core Spc (B.C23)	1.0	INT	0.0	0.36	0.7	0.76	AIR-CHANGE	0.00	180.0	2484.0
Spaces on floor: B2Below-Grade Flr										

B2SW Perim Spc (B.SW1)	1.0	INT	-31.7	0.51	2.3	0.76	AIR-CHANGE	0.00	643.2	5467.6
B2East Perim Spc (B.E2)	1.0	INT	-90.0	0.36	2.4	0.76	AIR-CHANGE	0.00	662.6	5631.9
B2West Perim Spc (B.W3)	1.0	INT	0.0	0.37	0.9	0.76	AIR-CHANGE	0.00	247.0	2099.8
B2North Perim Spc (B.N4)	1.0	INT	180.0	0.34	3.4	0.76	AIR-CHANGE	0.00	925.7	7868.8
BUILDING TOTALS				0.51	273.7	0.71			36486.8	501185.1

CONDITIONED FLOOR AREA = 31768.1 SQFT
TOTAL INSTALLED LIGHTING POWER = 18.435 KW

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:41:30  BDL RUN  9

REPORT- LV-B Summary of Spaces                                                                WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------


                                                   LIGHTS          EQUIP
                              SPACE*FLOOR SPACE   (WATT /        (WATT / INFILTRATION              AREA       VOLUME
SPACE                          MULTIPLIER  TYPE   AZIM  SQFT ) PEOPLE  SQFT )       METHOD   ACH     (SQFT )      (CUFT )


TOTAL INSTALLED EQUIPMENT POWER =       25.798  KW
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REPORT- LV-D Details of Exterior Surfaces WEATHER FILE- SEATTLE BOEING FI WA

NUMBER OF EXTERIOR SURFACES 100
(U-VALUE INCLUDES OUTSIDE FILM; WINDOW INCLUDES FRAME AND CURB, IF DEFINED)

SURFACE	- - - W I N D O W S - - - U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	- - - - W A L L - - - - U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	-W A L L + W I N D O W S- U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	AZIMUTH
L1East Wall (G.WNW4.E5)	0.000	0.00	0.056	49.56	0.056	49.56	NORTH
in space: L1WNW Perim Spc (G.WNW4)							
L1East Wall (G.N12.E11)	0.000	0.00	0.056	25.65	0.056	25.65	NORTH
in space: L1North Perim Spc (G.N12)							
Exterior Wall 89	0.000	0.00	0.056	27.64	0.056	27.64	NORTH
in space: Space 84							
L4 East Wall (G.NNW4.E10)	0.000	0.00	0.054	335.89	0.054	335.89	NORTH
in space: L4 NNW Perim Spc (G.NNW4)							
L4 East Wall (G.SSE5.E15)	0.362	193.12	0.054	196.42	0.207	389.55	NORTH
in space: L4 SSE Perim Spc (G.SSE5)							
L4 East Wall (G.N7.E23)	0.362	71.25	0.054	74.28	0.205	145.53	NORTH
in space: L4 North Perim Spc (G.N7)							
L4 East Wall (G.SSE1.E2)	0.362	121.88	0.054	429.42	0.122	551.30	NORTH
in space: L4 SSE Perim Spc (G.SSE1)							
L1East Wall (G.E18.E22)	0.289	177.96	0.056	138.14	0.187	316.10	NORTH
in space: L1East Perim Spc (G.E18)							
L2East Wall (G.E15.E12)	0.380	63.75	0.056	177.53	0.142	241.28	NORTH
in space: L2East Perim Spc (G.E15)							
L3East Wall (G.E15.E14)	0.380	50.68	0.056	177.40	0.128	228.08	NORTH
in space: L3East Perim Spc (G.E15)							
L1East Wall (G.SE16.E18)	0.000	0.00	0.056	50.63	0.056	50.63	NORTH
in space: L1SE Perim Spc (G.SE16)							
L1SSE Wall (G.SSE15.E16)	0.289	100.00	0.056	138.43	0.154	238.43	NORTH-EAST
in space: L1SSE Perim Spc (G.SSE15)							
L4 SSE Wall (G.SSE1.E1)	0.380	120.00	0.054	348.49	0.137	468.49	NORTH-EAST
in space: L4 SSE Perim Spc (G.SSE1)							
L1SSE Wall (G.SE16.E17)	0.289	216.00	0.056	220.16	0.171	436.16	NORTH-EAST
in space: L1SE Perim Spc (G.SE16)							
L3SSE Wall (G.SSE7.E9)	0.380	68.56	0.056	213.66	0.135	282.22	NORTH-EAST
in space: L3SSE Perim Spc (G.SSE7)							
L1SSE Wall (G.SSE8.E10)	0.289	216.00	0.056	220.16	0.171	436.16	NORTH-EAST
in space: L1SSE Perim Spc (G.SSE8)							
L2SSE Wall (G.SSE7.E7)	0.380	90.00	0.056	208.54	0.154	298.54	NORTH-EAST
in space: L2SSE Perim Spc (G.SSE7)							
L1SSE Wall (G.E18.E20)	0.289	447.36	0.056	456.41	0.171	903.77	NORTH-EAST
in space: L1East Perim Spc (G.E18)							
L2SSE Wall (G.SW1.E1)	0.380	138.72	0.056	274.72	0.165	413.44	NORTH-EAST
in space: L2SW Perim Spc (G.SW1)							
L3SSE Wall (G.SW1.E1)	0.380	120.00	0.054	270.83	0.154	390.83	NORTH-EAST

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  in space: L3SW Perim Spc (G.SW1)
L1SSE Wall (G.SW1.E1)                    0.289        252.76        0.056        351.24      0.153          604.01  NORTH-EAST
  in space: L1SW Perim Spc (G.SW1)
L3SSE Wall (G.E15.E16)                   0.380        137.12        0.056        476.06      0.128          613.18  NORTH-EAST
  in space: L3East Perim Spc (G.E15)
L2SSE Wall (G.E15.E14)                   0.380        180.00        0.056        468.65      0.146          648.65  NORTH-EAST
  in space: L2East Perim Spc (G.E15)
L3SSE Wall (G.SSE14.E13)                 0.380        124.81        0.056        316.21      0.148          441.02  NORTH-EAST
  in space: L3SSE Perim Spc (G.SSE14)
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REPORT- LV-D Details of Exterior Surfaces WEATHER FILE- SEATTLE BOEING FI WA

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L2SSE Wall (G.SSE14.E11)	0.380	146.25	0.056	320.29	0.158	466.54	NORTH-EAST
in space: L2SSE Perim Spc (G.SSE14)							
L4 South Wall (G.SSE5.E14)	0.362	270.00	0.054	266.55	0.209	536.55	EAST
in space: L4 SSE Perim Spc (G.SSE5)							
L4 South Wall (G.NNW4.E9)	0.000	0.00	0.054	44.10	0.054	44.10	EAST
in space: L4 NNW Perim Spc (G.NNW4)							
L4 South Wall (G.N7.E22)	0.362	108.75	0.054	111.75	0.206	220.50	EAST
in space: L4 North Perim Spc (G.N7)							
L3South Wall (G.WSW4.E5)	0.000	0.00	0.054	36.30	0.054	36.30	EAST
in space: L3WSW Perim Spc (G.WSW4)							
L1West Wall (G.E18.E19)	0.000	0.00	0.056	62.65	0.056	62.65	SOUTH-EAST
in space: L1East Perim Spc (G.E18)							
L4 West Wall (G.SSE1.E4)	0.000	0.00	0.054	609.26	0.054	609.26	SOUTH-EAST
in space: L4 SSE Perim Spc (G.SSE1)							
L1West Wall (G.W3.E3)	0.000	0.00	0.056	261.80	0.056	261.80	SOUTH
in space: L1West Perim Spc (G.W3)							
L3West Wall (G.WSW4.E6)	0.000	0.00	0.054	105.27	0.054	105.27	SOUTH
in space: L3WSW Perim Spc (G.WSW4)							
L4 West Wall (G.W2.E6)	0.362	28.50	0.054	250.80	0.085	279.30	SOUTH
in space: L4 West Perim Spc (G.W2)							
L3West Wall (G.NW6.E7)	0.000	0.00	0.054	300.68	0.054	300.68	SOUTH
in space: L3NW Perim Spc (G.NW6)							
L1West Wall (G.N14.E14)	0.000	0.00	0.056	51.43	0.056	51.43	SOUTH
in space: L1North Perim Spc (G.N14)							
L4 West Wall (G.NNW4.E12)	0.000	0.00	0.054	493.18	0.054	493.18	SOUTH
in space: L4 NNW Perim Spc (G.NNW4)							
L2West Wall (G.W3.E3)	0.000	0.00	0.056	243.20	0.056	243.20	SOUTH
in space: L2West Perim Spc (G.W3)							
L2West Wall (G.W4.E4)	0.000	0.00	0.056	111.36	0.056	111.36	SOUTH
in space: L2West Perim Spc (G.W4)							
L4 West Wall (G.SSE5.E16)	0.000	0.00	0.054	147.00	0.054	147.00	SOUTH
in space: L4 SSE Perim Spc (G.SSE5)							
L4 West Wall (G.N7.E21)	0.000	0.00	0.054	154.35	0.054	154.35	SOUTH
in space: L4 North Perim Spc (G.N7)							
L2West Wall (G.NW6.E5)	0.000	0.00	0.056	318.08	0.056	318.08	SOUTH
in space: L2NW Perim Spc (G.NW6)							
L3West Wall (G.W3.E4)	0.362	19.00	0.054	210.90	0.079	229.90	SOUTH
in space: L3West Perim Spc (G.W3)							
L1West Wall (G.SW1.E2)	0.000	0.00	0.056	775.09	0.056	775.09	SOUTH
in space: L1SW Perim Spc (G.SW1)							
L2West Wall (G.SW1.E2)	0.000	0.00	0.056	530.54	0.056	530.54	SOUTH
in space: L2SW Perim Spc (G.SW1)							
L3West Wall (G.SW1.E3)	0.000	0.00	0.054	501.53	0.054	501.53	SOUTH
in space: L3SW Perim Spc (G.SW1)							
L1West Wall (G.WNW4.E7)	0.000	0.00	0.056	721.00	0.056	721.00	SOUTH
in space: L1WNW Perim Spc (G.WNW4)							
L1West Wall (G.N7.E8)	0.000	0.00	0.056	49.56	0.056	49.56	SOUTH
in space: L1North Perim Spc (G.N7)							
Exterior Wall 91	0.362	17.00	0.056	42.17	0.144	59.17	WEST
in space: Space 84							

L4 North Wall (G.SSE5.E17) in space: L4 SSE Perim Spc (G.SSE5)	0.000	0.00	0.054	147.00	0.054	147.00	WEST
L4 North Wall (G.N6.E19) in space: L4 North Perim Spc (G.N6)	0.000	0.00	0.054	301.35	0.054	301.35	WEST
L4 North Wall (G.SSE1.E3) in space: L4 SSE Perim Spc (G.SSE1)	0.000	0.00	0.054	44.12	0.054	44.12	WEST
L3North Wall (G.SW1.E2) in space: L3SW Perim Spc (G.SW1)	0.000	0.00	0.054	36.29	0.054	36.29	WEST

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

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L1North Wall (G.N13.E13)	0.000	0.00	0.056	54.90	0.056	54.90	WEST
in space: L1North Perim Spc (G.N13)							
L1North Wall (G.WNW4.E4)	0.362	26.25	0.056	77.54	0.133	103.79	WEST
in space: L1WNW Perim Spc (G.WNW4)							
L1North Wall (G.N7.E9)	0.362	42.00	0.056	266.61	0.097	308.61	WEST
in space: L1North Perim Spc (G.N7)							
L2North Wall (G.NW6.E6)	0.380	120.95	0.056	234.96	0.166	355.91	WEST
in space: L2NW Perim Spc (G.NW6)							
L3North Wall (G.NW6.E8)	0.380	90.00	0.054	246.45	0.141	336.45	WEST
in space: L3NW Perim Spc (G.NW6)							
L1North Wall (G.E18.E23)	0.362	78.86	0.056	672.11	0.088	750.97	WEST
in space: L1East Perim Spc (G.E18)							
L3North Wall (G.N12.E11)	0.380	58.97	0.056	146.77	0.149	205.74	WEST
in space: L3North Perim Spc (G.N12)							
L2North Wall (G.N12.E9)	0.380	58.97	0.056	158.67	0.144	217.65	WEST
in space: L2North Perim Spc (G.N12)							
L3North Wall (G.E15.E15)	0.380	115.05	0.056	424.73	0.125	539.78	WEST
in space: L3East Perim Spc (G.E15)							
L2North Wall (G.E15.E13)	0.380	115.05	0.056	455.96	0.121	571.01	WEST
in space: L2East Perim Spc (G.E15)							
L1North Wall (G.N14.E15)	0.000	0.00	0.056	417.11	0.056	417.11	WEST
in space: L1North Perim Spc (G.N14)							
L2North Wall (G.N13.E10)	0.380	61.88	0.056	207.00	0.130	268.88	WEST
in space: L2North Perim Spc (G.N13)							
L3North Wall (G.N13.E12)	0.380	61.88	0.056	192.30	0.135	254.17	WEST
in space: L3North Perim Spc (G.N13)							
Exterior Wall 90	0.362	35.38	0.056	183.91	0.105	219.28	WEST
in space: Space 84							
L1North Wall (G.N12.E12)	0.000	0.00	0.056	203.46	0.056	203.46	WEST
in space: L1North Perim Spc (G.N12)							
L4 North Wall (G.NNW4.E11)	0.380	90.00	0.054	311.44	0.127	401.44	WEST
in space: L4 NNW Perim Spc (G.NNW4)							
L1North Wall (G.WNW4.E6)	0.000	0.00	0.056	105.66	0.056	105.66	WEST
in space: L1WNW Perim Spc (G.WNW4)							
L3North Wall (G.N11.E10)	0.380	38.35	0.056	119.01	0.135	157.36	WEST
in space: L3North Perim Spc (G.N11)							
L2North Wall (G.N11.E8)	0.380	38.35	0.056	128.11	0.131	166.46	WEST
in space: L2North Perim Spc (G.N11)							
L4 North Wall (G.N7.E24)	0.362	153.75	0.054	155.08	0.207	308.83	WEST
in space: L4 North Perim Spc (G.N7)							
L1ENE Wall (G.E18.E21)	0.000	0.00	0.056	65.91	0.056	65.91	NORTH-WEST
in space: L1East Perim Spc (G.E18)							
Exterior Wall 81	0.000	0.00	0.027	757.11	0.027	757.11	ROOF
in space: L3SSE Perim Spc (G.SSE14)							
Exterior Wall 99	0.000	0.00	0.027	150.75	0.027	150.75	ROOF
in space: L3Core Spc (G.C10)							
Exterior Wall 88	0.000	0.00	0.027	57.00	0.027	57.00	ROOF
in space: L2West Perim Spc (G.W3)							
Exterior Wall 84	0.000	0.00	0.027	296.72	0.027	296.72	ROOF
in space: L3North Perim Spc (G.N11)							

L4 Roof (G.NNW4.E13)	0.000	0.00	0.027	810.86	0.027	810.86	ROOF
in space: L4 NNW Perim Spc (G.NNW4)							
Exterior Wall 82	0.000	0.00	0.027	1425.21	0.027	1425.21	ROOF
in space: L3East Perim Spc (G.E15)							
Exterior Wall 80	0.000	0.00	0.027	580.00	0.027	580.00	ROOF
in space: L3SSE Perim Spc (G.SSE7)							
Exterior Wall 83	0.000	0.00	0.027	212.08	0.027	212.08	ROOF
in space: L3North Perim Spc (G.N12)							

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

(CONTINUED)

Exterior Wall 87	0.000	0.00	0.027	50.00	0.027	50.00	ROOF
in space: L3Core Spc (G.C8)							
L4 Roof (G.SSE5.E18)	0.000	0.00	0.027	457.25	0.027	457.25	ROOF
in space: L4 SSE Perim Spc (G.SSE5)							
Exterior Wall 85	0.000	0.00	0.027	42.00	0.027	42.00	ROOF
in space: L3North Perim Spc (G.N13)							
L4 Roof (G.N6.E20)	0.000	0.00	0.027	205.00	0.027	205.00	ROOF
in space: L4 North Perim Spc (G.N6)							
L4 Roof (G.SSE1.E5)	0.000	0.00	0.027	1088.26	0.027	1088.26	ROOF
in space: L4 SSE Perim Spc (G.SSE1)							
Exterior Wall 86	0.000	0.00	0.027	170.00	0.027	170.00	ROOF
in space: L3Core Spc (G.C10)							
L4 Roof (G.W2.E7)	0.000	0.00	0.027	186.20	0.027	186.20	ROOF
in space: L4 West Perim Spc (G.W2)							
L4 Roof (G.C3.E8)	0.000	0.00	0.027	108.75	0.027	108.75	ROOF
in space: L4 Core Spc (G.C3)							
L4 Roof (G.N7.E25)	0.000	0.00	0.027	214.20	0.027	214.20	ROOF
in space: L4 North Perim Spc (G.N7)							
L4 Roof (G.C8.E26)	0.000	0.00	0.027	81.00	0.027	81.00	ROOF
in space: L4 Core Spc (G.C8)							
Exterior Wall 92	0.000	0.00	0.027	645.08	0.027	645.08	ROOF
in space: B1SW Perim Spc (B.SW1)							
Exterior Wall 93	0.000	0.00	0.027	385.36	0.027	385.36	ROOF
in space: B1SSE Perim Spc (B.SSE7)							
Exterior Wall 95	0.000	0.00	0.027	291.04	0.027	291.04	ROOF
in space: B1SSE Perim Spc (B.SSE11)							
Exterior Wall 94	0.000	0.00	0.027	410.60	0.027	410.60	ROOF
in space: B1SSE Perim Spc (B.SSE12)							
Exterior Wall 96	0.000	0.00	0.027	370.13	0.027	370.13	ROOF
in space: B1SSE Perim Spc (B.SSE14)							
Exterior Wall 97	0.000	0.00	0.027	506.28	0.027	506.28	ROOF
in space: B1SE Perim Spc (B.SE20)							
Exterior Wall 98	0.000	0.00	0.027	261.32	0.027	261.32	ROOF
in space: B1NE Perim Spc (B.NE21)							
Exterior Wall 100	0.000	0.00	0.027	131.28	0.027	131.28	ROOF
in space: B1North Perim Spc (B.N22)							
B1Flr (B.SW1.U1)	0.000	0.00	0.029	1235.03	0.029	1235.03	UNDERGRND
in space: B1SW Perim Spc (B.SW1)							
B1SSE Wall (B.SW1.U2)	0.000	0.00	0.070	594.09	0.070	594.09	UNDERGRND
in space: B1SW Perim Spc (B.SW1)							
B1West Wall (B.SW1.U3)	0.000	0.00	0.070	761.72	0.070	761.72	UNDERGRND
in space: B1SW Perim Spc (B.SW1)							
B1Flr (B.C2.U4)	0.000	0.00	0.029	505.88	0.029	505.88	UNDERGRND
in space: B1Core Spc (B.C2)							
B1Flr (B.W3.U5)	0.000	0.00	0.029	154.12	0.029	154.12	UNDERGRND
in space: B1West Perim Spc (B.W3)							
B1West Wall (B.W3.U6)	0.000	0.00	0.070	103.50	0.070	103.50	UNDERGRND
in space: B1West Perim Spc (B.W3)							
B1Flr (B.W4.U7)	0.000	0.00	0.029	247.04	0.029	247.04	UNDERGRND
in space: B1West Perim Spc (B.W4)							

B1West Wall (B.W4.U8)	0.000	0.00	0.070	266.34	0.070	266.34	UNDERGRND
in space: B1West Perim Spc (B.W4)							
B1Flr (B.C5.U9)	0.000	0.00	0.029	110.44	0.029	110.44	UNDERGRND
in space: B1Core Spc (B.C5)							
B1Flr (B.W6.U10)	0.000	0.00	0.029	270.40	0.029	270.40	UNDERGRND
in space: B1West Perim Spc (B.W6)							
B1West Wall (B.W6.U11)	0.000	0.00	0.070	179.40	0.070	179.40	UNDERGRND
in space: B1West Perim Spc (B.W6)							
B1Flr (B.SSE7.U12)	0.000	0.00	0.029	385.36	0.029	385.36	UNDERGRND
in space: B1SSE Perim Spc (B.SSE7)							

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REPORT- LV-D Details of Exterior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
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SURFACE	- - - W I N D O W S - - - U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	- - - - W A L L - - - - U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	-W A L L + W I N D O W S- U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	AZIMUTH
B1SSE Wall (B.SSE7.U13)	0.000	0.00	0.070	314.66	0.070	314.66	UNDERGRND
in space: B1SSE Perim Spc (B.SSE7)							
B1Flr (B.C8.U14)	0.000	0.00	0.029	636.85	0.029	636.85	UNDERGRND
in space: B1Core Spc (B.C8)							
B1Flr (B.C9.U15)	0.000	0.00	0.029	140.00	0.029	140.00	UNDERGRND
in space: B1Core Spc (B.C9)							
B1Flr (B.C10.U16)	0.000	0.00	0.029	635.47	0.029	635.47	UNDERGRND
in space: B1Core Spc (B.C10)							
B1Flr (B.SSE11.U17)	0.000	0.00	0.029	291.04	0.029	291.04	UNDERGRND
in space: B1SSE Perim Spc (B.SSE11)							
B1SSE Wall (B.SSE11.U18)	0.000	0.00	0.070	233.02	0.070	233.02	UNDERGRND
in space: B1SSE Perim Spc (B.SSE11)							
B1Flr (B.SSE12.U19)	0.000	0.00	0.029	410.60	0.029	410.60	UNDERGRND
in space: B1SSE Perim Spc (B.SSE12)							
B1SSE Wall (B.SSE12.U20)	0.000	0.00	0.070	343.55	0.070	343.55	UNDERGRND
in space: B1SSE Perim Spc (B.SSE12)							
B1Flr (B.C13.U21)	0.000	0.00	0.029	388.50	0.029	388.50	UNDERGRND
in space: B1Core Spc (B.C13)							
B1Flr (B.SSE14.U22)	0.000	0.00	0.029	370.13	0.029	370.13	UNDERGRND
in space: B1SSE Perim Spc (B.SSE14)							
B1SSE Wall (B.SSE14.U23)	0.000	0.00	0.070	298.34	0.070	298.34	UNDERGRND
in space: B1SSE Perim Spc (B.SSE14)							
B1Flr (B.C15.U24)	0.000	0.00	0.029	200.00	0.029	200.00	UNDERGRND
in space: B1Core Spc (B.C15)							
B1Flr (B.NW16.U25)	0.000	0.00	0.029	417.56	0.029	417.56	UNDERGRND
in space: B1NW Perim Spc (B.NW16)							
B1West Wall (B.NW16.U26)	0.000	0.00	0.070	280.14	0.070	280.14	UNDERGRND
in space: B1NW Perim Spc (B.NW16)							
B1North Wall (B.NW16.U27)	0.000	0.00	0.070	287.11	0.070	287.11	UNDERGRND
in space: B1NW Perim Spc (B.NW16)							
B1Flr (B.N17.U28)	0.000	0.00	0.029	103.43	0.029	103.43	UNDERGRND
in space: B1North Perim Spc (B.N17)							
B1North Wall (B.N17.U29)	0.000	0.00	0.070	96.62	0.070	96.62	UNDERGRND
in space: B1North Perim Spc (B.N17)							
B1Flr (B.N18.U30)	0.000	0.00	0.029	220.78	0.029	220.78	UNDERGRND
in space: B1North Perim Spc (B.N18)							
B1North Wall (B.N18.U31)	0.000	0.00	0.070	183.56	0.070	183.56	UNDERGRND
in space: B1North Perim Spc (B.N18)							
B1Flr (B.N19.U32)	0.000	0.00	0.029	271.38	0.029	271.38	UNDERGRND
in space: B1North Perim Spc (B.N19)							
B1North Wall (B.N19.U33)	0.000	0.00	0.070	230.56	0.070	230.56	UNDERGRND
in space: B1North Perim Spc (B.N19)							
B1Flr (B.SE20.U34)	0.000	0.00	0.029	506.28	0.029	506.28	UNDERGRND

in space: B1SE Perim Spc (B.SE20)							
B1East Wall (B.SE20.U35)	0.000	0.00	0.070	148.35	0.070	148.35	UNDERGRND
in space: B1SE Perim Spc (B.SE20)							
B1SSE Wall (B.SE20.U36)	0.000	0.00	0.070	401.54	0.070	401.54	UNDERGRND
in space: B1SE Perim Spc (B.SE20)							
B1Flr (B.NE21.U37)	0.000	0.00	0.029	261.32	0.029	261.32	UNDERGRND
in space: B1NE Perim Spc (B.NE21)							
B1North Wall (B.NE21.U38)	0.000	0.00	0.070	191.82	0.070	191.82	UNDERGRND
in space: B1NE Perim Spc (B.NE21)							
B1East Wall (B.NE21.U39)	0.000	0.00	0.070	259.44	0.070	259.44	UNDERGRND
in space: B1NE Perim Spc (B.NE21)							

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REPORT- LV-D Details of Exterior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
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SURFACE	- - - W I N D O W S - - - U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	- - - - W A L L - - - - U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	-W A L L + W I N D O W S- U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	AZIMUTH
B1Flr (B.N22.U40)	0.000	0.00	0.029	1843.04	0.029	1843.04	UNDERGRND
in space: B1North Perim Spc (B.N22)							
B1East Wall (B.N22.U41)	0.000	0.00	0.070	40.02	0.070	40.02	UNDERGRND
in space: B1North Perim Spc (B.N22)							
B1North Wall (B.N22.U42)	0.000	0.00	0.070	292.56	0.070	292.56	UNDERGRND
in space: B1North Perim Spc (B.N22)							
B1West Wall (B.N22.U43)	0.000	0.00	0.070	33.12	0.070	33.12	UNDERGRND
in space: B1North Perim Spc (B.N22)							
B1North Wall (B.N22.U44)	0.000	0.00	0.070	525.87	0.070	525.87	UNDERGRND
in space: B1North Perim Spc (B.N22)							
B1North Wall (B.N22.U45)	0.000	0.00	0.070	51.06	0.070	51.06	UNDERGRND
in space: B1North Perim Spc (B.N22)							
B1Flr (B.C23.U46)	0.000	0.00	0.029	180.00	0.029	180.00	UNDERGRND
in space: B1Core Spc (B.C23)							
B2Flr (B.SW1.U1)	0.000	0.00	0.029	643.24	0.029	643.24	UNDERGRND
in space: B2SW Perim Spc (B.SW1)							
B2SSE Wall (B.SW1.U2)	0.000	0.00	0.070	205.36	0.070	205.36	UNDERGRND
in space: B2SW Perim Spc (B.SW1)							
B2West Wall (B.SW1.U3)	0.000	0.00	0.070	320.03	0.070	320.03	UNDERGRND
in space: B2SW Perim Spc (B.SW1)							
B2Flr (B.E2.U4)	0.000	0.00	0.029	662.58	0.029	662.58	UNDERGRND
in space: B2East Perim Spc (B.E2)							
B2East Wall (B.E2.U5)	0.000	0.00	0.070	401.62	0.070	401.62	UNDERGRND
in space: B2East Perim Spc (B.E2)							
B2West Wall (B.E2.U6)	0.000	0.00	0.070	63.75	0.070	63.75	UNDERGRND
in space: B2East Perim Spc (B.E2)							
B2SSE Wall (B.E2.U7)	0.000	0.00	0.070	72.53	0.070	72.53	UNDERGRND
in space: B2East Perim Spc (B.E2)							
B2Flr (B.W3.U8)	0.000	0.00	0.029	247.04	0.029	247.04	UNDERGRND
in space: B2West Perim Spc (B.W3)							
B2West Wall (B.W3.U9)	0.000	0.00	0.070	164.05	0.070	164.05	UNDERGRND
in space: B2West Perim Spc (B.W3)							
B2Flr (B.N4.U10)	0.000	0.00	0.029	925.74	0.029	925.74	UNDERGRND
in space: B2North Perim Spc (B.N4)							
B2North Wall (B.N4.U11)	0.000	0.00	0.070	236.30	0.070	236.30	UNDERGRND
in space: B2North Perim Spc (B.N4)							
B2West Wall (B.N4.U12)	0.000	0.00	0.070	283.05	0.070	283.05	UNDERGRND
in space: B2North Perim Spc (B.N4)							
B2East Wall (B.N4.U13)	0.000	0.00	0.070	283.05	0.070	283.05	UNDERGRND
in space: B2North Perim Spc (B.N4)							

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

	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	0.346	0.054	0.138	678.64	1682.58	2361.23
NORTH-EAST	0.333	0.055	0.154	2357.58	4283.84	6641.42
EAST	0.362	0.054	0.193	378.75	458.70	837.45
SOUTH-EAST	0.000	0.054	0.054	0.00	671.90	671.90
SOUTH	0.362	0.055	0.058	47.50	5225.77	5273.27
WEST	0.375	0.055	0.114	1202.68	5332.70	6535.38
NORTH-WEST	0.000	0.056	0.056	0.00	65.91	65.91
ROOF	0.000	0.027	0.027	0.00	9893.48	9893.48
ALL WALLS	0.348	0.055	0.116	4665.17	17721.40	22386.56
WALLS+ROOFS	0.348	0.045	0.089	4665.17	27614.87	32280.03
UNDERGRND	0.000	0.045	0.045	0.00	20409.40	20409.40
BUILDING	0.348	0.045	0.072	4665.17	48024.28	52689.43

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REPORT- LV-E Details of Underground Surfaces WEATHER FILE- SEATTLE BOEING FI WA

NUMBER OF UNDERGROUND SURFACES 59

SURFACE NAME	MULTIPLIER	AREA (SQFT)	CONSTRUCTION NAME	U-VALUE (BTU/HR-SQFT-F)
B1Flr (B.SW1.U1)	1.0	1235.03	UFCons	0.029
B1SSE Wall (B.SW1.U2)	1.0	594.09	NoInsUWCons	0.070
B1West Wall (B.SW1.U3)	1.0	761.72	NoInsUWCons	0.070
B1Flr (B.C2.U4)	1.0	505.88	UFCons	0.029
B1Flr (B.W3.U5)	1.0	154.12	UFCons	0.029
B1West Wall (B.W3.U6)	1.0	103.50	InsUWCons	0.070
B1Flr (B.W4.U7)	1.0	247.04	UFCons	0.029
B1West Wall (B.W4.U8)	1.0	266.34	InsUWCons	0.070
B1Flr (B.C5.U9)	1.0	110.44	UFCons	0.029
B1Flr (B.W6.U10)	1.0	270.40	UFCons	0.029
B1West Wall (B.W6.U11)	1.0	179.40	InsUWCons	0.070
B1Flr (B.SSE7.U12)	1.0	385.36	UFCons	0.029
B1SSE Wall (B.SSE7.U13)	1.0	314.66	NoInsUWCons	0.070
B1Flr (B.C8.U14)	1.0	636.85	UFCons	0.029
B1Flr (B.C9.U15)	1.0	140.00	UFCons	0.029
B1Flr (B.C10.U16)	1.0	635.47	UFCons	0.029
B1Flr (B.SSE11.U17)	1.0	291.04	UFCons	0.029
B1SSE Wall (B.SSE11.U18)	1.0	233.02	NoInsUWCons	0.070
B1Flr (B.SSE12.U19)	1.0	410.60	UFCons	0.029
B1SSE Wall (B.SSE12.U20)	1.0	343.55	NoInsUWCons	0.070
B1Flr (B.C13.U21)	1.0	388.50	UFCons	0.029
B1Flr (B.SSE14.U22)	1.0	370.13	UFCons	0.029
B1SSE Wall (B.SSE14.U23)	1.0	298.34	NoInsUWCons	0.070
B1Flr (B.C15.U24)	1.0	200.00	UFCons	0.029
B1Flr (B.NW16.U25)	1.0	417.56	UFCons	0.029
B1West Wall (B.NW16.U26)	1.0	280.14	InsUWCons	0.070
B1North Wall (B.NW16.U27)	1.0	287.11	InsUWCons	0.070
B1Flr (B.N17.U28)	1.0	103.43	UFCons	0.029
B1North Wall (B.N17.U29)	1.0	96.62	InsUWCons	0.070
B1Flr (B.N18.U30)	1.0	220.78	UFCons	0.029
B1North Wall (B.N18.U31)	1.0	183.56	InsUWCons	0.070
B1Flr (B.N19.U32)	1.0	271.38	UFCons	0.029
B1North Wall (B.N19.U33)	1.0	230.56	InsUWCons	0.070
B1Flr (B.SE20.U34)	1.0	506.28	UFCons	0.029
B1East Wall (B.SE20.U35)	1.0	148.35	NoInsUWCons	0.070
B1SSE Wall (B.SE20.U36)	1.0	401.54	NoInsUWCons	0.070
B1Flr (B.NE21.U37)	1.0	261.32	UFCons	0.029
B1North Wall (B.NE21.U38)	1.0	191.82	NoInsUWCons	0.070
B1East Wall (B.NE21.U39)	1.0	259.44	NoInsUWCons	0.070
B1Flr (B.N22.U40)	1.0	1843.04	UFCons	0.029
B1East Wall (B.N22.U41)	1.0	40.02	NoInsUWCons	0.070
B1North Wall (B.N22.U42)	1.0	292.56	NoInsUWCons	0.070

B1West Wall (B.N22.U43)	1.0	33.12	NoInsUWCons	0.070
B1North Wall (B.N22.U44)	1.0	525.87	NoInsUWCons	0.070
B1North Wall (B.N22.U45)	1.0	51.06	NoInsUWCons	0.070
B1Flr (B.C23.U46)	1.0	180.00	UFCons	0.029
B2Flr (B.SW1.U1)	1.0	643.24	UFCons	0.029
B2SSE Wall (B.SW1.U2)	1.0	205.36	NoInsUWCons	0.070
B2West Wall (B.SW1.U3)	1.0	320.03	NoInsUWCons	0.070
B2Flr (B.E2.U4)	1.0	662.58	UFCons	0.029
B2East Wall (B.E2.U5)	1.0	401.62	NoInsUWCons	0.070
B2West Wall (B.E2.U6)	1.0	63.75	NoInsUWCons	0.070

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REPORT- LV-E Details of Underground Surfaces WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

SURFACE NAME	MULTIPLIER	AREA (SQFT)	CONSTRUCTION NAME	U-VALUE (BTU/HR-SQFT-F)
B2SSE Wall (B.E2.U7)	1.0	72.53	NoInsUWCons	0.070
B2Flr (B.W3.U8)	1.0	247.04	UFCons	0.029
B2West Wall (B.W3.U9)	1.0	164.05	NoInsUWCons	0.070
B2Flr (B.N4.U10)	1.0	925.74	UFCons	0.029
B2North Wall (B.N4.U11)	1.0	236.30	NoInsUWCons	0.070
B2West Wall (B.N4.U12)	1.0	283.05	NoInsUWCons	0.070
B2East Wall (B.N4.U13)	1.0	283.05	NoInsUWCons	0.070

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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA

Number of Interior Surfaces 255
(U-VALUE includes both air films)

SURFACE NAME	AREA (SQFT)	CONSTRUCTION NAME	SURFACE TYPE	U-VALUE (BTU/HR-SQFT-F)
L1East Wall (G.SW1.I1)	467.56	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.SW1.I2)	168.18	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.SW1.I3)	205.73	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.SW1.I4)	112.09	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.SW1.I5)	205.83	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.SW1.I6)	239.28	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 233	989.47	IntFlr Cons	DELAYED STANDARD	0.532
L1East Wall (G.C2.I7)	205.70	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 234	99.00	IntFlr Cons	DELAYED STANDARD	0.532
Interior Wall 235	179.20	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.WNW4.I8)	239.40	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.WNW4.I9)	93.52	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.WNW4.I10)	93.52	IntWall Cons	DELAYED STANDARD	0.402
L1South Wall (G.WNW4.I11)	56.11	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.WNW4.I12)	105.99	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 236	337.43	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.C5.I13)	168.30	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.C5.I14)	56.10	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 237	120.00	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.C6.I15)	280.50	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.C6.I16)	187.00	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.C6.I17)	336.60	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 238	304.00	IntFlr Cons	DELAYED STANDARD	0.532
L1West Wall (G.N7.I18)	130.80	IntWall Cons	DELAYED STANDARD	0.402
L1South Wall (G.N7.I19)	243.09	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.N7.I20)	280.52	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 239	276.31	IntFlr Cons	DELAYED STANDARD	0.532
L1East Wall (G.SSE8.I21)	504.90	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.SSE8.I22)	224.40	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.SSE8.I23)	56.10	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.SSE8.I24)	149.60	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 240	636.00	IntFlr Cons	DELAYED STANDARD	0.532
L1East Wall (G.C9.I25)	51.43	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.C9.I26)	42.08	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.C9.I27)	374.00	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.C9.I28)	149.60	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 241	124.00	IntFlr Cons	DELAYED STANDARD	0.532
Interior Wall 242	200.00	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.C11.I29)	130.90	IntWall Cons	DELAYED STANDARD	0.402
L1South Wall (G.C11.I30)	374.00	IntWall Cons	DELAYED STANDARD	0.402
L1South Wall (G.C11.I31)	187.00	IntWall Cons	DELAYED STANDARD	0.402

L1East Wall (G.C11.I32)	37.40	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.C11.I33)	130.90	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.C11.I34)	149.60	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 243	236.00	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.N12.I35)	203.40	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.N12.I36)	122.40	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 244	377.99	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.N13.I37)	66.60	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.N13.I38)	11.70	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 245	100.42	IntFlr Cons	DELAYED STANDARD	0.532

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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
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SURFACE NAME	AREA (SQFT)	CONSTRUCTION NAME	SURFACE TYPE	U-VALUE (BTU/HR-SQFT-F)
L1West Wall (G.N14.I39)	178.59	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 246	256.30	IntFlr Cons	DELAYED STANDARD	0.532
L1East Wall (G.SSE15.I40)	153.36	IntWall Cons	DELAYED ADIABATIC	0.402
Interior Wall 247	125.76	IntFlr Cons	DELAYED STANDARD	0.532
L1East Wall (G.SE16.I41)	281.44	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 248	478.28	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.C17.I42)	377.74	IntWall Cons	DELAYED STANDARD	0.402
L1South Wall (G.C17.I43)	204.76	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.C17.I44)	229.08	IntWall Cons	DELAYED ADIABATIC	0.402
L1West Wall (G.C17.I45)	187.00	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 249	381.59	IntFlr Cons	DELAYED STANDARD	0.532
L1West Wall (G.E18.I46)	220.66	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.E18.I47)	392.69	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.E18.I48)	74.90	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.E18.I49)	112.13	IntWall Cons	DELAYED STANDARD	0.402
L1South Wall (G.E18.I50)	395.55	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.E18.I51)	382.37	IntWall Cons	DELAYED ADIABATIC	0.402
Interior Wall 250	1554.57	IntFlr Cons	DELAYED STANDARD	0.532
Interior Wall 251	219.22	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 252	131.92	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 253	478.62	IntFlr Cons	DELAYED STANDARD	0.532
Interior Wall 254	71.78	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 255	12.61	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.SW1.I1)	915.72	GFlr Cons	DELAYED STANDARD	0.029
L2East Wall (G.SW1.I2)	215.09	IntWall Cons	DELAYED STANDARD	0.402
L2North Wall (G.SW1.I3)	115.23	IntWall Cons	DELAYED STANDARD	0.402
L2East Wall (G.SW1.I4)	245.84	IntWall Cons	DELAYED STANDARD	0.402
L2North Wall (G.SW1.I5)	76.72	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.SW1.I6)	140.89	IntWall Cons	DELAYED STANDARD	0.402
L2North Wall (G.SW1.I7)	163.79	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.C2.I8)	172.80	GFlr Cons	DELAYED STANDARD	0.029
L2East Wall (G.C2.I9)	232.96	IntWall Cons	DELAYED STANDARD	0.402
L2East Wall (G.C2.I10)	12.80	IntWall Cons	DELAYED STANDARD	0.402
L2North Wall (G.C2.I11)	115.20	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.W3.I12)	243.20	GFlr Cons	DELAYED STANDARD	0.029
L2North Wall (G.W3.I13)	99.84	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.W4.I14)	67.64	GFlr Cons	DELAYED STANDARD	0.029
L2Flr (G.C5.I15)	120.00	GFlr Cons	DELAYED STANDARD	0.029
L2East Wall (G.C5.I16)	102.40	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.C5.I17)	102.40	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.NW6.I18)	857.40	GFlr Cons	DELAYED STANDARD	0.029
L2South Wall (G.NW6.I19)	99.20	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.NW6.I20)	111.36	IntWall Cons	DELAYED STANDARD	0.402
L2South Wall (G.NW6.I21)	64.00	IntWall Cons	DELAYED STANDARD	0.402
L2South Wall (G.NW6.I22)	192.00	IntWall Cons	DELAYED STANDARD	0.402

L2East Wall (G.NW6.I23)	128.00	IntWall Cons	DELAYED STANDARD	0.402
L2East Wall (G.NW6.I24)	294.40	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.SSE7.I25)	580.00	GFlr Cons	DELAYED STANDARD	0.029
L2North Wall (G.SSE7.I26)	256.00	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.C8.I27)	180.00	GFlr Cons	DELAYED STANDARD	0.029
L2North Wall (G.C8.I28)	256.00	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.C9.I29)	200.00	GFlr Cons	DELAYED STANDARD	0.029
L2Flr (G.C10.I30)	380.75	GFlr Cons	DELAYED STANDARD	0.029
L2South Wall (G.C10.I31)	89.60	IntWall Cons	DELAYED STANDARD	0.402
L2South Wall (G.C10.I32)	398.72	IntWall Cons	DELAYED STANDARD	0.402

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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
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SURFACE NAME	AREA (SQFT)	CONSTRUCTION NAME	SURFACE TYPE	U-VALUE (BTU/HR-SQFT-F)
L2East Wall (G.C10.I33)	128.01	IntWall Cons	DELAYED STANDARD	0.402
L2North Wall (G.C10.I34)	268.80	IntWall Cons	DELAYED STANDARD	0.402
L2North Wall (G.C10.I35)	217.60	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.C10.I36)	128.00	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.N11.I37)	296.73	GFlr Cons	DELAYED STANDARD	0.029
L2South Wall (G.N11.I38)	166.40	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.N12.I39)	212.07	GFlr Cons	DELAYED STANDARD	0.029
L2East Wall (G.N12.I40)	157.44	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.N12.I41)	161.92	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.N13.I42)	253.05	GFlr Cons	DELAYED STANDARD	0.029
L2Flr (G.SSE14.I43)	1032.46	GFlr Cons	DELAYED STANDARD	0.029
L2West Wall (G.SSE14.I44)	128.00	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.SSE14.I45)	115.20	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.SSE14.I46)	294.40	IntWall Cons	DELAYED STANDARD	0.402
L2East Wall (G.SSE14.I47)	304.04	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.E15.I48)	1425.21	GFlr Cons	DELAYED STANDARD	0.029
L2West Wall (G.E15.I49)	151.07	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.SW1.I1)	915.70	GFlr Cons	DELAYED STANDARD	0.029
L3East Wall (G.SW1.I2)	203.33	IntWall Cons	DELAYED STANDARD	0.402
L3North Wall (G.SW1.I3)	108.93	IntWall Cons	DELAYED STANDARD	0.402
L3East Wall (G.SW1.I4)	232.40	IntWall Cons	DELAYED STANDARD	0.402
L3North Wall (G.SW1.I5)	72.53	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.SW1.I6)	133.18	IntWall Cons	DELAYED STANDARD	0.402
L3North Wall (G.SW1.I7)	118.53	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.C2.I8)	172.80	GFlr Cons	DELAYED STANDARD	0.029
L3East Wall (G.C2.I9)	220.22	IntWall Cons	DELAYED STANDARD	0.402
L3East Wall (G.C2.I10)	12.10	IntWall Cons	DELAYED STANDARD	0.402
L3North Wall (G.C2.I11)	108.90	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.W3.I12)	186.20	GFlr Cons	DELAYED STANDARD	0.029
L3North Wall (G.W3.I13)	118.58	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.WSW4.I14)	111.36	GFlr Cons	DELAYED STANDARD	0.029
L3Flr (G.C5.I15)	120.00	GFlr Cons	DELAYED STANDARD	0.029
L3East Wall (G.C5.I16)	96.80	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.C5.I17)	96.80	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.NW6.I18)	813.68	GFlr Cons	DELAYED STANDARD	0.029
L3South Wall (G.NW6.I19)	154.88	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.NW6.I20)	105.27	IntWall Cons	DELAYED STANDARD	0.402
L3South Wall (G.NW6.I21)	181.50	IntWall Cons	DELAYED STANDARD	0.402
L3East Wall (G.NW6.I22)	121.00	IntWall Cons	DELAYED STANDARD	0.402
L3East Wall (G.NW6.I23)	278.30	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.SSE7.I24)	580.00	GFlr Cons	DELAYED STANDARD	0.029
L3North Wall (G.SSE7.I25)	242.00	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.C8.I26)	180.00	GFlr Cons	DELAYED STANDARD	0.029
L3North Wall (G.C8.I27)	242.00	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.C9.I28)	200.00	GFlr Cons	DELAYED STANDARD	0.029

L3Flr (G.C10.I29)	380.75	GFlr Cons	DELAYED STANDARD	0.029
L3South Wall (G.C10.I30)	84.70	IntWall Cons	DELAYED STANDARD	0.402
L3South Wall (G.C10.I31)	376.91	IntWall Cons	DELAYED STANDARD	0.402
L3East Wall (G.C10.I32)	121.01	IntWall Cons	DELAYED STANDARD	0.402
L3North Wall (G.C10.I33)	254.10	IntWall Cons	DELAYED STANDARD	0.402
L3North Wall (G.C10.I34)	205.70	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.C10.I35)	121.00	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.N11.I36)	296.73	GFlr Cons	DELAYED STANDARD	0.029
L3South Wall (G.N11.I37)	157.30	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.N12.I38)	212.07	GFlr Cons	DELAYED STANDARD	0.029

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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

SURFACE NAME	AREA (SQFT)	CONSTRUCTION NAME	SURFACE TYPE	U-VALUE (BTU/HR-SQFT-F)
L3East Wall (G.N12.I39)	148.83	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.N12.I40)	153.07	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.N13.I41)	253.05	GFlr Cons	DELAYED STANDARD	0.029
L3Flr (G.SSE14.I42)	1032.46	GFlr Cons	DELAYED STANDARD	0.029
L3West Wall (G.SSE14.I43)	121.00	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.SSE14.I44)	108.90	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.SSE14.I45)	278.30	IntWall Cons	DELAYED STANDARD	0.402
L3East Wall (G.SSE14.I46)	287.42	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.E15.I47)	1425.21	GFlr Cons	DELAYED STANDARD	0.029
L3West Wall (G.E15.I48)	142.81	IntWall Cons	DELAYED STANDARD	0.402
L4 Flr (G.SSE1.I1)	1088.26	GFlr Cons	DELAYED STANDARD	0.029
L4 West Wall (G.SSE1.I2)	183.66	IntWall Cons	DELAYED STANDARD	0.402
L4 North Wall (G.SSE1.I3)	144.08	IntWall Cons	DELAYED STANDARD	0.402
L4 Flr (G.W2.I4)	186.20	GFlr Cons	DELAYED STANDARD	0.029
L4 Flr (G.C3.I5)	108.75	GFlr Cons	DELAYED STANDARD	0.029
L4 North Wall (G.C3.I6)	132.30	IntWall Cons	DELAYED STANDARD	0.402
L4 West Wall (G.C3.I7)	95.55	IntWall Cons	DELAYED STANDARD	0.402
L4 South Wall (G.C3.I8)	213.15	IntWall Cons	DELAYED STANDARD	0.402
L4 Flr (G.NNW4.I9)	810.86	GFlr Cons	DELAYED STANDARD	0.029
L4 South Wall (G.NNW4.I10)	144.06	IntWall Cons	DELAYED STANDARD	0.402
L4 East Wall (G.NNW4.I11)	14.70	IntWall Cons	DELAYED STANDARD	0.402
L4 South Wall (G.NNW4.I12)	80.85	IntWall Cons	DELAYED STANDARD	0.402
L4 East Wall (G.NNW4.I13)	132.30	IntWall Cons	DELAYED STANDARD	0.402
L4 South Wall (G.NNW4.I14)	132.30	IntWall Cons	DELAYED STANDARD	0.402
L4 Flr (G.SSE5.I15)	457.25	GFlr Cons	DELAYED STANDARD	0.029
L4 North Wall (G.SSE5.I16)	88.20	IntWall Cons	DELAYED STANDARD	0.402
L4 West Wall (G.SSE5.I17)	147.00	IntWall Cons	DELAYED STANDARD	0.402
L4 North Wall (G.SSE5.I18)	301.35	IntWall Cons	DELAYED STANDARD	0.402
L4 West Wall (G.SSE5.I19)	95.55	IntWall Cons	DELAYED STANDARD	0.402
L4 Flr (G.N6.I20)	205.00	GFlr Cons	DELAYED STANDARD	0.029
L4 West Wall (G.N6.I21)	132.30	IntWall Cons	DELAYED STANDARD	0.402
L4 West Wall (G.N6.I22)	14.70	IntWall Cons	DELAYED STANDARD	0.402
L4 Flr (G.N7.I23)	214.20	GFlr Cons	DELAYED STANDARD	0.029
L4 Flr (G.C8.I24)	81.00	GFlr Cons	DELAYED STANDARD	0.029
B1ENE Wall (B.SW1.I1)	231.58	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.SW1.I2)	283.64	IntWall Cons	DELAYED STANDARD	0.402
B1South Wall (B.C2.I3)	106.95	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C2.I4)	196.65	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C2.I5)	103.50	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C2.I6)	307.05	IntWall Cons	DELAYED STANDARD	0.402
B1SSE Wall (B.C2.I7)	115.28	IntWall Cons	DELAYED STANDARD	0.402
B1East Wall (B.C2.I8)	288.42	IntWall Cons	DELAYED ADIABATIC	0.402
B1East Wall (B.C2.I9)	234.60	IntWall Cons	DELAYED ADIABATIC	0.402
B1East Wall (B.C2.I10)	96.60	IntWall Cons	DELAYED STANDARD	0.402
B1East Wall (B.C2.I11)	138.00	IntWall Cons	DELAYED STANDARD	0.402

B1East Wall (B.C2.I12)	82.80	IntWall Cons	DELAYED STANDARD	0.402
B1East Wall (B.C2.I13)	27.60	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C2.I14)	96.60	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C2.I15)	69.00	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C2.I16)	179.40	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C2.I17)	110.40	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C2.I18)	69.69	IntWall Cons	DELAYED STANDARD	0.402
B1South Wall (B.W4.I19)	176.64	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.W4.I20)	176.64	IntWall Cons	DELAYED STANDARD	0.402
B1South Wall (B.C5.I21)	106.95	IntWall Cons	DELAYED STANDARD	0.402

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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

SURFACE NAME	AREA (SQFT)	CONSTRUCTION NAME	SURFACE TYPE	U-VALUE (BTU/HR-SQFT-F)
B1West Wall (B.C5.I22)	196.65	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.W6.I23)	287.04	IntWall Cons	DELAYED STANDARD	0.402
B1ENE Wall (B.SSE7.I24)	229.88	IntWall Cons	DELAYED STANDARD	0.402
B1NNW Wall (B.SSE7.I25)	321.63	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C8.I26)	523.02	IntWall Cons	DELAYED ADIABATIC	0.402
B1East Wall (B.C8.I27)	356.73	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C8.I28)	276.00	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C9.I29)	276.00	IntWall Cons	DELAYED STANDARD	0.402
B1South Wall (B.C10.I30)	276.00	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C10.I31)	179.40	IntWall Cons	DELAYED STANDARD	0.402
B1SSE Wall (B.C10.I32)	181.68	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C10.I33)	138.00	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C10.I34)	138.00	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C10.I35)	96.60	IntWall Cons	DELAYED STANDARD	0.402
B1ENE Wall (B.SSE11.I36)	237.14	IntWall Cons	DELAYED STANDARD	0.402
B1WSW Wall (B.SSE11.I37)	236.16	IntWall Cons	DELAYED STANDARD	0.402
B1NNW Wall (B.SSE12.I38)	328.06	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C15.I39)	276.00	IntWall Cons	DELAYED STANDARD	0.402
B1East Wall (B.N17.I40)	202.86	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.N17.I41)	204.93	IntWall Cons	DELAYED STANDARD	0.402
B1East Wall (B.N18.I42)	227.70	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.SE20.I43)	191.82	IntWall Cons	DELAYED STANDARD	0.402
B1WSW Wall (B.SE20.I44)	231.71	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.N22.I45)	220.80	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.N22.I46)	82.80	IntWall Cons	DELAYED STANDARD	0.402
B1South Wall (B.N22.I47)	291.87	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.N22.I48)	317.40	IntWall Cons	DELAYED STANDARD	0.402
B1SSE Wall (B.N22.I49)	53.61	IntWall Cons	DELAYED STANDARD	0.402
B1SSE Wall (B.N22.I50)	303.18	IntWall Cons	DELAYED STANDARD	0.402
B1SSE Wall (B.N22.I51)	315.95	IntWall Cons	DELAYED STANDARD	0.402
B1East Wall (B.N22.I52)	259.44	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C23.I53)	230.46	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C23.I54)	183.54	IntWall Cons	DELAYED STANDARD	0.402
B2North Wall (B.E2.I1)	127.50	IntWall Cons	DELAYED STANDARD	0.402
B2West Wall (B.E2.I2)	164.05	IntWall Cons	DELAYED STANDARD	0.402
B2North Wall (B.E2.I3)	108.80	IntWall Cons	DELAYED STANDARD	0.402
B2South Wall (B.E2.I4)	174.67	IntWall Cons	DELAYED STANDARD	0.402
B2West Wall (B.E2.I5)	212.07	IntWall Cons	DELAYED STANDARD	0.402
B2South Wall (B.N4.I6)	108.80	IntWall Cons	DELAYED STANDARD	0.402

SURFACE NAME	ADJACENT SPACES SPACE-1	SPACE-2

L1East Wall (G.SW1.I1)	L1SW Perim Spc (G.SW1)	L1SSE Perim Spc (G.SSE8)
L1North Wall (G.SW1.I2)	L1SW Perim Spc (G.SW1)	L1Core Spc (G.C2)
L1East Wall (G.SW1.I3)	L1SW Perim Spc (G.SW1)	L1Core Spc (G.C2)
L1North Wall (G.SW1.I4)	L1SW Perim Spc (G.SW1)	L1Core Spc (G.C5)
L1West Wall (G.SW1.I5)	L1SW Perim Spc (G.SW1)	L1West Perim Spc (G.W3)
L1North Wall (G.SW1.I6)	L1SW Perim Spc (G.SW1)	L1West Perim Spc (G.W3)
Interior Wall 233	L1SW Perim Spc (G.SW1)	B1SW Perim Spc (B.SW1)
L1East Wall (G.C2.I7)	L1Core Spc (G.C2)	L1SSE Perim Spc (G.SSE8)
Interior Wall 234	L1Core Spc (G.C2)	B1Core Spc (B.C2)
Interior Wall 235	L1West Perim Spc (G.W3)	B1West Perim Spc (B.W4)

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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
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SURFACE NAME	ADJACENT SPACES SPACE-1	SPACE-2
L1South Wall (G.WNW4.I8)	L1WNW Perim Spc (G.WNW4)	L1West Perim Spc (G.W3)
L1East Wall (G.WNW4.I9)	L1WNW Perim Spc (G.WNW4)	L1Core Spc (G.C5)
L1North Wall (G.WNW4.I10)	L1WNW Perim Spc (G.WNW4)	L1Core Spc (G.C6)
L1South Wall (G.WNW4.I11)	L1WNW Perim Spc (G.WNW4)	L1North Perim Spc (G.N7)
L1East Wall (G.WNW4.I12)	L1WNW Perim Spc (G.WNW4)	L1North Perim Spc (G.N7)
Interior Wall 236	L1WNW Perim Spc (G.WNW4)	B1NW Perim Spc (B.NW16)
L1South Wall (G.C5.I13)	L1Core Spc (G.C5)	L1Core Spc (G.C2)
L1West Wall (G.C5.I14)	L1Core Spc (G.C5)	L1West Perim Spc (G.W3)
Interior Wall 237	L1Core Spc (G.C5)	B1Core Spc (B.C2)
L1South Wall (G.C6.I15)	L1Core Spc (G.C6)	L1Core Spc (G.C5)
L1East Wall (G.C6.I16)	L1Core Spc (G.C6)	L1Core Spc (G.C10)
L1West Wall (G.C6.I17)	L1Core Spc (G.C6)	L1WNW Perim Spc (G.WNW4)
Interior Wall 238	L1Core Spc (G.C6)	B1West Perim Spc (B.W6)
L1West Wall (G.N7.I18)	L1North Perim Spc (G.N7)	L1WNW Perim Spc (G.WNW4)
L1South Wall (G.N7.I19)	L1North Perim Spc (G.N7)	L1Core Spc (G.C6)
L1East Wall (G.N7.I20)	L1North Perim Spc (G.N7)	L1North Perim Spc (G.N12)
Interior Wall 239	L1North Perim Spc (G.N7)	B1North Perim Spc (B.N17)
L1East Wall (G.SSE8.I21)	L1SSE Perim Spc (G.SSE8)	L1SE Perim Spc (G.SE16)
L1North Wall (G.SSE8.I22)	L1SSE Perim Spc (G.SSE8)	L1Core Spc (G.C9)
L1West Wall (G.SSE8.I23)	L1SSE Perim Spc (G.SSE8)	L1Core Spc (G.C9)
L1North Wall (G.SSE8.I24)	L1SSE Perim Spc (G.SSE8)	L1Core Spc (G.C9)
Interior Wall 240	L1SSE Perim Spc (G.SSE8)	B1Core Spc (B.C8)
L1East Wall (G.C9.I25)	L1Core Spc (G.C9)	L1SE Perim Spc (G.SE16)
L1East Wall (G.C9.I26)	L1Core Spc (G.C9)	L1Core Spc (G.C17)
L1North Wall (G.C9.I27)	L1Core Spc (G.C9)	L1Core Spc (G.C10)
L1West Wall (G.C9.I28)	L1Core Spc (G.C9)	L1Core Spc (G.C5)
Interior Wall 241	L1Core Spc (G.C9)	B1Core Spc (B.C9)
Interior Wall 242	L1Core Spc (G.C10)	B1Core Spc (B.C15)
L1South Wall (G.C11.I29)	L1Core Spc (G.C11)	L1Core Spc (G.C6)
L1South Wall (G.C11.I30)	L1Core Spc (G.C11)	L1Core Spc (G.C10)
L1South Wall (G.C11.I31)	L1Core Spc (G.C11)	L1Core Spc (G.C17)
L1East Wall (G.C11.I32)	L1Core Spc (G.C11)	L1North Perim Spc (G.N12)
L1North Wall (G.C11.I33)	L1Core Spc (G.C11)	L1North Perim Spc (G.N7)
L1West Wall (G.C11.I34)	L1Core Spc (G.C11)	L1Core Spc (G.C6)
Interior Wall 243	L1Core Spc (G.C11)	B1Core Spc (B.C23)
L1South Wall (G.N12.I35)	L1North Perim Spc (G.N12)	L1Core Spc (G.C11)
L1East Wall (G.N12.I36)	L1North Perim Spc (G.N12)	L1North Perim Spc (G.N13)
Interior Wall 244	L1North Perim Spc (G.N12)	B1North Perim Spc (B.N18)
L1South Wall (G.N13.I37)	L1North Perim Spc (G.N13)	L1Core Spc (G.C11)
L1North Wall (G.N13.I38)	L1North Perim Spc (G.N13)	L1North Perim Spc (G.N14)
Interior Wall 245	L1North Perim Spc (G.N13)	B1North Perim Spc (B.N19)
L1West Wall (G.N14.I39)	L1North Perim Spc (G.N14)	L1North Perim Spc (G.N13)
Interior Wall 246	L1North Perim Spc (G.N14)	B1North Perim Spc (B.N22)
L1East Wall (G.SSE15.I40)	L1SSE Perim Spc (G.SSE15)	L1SSE Perim Spc (G.SSE15)

Interior Wall 247	L1SSE Perim Spc (G.SSE15)	B1Core Spc (B.C10)
L1East Wall (G.SE16.I41)	L1SE Perim Spc (G.SE16)	L1SSE Perim Spc (G.SSE15)
Interior Wall 248	L1SE Perim Spc (G.SE16)	B1Core Spc (B.C13)
L1South Wall (G.C17.I42)	L1Core Spc (G.C17)	L1SE Perim Spc (G.SE16)
L1South Wall (G.C17.I43)	L1Core Spc (G.C17)	L1SSE Perim Spc (G.SSE15)
L1East Wall (G.C17.I44)	L1Core Spc (G.C17)	L1Core Spc (G.C17)
L1West Wall (G.C17.I45)	L1Core Spc (G.C17)	L1Core Spc (G.C10)
Interior Wall 249	L1Core Spc (G.C17)	B1Core Spc (B.C10)
L1West Wall (G.E18.I46)	L1East Perim Spc (G.E18)	L1North Perim Spc (G.N14)
L1North Wall (G.E18.I47)	L1East Perim Spc (G.E18)	L1North Perim Spc (G.N14)

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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
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SURFACE NAME	ADJACENT SPACES SPACE-1	SPACE-2
L1West Wall (G.E18.I48)	L1East Perim Spc (G.E18)	L1North Perim Spc (G.N13)
L1West Wall (G.E18.I49)	L1East Perim Spc (G.E18)	L1Core Spc (G.C11)
L1South Wall (G.E18.I50)	L1East Perim Spc (G.E18)	L1Core Spc (G.C17)
L1West Wall (G.E18.I51)	L1East Perim Spc (G.E18)	L1East Perim Spc (G.E18)
Interior Wall 250	L1East Perim Spc (G.E18)	B1North Perim Spc (B.N22)
Interior Wall 251	Space 84	L1Core Spc (G.C11)
Interior Wall 252	Space 84	L1North Perim Spc (G.N14)
Interior Wall 253	Space 84	L1North Perim Spc (G.N12)
Interior Wall 254	Space 84	L1Core Spc (G.C11)
Interior Wall 255	Space 84	L1North Perim Spc (G.N14)
L2Flr (G.SW1.I1)	L2SW Perim Spc (G.SW1)	L1SW Perim Spc (G.SW1)
L2East Wall (G.SW1.I2)	L2SW Perim Spc (G.SW1)	L2SSE Perim Spc (G.SSE7)
L2North Wall (G.SW1.I3)	L2SW Perim Spc (G.SW1)	L2Core Spc (G.C2)
L2East Wall (G.SW1.I4)	L2SW Perim Spc (G.SW1)	L2Core Spc (G.C2)
L2North Wall (G.SW1.I5)	L2SW Perim Spc (G.SW1)	L2Core Spc (G.C5)
L2West Wall (G.SW1.I6)	L2SW Perim Spc (G.SW1)	L2West Perim Spc (G.W3)
L2North Wall (G.SW1.I7)	L2SW Perim Spc (G.SW1)	L2West Perim Spc (G.W3)
L2Flr (G.C2.I8)	L2Core Spc (G.C2)	L1Core Spc (G.C2)
L2East Wall (G.C2.I9)	L2Core Spc (G.C2)	L2SSE Perim Spc (G.SSE7)
L2East Wall (G.C2.I10)	L2Core Spc (G.C2)	L2Core Spc (G.C8)
L2North Wall (G.C2.I11)	L2Core Spc (G.C2)	L2Core Spc (G.C5)
L2Flr (G.W3.I12)	L2West Perim Spc (G.W3)	L1West Perim Spc (G.W3)
L2North Wall (G.W3.I13)	L2West Perim Spc (G.W3)	L2West Perim Spc (G.W4)
L2Flr (G.W4.I14)	L2West Perim Spc (G.W4)	L1WNW Perim Spc (G.WNW4)
L2Flr (G.C5.I15)	L2Core Spc (G.C5)	L1Core Spc (G.C5)
L2East Wall (G.C5.I16)	L2Core Spc (G.C5)	L2Core Spc (G.C8)
L2West Wall (G.C5.I17)	L2Core Spc (G.C5)	L2West Perim Spc (G.W3)
L2Flr (G.NW6.I18)	L2NW Perim Spc (G.NW6)	L1Core Spc (G.C6)
L2South Wall (G.NW6.I19)	L2NW Perim Spc (G.NW6)	L2West Perim Spc (G.W4)
L2West Wall (G.NW6.I20)	L2NW Perim Spc (G.NW6)	L2West Perim Spc (G.W4)
L2South Wall (G.NW6.I21)	L2NW Perim Spc (G.NW6)	L2West Perim Spc (G.W3)
L2South Wall (G.NW6.I22)	L2NW Perim Spc (G.NW6)	L2Core Spc (G.C5)
L2East Wall (G.NW6.I23)	L2NW Perim Spc (G.NW6)	L2Core Spc (G.C9)
L2East Wall (G.NW6.I24)	L2NW Perim Spc (G.NW6)	L2North Perim Spc (G.N11)
L2Flr (G.SSE7.I25)	L2SSE Perim Spc (G.SSE7)	L1SSE Perim Spc (G.SSE8)
L2North Wall (G.SSE7.I26)	L2SSE Perim Spc (G.SSE7)	L2Core Spc (G.C8)
L2Flr (G.C8.I27)	L2Core Spc (G.C8)	L1Core Spc (G.C9)
L2North Wall (G.C8.I28)	L2Core Spc (G.C8)	L2Core Spc (G.C9)
L2Flr (G.C9.I29)	L2Core Spc (G.C9)	L1Core Spc (G.C10)
L2Flr (G.C10.I30)	L2Core Spc (G.C10)	L1Core Spc (G.C11)
L2South Wall (G.C10.I31)	L2Core Spc (G.C10)	L2Core Spc (G.C9)
L2South Wall (G.C10.I32)	L2Core Spc (G.C10)	L2SSE Perim Spc (G.SSE14)
L2East Wall (G.C10.I33)	L2Core Spc (G.C10)	L2East Perim Spc (G.E15)
L2North Wall (G.C10.I34)	L2Core Spc (G.C10)	L2North Perim Spc (G.N13)

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L2North Wall (G.C10.I35)
L2West Wall (G.C10.I36)
L2Flr (G.N11.I37)
L2South Wall (G.N11.I38)
L2Flr (G.N12.I39)
L2East Wall (G.N12.I40)
L2West Wall (G.N12.I41)
L2Flr (G.N13.I42)
L2Flr (G.SSE14.I43)
L2West Wall (G.SSE14.I44)
L2Core Spc (G.C10)
L2Core Spc (G.C10)
L2North Perim Spc (G.N11)
L2North Perim Spc (G.N11)
L2North Perim Spc (G.N12)
L2North Perim Spc (G.N12)
L2North Perim Spc (G.N12)
L2North Perim Spc (G.N13)
L2SSE Perim Spc (G.SSE14)
L2SSE Perim Spc (G.SSE14)
L2North Perim Spc (G.N12)
L2North Perim Spc (G.N11)
L1North Perim Spc (G.N12)
L2Core Spc (G.C9)
L1North Perim Spc (G.N13)
L2North Perim Spc (G.N13)
L2North Perim Spc (G.N11)
L1North Perim Spc (G.N14)
L1SE Perim Spc (G.SE16)
L2Core Spc (G.C9)
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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
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SURFACE NAME	ADJACENT SPACES SPACE-1	SPACE-2
L2West Wall (G.SSE14.I45)	L2SSE Perim Spc (G.SSE14)	L2Core Spc (G.C8)
L2West Wall (G.SSE14.I46)	L2SSE Perim Spc (G.SSE14)	L2SSE Perim Spc (G.SSE7)
L2East Wall (G.SSE14.I47)	L2SSE Perim Spc (G.SSE14)	L2East Perim Spc (G.E15)
L2Flr (G.E15.I48)	L2East Perim Spc (G.E15)	L1East Perim Spc (G.E18)
L2West Wall (G.E15.I49)	L2East Perim Spc (G.E15)	L2North Perim Spc (G.N13)
L3Flr (G.SW1.I1)	L3SW Perim Spc (G.SW1)	L2SW Perim Spc (G.SW1)
L3East Wall (G.SW1.I2)	L3SW Perim Spc (G.SW1)	L3SSE Perim Spc (G.SSE7)
L3North Wall (G.SW1.I3)	L3SW Perim Spc (G.SW1)	L3Core Spc (G.C2)
L3East Wall (G.SW1.I4)	L3SW Perim Spc (G.SW1)	L3Core Spc (G.C2)
L3North Wall (G.SW1.I5)	L3SW Perim Spc (G.SW1)	L3Core Spc (G.C5)
L3West Wall (G.SW1.I6)	L3SW Perim Spc (G.SW1)	L3West Perim Spc (G.W3)
L3North Wall (G.SW1.I7)	L3SW Perim Spc (G.SW1)	L3West Perim Spc (G.W3)
L3Flr (G.C2.I8)	L3Core Spc (G.C2)	L2Core Spc (G.C2)
L3East Wall (G.C2.I9)	L3Core Spc (G.C2)	L3SSE Perim Spc (G.SSE7)
L3East Wall (G.C2.I10)	L3Core Spc (G.C2)	L3Core Spc (G.C8)
L3North Wall (G.C2.I11)	L3Core Spc (G.C2)	L3Core Spc (G.C5)
L3Flr (G.W3.I12)	L3West Perim Spc (G.W3)	L2West Perim Spc (G.W3)
L3North Wall (G.W3.I13)	L3West Perim Spc (G.W3)	L3WSW Perim Spc (G.WSW4)
L3Flr (G.WSW4.I14)	L3WSW Perim Spc (G.WSW4)	L2West Perim Spc (G.W4)
L3Flr (G.C5.I15)	L3Core Spc (G.C5)	L2Core Spc (G.C5)
L3East Wall (G.C5.I16)	L3Core Spc (G.C5)	L3Core Spc (G.C8)
L3West Wall (G.C5.I17)	L3Core Spc (G.C5)	L3West Perim Spc (G.W3)
L3Flr (G.NW6.I18)	L3NW Perim Spc (G.NW6)	L2NW Perim Spc (G.NW6)
L3South Wall (G.NW6.I19)	L3NW Perim Spc (G.NW6)	L3WSW Perim Spc (G.WSW4)
L3West Wall (G.NW6.I20)	L3NW Perim Spc (G.NW6)	L3WSW Perim Spc (G.WSW4)
L3South Wall (G.NW6.I21)	L3NW Perim Spc (G.NW6)	L3Core Spc (G.C5)
L3East Wall (G.NW6.I22)	L3NW Perim Spc (G.NW6)	L3Core Spc (G.C9)
L3East Wall (G.NW6.I23)	L3NW Perim Spc (G.NW6)	L3North Perim Spc (G.N11)
L3Flr (G.SSE7.I24)	L3SSE Perim Spc (G.SSE7)	L2SSE Perim Spc (G.SSE7)
L3North Wall (G.SSE7.I25)	L3SSE Perim Spc (G.SSE7)	L3Core Spc (G.C8)
L3Flr (G.C8.I26)	L3Core Spc (G.C8)	L2Core Spc (G.C8)
L3North Wall (G.C8.I27)	L3Core Spc (G.C8)	L3Core Spc (G.C9)
L3Flr (G.C9.I28)	L3Core Spc (G.C9)	L2Core Spc (G.C9)
L3Flr (G.C10.I29)	L3Core Spc (G.C10)	L2Core Spc (G.C10)
L3South Wall (G.C10.I30)	L3Core Spc (G.C10)	L3Core Spc (G.C9)
L3South Wall (G.C10.I31)	L3Core Spc (G.C10)	L3SSE Perim Spc (G.SSE14)
L3East Wall (G.C10.I32)	L3Core Spc (G.C10)	L3East Perim Spc (G.E15)
L3North Wall (G.C10.I33)	L3Core Spc (G.C10)	L3North Perim Spc (G.N13)
L3North Wall (G.C10.I34)	L3Core Spc (G.C10)	L3North Perim Spc (G.N12)
L3West Wall (G.C10.I35)	L3Core Spc (G.C10)	L3North Perim Spc (G.N11)
L3Flr (G.N11.I36)	L3North Perim Spc (G.N11)	L2North Perim Spc (G.N11)
L3South Wall (G.N11.I37)	L3North Perim Spc (G.N11)	L3Core Spc (G.C9)
L3Flr (G.N12.I38)	L3North Perim Spc (G.N12)	L2North Perim Spc (G.N12)
L3East Wall (G.N12.I39)	L3North Perim Spc (G.N12)	L3North Perim Spc (G.N13)

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L3West Wall (G.N12.I40)          L3North Perim Spc (G.N12)        L3North Perim Spc (G.N11)
L3Flr (G.N13.I41)                L3North Perim Spc (G.N13)        L2North Perim Spc (G.N13)
L3Flr (G.SSE14.I42)              L3SSE Perim Spc (G.SSE14)        L2SSE Perim Spc (G.SSE14)
L3West Wall (G.SSE14.I43)        L3SSE Perim Spc (G.SSE14)        L3Core Spc (G.C9)
L3West Wall (G.SSE14.I44)        L3SSE Perim Spc (G.SSE14)        L3Core Spc (G.C8)
L3West Wall (G.SSE14.I45)        L3SSE Perim Spc (G.SSE14)        L3SSE Perim Spc (G.SSE7)
L3East Wall (G.SSE14.I46)        L3SSE Perim Spc (G.SSE14)        L3East Perim Spc (G.E15)
L3Flr (G.E15.I47)                L3East Perim Spc (G.E15)         L2East Perim Spc (G.E15)
L3West Wall (G.E15.I48)          L3East Perim Spc (G.E15)         L3North Perim Spc (G.N13)
L4 Flr (G.SSE1.I1)               L4 SSE Perim Spc (G.SSE1)        L3SW Perim Spc (G.SW1)
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Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

SURFACE NAME	ADJACENT SPACES SPACE-1	SPACE-2
L4 West Wall (G.SSE1.I2)	L4 SSE Perim Spc (G.SSE1)	L4 West Perim Spc (G.W2)
L4 North Wall (G.SSE1.I3)	L4 SSE Perim Spc (G.SSE1)	L4 West Perim Spc (G.W2)
L4 Flr (G.W2.I4)	L4 West Perim Spc (G.W2)	L3West Perim Spc (G.W3)
L4 Flr (G.C3.I5)	L4 Core Spc (G.C3)	L3Core Spc (G.C5)
L4 North Wall (G.C3.I6)	L4 Core Spc (G.C3)	L4 Core Spc (G.C8)
L4 West Wall (G.C3.I7)	L4 Core Spc (G.C3)	L4 West Perim Spc (G.W2)
L4 South Wall (G.C3.I8)	L4 Core Spc (G.C3)	L4 SSE Perim Spc (G.SSE1)
L4 Flr (G.NNW4.I9)	L4 NNW Perim Spc (G.NNW4)	L3NW Perim Spc (G.NW6)
L4 South Wall (G.NNW4.I10)	L4 NNW Perim Spc (G.NNW4)	L4 West Perim Spc (G.W2)
L4 East Wall (G.NNW4.I11)	L4 NNW Perim Spc (G.NNW4)	L4 Core Spc (G.C3)
L4 South Wall (G.NNW4.I12)	L4 NNW Perim Spc (G.NNW4)	L4 Core Spc (G.C3)
L4 East Wall (G.NNW4.I13)	L4 NNW Perim Spc (G.NNW4)	L4 Core Spc (G.C8)
L4 South Wall (G.NNW4.I14)	L4 NNW Perim Spc (G.NNW4)	L4 Core Spc (G.C8)
L4 Flr (G.SSE5.I15)	L4 SSE Perim Spc (G.SSE5)	L3SSE Perim Spc (G.SSE14)
L4 North Wall (G.SSE5.I16)	L4 SSE Perim Spc (G.SSE5)	L4 North Perim Spc (G.N7)
L4 West Wall (G.SSE5.I17)	L4 SSE Perim Spc (G.SSE5)	L4 North Perim Spc (G.N6)
L4 North Wall (G.SSE5.I18)	L4 SSE Perim Spc (G.SSE5)	L4 North Perim Spc (G.N6)
L4 West Wall (G.SSE5.I19)	L4 SSE Perim Spc (G.SSE5)	L4 Core Spc (G.C3)
L4 Flr (G.N6.I20)	L4 North Perim Spc (G.N6)	L3Core Spc (G.C9)
L4 West Wall (G.N6.I21)	L4 North Perim Spc (G.N6)	L4 Core Spc (G.C8)
L4 West Wall (G.N6.I22)	L4 North Perim Spc (G.N6)	L4 Core Spc (G.C3)
L4 Flr (G.N7.I23)	L4 North Perim Spc (G.N7)	L3North Perim Spc (G.N13)
L4 Flr (G.C8.I24)	L4 Core Spc (G.C8)	L3NW Perim Spc (G.NW6)
B1ENE Wall (B.SW1.I1)	B1SW Perim Spc (B.SW1)	B1SSE Perim Spc (B.SSE7)
B1North Wall (B.SW1.I2)	B1SW Perim Spc (B.SW1)	B1West Perim Spc (B.W3)
B1South Wall (B.C2.I3)	B1Core Spc (B.C2)	B1Core Spc (B.C5)
B1West Wall (B.C2.I4)	B1Core Spc (B.C2)	B1Core Spc (B.C5)
B1West Wall (B.C2.I5)	B1Core Spc (B.C2)	B1West Perim Spc (B.W3)
B1West Wall (B.C2.I6)	B1Core Spc (B.C2)	B1SW Perim Spc (B.SW1)
B1SSE Wall (B.C2.I7)	B1Core Spc (B.C2)	B1SW Perim Spc (B.SW1)
B1East Wall (B.C2.I8)	B1Core Spc (B.C2)	B1Core Spc (B.C2)
B1East Wall (B.C2.I9)	B1Core Spc (B.C2)	B1Core Spc (B.C2)
B1East Wall (B.C2.I10)	B1Core Spc (B.C2)	B1Core Spc (B.C9)
B1East Wall (B.C2.I11)	B1Core Spc (B.C2)	B1Core Spc (B.C15)
B1East Wall (B.C2.I12)	B1Core Spc (B.C2)	B1Core Spc (B.C23)
B1East Wall (B.C2.I13)	B1Core Spc (B.C2)	B1North Perim Spc (B.N18)
B1North Wall (B.C2.I14)	B1Core Spc (B.C2)	B1North Perim Spc (B.N17)
B1West Wall (B.C2.I15)	B1Core Spc (B.C2)	B1NW Perim Spc (B.NW16)
B1West Wall (B.C2.I16)	B1Core Spc (B.C2)	B1West Perim Spc (B.W6)
B1North Wall (B.C2.I17)	B1Core Spc (B.C2)	B1West Perim Spc (B.W6)
B1West Wall (B.C2.I18)	B1Core Spc (B.C2)	B1West Perim Spc (B.W4)
B1South Wall (B.W4.I19)	B1West Perim Spc (B.W4)	B1West Perim Spc (B.W3)
B1North Wall (B.W4.I20)	B1West Perim Spc (B.W4)	B1West Perim Spc (B.W6)
B1South Wall (B.C5.I21)	B1Core Spc (B.C5)	B1West Perim Spc (B.W3)

B1West Wall (B.C5.I22)	B1Core Spc (B.C5)	B1West Perim Spc (B.W4)
B1North Wall (B.W6.I23)	B1West Perim Spc (B.W6)	B1NW Perim Spc (B.NW16)
B1ENE Wall (B.SSE7.I24)	B1SSE Perim Spc (B.SSE7)	B1SSE Perim Spc (B.SSE12)
B1NNW Wall (B.SSE7.I25)	B1SSE Perim Spc (B.SSE7)	B1Core Spc (B.C8)
B1West Wall (B.C8.I26)	B1Core Spc (B.C8)	B1Core Spc (B.C8)
B1East Wall (B.C8.I27)	B1Core Spc (B.C8)	B1Core Spc (B.C13)
B1North Wall (B.C8.I28)	B1Core Spc (B.C8)	B1Core Spc (B.C9)
B1North Wall (B.C9.I29)	B1Core Spc (B.C9)	B1Core Spc (B.C15)
B1South Wall (B.C10.I30)	B1Core Spc (B.C10)	B1Core Spc (B.C13)
B1West Wall (B.C10.I31)	B1Core Spc (B.C10)	B1Core Spc (B.C13)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

SURFACE NAME	ADJACENT SPACES SPACE-1	SPACE-2
B1SSE Wall (B.C10.I32)	B1Core Spc (B.C10)	B1SSE Perim Spc (B.SSE11)
B1North Wall (B.C10.I33)	B1Core Spc (B.C10)	B1Core Spc (B.C23)
B1West Wall (B.C10.I34)	B1Core Spc (B.C10)	B1Core Spc (B.C15)
B1West Wall (B.C10.I35)	B1Core Spc (B.C10)	B1Core Spc (B.C9)
B1ENE Wall (B.SSE11.I36)	B1SSE Perim Spc (B.SSE11)	B1SSE Perim Spc (B.SSE14)
B1WSW Wall (B.SSE11.I37)	B1SSE Perim Spc (B.SSE11)	B1SSE Perim Spc (B.SSE12)
B1NNW Wall (B.SSE12.I38)	B1SSE Perim Spc (B.SSE12)	B1Core Spc (B.C13)
B1North Wall (B.C15.I39)	B1Core Spc (B.C15)	B1Core Spc (B.C23)
B1East Wall (B.N17.I40)	B1North Perim Spc (B.N17)	B1North Perim Spc (B.N18)
B1West Wall (B.N17.I41)	B1North Perim Spc (B.N17)	B1NW Perim Spc (B.NW16)
B1East Wall (B.N18.I42)	B1North Perim Spc (B.N18)	B1North Perim Spc (B.N19)
B1North Wall (B.SE20.I43)	B1SE Perim Spc (B.SE20)	B1NE Perim Spc (B.NE21)
B1WSW Wall (B.SE20.I44)	B1SE Perim Spc (B.SE20)	B1SSE Perim Spc (B.SSE14)
B1West Wall (B.N22.I45)	B1North Perim Spc (B.N22)	B1North Perim Spc (B.N19)
B1West Wall (B.N22.I46)	B1North Perim Spc (B.N22)	B1Core Spc (B.C23)
B1South Wall (B.N22.I47)	B1North Perim Spc (B.N22)	B1Core Spc (B.C10)
B1West Wall (B.N22.I48)	B1North Perim Spc (B.N22)	B1Core Spc (B.C10)
B1SSE Wall (B.N22.I49)	B1North Perim Spc (B.N22)	B1SSE Perim Spc (B.SSE11)
B1SSE Wall (B.N22.I50)	B1North Perim Spc (B.N22)	B1SSE Perim Spc (B.SSE14)
B1SSE Wall (B.N22.I51)	B1North Perim Spc (B.N22)	B1SE Perim Spc (B.SE20)
B1East Wall (B.N22.I52)	B1North Perim Spc (B.N22)	B1NE Perim Spc (B.NE21)
B1North Wall (B.C23.I53)	B1Core Spc (B.C23)	B1North Perim Spc (B.N19)
B1North Wall (B.C23.I54)	B1Core Spc (B.C23)	B1North Perim Spc (B.N18)
B2North Wall (B.E2.I1)	B2East Perim Spc (B.E2)	B2North Perim Spc (B.N4)
B2West Wall (B.E2.I2)	B2East Perim Spc (B.E2)	B2West Perim Spc (B.W3)
B2North Wall (B.E2.I3)	B2East Perim Spc (B.E2)	B2West Perim Spc (B.W3)
B2South Wall (B.E2.I4)	B2East Perim Spc (B.E2)	B2SW Perim Spc (B.SW1)
B2West Wall (B.E2.I5)	B2East Perim Spc (B.E2)	B2SW Perim Spc (B.SW1)
B2South Wall (B.N4.I6)	B2North Perim Spc (B.N4)	B2West Perim Spc (B.W3)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- LV-H Details of Windows WEATHER FILE- SEATTLE BOEING FI WA

NUMBER OF WINDOWS 95

(Note: u-values include outside air film)

WINDOW NAME	MULTIPLIER	GLASS AREA (SQFT)	GLASS HEIGHT (FT)	GLASS WIDTH (FT)	LOCATION OF ORIGIN IN SURFACE COORDINATES X (FT)	Y (FT)	FRAME AREA (SQFT)	CURB AREA (SQFT)	FRAME U-VALUE (BTU/HR-SQFT-F)	CURB U-VALUE (BTU/HR-SQFT-F)
Window 1	1.0	126.38	12.33	10.25	4.00	1.00	0.00	0.00	0.384	0.000
Window 2	1.0	126.38	12.33	10.25	18.00	1.00	0.00	0.00	0.384	0.000
Window 32	1.0	26.25	5.25	5.00	0.25	7.00	0.00	0.00	0.384	0.000
Window 30	1.0	15.75	5.25	3.00	1.00	7.00	0.00	0.00	0.384	0.000
Window 31	1.0	26.25	5.25	5.00	6.00	7.00	0.00	0.00	0.384	0.000
Window 3	1.0	216.00	12.00	18.00	3.00	1.00	0.00	0.00	0.384	0.000
Window 98	1.0	100.00	10.00	10.00	0.50	0.25	0.00	0.00	0.384	0.000
Window 4	1.0	216.00	12.00	18.00	3.00	1.00	0.00	0.00	0.384	0.000
Window 5	1.0	223.68	12.00	18.64	3.00	1.00	0.00	0.00	0.384	0.000
Window 6	1.0	223.68	12.00	18.64	26.00	1.00	0.00	0.00	0.384	0.000
Window 21	1.0	177.96	12.00	14.83	1.00	1.00	0.00	0.00	0.384	0.000
Window 24	1.0	6.25	2.50	2.50	14.00	10.00	0.00	0.00	0.384	0.000
Window 25	1.0	6.25	2.50	2.50	30.00	12.00	0.00	0.00	0.384	0.000
Window 26	1.0	66.36	14.00	4.74	34.00	0.50	0.00	0.00	0.384	0.000
Window 83	1.0	17.00	6.80	2.50	3.00	0.25	0.00	0.00	0.384	0.000
Window 84	1.0	18.38	5.25	3.50	10.00	0.25	0.00	0.00	0.384	0.000
Window 85	1.0	17.00	6.80	2.50	2.00	0.25	0.00	0.00	0.384	0.000
Window 7	1.0	34.68	8.67	4.00	4.00	2.00	0.00	0.00	0.384	0.000
Window 8	1.0	34.68	8.67	4.00	9.00	2.00	0.00	0.00	0.384	0.000
Window 9	1.0	34.68	8.67	4.00	18.00	2.00	0.00	0.00	0.384	0.000
Window 10	1.0	34.68	8.67	4.00	23.00	2.00	0.00	0.00	0.384	0.000
Window 61	1.0	60.47	9.00	6.72	4.00	1.00	0.00	0.00	0.384	0.000
Window 62	1.0	60.47	9.00	6.72	14.00	1.00	0.00	0.00	0.384	0.000
Window 11	1.0	45.00	7.50	6.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 12	1.0	45.00	7.50	6.00	12.00	2.00	0.00	0.00	0.384	0.000
Window 55	1.0	19.17	7.67	2.50	1.00	2.00	0.00	0.00	0.384	0.000
Window 56	1.0	19.17	7.67	2.50	5.00	2.00	0.00	0.00	0.384	0.000
Window 51	1.0	20.62	8.25	2.50	0.50	2.00	0.00	0.00	0.384	0.000
Window 53	1.0	19.17	7.67	2.50	6.00	2.00	0.00	0.00	0.384	0.000
Window 54	1.0	19.17	7.67	2.50	13.00	2.00	0.00	0.00	0.384	0.000
Window 45	1.0	20.62	8.25	2.50	2.00	2.00	0.00	0.00	0.384	0.000
Window 46	1.0	20.62	8.25	2.50	8.00	2.00	0.00	0.00	0.384	0.000
Window 47	1.0	20.62	8.25	2.50	15.00	2.00	0.00	0.00	0.384	0.000
Window 13	1.0	45.00	7.50	6.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 14	1.0	45.00	7.50	6.00	12.00	2.00	0.00	0.00	0.384	0.000
Window 15	1.0	28.12	7.50	3.75	24.00	2.00	0.00	0.00	0.384	0.000
Window 16	1.0	28.12	7.50	3.75	30.00	2.00	0.00	0.00	0.384	0.000
Window 22	1.0	31.88	7.50	4.25	3.00	2.00	0.00	0.00	0.384	0.000
Window 23	1.0	31.88	7.50	4.25	10.00	2.00	0.00	0.00	0.384	0.000

Window 33	1.0	19.17	7.67	2.50	6.00	2.00	0.00	0.00	0.384	0.000
Window 34	1.0	19.17	7.67	2.50	10.00	2.00	0.00	0.00	0.384	0.000
Window 35	1.0	19.17	7.67	2.50	14.00	2.00	0.00	0.00	0.384	0.000
Window 36	1.0	19.17	7.67	2.50	22.00	2.00	0.00	0.00	0.384	0.000
Window 37	1.0	19.17	7.67	2.50	26.00	2.00	0.00	0.00	0.384	0.000
Window 38	1.0	19.17	7.67	2.50	30.00	2.00	0.00	0.00	0.384	0.000
Window 17	1.0	45.00	7.50	6.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 18	1.0	45.00	7.50	6.00	12.00	2.00	0.00	0.00	0.384	0.000
Window 19	1.0	45.00	7.50	6.00	26.00	2.00	0.00	0.00	0.384	0.000
Window 20	1.0	45.00	7.50	6.00	36.00	2.00	0.00	0.00	0.384	0.000

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- LV-H Details of Windows WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

(Note: u-values include outside air film)

WINDOW NAME	MULTIPLIER	GLASS AREA (SQFT)	GLASS HEIGHT (FT)	GLASS WIDTH (FT)	LOCATION OF ORIGIN IN SURFACE COORDINATES X (FT)	Y (FT)	FRAME AREA (SQFT)	CURB AREA (SQFT)	FRAME U-VALUE (BTU/HR-SQFT-F)	CURB U-VALUE (BTU/HR-SQFT-F)
Window 73	1.0	60.00	7.50	8.00	4.00	2.00	0.00	0.00	0.384	0.000
Window 74	1.0	60.00	7.50	8.00	17.00	2.00	0.00	0.00	0.384	0.000
Window 86	1.0	9.50	4.75	2.00	1.00	1.00	0.00	0.00	0.384	0.000
Window 87	1.0	9.50	4.75	2.00	14.00	5.00	0.00	0.00	0.384	0.000
Window 77	1.0	45.00	7.50	6.00	2.00	2.00	0.00	0.00	0.384	0.000
Window 78	1.0	45.00	7.50	6.00	11.00	2.00	0.00	0.00	0.384	0.000
Window 63	1.0	34.28	5.71	6.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 64	1.0	34.28	5.71	6.00	12.00	2.00	0.00	0.00	0.384	0.000
Window 59	1.0	19.17	7.67	2.50	1.00	2.00	0.00	0.00	0.384	0.000
Window 60	1.0	19.17	7.67	2.50	5.00	2.00	0.00	0.00	0.384	0.000
Window 52	1.0	20.62	8.25	2.50	0.50	2.00	0.00	0.00	0.384	0.000
Window 57	1.0	19.17	7.67	2.50	6.00	2.00	0.00	0.00	0.384	0.000
Window 58	1.0	19.17	7.67	2.50	13.00	2.00	0.00	0.00	0.384	0.000
Window 48	1.0	20.62	8.25	2.50	2.00	2.00	0.00	0.00	0.384	0.000
Window 49	1.0	20.62	8.25	2.50	8.00	2.00	0.00	0.00	0.384	0.000
Window 50	1.0	20.62	8.25	2.50	15.00	2.00	0.00	0.00	0.384	0.000
Window 65	1.0	34.28	5.71	6.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 66	1.0	34.28	5.71	6.00	12.00	2.00	0.00	0.00	0.384	0.000
Window 67	1.0	28.12	7.50	3.75	24.00	2.00	0.00	0.00	0.384	0.000
Window 68	1.0	28.12	7.50	3.75	30.00	2.00	0.00	0.00	0.384	0.000
Window 81	1.0	25.34	6.34	4.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 82	1.0	25.34	6.34	4.00	10.00	2.00	0.00	0.00	0.384	0.000
Window 39	1.0	19.17	7.67	2.50	6.00	2.00	0.00	0.00	0.384	0.000
Window 40	1.0	19.17	7.67	2.50	10.00	2.00	0.00	0.00	0.384	0.000
Window 41	1.0	19.17	7.67	2.50	14.00	2.00	0.00	0.00	0.384	0.000
Window 42	1.0	19.17	7.67	2.50	22.00	2.00	0.00	0.00	0.384	0.000
Window 43	1.0	19.17	7.67	2.50	26.00	2.00	0.00	0.00	0.384	0.000
Window 44	1.0	19.17	7.67	2.50	30.00	2.00	0.00	0.00	0.384	0.000
Window 69	1.0	34.28	5.71	6.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 70	1.0	34.28	5.71	6.00	12.00	2.00	0.00	0.00	0.384	0.000
Window 71	1.0	34.28	5.71	6.00	24.00	2.00	0.00	0.00	0.384	0.000
Window 72	1.0	34.28	5.71	6.00	33.00	2.00	0.00	0.00	0.384	0.000
Window 75	1.0	60.00	7.50	8.00	4.00	2.00	0.00	0.00	0.384	0.000
Window 76	1.0	60.00	7.50	8.00	17.00	2.00	0.00	0.00	0.384	0.000
Window 92	1.0	121.88	7.50	16.25	6.50	0.25	0.00	0.00	0.384	0.000
Window 88	1.0	9.50	4.75	2.00	1.00	1.00	0.00	0.00	0.384	0.000
Window 89	1.0	9.50	4.75	2.00	14.00	5.00	0.00	0.00	0.384	0.000
Window 90	1.0	9.50	2.00	4.75	1.00	8.00	0.00	0.00	0.384	0.000
Window 79	1.0	45.00	7.50	6.00	2.00	2.00	0.00	0.00	0.384	0.000
Window 80	1.0	45.00	7.50	6.00	11.00	2.00	0.00	0.00	0.384	0.000
Window 91	1.0	270.00	7.50	36.00	0.25	0.25	0.00	0.00	0.384	0.000
Window 93	1.0	46.88	7.50	6.25	0.25	0.25	0.00	0.00	0.384	0.000

window 94	1.0	146.25	7.50	19.50	6.75	0.25	0.00	0.00	0.384	0.000
window 95	1.0	108.75	7.50	14.50	0.25	0.25	0.00	0.00	0.384	0.000
window 96	1.0	71.25	7.50	9.50	0.25	0.25	0.00	0.00	0.384	0.000
window 97	1.0	153.75	7.50	20.50	0.25	0.25	0.00	0.00	0.384	0.000

