
TECHNICAL REPORT TWO

National Law Enforcement Museum – Washington, D.C.

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EXECUTIVE SUMMARY

This technical report analyzes the building energy loads for the National Law Enforcement Museum in Washington, DC. It utilizes Trane Trace 700 as both an energy and load modeling tool to determine whether the thesis model meets the criteria established by the engineers in their building model.

The first portion of this report analyzes the building load. It details the sources of all the various input required in building modeling including weather data, occupancy types, and building materials. This section also shows the output of the load model and its comparison to the engineer's calculations. It is concluded that the thesis model is lacking in the precision pursued by the engineer's model and therefore leads to lower results.

Finally, this report discusses the energy use within the building including its cost per square foot. The Trace 700 model is again used as the engineer's energy model was not completed. This does not allow for comparison between the two models, but following the trend from the earlier section, it can be assume that this model also needs to be further perfected and analyzed in order for the author to suggest more energy efficient strategies for the museum.

PROJECT BACKGROUND

The National Law Enforcement Museum is a 54,000 SF museum will be located in Washington, D.C. between 4th and 5th Street on E Street NW. This structure will complement the Law Enforcement Officer's Memorial and complete the overall aesthetics of the Courthouse Complex of Judiciary Square.

The defining architectural element of the structure are the two glass pavilions that function as the entrance to the museum. Upon entry, the guests will be lead via escalator to the two museum floors. The museum will hold a ticketing area, exhibit space, a research space, café, gift shop and a theater. The third floor below ground will be contain the central plant and utility connections for the structure.

This \$50 million dollar project is expected to take 28 months of construction beginning June 2014 and ending September 2015. The contract is set up as a Design-Bid-Build. The Architects and Owners worked together to develop the building design. Following this the Engineers, Consultants and Construction Manager were hired. Finally, the project was bid out to specific subcontractors.

The historical location of the project required cooperation and approval of a number of historical and zoning associations such as the US Commission of Fine Arts, the DC Preservation Review Board and others. The building design is also pursuing LEED© Silver status and preparing to meet compliance with the Section 106 Review as an extra Environmental Assessment.

MECHANICAL SYSTEM OVERVIEW

The museum is designed to be supplied by six air handling units (AHUs) located in various areas and supplying the multiple spaces in the building. Two 5000 CFM AHUs are specifically assigned to the East and West pavilions, another two 33000 CFM air handling units are situated to serve the exhibit area. Two 4000 CFM units serve the theater and the central plant area. The building is cooled using a combination of a chiller and two cooling towers. The water cooled system is the heat sink for the air handling units. A heat exchanger is also part of the system to support partial or complete free-cooling should the building conditions meet certain criteria.

Air is supplied from the air handling units at a temperature ranging from 50-56 degrees Fahrenheit and then ducted to variable air volume units. The air supply system is separated into three major components: the East & West pavilions, the exhibit areas, and the theater. The theater air handling unit varies its supply to the space with a variable frequency drive at the AHU. Heating in the building is supplied with electric heat at the air handling units and electric reheat at the VAV boxes. Air is returned using a return air plenum for each area and then ducted to be mixed with outside air intakes. Fifteen fan coil units are also used to supplement minor areas such as the café, gift shop and research center.

The entire system is controlled by a direct digital control (DDC) building automation system (BAS). The entry pavilions, theater, and exhibit space each have different control algorithms within the BAS. This control system will use the inputs from various carbon dioxide, oxygen and occupancy sensors. The occupancy schedule is set by the owner with the engineers confirming this with site visits in the one year after construction. Temperature sensors are located within the space and input information to the variable air volume boxes to supply adequate heating or cooling to the spaces. Humidity is maintained at the air handling units from information received by humidity sensors within the return ductwork.

DESIGN LOAD ESTIMATION

Both the design load and the energy load for NLEM are calculated for this report using Trane Trace 700©. Several input are required for this calculation and are detailed in the following sections. This analysis is important to the overall understanding of the building because it builds the foundation of energy use. Mechanical systems are the largest consumer of energy in any building.

Calculating the load in the structure requires multiple sources of information. This includes weather criteria, building temperature & humidity requirements, building schedules, the estimated occupancy and the occupancy type of all the spaces.

MODEL INPUT

ROOM SCHEDULE

WHEN USING TRACE 700, THE ROOMS OF THE BUILDING AND LOAD. THE ROOMS AND THEIR INPUT DATA CAN BE FOUND IN

Appendix A – Room Schedule. This details the room name, number, area, level and whether it is an interior or exterior space. It also includes the system designation of each room, its occupancy classification, lighting power density, and which load template was used in Trace 700© for internal load, airflow and thermostat settings.

WEATHER DATA

The National Law Enforcement Museum is located in Washington, DC. Therefore, that ASHRAE weather file was used. The winter design uses the 99.6% for winter and the 0.4% dry bulb temperature for summer. This is different from the engineer’s calculation because they have their own weather file composed of an average of previous weather conditions. Table 1 displays the variations between the input temperatures.

Table 1 - Modeling weather data input variations

	Thesis Input	Engineer's Input
<i>Summer Design Dry Bulb</i>	93.2 F	91.9 F
<i>Summer Design Wet Bulb</i>	75.1 F	75.3 F
<i>Winter Design Dry Bulb</i>	9.6 F	15.9 F

OUTDOOR AIR VENTILATION RATES

The mechanical design narrative provided by the MEP Engineers, Loring Consulting Engineers, specifies ventilation rates for general office space, assembly areas, and the museum. There are also design occupancies for the main spaces of the auditorium, hall of remembrance, atrium, exhibits and other areas. The specific inputs are outlined in Table 2 and Table 3.

Table 2 - Design input for outdoor air ventilation rates

Outside Air Ventilation	CFM/Person	CFM/SF
<i>General Office</i>	5	0.06
<i>Assembly Area</i>	5	0.06
<i>Museum</i>	7.5	0.06

Table 3 - Design input for space occupancies

Assumed Occupancy	Persons
<i>Auditorium</i>	120
<i>Hall of Remembrance</i>	110
<i>Atrium</i>	100
<i>Exhibits</i>	440
<i>Other Area</i>	45

ENVELOPE, LIGHTING & POWER LOADS

Further load criteria are required to complete the load and energy models. These include the envelope U values, lighting loads per square foot, and other miscellaneous power loads. It is important to note that the skylights and curtain wall are designed as the same glazing type, therefore, those two U-values are the same. The envelope loads are detailed in Table 4, the engineer’s lighting loads are available in Table 5, and the specific power loads are depicted in Table 6.

Table 4 - U-values for building envelope

Envelope U-values	
<i>Above Grade Walls</i>	0.05
<i>Below Grade Walls</i>	0.08
<i>Roof</i>	0.05
<i>Skylight</i>	0.29
<i>Skylight Shading Coefficient</i>	0.33
<i>Curtain Wall</i>	0.29

Table 5 - Engineer specified lighting loads for HVAC calculations

Lighting Loads	Watts/SF
<i>General Office Area</i>	1.0
<i>Auditorium</i>	1.0
<i>Hall of Remembrance</i>	1.0
<i>Atrium</i>	1.0
<i>Exhibits</i>	1.0

Table 6 - Power loads as used by the MEP engineer

Power Loads	Watts/SF
<i>General Office Area</i>	2.0
<i>Exhibits - Process Lights</i>	10.0

BUILDING SCHEDULE

As a museum, the National Law Enforcement Museum is expected to operate ten hours per day with eight of those hours for the exhibits. The engineers did not explicitly state the occupancy time so it is assumed that the museum will be open at the same time as other museums in the District of Columbia, from 9:00AM to 5:00PM.

The engineers assumed that building occupancy would vary between 500-100 persons per day as a normal population. The expected maximum occupancy for the building is during National Police Week in early May. The museum is expecting 1300 persons to attend daily during this time.

DESIGN HEATING & COOLING LOADS

Loring Consulting Engineers also used Trane Trace 700© to calculate their design loads. Their results and the results from the Thesis calculation for cooling loads are defined in Table 7.

Table 7 - Trace 700(C) calculation comparison between thesis model and engineer's model for building cooling loads

<i>System</i>	Thesis Calculation (Btu/hr)			Engineer's Calculation			Error
	Sensible Load	Latent Load	Total Load	Sensible Load2	Latent Load3	Total Load4	
<i>AHU-1</i>	86547	9444	95991	123585	20502	144086	60%
<i>AHU-2</i>	110092	36378	146470	140713	23455	164168	53%
<i>AHU-3</i>	334478	146982	502344	1342301	437407	1779708	78%
<i>AHU-4</i>	348084	202811	550895	1342301	437407	1779708	76%
<i>AHU-5</i>	1967	751	2718	96030	36075	132105	98%
<i>AHU-6</i>	101045	34726	135771	140318	0	140318	51%
<i>FCU-1</i>	5098	5321	10419	24656	4588	29244	74%
<i>FCU-2</i>	578	24	602	912	370	1282	68%
<i>FCU-3</i>	14688	623	15310	3587	1241	4828	24%
<i>FCU-4</i>	8996	8828	17824	22890	16787	39677	69%
<i>FCU-5</i>	22373	16075	38448	330987	51494	382481	91%
<i>FCU-6</i>	18680	19590	38270	20518	5699	26217	41%
<i>FCU-7</i>	1286	504	1790	10579	3607	14186	89%
<i>FCU-8</i>	2418	949	3366	5788	480	6268	65%
<i>FCU-9</i>	248	259	507	917	353	1270	71%
<i>FCU-10</i>	2252	1772	4024	7630	3047	10677	73%
<i>FCU-11</i>	34989	1447	36437	46898	1563	48461	57%

From the error column on the far right, there is a very large error between the thesis model and the engineer's calculations. This is likely because the thesis model did not account for the load from the mechanical rooms except for the central plant room below the structure. This is obviously an error in judgment and a more complete load calculation must be completed to fully understand the structure. Further examination of the cooling tons for the building, as seen in Table 8, show a further discrepancy in the calculations.

Table 8 - Total cooling tons calculated for NLEM vs. Engineer's guidelines

<i>Cooling Tons</i>	Thesis Calculation	Engineer's Calculation
<i>System</i>	<i>(tons)</i>	<i>(tons)</i>
<i>AHU-1</i>	7.9	
<i>AHU-2</i>	12	
<i>AHU-3</i>	33	
<i>AHU-4</i>	38.7	
<i>AHU-5</i>	8.8	
<i>AHU-6</i>	1.2	
<i>FCU-1</i>	2.8	
<i>FCU-2</i>	0.1	
<i>FCU-3</i>	1.3	
<i>FCU-4</i>	1.1	
<i>FCU-5</i>	3	
<i>FCU-6</i>	2.9	
<i>FCU-7</i>	0.1	
<i>FCU-8</i>	0.3	
<i>FCU-9</i>	0.1	
<i>FCU-10</i>	0.1	
<i>FCU-11</i>	0.3	
Total	113.7	246

The engineer did not provide their heating calculations for the model but summarized in the mechanical narrative that the building requires 673 MBH or heating as its total load. A comparison of the heating capacities is located Table 9. Again, there is a significant difference between the load calculated by the thesis model and the load provided by the engineer.