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- LV-H Details of Windows WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

WINDOW NAME	SETBACK (FT)	GLASS SHADING COEFF	NUMBER OF PANES	CENTER-OF-GLASS U-VALUE (BTU/HR-SQFT-F)	GLASS VISIBLE TRANS	GLASS SOLAR TRANS	SURFACE TO ROUGH OPEN AREA RATIO
Window 1	0.00	0.40	1	0.289	0.529	0.878	1.000
Window 2	0.00	0.40	1	0.289	0.529	0.878	1.000
Window 32	0.00	0.40	1	0.362	0.490	0.878	1.000
Window 30	0.00	0.40	1	0.362	0.490	0.878	1.000
Window 31	0.00	0.40	1	0.362	0.490	0.878	1.000
Window 3	0.00	0.40	1	0.289	0.529	0.878	1.000
Window 98	0.00	0.40	1	0.289	0.490	0.878	1.000
Window 4	0.00	0.40	1	0.289	0.529	0.878	1.000
Window 5	0.00	0.40	1	0.289	0.529	0.878	1.000
Window 6	0.00	0.40	1	0.289	0.529	0.878	1.000
Window 21	0.00	0.40	1	0.289	0.529	0.878	1.000
Window 24	0.00	0.40	1	0.362	0.490	0.878	1.000
Window 25	0.00	0.40	1	0.362	0.490	0.878	1.000
Window 26	0.00	0.40	1	0.362	0.490	0.878	1.000
Window 83	0.00	0.40	1	0.362	0.490	0.878	1.000
Window 84	0.00	0.40	1	0.362	0.490	0.878	1.000
Window 85	0.00	0.40	1	0.362	0.490	0.878	1.000
Window 7	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 8	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 9	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 10	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 61	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 62	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 11	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 12	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 55	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 56	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 51	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 53	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 54	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 45	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 46	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 47	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 13	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 14	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 15	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 16	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 22	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 23	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 33	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 34	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 35	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 36	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 37	0.00	0.40	1	0.380	0.490	0.878	1.000

Window 38	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 17	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 18	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 19	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 20	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 73	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 74	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 86	0.00	0.40	1	0.362	0.630	0.878	1.000
Window 87	0.00	0.40	1	0.362	0.630	0.878	1.000
Window 77	0.00	0.40	1	0.380	0.490	0.878	1.000

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- LV-H Details of Windows WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

WINDOW NAME	SETBACK (FT)	GLASS SHADING COEFF	NUMBER OF PANES	CENTER-OF-GLASS U-VALUE (BTU/HR-SQFT-F)	GLASS VISIBLE TRANS	GLASS SOLAR TRANS	SURFACE TO ROUGH OPEN AREA RATIO
Window 78	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 63	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 64	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 59	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 60	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 52	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 57	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 58	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 48	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 49	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 50	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 65	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 66	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 67	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 68	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 81	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 82	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 39	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 40	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 41	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 42	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 43	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 44	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 69	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 70	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 71	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 72	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 75	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 76	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 92	0.00	0.40	1	0.362	0.630	0.878	1.000
Window 88	0.00	0.40	1	0.362	0.630	0.878	1.000
Window 89	0.00	0.40	1	0.362	0.630	0.878	1.000
Window 90	0.00	0.40	1	0.362	0.630	0.878	1.000
Window 79	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 80	0.00	0.40	1	0.380	0.490	0.878	1.000
Window 91	0.00	0.40	1	0.362	0.630	0.878	1.000
Window 93	0.00	0.40	1	0.362	0.630	0.878	1.000
Window 94	0.00	0.40	1	0.362	0.630	0.878	1.000
Window 95	0.00	0.40	1	0.362	0.630	0.878	1.000
Window 96	0.00	0.40	1	0.362	0.630	0.878	1.000
Window 97	0.00	0.40	1	0.362	0.630	0.878	1.000

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- LV-I Details of Constructions WEATHER FILE- SEATTLE BOEING FI WA

NUMBER OF CONSTRUCTIONS 14 DELAYED 14 QUICK 0

CONSTRUCTION NAME	U-VALUE (BTU/HR-SQFT-F)	SURFACE ABSORPTANCE	SURFACE ROUGHNESS INDEX	SURFACE TYPE	NUMBER OF RESPONSE FACTORS
MasonEWall Con	0.057	0.60	3	DELAYED	8
Ceilg Cons	0.514	0.70	3	DELAYED	3
IntWall Cons	0.402	0.70	3	DELAYED	4
IntFlr Cons	0.532	0.70	3	DELAYED	3
GFlr Cons	0.029	0.70	3	DELAYED	41
MtlEWall Cons	0.055	0.60	4	DELAYED	8
Roof Cons	0.027	0.60	1	DELAYED	6
UFCons	0.029	0.70	3	DELAYED	41
NoInsUWCons	0.070	0.70	3	DELAYED	40
InsUWCons	0.070	0.70	3	DELAYED	40
FullInsMasEWall Con	0.057	0.60	3	DELAYED	8
PartInsMasEWall Con	0.057	0.60	3	DELAYED	8
BmntRf Cons	0.027	0.60	1	DELAYED	6
TestCons	0.029	0.70	3	DELAYED	41

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:41:30  BDL RUN  9

REPORT- LS-C BuiLding Peak Load Components                                              DESIGN DAY    WEATHER FILE- SEATTLE BOEING FI WA
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*** BUILDING ***



                 FLOOR  AREA     31768  SQFT      2951   M2
                 VOLUME         448580  CUFT     12704   M3

                                     COOLING  LOAD                                  HEATING  LOAD
                                 ==========================                     ==========================
    TIME                                AUG  1 11AM                                   DEC 21  6AM

    DRY-BULB TEMP                      74 F             23 C                      26 F             -4 C
    WET-BULB TEMP                      61 F             16 C                      21 F             -6 C
    TOT HORIZONTAL SOLAR RAD          218 BTU/H.SQFT   688 W/M2                    0 BTU/H.SQFT     0 W/M2
    WINDSPEED AT SPACE                3.8 KTS          1.9 M/S                   7.0 KTS          3.6 M/S
    CLOUD AMOUNT 0(CLEAR)-10            0                                         10


                              SENSIBLE            LATENT                                SENSIBLE
                         (KBTU/H)    ( KW )  (KBTU/H)  ( KW )                     (KBTU/H)  ( KW )
                         --------    ------  --------  ------                     --------  --------

     WALL CONDUCTION        2.256     0.661     0.000   0.000                      -41.493   -12.157
     ROOF CONDUCTION       -0.048    -0.014     0.000   0.000                      -10.745    -3.148
     WINDOW GLASS+FRM COND  2.261     0.663     0.000   0.000                      -66.563   -19.503
     WINDOW GLASS SOLAR    75.991    22.265     0.000   0.000                        0.751     0.220
     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 -5.763    -1.689     0.000   0.000                      -10.176    -2.981
     OCCUPANTS TO SPACE    57.867    16.955    49.433  14.484                        0.000     0.000
     LIGHT     TO SPACE    55.660    16.308     0.000   0.000                        0.000     0.000
     EQUIPMENT TO SPACE    76.170    22.318     0.000   0.000                        0.000     0.000
     PROCESS   TO SPACE     0.000     0.000     0.000   0.000                        0.000     0.000
     INFILTRATION           0.662     0.194     0.105   0.031                      -59.259   -17.363
                         --------   -------   -------  ------                     --------  --------
     TOTAL                265.056    77.661    49.538  14.515                     -187.485   -54.933
     TOTAL / AREA           0.008     0.026     0.002   0.005                       -0.006    -0.019

     TOTAL LOAD           314.595 KBTU/H       92.176  KW                     -187.485 KBTU/H      -54.933  KW
     TOTAL LOAD / AREA      9.90  BTU/H.SQFT   31.232  W/M2                      5.902 BTU/H.SQFT   18.613  W/M2
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*                                                           *
*  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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Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- LS-D Building Monthly Loads Summary DESIGN DAY WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
FEB	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
MAR	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
APR	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
MAY	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
JUN	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
JUL	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
AUG	77.73618	1	10	74.F	61.F	265.056	0.000	0	0	0.F	0.F	0.000	15847.	44.019
SEP	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
OCT	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
NOV	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
DEC	0.00000	0	0	0.F	0.F	0.000	-41.102	21	6	26.F	21.F	-187.485	45.	0.171
TOTAL	77.736						-41.102						15892.	
MAX						265.056						-187.485		44.019

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- LS-C BuiLding Peak Load Components WEATHER FILE- SEATTLE BOEING FI WA

*** BUILDING ***

FLOOR AREA	31768	SQFT	2951	M2
VOLUME	448580	CUFT	12704	M3

	COOLING LOAD		HEATING LOAD	
TIME	JUL 10 11AM		JAN 6 5AM	
DRY-BULB TEMP	77 F	25 C	27 F	-3 C
WET-BULB TEMP	63 F	17 C	23 F	-5 C
TOT HORIZONTAL SOLAR RAD	229 BTU/H.SQFT	721 W/M2	0 BTU/H.SQFT	0 W/M2
WINDSPEED AT SPACE	3.2 KTS	1.7 M/S	7.8 KTS	4.0 M/S
CLOUD AMOUNT 0(CLEAR)-10	0		10	

	SENSIBLE (KBTU/H)	SENSIBLE (KW)	LATENT (KBTU/H)	LATENT (KW)	SENSIBLE (KBTU/H)	SENSIBLE (KW)
WALL CONDUCTION	2.896	0.849	0.000	0.000	-39.975	-11.713
ROOF CONDUCTION	-0.314	-0.092	0.000	0.000	-10.646	-3.119
WINDOW GLASS+FRM COND	5.194	1.522	0.000	0.000	-64.843	-18.999
WINDOW GLASS SOLAR	83.691	24.521	0.000	0.000	1.302	0.381
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	-6.858	-2.009	0.000	0.000	-11.944	-3.499
OCCUPANTS TO SPACE	40.472	11.858	41.494	12.158	0.858	0.251
LIGHT TO SPACE	33.285	9.752	0.000	0.000	3.173	0.930
EQUIPMENT TO SPACE	64.465	18.888	0.000	0.000	3.797	1.113
PROCESS TO SPACE	0.000	0.000	0.000	0.000	0.000	0.000
INFILTRATION	1.076	0.315	0.304	0.089	-63.687	-18.660
TOTAL	223.907	65.605	41.798	12.247	-181.965	-53.316
TOTAL / AREA	0.007	0.022	0.001	0.004	-0.006	-0.018
TOTAL LOAD	265.705 KBTU/H		77.852 KW		-181.965 KBTU/H	-53.316 KW
TOTAL LOAD / AREA	8.36 BTU/H.SQFT		26.378 W/M2		5.728 BTU/H.SQFT	18.065 W/M2

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*                                                           *
*  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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Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- LS-D Building Monthly Loads Summary WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	15.94057	15	14	52.F	50.F	97.837	-41.420	6	5	27.F	23.F	-181.965	10077.	35.673
FEB	15.97828	21	16	57.F	54.F	100.805	-31.855	12	4	36.F	33.F	-111.632	9147.	35.673
MAR	21.34125	21	15	68.F	50.F	136.428	-27.674	2	5	32.F	32.F	-112.678	10164.	35.673
APR	28.02006	30	10	59.F	50.F	145.018	-19.410	5	21	46.F	42.F	-98.818	10347.	35.673
MAY	33.42835	16	10	64.F	57.F	186.645	-14.246	11	5	48.F	44.F	-84.869	10164.	35.673
JUN	38.84750	20	10	72.F	61.F	213.163	-7.851	8	4	52.F	50.F	-58.081	9999.	35.673
JUL	52.28846	10	10	77.F	63.F	223.907	-3.160	5	4	54.F	51.F	-33.096	10425.	35.673
AUG	47.06088	7	9	66.F	56.F	201.855	-3.442	24	5	55.F	54.F	-43.040	10164.	35.673
SEP	37.38654	19	14	81.F	64.F	178.677	-7.451	28	6	43.F	42.F	-63.613	9999.	35.673
OCT	26.96120	6	15	79.F	53.F	158.379	-17.531	28	3	48.F	48.F	-82.437	10425.	35.673
NOV	17.04930	7	16	61.F	56.F	115.256	-29.402	3	5	41.F	39.F	-117.190	9042.	35.673
DEC	16.74072	16	16	54.F	50.F	94.278	-39.050	14	6	41.F	39.F	-126.122	10425.	35.673
TOTAL	351.043						-242.493						120383.	
MAX						223.907						-181.965		35.673

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:41:30  BDL RUN  9

REPORT- ATTN Simulation Messages For Review HVAC        Program                            WEATHER FILE- SEATTLE BOEING FI WA
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 **CAUTION*********************************************************************
            AHU: Sys2CB                          , has a specified or
            flow-limited cooling capacity of    7903.; corresponding to
            a design-day capacity of    8076.  The required design-day
            capacity is   10166.  Zone setpoints may not be maintained.
            Check reports SS-F and SS-O for comfort.

 **CAUTION*********************************************************************
            AHU: Sys3CB                            has zero outside air for
            design calculations.

 **CAUTION*********************************************************************
            AHU: Sys4CB                          , has a specified or
            flow-limited cooling capacity of   22865.; corresponding to
            a design-day capacity of   23285.  The required design-day
            capacity is   24510.  Zone setpoints may not be maintained.
            Check reports SS-F and SS-O for comfort.

 **CAUTION*********************************************************************
            AHU: Sys23DfltClg                      has zero outside air for
            design calculations.

 **CAUTION*********************************************************************
            AHU: Sys25DfltClg                      has zero outside air for
            design calculations.

 **CAUTION*********************************************************************
            AHU: Sys26DfltClg                      has zero outside air for
            design calculations.

 **CAUTION*********************************************************************
            AHU: Sys28DfltClg                      has zero outside air for
            design calculations.

 **CAUTION*********************************************************************
            AHU: Sys29DfltClg                      has zero outside air for
            design calculations.

 ***NOTE***********************************************************************
            Convergence issues in Simulation
            Hours Slow:    0;  Hours Failed:    1
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Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys1CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1088.5	14.	0.000	29.800	0.742	-25.789	0.261	0.250	-13.892

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	946.	1.00	0.737	2.42	3.4	0.51	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L1SW Perim Zn (G.SW1)	860.	0.	0.000	1.000	235.	0.00	0.00	20.59	0.00	-22.84	1.
L1Core Zn (G.C2)	86.	0.	0.000	1.000	0.	0.00	0.00	2.04	0.00	-2.23	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys1CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 6/10	71.1	60.0	30.01	0.78	946.	76.14	62.36	53.59	51.33	0.1870		71.09	
Design Capacity				31.21	0.77	946.	76.14	62.36	53.04	50.88	0.1814		71.09	
Rated Capacity				29.80	0.74	994.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/31/11	25.5	21.5	-13.89		946.	70.08	46.40	83.42				25.50	
Design Capacity				-16.29		946.	70.08	46.40	86.02				25.50	
Rated Capacity				-25.79		956.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/31/11	25.5	21.5	-13.89		946.	70.08	46.40	83.42					
Design Capacity				-13.89		946.	70.08	46.40	83.67					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys2CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	304.0	4.	0.000	7.903	0.742	-8.953	0.261	0.250	-5.313

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	362.	1.00	0.282	2.42	3.1	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L1Core Zn (G.C6)	362.	0.	0.000	1.000	25.	0.00	0.00	6.37	0.00	-7.88	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys2CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 4/11	73.7	60.9	10.17	0.85	362.	76.18	61.62	54.46	51.85	0.1978		73.71	
Design Capacity				8.08	0.93	362.	76.18	61.62	57.27	54.05	0.2344		73.71	
Rated Capacity				7.90	0.74	264.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/21/ 9	25.5	21.5	-5.31		362.	69.25	46.01	82.57				25.50	
Design Capacity				-5.66		362.	69.25	46.01	83.69				25.50	
Rated Capacity				-8.95		332.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/21/ 9	25.5	21.5	-5.31		362.	69.25	46.01	82.57					
Design Capacity				-5.31		362.	69.25	46.01	82.81					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys3CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	636.0	2.	0.000	15.203	0.742	-13.031	0.261	0.250	-6.516

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	473.	1.00	0.368	2.41	3.1	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L1SSE Perim Zn (G.SSE8)	473.	0.	0.000	1.000	0.	0.00	0.00	11.40	0.00	-9.57	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys3CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 1/10	71.1	60.0	15.23	0.77	473.	76.26	62.66	53.71	51.51	0.1860		71.09	
Design Capacity				15.99	0.75	473.	76.26	62.66	53.02	50.93	0.1792		71.09	
Rated Capacity				15.20	0.74	507.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/21/10	25.5	21.5	-4.74		473.	69.68	46.21	78.78				25.50	
Design Capacity				-8.23		473.	69.68	46.21	85.79				25.50	
Rated Capacity				-13.03		483.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/21/10	25.5	21.5	-4.74		473.	69.68	46.21	78.78					
Design Capacity				-6.52		473.	69.68	46.21	82.43					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys4CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1103.9	4.	0.000	22.865	0.742	-21.661	0.261	0.250	-14.745

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	940.	1.00	0.732	2.42	3.4	0.51	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L1SE Perim Zn (G.SE16)	403.	0.	0.000	1.000	75.	0.00	0.00	8.31	0.00	-12.43	1.
L1Core Zn (G.C5)	140.	0.	0.000	1.000	0.	0.00	0.00	3.08	0.00	-3.94	1.
L1Core Zn (G.C9)	137.	0.	0.000	1.000	0.	0.00	0.00	2.85	0.00	-3.86	1.
L1Core Zn (G.C17)	260.	0.	0.000	1.000	75.	0.00	0.00	5.19	0.00	-7.81	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys4CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 1/11	73.7	60.9	24.51	0.86	940.	75.60	61.39	55.03	52.32	0.2077		73.71	
Design Capacity				23.28	0.88	940.	75.60	61.39	55.68	52.84	0.2158		73.71	
Rated Capacity				22.86	0.74	763.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/30/11	25.5	21.5	-14.74		940.	70.76	46.71	85.01				25.50	
Design Capacity				-13.68		940.	70.76	46.71	84.23				25.50	
Rated Capacity				-21.66		803.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/30/11	25.5	21.5	-14.74		940.	70.76	46.71	85.01					
Design Capacity				-14.74		940.	70.76	46.71	85.28					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys5CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1790.6	32.	0.000	58.185	0.742	-42.923	0.261	0.250	-26.836

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	1714.	1.00	1.334	2.42	3.5	0.52	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L1East Perim Zn (G.E18)	1464.	0.	0.000	1.000	440.	0.00	0.00	35.73	0.00	-40.04	1.
L1Core Zn (G.C11)	250.	0.	0.000	1.000	0.	0.00	0.00	6.19	0.00	-6.51	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys5CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 1/11	73.7	60.9	49.85	0.82	1714.	77.63	63.09	55.89	53.25	0.2007		73.71	
Design Capacity				60.82	0.76	1714.	77.63	63.09	52.96	50.83	0.1709		73.71	
Rated Capacity				58.18	0.74	1941.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/29/12	25.5	21.5	-26.84		1714.	70.19	46.45	84.42				25.50	
Design Capacity				-27.11		1714.	70.19	46.45	84.83				25.50	
Rated Capacity				-42.92		1591.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/29/12	25.5	21.5	-26.84		1714.	70.19	46.45	84.42					
Design Capacity				-26.84		1714.	70.19	46.45	84.68					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys6CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1088.5	13.	0.459	28.710	0.742	-19.725	0.261	0.250	-24.920

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	709.	1.00	0.552	2.42	3.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2SW Perim Zn (G.SW1)	615.	0.	0.000	1.000	325.	0.00	0.00	17.51	0.00	-10.50	1.
L2Core Zn (G.C2)	94.	0.	0.000	1.000	0.	0.00	0.00	2.77	0.00	-1.44	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys6CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 5/10	71.1	60.0	19.22	0.81	709.	73.77	60.97	53.74	51.40	0.2033		71.09	
Design Capacity				29.43	0.71	709.	73.77	60.97	46.86	45.48	0.1416		71.09	
Rated Capacity				28.71	0.74	958.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/31/ 9	25.5	21.5	-24.92		709.	49.66	35.91	81.61				25.50	
Design Capacity				-12.46		709.	49.66	35.91	65.93				25.50	
Rated Capacity				-19.72		731.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/31/ 9	25.5	21.5	-24.92		709.	49.66	35.91	81.61					
Design Capacity				-24.92		709.	49.66	35.91	82.20					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys7CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	925.0	12.	0.000	19.658	0.742	-13.931	0.261	0.250	-12.570

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	660.	1.00	0.514	2.42	3.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2NW Perim Zn (G.NW6)	605.	0.	0.000	1.000	265.	0.00	0.00	13.37	0.00	-13.81	1.
L2West Perim Zn (G.W4)	55.	0.	0.000	1.000	0.	0.00	0.00	1.16	0.00	-1.28	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys7CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/15/15	81.2	63.5	15.49	0.86	660.	76.04	62.68	57.59	54.84	0.2203		81.23	
Design Capacity				19.67	0.78	660.	76.04	62.68	54.70	52.51	0.1836		81.23	
Rated Capacity				19.66	0.74	656.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/31/ 9	25.5	21.5	-12.57		660.	69.96	46.34	87.26				25.50	
Design Capacity				-8.80		660.	69.96	46.34	82.30				25.50	
Rated Capacity				-13.93		516.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/31/ 9	25.5	21.5	-12.57		660.	69.96	46.34	87.26					
Design Capacity				-12.57		660.	69.96	46.34	87.58					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys8CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	580.0	2.	0.000	12.092	0.742	-6.636	0.261	0.250	-5.107

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	275.	1.00	0.214	2.42	2.7	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2SSE Perim Zn (G.SSE7)	275.	0.	0.000	1.000	50.	0.00	0.00	9.29	0.00	-5.65	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys8CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 3/11	73.7	60.9	7.43	0.90	275.	76.09	60.67	53.92	51.12	0.1983		73.71	
Design Capacity				12.18	0.76	275.	76.09	60.67	45.40	43.87	0.1286		73.71	
Rated Capacity				12.09	0.74	403.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/29/ 8	25.5	21.5	-5.11		275.	69.78	46.26	86.63				25.50	
Design Capacity				-4.19		275.	69.78	46.26	83.87				25.50	
Rated Capacity				-6.64		246.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/29/ 8	25.5	21.5	-5.11		275.	69.78	46.26	86.63					
Design Capacity				-5.11		275.	69.78	46.26	86.94					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys9FC WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	212.1	1.	0.000	18.014	0.742	-4.504	0.261	0.250	-4.224

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	376.	1.00	0.292	2.42	3.1	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2North Perim Zn (G.N12)	376.	0.	0.000	1.000	70.	0.00	0.00	12.65	0.00	-5.09	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys9FC WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/15/15	81.2	63.5	3.37	1.00	230.	76.06	64.44	62.68	58.25	0.2478		81.23	
Design Capacity				18.52	0.63	230.	76.06	64.44	29.31	29.13	0.0710		81.23	
Rated Capacity				18.01	0.74	601.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/21/ 9	25.5	21.5	-4.22		230.	69.86	46.30	86.58				25.50	
Design Capacity				-2.85		376.	69.86	46.30	76.87				25.50	
Rated Capacity				-4.50		167.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/21/ 9	25.5	21.5	-4.22		230.	69.86	46.30	86.58					
Design Capacity				-4.22		376.	69.86	46.30	80.27					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys10CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1032.5	4.	0.000	18.437	0.742	-12.764	0.261	0.250	-7.953

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	507.	1.00	0.394	2.42	3.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2SSE Perim Zn (G.SSE14)	507.	0.	0.000	1.000	85.	0.00	0.00	12.96	0.00	-9.49	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys10CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 4/10	71.1	60.0	14.53	0.87	507.	76.10	60.92	53.41	50.75	0.1945		71.09	
Design Capacity				18.89	0.79	507.	76.10	60.92	49.23	47.26	0.1561		71.09	
Rated Capacity				18.44	0.74	615.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/28/ 8	25.5	21.5	-7.95		507.	69.43	46.09	83.69				25.50	
Design Capacity				-8.06		507.	69.43	46.09	84.15				25.50	
Rated Capacity				-12.76		473.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/28/ 8	25.5	21.5	-7.95		507.	69.43	46.09	83.69					
Design Capacity				-7.95		507.	69.43	46.09	83.95					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys11CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1806.0	7.	0.000	37.009	0.742	-23.131	0.261	0.250	-21.938

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	1179.	1.00	0.918	2.42	3.5	0.52	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2East Perim Zn (G.E15)	979.	0.	0.000	1.000	200.	0.00	0.00	23.85	0.00	-22.36	1.
L2Core Zn (G.C10)	200.	0.	0.000	1.000	0.	0.00	0.00	5.00	0.00	-4.01	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys11CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 4/15	81.2	63.5	22.69	0.94	1179.	76.16	63.19	59.61	56.43	0.2469		81.23	
Design Capacity				37.32	0.77	1179.	76.16	63.19	53.97	51.88	0.1776		81.23	
Rated Capacity				37.01	0.74	1235.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/29/10	25.5	21.5	-21.94		1179.	70.33	46.51	87.24				25.50	
Design Capacity				-14.61		1179.	70.33	46.51	81.80				25.50	
Rated Capacity				-23.13		857.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/29/10	25.5	21.5	-21.94		1179.	70.33	46.51	87.24					
Design Capacity				-21.94		1179.	70.33	46.51	87.55					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys12CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1088.5	13.	0.000	21.289	0.742	-17.261	0.261	0.250	-16.190

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	880.	1.00	0.685	2.42	3.4	0.51	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3SW Perim Zn (G.SW1)	787.	0.	0.000	1.000	325.	0.00	0.00	14.70	0.00	-17.26	1.
L3Core Zn (G.C2)	93.	0.	0.000	1.000	0.	0.00	0.00	1.79	0.00	-1.75	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys12CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 6/15	81.2	63.5	17.73	0.90	880.	76.07	63.12	59.51	56.42	0.2480		81.23	
Design Capacity				21.44	0.83	880.	76.07	63.12	57.57	54.93	0.2172		81.23	
Rated Capacity				21.29	0.74	710.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/29/ 9	25.5	21.5	-16.19		880.	70.17	46.44	86.89				25.50	
Design Capacity				-10.90		880.	70.17	46.44	81.64				25.50	
Rated Capacity				-17.26		640.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/29/ 9	25.5	21.5	-16.19		880.	70.17	46.44	86.89					
Design Capacity				-16.19		880.	70.17	46.44	87.20					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys13CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	925.0	11.	0.000	17.197	0.742	-13.459	0.261	0.250	-12.229

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	642.	1.00	0.500	2.42	3.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3NW Perim Zn (G.NW6)	575.	0.	0.000	1.000	265.	0.00	0.00	11.62	0.00	-13.02	1.
L3WSW Perim Zn (G.WSW4)	67.	0.	0.000	1.000	0.	0.00	0.00	1.36	0.00	-1.53	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys13CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/15/15	81.2	63.5	14.97	0.86	642.	76.09	62.70	57.70	54.93	0.2214		81.23	
Design Capacity				17.21	0.82	642.	76.09	62.70	56.11	53.66	0.1997		81.23	
Rated Capacity				17.20	0.74	574.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/31/ 9	25.5	21.5	-12.23		642.	69.97	46.35	87.28				25.50	
Design Capacity				-8.50		642.	69.97	46.35	82.23				25.50	
Rated Capacity				-13.46		499.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/31/ 9	25.5	21.5	-12.23		642.	69.97	46.35	87.28					
Design Capacity				-12.23		642.	69.97	46.35	87.60					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys14CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	580.0	2.	0.000	12.207	0.742	-6.824	0.261	0.250	-5.962

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	327.	1.00	0.255	2.42	3.1	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3SSE Perim Zn (G.SSE7)	327.	0.	0.000	1.000	50.	0.00	0.00	8.77	0.00	-7.63	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys14CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 4/10	71.1	60.0	7.83	0.90	327.	76.08	61.48	56.33	53.26	0.2258		71.09	
Design Capacity				12.61	0.76	327.	76.08	61.48	49.31	47.47	0.1543		71.09	
Rated Capacity				12.21	0.74	407.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/27/ 9	25.5	21.5	-5.96		327.	69.93	46.33	86.48				25.50	
Design Capacity				-4.31		327.	69.93	46.33	82.12				25.50	
Rated Capacity				-6.82		253.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/27/ 9	25.5	21.5	-5.96		327.	69.93	46.33	86.48					
Design Capacity				-5.96		327.	69.93	46.33	86.78					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys15FC WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	212.1	1.	0.154	21.858	0.742	-5.405	0.261	0.250	-6.828

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	456.	1.00	0.355	2.43	3.1	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3North Perim Zn (G.N12)	456.	0.	0.000	1.000	70.	0.00	0.00	15.32	0.00	-4.64	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys15FC WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/15/15	81.2	63.5	3.25	1.00	186.	78.01	64.31	62.07	57.08	0.2470		81.23	
Design Capacity				22.43	0.68	186.	78.01	64.31	1.86	2.54	0.0402		81.23	
Rated Capacity				21.86	0.74	729.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/21/10	25.5	21.5	-6.83		186.	53.18	37.87	86.50				25.50	
Design Capacity				-3.41		456.	53.18	37.87	60.12				25.50	
Rated Capacity				-5.40		200.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/21/10	25.5	21.5	-6.83		186.	53.18	37.87	86.50					
Design Capacity				-6.83		456.	53.18	37.87	67.05					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys16CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1032.5	4.	0.000	19.087	0.742	-11.930	0.261	0.250	-10.668

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	576.	1.00	0.448	2.42	3.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3SSE Perim Zn (G.SSE14)	576.	0.	0.000	1.000	85.	0.00	0.00	13.77	0.00	-12.22	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys16CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 4/10	71.1	60.0	13.74	0.89	576.	76.08	61.69	56.58	53.53	0.2276		71.09	
Design Capacity				19.78	0.78	576.	76.08	61.69	51.58	49.47	0.1717		71.09	
Rated Capacity				19.09	0.74	637.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/21/ 9	25.5	21.5	-10.67		576.	69.87	46.30	86.71				25.50	
Design Capacity				-7.54		576.	69.87	46.30	81.99				25.50	
Rated Capacity				-11.93		442.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/21/ 9	25.5	21.5	-10.67		576.	69.87	46.30	86.71					
Design Capacity				-10.67		576.	69.87	46.30	87.02					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys17CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1806.0	7.	0.000	50.432	0.742	-25.216	0.261	0.250	-24.424

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	1285.	1.00	1.001	2.42	3.5	0.52	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3East Perim Zn (G.E15)	1089.	0.	0.000	1.000	200.	0.00	0.00	32.25	0.00	-26.68	1.
L3Core Zn (G.C10)	196.	0.	0.000	1.000	0.	0.00	0.00	6.14	0.00	-4.61	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys17CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 4/15	81.2	63.5	21.35	0.97	1285.	76.23	64.41	61.52	58.47	0.2509		81.23	
Design Capacity				51.84	0.68	1285.	76.23	64.41	51.23	49.75	0.1500		81.23	
Rated Capacity				50.43	0.74	1682.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/29/11	25.5	21.5	-24.42		1285.	70.10	46.41	87.37				25.50	
Design Capacity				-15.93		1285.	70.10	46.41	81.57				25.50	
Rated Capacity				-25.22		935.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/29/11	25.5	21.5	-24.42		1285.	70.10	46.41	87.37					
Design Capacity				-24.42		1285.	70.10	46.41	87.69					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys18CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1088.3	4.	0.000	32.211	0.742	-18.119	0.261	0.250	-17.855

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	923.	1.00	0.719	2.42	3.4	0.51	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L4 SSE Perim Zn (G.SSE1)	923.	0.	0.000	1.000	85.	0.00	0.00	24.86	0.00	-24.92	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys18CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 3/16	81.6	63.6	12.43	1.00	923.	76.05	65.18	63.80	60.35	0.2536		81.60	
Design Capacity				33.45	0.67	923.	76.05	65.18	53.97	52.36	0.1689		81.60	
Rated Capacity				32.21	0.74	1075.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/26/12	25.5	21.5	-17.86		923.	69.92	46.32	87.49				25.50	
Design Capacity				-11.45		923.	69.92	46.32	81.39				25.50	
Rated Capacity				-18.12		672.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/26/12	25.5	21.5	-17.86		923.	69.92	46.32	87.49					
Design Capacity				-17.86		923.	69.92	46.32	87.81					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys19CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	891.9	3.	0.000	33.569	0.742	-14.596	0.261	0.250	-14.270

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	744.	1.00	0.579	2.42	3.4	0.51	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L4 NNW Perim Zn (G.NNW4)	665.	0.	0.000	1.000	75.	0.00	0.00	22.40	0.00	-17.10	1.
L4 Core Zn (G.C8)	79.	0.	0.000	1.000	0.	0.00	0.00	2.57	0.00	-2.04	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys19CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/15/16	81.6	63.6	10.95	1.00	744.	75.97	65.11	62.64	59.74	0.2529		81.60	
Design Capacity				34.82	0.63	744.	75.97	65.11	48.97	47.89	0.1335		81.60	
Rated Capacity				33.57	0.74	1120.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/28/11	25.5	21.5	-14.27		744.	69.95	46.34	87.38				25.50	
Design Capacity				-9.22		744.	69.95	46.34	81.42				25.50	
Rated Capacity				-14.60		541.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/28/11	25.5	21.5	-14.27		744.	69.95	46.34	87.38					
Design Capacity				-14.27		744.	69.95	46.34	87.70					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys2OFC WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	4445.1	72.	0.000	104.030	0.742	-81.415	0.261	0.250	-44.126

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	3202.	1.00	2.493	2.42	3.6	0.54	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
B1North Perim Zn (B.N22)	1438.	0.	0.000	1.000	137.	0.00	0.00	27.42	0.00	-23.21	1.
B1Core Zn (B.C10)	353.	0.	0.000	1.000	137.	0.00	0.00	6.66	0.00	-6.48	1.
B1SSE Perim Zn (B.SSE11)	242.	0.	0.000	1.000	137.	0.00	0.00	4.02	0.00	-5.24	1.
B1SSE Perim Zn (B.SSE12)	274.	0.	0.000	1.000	137.	0.00	0.00	4.84	0.00	-5.87	1.
B1Core Zn (B.C13)	290.	0.	0.000	1.000	137.	0.00	0.00	4.90	0.00	-5.45	1.
B1SSE Perim Zn (B.SSE14)	265.	0.	0.000	1.000	137.	0.00	0.00	4.66	0.00	-5.72	1.
B1SE Perim Zn (B.SE20)	339.	0.	0.000	1.000	137.	0.00	0.00	6.12	0.00	-7.32	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys2OFC WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 1/10	71.1	60.0	94.80	0.78	3202.	75.46	62.41	54.50	52.21	0.1980		71.09	
Design Capacity				109.02	0.74	3202.	75.46	62.41	52.48	50.52	0.1769		71.09	
Rated Capacity				104.03	0.74	3470.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/31/ 9	25.5	21.5	-44.13		3202.	68.13	45.48	80.65				25.50	
Design Capacity				-51.43		3202.	68.13	45.48	82.99				25.50	
Rated Capacity				-81.42		3018.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/31/ 9	25.5	21.5	-44.13		3202.	68.13	45.48	80.65					
Design Capacity				-44.13		3202.	68.13	45.48	80.88					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys21FC WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1022.2	20.	0.000	35.672	0.742	-17.543	0.261	0.250	-15.111

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	750.	1.00	0.584	2.42	3.4	0.51	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
B1Core Zn (B.C8)	521.	0.	0.000	1.000	280.	0.00	0.00	13.46	0.00	-10.07	1.
B1SSE Perim Zn (B.SSE7)	230.	0.	0.000	1.000	90.	0.00	0.00	6.10	0.00	-4.76	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys21FC WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/15/15	81.2	63.5	19.57	0.83	750.	76.37	62.90	56.68	54.14	0.2051		81.23	
Design Capacity				35.81	0.68	750.	76.37	62.90	46.63	45.48	0.1204		81.23	
Rated Capacity				35.67	0.74	1190.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/31/ 8	25.5	21.5	-15.11		750.	69.80	46.26	88.10				25.50	
Design Capacity				-11.08		750.	69.80	46.26	83.47				25.50	
Rated Capacity				-17.54		650.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/31/ 8	25.5	21.5	-15.11		750.	69.80	46.26	88.10					
Design Capacity				-15.11		750.	69.80	46.26	88.44					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys22CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	478.6	2.	0.000	6.848	0.742	-5.406	0.261	0.250	-4.239

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	240.	1.00	0.187	2.42	2.6	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
Thermal Zone 84	240.	0.	0.000	1.000	50.	0.00	0.00	5.29	0.00	-6.96	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys22CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/15/12	76.2	61.8	6.05	0.89	240.	76.09	61.46	55.59	52.76	0.2095		76.22	
Design Capacity				6.89	0.84	240.	76.09	61.46	53.92	51.42	0.1894		76.22	
Rated Capacity				6.85	0.74	228.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/31/11	25.5	21.5	-4.24		240.	69.93	46.33	85.97				25.50	
Design Capacity				-3.41		240.	69.93	46.33	83.09				25.50	
Rated Capacity				-5.41		200.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/31/11	25.5	21.5	-4.24		240.	69.93	46.33	85.97					
Design Capacity				-4.24		240.	69.93	46.33	86.27					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys23DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	120.0	0.	0.000	2.368	0.742	-2.131	0.261	0.250	-1.066

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	81.	1.00	0.063	2.42	2.0	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3Core Zn (G.C5)	81.	0.	0.000	1.000	0.	0.00	0.00	1.78	0.00	-1.56	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys23DfltClg WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 9/ 9	68.6	59.1	2.43	0.86	81.	76.10	60.68	52.56	49.96	0.1884		70.00	
Design Capacity				2.43	0.86	81.	76.10	60.68	52.59	49.99	0.1885		70.00	
Rated Capacity				2.37	0.74	79.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/30/ 8	25.5	21.5	-0.89		81.	69.96	58.28	79.74				25.50	
Design Capacity				-1.35		81.	69.96	58.28	85.10				25.50	
Rated Capacity				-2.13		79.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/30/ 8	25.5	21.5	-0.89		81.	69.96	58.28	79.74					
Design Capacity				-1.07		81.	69.96	58.28	81.94					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys24DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	108.8	0.	0.000	2.515	0.742	-2.263	0.261	0.250	-2.169

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	115.	1.00	0.090	2.41	2.3	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L4 Core Zn (G.C3)	115.	0.	0.000	1.000	0.	0.00	0.00	1.91	0.00	-2.76	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys24DfltClg WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 5/ 8	66.4	58.3	1.89	0.84	115.	76.05	65.79	63.50	60.83	0.2668		70.00	
Design Capacity				2.79	0.70	115.	76.05	65.79	60.66	58.27	0.2521		70.00	
Rated Capacity				2.51	0.74	84.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/21/10	25.5	21.5	-2.17		115.	69.03	45.91	86.11				25.50	
Design Capacity				-1.43		115.	69.03	45.91	80.50				25.50	
Rated Capacity				-2.26		84.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/21/10	25.5	21.5	-2.17		115.	69.03	45.91	86.11					
Design Capacity				-2.17		115.	69.03	45.91	86.43					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys25DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	457.2	2.	0.000	17.441	0.742	-15.697	0.261	0.250	-15.211

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	800.	1.00	0.623	2.41	3.4	0.51	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L4 SSE Perim Zn (G.SSE5)	800.	0.	0.000	1.000	0.	0.00	0.00	14.83	0.00	-22.55	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys25DfltClg WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 4/11	73.7	60.9	12.47	0.95	800.	76.06	65.04	62.62	59.70	0.2595		73.71	
Design Capacity				18.79	0.76	800.	76.06	65.04	59.69	57.04	0.2469		73.71	
Rated Capacity				17.44	0.74	582.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/21/14	25.5	21.5	-15.21		800.	69.70	46.22	86.97				25.50	
Design Capacity				-9.92		800.	69.70	46.22	81.17				25.50	
Rated Capacity				-15.70		582.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/21/14	25.5	21.5	-15.21		800.	69.70	46.22	86.97					
Design Capacity				-15.21		800.	69.70	46.22	87.29					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys26DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	220.8	1.	0.000	7.353	0.742	-6.618	0.261	0.250	-3.339

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	280.	1.00	0.218	2.42	2.7	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
B1North Perim Zn (B.N18)	280.	0.	0.000	1.000	0.	0.00	0.00	5.87	0.00	-4.92	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys26DfltClg WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 3/ 9	68.6	59.1	7.57	0.89	280.	76.17	60.87	54.18	51.32	0.2047		70.00	
Design Capacity				7.57	0.89	280.	76.17	60.87	54.20	51.33	0.2047		70.00	
Rated Capacity				7.35	0.74	245.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/31/ 8	25.5	21.5	-3.34		280.	69.95	58.28	80.68				25.50	
Design Capacity				-4.18		280.	69.95	58.28	83.63				25.50	
Rated Capacity				-6.62		245.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/31/ 8	25.5	21.5	-3.34		280.	69.95	58.28	80.68					
Design Capacity				-3.34		280.	69.95	58.28	80.87					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys27DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	296.7	1.	0.757	6.313	0.742	-5.682	0.261	0.250	-7.178

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	132.	1.00	0.103	2.43	2.5	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2North Perim Zn (G.N11)	132.	100.	0.009	1.000	0.	0.00	0.00	4.47	0.00	-2.69	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys27DfltClg WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/15/15	81.2	63.5	3.99	0.89	132.	79.98	62.89	55.49	52.63	0.1833		81.23	
Design Capacity				6.34	0.75	132.	79.98	62.89	46.97	45.39	0.1199		81.23	
Rated Capacity				6.31	0.74	211.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/21/ 8	25.5	21.5	-7.18		132.	36.21	28.19	85.52				25.50	
Design Capacity				-3.59		132.	36.21	28.19	61.32				25.50	
Rated Capacity				-5.68		211.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/21/ 8	25.5	21.5	-7.18		132.	36.21	28.19	85.52					
Design Capacity				-7.18		132.	36.21	28.19	86.43					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys28DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	120.0	0.	0.000	2.156	0.742	-1.940	0.261	0.250	-0.970

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	76.	1.00	0.059	2.42	2.0	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2Core Zn (G.C5)	76.	0.	0.000	1.000	0.	0.00	0.00	1.60	0.00	-1.42	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys28DfltClg WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/12/ 9	68.6	59.1	2.22	0.86	76.	76.10	60.81	53.03	50.38	0.1925		70.00	
Design Capacity				2.22	0.86	76.	76.10	60.81	53.05	50.40	0.1925		70.00	
Rated Capacity				2.16	0.74	72.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/22/ 7	25.5	21.5	-0.75		76.	68.59	57.77	77.50				25.50	
Design Capacity				-1.23		76.	68.59	57.77	83.38				25.50	
Rated Capacity				-1.94		72.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/22/ 7	25.5	21.5	-0.75		76.	68.59	57.77	77.50					
Design Capacity				-0.97		76.	68.59	57.77	80.30					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Sys29DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	296.7	1.	0.000	4.077	0.742	-3.669	0.261	0.250	-3.187

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	175.	1.00	0.137	2.42	2.6	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3North Perim Zn (G.N11)	175.	0.	0.000	1.000	0.	0.00	0.00	3.10	0.00	-3.99	1.

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-C System Coil Sizing Summary for Sys29DfltClg WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 1/ 8	66.4	58.3	4.41	0.79	175.	76.70	64.10	58.66	55.92	0.2355		70.00	
Design Capacity				4.41	0.78	175.	76.70	64.10	58.70	55.96	0.2356		70.00	
Rated Capacity				4.08	0.74	136.	80.00	67.00			0.1900		95.00	
Heating HtPmpAir														
Design Day Peak	12/29/ 9	25.5	21.5	-3.19		175.	69.93	46.33	86.43				25.50	
Design Capacity				-2.32		175.	69.93	46.33	82.15				25.50	
Rated Capacity				-3.67		136.	70.00						47.00	
HtPmSupp Electric														
Design Day Peak	12/29/ 9	25.5	21.5	-3.19		175.	69.93	46.33	86.43					
Design Capacity				-3.19		175.	69.93	46.33	86.73					

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for Uncon WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SUM	1.001	10729.5	35.	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2Core Zn (G.C8)	0.	0.	0.000	0.000	50.	0.00	0.00	2.80	0.00	-1.85	1.
									-1.85	(BASEBOARDS)	
B1SW Perim Zn (B.SW1)	0.	0.	0.000	0.000	0.	0.00	0.00	13.19	0.00	-15.97	1.
									-15.97	(BASEBOARDS)	
L3Core Zn (G.C8)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1Core Zn (B.C2)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1West Perim Zn (B.W3)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1West Perim Zn (B.W4)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
B1Core Zn (B.C5)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1West Perim Zn (B.W6)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1West Perim Zn (G.W3)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1WNW Perim Zn (G.WNW4)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1North Perim Zn (G.N7)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1Core Zn (G.C10)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1North Perim Zn (G.N12)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1North Perim Zn (G.N13)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1North Perim Zn (G.N14)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1SSE Perim Zn (G.SSE15)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
L2West Perim Zn (G.W3)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L2Core Zn (G.C9)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L2North Perim Zn (G.N13)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L3West Perim Zn (G.W3)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
L3Core Zn (G.C9)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L3North Perim Zn (G.N13)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L4 West Perim Zn (G.W2)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L4 North Perim Zn (G.N6)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L4 North Perim Zn (G.N7)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1Core Zn (B.C9)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1Core Zn (B.C15)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1NW Perim Zn (B.NW16)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.

B1North Perim Zn (B.N17)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1North Perim Zn (B.N19)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1NE Perim Zn (B.NE21)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1Core Zn (B.C23)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B2SW Perim Zn (B.SW1)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.

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Metropole                                                                    DOE-2.3-50h    9/16/2020    11:41:30  BDL RUN  9

REPORT- SV-A System Design Parameters for   Uncon                                        WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------(CONTINUED)--------
B2East Perim Zn (B.E2)            0.        0.     0.000     0.000        0.      0.00      0.00      0.00      0.00     -0.00   1.
B2West Perim Zn (B.W3)            0.        0.     0.000     0.000        0.      0.00      0.00      0.00      0.00      0.00   1.
B2North Perim Zn (B.N4)           0.        0.     0.000     0.000        0.      0.00      0.00      0.00      0.00     -0.00   1.
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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:41:30  BDL RUN  9

REPORT- SV-C System Coil Sizing Summary for Uncon                                                   WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW    ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)     (F)     (F)
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Zonal Coils
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L2Core Zn (G.C8)
 AuxCool Sum
   Design Day Peak   8/ 8/ 6   63.6  57.2       2.80                      77.00
   Design Capacity                              2.80                      77.00
 BaseBrd  Sum
   Design Day Peak  12/31/ 6   25.5  21.5      -1.85                      70.00
   Design Capacity                             -1.85                      70.00

B1SW Perim Zn (B.SW1)
 AuxCool Sum
   Design Day Peak   8/15/ 7   64.7  57.6      13.19                      76.00
   Design Capacity                             13.19                      76.00
 BaseBrd  Sum
   Design Day Peak  12/31/ 6   25.5  21.5     -15.97                      70.00
   Design Capacity                            -15.97                      70.00
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Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SV-A System Design Parameters for DOAS-Base WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
DOAS	1.001	22309.2	217.	1.000	0.000	0.000	0.000	0.310	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	3988.	0.00	1.552	1.21	1.7	0.52	0.62	DRAW-THRU	SPEED	1.10	0.10
RETURN	3988.	1.00	1.552	1.21	1.7	0.52	0.62	RETURN	SPEED	1.10	0.10

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

SYSTEM NAME / ZONE NAME	----- OA ATTACHED TO ----- MIXED AIR (CFM)	ZONE (CFM)	MULT
Sys1CB			
L1SW Perim Zn (G.SW1)	0.	235.	1.
L1Core Zn (G.C2)	0.	0.	1.
Sys2CB			
L1Core Zn (G.C6)	0.	25.	1.
Sys4CB			
L1SE Perim Zn (G.SE16)	0.	75.	1.
L1Core Zn (G.C5)	0.	0.	1.
L1Core Zn (G.C9)	0.	0.	1.
L1Core Zn (G.C17)	0.	75.	1.
Sys5CB			
L1East Perim Zn (G.E18)	0.	440.	1.
L1Core Zn (G.C11)	0.	0.	1.
Sys7CB			
L2NW Perim Zn (G.NW6)	0.	265.	1.
L2West Perim Zn (G.W4)	0.	0.	1.
Sys8CB			
L2SSE Perim Zn (G.SSE7)	0.	50.	1.
Sys9FC			
L2North Perim Zn (G.N12)	0.	70.	1.
Sys10CB			
L2SSE Perim Zn (G.SSE14)	0.	85.	1.
Sys11CB			
L2East Perim Zn (G.E15)	0.	200.	1.
L2Core Zn (G.C10)	0.	0.	1.
Sys12CB			
L3SW Perim Zn (G.SW1)	0.	325.	1.
L3Core Zn (G.C2)	0.	0.	1.
Sys13CB			

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   L3NW Perim Zn (G.NW6)                    0.       265.      1.
   L3WSW Perim Zn (G.WSW4)                  0.         0.      1.
Sys14CB
   L3SSE Perim Zn (G.SSE7)                  0.        50.      1.
Sys16CB
   L3SSE Perim Zn (G.SSE14)                 0.        85.      1.
Sys17CB
   L3East Perim Zn (G.E15)                  0.       200.      1.
   L3Core Zn (G.C10)                        0.         0.      1.
Sys18CB
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Metropole                                                                    DOE-2.3-50h    9/16/2020    11:41:30  BDL RUN  9

REPORT- SV-A System Design Parameters for   DOAS-Base                                   WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------(CONTINUED)--------
   L4 SSE Perim Zn (G.SSE1)                 0.        85.      1.
Sys19CB
   L4 NNW Perim Zn (G.NNW4)                 0.        75.      1.
   L4 Core Zn (G.C8)                        0.         0.      1.
Sys20FC
   B1North Perim Zn (B.N22)                 0.       137.      1.
   B1Core Zn (B.C10)                        0.       137.      1.
   B1SSE Perim Zn (B.SSE11)                 0.       137.      1.
   B1SSE Perim Zn (B.SSE12)                 0.       137.      1.
   B1Core Zn (B.C13)                        0.       137.      1.

   B1SSE Perim Zn (B.SSE14)                 0.       137.      1.
   B1SE Perim Zn (B.SE20)                   0.       137.      1.
Sys21FC
   B1Core Zn (B.C8)                         0.       280.      1.
   B1SSE Perim Zn (B.SSE7)                  0.        90.      1.
Sys22CB
   Thermal Zone 84                          0.        50.      1.
Sys24DfltClg
   L4 Core Zn (G.C3)                        0.         0.      1.

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                              TOTAL:         0.      3988.
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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:41:30  BDL RUN  9

REPORT- SV-C System Coil Sizing Summary for DOAS-Base                                                WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW   ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)    (F)     (F)
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No coils in this System
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Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-D Building HVAC Load Summary WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-33.387	6	7	27.F	23.F	-505.589	16335.	115.707
FEB	0.00120	21	17	57.F	53.F	0.859	-23.152	10	7	37.F	36.F	-292.832	13408.	61.157
MAR	0.44085	21	16	68.F	50.F	23.223	-15.996	3	7	41.F	39.F	-270.651	13479.	52.063
APR	2.21632	11	11	57.F	51.F	38.200	-7.071	7	7	39.F	39.F	-225.923	12691.	45.772
MAY	6.97848	16	16	72.F	60.F	145.004	-2.715	12	7	48.F	44.F	-149.618	12320.	51.283
JUN	14.84264	20	11	72.F	61.F	205.921	-0.404	2	7	54.F	53.F	-33.146	12495.	57.491
JUL	38.26176	23	17	90.F	67.F	291.860	-0.003	8	7	57.F	55.F	-1.738	15086.	68.970
AUG	32.38428	11	16	81.F	64.F	260.066	-0.016	25	7	54.F	53.F	-6.206	14201.	63.248
SEP	16.94202	19	16	82.F	63.F	212.473	-0.510	29	7	48.F	45.F	-54.741	12724.	58.919
OCT	3.36796	7	17	77.F	55.F	95.802	-5.671	22	7	37.F	36.F	-124.444	12720.	47.571
NOV	0.08249	7	16	61.F	56.F	13.137	-16.019	28	7	37.F	34.F	-256.893	12238.	51.205
DEC	0.00000	31	24	45.F	41.F	0.000	-30.678	29	7	37.F	35.F	-350.458	16061.	70.649
TOTAL	115.518						-135.623						163757.	
MAX						291.860						-505.589		115.707

MAXIMUM DAILY INTEGRATED COOLING LOAD (DES DAY) 0.000 (KBTU)
MAXIMUM DAILY INTEGRATED COOLING LOAD (WTH FILE) 0.000 (KBTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys1CB WEATHER FILE- SEATTLE BOEING FI WA

MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
	- - - - - - - - C O O L I N G - - - - - - - -						- - - - - - - - H E A T I N G - - - - - - - -						- - - E L E C - - -	
JAN	0.00000	31	24	39.F	38.F	0.000	-1.161	6	7	27.F	23.F	-23.361	548.	4.690
FEB	0.00000	28	24	40.F	38.F	0.000	-0.730	24	7	37.F	31.F	-14.428	445.	2.619
MAR	0.03775	29	16	79.F	55.F	5.370	-0.585	3	7	41.F	39.F	-14.066	457.	2.113
APR	0.06877	18	10	54.F	45.F	4.885	-0.346	7	7	39.F	39.F	-12.142	422.	2.088
MAY	0.37549	16	10	63.F	55.F	10.283	-0.174	5	7	46.F	45.F	-9.052	427.	1.987
JUN	0.82273	20	11	72.F	61.F	14.111	-0.048	12	7	50.F	48.F	-3.948	438.	2.342
JUL	2.02629	22	10	73.F	64.F	19.129	-0.000	8	7	57.F	55.F	-0.341	560.	2.792
AUG	1.94996	12	10	70.F	62.F	16.439	-0.001	25	7	54.F	53.F	-0.658	546.	2.531
SEP	1.17377	19	10	66.F	63.F	12.435	-0.031	27	7	45.F	43.F	-4.025	470.	2.245
OCT	0.14609	7	17	77.F	55.F	7.236	-0.238	22	7	37.F	36.F	-9.049	420.	1.775
NOV	0.00000	30	24	46.F	44.F	0.000	-0.525	28	7	37.F	34.F	-12.619	417.	2.003
DEC	0.00000	31	24	45.F	41.F	0.000	-1.046	26	7	34.F	34.F	-15.891	532.	2.814
TOTAL	6.601						-4.884						5682.	
MAX						19.129						-23.361		4.690

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys1CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000	0.000
MAR	1.	0.038	0.009	0.016	0.000	0.000	0.000	0.000	0.000	0.003
APR	2.	0.069	0.015	0.011	0.000	0.000	0.000	0.000	0.000	0.006
MAY	13.	0.375	0.080	0.005	0.000	0.000	0.000	0.000	0.000	0.031
JUN	28.	0.823	0.177	0.000	0.000	0.000	0.000	0.000	0.000	0.067
JUL	71.	2.026	0.461	0.000	0.000	0.000	0.000	0.000	0.000	0.169
AUG	67.	1.950	0.430	0.000	0.000	0.000	0.000	0.000	0.000	0.159
SEP	41.	1.174	0.257	0.001	0.000	0.000	0.000	0.000	0.000	0.097
OCT	5.	0.146	0.032	0.008	0.000	0.000	0.000	0.000	0.000	0.012
NOV	0.	0.000	0.000	0.017	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	230.	6.601	1.460	0.113	0.000	0.000	0.000	0.000	0.000	0.543

CSPF (WITH PARASITICS) = 3.12 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.52 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys1CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	58.	-1.161	0.376	0.034	-0.009	0.009	0.000	0.000	-0.032	0.146
FEB	35.	-0.730	0.226	0.029	0.000	0.000	0.000	0.000	-0.018	0.087
MAR	25.	-0.585	0.164	0.024	-0.000	0.000	0.000	0.000	-0.007	0.063
APR	14.	-0.346	0.092	0.016	0.000	0.000	0.000	0.000	-0.002	0.036
MAY	7.	-0.174	0.044	0.007	0.000	0.000	0.000	0.000	0.000	0.017
JUN	2.	-0.048	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.004
JUL	0.	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	1.	-0.031	0.008	0.002	0.000	0.000	0.000	0.000	0.000	0.003
OCT	10.	-0.238	0.064	0.011	-0.000	0.000	0.000	0.000	-0.002	0.024
NOV	22.	-0.525	0.146	0.026	-0.000	0.000	0.000	0.000	-0.005	0.056
DEC	50.	-1.046	0.326	0.036	-0.000	0.000	0.000	0.000	-0.028	0.124
ANNUAL	224.	-4.884	1.459	0.185	-0.009	0.009	0.000	0.000	-0.094	0.560

HSPF (WITH PARASITICS) = 2.42 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.27 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys2CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.153	6	7	27.F	23.F	-8.307	132.	1.706
FEB	0.00000	28	24	40.F	38.F	0.000	-0.124	18	7	45.F	44.F	-5.352	117.	0.764
MAR	0.00000	31	1	48.F	44.F	0.000	-0.092	3	7	41.F	39.F	-4.741	122.	0.566
APR	0.00337	18	17	64.F	52.F	0.621	-0.044	7	7	39.F	39.F	-3.680	114.	0.635
MAY	0.06549	16	16	72.F	60.F	1.766	-0.018	5	7	46.F	45.F	-2.828	116.	0.482
JUN	0.20333	20	17	77.F	61.F	2.440	-0.002	2	7	54.F	53.F	-1.059	124.	0.559
JUL	0.50465	24	16	81.F	66.F	3.236	0.000	31	1	60.F	51.F	0.000	158.	0.667
AUG	0.58414	22	16	66.F	64.F	3.423	0.000	31	1	59.F	55.F	0.000	164.	0.650
SEP	0.43857	19	16	82.F	63.F	3.084	0.000	30	1	53.F	51.F	0.000	147.	0.640
OCT	0.16411	9	16	57.F	56.F	2.614	-0.004	27	7	50.F	49.F	-1.044	125.	0.559
NOV	0.00779	7	17	57.F	54.F	1.502	-0.044	24	7	46.F	45.F	-3.474	109.	0.510
DEC	0.00000	31	24	45.F	41.F	0.000	-0.116	29	7	37.F	35.F	-5.485	128.	0.922
TOTAL	1.971						-0.596						1557.	
MAX						3.423						-8.307		1.706

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys2CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.003	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.000
MAY	8.	0.065	0.014	0.001	0.000	0.000	0.000	0.000	0.000	0.007
JUN	25.	0.203	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.023
JUL	65.	0.505	0.113	0.000	0.000	0.000	0.000	0.000	0.000	0.059
AUG	74.	0.584	0.128	0.000	0.000	0.000	0.000	0.000	0.000	0.067
SEP	56.	0.439	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.051
OCT	21.	0.164	0.035	0.003	0.000	0.000	0.000	0.000	0.000	0.019
NOV	1.	0.008	0.002	0.005	0.000	0.000	0.000	0.000	0.000	0.001
DEC	0.	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	250.	1.971	0.431	0.037	0.000	0.000	0.000	0.000	0.000	0.227

CSPF (WITH PARASITICS) = 2.84 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.58 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys2CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	22.	-0.153	0.049	0.008	-0.002	0.002	0.000	0.000	-0.004	0.021
FEB	17.	-0.124	0.039	0.007	0.000	0.000	0.000	0.000	-0.003	0.016
MAR	12.	-0.092	0.026	0.006	-0.000	0.000	0.000	0.000	-0.001	0.011
APR	5.	-0.044	0.012	0.004	0.000	0.000	0.000	0.000	-0.000	0.005
MAY	2.	-0.018	0.005	0.002	0.000	0.000	0.000	0.000	0.000	0.002
JUN	0.	-0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OCT	0.	-0.004	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.000
NOV	6.	-0.044	0.013	0.006	-0.000	0.000	0.000	0.000	-0.001	0.005
DEC	16.	-0.116	0.036	0.008	0.000	0.000	0.000	0.000	-0.003	0.015
ANNUAL	80.	-0.596	0.181	0.045	-0.002	0.002	0.000	0.000	-0.013	0.077

HSPF (WITH PARASITICS) = 2.17 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.19 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys3CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.221	6	7	27.F	23.F	-9.871	216.	1.846
FEB	0.00034	26	10	45.F	37.F	0.343	-0.142	18	7	45.F	44.F	-5.724	187.	1.017
MAR	0.09633	28	11	52.F	47.F	4.879	-0.119	3	7	41.F	39.F	-5.711	206.	1.061
APR	0.38948	17	10	54.F	49.F	6.510	-0.066	7	7	39.F	39.F	-4.861	227.	1.203
MAY	0.58030	16	10	63.F	55.F	9.963	-0.024	12	7	48.F	44.F	-3.296	232.	1.505
JUN	0.73895	20	11	72.F	61.F	8.845	-0.001	3	7	54.F	50.F	-0.392	239.	1.425
JUL	1.04057	10	11	77.F	62.F	9.316	0.000	31	1	60.F	51.F	0.000	276.	1.511
AUG	1.01910	12	10	70.F	62.F	11.220	0.000	31	1	59.F	55.F	0.000	267.	1.613
SEP	0.78207	22	10	64.F	59.F	9.149	-0.002	29	7	48.F	45.F	-0.846	244.	1.435
OCT	0.30115	7	10	57.F	50.F	5.798	-0.043	27	7	50.F	49.F	-2.644	216.	1.147
NOV	0.01203	7	16	61.F	56.F	2.389	-0.105	28	7	37.F	34.F	-4.991	176.	0.849
DEC	0.00000	31	24	45.F	41.F	0.000	-0.207	29	7	37.F	35.F	-6.784	219.	1.212
TOTAL	4.960						-0.930						2705.	
MAX						11.220						-9.871		1.846

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys3CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000
MAR	6.	0.096	0.021	0.010	0.000	0.000	0.000	0.000	0.000	0.008
APR	27.	0.389	0.083	0.007	0.000	0.000	0.000	0.000	0.000	0.031
MAY	40.	0.580	0.123	0.003	0.000	0.000	0.000	0.000	0.000	0.047
JUN	51.	0.739	0.158	0.000	0.000	0.000	0.000	0.000	0.000	0.060
JUL	73.	1.041	0.231	0.000	0.000	0.000	0.000	0.000	0.000	0.086
AUG	71.	1.019	0.222	0.000	0.000	0.000	0.000	0.000	0.000	0.084
SEP	54.	0.782	0.169	0.001	0.000	0.000	0.000	0.000	0.000	0.064
OCT	20.	0.301	0.064	0.004	0.000	0.000	0.000	0.000	0.000	0.024
NOV	1.	0.012	0.003	0.010	0.000	0.000	0.000	0.000	0.000	0.001
DEC	0.	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	343.	4.960	1.072	0.068	0.000	0.000	0.000	0.000	0.000	0.405

CSPF (WITH PARASITICS) = 3.21 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.63 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys3CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	22.	-0.221	0.072	0.017	-0.001	0.001	0.000	0.000	-0.006	0.027
FEB	14.	-0.142	0.046	0.014	0.000	0.000	0.000	0.000	-0.004	0.017
MAR	10.	-0.119	0.034	0.011	-0.000	0.000	0.000	0.000	-0.002	0.013
APR	6.	-0.066	0.018	0.007	0.000	0.000	0.000	0.000	-0.001	0.007
MAY	2.	-0.024	0.006	0.003	0.000	0.000	0.000	0.000	0.000	0.002
JUN	0.	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	-0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
OCT	4.	-0.043	0.012	0.006	-0.000	0.000	0.000	0.000	-0.000	0.004
NOV	9.	-0.105	0.030	0.012	-0.000	0.000	0.000	0.000	-0.001	0.011
DEC	20.	-0.207	0.066	0.017	0.000	0.000	0.000	0.000	-0.006	0.025
ANNUAL	87.	-0.930	0.285	0.089	-0.001	0.001	0.000	0.000	-0.020	0.108

HSPF (WITH PARASITICS) = 2.11 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.18 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys4CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.685	6	7	27.F	23.F	-28.957	546.	6.863
FEB	0.00000	28	24	40.F	38.F	0.000	-1.047	10	7	37.F	36.F	-17.222	413.	3.586
MAR	0.02286	29	11	72.F	52.F	4.715	-0.816	3	7	41.F	39.F	-16.676	402.	2.460
APR	0.15079	18	11	55.F	44.F	7.174	-0.411	7	7	39.F	39.F	-14.564	367.	2.628
MAY	0.43924	16	11	64.F	57.F	13.130	-0.147	12	7	48.F	44.F	-10.192	352.	2.302
JUN	0.99341	20	10	70.F	59.F	23.224	-0.022	3	7	54.F	50.F	-3.344	385.	3.161
JUL	2.13571	21	10	70.F	61.F	23.266	0.000	31	1	60.F	51.F	0.000	510.	3.237
AUG	1.52310	8	10	66.F	60.F	21.502	0.000	31	1	59.F	55.F	0.000	438.	3.035
SEP	0.81474	19	10	66.F	63.F	13.446	-0.042	29	7	48.F	45.F	-5.417	372.	2.317
OCT	0.11352	7	10	57.F	50.F	7.643	-0.313	22	7	37.F	36.F	-10.405	353.	1.971
NOV	0.00000	30	24	46.F	44.F	0.000	-0.870	28	7	37.F	34.F	-15.641	368.	2.534
DEC	0.00000	31	24	45.F	41.F	0.000	-1.675	29	7	37.F	35.F	-20.296	540.	4.402
TOTAL	6.193						-7.027						5046.	
MAX						23.266						-28.957		6.863

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys4CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000
MAR	1.	0.023	0.005	0.011	0.000	0.000	0.000	0.000	0.000	0.002
APR	7.	0.151	0.032	0.008	0.000	0.000	0.000	0.000	0.000	0.016
MAY	20.	0.439	0.094	0.004	0.000	0.000	0.000	0.000	0.000	0.047
JUN	45.	0.993	0.212	0.000	0.000	0.000	0.000	0.000	0.000	0.106
JUL	98.	2.136	0.477	0.000	0.000	0.000	0.000	0.000	0.000	0.232
AUG	69.	1.523	0.335	0.000	0.000	0.000	0.000	0.000	0.000	0.162
SEP	37.	0.815	0.178	0.001	0.000	0.000	0.000	0.000	0.000	0.088
OCT	5.	0.114	0.025	0.006	0.000	0.000	0.000	0.000	0.000	0.012
NOV	0.	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	283.	6.193	1.358	0.078	0.000	0.000	0.000	0.000	0.000	0.667

CSPF (WITH PARASITICS) = 2.95 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.56 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys4CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	96.	-1.685	0.517	0.026	-0.040	0.040	0.000	0.000	-0.039	0.238
FEB	56.	-1.047	0.307	0.022	-0.008	0.008	0.000	0.000	-0.019	0.140
MAR	41.	-0.816	0.224	0.019	0.000	0.000	0.000	0.000	-0.008	0.103
APR	20.	-0.411	0.109	0.012	0.000	0.000	0.000	0.000	-0.003	0.050
MAY	7.	-0.147	0.037	0.005	0.000	0.000	0.000	0.000	0.000	0.017
JUN	1.	-0.022	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.002
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	2.	-0.042	0.011	0.001	0.000	0.000	0.000	0.000	0.000	0.005
OCT	15.	-0.313	0.083	0.009	-0.000	0.000	0.000	0.000	-0.002	0.037
NOV	43.	-0.870	0.233	0.020	-0.000	0.000	0.000	0.000	-0.006	0.106
DEC	91.	-1.675	0.498	0.027	-0.015	0.015	0.000	0.000	-0.036	0.226
ANNUAL	372.	-7.027	2.024	0.142	-0.064	0.064	0.000	0.000	-0.112	0.924

HSPF (WITH PARASITICS) = 2.51 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.34 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys5CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-2.693	6	7	27.F	23.F	-43.978	935.	9.537
FEB	0.00060	21	17	57.F	53.F	0.604	-1.848	24	7	37.F	31.F	-27.557	742.	5.342
MAR	0.17182	21	16	68.F	50.F	11.653	-1.432	3	7	41.F	39.F	-26.062	733.	4.102
APR	0.86209	11	11	57.F	51.F	14.850	-0.742	7	7	39.F	39.F	-23.203	712.	4.167
MAY	2.15163	16	10	63.F	55.F	32.805	-0.269	10	7	45.F	43.F	-16.550	746.	4.698
JUN	3.31641	20	10	70.F	59.F	42.767	-0.058	3	7	54.F	50.F	-6.872	810.	5.543
JUL	5.84321	22	10	73.F	64.F	47.951	-0.001	8	7	57.F	55.F	-1.183	1061.	6.091
AUG	4.70587	8	10	66.F	60.F	37.851	-0.000	23	8	57.F	56.F	-0.063	935.	5.118
SEP	2.59273	19	15	81.F	63.F	29.943	-0.111	29	7	48.F	45.F	-10.509	759.	4.750
OCT	0.88134	7	17	77.F	55.F	21.017	-0.588	22	7	37.F	36.F	-18.579	696.	3.871
NOV	0.04929	7	15	61.F	56.F	7.694	-1.390	28	7	37.F	34.F	-24.482	653.	4.080
DEC	0.00000	31	24	45.F	41.F	0.000	-2.510	26	7	34.F	34.F	-30.137	910.	5.728
TOTAL	20.575						-11.642						9691.	
MAX						47.951						-43.978		9.537

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys5CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.036	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.001	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000
MAR	3.	0.172	0.037	0.029	0.000	0.000	0.000	0.000	0.000	0.013
APR	15.	0.862	0.183	0.021	0.000	0.000	0.000	0.000	0.000	0.065
MAY	38.	2.152	0.458	0.010	0.000	0.000	0.000	0.000	0.000	0.162
JUN	59.	3.316	0.709	0.000	0.000	0.000	0.000	0.000	0.000	0.251
JUL	105.	5.843	1.311	0.000	0.000	0.000	0.000	0.000	0.000	0.451
AUG	83.	4.706	1.032	0.000	0.000	0.000	0.000	0.000	0.000	0.355
SEP	46.	2.593	0.567	0.002	0.000	0.000	0.000	0.000	0.000	0.197
OCT	15.	0.881	0.190	0.014	0.000	0.000	0.000	0.000	0.000	0.066
NOV	1.	0.049	0.010	0.032	0.000	0.000	0.000	0.000	0.000	0.003
DEC	0.	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	365.	20.575	4.496	0.216	0.000	0.000	0.000	0.000	0.000	1.564

CSPF (WITH PARASITICS) = 3.28 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.58 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys5CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	79.	-2.693	0.846	0.064	-0.030	0.030	0.000	0.000	-0.065	0.358
FEB	51.	-1.848	0.549	0.054	-0.001	0.001	0.000	0.000	-0.035	0.231
MAR	36.	-1.432	0.392	0.048	0.000	0.000	0.000	0.000	-0.013	0.165
APR	18.	-0.742	0.195	0.031	0.000	0.000	0.000	0.000	-0.003	0.082
MAY	6.	-0.269	0.068	0.013	0.000	0.000	0.000	0.000	0.000	0.028
JUN	1.	-0.058	0.014	0.001	0.000	0.000	0.000	0.000	0.000	0.006
JUL	0.	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	3.	-0.111	0.028	0.004	0.000	0.000	0.000	0.000	0.000	0.011
OCT	14.	-0.588	0.155	0.022	-0.000	0.000	0.000	0.000	-0.004	0.064
NOV	35.	-1.390	0.374	0.049	-0.000	0.000	0.000	0.000	-0.010	0.157
DEC	70.	-2.510	0.763	0.067	-0.002	0.002	0.000	0.000	-0.060	0.319
ANNUAL	314.	-11.642	3.385	0.352	-0.032	0.032	0.000	0.000	-0.190	1.420

HSPF (WITH PARASITICS) = 2.49 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.36 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys6CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.283	6	7	27.F	23.F	-27.757	601.	6.496
FEB	0.00000	28	24	40.F	38.F	0.000	-0.391	4	7	30.F	30.F	-18.040	406.	3.977
MAR	0.08960	29	16	79.F	55.F	4.843	-0.068	3	7	41.F	39.F	-8.385	399.	1.403
APR	0.55416	18	16	64.F	54.F	4.893	-0.004	7	7	39.F	39.F	-3.833	423.	1.509
MAY	1.03219	16	16	72.F	60.F	8.325	0.000	31	1	56.F	51.F	0.000	459.	1.800
JUN	1.47604	30	12	70.F	64.F	9.710	0.000	30	1	61.F	55.F	0.000	481.	1.933
JUL	2.45675	23	17	90.F	67.F	13.492	0.000	31	1	60.F	51.F	0.000	582.	2.433
AUG	2.25921	11	16	81.F	64.F	12.582	0.000	31	1	59.F	55.F	0.000	559.	2.248
SEP	1.63534	22	14	81.F	62.F	9.996	0.000	30	1	53.F	51.F	0.000	497.	2.020
OCT	0.49037	8	16	66.F	61.F	5.841	0.000	31	1	45.F	43.F	0.000	420.	1.608
NOV	0.00100	7	16	61.F	56.F	0.679	-0.132	28	7	37.F	34.F	-15.329	371.	2.325
DEC	0.00000	31	24	45.F	41.F	0.000	-0.742	29	7	37.F	35.F	-19.221	503.	4.007
TOTAL	9.995						-2.620						5702.	
MAX						13.492						-27.757		6.496

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys6CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.022	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.021	0.000	0.000	0.000	0.000	0.000	0.000
MAR	3.	0.090	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.006
APR	20.	0.554	0.119	0.014	0.000	0.000	0.000	0.000	0.000	0.037
MAY	38.	1.032	0.221	0.006	0.000	0.000	0.000	0.000	0.000	0.068
JUN	54.	1.476	0.316	0.000	0.000	0.000	0.000	0.000	0.000	0.096
JUL	90.	2.457	0.550	0.000	0.000	0.000	0.000	0.000	0.000	0.161
AUG	82.	2.259	0.495	0.000	0.000	0.000	0.000	0.000	0.000	0.146
SEP	60.	1.635	0.356	0.002	0.000	0.000	0.000	0.000	0.000	0.108
OCT	18.	0.490	0.105	0.010	0.000	0.000	0.000	0.000	0.000	0.031
NOV	0.	0.001	0.000	0.020	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.023	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	365.	9.995	2.181	0.137	0.000	0.000	0.000	0.000	0.000	0.652

CSPF (WITH PARASITICS) = 3.37 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.58 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys6CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	78.	-1.283	0.381	0.027	-0.186	0.186	0.000	0.000	-0.040	0.147
FEB	25.	-0.391	0.122	0.025	-0.022	0.022	0.000	0.000	-0.014	0.046
MAR	4.	-0.068	0.020	0.021	0.000	0.000	0.000	0.000	-0.001	0.008
APR	0.	-0.004	0.001	0.012	-0.000	0.000	0.000	0.000	-0.000	0.001
MAY	0.	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
JUN	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
OCT	0.	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000
NOV	8.	-0.132	0.040	0.022	-0.000	0.000	0.000	0.000	-0.003	0.015
DEC	46.	-0.742	0.231	0.029	-0.043	0.043	0.000	0.000	-0.027	0.087
ANNUAL	162.	-2.620	0.797	0.154	-0.252	0.252	0.000	0.000	-0.086	0.304

HSPF (WITH PARASITICS) = 2.05 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 2.66 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys7CB WEATHER FILE- SEATTLE BOEING FI WA

MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
	COOLING						HEATING						ELEC	
JAN	0.00000	31	24	39.F	38.F	0.000	-1.139	6	7	27.F	23.F	-14.781	497.	3.304
FEB	0.00000	28	24	40.F	38.F	0.000	-0.801	4	7	30.F	30.F	-8.532	404.	1.719
MAR	0.00181	29	16	79.F	55.F	0.934	-0.482	3	7	41.F	39.F	-7.564	389.	1.567
APR	0.00000	30	1	52.F	48.F	0.000	-0.169	7	7	39.F	39.F	-6.165	344.	1.159
MAY	0.03492	16	16	72.F	60.F	3.489	-0.061	6	7	43.F	41.F	-4.223	334.	1.255
JUN	0.20258	30	15	75.F	65.F	7.011	0.000	30	1	61.F	55.F	0.000	330.	1.591
JUL	1.02918	23	17	90.F	67.F	11.165	0.000	31	1	60.F	51.F	0.000	420.	2.136
AUG	0.87984	11	16	81.F	64.F	10.039	0.000	31	1	59.F	55.F	0.000	402.	1.922
SEP	0.34936	19	16	82.F	63.F	7.794	-0.001	27	8	46.F	45.F	-0.220	345.	1.711
OCT	0.01783	7	17	77.F	55.F	3.251	-0.100	22	7	37.F	36.F	-4.656	341.	1.254
NOV	0.00000	30	24	46.F	44.F	0.000	-0.461	28	7	37.F	34.F	-7.764	361.	1.354
DEC	0.00000	31	24	45.F	41.F	0.000	-1.054	29	7	37.F	35.F	-9.691	480.	1.874
TOTAL	2.516						-4.268						4646.	
MAX						11.165						-14.781		3.304

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys7CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.002	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
MAY	2.	0.035	0.008	0.003	0.000	0.000	0.000	0.000	0.000	0.003
JUN	11.	0.203	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.017
JUL	55.	1.029	0.240	0.000	0.000	0.000	0.000	0.000	0.000	0.091
AUG	46.	0.880	0.198	0.000	0.000	0.000	0.000	0.000	0.000	0.076
SEP	19.	0.349	0.079	0.001	0.000	0.000	0.000	0.000	0.000	0.031
OCT	1.	0.018	0.004	0.005	0.000	0.000	0.000	0.000	0.000	0.002
NOV	0.	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	133.	2.516	0.574	0.062	0.000	0.000	0.000	0.000	0.000	0.220

CSPF (WITH PARASITICS) = 2.94 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.38 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys7CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	103.	-1.139	0.358	0.022	-0.017	0.017	0.000	0.000	-0.029	0.180
FEB	68.	-0.801	0.236	0.021	0.000	0.000	0.000	0.000	-0.014	0.118
MAR	38.	-0.482	0.133	0.017	-0.000	0.000	0.000	0.000	-0.004	0.066
APR	13.	-0.169	0.046	0.011	0.000	0.000	0.000	0.000	-0.001	0.023
MAY	4.	-0.061	0.016	0.005	0.000	0.000	0.000	0.000	0.000	0.008
JUN	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	-0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
OCT	8.	-0.100	0.028	0.008	-0.000	0.000	0.000	0.000	-0.001	0.014
NOV	36.	-0.461	0.126	0.018	-0.000	0.000	0.000	0.000	-0.004	0.063
DEC	91.	-1.054	0.319	0.024	-0.000	0.000	0.000	0.000	-0.024	0.158
ANNUAL	361.	-4.268	1.261	0.127	-0.017	0.017	0.000	0.000	-0.077	0.629

HSPF (WITH PARASITICS) = 2.38 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.29 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys8CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.277	6	7	27.F	23.F	-6.484	208.	1.426
FEB	0.00000	28	24	40.F	38.F	0.000	-0.114	10	7	37.F	36.F	-3.146	166.	0.673
MAR	0.00000	31	1	48.F	44.F	0.000	-0.029	3	7	41.F	39.F	-2.448	170.	0.630
APR	0.06473	18	11	55.F	44.F	1.569	-0.001	7	7	39.F	39.F	-1.093	174.	0.715
MAY	0.26524	16	10	63.F	55.F	3.734	0.000	31	1	56.F	51.F	0.000	184.	0.886
JUN	0.46024	20	11	72.F	61.F	4.917	0.000	30	1	61.F	55.F	0.000	196.	0.989
JUL	0.87809	22	11	75.F	63.F	5.773	0.000	31	1	60.F	51.F	0.000	239.	1.092
AUG	0.75319	12	10	70.F	62.F	5.335	0.000	31	1	59.F	55.F	0.000	222.	1.029
SEP	0.47877	22	10	64.F	59.F	4.214	0.000	30	1	53.F	51.F	0.000	198.	0.962
OCT	0.07317	7	17	77.F	55.F	2.369	0.000	31	1	45.F	43.F	0.000	174.	0.795
NOV	0.00000	30	24	46.F	44.F	0.000	-0.062	28	7	37.F	34.F	-2.887	155.	0.683
DEC	0.00000	31	24	45.F	41.F	0.000	-0.248	29	7	37.F	35.F	-4.315	207.	0.901
TOTAL	2.973						-0.732						2293.	
MAX						5.773						-6.484		1.426

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys8CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
APR	6.	0.065	0.014	0.006	0.000	0.000	0.000	0.000	0.000	0.004
MAY	23.	0.265	0.057	0.003	0.000	0.000	0.000	0.000	0.000	0.016
JUN	40.	0.460	0.099	0.000	0.000	0.000	0.000	0.000	0.000	0.027
JUL	77.	0.878	0.197	0.000	0.000	0.000	0.000	0.000	0.000	0.053
AUG	65.	0.753	0.165	0.000	0.000	0.000	0.000	0.000	0.000	0.045
SEP	42.	0.479	0.104	0.001	0.000	0.000	0.000	0.000	0.000	0.029
OCT	6.	0.073	0.016	0.004	0.000	0.000	0.000	0.000	0.000	0.004
NOV	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	259.	2.973	0.651	0.053	0.000	0.000	0.000	0.000	0.000	0.178

CSPF (WITH PARASITICS) = 3.37 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.57 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys8CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	56.	-0.277	0.092	0.013	-0.003	0.003	0.000	0.000	-0.009	0.041
FEB	21.	-0.114	0.035	0.012	0.000	0.000	0.000	0.000	-0.003	0.015
MAR	5.	-0.029	0.009	0.009	0.000	0.000	0.000	0.000	-0.000	0.004
APR	0.	-0.001	0.000	0.006	-0.000	0.000	0.000	0.000	-0.000	0.000
MAY	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
JUN	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
OCT	0.	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000
NOV	10.	-0.062	0.017	0.010	-0.000	0.000	0.000	0.000	-0.001	0.008
DEC	46.	-0.248	0.078	0.014	-0.000	0.000	0.000	0.000	-0.007	0.034
ANNUAL	139.	-0.732	0.232	0.071	-0.003	0.003	0.000	0.000	-0.019	0.101

HSPF (WITH PARASITICS) = 2.01 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.04 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys9FC WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.459	6	7	27.F	23.F	-5.175	143.	1.316
FEB	0.00000	28	24	40.F	38.F	0.000	-0.354	18	7	45.F	44.F	-2.869	112.	0.660
MAR	0.00000	31	1	48.F	44.F	0.000	-0.246	3	7	41.F	39.F	-2.702	97.	0.490
APR	0.00000	30	1	52.F	48.F	0.000	-0.094	7	7	39.F	39.F	-2.226	73.	0.510
MAY	0.00191	16	15	72.F	62.F	0.537	-0.034	12	7	48.F	44.F	-1.662	60.	0.310
JUN	0.02121	20	15	75.F	62.F	1.760	-0.001	2	7	54.F	53.F	-0.351	55.	0.341
JUL	0.18503	23	15	86.F	66.F	2.985	0.000	31	1	60.F	51.F	0.000	71.	0.478
AUG	0.12871	12	15	81.F	63.F	2.704	0.000	31	1	59.F	55.F	0.000	64.	0.435
SEP	0.03466	19	16	82.F	63.F	1.719	-0.002	29	7	48.F	45.F	-0.531	57.	0.350
OCT	0.00011	7	17	77.F	55.F	0.113	-0.070	22	7	37.F	36.F	-1.675	69.	0.403
NOV	0.00000	30	24	46.F	44.F	0.000	-0.256	28	7	37.F	34.F	-2.621	91.	0.540
DEC	0.00000	31	24	45.F	41.F	0.000	-0.446	29	7	37.F	35.F	-3.403	138.	0.749
TOTAL	0.372						-1.963						1030.	
MAX						2.985						-5.175		1.316

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys9FC WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000
MAY	0.	0.002	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000
JUN	1.	0.021	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001
JUL	11.	0.185	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.010
AUG	8.	0.129	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.007
SEP	2.	0.035	0.008	0.001	0.000	0.000	0.000	0.000	0.000	0.002
OCT	0.	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	22.	0.372	0.087	0.052	0.000	0.000	0.000	0.000	0.000	0.021

CSPF (WITH PARASITICS) = 2.33 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.27 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys9FC WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	124.	-0.459	0.140	0.020	-0.005	0.005	0.000	0.000	-0.010	0.124
FEB	88.	-0.354	0.100	0.019	0.000	0.000	0.000	0.000	-0.004	0.088
MAR	58.	-0.246	0.066	0.016	0.000	0.000	0.000	0.000	-0.001	0.057
APR	22.	-0.094	0.025	0.010	0.000	0.000	0.000	0.000	-0.000	0.022
MAY	8.	-0.034	0.009	0.004	0.000	0.000	0.000	0.000	0.000	0.007
JUN	0.	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	-0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
OCT	16.	-0.070	0.018	0.007	-0.000	0.000	0.000	0.000	-0.000	0.016
NOV	59.	-0.256	0.067	0.017	-0.000	0.000	0.000	0.000	-0.001	0.059
DEC	115.	-0.446	0.131	0.021	-0.000	0.000	0.000	0.000	-0.008	0.114
ANNUAL	491.	-1.963	0.556	0.116	-0.005	0.005	0.000	0.000	-0.026	0.487

HSPF (WITH PARASITICS) = 2.09 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.46 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys10CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.485	6	7	27.F	23.F	-10.532	366.	2.147
FEB	0.00000	28	24	40.F	38.F	0.000	-0.222	18	7	45.F	44.F	-5.581	296.	1.202
MAR	0.00000	31	1	48.F	44.F	0.000	-0.079	3	7	41.F	39.F	-4.555	304.	1.147
APR	0.02624	18	17	64.F	52.F	1.793	-0.005	7	7	39.F	39.F	-2.656	302.	1.198
MAY	0.39653	16	10	63.F	55.F	6.363	-0.000	12	7	48.F	44.F	-0.346	322.	1.578
JUN	0.79104	20	11	72.F	61.F	8.504	0.000	30	1	61.F	55.F	0.000	349.	1.771
JUL	1.62058	22	10	73.F	64.F	9.977	0.000	31	1	60.F	51.F	0.000	436.	1.949
AUG	1.32202	12	11	72.F	63.F	8.771	0.000	31	1	59.F	55.F	0.000	399.	1.829
SEP	0.76292	19	15	81.F	63.F	6.717	0.000	30	1	53.F	51.F	0.000	348.	1.677
OCT	0.07465	7	17	77.F	55.F	3.541	-0.004	22	7	37.F	36.F	-0.949	306.	1.367
NOV	0.00000	30	24	46.F	44.F	0.000	-0.144	28	7	37.F	34.F	-5.034	277.	1.220
DEC	0.00000	31	24	45.F	41.F	0.000	-0.435	29	7	37.F	35.F	-7.317	365.	1.585
TOTAL	4.994						-1.375						4070.	
MAX						9.977						-10.532		2.147

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys1OCB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000
APR	1.	0.026	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.002
MAY	22.	0.397	0.084	0.004	0.000	0.000	0.000	0.000	0.000	0.028
JUN	45.	0.791	0.169	0.000	0.000	0.000	0.000	0.000	0.000	0.057
JUL	93.	1.621	0.362	0.000	0.000	0.000	0.000	0.000	0.000	0.118
AUG	75.	1.322	0.289	0.000	0.000	0.000	0.000	0.000	0.000	0.095
SEP	43.	0.763	0.166	0.001	0.000	0.000	0.000	0.000	0.000	0.055
OCT	4.	0.075	0.016	0.006	0.000	0.000	0.000	0.000	0.000	0.005
NOV	0.	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	284.	4.994	1.093	0.077	0.000	0.000	0.000	0.000	0.000	0.360

CSPF (WITH PARASITICS) = 3.26 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.57 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys1OCB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	50.	-0.485	0.161	0.021	-0.002	0.002	0.000	0.000	-0.014	0.067
FEB	21.	-0.222	0.068	0.018	0.000	0.000	0.000	0.000	-0.005	0.028
MAR	7.	-0.079	0.023	0.015	-0.000	0.000	0.000	0.000	-0.001	0.010
APR	1.	-0.005	0.002	0.009	-0.000	0.000	0.000	0.000	-0.000	0.001
MAY	0.	-0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000
JUN	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
OCT	0.	-0.004	0.001	0.006	0.000	0.000	0.000	0.000	-0.000	0.000
NOV	13.	-0.144	0.040	0.016	-0.000	0.000	0.000	0.000	-0.001	0.017
DEC	42.	-0.435	0.136	0.022	-0.000	0.000	0.000	0.000	-0.011	0.056
ANNUAL	134.	-1.375	0.432	0.112	-0.002	0.002	0.000	0.000	-0.033	0.179

HSPF (WITH PARASITICS) = 2.10 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.09 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys11CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-2.729	6	7	27.F	23.F	-30.372	907.	7.385
FEB	0.00000	28	24	40.F	38.F	0.000	-1.932	18	7	45.F	44.F	-16.621	709.	3.393
MAR	0.00000	31	1	48.F	44.F	0.000	-1.256	3	7	41.F	39.F	-15.302	656.	3.131
APR	0.00000	30	1	52.F	48.F	0.000	-0.391	7	7	39.F	39.F	-12.805	558.	2.541
MAY	0.19097	16	15	72.F	62.F	9.671	-0.097	12	7	48.F	44.F	-8.410	521.	2.643
JUN	0.68173	20	15	75.F	62.F	13.471	0.000	30	1	61.F	55.F	0.000	543.	3.016
JUL	2.45898	22	15	86.F	65.F	18.535	0.000	31	1	60.F	51.F	0.000	729.	3.742
AUG	1.77128	11	15	79.F	64.F	16.903	0.000	31	1	59.F	55.F	0.000	647.	3.394
SEP	0.49817	19	16	82.F	63.F	10.803	-0.014	29	7	48.F	45.F	-4.132	531.	2.844
OCT	0.00205	7	17	77.F	55.F	1.676	-0.484	22	7	37.F	36.F	-9.827	568.	2.218
NOV	0.00000	30	24	46.F	44.F	0.000	-1.588	28	7	37.F	34.F	-15.797	634.	3.134
DEC	0.00000	31	24	45.F	41.F	0.000	-2.723	29	7	37.F	35.F	-21.007	895.	4.394
TOTAL	5.603						-11.214						7897.	
MAX						18.535						-30.372		7.385

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys11CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.015	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000
MAY	5.	0.191	0.041	0.006	0.000	0.000	0.000	0.000	0.000	0.016
JUN	19.	0.682	0.147	0.000	0.000	0.000	0.000	0.000	0.000	0.056
JUL	70.	2.459	0.559	0.000	0.000	0.000	0.000	0.000	0.000	0.208
AUG	50.	1.771	0.392	0.000	0.000	0.000	0.000	0.000	0.000	0.146
SEP	14.	0.498	0.111	0.002	0.000	0.000	0.000	0.000	0.000	0.042
OCT	0.	0.002	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.	0.000	0.000	0.015	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.017	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	159.	5.603	1.251	0.109	0.000	0.000	0.000	0.000	0.000	0.468

CSPF (WITH PARASITICS) = 3.07 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.48 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys11CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	142.	-2.729	0.818	0.039	-0.062	0.062	0.000	0.000	-0.058	0.443
FEB	94.	-1.932	0.544	0.038	-0.001	0.001	0.000	0.000	-0.024	0.292
MAR	58.	-1.256	0.336	0.033	0.000	0.000	0.000	0.000	-0.008	0.180
APR	18.	-0.391	0.103	0.020	0.000	0.000	0.000	0.000	-0.002	0.055
MAY	4.	-0.097	0.025	0.009	0.000	0.000	0.000	0.000	0.000	0.013
JUN	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	1.	-0.014	0.004	0.002	0.000	0.000	0.000	0.000	0.000	0.002
OCT	21.	-0.484	0.125	0.015	-0.000	0.000	0.000	0.000	-0.002	0.066
NOV	71.	-1.588	0.414	0.033	-0.000	0.000	0.000	0.000	-0.007	0.221
DEC	136.	-2.723	0.791	0.041	-0.010	0.010	0.000	0.000	-0.049	0.424
ANNUAL	544.	-11.214	3.159	0.232	-0.073	0.073	0.000	0.000	-0.149	1.696