Table 9 - Design heating capacities per system, comparison with engineer's design total heating load

Design Heating Capacities		
<i>System</i>	(BTU/hr)	(MBh)
<i>AHU-1</i>	76462	70
<i>AHU-2</i>	91553	72
<i>AHU-3</i>	236461	150
<i>AHU-4</i>	270795	162
<i>AHU-5</i>	26076	26
<i>AHU-6</i>	1775	2
<i>FCU-1</i>	15129	15
<i>FCU-2</i>	194	0
<i>FCU-3</i>	4922	5
<i>FCU-4</i>	1931	6
<i>FCU-5</i>	6109	11
<i>FCU-6</i>	11367	1
<i>FCU-7</i>	514	1
<i>FCU-8</i>	966	0
<i>FCU-9</i>	63	0
<i>FCU-10</i>	165	0
<i>FCU-11</i>	426	2
<i>Total</i>	744908	523
<i>Engineer's Calculation</i>		673

DESIGNED VS. COMPUTED COMPARISON

To determine whether the two models are accurate to each other, a comparison of the certain indices is shown in Appendix B – Calculation Indices Comparison. This table compares the ventilation indices for cooling at ft^2/ton , for heating at $\text{Btu}\cdot\text{hr}/\text{ft}^2$, for supply air at cfm/ft^2 and ventilation supply at cfm/ft^2 .

The values show that the two models are disjointed from each other. However, the trend between them is similar. This is further affirmation that the thesis model must be modified further to mimic the design case. Moving forward, a more exact model would have utilize a zoning system to simplify the project, instead of the room by room analysis currently completed.

ENERGY CONSUMPTION & OPERATING COSTS

Summary of following section & its components

EQUIPMENT

Statistically, HVAC systems utilize most of a building's energy use. This is reflected in the amount of equipment and their power consumption. A table detailing the major mechanical equipment can be found in Appendix C – Mechanical Equipment. These details are of the design equipment detailed in the construction drawings by the building mechanical engineer.

From the previous report, Technical Report One, it can be concluded that all designated equipment meet ASHRAE 62.1 Section 5 for mechanical systems and equipment and ASHRAE 90.1 for HVAC and other equipment.

UTILITY COSTS

There are five components of utility that help the National Law Enforcement Museum to function. These include electric demand (both on and off peak), electric consumption (on and off peak), gas, water and fuel oil. None of the equipment in the building require fuel oil or gas and instead utilize water and electricity. This is likely because of the cramped construction conditions and the already present PEPCO main line that runs immediately adjacent to the site.

The utility provider for electricity is PEPCO, the major electricity supply company in the northeast United States. Their substation for NLEM is located on the fourth floor below grade in the central plant area. Water supply to the site is from the District of Columbia Water and Sewer Authority. Both these firms' rates are shown in Table 10. These utility rates are inserted into Trace 700© to perform energy and economy calculations.

Table 10 - Table of utility costs for the National Law Enforcement Museum

NLEM Utility Costs		
Electric Demand	\$/kw	5.4
Electric Consumption	\$/kwh	0.09
Electric Demand Off Peak	\$/kw	5.87
Electric Consumption Off Peak	\$/kwh	0.08
Gas	\$/therm	0.466
Water	\$/1000 gal.	5.19
Oil	\$/therm	0.4776

ENERGY ANALYSIS

There was not an energy analysis performed on the building model by the mechanical engineer. However, multiple energy conservation strategies are utilized in the design. This includes specifying high efficiency electric motors and light fixtures. The variable frequency drives for the cooling tower and air handling units also control energy consumption. Free cooling via the heat exchanger also reduces energy costs.

Using the thesis model, the energy use for NLEM per year is shown in Table 11. A visual representation of the total energy use for the building is show in Figure 1. From the figure, it can be concluded that a majority of the building’s energy cost is from lighting and electrical loads. This is to be expected in a museum containing a theater. Display lighting often utilizes equipment with higher wattage.

Table 11 - Total building energy use per system per year

Building Energy (kBtu/yr)	
Heating	384539
Cooling	766230
Auxiliary Mechanical Equipment	289599
Lighting	474226
Other Electrical Loads	1162671

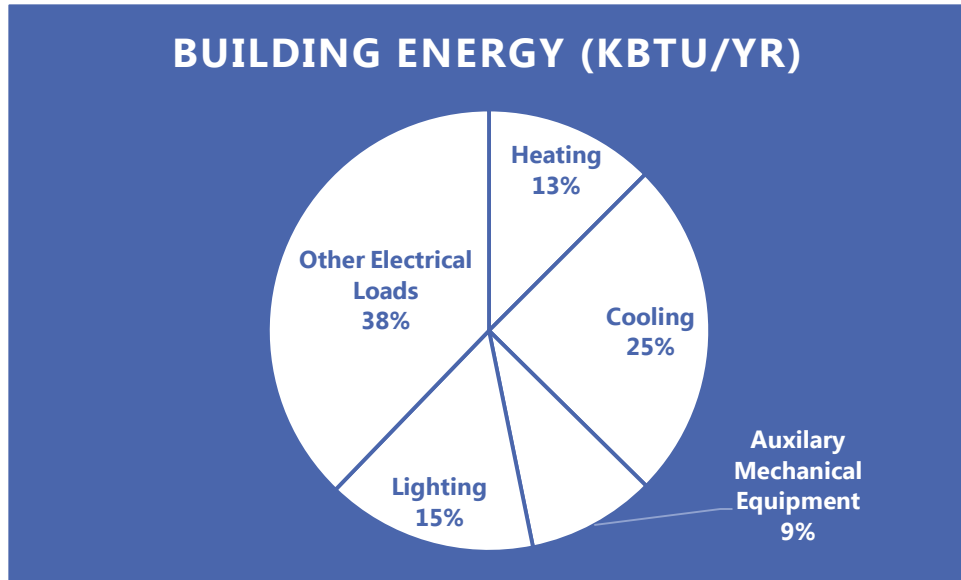


Figure 1 - Pie chart of percent energy use, using data from Table 11

ENERGY SUMMARY

Using the thesis model, the budgeting cost for energy use within the building is defined in Table 12. This table outlines the expected energy use within the building so facility managers may budget accordingly. From these values and the base square foot area of the museum being 54,000 SF, the energy cost per square foot of the National Law Enforcement Museum is estimated at \$1.87/SF. This is higher than the average expected for higher efficiency buildings of this type.

Table 12 - Energy cost budget of energy use per year per system

Energy Cost Budget	Mbtu/yr
Lighting	474.2
Heating	384.5
Cooling	334.2
Pumps	68.9
Heat Rejection	392.4
Fans	260.4
Receptacles	1162.7

EMISSIONS

Trace 700© calculates the Environmental impact of a building by analyzing both the site energy consumption, but also source energy consumption. The model output can be found in Table 13. Because of the heavy use of electricity in the building, it has very high carbon emissions. This may be improved in the future with the use of a more local source of energy such as wind, solar or hydropower.

Table 13 - Emissions from NLEM building as modeled by Trace 700(C)

Building Emissions		
CO2	2508111	lbm/yr
SO2	8966	gm/yr
NOX	3827	gm/yr

Further enhancements are difficult to make to the structure because it already is designed to LEED Silver. However, other less cost effective methods for reducing the energy footprint are available. This may be done with the use of photovoltaics or a local energy storage system, perhaps by using ice banks. Architecturally, the exterior pavilions could be designed to contain less glass and therefore a lower solar load would reduce energy consumption.

APPENDIX A – ROOM SCHEDULE

Room No.	Room Name	Area (SF)	Level #	Level Name	Interior/ Exterior	System	Occupancy Classification	Lighting Power Density (W/ft2)	Internal Load	Airflow	Thermostat
101	entry lobby	769	1	Ground	Exterior	AHU-2	Lobby	1	Lobby	Assembly	Museum
103	east elevator lobby	75	1	Ground	Interior	AHU-2	Lobby	1	Lobby	Assembly	Museum
105	fire control room	178	1	Ground	Interior	FCU-03	Utility	1	None	Storage	Museum
108	exit lobby	721	1	Ground	Exterior	AHU-1	Lobby	1	Lobby	Assembly	Museum
110	west elevator lobby	51	1	Ground	Interior	AHU-1	Lobby	1	Lobby	Assembly	Museum
111	hoover research center	621	1	Ground	Exterior	FCU-01	Computer Room	1	Office	Office	Museum
112.1	elevator #2 closet	7	1	Ground	Interior	FCU-02	Utility	1	None	Storage	Museum
201	ticket/ info area	1695	2	Ticketing	Exterior	AHU-4	Lobby	1	Lobby	Assembly	Museum
202	east elevator lobby	174	2	Ticketing	Interior	AHU-4	Lobby	1	Lobby	Assembly	Museum
204	electrical room	95	2	Ticketing	Interior	AHU-4	Utility	1	None	Storage	Museum
206.1	storage	48	2	Ticketing	Interior	AHU-4	Storage	1	None	Storage	Museum
207	corridor	1200	2	Ticketing	Interior	AHU-4	Corridor	1	None	Office	Museum
208	warming kitchen	173	2	Ticketing	Interior	AHU-4	Cafeteria/Fast Food	1	Restaurant	Restaurant	Museum
209	storage	35	2	Ticketing	Interior	AHU-4	Storage	1	None	Storage	Museum
210	janitor's closet	68	2	Ticketing	Interior	AHU-4	Utility	1	None	Storage	Museum

Room No.	Room Name	Area (SF)	Level #	Level Name	Interior/Exterior	System	Occupancy Classification	Lighting Power Density (W/ft2)	Internal Load	Airflow	Thermostat
211	gift shop storage	89	2	Ticketing	Interior	AHU-4	Storage	1	None	Storage	Museum
215	west elevator lobby	175	2	Ticketing	Interior	FCU-05	Lobby	1	Lobby	Assembly	Museum
216	corridor	305	2	Ticketing	Exterior	FCU-05	Corridor	1	None	Office	Museum
216.1	west TVS lobby	1150	2	Ticketing	Exterior	FCU-05	Lobby	1	Lobby	Assembly	Museum
217	gift shop	1157	2	Ticketing	Exterior	FCU-06	Retail	1	Retail	Retail	Museum
217.1	gift office	82	2	Ticketing	Interior	FCU-05	Office	1	Office	Office	Museum
218	restroom	240	2	Ticketing	Interior	AHU-3	Restroom	1	None	Restroom	Museum
219	public coats/lockers	157	2	Ticketing	Interior	AHU-3	Locker Room	1	None	Restroom	Museum
220	restroom	178	2	Ticketing	Interior	AHU-3	Restroom	1	None	Restroom	Museum
221	café	300	2	Ticketing	Exterior	FCU-04	Cafeteria/Fast Food	1	Restaurant	Restaurant	Museum
221	café - FCU	328	2	Ticketing	Exterior	FCU-04	Cafeteria/Fast Food	1	Restaurant	Restaurant	Museum
222	admin offices	735	2	Ticketing	Exterior	AHU-3	Office	1	Office	Office	Museum
301	multipurpose	338	3	Exhibit	Exterior	AHU-4	Multipurpose Assembly	1	Lobby	Assembly	Museum
302	staff locker	80	3	Exhibit	Interior	AHU-4	Locker Room	1	Office	Restroom	Museum
303	restroom	84	3	Exhibit	Interior	AHU-4	Restroom	1	None	Restroom	Museum
304	green room/flex office	146	3	Exhibit	Interior	AHU-4	Office	1	Reception	Office	Museum
305	office	183	3	Exhibit	Exterior	AHU-4	Office	1	Office	Office	Museum
305.1	IT closet	177	3	Exhibit	Interior	AHU-4	Utility	1	None	Storage	Museum
306	electrical room	80	3	Exhibit	Interior	AHU-4	Utility	1	None	Storage	Museum
307	corridor	284	3	Exhibit	Exterior	AHU-4	Corridor	1	None	Office	Museum
308	exhibit support	1338	3	Exhibit	Exterior	AHU-4	Office	1	Office	Office	Museum

Room No.	Room Name	Area (SF)	Level #	Level Name	Interior/Exterior	System	Occupancy Classification	Lighting Power Density (W/ft2)	Internal Load	Airflow	Thermostat
309	storage	63	3	Exhibit	Interior	AHU-4	Storage	1	None	Storage	Museum
310	hall of remembrance	998	3	Exhibit	Exterior	AHU-4	Museum/Gallery	1	Lobby	Museum	Museum
311	changing exhibits	2124	3	Exhibit	Exterior	AHU-3	Museum/Gallery	1	Lobby	Museum	Museum
313	restroom	173	3	Exhibit	Interior	AHU-3	Restroom	1	None	Restroom	Museum
314	restroom	274	3	Exhibit	Interior	AHU-3	Restroom	1	None	Restroom	Museum
315	office	148	3	Exhibit	Exterior	AHU-3	Office	1	Office	Office	Museum
317	exhibit AV	192	3	Exhibit	Interior	FCU-08	Computer Room	1	Office	Office	Museum
318	corridor	219	3	Exhibit	Interior	AHU-3	Corridor	1	None	Office	Museum
319	theater	1698	3	Exhibit	Exterior	AHU-5	Theater	1.3	Auditorium	Auditorium	Museum
319.1	projection room	152	3	Exhibit	Interior	AHU-5	Computer Room	1.3	Office	Office	Museum
320	exhibit hall	6100	3	Exhibit	Exterior	AHU-3	Museum/Gallery	1	Lobby	Museum	Museum
320	exhibit hall	6100	3	Exhibit	Exterior	AHU-4	Museum/Gallery	1	Lobby	Museum	Museum
320.2	AV room	102	3	Exhibit	Interior	FCU-07	Computer Room	1.3	Office	Office	Museum
320.3	judgment simulator	430	3	Exhibit	Exterior	AHU-3	Museum/Gallery	1	Lobby	Museum	Museum
400	PEPCO substation	1160	4	Plant	Exterior	AHU-6	Utility	1	None	Storage	Museum
402	low voltage switchgear room	460	4	Plant	Exterior	AHU-6	Utility	1	None	Storage	Museum
404	building management controls	413	4	Plant	Exterior	FCU-11	Utility	1	None	Storage	Museum

Room No.	Room Name	Area (SF)	Level #	Level Name	Interior/ Exterior	System	Occupancy Classification	Lighting Power Density (W/ft2)	Internal Load	Airflow	Thermostat
406	elevator #3 control	128	4	Plant	Exterior	FCU-10	Utility	1	None	Storage	Museum
407	elevator #1 control	61	4	Plant	Exterior	FCU-09	Utility	1	None	Storage	Museum

APPENDIX B – CALCULATION INDICES COMPARISON

Design Comparison per Square Foot								
	Thesis Calculation				Engineer's Design			
System	Cooling (ft ² /ton)	Heating (BTU*h/ft ²)	Supply Air (CFM/ft ²)	Ventilation Supply Air (CFM/ft ²)	Cooling (ft ² /ton)	heating (BTU*h/ft ²)	Supply Air (CFM/ft ²)	Ventilation Supply Air (CFM/ft ²)
AHU-1	97.3	99.04	1.89	1.89	60.4	78.11	0.66	0.067848
AHU-2	70.3	108.47	1.59	1.59	56.6	68.14	0.66	0.063294
AHU-3	234	30.6	0.34	0.34	186	49	1.98	0.400752
AHU-4	267.9	26.13	0.78	0.283218	186	49	1.98	0.400752
AHU-5	211.4	14.1	1.56	0.310284	172.6	35.56	1.52	0.380456
AHU-6	1346	1.1	0.11	0.096767	138.5	0	3.68	0
FCU-1	220	24.36	2.94	0.044982	155.9	31.47	2.78	0.256872
FCU-2	139.5	27.66	3.47	0.096119	155.9	31.47	2.78	0.256872
FCU-3	139.5	27.66	3.47	0.096119	155.9	31.47	2.78	0.256872
FCU-4	264.3	6.44	0.64	0.539008	155.9	31.47	2.78	0.256872
FCU-5	566.1	3.57	0.37	0.145891	155.9	31.47	2.78	0.256872
FCU-6	400.1	9.82	0.35	0.35	155.9	31.47	2.78	0.256872
FCU-7	728.7	5.04	0.5	0.0901	155.9	31.47	2.78	0.256872
FCU-8	729.4	5.03	0.5	0.09025	155.9	31.47	2.78	0.256872
FCU-9	1443.6	1.03	0.1	0.1	155.9	31.47	2.78	0.256872
FCU-10	1447.9	1.29	0.12	0.094428	155.9	31.47	2.78	0.256872
FCU-11	1338	1.03	0.1	0.1	155.9	31.47	2.78	0.256872

APPENDIX C – MECHANICAL EQUIPMENT

Equipment	Function	Airflow (cfm)	Cooling Water Flow (gpm)	Heating Coil (kw)	Motor (hp)	Notes
AHU-1	Air handling unit	5000	20.50	25.00	5.00	
AHU-2	Air handling unit	5000	20.50	25.00	5.00	
AHU-3	Air handling unit	33000	138.27	160.00	40.00	
AHU-4	Air handling unit	33000	138.27	160.00	40.00	
AHU-5	Air handling unit	4000	25.26	25.00	5.00	
AHU-6	Air handling unit	4000	19.84	0.00	5.00	
FCU-1	Fan coil unit	1800	9.22	16.00	1.00	
FCU-2	Fan coil unit	650	3.24	2.00	0.33	
FCU-3	Fan coil unit	360	1.75	2.00	0.24	
FCU-4	Fan coil unit	1200	6.30	7.00	0.75	
FCU-5	Fan coil unit	1900	10.60	20.00	1.00	
FCU-6	Fan coil unit	1900	10.60	20.00	1.00	
FCU-7	Fan coil unit	300	1.42	2.00	0.24	
FCU-8	Fan coil unit	1800	10.91	5.50	0.75	
FCU-9	Fan coil unit	300	1.13	2.00	0.33	
FCU-10	Fan coil unit	900	3.56	6.50	0.50	
FCU-11	Fan coil unit	450	1.87	3.50	0.33	
CH-1	Chiller		437.00			
CT-1	Cooling Tower	45870	252.00	7.00	25.00	*fan
CT-2	Cooling Tower	45870	252.00	7.00	25.00	*fan

Equipment	Function	Airflow (cfm)	Cooling Water Flow (gpm)	Heating Coil (kw)	Motor (hp)	Notes
HX-1	Heat Exchanger		437.00		25.00	*pumps combined
EF-1	Exhaust Fan	1000			0.25	
GEF-1	Exhaust Fan	5000			3.00	
RAF-1	Exhaust Fan	5000			3.00	
SEF-1	Exhaust Fan	40000			25.00	
SEF-2	Exhaust Fan	40000			25.00	
SEF-3	Exhaust Fan	40000			25.00	
SEF-4	Exhaust Fan	20000			15.00	
SEF-5	Exhaust Fan	5000			5.00	
SEF-6	Exhaust Fan	5000			3.00	
SEF-7	Exhaust Fan	5000			3.00	
SPF-1	Exhaust Fan	4000			2.00	
SPF-2	Exhaust Fan	4000			2.00	
SPF-3	Exhaust Fan	4000			1.50	
SPF-4	Exhaust Fan	4000			1.50	
TEF-1	Exhaust Fan	4020			1.50	
TEF-2	Exhaust Fan	400			0.25	
CUH-1	Electric Heater	250		6.00	0.24	
EUH-1	Electric Heater	400		5.00	0.01	

APPENDIX D – BUILDING LOAD SUMMARIES

Room Checksums

By ACADEMIC

101 entry lobby

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES					
Peaked at Time:		Mo/Hr: 7 / 16		Mo/Hr: 6 / 16		Mo/Hr: Heating Design			Cooling			Heating				
Outside Air:		OADB/WB/HR: 91 / 76 / 115		OADB: 89		OADB: 17			SADB			Ra Plenum				
Return		76.2		76.2		77.7			Fn MtrTD			0.0				
Fn BldTD		0.0		0.0		0.0			Fn Frict			0.0				
Fn Frict		0.0		0.0		0.0										
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total								
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens									
Envelope Loads				Envelope Loads												
Skylite Solar	53,988	0	53,988	39	55,148	60	0	0.00								
Skylite Cond	0	2,791	2,791	2	0	0	0	-10,922	14.82							
Roof Cond	0	0	0	0	0	0	0	0	0.00							
Glass Solar	0	0	0	0	0	0	0	0	0.00							
Glass/Door Cond	0	0	0	0	0	0	0	0	0.00							
Wall Cond	9,383	2,682	12,065	9	9,123	10	-11,482	-14,565	19.76							
Partition/Door	0	0	0	0	0	0	0	0	0.00							
Floor	0	0	0	0	0	0	0	0	0.00							
Adjacent Floor	0	0	0	0	0	0	0	0	0.00							
Infiltration	0	0	0	0	0	0	0	0	0.00							
Sub Total ==>	63,371	5,473	68,844	50	64,271	70	-11,482	-25,487	34.58							
Internal Loads				Internal Loads												
Lights	2,100	525	2,625	2	2,100	2	0	0	0.00							
People	45,000	0	45,000	32	25,000	27	0	0	0.00							
Misc	0	0	0	0	0	0	0	0	0.00							
Sub Total ==>	47,100	525	47,625	34	27,100	30	0	0	0.00							
Ceiling Load	296	-296	0	0	274	0	-1,124	0	0.00							
Ventilation Load	0	0	23,030	17	0	0	0	0	0.00							
Adj Air Trans Heat	0	0	0	0	0	0	0	0	0							
Dehumid. Ov Sizing	0	0	0	0	0	0	-29,463	-29,463	39.97							
Ov/Undr Sizing	0	0	0	0	0	0	0	0	0.00							
Exhaust Heat	0	-592	-592	0	0	0	-18,699	0	0.00							
Sup. Fan Heat	0	0	0	0	0	0	0	0	0.00							
Ret. Fan Heat	0	0	0	0	0	0	0	0	0.00							
Duct Heat Pkup	0	0	0	0	0	0	-57	0	0.08							
Underflr Sup Ht Pkup	0	0	0	0	0	0	0	0	0.00							
Supply Air Leakage	0	0	0	0	0	0	0	0	0.00							
Grand Total ==>	110,767	5,110	138,906	100.00	91,644	100.00	-42,068	-73,706	100.00							