HSPF (WITH PARASITICS) = 2.49 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.45 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys12CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.550	6	7	27.F	23.F	-19.040	612.	4.358
FEB	0.00000	28	24	40.F	38.F	0.000	-1.048	4	7	30.F	30.F	-11.217	486.	2.355
MAR	0.00916	29	16	79.F	55.F	2.792	-0.636	3	7	41.F	39.F	-9.614	461.	1.932
APR	0.00000	30	1	52.F	48.F	0.000	-0.205	7	7	39.F	39.F	-8.235	399.	1.573
MAY	0.10220	16	16	72.F	60.F	5.825	-0.068	12	7	48.F	44.F	-5.123	391.	1.662
JUN	0.37396	30	15	75.F	65.F	9.235	0.000	30	1	61.F	55.F	0.000	396.	2.008
JUL	1.51436	23	17	90.F	67.F	14.213	0.000	31	1	60.F	51.F	0.000	524.	2.713
AUG	1.28961	11	16	81.F	64.F	12.818	0.000	31	1	59.F	55.F	0.000	496.	2.433
SEP	0.59926	22	14	81.F	62.F	10.436	-0.004	27	7	45.F	43.F	-1.063	420.	2.193
OCT	0.03006	7	17	77.F	55.F	4.585	-0.194	22	7	37.F	36.F	-6.944	405.	1.575
NOV	0.00000	30	24	46.F	44.F	0.000	-0.736	28	7	37.F	34.F	-10.320	441.	1.772
DEC	0.00000	31	24	45.F	41.F	0.000	-1.510	29	7	37.F	35.F	-12.507	597.	2.466
TOTAL	3.919						-5.951						5627.	
MAX						14.213						-19.040		4.358

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys12CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.009	0.002	0.009	0.000	0.000	0.000	0.000	0.000	0.001
APR	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
MAY	5.	0.102	0.022	0.004	0.000	0.000	0.000	0.000	0.000	0.011
JUN	18.	0.374	0.081	0.000	0.000	0.000	0.000	0.000	0.000	0.039
JUL	74.	1.514	0.350	0.000	0.000	0.000	0.000	0.000	0.000	0.164
AUG	62.	1.290	0.288	0.000	0.000	0.000	0.000	0.000	0.000	0.136
SEP	29.	0.599	0.134	0.001	0.000	0.000	0.000	0.000	0.000	0.065
OCT	2.	0.030	0.007	0.005	0.000	0.000	0.000	0.000	0.000	0.003
NOV	0.	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	190.	3.919	0.885	0.066	0.000	0.000	0.000	0.000	0.000	0.419

CSPF (WITH PARASITICS) = 2.86 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.43 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys12CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	112.	-1.550	0.482	0.024	-0.025	0.025	0.000	0.000	-0.038	0.260
FEB	71.	-1.048	0.308	0.023	-0.001	0.001	0.000	0.000	-0.018	0.165
MAR	40.	-0.636	0.175	0.019	0.000	0.000	0.000	0.000	-0.005	0.094
APR	13.	-0.205	0.056	0.011	0.000	0.000	0.000	0.000	-0.001	0.030
MAY	4.	-0.068	0.017	0.005	0.000	0.000	0.000	0.000	0.000	0.009
JUN	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	-0.004	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001
OCT	12.	-0.194	0.052	0.008	-0.000	0.000	0.000	0.000	-0.002	0.028
NOV	46.	-0.736	0.199	0.020	0.000	0.000	0.000	0.000	-0.005	0.106
DEC	104.	-1.510	0.451	0.025	-0.001	0.001	0.000	0.000	-0.032	0.241
ANNUAL	402.	-5.951	1.740	0.137	-0.026	0.026	0.000	0.000	-0.101	0.934

HSPF (WITH PARASITICS) = 2.40 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.33 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys13CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.127	6	7	27.F	23.F	-14.480	491.	3.259
FEB	0.00000	28	24	40.F	38.F	0.000	-0.815	4	7	30.F	30.F	-8.667	402.	1.780
MAR	0.00294	29	16	79.F	55.F	1.249	-0.530	3	7	41.F	39.F	-7.632	390.	1.573
APR	0.00000	30	1	52.F	48.F	0.000	-0.216	7	7	39.F	39.F	-6.627	346.	1.242
MAY	0.03353	16	15	72.F	62.F	3.730	-0.079	6	7	43.F	41.F	-4.674	332.	1.285
JUN	0.18999	30	15	75.F	65.F	6.987	-0.000	12	7	50.F	48.F	-0.141	326.	1.597
JUL	0.97809	23	17	90.F	67.F	11.022	0.000	31	1	60.F	51.F	0.000	415.	2.152
AUG	0.84446	11	16	81.F	64.F	9.865	0.000	31	1	59.F	55.F	0.000	398.	1.932
SEP	0.35739	19	16	82.F	63.F	8.028	-0.003	29	7	48.F	45.F	-0.759	344.	1.756
OCT	0.01472	7	17	77.F	55.F	2.969	-0.147	22	7	37.F	36.F	-5.341	343.	1.236
NOV	0.00000	30	24	46.F	44.F	0.000	-0.520	28	7	37.F	34.F	-7.827	363.	1.380
DEC	0.00000	31	24	45.F	41.F	0.000	-1.063	29	7	37.F	35.F	-9.530	477.	1.864
TOTAL	2.421						-4.501						4627.	
MAX						11.022						-14.480		3.259

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys13CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.003	0.001	0.007	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000
MAY	2.	0.034	0.007	0.003	0.000	0.000	0.000	0.000	0.000	0.003
JUN	11.	0.190	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.018
JUL	60.	0.978	0.229	0.000	0.000	0.000	0.000	0.000	0.000	0.096
AUG	50.	0.844	0.190	0.000	0.000	0.000	0.000	0.000	0.000	0.081
SEP	22.	0.357	0.081	0.001	0.000	0.000	0.000	0.000	0.000	0.035
OCT	1.	0.015	0.003	0.004	0.000	0.000	0.000	0.000	0.000	0.001
NOV	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	146.	2.421	0.553	0.053	0.000	0.000	0.000	0.000	0.000	0.235

CSPF (WITH PARASITICS) = 2.88 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.38 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys13CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	105.	-1.127	0.353	0.020	-0.017	0.017	0.000	0.000	-0.028	0.179
FEB	71.	-0.815	0.240	0.018	-0.000	0.000	0.000	0.000	-0.014	0.120
MAR	43.	-0.530	0.145	0.015	0.000	0.000	0.000	0.000	-0.004	0.073
APR	17.	-0.216	0.058	0.009	0.000	0.000	0.000	0.000	-0.001	0.029
MAY	6.	-0.079	0.020	0.004	0.000	0.000	0.000	0.000	0.000	0.010
JUN	0.	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	-0.003	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
OCT	12.	-0.147	0.040	0.007	-0.000	0.000	0.000	0.000	-0.001	0.020
NOV	42.	-0.520	0.141	0.016	0.000	0.000	0.000	0.000	-0.004	0.071
DEC	94.	-1.063	0.321	0.021	-0.000	0.000	0.000	0.000	-0.024	0.160
ANNUAL	390.	-4.501	1.318	0.111	-0.018	0.018	0.000	0.000	-0.077	0.662

HSPF (WITH PARASITICS) = 2.42 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.32 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys14CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.465	6	7	27.F	23.F	-8.873	237.	2.145
FEB	0.00000	28	24	40.F	38.F	0.000	-0.276	18	7	45.F	44.F	-4.534	188.	0.836
MAR	0.00000	31	1	48.F	44.F	0.000	-0.137	3	7	41.F	39.F	-4.041	183.	0.781
APR	0.00050	18	17	64.F	52.F	0.327	-0.018	7	7	39.F	39.F	-2.908	171.	0.616
MAY	0.14142	16	17	72.F	60.F	3.251	-0.005	12	7	48.F	44.F	-1.695	175.	0.864
JUN	0.36249	20	11	72.F	61.F	4.321	0.000	30	1	61.F	55.F	0.000	189.	0.963
JUL	0.85214	22	11	75.F	63.F	5.312	0.000	31	1	60.F	51.F	0.000	240.	1.132
AUG	0.71900	11	16	81.F	64.F	5.024	0.000	31	1	59.F	55.F	0.000	222.	1.057
SEP	0.37337	19	16	82.F	63.F	3.869	0.000	30	1	53.F	51.F	0.000	191.	0.952
OCT	0.01280	7	17	77.F	55.F	1.531	-0.021	27	7	50.F	49.F	-1.599	172.	0.726
NOV	0.00000	30	24	46.F	44.F	0.000	-0.206	24	7	46.F	45.F	-4.272	172.	0.818
DEC	0.00000	31	24	45.F	41.F	0.000	-0.456	29	7	37.F	35.F	-5.739	235.	1.154
TOTAL	2.462						-1.584						2374.	
MAX						5.312						-8.873		2.145

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys14CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
MAY	12.	0.141	0.030	0.002	0.000	0.000	0.000	0.000	0.000	0.010
JUN	31.	0.362	0.078	0.000	0.000	0.000	0.000	0.000	0.000	0.025
JUL	74.	0.852	0.192	0.000	0.000	0.000	0.000	0.000	0.000	0.061
AUG	61.	0.719	0.158	0.000	0.000	0.000	0.000	0.000	0.000	0.050
SEP	32.	0.373	0.081	0.001	0.000	0.000	0.000	0.000	0.000	0.026
OCT	1.	0.013	0.003	0.004	0.000	0.000	0.000	0.000	0.000	0.001
NOV	0.	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	212.	2.462	0.542	0.045	0.000	0.000	0.000	0.000	0.000	0.173

CSPF (WITH PARASITICS) = 3.24 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.54 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys14CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	86.	-0.465	0.146	0.014	-0.009	0.009	0.000	0.000	-0.012	0.074
FEB	47.	-0.276	0.081	0.012	0.000	0.000	0.000	0.000	-0.005	0.041
MAR	22.	-0.137	0.038	0.010	-0.000	0.000	0.000	0.000	-0.001	0.019
APR	3.	-0.018	0.005	0.006	0.000	0.000	0.000	0.000	-0.000	0.003
MAY	1.	-0.005	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.001
JUN	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
OCT	3.	-0.021	0.006	0.004	-0.000	0.000	0.000	0.000	-0.000	0.003
NOV	32.	-0.206	0.056	0.011	-0.000	0.000	0.000	0.000	-0.001	0.028
DEC	79.	-0.456	0.136	0.015	-0.001	0.001	0.000	0.000	-0.010	0.068
ANNUAL	274.	-1.584	0.470	0.076	-0.011	0.011	0.000	0.000	-0.030	0.237

HSPF (WITH PARASITICS) = 2.27 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.25 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys15FC WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.570	6	7	27.F	23.F	-8.107	173.	2.134
FEB	0.00000	28	24	40.F	38.F	0.000	-0.381	4	7	30.F	30.F	-4.759	121.	1.243
MAR	0.00000	31	1	48.F	44.F	0.000	-0.237	3	7	41.F	39.F	-4.016	98.	0.748
APR	0.00000	30	1	52.F	48.F	0.000	-0.082	7	7	39.F	39.F	-3.742	73.	0.832
MAY	0.01175	16	15	72.F	62.F	1.379	-0.030	12	7	48.F	44.F	-2.242	61.	0.344
JUN	0.05931	20	15	75.F	62.F	1.648	-0.001	2	7	54.F	53.F	-0.368	58.	0.335
JUL	0.23782	22	15	86.F	65.F	2.233	0.000	31	1	60.F	51.F	0.000	75.	0.405
AUG	0.20079	12	15	81.F	63.F	2.108	0.000	31	1	59.F	55.F	0.000	70.	0.386
SEP	0.07944	19	15	81.F	63.F	1.636	-0.001	29	7	48.F	45.F	-0.389	60.	0.341
OCT	0.00000	31	1	45.F	43.F	0.000	-0.069	22	7	37.F	36.F	-2.635	69.	0.614
NOV	0.00000	30	24	46.F	44.F	0.000	-0.263	28	7	37.F	34.F	-4.345	95.	0.886
DEC	0.00000	31	24	45.F	41.F	0.000	-0.507	29	7	37.F	35.F	-5.518	154.	1.355
TOTAL	0.589						-2.141						1107.	
MAX						2.233						-8.107		2.134

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys15FC WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
MAY	1.	0.012	0.003	0.004	0.000	0.000	0.000	0.000	0.000	0.001
JUN	3.	0.059	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.003
JUL	12.	0.238	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.014
AUG	10.	0.201	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.011
SEP	4.	0.079	0.018	0.001	0.000	0.000	0.000	0.000	0.000	0.004
OCT	0.	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	29.	0.589	0.133	0.065	0.000	0.000	0.000	0.000	0.000	0.034

CSPF (WITH PARASITICS) = 2.54 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.41 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys15FC WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	126.	-0.570	0.169	0.024	-0.039	0.039	0.000	0.000	-0.014	0.152
FEB	80.	-0.381	0.109	0.023	-0.005	0.005	0.000	0.000	-0.006	0.096
MAR	48.	-0.237	0.065	0.020	0.000	0.000	0.000	0.000	-0.002	0.057
APR	16.	-0.082	0.022	0.012	0.000	0.000	0.000	0.000	-0.001	0.019
MAY	6.	-0.030	0.008	0.005	0.000	0.000	0.000	0.000	0.000	0.007
JUN	0.	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	-0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
OCT	13.	-0.069	0.018	0.009	-0.000	0.000	0.000	0.000	-0.000	0.016
NOV	52.	-0.263	0.070	0.021	-0.000	0.000	0.000	0.000	-0.002	0.062
DEC	110.	-0.507	0.150	0.026	-0.008	0.008	0.000	0.000	-0.011	0.133
ANNUAL	451.	-2.141	0.611	0.141	-0.052	0.052	0.000	0.000	-0.035	0.542

HSPF (WITH PARASITICS) = 2.01 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.26 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys16CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.805	6	7	27.F	23.F	-14.633	416.	3.498
FEB	0.00000	28	24	40.F	38.F	0.000	-0.475	18	7	45.F	44.F	-7.968	330.	1.430
MAR	0.00000	31	1	48.F	44.F	0.000	-0.250	3	7	41.F	39.F	-6.784	326.	1.392
APR	0.00016	18	17	64.F	52.F	0.159	-0.041	7	7	39.F	39.F	-5.130	304.	1.168
MAY	0.22106	16	16	72.F	60.F	5.535	-0.010	12	7	48.F	44.F	-3.119	309.	1.530
JUN	0.61246	20	11	72.F	61.F	7.798	0.000	30	1	61.F	55.F	0.000	335.	1.727
JUL	1.53279	22	11	75.F	63.F	9.412	0.000	31	1	60.F	51.F	0.000	432.	2.009
AUG	1.25824	11	16	81.F	64.F	8.719	0.000	31	1	59.F	55.F	0.000	396.	1.882
SEP	0.59678	19	16	82.F	63.F	6.568	0.000	30	1	53.F	51.F	0.000	335.	1.681
OCT	0.00930	7	17	77.F	55.F	2.283	-0.049	27	7	50.F	49.F	-3.129	306.	1.259
NOV	0.00000	30	24	46.F	44.F	0.000	-0.370	24	7	46.F	45.F	-7.222	305.	1.457
DEC	0.00000	31	24	45.F	41.F	0.000	-0.786	29	7	37.F	35.F	-9.698	414.	1.924
TOTAL	4.231						-2.786						4209.	
MAX						9.412						-14.633		3.498

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys16CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
MAY	12.	0.221	0.047	0.004	0.000	0.000	0.000	0.000	0.000	0.017
JUN	33.	0.612	0.131	0.000	0.000	0.000	0.000	0.000	0.000	0.048
JUL	85.	1.533	0.344	0.000	0.000	0.000	0.000	0.000	0.000	0.122
AUG	69.	1.258	0.276	0.000	0.000	0.000	0.000	0.000	0.000	0.099
SEP	33.	0.597	0.130	0.001	0.000	0.000	0.000	0.000	0.000	0.047
OCT	1.	0.009	0.002	0.005	0.000	0.000	0.000	0.000	0.000	0.001
NOV	0.	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	232.	4.231	0.931	0.069	0.000	0.000	0.000	0.000	0.000	0.334

CSPF (WITH PARASITICS) = 3.17 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.54 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys16CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	85.	-0.805	0.254	0.022	-0.013	0.013	0.000	0.000	-0.021	0.130
FEB	46.	-0.475	0.139	0.020	0.000	0.000	0.000	0.000	-0.008	0.070
MAR	23.	-0.250	0.070	0.016	-0.000	0.000	0.000	0.000	-0.002	0.035
APR	4.	-0.041	0.012	0.010	0.000	0.000	0.000	0.000	-0.001	0.006
MAY	1.	-0.010	0.003	0.004	0.000	0.000	0.000	0.000	0.000	0.001
JUN	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
OCT	4.	-0.049	0.014	0.007	-0.000	0.000	0.000	0.000	-0.000	0.007
NOV	33.	-0.370	0.100	0.017	-0.000	0.000	0.000	0.000	-0.002	0.050
DEC	78.	-0.786	0.236	0.023	-0.002	0.002	0.000	0.000	-0.017	0.119
ANNUAL	275.	-2.786	0.826	0.120	-0.015	0.015	0.000	0.000	-0.051	0.418

HSPF (WITH PARASITICS) = 2.30 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.27 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys17CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-3.253	6	7	27.F	23.F	-36.565	989.	9.043
FEB	0.00000	28	24	40.F	38.F	0.000	-2.413	18	7	45.F	44.F	-20.005	773.	4.015
MAR	0.00000	31	1	48.F	44.F	0.000	-1.723	3	7	41.F	39.F	-18.341	715.	3.453
APR	0.00000	30	1	52.F	48.F	0.000	-0.663	7	7	39.F	39.F	-15.676	593.	3.049
MAY	0.10791	16	15	72.F	62.F	9.324	-0.218	12	7	48.F	44.F	-11.685	529.	2.568
JUN	0.53524	20	17	77.F	61.F	13.345	-0.008	2	7	54.F	53.F	-2.472	529.	2.968
JUL	2.25696	23	17	90.F	67.F	18.885	0.000	31	1	60.F	51.F	0.000	701.	3.707
AUG	1.55830	11	16	81.F	64.F	16.725	0.000	31	1	59.F	55.F	0.000	621.	3.332
SEP	0.39872	19	15	81.F	63.F	11.570	-0.032	29	7	48.F	45.F	-6.173	523.	2.848
OCT	0.00000	31	1	45.F	43.F	0.000	-0.787	22	7	37.F	36.F	-11.683	604.	2.451
NOV	0.00000	30	24	46.F	44.F	0.000	-2.032	24	7	46.F	45.F	-18.804	689.	3.440
DEC	0.00000	31	24	45.F	41.F	0.000	-3.273	29	7	37.F	35.F	-24.780	973.	5.320
TOTAL	4.857						-14.402						8238.	
MAX						18.885						-36.565		9.043

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys17CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.024	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.021	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.015	0.000	0.000	0.000	0.000	0.000	0.000
MAY	2.	0.108	0.023	0.008	0.000	0.000	0.000	0.000	0.000	0.007
JUN	11.	0.535	0.116	0.000	0.000	0.000	0.000	0.000	0.000	0.035
JUL	48.	2.257	0.517	0.000	0.000	0.000	0.000	0.000	0.000	0.154
AUG	32.	1.558	0.347	0.000	0.000	0.000	0.000	0.000	0.000	0.104
SEP	8.	0.399	0.090	0.002	0.000	0.000	0.000	0.000	0.000	0.027
OCT	0.	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.	0.000	0.000	0.021	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.024	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	102.	4.857	1.094	0.145	0.000	0.000	0.000	0.000	0.000	0.327

CSPF (WITH PARASITICS) = 3.10 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.44 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys17CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	153.	-3.253	0.959	0.052	-0.096	0.096	0.000	0.000	-0.065	0.520
FEB	106.	-2.413	0.672	0.050	-0.004	0.004	0.000	0.000	-0.028	0.361
MAR	72.	-1.723	0.455	0.045	0.000	0.000	0.000	0.000	-0.009	0.244
APR	27.	-0.663	0.173	0.029	0.000	0.000	0.000	0.000	-0.003	0.092
MAY	9.	-0.218	0.055	0.012	0.000	0.000	0.000	0.000	0.000	0.029
JUN	0.	-0.008	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	1.	-0.032	0.008	0.003	0.000	0.000	0.000	0.000	0.000	0.004
OCT	31.	-0.787	0.201	0.020	0.000	0.000	0.000	0.000	-0.002	0.105
NOV	83.	-2.032	0.526	0.044	-0.000	0.000	0.000	0.000	-0.008	0.281
DEC	148.	-3.273	0.940	0.055	-0.019	0.019	0.000	0.000	-0.056	0.505
ANNUAL	631.	-14.402	3.992	0.310	-0.119	0.119	0.000	0.000	-0.171	2.142

HSPF (WITH PARASITICS) = 2.51 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.49 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys18CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-2.508	6	7	27.F	23.F	-29.750	688.	7.494
FEB	0.00000	28	24	40.F	38.F	0.000	-1.924	18	7	45.F	44.F	-17.114	534.	3.518
MAR	0.00000	31	1	48.F	44.F	0.000	-1.428	3	7	41.F	39.F	-15.817	485.	2.453
APR	0.00000	30	1	52.F	48.F	0.000	-0.679	7	7	39.F	39.F	-13.873	397.	2.729
MAY	0.03767	16	17	72.F	60.F	4.681	-0.292	12	7	48.F	44.F	-11.107	341.	1.670
JUN	0.21151	20	17	77.F	61.F	6.857	-0.050	2	7	54.F	53.F	-4.915	322.	1.725
JUL	1.09379	23	17	90.F	67.F	10.968	0.000	31	1	60.F	51.F	0.000	410.	2.245
AUG	0.79550	11	17	81.F	63.F	9.464	-0.002	25	7	54.F	53.F	-1.744	372.	2.000
SEP	0.16746	19	17	81.F	62.F	6.192	-0.063	29	7	48.F	45.F	-7.043	321.	1.691
OCT	0.00000	31	1	45.F	43.F	0.000	-0.771	14	7	50.F	47.F	-10.490	404.	1.966
NOV	0.00000	30	24	46.F	44.F	0.000	-1.625	24	7	46.F	45.F	-15.760	469.	2.813
DEC	0.00000	31	24	45.F	41.F	0.000	-2.539	29	7	37.F	35.F	-20.688	672.	4.645
TOTAL	2.306						-11.879						5415.	
MAX						10.968						-29.750		7.494

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys18CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.016	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000
MAY	1.	0.038	0.008	0.005	0.000	0.000	0.000	0.000	0.000	0.003
JUN	7.	0.212	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.016
JUL	36.	1.094	0.253	0.000	0.000	0.000	0.000	0.000	0.000	0.084
AUG	26.	0.795	0.178	0.000	0.000	0.000	0.000	0.000	0.000	0.059
SEP	5.	0.167	0.038	0.001	0.000	0.000	0.000	0.000	0.000	0.013
OCT	0.	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.015	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	76.	2.306	0.523	0.091	0.000	0.000	0.000	0.000	0.000	0.174

CSPF (WITH PARASITICS) = 2.92 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.41 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys18CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	161.	-2.508	0.727	0.033	-0.105	0.105	0.000	0.000	-0.049	0.394
FEB	117.	-1.924	0.532	0.031	-0.011	0.011	0.000	0.000	-0.022	0.286
MAR	83.	-1.428	0.376	0.028	0.000	0.000	0.000	0.000	-0.007	0.201
APR	38.	-0.679	0.175	0.018	-0.001	0.001	0.000	0.000	-0.002	0.093
MAY	16.	-0.292	0.073	0.008	0.000	0.000	0.000	0.000	0.000	0.038
JUN	3.	-0.050	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.006
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	-0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	3.	-0.063	0.016	0.002	0.000	0.000	0.000	0.000	0.000	0.008
OCT	42.	-0.771	0.194	0.012	0.000	0.000	0.000	0.000	-0.002	0.102
NOV	92.	-1.625	0.419	0.028	-0.001	0.001	0.000	0.000	-0.006	0.224
DEC	159.	-2.539	0.723	0.034	-0.028	0.028	0.000	0.000	-0.043	0.388
ANNUAL	714.	-11.879	3.248	0.194	-0.147	0.147	0.000	0.000	-0.132	1.742

HSPF (WITH PARASITICS) = 2.56 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.50 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys19CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.826	6	7	27.F	23.F	-23.847	532.	6.004
FEB	0.00000	28	24	40.F	38.F	0.000	-1.449	18	7	45.F	44.F	-13.816	424.	2.641
MAR	0.00000	31	1	48.F	44.F	0.000	-1.151	3	7	41.F	39.F	-12.566	397.	1.931
APR	0.00000	30	1	52.F	48.F	0.000	-0.671	7	7	39.F	39.F	-11.121	339.	2.184
MAY	0.01039	16	16	72.F	60.F	3.027	-0.324	12	7	48.F	44.F	-9.460	288.	1.460
JUN	0.07624	20	16	75.F	62.F	6.140	-0.069	2	7	54.F	53.F	-4.916	258.	1.417
JUL	0.64885	23	16	88.F	65.F	9.600	-0.001	5	8	54.F	51.F	-0.422	311.	1.831
AUG	0.44353	12	16	82.F	64.F	8.703	-0.002	25	7	54.F	53.F	-1.353	285.	1.692
SEP	0.06363	19	15	81.F	63.F	4.741	-0.055	29	7	48.F	45.F	-5.477	257.	1.322
OCT	0.00000	31	1	45.F	43.F	0.000	-0.594	14	7	50.F	47.F	-8.517	328.	1.493
NOV	0.00000	30	24	46.F	44.F	0.000	-1.182	24	7	46.F	45.F	-12.430	370.	2.046
DEC	0.00000	31	24	45.F	41.F	0.000	-1.828	29	7	37.F	35.F	-16.025	520.	3.556
TOTAL	1.243						-9.153						4310.	
MAX						9.600						-23.847		6.004

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys19CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.016	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000
MAY	0.	0.010	0.002	0.005	0.000	0.000	0.000	0.000	0.000	0.001
JUN	2.	0.076	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.004
JUL	21.	0.649	0.153	0.000	0.000	0.000	0.000	0.000	0.000	0.039
AUG	14.	0.444	0.101	0.000	0.000	0.000	0.000	0.000	0.000	0.026
SEP	2.	0.064	0.015	0.001	0.000	0.000	0.000	0.000	0.000	0.004
OCT	0.	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.	0.000	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.016	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	39.	1.243	0.288	0.095	0.000	0.000	0.000	0.000	0.000	0.073

CSPF (WITH PARASITICS) = 2.72 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.32 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys19CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	147.	-1.826	0.536	0.035	-0.063	0.063	0.000	0.000	-0.037	0.291
FEB	110.	-1.449	0.402	0.033	-0.006	0.006	0.000	0.000	-0.017	0.216
MAR	82.	-1.151	0.302	0.029	0.000	0.000	0.000	0.000	-0.006	0.162
APR	46.	-0.671	0.171	0.019	-0.001	0.001	0.000	0.000	-0.002	0.090
MAY	21.	-0.324	0.080	0.008	0.000	0.000	0.000	0.000	0.000	0.042
JUN	4.	-0.069	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.008
JUL	0.	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	-0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	4.	-0.055	0.014	0.002	0.000	0.000	0.000	0.000	0.000	0.007
OCT	40.	-0.594	0.150	0.013	0.000	0.000	0.000	0.000	-0.001	0.078
NOV	83.	-1.182	0.306	0.030	-0.000	0.000	0.000	0.000	-0.005	0.164
DEC	142.	-1.828	0.523	0.037	-0.017	0.017	0.000	0.000	-0.031	0.281
ANNUAL	681.	-9.153	2.502	0.206	-0.087	0.087	0.000	0.000	-0.098	1.339

HSPF (WITH PARASITICS) = 2.54 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.53 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys2OFC WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-2.415	6	7	27.F	23.F	-54.658	1699.	9.765
FEB	0.00000	28	24	40.F	38.F	0.000	-1.745	18	7	45.F	44.F	-42.992	1449.	6.609
MAR	0.00000	31	1	48.F	44.F	0.000	-1.060	3	7	41.F	39.F	-34.482	1473.	5.791
APR	0.00000	30	1	52.F	48.F	0.000	-0.346	7	7	39.F	39.F	-28.291	1406.	5.356
MAY	0.29289	16	17	72.F	60.F	17.815	-0.077	12	7	48.F	44.F	-16.231	1350.	6.299
JUN	1.40857	20	17	77.F	61.F	29.255	-0.003	2	7	54.F	53.F	-2.881	1410.	7.416
JUL	4.60361	23	17	90.F	67.F	39.998	0.000	31	1	60.F	51.F	0.000	1754.	8.891
AUG	4.62098	13	17	77.F	63.F	37.840	0.000	31	1	59.F	55.F	0.000	1705.	8.314
SEP	2.82693	19	16	82.F	63.F	33.207	0.000	30	1	53.F	51.F	0.000	1536.	7.929
OCT	0.75488	9	17	57.F	56.F	19.230	-0.015	14	7	50.F	47.F	-6.123	1430.	6.377
NOV	0.00237	7	17	57.F	54.F	2.313	-0.400	24	7	46.F	45.F	-23.473	1244.	4.958
DEC	0.00000	31	24	45.F	41.F	0.000	-1.654	29	7	37.F	35.F	-40.294	1632.	7.223
TOTAL	14.510						-7.715						18089.	
MAX						39.998						-54.658		9.765

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys2OFC WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.069	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.064	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.056	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.042	0.000	0.000	0.000	0.000	0.000	0.000
MAY	3.	0.293	0.063	0.020	0.000	0.000	0.000	0.000	0.000	0.023
JUN	14.	1.409	0.303	0.001	0.000	0.000	0.000	0.000	0.000	0.109
JUL	45.	4.604	1.037	0.000	0.000	0.000	0.000	0.000	0.000	0.362
AUG	45.	4.621	1.011	0.000	0.000	0.000	0.000	0.000	0.000	0.356
SEP	28.	2.827	0.613	0.006	0.000	0.000	0.000	0.000	0.000	0.221
OCT	7.	0.755	0.161	0.034	0.000	0.000	0.000	0.000	0.000	0.058
NOV	0.	0.002	0.001	0.069	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.076	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	141.	14.510	3.188	0.438	0.000	0.000	0.000	0.000	0.000	1.129

CSPF (WITH PARASITICS) = 3.05 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.55 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys2OFC WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	39.	-2.415	0.793	0.120	-0.001	0.001	0.000	0.000	-0.066	0.328
FEB	25.	-1.745	0.522	0.103	0.000	0.000	0.000	0.000	-0.032	0.213
MAR	15.	-1.060	0.298	0.088	-0.000	0.000	0.000	0.000	-0.011	0.122
APR	5.	-0.346	0.096	0.055	0.000	0.000	0.000	0.000	-0.003	0.039
MAY	1.	-0.077	0.020	0.022	0.000	0.000	0.000	0.000	0.000	0.008
JUN	0.	-0.003	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000
OCT	0.	-0.015	0.004	0.035	0.000	0.000	0.000	0.000	0.000	0.002
NOV	6.	-0.400	0.114	0.083	-0.000	0.000	0.000	0.000	-0.005	0.046
DEC	25.	-1.654	0.526	0.119	-0.000	0.000	0.000	0.000	-0.047	0.213
ANNUAL	115.	-7.715	2.374	0.632	-0.001	0.001	0.000	0.000	-0.165	0.971

HSPF (WITH PARASITICS) = 2.14 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.18 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys21FC WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.106	6	7	27.F	23.F	-16.153	486.	3.447
FEB	0.00000	28	24	40.F	38.F	0.000	-0.774	18	7	45.F	44.F	-10.918	396.	1.991
MAR	0.00000	31	1	48.F	44.F	0.000	-0.502	3	7	41.F	39.F	-9.681	384.	1.583
APR	0.00000	30	1	52.F	48.F	0.000	-0.218	7	7	39.F	39.F	-8.855	352.	1.675
MAY	0.04482	16	17	72.F	60.F	5.139	-0.064	12	7	48.F	44.F	-5.588	324.	1.535
JUN	0.17970	20	17	77.F	61.F	9.783	-0.003	2	7	54.F	53.F	-1.834	320.	1.947
JUL	1.06646	23	17	90.F	67.F	15.048	0.000	31	1	60.F	51.F	0.000	409.	2.578
AUG	0.89750	12	16	82.F	64.F	12.732	0.000	31	1	59.F	55.F	0.000	383.	2.253
SEP	0.40342	19	16	82.F	63.F	11.691	-0.001	29	7	48.F	45.F	-0.809	340.	2.161
OCT	0.03711	7	17	77.F	55.F	6.674	-0.062	22	7	37.F	36.F	-3.894	336.	1.697
NOV	0.00000	30	24	46.F	44.F	0.000	-0.411	28	7	37.F	34.F	-8.761	336.	1.574
DEC	0.00000	31	24	45.F	41.F	0.000	-0.950	29	7	37.F	35.F	-11.561	469.	2.067
TOTAL	2.629						-4.091						4536.	
MAX						15.048						-16.153		3.447

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys21FC WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.022	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.020	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000
MAY	1.	0.045	0.010	0.006	0.000	0.000	0.000	0.000	0.000	0.002
JUN	5.	0.180	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.010
JUL	31.	1.066	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.059
AUG	26.	0.897	0.201	0.000	0.000	0.000	0.000	0.000	0.000	0.048
SEP	12.	0.403	0.091	0.002	0.000	0.000	0.000	0.000	0.000	0.022
OCT	1.	0.037	0.009	0.010	0.000	0.000	0.000	0.000	0.000	0.002
NOV	0.	0.000	0.000	0.020	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.022	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	76.	2.629	0.600	0.132	0.000	0.000	0.000	0.000	0.000	0.143

CSPF (WITH PARASITICS) = 3.01 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.38 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys21FC WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	80.	-1.106	0.353	0.039	-0.007	0.007	0.000	0.000	-0.028	0.160
FEB	52.	-0.774	0.229	0.035	0.000	0.000	0.000	0.000	-0.014	0.103
MAR	31.	-0.502	0.138	0.030	0.000	0.000	0.000	0.000	-0.005	0.062
APR	13.	-0.218	0.058	0.019	0.000	0.000	0.000	0.000	-0.001	0.026
MAY	4.	-0.064	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.007
JUN	0.	-0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	-0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
OCT	4.	-0.062	0.017	0.013	-0.000	0.000	0.000	0.000	-0.001	0.008
NOV	25.	-0.411	0.112	0.031	-0.000	0.000	0.000	0.000	-0.003	0.050
DEC	66.	-0.950	0.293	0.041	-0.000	0.000	0.000	0.000	-0.024	0.131
ANNUAL	276.	-4.091	1.219	0.220	-0.007	0.007	0.000	0.000	-0.077	0.547

HSPF (WITH PARASITICS) = 2.29 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.28 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys22CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.219	6	7	27.F	23.F	-7.432	152.	1.796
FEB	0.00026	21	17	57.F	53.F	0.255	-0.158	24	7	37.F	31.F	-4.078	129.	0.710
MAR	0.00594	21	16	68.F	50.F	0.785	-0.116	3	7	41.F	39.F	-4.066	133.	0.579
APR	0.03533	11	17	66.F	54.F	1.265	-0.070	7	7	39.F	39.F	-3.321	132.	0.627
MAY	0.11615	15	17	73.F	60.F	2.456	-0.031	5	7	46.F	45.F	-2.776	130.	0.652
JUN	0.21730	20	17	77.F	61.F	3.085	-0.004	2	7	54.F	53.F	-1.240	134.	0.721
JUL	0.47437	23	17	90.F	67.F	3.845	0.000	31	1	60.F	51.F	0.000	164.	0.844
AUG	0.44987	12	16	82.F	64.F	3.464	0.000	31	1	59.F	55.F	0.000	157.	0.774
SEP	0.29419	19	16	82.F	63.F	3.284	-0.001	29	7	48.F	45.F	-0.458	141.	0.756
OCT	0.11293	7	17	77.F	55.F	2.343	-0.025	27	7	50.F	49.F	-1.855	134.	0.652
NOV	0.00984	7	17	57.F	54.F	1.319	-0.090	24	7	46.F	45.F	-3.429	117.	0.578
DEC	0.00000	31	24	45.F	41.F	0.000	-0.184	29	7	37.F	35.F	-4.872	150.	1.001
TOTAL	1.716						-0.898						1675.	
MAX						3.845						-7.432		1.796

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys22CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000
MAR	1.	0.006	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.001
APR	5.	0.035	0.007	0.003	0.000	0.000	0.000	0.000	0.000	0.003
MAY	18.	0.116	0.025	0.001	0.000	0.000	0.000	0.000	0.000	0.011
JUN	33.	0.217	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.020
JUL	73.	0.474	0.108	0.000	0.000	0.000	0.000	0.000	0.000	0.044
AUG	68.	0.450	0.099	0.000	0.000	0.000	0.000	0.000	0.000	0.041
SEP	45.	0.294	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.027
OCT	17.	0.113	0.024	0.002	0.000	0.000	0.000	0.000	0.000	0.010
NOV	1.	0.010	0.002	0.004	0.000	0.000	0.000	0.000	0.000	0.001
DEC	0.	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	260.	1.716	0.377	0.029	0.000	0.000	0.000	0.000	0.000	0.156

CSPF (WITH PARASITICS) = 3.05 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.55 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys22CB WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	51.	-0.219	0.069	0.007	-0.008	0.008	0.000	0.000	-0.006	0.032
FEB	35.	-0.158	0.048	0.006	-0.000	0.000	0.000	0.000	-0.004	0.022
MAR	24.	-0.116	0.032	0.005	-0.000	0.000	0.000	0.000	-0.001	0.015
APR	14.	-0.070	0.019	0.004	0.000	0.000	0.000	0.000	-0.001	0.009
MAY	6.	-0.031	0.008	0.002	0.000	0.000	0.000	0.000	0.000	0.004
JUN	1.	-0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OCT	5.	-0.025	0.007	0.002	-0.000	0.000	0.000	0.000	-0.000	0.003
NOV	18.	-0.090	0.025	0.005	-0.000	0.000	0.000	0.000	-0.001	0.012
DEC	41.	-0.184	0.057	0.007	-0.002	0.002	0.000	0.000	-0.005	0.026
ANNUAL	195.	-0.898	0.266	0.040	-0.010	0.010	0.000	0.000	-0.018	0.124

HSPF (WITH PARASITICS) = 2.30 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.22 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys23DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.012	6	7	27.F	23.F	-1.262	32.	0.221
FEB	0.00000	28	24	40.F	38.F	0.000	-0.005	18	7	45.F	44.F	-0.682	28.	0.111
MAR	0.00000	31	1	48.F	44.F	0.000	-0.001	3	7	41.F	39.F	-0.445	31.	0.111
APR	0.00011	18	17	64.F	52.F	0.107	-0.000	7	7	39.F	39.F	-0.138	31.	0.118
MAY	0.03612	23	17	64.F	53.F	0.643	0.000	31	1	56.F	51.F	0.000	33.	0.166
JUN	0.08578	26	17	63.F	56.F	0.738	0.000	30	1	61.F	55.F	0.000	37.	0.175
JUL	0.17125	14	12	61.F	55.F	0.830	0.000	31	1	60.F	51.F	0.000	46.	0.192
AUG	0.15427	11	11	64.F	58.F	0.854	0.000	31	1	59.F	55.F	0.000	44.	0.191
SEP	0.11333	15	17	57.F	55.F	0.735	0.000	30	1	53.F	51.F	0.000	39.	0.178
OCT	0.01238	7	15	73.F	55.F	0.534	0.000	31	1	45.F	43.F	0.000	32.	0.156
NOV	0.00000	30	24	46.F	44.F	0.000	-0.003	24	7	46.F	45.F	-0.491	27.	0.111
DEC	0.00000	31	24	45.F	41.F	0.000	-0.009	29	7	37.F	35.F	-0.834	33.	0.150
TOTAL	0.573						-0.029						414.	
MAX						0.854						-1.262		0.221

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys23DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
MAY	15.	0.036	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.003
JUN	37.	0.086	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.007
JUL	77.	0.171	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.016
AUG	69.	0.154	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.014
SEP	50.	0.113	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.010
OCT	5.	0.012	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.001
NOV	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	252.	0.573	0.125	0.012	0.000	0.000	0.000	0.000	0.000	0.051

CSPF (WITH PARASITICS) = 3.05 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.60 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys23DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	7.	-0.012	0.004	0.002	0.000	0.000	0.000	0.000	-0.000	0.002
FEB	3.	-0.005	0.001	0.002	0.000	0.000	0.000	0.000	-0.000	0.001
MAR	1.	-0.001	0.000	0.002	0.000	0.000	0.000	0.000	-0.000	0.000
APR	0.	-0.000	0.000	0.001	0.000	0.000	0.000	0.000	-0.000	0.000
MAY	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUN	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OCT	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
NOV	1.	-0.003	0.001	0.002	0.000	0.000	0.000	0.000	-0.000	0.000
DEC	5.	-0.009	0.003	0.002	0.000	0.000	0.000	0.000	-0.000	0.001
ANNUAL	18.	-0.029	0.009	0.013	0.000	0.000	0.000	0.000	-0.001	0.004

HSPF (WITH PARASITICS) = 1.23 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.01 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys24DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.136	6	7	27.F	23.F	-3.654	49.	0.913
FEB	0.00000	28	24	40.F	38.F	0.000	-0.099	3	7	46.F	43.F	-2.224	39.	0.447
MAR	0.00000	31	1	48.F	44.F	0.000	-0.069	3	7	41.F	39.F	-2.027	36.	0.263
APR	0.00000	30	1	52.F	48.F	0.000	-0.036	7	7	39.F	39.F	-1.770	33.	0.347
MAY	0.00153	16	17	72.F	60.F	0.452	-0.017	12	7	48.F	44.F	-1.474	29.	0.177
JUN	0.01569	20	17	77.F	61.F	0.519	-0.003	2	7	54.F	53.F	-0.602	28.	0.152
JUL	0.08940	24	17	81.F	65.F	0.715	0.000	31	1	60.F	51.F	0.000	37.	0.182
AUG	0.06609	11	17	81.F	63.F	0.752	0.000	31	1	59.F	55.F	0.000	33.	0.179
SEP	0.01068	19	17	81.F	62.F	0.490	-0.002	29	7	48.F	45.F	-0.641	28.	0.149
OCT	0.00000	31	1	45.F	43.F	0.000	-0.032	14	7	50.F	47.F	-1.414	32.	0.173
NOV	0.00000	30	24	46.F	44.F	0.000	-0.083	24	7	46.F	45.F	-2.137	35.	0.357
DEC	0.00000	31	24	45.F	41.F	0.000	-0.133	29	7	37.F	35.F	-2.887	48.	0.664
TOTAL	0.183						-0.610						427.	
MAX						0.752						-3.654		0.913

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys24DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
MAY	1.	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUN	6.	0.016	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.002
JUL	37.	0.089	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.011
AUG	27.	0.066	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.008
SEP	4.	0.011	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001
OCT	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	74.	0.183	0.041	0.008	0.000	0.000	0.000	0.000	0.000	0.021

CSPF (WITH PARASITICS) = 2.60 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.47 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys24DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	73.	-0.136	0.041	0.003	-0.006	0.006	0.000	0.000	-0.003	0.022
FEB	50.	-0.099	0.029	0.003	-0.001	0.001	0.000	0.000	-0.002	0.015
MAR	33.	-0.069	0.019	0.002	-0.000	0.000	0.000	0.000	-0.001	0.010
APR	17.	-0.036	0.010	0.001	-0.000	0.000	0.000	0.000	-0.000	0.005
MAY	8.	-0.017	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.002
JUN	1.	-0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	1.	-0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OCT	15.	-0.032	0.008	0.001	-0.000	0.000	0.000	0.000	-0.000	0.004
NOV	39.	-0.083	0.022	0.002	-0.000	0.000	0.000	0.000	-0.001	0.012
DEC	68.	-0.133	0.039	0.003	-0.003	0.003	0.000	0.000	-0.003	0.021
ANNUAL	304.	-0.610	0.173	0.016	-0.011	0.011	0.000	0.000	-0.009	0.092

HSPF (WITH PARASITICS) = 2.41 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.33 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys25DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-2.601	6	7	27.F	23.F	-25.515	500.	6.347
FEB	0.00000	28	24	40.F	38.F	0.000	-1.958	10	7	37.F	36.F	-15.261	362.	3.358
MAR	0.00000	31	1	48.F	44.F	0.000	-1.501	3	7	41.F	39.F	-13.746	297.	2.036
APR	0.00000	30	1	52.F	48.F	0.000	-0.781	7	7	39.F	39.F	-12.519	210.	2.441
MAY	0.08037	16	11	64.F	57.F	6.026	-0.351	12	7	48.F	44.F	-9.424	161.	1.110
JUN	0.33137	20	11	72.F	61.F	10.567	-0.082	4	7	54.F	50.F	-4.425	153.	1.460
JUL	1.22369	23	11	75.F	63.F	12.373	-0.001	29	7	57.F	55.F	-0.397	241.	1.674
AUG	0.81435	12	11	72.F	63.F	10.001	-0.012	25	7	54.F	53.F	-2.451	195.	1.402
SEP	0.23701	22	11	70.F	59.F	5.732	-0.146	29	7	48.F	45.F	-6.703	151.	0.967
OCT	0.00000	31	1	45.F	43.F	0.000	-0.985	22	7	37.F	36.F	-9.964	229.	1.878
NOV	0.00000	30	24	46.F	44.F	0.000	-1.772	28	7	37.F	34.F	-14.643	312.	2.740
DEC	0.00000	31	24	45.F	41.F	0.000	-2.657	29	7	37.F	35.F	-18.476	483.	4.201
TOTAL	2.687						-12.846						3295.	
MAX						12.373						-25.515		6.347

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys25DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
MAY	5.	0.080	0.017	0.002	0.000	0.000	0.000	0.000	0.000	0.009
JUN	20.	0.331	0.071	0.000	0.000	0.000	0.000	0.000	0.000	0.039
JUL	74.	1.224	0.278	0.000	0.000	0.000	0.000	0.000	0.000	0.148
AUG	49.	0.814	0.180	0.000	0.000	0.000	0.000	0.000	0.000	0.097
SEP	14.	0.237	0.053	0.001	0.000	0.000	0.000	0.000	0.000	0.028
OCT	0.	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	161.	2.687	0.599	0.049	0.000	0.000	0.000	0.000	0.000	0.322

CSPF (WITH PARASITICS) = 2.77 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.49 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys25DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	189.	-2.601	0.740	0.016	-0.111	0.111	0.000	0.000	-0.046	0.402
FEB	136.	-1.958	0.535	0.016	-0.021	0.021	0.000	0.000	-0.021	0.288
MAR	99.	-1.501	0.392	0.014	0.000	0.000	0.000	0.000	-0.007	0.210
APR	50.	-0.781	0.199	0.010	-0.001	0.001	0.000	0.000	-0.002	0.105
MAY	22.	-0.351	0.087	0.004	0.000	0.000	0.000	0.000	0.000	0.046
JUN	5.	-0.082	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.010
JUL	0.	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	1.	-0.012	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.001
SEP	9.	-0.146	0.036	0.001	0.000	0.000	0.000	0.000	0.000	0.018
OCT	61.	-0.985	0.245	0.006	0.000	0.000	0.000	0.000	-0.002	0.128
NOV	115.	-1.772	0.453	0.014	-0.004	0.004	0.000	0.000	-0.006	0.243
DEC	190.	-2.657	0.747	0.017	-0.036	0.036	0.000	0.000	-0.041	0.402
ANNUAL	876.	-12.846	3.457	0.099	-0.173	0.173	0.000	0.000	-0.126	1.854

HSPF (WITH PARASITICS) = 2.64 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.55 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys26DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.183	6	7	27.F	23.F	-4.861	92.	0.910
FEB	0.00000	28	24	40.F	38.F	0.000	-0.143	18	7	45.F	44.F	-4.059	77.	0.545
MAR	0.00000	31	1	48.F	44.F	0.000	-0.086	3	7	41.F	39.F	-3.084	75.	0.391
APR	0.00000	30	1	52.F	48.F	0.000	-0.028	7	7	39.F	39.F	-2.386	68.	0.436
MAY	0.00000	31	1	56.F	51.F	0.000	-0.008	12	7	48.F	44.F	-1.499	63.	0.240
JUN	0.02550	20	17	77.F	61.F	1.029	-0.000	2	7	54.F	53.F	-0.311	63.	0.322
JUL	0.16464	24	17	81.F	65.F	1.457	0.000	31	1	60.F	51.F	0.000	79.	0.379
AUG	0.19974	15	17	75.F	64.F	1.524	0.000	31	1	59.F	55.F	0.000	80.	0.375
SEP	0.13890	19	17	81.F	62.F	1.391	0.000	30	1	53.F	51.F	0.000	73.	0.365
OCT	0.02810	3	17	59.F	49.F	1.044	-0.000	14	7	50.F	47.F	-0.150	67.	0.318
NOV	0.00000	30	24	46.F	44.F	0.000	-0.021	24	7	46.F	45.F	-1.887	60.	0.291
DEC	0.00000	31	24	45.F	41.F	0.000	-0.106	29	7	37.F	35.F	-3.496	82.	0.612
TOTAL	0.557						-0.576						878.	
MAX						1.524						-4.861		0.910

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys26DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000
MAY	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
JUN	3.	0.025	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.002
JUL	23.	0.165	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.016
AUG	28.	0.200	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.020
SEP	19.	0.139	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.013
OCT	4.	0.028	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.002
NOV	0.	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	77.	0.557	0.122	0.031	0.000	0.000	0.000	0.000	0.000	0.054

CSPF (WITH PARASITICS) = 2.69 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.56 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys26DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	36.	-0.183	0.060	0.009	-0.001	0.001	0.000	0.000	-0.005	0.026
FEB	25.	-0.143	0.042	0.007	0.000	0.000	0.000	0.000	-0.002	0.018
MAR	14.	-0.086	0.024	0.006	-0.000	0.000	0.000	0.000	-0.001	0.011
APR	5.	-0.028	0.008	0.004	0.000	0.000	0.000	0.000	-0.000	0.003
MAY	1.	-0.008	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.001
JUN	0.	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OCT	0.	-0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
NOV	4.	-0.021	0.006	0.006	-0.000	0.000	0.000	0.000	-0.000	0.003
DEC	20.	-0.106	0.033	0.008	0.000	0.000	0.000	0.000	-0.003	0.015
ANNUAL	105.	-0.576	0.175	0.045	-0.001	0.001	0.000	0.000	-0.012	0.077

HSPF (WITH PARASITICS) = 2.16 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.21 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys27DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.393	6	7	27.F	23.F	-8.117	150.	1.876
FEB	0.00000	28	24	40.F	38.F	0.000	-0.148	4	7	30.F	30.F	-5.502	98.	1.204
MAR	0.00000	31	1	48.F	44.F	0.000	-0.045	3	7	41.F	39.F	-3.669	90.	0.514
APR	0.00000	30	1	52.F	48.F	0.000	-0.008	7	7	39.F	39.F	-3.934	87.	0.633
MAY	0.02841	16	15	72.F	62.F	1.303	-0.001	12	7	48.F	44.F	-0.780	86.	0.407
JUN	0.10203	20	15	75.F	62.F	1.962	0.000	30	1	61.F	55.F	0.000	90.	0.465
JUL	0.32927	23	15	86.F	66.F	2.925	0.000	31	1	60.F	51.F	0.000	113.	0.579
AUG	0.29309	11	15	79.F	64.F	2.582	0.000	31	1	59.F	55.F	0.000	107.	0.527
SEP	0.14415	19	16	82.F	63.F	1.837	0.000	30	1	53.F	51.F	0.000	94.	0.466
OCT	0.00429	7	17	77.F	55.F	0.629	-0.000	27	7	50.F	49.F	-0.298	86.	0.356
NOV	0.00000	30	24	46.F	44.F	0.000	-0.055	28	7	37.F	34.F	-4.787	82.	0.747
DEC	0.00000	31	24	45.F	41.F	0.000	-0.243	29	7	37.F	35.F	-5.822	124.	1.190
TOTAL	0.901						-0.893						1207.	
MAX						2.925						-8.117		1.876

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys27DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000
MAY	5.	0.028	0.006	0.001	0.000	0.000	0.000	0.000	0.000	0.002
JUN	17.	0.102	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.006
JUL	55.	0.329	0.076	0.000	0.000	0.000	0.000	0.000	0.000	0.019
AUG	48.	0.293	0.065	0.000	0.000	0.000	0.000	0.000	0.000	0.017
SEP	24.	0.144	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.009
OCT	1.	0.004	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	149.	0.901	0.203	0.029	0.000	0.000	0.000	0.000	0.000	0.053

CSPF (WITH PARASITICS) = 3.16 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.43 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys27DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	81.	-0.393	0.113	0.006	-0.067	0.067	0.000	0.000	-0.012	0.028
FEB	31.	-0.148	0.044	0.006	-0.011	0.011	0.000	0.000	-0.005	0.011
MAR	9.	-0.045	0.013	0.005	-0.000	0.000	0.000	0.000	-0.001	0.003
APR	2.	-0.008	0.003	0.003	0.000	0.000	0.000	0.000	-0.000	0.001
MAY	0.	-0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
JUN	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OCT	0.	-0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
NOV	12.	-0.055	0.017	0.005	-0.000	0.000	0.000	0.000	-0.001	0.004
DEC	53.	-0.243	0.076	0.007	-0.017	0.017	0.000	0.000	-0.009	0.019
ANNUAL	188.	-0.893	0.267	0.035	-0.095	0.095	0.000	0.000	-0.029	0.066

HSPF (WITH PARASITICS) = 2.22 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 2.65 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys28DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.007	6	7	27.F	23.F	-1.082	32.	0.193
FEB	0.00000	28	24	40.F	38.F	0.000	-0.002	18	7	45.F	44.F	-0.431	28.	0.111
MAR	0.00000	31	1	48.F	44.F	0.000	-0.000	3	7	41.F	39.F	-0.176	30.	0.111
APR	0.00656	18	16	64.F	54.F	0.434	0.000	30	1	52.F	48.F	0.000	31.	0.146
MAY	0.04071	16	17	72.F	60.F	0.540	0.000	31	1	56.F	51.F	0.000	33.	0.158
JUN	0.07893	26	17	63.F	56.F	0.610	0.000	30	1	61.F	55.F	0.000	36.	0.165
JUL	0.14104	14	11	61.F	55.F	0.724	0.000	31	1	60.F	51.F	0.000	43.	0.179
AUG	0.12892	11	10	63.F	58.F	0.742	0.000	31	1	59.F	55.F	0.000	41.	0.180
SEP	0.10313	15	17	57.F	55.F	0.651	0.000	30	1	53.F	51.F	0.000	39.	0.171
OCT	0.02268	7	15	73.F	55.F	0.510	0.000	31	1	45.F	43.F	0.000	33.	0.156
NOV	0.00000	30	24	46.F	44.F	0.000	-0.000	24	7	46.F	45.F	-0.204	27.	0.111
DEC	0.00000	31	24	45.F	41.F	0.000	-0.005	29	7	37.F	35.F	-0.674	32.	0.125
TOTAL	0.522						-0.014						407.	
MAX						0.742						-1.082		0.193

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys28DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
APR	3.	0.007	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
MAY	18.	0.041	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.003
JUN	37.	0.079	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.007
JUL	69.	0.141	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.013
AUG	63.	0.129	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.012
SEP	49.	0.103	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.009
OCT	10.	0.023	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.002
NOV	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	249.	0.522	0.113	0.011	0.000	0.000	0.000	0.000	0.000	0.047

CSPF (WITH PARASITICS) = 3.04 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.61 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys28DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	5.	-0.007	0.003	0.002	0.000	0.000	0.000	0.000	-0.000	0.001
FEB	1.	-0.002	0.001	0.002	0.000	0.000	0.000	0.000	-0.000	0.000
MAR	0.	-0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
MAY	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUN	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OCT	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.	-0.000	0.000	0.002	0.000	0.000	0.000	0.000	-0.000	0.000
DEC	3.	-0.005	0.001	0.002	0.000	0.000	0.000	0.000	-0.000	0.001
ANNUAL	10.	-0.014	0.005	0.012	0.000	0.000	0.000	0.000	-0.000	0.002

HSPF (WITH PARASITICS) = 0.86 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 2.91 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Sys29DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.205	6	7	27.F	23.F	-4.898	115.	1.188
FEB	0.00000	28	24	40.F	38.F	0.000	-0.139	18	7	45.F	44.F	-2.699	95.	0.440
MAR	0.00000	31	1	48.F	44.F	0.000	-0.077	3	7	41.F	39.F	-2.355	94.	0.394
APR	0.00000	30	1	52.F	48.F	0.000	-0.019	7	7	39.F	39.F	-1.709	88.	0.352
MAY	0.02104	16	15	72.F	62.F	1.318	-0.007	12	7	48.F	44.F	-1.347	86.	0.426
JUN	0.08922	20	15	75.F	62.F	1.603	0.000	30	1	61.F	55.F	0.000	90.	0.460
JUL	0.28923	22	15	86.F	65.F	2.043	0.000	31	1	60.F	51.F	0.000	113.	0.529
AUG	0.24942	11	15	79.F	64.F	1.974	0.000	31	1	59.F	55.F	0.000	106.	0.508
SEP	0.12278	19	15	81.F	63.F	1.548	0.000	30	1	53.F	51.F	0.000	93.	0.463
OCT	0.00000	31	1	45.F	43.F	0.000	-0.013	27	7	50.F	49.F	-1.039	87.	0.305
NOV	0.00000	30	24	46.F	44.F	0.000	-0.091	24	7	46.F	45.F	-2.389	85.	0.404
DEC	0.00000	31	24	45.F	41.F	0.000	-0.193	29	7	37.F	35.F	-3.150	114.	0.637
TOTAL	0.772						-0.743						1166.	
MAX						2.043						-4.898		1.188

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Cooling Summary for Sys29DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)		INDOOR FAN ENERGY (MBTU)
JAN	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
FEB	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
MAY	5.	0.021	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.002
JUN	22.	0.089	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.010
JUL	73.	0.289	0.065	0.000	0.000	0.000	0.000	0.000	0.000	0.032
AUG	62.	0.249	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.027
SEP	30.	0.123	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.013
OCT	0.	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
ANNUAL	193.	0.772	0.170	0.015	0.000	0.000	0.000	0.000	0.000	0.085

CSPF (WITH PARASITICS) = 2.86 (KBTU/HR)

CSPF (WITHOUT PARASITICS) = 4.53 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-Q Heat Pump Heating Summary for Sys29DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	UNIT RUN TIME (HOURS)	TOTAL LOAD ON UNIT (MBTU)	ENERGY IN TO UNIT (MBTU)	AUXILIARY ENERGY (MBTU)	SUP UNIT LOAD (MBTU)	SUP UNIT ENERGY (MBTU)	WASTE HEAT GENERATED (MBTU)	WASTE HEAT USE (MBTU)	DEFROST LOAD (MBTU)	INDOOR FAN ENERGY (MBTU)
JAN	71.	-0.205	0.065	0.005	-0.005	0.005	0.000	0.000	-0.005	0.033
FEB	44.	-0.139	0.041	0.004	0.000	0.000	0.000	0.000	-0.002	0.020
MAR	23.	-0.077	0.021	0.003	-0.000	0.000	0.000	0.000	-0.001	0.011
APR	6.	-0.019	0.005	0.002	0.000	0.000	0.000	0.000	-0.000	0.003
MAY	2.	-0.007	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.001
JUN	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OCT	4.	-0.013	0.004	0.001	-0.000	0.000	0.000	0.000	-0.000	0.002
NOV	27.	-0.091	0.025	0.004	-0.000	0.000	0.000	0.000	-0.001	0.012
DEC	62.	-0.193	0.058	0.005	-0.001	0.001	0.000	0.000	-0.004	0.029
ANNUAL	238.	-0.743	0.220	0.026	-0.005	0.005	0.000	0.000	-0.014	0.110

HSPF (WITH PARASITICS) = 2.34 (KBTU/HR)

HSPF (WITHOUT PARASITICS) = 3.26 (BTU/BTU)

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for Uncon WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.720	6	6	27.F	24.F	-17.822	2599.	9.333
FEB	0.00000	28	24	40.F	38.F	0.000	-1.496	18	6	45.F	44.F	-17.409	2358.	9.333
MAR	0.00264	28	17	59.F	49.F	0.307	-1.243	3	6	41.F	39.F	-15.042	2618.	9.333
APR	0.05404	18	17	64.F	52.F	0.605	-0.718	7	6	39.F	38.F	-12.110	2676.	9.333
MAY	0.11660	23	17	64.F	53.F	0.771	-0.310	12	6	45.F	40.F	-9.300	2618.	9.333
JUN	0.17969	26	17	63.F	56.F	0.816	-0.049	2	6	54.F	51.F	-5.420	2582.	9.333
JUL	0.41495	24	17	81.F	65.F	3.340	0.000	31	1	60.F	51.F	0.000	2694.	9.333
AUG	0.50418	13	17	77.F	63.F	3.663	0.000	31	1	59.F	55.F	0.000	2618.	9.333
SEP	0.35034	19	17	81.F	62.F	3.116	0.000	30	1	53.F	51.F	0.000	2582.	9.333
OCT	0.06432	3	17	59.F	49.F	1.308	-0.062	27	6	50.F	48.F	-4.493	2694.	9.333
NOV	0.00016	7	17	57.F	54.F	0.099	-0.580	24	6	46.F	44.F	-11.500	2317.	9.333
DEC	0.00000	31	24	45.F	41.F	0.000	-1.380	29	6	37.F	35.F	-16.532	2694.	9.333
TOTAL	1.687						-7.558						31048.	
MAX						3.663						-17.822		9.333

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- SS-A System Loads Summary for DOAS-Base WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	0.000	31	24	39.F	38.F	0.000	1191.	3.101
FEB	0.00000	28	24	40.F	38.F	0.000	0.000	28	24	40.F	38.F	0.000	1092.	3.101
MAR	0.00000	31	1	48.F	44.F	0.000	0.000	31	1	48.F	44.F	0.000	1228.	3.101
APR	0.00000	30	1	52.F	48.F	0.000	0.000	30	1	52.F	48.F	0.000	1240.	3.101
MAY	0.00000	31	1	56.F	51.F	0.000	0.000	31	1	56.F	51.F	0.000	1228.	3.101
JUN	0.00000	30	1	61.F	55.F	0.000	0.000	30	1	61.F	55.F	0.000	1191.	3.101
JUL	0.00000	31	1	60.F	51.F	0.000	0.000	31	1	60.F	51.F	0.000	1240.	3.101
AUG	0.00000	31	1	59.F	55.F	0.000	0.000	31	1	59.F	55.F	0.000	1228.	3.101
SEP	0.00000	30	1	53.F	51.F	0.000	0.000	30	1	53.F	51.F	0.000	1191.	3.101
OCT	0.00000	31	1	45.F	43.F	0.000	0.000	31	1	45.F	43.F	0.000	1240.	3.101
NOV	0.00000	30	24	46.F	44.F	0.000	0.000	30	24	46.F	44.F	0.000	1079.	3.101
DEC	0.00000	31	24	45.F	41.F	0.000	0.000	31	24	45.F	41.F	0.000	1240.	3.101
TOTAL	0.000						0.000						14390.	
MAX						0.000						0.000		3.101

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- ERV Energy Recovery Summary for: DOAS-Base WEATHER FILE- SEATTLE BOEING FI WA

AIR FLOW			POWER CONSUMPTION			
OUTDOOR (CFM)	EXHAUST (CFM)	PURGE (CFM)	OA FAN (KW)	EXH FAN (KW)	HT EXCH (KW)	PREHEAT (KBTU/HR)
3988.	3988.	0.	0.000	0.000	0.000	0.

		SENSIBLE		TOTAL		EXCESS SENSIBLE		POWER	PREHEAT		HOURS	
MON	SUM / PEAK	HEATING (MBTU) (KBTU/HR)	COOLING (MBTU) (KBTU/HR)	HEATING (MBTU) (KBTU/HR)	COOLING (MBTU) (KBTU/HR)	HEATING (MBTU) (KBTU/HR)	COOLING (MBTU) (KBTU/HR)	FANS&HX (KWH) (KW)	HEATING (MBTU) (KBTU/HR)	ELECTRIC (KWH) (KW)	HEAT	COOL
JAN	SUM	-23.494	0.000	-30.974	0.000	-23.494	0.000	0.000	0.000	0.000	384	0
	PEAK	-101.579	0.000	-128.596	0.000	-101.579	0.000	0.000	0.000	0.000		
	DAY/HR	6/ 9	0/ 0	3/17	0/ 0	6/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-19.731	0.000	-26.545	0.000	-19.731	0.000	0.000	0.000	0.000	352	0
	PEAK	-93.000	0.000	-109.232	0.000	-93.000	0.000	0.000	0.000	0.000		
	DAY/HR	27/ 7	0/ 0	24/ 7	0/ 0	27/ 7	0/ 0	0/ 0	0/ 0	0/ 0		
MAR	SUM	-18.499	0.024	-25.515	0.000	-18.495	0.000	0.000	0.000	0.000	385	5
	PEAK	-69.657	8.779	-98.689	0.000	-69.657	0.000	0.000	0.000	0.000		
	DAY/HR	13/ 9	29/15	10/ 7	0/ 0	13/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
APR	SUM	-15.356	0.000	-21.354	0.000	-15.342	0.000	0.000	0.000	0.000	394	0
	PEAK	-75.869	0.000	-91.758	0.000	-75.869	0.000	0.000	0.000	0.000		
	DAY/HR	24/ 7	0/ 0	4/17	0/ 0	24/ 7	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-10.783	0.000	-14.479	0.000	-10.760	0.000	0.000	0.000	0.000	349	0
	PEAK	-60.687	0.000	-113.222	0.000	-60.687	0.000	0.000	0.000	0.000		
	DAY/HR	6/ 7	0/ 0	9/17	0/ 0	6/ 7	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-5.966	0.000	-7.672	0.000	-5.940	0.000	0.000	0.000	0.000	277	1
	PEAK	-50.147	0.184	-68.593	0.000	-50.147	0.000	0.000	0.000	0.000		
	DAY/HR	6/10	20/17	3/11	0/ 0	6/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUL	SUM	-2.593	0.705	-3.174	1.067	-2.576	0.000	0.000	0.000	0.000	164	69
	PEAK	-44.471	28.087	-59.118	39.504	-44.471	0.000	0.000	0.000	0.000		
	DAY/HR	31/ 7	23/18	1/ 9	23/20	31/ 7	0/ 0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-2.451	0.214	-2.849	0.245	-2.435	0.000	0.000	0.000	0.000	154	30
	PEAK	-43.301	15.266	-51.124	21.456	-43.301	0.000	0.000	0.000	0.000		
	DAY/HR	14/ 8	9/15	15/ 8	9/18	14/ 8	0/ 0	0/ 0	0/ 0	0/ 0		
SEP	SUM	-6.855	0.125	-8.764	0.043	-6.832	0.000	0.000	0.000	0.000	253	23
	PEAK	-58.436	11.148	-70.559	10.199	-58.436	0.000	0.000	0.000	0.000		

DAY/HR	27/ 7	13/18	30/12	13/18	27/ 7	0/ 0	0/ 0	0/ 0	0/ 0		
OCT SUM	-15.346	0.012	-21.455	0.000	-15.331	0.000	0.000	0.000	0.000	376	4
PEAK	-74.002	5.418	-92.858	0.000	-74.002	0.000	0.000	0.000	0.000		
DAY/HR	22/ 7	6/15	22/ 7	0/ 0	22/ 7	0/ 0	0/ 0	0/ 0	0/ 0		
NOV SUM	-17.218	0.000	-23.714	0.000	-17.216	0.000	0.000	0.000	0.000	348	0
PEAK	-75.808	0.000	-95.256	0.000	-75.808	0.000	0.000	0.000	0.000		
DAY/HR	5/ 7	0/ 0	25/17	0/ 0	5/ 7	0/ 0	0/ 0	0/ 0	0/ 0		

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:41:30  BDL RUN  9

REPORT- ERV Energy Recovery Summary for:    DOAS-Base                                        WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM     -23.379       0.000     -31.228       0.000     -23.379       0.000       0.000       0.000       0.000   400     0
     PEAK     -88.121       0.000    -112.266       0.000     -88.121       0.000       0.000       0.000       0.000
   DAY/HR       24/22        0/ 0       26/17        0/ 0       24/22        0/ 0        0/ 0        0/ 0        0/ 0
            ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ====  ====

 YR   SUM    -161.671       1.079    -217.723       1.355    -161.531       0.000       0.000       0.000       0.000  3836   132
     PEAK    -101.579      28.087    -128.596      39.504    -101.579       0.000       0.000       0.000       0.000
  MON/DAY        1/ 6        7/23        1/ 3        7/23        1/ 6        0/ 0        0/ 0        0/ 0        0/ 0


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

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:41:30  BDL RUN  9

REPORT- PV-A Plant Design Parameters                                                                WEATHER FILE- SEATTLE BOEING FI WA
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*** CIRCULATION LOOPS ***

    HEATING     COOLING      LOOP       TOTAL       SUPPLY      SUPPLY      RETURN      RETURN       LOOP     FLUID HEAT
    DEMAND      DEMAND       FLOW        HEAD     UA PRODUCT    LOSS DT   UA PRODUCT    LOSS DT     VOLUME     CAPACITY
   (MBTU/HR)   (MBTU/HR)     (GPM)       ( FT)    (BTU/HR-F)     (F)      (BTU/HR-F)     (F)       ( GAL )    (BTU/LB-F)
  ----------  ----------  ----------  ----------  ----------  ----------  ----------  ----------  ----------  ----------

DHW-Loop
      -0.199       0.000         1.4        23.4         0.0        0.00         0.0        0.00         2.1        1.00


*** PUMPS ***                                                   HEAD      CAPACITY                MECHANICAL    MOTOR
                                        FLOW        HEAD      SETPOINT     CONTROL      POWER    EFFICIENCY  EFFICIENCY
            ATTACHED TO                 (GPM)       ( FT)      ( FT)                    (KW)      (FRAC)      (FRAC)
  --------------------------------  ----------  ----------  ----------  ----------  ----------  ----------  ----------

DHW Circ Pump                    1 PUMP(s)
   DHW-Loop                                 0.5        25.8         0.0   VAR-SPEED       0.008       0.770       0.400
   PRIMARY LOOP


*** PRIMARY EQUIPMENT ***
                                                          CAPACITY      FLOW        HEAD
   EQUIPMENT TYPE             ATTACHED TO                 (MBTU/HR)     (GPM)       ( FT)
  ----------------  --------------------------------  ----------  ----------  ----------

HP1-DHW
  ELEC DW-HEATER    DHW-Loop                                -0.015         0.7

HP2-DHW
  ELEC DW-HEATER    DHW-Loop                                -0.015         0.7

HP3-DHW
  ELEC DW-HEATER    DHW-Loop                                -0.015         0.7
```

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- PS-E Energy End-Use Summary for all Electric Meters WEATHER FILE- SEATTLE BOEING FI WA

	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
JAN													
KWH	3772.	0.	6305.	2835.	0.	0.	330.	2786.	0.	273.	2354.	0.	18655.
MAX KW	12.631	0.000	23.042	31.680	0.000	0.000	0.545	18.784	0.000	58.105	9.124	0.000	114.612
DAY/HR	2/10	0/ 0	2/10	6/ 7	0/ 0	0/ 0	1/ 1	6/ 7	0/ 0	6/ 7	27/18	0/ 0	6/ 7
PEAK ENDUSE	1.682	0.000	2.593	31.680	0.000	0.000	0.008	18.784	0.000	58.105	1.761	0.000	
PEAK PCT	1.5	0.0	2.3	27.6	0.0	0.0	0.0	16.4	0.0	50.7	1.5	0.0	
FEB													
KWH	3426.	0.	5721.	1830.	0.	0.	298.	2171.	0.	27.	2192.	0.	15666.
MAX KW	12.631	0.000	23.042	27.841	0.053	0.000	0.545	16.725	0.000	8.133	9.126	0.000	58.741
DAY/HR	3/10	0/ 0	3/10	10/ 7	21/17	0/ 0	1/ 1	4/ 7	0/ 0	4/ 7	24/18	0/ 0	4/ 7
PEAK ENDUSE	1.682	0.000	2.593	27.735	0.000	0.000	0.078	16.725	0.000	8.133	1.796	0.000	
PEAK PCT	2.9	0.0	4.4	47.2	0.0	0.0	0.1	28.5	0.0	13.8	3.1	0.0	
MAR													
KWH	3811.	0.	6354.	1170.	28.	0.	261.	2007.	0.	0.	2445.	0.	16074.
MAX KW	12.631	0.000	23.042	20.801	1.532	0.000	0.548	13.659	0.000	0.067	9.126	0.000	55.773
DAY/HR	3/10	0/ 0	3/10	3/ 7	29/16	0/ 0	12/17	3/ 7	0/ 0	10/ 8	3/18	0/ 0	3/11
PEAK ENDUSE	12.631	0.000	23.042	7.769	0.000	0.000	0.416	7.200	0.000	0.000	4.715	0.000	
PEAK PCT	22.6	0.0	41.3	13.9	0.0	0.0	0.7	12.9	0.0	0.0	8.5	0.0	
APR													
KWH	3859.	0.	6488.	490.	135.	0.	179.	1707.	0.	1.	2437.	0.	15296.
MAX KW	12.631	0.000	23.042	22.771	2.350	0.000	0.549	13.948	0.000	0.905	9.126	0.000	50.820
DAY/HR	1/10	0/ 0	1/10	7/ 7	11/11	0/ 0	2/11	7/ 7	0/ 0	7/ 7	7/18	0/ 0	11/17
PEAK ENDUSE	12.631	0.000	23.042	0.000	1.949	0.000	0.008	4.067	0.000	0.000	9.123	0.000	
PEAK PCT	24.9	0.0	45.3	0.0	3.8	0.0	0.0	8.0	0.0	0.0	18.0	0.0	
MAY													
KWH	3811.	0.	6354.	177.	429.	0.	80.	1652.	0.	0.	2298.	0.	14802.
MAX KW	12.631	0.000	23.042	10.451	9.184	0.000	0.550	8.451	0.000	0.000	9.123	0.000	60.599
DAY/HR	1/10	0/ 0	1/10	12/ 7	16/16	0/ 0	8/11	12/ 7	0/ 0	7/ 7	5/17	0/ 0	16/17
PEAK ENDUSE	12.631	0.000	23.042	0.000	9.128	0.000	0.008	6.671	0.000	0.000	9.120	0.000	
PEAK PCT	20.8	0.0	38.0	0.0	15.1	0.0	0.0	11.0	0.0	0.0	15.0	0.0	
JUN													
KWH	3738.	0.	6261.	25.	923.	0.	6.	1718.	0.	0.	2136.	0.	14809.
MAX KW	12.631	0.000	23.042	2.064	13.848	0.000	0.545	8.299	0.000	0.000	4.709	0.000	62.436
DAY/HR	2/10	0/ 0	2/10	2/ 7	20/17	0/ 0	12/ 2	20/11	0/ 0	7/ 7	2/24	0/ 0	20/17
PEAK ENDUSE	12.631	0.000	23.042	0.000	13.848	0.000	0.008	8.213	0.000	0.000	4.695	0.000	
PEAK PCT	20.2	0.0	36.9	0.0	22.2	0.0	0.0	13.2	0.0	0.0	7.5	0.0	
JUL													
KWH	3894.	0.	6532.	0.	2513.	0.	3.	2327.	0.	0.	2123.	0.	17392.
MAX KW	12.631	0.000	23.042	0.139	22.839	0.000	0.008	10.700	0.000	0.000	4.700	0.000	73.908

DAY/HR	1/10	0/ 0	1/10	8/ 7	23/17	0/ 0	1/16	23/17	0/ 0	7/ 7	7/23	0/ 0	23/17
PEAK ENDUSE	12.631	0.000	23.042	0.000	22.839	0.000	0.008	10.700	0.000	0.000	4.688	0.000	
PEAK PCT	17.1	0.0	31.2	0.0	30.9	0.0	0.0	14.5	0.0	0.0	6.3	0.0	
AUG													
KWH	3811.	0.	6354.	1.	2059.	0.	3.	2156.	0.	0.	2018.	0.	16402.
MAX KW	12.631	0.000	23.042	0.442	18.242	0.000	0.008	9.575	0.000	0.000	4.691	0.000	68.183
DAY/HR	1/10	0/ 0	1/10	25/ 7	11/16	0/ 0	1/16	11/16	0/ 0	7/ 7	4/22	0/ 0	11/16
PEAK ENDUSE	12.631	0.000	23.042	0.000	18.242	0.000	0.008	9.575	0.000	0.000	4.686	0.000	
PEAK PCT	18.5	0.0	33.8	0.0	26.8	0.0	0.0	14.0	0.0	0.0	6.9	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- PS-E Energy End-Use Summary for all Electric Meters WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

SEP													
KWH	3738.	0.	6261.	37.	1066.	0.	24.	1775.	0.	0.	1970.	0.	14871.
MAX KW	12.631	0.000	23.042	4.027	15.050	0.000	0.550	8.439	0.000	0.000	4.689	0.000	63.850
DAY/HR	2/10	0/ 0	2/10	29/ 7	19/16	0/ 0	26/ 9	19/16	0/ 0	7/ 7	2/22	0/ 0	19/16
PEAK ENDUSE	12.631	0.000	23.042	0.000	15.050	0.000	0.008	8.439	0.000	0.000	4.681	0.000	
PEAK PCT	19.8	0.0	36.1	0.0	23.6	0.0	0.0	13.2	0.0	0.0	7.3	0.0	
OCT													
KWH	3894.	0.	6532.	424.	208.	0.	127.	1711.	0.	0.	2100.	0.	14995.
MAX KW	12.631	0.000	23.042	13.480	6.457	0.000	0.549	9.918	0.000	0.085	4.692	0.000	52.504
DAY/HR	1/10	0/ 0	1/10	22/ 7	7/17	0/ 0	3/ 9	22/ 7	0/ 0	24/ 8	20/23	0/ 0	7/17
PEAK ENDUSE	12.631	0.000	23.042	0.000	6.457	0.000	0.008	5.684	0.000	0.000	4.683	0.000	
PEAK PCT	24.1	0.0	43.9	0.0	12.3	0.0	0.0	10.8	0.0	0.0	8.9	0.0	
NOV													
KWH	3412.	0.	5630.	1199.	5.	0.	272.	1867.	0.	2.	1943.	0.	14331.
MAX KW	12.631	0.000	23.042	23.892	0.811	0.000	0.546	14.605	0.000	1.577	4.698	0.000	55.096
DAY/HR	3/10	0/ 0	3/10	28/ 7	7/16	0/ 0	14/17	28/ 7	0/ 0	28/ 7	24/23	0/ 0	28/ 9
PEAK ENDUSE	11.497	0.000	22.083	8.757	0.000	0.000	0.400	7.664	0.000	0.000	4.694	0.000	
PEAK PCT	20.9	0.0	40.1	15.9	0.0	0.0	0.7	13.9	0.0	0.0	8.5	0.0	
DEC													
KWH	3894.	0.	6532.	2546.	0.	0.	339.	2691.	0.	61.	2313.	0.	18375.
MAX KW	12.631	0.000	23.042	30.123	0.000	0.000	0.545	17.409	0.000	14.928	9.119	0.000	68.237
DAY/HR	1/10	0/ 0	1/10	29/ 7	7/16	0/ 0	1/ 1	29/ 7	0/ 0	26/ 7	29/17	0/ 0	29/ 9
PEAK ENDUSE	11.497	0.000	22.083	17.715	0.000	0.000	0.251	11.762	0.000	0.225	4.704	0.000	
PEAK PCT	16.8	0.0	32.4	26.0	0.0	0.0	0.4	17.2	0.0	0.3	6.9	0.0	
	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	========
KWH	45061.	0.	75323.	10736.	7366.	0.	1921.	24567.	0.	363.	26329.	0.	191667.
MAX KW	12.631	0.000	23.042	31.680	22.839	0.000	0.550	18.784	0.000	58.105	9.126	0.000	114.612
MON/DY	1/ 2	0/ 0	1/ 2	1/ 6	7/23	0/ 0	9/26	1/ 6	0/ 0	1/ 6	2/24	0/ 0	1/ 6
PEAK ENDUSE	1.682	0.000	2.593	31.680	0.000	0.000	0.008	18.784	0.000	58.105	1.761	0.000	
PEAK PCT	1.5	0.0	2.3	27.6	0.0	0.0	0.0	16.4	0.0	50.7	1.5	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- PS-E Energy End-Use Summary for all Fuel Meters WEATHER FILE- SEATTLE BOEING FI WA

	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
JAN													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
FEB													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MAR													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
APR													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MAY													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
JUN													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
JUL													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
AUG													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- PS-E Energy End-Use Summary for all Fuel Meters WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

SEP													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
OCT													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
NOV													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
DEC													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	========
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

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

	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
JAN													
KWH	0.	0.	127.	0.	0.	0.	0.	180.	0.	0.	2354.	0.	2662.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.124	0.000	9.538
DAY/HR	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	27/18	0/ 0	27/18
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.124	0.000	
PEAK PCT	0.0	0.0	1.8	0.0	0.0	0.0	0.0	2.5	0.0	0.0	95.7	0.0	
FEB													
KWH	0.	0.	115.	0.	0.	0.	0.	163.	0.	0.	2192.	0.	2470.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.126	0.000	9.540
DAY/HR	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	24/18	0/ 0	24/18
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.126	0.000	
PEAK PCT	0.0	0.0	1.8	0.0	0.0	0.0	0.0	2.5	0.0	0.0	95.7	0.0	
MAR													
KWH	0.	0.	127.	0.	0.	0.	0.	180.	0.	0.	2445.	0.	2752.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.126	0.000	9.540
DAY/HR	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	3/18	0/ 0	3/18
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.126	0.000	
PEAK PCT	0.0	0.0	1.8	0.0	0.0	0.0	0.0	2.5	0.0	0.0	95.7	0.0	
APR													
KWH	0.	0.	123.	0.	0.	0.	0.	174.	0.	0.	2437.	0.	2735.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.126	0.000	9.539
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	7/18	0/ 0	7/18
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.126	0.000	
PEAK PCT	0.0	0.0	1.8	0.0	0.0	0.0	0.0	2.5	0.0	0.0	95.7	0.0	
MAY													
KWH	0.	0.	127.	0.	0.	0.	0.	180.	0.	0.	2298.	0.	2606.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.123	0.000	9.536
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	5/17	0/ 0	5/17
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.123	0.000	
PEAK PCT	0.0	0.0	1.8	0.0	0.0	0.0	0.0	2.5	0.0	0.0	95.7	0.0	
JUN													
KWH	0.	0.	123.	0.	0.	0.	0.	174.	0.	0.	2136.	0.	2434.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	4.709	0.000	5.123
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	2/24	0/ 0	2/24
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	4.709	0.000	
PEAK PCT	0.0	0.0	3.3	0.0	0.0	0.0	0.0	4.7	0.0	0.0	91.9	0.0	
JUL													
KWH	0.	0.	127.	0.	0.	0.	0.	180.	0.	0.	2123.	0.	2430.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	4.700	0.000	5.113

DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	7/23	0/ 0	7/23
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	4.700	0.000	
PEAK PCT	0.0	0.0	3.3	0.0	0.0	0.0	0.0	4.7	0.0	0.0	91.9	0.0	
AUG													
KWH	0.	0.	127.	0.	0.	0.	0.	180.	0.	0.	2018.	0.	2325.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	4.691	0.000	5.105
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	4/22	0/ 0	4/22
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	4.691	0.000	
PEAK PCT	0.0	0.0	3.4	0.0	0.0	0.0	0.0	4.7	0.0	0.0	91.9	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- PS-F Energy End-Use Summary for Spare Meter WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

SEP													
KWH	0.	0.	123.	0.	0.	0.	0.	174.	0.	0.	1970.	0.	2268.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	4.689	0.000	5.103
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	2/22	0/ 0	2/22
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	4.689	0.000	
PEAK PCT	0.0	0.0	3.4	0.0	0.0	0.0	0.0	4.7	0.0	0.0	91.9	0.0	
OCT													
KWH	0.	0.	127.	0.	0.	0.	0.	180.	0.	0.	2100.	0.	2407.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	4.692	0.000	5.105
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	20/23	0/ 0	20/23
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	4.692	0.000	
PEAK PCT	0.0	0.0	3.4	0.0	0.0	0.0	0.0	4.7	0.0	0.0	91.9	0.0	
NOV													
KWH	0.	0.	123.	0.	0.	0.	0.	174.	0.	0.	1943.	0.	2241.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	4.698	0.000	5.111
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	24/23	0/ 0	24/23
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	4.698	0.000	
PEAK PCT	0.0	0.0	3.4	0.0	0.0	0.0	0.0	4.7	0.0	0.0	91.9	0.0	
DEC													
KWH	0.	0.	127.	0.	0.	0.	0.	180.	0.	0.	2313.	0.	2620.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.119	0.000	9.533
DAY/HR	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	29/17	0/ 0	29/17
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.119	0.000	
PEAK PCT	0.0	0.0	1.8	0.0	0.0	0.0	0.0	2.5	0.0	0.0	95.7	0.0	
	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	========
KWH	0.	0.	1500.	0.	0.	0.	0.	2122.	0.	0.	26329.	0.	29951.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.126	0.000	9.540
MON/DY	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	2/24	0/ 0	2/24
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	0.000	0.242	0.000	0.000	9.126	0.000	
PEAK PCT	0.0	0.0	1.8	0.0	0.0	0.0	0.0	2.5	0.0	0.0	95.7	0.0	

YEARLY TRANSFORMER LOSSES = 0.0 KWH

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- PS-F Energy End-Use Summary for EM1 WEATHER FILE- SEATTLE BOEING FI WA

	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
JAN													
KWH	3772.	0.	6178.	2835.	0.	0.	330.	2606.	0.	273.	0.	0.	15993.
MAX KW	12.631	0.000	22.871	31.680	0.000	0.000	0.545	18.542	0.000	58.105	0.000	0.000	112.438
DAY/HR	2/10	0/ 0	2/10	6/ 7	0/ 0	0/ 0	1/ 1	6/ 7	0/ 0	6/ 7	0/ 0	0/ 0	6/ 7
PEAK ENDUSE	1.682	0.000	2.421	31.680	0.000	0.000	0.008	18.542	0.000	58.105	0.000	0.000	
PEAK PCT	1.5	0.0	2.2	28.2	0.0	0.0	0.0	16.5	0.0	51.7	0.0	0.0	
FEB													
KWH	3426.	0.	5606.	1830.	0.	0.	298.	2008.	0.	27.	0.	0.	13196.
MAX KW	12.631	0.000	22.871	27.841	0.053	0.000	0.545	16.482	0.000	8.133	0.000	0.000	56.532
DAY/HR	3/10	0/ 0	3/10	10/ 7	21/17	0/ 0	1/ 1	4/ 7	0/ 0	4/ 7	0/ 0	0/ 0	4/ 7
PEAK ENDUSE	1.682	0.000	2.421	27.735	0.000	0.000	0.078	16.482	0.000	8.133	0.000	0.000	
PEAK PCT	3.0	0.0	4.3	49.1	0.0	0.0	0.1	29.2	0.0	14.4	0.0	0.0	
MAR													
KWH	3811.	0.	6226.	1170.	28.	0.	261.	1826.	0.	0.	0.	0.	13322.
MAX KW	12.631	0.000	22.871	20.801	1.532	0.000	0.548	13.417	0.000	0.067	0.000	0.000	50.645
DAY/HR	3/10	0/ 0	3/10	3/ 7	29/16	0/ 0	12/17	3/ 7	0/ 0	10/ 8	0/ 0	0/ 0	3/11
PEAK ENDUSE	12.631	0.000	22.871	7.769	0.000	0.000	0.416	6.958	0.000	0.000	0.000	0.000	
PEAK PCT	24.9	0.0	45.2	15.3	0.0	0.0	0.8	13.7	0.0	0.0	0.0	0.0	
APR													
KWH	3859.	0.	6365.	490.	135.	0.	179.	1533.	0.	1.	0.	0.	12561.
MAX KW	12.631	0.000	22.871	22.771	2.350	0.000	0.549	13.706	0.000	0.905	0.000	0.000	43.131
DAY/HR	1/10	0/ 0	1/10	7/ 7	11/11	0/ 0	2/11	7/ 7	0/ 0	7/ 7	0/ 0	0/ 0	7/ 9
PEAK ENDUSE	11.497	0.000	21.912	3.999	0.000	0.000	0.476	5.247	0.000	0.000	0.000	0.000	
PEAK PCT	26.7	0.0	50.8	9.3	0.0	0.0	1.1	12.2	0.0	0.0	0.0	0.0	
MAY													
KWH	3811.	0.	6226.	177.	429.	0.	80.	1472.	0.	0.	0.	0.	12196.
MAX KW	12.631	0.000	22.871	10.451	9.184	0.000	0.550	8.209	0.000	0.000	0.000	0.000	51.119
DAY/HR	1/10	0/ 0	1/10	12/ 7	16/16	0/ 0	8/11	12/ 7	0/ 0	0/ 0	0/ 0	0/ 0	16/16
PEAK ENDUSE	12.631	0.000	22.871	0.000	9.184	0.000	0.008	6.426	0.000	0.000	0.000	0.000	
PEAK PCT	24.7	0.0	44.7	0.0	18.0	0.0	0.0	12.6	0.0	0.0	0.0	0.0	
JUN													
KWH	3738.	0.	6138.	25.	923.	0.	6.	1544.	0.	0.	0.	0.	12375.
MAX KW	12.631	0.000	22.871	2.064	13.848	0.000	0.545	8.057	0.000	0.000	0.000	0.000	57.327
DAY/HR	2/10	0/ 0	2/10	2/ 7	20/17	0/ 0	12/ 2	20/11	0/ 0	0/ 0	0/ 0	0/ 0	20/17
PEAK ENDUSE	12.631	0.000	22.871	0.000	13.848	0.000	0.008	7.971	0.000	0.000	0.000	0.000	
PEAK PCT	22.0	0.0	39.9	0.0	24.2	0.0	0.0	13.9	0.0	0.0	0.0	0.0	
JUL													
KWH	3894.	0.	6404.	0.	2513.	0.	3.	2147.	0.	0.	0.	0.	14961.
MAX KW	12.631	0.000	22.871	0.139	22.839	0.000	0.008	10.458	0.000	0.000	0.000	0.000	68.806

DAY/HR	1/10	0/ 0	1/10	8/ 7	23/17	0/ 0	1/16	23/17	0/ 0	0/ 0	0/ 0	0/ 0	23/17
PEAK ENDUSE	12.631	0.000	22.871	0.000	22.839	0.000	0.008	10.458	0.000	0.000	0.000	0.000	
PEAK PCT	18.4	0.0	33.2	0.0	33.2	0.0	0.0	15.2	0.0	0.0	0.0	0.0	
AUG													
KWH	3811.	0.	6226.	1.	2059.	0.	3.	1976.	0.	0.	0.	0.	14076.
MAX KW	12.631	0.000	22.871	0.442	18.242	0.000	0.008	9.333	0.000	0.000	0.000	0.000	63.084
DAY/HR	1/10	0/ 0	1/10	25/ 7	11/16	0/ 0	1/16	11/16	0/ 0	0/ 0	0/ 0	0/ 0	11/16
PEAK ENDUSE	12.631	0.000	22.871	0.000	18.242	0.000	0.008	9.333	0.000	0.000	0.000	0.000	
PEAK PCT	20.0	0.0	36.3	0.0	28.9	0.0	0.0	14.8	0.0	0.0	0.0	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- PS-F Energy End-Use Summary for EM1 WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

SEP													
KWH	3738.	0.	6138.	37.	1066.	0.	24.	1601.	0.	0.	0.	0.	12603.
MAX KW	12.631	0.000	22.871	4.027	15.050	0.000	0.550	8.197	0.000	0.000	0.000	0.000	58.755
DAY/HR	2/10	0/ 0	2/10	29/ 7	19/16	0/ 0	26/ 9	19/16	0/ 0	0/ 0	0/ 0	0/ 0	19/16
PEAK ENDUSE	12.631	0.000	22.871	0.000	15.050	0.000	0.008	8.197	0.000	0.000	0.000	0.000	
PEAK PCT	21.5	0.0	38.9	0.0	25.6	0.0	0.0	14.0	0.0	0.0	0.0	0.0	
OCT													
KWH	3894.	0.	6404.	424.	208.	0.	127.	1531.	0.	0.	0.	0.	12588.
MAX KW	12.631	0.000	22.871	13.480	6.457	0.000	0.549	9.676	0.000	0.085	0.000	0.000	47.408
DAY/HR	1/10	0/ 0	1/10	22/ 7	7/17	0/ 0	3/ 9	22/ 7	0/ 0	24/ 8	0/ 0	0/ 0	7/17
PEAK ENDUSE	12.631	0.000	22.871	0.000	6.457	0.000	0.008	5.442	0.000	0.000	0.000	0.000	
PEAK PCT	26.6	0.0	48.2	0.0	13.6	0.0	0.0	11.5	0.0	0.0	0.0	0.0	
NOV													
KWH	3412.	0.	5507.	1199.	5.	0.	272.	1692.	0.	2.	0.	0.	12090.
MAX KW	12.631	0.000	22.871	23.892	0.811	0.000	0.546	14.363	0.000	1.577	0.000	0.000	49.988
DAY/HR	3/10	0/ 0	3/10	28/ 7	7/16	0/ 0	14/17	28/ 7	0/ 0	28/ 7	0/ 0	0/ 0	28/ 9
PEAK ENDUSE	11.497	0.000	21.912	8.757	0.000	0.000	0.400	7.422	0.000	0.000	0.000	0.000	
PEAK PCT	23.0	0.0	43.8	17.5	0.0	0.0	0.8	14.8	0.0	0.0	0.0	0.0	
DEC													
KWH	3894.	0.	6404.	2546.	0.	0.	339.	2511.	0.	61.	0.	0.	15755.
MAX KW	12.631	0.000	22.871	30.123	0.000	0.000	0.545	17.167	0.000	14.928	0.000	0.000	65.733
DAY/HR	1/10	0/ 0	1/10	29/ 7	0/ 0	0/ 0	1/ 1	29/ 7	0/ 0	26/ 7	0/ 0	0/ 0	29/ 7
PEAK ENDUSE	1.682	0.000	2.421	30.123	0.000	0.000	0.055	17.167	0.000	14.285	0.000	0.000	
PEAK PCT	2.6	0.0	3.7	45.8	0.0	0.0	0.1	26.1	0.0	21.7	0.0	0.0	
	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	========
KWH	45061.	0.	73822.	10736.	7366.	0.	1921.	22446.	0.	363.	0.	0.	161715.
MAX KW	12.631	0.000	22.871	31.680	22.839	0.000	0.550	18.542	0.000	58.105	0.000	0.000	112.438
MON/DY	1/ 2	0/ 0	1/ 2	1/ 6	7/23	0/ 0	9/26	1/ 6	0/ 0	1/ 6	0/ 0	0/ 0	1/ 6
PEAK ENDUSE	1.682	0.000	2.421	31.680	0.000	0.000	0.008	18.542	0.000	58.105	0.000	0.000	
PEAK PCT	1.5	0.0	2.2	28.2	0.0	0.0	0.0	16.5	0.0	51.7	0.0	0.0	

YEARLY TRANSFORMER LOSSES = 0.0 KWH

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

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

	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
JAN													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
FEB													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MAR													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
APR													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MAY													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
JUN													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
JUL													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
AUG													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

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

SEP													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
OCT													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
NOV													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
DEC													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	========
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- BEPS Building Energy Performance WEATHER FILE- SEATTLE BOEING FI WA

	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
Spar ELECTRICITY													
MBTU	0.0	0.0	5.1	0.0	0.0	0.0	0.0	7.2	0.0	0.0	89.9	0.0	102.2
EM1 ELECTRICITY													
MBTU	153.8	0.0	252.0	36.6	25.1	0.0	6.6	76.6	0.0	1.2	0.0	0.0	551.9
FM1 NATURAL-GAS													
MBTU	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
MBTU	153.8	0.0	257.1	36.6	25.1	0.0	6.6	83.8	0.0	1.2	89.9	0.0	654.2

```
TOTAL SITE ENERGY       654.15 MBTU     20.6 KBTU/SQFT-YR GROSS-AREA     20.6 KBTU/SQFT-YR NET-AREA
TOTAL SOURCE ENERGY    1962.46 MBTU     61.8 KBTU/SQFT-YR GROSS-AREA     61.8 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE =  0.05
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED                =  0.00
HOURS ANY ZONE ABOVE COOLING THROTTLING RANGE                =     1
HOURS ANY ZONE BELOW HEATING THROTTLING RANGE                =     3

NOTE:  ENERGY IS APPORTIONED HOURLY TO ALL END-USE CATEGORIES.
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Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- BEPU Building Utility Performance WEATHER FILE- SEATTLE BOEING FI WA

	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
Spar ELECTRICITY													
KWH	0.	0.	1500.	0.	0.	0.	0.	2122.	0.	0.	26329.	0.	29951.
EM1 ELECTRICITY													
KWH	45061.	0.	73822.	10736.	7366.	0.	1921.	22446.	0.	363.	0.	0.	161715.
FM1 NATURAL-GAS													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

TOTAL ELECTRICITY 191667. KWH 6.033 KWH /SQFT-YR GROSS-AREA 6.033 KWH /SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 0.05
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.00
HOURS ANY ZONE ABOVE COOLING THROTTLING RANGE = 1
HOURS ANY ZONE BELOW HEATING THROTTLING RANGE = 3

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

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- PS-H Loads and Energy Usage for DHW-Loop WEATHER FILE- SEATTLE BOEING FI WA

HEATING CAPACITY (MBTU/HR)	COOLING CAPACITY (MBTU/HR)	LOOP FLOW (GPM)	TOTAL HEAD (FT)	SUPPLY UA PRODUCT (BTU/HR-F)	SUPPLY LOSS DT (F)	RETURN UA PRODUCT (BTU/HR-F)	RETURN LOSS DT (F)	LOOP VOLUME (GAL)	FLUID HEAT CAPACITY (BTU/LB-F)
-0.199	0.000	1.4	23.4	0.0	0.00	0.0	0.00	2.1	1.00

MON		COIL LOAD (MBTU) (KBTU/HR)	PIPE GAIN (MBTU) (KBTU/HR)	NET LOAD (MBTU) (KBTU/HR)	OVERLOAD (MBTU) (KBTU/HR)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	-7.312	0.000	-7.309	0.000	HEAT	597	147	0	0	0	0	0	0	0	0	0	744
	PEAK	-32.114	0.000	-32.104	0.000	FLOW	350	10	0	0	58	112	25	105	42	21	21	744
	DAY/HR	2/13	0/ 0	2/13	0/ 0													
FEB	SUM	-6.818	0.000	-6.814	0.000	HEAT	539	133	0	0	0	0	0	0	0	0	0	672
	PEAK	-32.957	0.000	-32.947	0.000	FLOW	311	9	0	0	54	104	23	95	38	19	19	672
	DAY/HR	3/13	0/ 0	3/13	0/ 0													
MAR	SUM	-7.603	0.000	-7.599	0.000	HEAT	576	168	0	0	0	0	0	0	0	0	0	744
	PEAK	-33.025	0.000	-33.014	0.000	FLOW	338	10	0	0	62	119	26	105	42	21	21	744
	DAY/HR	3/13	0/ 0	3/13	0/ 0													
APR	SUM	-7.607	0.000	-7.603	0.000	HEAT	566	154	0	0	0	0	0	0	0	0	0	720
	PEAK	-32.624	0.000	-32.614	0.000	FLOW	312	8	0	0	60	116	26	110	44	22	22	720
	DAY/HR	1/13	0/ 0	1/13	0/ 0													
MAY	SUM	-7.140	0.000	-7.136	0.000	HEAT	618	126	0	0	0	0	0	0	0	0	0	744
	PEAK	-31.018	0.000	-31.008	0.000	FLOW	338	10	0	0	62	119	26	105	42	21	21	744
	DAY/HR	1/13	0/ 0	1/13	0/ 0													
JUN	SUM	-6.641	0.000	-6.637	0.000	HEAT	615	105	0	0	0	0	0	0	0	0	0	720
	PEAK	-29.420	0.000	-29.410	0.000	FLOW	327	9	0	0	58	112	25	105	42	21	21	720
	DAY/HR	2/13	0/ 0	2/13	0/ 0													
JUL	SUM	-6.592	0.000	-6.588	0.000	HEAT	656	88	0	0	0	0	0	0	0	0	0	744
	PEAK	-28.034	0.000	-28.024	0.000	FLOW	335	9	0	0	60	116	26	110	44	22	22	744
	DAY/HR	1/13	0/ 0	1/13	0/ 0													
AUG	SUM	-6.251	0.000	-6.247	0.000	HEAT	660	84	0	0	0	0	0	0	0	0	0	744
	PEAK	-27.156	0.000	-27.146	0.000	FLOW	338	10	0	0	62	119	26	105	42	21	21	744
	DAY/HR	1/13	0/ 0	1/13	0/ 0													
SEP	SUM	-6.113	0.000	-6.109	0.000	HEAT	636	84	0	0	0	0	0	0	0	0	0	720
	PEAK	-27.082	0.000	-27.071	0.000	FLOW	327	9	0	0	58	112	25	105	42	21	21	720
	DAY/HR	2/13	0/ 0	2/13	0/ 0													

OCT	SUM	-6.536	0.000	-6.532	0.000	HEAT	656	88	0	0	0	0	0	0	0	0	0	744
	PEAK	-27.796	0.000	-27.785	0.000	FLOW	335	9	0	0	60	116	26	110	44	22	22	744
	DAY/HR	1/13	0/ 0	1/13	0/ 0													
NOV	SUM	-6.001	0.000	-5.998	0.000	HEAT	630	90	0	0	0	0	0	0	0	0	0	720
	PEAK	-29.146	0.000	-29.136	0.000	FLOW	360	12	0	0	56	107	23	90	36	18	18	720
	DAY/HR	3/13	0/ 0	3/13	0/ 0													
DEC	SUM	-7.218	0.000	-7.214	0.000	HEAT	612	132	0	0	0	0	0	0	0	0	0	744
	PEAK	-30.696	0.000	-30.685	0.000	FLOW	335	9	0	0	60	116	26	110	44	22	22	744
	DAY/HR	1/13	0/ 0	1/13	0/ 0													

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:41:30  BDL RUN  9

REPORT- PS-H Loads and Energy Usage for     DHW-Loop                                                WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM     -81.833       0.000     -81.786       0.000 HEAT7361  1399     0     0     0     0     0     0     0     0     0  8760
     PEAK     -33.025       0.000     -33.014       0.000 FLOW4006   114     0     0   710  1368   303  1255   502   251   251  8760
  MON/DAY        3/ 3        0/ 0        3/ 3        0/ 0
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Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- PS-H Loads and Energy Usage for DHW Circ Pump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
DHW-Loop PRIMARY LOOP	0.5	25.8	0.0	VAR-SPEED	0.008	0.770	0.400

MON	SUM / PEAK / DAY/HR	HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)			Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.0	2.9		FLOW	0	0	0	0	0	0	0	0	0	384	0	384
	PEAK	0.010	0.008		RPM	0	0	0	0	0	0	0	0	0	384	0	384
	DAY/HR	2/16	2/16		ELEC	0	0	0	0	0	0	0	0	174	210	0	384
FEB	SUM	0.0	2.6		FLOW	0	0	0	0	0	0	0	0	0	352	0	352
	PEAK	0.010	0.008		RPM	0	0	0	0	0	0	0	0	0	352	0	352
	DAY/HR	3/16	3/16		ELEC	0	0	0	0	0	0	0	0	162	190	0	352
MAR	SUM	0.0	2.9		FLOW	0	0	0	0	0	0	0	0	0	396	0	396
	PEAK	0.010	0.008		RPM	0	0	0	0	0	0	0	0	0	396	0	396
	DAY/HR	3/16	3/16		ELEC	0	0	0	0	0	0	0	0	186	210	0	396
APR	SUM	0.0	3.0		FLOW	0	0	0	0	0	0	0	0	0	400	0	400
	PEAK	0.010	0.008		RPM	0	0	0	0	0	0	0	0	0	400	0	400
	DAY/HR	1/16	1/16		ELEC	0	0	0	0	0	0	0	0	180	220	0	400
MAY	SUM	0.0	2.9		FLOW	0	0	0	0	0	0	0	0	0	396	0	396
	PEAK	0.010	0.008		RPM	0	0	0	0	0	0	0	0	0	396	0	396
	DAY/HR	1/16	1/16		ELEC	0	0	0	0	0	0	0	0	186	210	0	396
JUN	SUM	0.0	2.9		FLOW	0	0	0	0	0	0	0	0	0	384	0	384
	PEAK	0.010	0.008		RPM	0	0	0	0	0	0	0	0	0	384	0	384
	DAY/HR	2/16	2/16		ELEC	0	0	0	0	0	0	0	0	174	210	0	384
JUL	SUM	0.0	3.0		FLOW	0	0	0	0	0	0	0	0	0	400	0	400
	PEAK	0.010	0.008		RPM	0	0	0	0	0	0	0	0	0	400	0	400
	DAY/HR	1/16	1/16		ELEC	0	0	0	0	0	0	0	0	180	220	0	400
AUG	SUM	0.0	2.9		FLOW	0	0	0	0	0	0	0	0	0	396	0	396
	PEAK	0.010	0.008		RPM	0	0	0	0	0	0	0	0	0	396	0	396
	DAY/HR	1/16	1/16		ELEC	0	0	0	0	0	0	0	0	186	210	0	396
SEP	SUM	0.0	2.9		FLOW	0	0	0	0	0	0	0	0	0	384	0	384
	PEAK	0.010	0.008		RPM	0	0	0	0	0	0	0	0	0	384	0	384

DAY/HR	2/16	2/16	ELEC	0	0	0	0	0	0	0	0	174	210	0	384
OCT SUM	0.0	3.0	FLOW	0	0	0	0	0	0	0	0	0	400	0	400
PEAK	0.010	0.008	RPM	0	0	0	0	0	0	0	0	0	400	0	400
DAY/HR	1/16	1/16	ELEC	0	0	0	0	0	0	0	0	180	220	0	400
NOV SUM	0.0	2.6	FLOW	0	0	0	0	0	0	0	0	0	348	0	348
PEAK	0.010	0.008	RPM	0	0	0	0	0	0	0	0	0	348	0	348
DAY/HR	3/16	3/16	ELEC	0	0	0	0	0	0	0	0	168	180	0	348

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:41:30  BDL RUN  9

REPORT- PS-H Loads and Energy Usage for     DHW Circ Pump                                  WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         3.0                          FLOW   0     0     0     0     0     0     0     0     0   400     0   400
     PEAK       0.010       0.008                           RPM   0     0     0     0     0     0     0     0     0   400     0   400
   DAY/HR        1/16        1/16                          ELEC   0     0     0     0     0     0     0     0   180   220     0   400
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0        34.5                          FLOW   0     0     0     0     0     0     0     0     0  4640     0  4640
     PEAK       0.010       0.008                           RPM   0     0     0     0     0     0     0     0     0  4640     0  4640
  MON/DAY        1/ 2        1/ 2                          ELEC   0     0     0     0     0     0     0     0  2130  2510     0  4640

Hours pump could not meet flow requirements:   0
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Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- PS-H Loads and Energy Usage for HP1-DHW WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	HIR (FRAC)	AUXILIARY (KW)	TANK (GAL)	TANK UA (BTU/HR-F)
ELEC DW-HEATER	DHW-Loop	-0.015	0.7	1.000	0.000	0.000	119.0	4.00

MON		HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	FUEL USE (MBTU) (KBTU/HR)	AUX ENERGY (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	-3.961	1229.982	0.000	0.000	LOAD	245	76	19	63	21	0	11	0	11	0	0	446
	PEAK	-32.104	4.512	0.000	0.000	ELEC	254	100	123	46	6	9	0	23	3	0	180	744
	DAY/HR	2/13	2/ 9	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
FEB	SUM	-3.125	979.737	0.000	0.000	LOAD	111	25	44	48	19	9	0	9	0	9	0	274
	PEAK	-32.947	4.512	0.000	0.000	ELEC	353	28	74	28	2	13	0	12	2	0	160	672
	DAY/HR	4/13	3/15	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
MAR	SUM	-3.942	1226.140	0.000	0.000	LOAD	197	39	56	52	21	11	0	11	0	11	0	398
	PEAK	-33.014	4.512	0.000	0.000	ELEC	291	64	113	45	6	9	10	20	6	0	180	744
	DAY/HR	3/13	3/ 9	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
APR	SUM	-3.801	1182.027	0.000	0.000	LOAD	162	49	39	55	22	11	11	0	0	11	0	360
	PEAK	-32.614	4.512	0.000	0.000	ELEC	305	48	108	30	4	17	0	17	4	0	187	720
	DAY/HR	2/13	1/15	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
MAY	SUM	-0.503	220.364	0.000	0.000	LOAD	0	0	0	21	0	0	0	0	0	0	0	21
	PEAK	-23.934	4.512	0.000	0.000	ELEC	702	0	0	0	0	21	0	0	0	0	21	744
	DAY/HR	1/17	1/17	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
JUN	SUM	0.000	68.323	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.099	0.000	0.000	ELEC	720	0	0	0	0	0	0	0	0	0	0	720
	DAY/HR	0/ 0	2/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	0.000	67.857	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.095	0.000	0.000	ELEC	744	0	0	0	0	0	0	0	0	0	0	744
	DAY/HR	0/ 0	7/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
AUG	SUM	0.000	65.351	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.091	0.000	0.000	ELEC	744	0	0	0	0	0	0	0	0	0	0	744
	DAY/HR	0/ 0	4/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	0.000	62.814	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.090	0.000	0.000	ELEC	720	0	0	0	0	0	0	0	0	0	0	720
	DAY/HR	0/ 0	2/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
OCT	SUM	0.000	65.467	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

PEAK	0.000	0.091	0.000	0.000	ELEC	744	0	0	0	0	0	0	0	0	0	0	744
DAY/HR	0/ 0	20/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
NOV SUM	0.000	65.591	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.094	0.000	0.000	ELEC	720	0	0	0	0	0	0	0	0	0	0	720
DAY/HR	0/ 0	30/24	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
DEC SUM	-0.521	222.969	0.000	0.000	LOAD	0	0	0	22	0	0	0	0	0	0	0	22
PEAK	-23.685	4.512	0.000	0.000	ELEC	700	0	0	0	0	22	0	0	0	0	22	744
DAY/HR	1/17	1/17	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0

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Metropole                                                                    DOE-2.3-50h    9/16/2020    11:41:30  BDL RUN  9

REPORT- PS-H Loads and Energy Usage for     HP1-DHW                                      WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------(CONTINUED)--------
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Yr    SUM     -15.853    5456.624       0.000       0.000 LOAD 715   189   158   261    83    31    22    20    11    31     0  1521
     PEAK     -33.014       4.512       0.000       0.000 ELEC6997   240   418   149    18    91    10    72    15     0   750  8760
  MON/DAY        3/ 3        1/ 2        0/ 0        0/ 0 FUEL   0     0     0     0     0     0     0     0     0     0     0     0
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DETAILED SIZING INFORMATION

EQUIPMENT TYPE	CAPACITY (MBTU/HR)	ELECTRIC (KW)	HEAT EIR (BTU/BTU)	AUX ELEC (KW)	FUEL (MBTU/HR)	HEAT HIR (BTU/BTU)	TANK (GAL)	TANK UA (BTU/HR-F)
ELEC DW-HEATER	-0.015	4.512	1.0000	0.000	0.000	0.0000	119.0	4.00

ATTACHED TO	THERMAL (MBTU/HR)	HEAD (FT)	FLOW (GPM)	DELTA T (F)	DESIGN T (F)
DHW-Loop	-0.015	1.00	0.70	43.78	150.00
Ambient					57.27

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- PS-H Loads and Energy Usage for HP2-DHW WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	HIR (FRAC)	AUXILIARY (KW)	TANK (GAL)	TANK UA (BTU/HR-F)
ELEC DW-HEATER	DHW-Loop	-0.015	0.7	1.000	0.000	0.000	119.0	4.00

MON		HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	FUEL USE (MBTU) (KBTU/HR)	AUX ENERGY (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	-3.348	1050.559	0.000	0.000	LOAD	119	61	14	63	21	0	10	0	10	0	0	298
	PEAK	-32.104	4.512	0.000	0.000	ELEC	406	29	77	35	2	3	0	14	1	0	177	744
	DAY/HR	3/13	2/15	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
FEB	SUM	-3.689	1144.700	0.000	0.000	LOAD	213	37	52	47	19	10	0	10	0	10	0	398
	PEAK	-32.947	4.512	0.000	0.000	ELEC	224	81	115	40	6	18	0	19	6	0	163	672
	DAY/HR	3/13	3/ 9	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
MAR	SUM	-3.657	1142.798	0.000	0.000	LOAD	156	33	53	53	21	10	0	10	0	10	0	346
	PEAK	-33.014	4.512	0.000	0.000	ELEC	348	46	94	38	4	6	11	16	4	0	177	744
	DAY/HR	4/13	3/15	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
APR	SUM	-3.801	1182.027	0.000	0.000	LOAD	162	49	39	55	22	11	11	0	0	11	0	360
	PEAK	-32.614	4.512	0.000	0.000	ELEC	305	48	108	30	4	17	0	17	4	0	187	720
	DAY/HR	1/13	1/ 9	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
MAY	SUM	-6.634	2004.737	0.000	0.000	LOAD	353	103	15	105	42	21	21	21	21	21	0	723
	PEAK	-31.008	4.512	0.000	0.000	ELEC	0	209	66	62	31	15	31	10	5	0	315	744
	DAY/HR	1/13	1/ 9	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
JUN	SUM	-6.637	1999.807	0.000	0.000	LOAD	340	78	29	63	42	42	21	63	21	21	0	720
	PEAK	-29.410	4.512	0.000	0.000	ELEC	0	206	62	59	8	8	33	8	0	0	336	720
	DAY/HR	2/13	2/ 9	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	-6.588	1987.164	0.000	0.000	LOAD	374	80	26	88	22	88	44	22	0	0	0	744
	PEAK	-28.024	4.512	0.000	0.000	ELEC	0	232	63	53	23	1	38	4	0	0	330	744
	DAY/HR	1/13	1/ 9	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
AUG	SUM	-6.247	1886.968	0.000	0.000	LOAD	379	87	67	43	42	105	21	0	0	0	0	744
	PEAK	-27.146	4.512	0.000	0.000	ELEC	0	256	76	36	15	0	41	26	0	0	294	744
	DAY/HR	1/13	1/ 9	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	-6.109	1844.211	0.000	0.000	LOAD	365	78	67	42	42	105	21	0	0	0	0	720
	PEAK	-27.071	4.512	0.000	0.000	ELEC	0	248	71	33	12	0	37	25	0	0	294	720
	DAY/HR	2/13	2/ 9	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
OCT	SUM	-6.532	1968.865	0.000	0.000	LOAD	374	80	37	77	44	79	53	0	0	0	0	744

	PEAK	-27.785	4.512	0.000	0.000	ELEC	0	232	85	42	13	0	38	4	0	0	330	744
	DAY/HR	1/13	1/ 9	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
NOV	SUM	-5.998	1812.051	0.000	0.000	LOAD	377	81	28	54	36	36	54	18	36	0	0	720
	PEAK	-29.136	4.512	0.000	0.000	ELEC	0	256	73	40	10	10	33	10	0	18	270	720
	DAY/HR	3/13	3/ 9	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
DEC	SUM	-6.693	2019.313	0.000	0.000	LOAD	348	102	8	110	44	22	22	22	44	0	0	722
	PEAK	-30.685	4.512	0.000	0.000	ELEC	0	232	37	83	8	12	30	8	4	0	330	744
	DAY/HR	1/13	1/ 9	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0

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Metropole                                                                    DOE-2.3-50h    9/16/2020    11:41:30  BDL RUN  9

REPORT- PS-H Loads and Energy Usage for     HP2-DHW                                      WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------(CONTINUED)--------
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Yr    SUM     -65.932   20043.199       0.000       0.000 LOAD3560   869   435   800   397   529   278   166   132    73     0  7239
     PEAK     -33.014       4.512       0.000       0.000 ELEC1283  2075   927   551   136    90   292   161    24    18  3203  8760
  MON/DAY        3/ 4        1/ 2        0/ 0        0/ 0 FUEL   0     0     0     0     0     0     0     0     0     0     0     0
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DETAILED SIZING INFORMATION

EQUIPMENT TYPE	CAPACITY (MBTU/HR)	ELECTRIC (KW)	HEAT EIR (BTU/BTU)	AUX ELEC (KW)	FUEL (MBTU/HR)	HEAT HIR (BTU/BTU)	TANK (GAL)	TANK UA (BTU/HR-F)
ELEC DW-HEATER	-0.015	4.512	1.0000	0.000	0.000	0.0000	119.0	4.00

ATTACHED TO	THERMAL (MBTU/HR)	HEAD (FT)	FLOW (GPM)	DELTA T (F)	DESIGN T (F)
DHW-Loop	-0.015	1.00	0.70	43.78	150.00
Ambient					57.27

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- PS-H Loads and Energy Usage for HP3-DHW WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	HIR (FRAC)	AUXILIARY (KW)	TANK (GAL)	TANK UA (BTU/HR-F)
ELEC DW-HEATER	DHW-Loop	-0.015	0.7	1.000	0.000	0.000	119.0	4.00

MON	SUM / PEAK / DAY/HR	HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	FUEL USE (MBTU) (KBTU/HR)	AUX ENERGY (KWH) (KW)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.000	73.654	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.102	0.000	0.000	ELEC	744	0	0	0	0	0	0	0	0	0	0	744
	DAY/HR	0/ 0	27/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
FEB	SUM	0.000	68.057	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.104	0.000	0.000	ELEC	672	0	0	0	0	0	0	0	0	0	0	672
	DAY/HR	0/ 0	24/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
MAR	SUM	0.000	75.834	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.104	0.000	0.000	ELEC	744	0	0	0	0	0	0	0	0	0	0	744
	DAY/HR	0/ 0	3/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
APR	SUM	0.000	72.854	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.103	0.000	0.000	ELEC	720	0	0	0	0	0	0	0	0	0	0	720
	DAY/HR	0/ 0	7/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
MAY	SUM	0.000	73.319	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.102	0.000	0.000	ELEC	744	0	0	0	0	0	0	0	0	0	0	744
	DAY/HR	0/ 0	5/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
JUN	SUM	0.000	68.323	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.099	0.000	0.000	ELEC	720	0	0	0	0	0	0	0	0	0	0	720
	DAY/HR	0/ 0	2/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	0.000	67.857	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.095	0.000	0.000	ELEC	744	0	0	0	0	0	0	0	0	0	0	744
	DAY/HR	0/ 0	7/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
AUG	SUM	0.000	65.351	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.091	0.000	0.000	ELEC	744	0	0	0	0	0	0	0	0	0	0	744
	DAY/HR	0/ 0	4/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	0.000	62.814	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.090	0.000	0.000	ELEC	720	0	0	0	0	0	0	0	0	0	0	720
	DAY/HR	0/ 0	2/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
OCT	SUM	0.000	65.467	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

	PEAK	0.000	0.091	0.000	0.000	ELEC	744	0	0	0	0	0	0	0	0	0	0	744
	DAY/HR	0/ 0	20/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
NOV	SUM	0.000	65.591	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.094	0.000	0.000	ELEC	720	0	0	0	0	0	0	0	0	0	0	720
	DAY/HR	0/ 0	30/24	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
DEC	SUM	0.000	70.521	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.098	0.000	0.000	ELEC	744	0	0	0	0	0	0	0	0	0	0	744
	DAY/HR	0/ 0	29/ 5	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0

Metropole DOE-2.3-50h 9/16/2020 11:41:30 BDL RUN 9

REPORT- PS-H Loads and Energy Usage for HP3-DHW WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

Yr SUM	0.000	829.644	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.104	0.000	0.000	ELEC	8760	0	0	0	0	0	0	0	0	0	0	8760
MON/DAY	0/ 0	2/24	0/ 0	0/ 0	FUEL	0	0	0	0	0	0	0	0	0	0	0	0

DETAILED SIZING INFORMATION

EQUIPMENT TYPE	CAPACITY (MBTU/HR)	ELECTRIC (KW)	HEAT EIR (BTU/BTU)	AUX ELEC (KW)	FUEL (MBTU/HR)	HEAT HIR (BTU/BTU)	TANK (GAL)	TANK UA (BTU/HR-F)
ELEC DW-HEATER	-0.015	4.512	1.0000	0.000	0.000	0.0000	119.0	4.00

ATTACHED TO	THERMAL (MBTU/HR)	HEAD (FT)	FLOW (GPM)	DELTA T (F)	DESIGN T (F)
DHW-Loop	-0.015	1.00	0.70	43.78	150.00
Ambient					57.27

Proposed Design

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- LV-B Summary of Spaces WEATHER FILE- SEATTLE BOEING FI WA

NUMBER OF SPACES 84 EXTERIOR 50 INTERIOR 34

SPACE	SPACE*FLOOR MULTIPLIER	SPACE TYPE	AZIM	LIGHTS (WATT / SQFT)	PEOPLE	EQUIP (WATT / SQFT)	INFILTRATION METHOD	ACH	AREA (SQFT)	VOLUME (CUFT)
Spaces on floor: L1Ground Flr										
L1SW Perim Spc (G.SW1)	1.0	EXT	-30.6	0.67	13.2	0.50	AIR-CHANGE	0.20	989.5	18503.2
L1Core Spc (G.C2)	1.0	INT	0.0	0.34	0.4	0.78	AIR-CHANGE	0.00	99.0	1851.3
L1West Perim Spc (G.W3)	1.0	EXT	0.0	0.37	0.7	0.75	AIR-CHANGE	0.21	179.2	3351.0
L1WNW Perim Spc (G.WNW4)	1.0	EXT	181.0	0.36	1.2	0.75	AIR-CHANGE	0.42	337.4	6309.9
L1Core Spc (G.C5)	1.0	INT	0.0	0.36	0.4	0.78	AIR-CHANGE	0.00	120.0	2244.0
L1Core Spc (G.C6)	1.0	INT	0.0	0.67	4.1	0.53	AIR-CHANGE	0.00	304.0	5684.8
L1North Perim Spc (G.N7)	1.0	EXT	92.2	0.34	1.0	0.75	AIR-CHANGE	0.19	276.3	5166.9
L1SSE Perim Spc (G.SSE8)	1.0	EXT	0.0	0.53	2.3	0.75	AIR-CHANGE	0.10	636.0	11893.2
L1Core Spc (G.C9)	1.0	INT	0.0	0.36	0.5	0.78	AIR-CHANGE	0.00	124.0	2318.8
L1Core Spc (G.C10)	1.0	INT	0.0	0.00	0.0	0.03	AIR-CHANGE	0.00	200.0	3740.0
L1Core Spc (G.C11)	1.0	INT	0.0	0.36	0.9	0.78	AIR-CHANGE	0.00	236.0	4413.2
L1North Perim Spc (G.N12)	1.0	EXT	-90.0	0.34	1.4	0.75	AIR-CHANGE	0.18	378.0	3401.9
L1North Perim Spc (G.N13)	1.0	EXT	90.0	0.36	0.4	0.75	AIR-CHANGE	0.16	100.4	903.8
L1North Perim Spc (G.N14)	1.0	EXT	90.0	0.38	0.9	0.75	AIR-CHANGE	0.26	256.3	4792.8
L1SSE Perim Spc (G.SSE15)	1.0	EXT	-32.5	0.49	0.5	0.75	AIR-CHANGE	0.27	125.8	2351.8
L1SE Perim Spc (G.SE16)	1.0	EXT	-90.0	0.49	1.7	0.75	AIR-CHANGE	0.15	478.3	8943.8
L1Core Spc (G.C17)	1.0	INT	0.0	0.49	1.4	0.78	AIR-CHANGE	0.00	381.6	7135.7
L1East Perim Spc (G.E18)	1.0	EXT	79.7	0.66	31.1	0.75	AIR-CHANGE	0.19	1554.6	29070.5
Space 84	1.0	EXT	-90.0	0.34	1.7	0.75	AIR-CHANGE	0.18	478.6	4642.7
Spaces on floor: L2Ground Flr										
L2SW Perim Spc (G.SW1)	1.0	EXT	-30.6	0.67	12.2	0.51	AIR-CHANGE	0.22	915.7	11721.2
L2Core Spc (G.C2)	1.0	INT	0.0	0.52	0.6	0.75	AIR-CHANGE	0.00	172.8	2211.8
L2West Perim Spc (G.W3)	1.0	EXT	0.0	0.37	0.9	0.76	AIR-CHANGE	0.26	243.2	3113.0
L2West Perim Spc (G.W4)	1.0	EXT	0.0	0.52	0.2	0.76	AIR-CHANGE	0.35	67.6	865.8
L2Core Spc (G.C5)	1.0	INT	0.0	0.36	0.4	0.75	AIR-CHANGE	0.00	120.0	1536.0
L2NW Perim Spc (G.NW6)	1.0	EXT	90.0	0.67	11.4	0.51	AIR-CHANGE	0.17	857.4	10974.8
L2SSE Perim Spc (G.SSE7)	1.0	EXT	0.0	0.53	2.1	0.76	AIR-CHANGE	0.11	580.0	7424.0
L2Core Spc (G.C8)	1.0	INT	0.0	0.36	0.7	0.75	AIR-CHANGE	0.00	180.0	2304.0
L2Core Spc (G.C9)	1.0	INT	0.0	0.00	0.0	0.00	AIR-CHANGE	0.00	200.0	2560.0
L2Core Spc (G.C10)	1.0	INT	0.0	0.36	1.4	0.75	AIR-CHANGE	0.00	380.8	4873.6
L2North Perim Spc (G.N11)	1.0	EXT	0.0	0.52	1.1	0.76	AIR-CHANGE	0.12	296.7	3798.1
L2North Perim Spc (G.N12)	1.0	EXT	0.0	0.39	0.8	0.76	AIR-CHANGE	0.22	212.1	2714.6
L2North Perim Spc (G.N13)	1.0	EXT	0.0	0.38	0.9	0.76	AIR-CHANGE	0.22	253.1	3239.0
L2SSE Perim Spc (G.SSE14)	1.0	EXT	0.0	0.53	3.8	0.76	AIR-CHANGE	0.10	1032.5	13215.4

L2East Perim Spc (G.E15)	1.0	EXT	-88.8	0.52	5.2	0.76	AIR-CHANGE	0.22	1425.2	18242.7

Spaces on floor: L3Ground Flr

L3SW Perim Spc (G.SW1)	1.0	EXT	-30.6	0.67	12.2	0.51	AIR-CHANGE	0.23	915.7	11080.0
L3Core Spc (G.C2)	1.0	INT	0.0	0.52	0.6	0.75	AIR-CHANGE	0.00	172.8	2090.9
L3West Perim Spc (G.W3)	1.0	EXT	0.0	0.37	0.7	0.76	AIR-CHANGE	0.28	186.2	2253.0
L3WSW Perim Spc (G.WSW4)	1.0	EXT	0.0	0.52	0.4	0.76	AIR-CHANGE	0.28	111.4	1347.5

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- LV-B Summary of Spaces WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

L3Core Spc (G.C5)	1.0	INT	0.0	0.36	0.4	0.75	AIR-CHANGE	0.00	120.0	1452.0
L3NW Perim Spc (G.NW6)	1.0	EXT	90.0	0.68	10.8	0.51	AIR-CHANGE	0.17	813.7	9845.6
L3SSE Perim Spc (G.SSE7)	1.0	EXT	0.0	0.53	2.1	0.76	AIR-CHANGE	0.33	580.0	7018.0
L3Core Spc (G.C8)	1.0	EXT	0.0	0.36	0.7	0.75	AIR-CHANGE	0.06	180.0	2178.0
L3Core Spc (G.C9)	1.0	INT	0.0	0.00	0.0	0.00	AIR-CHANGE	0.00	200.0	2420.0
L3Core Spc (G.C10)	1.0	EXT	0.0	0.36	1.4	0.75	AIR-CHANGE	0.19	380.8	4607.1
L3North Perim Spc (G.N11)	1.0	EXT	0.0	0.52	1.1	0.76	AIR-CHANGE	0.34	296.7	3590.4
L3North Perim Spc (G.N12)	1.0	EXT	0.0	0.39	0.8	0.76	AIR-CHANGE	0.44	212.1	2566.1
L3North Perim Spc (G.N13)	1.0	EXT	0.0	0.38	0.9	0.76	AIR-CHANGE	0.26	253.1	3061.9
L3SSE Perim Spc (G.SSE14)	1.0	EXT	0.0	0.53	3.8	0.76	AIR-CHANGE	0.26	1032.5	12492.7
L3East Perim Spc (G.E15)	1.0	EXT	-88.8	0.52	5.2	0.76	AIR-CHANGE	0.44	1425.2	17245.1
Spaces on floor: L4 Ground Flr										
L4 SSE Perim Spc (G.SSE1)	1.0	EXT	-31.1	0.52	4.0	0.76	AIR-CHANGE	0.47	1088.3	15997.4
L4 West Perim Spc (G.W2)	1.0	EXT	0.0	0.37	0.7	0.76	AIR-CHANGE	0.46	186.2	2737.1
L4 Core Spc (G.C3)	1.0	EXT	-90.0	0.36	0.4	0.75	AIR-CHANGE	0.18	108.8	1598.6
L4 NNW Perim Spc (G.NNW4)	1.0	EXT	0.0	0.52	2.9	0.76	AIR-CHANGE	0.47	810.9	11919.6
L4 SSE Perim Spc (G.SSE5)	1.0	EXT	0.0	0.36	1.7	0.76	AIR-CHANGE	0.67	457.2	6721.6
L4 North Perim Spc (G.N6)	1.0	EXT	90.0	0.00	0.0	0.84	AIR-CHANGE	0.45	205.0	3013.5
L4 North Perim Spc (G.N7)	1.0	EXT	90.0	0.38	0.8	0.76	AIR-CHANGE	0.89	214.2	3148.7
L4 Core Spc (G.C8)	1.0	EXT	180.0	0.52	0.3	0.75	AIR-CHANGE	0.18	81.0	1190.7
Spaces on floor: B1Below-Grade Flr										
B1SW Perim Spc (B.SW1)	1.0	EXT	-31.9	0.51	4.5	0.76	AIR-CHANGE	0.10	1235.0	17043.4
B1Core Spc (B.C2)	1.0	INT	0.0	0.36	1.8	0.76	AIR-CHANGE	0.00	505.9	6981.1
B1West Perim Spc (B.W3)	1.0	INT	0.0	0.51	0.6	0.76	AIR-CHANGE	0.00	154.1	2126.9
B1West Perim Spc (B.W4)	1.0	INT	0.0	0.37	0.9	0.76	AIR-CHANGE	0.00	247.0	3409.2
B1Core Spc (B.C5)	1.0	INT	0.0	0.53	0.4	0.76	AIR-CHANGE	0.00	110.4	1524.0
B1West Perim Spc (B.W6)	1.0	INT	0.0	0.51	1.0	0.76	AIR-CHANGE	0.00	270.4	3731.5
B1SSE Perim Spc (B.SSE7)	1.0	EXT	0.0	0.66	7.7	0.76	AIR-CHANGE	0.20	385.4	5318.0
B1Core Spc (B.C8)	1.0	INT	0.0	0.66	12.7	0.76	AIR-CHANGE	0.00	636.9	8788.6
B1Core Spc (B.C9)	1.0	INT	0.0	0.36	0.5	0.76	AIR-CHANGE	0.00	140.0	1932.0
B1Core Spc (B.C10)	1.0	INT	0.0	0.49	2.3	0.76	AIR-CHANGE	0.00	635.5	8769.6
B1SSE Perim Spc (B.SSE11)	1.0	EXT	0.0	0.66	5.8	0.76	AIR-CHANGE	0.20	291.0	4016.3
B1SSE Perim Spc (B.SSE12)	1.0	EXT	0.0	0.66	8.2	0.76	AIR-CHANGE	0.20	410.6	5666.3
B1Core Spc (B.C13)	1.0	INT	0.0	0.38	1.4	0.76	AIR-CHANGE	0.00	388.5	5361.3
B1SSE Perim Spc (B.SSE14)	1.0	EXT	0.0	0.66	7.4	0.76	AIR-CHANGE	0.20	370.1	5107.8
B1Core Spc (B.C15)	1.0	INT	0.0	0.00	0.0	0.01	AIR-CHANGE	0.00	200.0	2760.0
B1NW Perim Spc (B.NW16)	1.0	INT	90.0	0.51	1.5	0.76	AIR-CHANGE	0.00	417.6	5762.3
B1North Perim Spc (B.N17)	1.0	INT	0.0	0.51	0.4	0.76	AIR-CHANGE	0.00	103.4	1427.3
B1North Perim Spc (B.N18)	1.0	INT	0.0	0.52	0.8	0.76	AIR-CHANGE	0.00	220.8	3046.8
B1North Perim Spc (B.N19)	1.0	INT	0.0	0.52	1.0	0.76	AIR-CHANGE	0.00	271.4	3745.0
B1SE Perim Spc (B.SE20)	1.0	EXT	-90.0	0.66	10.1	0.76	AIR-CHANGE	0.20	506.3	6986.6
B1NE Perim Spc (B.NE21)	1.0	EXT	180.0	0.34	1.0	0.76	AIR-CHANGE	0.20	261.3	3606.2
B1North Perim Spc (B.N22)	1.0	EXT	-90.0	0.66	36.9	0.76	AIR-CHANGE	0.01	1843.0	25434.0
B1Core Spc (B.C23)	1.0	INT	0.0	0.36	0.7	0.76	AIR-CHANGE	0.00	180.0	2484.0
Spaces on floor: B2Below-Grade Flr										

B2SW Perim Spc (B.SW1)	1.0	INT	-31.7	0.51	2.3	0.76	AIR-CHANGE	0.00	643.2	5467.6
B2East Perim Spc (B.E2)	1.0	INT	-90.0	0.36	2.4	0.76	AIR-CHANGE	0.00	662.6	5631.9
B2West Perim Spc (B.W3)	1.0	INT	0.0	0.37	0.9	0.76	AIR-CHANGE	0.00	247.0	2099.8
B2North Perim Spc (B.N4)	1.0	INT	180.0	0.34	3.4	0.76	AIR-CHANGE	0.00	925.7	7868.8
BUILDING TOTALS				0.51	273.7	0.71			36486.8	501185.1

CONDITIONED FLOOR AREA = 31768.1 SQFT
TOTAL INSTALLED LIGHTING POWER = 18.435 KW

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- LV-B Summary of Spaces                                                                   WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

                                                        LIGHTS          EQUIP
                                 SPACE*FLOOR SPACE     (WATT /        (WATT / INFILTRATION                AREA       VOLUME
SPACE                             MULTIPLIER  TYPE   AZIM  SQFT ) PEOPLE  SQFT )       METHOD   ACH     (SQFT )      (CUFT )

TOTAL INSTALLED EQUIPMENT POWER =       25.798  KW
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

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

NUMBER OF EXTERIOR SURFACES 100
(U-VALUE INCLUDES OUTSIDE FILM; WINDOW INCLUDES FRAME AND CURB, IF DEFINED)

SURFACE	- - - W I N D O W S - - - U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	- - - - W A L L - - - - U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	-W A L L + W I N D O W S- U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	AZIMUTH
L1East Wall (G.WNW4.E5)	0.000	0.00	0.041	49.56	0.041	49.56	NORTH
in space: L1WNW Perim Spc (G.WNW4)							
L1East Wall (G.N12.E11)	0.000	0.00	0.041	25.65	0.041	25.65	NORTH
in space: L1North Perim Spc (G.N12)							
Exterior Wall 89	0.000	0.00	0.041	27.64	0.041	27.64	NORTH
in space: Space 84							
L4 East Wall (G.NNW4.E10)	0.000	0.00	0.049	335.89	0.049	335.89	NORTH
in space: L4 NNW Perim Spc (G.NNW4)							
L4 East Wall (G.SSE5.E15)	0.138	193.12	0.049	196.42	0.093	389.55	NORTH
in space: L4 SSE Perim Spc (G.SSE5)							
L4 East Wall (G.N7.E23)	0.138	71.25	0.049	74.28	0.092	145.53	NORTH
in space: L4 North Perim Spc (G.N7)							
L4 East Wall (G.SSE1.E2)	0.138	121.88	0.049	429.42	0.069	551.30	NORTH
in space: L4 SSE Perim Spc (G.SSE1)							
L1East Wall (G.E18.E22)	0.157	177.96	0.396	138.14	0.261	316.10	NORTH
in space: L1East Perim Spc (G.E18)							
L2East Wall (G.E15.E12)	0.261	63.75	0.352	177.53	0.328	241.28	NORTH
in space: L2East Perim Spc (G.E15)							
L3East Wall (G.E15.E14)	0.261	50.68	0.352	177.40	0.332	228.08	NORTH
in space: L3East Perim Spc (G.E15)							
L1East Wall (G.SE16.E18)	0.000	0.00	0.396	50.63	0.396	50.63	NORTH
in space: L1SE Perim Spc (G.SE16)							
L1SSE Wall (G.SSE15.E16)	0.252	100.00	0.396	138.43	0.335	238.43	NORTH-EAST
in space: L1SSE Perim Spc (G.SSE15)							
L4 SSE Wall (G.SSE1.E1)	0.261	120.00	0.049	348.49	0.103	468.49	NORTH-EAST
in space: L4 SSE Perim Spc (G.SSE1)							
L1SSE Wall (G.SE16.E17)	0.157	216.00	0.396	220.16	0.278	436.16	NORTH-EAST
in space: L1SE Perim Spc (G.SE16)							
L3SSE Wall (G.SSE7.E9)	0.261	68.56	0.352	213.66	0.330	282.22	NORTH-EAST
in space: L3SSE Perim Spc (G.SSE7)							
L1SSE Wall (G.SSE8.E10)	0.157	216.00	0.396	220.16	0.278	436.16	NORTH-EAST
in space: L1SSE Perim Spc (G.SSE8)							
L2SSE Wall (G.SSE7.E7)	0.261	90.00	0.352	208.54	0.325	298.54	NORTH-EAST
in space: L2SSE Perim Spc (G.SSE7)							
L1SSE Wall (G.E18.E20)	0.157	447.36	0.396	456.41	0.278	903.77	NORTH-EAST
in space: L1East Perim Spc (G.E18)							
L2SSE Wall (G.SW1.E1)	0.261	138.72	0.352	274.72	0.321	413.44	NORTH-EAST
in space: L2SW Perim Spc (G.SW1)							
L3SSE Wall (G.SW1.E1)	0.261	120.00	0.049	270.83	0.114	390.83	NORTH-EAST

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  in space: L3SW Perim Spc (G.SW1)
L1SSE Wall (G.SW1.E1)                    0.157        252.76        0.396        351.24      0.296          604.01  NORTH-EAST
  in space: L1SW Perim Spc (G.SW1)
L3SSE Wall (G.E15.E16)                   0.261        137.12        0.352        476.06      0.332          613.18  NORTH-EAST
  in space: L3East Perim Spc (G.E15)
L2SSE Wall (G.E15.E14)                   0.261        180.00        0.352        468.65      0.327          648.65  NORTH-EAST
  in space: L2East Perim Spc (G.E15)
L3SSE Wall (G.SSE14.E13)                 0.261        124.81        0.352        316.21      0.326          441.02  NORTH-EAST
  in space: L3SSE Perim Spc (G.SSE14)
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L2SSE Wall (G.SSE14.E11)	0.261	146.25	0.352	320.29	0.324	466.54	NORTH-EAST
in space: L2SSE Perim Spc (G.SSE14)							
L4 South Wall (G.SSE5.E14)	0.138	270.00	0.049	266.55	0.094	536.55	EAST
in space: L4 SSE Perim Spc (G.SSE5)							
L4 South Wall (G.NNW4.E9)	0.000	0.00	0.049	44.10	0.049	44.10	EAST
in space: L4 NNW Perim Spc (G.NNW4)							
L4 South Wall (G.N7.E22)	0.138	108.75	0.049	111.75	0.093	220.50	EAST
in space: L4 North Perim Spc (G.N7)							
L3South Wall (G.WSW4.E5)	0.000	0.00	0.049	36.30	0.049	36.30	EAST
in space: L3WSW Perim Spc (G.WSW4)							
L1West Wall (G.E18.E19)	0.000	0.00	0.396	62.65	0.396	62.65	SOUTH-EAST
in space: L1East Perim Spc (G.E18)							
L4 West Wall (G.SSE1.E4)	0.000	0.00	0.049	609.26	0.049	609.26	SOUTH-EAST
in space: L4 SSE Perim Spc (G.SSE1)							
L1West Wall (G.W3.E3)	0.000	0.00	0.041	261.80	0.041	261.80	SOUTH
in space: L1West Perim Spc (G.W3)							
L3West Wall (G.WSW4.E6)	0.000	0.00	0.049	105.27	0.049	105.27	SOUTH
in space: L3WSW Perim Spc (G.WSW4)							
L4 West Wall (G.W2.E6)	0.138	28.50	0.049	250.80	0.058	279.30	SOUTH
in space: L4 West Perim Spc (G.W2)							
L3West Wall (G.NW6.E7)	0.000	0.00	0.049	300.68	0.049	300.68	SOUTH
in space: L3NW Perim Spc (G.NW6)							
L1West Wall (G.N14.E14)	0.000	0.00	0.396	51.43	0.396	51.43	SOUTH
in space: L1North Perim Spc (G.N14)							
L4 West Wall (G.NNW4.E12)	0.000	0.00	0.049	493.18	0.049	493.18	SOUTH
in space: L4 NNW Perim Spc (G.NNW4)							
L2West Wall (G.W3.E3)	0.000	0.00	0.041	243.20	0.041	243.20	SOUTH
in space: L2West Perim Spc (G.W3)							
L2West Wall (G.W4.E4)	0.000	0.00	0.041	111.36	0.041	111.36	SOUTH
in space: L2West Perim Spc (G.W4)							
L4 West Wall (G.SSE5.E16)	0.000	0.00	0.049	147.00	0.049	147.00	SOUTH
in space: L4 SSE Perim Spc (G.SSE5)							
L4 West Wall (G.N7.E21)	0.000	0.00	0.049	154.35	0.049	154.35	SOUTH
in space: L4 North Perim Spc (G.N7)							
L2West Wall (G.NW6.E5)	0.000	0.00	0.041	318.08	0.041	318.08	SOUTH
in space: L2NW Perim Spc (G.NW6)							
L3West Wall (G.W3.E4)	0.138	19.00	0.049	210.90	0.056	229.90	SOUTH
in space: L3West Perim Spc (G.W3)							
L1West Wall (G.SW1.E2)	0.000	0.00	0.041	775.09	0.041	775.09	SOUTH
in space: L1SW Perim Spc (G.SW1)							
L2West Wall (G.SW1.E2)	0.000	0.00	0.041	530.54	0.041	530.54	SOUTH
in space: L2SW Perim Spc (G.SW1)							
L3West Wall (G.SW1.E3)	0.000	0.00	0.049	501.53	0.049	501.53	SOUTH
in space: L3SW Perim Spc (G.SW1)							
L1West Wall (G.WNW4.E7)	0.000	0.00	0.041	721.00	0.041	721.00	SOUTH
in space: L1WNW Perim Spc (G.WNW4)							
L1West Wall (G.N7.E8)	0.000	0.00	0.041	49.56	0.041	49.56	SOUTH
in space: L1North Perim Spc (G.N7)							
Exterior Wall 91	0.157	17.00	0.041	42.17	0.075	59.17	WEST
in space: Space 84							

L4 North Wall (G.SSE5.E17)	0.000	0.00	0.049	147.00	0.049	147.00	WEST
in space: L4 SSE Perim Spc (G.SSE5)							
L4 North Wall (G.N6.E19)	0.000	0.00	0.049	301.35	0.049	301.35	WEST
in space: L4 North Perim Spc (G.N6)							
L4 North Wall (G.SSE1.E3)	0.000	0.00	0.049	44.12	0.049	44.12	WEST
in space: L4 SSE Perim Spc (G.SSE1)							
L3North Wall (G.SW1.E2)	0.000	0.00	0.049	36.29	0.049	36.29	WEST
in space: L3SW Perim Spc (G.SW1)							

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L1North Wall (G.N13.E13)	0.000	0.00	0.396	54.90	0.396	54.90	WEST
in space: L1North Perim Spc (G.N13)							
L1North Wall (G.WNW4.E4)	0.157	26.25	0.041	77.54	0.071	103.79	WEST
in space: L1WNW Perim Spc (G.WNW4)							
L1North Wall (G.N7.E9)	0.157	42.00	0.041	266.61	0.057	308.61	WEST
in space: L1North Perim Spc (G.N7)							
L2North Wall (G.NW6.E6)	0.261	120.95	0.352	234.96	0.321	355.91	WEST
in space: L2NW Perim Spc (G.NW6)							
L3North Wall (G.NW6.E8)	0.261	90.00	0.049	246.45	0.106	336.45	WEST
in space: L3NW Perim Spc (G.NW6)							
L1North Wall (G.E18.E23)	0.157	78.86	0.396	672.11	0.371	750.97	WEST
in space: L1East Perim Spc (G.E18)							
L3North Wall (G.N12.E11)	0.261	58.97	0.352	146.77	0.326	205.74	WEST
in space: L3North Perim Spc (G.N12)							
L2North Wall (G.N12.E9)	0.261	58.97	0.352	158.67	0.327	217.65	WEST
in space: L2North Perim Spc (G.N12)							
L3North Wall (G.E15.E15)	0.261	115.05	0.352	424.73	0.333	539.78	WEST
in space: L3East Perim Spc (G.E15)							
L2North Wall (G.E15.E13)	0.261	115.05	0.352	455.96	0.334	571.01	WEST
in space: L2East Perim Spc (G.E15)							
L1North Wall (G.N14.E15)	0.000	0.00	0.396	417.11	0.396	417.11	WEST
in space: L1North Perim Spc (G.N14)							
L2North Wall (G.N13.E10)	0.261	61.88	0.352	207.00	0.331	268.88	WEST
in space: L2North Perim Spc (G.N13)							
L3North Wall (G.N13.E12)	0.261	61.88	0.352	192.30	0.330	254.17	WEST
in space: L3North Perim Spc (G.N13)							
Exterior Wall 90	0.157	35.38	0.041	183.91	0.060	219.28	WEST
in space: Space 84							
L1North Wall (G.N12.E12)	0.000	0.00	0.041	203.46	0.041	203.46	WEST
in space: L1North Perim Spc (G.N12)							
L4 North Wall (G.NNW4.E11)	0.261	90.00	0.049	311.44	0.097	401.44	WEST
in space: L4 NNW Perim Spc (G.NNW4)							
L1North Wall (G.WNW4.E6)	0.000	0.00	0.041	105.66	0.041	105.66	WEST
in space: L1WNW Perim Spc (G.WNW4)							
L3North Wall (G.N11.E10)	0.261	38.35	0.352	119.01	0.330	157.36	WEST
in space: L3North Perim Spc (G.N11)							
L2North Wall (G.N11.E8)	0.261	38.35	0.352	128.11	0.331	166.46	WEST
in space: L2North Perim Spc (G.N11)							
L4 North Wall (G.N7.E24)	0.138	153.75	0.049	155.08	0.093	308.83	WEST
in space: L4 North Perim Spc (G.N7)							
L1ENE Wall (G.E18.E21)	0.000	0.00	0.396	65.91	0.396	65.91	NORTH-WEST
in space: L1East Perim Spc (G.E18)							
Exterior Wall 81	0.000	0.00	0.019	757.11	0.019	757.11	ROOF
in space: L3SSE Perim Spc (G.SSE14)							
Exterior Wall 99	0.000	0.00	0.019	150.75	0.019	150.75	ROOF
in space: L3Core Spc (G.C10)							
Exterior Wall 88	0.000	0.00	0.019	57.00	0.019	57.00	ROOF
in space: L2West Perim Spc (G.W3)							
Exterior Wall 84	0.000	0.00	0.019	296.72	0.019	296.72	ROOF
in space: L3North Perim Spc (G.N11)							

L4 Roof (G.NNW4.E13)	0.000	0.00	0.019	810.86	0.019	810.86	ROOF
in space: L4 NNW Perim Spc (G.NNW4)							
Exterior Wall 82	0.000	0.00	0.019	1425.21	0.019	1425.21	ROOF
in space: L3East Perim Spc (G.E15)							
Exterior Wall 80	0.000	0.00	0.019	580.00	0.019	580.00	ROOF
in space: L3SSE Perim Spc (G.SSE7)							
Exterior Wall 83	0.000	0.00	0.019	212.08	0.019	212.08	ROOF
in space: L3North Perim Spc (G.N12)							

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Exterior Wall 87	0.000	0.00	0.019	50.00	0.019	50.00	ROOF
in space: L3Core Spc (G.C8)							
L4 Roof (G.SSE5.E18)	0.000	0.00	0.019	457.25	0.019	457.25	ROOF
in space: L4 SSE Perim Spc (G.SSE5)							
Exterior Wall 85	0.000	0.00	0.019	42.00	0.019	42.00	ROOF
in space: L3North Perim Spc (G.N13)							
L4 Roof (G.N6.E20)	0.000	0.00	0.019	205.00	0.019	205.00	ROOF
in space: L4 North Perim Spc (G.N6)							
L4 Roof (G.SSE1.E5)	0.000	0.00	0.019	1088.26	0.019	1088.26	ROOF
in space: L4 SSE Perim Spc (G.SSE1)							
Exterior Wall 86	0.000	0.00	0.019	170.00	0.019	170.00	ROOF
in space: L3Core Spc (G.C10)							
L4 Roof (G.W2.E7)	0.000	0.00	0.019	186.20	0.019	186.20	ROOF
in space: L4 West Perim Spc (G.W2)							
L4 Roof (G.C3.E8)	0.000	0.00	0.019	108.75	0.019	108.75	ROOF
in space: L4 Core Spc (G.C3)							
L4 Roof (G.N7.E25)	0.000	0.00	0.019	214.20	0.019	214.20	ROOF
in space: L4 North Perim Spc (G.N7)							
L4 Roof (G.C8.E26)	0.000	0.00	0.019	81.00	0.019	81.00	ROOF
in space: L4 Core Spc (G.C8)							
Exterior Wall 92	0.000	0.00	0.289	645.08	0.289	645.08	ROOF
in space: B1SW Perim Spc (B.SW1)							
Exterior Wall 93	0.000	0.00	0.289	385.36	0.289	385.36	ROOF
in space: B1SSE Perim Spc (B.SSE7)							
Exterior Wall 95	0.000	0.00	0.289	291.04	0.289	291.04	ROOF
in space: B1SSE Perim Spc (B.SSE11)							
Exterior Wall 94	0.000	0.00	0.289	410.60	0.289	410.60	ROOF
in space: B1SSE Perim Spc (B.SSE12)							
Exterior Wall 96	0.000	0.00	0.289	370.13	0.289	370.13	ROOF
in space: B1SSE Perim Spc (B.SSE14)							
Exterior Wall 97	0.000	0.00	0.289	506.28	0.289	506.28	ROOF
in space: B1SE Perim Spc (B.SE20)							
Exterior Wall 98	0.000	0.00	0.289	261.32	0.289	261.32	ROOF
in space: B1NE Perim Spc (B.NE21)							
Exterior Wall 100	0.000	0.00	0.289	131.28	0.289	131.28	ROOF
in space: B1North Perim Spc (B.N22)							
B1Flr (B.SW1.U1)	0.000	0.00	0.029	1235.03	0.029	1235.03	UNDERGRND
in space: B1SW Perim Spc (B.SW1)							
B1SSE Wall (B.SW1.U2)	0.000	0.00	0.350	594.09	0.350	594.09	UNDERGRND
in space: B1SW Perim Spc (B.SW1)							
B1West Wall (B.SW1.U3)	0.000	0.00	0.350	761.72	0.350	761.72	UNDERGRND
in space: B1SW Perim Spc (B.SW1)							
B1Flr (B.C2.U4)	0.000	0.00	0.029	505.88	0.029	505.88	UNDERGRND
in space: B1Core Spc (B.C2)							
B1Flr (B.W3.U5)	0.000	0.00	0.029	154.12	0.029	154.12	UNDERGRND
in space: B1West Perim Spc (B.W3)							
B1West Wall (B.W3.U6)	0.000	0.00	0.070	103.50	0.070	103.50	UNDERGRND
in space: B1West Perim Spc (B.W3)							
B1Flr (B.W4.U7)	0.000	0.00	0.029	247.04	0.029	247.04	UNDERGRND
in space: B1West Perim Spc (B.W4)							

B1West Wall (B.W4.U8) in space: B1West Perim Spc (B.W4)	0.000	0.00	0.070	266.34	0.070	266.34	UNDERGRND
B1Flr (B.C5.U9) in space: B1Core Spc (B.C5)	0.000	0.00	0.029	110.44	0.029	110.44	UNDERGRND
B1Flr (B.W6.U10) in space: B1West Perim Spc (B.W6)	0.000	0.00	0.029	270.40	0.029	270.40	UNDERGRND
B1West Wall (B.W6.U11) in space: B1West Perim Spc (B.W6)	0.000	0.00	0.070	179.40	0.070	179.40	UNDERGRND
B1Flr (B.SSE7.U12) in space: B1SSE Perim Spc (B.SSE7)	0.000	0.00	0.029	385.36	0.029	385.36	UNDERGRND

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SURFACE	- - - W I N D O W S - - - U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	- - - - W A L L - - - - U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	-W A L L + W I N D O W S- U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	AZIMUTH
B1SSE Wall (B.SSE7.U13)	0.000	0.00	0.350	314.66	0.350	314.66	UNDERGRND
in space: B1SSE Perim Spc (B.SSE7)							
B1Flr (B.C8.U14)	0.000	0.00	0.029	636.85	0.029	636.85	UNDERGRND
in space: B1Core Spc (B.C8)							
B1Flr (B.C9.U15)	0.000	0.00	0.029	140.00	0.029	140.00	UNDERGRND
in space: B1Core Spc (B.C9)							
B1Flr (B.C10.U16)	0.000	0.00	0.029	635.47	0.029	635.47	UNDERGRND
in space: B1Core Spc (B.C10)							
B1Flr (B.SSE11.U17)	0.000	0.00	0.029	291.04	0.029	291.04	UNDERGRND
in space: B1SSE Perim Spc (B.SSE11)							
B1SSE Wall (B.SSE11.U18)	0.000	0.00	0.350	233.02	0.350	233.02	UNDERGRND
in space: B1SSE Perim Spc (B.SSE11)							
B1Flr (B.SSE12.U19)	0.000	0.00	0.029	410.60	0.029	410.60	UNDERGRND
in space: B1SSE Perim Spc (B.SSE12)							
B1SSE Wall (B.SSE12.U20)	0.000	0.00	0.350	343.55	0.350	343.55	UNDERGRND
in space: B1SSE Perim Spc (B.SSE12)							
B1Flr (B.C13.U21)	0.000	0.00	0.029	388.50	0.029	388.50	UNDERGRND
in space: B1Core Spc (B.C13)							
B1Flr (B.SSE14.U22)	0.000	0.00	0.029	370.13	0.029	370.13	UNDERGRND
in space: B1SSE Perim Spc (B.SSE14)							
B1SSE Wall (B.SSE14.U23)	0.000	0.00	0.350	298.34	0.350	298.34	UNDERGRND
in space: B1SSE Perim Spc (B.SSE14)							
B1Flr (B.C15.U24)	0.000	0.00	0.029	200.00	0.029	200.00	UNDERGRND
in space: B1Core Spc (B.C15)							
B1Flr (B.NW16.U25)	0.000	0.00	0.029	417.56	0.029	417.56	UNDERGRND
in space: B1NW Perim Spc (B.NW16)							
B1West Wall (B.NW16.U26)	0.000	0.00	0.070	280.14	0.070	280.14	UNDERGRND
in space: B1NW Perim Spc (B.NW16)							
B1North Wall (B.NW16.U27)	0.000	0.00	0.070	287.11	0.070	287.11	UNDERGRND
in space: B1NW Perim Spc (B.NW16)							
B1Flr (B.N17.U28)	0.000	0.00	0.029	103.43	0.029	103.43	UNDERGRND
in space: B1North Perim Spc (B.N17)							
B1North Wall (B.N17.U29)	0.000	0.00	0.070	96.62	0.070	96.62	UNDERGRND
in space: B1North Perim Spc (B.N17)							
B1Flr (B.N18.U30)	0.000	0.00	0.029	220.78	0.029	220.78	UNDERGRND
in space: B1North Perim Spc (B.N18)							
B1North Wall (B.N18.U31)	0.000	0.00	0.070	183.56	0.070	183.56	UNDERGRND
in space: B1North Perim Spc (B.N18)							
B1Flr (B.N19.U32)	0.000	0.00	0.029	271.38	0.029	271.38	UNDERGRND
in space: B1North Perim Spc (B.N19)							
B1North Wall (B.N19.U33)	0.000	0.00	0.070	230.56	0.070	230.56	UNDERGRND
in space: B1North Perim Spc (B.N19)							
B1Flr (B.SE20.U34)	0.000	0.00	0.029	506.28	0.029	506.28	UNDERGRND

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  in space: B1SE Perim Spc (B.SE20)
B1East Wall (B.SE20.U35)                  0.000          0.00        0.350        148.35      0.350           148.35  UNDERGRND
  in space: B1SE Perim Spc (B.SE20)
B1SSE Wall (B.SE20.U36)                   0.000          0.00        0.350        401.54      0.350           401.54  UNDERGRND
  in space: B1SE Perim Spc (B.SE20)
B1Flr (B.NE21.U37)                        0.000          0.00        0.029        261.32      0.029           261.32  UNDERGRND
  in space: B1NE Perim Spc (B.NE21)
B1North Wall (B.NE21.U38)                 0.000          0.00        0.350        191.82      0.350           191.82  UNDERGRND
  in space: B1NE Perim Spc (B.NE21)
B1East Wall (B.NE21.U39)                  0.000          0.00        0.350        259.44      0.350           259.44  UNDERGRND
  in space: B1NE Perim Spc (B.NE21)
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SURFACE	- - - W I N D O W S - - - U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	- - - - W A L L - - - - U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	-W A L L + W I N D O W S- U-VALUE (BTU/HR-SQFT-F)	AREA (SQFT)	AZIMUTH
B1Flr (B.N22.U40)	0.000	0.00	0.029	1843.04	0.029	1843.04	UNDERGRND
in space: B1North Perim Spc (B.N22)							
B1East Wall (B.N22.U41)	0.000	0.00	0.350	40.02	0.350	40.02	UNDERGRND
in space: B1North Perim Spc (B.N22)							
B1North Wall (B.N22.U42)	0.000	0.00	0.350	292.56	0.350	292.56	UNDERGRND
in space: B1North Perim Spc (B.N22)							
B1West Wall (B.N22.U43)	0.000	0.00	0.350	33.12	0.350	33.12	UNDERGRND
in space: B1North Perim Spc (B.N22)							
B1North Wall (B.N22.U44)	0.000	0.00	0.350	525.87	0.350	525.87	UNDERGRND
in space: B1North Perim Spc (B.N22)							
B1North Wall (B.N22.U45)	0.000	0.00	0.350	51.06	0.350	51.06	UNDERGRND
in space: B1North Perim Spc (B.N22)							
B1Flr (B.C23.U46)	0.000	0.00	0.029	180.00	0.029	180.00	UNDERGRND
in space: B1Core Spc (B.C23)							
B2Flr (B.SW1.U1)	0.000	0.00	0.029	643.24	0.029	643.24	UNDERGRND
in space: B2SW Perim Spc (B.SW1)							
B2SSE Wall (B.SW1.U2)	0.000	0.00	0.350	205.36	0.350	205.36	UNDERGRND
in space: B2SW Perim Spc (B.SW1)							
B2West Wall (B.SW1.U3)	0.000	0.00	0.350	320.03	0.350	320.03	UNDERGRND
in space: B2SW Perim Spc (B.SW1)							
B2Flr (B.E2.U4)	0.000	0.00	0.029	662.58	0.029	662.58	UNDERGRND
in space: B2East Perim Spc (B.E2)							
B2East Wall (B.E2.U5)	0.000	0.00	0.350	401.62	0.350	401.62	UNDERGRND
in space: B2East Perim Spc (B.E2)							
B2West Wall (B.E2.U6)	0.000	0.00	0.350	63.75	0.350	63.75	UNDERGRND
in space: B2East Perim Spc (B.E2)							
B2SSE Wall (B.E2.U7)	0.000	0.00	0.350	72.53	0.350	72.53	UNDERGRND
in space: B2East Perim Spc (B.E2)							
B2Flr (B.W3.U8)	0.000	0.00	0.029	247.04	0.029	247.04	UNDERGRND
in space: B2West Perim Spc (B.W3)							
B2West Wall (B.W3.U9)	0.000	0.00	0.350	164.05	0.350	164.05	UNDERGRND
in space: B2West Perim Spc (B.W3)							
B2Flr (B.N4.U10)	0.000	0.00	0.029	925.74	0.029	925.74	UNDERGRND
in space: B2North Perim Spc (B.N4)							
B2North Wall (B.N4.U11)	0.000	0.00	0.350	236.30	0.350	236.30	UNDERGRND
in space: B2North Perim Spc (B.N4)							
B2West Wall (B.N4.U12)	0.000	0.00	0.350	283.05	0.350	283.05	UNDERGRND
in space: B2North Perim Spc (B.N4)							
B2East Wall (B.N4.U13)	0.000	0.00	0.350	283.05	0.350	283.05	UNDERGRND
in space: B2North Perim Spc (B.N4)							

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

	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	0.163	0.151	0.155	678.64	1682.58	2361.23
NORTH-EAST	0.211	0.322	0.283	2357.58	4283.84	6641.42
EAST	0.138	0.049	0.089	378.75	458.70	837.45
SOUTH-EAST	0.000	0.081	0.081	0.00	671.90	671.90
SOUTH	0.138	0.048	0.049	47.50	5225.77	5273.27
WEST	0.228	0.240	0.238	1202.68	5332.70	6535.38
NORTH-WEST	0.000	0.396	0.396	0.00	65.91	65.91
ROOF	0.000	0.101	0.101	0.00	9893.48	9893.48
ALL WALLS	0.201	0.184	0.188	4665.17	17721.40	22386.56
WALLS+ROOFS	0.201	0.154	0.161	4665.17	27614.87	32280.03
UNDERGRND	0.000	0.135	0.135	0.00	20409.40	20409.40
BUILDING	0.201	0.146	0.151	4665.17	48024.28	52689.43

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- LV-E Details of Underground Surfaces WEATHER FILE- SEATTLE BOEING FI WA

NUMBER OF UNDERGROUND SURFACES 59

SURFACE NAME	MULTIPLIER	AREA (SQFT)	CONSTRUCTION NAME	U-VALUE (BTU/HR-SQFT-F)
B1Flr (B.SW1.U1)	1.0	1235.03	UFCons	0.029
B1SSE Wall (B.SW1.U2)	1.0	594.09	NoInsUWCons	0.350
B1West Wall (B.SW1.U3)	1.0	761.72	NoInsUWCons	0.350
B1Flr (B.C2.U4)	1.0	505.88	UFCons	0.029
B1Flr (B.W3.U5)	1.0	154.12	UFCons	0.029
B1West Wall (B.W3.U6)	1.0	103.50	InsUWCons	0.070
B1Flr (B.W4.U7)	1.0	247.04	UFCons	0.029
B1West Wall (B.W4.U8)	1.0	266.34	InsUWCons	0.070
B1Flr (B.C5.U9)	1.0	110.44	UFCons	0.029
B1Flr (B.W6.U10)	1.0	270.40	UFCons	0.029
B1West Wall (B.W6.U11)	1.0	179.40	InsUWCons	0.070
B1Flr (B.SSE7.U12)	1.0	385.36	UFCons	0.029
B1SSE Wall (B.SSE7.U13)	1.0	314.66	NoInsUWCons	0.350
B1Flr (B.C8.U14)	1.0	636.85	UFCons	0.029
B1Flr (B.C9.U15)	1.0	140.00	UFCons	0.029
B1Flr (B.C10.U16)	1.0	635.47	UFCons	0.029
B1Flr (B.SSE11.U17)	1.0	291.04	UFCons	0.029
B1SSE Wall (B.SSE11.U18)	1.0	233.02	NoInsUWCons	0.350
B1Flr (B.SSE12.U19)	1.0	410.60	UFCons	0.029
B1SSE Wall (B.SSE12.U20)	1.0	343.55	NoInsUWCons	0.350
B1Flr (B.C13.U21)	1.0	388.50	UFCons	0.029
B1Flr (B.SSE14.U22)	1.0	370.13	UFCons	0.029
B1SSE Wall (B.SSE14.U23)	1.0	298.34	NoInsUWCons	0.350
B1Flr (B.C15.U24)	1.0	200.00	UFCons	0.029
B1Flr (B.NW16.U25)	1.0	417.56	UFCons	0.029
B1West Wall (B.NW16.U26)	1.0	280.14	InsUWCons	0.070
B1North Wall (B.NW16.U27)	1.0	287.11	InsUWCons	0.070
B1Flr (B.N17.U28)	1.0	103.43	UFCons	0.029
B1North Wall (B.N17.U29)	1.0	96.62	InsUWCons	0.070
B1Flr (B.N18.U30)	1.0	220.78	UFCons	0.029
B1North Wall (B.N18.U31)	1.0	183.56	InsUWCons	0.070
B1Flr (B.N19.U32)	1.0	271.38	UFCons	0.029
B1North Wall (B.N19.U33)	1.0	230.56	InsUWCons	0.070
B1Flr (B.SE20.U34)	1.0	506.28	UFCons	0.029
B1East Wall (B.SE20.U35)	1.0	148.35	NoInsUWCons	0.350
B1SSE Wall (B.SE20.U36)	1.0	401.54	NoInsUWCons	0.350
B1Flr (B.NE21.U37)	1.0	261.32	UFCons	0.029
B1North Wall (B.NE21.U38)	1.0	191.82	NoInsUWCons	0.350
B1East Wall (B.NE21.U39)	1.0	259.44	NoInsUWCons	0.350
B1Flr (B.N22.U40)	1.0	1843.04	UFCons	0.029
B1East Wall (B.N22.U41)	1.0	40.02	NoInsUWCons	0.350
B1North Wall (B.N22.U42)	1.0	292.56	NoInsUWCons	0.350

B1West Wall (B.N22.U43)	1.0	33.12	NoInsUWCons	0.350
B1North Wall (B.N22.U44)	1.0	525.87	NoInsUWCons	0.350
B1North Wall (B.N22.U45)	1.0	51.06	NoInsUWCons	0.350
B1Flr (B.C23.U46)	1.0	180.00	UFCons	0.029
B2Flr (B.SW1.U1)	1.0	643.24	UFCons	0.029
B2SSE Wall (B.SW1.U2)	1.0	205.36	NoInsUWCons	0.350
B2West Wall (B.SW1.U3)	1.0	320.03	NoInsUWCons	0.350
B2Flr (B.E2.U4)	1.0	662.58	UFCons	0.029
B2East Wall (B.E2.U5)	1.0	401.62	NoInsUWCons	0.350
B2West Wall (B.E2.U6)	1.0	63.75	NoInsUWCons	0.350

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REPORT- LV-E Details of Underground Surfaces WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

SURFACE NAME	MULTIPLIER	AREA (SQFT)	CONSTRUCTION NAME	U-VALUE (BTU/HR-SQFT-F)
B2SSE Wall (B.E2.U7)	1.0	72.53	NoInsUWCons	0.350
B2Flr (B.W3.U8)	1.0	247.04	UFCons	0.029
B2West Wall (B.W3.U9)	1.0	164.05	NoInsUWCons	0.350
B2Flr (B.N4.U10)	1.0	925.74	UFCons	0.029
B2North Wall (B.N4.U11)	1.0	236.30	NoInsUWCons	0.350
B2West Wall (B.N4.U12)	1.0	283.05	NoInsUWCons	0.350
B2East Wall (B.N4.U13)	1.0	283.05	NoInsUWCons	0.350

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA

Number of Interior Surfaces 255
(U-VALUE includes both air films)

SURFACE NAME	AREA (SQFT)	CONSTRUCTION NAME	SURFACE TYPE	U-VALUE (BTU/HR-SQFT-F)
L1East Wall (G.SW1.I1)	467.56	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.SW1.I2)	168.18	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.SW1.I3)	205.73	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.SW1.I4)	112.09	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.SW1.I5)	205.83	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.SW1.I6)	239.28	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 233	989.47	IntFlr Cons	DELAYED STANDARD	0.532
L1East Wall (G.C2.I7)	205.70	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 234	99.00	IntFlr Cons	DELAYED STANDARD	0.532
Interior Wall 235	179.20	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.WNW4.I8)	239.40	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.WNW4.I9)	93.52	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.WNW4.I10)	93.52	IntWall Cons	DELAYED STANDARD	0.402
L1South Wall (G.WNW4.I11)	56.11	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.WNW4.I12)	105.99	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 236	337.43	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.C5.I13)	168.30	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.C5.I14)	56.10	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 237	120.00	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.C6.I15)	280.50	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.C6.I16)	187.00	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.C6.I17)	336.60	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 238	304.00	IntFlr Cons	DELAYED STANDARD	0.532
L1West Wall (G.N7.I18)	130.80	IntWall Cons	DELAYED STANDARD	0.402
L1South Wall (G.N7.I19)	243.09	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.N7.I20)	280.52	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 239	276.31	IntFlr Cons	DELAYED STANDARD	0.532
L1East Wall (G.SSE8.I21)	504.90	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.SSE8.I22)	224.40	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.SSE8.I23)	56.10	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.SSE8.I24)	149.60	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 240	636.00	IntFlr Cons	DELAYED STANDARD	0.532
L1East Wall (G.C9.I25)	51.43	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.C9.I26)	42.08	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.C9.I27)	374.00	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.C9.I28)	149.60	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 241	124.00	IntFlr Cons	DELAYED STANDARD	0.532
Interior Wall 242	200.00	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.C11.I29)	130.90	IntWall Cons	DELAYED STANDARD	0.402
L1South Wall (G.C11.I30)	374.00	IntWall Cons	DELAYED STANDARD	0.402
L1South Wall (G.C11.I31)	187.00	IntWall Cons	DELAYED STANDARD	0.402

L1East Wall (G.C11.I32)	37.40	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.C11.I33)	130.90	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.C11.I34)	149.60	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 243	236.00	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.N12.I35)	203.40	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.N12.I36)	122.40	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 244	377.99	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.N13.I37)	66.60	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.N13.I38)	11.70	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 245	100.42	IntFlr Cons	DELAYED STANDARD	0.532

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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
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SURFACE NAME	AREA (SQFT)	CONSTRUCTION NAME	SURFACE TYPE	U-VALUE (BTU/HR-SQFT-F)
L1West Wall (G.N14.I39)	178.59	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 246	256.30	IntFlr Cons	DELAYED STANDARD	0.532
L1East Wall (G.SSE15.I40)	153.36	IntWall Cons	DELAYED ADIABATIC	0.402
Interior Wall 247	125.76	IntFlr Cons	DELAYED STANDARD	0.532
L1East Wall (G.SE16.I41)	281.44	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 248	478.28	IntFlr Cons	DELAYED STANDARD	0.532
L1South Wall (G.C17.I42)	377.74	IntWall Cons	DELAYED STANDARD	0.402
L1South Wall (G.C17.I43)	204.76	IntWall Cons	DELAYED STANDARD	0.402
L1East Wall (G.C17.I44)	229.08	IntWall Cons	DELAYED ADIABATIC	0.402
L1West Wall (G.C17.I45)	187.00	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 249	381.59	IntFlr Cons	DELAYED STANDARD	0.532
L1West Wall (G.E18.I46)	220.66	IntWall Cons	DELAYED STANDARD	0.402
L1North Wall (G.E18.I47)	392.69	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.E18.I48)	74.90	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.E18.I49)	112.13	IntWall Cons	DELAYED STANDARD	0.402
L1South Wall (G.E18.I50)	395.55	IntWall Cons	DELAYED STANDARD	0.402
L1West Wall (G.E18.I51)	382.37	IntWall Cons	DELAYED ADIABATIC	0.402
Interior Wall 250	1554.57	IntFlr Cons	DELAYED STANDARD	0.532
Interior Wall 251	219.22	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 252	131.92	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 253	478.62	IntFlr Cons	DELAYED STANDARD	0.532
Interior Wall 254	71.78	IntWall Cons	DELAYED STANDARD	0.402
Interior Wall 255	12.61	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.SW1.I1)	915.72	GFlr Cons	DELAYED STANDARD	0.081
L2East Wall (G.SW1.I2)	215.09	IntWall Cons	DELAYED STANDARD	0.402
L2North Wall (G.SW1.I3)	115.23	IntWall Cons	DELAYED STANDARD	0.402
L2East Wall (G.SW1.I4)	245.84	IntWall Cons	DELAYED STANDARD	0.402
L2North Wall (G.SW1.I5)	76.72	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.SW1.I6)	140.89	IntWall Cons	DELAYED STANDARD	0.402
L2North Wall (G.SW1.I7)	163.79	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.C2.I8)	172.80	GFlr Cons	DELAYED STANDARD	0.081
L2East Wall (G.C2.I9)	232.96	IntWall Cons	DELAYED STANDARD	0.402
L2East Wall (G.C2.I10)	12.80	IntWall Cons	DELAYED STANDARD	0.402
L2North Wall (G.C2.I11)	115.20	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.W3.I12)	243.20	GFlr Cons	DELAYED STANDARD	0.081
L2North Wall (G.W3.I13)	99.84	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.W4.I14)	67.64	GFlr Cons	DELAYED STANDARD	0.081
L2Flr (G.C5.I15)	120.00	GFlr Cons	DELAYED STANDARD	0.081
L2East Wall (G.C5.I16)	102.40	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.C5.I17)	102.40	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.NW6.I18)	857.40	GFlr Cons	DELAYED STANDARD	0.081
L2South Wall (G.NW6.I19)	99.20	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.NW6.I20)	111.36	IntWall Cons	DELAYED STANDARD	0.402
L2South Wall (G.NW6.I21)	64.00	IntWall Cons	DELAYED STANDARD	0.402
L2South Wall (G.NW6.I22)	192.00	IntWall Cons	DELAYED STANDARD	0.402

L2East Wall (G.NW6.I23)	128.00	IntWall Cons	DELAYED STANDARD	0.402
L2East Wall (G.NW6.I24)	294.40	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.SSE7.I25)	580.00	GFlr Cons	DELAYED STANDARD	0.081
L2North Wall (G.SSE7.I26)	256.00	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.C8.I27)	180.00	GFlr Cons	DELAYED STANDARD	0.081
L2North Wall (G.C8.I28)	256.00	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.C9.I29)	200.00	GFlr Cons	DELAYED STANDARD	0.081
L2Flr (G.C10.I30)	380.75	GFlr Cons	DELAYED STANDARD	0.081
L2South Wall (G.C10.I31)	89.60	IntWall Cons	DELAYED STANDARD	0.402
L2South Wall (G.C10.I32)	398.72	IntWall Cons	DELAYED STANDARD	0.402

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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
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SURFACE NAME	AREA (SQFT)	CONSTRUCTION NAME	SURFACE TYPE	U-VALUE (BTU/HR-SQFT-F)
L2East Wall (G.C10.I33)	128.01	IntWall Cons	DELAYED STANDARD	0.402
L2North Wall (G.C10.I34)	268.80	IntWall Cons	DELAYED STANDARD	0.402
L2North Wall (G.C10.I35)	217.60	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.C10.I36)	128.00	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.N11.I37)	296.73	GFlr Cons	DELAYED STANDARD	0.081
L2South Wall (G.N11.I38)	166.40	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.N12.I39)	212.07	GFlr Cons	DELAYED STANDARD	0.081
L2East Wall (G.N12.I40)	157.44	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.N12.I41)	161.92	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.N13.I42)	253.05	GFlr Cons	DELAYED STANDARD	0.081
L2Flr (G.SSE14.I43)	1032.46	GFlr Cons	DELAYED STANDARD	0.081
L2West Wall (G.SSE14.I44)	128.00	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.SSE14.I45)	115.20	IntWall Cons	DELAYED STANDARD	0.402
L2West Wall (G.SSE14.I46)	294.40	IntWall Cons	DELAYED STANDARD	0.402
L2East Wall (G.SSE14.I47)	304.04	IntWall Cons	DELAYED STANDARD	0.402
L2Flr (G.E15.I48)	1425.21	GFlr Cons	DELAYED STANDARD	0.081
L2West Wall (G.E15.I49)	151.07	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.SW1.I1)	915.70	GFlr Cons	DELAYED STANDARD	0.081
L3East Wall (G.SW1.I2)	203.33	IntWall Cons	DELAYED STANDARD	0.402
L3North Wall (G.SW1.I3)	108.93	IntWall Cons	DELAYED STANDARD	0.402
L3East Wall (G.SW1.I4)	232.40	IntWall Cons	DELAYED STANDARD	0.402
L3North Wall (G.SW1.I5)	72.53	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.SW1.I6)	133.18	IntWall Cons	DELAYED STANDARD	0.402
L3North Wall (G.SW1.I7)	118.53	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.C2.I8)	172.80	GFlr Cons	DELAYED STANDARD	0.081
L3East Wall (G.C2.I9)	220.22	IntWall Cons	DELAYED STANDARD	0.402
L3East Wall (G.C2.I10)	12.10	IntWall Cons	DELAYED STANDARD	0.402
L3North Wall (G.C2.I11)	108.90	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.W3.I12)	186.20	GFlr Cons	DELAYED STANDARD	0.081
L3North Wall (G.W3.I13)	118.58	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.WSW4.I14)	111.36	GFlr Cons	DELAYED STANDARD	0.081
L3Flr (G.C5.I15)	120.00	GFlr Cons	DELAYED STANDARD	0.081
L3East Wall (G.C5.I16)	96.80	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.C5.I17)	96.80	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.NW6.I18)	813.68	GFlr Cons	DELAYED STANDARD	0.081
L3South Wall (G.NW6.I19)	154.88	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.NW6.I20)	105.27	IntWall Cons	DELAYED STANDARD	0.402
L3South Wall (G.NW6.I21)	181.50	IntWall Cons	DELAYED STANDARD	0.402
L3East Wall (G.NW6.I22)	121.00	IntWall Cons	DELAYED STANDARD	0.402
L3East Wall (G.NW6.I23)	278.30	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.SSE7.I24)	580.00	GFlr Cons	DELAYED STANDARD	0.081
L3North Wall (G.SSE7.I25)	242.00	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.C8.I26)	180.00	GFlr Cons	DELAYED STANDARD	0.081
L3North Wall (G.C8.I27)	242.00	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.C9.I28)	200.00	GFlr Cons	DELAYED STANDARD	0.081

L3Flr (G.C10.I29)	380.75	GFlr Cons	DELAYED STANDARD	0.081
L3South Wall (G.C10.I30)	84.70	IntWall Cons	DELAYED STANDARD	0.402
L3South Wall (G.C10.I31)	376.91	IntWall Cons	DELAYED STANDARD	0.402
L3East Wall (G.C10.I32)	121.01	IntWall Cons	DELAYED STANDARD	0.402
L3North Wall (G.C10.I33)	254.10	IntWall Cons	DELAYED STANDARD	0.402
L3North Wall (G.C10.I34)	205.70	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.C10.I35)	121.00	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.N11.I36)	296.73	GFlr Cons	DELAYED STANDARD	0.081
L3South Wall (G.N11.I37)	157.30	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.N12.I38)	212.07	GFlr Cons	DELAYED STANDARD	0.081

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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
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SURFACE NAME	AREA (SQFT)	CONSTRUCTION NAME	SURFACE TYPE	U-VALUE (BTU/HR-SQFT-F)
L3East Wall (G.N12.I39)	148.83	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.N12.I40)	153.07	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.N13.I41)	253.05	GFlr Cons	DELAYED STANDARD	0.081
L3Flr (G.SSE14.I42)	1032.46	GFlr Cons	DELAYED STANDARD	0.081
L3West Wall (G.SSE14.I43)	121.00	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.SSE14.I44)	108.90	IntWall Cons	DELAYED STANDARD	0.402
L3West Wall (G.SSE14.I45)	278.30	IntWall Cons	DELAYED STANDARD	0.402
L3East Wall (G.SSE14.I46)	287.42	IntWall Cons	DELAYED STANDARD	0.402
L3Flr (G.E15.I47)	1425.21	GFlr Cons	DELAYED STANDARD	0.081
L3West Wall (G.E15.I48)	142.81	IntWall Cons	DELAYED STANDARD	0.402
L4 Flr (G.SSE1.I1)	1088.26	GFlr Cons	DELAYED STANDARD	0.081
L4 West Wall (G.SSE1.I2)	183.66	IntWall Cons	DELAYED STANDARD	0.402
L4 North Wall (G.SSE1.I3)	144.08	IntWall Cons	DELAYED STANDARD	0.402
L4 Flr (G.W2.I4)	186.20	GFlr Cons	DELAYED STANDARD	0.081
L4 Flr (G.C3.I5)	108.75	GFlr Cons	DELAYED STANDARD	0.081
L4 North Wall (G.C3.I6)	132.30	IntWall Cons	DELAYED STANDARD	0.402
L4 West Wall (G.C3.I7)	95.55	IntWall Cons	DELAYED STANDARD	0.402
L4 South Wall (G.C3.I8)	213.15	IntWall Cons	DELAYED STANDARD	0.402
L4 Flr (G.NNW4.I9)	810.86	GFlr Cons	DELAYED STANDARD	0.081
L4 South Wall (G.NNW4.I10)	144.06	IntWall Cons	DELAYED STANDARD	0.402
L4 East Wall (G.NNW4.I11)	14.70	IntWall Cons	DELAYED STANDARD	0.402
L4 South Wall (G.NNW4.I12)	80.85	IntWall Cons	DELAYED STANDARD	0.402
L4 East Wall (G.NNW4.I13)	132.30	IntWall Cons	DELAYED STANDARD	0.402
L4 South Wall (G.NNW4.I14)	132.30	IntWall Cons	DELAYED STANDARD	0.402
L4 Flr (G.SSE5.I15)	457.25	GFlr Cons	DELAYED STANDARD	0.081
L4 North Wall (G.SSE5.I16)	88.20	IntWall Cons	DELAYED STANDARD	0.402
L4 West Wall (G.SSE5.I17)	147.00	IntWall Cons	DELAYED STANDARD	0.402
L4 North Wall (G.SSE5.I18)	301.35	IntWall Cons	DELAYED STANDARD	0.402
L4 West Wall (G.SSE5.I19)	95.55	IntWall Cons	DELAYED STANDARD	0.402
L4 Flr (G.N6.I20)	205.00	GFlr Cons	DELAYED STANDARD	0.081
L4 West Wall (G.N6.I21)	132.30	IntWall Cons	DELAYED STANDARD	0.402
L4 West Wall (G.N6.I22)	14.70	IntWall Cons	DELAYED STANDARD	0.402
L4 Flr (G.N7.I23)	214.20	GFlr Cons	DELAYED STANDARD	0.081
L4 Flr (G.C8.I24)	81.00	GFlr Cons	DELAYED STANDARD	0.081
B1ENE Wall (B.SW1.I1)	231.58	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.SW1.I2)	283.64	IntWall Cons	DELAYED STANDARD	0.402
B1South Wall (B.C2.I3)	106.95	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C2.I4)	196.65	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C2.I5)	103.50	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C2.I6)	307.05	IntWall Cons	DELAYED STANDARD	0.402
B1SSE Wall (B.C2.I7)	115.28	IntWall Cons	DELAYED STANDARD	0.402
B1East Wall (B.C2.I8)	288.42	IntWall Cons	DELAYED ADIABATIC	0.402
B1East Wall (B.C2.I9)	234.60	IntWall Cons	DELAYED ADIABATIC	0.402
B1East Wall (B.C2.I10)	96.60	IntWall Cons	DELAYED STANDARD	0.402
B1East Wall (B.C2.I11)	138.00	IntWall Cons	DELAYED STANDARD	0.402

B1East Wall (B.C2.I12)	82.80	IntWall Cons	DELAYED STANDARD	0.402
B1East Wall (B.C2.I13)	27.60	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C2.I14)	96.60	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C2.I15)	69.00	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C2.I16)	179.40	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C2.I17)	110.40	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C2.I18)	69.69	IntWall Cons	DELAYED STANDARD	0.402
B1South Wall (B.W4.I19)	176.64	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.W4.I20)	176.64	IntWall Cons	DELAYED STANDARD	0.402
B1South Wall (B.C5.I21)	106.95	IntWall Cons	DELAYED STANDARD	0.402