AIRFLOWS		
	Cooling	Heating
Diffuser	4,193	2,516
Terminal	4,193	2,516
Main Fan	4,193	1,258
Sec Fan	0	1,258
Nom Vent	437	0
AHU Vent	437	0
Infil	0	0
MinStop/Rh	1,258	1,258
Return	4,193	1,258
Exhaust	437	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	10.4	0.0
cfm/ft²	5.45	1.64
cfm/ton	362.24	
ft²/ton	66.43	
Btu/hr-ft²	180.63	-114.11
No. People	100	

COOLING COIL SELECTION											AREAS			HEATING COIL SELECTION				
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	ft² (%)	Capacity	Coil Airflow	Ent °F	Lvg °F	
	ton	MBh			MBh	cfm	°F	°F	gr/lb	°F								°F
Main Clg	11.6	138.9	103.4	4,153	77.7	64.6	70.3	55.4	53.5	58.2	Floor	769						
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0						
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0						
											ExFlr	0						
Total	11.6	138.9									Roof	769	769	100				
											Wall	1,220	0	0				
											Ext Door	0	0	0				
											Total	-87.8						

Room Checksums

By ACADEMIC

103 east elev lobby

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 15		Mo/Hr: 6 / 15		Mo/Hr: Heating Design						Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 118		OADB: 90		OADB: 17						SADB	55.4	85.0
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total (%)	Space Sens	Tot Sens	Percent Of Total (%)	Ra Plenum	76.1	65.4
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Return	76.1	65.4
Envelope Loads				Envelope Loads				Envelope Loads				Fn MtrTD	0.0	0.0
Skylite Solar	0	5,448	71	5,570	88	0	0	0.00	0	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	272	272	4	0	0	0	-1,065	24.44	0	-1,065	24.44	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	0	0	0.00	0	0	0.00			
Glass Solar	0	0	0	0	0	0	0	0.00	0	0	0.00			
Glass/Door Cond	0	0	0	0	0	0	0	0.00	0	0	0.00			
Wall Cond	0	0	0	0	0	0	0	0.00	0	0	0.00			
Partition/Door	0	0	0	0	0	0	0	0.00	0	0	0.00			
Floor	0	0	0	0	0	0	0	0.00	0	0	0.00			
Adjacent Floor	0	0	0	0	0	0	0	0.00	0	0	0.00			
Infiltration	0	0	0	0	0	0	0	0.00	0	0	0.00			
Sub Total ==>	5,448	272	5,720	75	5,570	88	0	-1,065	24.44	0	-1,065			
Internal Loads				Internal Loads				Internal Loads						
Lights	205	51	256	3	205	3	0	0.00	0	0	0.00			
People	1,014	0	1,014	13	563	9	0	0.00	0	0	0.00			
Misc	0	0	0	0	0	0	0	0.00	0	0	0.00			
Sub Total ==>	1,218	51	1,269	17	768	12	0	0	0	0	0.00			
Ceiling Load	27	-27	0	0	25	0	-110	0.00	0	0	0.00			
Ventilation Load	0	0	690	9	0	0	0	0.00	0	0	0.00			
Adj Air Trans Heat	0	0	0	0	0	0	0	0	0	0	0			
Dehumid. Ov Sizing	0	0	0	0	0	0	-2,811	64.49	-2,811	-2,811	64.49			
Ov/Undr Sizing	0	0	0	0	0	0	0	0.00	0	0	0.00			
Exhaust Heat	0	-16	-16	0	0	0	-540	12.38	0	0	0.00			
Sup. Fan Heat	0	0	0	0	0	0	0	0.00	0	0	0.00			
Ret. Fan Heat	0	0	0	0	0	0	0	0.00	0	0	0.00			
Duct Heat Pkup	0	0	0	0	0	0	57	-1.32	0	0	0.00			
Underflr Sup Ht Pkup	0	0	0	0	0	0	0	0.00	0	0	0.00			
Supply Air Leakage	0	0	0	0	0	0	0	0.00	0	0	0.00			
Grand Total ==>	6,693	281	7,664	100.00	6,363	100.00	-2,921	100.00	-4,359	-4,359	100.00			

AIRFLOWS		
	Cooling	Heating
Diffuser	291	175
Terminal	291	175
Main Fan	291	87
Sec Fan	0	87
Nom Vent	13	0
AHU Vent	13	0
Infil	0	0
MinStop/Rh	87	87
Return	291	87
Exhaust	13	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	4.3	0.0
cfm/ft²	3.88	1.16
cfm/ton	455.83	
ft²/ton	117.43	
Btu/hr-ft²	102.19	-71.10
No. People	2	

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION								
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Lvg	Capacity	Coil Airflow	Ent	Lvg				
	ton	MBh			MBh	cfm	°F	°F	gr/lb	°F								°F	gr/lb	ft²	(%)
Main Clg	0.6	7.7	6.8	286	76.8	63.7	67.3	55.4	54.8	63.0	Floor	75					Main Htg	-4.8	175	60.4	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0					Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0					Preheat	-0.5	13	17.0	55.4
											ExFlr	0					Reheat	-1.4	87	55.4	70.0
Total	0.6	7.7									Roof	75	75	100			Humidif	0.0	16	2.6	2.7
											Wall	0	0	0			Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	0	0			Total	-5.3			

Room Checksums

By ACADEMIC

105 fire control room

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 6 / 15		Mo/Hr: 6 / 15		Mo/Hr: Heating Design		Mo/Hr: Heating Design		Mo/Hr: Heating Design		Cooling	Heating	
Outside Air:		OADB/WB/HR: 90 / 75 / 104		OADB: 90		OADB: 90		OADB: 17		OADB: 17		SADB	55.0	85.0
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total (%)	Space Sens	Tot Sens	Percent Of Total (%)	Return	76.0	61.2
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	76.4	61.2
Envelope Loads				Envelope Loads				Envelope Loads				Fn MtrTD	0.0	0.0
Skylite Solar	13,220	0	13,220	86	13,220	96	0	0.00	0	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	0	577	577	4	0	0	-2,310	47.04	0	-2,310	47.04	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	0	0	0.00	0	0	0.00			
Glass Solar	0	0	0	0	0	0	0	0.00	0	0	0.00			
Glass/Door Cond	0	0	0	0	0	0	0	0.00	0	0	0.00			
Wall Cond	0	0	0	0	0	0	0	0.00	0	0	0.00			
Partition/Door	0	0	0	0	0	0	0	0.00	0	0	0.00			
Floor	0	0	0	0	0	0	0	0.00	0	0	0.00			
Adjacent Floor	0	0	0	0	0	0	0	0.00	0	0	0.00			
Infiltration	0	0	0	0	0	0	0	0.00	0	0	0.00			
Sub Total ==>	13,220	577	13,797	90	13,220	96	0	47.04	0	-2,310	47.04			
Internal Loads				Internal Loads				Internal Loads						
Lights	486	122	608	4	486	4	0	0.00	0	0	0.00			
People	0	0	0	0	0	0	0	0.00	0	0	0.00			
Misc	0	0	0	0	0	0	0	0.00	0	0	0.00			
Sub Total ==>	486	122	608	4	486	4	0	0.00	0	0	0.00			
Ceiling Load	54	-54	0	0	54	0	-496	0.00	-496	0	0.00			
Ventilation Load	0	0	906	6	0	0	0	0.00	0	0	0.00			
Adj Air Trans Heat	0	0	0	0	0	0	0	0.00	0	0	0.00			
Dehumid. Ov Sizing	0	0	0	0	0	0	-2,600	52.96	-2,600	-2,600	52.96			
Ov/Undr Sizing	0	0	0	0	0	0	0	0.00	0	0	0.00			
Exhaust Heat	0	0	0	0	0	0	0	0.00	0	0	0.00			
Sup. Fan Heat	0	0	0	0	0	0	0	0.00	0	0	0.00			
Ret. Fan Heat	0	0	0	0	0	0	0	0.00	0	0	0.00			
Duct Heat Pkup	0	0	0	0	0	0	0	0.00	0	0	0.00			
Underflr Sup Ht Pkup	0	0	0	0	0	0	0	0.00	0	0	0.00			
Supply Air Leakage	0	0	0	0	0	0	0	0.00	0	0	0.00			
Grand Total ==>	13,760	644	15,310	100.00	13,760	100.00	-3,096	100.00	-3,096	-4,910	100.00			

AIRFLOWS		
	Cooling	Heating
Diffuser	617	185
Terminal	617	185
Main Fan	617	185
Sec Fan	0	0
Nom Vent	17	0
AHU Vent	17	0
Infil	0	0
MinStop/Rh	185	185
Return	600	185
Exhaust	0	0
Rm Exh	17	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	2.8	0.0
cfm/ft²	3.47	1.04
cfm/ton	483.75	
ft²/ton	139.51	
Btu/hr-ft²	86.01	-27.65
No. People	0	

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
	Total Capacity		Sens Cap. MBh	Coil Airflow cfm	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass ft² (%)		Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
	ton	MBh			°F	°F	gr/lb	°F	°F	gr/lb							
Main Clg	1.3	15.3	14.7	617	76.4	60.6	53.8	55.0	51.8	52.2	Floor	178	Main Htg	-4.9	185	61.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0	Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	0.0	0	0.0	0.0
											ExFlr	0					
Total	1.3	15.3									Roof	178	Humidif	0.0	21	2.6	3.4
											Wall	0	Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	Total	-4.9			