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SURFACE NAME	AREA (SQFT)	CONSTRUCTION NAME	SURFACE TYPE	U-VALUE (BTU/HR-SQFT-F)
B1West Wall (B.C5.I22)	196.65	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.W6.I23)	287.04	IntWall Cons	DELAYED STANDARD	0.402
B1ENE Wall (B.SSE7.I24)	229.88	IntWall Cons	DELAYED STANDARD	0.402
B1NNW Wall (B.SSE7.I25)	321.63	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C8.I26)	523.02	IntWall Cons	DELAYED ADIABATIC	0.402
B1East Wall (B.C8.I27)	356.73	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C8.I28)	276.00	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C9.I29)	276.00	IntWall Cons	DELAYED STANDARD	0.402
B1South Wall (B.C10.I30)	276.00	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C10.I31)	179.40	IntWall Cons	DELAYED STANDARD	0.402
B1SSE Wall (B.C10.I32)	181.68	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C10.I33)	138.00	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C10.I34)	138.00	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.C10.I35)	96.60	IntWall Cons	DELAYED STANDARD	0.402
B1ENE Wall (B.SSE11.I36)	237.14	IntWall Cons	DELAYED STANDARD	0.402
B1WSW Wall (B.SSE11.I37)	236.16	IntWall Cons	DELAYED STANDARD	0.402
B1NNW Wall (B.SSE12.I38)	328.06	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C15.I39)	276.00	IntWall Cons	DELAYED STANDARD	0.402
B1East Wall (B.N17.I40)	202.86	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.N17.I41)	204.93	IntWall Cons	DELAYED STANDARD	0.402
B1East Wall (B.N18.I42)	227.70	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.SE20.I43)	191.82	IntWall Cons	DELAYED STANDARD	0.402
B1WSW Wall (B.SE20.I44)	231.71	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.N22.I45)	220.80	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.N22.I46)	82.80	IntWall Cons	DELAYED STANDARD	0.402
B1South Wall (B.N22.I47)	291.87	IntWall Cons	DELAYED STANDARD	0.402
B1West Wall (B.N22.I48)	317.40	IntWall Cons	DELAYED STANDARD	0.402
B1SSE Wall (B.N22.I49)	53.61	IntWall Cons	DELAYED STANDARD	0.402
B1SSE Wall (B.N22.I50)	303.18	IntWall Cons	DELAYED STANDARD	0.402
B1SSE Wall (B.N22.I51)	315.95	IntWall Cons	DELAYED STANDARD	0.402
B1East Wall (B.N22.I52)	259.44	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C23.I53)	230.46	IntWall Cons	DELAYED STANDARD	0.402
B1North Wall (B.C23.I54)	183.54	IntWall Cons	DELAYED STANDARD	0.402
B2North Wall (B.E2.I1)	127.50	IntWall Cons	DELAYED STANDARD	0.402
B2West Wall (B.E2.I2)	164.05	IntWall Cons	DELAYED STANDARD	0.402
B2North Wall (B.E2.I3)	108.80	IntWall Cons	DELAYED STANDARD	0.402
B2South Wall (B.E2.I4)	174.67	IntWall Cons	DELAYED STANDARD	0.402
B2West Wall (B.E2.I5)	212.07	IntWall Cons	DELAYED STANDARD	0.402
B2South Wall (B.N4.I6)	108.80	IntWall Cons	DELAYED STANDARD	0.402

SURFACE NAME	ADJACENT SPACES SPACE-1	SPACE-2

L1East Wall (G.SW1.I1)	L1SW Perim Spc (G.SW1)	L1SSE Perim Spc (G.SSE8)
L1North Wall (G.SW1.I2)	L1SW Perim Spc (G.SW1)	L1Core Spc (G.C2)
L1East Wall (G.SW1.I3)	L1SW Perim Spc (G.SW1)	L1Core Spc (G.C2)
L1North Wall (G.SW1.I4)	L1SW Perim Spc (G.SW1)	L1Core Spc (G.C5)
L1West Wall (G.SW1.I5)	L1SW Perim Spc (G.SW1)	L1West Perim Spc (G.W3)
L1North Wall (G.SW1.I6)	L1SW Perim Spc (G.SW1)	L1West Perim Spc (G.W3)
Interior Wall 233	L1SW Perim Spc (G.SW1)	B1SW Perim Spc (B.SW1)
L1East Wall (G.C2.I7)	L1Core Spc (G.C2)	L1SSE Perim Spc (G.SSE8)
Interior Wall 234	L1Core Spc (G.C2)	B1Core Spc (B.C2)
Interior Wall 235	L1West Perim Spc (G.W3)	B1West Perim Spc (B.W4)

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SURFACE NAME	ADJACENT SPACES SPACE-1	SPACE-2
L1South Wall (G.WNW4.I8)	L1WNW Perim Spc (G.WNW4)	L1West Perim Spc (G.W3)
L1East Wall (G.WNW4.I9)	L1WNW Perim Spc (G.WNW4)	L1Core Spc (G.C5)
L1North Wall (G.WNW4.I10)	L1WNW Perim Spc (G.WNW4)	L1Core Spc (G.C6)
L1South Wall (G.WNW4.I11)	L1WNW Perim Spc (G.WNW4)	L1North Perim Spc (G.N7)
L1East Wall (G.WNW4.I12)	L1WNW Perim Spc (G.WNW4)	L1North Perim Spc (G.N7)
Interior Wall 236	L1WNW Perim Spc (G.WNW4)	B1NW Perim Spc (B.NW16)
L1South Wall (G.C5.I13)	L1Core Spc (G.C5)	L1Core Spc (G.C2)
L1West Wall (G.C5.I14)	L1Core Spc (G.C5)	L1West Perim Spc (G.W3)
Interior Wall 237	L1Core Spc (G.C5)	B1Core Spc (B.C2)
L1South Wall (G.C6.I15)	L1Core Spc (G.C6)	L1Core Spc (G.C5)
L1East Wall (G.C6.I16)	L1Core Spc (G.C6)	L1Core Spc (G.C10)
L1West Wall (G.C6.I17)	L1Core Spc (G.C6)	L1WNW Perim Spc (G.WNW4)
Interior Wall 238	L1Core Spc (G.C6)	B1West Perim Spc (B.W6)
L1West Wall (G.N7.I18)	L1North Perim Spc (G.N7)	L1WNW Perim Spc (G.WNW4)
L1South Wall (G.N7.I19)	L1North Perim Spc (G.N7)	L1Core Spc (G.C6)
L1East Wall (G.N7.I20)	L1North Perim Spc (G.N7)	L1North Perim Spc (G.N12)
Interior Wall 239	L1North Perim Spc (G.N7)	B1North Perim Spc (B.N17)
L1East Wall (G.SSE8.I21)	L1SSE Perim Spc (G.SSE8)	L1SE Perim Spc (G.SE16)
L1North Wall (G.SSE8.I22)	L1SSE Perim Spc (G.SSE8)	L1Core Spc (G.C9)
L1West Wall (G.SSE8.I23)	L1SSE Perim Spc (G.SSE8)	L1Core Spc (G.C9)
L1North Wall (G.SSE8.I24)	L1SSE Perim Spc (G.SSE8)	L1Core Spc (G.C9)
Interior Wall 240	L1SSE Perim Spc (G.SSE8)	B1Core Spc (B.C8)
L1East Wall (G.C9.I25)	L1Core Spc (G.C9)	L1SE Perim Spc (G.SE16)
L1East Wall (G.C9.I26)	L1Core Spc (G.C9)	L1Core Spc (G.C17)
L1North Wall (G.C9.I27)	L1Core Spc (G.C9)	L1Core Spc (G.C10)
L1West Wall (G.C9.I28)	L1Core Spc (G.C9)	L1Core Spc (G.C5)
Interior Wall 241	L1Core Spc (G.C9)	B1Core Spc (B.C9)
Interior Wall 242	L1Core Spc (G.C10)	B1Core Spc (B.C15)
L1South Wall (G.C11.I29)	L1Core Spc (G.C11)	L1Core Spc (G.C6)
L1South Wall (G.C11.I30)	L1Core Spc (G.C11)	L1Core Spc (G.C10)
L1South Wall (G.C11.I31)	L1Core Spc (G.C11)	L1Core Spc (G.C17)
L1East Wall (G.C11.I32)	L1Core Spc (G.C11)	L1North Perim Spc (G.N12)
L1North Wall (G.C11.I33)	L1Core Spc (G.C11)	L1North Perim Spc (G.N7)
L1West Wall (G.C11.I34)	L1Core Spc (G.C11)	L1Core Spc (G.C6)
Interior Wall 243	L1Core Spc (G.C11)	B1Core Spc (B.C23)
L1South Wall (G.N12.I35)	L1North Perim Spc (G.N12)	L1Core Spc (G.C11)
L1East Wall (G.N12.I36)	L1North Perim Spc (G.N12)	L1North Perim Spc (G.N13)
Interior Wall 244	L1North Perim Spc (G.N12)	B1North Perim Spc (B.N18)
L1South Wall (G.N13.I37)	L1North Perim Spc (G.N13)	L1Core Spc (G.C11)
L1North Wall (G.N13.I38)	L1North Perim Spc (G.N13)	L1North Perim Spc (G.N14)
Interior Wall 245	L1North Perim Spc (G.N13)	B1North Perim Spc (B.N19)
L1West Wall (G.N14.I39)	L1North Perim Spc (G.N14)	L1North Perim Spc (G.N13)
Interior Wall 246	L1North Perim Spc (G.N14)	B1North Perim Spc (B.N22)
L1East Wall (G.SSE15.I40)	L1SSE Perim Spc (G.SSE15)	L1SSE Perim Spc (G.SSE15)

Interior Wall 247	L1SSE Perim Spc (G.SSE15)	B1Core Spc (B.C10)
L1East Wall (G.SE16.I41)	L1SE Perim Spc (G.SE16)	L1SSE Perim Spc (G.SSE15)
Interior Wall 248	L1SE Perim Spc (G.SE16)	B1Core Spc (B.C13)
L1South Wall (G.C17.I42)	L1Core Spc (G.C17)	L1SE Perim Spc (G.SE16)
L1South Wall (G.C17.I43)	L1Core Spc (G.C17)	L1SSE Perim Spc (G.SSE15)
L1East Wall (G.C17.I44)	L1Core Spc (G.C17)	L1Core Spc (G.C17)
L1West Wall (G.C17.I45)	L1Core Spc (G.C17)	L1Core Spc (G.C10)
Interior Wall 249	L1Core Spc (G.C17)	B1Core Spc (B.C10)
L1West Wall (G.E18.I46)	L1East Perim Spc (G.E18)	L1North Perim Spc (G.N14)
L1North Wall (G.E18.I47)	L1East Perim Spc (G.E18)	L1North Perim Spc (G.N14)

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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
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ADJACENT SPACES

SURFACE NAME	SPACE-1	SPACE-2
L1West Wall (G.E18.I48)	L1East Perim Spc (G.E18)	L1North Perim Spc (G.N13)
L1West Wall (G.E18.I49)	L1East Perim Spc (G.E18)	L1Core Spc (G.C11)
L1South Wall (G.E18.I50)	L1East Perim Spc (G.E18)	L1Core Spc (G.C17)
L1West Wall (G.E18.I51)	L1East Perim Spc (G.E18)	L1East Perim Spc (G.E18)
Interior Wall 250	L1East Perim Spc (G.E18)	B1North Perim Spc (B.N22)
Interior Wall 251	Space 84	L1Core Spc (G.C11)
Interior Wall 252	Space 84	L1North Perim Spc (G.N14)
Interior Wall 253	Space 84	L1North Perim Spc (G.N12)
Interior Wall 254	Space 84	L1Core Spc (G.C11)
Interior Wall 255	Space 84	L1North Perim Spc (G.N14)
L2Flr (G.SW1.I1)	L2SW Perim Spc (G.SW1)	L1SW Perim Spc (G.SW1)
L2East Wall (G.SW1.I2)	L2SW Perim Spc (G.SW1)	L2SSE Perim Spc (G.SSE7)
L2North Wall (G.SW1.I3)	L2SW Perim Spc (G.SW1)	L2Core Spc (G.C2)
L2East Wall (G.SW1.I4)	L2SW Perim Spc (G.SW1)	L2Core Spc (G.C2)
L2North Wall (G.SW1.I5)	L2SW Perim Spc (G.SW1)	L2Core Spc (G.C5)
L2West Wall (G.SW1.I6)	L2SW Perim Spc (G.SW1)	L2West Perim Spc (G.W3)
L2North Wall (G.SW1.I7)	L2SW Perim Spc (G.SW1)	L2West Perim Spc (G.W3)
L2Flr (G.C2.I8)	L2Core Spc (G.C2)	L1Core Spc (G.C2)
L2East Wall (G.C2.I9)	L2Core Spc (G.C2)	L2SSE Perim Spc (G.SSE7)
L2East Wall (G.C2.I10)	L2Core Spc (G.C2)	L2Core Spc (G.C8)
L2North Wall (G.C2.I11)	L2Core Spc (G.C2)	L2Core Spc (G.C5)
L2Flr (G.W3.I12)	L2West Perim Spc (G.W3)	L1West Perim Spc (G.W3)
L2North Wall (G.W3.I13)	L2West Perim Spc (G.W3)	L2West Perim Spc (G.W4)
L2Flr (G.W4.I14)	L2West Perim Spc (G.W4)	L1WNW Perim Spc (G.WNW4)
L2Flr (G.C5.I15)	L2Core Spc (G.C5)	L1Core Spc (G.C5)
L2East Wall (G.C5.I16)	L2Core Spc (G.C5)	L2Core Spc (G.C8)
L2West Wall (G.C5.I17)	L2Core Spc (G.C5)	L2West Perim Spc (G.W3)
L2Flr (G.NW6.I18)	L2NW Perim Spc (G.NW6)	L1Core Spc (G.C6)
L2South Wall (G.NW6.I19)	L2NW Perim Spc (G.NW6)	L2West Perim Spc (G.W4)
L2West Wall (G.NW6.I20)	L2NW Perim Spc (G.NW6)	L2West Perim Spc (G.W4)
L2South Wall (G.NW6.I21)	L2NW Perim Spc (G.NW6)	L2West Perim Spc (G.W3)
L2South Wall (G.NW6.I22)	L2NW Perim Spc (G.NW6)	L2Core Spc (G.C5)
L2East Wall (G.NW6.I23)	L2NW Perim Spc (G.NW6)	L2Core Spc (G.C9)
L2East Wall (G.NW6.I24)	L2NW Perim Spc (G.NW6)	L2North Perim Spc (G.N11)
L2Flr (G.SSE7.I25)	L2SSE Perim Spc (G.SSE7)	L1SSE Perim Spc (G.SSE8)
L2North Wall (G.SSE7.I26)	L2SSE Perim Spc (G.SSE7)	L2Core Spc (G.C8)
L2Flr (G.C8.I27)	L2Core Spc (G.C8)	L1Core Spc (G.C9)
L2North Wall (G.C8.I28)	L2Core Spc (G.C8)	L2Core Spc (G.C9)
L2Flr (G.C9.I29)	L2Core Spc (G.C9)	L1Core Spc (G.C10)
L2Flr (G.C10.I30)	L2Core Spc (G.C10)	L1Core Spc (G.C11)
L2South Wall (G.C10.I31)	L2Core Spc (G.C10)	L2Core Spc (G.C9)
L2South Wall (G.C10.I32)	L2Core Spc (G.C10)	L2SSE Perim Spc (G.SSE14)
L2East Wall (G.C10.I33)	L2Core Spc (G.C10)	L2East Perim Spc (G.E15)
L2North Wall (G.C10.I34)	L2Core Spc (G.C10)	L2North Perim Spc (G.N13)

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L2North Wall (G.C10.I35)
L2West Wall (G.C10.I36)
L2Flr (G.N11.I37)
L2South Wall (G.N11.I38)
L2Flr (G.N12.I39)
L2East Wall (G.N12.I40)
L2West Wall (G.N12.I41)
L2Flr (G.N13.I42)
L2Flr (G.SSE14.I43)
L2West Wall (G.SSE14.I44)
L2Core Spc (G.C10)
L2Core Spc (G.C10)
L2North Perim Spc (G.N11)
L2North Perim Spc (G.N11)
L2North Perim Spc (G.N12)
L2North Perim Spc (G.N12)
L2North Perim Spc (G.N12)
L2North Perim Spc (G.N13)
L2SSE Perim Spc (G.SSE14)
L2SSE Perim Spc (G.SSE14)
L2North Perim Spc (G.N12)
L2North Perim Spc (G.N11)
L1North Perim Spc (G.N12)
L2Core Spc (G.C9)
L1North Perim Spc (G.N13)
L2North Perim Spc (G.N13)
L2North Perim Spc (G.N11)
L1North Perim Spc (G.N14)
L1SE Perim Spc (G.SE16)
L2Core Spc (G.C9)
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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

SURFACE NAME	ADJACENT SPACES SPACE-1	SPACE-2
L2West Wall (G.SSE14.I45)	L2SSE Perim Spc (G.SSE14)	L2Core Spc (G.C8)
L2West Wall (G.SSE14.I46)	L2SSE Perim Spc (G.SSE14)	L2SSE Perim Spc (G.SSE7)
L2East Wall (G.SSE14.I47)	L2SSE Perim Spc (G.SSE14)	L2East Perim Spc (G.E15)
L2Flr (G.E15.I48)	L2East Perim Spc (G.E15)	L1East Perim Spc (G.E18)
L2West Wall (G.E15.I49)	L2East Perim Spc (G.E15)	L2North Perim Spc (G.N13)
L3Flr (G.SW1.I1)	L3SW Perim Spc (G.SW1)	L2SW Perim Spc (G.SW1)
L3East Wall (G.SW1.I2)	L3SW Perim Spc (G.SW1)	L3SSE Perim Spc (G.SSE7)
L3North Wall (G.SW1.I3)	L3SW Perim Spc (G.SW1)	L3Core Spc (G.C2)
L3East Wall (G.SW1.I4)	L3SW Perim Spc (G.SW1)	L3Core Spc (G.C2)
L3North Wall (G.SW1.I5)	L3SW Perim Spc (G.SW1)	L3Core Spc (G.C5)
L3West Wall (G.SW1.I6)	L3SW Perim Spc (G.SW1)	L3West Perim Spc (G.W3)
L3North Wall (G.SW1.I7)	L3SW Perim Spc (G.SW1)	L3West Perim Spc (G.W3)
L3Flr (G.C2.I8)	L3Core Spc (G.C2)	L2Core Spc (G.C2)
L3East Wall (G.C2.I9)	L3Core Spc (G.C2)	L3SSE Perim Spc (G.SSE7)
L3East Wall (G.C2.I10)	L3Core Spc (G.C2)	L3Core Spc (G.C8)
L3North Wall (G.C2.I11)	L3Core Spc (G.C2)	L3Core Spc (G.C5)
L3Flr (G.W3.I12)	L3West Perim Spc (G.W3)	L2West Perim Spc (G.W3)
L3North Wall (G.W3.I13)	L3West Perim Spc (G.W3)	L3WSW Perim Spc (G.WSW4)
L3Flr (G.WSW4.I14)	L3WSW Perim Spc (G.WSW4)	L2West Perim Spc (G.W4)
L3Flr (G.C5.I15)	L3Core Spc (G.C5)	L2Core Spc (G.C5)
L3East Wall (G.C5.I16)	L3Core Spc (G.C5)	L3Core Spc (G.C8)
L3West Wall (G.C5.I17)	L3Core Spc (G.C5)	L3West Perim Spc (G.W3)
L3Flr (G.NW6.I18)	L3NW Perim Spc (G.NW6)	L2NW Perim Spc (G.NW6)
L3South Wall (G.NW6.I19)	L3NW Perim Spc (G.NW6)	L3WSW Perim Spc (G.WSW4)
L3West Wall (G.NW6.I20)	L3NW Perim Spc (G.NW6)	L3WSW Perim Spc (G.WSW4)
L3South Wall (G.NW6.I21)	L3NW Perim Spc (G.NW6)	L3Core Spc (G.C5)
L3East Wall (G.NW6.I22)	L3NW Perim Spc (G.NW6)	L3Core Spc (G.C9)
L3East Wall (G.NW6.I23)	L3NW Perim Spc (G.NW6)	L3North Perim Spc (G.N11)
L3Flr (G.SSE7.I24)	L3SSE Perim Spc (G.SSE7)	L2SSE Perim Spc (G.SSE7)
L3North Wall (G.SSE7.I25)	L3SSE Perim Spc (G.SSE7)	L3Core Spc (G.C8)
L3Flr (G.C8.I26)	L3Core Spc (G.C8)	L2Core Spc (G.C8)
L3North Wall (G.C8.I27)	L3Core Spc (G.C8)	L3Core Spc (G.C9)
L3Flr (G.C9.I28)	L3Core Spc (G.C9)	L2Core Spc (G.C9)
L3Flr (G.C10.I29)	L3Core Spc (G.C10)	L2Core Spc (G.C10)
L3South Wall (G.C10.I30)	L3Core Spc (G.C10)	L3Core Spc (G.C9)
L3South Wall (G.C10.I31)	L3Core Spc (G.C10)	L3SSE Perim Spc (G.SSE14)
L3East Wall (G.C10.I32)	L3Core Spc (G.C10)	L3East Perim Spc (G.E15)
L3North Wall (G.C10.I33)	L3Core Spc (G.C10)	L3North Perim Spc (G.N13)
L3North Wall (G.C10.I34)	L3Core Spc (G.C10)	L3North Perim Spc (G.N12)
L3West Wall (G.C10.I35)	L3Core Spc (G.C10)	L3North Perim Spc (G.N11)
L3Flr (G.N11.I36)	L3North Perim Spc (G.N11)	L2North Perim Spc (G.N11)
L3South Wall (G.N11.I37)	L3North Perim Spc (G.N11)	L3Core Spc (G.C9)
L3Flr (G.N12.I38)	L3North Perim Spc (G.N12)	L2North Perim Spc (G.N12)
L3East Wall (G.N12.I39)	L3North Perim Spc (G.N12)	L3North Perim Spc (G.N13)

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L3West Wall (G.N12.I40)          L3North Perim Spc (G.N12)        L3North Perim Spc (G.N11)
L3Flr (G.N13.I41)                L3North Perim Spc (G.N13)        L2North Perim Spc (G.N13)
L3Flr (G.SSE14.I42)              L3SSE Perim Spc (G.SSE14)        L2SSE Perim Spc (G.SSE14)
L3West Wall (G.SSE14.I43)        L3SSE Perim Spc (G.SSE14)        L3Core Spc (G.C9)
L3West Wall (G.SSE14.I44)        L3SSE Perim Spc (G.SSE14)        L3Core Spc (G.C8)
L3West Wall (G.SSE14.I45)        L3SSE Perim Spc (G.SSE14)        L3SSE Perim Spc (G.SSE7)
L3East Wall (G.SSE14.I46)        L3SSE Perim Spc (G.SSE14)        L3East Perim Spc (G.E15)
L3Flr (G.E15.I47)                L3East Perim Spc (G.E15)         L2East Perim Spc (G.E15)
L3West Wall (G.E15.I48)          L3East Perim Spc (G.E15)         L3North Perim Spc (G.N13)
L4 Flr (G.SSE1.I1)               L4 SSE Perim Spc (G.SSE1)        L3SW Perim Spc (G.SW1)
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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

SURFACE NAME	ADJACENT SPACES SPACE-1	SPACE-2
L4 West Wall (G.SSE1.I2)	L4 SSE Perim Spc (G.SSE1)	L4 West Perim Spc (G.W2)
L4 North Wall (G.SSE1.I3)	L4 SSE Perim Spc (G.SSE1)	L4 West Perim Spc (G.W2)
L4 Flr (G.W2.I4)	L4 West Perim Spc (G.W2)	L3West Perim Spc (G.W3)
L4 Flr (G.C3.I5)	L4 Core Spc (G.C3)	L3Core Spc (G.C5)
L4 North Wall (G.C3.I6)	L4 Core Spc (G.C3)	L4 Core Spc (G.C8)
L4 West Wall (G.C3.I7)	L4 Core Spc (G.C3)	L4 West Perim Spc (G.W2)
L4 South Wall (G.C3.I8)	L4 Core Spc (G.C3)	L4 SSE Perim Spc (G.SSE1)
L4 Flr (G.NNW4.I9)	L4 NNW Perim Spc (G.NNW4)	L3NW Perim Spc (G.NW6)
L4 South Wall (G.NNW4.I10)	L4 NNW Perim Spc (G.NNW4)	L4 West Perim Spc (G.W2)
L4 East Wall (G.NNW4.I11)	L4 NNW Perim Spc (G.NNW4)	L4 Core Spc (G.C3)
L4 South Wall (G.NNW4.I12)	L4 NNW Perim Spc (G.NNW4)	L4 Core Spc (G.C3)
L4 East Wall (G.NNW4.I13)	L4 NNW Perim Spc (G.NNW4)	L4 Core Spc (G.C8)
L4 South Wall (G.NNW4.I14)	L4 NNW Perim Spc (G.NNW4)	L4 Core Spc (G.C8)
L4 Flr (G.SSE5.I15)	L4 SSE Perim Spc (G.SSE5)	L3SSE Perim Spc (G.SSE14)
L4 North Wall (G.SSE5.I16)	L4 SSE Perim Spc (G.SSE5)	L4 North Perim Spc (G.N7)
L4 West Wall (G.SSE5.I17)	L4 SSE Perim Spc (G.SSE5)	L4 North Perim Spc (G.N6)
L4 North Wall (G.SSE5.I18)	L4 SSE Perim Spc (G.SSE5)	L4 North Perim Spc (G.N6)
L4 West Wall (G.SSE5.I19)	L4 SSE Perim Spc (G.SSE5)	L4 Core Spc (G.C3)
L4 Flr (G.N6.I20)	L4 North Perim Spc (G.N6)	L3Core Spc (G.C9)
L4 West Wall (G.N6.I21)	L4 North Perim Spc (G.N6)	L4 Core Spc (G.C8)
L4 West Wall (G.N6.I22)	L4 North Perim Spc (G.N6)	L4 Core Spc (G.C3)
L4 Flr (G.N7.I23)	L4 North Perim Spc (G.N7)	L3North Perim Spc (G.N13)
L4 Flr (G.C8.I24)	L4 Core Spc (G.C8)	L3NW Perim Spc (G.NW6)
B1ENE Wall (B.SW1.I1)	B1SW Perim Spc (B.SW1)	B1SSE Perim Spc (B.SSE7)
B1North Wall (B.SW1.I2)	B1SW Perim Spc (B.SW1)	B1West Perim Spc (B.W3)
B1South Wall (B.C2.I3)	B1Core Spc (B.C2)	B1Core Spc (B.C5)
B1West Wall (B.C2.I4)	B1Core Spc (B.C2)	B1Core Spc (B.C5)
B1West Wall (B.C2.I5)	B1Core Spc (B.C2)	B1West Perim Spc (B.W3)
B1West Wall (B.C2.I6)	B1Core Spc (B.C2)	B1SW Perim Spc (B.SW1)
B1SSE Wall (B.C2.I7)	B1Core Spc (B.C2)	B1SW Perim Spc (B.SW1)
B1East Wall (B.C2.I8)	B1Core Spc (B.C2)	B1Core Spc (B.C2)
B1East Wall (B.C2.I9)	B1Core Spc (B.C2)	B1Core Spc (B.C2)
B1East Wall (B.C2.I10)	B1Core Spc (B.C2)	B1Core Spc (B.C9)
B1East Wall (B.C2.I11)	B1Core Spc (B.C2)	B1Core Spc (B.C15)
B1East Wall (B.C2.I12)	B1Core Spc (B.C2)	B1Core Spc (B.C23)
B1East Wall (B.C2.I13)	B1Core Spc (B.C2)	B1North Perim Spc (B.N18)
B1North Wall (B.C2.I14)	B1Core Spc (B.C2)	B1North Perim Spc (B.N17)
B1West Wall (B.C2.I15)	B1Core Spc (B.C2)	B1NW Perim Spc (B.NW16)
B1West Wall (B.C2.I16)	B1Core Spc (B.C2)	B1West Perim Spc (B.W6)
B1North Wall (B.C2.I17)	B1Core Spc (B.C2)	B1West Perim Spc (B.W6)
B1West Wall (B.C2.I18)	B1Core Spc (B.C2)	B1West Perim Spc (B.W4)
B1South Wall (B.W4.I19)	B1West Perim Spc (B.W4)	B1West Perim Spc (B.W3)
B1North Wall (B.W4.I20)	B1West Perim Spc (B.W4)	B1West Perim Spc (B.W6)
B1South Wall (B.C5.I21)	B1Core Spc (B.C5)	B1West Perim Spc (B.W3)

B1West Wall (B.C5.I22)	B1Core Spc (B.C5)	B1West Perim Spc (B.W4)
B1North Wall (B.W6.I23)	B1West Perim Spc (B.W6)	B1NW Perim Spc (B.NW16)
B1ENE Wall (B.SSE7.I24)	B1SSE Perim Spc (B.SSE7)	B1SSE Perim Spc (B.SSE12)
B1NNW Wall (B.SSE7.I25)	B1SSE Perim Spc (B.SSE7)	B1Core Spc (B.C8)
B1West Wall (B.C8.I26)	B1Core Spc (B.C8)	B1Core Spc (B.C8)
B1East Wall (B.C8.I27)	B1Core Spc (B.C8)	B1Core Spc (B.C13)
B1North Wall (B.C8.I28)	B1Core Spc (B.C8)	B1Core Spc (B.C9)
B1North Wall (B.C9.I29)	B1Core Spc (B.C9)	B1Core Spc (B.C15)
B1South Wall (B.C10.I30)	B1Core Spc (B.C10)	B1Core Spc (B.C13)
B1West Wall (B.C10.I31)	B1Core Spc (B.C10)	B1Core Spc (B.C13)

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REPORT- LV-F Details of Interior Surfaces WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

SURFACE NAME	ADJACENT SPACES SPACE-1	SPACE-2
B1SSE Wall (B.C10.I32)	B1Core Spc (B.C10)	B1SSE Perim Spc (B.SSE11)
B1North Wall (B.C10.I33)	B1Core Spc (B.C10)	B1Core Spc (B.C23)
B1West Wall (B.C10.I34)	B1Core Spc (B.C10)	B1Core Spc (B.C15)
B1West Wall (B.C10.I35)	B1Core Spc (B.C10)	B1Core Spc (B.C9)
B1ENE Wall (B.SSE11.I36)	B1SSE Perim Spc (B.SSE11)	B1SSE Perim Spc (B.SSE14)
B1WSW Wall (B.SSE11.I37)	B1SSE Perim Spc (B.SSE11)	B1SSE Perim Spc (B.SSE12)
B1NNW Wall (B.SSE12.I38)	B1SSE Perim Spc (B.SSE12)	B1Core Spc (B.C13)
B1North Wall (B.C15.I39)	B1Core Spc (B.C15)	B1Core Spc (B.C23)
B1East Wall (B.N17.I40)	B1North Perim Spc (B.N17)	B1North Perim Spc (B.N18)
B1West Wall (B.N17.I41)	B1North Perim Spc (B.N17)	B1NW Perim Spc (B.NW16)
B1East Wall (B.N18.I42)	B1North Perim Spc (B.N18)	B1North Perim Spc (B.N19)
B1North Wall (B.SE20.I43)	B1SE Perim Spc (B.SE20)	B1NE Perim Spc (B.NE21)
B1WSW Wall (B.SE20.I44)	B1SE Perim Spc (B.SE20)	B1SSE Perim Spc (B.SSE14)
B1West Wall (B.N22.I45)	B1North Perim Spc (B.N22)	B1North Perim Spc (B.N19)
B1West Wall (B.N22.I46)	B1North Perim Spc (B.N22)	B1Core Spc (B.C23)
B1South Wall (B.N22.I47)	B1North Perim Spc (B.N22)	B1Core Spc (B.C10)
B1West Wall (B.N22.I48)	B1North Perim Spc (B.N22)	B1Core Spc (B.C10)
B1SSE Wall (B.N22.I49)	B1North Perim Spc (B.N22)	B1SSE Perim Spc (B.SSE11)
B1SSE Wall (B.N22.I50)	B1North Perim Spc (B.N22)	B1SSE Perim Spc (B.SSE14)
B1SSE Wall (B.N22.I51)	B1North Perim Spc (B.N22)	B1SE Perim Spc (B.SE20)
B1East Wall (B.N22.I52)	B1North Perim Spc (B.N22)	B1NE Perim Spc (B.NE21)
B1North Wall (B.C23.I53)	B1Core Spc (B.C23)	B1North Perim Spc (B.N19)
B1North Wall (B.C23.I54)	B1Core Spc (B.C23)	B1North Perim Spc (B.N18)
B2North Wall (B.E2.I1)	B2East Perim Spc (B.E2)	B2North Perim Spc (B.N4)
B2West Wall (B.E2.I2)	B2East Perim Spc (B.E2)	B2West Perim Spc (B.W3)
B2North Wall (B.E2.I3)	B2East Perim Spc (B.E2)	B2West Perim Spc (B.W3)
B2South Wall (B.E2.I4)	B2East Perim Spc (B.E2)	B2SW Perim Spc (B.SW1)
B2West Wall (B.E2.I5)	B2East Perim Spc (B.E2)	B2SW Perim Spc (B.SW1)
B2South Wall (B.N4.I6)	B2North Perim Spc (B.N4)	B2West Perim Spc (B.W3)

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REPORT- LV-H Details of Windows WEATHER FILE- SEATTLE BOEING FI WA

NUMBER OF WINDOWS 95

(Note: u-values include outside air film)

WINDOW NAME	MULTIPLIER	GLASS AREA (SQFT)	GLASS HEIGHT (FT)	GLASS WIDTH (FT)	LOCATION OF ORIGIN IN SURFACE COORDINATES X (FT)	Y (FT)	FRAME AREA (SQFT)	CURB AREA (SQFT)	FRAME U-VALUE (BTU/HR-SQFT-F)	CURB U-VALUE (BTU/HR-SQFT-F)
Window 1	1.0	126.38	12.33	10.25	4.00	1.00	0.00	0.00	0.384	0.000
Window 2	1.0	126.38	12.33	10.25	18.00	1.00	0.00	0.00	0.384	0.000
Window 32	1.0	26.25	5.25	5.00	0.25	7.00	0.00	0.00	0.384	0.000
Window 30	1.0	15.75	5.25	3.00	1.00	7.00	0.00	0.00	0.384	0.000
Window 31	1.0	26.25	5.25	5.00	6.00	7.00	0.00	0.00	0.384	0.000
Window 3	1.0	216.00	12.00	18.00	3.00	1.00	0.00	0.00	0.384	0.000
Window 98	1.0	100.00	10.00	10.00	0.50	0.25	0.00	0.00	0.384	0.000
Window 4	1.0	216.00	12.00	18.00	3.00	1.00	0.00	0.00	0.384	0.000
Window 5	1.0	223.68	12.00	18.64	3.00	1.00	0.00	0.00	0.384	0.000
Window 6	1.0	223.68	12.00	18.64	26.00	1.00	0.00	0.00	0.384	0.000
Window 21	1.0	177.96	12.00	14.83	1.00	1.00	0.00	0.00	0.384	0.000
Window 24	1.0	6.25	2.50	2.50	14.00	10.00	0.00	0.00	0.384	0.000
Window 25	1.0	6.25	2.50	2.50	30.00	12.00	0.00	0.00	0.384	0.000
Window 26	1.0	66.36	14.00	4.74	34.00	0.50	0.00	0.00	0.384	0.000
Window 83	1.0	17.00	6.80	2.50	3.00	0.25	0.00	0.00	0.384	0.000
Window 84	1.0	18.38	5.25	3.50	10.00	0.25	0.00	0.00	0.384	0.000
Window 85	1.0	17.00	6.80	2.50	2.00	0.25	0.00	0.00	0.384	0.000
Window 7	1.0	34.68	8.67	4.00	4.00	2.00	0.00	0.00	0.384	0.000
Window 8	1.0	34.68	8.67	4.00	9.00	2.00	0.00	0.00	0.384	0.000
Window 9	1.0	34.68	8.67	4.00	18.00	2.00	0.00	0.00	0.384	0.000
Window 10	1.0	34.68	8.67	4.00	23.00	2.00	0.00	0.00	0.384	0.000
Window 61	1.0	60.47	9.00	6.72	4.00	1.00	0.00	0.00	0.384	0.000
Window 62	1.0	60.47	9.00	6.72	14.00	1.00	0.00	0.00	0.384	0.000
Window 11	1.0	45.00	7.50	6.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 12	1.0	45.00	7.50	6.00	12.00	2.00	0.00	0.00	0.384	0.000
Window 55	1.0	19.17	7.67	2.50	1.00	2.00	0.00	0.00	0.384	0.000
Window 56	1.0	19.17	7.67	2.50	5.00	2.00	0.00	0.00	0.384	0.000
Window 51	1.0	20.62	8.25	2.50	0.50	2.00	0.00	0.00	0.384	0.000
Window 53	1.0	19.17	7.67	2.50	6.00	2.00	0.00	0.00	0.384	0.000
Window 54	1.0	19.17	7.67	2.50	13.00	2.00	0.00	0.00	0.384	0.000
Window 45	1.0	20.62	8.25	2.50	2.00	2.00	0.00	0.00	0.384	0.000
Window 46	1.0	20.62	8.25	2.50	8.00	2.00	0.00	0.00	0.384	0.000
Window 47	1.0	20.62	8.25	2.50	15.00	2.00	0.00	0.00	0.384	0.000
Window 13	1.0	45.00	7.50	6.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 14	1.0	45.00	7.50	6.00	12.00	2.00	0.00	0.00	0.384	0.000
Window 15	1.0	28.12	7.50	3.75	24.00	2.00	0.00	0.00	0.384	0.000
Window 16	1.0	28.12	7.50	3.75	30.00	2.00	0.00	0.00	0.384	0.000
Window 22	1.0	31.88	7.50	4.25	3.00	2.00	0.00	0.00	0.384	0.000
Window 23	1.0	31.88	7.50	4.25	10.00	2.00	0.00	0.00	0.384	0.000

Window 33	1.0	19.17	7.67	2.50	6.00	2.00	0.00	0.00	0.384	0.000
Window 34	1.0	19.17	7.67	2.50	10.00	2.00	0.00	0.00	0.384	0.000
Window 35	1.0	19.17	7.67	2.50	14.00	2.00	0.00	0.00	0.384	0.000
Window 36	1.0	19.17	7.67	2.50	22.00	2.00	0.00	0.00	0.384	0.000
Window 37	1.0	19.17	7.67	2.50	26.00	2.00	0.00	0.00	0.384	0.000
Window 38	1.0	19.17	7.67	2.50	30.00	2.00	0.00	0.00	0.384	0.000
Window 17	1.0	45.00	7.50	6.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 18	1.0	45.00	7.50	6.00	12.00	2.00	0.00	0.00	0.384	0.000
Window 19	1.0	45.00	7.50	6.00	26.00	2.00	0.00	0.00	0.384	0.000
Window 20	1.0	45.00	7.50	6.00	36.00	2.00	0.00	0.00	0.384	0.000

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- LV-H Details of Windows WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

(Note: u-values include outside air film)

WINDOW NAME	MULTIPLIER	GLASS AREA (SQFT)	GLASS HEIGHT (FT)	GLASS WIDTH (FT)	LOCATION OF ORIGIN IN SURFACE COORDINATES X (FT)	Y (FT)	FRAME AREA (SQFT)	CURB AREA (SQFT)	FRAME U-VALUE (BTU/HR-SQFT-F)	CURB U-VALUE (BTU/HR-SQFT-F)
Window 73	1.0	60.00	7.50	8.00	4.00	2.00	0.00	0.00	0.384	0.000
Window 74	1.0	60.00	7.50	8.00	17.00	2.00	0.00	0.00	0.384	0.000
Window 86	1.0	9.50	4.75	2.00	1.00	1.00	0.00	0.00	0.384	0.000
Window 87	1.0	9.50	4.75	2.00	14.00	5.00	0.00	0.00	0.384	0.000
Window 77	1.0	45.00	7.50	6.00	2.00	2.00	0.00	0.00	0.384	0.000
Window 78	1.0	45.00	7.50	6.00	11.00	2.00	0.00	0.00	0.384	0.000
Window 63	1.0	34.28	5.71	6.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 64	1.0	34.28	5.71	6.00	12.00	2.00	0.00	0.00	0.384	0.000
Window 59	1.0	19.17	7.67	2.50	1.00	2.00	0.00	0.00	0.384	0.000
Window 60	1.0	19.17	7.67	2.50	5.00	2.00	0.00	0.00	0.384	0.000
Window 52	1.0	20.62	8.25	2.50	0.50	2.00	0.00	0.00	0.384	0.000
Window 57	1.0	19.17	7.67	2.50	6.00	2.00	0.00	0.00	0.384	0.000
Window 58	1.0	19.17	7.67	2.50	13.00	2.00	0.00	0.00	0.384	0.000
Window 48	1.0	20.62	8.25	2.50	2.00	2.00	0.00	0.00	0.384	0.000
Window 49	1.0	20.62	8.25	2.50	8.00	2.00	0.00	0.00	0.384	0.000
Window 50	1.0	20.62	8.25	2.50	15.00	2.00	0.00	0.00	0.384	0.000
Window 65	1.0	34.28	5.71	6.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 66	1.0	34.28	5.71	6.00	12.00	2.00	0.00	0.00	0.384	0.000
Window 67	1.0	28.12	7.50	3.75	24.00	2.00	0.00	0.00	0.384	0.000
Window 68	1.0	28.12	7.50	3.75	30.00	2.00	0.00	0.00	0.384	0.000
Window 81	1.0	25.34	6.34	4.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 82	1.0	25.34	6.34	4.00	10.00	2.00	0.00	0.00	0.384	0.000
Window 39	1.0	19.17	7.67	2.50	6.00	2.00	0.00	0.00	0.384	0.000
Window 40	1.0	19.17	7.67	2.50	10.00	2.00	0.00	0.00	0.384	0.000
Window 41	1.0	19.17	7.67	2.50	14.00	2.00	0.00	0.00	0.384	0.000
Window 42	1.0	19.17	7.67	2.50	22.00	2.00	0.00	0.00	0.384	0.000
Window 43	1.0	19.17	7.67	2.50	26.00	2.00	0.00	0.00	0.384	0.000
Window 44	1.0	19.17	7.67	2.50	30.00	2.00	0.00	0.00	0.384	0.000
Window 69	1.0	34.28	5.71	6.00	3.00	2.00	0.00	0.00	0.384	0.000
Window 70	1.0	34.28	5.71	6.00	12.00	2.00	0.00	0.00	0.384	0.000
Window 71	1.0	34.28	5.71	6.00	24.00	2.00	0.00	0.00	0.384	0.000
Window 72	1.0	34.28	5.71	6.00	33.00	2.00	0.00	0.00	0.384	0.000
Window 75	1.0	60.00	7.50	8.00	4.00	2.00	0.00	0.00	0.384	0.000
Window 76	1.0	60.00	7.50	8.00	17.00	2.00	0.00	0.00	0.384	0.000
Window 92	1.0	121.88	7.50	16.25	6.50	0.25	0.00	0.00	0.384	0.000
Window 88	1.0	9.50	4.75	2.00	1.00	1.00	0.00	0.00	0.384	0.000
Window 89	1.0	9.50	4.75	2.00	14.00	5.00	0.00	0.00	0.384	0.000
Window 90	1.0	9.50	2.00	4.75	1.00	8.00	0.00	0.00	0.384	0.000
Window 79	1.0	45.00	7.50	6.00	2.00	2.00	0.00	0.00	0.384	0.000
Window 80	1.0	45.00	7.50	6.00	11.00	2.00	0.00	0.00	0.384	0.000
Window 91	1.0	270.00	7.50	36.00	0.25	0.25	0.00	0.00	0.384	0.000
Window 93	1.0	46.88	7.50	6.25	0.25	0.25	0.00	0.00	0.384	0.000

window 94	1.0	146.25	7.50	19.50	6.75	0.25	0.00	0.00	0.384	0.000
window 95	1.0	108.75	7.50	14.50	0.25	0.25	0.00	0.00	0.384	0.000
window 96	1.0	71.25	7.50	9.50	0.25	0.25	0.00	0.00	0.384	0.000
window 97	1.0	153.75	7.50	20.50	0.25	0.25	0.00	0.00	0.384	0.000

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- LV-H Details of Windows WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

WINDOW NAME	SETBACK (FT)	GLASS SHADING COEFF	NUMBER OF PANES	CENTER-OF-GLASS U-VALUE (BTU/HR-SQFT-F)	GLASS VISIBLE TRANS	GLASS SOLAR TRANS	SURFACE TO ROUGH OPEN AREA RATIO
Window 1	0.00	0.26	1	0.157	0.529	0.878	1.000
Window 2	0.00	0.26	1	0.157	0.529	0.878	1.000
Window 32	0.00	0.34	1	0.157	0.490	0.878	1.000
Window 30	0.00	0.34	1	0.157	0.490	0.878	1.000
Window 31	0.00	0.34	1	0.157	0.490	0.878	1.000
Window 3	0.00	0.26	1	0.157	0.529	0.878	1.000
Window 98	0.00	0.47	1	0.252	0.490	0.878	1.000
Window 4	0.00	0.26	1	0.157	0.529	0.878	1.000
Window 5	0.00	0.26	1	0.157	0.529	0.878	1.000
Window 6	0.00	0.26	1	0.157	0.529	0.878	1.000
Window 21	0.00	0.26	1	0.157	0.529	0.878	1.000
Window 24	0.00	0.34	1	0.157	0.490	0.878	1.000
Window 25	0.00	0.34	1	0.157	0.490	0.878	1.000
Window 26	0.00	0.34	1	0.157	0.490	0.878	1.000
Window 83	0.00	0.34	1	0.157	0.490	0.878	1.000
Window 84	0.00	0.34	1	0.157	0.490	0.878	1.000
Window 85	0.00	0.34	1	0.157	0.490	0.878	1.000
Window 7	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 8	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 9	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 10	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 61	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 62	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 11	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 12	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 55	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 56	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 51	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 53	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 54	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 45	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 46	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 47	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 13	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 14	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 15	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 16	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 22	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 23	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 33	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 34	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 35	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 36	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 37	0.00	0.32	1	0.261	0.490	0.878	1.000

Window 38	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 17	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 18	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 19	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 20	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 73	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 74	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 86	0.00	0.43	1	0.138	0.630	0.878	1.000
Window 87	0.00	0.43	1	0.138	0.630	0.878	1.000
Window 77	0.00	0.32	1	0.261	0.490	0.878	1.000

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- LV-H Details of Windows WEATHER FILE- SEATTLE BOEING FI WA
----------(CONTINUED)--------

WINDOW NAME	SETBACK (FT)	GLASS SHADING COEFF	NUMBER OF PANES	CENTER-OF-GLASS U-VALUE (BTU/HR-SQFT-F)	GLASS VISIBLE TRANS	GLASS SOLAR TRANS	SURFACE TO ROUGH OPEN AREA RATIO
Window 78	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 63	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 64	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 59	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 60	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 52	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 57	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 58	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 48	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 49	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 50	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 65	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 66	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 67	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 68	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 81	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 82	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 39	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 40	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 41	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 42	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 43	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 44	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 69	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 70	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 71	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 72	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 75	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 76	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 92	0.00	0.43	1	0.138	0.630	0.878	1.000
Window 88	0.00	0.43	1	0.138	0.630	0.878	1.000
Window 89	0.00	0.43	1	0.138	0.630	0.878	1.000
Window 90	0.00	0.43	1	0.138	0.630	0.878	1.000
Window 79	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 80	0.00	0.32	1	0.261	0.490	0.878	1.000
Window 91	0.00	0.43	1	0.138	0.630	0.878	1.000
Window 93	0.00	0.43	1	0.138	0.630	0.878	1.000
Window 94	0.00	0.43	1	0.138	0.630	0.878	1.000
Window 95	0.00	0.43	1	0.138	0.630	0.878	1.000
Window 96	0.00	0.43	1	0.138	0.630	0.878	1.000
Window 97	0.00	0.43	1	0.138	0.630	0.878	1.000

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- LV-I Details of Constructions WEATHER FILE- SEATTLE BOEING FI WA

NUMBER OF CONSTRUCTIONS 14 DELAYED 14 QUICK 0

CONSTRUCTION NAME	U-VALUE (BTU/HR-SQFT-F)	SURFACE ABSORPTANCE	SURFACE ROUGHNESS INDEX	SURFACE TYPE	NUMBER OF RESPONSE FACTORS
MasonEWall Con	0.471	0.60	3	DELAYED	15
Ceilg Cons	0.514	0.70	3	DELAYED	3
IntWall Cons	0.402	0.70	3	DELAYED	4
IntFlr Cons	0.532	0.70	3	DELAYED	3
GFlr Cons	0.081	0.70	3	DELAYED	8
MtlEWall Cons	0.050	0.60	4	DELAYED	20
Roof Cons	0.019	0.60	1	DELAYED	5
UFCons	0.029	0.70	3	DELAYED	41
NoInsUWCons	0.350	0.70	3	DELAYED	25
InsUWCons	0.070	0.70	3	DELAYED	40
FullInsMasEWall Con	0.042	0.60	3	DELAYED	8
PartInsMasEWall Con	0.410	0.60	3	DELAYED	6
BmntRf Cons	0.327	0.60	1	DELAYED	5
TestCons	0.029	0.70	3	DELAYED	41

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- LS-C BuiLding Peak Load Components                                          DESIGN DAY    WEATHER FILE- SEATTLE BOEING FI WA
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*** BUILDING ***



                 FLOOR  AREA     31768  SQFT      2951   M2
                 VOLUME         448580  CUFT     12704   M3

                                     COOLING  LOAD                                  HEATING  LOAD
                                 ==========================                     ==========================
   TIME                                  AUG  1 11AM                                   DEC 21  6AM

   DRY-BULB TEMP                      74 F             23 C                       26 F             -4 C
   WET-BULB TEMP                      61 F             16 C                       21 F             -6 C
   TOT HORIZONTAL SOLAR RAD          218 BTU/H.SQFT   688 W/M2                     0 BTU/H.SQFT     0 W/M2
   WINDSPEED AT SPACE                3.8 KTS          1.9 M/S                    7.0 KTS          3.6 M/S
   CLOUD AMOUNT 0(CLEAR)-10            0                                          10


                            SENSIBLE           LATENT                                SENSIBLE
                        (KBTU/H)    ( KW )  (KBTU/H)  ( KW )                     (KBTU/H)  ( KW )
                        --------    ------  --------  ------                     --------  --------

    WALL CONDUCTION        4.633     1.358     0.000   0.000                     -136.900   -40.112
    ROOF CONDUCTION        0.428     0.125     0.000   0.000                      -33.713    -9.878
    WINDOW GLASS+FRM COND  1.123     0.329     0.000   0.000                      -38.522   -11.287
    WINDOW GLASS SOLAR    60.474    17.719     0.000   0.000                        0.488     0.143
    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 -11.939    -3.498     0.000   0.000                      -23.581    -6.909
    OCCUPANTS TO SPACE    55.203    16.174    49.253  14.431                        0.000     0.000
    LIGHT     TO SPACE    53.809    15.766     0.000   0.000                        0.000     0.000
    EQUIPMENT TO SPACE    74.664    21.877     0.000   0.000                        0.000     0.000
    PROCESS   TO SPACE     0.000     0.000     0.000   0.000                        0.000     0.000
    INFILTRATION           0.656     0.192     0.104   0.031                      -59.259   -17.363
                        --------   -------   -------  ------                     --------  --------
    TOTAL                239.052    70.042    49.357  14.462                     -291.488   -85.406
    TOTAL / AREA           0.008     0.024     0.002   0.005                       -0.009    -0.029

    TOTAL LOAD           288.409 KBTU/H       84.504  KW                     -291.488 KBTU/H      -85.406  KW
    TOTAL LOAD / AREA      9.08  BTU/H.SQFT   28.632  W/M2                      9.175 BTU/H.SQFT   28.938  W/M2
```

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*************************************************************
*                                                           *
*  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                *
*                                                           *
*************************************************************
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- LS-D Building Monthly Loads Summary DESIGN DAY WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
FEB	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
MAR	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
APR	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
MAY	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
JUN	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
JUL	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
AUG	76.07355	1	10	74.F	61.F	239.052	-0.069	15	7	66.F	58.F	-0.655	15847.	44.019
SEP	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
OCT	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
NOV	0.00000	0	0	0.F	0.F	0.000	0.000	0	0	0.F	0.F	0.000	0.	0.000
DEC	0.00000	0	0	0.F	0.F	0.000	-68.502	21	6	26.F	21.F	-291.488	45.	0.171
TOTAL	76.074						-68.571						15892.	
MAX						239.052						-291.488		44.019

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- LS-C BuiLding Peak Load Components WEATHER FILE- SEATTLE BOEING FI WA

*** BUILDING ***

FLOOR AREA	31768	SQFT	2951	M2
VOLUME	448580	CUFT	12704	M3

	COOLING LOAD		HEATING LOAD	
TIME	JUL 23 4PM		JAN 6 5AM	
DRY-BULB TEMP	88 F	31 C	27 F	-3 C
WET-BULB TEMP	66 F	19 C	23 F	-5 C
TOT HORIZONTAL SOLAR RAD	233 BTU/H.SQFT	734 W/M2	0 BTU/H.SQFT	0 W/M2
WINDSPEED AT SPACE	2.6 KTS	1.3 M/S	7.8 KTS	4.0 M/S
CLOUD AMOUNT 0(CLEAR)-10	0		10	

	SENSIBLE (KBTU/H)	SENSIBLE (KW)	LATENT (KBTU/H)	LATENT (KW)	SENSIBLE (KBTU/H)	SENSIBLE (KW)
WALL CONDUCTION	27.870	8.166	0.000	0.000	-127.963	-37.493
ROOF CONDUCTION	16.501	4.835	0.000	0.000	-32.043	-9.388
WINDOW GLASS+FRM COND	11.143	3.265	0.000	0.000	-37.442	-10.971
WINDOW GLASS SOLAR	29.262	8.574	0.000	0.000	0.824	0.242
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	-15.892	-4.656	0.000	0.000	-27.679	-8.110
OCCUPANTS TO SPACE	44.602	13.068	45.139	13.226	0.592	0.173
LIGHT TO SPACE	34.361	10.068	0.000	0.000	2.903	0.851
EQUIPMENT TO SPACE	65.422	19.169	0.000	0.000	3.645	1.068
PROCESS TO SPACE	0.000	0.000	0.000	0.000	0.000	0.000
INFILTRATION	2.207	0.647	0.000	0.000	-63.687	-18.660
TOTAL	215.475	63.134	45.139	13.226	-280.850	-82.289
TOTAL / AREA	0.007	0.021	0.001	0.004	-0.009	-0.028
TOTAL LOAD	260.614 KBTU/H		76.360 KW		-280.850 KBTU/H	-82.289 KW
TOTAL LOAD / AREA	8.20 BTU/H.SQFT		25.873 W/M2		8.841 BTU/H.SQFT	27.882 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                *
*                                                           *
*************************************************************
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- LS-D Building Monthly Loads Summary WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	9.89356	29	16	54.F	53.F	59.058	-87.791	6	5	27.F	23.F	-280.850	10077.	35.673
FEB	9.35388	21	16	57.F	54.F	60.037	-70.327	12	4	36.F	33.F	-181.666	9147.	35.673
MAR	12.99083	21	15	68.F	50.F	90.597	-62.611	19	4	39.F	38.F	-179.204	10164.	35.673
APR	18.32482	11	16	66.F	54.F	107.491	-45.422	5	21	46.F	42.F	-159.406	10347.	35.673
MAY	24.39695	15	15	73.F	60.F	158.283	-33.728	10	3	43.F	41.F	-140.939	10164.	35.673
JUN	30.95973	20	10	72.F	61.F	183.090	-19.169	8	4	52.F	50.F	-95.342	9999.	35.673
JUL	48.38567	23	15	88.F	66.F	215.475	-8.237	5	4	54.F	51.F	-57.734	10425.	35.673
AUG	41.72450	12	15	82.F	65.F	188.534	-8.065	24	5	55.F	54.F	-71.089	10164.	35.673
SEP	29.47908	19	16	81.F	63.F	162.492	-16.172	28	6	43.F	42.F	-100.378	9999.	35.673
OCT	18.03897	7	16	77.F	56.F	127.807	-38.482	31	4	46.F	45.F	-126.186	10425.	35.673
NOV	10.80988	7	16	61.F	56.F	74.616	-62.129	3	5	41.F	39.F	-173.994	9042.	35.673
DEC	10.43094	16	16	54.F	50.F	59.454	-81.799	14	6	41.F	39.F	-197.903	10425.	35.673
TOTAL	264.789						-533.931						120383.	
MAX						215.475						-280.850		35.673

```
Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- ATTN Simulation Messages For Review HVAC        Program                            WEATHER FILE- SEATTLE BOEING FI WA
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 ***NOTE*************************************************************************
            CHW coil: Sys2CB                            is dry at the rated
            conditions.

 **CAUTION***********************************************************************
            AHU: Sys2CB                           , has a specified or
            flow-limited cooling capacity of    2778.; corresponding to
            a design-day capacity of    2779.  The required design-day
            capacity is    9080.  Zone setpoints may not be maintained.
            Check reports SS-F and SS-O for comfort.

 **CAUTION***********************************************************************
            AHU: Sys3CB                             has zero outside air for
            design calculations.

 ***NOTE*************************************************************************
            CHW coil: Sys4CB                            is dry at the rated
            conditions.

 **CAUTION***********************************************************************
            AHU: Sys4CB                           , has a specified or
            flow-limited cooling capacity of   13184.; corresponding to
            a design-day capacity of   13186.  The required design-day
            capacity is   13974.  Zone setpoints may not be maintained.
            Check reports SS-F and SS-O for comfort.

 ***NOTE*************************************************************************
            CHW coil: Sys5CB                            is dry at the rated
            conditions.

 ***NOTE*************************************************************************
            CHW coil: Sys6CB                            is dry at the rated
            conditions.

 ***NOTE*************************************************************************
            CHW coil: Sys11CB                           is dry at the rated
            conditions.

 ***NOTE*************************************************************************
            CHW coil: Sys12CB                           is dry at the rated
            conditions.

 ***NOTE*************************************************************************
            CHW coil: Sys17CB                           is dry at the rated
            conditions.

 ***NOTE*************************************************************************
            CHW coil: Sys20FC                           is dry at the rated
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            conditions.

***NOTE*************************************************************************
            CHW coil: Sys21FC                          is dry at the rated
            conditions.

**CAUTION***********************************************************************
            AHU: Sys23DfltClg                     has zero outside air for
            design calculations.

**CAUTION***********************************************************************
            Zone: L3Core Zn (G.C5)                 has a minimum flow ratio
            of only 0.01 and the thermostat is not reverse acting.
            Excessive thermal stratification may result during heating.

**CAUTION***********************************************************************
            Zone: L3Core Zn (G.C5)                 has a VAV control with
            proportional thermostat; HMAX-FLOW-RATIO is ignored.

**CAUTION***********************************************************************
            Zone: L4 Core Zn (G.C3)                has a minimum flow ratio
            of only 0.01 and the thermostat is not reverse acting.
            Excessive thermal stratification may result during heating.

**CAUTION***********************************************************************
            Zone: L4 Core Zn (G.C3)                has a VAV control with
            proportional thermostat; HMAX-FLOW-RATIO is ignored.

**CAUTION***********************************************************************
            AHU: Sys25DfltClg                     has zero outside air for
            design calculations.

**CAUTION***********************************************************************
            Zone: L4 SSE Perim Zn (G.SSE5)         has a minimum flow ratio
            of only 0.01 and the thermostat is not reverse acting.
            Excessive thermal stratification may result during heating.

**CAUTION***********************************************************************
            Zone: L4 SSE Perim Zn (G.SSE5)         has a VAV control with
            proportional thermostat; HMAX-FLOW-RATIO is ignored.

**CAUTION***********************************************************************
            AHU: Sys26DfltClg                     has zero outside air for
            design calculations.

**CAUTION***********************************************************************
            Zone: B1North Perim Zn (B.N18)         has a minimum flow ratio
            of only 0.01 and the thermostat is not reverse acting.
            Excessive thermal stratification may result during heating.

**CAUTION***********************************************************************
            Zone: B1North Perim Zn (B.N18)         has a VAV control with
            proportional thermostat; HMAX-FLOW-RATIO is ignored.
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 **CAUTION**************************************************************************
            Zone: L2North Perim Zn (G.N11)         has a VAV control with
            proportional thermostat; HMAX-FLOW-RATIO is ignored.

 **CAUTION**************************************************************************
            AHU: Sys28DfltClg                     has zero outside air for
            design calculations.

 **CAUTION**************************************************************************
            Zone: L2Core Zn (G.C5)                 has a minimum flow ratio
            of only 0.01 and the thermostat is not reverse acting.
            Excessive thermal stratification may result during heating.

 **CAUTION**************************************************************************
            Zone: L2Core Zn (G.C5)                 has a VAV control with
            proportional thermostat; HMAX-FLOW-RATIO is ignored.

 **CAUTION**************************************************************************
            AHU: Sys29DfltClg                     has zero outside air for
            design calculations.

 **CAUTION**************************************************************************
            Zone: L3North Perim Zn (G.N11)         has a minimum flow ratio
            of only 0.01 and the thermostat is not reverse acting.
            Excessive thermal stratification may result during heating.

 **CAUTION**************************************************************************
            Zone: L3North Perim Zn (G.N11)         has a VAV control with
            proportional thermostat; HMAX-FLOW-RATIO is ignored.

 **CAUTION**************************************************************************
            Loop: Clg2PipeLoop                     primary equipment maximum
            flow is less than the design flow;   122.1 vs.   200.0 gpm.
            If hourly flow exceeds the maximum equipment flow, the
            excess flow will be bypassed around the equipment, and the
            equipment supply setpoint will be lowered in an attempt to
            maintain the loop setpoint.  Verify user-specified
            capacities, equipment MAX-FLOW ratios, and design secondary
            coil loads.

 **WARNING**************************************************************************
            Loop: Htg2PipeLoop                     cooling capacity is smaller
            than the secondary demand. Primary=  -576890. Secondary=        0.
CURINV: Result out of limits for CURVE:
*********106.514633  8.237666 -0.077340  0.000000  0.000000  0.000000  0.000000
X, Y, and Z:106.211769  0.000000  0.000000 MMDDHH:   1   1   8
CURINV: Result out of limits for CURVE:
*********106.514633  8.237666 -0.077340  0.000000  0.000000  0.000000  0.000000
X, Y, and Z:106.211769  0.000000  0.000000 MMDDHH:   1   1   8
CURINV: Result out of limits for CURVE:
*********106.514633  8.237666 -0.077340  0.000000  0.000000  0.000000  0.000000
X, Y, and Z:106.211769  0.000000  0.000000 MMDDHH:   1   1   8
CURINV: Result out of limits for CURVE:
*********106.514633  8.237666 -0.077340  0.000000  0.000000  0.000000  0.000000
```

```
X, Y, and Z:106.211769  0.000000  0.000000 MMDDHH:   1   1   8

 **WARNING*********************************************************************
            Energy-recovery ventilator: ERV-B-2                          has
            condensation on the exhaust outlet.  First occurrence:  1  2  9
            OA T&W:  32.0  0.0034   Return T&W:  70.6  0.0104

 **WARNING*********************************************************************
            Energy-recovery ventilator: ERV-B-1                          has
            condensation on the exhaust outlet.  First occurrence:  1  2  9
            OA T&W:  32.0  0.0034   Return T&W:  72.0  0.0108

 **WARNING*********************************************************************
            Energy-recovery ventilator: ERV-1-2                          has
            condensation on the exhaust outlet.  First occurrence:  1  2 14
            OA T&W:  37.0  0.0044   Return T&W:  73.5  0.0117

 **WARNING*********************************************************************
            Energy-recovery ventilator: ERV-B-2                          has
            frost on the exhaust outlet.  First occurrence:  1  6 14
            OA T&W:  28.0  0.0027   Return T&W:  70.2  0.0122

 **WARNING*********************************************************************
            Energy-recovery ventilator: ERV-B-1                          has
            frost on the exhaust outlet.  First occurrence:  1  6 14
            OA T&W:  28.0  0.0027   Return T&W:  71.5  0.0115

 **CAUTION*********************************************************************
            Energy-recovery ventilator: ERV-4-1                          has an
            exhaust flow less than 50% of the supply flow.  Performance
            may be compromised.  OA & Exhaust:      147.       46.
            First occurrence:  1/ 8/18

 **WARNING*********************************************************************
            Energy-recovery ventilator: ERV-1-2                          has
            frost on the exhaust outlet.  First occurrence: 12 24 22
            OA T&W:  30.2  0.0032   Return T&W:  71.8  0.0131
CURINV: Result out of limits for CURVE:
*********106.371353  8.122747 -0.076372  0.000000  0.000000  0.000000  0.000000
X, Y, and Z:106.223633  0.000000  0.000000 MMDDHH:  12  26   9
CURINV: Result out of limits for CURVE:
*********106.371353  8.122747 -0.076372  0.000000  0.000000  0.000000  0.000000
X, Y, and Z:106.223633  0.000000  0.000000 MMDDHH:  12  26   9
CURINV: Result out of limits for CURVE:
*********106.371353  8.122747 -0.076372  0.000000  0.000000  0.000000  0.000000
X, Y, and Z:106.223633  0.000000  0.000000 MMDDHH:  12  26   9
CURINV: Result out of limits for CURVE:
*********106.371353  8.122747 -0.076372  0.000000  0.000000  0.000000  0.000000
X, Y, and Z:106.223633  0.000000  0.000000 MMDDHH:  12  26   9

 **WARNING*********************************************************************
            Energy-recovery ventilator: ERV-1-1                          has
            condensation on the exhaust outlet.  First occurrence: 12 26 19
            OA T&W:  32.2  0.0035   Return T&W:  72.4  0.0100
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**WARNING************************************************************
            Energy-recovery ventilator: ERV-2-1                          has
            condensation on the exhaust outlet.  First occurrence: 12 26 19
            OA T&W:  32.2  0.0035   Return T&W:  72.0  0.0108

**WARNING************************************************************
            Energy-recovery ventilator: ERV-3-1                          has
            condensation on the exhaust outlet.  First occurrence: 12 26 19
            OA T&W:  32.2  0.0035   Return T&W:  72.3  0.0099

**WARNING************************************************************
            Pump: HtgPump                          cannot match the system
            flow at the minimum required head.  Required system flow
            =  102.6 gpm at head = 161.9 Pump balance point =   95.9
            gpm at head of 143.4  Hours overloaded =    1
            Design flow =   94.5 gpm at head of 143.0; per pump.
            If the pump was sized by default, and loop sizing is
            COINCIDENT, most likely this is caused by the design-day
            specification not matching the actual operating conditions.
            To compensate, try increasing the severity of the
            design-day conditions, or the number of months the
            design-day(s) are simulated. Or, increase the loop sizing
            ratio, or the pump flow & head sizing ratios, or change the
            loop sizing method to NON-COINCIDENT, or manually specify
            (and increase) the loop flow.
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for ERV-B-2 WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
DOAS	1.001	4445.1	72.	1.000	0.000	0.000	0.000	0.310	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	952.	0.00	0.305	1.00	1.3	0.47	0.62	DRAW-THRU	SPEED	1.10	0.10
RETURN	952.	1.00	0.305	1.00	1.3	0.47	0.62	RETURN	SPEED	1.10	0.10

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

SYSTEM NAME / ZONE NAME	----- OA ATTACHED TO ----- MIXED AIR (CFM)	ZONE (CFM)	MULT
Sys20FC			
B1North Perim Zn (B.N22)	0.	137.	1.
B1Core Zn (B.C10)	0.	137.	1.
B1SSE Perim Zn (B.SSE11)	0.	137.	1.
B1SSE Perim Zn (B.SSE12)	0.	137.	1.
B1Core Zn (B.C13)	0.	137.	1.
B1SSE Perim Zn (B.SSE14)	0.	137.	1.
B1SE Perim Zn (B.SE20)	0.	137.	1.
TOTAL:	0.	961.	

```
Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- SV-C System Coil Sizing Summary for ERV-B-2                                                WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW   ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)    (F)     (F)
                    --------  -----  ----  ---------  ------  --------  ------  -----  ------  -----  ------  -----  ------  ------

No coils in this System
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for ERV-B-1 WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
DOAS	1.001	1022.2	20.	1.000	0.000	0.000	0.000	0.310	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	368.	0.00	0.257	2.18	2.8	0.47	0.62	DRAW-THRU	SPEED	1.10	0.10
RETURN	368.	1.00	0.257	2.18	2.8	0.47	0.62	RETURN	SPEED	1.10	0.10

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

SYSTEM NAME / ZONE NAME	OA ATTACHED TO MIXED AIR (CFM)	OA ATTACHED TO ZONE (CFM)	MULT
Sys21FC			
B1Core Zn (B.C8)	0.	280.	1.
B1SSE Perim Zn (B.SSE7)	0.	90.	1.
TOTAL:	0.	370.	

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- SV-C System Coil Sizing Summary for ERV-B-1                                                WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW   ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)    (F)     (F)
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No coils in this System
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for ERV-1-1 WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
DOAS	1.001	2496.3	22.	1.000	0.000	0.000	0.000	0.310	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	400.	0.00	0.350	2.73	3.5	0.47	0.62	DRAW-THRU	SPEED	1.10	0.10
RETURN	400.	1.00	0.350	2.73	3.5	0.47	0.62	RETURN	SPEED	1.10	0.10

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

SYSTEM NAME / ZONE NAME	----- OA ATTACHED TO ----- MIXED AIR (CFM)	ZONE (CFM)	MULT
Sys1CB			
L1SW Perim Zn (G.SW1)	0.	235.	1.
L1Core Zn (G.C2)	0.	0.	1.
Sys2CB			
L1Core Zn (G.C6)	0.	25.	1.
Sys4CB			
L1SE Perim Zn (G.SE16)	0.	75.	1.
L1Core Zn (G.C5)	0.	0.	1.
L1Core Zn (G.C9)	0.	0.	1.
L1Core Zn (G.C17)	0.	75.	1.
TOTAL:	0.	410.	

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- SV-C System Coil Sizing Summary for ERV-1-1                                                WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW   ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)    (F)     (F)
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No coils in this System
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for ERV-1-2 WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
DOAS	1.001	1790.6	32.	1.000	0.000	0.000	0.000	0.310	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	428.	0.00	0.368	2.68	3.5	0.47	0.62	DRAW-THRU	SPEED	1.10	0.10
RETURN	428.	1.00	0.368	2.68	3.5	0.47	0.62	RETURN	SPEED	1.10	0.10

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

SYSTEM NAME / ZONE NAME	----- OA ATTACHED TO ----- MIXED AIR (CFM)	ZONE (CFM)	MULT
Sys5CB			
L1East Perim Zn (G.E18)	0.	440.	1.
L1Core Zn (G.C11)	0.	0.	1.
TOTAL:	0.	440.	

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- SV-C System Coil Sizing Summary for ERV-1-2                                                WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW   ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)    (F)     (F)
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No coils in this System
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for ERV-MEZZ WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
DOAS	1.001	478.6	2.	1.000	0.000	0.000	0.000	0.310	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	48.	0.00	0.092	5.94	5.5	0.34	0.62	DRAW-THRU	SPEED	1.10	0.10
RETURN	48.	1.00	0.092	5.94	5.5	0.34	0.62	RETURN	SPEED	1.10	0.10

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

SYSTEM NAME / ZONE NAME	----- OA ATTACHED TO ----- MIXED AIR (CFM)	ZONE (CFM)	MULT
Sys22CB			
Thermal Zone 84	0.	50.	1.
TOTAL:	0.	50.	

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- SV-C System Coil Sizing Summary for ERV-MEZZ                                                WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW   ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)    (F)     (F)
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No coils in this System
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for ERV-2-2 WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
DOAS	1.001	3630.5	13.	1.000	0.000	0.000	0.000	0.310	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	393.	0.00	0.373	2.96	3.8	0.47	0.62	DRAW-THRU	SPEED	1.10	0.10
RETURN	393.	1.00	0.373	2.96	3.8	0.47	0.62	RETURN	SPEED	1.10	0.10

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

SYSTEM NAME / ZONE NAME	----- OA ATTACHED TO ----- MIXED AIR (CFM)	ZONE (CFM)	MULT
Sys8CB			
L2SSE Perim Zn (G.SSE7)	0.	50.	1.
Sys9FC			
L2North Perim Zn (G.N12)	0.	70.	1.
Sys10CB			
L2SSE Perim Zn (G.SSE14)	0.	85.	1.
Sys11CB			
L2East Perim Zn (G.E15)	0.	200.	1.
L2Core Zn (G.C10)	0.	0.	1.
TOTAL:	0.	405.	

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- SV-C System Coil Sizing Summary for ERV-2-2                                                WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW   ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)    (F)     (F)
                    --------  -----  ----  ---------  ------  --------  ------  -----  ------  -----  ------  -----  ------  ------

No coils in this System
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for ERV-2-1 WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
DOAS	1.001	925.0	12.	1.000	0.000	0.000	0.000	0.310	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	262.	0.00	0.199	2.37	2.7	0.41	0.62	DRAW-THRU	SPEED	1.10	0.10
RETURN	262.	1.00	0.199	2.37	2.7	0.41	0.62	RETURN	SPEED	1.10	0.10

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

SYSTEM NAME / ZONE NAME	----- OA ATTACHED TO ----- MIXED AIR (CFM)	ZONE (CFM)	MULT
Sys7CB			
L2NW Perim Zn (G.NW6)	0.	265.	1.
L2West Perim Zn (G.W4)	0.	0.	1.
TOTAL:	0.	265.	

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Metropole                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- SV-C System Coil Sizing Summary for ERV-2-1                                   WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW   ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)    (F)     (F)
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No coils in this System
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for ERV-3-2 WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
DOAS	1.001	3418.4	12.	1.000	0.000	0.000	0.000	0.310	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	310.	0.00	0.241	2.42	2.7	0.41	0.62	DRAW-THRU	SPEED	1.10	0.10
RETURN	310.	1.00	0.241	2.42	2.7	0.41	0.62	RETURN	SPEED	1.10	0.10

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

SYSTEM NAME / ZONE NAME	----- OA ATTACHED TO ----- MIXED AIR (CFM)	ZONE (CFM)	MULT
Sys14CB			
L3SSE Perim Zn (G.SSE7)	0.	50.	1.
Sys16CB			
L3SSE Perim Zn (G.SSE14)	0.	85.	1.
Sys17CB			
L3East Perim Zn (G.E15)	0.	200.	1.
L3Core Zn (G.C10)	0.	0.	1.
TOTAL:	0.	335.	

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- SV-C System Coil Sizing Summary for ERV-3-2                                                WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW   ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)    (F)     (F)
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No coils in this System
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for ERV-3-1 WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
DOAS	1.001	2013.5	24.	1.000	0.000	0.000	0.000	0.310	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	582.	0.00	0.465	2.49	3.2	0.48	0.62	DRAW-THRU	SPEED	1.10	0.10
RETURN	582.	1.00	0.465	2.49	3.2	0.48	0.62	RETURN	SPEED	1.10	0.10

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

SYSTEM NAME / ZONE NAME	----- OA ATTACHED TO ----- MIXED AIR (CFM)	ZONE (CFM)	MULT
Sys12CB			
L3SW Perim Zn (G.SW1)	0.	325.	1.
L3Core Zn (G.C2)	0.	0.	1.
Sys13CB			
L3NW Perim Zn (G.NW6)	0.	265.	1.
L3WSW Perim Zn (G.WSW4)	0.	0.	1.
TOTAL:	0.	590.	

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- SV-C System Coil Sizing Summary for ERV-3-1                                                WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW   ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)    (F)     (F)
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No coils in this System
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for ERV-4-1 WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
DOAS	1.001	2088.9	8.	1.000	0.000	0.000	0.000	0.310	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	134.	0.00	0.099	2.32	2.4	0.37	0.62	DRAW-THRU	SPEED	1.10	0.10
RETURN	134.	1.00	0.099	2.32	2.4	0.37	0.62	RETURN	SPEED	1.10	0.10

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

SYSTEM NAME / ZONE NAME	----- OA ATTACHED TO ----- MIXED AIR (CFM)	ZONE (CFM)	MULT
Sys18CB			
L4 SSE Perim Zn (G.SSE1)	0.	85.	1.
Sys19CB			
L4 NNW Perim Zn (G.NNW4)	0.	75.	1.
L4 Core Zn (G.C8)	0.	0.	1.
Sys24DfltClg			
L4 Core Zn (G.C3)	0.	0.	1.
TOTAL:	0.	160.	

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- SV-C System Coil Sizing Summary for ERV-4-1                                                WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW   ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)    (F)     (F)
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No coils in this System
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys1CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	1088.5	14.	0.000	18.642	0.808	-23.344	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	870.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L1SW Perim Zn (G.SW1)	766.	0.	0.000	1.000	235.	0.00	0.00	13.52	0.00	-21.25	1.
L1Core Zn (G.C2)	103.	0.	0.000	1.000	0.	0.00	0.00	1.85	0.00	-2.69	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys1CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	MO/DY/HR	TIME/OUTDOOR DBT (F)	TIME/OUTDOOR WBT (F)	CAPACITY TOTAL (KBTU/HR)	CAPACITY SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	AIRSIDE EDB (F)	AIRSIDE EWB (F)	AIRSIDE LDB (F)	AIRSIDE LWB (F)	AIRSIDE BYPASS FACTOR	SOURCE FLOW (GPM)	SOURCE ENT T (F)	SOURCE DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 6/10	71.1	60.0	17.96	0.89	870.	76.06	65.27	59.27	58.84	0.0370		55.00	
Design Capacity					18.84	0.96	870.	80.00	67.00	61.06	60.26	0.0604	3.7	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/31/ 8	25.5	21.5	-19.44		870.	70.17	46.44	90.85				0.00	
Design Capacity					-23.34		870.	70.17	46.44	95.00			4.7	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys2CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	304.0	4.	0.000	2.778	0.808	-11.396	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	416.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L1Core Zn (G.C6)	416.	0.	0.000	1.000	25.	0.00	0.00	3.08	0.00	-11.55	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys2CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/15/11	73.7	60.9	9.08	0.86	416.	76.10	65.40	59.01	58.59	0.0370		55.00	
Design Capacity					2.78	1.00	416.	80.00	67.00	73.93	64.86	0.0663	0.6	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/31/ 7	25.5	21.5	-7.57		416.	69.93	58.27	86.59				0.00	
Design Capacity					-11.40		416.	69.93	58.27	95.00			2.3	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys3CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	636.0	2.	0.000	10.596	0.808	-11.222	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	414.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L1SSE Perim Zn (G.SSE8)	414.	0.	0.000	1.000	0.	0.00	0.00	7.87	0.00	-11.60	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys3CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 6/10	71.1	60.0	10.16	0.77	414.	76.10	66.21	59.00	58.62	0.0370		55.00	
Design Capacity					10.65	0.88	414.	80.00	67.00	59.50	58.91	0.0471	2.1	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/29/ 8	25.5	21.5	-9.39		414.	69.92	46.32	90.90				0.00	
Design Capacity					-11.22		414.	69.92	46.32	95.00			2.2	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys4CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	1103.9	4.	0.000	13.184	0.808	-25.500	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	990.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L1SE Perim Zn (G.SE16)	470.	0.	0.000	1.000	75.	0.00	0.00	5.46	0.00	-13.31	1.
L1Core Zn (G.C5)	166.	0.	0.000	1.000	0.	0.00	0.00	2.62	0.00	-4.00	1.
L1Core Zn (G.C9)	142.	0.	0.000	1.000	0.	0.00	0.00	2.03	0.00	-3.58	1.
L1Core Zn (G.C17)	211.	0.	0.000	1.000	75.	0.00	0.00	2.97	0.00	-5.76	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys4CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 1/11	73.7	60.9	13.97	1.00	990.	76.10	64.25	63.26	59.87	0.0370		55.00	
Design Capacity					13.19	1.00	990.	80.00	67.00	67.90	62.88	0.0663	2.6	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/31/ 8	25.5	21.5	-23.72		990.	71.17	46.90	93.33				0.00	
Design Capacity					-25.50		990.	71.17	46.90	95.00			5.1	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys5CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	1790.6	32.	0.000	40.116	0.808	-50.326	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	1926.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L1East Perim Zn (G.E18)	1591.	0.	0.000	1.000	440.	0.00	0.00	25.46	0.00	-46.07	1.
L1Core Zn (G.C11)	335.	0.	0.000	1.000	0.	0.00	0.00	6.00	0.00	-8.02	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys5CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 1/10	71.1	60.0	32.98	0.91	1926.	76.15	66.66	61.97	61.57	0.0370		55.00	
Design Capacity					40.53	0.98	1926.	80.00	67.00	61.30	60.46	0.0628	8.0	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/31/ 9	25.5	21.5	-49.22		1926.	70.82	46.74	94.47				0.00	
Design Capacity					-50.33		1926.	70.82	46.74	95.00			10.1	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys6CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	1088.5	13.	0.418	15.858	0.808	-36.590	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	778.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2SW Perim Zn (G.SW1)	679.	0.	0.000	1.000	325.	0.00	0.00	11.60	0.00	-18.68	1.
L2Core Zn (G.C2)	99.	0.	0.000	1.000	0.	0.00	0.00	1.87	0.00	-2.55	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys6CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 2/10	71.1	60.0	12.14	1.00	778.	74.00	62.65	59.79	57.60	0.0370		55.00	
Design Capacity					15.89	0.99	778.	80.00	67.00	61.53	60.66	0.0646	3.2	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/28/ 8	25.5	21.5	-29.85		778.	51.50	36.94	86.99				0.00	
Design Capacity					-36.59		778.	51.50	36.94	95.00			7.3	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys7CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	925.0	12.	0.000	16.368	0.808	-16.548	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	609.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2NW Perim Zn (G.NW6)	541.	0.	0.000	1.000	265.	0.00	0.00	10.60	0.00	-14.88	1.
L2West Perim Zn (G.W4)	68.	0.	0.000	1.000	0.	0.00	0.00	1.25	0.00	-1.91	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys7CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/15/15	81.2	63.5	12.91	0.86	609.	75.95	65.60	59.43	59.03	0.0370		55.00	
Design Capacity					16.42	0.86	609.	80.00	67.00	59.02	58.48	0.0438	3.3	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/22/ 7	25.5	21.5	-12.31		609.	69.85	46.29	88.56				0.00	
Design Capacity					-16.55		609.	69.85	46.29	95.00			3.3	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys8CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	580.0	2.	0.000	9.012	0.808	-8.477	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	291.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2SSE Perim Zn (G.SSE7)	291.	0.	0.000	1.000	50.	0.00	0.00	6.21	0.00	-8.26	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys8CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 1/11	73.7	60.9	5.51	0.97	291.	76.10	64.77	59.29	58.85	0.0370		55.00	
Design Capacity					8.99	0.81	301.	80.10	66.81	57.96	57.52	0.0370	1.8	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/21/ 7	25.5	21.5	-7.51		291.	68.03	45.44	91.92				0.00	
Design Capacity					-8.48		291.	68.03	45.44	95.00			1.7	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys9FC WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	212.1	1.	0.000	9.130	0.811	-8.299	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	306.	1.00	0.028	0.28	0.2	0.25	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2North Perim Zn (G.N12)	306.	0.	0.000	1.000	70.	0.00	0.00	6.35	0.00	-8.51	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys9FC WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/15/15	81.2	63.5	2.54	1.00	306.	76.04	64.54	68.50	62.04	0.0370		55.00	
Design Capacity					9.13	0.81	306.	80.00	67.00	57.94	57.51	0.0370	1.8	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/25/ 8	25.5	21.5	-6.08		306.	69.93	46.33	88.30				0.00	
Design Capacity					-8.30		306.	69.93	46.33	95.00			1.7	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys10CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	1032.5	4.	0.000	14.511	0.808	-14.766	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	545.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2SSE Perim Zn (G.SSE14)	545.	0.	0.000	1.000	85.	0.00	0.00	11.02	0.00	-15.00	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys10CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 1/10	71.1	60.0	11.18	0.92	545.	76.10	64.99	59.00	58.57	0.0370		55.00	
Design Capacity					14.57	0.86	545.	80.00	67.00	59.11	58.56	0.0444	2.9	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/25/ 8	25.5	21.5	-11.73		545.	69.92	46.32	89.84				0.00	
Design Capacity					-14.77		545.	69.92	46.32	95.00			3.0	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys11CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	1806.0	7.	0.000	23.860	0.808	-35.765	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	1359.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2East Perim Zn (G.E15)	1108.	0.	0.000	1.000	200.	0.00	0.00	16.38	0.00	-31.50	1.
L2Core Zn (G.C10)	251.	0.	0.000	1.000	0.	0.00	0.00	3.72	0.00	-6.14	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys11CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 1/15	81.2	63.5	16.64	1.00	1359.	76.07	65.15	64.94	61.45	0.0370		55.00	
Design Capacity					23.86	1.00	1359.	80.00	67.00	64.04	61.57	0.0663	4.8	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/29/ 9	25.5	21.5	-35.21		1359.	70.65	46.66	94.62				0.00	
Design Capacity					-35.76		1359.	70.65	46.66	95.00			7.1	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys12CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	1088.5	13.	0.000	15.858	0.808	-20.758	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	768.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3SW Perim Zn (G.SW1)	672.	0.	0.000	1.000	325.	0.00	0.00	11.73	0.00	-18.49	1.
L3Core Zn (G.C2)	95.	0.	0.000	1.000	0.	0.00	0.00	1.59	0.00	-2.55	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys12CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 2/10	71.1	60.0	14.31	1.00	768.	76.12	64.54	59.16	58.70	0.0370		55.00	
Design Capacity					15.97	0.98	768.	80.00	67.00	61.39	60.54	0.0635	3.2	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/28/ 7	25.5	21.5	-12.52		768.	69.98	46.35	85.07				0.00	
Design Capacity					-20.76		768.	69.98	46.35	95.00			4.1	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys13CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	925.0	11.	0.000	16.368	0.808	-14.537	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	531.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3NW Perim Zn (G.NW6)	462.	0.	0.000	1.000	265.	0.00	0.00	9.41	0.00	-12.69	1.
L3WSW Perim Zn (G.WSW4)	70.	0.	0.000	1.000	0.	0.00	0.00	1.40	0.00	-2.08	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys13CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 6/ 6	63.6	57.2	14.29	0.65	531.	77.08	68.80	61.21	60.88	0.0370		55.00	
Design Capacity					16.33	0.81	546.	80.10	66.81	57.96	57.52	0.0370	3.3	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/31/ 6	25.5	21.5	-9.70		531.	69.69	46.22	86.58				0.00	
Design Capacity					-14.54		531.	69.69	46.22	95.00			2.9	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys14CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	580.0	2.	0.000	9.012	0.808	-9.472	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	349.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3SSE Perim Zn (G.SSE7)	349.	0.	0.000	1.000	50.	0.00	0.00	6.71	0.00	-9.94	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys14CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	MO/DY/HR	TIME/OUTDOOR DBT (F)	TIME/OUTDOOR WBT (F)	CAPACITY TOTAL (KBTU/HR)	CAPACITY SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	AIRSIDE EDB (F)	AIRSIDE EWB (F)	AIRSIDE LDB (F)	AIRSIDE LWB (F)	AIRSIDE BYPASS FACTOR	SOURCE FLOW (GPM)	SOURCE ENT T (F)	SOURCE DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 2/10	71.1	60.0	5.61	1.00	349.	76.09	64.99	61.47	60.06	0.0370		55.00	
Design Capacity					9.05	0.87	349.	80.00	67.00	59.42	58.84	0.0465	1.8	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/23/ 8	25.5	21.5	-9.26		349.	69.90	46.31	94.43				0.00	
Design Capacity					-9.47		349.	69.90	46.31	95.00			1.9	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys15FC WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	212.1	1.	0.229	9.130	0.811	-11.665	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	306.	1.00	0.028	0.28	0.2	0.25	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3North Perim Zn (G.N12)	306.	0.	0.000	1.000	70.	0.00	0.00	6.38	0.00	-8.52	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys15FC WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling ChillWtr														
Design Day Peak	8/15/15	81.2	63.5	2.51	1.00	306.	77.23	62.59	69.74	60.00	0.0370		55.00	
Design Capacity				9.13	0.81	306.	80.00	67.00	57.94	57.51	0.0370	1.8	55.00	10.00
Heating HotWtr														
Design Day Peak	12/25/ 8	25.5	21.5	-9.97		306.	59.75	41.35	89.89				0.00	
Design Capacity				-11.67		306.	59.75	41.35	95.00			2.3	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys16CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	1032.5	4.	0.000	14.511	0.808	-15.314	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	565.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3SSE Perim Zn (G.SSE14)	565.	0.	0.000	1.000	85.	0.00	0.00	10.70	0.00	-15.85	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys16CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	MO/DY/HR	TIME/OUTDOOR DBT (F)	TIME/OUTDOOR WBT (F)	CAPACITY TOTAL (KBTU/HR)	CAPACITY SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	AIRSIDE EDB (F)	AIRSIDE EWB (F)	AIRSIDE LDB (F)	AIRSIDE LWB (F)	AIRSIDE BYPASS FACTOR	SOURCE FLOW (GPM)	SOURCE ENT T (F)	SOURCE DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 1/10	71.1	60.0	10.12	0.98	565.	76.09	65.16	60.07	59.63	0.0370		55.00	
Design Capacity					14.58	0.88	565.	80.00	67.00	59.46	58.87	0.0468	2.9	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/24/ 8	25.5	21.5	-14.69		565.	69.90	46.31	93.98				0.00	
Design Capacity					-15.31		565.	69.90	46.31	95.00			3.1	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys17CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	1806.0	7.	0.000	28.977	0.808	-39.421	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	1473.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3East Perim Zn (G.E15)	1242.	0.	0.000	1.000	200.	0.00	0.00	20.47	0.00	-35.96	1.
L3Core Zn (G.C10)	231.	0.	0.000	1.000	0.	0.00	0.00	4.10	0.00	-6.14	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys17CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 1/15	81.2	63.5	16.18	1.00	1473.	76.20	65.17	66.21	61.86	0.0370		55.00	
Design Capacity					28.98	1.00	1473.	80.00	67.00	62.12	60.90	0.0663	5.8	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/26/ 9	25.5	21.5	-38.98		1473.	70.23	46.47	94.73				0.00	
Design Capacity					-39.42		1473.	70.23	46.47	95.00			7.9	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys18CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	1088.3	4.	0.000	16.939	0.808	-18.243	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	673.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L4 SSE Perim Zn (G.SSE1)	673.	0.	0.000	1.000	85.	0.00	0.00	12.99	0.00	-19.19	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys18CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 1/10	71.1	60.0	10.63	1.00	673.	76.08	64.83	61.71	59.96	0.0370		55.00	
Design Capacity					17.03	0.88	673.	80.00	67.00	59.65	59.04	0.0482	3.4	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/22/ 8	25.5	21.5	-18.08		673.	69.90	46.31	94.78				0.00	
Design Capacity					-18.24		673.	69.90	46.31	95.00			3.6	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys19CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	891.9	3.	0.000	17.110	0.808	-14.198	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	527.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L4 NNW Perim Zn (G.NNW4)	465.	0.	0.000	1.000	75.	0.00	0.00	9.88	0.00	-13.30	1.
L4 Core Zn (G.C8)	62.	0.	0.000	1.000	0.	0.00	0.00	1.36	0.00	-1.67	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys19CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/15/16	81.6	63.6	8.23	1.00	527.	75.97	66.02	61.79	61.34	0.0370		55.00	
Design Capacity					17.07	0.81	571.	80.10	66.81	57.96	57.52	0.0370	3.4	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/23/ 8	25.5	21.5	-13.90		527.	70.07	46.39	94.48				0.00	
Design Capacity					-14.20		527.	70.07	46.39	95.00			2.8	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys2OFC WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	4445.1	72.	0.000	55.960	1.000	-106.669	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	3733.	1.00	1.140	0.94	1.4	0.52	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
B1North Perim Zn (B.N22)	1244.	0.	0.000	1.000	137.	0.00	0.00	15.23	0.00	-35.85	1.
B1Core Zn (B.C10)	377.	0.	0.000	1.000	137.	0.00	0.00	4.90	0.00	-9.81	1.
B1SSE Perim Zn (B.SSE11)	357.	0.	0.000	1.000	137.	0.00	0.00	2.98	0.00	-11.14	1.
B1SSE Perim Zn (B.SSE12)	475.	0.	0.000	1.000	137.	0.00	0.00	3.84	0.00	-15.20	1.
B1Core Zn (B.C13)	188.	0.	0.000	1.000	137.	0.00	0.00	2.23	0.00	-5.25	1.
B1SSE Perim Zn (B.SSE14)	444.	0.	0.000	1.000	137.	0.00	0.00	3.61	0.00	-13.97	1.
B1SE Perim Zn (B.SE20)	648.	0.	0.000	1.000	137.	0.00	0.00	4.67	0.00	-20.49	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys2OFC WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 6/15	81.2	63.5	48.79	0.83	3733.	74.64	68.22	64.81	64.50	0.0370		55.00	
Design Capacity					55.96	1.00	3733.	80.00	67.00	66.37	62.37	0.0370	11.2	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/21/ 7	25.5	21.5	-79.74		3733.	68.56	45.82	88.33				0.00	
Design Capacity					-106.67		3733.	68.56	45.82	95.00			21.3	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys21FC WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	1022.2	20.	0.000	32.480	1.000	-61.240	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	2112.	1.00	0.844	1.24	1.8	0.52	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
B1Core Zn (B.C8)	1181.	0.	0.000	1.000	280.	0.00	0.00	11.77	0.00	-33.23	1.
B1SSE Perim Zn (B.SSE7)	931.	0.	0.000	1.000	90.	0.00	0.00	7.12	0.00	-35.84	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys21FC WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/12/16	81.6	63.6	17.80	0.92	2112.	74.98	69.98	67.99	67.72	0.0370		55.00	
Design Capacity					32.48	1.00	2112.	80.00	67.00	66.02	62.25	0.0370	6.5	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/31/ 7	25.5	21.5	-11.57		2112.	68.16	45.50	73.24				0.00	
Design Capacity					-61.24		2112.	68.16	45.50	95.00			12.2	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys22CB WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SZRH	1.001	478.6	2.	0.000	5.298	0.808	-7.691	0.000	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	252.	1.00	0.000	0.00	0.0	0.00	0.62	DRAW-THRU	CONSTANT	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
Thermal Zone 84	252.	0.	0.000	1.000	50.	0.00	0.00	5.03	0.00	-7.16	1.

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys22CB WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION	TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils															
Cooling	ChillWtr														
Design Day Peak		8/ 1/11	73.7	60.9	4.65	1.00	252.	76.50	64.44	59.68	58.64	0.0370		55.00	
Design Capacity					5.35	0.97	252.	80.00	67.00	61.22	60.39	0.0619	1.1	55.00	10.00
Heating	HotWtr														
Design Day Peak		12/21/ 7	25.5	21.5	-4.56		252.	66.74	44.82	83.48				0.00	
Design Capacity					-7.69		252.	66.74	44.82	95.00			1.5	0.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys23DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	120.0	0.	0.000	2.140	0.742	0.000	0.261	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	78.	1.00	0.060	2.43	2.0	0.30	0.62	DRAW-THRU	BY USER	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3Core Zn (G.C5)	78.	0.	0.000	0.010	0.	0.00	0.00	1.79	0.00	-1.79	1.
									-1.79	(BASEBOARDS)	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys23DfltClg WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 5/ 9	68.6	59.1	2.11	0.92	75.	76.10	60.00	52.57	49.68	0.1946		70.00	
Design Capacity				2.17	0.92	78.	76.10	60.00	52.58	49.70	0.1946		70.00	
Rated Capacity				2.14	0.74	71.	80.00	67.00			0.1900		95.00	
Zonal Coils														
L3Core Zn (G.C5)														
BaseBrd HotWtr														
Design Day Peak	12/28/ 6	25.5	21.5	-1.79			70.00						105.00	
Design Capacity				-1.79			70.00					0.4	105.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys24DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	108.8	0.	0.000	1.977	0.742	0.000	0.261	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	67.	1.00	0.052	2.43	2.0	0.30	0.62	DRAW-THRU	BY USER	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L4 Core Zn (G.C3)	67.	0.	0.000	0.010	0.	0.00	0.00	1.59	0.00	-3.59	1.
									-3.59	(BASEBOARDS)	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys24DfltClg WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/15/ 8	66.4	58.3	1.86	0.86	61.	76.60	60.86	52.57	49.94	0.1867		70.00	
Design Capacity				2.03	0.86	67.	76.60	60.86	52.59	49.96	0.1864		70.00	
Rated Capacity				1.98	0.74	66.	80.00	67.00			0.1900		95.00	
Zonal Coils														
L4 Core Zn (G.C3)														
BaseBrd HotWtr														
Design Day Peak	12/25/ 6	25.5	21.5	-3.59			70.00						105.00	
Design Capacity				-3.59			70.00					0.7	105.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys25DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	457.2	2.	0.000	15.199	0.742	0.000	0.261	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	573.	1.00	0.446	2.43	3.2	0.48	0.62	DRAW-THRU	BY USER	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L4 SSE Perim Zn (G.SSE5)	573.	0.	0.000	0.010	0.	0.00	0.00	19.22	0.00	-13.89	1.
									-13.85	(BASEBOARDS)	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys25DfltClg WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 2/11	73.7	60.9	14.32	0.97	541.	76.09	60.00	52.57	49.48	0.1974		73.71	
Design Capacity				15.16	0.97	573.	76.09	60.00	52.57	49.49	0.1975		73.71	
Rated Capacity				15.20	0.74	507.	80.00	67.00			0.1900		95.00	
Zonal Coils														
L4 SSE Perim Zn (G.SSE5)														
BaseBrd HotWtr														
Design Day Peak	12/25/ 6	25.5	21.5	-13.85			70.00						105.00	
Design Capacity				-13.85			70.00					2.8	105.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys26DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	220.8	1.	0.000	6.772	0.742	0.000	0.261	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	256.	1.00	0.199	2.43	2.7	0.41	0.62	DRAW-THRU	BY USER	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
B1North Perim Zn (B.N18)	256.	0.	0.000	0.010	0.	0.00	0.00	5.93	0.00	-4.32	1.
									-4.31	(BASEBOARDS)	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys26DfltClg WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/15/ 9	68.6	59.1	6.60	0.95	245.	76.10	60.00	52.57	49.47	0.2007		70.00	
Design Capacity				6.88	0.95	256.	76.10	60.00	52.57	49.48	0.2008		70.00	
Rated Capacity				6.77	0.74	226.	80.00	67.00			0.1900		95.00	
Zonal Coils														
B1North Perim Zn (B.N18)														
BaseBrd HotWtr														
Design Day Peak	12/31/ 6	25.5	21.5	-4.31			70.00						105.00	
Design Capacity				-4.31			70.00					0.9	105.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys27DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	296.7	1.	0.874	4.285	0.742	0.000	0.261	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	114.	1.00	0.089	2.43	2.3	0.34	0.62	DRAW-THRU	BY USER	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2North Perim Zn (G.N11)	114.	100.	0.009	0.874	0.	0.00	0.00	5.25	0.00	-6.63	1.
									-8.57	(BASEBOARDS)	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys27DfltClg WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/15/15	81.2	63.5	3.88	0.83	102.	81.11	63.36	52.57	50.22	0.1530		81.23	
Design Capacity				4.33	0.82	114.	81.11	63.36	52.61	50.26	0.1530		81.23	
Rated Capacity				4.29	0.74	143.	80.00	67.00			0.1900		95.00	
Zonal Coils														
L2North Perim Zn (G.N11)														
BaseBrd HotWtr														
Design Day Peak	12/31/ 7	25.5	21.5	-8.57			70.00						105.00	
Design Capacity				-8.57			70.00					1.7	105.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys28DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	120.0	0.	0.000	2.314	0.742	0.000	0.261	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	83.	1.00	0.064	2.43	2.3	0.34	0.62	DRAW-THRU	BY USER	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2Core Zn (G.C5)	83.	0.	0.000	0.010	0.	0.00	0.00	1.96	0.00	-2.57	1.
									-2.56	(BASEBOARDS)	

```
Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- SV-C System Coil Sizing Summary for Sys28DfltClg                                  WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW   ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)    (F)     (F)
                    --------  -----  ----  ---------  ------  --------  ------  -----  ------  -----  ------  -----  ------  ------

Central Airhandler Coils
------------------------

 Cooling  DX Air
   Design Day Peak   8/ 1/ 9   68.6  59.1       2.17    0.90       76.   76.10  60.04   52.57  49.76  0.1925          70.00
   Design Capacity                              2.35    0.90       83.   76.10  60.04   52.58  49.78  0.1925          70.00
   Rated Capacity                               2.31    0.74       77.   80.00  67.00                 0.1900          95.00


Zonal Coils
-----------

L2Core Zn (G.C5)
 BaseBrd  HotWtr
   Design Day Peak  12/31/ 6   25.5  21.5      -2.56                     70.00                                       105.00
   Design Capacity                             -2.56                     70.00                                 0.5   105.00  -10.00
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Sys29DfltClg WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	296.7	1.	0.000	3.318	0.742	0.000	0.261	0.000	0.000

FAN TYPE	CAPACITY (CFM)	DIVERSITY FACTOR (FRAC)	POWER DEMAND (KW)	FAN DELTA-T (F)	STATIC PRESSURE (IN-WATER)	TOTAL EFF (FRAC)	MECH EFF (FRAC)	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
SUPPLY	110.	1.00	0.086	2.43	2.3	0.34	0.62	DRAW-THRU	BY USER	1.00	0.30

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L3North Perim Zn (G.N11)	110.	0.	0.000	0.010	0.	0.00	0.00	2.48	0.00	-6.48	1.
									-6.48	(BASEBOARDS)	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-C System Coil Sizing Summary for Sys29DfltClg WEATHER FILE- SEATTLE BOEING FI WA

ALTITUDE FACTOR: 1.001

COIL LOCATION FUNCTION TYPE	TIME/OUTDOOR MO/DY/HR	DBT (F)	WBT (F)	CAPACITY TOTAL (KBTU/HR)	SHR (FRAC)	AIRSIDE AIRFLOW (CFM)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	BYPASS FACTOR	SOURCE FLOW (GPM)	ENT T (F)	DELTA (F)
Central Airhandler Coils														
Cooling DX Air														
Design Day Peak	8/ 6/ 8	66.4	58.3	3.42	0.83	110.	76.10	61.23	52.57	50.14	0.1851		70.00	
Design Capacity				3.43	0.82	110.	76.10	61.23	52.60	50.17	0.1852		70.00	
Rated Capacity				3.32	0.74	111.	80.00	67.00			0.1900		95.00	
Zonal Coils														
L3North Perim Zn (G.N11)														
BaseBrd HotWtr														
Design Day Peak	12/27/ 6	25.5	21.5	-6.48			70.00						105.00	
Design Capacity				-6.48			70.00					1.3	105.00	-10.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SV-A System Design Parameters for Uncon WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
SUM	1.001	10729.5	35.	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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

ZONE NAME	SUPPLY FLOW (CFM)	EXHAUST FLOW (CFM)	FAN (KW)	MINIMUM FLOW (FRAC)	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (KBTU/HR)	SENSIBLE (FRAC)	EXTRACTION RATE (KBTU/HR)	HEATING CAPACITY (KBTU/HR)	ADDITION RATE (KBTU/HR)	ZONE MULT
L2Core Zn (G.C8)	0.	0.	0.000	0.000	50.	0.00	0.00	3.03	0.00	-3.23	1.
									-3.23	(BASEBOARDS)	
B1SW Perim Zn (B.SW1)	0.	0.	0.000	0.000	0.	0.00	0.00	2.99	0.00	-28.80	1.
									-28.80	(BASEBOARDS)	
L3Core Zn (G.C8)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1Core Zn (B.C2)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1West Perim Zn (B.W3)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1West Perim Zn (B.W4)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1Core Zn (B.C5)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1West Perim Zn (B.W6)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1West Perim Zn (G.W3)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1WNW Perim Zn (G.WNW4)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1North Perim Zn (G.N7)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1Core Zn (G.C10)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1North Perim Zn (G.N12)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1North Perim Zn (G.N13)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L1North Perim Zn (G.N14)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
L1SSE Perim Zn (G.SSE15)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
L2West Perim Zn (G.W3)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L2Core Zn (G.C9)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L2North Perim Zn (G.N13)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L3West Perim Zn (G.W3)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L3Core Zn (G.C9)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L3North Perim Zn (G.N13)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L4 West Perim Zn (G.W2)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L4 North Perim Zn (G.N6)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
L4 North Perim Zn (G.N7)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
B1Core Zn (B.C9)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1Core Zn (B.C15)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1NW Perim Zn (B.NW16)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.