Room Checksums

By ACADEMIC

108 exit lobby

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 15		Mo/Hr: 6 / 15		Mo/Hr: Heating Design						Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 118		OADB: 90		OADB: 17						SADB	60.0	85.0
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total (%)	Space Sens	Tot Sens	Percent Of Total (%)	Return	75.6	66.8
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	76.0	66.8
Envelope Loads				Envelope Loads				Envelope Loads				Fn MtrTD	0.0	0.0
Skylite Solar	0	52,370	58	53,548	69	0	0	0.00	0	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	2,729	2,729	3	0	0	0	-10,540	16.89	0	-10,540	16.89	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	0	0	0.00	0	0	0.00			
Glass Solar	12,773	12,773	14	13,011	17	0	0	0.00	0	0	0.00			
Glass/Door Cond	4,120	4,120	5	3,659	5	-16,180	-16,180	25.93	0	-16,180	25.93			
Wall Cond	0	0	0	0	0	0	0	0.00	0	0	0.00			
Partition/Door	0	0	0	0	0	0	0	0.00	0	0	0.00			
Floor	0	0	0	0	0	0	0	0.00	0	0	0.00			
Adjacent Floor	0	0	0	0	0	0	0	0.00	0	0	0.00			
Infiltration	0	0	0	0	0	0	0	0.00	0	0	0.00			
Sub Total ==>	69,264	2,729	71,992	79	70,218	90	-16,180	42.82	-16,180	-26,719	42.82			
Internal Loads				Internal Loads				Internal Loads						
Lights	1,969	492	2,461	3	1,969	3	0	0.00	0	0	0.00			
People	9,743	0	9,743	11	5,413	7	0	0.00	0	0	0.00			
Misc	0	0	0	0	0	0	0	0.00	0	0	0.00			
Sub Total ==>	11,712	492	12,204	13	7,382	9	0	0.00	0	0	0.00			
Ceiling Load	140	-140	0	0	125	0	-731	0.00	-731	0	0.00			
Ventilation Load	0	0	6,652	7	0	0	0	0.00	0	0	0.00			
Adj Air Trans Heat	0	0	0	0	0	0	0	0.00	0	0	0.00			
Dehumid. Ov Sizing	0	0	0	0	0	0	-29,724	47.64	0	-29,724	47.64			
Ov/Undr Sizing	0	0	0	0	0	0	0	0.00	0	0	0.00			
Exhaust Heat	-83	-83	0	0	0	0	-5,810	9.31	0	-5,810	9.31			
Sup. Fan Heat	0	0	0	0	0	0	0	0.00	0	0	0.00			
Ret. Fan Heat	0	0	0	0	0	0	0	0.00	0	0	0.00			
Duct Heat Pkup	0	0	0	0	0	0	-141	0.23	0	-141	0.23			
Underflr Sup Ht Pkup	0	0	0	0	0	0	0	0.00	0	0	0.00			
Supply Air Leakage	0	0	0	0	0	0	0	0.00	0	0	0.00			
Grand Total ==>	81,115	2,999	90,766	100.00	77,725	100.00	-46,635	100.00	-46,635	-62,395	100.00			

AIRFLOWS		
	Cooling	Heating
Diffuser	4,648	2,789
Terminal	4,648	2,789
Main Fan	4,648	1,395
Sec Fan	0	1,395
Nom Vent	121	0
AHU Vent	121	0
Infil	0	0
MinStop/Rh	1,395	1,395
Return	4,648	1,395
Exhaust	121	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	2.6	0.0
cfm/ft²	6.45	1.93
cfm/ton	614.55	
ft²/ton	95.32	
Btu/hr-ft²	125.89	-101.21
No. People	22	

COOLING COIL SELECTION											AREAS			HEATING COIL SELECTION				
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Lvg	Capacity	Coil Airflow	Ent	Lvg	
	ton	MBh			MBh	cfm	°F	°F	gr/lb	°F								°F
Main Clg	7.6	90.8	82.0	4,592	76.0	63.2	66.2	60.0	56.7	63.4	Floor	721						
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0						
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0						
											ExFlr	0						
Total	7.6	90.8									Roof	721	721	100				
											Wall	1,040	1,040	100				
											Ext Door	0	0	0				
											Total	-73.0						

Room Checksums

By ACADEMIC

110 west elev lobby

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES					
Peaked at Time:		Mo/Hr: 7 / 15		Mo/Hr: 6 / 15		Mo/Hr: Heating Design			Cooling			Heating				
Outside Air:		OADB/WB/HR: 91 / 77 / 118		OADB: 90		OADB: 17			SADB			Ra Plenum				
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total (%)	Return			Ret/OA				
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens		Fn MtrTD			Fn BldTD				
						Btu/h	Btu/h		Fn Frict							
Envelope Loads				Envelope Loads				Envelope Loads								
Skylite Solar	0	3,704	71	3,788	88	0	0	0.00								
Skylite Cond	193	193	4	0	0	0	-746	20.97								
Roof Cond	0	0	0	0	0	0	0	0.00								
Glass Solar	0	0	0	0	0	0	0	0.00								
Glass/Door Cond	0	0	0	0	0	0	0	0.00								
Wall Cond	0	0	0	0	0	0	0	0.00								
Partition/Door	0	0	0	0	0	0	0	0.00								
Floor	0	0	0	0	0	0	0	0.00								
Adjacent Floor	0	0	0	0	0	0	0	0.00								
Infiltration	0	0	0	0	0	0	0	0.00								
Sub Total ==>	3,704	193	3,897	75	3,788	88	0	-746	20.97							
Internal Loads				Internal Loads				Internal Loads								
Lights	139	35	174	3	139	3	0	0.00								
People	689	0	689	13	383	9	0	0.00								
Misc	0	0	0	0	0	0	0	0.00								
Sub Total ==>	828	35	863	17	522	12	0	0	0.00							
Ceiling Load	10	-10	0	0	9	0	-52	0	0.00							
Ventilation Load	0	0	471	9	0	0	0	0	0.00							
Adj Air Trans Heat	0	0	0	0	0	0	0	0	0							
Dehumid. Ov Sizing	0	0	0	0	0	0	-2,539	-2,539	71.43							
Ov/Undr Sizing	0	0	0	0	0	0	0	0	0.00							
Exhaust Heat	0	-6	-6	0	0	0	-411	11.56	0.00							
Sup. Fan Heat	0	0	0	0	0	0	0	0	0.00							
Ret. Fan Heat	0	0	0	0	0	0	0	0	0.00							
Duct Heat Pkup	0	0	0	0	0	0	141	-3.97	0.00							
Underflr Sup Ht Pkup	0	0	0	0	0	0	0	0	0.00							
Supply Air Leakage	0	0	0	0	0	0	0	0	0.00							
Grand Total ==>	4,543	212	5,225	100.00	4,319	100.00	-2,591	-3,555	100.00							

AIRFLOWS		
	Cooling	Heating
Diffuser	258	155
Terminal	258	155
Main Fan	258	77
Sec Fan	0	77
Nom Vent	9	0
AHU Vent	9	0
Infil	0	0
MinStop/Rh	77	77
Return	258	77
Exhaust	9	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	3.3	0.0
cfm/ft²	5.06	1.52
cfm/ton	593.14	
ft²/ton	117.12	
Btu/hr-ft²	102.46	-81.24
No. People	2	

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION						
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Lvg	Capacity	Coil Airflow	Ent	Lvg		
	ton	MBh			MBh	cfm	°F	°F	gr/lb	°F								°F	gr/lb
Main Clg	0.4	5.2	4.6	253	76.1	63.3	66.5	60.0	56.5	62.8	Floor	51		Main Htg	-3.7	155	63.4	85.0	
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0		Aux Htg	0.0	0	0.0	0.0	
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0		Preheat	-0.4	9	17.0	60.0	
											ExFlr	0		Reheat	-0.9	77	60.0	70.0	
Total	0.4	5.2									Roof	51	51	100	Humidif	0.0	11	2.6	2.7
											Wall	0	0	0	Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	0	0	Total	-4.1			

Room Checksums

By ACADEMIC

111 hoover research center

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 6 / 19		Mo/Hr: 6 / 19		Mo/Hr: Heating Design						Cooling	Heating	
Outside Air:		OADB/WB/HR: 83 / 71 / 95		OADB: 83		OADB: 17						SADB	60.0	85.0
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total (%)	Space Sens	Tot Sens	Percent Of Total (%)	Ra Plenum	75.9	60.7
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Return	75.9	60.7
Envelope Loads				Envelope Loads				Envelope Loads				Ret/OA	76.0	60.7
Skylite Solar	0	7,717	21	7,717	24	0	0	0.00	0	0	0.00	Fn MtrTD	0.0	0.0
Skylite Cond	1,757	1,757	5	0	0	0	-7,958	49.90	0	-7,958	49.90	Fn BldTD	0.0	0.0
Roof Cond	0	0	0	0	0	0	0	0.00	0	0	0.00	Fn Frict	0.0	0.0
Glass Solar	16,805	16,805	46	16,805	51	0	0	0.00	0	0	0.00			
Glass/Door Cond	1,040	1,040	3	1,040	3	-5,227	-5,227	32.77	-5,227	-5,227	32.77			
Wall Cond	0	0	0	0	0	0	0	0.00	0	0	0.00			
Partition/Door	0	0	0	0	0	0	0	0.00	0	0	0.00			
Floor	0	0	0	0	0	0	0	0.00	0	0	0.00			
Adjacent Floor	0	0	0	0	0	0	0	0.00	0	0	0.00			
Infiltration	0	0	0	0	0	0	0	0.00	0	0	0.00			
Sub Total ==>	25,561	1,757	27,319	75	25,561	78	-5,227	82.67	-5,227	-13,186	82.67			
Internal Loads				Internal Loads				Internal Loads						
Lights	1,696	424	2,119	6	1,696	5	0	0.00	0	0	0.00			
People	1,954	0	1,954	5	1,086	3	0	0.00	0	0	0.00			
Misc	4,239	0	4,239	12	4,239	13	0	0.00	0	0	0.00			
Sub Total ==>	7,889	424	8,313	23	7,020	21	0	0.00	0	0	0.00			
Ceiling Load	180	-180	0	0	180	1	-1,838	0.00	-1,838	0	0.00			
Ventilation Load	0	0	834	2	0	0	0	0.00	0	0	0.00			
Adj Air Trans Heat	0	0	0	0	0	0	0	0.00	0	0	0.00			
Dehumid. Ov Sizing	0	0	0	0	0	0	-2,763	17.33	-2,763	-2,763	17.33			
Ov/Undr Sizing	0	0	0	0	0	0	0	0.00	0	0	0.00			
Exhaust Heat	0	-29	-29	0	0	0	0	0.00	0	0	0.00			
Sup. Fan Heat	0	0	0	0	0	0	0	0.00	0	0	0.00			
Ret. Fan Heat	0	0	0	0	0	0	0	0.00	0	0	0.00			
Duct Heat Pkup	0	0	0	0	0	0	0	0.00	0	0	0.00			
Underflr Sup Ht Pkup	0	0	0	0	0	0	0	0.00	0	0	0.00			
Supply Air Leakage	0	0	0	0	0	0	0	0.00	0	0	0.00			
Grand Total ==>	33,630	1,973	36,437	100.00	32,762	100.00	-9,829	100.00	-9,829	-15,949	100.00			