B1North Perim Zn (B.N17)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1North Perim Zn (B.N19)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1NE Perim Zn (B.NE21)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B1Core Zn (B.C23)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.
B2SW Perim Zn (B.SW1)	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	-0.00	1.

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Metropole                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- SV-A System Design Parameters for   Uncon                                        WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------(CONTINUED)--------
B2East Perim Zn (B.E2)            0.        0.     0.000     0.000        0.      0.00      0.00      0.00      0.00     -0.00   1.
B2West Perim Zn (B.W3)            0.        0.     0.000     0.000        0.      0.00      0.00      0.00      0.00      0.00   1.
B2North Perim Zn (B.N4)           0.        0.     0.000     0.000        0.      0.00      0.00      0.00      0.00     -0.00   1.
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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- SV-C System Coil Sizing Summary for Uncon                                                  WEATHER FILE- SEATTLE BOEING FI WA
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ALTITUDE FACTOR: 1.001

COIL LOCATION       ---- TIME/OUTDOOR ---  ---- CAPACITY ---  ------------------- AIRSIDE ------------------  ------- SOURCE ------
 FUNCTION TYPE      MO/DY/HR   DBT    WBT    TOTAL      SHR    AIRFLOW    EDB    EWB     LDB    LWB   BYPASS   FLOW    ENT T   DELTA
                               (F)    (F)  (KBTU/HR)  (FRAC)   (CFM )     (F)    (F)     (F)    (F)   FACTOR  (GPM)     (F)     (F)
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Zonal Coils
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L2Core Zn (G.C8)
 AuxCool Sum
   Design Day Peak   8/ 6/ 6   63.6  57.2       3.03                      77.00
   Design Capacity                              3.03                      77.00
 BaseBrd  Sum
   Design Day Peak  12/30/ 6   25.5  21.5      -3.23                      70.00
   Design Capacity                             -3.23                      70.00

B1SW Perim Zn (B.SW1)
 AuxCool Sum
   Design Day Peak   8/13/ 6   63.6  57.2       2.99                      76.00
   Design Capacity                              2.99                      76.00
 BaseBrd  Sum
   Design Day Peak  12/31/ 6   25.5  21.5     -28.80                      70.00
   Design Capacity                            -28.80                      70.00
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-D Building HVAC Load Summary WEATHER FILE- SEATTLE BOEING FI WA

MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
	- - - - - - - - C O O L I N G - - - - - - - -						- - - - - - - - H E A T I N G - - - - - - - -						- - - E L E C - - -	
JAN	1.08178	15	17	48.F	47.F	8.838	-66.402	6	7	27.F	23.F	-599.379	11185.	41.249
FEB	0.99717	21	17	57.F	53.F	12.483	-53.242	18	7	45.F	44.F	-452.053	10137.	40.944
MAR	1.54409	28	17	59.F	49.F	23.022	-46.078	3	7	41.F	39.F	-397.520	11238.	40.857
APR	3.18284	11	11	57.F	51.F	30.066	-31.718	7	7	39.F	39.F	-387.144	11418.	40.994
MAY	6.00828	16	17	72.F	60.F	88.854	-18.897	12	7	48.F	44.F	-277.944	11191.	41.281
JUN	9.49095	20	17	77.F	61.F	126.562	-8.290	2	7	54.F	53.F	-155.594	11030.	41.448
JUL	24.97610	23	17	90.F	67.F	215.637	-2.157	8	7	57.F	55.F	-73.231	11635.	42.810
AUG	19.60961	12	17	82.F	63.F	176.830	-1.736	18	7	61.F	58.F	-70.118	11277.	42.208
SEP	9.95953	19	17	81.F	62.F	128.869	-5.688	29	7	48.F	45.F	-156.557	11004.	41.918
OCT	2.62309	7	17	77.F	55.F	45.936	-22.219	14	7	50.F	47.F	-248.811	11454.	41.128
NOV	1.06283	14	17	50.F	50.F	12.405	-40.115	28	7	37.F	34.F	-369.352	9967.	40.837
DEC	1.14497	5	16	48.F	43.F	8.842	-62.386	29	7	37.F	35.F	-482.783	11540.	41.167
TOTAL	81.681						-358.928						133076.	
MAX						215.637						-599.379		42.810

MAXIMUM DAILY INTEGRATED COOLING LOAD (DES DAY) 0.000 (KBTU)
MAXIMUM DAILY INTEGRATED COOLING LOAD (WTH FILE) 2013.350 (KBTU)

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for ERV-B-2 WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	0.000	31	24	39.F	38.F	0.000	100.	0.564
FEB	0.00000	28	24	40.F	38.F	0.000	0.000	28	24	40.F	38.F	0.000	90.	0.564
MAR	0.00000	31	1	48.F	44.F	0.000	0.000	31	1	48.F	44.F	0.000	100.	0.564
APR	0.00000	30	1	52.F	48.F	0.000	0.000	30	1	52.F	48.F	0.000	104.	0.564
MAY	0.00000	31	1	56.F	51.F	0.000	0.000	31	1	56.F	51.F	0.000	100.	0.564
JUN	0.00000	30	1	61.F	55.F	0.000	0.000	30	1	61.F	55.F	0.000	100.	0.564
JUL	0.00000	31	1	60.F	51.F	0.000	0.000	31	1	60.F	51.F	0.000	105.	0.564
AUG	0.00000	31	1	59.F	55.F	0.000	0.000	31	1	59.F	55.F	0.000	100.	0.558
SEP	0.00000	30	1	53.F	51.F	0.000	0.000	30	1	53.F	51.F	0.000	100.	0.564
OCT	0.00000	31	1	45.F	43.F	0.000	0.000	31	1	45.F	43.F	0.000	105.	0.564
NOV	0.00000	30	24	46.F	44.F	0.000	0.000	30	24	46.F	44.F	0.000	87.	0.564
DEC	0.00000	31	24	45.F	41.F	0.000	0.000	31	24	45.F	41.F	0.000	105.	0.564
TOTAL	0.000						0.000						1197.	
MAX						0.000						0.000		0.564

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- ERV Energy Recovery Summary for: ERV-B-2 WEATHER FILE- SEATTLE BOEING FI WA

AIR FLOW OUTDOOR (CFM)	AIR FLOW EXHAUST (CFM)	AIR FLOW PURGE (CFM)	POWER CONSUMPTION OA FAN (KW)	POWER CONSUMPTION EXH FAN (KW)	POWER CONSUMPTION HT EXCH (KW)	PREHEAT (KBTU/HR)
960.	960.	0.	0.000	0.000	0.000	0.

MON		SENSIBLE HEATING (MBTU) (KBTU/HR)	SENSIBLE COOLING (MBTU) (KBTU/HR)	TOTAL HEATING (MBTU) (KBTU/HR)	TOTAL COOLING (MBTU) (KBTU/HR)	EXCESS SENSIBLE HEATING (MBTU) (KBTU/HR)	EXCESS SENSIBLE COOLING (MBTU) (KBTU/HR)	POWER FANS&HX (KWH) (KW)	PREHEAT HEATING (MBTU) (KBTU/HR)	PREHEAT ELECTRIC (KWH) (KW)	HOURS HEAT	HOURS COOL
JAN	SUM	-4.401	0.000	-9.888	0.000	-4.396	0.000	0.000	0.000	0.000	384	0
	PEAK	-38.810	0.000	-75.177	0.000	-38.810	0.000	0.000	0.000	0.000		
	DAY/HR	6/ 9	0/ 0	3/17	0/ 0	6/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-3.546	0.000	-8.530	0.000	-3.542	0.000	0.000	0.000	0.000	352	0
	PEAK	-31.087	0.000	-61.147	0.000	-31.064	0.000	0.000	0.000	0.000		
	DAY/HR	27/ 9	0/ 0	27/ 9	0/ 0	27/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAR	SUM	-3.148	0.003	-7.754	0.000	-3.143	0.000	0.000	0.000	0.000	385	8
	PEAK	-26.145	0.682	-54.565	0.000	-26.098	0.000	0.000	0.000	0.000		
	DAY/HR	13/ 9	29/15	13/ 9	0/ 0	13/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
APR	SUM	-2.243	0.000	-5.713	0.000	-2.239	0.000	0.000	0.000	0.000	394	0
	PEAK	-22.024	0.000	-49.102	0.000	-21.991	0.000	0.000	0.000	0.000		
	DAY/HR	24/ 9	0/ 0	24/ 9	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-1.330	0.001	-3.514	0.000	-1.327	0.000	0.000	0.000	0.000	349	6
	PEAK	-19.141	0.369	-48.980	0.000	-19.094	0.000	0.000	0.000	0.000		
	DAY/HR	9/10	15/19	9/17	0/ 0	9/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-0.670	0.006	-1.942	0.000	-0.669	0.000	0.000	0.000	0.000	277	16
	PEAK	-12.957	1.511	-30.927	0.000	-12.911	0.000	0.000	0.000	0.000		
	DAY/HR	6/10	30/14	6/10	0/ 0	6/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUL	SUM	-0.272	0.214	-1.341	0.000	-0.271	0.000	0.000	0.000	0.000	164	91
	PEAK	-9.979	11.543	-25.761	0.000	-9.955	0.000	0.000	0.000	0.000		
	DAY/HR	1/ 9	23/17	11/16	0/ 0	1/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-0.224	0.068	-0.846	0.000	-0.223	0.000	0.000	0.000	0.000	154	58
	PEAK	-7.999	5.108	-24.126	0.000	-7.991	0.000	0.000	0.000	0.000		
	DAY/HR	15/ 9	12/16	26/17	0/ 0	15/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
SEP	SUM	-0.776	0.072	-2.305	0.000	-0.774	0.000	0.000	0.000	0.000	253	46
	PEAK	-16.904	5.923	-30.252	0.000	-16.889	0.000	0.000	0.000	0.000		

DAY/HR	26/ 9	19/16	26/ 9	0/ 0	26/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
OCT SUM	-2.172	0.026	-5.885	0.000	-2.167	0.000	0.000	0.000	0.000	376	11
PEAK	-21.980	6.384	-48.121	0.000	-21.938	0.000	0.000	0.000	0.000		
DAY/HR	24/ 9	6/15	15/10	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
NOV SUM	-2.837	0.000	-6.973	0.000	-2.832	0.000	0.000	0.000	0.000	348	0
PEAK	-26.049	0.000	-53.680	0.000	-26.025	0.000	0.000	0.000	0.000		
DAY/HR	28/ 9	0/ 0	18/ 9	0/ 0	28/ 9	0/ 0	0/ 0	0/ 0	0/ 0		

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- ERV Energy Recovery Summary for:    ERV-B-2                                                WEATHER FILE- SEATTLE BOEING FI WA
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DEC   SUM      -4.334       0.000     -10.035       0.000      -4.328       0.000       0.000       0.000       0.000   400     0
     PEAK     -30.989       0.000     -63.955       0.000     -30.963       0.000       0.000       0.000       0.000
   DAY/HR       26/10        0/ 0       26/17        0/ 0       26/10        0/ 0        0/ 0        0/ 0        0/ 0
            ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ====  ====

 YR   SUM     -25.952       0.390     -64.726       0.000     -25.910       0.000       0.000       0.000       0.000  3836   236
     PEAK     -38.810      11.543     -75.177       0.000     -38.810       0.000       0.000       0.000       0.000
  MON/DAY        1/ 6        7/23        1/ 3        0/ 0        1/ 6        0/ 0        0/ 0        0/ 0        0/ 0


               --- EXHAUST OUTLET ---  --- MAKE-UP OUTLET ---  CONDENSATE
                   WET       FROSTED       WET       FROSTED     CONTROL
               ----------  ----------  ----------  ----------  ----------
ANNUAL HOURS:         157           9           0           0         166
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for ERV-B-1 WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	0.000	31	24	39.F	38.F	0.000	85.	0.472
FEB	0.00000	28	24	40.F	38.F	0.000	0.000	28	24	40.F	38.F	0.000	76.	0.472
MAR	0.00000	31	1	48.F	44.F	0.000	0.000	31	1	48.F	44.F	0.000	84.	0.472
APR	0.00000	30	1	52.F	48.F	0.000	0.000	30	1	52.F	48.F	0.000	88.	0.472
MAY	0.00000	31	1	56.F	51.F	0.000	0.000	31	1	56.F	51.F	0.000	85.	0.472
JUN	0.00000	30	1	61.F	55.F	0.000	0.000	30	1	61.F	55.F	0.000	84.	0.472
JUL	0.00000	31	1	60.F	51.F	0.000	0.000	31	1	60.F	51.F	0.000	88.	0.472
AUG	0.00000	31	1	59.F	55.F	0.000	0.000	31	1	59.F	55.F	0.000	85.	0.469
SEP	0.00000	30	1	53.F	51.F	0.000	0.000	30	1	53.F	51.F	0.000	84.	0.472
OCT	0.00000	31	1	45.F	43.F	0.000	0.000	31	1	45.F	43.F	0.000	89.	0.472
NOV	0.00000	30	24	46.F	44.F	0.000	0.000	30	24	46.F	44.F	0.000	73.	0.472
DEC	0.00000	31	24	45.F	41.F	0.000	0.000	31	24	45.F	41.F	0.000	88.	0.472
TOTAL	0.000						0.000						1010.	
MAX						0.000						0.000		0.472

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- ERV Energy Recovery Summary for: ERV-B-1 WEATHER FILE- SEATTLE BOEING FI WA

AIR FLOW OUTDOOR (CFM)	AIR FLOW EXHAUST (CFM)	AIR FLOW PURGE (CFM)	POWER CONSUMPTION OA FAN (KW)	POWER CONSUMPTION EXH FAN (KW)	POWER CONSUMPTION HT EXCH (KW)	PREHEAT (KBTU/HR)
370.	370.	0.	0.000	0.000	0.000	0.

MON		SENSIBLE HEATING (MBTU) (KBTU/HR)	SENSIBLE COOLING (MBTU) (KBTU/HR)	TOTAL HEATING (MBTU) (KBTU/HR)	TOTAL COOLING (MBTU) (KBTU/HR)	EXCESS SENSIBLE HEATING (MBTU) (KBTU/HR)	EXCESS SENSIBLE COOLING (MBTU) (KBTU/HR)	POWER FANS&HX (KWH) (KW)	PREHEAT HEATING (MBTU) (KBTU/HR)	PREHEAT ELECTRIC (KWH) (KW)	HOURS HEAT	HOURS COOL
JAN	SUM	-1.710	0.000	-3.418	0.000	-1.708	0.000	0.000	0.000	0.000	384	0
	PEAK	-15.593	0.000	-27.053	0.000	-15.586	0.000	0.000	0.000	0.000		
	DAY/HR	6/ 9	0/ 0	3/17	0/ 0	6/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-1.374	0.000	-2.891	0.000	-1.373	0.000	0.000	0.000	0.000	352	0
	PEAK	-11.974	0.000	-22.824	0.000	-11.955	0.000	0.000	0.000	0.000		
	DAY/HR	27/ 9	0/ 0	13/ 9	0/ 0	27/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAR	SUM	-1.221	0.001	-2.519	0.000	-1.219	0.000	0.000	0.000	0.000	385	8
	PEAK	-10.049	0.284	-19.223	0.000	-10.041	0.000	0.000	0.000	0.000		
	DAY/HR	13/ 9	29/15	13/ 9	0/ 0	13/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
APR	SUM	-0.869	0.000	-1.696	0.000	-0.868	0.000	0.000	0.000	0.000	394	0
	PEAK	-8.468	0.000	-15.750	0.000	-8.460	0.000	0.000	0.000	0.000		
	DAY/HR	24/ 9	0/ 0	24/ 9	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-0.516	0.000	-0.958	0.000	-0.515	0.000	0.000	0.000	0.000	349	1
	PEAK	-7.341	0.036	-13.701	0.000	-7.336	0.000	0.000	0.000	0.000		
	DAY/HR	9/10	15/19	5/11	0/ 0	9/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-0.259	0.000	-0.459	0.000	-0.259	0.000	0.000	0.000	0.000	277	2
	PEAK	-4.986	0.339	-8.470	0.000	-4.976	0.000	0.000	0.000	0.000		
	DAY/HR	6/10	20/17	2/ 9	0/ 0	6/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUL	SUM	-0.105	0.079	-0.334	0.000	-0.105	0.000	0.000	0.000	0.000	164	82
	PEAK	-3.841	4.440	-8.224	0.053	-3.838	0.000	0.000	0.000	0.000		
	DAY/HR	1/ 9	23/17	11/15	23/20	1/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-0.087	0.021	-0.230	0.000	-0.087	0.000	0.000	0.000	0.000	154	46
	PEAK	-3.101	1.797	-6.147	0.000	-3.082	0.000	0.000	0.000	0.000		
	DAY/HR	15/ 9	12/17	26/17	0/ 0	15/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
SEP	SUM	-0.300	0.018	-0.594	0.000	-0.300	0.000	0.000	0.000	0.000	253	30
	PEAK	-6.516	1.939	-10.264	0.000	-6.513	0.000	0.000	0.000	0.000		

DAY/HR	26/ 9	19/16	29/ 9	0/ 0	26/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
OCT SUM	-0.838	0.004	-1.582	0.000	-0.837	0.000	0.000	0.000	0.000	376	6
PEAK	-8.450	1.180	-16.959	0.000	-8.443	0.000	0.000	0.000	0.000		
DAY/HR	24/ 9	6/15	15/10	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
NOV SUM	-1.097	0.000	-2.237	0.000	-1.096	0.000	0.000	0.000	0.000	348	0
PEAK	-10.035	0.000	-19.950	0.000	-10.027	0.000	0.000	0.000	0.000		
DAY/HR	28/ 9	0/ 0	28/ 9	0/ 0	28/ 9	0/ 0	0/ 0	0/ 0	0/ 0		

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- ERV Energy Recovery Summary for:    ERV-B-1                                        WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM      -1.680       0.000      -3.384       0.000      -1.678       0.000       0.000       0.000       0.000   400     0
     PEAK     -11.938       0.000     -21.896       0.000     -11.929       0.000       0.000       0.000       0.000
   DAY/HR       26/10        0/ 0       26/17        0/ 0       26/10        0/ 0        0/ 0        0/ 0        0/ 0
            ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ====  ====

 YR   SUM     -10.057       0.123     -20.302       0.000     -10.044       0.000       0.000       0.000       0.000  3836   175
     PEAK     -15.593       4.440     -27.053       0.053     -15.586       0.000       0.000       0.000       0.000
  MON/DAY        1/ 6        7/23        1/ 3        7/23        1/ 6        0/ 0        0/ 0        0/ 0        0/ 0


               --- EXHAUST OUTLET ---  --- MAKE-UP OUTLET ---  CONDENSATE
                   WET       FROSTED       WET       FROSTED     CONTROL
               ----------  ----------  ----------  ----------  ----------
ANNUAL HOURS:          54           8           0           0          62
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for ERV-1-1 WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	0.000	31	24	39.F	38.F	0.000	85.	0.547
FEB	0.00000	28	24	40.F	38.F	0.000	0.000	28	24	40.F	38.F	0.000	76.	0.525
MAR	0.00000	31	1	48.F	44.F	0.000	0.000	31	1	48.F	44.F	0.000	84.	0.531
APR	0.00000	30	1	52.F	48.F	0.000	0.000	30	1	52.F	48.F	0.000	87.	0.525
MAY	0.00000	31	1	56.F	51.F	0.000	0.000	31	1	56.F	51.F	0.000	85.	0.547
JUN	0.00000	30	1	61.F	55.F	0.000	0.000	30	1	61.F	55.F	0.000	84.	0.547
JUL	0.00000	31	1	60.F	51.F	0.000	0.000	31	1	60.F	51.F	0.000	88.	0.547
AUG	0.00000	31	1	59.F	55.F	0.000	0.000	31	1	59.F	55.F	0.000	86.	0.531
SEP	0.00000	30	1	53.F	51.F	0.000	0.000	30	1	53.F	51.F	0.000	84.	0.547
OCT	0.00000	31	1	45.F	43.F	0.000	0.000	31	1	45.F	43.F	0.000	89.	0.547
NOV	0.00000	30	24	46.F	44.F	0.000	0.000	30	24	46.F	44.F	0.000	76.	0.547
DEC	0.00000	31	24	45.F	41.F	0.000	0.000	31	24	45.F	41.F	0.000	87.	0.547
TOTAL	0.000						0.000						1011.	
MAX						0.000						0.000		0.547

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- ERV Energy Recovery Summary for: ERV-1-1 WEATHER FILE- SEATTLE BOEING FI WA

AIR FLOW OUTDOOR (CFM)	AIR FLOW EXHAUST (CFM)	AIR FLOW PURGE (CFM)	POWER CONSUMPTION OA FAN (KW)	POWER CONSUMPTION EXH FAN (KW)	POWER CONSUMPTION HT EXCH (KW)	PREHEAT (KBTU/HR)
405.	405.	0.	0.000	0.000	0.000	0.

MON		SENSIBLE HEATING (MBTU) (KBTU/HR)	SENSIBLE COOLING (MBTU) (KBTU/HR)	TOTAL HEATING (MBTU) (KBTU/HR)	TOTAL COOLING (MBTU) (KBTU/HR)	EXCESS SENSIBLE HEATING (MBTU) (KBTU/HR)	EXCESS SENSIBLE COOLING (MBTU) (KBTU/HR)	POWER FANS&HX (KWH) (KW)	PREHEAT HEATING (MBTU) (KBTU/HR)	PREHEAT ELECTRIC (KWH) (KW)	HOURS HEAT	HOURS COOL
JAN	SUM	-1.704	0.000	-2.698	0.000	-1.702	0.000	0.000	0.000	0.000	384	0
	PEAK	-13.713	0.000	-20.554	0.000	-13.702	0.000	0.000	0.000	0.000		
	DAY/HR	6/16	0/ 0	3/16	0/ 0	6/16	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-1.322	0.000	-2.149	0.000	-1.320	0.000	0.000	0.000	0.000	352	0
	PEAK	-8.503	0.000	-14.060	0.000	-8.498	0.000	0.000	0.000	0.000		
	DAY/HR	27/12	0/ 0	24/16	0/ 0	27/12	0/ 0	0/ 0	0/ 0	0/ 0		
MAR	SUM	-1.138	0.001	-1.837	0.000	-1.137	0.000	0.000	0.000	0.000	385	3
	PEAK	-7.988	0.513	-11.797	0.000	-7.982	0.000	0.000	0.000	0.000		
	DAY/HR	3/12	29/15	3/14	0/ 0	3/12	0/ 0	0/ 0	0/ 0	0/ 0		
APR	SUM	-0.800	0.000	-1.267	0.000	-0.798	0.000	0.000	0.000	0.000	394	0
	PEAK	-6.413	0.000	-9.924	0.000	-6.397	0.000	0.000	0.000	0.000		
	DAY/HR	4/17	0/ 0	28/16	0/ 0	4/17	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-0.493	0.000	-0.753	0.000	-0.492	0.000	0.000	0.000	0.000	349	0
	PEAK	-6.058	0.000	-11.646	0.000	-6.044	0.000	0.000	0.000	0.000		
	DAY/HR	9/12	0/ 0	9/17	0/ 0	9/12	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-0.227	0.000	-0.324	0.000	-0.227	0.000	0.000	0.000	0.000	277	0
	PEAK	-3.721	0.000	-4.681	0.000	-3.718	0.000	0.000	0.000	0.000		
	DAY/HR	6/10	0/ 0	6/10	0/ 0	6/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUL	SUM	-0.080	0.065	-0.215	0.001	-0.080	0.000	0.000	0.000	0.000	164	67
	PEAK	-2.314	3.675	-6.471	0.352	-2.303	0.000	0.000	0.000	0.000		
	DAY/HR	3/10	23/17	11/16	23/19	3/10	0/ 0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-0.066	0.018	-0.158	0.000	-0.066	0.000	0.000	0.000	0.000	154	31
	PEAK	-1.762	1.421	-3.571	0.000	-1.760	0.000	0.000	0.000	0.000		
	DAY/HR	15/10	9/15	8/17	0/ 0	15/10	0/ 0	0/ 0	0/ 0	0/ 0		
SEP	SUM	-0.256	0.011	-0.442	0.000	-0.256	0.000	0.000	0.000	0.000	253	20
	PEAK	-3.781	1.212	-5.618	0.000	-3.778	0.000	0.000	0.000	0.000		

DAY/HR	30/12	19/16	30/12	0/ 0	30/12	0/ 0	0/ 0	0/ 0	0/ 0		
OCT SUM	-0.789	0.001	-1.329	0.000	-0.788	0.000	0.000	0.000	0.000	376	2
PEAK	-6.531	0.530	-10.447	0.000	-6.528	0.000	0.000	0.000	0.000		
DAY/HR	15/12	6/15	15/12	0/ 0	15/12	0/ 0	0/ 0	0/ 0	0/ 0		
NOV SUM	-1.097	0.000	-1.816	0.000	-1.096	0.000	0.000	0.000	0.000	348	0
PEAK	-8.165	0.000	-12.970	0.000	-8.160	0.000	0.000	0.000	0.000		
DAY/HR	25/16	0/ 0	25/16	0/ 0	25/16	0/ 0	0/ 0	0/ 0	0/ 0		

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- ERV Energy Recovery Summary for:    ERV-1-1                                                WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM      -1.660       0.000      -2.636       0.000      -1.658       0.000       0.000       0.000       0.000   400     0
     PEAK     -10.013       0.000     -16.032       0.000     -10.005       0.000       0.000       0.000       0.000
   DAY/HR       26/17        0/ 0       26/17        0/ 0       26/17        0/ 0        0/ 0        0/ 0        0/ 0
            ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ====  ====

 YR   SUM      -9.632       0.096     -15.623       0.001      -9.619       0.000       0.000       0.000       0.000  3836   123
     PEAK     -13.713       3.675     -20.554       0.352     -13.702       0.000       0.000       0.000       0.000
  MON/DAY        1/ 6        7/23        1/ 3        7/23        1/ 6        0/ 0        0/ 0        0/ 0        0/ 0


               --- EXHAUST OUTLET ---  --- MAKE-UP OUTLET ---  CONDENSATE
                   WET       FROSTED       WET       FROSTED     CONTROL
               ----------  ----------  ----------  ----------  ----------
ANNUAL HOURS:           1           0           0           0           1
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for ERV-1-2 WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	0.000	31	24	39.F	38.F	0.000	121.	0.704
FEB	0.00000	28	24	40.F	38.F	0.000	0.000	28	24	40.F	38.F	0.000	108.	0.704
MAR	0.00000	31	1	48.F	44.F	0.000	0.000	31	1	48.F	44.F	0.000	119.	0.704
APR	0.00000	30	1	52.F	48.F	0.000	0.000	30	1	52.F	48.F	0.000	124.	0.704
MAY	0.00000	31	1	56.F	51.F	0.000	0.000	31	1	56.F	51.F	0.000	119.	0.704
JUN	0.00000	30	1	61.F	55.F	0.000	0.000	30	1	61.F	55.F	0.000	120.	0.704
JUL	0.00000	31	1	60.F	51.F	0.000	0.000	31	1	60.F	51.F	0.000	126.	0.704
AUG	0.00000	31	1	59.F	55.F	0.000	0.000	31	1	59.F	55.F	0.000	120.	0.685
SEP	0.00000	30	1	53.F	51.F	0.000	0.000	30	1	53.F	51.F	0.000	120.	0.704
OCT	0.00000	31	1	45.F	43.F	0.000	0.000	31	1	45.F	43.F	0.000	127.	0.704
NOV	0.00000	30	24	46.F	44.F	0.000	0.000	30	24	46.F	44.F	0.000	105.	0.704
DEC	0.00000	31	24	45.F	41.F	0.000	0.000	31	24	45.F	41.F	0.000	125.	0.704
TOTAL	0.000						0.000						1435.	
MAX						0.000						0.000		0.704

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- ERV Energy Recovery Summary for: ERV-1-2 WEATHER FILE- SEATTLE BOEING FI WA

AIR FLOW OUTDOOR (CFM)	AIR FLOW EXHAUST (CFM)	AIR FLOW PURGE (CFM)	POWER CONSUMPTION OA FAN (KW)	POWER CONSUMPTION EXH FAN (KW)	POWER CONSUMPTION HT EXCH (KW)	PREHEAT (KBTU/HR)
410.	410.	0.	0.000	0.000	0.000	0.

MON		SENSIBLE HEATING (MBTU) (KBTU/HR)	SENSIBLE COOLING (MBTU) (KBTU/HR)	TOTAL HEATING (MBTU) (KBTU/HR)	TOTAL COOLING (MBTU) (KBTU/HR)	EXCESS SENSIBLE HEATING (MBTU) (KBTU/HR)	EXCESS SENSIBLE COOLING (MBTU) (KBTU/HR)	POWER FANS&HX (KWH) (KW)	PREHEAT HEATING (MBTU) (KBTU/HR)	PREHEAT ELECTRIC (KWH) (KW)	HOURS HEAT	HOURS COOL
JAN	SUM	-1.953	0.000	-3.638	0.000	-1.950	0.000	0.000	0.000	0.000	384	0
	PEAK	-17.631	0.000	-30.469	0.000	-17.623	0.000	0.000	0.000	0.000		
	DAY/HR	6/ 9	0/ 0	3/17	0/ 0	6/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-1.562	0.000	-3.061	0.000	-1.560	0.000	0.000	0.000	0.000	352	0
	PEAK	-14.209	0.000	-24.707	0.000	-14.195	0.000	0.000	0.000	0.000		
	DAY/HR	27/ 9	0/ 0	27/ 9	0/ 0	27/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAR	SUM	-1.380	0.000	-2.692	0.000	-1.378	0.000	0.000	0.000	0.000	385	5
	PEAK	-11.946	0.157	-22.442	0.000	-11.935	0.000	0.000	0.000	0.000		
	DAY/HR	13/ 9	29/15	13/ 9	0/ 0	13/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
APR	SUM	-0.986	0.000	-2.003	0.000	-0.985	0.000	0.000	0.000	0.000	393	0
	PEAK	-9.984	0.000	-18.087	0.000	-9.976	0.000	0.000	0.000	0.000		
	DAY/HR	24/ 9	0/ 0	24/ 9	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-0.582	0.000	-1.146	0.000	-0.581	0.000	0.000	0.000	0.000	349	0
	PEAK	-8.728	0.000	-18.454	0.000	-8.722	0.000	0.000	0.000	0.000		
	DAY/HR	9/10	0/ 0	9/17	0/ 0	9/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-0.296	0.000	-0.561	0.000	-0.295	0.000	0.000	0.000	0.000	277	0
	PEAK	-5.794	0.000	-10.464	0.000	-5.784	0.000	0.000	0.000	0.000		
	DAY/HR	6/10	0/ 0	6/10	0/ 0	6/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUL	SUM	-0.120	0.060	-0.304	0.003	-0.120	0.000	0.000	0.000	0.000	164	70
	PEAK	-4.493	4.517	-8.013	0.986	-4.490	0.000	0.000	0.000	0.000		
	DAY/HR	1/ 9	23/17	11/17	23/17	1/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-0.098	0.012	-0.222	0.000	-0.098	0.000	0.000	0.000	0.000	154	37
	PEAK	-3.642	1.391	-5.997	0.000	-3.623	0.000	0.000	0.000	0.000		
	DAY/HR	15/ 9	12/16	26/17	0/ 0	15/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
SEP	SUM	-0.343	0.010	-0.733	0.000	-0.343	0.000	0.000	0.000	0.000	253	25
	PEAK	-7.633	1.453	-11.956	0.000	-7.628	0.000	0.000	0.000	0.000		

DAY/HR	26/ 9	19/16	26/ 9	0/ 0	26/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
OCT SUM	-0.967	0.002	-2.048	0.000	-0.965	0.000	0.000	0.000	0.000	376	5
PEAK	-9.896	1.124	-18.565	0.000	-9.887	0.000	0.000	0.000	0.000		
DAY/HR	24/ 9	6/15	15/10	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
NOV SUM	-1.257	0.000	-2.502	0.000	-1.255	0.000	0.000	0.000	0.000	347	0
PEAK	-11.894	0.000	-21.317	0.000	-11.883	0.000	0.000	0.000	0.000		
DAY/HR	28/ 9	0/ 0	18/ 9	0/ 0	28/ 9	0/ 0	0/ 0	0/ 0	0/ 0		

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- ERV Energy Recovery Summary for:    ERV-1-2                                                WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM      -1.908       0.000      -3.603       0.000      -1.906       0.000       0.000       0.000       0.000   399     0
     PEAK     -14.153       0.000     -25.475       0.000     -14.140       0.000       0.000       0.000       0.000
   DAY/HR       26/10        0/ 0       26/17        0/ 0       26/10        0/ 0        0/ 0        0/ 0        0/ 0
            ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ====  ====

 YR   SUM     -11.449       0.085     -22.512       0.003     -11.436       0.000       0.000       0.000       0.000  3833   142
     PEAK     -17.631       4.517     -30.469       0.986     -17.623       0.000       0.000       0.000       0.000
  MON/DAY        1/ 6        7/23        1/ 3        7/23        1/ 6        0/ 0        0/ 0        0/ 0        0/ 0


               --- EXHAUST OUTLET ---  --- MAKE-UP OUTLET ---  CONDENSATE
                   WET       FROSTED       WET       FROSTED     CONTROL
               ----------  ----------  ----------  ----------  ----------
ANNUAL HOURS:          16           1           0           0          17
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for ERV-MEZZ WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	0.000	31	24	39.F	38.F	0.000	30.	0.179
FEB	0.00000	28	24	40.F	38.F	0.000	0.000	28	24	40.F	38.F	0.000	27.	0.179
MAR	0.00000	31	1	48.F	44.F	0.000	0.000	31	1	48.F	44.F	0.000	29.	0.179
APR	0.00000	30	1	52.F	48.F	0.000	0.000	30	1	52.F	48.F	0.000	31.	0.179
MAY	0.00000	31	1	56.F	51.F	0.000	0.000	31	1	56.F	51.F	0.000	30.	0.179
JUN	0.00000	30	1	61.F	55.F	0.000	0.000	30	1	61.F	55.F	0.000	30.	0.179
JUL	0.00000	31	1	60.F	51.F	0.000	0.000	31	1	60.F	51.F	0.000	31.	0.179
AUG	0.00000	31	1	59.F	55.F	0.000	0.000	31	1	59.F	55.F	0.000	30.	0.172
SEP	0.00000	30	1	53.F	51.F	0.000	0.000	30	1	53.F	51.F	0.000	30.	0.179
OCT	0.00000	31	1	45.F	43.F	0.000	0.000	31	1	45.F	43.F	0.000	32.	0.179
NOV	0.00000	30	24	46.F	44.F	0.000	0.000	30	24	46.F	44.F	0.000	26.	0.179
DEC	0.00000	31	24	45.F	41.F	0.000	0.000	31	24	45.F	41.F	0.000	31.	0.179
TOTAL	0.000						0.000						357.	
MAX						0.000						0.000		0.179

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- ERV Energy Recovery Summary for: ERV-MEZZ WEATHER FILE- SEATTLE BOEING FI WA

AIR FLOW OUTDOOR (CFM)	AIR FLOW EXHAUST (CFM)	AIR FLOW PURGE (CFM)	POWER CONSUMPTION OA FAN (KW)	POWER CONSUMPTION EXH FAN (KW)	POWER CONSUMPTION HT EXCH (KW)	PREHEAT (KBTU/HR)
60.	60.	0.	0.000	0.000	0.000	0.

MON		SENSIBLE HEATING (MBTU) (KBTU/HR)	SENSIBLE COOLING (MBTU) (KBTU/HR)	TOTAL HEATING (MBTU) (KBTU/HR)	TOTAL COOLING (MBTU) (KBTU/HR)	EXCESS SENSIBLE HEATING (MBTU) (KBTU/HR)	EXCESS SENSIBLE COOLING (MBTU) (KBTU/HR)	POWER FANS&HX (KWH) (KW)	PREHEAT HEATING (MBTU) (KBTU/HR)	PREHEAT ELECTRIC (KWH) (KW)	HOURS HEAT	HOURS COOL
JAN	SUM	-0.217	0.000	-0.263	0.000	-0.217	0.000	0.000	0.000	0.000	383	0
	PEAK	-1.965	0.000	-2.276	0.000	-1.963	0.000	0.000	0.000	0.000		
	DAY/HR	6/ 9	0/ 0	3/17	0/ 0	6/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-0.174	0.000	-0.208	0.000	-0.173	0.000	0.000	0.000	0.000	352	0
	PEAK	-1.602	0.000	-1.898	0.000	-1.601	0.000	0.000	0.000	0.000		
	DAY/HR	27/ 9	0/ 0	13/ 9	0/ 0	27/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAR	SUM	-0.153	0.000	-0.180	0.000	-0.153	0.000	0.000	0.000	0.000	384	5
	PEAK	-1.348	0.008	-1.731	0.000	-1.348	0.000	0.000	0.000	0.000		
	DAY/HR	13/ 9	29/15	13/ 9	0/ 0	13/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
APR	SUM	-0.110	0.000	-0.127	0.000	-0.109	0.000	0.000	0.000	0.000	393	0
	PEAK	-1.125	0.000	-1.346	0.000	-1.124	0.000	0.000	0.000	0.000		
	DAY/HR	24/ 9	0/ 0	24/ 9	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-0.065	0.000	-0.076	0.000	-0.064	0.000	0.000	0.000	0.000	349	0
	PEAK	-0.988	0.000	-1.185	0.000	-0.986	0.000	0.000	0.000	0.000		
	DAY/HR	9/10	0/ 0	9/17	0/ 0	9/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-0.033	0.000	-0.039	0.000	-0.033	0.000	0.000	0.000	0.000	276	0
	PEAK	-0.650	0.000	-0.724	0.000	-0.649	0.000	0.000	0.000	0.000		
	DAY/HR	6/10	0/ 0	6/10	0/ 0	6/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUL	SUM	-0.013	0.003	-0.019	0.000	-0.013	0.000	0.000	0.000	0.000	164	47
	PEAK	-0.509	0.353	-0.663	0.126	-0.506	0.000	0.000	0.000	0.000		
	DAY/HR	1/ 9	23/17	1/ 9	23/17	1/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-0.011	0.000	-0.014	0.000	-0.011	0.000	0.000	0.000	0.000	154	20
	PEAK	-0.410	0.057	-0.478	0.000	-0.409	0.000	0.000	0.000	0.000		
	DAY/HR	15/ 9	12/18	15/ 9	9/18	15/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
SEP	SUM	-0.038	0.000	-0.046	0.000	-0.038	0.000	0.000	0.000	0.000	252	8
	PEAK	-0.860	0.020	-0.945	0.001	-0.859	0.000	0.000	0.000	0.000		

DAY/HR	26/ 9	19/18	26/ 9	13/18	26/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
OCT SUM	-0.108	0.000	-0.131	0.000	-0.108	0.000	0.000	0.000	0.000	375	0
PEAK	-1.112	0.000	-1.396	0.000	-1.112	0.000	0.000	0.000	0.000		
DAY/HR	24/ 9	0/ 0	15/ 9	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
NOV SUM	-0.140	0.000	-0.167	0.000	-0.140	0.000	0.000	0.000	0.000	347	0
PEAK	-1.345	0.000	-1.651	0.000	-1.344	0.000	0.000	0.000	0.000		
DAY/HR	28/ 9	0/ 0	28/ 9	0/ 0	28/ 9	0/ 0	0/ 0	0/ 0	0/ 0		

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- ERV Energy Recovery Summary for:    ERV-MEZZ                                          WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM      -0.212       0.000      -0.254       0.000      -0.212       0.000       0.000       0.000       0.000   397     0
     PEAK      -1.600       0.000      -1.915       0.000      -1.599       0.000       0.000       0.000       0.000
   DAY/HR       26/10        0/ 0       26/10        0/ 0       26/10        0/ 0        0/ 0        0/ 0        0/ 0
            ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ====  ====

 YR   SUM      -1.274       0.004      -1.523       0.000      -1.273       0.000       0.000       0.000       0.000  3826    80
     PEAK      -1.965       0.353      -2.276       0.126      -1.963       0.000       0.000       0.000       0.000
  MON/DAY        1/ 6        7/23        1/ 3        7/23        1/ 6        0/ 0        0/ 0        0/ 0        0/ 0


               --- EXHAUST OUTLET ---  --- MAKE-UP OUTLET ---  CONDENSATE
                   WET       FROSTED       WET       FROSTED     CONTROL
               ----------  ----------  ----------  ----------  ----------
ANNUAL HOURS:           0           0           0           0           0
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for ERV-2-2 WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	0.000	31	24	39.F	38.F	0.000	135.	0.728
FEB	0.00000	28	24	40.F	38.F	0.000	0.000	28	24	40.F	38.F	0.000	120.	0.728
MAR	0.00000	31	1	48.F	44.F	0.000	0.000	31	1	48.F	44.F	0.000	133.	0.728
APR	0.00000	30	1	52.F	48.F	0.000	0.000	30	1	52.F	48.F	0.000	139.	0.728
MAY	0.00000	31	1	56.F	51.F	0.000	0.000	31	1	56.F	51.F	0.000	133.	0.728
JUN	0.00000	30	1	61.F	55.F	0.000	0.000	30	1	61.F	55.F	0.000	134.	0.728
JUL	0.00000	31	1	60.F	51.F	0.000	0.000	31	1	60.F	51.F	0.000	140.	0.728
AUG	0.00000	31	1	59.F	55.F	0.000	0.000	31	1	59.F	55.F	0.000	135.	0.707
SEP	0.00000	30	1	53.F	51.F	0.000	0.000	30	1	53.F	51.F	0.000	134.	0.728
OCT	0.00000	31	1	45.F	43.F	0.000	0.000	31	1	45.F	43.F	0.000	142.	0.728
NOV	0.00000	30	24	46.F	44.F	0.000	0.000	30	24	46.F	44.F	0.000	118.	0.728
DEC	0.00000	31	24	45.F	41.F	0.000	0.000	31	24	45.F	41.F	0.000	139.	0.728
TOTAL	0.000						0.000						1602.	
MAX						0.000						0.000		0.728

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- ERV Energy Recovery Summary for: ERV-2-2 WEATHER FILE- SEATTLE BOEING FI WA

AIR FLOW OUTDOOR (CFM)	AIR FLOW EXHAUST (CFM)	AIR FLOW PURGE (CFM)	POWER CONSUMPTION OA FAN (KW)	POWER CONSUMPTION EXH FAN (KW)	POWER CONSUMPTION HT EXCH (KW)	PREHEAT (KBTU/HR)
340.	340.	0.	0.000	0.000	0.000	0.

MON		SENSIBLE HEATING (MBTU) (KBTU/HR)	SENSIBLE COOLING (MBTU) (KBTU/HR)	TOTAL HEATING (MBTU) (KBTU/HR)	TOTAL COOLING (MBTU) (KBTU/HR)	EXCESS SENSIBLE HEATING (MBTU) (KBTU/HR)	EXCESS SENSIBLE COOLING (MBTU) (KBTU/HR)	POWER FANS&HX (KWH) (KW)	PREHEAT HEATING (MBTU) (KBTU/HR)	PREHEAT ELECTRIC (KWH) (KW)	HOURS HEAT	HOURS COOL
JAN	SUM	-2.105	0.000	-2.813	0.000	-2.103	0.000	0.000	0.000	0.000	384	0
	PEAK	-16.279	0.000	-21.476	0.000	-16.265	0.000	0.000	0.000	0.000		
	DAY/HR	6/ 9	0/ 0	3/17	0/ 0	6/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-1.693	0.000	-2.319	0.000	-1.691	0.000	0.000	0.000	0.000	352	0
	PEAK	-13.122	0.000	-17.080	0.000	-13.108	0.000	0.000	0.000	0.000		
	DAY/HR	27/ 9	0/ 0	13/ 9	0/ 0	27/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAR	SUM	-1.489	0.002	-2.014	0.001	-1.487	0.000	0.000	0.000	0.000	385	6
	PEAK	-11.046	0.581	-15.985	0.257	-11.034	0.000	0.000	0.000	0.000		
	DAY/HR	13/ 9	29/15	13/ 9	29/15	13/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
APR	SUM	-1.081	0.000	-1.455	0.000	-1.079	0.000	0.000	0.000	0.000	394	0
	PEAK	-9.231	0.000	-12.494	0.000	-9.222	0.000	0.000	0.000	0.000		
	DAY/HR	24/ 9	0/ 0	24/ 9	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-0.654	0.000	-0.847	0.000	-0.653	0.000	0.000	0.000	0.000	349	0
	PEAK	-8.074	0.000	-12.917	0.000	-8.068	0.000	0.000	0.000	0.000		
	DAY/HR	9/10	0/ 0	9/17	0/ 0	9/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-0.331	0.000	-0.415	0.000	-0.331	0.000	0.000	0.000	0.000	277	0
	PEAK	-5.355	0.000	-6.752	0.000	-5.347	0.000	0.000	0.000	0.000		
	DAY/HR	6/10	0/ 0	6/10	0/ 0	6/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUL	SUM	-0.136	0.060	-0.203	0.016	-0.135	0.000	0.000	0.000	0.000	164	67
	PEAK	-4.163	4.020	-5.876	2.222	-4.160	0.000	0.000	0.000	0.000		
	DAY/HR	1/ 9	23/17	1/ 9	23/17	1/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-0.116	0.014	-0.164	0.001	-0.116	0.000	0.000	0.000	0.000	154	32
	PEAK	-3.377	1.159	-4.028	0.451	-3.357	0.000	0.000	0.000	0.000		
	DAY/HR	15/ 9	12/16	15/ 9	9/18	15/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
SEP	SUM	-0.386	0.010	-0.524	0.001	-0.386	0.000	0.000	0.000	0.000	253	24
	PEAK	-7.061	1.281	-8.287	0.268	-7.057	0.000	0.000	0.000	0.000		

DAY/HR	26/ 9	19/16	26/ 9	13/18	26/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
OCT SUM	-1.052	0.002	-1.474	0.000	-1.051	0.000	0.000	0.000	0.000	376	4
PEAK	-9.145	1.125	-13.209	0.000	-9.136	0.000	0.000	0.000	0.000		
DAY/HR	24/ 9	6/15	15/10	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
NOV SUM	-1.372	0.000	-1.903	0.000	-1.370	0.000	0.000	0.000	0.000	348	0
PEAK	-11.011	0.000	-15.105	0.000	-11.000	0.000	0.000	0.000	0.000		
DAY/HR	28/ 9	0/ 0	18/ 9	0/ 0	28/ 9	0/ 0	0/ 0	0/ 0	0/ 0		

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- ERV Energy Recovery Summary for:    ERV-2-2                                                WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM      -2.058       0.000      -2.779       0.000      -2.055       0.000       0.000       0.000       0.000   400     0
     PEAK     -13.097       0.000     -17.148       0.000     -13.083       0.000       0.000       0.000       0.000
   DAY/HR       26/10        0/ 0       26/17        0/ 0       26/10        0/ 0        0/ 0        0/ 0        0/ 0
            ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ====  ====

 YR   SUM     -12.474       0.088     -16.910       0.019     -12.458       0.000       0.000       0.000       0.000  3836   133
     PEAK     -16.279       4.020     -21.476       2.222     -16.265       0.000       0.000       0.000       0.000
  MON/DAY        1/ 6        7/23        1/ 3        7/23        1/ 6        0/ 0        0/ 0        0/ 0        0/ 0


               --- EXHAUST OUTLET ---  --- MAKE-UP OUTLET ---  CONDENSATE
                   WET       FROSTED       WET       FROSTED     CONTROL
               ----------  ----------  ----------  ----------  ----------
ANNUAL HOURS:           0           0           0           0           0
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for ERV-2-1 WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	0.000	31	24	39.F	38.F	0.000	45.	0.268
FEB	0.00000	28	24	40.F	38.F	0.000	0.000	28	24	40.F	38.F	0.000	41.	0.264
MAR	0.00000	31	1	48.F	44.F	0.000	0.000	31	1	48.F	44.F	0.000	47.	0.268
APR	0.00000	30	1	52.F	48.F	0.000	0.000	30	1	52.F	48.F	0.000	46.	0.268
MAY	0.00000	31	1	56.F	51.F	0.000	0.000	31	1	56.F	51.F	0.000	47.	0.268
JUN	0.00000	30	1	61.F	55.F	0.000	0.000	30	1	61.F	55.F	0.000	45.	0.268
JUL	0.00000	31	1	60.F	51.F	0.000	0.000	31	1	60.F	51.F	0.000	47.	0.268
AUG	0.00000	31	1	59.F	55.F	0.000	0.000	31	1	59.F	55.F	0.000	47.	0.264
SEP	0.00000	30	1	53.F	51.F	0.000	0.000	30	1	53.F	51.F	0.000	45.	0.268
OCT	0.00000	31	1	45.F	43.F	0.000	0.000	31	1	45.F	43.F	0.000	47.	0.268
NOV	0.00000	30	24	46.F	44.F	0.000	0.000	30	24	46.F	44.F	0.000	42.	0.268
DEC	0.00000	31	24	45.F	41.F	0.000	0.000	31	24	45.F	41.F	0.000	47.	0.268
TOTAL	0.000						0.000						546.	
MAX						0.000						0.000		0.268

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- ERV Energy Recovery Summary for: ERV-2-1 WEATHER FILE- SEATTLE BOEING FI WA

AIR FLOW OUTDOOR (CFM)	AIR FLOW EXHAUST (CFM)	AIR FLOW PURGE (CFM)	POWER CONSUMPTION OA FAN (KW)	POWER CONSUMPTION EXH FAN (KW)	POWER CONSUMPTION HT EXCH (KW)	PREHEAT (KBTU/HR)
560.	560.	0.	0.000	0.000	0.000	0.

MON		SENSIBLE HEATING (MBTU) (KBTU/HR)	SENSIBLE COOLING (MBTU) (KBTU/HR)	TOTAL HEATING (MBTU) (KBTU/HR)	TOTAL COOLING (MBTU) (KBTU/HR)	EXCESS SENSIBLE HEATING (MBTU) (KBTU/HR)	EXCESS SENSIBLE COOLING (MBTU) (KBTU/HR)	POWER FANS&HX (KWH) (KW)	PREHEAT HEATING (MBTU) (KBTU/HR)	PREHEAT ELECTRIC (KWH) (KW)	HOURS HEAT	HOURS COOL
JAN	SUM	-1.083	0.000	-1.835	0.000	-1.082	0.000	0.000	0.000	0.000	338	0
	PEAK	-8.445	0.000	-13.755	0.000	-8.442	0.000	0.000	0.000	0.000		
	DAY/HR	4/17	0/ 0	4/17	0/ 0	4/17	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-0.826	0.000	-1.443	0.000	-0.825	0.000	0.000	0.000	0.000	310	0
	PEAK	-4.993	0.000	-8.953	0.000	-4.984	0.000	0.000	0.000	0.000		
	DAY/HR	24/16	0/ 0	24/16	0/ 0	24/16	0/ 0	0/ 0	0/ 0	0/ 0		
MAR	SUM	-0.701	0.001	-1.227	0.000	-0.701	0.000	0.000	0.000	0.000	338	2
	PEAK	-4.702	0.389	-7.787	0.000	-4.694	0.000	0.000	0.000	0.000		
	DAY/HR	3/12	29/15	3/16	0/ 0	3/12	0/ 0	0/ 0	0/ 0	0/ 0		
APR	SUM	-0.487	0.000	-0.848	0.000	-0.486	0.000	0.000	0.000	0.000	346	0
	PEAK	-4.284	0.000	-6.897	0.000	-4.277	0.000	0.000	0.000	0.000		
	DAY/HR	5/12	0/ 0	5/12	0/ 0	5/12	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-0.309	0.000	-0.514	0.000	-0.309	0.000	0.000	0.000	0.000	303	0
	PEAK	-3.462	0.000	-7.354	0.000	-3.458	0.000	0.000	0.000	0.000		
	DAY/HR	9/12	0/ 0	9/17	0/ 0	9/12	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-0.132	0.000	-0.205	0.000	-0.132	0.000	0.000	0.000	0.000	235	0
	PEAK	-2.300	0.000	-3.668	0.000	-2.289	0.000	0.000	0.000	0.000		
	DAY/HR	7/12	0/ 0	7/12	0/ 0	7/12	0/ 0	0/ 0	0/ 0	0/ 0		
JUL	SUM	-0.041	0.047	-0.094	0.009	-0.041	0.000	0.000	0.000	0.000	129	66
	PEAK	-1.134	2.259	-3.369	1.347	-1.132	0.000	0.000	0.000	0.000		
	DAY/HR	3/10	23/17	11/16	23/17	3/10	0/ 0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-0.034	0.015	-0.075	0.000	-0.034	0.000	0.000	0.000	0.000	118	30
	PEAK	-1.023	1.284	-1.872	0.000	-1.023	0.000	0.000	0.000	0.000		
	DAY/HR	16/11	9/16	8/16	0/ 0	16/11	0/ 0	0/ 0	0/ 0	0/ 0		
SEP	SUM	-0.145	0.009	-0.257	0.000	-0.145	0.000	0.000	0.000	0.000	209	19
	PEAK	-2.280	0.912	-3.663	0.000	-2.280	0.000	0.000	0.000	0.000		

DAY/HR	27/12	13/16	27/12	0/ 0	27/12	0/ 0	0/ 0	0/ 0	0/ 0		
OCT SUM	-0.477	0.001	-0.844	0.000	-0.476	0.000	0.000	0.000	0.000	328	3
PEAK	-3.796	0.393	-6.654	0.000	-3.790	0.000	0.000	0.000	0.000		
DAY/HR	15/12	6/15	15/12	0/ 0	15/12	0/ 0	0/ 0	0/ 0	0/ 0		
NOV SUM	-0.696	0.000	-1.233	0.000	-0.695	0.000	0.000	0.000	0.000	307	0
PEAK	-5.009	0.000	-8.607	0.000	-5.001	0.000	0.000	0.000	0.000		
DAY/HR	25/16	0/ 0	25/16	0/ 0	25/16	0/ 0	0/ 0	0/ 0	0/ 0		

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- ERV Energy Recovery Summary for:    ERV-2-1                                                WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM      -1.055       0.000      -1.816       0.000      -1.054       0.000       0.000       0.000       0.000   352     0
     PEAK      -6.684       0.000     -11.422       0.000      -6.682       0.000       0.000       0.000       0.000
   DAY/HR       27/12        0/ 0       27/12        0/ 0       27/12        0/ 0        0/ 0        0/ 0        0/ 0
            ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ====  ====

 YR   SUM      -5.986       0.073     -10.392       0.009      -5.979       0.000       0.000       0.000       0.000  3313   120
     PEAK      -8.445       2.259     -13.755       1.347      -8.442       0.000       0.000       0.000       0.000
  MON/DAY        1/ 4        7/23        1/ 4        7/23        1/ 4        0/ 0        0/ 0        0/ 0        0/ 0


               --- EXHAUST OUTLET ---  --- MAKE-UP OUTLET ---  CONDENSATE
                   WET       FROSTED       WET       FROSTED     CONTROL
               ----------  ----------  ----------  ----------  ----------
ANNUAL HOURS:           3           0           0           0           3
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for ERV-3-2 WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	0.000	31	24	39.F	38.F	0.000	79.	0.507
FEB	0.00000	28	24	40.F	38.F	0.000	0.000	28	24	40.F	38.F	0.000	68.	0.507
MAR	0.00000	31	1	48.F	44.F	0.000	0.000	31	1	48.F	44.F	0.000	74.	0.507
APR	0.00000	30	1	52.F	48.F	0.000	0.000	30	1	52.F	48.F	0.000	78.	0.507
MAY	0.00000	31	1	56.F	51.F	0.000	0.000	31	1	56.F	51.F	0.000	75.	0.507
JUN	0.00000	30	1	61.F	55.F	0.000	0.000	30	1	61.F	55.F	0.000	78.	0.507
JUL	0.00000	31	1	60.F	51.F	0.000	0.000	31	1	60.F	51.F	0.000	81.	0.507
AUG	0.00000	31	1	59.F	55.F	0.000	0.000	31	1	59.F	55.F	0.000	77.	0.468
SEP	0.00000	30	1	53.F	51.F	0.000	0.000	30	1	53.F	51.F	0.000	77.	0.507
OCT	0.00000	31	1	45.F	43.F	0.000	0.000	31	1	45.F	43.F	0.000	84.	0.507
NOV	0.00000	30	24	46.F	44.F	0.000	0.000	30	24	46.F	44.F	0.000	69.	0.507
DEC	0.00000	31	24	45.F	41.F	0.000	0.000	31	24	45.F	41.F	0.000	79.	0.507
TOTAL	0.000						0.000						919.	
MAX						0.000						0.000		0.507

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- ERV Energy Recovery Summary for: ERV-3-2 WEATHER FILE- SEATTLE BOEING FI WA

AIR FLOW			POWER CONSUMPTION			
OUTDOOR (CFM)	EXHAUST (CFM)	PURGE (CFM)	OA FAN (KW)	EXH FAN (KW)	HT EXCH (KW)	PREHEAT (KBTU/HR)
360.	360.	0.	0.000	0.000	0.000	0.

		SENSIBLE		TOTAL		EXCESS SENSIBLE		POWER	PREHEAT		HOURS	
MON	SUM / PEAK	HEATING (MBTU) (KBTU/HR)	COOLING (MBTU) (KBTU/HR)	HEATING (MBTU) (KBTU/HR)	COOLING (MBTU) (KBTU/HR)	HEATING (MBTU) (KBTU/HR)	COOLING (MBTU) (KBTU/HR)	FANS&HX (KWH) (KW)	HEATING (MBTU) (KBTU/HR)	ELECTRIC (KWH) (KW)	HEAT	COOL
JAN	SUM	-1.353	0.000	-1.818	0.000	-1.351	0.000	0.000	0.000	0.000	350	0
	PEAK	-11.996	0.000	-16.151	0.000	-11.990	0.000	0.000	0.000	0.000		
	DAY/HR	6/ 9	0/ 0	3/17	0/ 0	6/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-1.069	0.000	-1.495	0.000	-1.067	0.000	0.000	0.000	0.000	326	0
	PEAK	-10.756	0.000	-14.059	0.000	-10.747	0.000	0.000	0.000	0.000		
	DAY/HR	27/ 9	0/ 0	27/ 9	0/ 0	27/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAR	SUM	-0.934	0.000	-1.282	0.000	-0.933	0.000	0.000	0.000	0.000	343	1
	PEAK	-9.059	0.014	-13.674	0.000	-9.051	0.000	0.000	0.000	0.000		
	DAY/HR	13/ 9	29/12	13/ 9	0/ 0	13/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
APR	SUM	-0.670	0.000	-0.939	0.000	-0.669	0.000	0.000	0.000	0.000	371	0
	PEAK	-7.430	0.000	-9.643	0.000	-7.424	0.000	0.000	0.000	0.000		
	DAY/HR	24/ 9	0/ 0	2/10	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-0.390	0.000	-0.524	0.000	-0.389	0.000	0.000	0.000	0.000	311	0
	PEAK	-6.615	0.000	-10.092	0.000	-6.610	0.000	0.000	0.000	0.000		
	DAY/HR	9/10	0/ 0	9/17	0/ 0	9/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-0.203	0.000	-0.266	0.000	-0.203	0.000	0.000	0.000	0.000	267	0
	PEAK	-4.155	0.000	-5.192	0.000	-4.150	0.000	0.000	0.000	0.000		
	DAY/HR	6/10	0/ 0	6/10	0/ 0	6/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUL	SUM	-0.083	0.042	-0.132	0.011	-0.083	0.000	0.000	0.000	0.000	159	61
	PEAK	-3.292	3.435	-4.583	2.089	-3.291	0.000	0.000	0.000	0.000		
	DAY/HR	1/ 9	23/17	1/ 9	23/17	1/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-0.066	0.008	-0.097	0.000	-0.066	0.000	0.000	0.000	0.000	143	25
	PEAK	-2.693	1.021	-3.235	0.036	-2.680	0.000	0.000	0.000	0.000		
	DAY/HR	15/ 9	12/16	15/ 9	12/14	15/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
SEP	SUM	-0.239	0.007	-0.341	0.000	-0.239	0.000	0.000	0.000	0.000	235	18
	PEAK	-5.596	1.151	-6.384	0.000	-5.581	0.000	0.000	0.000	0.000		

DAY/HR	26/ 9	19/16	26/ 9	0/ 0	26/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
OCT SUM	-0.683	0.002	-1.000	0.000	-0.682	0.000	0.000	0.000	0.000	349	5
PEAK	-7.234	1.047	-10.113	0.000	-7.228	0.000	0.000	0.000	0.000		
DAY/HR	24/ 9	6/15	30/ 9	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
NOV SUM	-0.876	0.000	-1.250	0.000	-0.875	0.000	0.000	0.000	0.000	318	0
PEAK	-9.015	0.000	-11.734	0.000	-9.008	0.000	0.000	0.000	0.000		
DAY/HR	28/ 9	0/ 0	18/ 9	0/ 0	28/ 9	0/ 0	0/ 0	0/ 0	0/ 0		

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- ERV Energy Recovery Summary for:    ERV-3-2                                                WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM      -1.317       0.000      -1.805       0.000      -1.316       0.000       0.000       0.000       0.000   340     0
     PEAK     -10.723       0.000     -13.987       0.000     -10.714       0.000       0.000       0.000       0.000
   DAY/HR       26/10        0/ 0        4/ 9        0/ 0       26/10        0/ 0        0/ 0        0/ 0        0/ 0
            ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ====  ====

 YR   SUM      -7.882       0.059     -10.948       0.011      -7.871       0.000       0.000       0.000       0.000  3512   110
     PEAK     -11.996       3.435     -16.151       2.089     -11.990       0.000       0.000       0.000       0.000
  MON/DAY        1/ 6        7/23        1/ 3        7/23        1/ 6        0/ 0        0/ 0        0/ 0        0/ 0


               --- EXHAUST OUTLET ---  --- MAKE-UP OUTLET ---  CONDENSATE
                   WET       FROSTED       WET       FROSTED     CONTROL
               ----------  ----------  ----------  ----------  ----------
ANNUAL HOURS:           0           0           0           0           0
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for ERV-3-1 WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	0.000	31	24	39.F	38.F	0.000	106.	0.626
FEB	0.00000	28	24	40.F	38.F	0.000	0.000	28	24	40.F	38.F	0.000	96.	0.615
MAR	0.00000	31	1	48.F	44.F	0.000	0.000	31	1	48.F	44.F	0.000	109.	0.626
APR	0.00000	30	1	52.F	48.F	0.000	0.000	30	1	52.F	48.F	0.000	108.	0.626
MAY	0.00000	31	1	56.F	51.F	0.000	0.000	31	1	56.F	51.F	0.000	109.	0.626
JUN	0.00000	30	1	61.F	55.F	0.000	0.000	30	1	61.F	55.F	0.000	105.	0.626
JUL	0.00000	31	1	60.F	51.F	0.000	0.000	31	1	60.F	51.F	0.000	109.	0.626
AUG	0.00000	31	1	59.F	55.F	0.000	0.000	31	1	59.F	55.F	0.000	110.	0.615
SEP	0.00000	30	1	53.F	51.F	0.000	0.000	30	1	53.F	51.F	0.000	105.	0.626
OCT	0.00000	31	1	45.F	43.F	0.000	0.000	31	1	45.F	43.F	0.000	110.	0.626
NOV	0.00000	30	24	46.F	44.F	0.000	0.000	30	24	46.F	44.F	0.000	98.	0.626
DEC	0.00000	31	24	45.F	41.F	0.000	0.000	31	24	45.F	41.F	0.000	109.	0.626
TOTAL	0.000						0.000						1274.	
MAX						0.000						0.000		0.626

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- ERV Energy Recovery Summary for: ERV-3-1 WEATHER FILE- SEATTLE BOEING FI WA

AIR FLOW OUTDOOR (CFM)	AIR FLOW EXHAUST (CFM)	AIR FLOW PURGE (CFM)	POWER CONSUMPTION OA FAN (KW)	POWER CONSUMPTION EXH FAN (KW)	POWER CONSUMPTION HT EXCH (KW)	PREHEAT (KBTU/HR)
540.	540.	0.	0.000	0.000	0.000	0.

MON		SENSIBLE HEATING (MBTU) (KBTU/HR)	SENSIBLE COOLING (MBTU) (KBTU/HR)	TOTAL HEATING (MBTU) (KBTU/HR)	TOTAL COOLING (MBTU) (KBTU/HR)	EXCESS SENSIBLE HEATING (MBTU) (KBTU/HR)	EXCESS SENSIBLE COOLING (MBTU) (KBTU/HR)	POWER FANS&HX (KWH) (KW)	PREHEAT HEATING (MBTU) (KBTU/HR)	PREHEAT ELECTRIC (KWH) (KW)	HOURS HEAT	HOURS COOL
JAN	SUM	-2.407	0.000	-3.809	0.000	-2.405	0.000	0.000	0.000	0.000	338	0
	PEAK	-18.769	0.000	-28.732	0.000	-18.757	0.000	0.000	0.000	0.000		
	DAY/HR	4/17	0/ 0	4/17	0/ 0	4/17	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-1.837	0.000	-2.968	0.000	-1.834	0.000	0.000	0.000	0.000	310	0
	PEAK	-11.082	0.000	-18.324	0.000	-11.075	0.000	0.000	0.000	0.000		
	DAY/HR	24/16	0/ 0	24/16	0/ 0	24/16	0/ 0	0/ 0	0/ 0	0/ 0		
MAR	SUM	-1.559	0.001	-2.412	0.000	-1.556	0.000	0.000	0.000	0.000	338	2
	PEAK	-10.441	0.700	-16.342	0.000	-10.433	0.000	0.000	0.000	0.000		
	DAY/HR	3/12	29/15	3/16	0/ 0	3/12	0/ 0	0/ 0	0/ 0	0/ 0		
APR	SUM	-1.081	0.000	-1.567	0.000	-1.080	0.000	0.000	0.000	0.000	346	0
	PEAK	-9.507	0.000	-14.034	0.000	-9.503	0.000	0.000	0.000	0.000		
	DAY/HR	5/12	0/ 0	5/12	0/ 0	5/12	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-0.687	0.000	-0.966	0.000	-0.685	0.000	0.000	0.000	0.000	303	0
	PEAK	-7.706	0.000	-13.245	0.000	-7.690	0.000	0.000	0.000	0.000		
	DAY/HR	9/12	0/ 0	9/17	0/ 0	9/12	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-0.293	0.000	-0.406	0.000	-0.293	0.000	0.000	0.000	0.000	235	0
	PEAK	-5.091	0.000	-6.882	0.000	-5.088	0.000	0.000	0.000	0.000		
	DAY/HR	7/12	0/ 0	7/12	0/ 0	7/12	0/ 0	0/ 0	0/ 0	0/ 0		
JUL	SUM	-0.091	0.097	-0.205	0.013	-0.091	0.000	0.000	0.000	0.000	129	64
	PEAK	-2.527	4.781	-7.415	2.499	-2.519	0.000	0.000	0.000	0.000		
	DAY/HR	3/10	23/17	11/16	23/17	3/10	0/ 0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-0.075	0.030	-0.160	0.000	-0.075	0.000	0.000	0.000	0.000	118	28
	PEAK	-2.278	2.687	-4.266	0.000	-2.274	0.000	0.000	0.000	0.000		
	DAY/HR	16/11	9/15	8/16	0/ 0	16/11	0/ 0	0/ 0	0/ 0	0/ 0		
SEP	SUM	-0.323	0.018	-0.519	0.000	-0.322	0.000	0.000	0.000	0.000	209	18
	PEAK	-5.070	1.854	-6.947	0.000	-5.068	0.000	0.000	0.000	0.000		

DAY/HR	27/12	13/17	27/12	0/ 0	27/12	0/ 0	0/ 0	0/ 0	0/ 0		
OCT SUM	-1.060	0.001	-1.598	0.000	-1.058	0.000	0.000	0.000	0.000	328	2
PEAK	-8.443	0.709	-13.282	0.000	-8.422	0.000	0.000	0.000	0.000		
DAY/HR	15/12	6/15	15/12	0/ 0	15/12	0/ 0	0/ 0	0/ 0	0/ 0		
NOV SUM	-1.547	0.000	-2.492	0.000	-1.545	0.000	0.000	0.000	0.000	307	0
PEAK	-11.124	0.000	-17.870	0.000	-11.117	0.000	0.000	0.000	0.000		
DAY/HR	25/16	0/ 0	25/16	0/ 0	25/16	0/ 0	0/ 0	0/ 0	0/ 0		

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- ERV Energy Recovery Summary for:    ERV-3-1                                                WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM      -2.344       0.000      -3.791       0.000      -2.342       0.000       0.000       0.000       0.000   352     0
     PEAK     -14.867       0.000     -23.813       0.000     -14.854       0.000       0.000       0.000       0.000
   DAY/HR       27/12        0/ 0       27/12        0/ 0       27/12        0/ 0        0/ 0        0/ 0        0/ 0
            ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ====  ====

 YR   SUM     -13.304       0.148     -20.892       0.013     -13.286       0.000       0.000       0.000       0.000  3313   114
     PEAK     -18.769       4.781     -28.732       2.499     -18.757       0.000       0.000       0.000       0.000
  MON/DAY        1/ 4        7/23        1/ 4        7/23        1/ 4        0/ 0        0/ 0        0/ 0        0/ 0


               --- EXHAUST OUTLET ---  --- MAKE-UP OUTLET ---  CONDENSATE
                   WET       FROSTED       WET       FROSTED     CONTROL
               ----------  ----------  ----------  ----------  ----------
ANNUAL HOURS:           3           0           0           0           3
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for ERV-4-1 WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	0.000	31	24	39.F	38.F	0.000	32.	0.237
FEB	0.00000	28	24	40.F	38.F	0.000	0.000	28	24	40.F	38.F	0.000	26.	0.237
MAR	0.00000	31	1	48.F	44.F	0.000	0.000	31	1	48.F	44.F	0.000	28.	0.237
APR	0.00000	30	1	52.F	48.F	0.000	0.000	30	1	52.F	48.F	0.000	30.	0.237
MAY	0.00000	31	1	56.F	51.F	0.000	0.000	31	1	56.F	51.F	0.000	29.	0.237
JUN	0.00000	30	1	61.F	55.F	0.000	0.000	30	1	61.F	55.F	0.000	31.	0.237
JUL	0.00000	31	1	60.F	51.F	0.000	0.000	31	1	60.F	51.F	0.000	32.	0.237
AUG	0.00000	31	1	59.F	55.F	0.000	0.000	31	1	59.F	55.F	0.000	31.	0.212
SEP	0.00000	30	1	53.F	51.F	0.000	0.000	30	1	53.F	51.F	0.000	31.	0.237
OCT	0.00000	31	1	45.F	43.F	0.000	0.000	31	1	45.F	43.F	0.000	35.	0.237
NOV	0.00000	30	24	46.F	44.F	0.000	0.000	30	24	46.F	44.F	0.000	29.	0.237
DEC	0.00000	31	24	45.F	41.F	0.000	0.000	31	24	45.F	41.F	0.000	31.	0.237
TOTAL	0.000						0.000						365.	
MAX						0.000						0.000		0.237

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- ERV Energy Recovery Summary for: ERV-4-1 WEATHER FILE- SEATTLE BOEING FI WA

AIR FLOW			POWER CONSUMPTION			
OUTDOOR (CFM)	EXHAUST (CFM)	PURGE (CFM)	OA FAN (KW)	EXH FAN (KW)	HT EXCH (KW)	PREHEAT (KBTU/HR)
170.	170.	0.	0.000	0.000	0.000	0.

		SENSIBLE		TOTAL		EXCESS SENSIBLE		POWER	PREHEAT		HOURS	
MON	SUM / PEAK	HEATING (MBTU) (KBTU/HR)	COOLING (MBTU) (KBTU/HR)	HEATING (MBTU) (KBTU/HR)	COOLING (MBTU) (KBTU/HR)	HEATING (MBTU) (KBTU/HR)	COOLING (MBTU) (KBTU/HR)	FANS&HX (KWH) (KW)	HEATING (MBTU) (KBTU/HR)	ELECTRIC (KWH) (KW)	HEAT	COOL
JAN	SUM	-0.558	0.000	-0.721	0.000	-0.558	0.000	0.000	0.000	0.000	290	0
	PEAK	-5.277	0.000	-6.343	0.000	-5.272	0.000	0.000	0.000	0.000		
	DAY/HR	2/ 9	0/ 0	3/17	0/ 0	2/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
FEB	SUM	-0.429	0.000	-0.580	0.000	-0.428	0.000	0.000	0.000	0.000	264	0
	PEAK	-4.963	0.000	-6.272	0.000	-4.958	0.000	0.000	0.000	0.000		
	DAY/HR	27/ 9	0/ 0	27/ 9	0/ 0	27/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAR	SUM	-0.370	0.000	-0.490	0.000	-0.370	0.000	0.000	0.000	0.000	275	0
	PEAK	-4.181	0.000	-6.183	0.000	-4.176	0.000	0.000	0.000	0.000		
	DAY/HR	13/ 9	0/ 0	13/ 9	0/ 0	13/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
APR	SUM	-0.267	0.000	-0.358	0.000	-0.267	0.000	0.000	0.000	0.000	294	0
	PEAK	-3.429	0.000	-4.273	0.000	-3.426	0.000	0.000	0.000	0.000		
	DAY/HR	24/ 9	0/ 0	2/10	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
MAY	SUM	-0.154	0.000	-0.196	0.000	-0.154	0.000	0.000	0.000	0.000	235	0
	PEAK	-3.052	0.000	-4.028	0.000	-3.049	0.000	0.000	0.000	0.000		
	DAY/HR	9/10	0/ 0	9/17	0/ 0	9/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUN	SUM	-0.082	0.000	-0.102	0.000	-0.082	0.000	0.000	0.000	0.000	200	0
	PEAK	-1.775	0.000	-2.050	0.000	-1.772	0.000	0.000	0.000	0.000		
	DAY/HR	6/10	0/ 0	6/10	0/ 0	6/10	0/ 0	0/ 0	0/ 0	0/ 0		
JUL	SUM	-0.034	0.018	-0.048	0.011	-0.034	0.000	0.000	0.000	0.000	119	49
	PEAK	-1.465	1.585	-1.867	1.340	-1.464	0.000	0.000	0.000	0.000		
	DAY/HR	1/ 9	23/17	1/ 9	23/17	1/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
AUG	SUM	-0.026	0.003	-0.034	0.001	-0.026	0.000	0.000	0.000	0.000	98	19
	PEAK	-1.221	0.439	-1.366	0.310	-1.215	0.000	0.000	0.000	0.000		
	DAY/HR	15/ 9	12/17	15/ 9	12/14	15/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
SEP	SUM	-0.098	0.003	-0.128	0.000	-0.098	0.000	0.000	0.000	0.000	198	15
	PEAK	-2.484	0.509	-2.700	0.000	-2.483	0.000	0.000	0.000	0.000		

DAY/HR	26/ 9	19/16	26/ 9	0/ 0	26/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
OCT SUM	-0.288	0.001	-0.405	0.000	-0.288	0.000	0.000	0.000	0.000	300	4
PEAK	-3.219	0.311	-4.491	0.000	-3.217	0.000	0.000	0.000	0.000		
DAY/HR	24/ 9	6/15	30/ 9	0/ 0	24/ 9	0/ 0	0/ 0	0/ 0	0/ 0		
NOV SUM	-0.367	0.000	-0.509	0.000	-0.366	0.000	0.000	0.000	0.000	268	0
PEAK	-4.160	0.000	-5.044	0.000	-4.156	0.000	0.000	0.000	0.000		
DAY/HR	28/ 9	0/ 0	18/ 9	0/ 0	28/ 9	0/ 0	0/ 0	0/ 0	0/ 0		

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- ERV Energy Recovery Summary for:    ERV-4-1                                                WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM      -0.541       0.000      -0.718       0.000      -0.541       0.000       0.000       0.000       0.000   289     0
     PEAK      -4.947       0.000      -6.175       0.000      -4.942       0.000       0.000       0.000       0.000
   DAY/HR       26/10        0/ 0        4/ 9        0/ 0       26/10        0/ 0        0/ 0        0/ 0        0/ 0
            ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ==========  ====  ====

 YR   SUM      -3.215       0.024      -4.291       0.011      -3.211       0.000       0.000       0.000       0.000  2830    87
     PEAK      -5.277       1.585      -6.343       1.340      -5.272       0.000       0.000       0.000       0.000
  MON/DAY        1/ 2        7/23        1/ 3        7/23        1/ 2        0/ 0        0/ 0        0/ 0        0/ 0


               --- EXHAUST OUTLET ---  --- MAKE-UP OUTLET ---  CONDENSATE
                   WET       FROSTED       WET       FROSTED     CONTROL
               ----------  ----------  ----------  ----------  ----------
ANNUAL HOURS:           0           0           0           0           0
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys1CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	28	7	46.F	45.F	0.000	-1.646	6	7	27.F	23.F	-25.167	368.	1.102
FEB	0.00000	28	24	40.F	38.F	0.000	-1.224	18	7	45.F	44.F	-16.085	335.	1.102
MAR	0.01395	22	16	64.F	54.F	2.116	-0.863	3	7	41.F	39.F	-15.030	373.	1.102
APR	0.10956	17	10	54.F	49.F	4.805	-0.435	7	7	39.F	39.F	-14.751	370.	1.102
MAY	0.31353	13	11	61.F	53.F	5.259	-0.292	5	7	46.F	45.F	-10.693	373.	1.102
JUN	0.42310	14	16	61.F	52.F	6.177	-0.134	9	7	55.F	51.F	-6.455	362.	1.102
JUL	1.00510	23	16	88.F	65.F	9.497	-0.021	8	7	57.F	55.F	-4.602	376.	1.102
AUG	0.89082	12	16	82.F	64.F	8.024	-0.023	18	7	61.F	58.F	-4.104	373.	1.102
SEP	0.51933	19	16	82.F	63.F	6.838	-0.112	29	7	48.F	45.F	-6.251	362.	1.102
OCT	0.06889	7	17	77.F	55.F	2.780	-0.423	27	7	50.F	49.F	-9.770	376.	1.102
NOV	0.00000	30	24	46.F	44.F	0.000	-0.899	28	7	37.F	34.F	-14.918	344.	1.102
DEC	0.00000	31	24	45.F	41.F	0.000	-1.611	26	7	34.F	34.F	-18.581	376.	1.102
TOTAL	3.344						-7.684						4386.	
MAX						9.497						-25.167		1.102

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys2CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.10784	29	17	54.F	53.F	1.606	-0.138	6	7	27.F	23.F	-8.539	106.	0.311
FEB	0.12084	6	17	48.F	46.F	1.799	-0.105	18	7	45.F	44.F	-6.517	96.	0.311
MAR	0.13334	27	15	55.F	48.F	1.453	-0.092	3	7	41.F	39.F	-4.973	107.	0.311
APR	0.14729	4	16	50.F	46.F	1.849	-0.057	7	7	39.F	39.F	-5.114	106.	0.311
MAY	0.15752	9	18	48.F	48.F	1.856	-0.030	5	7	46.F	45.F	-3.376	107.	0.311
JUN	0.20668	20	17	77.F	61.F	1.520	-0.007	2	7	54.F	53.F	-2.111	104.	0.311
JUL	0.37618	24	17	81.F	65.F	1.997	0.000	31	1	60.F	51.F	0.000	108.	0.311
AUG	0.42302	15	17	75.F	64.F	2.057	0.000	31	1	59.F	55.F	0.000	107.	0.311
SEP	0.33328	19	17	81.F	62.F	2.052	-0.000	29	7	48.F	45.F	-0.334	104.	0.311
OCT	0.20385	20	17	52.F	50.F	2.070	-0.013	14	7	50.F	47.F	-2.364	108.	0.311
NOV	0.14904	19	18	52.F	48.F	2.016	-0.052	24	7	46.F	45.F	-3.989	99.	0.311
DEC	0.16977	5	16	48.F	43.F	2.135	-0.111	15	7	50.F	48.F	-5.842	108.	0.311
TOTAL	2.529						-0.608						1260.	
MAX						2.135						-8.539		0.311

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys3CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	30	13	45.F	41.F	0.000	-0.678	6	7	27.F	23.F	-12.519	176.	0.649
FEB	0.00000	26	12	46.F	36.F	0.000	-0.417	18	7	45.F	44.F	-8.868	160.	0.649
MAR	0.01478	28	17	59.F	49.F	1.149	-0.325	3	7	41.F	39.F	-8.008	177.	0.649
APR	0.12614	17	11	54.F	50.F	2.354	-0.178	7	7	39.F	39.F	-7.769	182.	0.649
MAY	0.23718	16	10	63.F	55.F	4.313	-0.085	5	7	46.F	45.F	-5.372	177.	0.649
JUN	0.34332	20	11	72.F	61.F	4.753	-0.026	2	7	54.F	53.F	-2.828	175.	0.649
JUL	0.67357	23	11	75.F	63.F	5.746	-0.000	5	7	54.F	52.F	-0.143	183.	0.649
AUG	0.60215	12	10	70.F	62.F	5.706	-0.001	25	7	54.F	53.F	-1.100	177.	0.649
SEP	0.35905	19	10	66.F	63.F	4.332	-0.024	29	7	48.F	45.F	-3.116	175.	0.649
OCT	0.08255	7	17	77.F	55.F	2.107	-0.152	14	7	50.F	47.F	-4.997	183.	0.649
NOV	0.00166	7	16	61.F	56.F	0.497	-0.370	28	7	37.F	34.F	-8.183	156.	0.649
DEC	0.00000	31	12	43.F	41.F	0.000	-0.632	29	7	37.F	35.F	-10.345	183.	0.649
TOTAL	2.440						-2.889						2105.	
MAX						5.746						-12.519		0.649

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys4CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-2.704	6	7	27.F	23.F	-29.614	291.	1.075
FEB	0.00000	28	24	40.F	38.F	0.000	-2.000	18	7	45.F	44.F	-22.686	264.	1.075
MAR	0.00067	29	10	66.F	50.F	0.666	-1.557	3	7	41.F	39.F	-20.096	293.	1.075
APR	0.05447	17	10	54.F	49.F	5.166	-0.710	7	7	39.F	39.F	-19.720	300.	1.075
MAY	0.20889	28	11	59.F	52.F	4.667	-0.380	12	7	48.F	44.F	-13.216	293.	1.075
JUN	0.40316	20	10	70.F	59.F	8.860	-0.102	6	7	54.F	49.F	-6.063	289.	1.075
JUL	1.13288	23	10	72.F	62.F	11.316	-0.005	8	7	57.F	55.F	-4.129	302.	1.075
AUG	0.67094	12	11	72.F	63.F	7.032	-0.016	23	8	57.F	56.F	-4.263	293.	1.075
SEP	0.27609	22	16	81.F	60.F	4.454	-0.160	29	7	48.F	45.F	-8.704	289.	1.075
OCT	0.01472	8	10	55.F	51.F	2.177	-0.925	14	7	50.F	47.F	-12.944	302.	1.075
NOV	0.00000	30	24	46.F	44.F	0.000	-1.816	28	7	37.F	34.F	-20.909	258.	1.075
DEC	0.00000	31	24	45.F	41.F	0.000	-2.730	29	7	37.F	35.F	-26.187	302.	1.075
TOTAL	2.762						-13.106						3473.	
MAX						11.316						-29.614		1.075

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys5CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-7.066	6	7	27.F	23.F	-58.828	525.	1.931
FEB	0.00000	28	24	40.F	38.F	0.000	-5.733	18	7	45.F	44.F	-42.321	476.	1.931
MAR	0.00000	31	1	48.F	44.F	0.000	-4.943	3	7	41.F	39.F	-39.688	529.	1.931
APR	0.00000	30	1	52.F	48.F	0.000	-3.006	7	7	39.F	39.F	-38.807	542.	1.931
MAY	0.22702	16	17	72.F	60.F	9.793	-1.468	12	7	48.F	44.F	-26.753	529.	1.931
JUN	0.55936	20	10	70.F	59.F	15.871	-0.489	6	7	54.F	49.F	-13.906	522.	1.931
JUL	2.49702	23	17	90.F	67.F	26.719	-0.041	8	7	57.F	55.F	-9.191	545.	1.931
AUG	1.55628	11	17	81.F	63.F	20.362	-0.112	23	8	57.F	56.F	-9.544	529.	1.931
SEP	0.42684	19	17	81.F	62.F	14.765	-0.658	29	7	48.F	45.F	-18.225	522.	1.931
OCT	0.01103	7	17	77.F	55.F	3.859	-2.906	27	7	50.F	49.F	-25.080	545.	1.931
NOV	0.00000	30	24	46.F	44.F	0.000	-4.717	28	7	37.F	34.F	-40.908	466.	1.931
DEC	0.00000	31	24	45.F	41.F	0.000	-6.955	29	7	37.F	35.F	-49.792	545.	1.931
TOTAL	5.278						-38.094						6276.	
MAX						26.719						-58.828		1.931

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys6CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00013	16	12	46.F	45.F	0.130	-1.795	6	7	27.F	23.F	-34.162	366.	1.113
FEB	0.01182	22	16	54.F	52.F	2.472	-1.051	18	7	45.F	44.F	-17.845	333.	1.113
MAR	0.09723	22	18	61.F	56.F	3.240	-0.650	3	7	41.F	39.F	-15.316	371.	1.113
APR	0.39358	17	14	57.F	49.F	4.762	-0.265	7	7	39.F	39.F	-15.757	368.	1.113
MAY	0.59013	27	12	63.F	55.F	6.202	-0.117	12	7	48.F	44.F	-8.851	371.	1.113
JUN	0.74366	20	17	77.F	61.F	6.137	-0.013	2	7	54.F	53.F	-3.024	360.	1.113
JUL	1.47381	23	17	90.F	67.F	10.747	0.000	31	1	60.F	51.F	0.000	374.	1.113
AUG	1.30296	11	16	81.F	64.F	8.496	0.000	31	1	59.F	55.F	0.000	371.	1.113
SEP	0.85835	22	16	81.F	60.F	7.062	-0.019	29	7	48.F	45.F	-3.659	360.	1.113
OCT	0.28080	4	17	57.F	51.F	4.839	-0.285	22	8	39.F	39.F	-8.606	374.	1.113
NOV	0.01760	7	16	61.F	56.F	1.492	-0.778	28	7	37.F	34.F	-16.415	341.	1.113
DEC	0.00000	6	13	48.F	44.F	0.000	-1.626	26	7	34.F	34.F	-22.378	374.	1.113
TOTAL	5.770						-6.599						4365.	
MAX						10.747						-34.162		1.113

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys7CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.232	6	7	27.F	23.F	-15.345	317.	0.947
FEB	0.00000	28	24	40.F	38.F	0.000	-0.955	18	7	45.F	44.F	-10.227	288.	0.947
MAR	0.00666	29	16	79.F	55.F	1.774	-0.652	3	7	41.F	39.F	-8.843	321.	0.947
APR	0.01949	12	13	61.F	53.F	1.486	-0.330	7	7	39.F	39.F	-8.788	318.	0.947
MAY	0.17471	17	17	61.F	53.F	4.678	-0.171	12	7	48.F	44.F	-6.287	321.	0.947
JUN	0.33952	20	15	75.F	62.F	5.178	-0.046	2	7	54.F	53.F	-3.167	312.	0.947
JUL	1.00300	23	16	88.F	65.F	8.233	-0.000	5	7	54.F	52.F	-0.085	323.	0.947
AUG	0.90507	11	16	81.F	64.F	7.676	0.000	31	1	59.F	55.F	0.000	321.	0.947
SEP	0.45598	19	16	82.F	63.F	6.138	-0.026	26	8	48.F	46.F	-2.886	312.	0.947
OCT	0.05838	7	17	77.F	55.F	2.590	-0.243	22	8	39.F	39.F	-5.122	323.	0.947
NOV	0.00000	30	24	46.F	44.F	0.000	-0.646	24	7	46.F	45.F	-8.481	297.	0.947
DEC	0.00000	31	24	45.F	41.F	0.000	-1.172	29	7	37.F	35.F	-11.161	323.	0.947
TOTAL	2.963						-5.473						3777.	
MAX						8.233						-15.345		0.947

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys8CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.835	6	7	27.F	23.F	-8.993	160.	0.589
FEB	0.00000	28	24	40.F	38.F	0.000	-0.567	18	7	45.F	44.F	-6.567	145.	0.589
MAR	0.00248	21	17	64.F	50.F	0.498	-0.352	3	7	41.F	39.F	-5.606	161.	0.589
APR	0.05035	11	12	59.F	52.F	1.261	-0.137	7	7	39.F	39.F	-5.456	165.	0.589
MAY	0.16700	16	16	72.F	60.F	2.402	-0.062	12	7	48.F	44.F	-3.605	161.	0.589
JUN	0.27945	20	11	72.F	61.F	3.139	-0.009	2	7	54.F	53.F	-1.553	159.	0.589
JUL	0.62390	23	17	90.F	67.F	4.432	0.000	31	1	60.F	51.F	0.000	166.	0.589
AUG	0.50275	11	17	81.F	63.F	3.879	-0.000	25	7	54.F	53.F	-0.047	161.	0.589
SEP	0.27753	19	16	82.F	63.F	3.000	-0.012	29	7	48.F	45.F	-1.897	159.	0.589
OCT	0.03830	7	17	77.F	55.F	1.254	-0.165	14	7	50.F	47.F	-3.520	166.	0.589
NOV	0.00000	30	24	46.F	44.F	0.000	-0.499	28	7	37.F	34.F	-5.804	142.	0.589
DEC	0.00000	31	24	45.F	41.F	0.000	-0.833	29	7	37.F	35.F	-7.709	166.	0.589
TOTAL	1.942						-3.470						1910.	
MAX						4.432						-8.993		0.589

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys9FC WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.100	6	7	27.F	23.F	-8.880	57.	0.217
FEB	0.00000	28	24	40.F	38.F	0.000	-0.922	18	7	45.F	44.F	-5.993	51.	0.209
MAR	0.00000	31	1	48.F	44.F	0.000	-0.836	3	7	41.F	39.F	-5.531	56.	0.210
APR	0.00000	30	1	52.F	48.F	0.000	-0.648	7	7	39.F	39.F	-5.417	57.	0.208
MAY	0.00107	16	17	72.F	60.F	0.280	-0.421	5	7	46.F	45.F	-4.199	55.	0.207
JUN	0.00907	20	17	77.F	61.F	0.987	-0.214	9	7	55.F	51.F	-2.802	54.	0.204
JUL	0.12860	23	15	86.F	66.F	2.381	-0.036	8	7	57.F	55.F	-1.802	56.	0.206
AUG	0.07085	12	15	81.F	63.F	1.995	-0.044	25	8	57.F	55.F	-1.821	54.	0.204
SEP	0.01142	19	17	81.F	62.F	1.105	-0.165	29	7	48.F	45.F	-2.676	53.	0.204
OCT	0.00000	31	1	45.F	43.F	0.000	-0.573	14	7	50.F	47.F	-3.770	57.	0.206
NOV	0.00000	30	24	46.F	44.F	0.000	-0.775	28	7	37.F	34.F	-5.419	50.	0.208
DEC	0.00000	31	24	45.F	41.F	0.000	-1.083	29	7	37.F	35.F	-6.813	59.	0.211
TOTAL	0.221						-6.817						658.	
MAX						2.381						-8.880		0.217

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys10CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.406	6	7	27.F	23.F	-16.471	284.	1.049
FEB	0.00000	28	24	40.F	38.F	0.000	-0.943	18	7	45.F	44.F	-11.828	258.	1.049
MAR	0.00337	21	17	64.F	50.F	0.837	-0.625	3	7	41.F	39.F	-9.799	287.	1.049
APR	0.07139	18	17	64.F	52.F	1.932	-0.253	7	7	39.F	39.F	-9.638	294.	1.049
MAY	0.26208	16	16	72.F	60.F	4.223	-0.104	12	7	48.F	44.F	-6.278	287.	1.049
JUN	0.44455	20	11	72.F	61.F	5.925	-0.016	2	7	54.F	53.F	-2.366	283.	1.049
JUL	1.12268	23	17	90.F	67.F	7.730	0.000	31	1	60.F	51.F	0.000	295.	1.049
AUG	0.84235	11	17	81.F	63.F	6.649	-0.000	25	7	54.F	53.F	-0.133	287.	1.049
SEP	0.38748	19	17	81.F	62.F	4.763	-0.025	29	7	48.F	45.F	-3.814	283.	1.049
OCT	0.05005	9	17	57.F	56.F	1.840	-0.306	14	7	50.F	47.F	-6.565	295.	1.049
NOV	0.00000	30	24	46.F	44.F	0.000	-0.841	28	7	37.F	34.F	-10.038	252.	1.049
DEC	0.00000	31	24	45.F	41.F	0.000	-1.386	29	7	37.F	35.F	-13.456	295.	1.049
TOTAL	3.184						-5.905						3399.	
MAX						7.730						-16.471		1.049

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys11CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-6.204	6	7	27.F	23.F	-42.337	486.	1.794
FEB	0.00000	28	24	40.F	38.F	0.000	-4.959	18	7	45.F	44.F	-30.326	441.	1.794
MAR	0.00000	31	1	48.F	44.F	0.000	-4.258	3	7	41.F	39.F	-28.209	489.	1.794
APR	0.00000	30	1	52.F	48.F	0.000	-2.787	7	7	39.F	39.F	-26.774	502.	1.794
MAY	0.10858	16	17	72.F	60.F	5.813	-1.358	12	7	48.F	44.F	-19.060	489.	1.794
JUN	0.32915	20	17	77.F	61.F	9.307	-0.455	2	7	54.F	53.F	-9.934	483.	1.794
JUL	1.52804	23	17	90.F	67.F	15.117	-0.029	8	7	57.F	55.F	-6.370	504.	1.794
AUG	0.85531	12	17	82.F	63.F	11.046	-0.088	23	8	57.F	56.F	-7.687	489.	1.794
SEP	0.12006	19	17	81.F	62.F	5.699	-0.685	29	7	48.F	45.F	-13.416	483.	1.794
OCT	0.00000	31	1	45.F	43.F	0.000	-2.910	14	7	50.F	47.F	-18.587	504.	1.794
NOV	0.00000	30	24	46.F	44.F	0.000	-4.294	28	7	37.F	34.F	-28.773	431.	1.794
DEC	0.00000	31	24	45.F	41.F	0.000	-6.182	29	7	37.F	35.F	-36.510	504.	1.794
TOTAL	2.941						-34.209						5806.	
MAX						15.117						-42.337		1.794

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys12CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00949	15	17	48.F	47.F	1.671	-0.539	6	7	27.F	23.F	-15.687	366.	1.113
FEB	0.04415	22	14	54.F	53.F	3.940	-0.261	18	7	45.F	44.F	-9.688	333.	1.113
MAR	0.26190	8	16	64.F	54.F	4.732	-0.164	3	7	41.F	39.F	-6.775	371.	1.113
APR	0.55077	22	15	55.F	48.F	6.462	-0.053	7	7	39.F	39.F	-7.304	368.	1.113
MAY	0.70981	3	16	55.F	49.F	7.218	-0.021	12	7	48.F	44.F	-3.785	371.	1.113
JUN	0.81588	20	16	75.F	62.F	6.636	-0.000	2	7	54.F	53.F	-0.019	360.	1.113
JUL	1.59170	23	16	88.F	65.F	9.674	0.000	31	1	60.F	51.F	0.000	374.	1.113
AUG	1.45129	11	16	81.F	64.F	9.576	0.000	31	1	59.F	55.F	0.000	371.	1.113
SEP	0.99125	22	16	81.F	60.F	8.018	-0.000	29	7	48.F	45.F	-0.298	360.	1.113
OCT	0.38618	4	16	59.F	51.F	5.647	-0.059	20	8	55.F	55.F	-3.806	374.	1.113
NOV	0.06658	8	14	57.F	54.F	3.011	-0.211	24	7	46.F	45.F	-7.371	341.	1.113
DEC	0.00000	31	24	45.F	41.F	0.000	-0.457	29	7	37.F	35.F	-10.419	374.	1.113
TOTAL	6.879						-1.766						4365.	
MAX						9.674						-15.687		1.113

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys13CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.04435	15	16	50.F	49.F	2.403	-0.411	6	6	27.F	24.F	-9.747	314.	0.946
FEB	0.04939	22	17	54.F	52.F	3.022	-0.254	18	6	45.F	44.F	-7.327	285.	0.946
MAR	0.20707	28	17	59.F	49.F	4.294	-0.171	3	6	41.F	39.F	-6.323	318.	0.946
APR	0.42045	17	15	61.F	50.F	5.449	-0.067	7	6	39.F	38.F	-5.062	315.	0.946
MAY	0.50122	27	15	64.F	54.F	5.677	-0.035	12	6	45.F	40.F	-4.320	318.	0.946
JUN	0.56227	13	13	63.F	53.F	5.762	-0.002	2	7	54.F	53.F	-0.800	309.	0.946
JUL	1.19212	23	16	88.F	65.F	8.213	0.000	31	1	60.F	51.F	0.000	320.	0.946
AUG	1.12311	11	16	81.F	64.F	8.088	0.000	31	1	59.F	55.F	0.000	318.	0.946
SEP	0.71258	19	16	82.F	63.F	6.836	-0.000	29	7	48.F	45.F	-0.458	309.	0.946
OCT	0.31689	18	16	59.F	53.F	4.306	-0.055	14	6	52.F	49.F	-3.461	320.	0.946
NOV	0.10684	14	16	52.F	52.F	3.077	-0.180	24	6	46.F	44.F	-6.204	293.	0.946
DEC	0.02044	18	17	46.F	41.F	1.816	-0.340	29	6	37.F	35.F	-8.200	320.	0.946
TOTAL	5.257						-1.516						3740.	
MAX						8.213						-9.747		0.946

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys14CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.999	6	7	27.F	23.F	-10.877	160.	0.589
FEB	0.00000	28	24	40.F	38.F	0.000	-0.715	18	7	45.F	44.F	-8.032	145.	0.589
MAR	0.00173	21	17	64.F	50.F	0.486	-0.482	3	7	41.F	39.F	-7.057	161.	0.589
APR	0.03314	18	17	64.F	52.F	1.113	-0.196	7	7	39.F	39.F	-6.677	165.	0.589
MAY	0.14452	16	16	72.F	60.F	2.558	-0.093	12	7	48.F	44.F	-4.733	161.	0.589
JUN	0.26817	20	17	77.F	61.F	3.260	-0.013	2	7	54.F	53.F	-2.077	159.	0.589
JUL	0.64149	23	17	90.F	67.F	4.761	0.000	31	1	60.F	51.F	0.000	166.	0.589
AUG	0.50492	11	17	81.F	63.F	4.144	-0.000	25	7	54.F	53.F	-0.181	161.	0.589
SEP	0.25159	22	16	81.F	60.F	3.139	-0.019	29	7	48.F	45.F	-2.420	159.	0.589
OCT	0.02506	7	17	77.F	55.F	1.213	-0.233	14	7	50.F	47.F	-4.436	166.	0.589
NOV	0.00000	30	24	46.F	44.F	0.000	-0.610	24	7	46.F	45.F	-7.233	142.	0.589
DEC	0.00000	31	24	45.F	41.F	0.000	-1.009	29	7	37.F	35.F	-9.557	166.	0.589
TOTAL	1.871						-4.370						1910.	
MAX						4.761						-10.877		0.589

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys15FC WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.151	6	7	27.F	23.F	-12.096	56.	0.216
FEB	0.00000	28	24	40.F	38.F	0.000	-0.929	18	7	45.F	44.F	-7.070	51.	0.208
MAR	0.00000	4	8	46.F	45.F	0.000	-0.789	3	7	41.F	39.F	-6.625	56.	0.208
APR	0.00000	30	1	52.F	48.F	0.000	-0.537	7	7	39.F	39.F	-6.628	56.	0.206
MAY	0.00590	16	15	72.F	62.F	0.659	-0.306	5	7	46.F	45.F	-4.840	54.	0.206
JUN	0.02015	20	15	75.F	62.F	1.073	-0.126	9	7	55.F	51.F	-2.847	53.	0.203
JUL	0.14228	23	17	90.F	67.F	2.137	-0.019	5	7	54.F	52.F	-1.632	56.	0.204
AUG	0.09291	12	15	81.F	63.F	1.585	-0.017	25	8	57.F	55.F	-1.729	54.	0.203
SEP	0.01899	19	15	81.F	63.F	1.012	-0.098	29	7	48.F	45.F	-2.822	53.	0.202
OCT	0.00000	31	1	45.F	43.F	0.000	-0.493	14	7	50.F	47.F	-4.192	56.	0.205
NOV	0.00000	22	8	45.F	42.F	0.000	-0.752	28	7	37.F	34.F	-6.707	49.	0.206
DEC	0.00000	22	10	39.F	38.F	0.000	-1.113	26	7	34.F	34.F	-8.442	58.	0.209
TOTAL	0.280						-6.329						652.	
MAX						2.137						-12.096		0.216

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys16CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.624	6	7	27.F	23.F	-17.712	284.	1.049
FEB	0.00000	28	24	40.F	38.F	0.000	-1.149	18	7	45.F	44.F	-13.592	258.	1.049
MAR	0.00327	21	17	64.F	50.F	0.838	-0.808	3	7	41.F	39.F	-11.661	287.	1.049
APR	0.05888	18	17	64.F	52.F	1.948	-0.334	7	7	39.F	39.F	-11.210	294.	1.049
MAY	0.24839	16	16	72.F	60.F	4.471	-0.164	12	7	48.F	44.F	-7.846	287.	1.049
JUN	0.44297	20	17	77.F	61.F	5.721	-0.025	2	7	54.F	53.F	-3.241	283.	1.049
JUL	1.13954	23	17	90.F	67.F	8.080	0.000	31	1	60.F	51.F	0.000	295.	1.049
AUG	0.86953	11	16	81.F	64.F	7.186	-0.001	25	7	54.F	53.F	-0.519	287.	1.049
SEP	0.37828	19	17	81.F	62.F	4.858	-0.040	29	7	48.F	45.F	-4.613	283.	1.049
OCT	0.04068	7	17	77.F	55.F	1.774	-0.405	14	7	50.F	47.F	-7.952	295.	1.049
NOV	0.00000	30	24	46.F	44.F	0.000	-1.013	24	7	46.F	45.F	-11.908	252.	1.049
DEC	0.00000	31	24	45.F	41.F	0.000	-1.624	29	7	37.F	35.F	-15.672	295.	1.049
TOTAL	3.182						-7.185						3399.	
MAX						8.080						-17.712		1.049

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys17CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-6.364	6	7	27.F	23.F	-47.264	486.	1.794
FEB	0.00000	28	24	40.F	38.F	0.000	-5.114	18	7	45.F	44.F	-34.041	441.	1.794
MAR	0.00000	31	1	48.F	44.F	0.000	-4.406	3	7	41.F	39.F	-31.893	489.	1.794
APR	0.00000	19	18	59.F	47.F	0.000	-2.860	7	7	39.F	39.F	-30.158	502.	1.794
MAY	0.11069	16	17	72.F	60.F	6.226	-1.490	12	7	48.F	44.F	-22.009	489.	1.794
JUN	0.34466	20	17	77.F	61.F	9.774	-0.557	2	7	54.F	53.F	-12.096	483.	1.794
JUL	1.53418	23	17	90.F	67.F	16.231	-0.043	8	7	57.F	55.F	-7.415	504.	1.794
AUG	0.86440	11	17	81.F	63.F	11.805	-0.135	23	8	57.F	56.F	-8.733	489.	1.794
SEP	0.14584	19	17	81.F	62.F	6.581	-0.737	29	7	48.F	45.F	-14.878	483.	1.794
OCT	0.00000	31	1	45.F	43.F	0.000	-3.037	14	7	50.F	47.F	-21.089	504.	1.794
NOV	0.00000	30	24	46.F	44.F	0.000	-4.437	28	7	37.F	34.F	-32.732	431.	1.794
DEC	0.00000	31	24	45.F	41.F	0.000	-6.378	29	7	37.F	35.F	-41.190	504.	1.794
TOTAL	3.000						-35.558						5806.	
MAX						16.231						-47.264		1.794

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys18CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.689	6	7	27.F	23.F	-20.946	300.	1.106
FEB	0.00000	28	24	40.F	38.F	0.000	-1.223	18	7	45.F	44.F	-15.390	272.	1.106
MAR	0.00569	28	17	59.F	49.F	1.205	-0.808	3	7	41.F	39.F	-13.773	302.	1.106
APR	0.11408	18	18	63.F	49.F	2.295	-0.317	7	7	39.F	39.F	-12.690	310.	1.106
MAY	0.34108	16	17	72.F	60.F	4.959	-0.153	12	7	48.F	44.F	-9.369	302.	1.106
JUN	0.58623	20	17	77.F	61.F	5.870	-0.018	2	7	54.F	53.F	-3.575	298.	1.106
JUL	1.23709	23	17	90.F	67.F	8.266	0.000	31	1	60.F	51.F	0.000	311.	1.106
AUG	1.01384	11	17	81.F	63.F	7.368	-0.001	25	7	54.F	53.F	-0.676	302.	1.106
SEP	0.55410	19	17	81.F	62.F	5.572	-0.036	29	7	48.F	45.F	-4.555	298.	1.106
OCT	0.06954	7	17	77.F	55.F	2.205	-0.387	14	7	50.F	47.F	-8.802	311.	1.106
NOV	0.00000	30	24	46.F	44.F	0.000	-1.035	24	7	46.F	45.F	-14.277	266.	1.106
DEC	0.00000	31	24	45.F	41.F	0.000	-1.739	29	7	37.F	35.F	-17.502	311.	1.106
TOTAL	3.922						-7.406						3583.	
MAX						8.266						-20.946		1.106

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys19CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-1.323	6	7	27.F	23.F	-16.294	246.	0.906
FEB	0.00000	28	24	40.F	38.F	0.000	-1.034	18	7	45.F	44.F	-12.764	223.	0.906
MAR	0.00019	21	17	64.F	50.F	0.103	-0.790	3	7	41.F	39.F	-11.491	247.	0.906
APR	0.01919	18	17	64.F	52.F	1.665	-0.407	7	7	39.F	39.F	-10.701	254.	0.906
MAY	0.12784	16	16	72.F	60.F	3.500	-0.217	12	7	48.F	44.F	-8.640	247.	0.906
JUN	0.25731	20	16	75.F	62.F	4.947	-0.047	2	7	54.F	53.F	-4.236	244.	0.906
JUL	0.73842	23	16	88.F	65.F	6.769	-0.001	5	7	54.F	52.F	-0.533	255.	0.906
AUG	0.59812	11	16	81.F	64.F	6.294	-0.003	25	8	57.F	55.F	-2.270	247.	0.906
SEP	0.28463	19	15	81.F	63.F	4.200	-0.043	29	7	48.F	45.F	-3.819	244.	0.906
OCT	0.02554	9	17	57.F	56.F	1.653	-0.367	14	7	50.F	47.F	-7.599	255.	0.906
NOV	0.00000	30	24	46.F	44.F	0.000	-0.835	24	7	46.F	45.F	-11.665	218.	0.906
DEC	0.00000	31	24	45.F	41.F	0.000	-1.341	29	7	37.F	35.F	-13.910	255.	0.906
TOTAL	2.051						-6.408						2936.	
MAX						6.769						-16.294		0.906

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys2OFC WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-13.406	6	7	27.F	23.F	-112.448	1436.	5.582
FEB	0.00000	28	24	40.F	38.F	0.000	-12.217	18	7	45.F	44.F	-103.130	1304.	5.435
MAR	0.00000	31	1	48.F	44.F	0.000	-12.267	3	7	41.F	39.F	-88.635	1435.	5.391
APR	0.00000	30	1	52.F	48.F	0.000	-10.407	7	7	39.F	39.F	-85.521	1449.	5.297
MAY	0.00000	31	1	56.F	51.F	0.000	-6.657	12	7	48.F	44.F	-66.335	1377.	5.209
JUN	0.03852	26	17	63.F	56.F	9.117	-3.105	2	7	54.F	53.F	-49.191	1322.	5.105
JUL	0.65438	23	17	90.F	67.F	19.999	-0.709	7	7	63.F	56.F	-34.181	1361.	5.178
AUG	0.72442	21	15	64.F	61.F	21.778	-0.425	18	7	61.F	58.F	-29.583	1316.	5.116
SEP	0.38355	5	15	64.F	61.F	23.739	-1.247	29	7	48.F	45.F	-37.564	1302.	5.012
OCT	0.00219	8	17	64.F	60.F	2.189	-4.001	14	7	50.F	47.F	-54.141	1387.	5.093
NOV	0.00000	30	24	46.F	44.F	0.000	-7.427	24	7	46.F	45.F	-69.319	1229.	5.151
DEC	0.00000	31	24	45.F	41.F	0.000	-11.619	29	7	37.F	35.F	-92.324	1466.	5.327
TOTAL	1.803						-83.487						16385.	
MAX						23.739						-112.448		5.582

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys21FC WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.01104	16	17	48.F	45.F	2.034	-0.713	6	7	27.F	23.F	-20.993	317.	1.289
FEB	0.00276	21	17	57.F	53.F	1.473	-0.516	18	7	45.F	44.F	-19.403	286.	1.235
MAR	0.04919	28	17	59.F	49.F	2.936	-0.364	3	7	41.F	39.F	-12.734	314.	1.238
APR	0.15611	4	17	46.F	43.F	3.115	-0.213	7	7	39.F	39.F	-14.903	320.	1.206
MAY	0.25840	16	17	72.F	60.F	4.259	-0.102	12	7	48.F	44.F	-8.702	312.	1.270
JUN	0.37760	20	17	77.F	61.F	7.829	-0.024	2	7	54.F	53.F	-5.401	311.	1.374
JUL	0.97567	23	17	90.F	67.F	11.753	0.000	31	1	60.F	51.F	0.000	344.	1.475
AUG	0.88145	12	17	82.F	63.F	10.769	-0.000	25	7	54.F	53.F	-0.453	332.	1.448
SEP	0.56163	19	17	81.F	62.F	9.376	-0.007	29	7	48.F	45.F	-3.614	314.	1.410
OCT	0.24186	10	12	55.F	50.F	4.956	-0.086	14	7	50.F	47.F	-7.859	321.	1.280
NOV	0.04278	7	15	61.F	56.F	2.989	-0.282	24	7	46.F	45.F	-10.874	277.	1.163
DEC	0.01310	18	17	46.F	41.F	1.684	-0.563	26	7	34.F	34.F	-16.026	327.	1.234
TOTAL	3.572						-2.871						3775.	
MAX						11.753						-20.993		1.475

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys22CB WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.10361	14	17	50.F	49.F	1.607	-0.138	6	7	27.F	23.F	-6.829	115.	0.428
FEB	0.11401	21	16	57.F	53.F	1.459	-0.100	18	7	45.F	44.F	-4.487	104.	0.428
MAR	0.15167	14	16	55.F	51.F	1.652	-0.085	3	7	41.F	39.F	-3.928	116.	0.428
APR	0.19727	22	17	55.F	48.F	1.567	-0.058	7	7	39.F	39.F	-3.854	119.	0.428
MAY	0.21627	16	17	72.F	60.F	2.027	-0.032	5	7	46.F	45.F	-2.807	116.	0.428
JUN	0.27347	20	17	77.F	61.F	2.382	-0.010	2	7	54.F	53.F	-1.694	114.	0.428
JUL	0.46673	23	17	90.F	67.F	3.199	-0.001	5	7	54.F	52.F	-0.537	120.	0.428
AUG	0.45322	12	17	82.F	63.F	2.948	-0.000	25	7	54.F	53.F	-0.274	116.	0.428
SEP	0.33008	19	16	82.F	63.F	2.762	-0.003	29	7	48.F	45.F	-1.070	114.	0.428
OCT	0.20694	7	17	77.F	55.F	2.147	-0.030	14	7	50.F	47.F	-2.194	120.	0.428
NOV	0.12836	14	17	50.F	50.F	1.606	-0.069	24	7	46.F	45.F	-3.523	102.	0.428
DEC	0.13153	23	17	39.F	38.F	1.464	-0.122	29	7	37.F	35.F	-4.715	120.	0.428
TOTAL	2.773						-0.648						1376.	
MAX						3.199						-6.829		0.428

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys23DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.027	6	6	27.F	24.F	-1.897	38.	0.129
FEB	0.00000	28	24	40.F	38.F	0.000	-0.012	18	6	45.F	44.F	-1.563	34.	0.129
MAR	0.00000	31	1	48.F	44.F	0.000	-0.005	3	6	41.F	39.F	-1.071	38.	0.129
APR	0.00035	11	17	66.F	54.F	0.109	-0.002	7	6	39.F	38.F	-0.828	38.	0.136
MAY	0.02251	16	15	72.F	62.F	0.743	-0.001	12	6	45.F	40.F	-0.510	39.	0.176
JUN	0.05812	19	16	75.F	60.F	0.734	0.000	30	1	61.F	55.F	0.000	40.	0.177
JUL	0.14579	23	17	90.F	67.F	0.792	0.000	31	1	60.F	51.F	0.000	48.	0.190
AUG	0.12724	11	12	70.F	62.F	0.863	0.000	31	1	59.F	55.F	0.000	46.	0.188
SEP	0.07969	22	16	81.F	60.F	0.725	0.000	30	1	53.F	51.F	0.000	42.	0.180
OCT	0.00679	8	17	64.F	60.F	0.557	-0.001	14	6	52.F	49.F	-0.411	39.	0.168
NOV	0.00000	30	24	46.F	44.F	0.000	-0.009	24	6	46.F	44.F	-1.175	33.	0.129
DEC	0.00000	31	24	45.F	41.F	0.000	-0.022	29	6	37.F	35.F	-1.838	39.	0.129
TOTAL	0.440						-0.079						474.	
MAX						0.863						-1.897		0.190

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys24DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.143	6	6	27.F	24.F	-3.779	34.	0.116
FEB	0.00000	28	24	40.F	38.F	0.000	-0.078	18	6	45.F	44.F	-3.047	31.	0.116
MAR	0.00000	31	1	48.F	44.F	0.000	-0.051	3	6	41.F	39.F	-2.887	34.	0.116
APR	0.00000	30	1	52.F	48.F	0.000	-0.023	7	6	39.F	38.F	-2.523	34.	0.116
MAY	0.00774	16	17	72.F	60.F	0.615	-0.012	12	6	45.F	40.F	-2.233	34.	0.155
JUN	0.02749	20	17	77.F	61.F	0.651	-0.001	2	6	54.F	51.F	-0.685	35.	0.159
JUL	0.10452	23	16	88.F	65.F	0.788	0.000	31	1	60.F	51.F	0.000	42.	0.177
AUG	0.07829	11	15	79.F	64.F	0.834	0.000	31	1	59.F	55.F	0.000	39.	0.174
SEP	0.02777	19	17	81.F	62.F	0.668	-0.001	29	6	48.F	46.F	-0.503	35.	0.162
OCT	0.00007	8	17	64.F	60.F	0.057	-0.021	14	6	52.F	49.F	-1.999	34.	0.119
NOV	0.00000	30	24	46.F	44.F	0.000	-0.060	24	6	46.F	44.F	-2.895	30.	0.116
DEC	0.00000	31	24	45.F	41.F	0.000	-0.124	29	6	37.F	35.F	-3.228	35.	0.116
TOTAL	0.246						-0.515						415.	
MAX						0.834						-3.779		0.177

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys25DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-2.082	6	6	27.F	24.F	-12.674	172.	0.562
FEB	0.00007	22	11	54.F	53.F	0.074	-1.258	24	6	39.F	32.F	-9.751	156.	0.562
MAR	0.04832	29	12	73.F	52.F	3.558	-0.783	3	6	41.F	39.F	-9.607	167.	0.684
APR	0.25310	18	11	55.F	44.F	5.700	-0.296	28	6	46.F	40.F	-8.140	164.	0.906
MAY	0.54786	16	11	64.F	57.F	11.023	-0.098	12	6	45.F	40.F	-7.275	184.	1.320
JUN	1.02063	20	10	70.F	59.F	13.944	-0.008	2	6	54.F	51.F	-2.648	219.	1.555
JUL	2.02695	21	10	70.F	61.F	15.142	0.000	31	1	60.F	51.F	0.000	308.	1.644
AUG	1.51311	8	10	66.F	60.F	13.507	-0.000	23	6	57.F	56.F	-0.401	257.	1.512
SEP	0.78736	22	10	64.F	59.F	9.961	-0.029	25	6	54.F	49.F	-3.810	202.	1.213
OCT	0.08571	7	11	63.F	52.F	5.032	-0.415	27	6	50.F	48.F	-7.566	167.	0.870
NOV	0.00000	30	24	46.F	44.F	0.000	-1.256	3	6	43.F	40.F	-9.743	152.	0.562
DEC	0.00000	31	24	45.F	41.F	0.000	-2.104	26	6	34.F	34.F	-10.670	178.	0.562
TOTAL	6.283						-8.330						2326.	
MAX						15.142						-12.674		1.644

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys26DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.230	6	6	27.F	24.F	-4.667	88.	0.290
FEB	0.00000	28	24	40.F	38.F	0.000	-0.171	18	6	45.F	44.F	-4.569	80.	0.290
MAR	0.00000	31	1	48.F	44.F	0.000	-0.115	3	6	41.F	39.F	-4.374	88.	0.290
APR	0.00000	30	1	52.F	48.F	0.000	-0.065	7	6	39.F	38.F	-3.834	89.	0.290
MAY	0.00000	31	1	56.F	51.F	0.000	-0.028	12	6	45.F	40.F	-2.760	86.	0.290
JUN	0.00187	20	17	77.F	61.F	0.365	-0.006	2	6	54.F	51.F	-1.585	84.	0.316
JUL	0.08475	24	17	81.F	65.F	1.635	0.000	31	1	60.F	51.F	0.000	94.	0.422
AUG	0.12379	13	17	77.F	63.F	1.681	0.000	31	1	59.F	55.F	0.000	95.	0.417
SEP	0.04330	19	17	81.F	62.F	1.436	0.000	30	1	53.F	51.F	0.000	87.	0.410
OCT	0.00014	3	17	59.F	49.F	0.079	-0.008	14	6	52.F	49.F	-1.751	88.	0.290
NOV	0.00000	30	24	46.F	44.F	0.000	-0.048	24	6	46.F	44.F	-3.059	78.	0.290
DEC	0.00000	31	24	45.F	41.F	0.000	-0.140	29	6	37.F	35.F	-4.512	91.	0.290
TOTAL	0.254						-0.810						1047.	
MAX						1.681						-4.667		0.422

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys27DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.80532	6	18	28.F	26.F	4.398	-0.906	6	19	30.F	28.F	-9.093	91.	0.305
FEB	0.65412	3	18	45.F	41.F	3.120	-0.634	3	19	45.F	41.F	-5.741	83.	0.305
MAR	0.54258	5	18	46.F	38.F	2.687	-0.439	3	19	45.F	41.F	-5.629	92.	0.388
APR	0.40561	7	18	57.F	46.F	2.358	-0.268	7	6	39.F	38.F	-4.833	93.	0.305
MAY	0.27065	12	10	54.F	46.F	1.931	-0.117	12	6	45.F	40.F	-4.242	91.	0.397
JUN	0.17471	2	13	63.F	54.F	1.497	-0.030	2	6	54.F	51.F	-2.334	91.	0.491
JUL	0.25548	23	17	90.F	67.F	3.907	-0.000	5	6	54.F	52.F	-0.248	116.	0.684
AUG	0.17703	12	16	82.F	64.F	2.781	-0.000	25	6	54.F	53.F	-0.134	106.	0.588
SEP	0.19042	2	7	52.F	48.F	1.710	-0.025	29	6	48.F	46.F	-1.947	94.	0.509
OCT	0.39703	7	7	46.F	45.F	2.362	-0.211	14	6	52.F	49.F	-3.643	94.	0.388
NOV	0.54996	28	18	46.F	43.F	2.685	-0.451	26	19	43.F	40.F	-5.204	81.	0.305
DEC	0.81013	29	18	43.F	39.F	3.854	-0.813	26	19	32.F	32.F	-7.719	95.	0.305
TOTAL	5.233						-3.892						1128.	
MAX						4.398						-9.093		0.684

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys28DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.049	6	6	27.F	24.F	-2.727	38.	0.130
FEB	0.00000	28	24	40.F	38.F	0.000	-0.026	18	6	45.F	44.F	-2.281	35.	0.130
MAR	0.00000	31	1	48.F	44.F	0.000	-0.015	3	6	41.F	39.F	-1.842	38.	0.130
APR	0.00000	30	1	52.F	48.F	0.000	-0.005	7	6	39.F	38.F	-1.517	39.	0.130
MAY	0.00939	16	17	72.F	60.F	0.606	-0.003	12	6	45.F	40.F	-1.039	38.	0.173
JUN	0.03443	20	17	77.F	61.F	0.697	-0.000	2	6	54.F	51.F	-0.092	39.	0.178
JUL	0.10861	10	16	88.F	65.F	0.730	0.000	31	1	60.F	51.F	0.000	47.	0.186
AUG	0.09821	11	10	63.F	58.F	0.805	0.000	31	1	59.F	55.F	0.000	45.	0.185
SEP	0.05469	19	16	82.F	63.F	0.710	0.000	30	1	53.F	51.F	0.000	41.	0.181
OCT	0.00294	8	17	64.F	60.F	0.331	-0.004	14	6	52.F	49.F	-0.849	39.	0.156
NOV	0.00000	30	24	46.F	44.F	0.000	-0.019	24	6	46.F	44.F	-1.856	34.	0.130
DEC	0.00000	31	24	45.F	41.F	0.000	-0.038	29	6	37.F	35.F	-2.512	40.	0.130
TOTAL	0.308						-0.159						472.	
MAX						0.805						-2.727		0.186

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Sys29DfltClg WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-0.745	6	6	27.F	24.F	-6.696	93.	0.330
FEB	0.00000	28	24	40.F	38.F	0.000	-0.505	24	6	39.F	32.F	-5.008	85.	0.330
MAR	0.00000	31	1	48.F	44.F	0.000	-0.325	3	6	41.F	39.F	-5.003	94.	0.330
APR	0.00122	11	17	66.F	54.F	0.336	-0.169	7	6	39.F	38.F	-4.367	95.	0.330
MAY	0.01767	16	17	72.F	60.F	0.792	-0.083	12	6	45.F	40.F	-4.000	92.	0.386
JUN	0.04227	20	15	75.F	62.F	1.409	-0.019	2	6	54.F	51.F	-2.200	89.	0.422
JUL	0.19085	22	15	86.F	65.F	2.116	-0.000	5	6	54.F	52.F	-0.161	101.	0.508
AUG	0.13398	12	15	81.F	63.F	2.002	-0.000	25	6	54.F	53.F	-0.176	95.	0.476
SEP	0.05505	19	17	81.F	62.F	1.287	-0.013	29	6	48.F	46.F	-1.790	89.	0.417
OCT	0.00168	9	16	57.F	56.F	0.308	-0.122	14	6	52.F	49.F	-3.618	96.	0.330
NOV	0.00000	30	24	46.F	44.F	0.000	-0.372	3	6	43.F	40.F	-4.955	83.	0.330
DEC	0.00000	31	24	45.F	41.F	0.000	-0.674	29	6	37.F	35.F	-5.473	97.	0.330
TOTAL	0.443						-3.027						1109.	
MAX						2.116						-6.696		0.508

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- SS-A System Loads Summary for Uncon WEATHER FILE- SEATTLE BOEING FI WA

	COOLING						HEATING						ELEC	
MONTH	COOLING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM COOLING LOAD (KBTU/HR)	HEATING ENERGY (MBTU)	TIME OF MAX DY	TIME OF MAX HR	DRY-BULB TEMP	WET-BULB TEMP	MAXIMUM HEATING LOAD (KBTU/HR)	ELEC-TRICAL ENERGY (KWH)	MAXIMUM ELEC LOAD (KW)
JAN	0.00000	31	24	39.F	38.F	0.000	-9.058	6	6	27.F	24.F	-32.024	2599.	9.333
FEB	0.00000	28	24	40.F	38.F	0.000	-8.169	18	6	45.F	44.F	-30.589	2358.	9.333
MAR	0.00000	31	1	48.F	44.F	0.000	-8.059	3	6	41.F	39.F	-29.935	2618.	9.333
APR	0.00040	11	17	66.F	54.F	0.117	-6.635	7	6	39.F	38.F	-27.928	2676.	9.333
MAY	0.02064	16	17	72.F	60.F	0.670	-4.796	12	6	45.F	40.F	-24.456	2618.	9.333
JUN	0.06319	20	17	77.F	61.F	0.766	-2.788	2	6	54.F	51.F	-19.451	2582.	9.333
JUL	0.18076	14	17	68.F	58.F	0.900	-1.253	5	6	54.F	52.F	-13.577	2694.	9.333
AUG	0.15823	11	16	81.F	64.F	0.982	-0.871	25	6	54.F	53.F	-11.776	2618.	9.333
SEP	0.08330	22	17	79.F	60.F	0.760	-1.501	29	6	48.F	46.F	-15.666	2582.	9.333
OCT	0.00527	8	17	64.F	60.F	0.415	-3.382	14	6	52.F	49.F	-20.571	2694.	9.333
NOV	0.00000	30	24	46.F	44.F	0.000	-5.358	3	6	43.F	40.F	-25.793	2317.	9.333
DEC	0.00000	31	24	45.F	41.F	0.000	-7.847	29	6	37.F	35.F	-29.938	2694.	9.333
TOTAL	0.512						-59.718						31048.	
MAX						0.982						-32.024		9.333

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PV-A Plant Design Parameters WEATHER FILE- SEATTLE BOEING FI WA

*** CIRCULATION LOOPS ***

	HEATING DEMAND (MBTU/HR)	COOLING DEMAND (MBTU/HR)	LOOP FLOW (GPM)	TOTAL HEAD (FT)	SUPPLY UA PRODUCT (BTU/HR-F)	SUPPLY LOSS DT (F)	RETURN UA PRODUCT (BTU/HR-F)	RETURN LOSS DT (F)	LOOP VOLUME (GAL)	FLUID HEAT CAPACITY (BTU/LB-F)
Clg2PipeLoop	0.000	0.681	200.0	155.0	0.0	0.00	0.0	0.00	300.0	1.00
Htg2PipeLoop	-0.577	-0.577	90.0	130.0	0.0	0.00	0.0	0.00	135.0	1.00
DHW-Loop	-0.248	0.000	1.4	23.4	0.0	0.00	0.0	0.00	2.1	1.00

*** PUMPS ***

ATTACHED TO		FLOW (GPM)	HEAD (FT)	HEAD SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
ClgPump	1 PUMP(s)							
Clg2PipeLoop		210.0	170.5	16.0	VAR-SPEED	9.626	0.770	0.910
PRIMARY LOOP								
HtgPump	1 PUMP(s)							
Htg2PipeLoop		94.5	143.0	11.0	VAR-SPEED	3.665	0.770	0.902
PRIMARY LOOP								
HP1ClgPump	1 PUMP(s)							
HP1Clg		21.4	0.1	0.0	ONE-SPEED	0.001	0.770	0.400
EVAPORATOR	(RUN-AROUND)							
HP2ClgPump	1 PUMP(s)							
HP2Clg		21.4	0.1	0.0	ONE-SPEED	0.001	0.770	0.400
EVAPORATOR	(RUN-AROUND)							
HP3ClgPump	1 PUMP(s)							
HP3Clg		21.4	0.1	0.0	ONE-SPEED	0.001	0.770	0.400
EVAPORATOR	(RUN-AROUND)							
HP4ClgPump	1 PUMP(s)							
HP4Clg		21.4	0.1	0.0	ONE-SPEED	0.001	0.770	0.400
EVAPORATOR	(RUN-AROUND)							
HP5ClgPump	1 PUMP(s)							
HP5Clg		21.4	0.1	0.0	ONE-SPEED	0.001	0.770	0.400
EVAPORATOR	(RUN-AROUND)							

```
HP6ClgPump                        1 PUMP(s)
   HP6Clg                                   21.4         0.1         0.0   ONE-SPEED       0.001       0.770       0.400
   EVAPORATOR      (RUN-AROUND)

HP1HtgPump                        1 PUMP(s)
   HP1Htg                                   37.8         0.1         0.0   ONE-SPEED       0.003       0.770       0.400
   EVAPORATOR      (RUN-AROUND)
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Metropole                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PV-A Plant Design Parameters                                                WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------(CONTINUED)--------

HP2HtgPump                        1 PUMP(s)
   HP2Htg                                   37.8         0.1         0.0   ONE-SPEED       0.003       0.770       0.400
   EVAPORATOR      (RUN-AROUND)

HP3HtgPump                        1 PUMP(s)
   HP3Htg                                   37.8         0.1         0.0   ONE-SPEED       0.003       0.770       0.400
   EVAPORATOR      (RUN-AROUND)

HP4HtgPump                        1 PUMP(s)
   HP4Htg                                   37.8         0.1         0.0   ONE-SPEED       0.003       0.770       0.400
   EVAPORATOR      (RUN-AROUND)

HP5HtgPump                        1 PUMP(s)
   HP5Htg                                   37.8         0.1         0.0   ONE-SPEED       0.003       0.770       0.400
   EVAPORATOR      (RUN-AROUND)

HP6HtgPump                        1 PUMP(s)
   HP6Htg                                   37.8         0.1         0.0   ONE-SPEED       0.003       0.770       0.400
   EVAPORATOR      (RUN-AROUND)

DHW Circ Pump                     1 PUMP(s)
   DHW-Loop                                  0.5        25.8         0.0   VAR-SPEED       0.008       0.770       0.400
   PRIMARY LOOP


*** PRIMARY EQUIPMENT ***
                                                          CAPACITY      FLOW        HEAD
   EQUIPMENT TYPE              ATTACHED TO                (MBTU/HR)     (GPM)       ( FT)
  ----------------  --------------------------------  ----------  ----------  ----------

HP1Clg
  HEAT-PUMP         Clg2PipeLoop                          0.114        20.4         0.1

HP1Htg
  HEAT-PUMP         Htg2PipeLoop                          0.144        36.0         0.1

HP2Clg
  HEAT-PUMP         Clg2PipeLoop                          0.114        20.4         0.1

HP3Clg
  HEAT-PUMP         Clg2PipeLoop                          0.114        20.4         0.1

HP4Clg
  HEAT-PUMP         Clg2PipeLoop                          0.114        20.4         0.1

HP5Clg
  HEAT-PUMP         Clg2PipeLoop                          0.114        20.4         0.1

HP6Clg
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```
  HEAT-PUMP         Clg2PipeLoop                          0.114        20.4         0.1

HP2Htg
  HEAT-PUMP         Htg2PipeLoop                          0.144        36.0         0.1

HP3Htg
  HEAT-PUMP         Htg2PipeLoop                          0.144        36.0         0.1

HP4Htg
  HEAT-PUMP         Htg2PipeLoop                          0.144        36.0         0.1
```

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Metropole                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PV-A Plant Design Parameters                                                  WEATHER FILE- SEATTLE BOEING FI WA
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HP5Htg
  HEAT-PUMP         Htg2PipeLoop                          0.144        36.0         0.1

HP6Htg
  HEAT-PUMP         Htg2PipeLoop                          0.144        36.0         0.1

HP1-DHW
  HEAT-PUMP DW-HTR  DHW-Loop                             -0.016         0.4

HP2-DHW
  HEAT-PUMP DW-HTR  DHW-Loop                             -0.016         0.4

HP3-DHW
  HEAT-PUMP DW-HTR  DHW-Loop                             -0.016         0.4
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-E Energy End-Use Summary for all Electric Meters WEATHER FILE- SEATTLE BOEING FI WA

	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
JAN													
KWH	3772.	0.	6305.	6199.	6.	0.	1297.	1267.	0.	0.	480.	0.	19327.
MAX KW	12.631	0.000	23.042	72.997	1.303	0.000	14.260	5.789	0.000	0.000	1.161	0.000	96.452
DAY/HR	2/10	0/ 0	2/10	6/ 7	10/14	0/ 0	6/13	21/16	0/ 0	0/ 0	3/17	0/ 0	6/ 9
PEAK ENDUSE	11.497	0.000	22.083	53.580	0.000	0.000	3.471	4.662	0.000	0.000	1.158	0.000	
PEAK PCT	11.9	0.0	22.9	55.6	0.0	0.0	3.6	4.8	0.0	0.0	1.2	0.0	
FEB													
KWH	3426.	0.	5721.	4622.	0.	0.	1191.	1135.	0.	0.	449.	0.	16544.
MAX KW	12.631	0.000	23.042	42.995	0.000	0.000	14.309	5.484	0.000	0.000	1.158	0.000	70.928
DAY/HR	3/10	0/ 0	3/10	10/ 7	10/14	0/ 0	3/13	18/12	0/ 0	0/ 0	7/17	0/ 0	10/12
PEAK ENDUSE	12.631	0.000	23.042	16.669	0.000	0.000	12.042	5.388	0.000	0.000	1.156	0.000	
PEAK PCT	17.8	0.0	32.5	23.5	0.0	0.0	17.0	7.6	0.0	0.0	1.6	0.0	
MAR													
KWH	3811.	0.	6354.	3824.	19.	0.	1277.	1237.	0.	0.	502.	0.	17024.
MAX KW	12.631	0.000	23.042	37.562	1.917	0.000	14.885	5.408	0.000	0.000	1.158	0.000	68.231
DAY/HR	3/10	0/ 0	3/10	3/ 7	29/16	0/ 0	21/13	31/16	0/ 0	0/ 0	7/17	0/ 0	3/12
PEAK ENDUSE	12.631	0.000	23.042	14.442	0.000	0.000	11.996	4.965	0.000	0.000	1.156	0.000	
PEAK PCT	18.5	0.0	33.8	21.2	0.0	0.0	17.6	7.3	0.0	0.0	1.7	0.0	
APR													
KWH	3859.	0.	6488.	2594.	31.	0.	1271.	1226.	0.	0.	489.	0.	15958.
MAX KW	12.631	0.000	23.042	37.874	1.150	0.000	14.772	5.379	0.000	0.000	1.159	0.000	64.268
DAY/HR	1/10	0/ 0	1/10	7/ 7	18/14	0/ 0	30/13	21/16	0/ 0	0/ 0	25/17	0/ 0	7/12
PEAK ENDUSE	12.631	0.000	23.042	10.513	0.000	0.000	11.867	5.058	0.000	0.000	1.157	0.000	
PEAK PCT	19.7	0.0	35.9	16.4	0.0	0.0	18.5	7.9	0.0	0.0	1.8	0.0	
MAY													
KWH	3811.	0.	6354.	1497.	253.	0.	1142.	1167.	0.	0.	466.	0.	14690.
MAX KW	12.631	0.000	23.042	24.061	7.300	0.000	14.319	5.429	0.000	0.000	1.163	0.000	60.374
DAY/HR	1/10	0/ 0	1/10	12/ 7	16/17	0/ 0	1/13	12/12	0/ 0	0/ 0	23/17	0/ 0	12/12
PEAK ENDUSE	12.631	0.000	23.042	6.431	0.182	0.000	11.498	5.429	0.000	0.000	1.161	0.000	
PEAK PCT	20.9	0.0	38.2	10.7	0.3	0.0	19.0	9.0	0.0	0.0	1.9	0.0	
JUN													
KWH	3738.	0.	6261.	637.	635.	0.	1035.	1129.	0.	0.	431.	0.	13866.
MAX KW	12.631	0.000	23.042	12.047	11.661	0.000	13.867	5.543	0.000	0.000	1.168	0.000	61.644
DAY/HR	2/10	0/ 0	2/10	2/ 7	20/17	0/ 0	4/13	25/16	0/ 0	0/ 0	27/17	0/ 0	20/17
PEAK ENDUSE	12.631	0.000	23.042	0.000	11.661	0.000	8.230	4.912	0.000	0.000	1.168	0.000	
PEAK PCT	20.5	0.0	37.4	0.0	18.9	0.0	13.4	8.0	0.0	0.0	1.9	0.0	
JUL													
KWH	3894.	0.	6532.	120.	2074.	0.	939.	1196.	0.	0.	433.	0.	15188.
MAX KW	12.631	0.000	23.042	6.502	22.659	0.000	13.212	6.003	0.000	0.000	1.172	0.000	71.662

DAY/HR	1/10	0/ 0	1/10	8/ 7	23/17	0/ 0	10/13	23/16	0/ 0	0/ 0	25/17	0/ 0	23/17
PEAK ENDUSE	12.631	0.000	23.042	0.000	22.659	0.000	6.187	5.972	0.000	0.000	1.171	0.000	
PEAK PCT	17.6	0.0	32.2	0.0	31.6	0.0	8.6	8.3	0.0	0.0	1.6	0.0	
AUG													
KWH	3811.	0.	6354.	113.	1587.	0.	805.	1147.	0.	0.	417.	0.	14234.
MAX KW	12.631	0.000	23.042	6.630	15.800	0.000	12.964	5.644	0.000	0.000	1.174	0.000	62.884
DAY/HR	1/10	0/ 0	1/10	18/ 7	12/17	0/ 0	11/13	11/16	0/ 0	0/ 0	29/12	0/ 0	12/17
PEAK ENDUSE	12.631	0.000	23.042	0.000	15.800	0.000	4.847	5.390	0.000	0.000	1.174	0.000	
PEAK PCT	20.1	0.0	36.6	0.0	25.1	0.0	7.7	8.6	0.0	0.0	1.9	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-E Energy End-Use Summary for all Electric Meters WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

SEP													
KWH	3738.	0.	6261.	472.	698.	0.	801.	1109.	0.	0.	405.	0.	13485.
MAX KW	12.631	0.000	23.042	12.558	12.351	0.000	13.207	5.685	0.000	0.000	1.175	0.000	59.239
DAY/HR	2/10	0/ 0	2/10	29/ 7	19/17	0/ 0	16/13	22/16	0/ 0	0/ 0	26/12	0/ 0	19/17
PEAK ENDUSE	12.631	0.000	23.042	0.000	12.351	0.000	4.722	5.327	0.000	0.000	1.166	0.000	
PEAK PCT	21.3	0.0	38.9	0.0	20.8	0.0	8.0	9.0	0.0	0.0	2.0	0.0	
OCT													
KWH	3894.	0.	6532.	1969.	141.	0.	899.	1197.	0.	0.	429.	0.	15061.
MAX KW	12.631	0.000	23.042	21.627	4.705	0.000	13.438	5.413	0.000	0.000	1.174	0.000	58.789
DAY/HR	1/10	0/ 0	1/10	14/ 7	7/17	0/ 0	30/13	7/16	0/ 0	0/ 0	1/17	0/ 0	14/12
PEAK ENDUSE	12.631	0.000	23.042	7.309	0.000	0.000	9.291	5.346	0.000	0.000	1.170	0.000	
PEAK PCT	21.5	0.0	39.2	12.4	0.0	0.0	15.8	9.1	0.0	0.0	2.0	0.0	
NOV													
KWH	3412.	0.	5630.	3458.	23.	0.	877.	1083.	0.	0.	408.	0.	14892.
MAX KW	12.631	0.000	23.042	38.856	0.839	0.000	13.790	5.377	0.000	0.000	1.169	0.000	68.863
DAY/HR	3/10	0/ 0	3/10	28/ 7	18/16	0/ 0	6/13	5/16	0/ 0	0/ 0	7/17	0/ 0	24/12
PEAK ENDUSE	12.631	0.000	23.042	15.775	0.000	0.000	11.187	5.062	0.000	0.000	1.167	0.000	
PEAK PCT	18.3	0.0	33.5	22.9	0.0	0.0	16.2	7.4	0.0	0.0	1.7	0.0	
DEC													
KWH	3894.	0.	6532.	5643.	2.	0.	1200.	1274.	0.	0.	463.	0.	19007.
MAX KW	12.631	0.000	23.042	50.747	0.800	0.000	13.691	5.707	0.000	0.000	1.165	0.000	72.077
DAY/HR	1/10	0/ 0	1/10	26/ 7	30/17	0/ 0	29/13	29/16	0/ 0	0/ 0	1/17	0/ 0	29/12
PEAK ENDUSE	12.631	0.000	23.042	18.115	0.000	0.000	11.580	5.548	0.000	0.000	1.162	0.000	
PEAK PCT	17.5	0.0	32.0	25.1	0.0	0.0	16.1	7.7	0.0	0.0	1.6	0.0	
	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	========
KWH	45061.	0.	75323.	31149.	5470.	0.	12734.	14168.	0.	0.	5371.	0.	189276.
MAX KW	12.631	0.000	23.042	72.997	22.659	0.000	14.885	6.003	0.000	0.000	1.175	0.000	96.452
MON/DY	1/ 2	0/ 0	1/ 2	1/ 6	7/23	0/ 0	3/21	7/23	0/ 0	0/ 0	9/26	0/ 0	1/ 6
PEAK ENDUSE	11.497	0.000	22.083	53.580	0.000	0.000	3.471	4.662	0.000	0.000	1.158	0.000	
PEAK PCT	11.9	0.0	22.9	55.6	0.0	0.0	3.6	4.8	0.0	0.0	1.2	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-E Energy End-Use Summary for all Fuel Meters WEATHER FILE- SEATTLE BOEING FI WA

	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
JAN													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
FEB													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MAR													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
APR													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MAY													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
JUN													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
JUL													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
AUG													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-E Energy End-Use Summary for all Fuel Meters WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

SEP													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
OCT													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
NOV													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
DEC													
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	========
MBTU	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

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

	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
JAN													
KWH	0.	0.	127.	0.	0.	0.	1016.	180.	0.	0.	480.	0.	1803.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	13.662	0.242	0.000	0.000	1.161	0.000	15.235
DAY/HR	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	2/13	1/ 1	0/ 0	0/ 0	3/17	0/ 0	3/13
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	13.662	0.242	0.000	0.000	1.160	0.000	
PEAK PCT	0.0	0.0	1.1	0.0	0.0	0.0	89.7	1.6	0.0	0.0	7.6	0.0	
FEB													
KWH	0.	0.	115.	0.	0.	0.	977.	163.	0.	0.	449.	0.	1704.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	13.900	0.242	0.000	0.000	1.158	0.000	15.471
DAY/HR	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	3/13	1/ 1	0/ 0	0/ 0	7/17	0/ 0	7/13
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	13.900	0.242	0.000	0.000	1.157	0.000	
PEAK PCT	0.0	0.0	1.1	0.0	0.0	0.0	89.8	1.6	0.0	0.0	7.5	0.0	
MAR													
KWH	0.	0.	127.	0.	0.	0.	1085.	180.	0.	0.	502.	0.	1894.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	13.919	0.242	0.000	0.000	1.158	0.000	15.489
DAY/HR	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	3/13	1/ 1	0/ 0	0/ 0	7/17	0/ 0	7/13
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	13.919	0.242	0.000	0.000	1.157	0.000	
PEAK PCT	0.0	0.0	1.1	0.0	0.0	0.0	89.9	1.6	0.0	0.0	7.5	0.0	
APR													
KWH	0.	0.	123.	0.	0.	0.	1105.	174.	0.	0.	489.	0.	1892.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	13.806	0.242	0.000	0.000	1.159	0.000	15.378
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	1/13	1/ 2	0/ 0	0/ 0	25/17	0/ 0	25/13
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	13.806	0.242	0.000	0.000	1.158	0.000	
PEAK PCT	0.0	0.0	1.1	0.0	0.0	0.0	89.8	1.6	0.0	0.0	7.5	0.0	
MAY													
KWH	0.	0.	127.	0.	0.	0.	935.	180.	0.	0.	466.	0.	1708.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	13.353	0.242	0.000	0.000	1.163	0.000	14.929
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	1/13	1/ 2	0/ 0	0/ 0	23/17	0/ 0	23/13
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	13.353	0.242	0.000	0.000	1.163	0.000	
PEAK PCT	0.0	0.0	1.1	0.0	0.0	0.0	89.4	1.6	0.0	0.0	7.8	0.0	
JUN													
KWH	0.	0.	123.	0.	0.	0.	793.	174.	0.	0.	431.	0.	1522.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	12.902	0.242	0.000	0.000	1.168	0.000	14.482
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	20/13	1/ 2	0/ 0	0/ 0	27/17	0/ 0	27/13
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	12.902	0.242	0.000	0.000	1.167	0.000	
PEAK PCT	0.0	0.0	1.2	0.0	0.0	0.0	89.1	1.7	0.0	0.0	8.1	0.0	
JUL													
KWH	0.	0.	127.	0.	0.	0.	672.	180.	0.	0.	433.	0.	1413.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	12.511	0.242	0.000	0.000	1.172	0.000	14.095

DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	17/13	1/ 2	0/ 0	0/ 0	25/17	0/ 0	25/13
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	12.511	0.242	0.000	0.000	1.171	0.000	
PEAK PCT	0.0	0.0	1.2	0.0	0.0	0.0	88.8	1.7	0.0	0.0	8.3	0.0	
AUG													
KWH	0.	0.	127.	0.	0.	0.	554.	180.	0.	0.	417.	0.	1278.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	12.263	0.242	0.000	0.000	1.174	0.000	13.850
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	21/13	1/ 2	0/ 0	0/ 0	29/12	0/ 0	29/13
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	12.263	0.242	0.000	0.000	1.174	0.000	
PEAK PCT	0.0	0.0	1.2	0.0	0.0	0.0	88.5	1.7	0.0	0.0	8.5	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-F Energy End-Use Summary for Spare Meter WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

SEP													
KWH	0.	0.	123.	0.	0.	0.	547.	174.	0.	0.	405.	0.	1250.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	12.242	0.242	0.000	0.000	1.175	0.000	13.829
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	2/13	1/ 2	0/ 0	0/ 0	26/12	0/ 0	26/13
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	12.242	0.242	0.000	0.000	1.174	0.000	
PEAK PCT	0.0	0.0	1.2	0.0	0.0	0.0	88.5	1.8	0.0	0.0	8.5	0.0	
OCT													
KWH	0.	0.	127.	0.	0.	0.	642.	180.	0.	0.	429.	0.	1378.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	12.443	0.242	0.000	0.000	1.174	0.000	14.030
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	10/13	1/ 2	0/ 0	0/ 0	1/17	0/ 0	1/13
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	12.443	0.242	0.000	0.000	1.173	0.000	
PEAK PCT	0.0	0.0	1.2	0.0	0.0	0.0	88.7	1.7	0.0	0.0	8.4	0.0	
NOV													
KWH	0.	0.	123.	0.	0.	0.	651.	174.	0.	0.	408.	0.	1357.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	12.824	0.242	0.000	0.000	1.169	0.000	14.406
DAY/HR	0/ 0	0/ 0	1/ 2	0/ 0	0/ 0	0/ 0	3/13	1/ 2	0/ 0	0/ 0	7/17	0/ 0	7/13
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	12.824	0.242	0.000	0.000	1.168	0.000	
PEAK PCT	0.0	0.0	1.2	0.0	0.0	0.0	89.0	1.7	0.0	0.0	8.1	0.0	
DEC													
KWH	0.	0.	127.	0.	0.	0.	943.	180.	0.	0.	463.	0.	1714.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	13.262	0.242	0.000	0.000	1.165	0.000	14.840
DAY/HR	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	26/13	1/ 1	0/ 0	0/ 0	1/17	0/ 0	1/13
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	13.262	0.242	0.000	0.000	1.165	0.000	
PEAK PCT	0.0	0.0	1.2	0.0	0.0	0.0	89.4	1.6	0.0	0.0	7.8	0.0	
	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	========
KWH	0.	0.	1500.	0.	0.	0.	9920.	2122.	0.	0.	5371.	0.	18913.
MAX KW	0.000	0.000	0.171	0.000	0.000	0.000	13.919	0.242	0.000	0.000	1.175	0.000	15.489
MON/DY	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	3/ 3	1/ 1	0/ 0	0/ 0	9/26	0/ 0	3/ 7
PEAK ENDUSE	0.000	0.000	0.171	0.000	0.000	0.000	13.919	0.242	0.000	0.000	1.157	0.000	
PEAK PCT	0.0	0.0	1.1	0.0	0.0	0.0	89.9	1.6	0.0	0.0	7.5	0.0	

YEARLY TRANSFORMER LOSSES = 0.0 KWH

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-F Energy End-Use Summary for EM1 WEATHER FILE- SEATTLE BOEING FI WA

	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
JAN													
KWH	3772.	0.	6178.	6199.	6.	0.	281.	1087.	0.	0.	0.	0.	17524.
MAX KW	12.631	0.000	22.871	72.997	1.303	0.000	4.730	5.546	0.000	0.000	0.000	0.000	93.798
DAY/HR	2/10	0/ 0	2/10	6/ 7	10/14	0/ 0	6/ 7	21/16	0/ 0	0/ 0	0/ 0	0/ 0	6/ 9
PEAK ENDUSE	11.497	0.000	21.912	53.580	0.000	0.000	2.389	4.420	0.000	0.000	0.000	0.000	
PEAK PCT	12.3	0.0	23.4	57.1	0.0	0.0	2.5	4.7	0.0	0.0	0.0	0.0	
FEB													
KWH	3426.	0.	5606.	4622.	0.	0.	215.	972.	0.	0.	0.	0.	14841.
MAX KW	12.631	0.000	22.871	42.995	0.000	0.000	2.728	5.242	0.000	0.000	0.000	0.000	59.701
DAY/HR	3/10	0/ 0	3/10	10/ 7	0/ 0	0/ 0	18/ 7	18/12	0/ 0	0/ 0	0/ 0	0/ 0	18/11
PEAK ENDUSE	12.631	0.000	22.871	18.786	0.000	0.000	0.530	4.884	0.000	0.000	0.000	0.000	
PEAK PCT	21.2	0.0	38.3	31.5	0.0	0.0	0.9	8.2	0.0	0.0	0.0	0.0	
MAR													
KWH	3811.	0.	6226.	3824.	19.	0.	193.	1057.	0.	0.	0.	0.	15130.
MAX KW	12.631	0.000	22.871	37.562	1.917	0.000	1.877	5.166	0.000	0.000	0.000	0.000	62.275
DAY/HR	3/10	0/ 0	3/10	3/ 7	29/16	0/ 0	3/ 7	31/16	0/ 0	0/ 0	0/ 0	0/ 0	3/ 9
PEAK ENDUSE	11.497	0.000	21.912	23.800	0.000	0.000	0.724	4.341	0.000	0.000	0.000	0.000	
PEAK PCT	18.5	0.0	35.2	38.2	0.0	0.0	1.2	7.0	0.0	0.0	0.0	0.0	
APR													
KWH	3859.	0.	6365.	2594.	31.	0.	165.	1052.	0.	0.	0.	0.	14066.
MAX KW	12.631	0.000	22.871	37.874	1.150	0.000	1.850	5.137	0.000	0.000	0.000	0.000	53.783
DAY/HR	1/10	0/ 0	1/10	7/ 7	18/14	0/ 0	7/ 7	21/16	0/ 0	0/ 0	0/ 0	0/ 0	7/10
PEAK ENDUSE	12.631	0.000	22.871	13.318	0.000	0.000	0.344	4.619	0.000	0.000	0.000	0.000	
PEAK PCT	23.5	0.0	42.5	24.8	0.0	0.0	0.6	8.6	0.0	0.0	0.0	0.0	
MAY													
KWH	3811.	0.	6226.	1497.	253.	0.	207.	987.	0.	0.	0.	0.	12982.
MAX KW	12.631	0.000	22.871	24.061	7.300	0.000	0.995	5.187	0.000	0.000	0.000	0.000	51.177
DAY/HR	1/10	0/ 0	1/10	12/ 7	16/17	0/ 0	8/12	12/12	0/ 0	0/ 0	0/ 0	0/ 0	5/ 9
PEAK ENDUSE	11.497	0.000	21.912	13.599	0.000	0.000	0.345	3.823	0.000	0.000	0.000	0.000	
PEAK PCT	22.5	0.0	42.8	26.6	0.0	0.0	0.7	7.5	0.0	0.0	0.0	0.0	
JUN													
KWH	3738.	0.	6138.	637.	635.	0.	241.	954.	0.	0.	0.	0.	12344.
MAX KW	12.631	0.000	22.871	12.047	11.661	0.000	0.966	5.301	0.000	0.000	0.000	0.000	52.534
DAY/HR	2/10	0/ 0	2/10	2/ 7	20/17	0/ 0	12/22	25/16	0/ 0	0/ 0	0/ 0	0/ 0	20/17
PEAK ENDUSE	12.631	0.000	22.871	0.000	11.661	0.000	0.701	4.670	0.000	0.000	0.000	0.000	
PEAK PCT	24.0	0.0	43.5	0.0	22.2	0.0	1.3	8.9	0.0	0.0	0.0	0.0	
JUL													
KWH	3894.	0.	6404.	120.	2074.	0.	267.	1015.	0.	0.	0.	0.	13775.
MAX KW	12.631	0.000	22.871	6.502	22.659	0.000	0.966	5.761	0.000	0.000	0.000	0.000	64.624

DAY/HR	1/10	0/ 0	1/10	8/ 7	23/17	0/ 0	1/22	23/16	0/ 0	0/ 0	0/ 0	0/ 0	23/17
PEAK ENDUSE	12.631	0.000	22.871	0.000	22.659	0.000	0.734	5.730	0.000	0.000	0.000	0.000	
PEAK PCT	19.5	0.0	35.4	0.0	35.1	0.0	1.1	8.9	0.0	0.0	0.0	0.0	
AUG													
KWH	3811.	0.	6226.	113.	1587.	0.	252.	967.	0.	0.	0.	0.	12956.
MAX KW	12.631	0.000	22.871	6.630	15.800	0.000	0.966	5.402	0.000	0.000	0.000	0.000	57.356
DAY/HR	1/10	0/ 0	1/10	18/ 7	12/17	0/ 0	16/18	11/16	0/ 0	0/ 0	0/ 0	0/ 0	12/16
PEAK ENDUSE	12.631	0.000	22.871	0.000	15.767	0.000	0.701	5.386	0.000	0.000	0.000	0.000	
PEAK PCT	22.0	0.0	39.9	0.0	27.5	0.0	1.2	9.4	0.0	0.0	0.0	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-F Energy End-Use Summary for EM1 WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

SEP													
KWH	3738.	0.	6138.	472.	698.	0.	254.	934.	0.	0.	0.	0.	12235.
MAX KW	12.631	0.000	22.871	12.558	12.351	0.000	0.966	5.442	0.000	0.000	0.000	0.000	53.937
DAY/HR	2/10	0/ 0	2/10	29/ 7	19/17	0/ 0	2/22	22/16	0/ 0	0/ 0	0/ 0	0/ 0	19/16
PEAK ENDUSE	12.631	0.000	22.871	0.000	12.316	0.000	0.701	5.418	0.000	0.000	0.000	0.000	
PEAK PCT	23.4	0.0	42.4	0.0	22.8	0.0	1.3	10.0	0.0	0.0	0.0	0.0	
OCT													
KWH	3894.	0.	6404.	1969.	141.	0.	257.	1017.	0.	0.	0.	0.	13682.
MAX KW	12.631	0.000	22.871	21.627	4.705	0.000	0.995	5.170	0.000	0.000	0.000	0.000	50.147
DAY/HR	1/10	0/ 0	1/10	14/ 7	7/17	0/ 0	21/20	7/16	0/ 0	0/ 0	0/ 0	0/ 0	27/ 9
PEAK ENDUSE	11.497	0.000	21.912	12.570	0.000	0.000	0.340	3.827	0.000	0.000	0.000	0.000	
PEAK PCT	22.9	0.0	43.7	25.1	0.0	0.0	0.7	7.6	0.0	0.0	0.0	0.0	
NOV													
KWH	3412.	0.	5507.	3458.	23.	0.	225.	909.	0.	0.	0.	0.	13535.
MAX KW	12.631	0.000	22.871	38.856	0.839	0.000	1.591	5.135	0.000	0.000	0.000	0.000	58.186
DAY/HR	3/10	0/ 0	3/10	28/ 7	18/16	0/ 0	28/ 7	5/16	0/ 0	0/ 0	0/ 0	0/ 0	28/ 9
PEAK ENDUSE	11.497	0.000	21.912	20.052	0.000	0.000	0.416	4.308	0.000	0.000	0.000	0.000	
PEAK PCT	19.8	0.0	37.7	34.5	0.0	0.0	0.7	7.4	0.0	0.0	0.0	0.0	
DEC													
KWH	3894.	0.	6404.	5643.	2.	0.	257.	1094.	0.	0.	0.	0.	17294.
MAX KW	12.631	0.000	22.871	50.747	0.800	0.000	3.089	5.465	0.000	0.000	0.000	0.000	67.135
DAY/HR	1/10	0/ 0	1/10	26/ 7	30/17	0/ 0	29/ 7	29/16	0/ 0	0/ 0	0/ 0	0/ 0	26/10
PEAK ENDUSE	12.631	0.000	22.871	25.979	0.000	0.000	0.665	4.990	0.000	0.000	0.000	0.000	
PEAK PCT	18.8	0.0	34.1	38.7	0.0	0.0	1.0	7.4	0.0	0.0	0.0	0.0	
	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	========
KWH	45061.	0.	73822.	31149.	5470.	0.	2814.	12046.	0.	0.	0.	0.	170363.
MAX KW	12.631	0.000	22.871	72.997	22.659	0.000	4.730	5.761	0.000	0.000	0.000	0.000	93.798
MON/DY	1/ 2	0/ 0	1/ 2	1/ 6	7/23	0/ 0	1/ 6	7/23	0/ 0	0/ 0	0/ 0	0/ 0	1/ 6
PEAK ENDUSE	11.497	0.000	21.912	53.580	0.000	0.000	2.389	4.420	0.000	0.000	0.000	0.000	
PEAK PCT	12.3	0.0	23.4	57.1	0.0	0.0	2.5	4.7	0.0	0.0	0.0	0.0	

YEARLY TRANSFORMER LOSSES = 0.0 KWH

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

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

	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
JAN													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
FEB													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MAR													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
APR													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MAY													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
JUN													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
JUL													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
AUG													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

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

SEP													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
OCT													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
NOV													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
DEC													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	=======	========
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX THERM/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	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- BEPS Building Energy Performance WEATHER FILE- SEATTLE BOEING FI WA

	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
Spar ELECTRICITY													
MBTU	0.0	0.0	5.1	0.0	0.0	0.0	33.9	7.2	0.0	0.0	18.3	0.0	64.5
EM1 ELECTRICITY													
MBTU	153.8	0.0	252.0	106.3	18.7	0.0	9.6	41.1	0.0	0.0	0.0	0.0	581.4
FM1 NATURAL-GAS													
MBTU	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
MBTU	153.8	0.0	257.1	106.3	18.7	0.0	43.5	48.4	0.0	0.0	18.3	0.0	646.0

TOTAL SITE ENERGY 645.99 MBTU 20.3 KBTU/SQFT-YR GROSS-AREA 20.3 KBTU/SQFT-YR NET-AREA
TOTAL SOURCE ENERGY 1937.98 MBTU 61.0 KBTU/SQFT-YR GROSS-AREA 61.0 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 0.05
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.02
HOURS ANY ZONE ABOVE COOLING THROTTLING RANGE = 0
HOURS ANY ZONE BELOW HEATING THROTTLING RANGE = 4

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

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- BEPU Building Utility Performance WEATHER FILE- SEATTLE BOEING FI WA

	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
Spar ELECTRICITY													
KWH	0.	0.	1500.	0.	0.	0.	9920.	2122.	0.	0.	5371.	0.	18913.
EM1 ELECTRICITY													
KWH	45061.	0.	73822.	31149.	5470.	0.	2814.	12046.	0.	0.	0.	0.	170363.
FM1 NATURAL-GAS													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

TOTAL ELECTRICITY 189276. KWH 5.958 KWH /SQFT-YR GROSS-AREA 5.958 KWH /SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 0.05
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.02
HOURS ANY ZONE ABOVE COOLING THROTTLING RANGE = 0
HOURS ANY ZONE BELOW HEATING THROTTLING RANGE = 4

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

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for Clg2PipeLoop WEATHER FILE- SEATTLE BOEING FI WA

HEATING CAPACITY (MBTU/HR)	COOLING CAPACITY (MBTU/HR)	LOOP FLOW (GPM)	TOTAL HEAD (FT)	SUPPLY UA PRODUCT (BTU/HR-F)	SUPPLY LOSS DT (F)	RETURN UA PRODUCT (BTU/HR-F)	RETURN LOSS DT (F)	LOOP VOLUME (GAL)	FLUID HEAT CAPACITY (BTU/LB-F)
0.000	0.681	200.0	155.0	0.0	0.00	0.0	0.00	300.0	1.00

MON		COIL LOAD (MBTU) (KBTU/HR)	PIPE GAIN (MBTU) (KBTU/HR)	NET LOAD (MBTU) (KBTU/HR)	OVERLOAD (MBTU) (KBTU/HR)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.000	0.000	0.000	0.000	HEAT	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JAN	SUM	0.005	0.000	0.030	0.000	COOL	9	0	0	0	0	0	0	0	0	0	0	9
	PEAK	1.057	0.000	7.955	0.000	FLOW	0	9	0	0	0	0	0	0	0	0	0	9
	DAY/HR	16/17	0/ 0	10/14	0/ 0													
FEB	SUM	0.000	0.000	0.000	0.000	HEAT	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
FEB	SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAR	SUM	0.000	0.000	0.000	0.000	HEAT	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAR	SUM	0.065	0.000	0.103	0.000	COOL	18	0	0	0	0	0	0	0	0	0	0	18
	PEAK	12.292	0.000	14.325	0.000	FLOW	0	18	0	0	0	0	0	0	0	0	0	18
	DAY/HR	29/16	0/ 0	29/16	0/ 0													
APR	SUM	0.000	0.000	0.000	0.000	HEAT	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
APR	SUM	0.052	0.000	0.119	0.000	COOL	31	0	0	0	0	0	0	0	0	0	0	31
	PEAK	3.501	0.000	5.623	0.000	FLOW	0	31	0	0	0	0	0	0	0	0	0	31
	DAY/HR	11/17	0/ 0	11/17	0/ 0													
MAY	SUM	0.000	0.000	0.000	0.000	HEAT	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAY	SUM	1.675	0.000	1.972	0.000	COOL	133	5	0	0	0	0	0	0	0	0	0	138
	PEAK	79.640	0.000	81.719	0.000	FLOW	0	138	0	0	0	0	0	0	0	0	0	138
	DAY/HR	16/17	0/ 0	16/17	0/ 0													
JUN	SUM	0.000	0.000	0.000	0.000	HEAT	0	0	0	0	0	0	0	0	0	0	0	0

PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUN SUM	4.962	0.000	5.492	0.000	COOL	227	20	0	0	0	0	0	0	0	0	0	247
PEAK	114.096	0.000	115.917	0.000	FLOW	0	247	0	0	0	0	0	0	0	0	0	247
DAY/HR	20/17	0/ 0	20/17	0/ 0													
JUL SUM	0.000	0.000	0.000	0.000	HEAT	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for Clg2PipeLoop WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

JUL	SUM	19.397	0.000	20.167	0.000	COOL	240	87	31	0	0	0	0	0	0	0	0	358
	PEAK	197.131	0.000	199.343	0.000	FLOW	0	357	1	0	0	0	0	0	0	0	0	358
	DAY/HR	23/17	0/ 0	23/17	0/ 0													
AUG	SUM	0.000	0.000	0.000	0.000	HEAT	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
AUG	SUM	14.676	0.000	15.398	0.000	COOL	250	80	7	0	0	0	0	0	0	0	0	337
	PEAK	160.926	0.000	163.061	0.000	FLOW	0	337	0	0	0	0	0	0	0	0	0	337
	DAY/HR	12/17	0/ 0	12/17	0/ 0													
SEP	SUM	0.000	0.000	0.000	0.000	HEAT	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
SEP	SUM	5.256	0.000	5.883	0.000	COOL	279	12	0	0	0	0	0	0	0	0	0	291
	PEAK	116.996	0.000	119.038	0.000	FLOW	0	291	0	0	0	0	0	0	0	0	0	291
	DAY/HR	19/17	0/ 0	19/17	0/ 0													
OCT	SUM	0.000	0.000	0.000	0.000	HEAT	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
OCT	SUM	0.452	0.000	0.841	0.000	COOL	181	0	0	0	0	0	0	0	0	0	0	181
	PEAK	42.139	0.000	43.704	0.000	FLOW	0	181	0	0	0	0	0	0	0	0	0	181
	DAY/HR	7/17	0/ 0	7/17	0/ 0													
NOV	SUM	0.000	0.000	0.000	0.000	HEAT	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
NOV	SUM	0.028	0.000	0.112	0.000	COOL	39	0	0	0	0	0	0	0	0	0	0	39
	PEAK	2.050	0.000	4.185	0.000	FLOW	0	39	0	0	0	0	0	0	0	0	0	39
	DAY/HR	7/17	0/ 0	7/17	0/ 0													
DEC	SUM	0.000	0.000	0.000	0.000	HEAT	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
DEC	SUM	0.001	0.000	0.007	0.000	COOL	3	0	0	0	0	0	0	0	0	0	0	3
	PEAK	0.269	0.000	2.414	0.000	FLOW	0	3	0	0	0	0	0	0	0	0	0	3
	DAY/HR	30/17	0/ 0	30/17	0/ 0													
		==========	==========	==========	==========		====	====	====	====	====	====	====	====	====	====	====	====
Yr	SUM	0.000	0.000	0.000	0.000	HEAT	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	MON/DAY	0/ 0	0/ 0	0/ 0	0/ 0													
Yr	SUM	46.570	0.000	50.125	0.000	COOL	1410	204	38	0	0	0	0	0	0	0	0	1652
	PEAK	197.131	0.000	199.343	0.000	FLOW	0	1651	1	0	0	0	0	0	0	0	0	1652
	MON/DAY	7/23	0/ 0	7/23	0/ 0													

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for Htg2PipeLoop WEATHER FILE- SEATTLE BOEING FI WA

HEATING CAPACITY (MBTU/HR)	COOLING CAPACITY (MBTU/HR)	LOOP FLOW (GPM)	TOTAL HEAD (FT)	SUPPLY UA PRODUCT (BTU/HR-F)	SUPPLY LOSS DT (F)	RETURN UA PRODUCT (BTU/HR-F)	RETURN LOSS DT (F)	LOOP VOLUME (GAL)	FLUID HEAT CAPACITY (BTU/LB-F)
-0.577	-0.577	90.0	130.0	0.0	0.00	0.0	0.00	135.0	1.00

MON		COIL LOAD (MBTU) (KBTU/HR)	PIPE GAIN (MBTU) (KBTU/HR)	NET LOAD (MBTU) (KBTU/HR)	OVERLOAD (MBTU) (KBTU/HR)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	-57.344	0.000	-56.571	-0.026	HEAT	308	132	105	62	22	10	7	4	1	1	0	652
	PEAK	-572.117	0.000	-553.131	-25.760	FLOW	0	435	107	62	41	18	9	7	6	1	2	688
	DAY/HR	6/ 7	0/ 0	6/ 7	6/12													
JAN	SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
FEB	SUM	-45.072	0.000	-44.484	-0.007	HEAT	238	157	112	23	19	5	3	1	0	0	0	558
	PEAK	-428.761	0.000	-416.013	-6.700	FLOW	0	377	152	38	15	17	6	1	2	1	0	609
	DAY/HR	18/ 7	0/ 0	18/ 7	13/ 8													
FEB	SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAR	SUM	-38.019	0.000	-37.524	0.000	HEAT	216	189	57	22	15	1	1	0	0	0	0	501
	PEAK	-374.286	0.000	-364.133	0.000	FLOW	0	403	80	27	15	11	3	1	0	0	0	540
	DAY/HR	3/ 7	0/ 0	3/ 7	0/ 0													
MAR	SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
APR	SUM	-25.083	0.000	-24.687	0.000	HEAT	307	97	30	9	3	0	1	0	0	0	0	447
	PEAK	-365.338	0.000	-354.967	0.000	FLOW	0	406	31	18	8	3	0	1	0	0	0	467
	DAY/HR	7/ 7	0/ 0	7/ 7	0/ 0													
APR	SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAY	SUM	-14.102	0.000	-13.785	0.000	HEAT	273	59	11	4	2	0	0	0	0	0	0	349
	PEAK	-258.472	0.000	-251.201	0.000	FLOW	0	359	15	7	1	2	0	0	0	0	0	384
	DAY/HR	12/ 7	0/ 0	12/ 7	0/ 0													
MAY	SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUN	SUM	-5.501	0.000	-5.301	0.000	HEAT	205	23	1	0	0	0	0	0	0	0	0	229

PEAK	-139.727	0.000	-132.879	0.000	FLOW	0	249	4	0	0	0	0	0	0	0	0	253
DAY/HR	2/ 7	0/ 0	2/ 7	0/ 0													
JUN SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUL SUM	-0.905	0.000	-0.857	0.000	HEAT	50	1	0	0	0	0	0	0	0	0	0	51
PEAK	-63.944	0.000	-58.684	0.000	FLOW	0	59	0	0	0	0	0	0	0	0	0	59
DAY/HR	8/ 7	0/ 0	8/ 7	0/ 0													

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REPORT- PS-H Loads and Energy Usage for Htg2PipeLoop WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

JUL	SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
AUG	SUM	-0.865	0.000	-0.818	0.000	HEAT	49	1	0	0	0	0	0	0	0	0	0	50
	PEAK	-62.054	0.000	-57.665	0.000	FLOW	0	58	0	0	0	0	0	0	0	0	0	58
	DAY/HR	18/ 7	0/ 0	18/ 7	0/ 0													
AUG	SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
SEP	SUM	-4.186	0.000	-4.037	0.000	HEAT	146	18	1	0	0	0	0	0	0	0	0	165
	PEAK	-143.823	0.000	-136.645	0.000	FLOW	0	179	3	0	0	0	0	0	0	0	0	182
	DAY/HR	29/ 7	0/ 0	29/ 7	0/ 0													
SEP	SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
OCT	SUM	-18.836	0.000	-18.461	0.000	HEAT	306	82	23	8	0	0	0	0	0	0	0	419
	PEAK	-232.867	0.000	-225.844	0.000	FLOW	0	401	27	14	4	0	0	0	0	0	0	446
	DAY/HR	14/ 7	0/ 0	14/ 7	0/ 0													
OCT	SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
NOV	SUM	-34.757	0.000	-34.219	0.000	HEAT	289	166	57	21	11	3	0	0	0	0	0	547
	PEAK	-350.396	0.000	-340.807	0.000	FLOW	0	474	95	21	12	9	1	3	0	0	0	615
	DAY/HR	28/ 7	0/ 0	28/ 7	0/ 0													
NOV	SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
DEC	SUM	-54.539	0.000	-53.825	0.000	HEAT	312	159	127	50	16	5	5	2	0	0	0	676
	PEAK	-460.233	0.000	-446.414	0.000	FLOW	0	428	159	57	30	13	7	3	3	2	0	702
	DAY/HR	29/ 7	0/ 0	29/ 7	0/ 0													
DEC	SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
		==========	==========	==========	==========		====	====	====	====	====	====	====	====	====	====	====	====
Yr	SUM	-299.210	0.000	-294.569	-0.032	HEAT	2699	1084	524	199	88	24	17	7	1	1	0	4644
	PEAK	-572.117	0.000	-553.131	-25.760	FLOW	0	3828	673	244	126	73	26	16	11	4	2	5003
	MON/DAY	1/ 6	0/ 0	1/ 6	1/ 6													
Yr	SUM	0.000	0.000	0.000	0.000	COOL	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	MON/DAY	0/ 0	0/ 0	0/ 0	0/ 0													

Hours overloaded during heating: 2

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REPORT- PS-H Loads and Energy Usage for DHW-Loop WEATHER FILE- SEATTLE BOEING FI WA

HEATING CAPACITY (MBTU/HR)	COOLING CAPACITY (MBTU/HR)	LOOP FLOW (GPM)	TOTAL HEAD (FT)	SUPPLY UA PRODUCT (BTU/HR-F)	SUPPLY LOSS DT (F)	RETURN UA PRODUCT (BTU/HR-F)	RETURN LOSS DT (F)	LOOP VOLUME (GAL)	FLUID HEAT CAPACITY (BTU/LB-F)
-0.248	0.000	1.4	23.4	0.0	0.00	0.0	0.00	2.1	1.00

MON		COIL LOAD (MBTU) (KBTU/HR)	PIPE GAIN (MBTU) (KBTU/HR)	NET LOAD (MBTU) (KBTU/HR)	OVERLOAD (MBTU) (KBTU/HR)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	-7.312	0.000	-7.308	0.000	HEAT	660	84	0	0	0	0	0	0	0	0	0	744
	PEAK	-32.114	0.000	-32.104	0.000	FLOW	350	10	0	0	58	112	25	105	42	21	21	744
	DAY/HR	2/13	0/ 0	2/13	0/ 0													
FEB	SUM	-6.818	0.000	-6.814	0.000	HEAT	596	76	0	0	0	0	0	0	0	0	0	672
	PEAK	-32.957	0.000	-32.947	0.000	FLOW	311	9	0	0	54	104	23	95	38	19	19	672
	DAY/HR	3/13	0/ 0	3/13	0/ 0													
MAR	SUM	-7.603	0.000	-7.599	0.000	HEAT	660	84	0	0	0	0	0	0	0	0	0	744
	PEAK	-33.025	0.000	-33.014	0.000	FLOW	338	10	0	0	62	119	26	105	42	21	21	744
	DAY/HR	3/13	0/ 0	3/13	0/ 0													
APR	SUM	-7.607	0.000	-7.603	0.000	HEAT	632	88	0	0	0	0	0	0	0	0	0	720
	PEAK	-32.624	0.000	-32.614	0.000	FLOW	312	8	0	0	60	116	26	110	44	22	22	720
	DAY/HR	1/13	0/ 0	1/13	0/ 0													
MAY	SUM	-7.140	0.000	-7.136	0.000	HEAT	681	63	0	0	0	0	0	0	0	0	0	744
	PEAK	-31.018	0.000	-31.008	0.000	FLOW	338	10	0	0	62	119	26	105	42	21	21	744
	DAY/HR	1/13	0/ 0	1/13	0/ 0													
JUN	SUM	-6.641	0.000	-6.637	0.000	HEAT	678	42	0	0	0	0	0	0	0	0	0	720
	PEAK	-29.420	0.000	-29.410	0.000	FLOW	327	9	0	0	58	112	25	105	42	21	21	720
	DAY/HR	2/13	0/ 0	2/13	0/ 0													
JUL	SUM	-6.592	0.000	-6.588	0.000	HEAT	700	44	0	0	0	0	0	0	0	0	0	744
	PEAK	-28.034	0.000	-28.024	0.000	FLOW	335	9	0	0	60	116	26	110	44	22	22	744
	DAY/HR	1/13	0/ 0	1/13	0/ 0													
AUG	SUM	-6.251	0.000	-6.247	0.000	HEAT	702	42	0	0	0	0	0	0	0	0	0	744
	PEAK	-27.156	0.000	-27.146	0.000	FLOW	338	10	0	0	62	119	26	105	42	21	21	744
	DAY/HR	1/13	0/ 0	1/13	0/ 0													
SEP	SUM	-6.113	0.000	-6.109	0.000	HEAT	678	42	0	0	0	0	0	0	0	0	0	720
	PEAK	-27.082	0.000	-27.071	0.000	FLOW	327	9	0	0	58	112	25	105	42	21	21	720
	DAY/HR	2/13	0/ 0	2/13	0/ 0													

OCT	SUM	-6.536	0.000	-6.532	0.000	HEAT	700	44	0	0	0	0	0	0	0	0	0	744
	PEAK	-27.796	0.000	-27.785	0.000	FLOW	335	9	0	0	60	116	26	110	44	22	22	744
	DAY/HR	1/13	0/ 0	1/13	0/ 0													
NOV	SUM	-6.001	0.000	-5.997	0.000	HEAT	684	36	0	0	0	0	0	0	0	0	0	720
	PEAK	-29.146	0.000	-29.136	0.000	FLOW	360	12	0	0	56	107	23	90	36	18	18	720
	DAY/HR	3/13	0/ 0	3/13	0/ 0													
DEC	SUM	-7.218	0.000	-7.214	0.000	HEAT	678	66	0	0	0	0	0	0	0	0	0	744
	PEAK	-30.696	0.000	-30.685	0.000	FLOW	335	9	0	0	60	116	26	110	44	22	22	744
	DAY/HR	1/13	0/ 0	1/13	0/ 0													