AIRFLOWS

	Cooling	Heating
Diffuser	1,959	588
Terminal	1,959	588
Main Fan	1,959	588
Sec Fan	0	0
Nom Vent	28	0
AHU Vent	28	0
Infil	0	0
MinStop/Rh	588	588
Return	1,959	588
Exhaust	28	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	1.4	0.0
cfm/ft²	3.16	0.95
cfm/ton	645.28	
ft²/ton	204.52	
Btu/hr-ft²	58.67	-25.71
No. People	4	

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR		Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg			
ton	MBh	cfm	°F	°F	°F	°F	gr/lb	ft²	(%)	MBh	cfm	°F	°F				
Main Clg	3.0	36.4	35.0	76.0	63.0	65.4	60.0	56.9	64.3	Floor	621						
Aux Clg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0						
Opt Vent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0						
										ExFlr	0						
Total	3.0	36.4								Roof	621	621	100				
										Wall	336	336	100				
										Ext Door	0	0	0				
										Total	-16.0	588	60.7	85.0			

Room Checksums

By ACADEMIC

201 ticket info area

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design						Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17						SADB	50.4	100.0
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total						
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens							
Envelope Loads				Envelope Loads								AIRFLOWS		
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0.00			Cooling	Heating	
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0.00	Diffuser	607	607	364	364
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0.00	Terminal	607	607	182	182
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0.00	Main Fan	0	0	182	182
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0.00	Sec Fan	285	285	0	0
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0.00	Nom Vent	285	285	0	0
Partition/Door	-959	-959	-2	-959	-6	Partition/Door	-25,257	-25,257	110.85	AHU Vent	0	0	0	0
Floor	0	0	0	0	0	Floor	0	0	0.00	Infil	182	182	182	182
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0.00	MinStop/Rh	607	607	182	182
Infiltration	0	0	0	0	0	Infiltration	0	0	0.00	Return	285	285	0	0
Sub Total ==>	-959	0	-959	-2	-959	Sub Total ==>	-25,257	-25,257	110.85	Exhaust	0	0	0	0
Internal Loads				Internal Loads								ENGINEERING CKS		
Lights	4,628	1,157	5,785	13	4,628	Lights	0	0	0.00	% OA	46.9	46.9	0.0	0.0
People	22,905	0	22,905	52	12,725	People	0	0	0.00	cfm/ft²	0.36	0.36	0.11	0.11
Misc	0	0	0	0	0	Misc	0	0	0.00	cfm/ton	166.73	166.73	50.4	70.0
Sub Total ==>	27,533	1,157	28,690	66	17,353	Sub Total ==>	0	0	0.00	ft²/ton	465.48	465.48	2.6	2.7
Ceiling Load				Ceiling Load								Btu/hr-ft²		
Ventilation Load	271	-271	0	0	271	Ventilation Load	0	0	0.00	No. People	25.78	25.78	-15.80	-15.80
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0	0.00					
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	13,075	13,075	-57.39					
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0	0.00					
Exhaust Heat	-160	-160	0	0	0	OA Preheat Diff.	-10,602	-10,602	46.53					
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0	0.00					
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0	0.00					
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0	0.00					
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00					
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0	0.00					
Grand Total ==>	26,845	725	43,697	100.00	16,665	Grand Total ==>	-12,182	-22,784	100.00					

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION			
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR		Leave DB/WB/HR		Gross Total	Glass			Capacity	Coil Airflow	Ent	Lvg		
ton	MBh	cfm	°F	°F	°F	°F		ft²	(%)							
			gr/lb	gr/lb	gr/lb	gr/lb				MBh	cfm	°F	°F			
Main Clg	3.6	43.7	22.3	607	82.5	70.2	91.3	50.4	46.4	40.5	Floor	1,695	-16.2	364	60.2	100.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	6,600	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	-10.6	285	17.0	50.4
											ExFlr	0	-4.0	182	50.4	70.0
Total	3.6	43.7									Roof	0	0.0	356	2.6	2.7
											Wall	0	0.0	0	0.0	0.0
											Ext Door	0	0.0	0	0.0	0.0
											Total	-26.8				

Room Checksums

By ACADEMIC

202 east elev lobby

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design						Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17						SADB	50.4	100.0
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total	Space Sens	Tot Sens	Percent Of Total	Return	75.5	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	82.6	70.0
Envelope Loads				Envelope Loads				Envelope Loads				Fn MtrTD	0.0	0.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0	0	0.00	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0	0	0.00	AIRFLOWS		
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0	0	0.00	Diffuser	Cooling	Heating
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0	0	0.00	Terminal	62	37
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0	0	0.00	Main Fan	62	19
Partition/Door	-101	-101	-2	-101	-6	Partition/Door	-2,663	-2,663	113.97	0	0.00	Sec Fan	0	19
Floor	0	0	0	0	0	Floor	0	0	0	0	0.00	Nom Vent	29	0
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0	0	0.00	AHU Vent	29	0
Infiltration	0	0	0	0	0	Infiltration	0	0	0	0	0.00	Infil	0	0
Sub Total ==>	-101	0	-101	-2	-101	Sub Total ==>	-2,663	-2,663	113.97	0	0.00	MinStop/Rh	19	19
Internal Loads				Internal Loads				Internal Loads				Return	62	19
Lights	475	119	594	13	475	28	Lights	0	0	0	0.00	Exhaust	29	0
People	2,351	0	2,351	52	1,306	76	People	0	0	0	0.00	Rm Exh	0	0
Misc	0	0	0	0	0	0	Misc	0	0	0	0.00	Auxiliary	0	0
Sub Total ==>	2,826	119	2,945	66	1,781	104	Sub Total ==>	0	0	0	0.00	Leakage Dwn	0	0
Ceiling Load				Ceiling Load				Ceiling Load				Leakage Ups	0	0
Ventilation Load	0	0	1,655	37	0	0	Ventilation Load	0	0	0	0.00	ENGINEERING CKS		
Adj Air Trans Heat	0	0	0	0	0	0	Adj Air Trans Heat	0	0	0	0	% OA	Cooling	Heating
Dehumid. Ov Sizing			0	0			Ov/Undr Sizing	1,415	1,415	-60.54	0	47.0	0.0	
Ov/Undr Sizing	0	0	0	0	0	0	Exhaust Heat	0	0	0.00	cfm/ft²	0.36	0.11	
Exhaust Heat		-16	-16	0			OA Preheat Diff.		-1,088	46.57	cfm/ton	166.57		
Sup. Fan Heat		0	0	0			RA Preheat Diff.		0	0.00	ft²/ton	465.76		
Ret. Fan Heat		0	0	0			Additional Reheat		0	0.00	Btu/hr-ft²	25.76	-15.79	
Duct Heat Pkup		0	0	0			System Plenum Heat		0	0.00	No. People	5		
Underflr Sup Ht Pkup		0	0	0			Underflr Sup Ht Pkup		0	0.00				
Supply Air Leakage		0	0	0			Supply Air Leakage		0	0.00				
Grand Total ==>	2,753	74	4,483	100.00	1,708	100.00	Grand Total ==>	-1,249	-2,337	100.00				

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg		
ton	MBh	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft²	(%)	MBh	cfm	°F	°F	
Main Clg	0.4	4.5	2.3	62	82.6	70.2	91.4	50.4	46.4	40.4	Floor	174	Main Htg	-1.7	37	60.2	100.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	696	Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	-1.1	29	17.0	50.4
Total	0.4	4.5									ExFlr	0	Reheat	-0.4	19	50.4	70.0
											Roof	0	Humidif	0.0	37	2.6	2.7
											Wall	0	Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	Total	-2.8			

Room Checksums

By ACADEMIC

204 electrical room

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES					
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 2 / 15		Mo/Hr: Heating Design			Cooling			Heating				
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 48		OADB: 17			SADB			Ra Plenum				
									Return			Ret/OA				
									Fn MtrTD			Fn BldTD				
									Fn Frict							
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent								
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens	Of Total (%)								
Envelope Loads									Envelope Loads							
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0.00							
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0.00							
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0.00							
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0.00							
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0.00							
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0.00							
Partition/Door	0	0	0	0	0	Partition/Door	0	0	0.00							
Floor	0	0	0	0	0	Floor	0	0	0.00							
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0.00							
Infiltration	0	0	0	0	0	Infiltration	0	0	0.00							
Sub Total ==>	0	0	0	0	0	Sub Total ==>	0	0	0.00							
Internal Loads									Internal Loads							
Lights	259	65	324	39	259	93	Lights	0	0	0.00						
People	0	0	0	0	0	0	People	0	0	0.00						
Misc	0	0	0	0	0	0	Misc	0	0	0.00						
Sub Total ==>	259	65	324	39	259	93	Sub Total ==>	0	0	0.00						
Ceiling Load	15	-15	0	0	19	7	Ceiling Load	0	0	0.00						
Ventilation Load	0	0	516	61	0	0	Ventilation Load	0	0	0.00						
Adj Air Trans Heat	0	0	0	0	0	0	Adj Air Trans Heat	0	0	0						
Dehumid. Ov Sizing	0	0	0	0	0	0	Ov/Undr Sizing	-102	-102	23.07						
Ov/Undr Sizing	0	0	0	0	0	0	Exhaust Heat	0	0	0.00						
Exhaust Heat	0	0	0	0	0	0	OA Preheat Diff.	-339	76.93							
Sup. Fan Heat	0	0	0	0	0	0	RA Preheat Diff.	0	0	0.00						
Ret. Fan Heat	0	0	0	0	0	0	Additional Reheat	0	0	0.00						
Duct Heat Pkup	0	0	0	0	0	0	System Plenum Heat	0	0	0.00						
Underflr Sup Ht Pkup	0	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00						
Supply Air Leakage	0	0	0	0	0	0	Supply Air Leakage	0	0	0.00						
Grand Total ==>	275	50	840	100.00	279	100.00	Grand Total ==>	-102	-441	100.00						

AIRFLOWS		
	Cooling	Heating
Diffuser	10	6
Terminal	10	6
Main Fan	10	3
Sec Fan	0	3
Nom Vent	9	0
AHU Vent	9	0
Infil	0	0
MinStop/Rh	3	3
Return	1	3
Exhaust	0	0
Rm Exh	9	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	89.8	0.0
cfm/ft²	0.11	0.03
cfm/ton	144.97	
ft²/ton	1,356.55	
Btu/hr-ft²	8.85	-5.35
No. People	0	

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
	Total Capacity		Sens Cap. MBh	Coil Airflow cfm	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass ft² (%)		Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
	ton	MBh			°F	°F	gr/lb	°F	°F	gr/lb							
Main Clg	0.1	0.8	0.5	10	89.2	76.2	116.1	50.4	50.3	54.2	Floor	95	Main Htg	-0.2	6	60.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0	Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	-0.3	9	17.0	50.4
											ExFlr	0	Reheat	-0.1	3	50.4	70.0
											Roof	0	Humidif	0.0	10	2.6	2.7
											Wall	0	Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	Total	-0.5			
Total	0.1	0.8															

Room Checksums

By ACADEMIC

206 1 storage

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 2 / 15		Mo/Hr: Heating Design		Mo/Hr: Heating Design		Mo/Hr: Heating Design		Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 48		OADB: 48		OADB: 17		OADB: 17		SADB	50.4	85.0
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent	Space Sens	Tot Sens	Of Total (%)	Return	75.5	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	89.2	70.0
Envelope Loads				Envelope Loads				Envelope Loads				Fn MtrTD	0.0	0.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Skylite Solar	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Skylite Cond	0	0.00	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Roof Cond	0	0.00	AIRFLOWS		
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Glass Solar	0	0.00	Cooling	Heating	
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Glass/Door Cond	0	0.00	Diffuser	5	3
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Wall Cond	0	0.00	Terminal	5	3
Partition/Door	0	0	0	0	0	Partition/Door	0	0.00	Partition/Door	0	0.00	Main Fan	5	2
Floor	0	0	0	0	0	Floor	0	0.00	Floor	0	0.00	Sec Fan	0	2
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00	Adjacent Floor	0	0.00	Nom Vent	5	0
Infiltration	0	0	0	0	0	Infiltration	0	0.00	Infiltration	0	0.00	AHU Vent	5	0
Sub Total ==>	0	0	0	0	0	Sub Total ==>	0	0.00	Sub Total ==>	0	0.00	Infil	0	0
Internal Loads				Internal Loads				Internal Loads				MinStop/Rh	2	2
Lights	131	33	164	39	131	Lights	0	0.00	Lights	0	0.00	Return	1	2
People	0	0	0	0	0	People	0	0.00	People	0	0.00	Exhaust	0	0
Misc	0	0	0	0	0	Misc	0	0.00	Misc	0	0.00	Rm Exh	5	0
Sub Total ==>	131	33	164	39	131	Sub Total ==>	0	0.00	Sub Total ==>	0	0.00	Auxiliary	0	0
Ceiling Load				Ceiling Load				Ceiling Load				Leakage Dwn	0	0
Ventilation Load	0	-8	0	0	10	Ventilation Load	0	0.00	Ventilation Load	0	0.00	Leakage Ups	0	0
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0	Adj Air Trans Heat	0	0	ENGINEERING CKS		
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	-51	23.07	Ov/Undr Sizing	-51	23.07	Cooling	Heating	
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00	Exhaust Heat	0	0.00	% OA	89.8	0.0
Exhaust Heat	0	0	0	0	0	OA Preheat Diff.	-171	76.93	OA Preheat Diff.	-171	76.93	cfm/ft²	0.11	0.03
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0.00	RA Preheat Diff.	0	0.00	cfm/ton	145.00	
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0.00	Additional Reheat	0	0.00	ft²/ton	1,356.52	
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0.00	System Plenum Heat	0	0.00	Btu/hr-ft²	8.85	-5.35
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00	Underflr Sup Ht Pkup	0	0.00	No. People	0	
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00	Supply Air Leakage	0	0.00			
Grand Total ==>	139	25	425	100.00	141	Grand Total ==>	-51	100.00	Grand Total ==>	-223	100.00			

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION								
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Lvg	Capacity	Coil Airflow	Ent	Lvg				
	ton	MBh			MBh	cfm	°F	°F	gr/lb	°F								°F	gr/lb	ft²	(%)
Main Clg	0.0	0.4	0.2	5	89.2	76.2	116.1	50.4	50.3	54.2	Floor	48					Main Htg	-0.1	3	60.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0					Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0					Preheat	-0.2	5	17.0	50.4
											ExFlr	0					Reheat	0.0	2	50.4	70.0
Total	0.0	0.4									Roof	0	0	0			Humidif	0.0	5	2.6	2.7
											Wall	0	0	0			Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	0	0			Total	-0.3			

Room Checksums

By ACADEMIC

207 corridor

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design		Mo/Hr: Heating Design				Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17		OADB: 17				SADB	50.4	85.0
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total (%)	Space Sens	Tot Sens	Percent Of Total (%)	Return	75.5	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	78.3	70.0
Envelope Loads				Envelope Loads				Envelope Loads				Fn MtrTD	0.0	0.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0	0	0.00	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0	0	0.00	AIRFLOWS		
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0	0	0.00	Diffuser	498	299
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0	0	0.00	Terminal	498	299
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0	0	0.00	Main Fan	498	149
Partition/Door	-87	-87	0	-87	-1	Partition/Door	-2,296	-2,296	27.37	0	0.00	Sec Fan	0	149
Floor	0	0	0	0	0	Floor	0	0	0	0	0.00	Nom Vent	91	0
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0	0	0.00	AHU Vent	91	0
Infiltration	0	0	0	0	0	Infiltration	0	0	0	0	0.00	Infil	0	0
Sub Total ==>	-87	0	-87	-87	-1	Sub Total ==>	-2,296	-2,296	27.37	0	0.00	MinStop/Rh	149	149
Internal Loads				Internal Loads				Internal Loads				Return	498	149
Lights	3,276	819	4,096	19	24	Lights	0	0	0.00	0	0.00	Exhaust	91	0
People	3,776	0	3,776	18	15	People	0	0	0.00	0	0.00	Rm Exh	0	0
Misc	8,191	0	8,191	39	60	Misc	0	0	0.00	0	0.00	Auxiliary	0	0
Sub Total ==>	15,244	819	16,063	76	99	Sub Total ==>	0	0	0.00	0	0.00	Leakage Dwn	0	0
Leakage Ups	0	0	0	0	0	Leakage Ups	0	0	0.00	0	0.00	ENGINEERING CKS		
Ceiling Load	192	-192	0	0	1	Ceiling Load	0	0	0.00	0	0.00	% OA	18.3	0.0
Ventilation Load	0	0	5,159	24	0	Ventilation Load	0	0	0.00	0	0.00	cfm/ft²	0.42	0.12
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0	0.00	0	0.00	cfm/ton	283.46	
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	-2,700	-2,700	32.19	0	0.00	ft²/ton	682.99	
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0	0.00	0	0.00	Btu/hr-ft²	17.57	-9.72
Exhaust Heat	0	-51	-51	0	0	OA Preheat Diff.	-3,392	-3,392	40.44	0	0.00	No. People	8	
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0	0.00	0	0.00			
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0	0.00	0	0.00			
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0	0.00	0	0.00			
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00	0	0.00			
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0	0.00	0	0.00			
Grand Total ==>	15,349	576	21,084	100.00	13,670	100.00	Grand Total ==>	-4,997	-8,388	100.00				

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Lvg	Capacity	Coil Airflow	Ent	Lvg
	ton	MBh			MBh	cfm	°F	°F	gr/lb	°F							
Main Clg	1.8	21.1	15.8	498	78.3	65.8	75.3	50.4	50.3	54.2	Floor	1,200	Main Htg	-8.3	299	60.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	600	Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	-3.4	91	17.0	50.4
											ExFlr	0	Reheat	-3.3	149	50.4	70.0
											Roof	0	Humidif	0.0	114	2.6	2.7
											Wall	0	Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	Total	-11.7			
Total	1.8	21.1															

Room Checksums

By ACADEMIC

208 warming kitchen

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES				
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design			Cooling			Heating			
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17			SADB	50.4	100.0	Ra Plenum	75.5	70.0	
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent	Return <td>75.5</td> <td>70.0</td> <th>Ret/OA</th> <td>86.5</td> <td>70.0</td>	75.5	70.0	Ret/OA	86.5	70.0	
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens	Of Total (%)	Fn MtrTD	0.0	0.0	Fn BldTD	0.0	0.0	
						Btu/h	Btu/h		Fn Frict	0.0	0.0				
Envelope Loads				Envelope Loads							AIRFLOWS				
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Diffuser	128	77	Terminal	128	77	
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Main Fan	128	38	Sec Fan	0	38	
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Nom Vent	94	0	AHU Vent	94	0	
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Infil	0	0	MinStop/Rh	38	38	
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Return	116	38	Exhaust	82	0	
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Rm Exh	12	0	Auxiliary	0	0	
Partition/Door	-152	-152	-1	-152	-4	Partition/Door	-3,995	65.77	Leakage Dwn	0	0	Leakage Ups	0	0	
Floor	0	0	0	0	0	Floor	0	0.00							
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00							
Infiltration	0	0	0	0	0	Infiltration	0	0.00							
Sub Total ==>	-152	0	-152	-1	-4	Sub Total ==>	-3,995	65.77							
Internal Loads				Internal Loads							ENGINEERING CKS				
Lights	472	118	590	5	472	13	Lights	0	0.00	% OA	73.4	0.0	cfm/ft²	0.74	0.22
People	6,343	0	6,343	53	3,172	90	People	0	0.00	cfm/ton	127.58		ft²/ton	172.11	
Misc	0	0	0	0	0	0	Misc	0	0.00	Btu/hr-ft²	69.72	-40.02	No. People	12	
Sub Total ==>	6,816	118	6,934	57	3,644	104	Sub Total ==>	0	0.00						
Ceiling Load	28	-28	0	0	28	1	Ceiling Load	0	0.00						
Ventilation Load	0	0	5,326	44	0	0	Ventilation Load	0	0.00						
Adj Air Trans Heat	0	0	0	0	0	0	Adj Air Trans Heat	0	0						
Dehumid. Ov Sizing			0	0			Ov/Undr Sizing	1,422	-23.41						
Ov/Undr Sizing	0	0	0	0	0	0	Exhaust Heat	0	0.00						
Exhaust Heat		-46	-46	0			OA Preheat Diff.	-3,501	57.64						
Sup. Fan Heat		0	0	0			RA Preheat Diff.	0	0.00						
Ret. Fan Heat		0	0	0			Additional Reheat	0	0.00						
Duct Heat Pkup		0	0	0			System Plenum Heat	0	0.00						
Underflr Sup Ht Pkup		0	0	0			Underflr Sup Ht Pkup	0	0.00						
Supply Air Leakage		0	0	0			Supply Air Leakage	0	0.00						
Grand Total ==>	6,692	44	12,062	100.00	3,520	100.00	Grand Total ==>	-2,573	100.00						

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg		
ton	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F			
Main Clg	1.0	12.1	5.2	128	86.5	73.9	106.2	50.4	43.4	30.5	Floor	173	-3.4	77	60.2	100.0	
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	1,044	0.0	0	0.0	0.0	
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	-3.5	94	17.0	50.4	
											ExFlr	0	-0.8	38	50.4	70.0	
											Roof	0	0.0	118	2.6	2.7	
											Wall	0	0.0	0	0.0	0.0	
											Ext Door	0	0	0	0.0	0.0	
Total	1.0	12.1									Total	-6.9					