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Metropole                                                                                DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     DHW-Loop                                          WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM     -81.833       0.000     -81.785       0.000 HEAT8049   711     0     0     0     0     0     0     0     0     0  8760
     PEAK     -33.025       0.000     -33.014       0.000 FLOW4006   114     0     0   710  1368   303  1255   502   251   251  8760
  MON/DAY        3/ 3        0/ 0        3/ 3        0/ 0
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for ClgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
Clg2PipeLoop PRIMARY LOOP	210.0	170.5	16.0	VAR-SPEED	9.626	0.770	0.910

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.0	6.2	FLOW	0	9	0	0	0	0	0	0	0	0	0	9
	PEAK	2.146	0.691	RPM	0	0	0	0	9	0	0	0	0	0	0	9
	DAY/HR	10/14	10/14	ELEC	9	0	0	0	0	0	0	0	0	0	0	9
FEB	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
MAR	SUM	0.0	12.4	FLOW	0	18	0	0	0	0	0	0	0	0	0	18
	PEAK	2.146	0.691	RPM	0	0	0	0	18	0	0	0	0	0	0	18
	DAY/HR	12/14	12/14	ELEC	18	0	0	0	0	0	0	0	0	0	0	18
APR	SUM	0.1	21.4	FLOW	0	31	0	0	0	0	0	0	0	0	0	31
	PEAK	2.146	0.691	RPM	0	0	0	0	31	0	0	0	0	0	0	31
	DAY/HR	3/16	3/16	ELEC	31	0	0	0	0	0	0	0	0	0	0	31
MAY	SUM	0.3	95.4	FLOW	0	138	0	0	0	0	0	0	0	0	0	138
	PEAK	2.146	0.691	RPM	0	0	0	0	138	0	0	0	0	0	0	138
	DAY/HR	1/13	1/13	ELEC	138	0	0	0	0	0	0	0	0	0	0	138
JUN	SUM	0.5	170.7	FLOW	0	247	0	0	0	0	0	0	0	0	0	247
	PEAK	2.146	0.691	RPM	0	0	0	0	247	0	0	0	0	0	0	247
	DAY/HR	2/15	2/15	ELEC	247	0	0	0	0	0	0	0	0	0	0	247
JUL	SUM	0.8	247.5	FLOW	0	358	0	0	0	0	0	0	0	0	0	358
	PEAK	2.242	0.722	RPM	0	0	0	0	358	0	0	0	0	0	0	358
	DAY/HR	23/17	23/17	ELEC	358	0	0	0	0	0	0	0	0	0	0	358
AUG	SUM	0.7	232.9	FLOW	0	337	0	0	0	0	0	0	0	0	0	337
	PEAK	2.146	0.691	RPM	0	0	0	0	337	0	0	0	0	0	0	337
	DAY/HR	1/ 9	1/ 9	ELEC	337	0	0	0	0	0	0	0	0	0	0	337
SEP	SUM	0.6	201.1	FLOW	0	291	0	0	0	0	0	0	0	0	0	291
	PEAK	2.146	0.691	RPM	0	0	0	0	291	0	0	0	0	0	0	291

DAY/HR	2/ 9	2/ 9	ELEC	291	0	0	0	0	0	0	0	0	0	0	291
OCT SUM	0.4	125.1	FLOW	0	181	0	0	0	0	0	0	0	0	0	181
PEAK	2.146	0.691	RPM	0	0	0	0	181	0	0	0	0	0	0	181
DAY/HR	1/11	1/11	ELEC	181	0	0	0	0	0	0	0	0	0	0	181
NOV SUM	0.1	27.0	FLOW	0	39	0	0	0	0	0	0	0	0	0	39
PEAK	2.146	0.691	RPM	0	0	0	0	39	0	0	0	0	0	0	39
DAY/HR	5/15	5/15	ELEC	39	0	0	0	0	0	0	0	0	0	0	39

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     ClgPump                                                  WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         2.1                          FLOW   0     3     0     0     0     0     0     0     0     0     0     3
     PEAK       2.146       0.691                           RPM   0     0     0     0     3     0     0     0     0     0     0     3
   DAY/HR       24/16       24/16                          ELEC   3     0     0     0     0     0     0     0     0     0     0     3
            ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         3.5      1141.8                          FLOW   0  1652     0     0     0     0     0     0     0     0     0  1652
     PEAK       2.242       0.722                           RPM   0     0     0     0  1652     0     0     0     0     0     0  1652
  MON/DAY        7/23        7/23                          ELEC1652     0     0     0     0     0     0     0     0     0     0  1652

Hours pump could not meet flow requirements:   0
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HtgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
Htg2PipeLoop PRIMARY LOOP	94.5	143.0	11.0	VAR-SPEED	3.665	0.770	0.902

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.8	249.5	FLOW	0	445	112	57	35	17	8	7	4	2	1	688
	PEAK	14.401	4.678	RPM	0	0	0	0	632	25	13	9	6	2	1	688
	DAY/HR	6/ 7	6/ 7	ELEC	581	70	17	6	5	2	4	0	1	0	2	688
FEB	SUM	0.6	192.4	FLOW	0	398	138	36	17	11	5	3	1	0	0	609
	PEAK	8.260	2.683	RPM	0	0	0	0	577	18	8	5	1	0	0	609
	DAY/HR	18/ 7	18/ 7	ELEC	556	33	11	5	1	2	0	1	0	0	0	609
MAR	SUM	0.5	160.6	FLOW	0	421	71	21	16	9	1	1	0	0	0	540
	PEAK	5.639	1.832	RPM	0	0	0	0	517	18	4	1	0	0	0	540
	DAY/HR	3/ 7	3/ 7	ELEC	501	28	9	1	0	1	0	0	0	0	0	540
APR	SUM	0.4	129.6	FLOW	0	410	33	16	6	1	0	1	0	0	0	467
	PEAK	5.558	1.805	RPM	0	0	0	0	461	5	0	1	0	0	0	467
	DAY/HR	7/ 7	7/ 7	ELEC	454	11	1	0	1	0	0	0	0	0	0	467
MAY	SUM	0.3	103.5	FLOW	0	362	13	6	2	1	0	0	0	0	0	384
	PEAK	2.385	0.775	RPM	0	0	0	0	381	3	0	0	0	0	0	384
	DAY/HR	12/ 7	12/ 7	ELEC	378	5	1	0	0	0	0	0	0	0	0	384
JUN	SUM	0.2	66.7	FLOW	0	250	3	0	0	0	0	0	0	0	0	253
	PEAK	0.932	0.303	RPM	0	0	0	0	253	0	0	0	0	0	0	253
	DAY/HR	2/ 7	2/ 7	ELEC	253	0	0	0	0	0	0	0	0	0	0	253
JUL	SUM	0.0	15.5	FLOW	0	59	0	0	0	0	0	0	0	0	0	59
	PEAK	0.810	0.263	RPM	0	0	0	0	59	0	0	0	0	0	0	59
	DAY/HR	1/ 7	1/ 7	ELEC	59	0	0	0	0	0	0	0	0	0	0	59
AUG	SUM	0.0	15.3	FLOW	0	58	0	0	0	0	0	0	0	0	0	58
	PEAK	0.810	0.263	RPM	0	0	0	0	58	0	0	0	0	0	0	58
	DAY/HR	1/ 7	1/ 7	ELEC	58	0	0	0	0	0	0	0	0	0	0	58
SEP	SUM	0.1	48.0	FLOW	0	180	2	0	0	0	0	0	0	0	0	182
	PEAK	0.938	0.305	RPM	0	0	0	0	182	0	0	0	0	0	0	182

DAY/HR	29/ 7	29/ 7	ELEC	182	0	0	0	0	0	0	0	0	0	0	182
OCT SUM	0.4	120.5	FLOW	0	405	24	14	3	0	0	0	0	0	0	446
PEAK	1.892	0.615	RPM	0	0	0	0	444	2	0	0	0	0	0	446
DAY/HR	14/ 7	14/ 7	ELEC	434	12	0	0	0	0	0	0	0	0	0	446
NOV SUM	0.5	178.4	FLOW	0	494	80	18	14	6	1	2	0	0	0	615
PEAK	4.761	1.546	RPM	0	0	0	0	597	13	2	3	0	0	0	615
DAY/HR	28/ 7	28/ 7	ELEC	580	27	5	1	2	0	0	0	0	0	0	615

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HtgPump                                                  WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.7       228.7                          FLOW   0   450   151    50    25    15     4     4     2     1     0   702
     PEAK       9.364       3.042                           RPM   0     0     0     0   660    27     6     6     2     1     0   702
   DAY/HR       29/ 7       29/ 7                          ELEC 628    50    14     2     3     2     1     1     1     0     0   702
            ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         4.6      1508.7                          FLOW   0  3932   627   218   118    60    19    18     7     3     1  5003
     PEAK      14.401       4.678                           RPM   0     0     0     0  4821   111    33    25     9     3     1  5003
  MON/DAY        1/ 6        1/ 6                          ELEC4664   236    58    15    12     7     5     2     2     0     2  5003

Hours pump could not meet flow requirements:   1
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP1ClgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
HP1Clg EVAPORATOR (RUN-AROUND)	21.4	0.1	0.0	ONE-SPEED	0.001	0.770	0.400

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	9	9
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	9	9
	DAY/HR	10/14	10/14	ELEC	0	0	0	0	0	0	0	0	0	0	9	9
FEB	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
MAR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	18	18
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	18	18
	DAY/HR	12/14	12/14	ELEC	0	0	0	0	0	0	0	0	0	0	18	18
APR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	31	31
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	31	31
	DAY/HR	3/16	3/16	ELEC	0	0	0	0	0	0	0	0	0	0	31	31
MAY	SUM	0.0	0.2	FLOW	0	0	0	0	0	0	0	0	0	0	138	138
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	138	138
	DAY/HR	1/13	1/13	ELEC	0	0	0	0	0	0	0	0	0	0	138	138
JUN	SUM	0.0	0.4	FLOW	0	0	0	0	0	0	0	0	0	0	247	247
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	247	247
	DAY/HR	2/15	2/15	ELEC	0	0	0	0	0	0	0	0	0	0	247	247
JUL	SUM	0.0	0.4	FLOW	0	0	0	0	0	0	0	0	0	0	292	292
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	292	292
	DAY/HR	1/10	1/10	ELEC	0	0	0	0	0	0	0	0	0	0	292	292
AUG	SUM	0.0	0.5	FLOW	0	0	0	0	0	0	0	0	0	0	325	325
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	325	325
	DAY/HR	1/ 9	1/ 9	ELEC	0	0	0	0	0	0	0	0	0	0	325	325
SEP	SUM	0.0	0.4	FLOW	0	0	0	0	0	0	0	0	0	0	288	288
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	288	288

DAY/HR	2/ 9	2/ 9	ELEC	0	0	0	0	0	0	0	0	0	0	288	288
OCT SUM	0.0	0.3	FLOW	0	0	0	0	0	0	0	0	0	0	181	181
PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	181	181
DAY/HR	1/11	1/11	ELEC	0	0	0	0	0	0	0	0	0	0	181	181
NOV SUM	0.0	0.1	FLOW	0	0	0	0	0	0	0	0	0	0	39	39
PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	39	39
DAY/HR	5/15	5/15	ELEC	0	0	0	0	0	0	0	0	0	0	39	39

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP1ClgPump                                       WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         0.0                          FLOW   0     0     0     0     0     0     0     0     0     0     3     3
     PEAK       0.002       0.001                           RPM   0     0     0     0     0     0     0     0     0     0     3     3
   DAY/HR       24/16       24/16                          ELEC   0     0     0     0     0     0     0     0     0     0     3     3
            ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0         2.3                          FLOW   0     0     0     0     0     0     0     0     0     0  1571  1571
     PEAK       0.002       0.001                           RPM   0     0     0     0     0     0     0     0     0     0  1571  1571
  MON/DAY        1/10        1/10                          ELEC   0     0     0     0     0     0     0     0     0     0  1571  1571

Hours pump could not meet flow requirements:   0
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP2ClgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
HP2Clg EVAPORATOR (RUN-AROUND)	21.4	0.1	0.0	ONE-SPEED	0.001	0.770	0.400

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
FEB	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
MAR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
APR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
MAY	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	4	4
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	4	4
	DAY/HR	20/14	20/14	ELEC	0	0	0	0	0	0	0	0	0	0	4	4
JUL	SUM	0.0	0.1	FLOW	0	0	0	0	0	0	0	0	0	0	66	66
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	66	66
	DAY/HR	10/10	10/10	ELEC	0	0	0	0	0	0	0	0	0	0	66	66
AUG	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	32	32
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	32	32
	DAY/HR	6/15	6/15	ELEC	0	0	0	0	0	0	0	0	0	0	32	32
SEP	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	6	6
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	6	6

	DAY/HR	19/15	19/15	ELEC	0	0	0	0	0	0	0	0	0	0	6	6
OCT	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
NOV	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0

```
Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP2ClgPump                                       WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         0.0                          FLOW   0     0     0     0     0     0     0     0     0     0     0     0
     PEAK       0.000       0.000                           RPM   0     0     0     0     0     0     0     0     0     0     0     0
   DAY/HR        0/ 0        0/ 0                          ELEC   0     0     0     0     0     0     0     0     0     0     0     0
            ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0         0.2                          FLOW   0     0     0     0     0     0     0     0     0     0   108   108
     PEAK       0.002       0.001                           RPM   0     0     0     0     0     0     0     0     0     0   108   108
  MON/DAY        6/20        6/20                          ELEC   0     0     0     0     0     0     0     0     0     0   108   108

Hours pump could not meet flow requirements:   0
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP3ClgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
HP3Clg EVAPORATOR (RUN-AROUND)	21.4	0.1	0.0	ONE-SPEED	0.001	0.770	0.400

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
FEB	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
MAR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
APR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
MAY	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	0.0	0.1	FLOW	0	0	0	0	0	0	0	0	0	0	63	63
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	63	63
	DAY/HR	10/10	10/10	ELEC	0	0	0	0	0	0	0	0	0	0	63	63
AUG	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	12	12
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	12	12
	DAY/HR	6/15	6/15	ELEC	0	0	0	0	0	0	0	0	0	0	12	12
SEP	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	3	3
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	3	3

DAY/HR	19/15	19/15	ELEC	0	0	0	0	0	0	0	0	0	0	3	3
OCT SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
NOV SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP3ClgPump                                       WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         0.0                          FLOW   0     0     0     0     0     0     0     0     0     0     0     0
     PEAK       0.000       0.000                           RPM   0     0     0     0     0     0     0     0     0     0     0     0
   DAY/HR        0/ 0        0/ 0                          ELEC   0     0     0     0     0     0     0     0     0     0     0     0
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0         0.1                          FLOW   0     0     0     0     0     0     0     0     0     0    78    78
     PEAK       0.002       0.001                           RPM   0     0     0     0     0     0     0     0     0     0    78    78
  MON/DAY        7/10        7/10                          ELEC   0     0     0     0     0     0     0     0     0     0    78    78

Hours pump could not meet flow requirements:   0
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP4ClgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
HP4Clg EVAPORATOR (RUN-AROUND)	21.4	0.1	0.0	ONE-SPEED	0.001	0.770	0.400

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
FEB	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
MAR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
APR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
MAY	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	1	1
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	1	1
	DAY/HR	23/17	23/17	ELEC	0	0	0	0	0	0	0	0	0	0	1	1
AUG	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0

DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0
OCT SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0
NOV SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP4ClgPump                                       WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         0.0                          FLOW   0     0     0     0     0     0     0     0     0     0     0     0
     PEAK       0.000       0.000                           RPM   0     0     0     0     0     0     0     0     0     0     0     0
   DAY/HR        0/ 0        0/ 0                          ELEC   0     0     0     0     0     0     0     0     0     0     0     0
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0         0.0                          FLOW   0     0     0     0     0     0     0     0     0     0     1     1
     PEAK       0.002       0.001                           RPM   0     0     0     0     0     0     0     0     0     0     1     1
  MON/DAY        7/23        7/23                          ELEC   0     0     0     0     0     0     0     0     0     0     1     1

Hours pump could not meet flow requirements:   0
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP5ClgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
HP5Clg EVAPORATOR (RUN-AROUND)	21.4	0.1	0.0	ONE-SPEED	0.001	0.770	0.400

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
FEB	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
MAR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
APR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
MAY	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	1	1
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	1	1
	DAY/HR	23/17	23/17	ELEC	0	0	0	0	0	0	0	0	0	0	1	1
AUG	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0

	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
OCT	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
NOV	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP5ClgPump                                       WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         0.0                          FLOW   0     0     0     0     0     0     0     0     0     0     0     0
     PEAK       0.000       0.000                           RPM   0     0     0     0     0     0     0     0     0     0     0     0
   DAY/HR        0/ 0        0/ 0                          ELEC   0     0     0     0     0     0     0     0     0     0     0     0
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0         0.0                          FLOW   0     0     0     0     0     0     0     0     0     0     1     1
     PEAK       0.002       0.001                           RPM   0     0     0     0     0     0     0     0     0     0     1     1
  MON/DAY        7/23        7/23                          ELEC   0     0     0     0     0     0     0     0     0     0     1     1

Hours pump could not meet flow requirements:   0
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP6ClgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
HP6Clg EVAPORATOR (RUN-AROUND)	21.4	0.1	0.0	ONE-SPEED	0.001	0.770	0.400

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
FEB	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
MAR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
APR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
MAY	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	3	3
	PEAK	0.002	0.001	RPM	0	0	0	0	0	0	0	0	0	0	3	3
	DAY/HR	23/18	23/18	ELEC	0	0	0	0	0	0	0	0	0	0	3	3
AUG	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0

	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
OCT	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
NOV	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP6ClgPump                                       WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         0.0                          FLOW   0     0     0     0     0     0     0     0     0     0     0     0
     PEAK       0.000       0.000                           RPM   0     0     0     0     0     0     0     0     0     0     0     0
   DAY/HR        0/ 0        0/ 0                          ELEC   0     0     0     0     0     0     0     0     0     0     0     0
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0         0.0                          FLOW   0     0     0     0     0     0     0     0     0     0     3     3
     PEAK       0.002       0.001                           RPM   0     0     0     0     0     0     0     0     0     0     3     3
  MON/DAY        7/23        7/23                          ELEC   0     0     0     0     0     0     0     0     0     0     3     3

Hours pump could not meet flow requirements:   0
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP1HtgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
HP1Htg EVAPORATOR (RUN-AROUND)	37.8	0.1	0.0	ONE-SPEED	0.003	0.770	0.400

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
					Number of hours within each PART LOAD range											
JAN	SUM	0.0	0.8	FLOW	0	0	0	0	0	0	0	0	0	0	331	331
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	331	331
	DAY/HR	1/ 1	1/ 1	ELEC	0	0	0	0	0	0	0	0	0	0	331	331
FEB	SUM	0.0	0.9	FLOW	0	0	0	0	0	0	0	0	0	0	343	343
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	343	343
	DAY/HR	1/ 1	1/ 1	ELEC	0	0	0	0	0	0	0	0	0	0	343	343
MAR	SUM	0.0	0.5	FLOW	0	0	0	0	0	0	0	0	0	0	178	178
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	178	178
	DAY/HR	1/ 2	1/ 2	ELEC	0	0	0	0	0	0	0	0	0	0	178	178
APR	SUM	0.0	0.7	FLOW	0	0	0	0	0	0	0	0	0	0	263	263
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	263	263
	DAY/HR	1/ 6	1/ 6	ELEC	0	0	0	0	0	0	0	0	0	0	263	263
MAY	SUM	0.0	0.8	FLOW	0	0	0	0	0	0	0	0	0	0	308	308
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	308	308
	DAY/HR	1/ 6	1/ 6	ELEC	0	0	0	0	0	0	0	0	0	0	308	308
JUN	SUM	0.0	0.6	FLOW	0	0	0	0	0	0	0	0	0	0	253	253
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	253	253
	DAY/HR	2/ 6	2/ 6	ELEC	0	0	0	0	0	0	0	0	0	0	253	253
JUL	SUM	0.0	0.2	FLOW	0	0	0	0	0	0	0	0	0	0	59	59
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	59	59
	DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	0	59	59
AUG	SUM	0.0	0.1	FLOW	0	0	0	0	0	0	0	0	0	0	58	58
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	58	58
	DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	0	58	58
SEP	SUM	0.0	0.5	FLOW	0	0	0	0	0	0	0	0	0	0	182	182
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	182	182

DAY/HR	2/ 7	2/ 7	ELEC	0	0	0	0	0	0	0	0	0	0	182	182
OCT SUM	0.0	0.7	FLOW	0	0	0	0	0	0	0	0	0	0	264	264
PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	264	264
DAY/HR	1/ 6	1/ 6	ELEC	0	0	0	0	0	0	0	0	0	0	264	264
NOV SUM	0.0	0.7	FLOW	0	0	0	0	0	0	0	0	0	0	256	256
PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	256	256
DAY/HR	1/ 3	1/ 3	ELEC	0	0	0	0	0	0	0	0	0	0	256	256

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP1HtgPump                                       WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         0.7                          FLOW   0     0     0     0     0     0     0     0     0     0   268   268
     PEAK       0.003       0.003                           RPM   0     0     0     0     0     0     0     0     0     0   268   268
   DAY/HR        1/ 1        1/ 1                          ELEC   0     0     0     0     0     0     0     0     0     0   268   268
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0         7.0                          FLOW   0     0     0     0     0     0     0     0     0     0  2763  2763
     PEAK       0.003       0.003                           RPM   0     0     0     0     0     0     0     0     0     0  2763  2763
  MON/DAY        1/ 1        1/ 1                          ELEC   0     0     0     0     0     0     0     0     0     0  2763  2763

Hours pump could not meet flow requirements:   0
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP2HtgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
HP2Htg EVAPORATOR (RUN-AROUND)	37.8	0.1	0.0	ONE-SPEED	0.003	0.770	0.400

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
					Number of hours within each PART LOAD range											
JAN	SUM	0.0	0.4	FLOW	0	0	0	0	0	0	0	0	0	0	143	143
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	143	143
	DAY/HR	2/ 7	2/ 7	ELEC	0	0	0	0	0	0	0	0	0	0	143	143
FEB	SUM	0.0	0.2	FLOW	0	0	0	0	0	0	0	0	0	0	76	76
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	76	76
	DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	0	76	76
MAR	SUM	0.0	0.2	FLOW	0	0	0	0	0	0	0	0	0	0	63	63
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	63	63
	DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	0	63	63
APR	SUM	0.0	0.1	FLOW	0	0	0	0	0	0	0	0	0	0	38	38
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	38	38
	DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	0	38	38
MAY	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	9	9
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	9	9
	DAY/HR	5/ 7	5/ 7	ELEC	0	0	0	0	0	0	0	0	0	0	9	9
JUN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
AUG	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0

DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0
OCT SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	18	18
PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	18	18
DAY/HR	6/ 7	6/ 7	ELEC	0	0	0	0	0	0	0	0	0	18	18
NOV SUM	0.0	0.2	FLOW	0	0	0	0	0	0	0	0	0	80	80
PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	80	80
DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	80	80

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP2HtgPump                                       WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         0.2                          FLOW   0     0     0     0     0     0     0     0     0     0    88    88
     PEAK       0.003       0.003                           RPM   0     0     0     0     0     0     0     0     0     0    88    88
   DAY/HR        1/ 7        1/ 7                          ELEC   0     0     0     0     0     0     0     0     0     0    88    88
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0         1.3                          FLOW   0     0     0     0     0     0     0     0     0     0   515   515
     PEAK       0.003       0.003                           RPM   0     0     0     0     0     0     0     0     0     0   515   515
  MON/DAY        1/ 2        1/ 2                          ELEC   0     0     0     0     0     0     0     0     0     0   515   515

Hours pump could not meet flow requirements:   0
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP3HtgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
HP3Htg EVAPORATOR (RUN-AROUND)	37.8	0.1	0.0	ONE-SPEED	0.003	0.770	0.400

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)			00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.0	0.3		FLOW	0	0	0	0	0	0	0	0	0	0	128	128
	PEAK	0.003	0.003		RPM	0	0	0	0	0	0	0	0	0	0	128	128
	DAY/HR	2/ 7	2/ 7		ELEC	0	0	0	0	0	0	0	0	0	0	128	128
FEB	SUM	0.0	0.3		FLOW	0	0	0	0	0	0	0	0	0	0	107	107
	PEAK	0.003	0.003		RPM	0	0	0	0	0	0	0	0	0	0	107	107
	DAY/HR	1/ 7	1/ 7		ELEC	0	0	0	0	0	0	0	0	0	0	107	107
MAR	SUM	0.0	0.2		FLOW	0	0	0	0	0	0	0	0	0	0	70	70
	PEAK	0.003	0.003		RPM	0	0	0	0	0	0	0	0	0	0	70	70
	DAY/HR	1/ 7	1/ 7		ELEC	0	0	0	0	0	0	0	0	0	0	70	70
APR	SUM	0.0	0.1		FLOW	0	0	0	0	0	0	0	0	0	0	23	23
	PEAK	0.003	0.003		RPM	0	0	0	0	0	0	0	0	0	0	23	23
	DAY/HR	1/ 7	1/ 7		ELEC	0	0	0	0	0	0	0	0	0	0	23	23
MAY	SUM	0.0	0.0		FLOW	0	0	0	0	0	0	0	0	0	0	9	9
	PEAK	0.003	0.003		RPM	0	0	0	0	0	0	0	0	0	0	9	9
	DAY/HR	5/ 7	5/ 7		ELEC	0	0	0	0	0	0	0	0	0	0	9	9
JUN	SUM	0.0	0.0		FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000		RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0		ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	0.0	0.0		FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000		RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0		ELEC	0	0	0	0	0	0	0	0	0	0	0	0
AUG	SUM	0.0	0.0		FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000		RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0		ELEC	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	0.0	0.0		FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000		RPM	0	0	0	0	0	0	0	0	0	0	0	0

DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0
OCT SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	18	18
PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	18	18
DAY/HR	6/ 7	6/ 7	ELEC	0	0	0	0	0	0	0	0	0	18	18
NOV SUM	0.0	0.3	FLOW	0	0	0	0	0	0	0	0	0	110	110
PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	110	110
DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	110	110

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP3HtgPump                                       WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         0.3                          FLOW   0     0     0     0     0     0     0     0     0     0   133   133
     PEAK       0.003       0.003                           RPM   0     0     0     0     0     0     0     0     0     0   133   133
   DAY/HR        1/ 7        1/ 7                          ELEC   0     0     0     0     0     0     0     0     0     0   133   133
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0         1.5                          FLOW   0     0     0     0     0     0     0     0     0     0   598   598
     PEAK       0.003       0.003                           RPM   0     0     0     0     0     0     0     0     0     0   598   598
  MON/DAY        1/ 2        1/ 2                          ELEC   0     0     0     0     0     0     0     0     0     0   598   598

Hours pump could not meet flow requirements:   0
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP4HtgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
HP4Htg EVAPORATOR (RUN-AROUND)	37.8	0.1	0.0	ONE-SPEED	0.003	0.770	0.400

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.0	0.4	FLOW	0	0	0	0	0	0	0	0	0	0	153	153
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	153	153
	DAY/HR	2/ 7	2/ 7	ELEC	0	0	0	0	0	0	0	0	0	0	153	153
FEB	SUM	0.0	0.3	FLOW	0	0	0	0	0	0	0	0	0	0	127	127
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	127	127
	DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	0	127	127
MAR	SUM	0.0	0.7	FLOW	0	0	0	0	0	0	0	0	0	0	259	259
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	259	259
	DAY/HR	3/ 7	3/ 7	ELEC	0	0	0	0	0	0	0	0	0	0	259	259
APR	SUM	0.0	0.4	FLOW	0	0	0	0	0	0	0	0	0	0	165	165
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	165	165
	DAY/HR	1/ 9	1/ 9	ELEC	0	0	0	0	0	0	0	0	0	0	165	165
MAY	SUM	0.0	0.2	FLOW	0	0	0	0	0	0	0	0	0	0	67	67
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	67	67
	DAY/HR	5/ 9	5/ 9	ELEC	0	0	0	0	0	0	0	0	0	0	67	67
JUN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
AUG	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0

DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0
OCT SUM	0.0	0.4	FLOW	0	0	0	0	0	0	0	0	0	164	164
PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	164	164
DAY/HR	6/ 8	6/ 8	ELEC	0	0	0	0	0	0	0	0	0	164	164
NOV SUM	0.0	0.5	FLOW	0	0	0	0	0	0	0	0	0	202	202
PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	202	202
DAY/HR	1/ 9	1/ 9	ELEC	0	0	0	0	0	0	0	0	0	202	202

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP4HtgPump                                       WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         0.7                          FLOW   0     0     0     0     0     0     0     0     0     0   275   275
     PEAK       0.003       0.003                           RPM   0     0     0     0     0     0     0     0     0     0   275   275
   DAY/HR        1/ 7        1/ 7                          ELEC   0     0     0     0     0     0     0     0     0     0   275   275
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0         3.6                          FLOW   0     0     0     0     0     0     0     0     0     0  1412  1412
     PEAK       0.003       0.003                           RPM   0     0     0     0     0     0     0     0     0     0  1412  1412
  MON/DAY        1/ 2        1/ 2                          ELEC   0     0     0     0     0     0     0     0     0     0  1412  1412

Hours pump could not meet flow requirements:   0
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP5HtgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
HP5Htg EVAPORATOR (RUN-AROUND)	37.8	0.1	0.0	ONE-SPEED	0.003	0.770	0.400

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.0	0.1	FLOW	0	0	0	0	0	0	0	0	0	0	45	45
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	45	45
	DAY/HR	2/ 7	2/ 7	ELEC	0	0	0	0	0	0	0	0	0	0	45	45
FEB	SUM	0.0	0.1	FLOW	0	0	0	0	0	0	0	0	0	0	27	27
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	27	27
	DAY/HR	1/ 8	1/ 8	ELEC	0	0	0	0	0	0	0	0	0	0	27	27
MAR	SUM	0.0	0.1	FLOW	0	0	0	0	0	0	0	0	0	0	24	24
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	24	24
	DAY/HR	3/ 9	3/ 9	ELEC	0	0	0	0	0	0	0	0	0	0	24	24
APR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	2	2
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	2	2
	DAY/HR	7/ 8	7/ 8	ELEC	0	0	0	0	0	0	0	0	0	0	2	2
MAY	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
AUG	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0

	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
OCT	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
NOV	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	9	9
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	9	9
	DAY/HR	3/ 8	3/ 8	ELEC	0	0	0	0	0	0	0	0	0	0	9	9

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP5HtgPump                                       WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         0.2                          FLOW   0     0     0     0     0     0     0     0     0     0    66    66
     PEAK       0.003       0.003                           RPM   0     0     0     0     0     0     0     0     0     0    66    66
   DAY/HR        1/ 8        1/ 8                          ELEC   0     0     0     0     0     0     0     0     0     0    66    66
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0         0.4                          FLOW   0     0     0     0     0     0     0     0     0     0   173   173
     PEAK       0.003       0.003                           RPM   0     0     0     0     0     0     0     0     0     0   173   173
  MON/DAY        1/ 2        1/ 2                          ELEC   0     0     0     0     0     0     0     0     0     0   173   173

Hours pump could not meet flow requirements:   0
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP6HtgPump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
HP6Htg EVAPORATOR (RUN-AROUND)	37.8	0.1	0.0	ONE-SPEED	0.003	0.770	0.400

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.0	0.3	FLOW	0	0	0	0	0	0	0	0	0	0	113	113
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	113	113
	DAY/HR	2/ 7	2/ 7	ELEC	0	0	0	0	0	0	0	0	0	0	113	113
FEB	SUM	0.0	0.1	FLOW	0	0	0	0	0	0	0	0	0	0	42	42
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	42	42
	DAY/HR	1/ 8	1/ 8	ELEC	0	0	0	0	0	0	0	0	0	0	42	42
MAR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	10	10
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	10	10
	DAY/HR	3/ 9	3/ 9	ELEC	0	0	0	0	0	0	0	0	0	0	10	10
APR	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	2	2
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	2	2
	DAY/HR	7/ 8	7/ 8	ELEC	0	0	0	0	0	0	0	0	0	0	2	2
MAY	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUN	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
AUG	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0

	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
OCT	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	RPM	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
NOV	SUM	0.0	0.0	FLOW	0	0	0	0	0	0	0	0	0	0	7	7
	PEAK	0.003	0.003	RPM	0	0	0	0	0	0	0	0	0	0	7	7
	DAY/HR	3/ 8	3/ 8	ELEC	0	0	0	0	0	0	0	0	0	0	7	7

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP6HtgPump                                       WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         0.1                          FLOW   0     0     0     0     0     0     0     0     0     0    35    35
     PEAK       0.003       0.003                           RPM   0     0     0     0     0     0     0     0     0     0    35    35
   DAY/HR        1/ 8        1/ 8                          ELEC   0     0     0     0     0     0     0     0     0     0    35    35
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0         0.5                          FLOW   0     0     0     0     0     0     0     0     0     0   209   209
     PEAK       0.003       0.003                           RPM   0     0     0     0     0     0     0     0     0     0   209   209
  MON/DAY        1/ 2        1/ 2                          ELEC   0     0     0     0     0     0     0     0     0     0   209   209

Hours pump could not meet flow requirements:   0
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for DHW Circ Pump WEATHER FILE- SEATTLE BOEING FI WA

NOTE: DATA BELOW IS FOR THE SUM OF 1 PUMP(s)

ATTACHED TO	FLOW (GPM)	HEAD (FT)	SETPOINT (FT)	CAPACITY CONTROL	POWER (KW)	MECHANICAL EFFICIENCY (FRAC)	MOTOR EFFICIENCY (FRAC)
DHW-Loop PRIMARY LOOP	0.5	25.8	0.0	VAR-SPEED	0.008	0.770	0.400

MON		HEAT GAIN (MBTU) (KBTU/HR)	ENERGY USE (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.0	2.9	FLOW	0	0	0	0	0	0	0	0	0	384	0	384
	PEAK	0.010	0.008	RPM	0	0	0	0	0	0	0	0	0	384	0	384
	DAY/HR	2/ 7	2/ 7	ELEC	0	0	0	0	0	0	0	0	0	384	0	384
FEB	SUM	0.0	2.7	FLOW	0	0	0	0	0	0	0	0	0	352	0	352
	PEAK	0.010	0.008	RPM	0	0	0	0	0	0	0	0	0	352	0	352
	DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	352	0	352
MAR	SUM	0.0	3.0	FLOW	0	0	0	0	0	0	0	0	0	396	0	396
	PEAK	0.010	0.008	RPM	0	0	0	0	0	0	0	0	0	396	0	396
	DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	396	0	396
APR	SUM	0.0	3.0	FLOW	0	0	0	0	0	0	0	0	0	400	0	400
	PEAK	0.010	0.008	RPM	0	0	0	0	0	0	0	0	0	400	0	400
	DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	400	0	400
MAY	SUM	0.0	3.0	FLOW	0	0	0	0	0	0	0	0	0	396	0	396
	PEAK	0.010	0.008	RPM	0	0	0	0	0	0	0	0	0	396	0	396
	DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	396	0	396
JUN	SUM	0.0	2.9	FLOW	0	0	0	0	0	0	0	0	0	384	0	384
	PEAK	0.010	0.008	RPM	0	0	0	0	0	0	0	0	0	384	0	384
	DAY/HR	2/ 7	2/ 7	ELEC	0	0	0	0	0	0	0	0	0	384	0	384
JUL	SUM	0.0	3.0	FLOW	0	0	0	0	0	0	0	0	0	400	0	400
	PEAK	0.010	0.008	RPM	0	0	0	0	0	0	0	0	0	400	0	400
	DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	400	0	400
AUG	SUM	0.0	3.0	FLOW	0	0	0	0	0	0	0	0	0	396	0	396
	PEAK	0.010	0.008	RPM	0	0	0	0	0	0	0	0	0	396	0	396
	DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	396	0	396
SEP	SUM	0.0	2.9	FLOW	0	0	0	0	0	0	0	0	0	384	0	384
	PEAK	0.010	0.008	RPM	0	0	0	0	0	0	0	0	0	384	0	384

DAY/HR	2/ 7	2/ 7	ELEC	0	0	0	0	0	0	0	0	0	384	0	384
OCT SUM	0.0	3.0	FLOW	0	0	0	0	0	0	0	0	0	400	0	400
PEAK	0.010	0.008	RPM	0	0	0	0	0	0	0	0	0	400	0	400
DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	400	0	400
NOV SUM	0.0	2.6	FLOW	0	0	0	0	0	0	0	0	0	348	0	348
PEAK	0.010	0.008	RPM	0	0	0	0	0	0	0	0	0	348	0	348
DAY/HR	1/ 7	1/ 7	ELEC	0	0	0	0	0	0	0	0	0	348	0	348

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     DHW Circ Pump                                  WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------(CONTINUED)--------

DEC   SUM         0.0         3.0                          FLOW   0     0     0     0     0     0     0     0     0   400     0   400
     PEAK       0.010       0.008                           RPM   0     0     0     0     0     0     0     0     0   400     0   400
   DAY/HR        1/ 7        1/ 7                          ELEC   0     0     0     0     0     0     0     0     0   400     0   400
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM         0.0        35.0                          FLOW   0     0     0     0     0     0     0     0     0  4640     0  4640
     PEAK       0.010       0.008                           RPM   0     0     0     0     0     0     0     0     0  4640     0  4640
  MON/DAY        1/ 2        1/ 2                          ELEC   0     0     0     0     0     0     0     0     0  4640     0  4640

Hours pump could not meet flow requirements:   0
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP1Clg WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	AUXILIARY (KW)
HEAT-PUMP	Clg2PipeLoop	0.114	20.4	0.238	0.000

MON		COOL LOAD (MBTU) (KBTU/HR)	HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	AUX ENERGY (KWH) (KW)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.030	0.000	6.483	0.000	LOAD	9	0	0	0	0	0	0	0	0	0	0	9
	PEAK	7.955	0.000	1.303	0.000	ELEC	5	4	0	0	0	0	0	0	0	0	0	9
	DAY/HR	10/14	0/ 0	10/14	0/ 0													
FEB	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAR	SUM	0.103	0.000	17.282	0.000	LOAD	15	3	0	0	0	0	0	0	0	0	0	18
	PEAK	14.325	0.000	1.834	0.000	ELEC	7	8	3	0	0	0	0	0	0	0	0	18
	DAY/HR	29/16	0/ 0	29/16	0/ 0													
APR	SUM	0.119	0.000	21.962	0.000	LOAD	31	0	0	0	0	0	0	0	0	0	0	31
	PEAK	5.623	0.000	0.961	0.000	ELEC	23	8	0	0	0	0	0	0	0	0	0	31
	DAY/HR	11/17	0/ 0	11/15	0/ 0													
MAY	SUM	1.972	0.000	218.366	0.000	LOAD	100	11	5	7	6	2	2	4	1	0	0	138
	PEAK	81.719	0.000	6.734	0.000	ELEC	47	61	4	4	8	4	3	3	4	0	0	138
	DAY/HR	16/17	0/ 0	16/17	0/ 0													
JUN	SUM	5.274	0.000	537.533	0.000	LOAD	120	43	29	14	9	13	5	6	5	3	0	247
	PEAK	98.012	0.000	7.673	0.000	ELEC	48	85	33	25	15	8	15	4	9	5	0	247
	DAY/HR	20/11	0/ 0	20/11	0/ 0													
JUL	SUM	10.959	0.000	1024.389	0.000	LOAD	61	49	36	31	27	20	26	13	14	14	1	292
	PEAK	103.108	0.000	8.329	0.000	ELEC	11	62	39	34	27	33	24	22	19	17	4	292
	DAY/HR	24/10	0/ 0	22/20	0/ 0													
AUG	SUM	12.714	0.000	1191.502	0.000	LOAD	59	51	38	34	39	24	33	26	10	11	0	325
	PEAK	97.039	0.000	8.148	0.000	ELEC	10	65	36	36	33	37	30	36	26	15	1	325
	DAY/HR	26/17	0/ 0	26/17	0/ 0													
SEP	SUM	5.383	0.000	579.494	0.000	LOAD	144	52	32	24	13	13	5	1	1	3	0	288
	PEAK	91.748	0.000	7.882	0.000	ELEC	63	100	34	28	24	12	16	6	2	3	0	288
	DAY/HR	19/14	0/ 0	22/14	0/ 0													
OCT	SUM	0.841	0.000	136.886	0.000	LOAD	169	7	3	1	1	0	0	0	0	0	0	181

	PEAK	43.704	0.000	4.403	0.000	ELEC	133	40	2	4	1	1	0	0	0	0	0	181
	DAY/HR	7/17	0/ 0	7/17	0/ 0													
NOV	SUM	0.112	0.000	23.203	0.000	LOAD	39	0	0	0	0	0	0	0	0	0	0	39
	PEAK	4.185	0.000	0.839	0.000	ELEC	33	6	0	0	0	0	0	0	0	0	0	39
	DAY/HR	7/17	0/ 0	18/16	0/ 0													
DEC	SUM	0.007	0.000	2.246	0.000	LOAD	3	0	0	0	0	0	0	0	0	0	0	3
	PEAK	2.414	0.000	0.800	0.000	ELEC	1	2	0	0	0	0	0	0	0	0	0	3
	DAY/HR	30/17	0/ 0	30/17	0/ 0													

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP1Clg                                                   WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM      37.514       0.000    3759.345       0.000 LOAD 750   216   143   111    95    72    71    50    31    31     1  1571
     PEAK     103.108       0.000       8.329       0.000 ELEC 381   441   151   131   108    95    88    71    60    40     5  1571
  MON/DAY        7/24        0/ 0        7/22        0/ 0

  Normalized (ARI) Capacity at Peak:  0.081 MBTU/HR  at CHW T/Adjusted Condenser T:  55.0F  65.0F  and Drybulb/Wetbulb:   0.F   0.F


DETAILED SIZING INFORMATION

                   CAPACITY    START-UP    HT/CL CAP   COOL ELEC   COOL EIR    COOL EFF    AUX ELEC   HEAT ELEC    HEAT EIR
 EQUIPMENT TYPE     (TONS)      (HOURS)     (FRAC)       (KW)      (BTU/BTU)   (KW/TON)      (KW)        (KW)      (BTU/BTU)
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HEAT-PUMP              9.461      0.0287      0.0179       0.717      0.2378      0.8362       0.000       7.950      0.3333


                                     THERMAL      HEAD       STATIC       FLOW      FLOW/CAP     DELTA T    DESIGN T
                                    (MBTU/HR)     ( FT)       (FT)        (GPM)     (GPM/TON)     (F)         (F)
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Clg2PipeLoop                          0.114        0.10        0.00       20.35        2.15       11.15       55.00
                    Heating Mode     -0.081        0.00        0.00        0.00        0.00      -10.00      110.00
Air-Cooled                            0.141                                                                    65.00
                    Heating Mode     -0.054                                                                    45.00
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP1Htg WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	AUXILIARY (KW)
HEAT-PUMP	Htg2PipeLoop	0.144	36.0	0.359	0.000

MON		COOL LOAD (MBTU) (KBTU/HR)	HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	AUX ENERGY (KWH) (KW)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.000	-13.625	1499.335	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-147.451	13.698	0.000	ELEC	143	16	11	12	12	26	27	34	20	2	0	303
	DAY/HR	0/ 0	15/ 8	15/ 8	0/ 0													
FEB	SUM	0.000	-13.516	1417.669	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-150.179	13.608	0.000	ELEC	138	10	13	11	17	35	29	22	20	0	0	295
	DAY/HR	0/ 0	22/ 7	22/ 7	0/ 0													
MAR	SUM	0.000	-5.142	546.038	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-144.470	13.681	0.000	ELEC	69	19	6	5	11	7	10	7	6	2	0	142
	DAY/HR	0/ 0	3/16	1/ 9	0/ 0													
APR	SUM	0.000	-10.043	1081.122	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-149.660	13.834	0.000	ELEC	42	41	55	52	18	12	13	3	5	2	0	243
	DAY/HR	0/ 0	14/ 8	14/ 8	0/ 0													
MAY	SUM	0.000	-8.294	938.108	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-144.681	13.164	0.000	ELEC	59	80	65	30	19	11	4	3	2	0	0	273
	DAY/HR	0/ 0	1/ 7	1/ 7	0/ 0													
JUN	SUM	0.000	-5.301	637.133	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-132.879	12.047	0.000	ELEC	87	60	36	25	15	3	2	1	0	0	0	229
	DAY/HR	0/ 0	2/ 7	2/ 7	0/ 0													
JUL	SUM	0.000	-0.857	120.239	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-58.684	6.502	0.000	ELEC	17	18	12	3	1	0	0	0	0	0	0	51
	DAY/HR	0/ 0	8/ 7	8/ 7	0/ 0													
AUG	SUM	0.000	-0.818	112.959	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-57.665	6.630	0.000	ELEC	20	17	7	5	1	0	0	0	0	0	0	50
	DAY/HR	0/ 0	18/ 7	18/ 7	0/ 0													
SEP	SUM	0.000	-4.037	472.459	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-136.645	12.558	0.000	ELEC	64	42	23	18	8	7	2	0	1	0	0	165
	DAY/HR	0/ 0	29/ 7	29/ 7	0/ 0													
OCT	SUM	0.000	-7.731	846.121	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

	PEAK	0.000	-149.778	13.642	0.000	ELEC	56	79	30	29	18	10	9	2	3	1	0	237
	DAY/HR	0/ 0	16/ 7	16/ 7	0/ 0													
NOV	SUM	0.000	-6.641	694.135	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-145.214	13.625	0.000	ELEC	105	18	11	6	11	11	17	9	6	1	0	195
	DAY/HR	0/ 0	29/13	28/10	0/ 0													
DEC	SUM	0.000	-11.188	1194.459	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-146.613	13.678	0.000	ELEC	135	17	8	3	2	20	22	24	24	2	0	257
	DAY/HR	0/ 0	1/22	9/ 9	0/ 0													

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP1Htg                                                   WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM       0.000     -87.191    9559.777       0.000 LOAD   0     0     0     0     0     0     0     0     0     0     0     0
     PEAK       0.000    -150.179      13.834       0.000 ELEC 935   417   277   199   133   142   135   105    87    10     0  2440
  MON/DAY        0/ 0        2/22        4/14        0/ 0

  Normalized (ARI) Capacity at Peak:  0.144 MBTU/HR  at CHW T/Adjusted Condenser T:  44.0F  95.0F  and Drybulb/Wetbulb:   0.F   0.F
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DETAILED SIZING INFORMATION

EQUIPMENT TYPE	CAPACITY (TONS)	START-UP (HOURS)	HT/CL CAP (FRAC)	COOL ELEC (KW)	COOL EIR (BTU/BTU)	COOL EFF (KW/TON)	AUX ELEC (KW)	HEAT ELEC (KW)	HEAT EIR (BTU/BTU)
HEAT-PUMP	12.000	0.0400	0.0250	0.668	0.3588	1.2615	0.000	12.324	0.4375

		THERMAL (MBTU/HR)	HEAD (FT)	STATIC (FT)	FLOW (GPM)	FLOW/CAP (GPM/TON)	DELTA T (F)	DESIGN T (F)
Htg2PipeLoop		0.144	0.10	0.00	36.00	3.00	7.99	44.00
	Heating Mode	-0.096	0.00	0.00	0.00	0.00	-8.24	105.00
Air-Cooled		0.196						95.00
	Heating Mode	-0.054						25.50

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP2Clg WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	AUXILIARY (KW)
HEAT-PUMP	Clg2PipeLoop	0.114	20.4	0.238	0.000

MON		COOL LOAD (MBTU) (KBTU/HR)	HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	AUX ENERGY (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
FEB	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAR	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
APR	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAY	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUN	SUM	0.218	0.000	20.682	0.000	LOAD	0	0	0	0	1	3	0	0	0	0	0	4
	PEAK	57.958	0.000	5.428	0.000	ELEC	0	0	0	0	0	0	4	0	0	0	0	4
	DAY/HR	20/17	0/ 0	20/17	0/ 0													
JUL	SUM	4.538	0.000	420.788	0.000	LOAD	0	0	0	0	4	16	21	12	9	4	0	66
	PEAK	97.363	0.000	8.836	0.000	ELEC	0	0	0	0	0	0	14	24	10	11	7	66
	DAY/HR	23/16	0/ 0	23/16	0/ 0													
AUG	SUM	1.936	0.000	180.333	0.000	LOAD	0	0	0	0	8	14	4	6	0	0	0	32
	PEAK	81.531	0.000	7.350	0.000	ELEC	0	0	0	0	0	2	17	6	4	3	0	32
	DAY/HR	12/17	0/ 0	12/17	0/ 0													
SEP	SUM	0.329	0.000	32.798	0.000	LOAD	0	0	0	0	1	5	0	0	0	0	0	6
	PEAK	59.519	0.000	5.760	0.000	ELEC	0	0	0	0	0	0	3	3	0	0	0	6
	DAY/HR	19/17	0/ 0	19/17	0/ 0													
OCT	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
NOV SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
DEC SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP2Clg WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

Yr	SUM	7.022	0.000	654.600	0.000	LOAD	0	0	0	0	14	38	25	18	9	4	0	108
	PEAK	97.363	0.000	8.836	0.000	ELEC	0	0	0	0	0	2	38	33	14	14	7	108
	MON/DAY	7/23	0/ 0	7/23	0/ 0													

Normalized (ARI) Capacity at Peak: 0.081 MBTU/HR at CHW T/Adjusted Condenser T: 55.0F 65.0F and Drybulb/Wetbulb: 0.F 0.F

DETAILED SIZING INFORMATION

EQUIPMENT TYPE	CAPACITY (TONS)	START-UP (HOURS)	HT/CL CAP (FRAC)	COOL ELEC (KW)	COOL EIR (BTU/BTU)	COOL EFF (KW/TON)	AUX ELEC (KW)	HEAT ELEC (KW)	HEAT EIR (BTU/BTU)
HEAT-PUMP	9.461	0.0287	0.0179	0.717	0.2378	0.8362	0.000	7.950	0.3333

		THERMAL (MBTU/HR)	HEAD (FT)	STATIC (FT)	FLOW (GPM)	FLOW/CAP (GPM/TON)	DELTA T (F)	DESIGN T (F)
Clg2PipeLoop		0.114	0.10	0.00	20.35	2.15	11.15	55.00
	Heating Mode	-0.081	0.00	0.00	0.00	0.00	-10.00	110.00
Air-Cooled		0.141						65.00
	Heating Mode	-0.054						45.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP3Clg WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	AUXILIARY (KW)
HEAT-PUMP	Clg2PipeLoop	0.114	20.4	0.238	0.000

MON		COOL LOAD (MBTU) (KBTU/HR)	HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	AUX ENERGY (KWH) (KW)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
FEB	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAR	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
APR	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAY	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUL	SUM	4.359	0.000	401.981	0.000	LOAD	0	0	0	0	4	14	21	11	9	4	0	63
	PEAK	97.363	0.000	8.836	0.000	ELEC	0	0	0	0	0	0	14	22	10	10	7	63
	DAY/HR	23/16	0/ 0	23/16	0/ 0													
AUG	SUM	0.748	0.000	69.481	0.000	LOAD	0	0	0	0	2	6	1	3	0	0	0	12
	PEAK	81.531	0.000	7.350	0.000	ELEC	0	0	0	0	0	1	7	0	2	2	0	12
	DAY/HR	12/17	0/ 0	12/17	0/ 0													
SEP	SUM	0.172	0.000	17.073	0.000	LOAD	0	0	0	0	0	3	0	0	0	0	0	3
	PEAK	59.519	0.000	5.760	0.000	ELEC	0	0	0	0	0	0	0	3	0	0	0	3
	DAY/HR	19/17	0/ 0	19/17	0/ 0													
OCT	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
NOV	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
DEC	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP3Clg WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

Yr	SUM	5.278	0.000	488.535	0.000	LOAD	0	0	0	0	6	23	22	14	9	4	0	78
	PEAK	97.363	0.000	8.836	0.000	ELEC	0	0	0	0	0	1	21	25	12	12	7	78
	MON/DAY	7/23	0/ 0	7/23	0/ 0													

Normalized (ARI) Capacity at Peak: 0.081 MBTU/HR at CHW T/Adjusted Condenser T: 55.0F 65.0F and Drybulb/Wetbulb: 0.F 0.F

DETAILED SIZING INFORMATION

EQUIPMENT TYPE	CAPACITY (TONS)	START-UP (HOURS)	HT/CL CAP (FRAC)	COOL ELEC (KW)	COOL EIR (BTU/BTU)	COOL EFF (KW/TON)	AUX ELEC (KW)	HEAT ELEC (KW)	HEAT EIR (BTU/BTU)
HEAT-PUMP	9.461	0.0287	0.0179	0.717	0.2378	0.8362	0.000	7.950	0.3333

		THERMAL (MBTU/HR)	HEAD (FT)	STATIC (FT)	FLOW (GPM)	FLOW/CAP (GPM/TON)	DELTA T (F)	DESIGN T (F)
Clg2PipeLoop		0.114	0.10	0.00	20.35	2.15	11.15	55.00
	Heating Mode	-0.081	0.00	0.00	0.00	0.00	-10.00	110.00
Air-Cooled		0.141						65.00
	Heating Mode	-0.054						45.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP4Clg WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	AUXILIARY (KW)
HEAT-PUMP	Clg2PipeLoop	0.114	20.4	0.238	0.000

MON		COOL LOAD (MBTU) (KBTU/HR)	HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	AUX ENERGY (KWH) (KW)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
FEB	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAR	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
APR	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAY	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUL	SUM	0.066	0.000	7.084	0.000	LOAD	0	0	0	0	0	0	1	0	0	0	0	1
	PEAK	66.448	0.000	7.084	0.000	ELEC	0	0	0	0	0	0	0	0	1	0	0	1
	DAY/HR	23/17	0/ 0	23/17	0/ 0													
AUG	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
SEP	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
OCT	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
NOV SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
DEC SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP4Clg                                                   WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM       0.066       0.000       7.084       0.000 LOAD   0     0     0     0     0     0     1     0     0     0     0     1
     PEAK      66.448       0.000       7.084       0.000 ELEC   0     0     0     0     0     0     0     0     1     0     0     1
  MON/DAY        7/23        0/ 0        7/23        0/ 0

  Normalized (ARI) Capacity at Peak:  0.081 MBTU/HR  at CHW T/Adjusted Condenser T:  55.0F  65.0F  and Drybulb/Wetbulb:   0.F   0.F
```

DETAILED SIZING INFORMATION

EQUIPMENT TYPE	CAPACITY (TONS)	START-UP (HOURS)	HT/CL CAP (FRAC)	COOL ELEC (KW)	COOL EIR (BTU/BTU)	COOL EFF (KW/TON)	AUX ELEC (KW)	HEAT ELEC (KW)	HEAT EIR (BTU/BTU)
HEAT-PUMP	9.461	0.0287	0.0179	0.717	0.2378	0.8362	0.000	7.950	0.3333

		THERMAL (MBTU/HR)	HEAD (FT)	STATIC (FT)	FLOW (GPM)	FLOW/CAP (GPM/TON)	DELTA T (F)	DESIGN T (F)
Clg2PipeLoop		0.114	0.10	0.00	20.35	2.15	11.15	55.00
	Heating Mode	-0.081	0.00	0.00	0.00	0.00	-10.00	110.00
Air-Cooled		0.141						65.00
	Heating Mode	-0.054						45.00

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP5Clg WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	AUXILIARY (KW)
HEAT-PUMP	Clg2PipeLoop	0.114	20.4	0.238	0.000

MON		COOL LOAD (MBTU) (KBTU/HR)	HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	AUX ENERGY (KWH) (KW)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
FEB	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAR	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
APR	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAY	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUL	SUM	0.066	0.000	7.084	0.000	LOAD	0	0	0	0	0	0	1	0	0	0	0	1
	PEAK	66.448	0.000	7.084	0.000	ELEC	0	0	0	0	0	0	0	0	1	0	0	1
	DAY/HR	23/17	0/ 0	23/17	0/ 0													
AUG	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
SEP	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
OCT	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
NOV SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
DEC SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP5Clg                                                   WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM       0.066       0.000       7.084       0.000 LOAD   0     0     0     0     0     0     1     0     0     0     0     1
     PEAK      66.448       0.000       7.084       0.000 ELEC   0     0     0     0     0     0     0     0     1     0     0     1
  MON/DAY        7/23        0/ 0        7/23        0/ 0

  Normalized (ARI) Capacity at Peak:  0.081 MBTU/HR  at CHW T/Adjusted Condenser T:  55.0F  65.0F  and Drybulb/Wetbulb:   0.F   0.F


DETAILED SIZING INFORMATION

                   CAPACITY    START-UP    HT/CL CAP   COOL ELEC   COOL EIR    COOL EFF    AUX ELEC   HEAT ELEC    HEAT EIR
 EQUIPMENT TYPE     (TONS)      (HOURS)     (FRAC)       (KW)      (BTU/BTU)   (KW/TON)     (KW)        (KW)      (BTU/BTU)
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HEAT-PUMP              9.461      0.0287      0.0179       0.717      0.2378      0.8362       0.000       7.950      0.3333


                                     THERMAL      HEAD       STATIC       FLOW      FLOW/CAP     DELTA T    DESIGN T
                                    (MBTU/HR)     ( FT)       (FT)        (GPM)     (GPM/TON)     (F)         (F)
-------------------------------  ----------  ----------  ----------  ----------  ----------  ----------  ----------

Clg2PipeLoop                          0.114        0.10        0.00       20.35        2.15       11.15       55.00
                    Heating Mode     -0.081        0.00        0.00        0.00        0.00      -10.00      110.00
Air-Cooled                            0.141                                                                    65.00
                    Heating Mode     -0.054                                                                    45.00
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Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP6Clg WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	AUXILIARY (KW)
HEAT-PUMP	Clg2PipeLoop	0.114	20.4	0.238	0.000

MON		COOL LOAD (MBTU) (KBTU/HR)	HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	AUX ENERGY (KWH) (KW)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
FEB	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAR	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
APR	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
MAY	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUL	SUM	0.178	0.000	18.839	0.000	LOAD	0	0	0	0	0	2	0	1	0	0	0	3
	PEAK	69.510	0.000	7.316	0.000	ELEC	0	0	0	0	0	0	0	2	0	1	0	3
	DAY/HR	23/18	0/ 0	23/18	0/ 0													
AUG	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
SEP	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
OCT	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
NOV	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
DEC	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP6Clg                                                   WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM       0.178       0.000      18.839       0.000 LOAD   0     0     0     0     0     2     0     1     0     0     0     3
     PEAK      69.510       0.000       7.316       0.000 ELEC   0     0     0     0     0     0     0     2     0     1     0     3
  MON/DAY        7/23        0/ 0        7/23        0/ 0

  Normalized (ARI) Capacity at Peak:  0.081 MBTU/HR  at CHW T/Adjusted Condenser T:  55.0F  65.0F  and Drybulb/Wetbulb:   0.F   0.F


DETAILED SIZING INFORMATION

                   CAPACITY    START-UP    HT/CL CAP   COOL ELEC   COOL EIR    COOL EFF    AUX ELEC   HEAT ELEC    HEAT EIR
 EQUIPMENT TYPE     (TONS)      (HOURS)     (FRAC)       (KW)      (BTU/BTU)   (KW/TON)      (KW)        (KW)      (BTU/BTU)
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HEAT-PUMP              9.461      0.0287      0.0179       0.717      0.2378      0.8362       0.000       7.950      0.3333


                                     THERMAL      HEAD       STATIC       FLOW      FLOW/CAP     DELTA T    DESIGN T
                                    (MBTU/HR)     ( FT)       (FT)        (GPM)     (GPM/TON)     (F)         (F)
-------------------------------  ----------  ----------  ----------  ----------  ----------  ----------  ----------

Clg2PipeLoop                          0.114        0.10        0.00       20.35        2.15       11.15       55.00
                    Heating Mode     -0.081        0.00        0.00        0.00        0.00      -10.00      110.00
Air-Cooled                            0.141                                                                    65.00
                    Heating Mode     -0.054                                                                    45.00
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP2Htg WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	AUXILIARY (KW)
HEAT-PUMP	Htg2PipeLoop	0.144	36.0	0.359	0.000

MON		COOL LOAD (MBTU) (KBTU/HR)	HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	AUX ENERGY (KWH) (KW)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.000	-10.648	1174.972	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-152.575	13.844	0.000	ELEC	4	23	8	0	2	28	32	35	10	1	0	143
	DAY/HR	0/ 0	13/13	13/13	0/ 0													
FEB	SUM	0.000	-6.871	727.733	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-136.790	13.333	0.000	ELEC	0	0	0	2	3	28	22	11	10	0	0	76
	DAY/HR	0/ 0	18/ 7	18/ 7	0/ 0													
MAR	SUM	0.000	-5.332	546.966	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-136.896	13.620	0.000	ELEC	2	0	4	6	4	17	15	7	7	1	0	63
	DAY/HR	0/ 0	21/ 8	21/ 8	0/ 0													
APR	SUM	0.000	-2.826	291.752	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-151.352	13.721	0.000	ELEC	0	1	5	7	2	11	6	3	2	1	0	38
	DAY/HR	0/ 0	21/ 8	21/ 8	0/ 0													
MAY	SUM	0.000	-0.860	84.269	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-125.600	12.030	0.000	ELEC	0	0	0	0	1	3	3	2	0	0	0	9
	DAY/HR	0/ 0	12/ 7	12/ 7	0/ 0													
JUN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUL	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
AUG	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
SEP	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
OCT	SUM	0.000	-1.568	158.803	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

PEAK	0.000	-112.922	10.813	0.000	ELEC	0	0	0	0	0	12	5	1	0	0	0	18
DAY/HR	0/ 0	14/ 7	14/ 7	0/ 0													
NOV SUM	0.000	-6.933	697.322	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	-146.219	13.680	0.000	ELEC	0	1	4	9	7	20	19	10	9	1	0	80
DAY/HR	0/ 0	13/ 8	13/ 8	0/ 0													
DEC SUM	0.000	-7.715	814.930	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	-133.190	13.341	0.000	ELEC	4	1	1	0	2	29	24	16	11	0	0	88
DAY/HR	0/ 0	22/18	3/ 8	0/ 0													

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP2Htg                                                   WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM       0.000     -42.753    4496.747       0.000 LOAD   0     0     0     0     0     0     0     0     0     0     0     0
     PEAK       0.000    -152.575      13.844       0.000 ELEC  10    26    22    24    21   148   126    85    49     4     0   515
  MON/DAY        0/ 0        1/13        1/13        0/ 0

  Normalized (ARI) Capacity at Peak:  0.144 MBTU/HR  at CHW T/Adjusted Condenser T:  44.0F  95.0F  and Drybulb/Wetbulb:   0.F   0.F


DETAILED SIZING INFORMATION

                   CAPACITY    START-UP    HT/CL CAP   COOL ELEC   COOL EIR    COOL EFF    AUX ELEC   HEAT ELEC    HEAT EIR
 EQUIPMENT TYPE     (TONS)      (HOURS)     (FRAC)       (KW)      (BTU/BTU)   (KW/TON)      (KW)        (KW)      (BTU/BTU)
----------------  ----------  ----------  ----------  ----------  ----------  ----------  ----------  ----------  ----------

HEAT-PUMP             12.000      0.0400      0.0250       0.668      0.3588      1.2615       0.000      12.324      0.4375


                                     THERMAL      HEAD       STATIC       FLOW      FLOW/CAP     DELTA T    DESIGN T
                                    (MBTU/HR)     ( FT)       (FT)        (GPM)     (GPM/TON)     (F)         (F)
-------------------------------  ----------  ----------  ----------  ----------  ----------  ----------  ----------

Htg2PipeLoop                          0.144        0.10        0.00       36.00        3.00        7.99       44.00
                    Heating Mode     -0.096        0.00        0.00        0.00        0.00       -8.24      105.00
Air-Cooled                            0.196                                                                    95.00
                    Heating Mode     -0.054                                                                    25.50
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP3Htg WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	AUXILIARY (KW)
HEAT-PUMP	Htg2PipeLoop	0.144	36.0	0.359	0.000

MON		COOL LOAD (MBTU) (KBTU/HR)	HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	AUX ENERGY (KWH) (KW)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.000	-11.045	1194.240	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-131.732	13.397	0.000	ELEC	3	4	0	5	4	29	42	30	11	0	0	128
	DAY/HR	0/ 0	11/12	31/ 7	0/ 0													
FEB	SUM	0.000	-7.010	730.931	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-148.109	13.635	0.000	ELEC	33	0	1	5	2	14	21	18	10	1	0	105
	DAY/HR	0/ 0	18/22	18/22	0/ 0													
MAR	SUM	0.000	-6.345	638.821	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-135.942	13.647	0.000	ELEC	0	0	0	8	8	18	21	7	7	1	0	70
	DAY/HR	0/ 0	4/ 7	6/ 9	0/ 0													
APR	SUM	0.000	-2.104	213.473	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-129.044	12.625	0.000	ELEC	0	0	0	0	1	11	6	3	2	0	0	23
	DAY/HR	0/ 0	28/ 7	7/ 7	0/ 0													
MAY	SUM	0.000	-0.860	84.269	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-125.600	12.030	0.000	ELEC	0	0	0	0	1	3	3	2	0	0	0	9
	DAY/HR	0/ 0	12/ 7	12/ 7	0/ 0													
JUN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUL	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
AUG	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
SEP	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
OCT	SUM	0.000	-1.568	158.803	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

PEAK	0.000	-112.922	10.813	0.000	ELEC	0	0	0	0	0	12	5	1	0	0	0	18
DAY/HR	0/ 0	14/ 7	14/ 7	0/ 0													
NOV SUM	0.000	-7.580	749.938	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	-144.000	13.353	0.000	ELEC	32	0	3	3	6	14	17	18	14	0	0	107
DAY/HR	0/ 0	28/13	4/ 7	0/ 0													
DEC SUM	0.000	-10.151	1055.363	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	-144.859	13.776	0.000	ELEC	12	3	3	5	10	39	34	13	9	1	0	129
DAY/HR	0/ 0	6/ 9	6/ 9	0/ 0													

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP3Htg WEATHER FILE- SEATTLE BOEING FI WA
(CONTINUED)

Yr SUM	0.000	-46.663	4825.837	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	-148.109	13.776	0.000	ELEC	80	7	7	26	32	140	149	92	53	3	0	589
MON/DAY	0/ 0	2/18	12/ 6	0/ 0													

Normalized (ARI) Capacity at Peak: 0.144 MBTU/HR at CHW T/Adjusted Condenser T: 44.0F 95.0F and Drybulb/Wetbulb: 0.F 0.F

DETAILED SIZING INFORMATION

EQUIPMENT TYPE	CAPACITY (TONS)	START-UP (HOURS)	HT/CL CAP (FRAC)	COOL ELEC (KW)	COOL EIR (BTU/BTU)	COOL EFF (KW/TON)	AUX ELEC (KW)	HEAT ELEC (KW)	HEAT EIR (BTU/BTU)
HEAT-PUMP	12.000	0.0400	0.0250	0.668	0.3588	1.2615	0.000	12.324	0.4375

		THERMAL (MBTU/HR)	HEAD (FT)	STATIC (FT)	FLOW (GPM)	FLOW/CAP (GPM/TON)	DELTA T (F)	DESIGN T (F)
Htg2PipeLoop		0.144	0.10	0.00	36.00	3.00	7.99	44.00
	Heating Mode	-0.096	0.00	0.00	0.00	0.00	-8.24	105.00
Air-Cooled		0.196						95.00
	Heating Mode	-0.054						25.50

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP4Htg WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	AUXILIARY (KW)
HEAT-PUMP	Htg2PipeLoop	0.144	36.0	0.359	0.000

MON		COOL LOAD (MBTU) (KBTU/HR)	HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	AUX ENERGY (KWH) (KW)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.000	-12.409	1304.105	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-145.002	13.620	0.000	ELEC	4	1	7	20	18	32	29	23	17	1	0	152
	DAY/HR	0/ 0	28/10	21/17	0/ 0													
FEB	SUM	0.000	-11.167	1124.007	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-145.862	13.645	0.000	ELEC	5	3	1	12	14	20	31	31	8	2	0	127
	DAY/HR	0/ 0	5/10	5/10	0/ 0													
MAR	SUM	0.000	-17.602	1779.555	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-141.281	13.321	0.000	ELEC	9	1	22	68	61	37	33	15	10	0	0	256
	DAY/HR	0/ 0	18/ 9	18/ 9	0/ 0													
APR	SUM	0.000	-9.311	967.682	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-130.023	12.625	0.000	ELEC	1	6	32	76	20	15	6	5	4	0	0	165
	DAY/HR	0/ 0	15/ 8	7/ 7	0/ 0													
MAY	SUM	0.000	-3.771	390.181	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-139.602	13.599	0.000	ELEC	1	8	9	23	13	7	3	1	2	0	0	67
	DAY/HR	0/ 0	5/ 9	5/ 9	0/ 0													
JUN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUL	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
AUG	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
SEP	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
OCT	SUM	0.000	-7.594	805.049	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

PEAK	0.000	-133.899	13.183	0.000	ELEC	5	38	42	32	26	7	5	5	4	0	0	164
DAY/HR	0/ 0	15/ 8	15/ 8	0/ 0													
NOV SUM	0.000	-11.437	1152.884	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	-143.759	13.722	0.000	ELEC	39	11	23	27	24	31	24	15	3	1	0	198
DAY/HR	0/ 0	20/ 8	20/ 8	0/ 0													
DEC SUM	0.000	-16.142	1661.720	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	-140.627	13.454	0.000	ELEC	81	3	12	15	25	39	45	26	19	0	0	265
DAY/HR	0/ 0	20/11	26/ 9	0/ 0													

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP4Htg                                                   WEATHER FILE- SEATTLE BOEING FI WA
-------------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------
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Yr    SUM       0.000     -89.434    9185.184       0.000 LOAD   0     0     0     0     0     0     0     0     0     0     0     0
     PEAK       0.000    -145.862      13.722       0.000 ELEC 145    71   148   273   201   188   176   121    67     4     0  1394
  MON/DAY        0/ 0        2/ 5       11/20        0/ 0

  Normalized (ARI) Capacity at Peak:  0.144 MBTU/HR  at CHW T/Adjusted Condenser T:  44.0F  95.0F  and Drybulb/Wetbulb:   0.F   0.F
```

DETAILED SIZING INFORMATION

EQUIPMENT TYPE	CAPACITY (TONS)	START-UP (HOURS)	HT/CL CAP (FRAC)	COOL ELEC (KW)	COOL EIR (BTU/BTU)	COOL EFF (KW/TON)	AUX ELEC (KW)	HEAT ELEC (KW)	HEAT EIR (BTU/BTU)
HEAT-PUMP	12.000	0.0400	0.0250	0.668	0.3588	1.2615	0.000	12.324	0.4375

		THERMAL (MBTU/HR)	HEAD (FT)	STATIC (FT)	FLOW (GPM)	FLOW/CAP (GPM/TON)	DELTA T (F)	DESIGN T (F)
Htg2PipeLoop		0.144	0.10	0.00	36.00	3.00	7.99	44.00
	Heating Mode	-0.096	0.00	0.00	0.00	0.00	-8.24	105.00
Air-Cooled		0.196						95.00
	Heating Mode	-0.054						25.50

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP5Htg WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	AUXILIARY (KW)
HEAT-PUMP	Htg2PipeLoop	0.144	36.0	0.359	0.000

MON		COOL LOAD (MBTU) (KBTU/HR)	HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	AUX ENERGY (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.000	-3.756	437.142	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-135.617	13.629	0.000	ELEC	0	0	0	0	3	16	12	10	3	1	0	45
	DAY/HR	0/ 0	13/ 8	13/ 8	0/ 0													
FEB	SUM	0.000	-2.417	263.397	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-141.900	13.595	0.000	ELEC	0	0	0	0	5	4	10	4	4	0	0	27
	DAY/HR	0/ 0	10/11	10/11	0/ 0													
MAR	SUM	0.000	-2.165	215.438	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-127.908	12.912	0.000	ELEC	0	0	0	0	8	7	3	4	2	0	0	24
	DAY/HR	0/ 0	31/ 9	31/ 9	0/ 0													
APR	SUM	0.000	-0.201	20.113	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-124.416	12.520	0.000	ELEC	0	0	0	0	0	1	0	0	1	0	0	2
	DAY/HR	0/ 0	7/ 8	7/ 8	0/ 0													
MAY	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUL	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
AUG	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
SEP	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
OCT	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
NOV SUM	0.000	-0.951	94.870	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	-144.928	13.554	0.000	ELEC	0	0	0	0	1	2	2	1	3	0	0	9
DAY/HR	0/ 0	24/10	24/10	0/ 0													
DEC SUM	0.000	-5.370	569.990	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	-142.874	13.542	0.000	ELEC	4	1	0	4	5	21	10	12	8	0	0	65
DAY/HR	0/ 0	15/ 8	4/10	0/ 0													

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP5Htg                                                   WEATHER FILE- SEATTLE BOEING FI WA
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           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM       0.000     -14.860    1600.951       0.000 LOAD   0     0     0     0     0     0     0     0     0     0     0     0
     PEAK       0.000    -144.928      13.629       0.000 ELEC   4     1     0     4    22    51    37    31    21     1     0   172
  MON/DAY        0/ 0       11/24        1/13        0/ 0

  Normalized (ARI) Capacity at Peak:  0.144 MBTU/HR  at CHW T/Adjusted Condenser T:  44.0F  95.0F  and Drybulb/Wetbulb:   0.F   0.F


DETAILED SIZING INFORMATION

                   CAPACITY    START-UP    HT/CL CAP   COOL ELEC   COOL EIR    COOL EFF    AUX ELEC   HEAT ELEC    HEAT EIR
 EQUIPMENT TYPE     (TONS)      (HOURS)     (FRAC)       (KW)      (BTU/BTU)   (KW/TON)      (KW)        (KW)      (BTU/BTU)
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HEAT-PUMP             12.000      0.0400      0.0250       0.668      0.3588      1.2615       0.000      12.324      0.4375


                                   THERMAL      HEAD       STATIC       FLOW      FLOW/CAP     DELTA T    DESIGN T
                                  (MBTU/HR)     ( FT)       (FT)        (GPM)     (GPM/TON)     (F)         (F)
-------------------------------  ----------  ----------  ----------  ----------  ----------  ----------  ----------

Htg2PipeLoop                          0.144        0.10        0.00       36.00        3.00        7.99       44.00
                    Heating Mode     -0.096        0.00        0.00        0.00        0.00       -8.24      105.00
Air-Cooled                            0.196                                                                    95.00
                    Heating Mode     -0.054                                                                    25.50
```

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP6Htg WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	AUXILIARY (KW)
HEAT-PUMP	Htg2PipeLoop	0.144	36.0	0.359	0.000

MON		COOL LOAD (MBTU) (KBTU/HR)	HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	AUX ENERGY (KWH) (KW)		Number of hours within each PART LOAD range 00-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100+	TOTAL RUN HOURS
JAN	SUM	0.000	-5.089	589.580	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-135.617	13.629	0.000	ELEC	50	0	1	0	3	14	16	17	4	1	0	106
	DAY/HR	0/ 0	13/ 8	13/ 8	0/ 0													
FEB	SUM	0.000	-3.502	357.798	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-138.426	12.725	0.000	ELEC	5	0	1	0	4	6	12	8	5	0	0	41
	DAY/HR	0/ 0	10/16	10/16	0/ 0													
MAR	SUM	0.000	-0.940	97.216	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-123.162	12.783	0.000	ELEC	0	0	0	0	2	3	1	3	1	0	0	10
	DAY/HR	0/ 0	17/ 8	10/ 8	0/ 0													
APR	SUM	0.000	-0.201	20.113	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	-124.416	12.520	0.000	ELEC	0	0	0	0	0	1	0	0	1	0	0	2
	DAY/HR	0/ 0	7/ 8	7/ 8	0/ 0													
MAY	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUN	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
JUL	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
AUG	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
SEP	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
	DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
OCT	SUM	0.000	0.000	0.000	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

PEAK	0.000	0.000	0.000	0.000	ELEC	0	0	0	0	0	0	0	0	0	0	0	0
DAY/HR	0/ 0	0/ 0	0/ 0	0/ 0													
NOV SUM	0.000	-0.677	69.255	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	-132.233	12.837	0.000	ELEC	0	0	0	0	1	2	2	0	2	0	0	7
DAY/HR	0/ 0	24/ 8	24/ 8	0/ 0													
DEC SUM	0.000	-3.260	346.608	0.000	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	-142.874	13.488	0.000	ELEC	0	0	0	0	3	12	6	8	6	0	0	35
DAY/HR	0/ 0	15/ 8	3/ 9	0/ 0													

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP6Htg                                                   WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------
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Yr    SUM       0.000     -13.668    1480.570       0.000 LOAD   0     0     0     0     0     0     0     0     0     0     0     0
     PEAK       0.000    -142.874      13.629       0.000 ELEC  55     0     2     0    13    38    37    36    19     1     0   201
  MON/DAY        0/ 0       12/15        1/13        0/ 0

  Normalized (ARI) Capacity at Peak:  0.144 MBTU/HR  at CHW T/Adjusted Condenser T:  44.0F  95.0F  and Drybulb/Wetbulb:   0.F   0.F
```

DETAILED SIZING INFORMATION

EQUIPMENT TYPE	CAPACITY (TONS)	START-UP (HOURS)	HT/CL CAP (FRAC)	COOL ELEC (KW)	COOL EIR (BTU/BTU)	COOL EFF (KW/TON)	AUX ELEC (KW)	HEAT ELEC (KW)	HEAT EIR (BTU/BTU)
HEAT-PUMP	12.000	0.0400	0.0250	0.668	0.3588	1.2615	0.000	12.324	0.4375

		THERMAL (MBTU/HR)	HEAD (FT)	STATIC (FT)	FLOW (GPM)	FLOW/CAP (GPM/TON)	DELTA T (F)	DESIGN T (F)
Htg2PipeLoop		0.144	0.10	0.00	36.00	3.00	7.99	44.00
	Heating Mode	-0.096	0.00	0.00	0.00	0.00	-8.24	105.00
Air-Cooled		0.196						95.00
	Heating Mode	-0.054						25.50

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP1-DHW WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	HIR (FRAC)	AUXILIARY (KW)	TANK (GAL)	TANK UA (BTU/HR-F)
HEAT-PUMP DW-HTR	DHW-Loop	-0.016	0.4	0.216	0.000	0.000	119.0	4.00

MON		HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	FUEL USE (MBTU) (KBTU/HR)	AUX ENERGY (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	-7.308	894.379	0.000	514.863	LOAD	414	141	105	84	0	0	0	0	0	0	0	744
	PEAK	-32.104	5.685	0.000	4.668	ELEC	0	21	284	105	27	55	30	50	4	0	168	744
	DAY/HR	2/13	3/17	0/ 0	2/12	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
FEB	SUM	-6.814	851.929	0.000	493.896	LOAD	370	131	95	76	0	0	0	0	0	0	0	672
	PEAK	-32.947	5.680	0.000	4.668	ELEC	0	19	251	96	8	45	24	59	18	0	152	672
	DAY/HR	3/13	7/17	0/ 0	3/12	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
MAR	SUM	-7.599	949.110	0.000	548.650	LOAD	405	150	105	84	0	0	0	0	0	0	0	744
	PEAK	-33.014	5.680	0.000	4.668	ELEC	0	21	271	108	10	43	35	56	32	0	168	744
	DAY/HR	3/13	7/17	0/ 0	3/12	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
APR	SUM	-7.603	951.870	0.000	559.833	LOAD	376	146	110	88	0	0	0	0	0	0	0	720
	PEAK	-32.614	5.682	0.000	4.668	ELEC	0	22	248	102	8	56	38	66	4	0	176	720
	DAY/HR	1/13	25/17	0/ 0	1/12	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
MAY	SUM	-7.136	843.359	0.000	476.304	LOAD	410	145	126	63	0	0	0	0	0	0	0	744
	PEAK	-31.008	5.689	0.000	4.668	ELEC	0	86	244	111	11	51	41	32	0	0	168	744
	DAY/HR	1/13	23/14	0/ 0	1/12	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
JUN	SUM	-6.637	734.163	0.000	396.058	LOAD	394	158	140	28	0	0	0	0	0	0	0	720
	PEAK	-29.410	5.696	0.000	4.668	ELEC	0	110	237	43	57	34	46	4	0	21	147	699
	DAY/HR	2/13	27/12	0/ 0	2/12	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	-6.588	650.216	0.000	312.045	LOAD	404	164	154	22	0	0	0	0	0	0	0	744
	PEAK	-28.024	5.701	0.000	4.668	ELEC	0	227	134	43	64	59	19	0	19	25	132	722
	DAY/HR	1/13	25/13	0/ 0	1/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
AUG	SUM	-6.247	566.511	0.000	243.594	LOAD	415	161	147	21	0	0	0	0	0	0	0	744
	PEAK	-27.146	5.706	0.000	4.668	ELEC	0	277	123	10	78	62	5	0	36	47	85	723
	DAY/HR	1/13	29/13	0/ 0	1/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	-6.109	553.953	0.000	239.719	LOAD	398	154	147	21	0	0	0	0	0	0	0	720
	PEAK	-27.071	5.706	0.000	4.668	ELEC	0	269	117	8	75	58	4	0	41	43	84	699
	DAY/HR	2/13	26/13	0/ 0	2/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
OCT	SUM	-6.532	625.801	0.000	291.384	LOAD	404	164	154	22	0	0	0	0	0	0	0	744

PEAK	-27.785	5.704	0.000	4.668	ELEC	0	276	105	23	78	60	4	0	22	33	121	722
DAY/HR	1/13	1/13	0/ 0	1/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
NOV SUM	-5.997	633.835	0.000	320.127	LOAD	428	148	126	18	0	0	0	0	0	0	0	720
PEAK	-29.136	5.698	0.000	4.668	ELEC	0	145	238	43	53	47	31	1	0	21	123	702
DAY/HR	3/13	7/12	0/ 0	3/12	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
DEC SUM	-7.214	841.083	0.000	475.894	LOAD	404	142	132	66	0	0	0	0	0	0	0	744
PEAK	-30.685	5.692	0.000	4.668	ELEC	0	124	211	105	12	52	45	19	0	0	176	744
DAY/HR	1/13	1/14	0/ 0	1/12	FUEL	0	0	0	0	0	0	0	0	0	0	0	0

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP1-DHW                                                WEATHER FILE- SEATTLE BOEING FI WA
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Yr    SUM     -81.785    9096.208       0.000    4872.367 LOAD4822  1804  1541   593     0     0     0     0     0     0     0  8760
     PEAK     -33.014       5.706       0.000       4.668 ELEC   0  1597  2463   797   481   622   322   287   176   190  1700  8635
  MON/DAY        3/ 3        9/26        0/ 0        1/ 2 FUEL   0     0     0     0     0     0     0     0     0     0     0     0
```

DETAILED SIZING INFORMATION

EQUIPMENT TYPE	CAPACITY (MBTU/HR)	ELECTRIC (KW)	HEAT EIR (BTU/BTU)	AUX ELEC (KW)	FUEL (MBTU/HR)	HEAT HIR (BTU/BTU)	TANK (GAL)	TANK UA (BTU/HR-F)
HEAT-PUMP DW-HTR	-0.016	1.008	0.2158	0.000	0.000	0.0000	119.0	4.00

ATTACHED TO	THERMAL (MBTU/HR)	HEAD (FT)	FLOW (GPM)	DELTA T (F)	DESIGN T (F)
DHW-Loop	-0.016	1.00	0.43	73.78	150.00
Ambient					51.99

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP2-DHW WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	HIR (FRAC)	AUXILIARY (KW)	TANK (GAL)	TANK UA (BTU/HR-F)
HEAT-PUMP DW-HTR	DHW-Loop	-0.016	0.4	0.216	0.000	0.000	119.0	4.00

MON		HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	FUEL USE (MBTU) (KBTU/HR)	AUX ENERGY (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.000	300.492	0.000	250.474	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.570	0.000	4.497	ELEC	576	0	0	0	21	0	21	0	0	0	63	681
	DAY/HR	0/ 0	21/13	0/ 0	2/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
FEB	SUM	0.000	287.010	0.000	241.328	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.690	0.000	4.616	ELEC	520	0	0	0	19	0	0	0	19	0	57	615
	DAY/HR	0/ 0	18/13	0/ 0	3/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
MAR	SUM	0.000	318.685	0.000	268.033	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.699	0.000	4.625	ELEC	576	0	0	0	21	0	0	0	21	0	63	681
	DAY/HR	0/ 0	31/13	0/ 0	3/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
APR	SUM	0.000	321.093	0.000	272.714	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.643	0.000	4.569	ELEC	544	0	0	0	22	0	0	22	0	0	66	654
	DAY/HR	0/ 0	1/13	0/ 0	1/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
MAY	SUM	0.000	278.742	0.000	229.347	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.415	0.000	4.342	ELEC	576	0	0	21	21	0	0	0	0	0	63	681
	DAY/HR	0/ 0	1/13	0/ 0	1/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
JUN	SUM	0.000	245.224	0.000	198.538	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.188	0.000	4.117	ELEC	573	0	21	0	0	0	0	0	0	0	63	657
	DAY/HR	0/ 0	2/13	0/ 0	20/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	0.000	227.441	0.000	180.054	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	3.991	0.000	3.921	ELEC	612	0	0	0	0	0	0	0	0	0	66	678
	DAY/HR	0/ 0	1/13	0/ 0	17/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
AUG	SUM	0.000	202.069	0.000	154.984	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	3.866	0.000	3.797	ELEC	618	0	0	0	0	0	0	0	0	0	63	681
	DAY/HR	0/ 0	4/13	0/ 0	21/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	0.000	198.936	0.000	153.549	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	3.856	0.000	3.787	ELEC	594	0	0	0	0	0	0	0	0	0	63	657
	DAY/HR	0/ 0	2/13	0/ 0	2/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
OCT	SUM	0.000	222.397	0.000	175.249	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

	PEAK	0.000	3.957	0.000	3.887	ELEC	612	0	0	0	0	0	0	0	0	0	66	678
	DAY/HR	0/ 0	14/13	0/ 0	10/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
NOV	SUM	0.000	212.719	0.000	165.656	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.148	0.000	4.078	ELEC	594	18	0	0	0	0	0	0	0	0	54	666
	DAY/HR	0/ 0	17/13	0/ 0	3/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
DEC	SUM	0.000	282.552	0.000	233.746	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.369	0.000	4.297	ELEC	568	0	22	0	22	0	0	0	0	0	66	678
	DAY/HR	0/ 0	29/13	0/ 0	26/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0

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Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP2-DHW                                                WEATHER FILE- SEATTLE BOEING FI WA
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Yr    SUM       0.000    3097.361       0.000    2523.671 LOAD   0     0     0     0     0     0     0     0     0     0     0     0
     PEAK       0.000       4.699       0.000       4.625 ELEC6963    18    43    21   126     0    21    22    40     0   753  8007
  MON/DAY        0/ 0        3/31        0/ 0        3/ 3 FUEL   0     0     0     0     0     0     0     0     0     0     0     0
```

DETAILED SIZING INFORMATION

EQUIPMENT TYPE	CAPACITY (MBTU/HR)	ELECTRIC (KW)	HEAT EIR (BTU/BTU)	AUX ELEC (KW)	FUEL (MBTU/HR)	HEAT HIR (BTU/BTU)	TANK (GAL)	TANK UA (BTU/HR-F)
HEAT-PUMP DW-HTR	-0.016	1.008	0.2158	0.000	0.000	0.0000	119.0	4.00

ATTACHED TO	THERMAL (MBTU/HR)	HEAD (FT)	FLOW (GPM)	DELTA T (F)	DESIGN T (F)
DHW-Loop	-0.016	1.00	0.43	73.78	150.00
Ambient					51.99

Metropole DOE-2.3-50h 9/16/2020 11:40:15 BDL RUN 8

REPORT- PS-H Loads and Energy Usage for HP3-DHW WEATHER FILE- SEATTLE BOEING FI WA

EQUIPMENT TYPE	ATTACHED TO	CAPACITY (MBTU/HR)	FLOW (GPM)	EIR (FRAC)	HIR (FRAC)	AUXILIARY (KW)	TANK (GAL)	TANK UA (BTU/HR-F)
HEAT-PUMP DW-HTR	DHW-Loop	-0.016	0.4	0.216	0.000	0.000	119.0	4.00

MON		HEAT LOAD (MBTU) (KBTU/HR)	ELEC USE (KWH) (KW)	FUEL USE (MBTU) (KBTU/HR)	AUX ENERGY (KWH) (KW)		00 10	10 20	20 30	30 40	40 50	50 60	60 70	70 80	80 90	90 100	100 +	TOTAL RUN HOURS
JAN	SUM	0.000	300.492	0.000	250.474	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.570	0.000	4.497	ELEC	576	0	0	0	21	0	21	0	0	0	63	681
	DAY/HR	0/ 0	21/13	0/ 0	2/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
FEB	SUM	0.000	287.010	0.000	241.328	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.690	0.000	4.616	ELEC	520	0	0	0	19	0	0	0	19	0	57	615
	DAY/HR	0/ 0	18/13	0/ 0	3/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
MAR	SUM	0.000	318.685	0.000	268.033	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.699	0.000	4.625	ELEC	576	0	0	0	21	0	0	0	21	0	63	681
	DAY/HR	0/ 0	31/13	0/ 0	3/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
APR	SUM	0.000	321.093	0.000	272.714	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.643	0.000	4.569	ELEC	544	0	0	0	22	0	0	22	0	0	66	654
	DAY/HR	0/ 0	1/13	0/ 0	1/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
MAY	SUM	0.000	278.742	0.000	229.347	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.415	0.000	4.342	ELEC	576	0	0	21	21	0	0	0	0	0	63	681
	DAY/HR	0/ 0	1/13	0/ 0	1/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
JUN	SUM	0.000	245.224	0.000	198.538	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	4.188	0.000	4.117	ELEC	573	0	21	0	0	0	0	0	0	0	63	657
	DAY/HR	0/ 0	2/13	0/ 0	20/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
JUL	SUM	0.000	227.441	0.000	180.054	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	3.991	0.000	3.921	ELEC	612	0	0	0	0	0	0	0	0	0	66	678
	DAY/HR	0/ 0	1/13	0/ 0	17/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
AUG	SUM	0.000	202.069	0.000	154.984	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	3.866	0.000	3.797	ELEC	618	0	0	0	0	0	0	0	0	0	63	681
	DAY/HR	0/ 0	4/13	0/ 0	21/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
SEP	SUM	0.000	198.936	0.000	153.549	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
	PEAK	0.000	3.856	0.000	3.787	ELEC	594	0	0	0	0	0	0	0	0	0	63	657
	DAY/HR	0/ 0	2/13	0/ 0	2/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
OCT	SUM	0.000	222.397	0.000	175.249	LOAD	0	0	0	0	0	0	0	0	0	0	0	0

PEAK	0.000	3.957	0.000	3.887	ELEC	612	0	0	0	0	0	0	0	0	0	66	678
DAY/HR	0/ 0	14/13	0/ 0	10/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
NOV SUM	0.000	212.719	0.000	165.656	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	4.148	0.000	4.078	ELEC	594	18	0	0	0	0	0	0	0	0	54	666
DAY/HR	0/ 0	17/13	0/ 0	3/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0
DEC SUM	0.000	282.552	0.000	233.746	LOAD	0	0	0	0	0	0	0	0	0	0	0	0
PEAK	0.000	4.369	0.000	4.297	ELEC	568	0	22	0	22	0	0	0	0	0	66	678
DAY/HR	0/ 0	29/13	0/ 0	26/13	FUEL	0	0	0	0	0	0	0	0	0	0	0	0

```
Metropole                                                                                    DOE-2.3-50h    9/16/2020    11:40:15  BDL RUN  8

REPORT- PS-H Loads and Energy Usage for     HP3-DHW                                                WEATHER FILE- SEATTLE BOEING FI WA
-----------------------------------------------------------------------------------------------------------------------------(CONTINUED)--------
           ==========  ==========  ==========  ==========     ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====  ====

Yr    SUM       0.000    3097.361       0.000    2523.671 LOAD   0     0     0     0     0     0     0     0     0     0     0     0
     PEAK       0.000       4.699       0.000       4.625 ELEC6963    18    43    21   126     0    21    22    40     0   753  8007
  MON/DAY        0/ 0        3/31        0/ 0        3/ 3 FUEL   0     0     0     0     0     0     0     0     0     0     0     0
```

DETAILED SIZING INFORMATION

EQUIPMENT TYPE	CAPACITY (MBTU/HR)	ELECTRIC (KW)	HEAT EIR (BTU/BTU)	AUX ELEC (KW)	FUEL (MBTU/HR)	HEAT HIR (BTU/BTU)	TANK (GAL)	TANK UA (BTU/HR-F)
HEAT-PUMP DW-HTR	-0.016	1.008	0.2158	0.000	0.000	0.0000	119.0	4.00

ATTACHED TO	THERMAL (MBTU/HR)	HEAD (FT)	FLOW (GPM)	DELTA T (F)	DESIGN T (F)
DHW-Loop	-0.016	1.00	0.43	73.78	150.00
Ambient					51.99