Room Checksums

By ACADEMIC

210 janitors closet

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 2 / 15		Mo/Hr: Heating Design			Cooling			Heating		
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 48		OADB: 17			SADB	50.4	85.0	Ra Plenum	75.5	70.0
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent	Return <td>75.5</td> <td>70.0</td> <th>Ret/OA</th> <td>89.2</td> <td>70.0</td>	75.5	70.0	Ret/OA	89.2	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens	Of Total (%)	Fn MtrTD	0.0	0.0	Fn BldTD	0.0	0.0
						Btu/h	Btu/h		Fn Frict	0.0	0.0			
Envelope Loads				Envelope Loads							AIRFLOWS			
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Diffuser	7	4	Terminal	7	4
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Main Fan	7	2	Sec Fan	0	2
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Nom Vent	7	0	AHU Vent	7	0
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Infil	0	0	MinStop/Rh	2	2
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Return	1	2	Exhaust	0	0
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Rm Exh	7	0	Auxiliary	0	0
Partition/Door	0	0	0	0	0	Partition/Door	0	0.00	Leakage Dwn	0	0	Leakage Ups	0	0
Floor	0	0	0	0	0	Floor	0	0.00						
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00	ENGINEERING CKS					
Infiltration	0	0	0	0	0	Infiltration	0	0.00	% OA	89.8	0.0	cfm/ft²	0.11	0.03
Sub Total ==>	0	0	0	0	0	Sub Total ==>	0	0.00	cfm/ton	144.98		ft²/ton	1,356.54	
Internal Loads				Internal Loads							Btu/hr-ft²	8.85	-5.35	
Lights	186	46	232	39	186	Lights	0	0.00	No. People	0				
People	0	0	0	0	0	People	0	0.00						
Misc	0	0	0	0	0	Misc	0	0.00						
Sub Total ==>	186	46	232	39	186	Sub Total ==>	0	0.00						
Ceiling Load				Ceiling Load										
Ventilation Load	0	-11	0	0	14	Ventilation Load	0	0.00						
Adj Air Trans Heat	0	0	369	61	0	Adj Air Trans Heat	0	0.00						
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	-73	23.07						
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00						
Exhaust Heat	0	0	0	0	0	OA Preheat Diff.	-243	76.93						
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0.00						
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0.00						
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0.00						
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00						
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00						
Grand Total ==>	197	36	602	100.00	200	Grand Total ==>	-73	100.00						

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Capacity	Coil Airflow	Ent	Lvg			
ton	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F			
Main Clg	0.1	0.6	0.3	7	89.2	76.2	116.1	50.4	50.3	54.2	Floor	68	-0.1	4	60.2	85.0	
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0	0.0	0	0.0	0.0	
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	-0.2	7	17.0	50.4	
Total	0.1	0.6									ExFlr	0	Reheat	-0.1	2	50.4	70.0
											Roof	0	0	0	2.6	2.7	
											Wall	0	0	0	0.0	0.0	
											Ext Door	0	0	0			
											Total	-0.4					

Room Checksums

By ACADEMIC

211 gift shop storage

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 2 / 15		Mo/Hr: Heating Design		Mo/Hr: Heating Design						
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 48		OADB: 17		OADB: 17						
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak Space Sens	Coil Peak Tot Sens	Percent Of Total (%)						
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Cooling	Heating				
Envelope Loads				Envelope Loads										
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	SADB	50.4	85.0			
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Ra Plenum	75.5	70.0			
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Return	75.5	70.0			
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Ret/OA	89.2	70.0			
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Fn MtrTD	0.0	0.0			
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Fn BldTD	0.0	0.0			
Partition/Door	0	0	0	0	0	Partition/Door	0	0.00	Fn Frict	0.0	0.0			
Floor	0	0	0	0	0	Floor	0	0.00						
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00						
Infiltration	0	0	0	0	0	Infiltration	0	0.00						
Sub Total ==>	0	0	0	0	0	Sub Total ==>	0	0.00						
Internal Loads				Internal Loads										
Lights	243	61	304	39	243	Lights	0	0.00						
People	0	0	0	0	0	People	0	0.00						
Misc	0	0	0	0	0	Misc	0	0.00						
Sub Total ==>	243	61	304	39	243	Sub Total ==>	0	0.00						
Ceiling Load	14	-14	0	0	18	Ceiling Load	0	0.00						
Ventilation Load	0	0	484	61	0	Ventilation Load	0	0.00						
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0						
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	-95	-95	23.07					
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0	0.00					
Exhaust Heat	0	0	0	0	0	OA Preheat Diff.	0	-318	76.93					
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0	0.00					
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0	0.00					
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0	0.00					
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00					
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0	0.00					
Grand Total ==>	257	47	787	100.00	261	Grand Total ==>	-95	-413	100.00					

AIRFLOWS		
	Cooling	Heating
Diffuser	10	6
Terminal	10	6
Main Fan	10	3
Sec Fan	0	3
Nom Vent	9	0
AHU Vent	9	0
Infil	0	0
MinStop/Rh	3	3
Return	1	3
Exhaust	0	0
Rm Exh	9	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	89.8	0.0
cfm/ft²	0.11	0.03
cfm/ton	144.97	
ft²/ton	1,356.55	
Btu/hr-ft²	8.85	-5.35
No. People	0	

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
	Total Capacity		Sens Cap. MBh	Coil Airflow cfm	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass ft² (%)		Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
	ton	MBh			°F	°F	gr/lb	°F	°F	gr/lb							
Main Clg	0.1	0.8	0.5	9	89.2	76.2	116.1	50.4	50.3	54.2	Floor	89	Main Htg	-0.2	6	60.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0	Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	-0.3	9	17.0	50.4
											ExFlr	0	Reheat	-0.1	3	50.4	70.0
											Roof	0	Humidif	0.0	10	2.6	2.7
											Wall	0	Opt Vent	0.0	0	0.0	0.0
Total	0.1	0.8									Ext Door	0	Total	-0.5			

Room Checksums

By ACADEMIC

216 1 west TVS lobby

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 13		Mo/Hr: Heating Design						Cooling	Heating		
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 89		OADB: 17						SADB	55.0	100.0	
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total	Space Sens	Tot Sens	Percent Of Total	Return	75.8	70.0	
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	81.4	70.0	
Envelope Loads				Envelope Loads								Fn MtrTD	0.0	0.0	
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0	0	0.00	Fn BldTD	0.0	0.0	
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0	0	0.00	Fn Frict	0.0	0.0	
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0	0	0.00				
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0	0	0.00				
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0	0	0.00				
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0	0	0.00				
Partition/Door	-663	-663	-2	-663	-6	Partition/Door	-17,450	-17,450	340.23						
Floor	0	0	0	0	0	Floor	0	0	0	0	0.00				
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0	0	0.00				
Infiltration	0	0	0	0	0	Infiltration	0	0	0	0	0.00				
Sub Total ==>	-663	0	-663	-2	-663	Sub Total ==>	-17,450	-17,450	340.23						
Internal Loads				Internal Loads								AIRFLOWS			
Lights	3,140	785	3,925	14	3,140	28	Lights	0	0	0.00	Diffuser	511	153		
People	15,541	0	15,541	57	8,634	76	People	0	0	0.00	Terminal	511	153		
Misc	0	0	0	0	0	0	Misc	0	0	0.00	Main Fan	511	153		
Sub Total ==>	18,681	785	19,465	71	11,774	103	Sub Total ==>	0	0	0.00	Sec Fan	0	0		
Ceiling Load Ventilation Load Adj Air Trans Heat Dehumid. Ov Sizing Ov/Undr Sizing Exhaust Heat Sup. Fan Heat Ret. Fan Heat Duct Heat Pkup Underflr Sup Ht Pkup Supply Air Leakage	286 0 0 0 0 -169 0 0 0 0 0	-286 0 0 0 0 -169 0 0 0 0 0	0 8,830 0 0 0 -169 0 0 0 0 0	0 32 0 0 -1 0 0 0 0 0 0	286 0 0 0 0 0 0 0 0 0 0	3 0 0 0 0 0 0 0 0 0 0	Ceiling Load Ventilation Load Adj Air Trans Heat Ov/Undr Sizing Exhaust Heat OA Preheat Diff. RA Preheat Diff. Additional Reheat System Plenum Heat Underflr Sup Ht Pkup Supply Air Leakage	0 0 0 12,321 0 0 0 0 0 0 0	0 0 0 12,321 0 0 0 0 0 0 0	-240.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	Nom Vent	193	0		
Grand Total ==>	18,304	329	27,464	100.00	11,397	100.00	Grand Total ==>	-5,129	-5,129	100.00	AHU Vent	193	0		
												Infil	0	0	
												MinStop/Rh	153	153	
												Return	511	153	
												Exhaust	193	0	
												Rm Exh	0	0	
												Auxiliary	0	0	
												Leakage Dwn	0	0	
												Leakage Ups	0	0	
												ENGINEERING CKS			
												% OA	37.8	0.0	
												cfm/ft²	0.44	0.13	
												cfm/ton	223.38		
												ft²/ton	502.48		
												Btu/hr-ft²	23.88	-4.58	
												No. People	35		

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION			
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR		Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg		
ton	MBh	cfm	°F	°F	°F	°F	gr/lb	ft²	(%)	MBh	cfm	°F	°F			
Main Clg	2.3	27.5	15.1	511	81.4	70.7	95.9	55.0	54.3	61.8	Floor	1,150				
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	4,560	-5.1	153	70.0	100.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	0.0	0	0.0	0.0
											ExFlr	0	0	0	0.0	0.0
Total	2.3	27.5									Roof	0	0	0		
											Wall	0	0	0		
											Ext Door	0	0	0		
											Total	-5.3				

Room Checksums

By ACADEMIC

216 corridor

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design			Cooling			Heating		
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17			SADB			Ra Plenum		
									Return			Ret/OA		
									Fn MtrTD			Fn BldTD		
									Fn Frict					
Envelope Loads	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)	Space Sensible Btu/h	Percent Of Total (%)	Envelope Loads	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)				
Skylite Solar	0	0	0	0	0	0	Skylite Solar	0	0	0.00				
Skylite Cond	0	0	0	0	0	0	Skylite Cond	0	0	0.00				
Roof Cond	0	0	0	0	0	0	Roof Cond	0	0	0.00				
Glass Solar	0	0	0	0	0	0	Glass Solar	0	0	0.00				
Glass/Door Cond	0	0	0	0	0	0	Glass/Door Cond	0	0	0.00				
Wall Cond	0	0	0	0	0	0	Wall Cond	0	0	0.00				
Partition/Door	-174	0	-174	-3	-174	-5	Partition/Door	-4,592	-4,592	283.14				
Floor	0	0	0	0	0	0	Floor	0	0	0.00				
Adjacent Floor	0	0	0	0	0	0	Adjacent Floor	0	0	0.00				
Infiltration	0	0	0	0	0	0	Infiltration	0	0	0.00				
Sub Total ==>	-174	0	-174	-3	-174	-5	Sub Total ==>	-4,592	-4,592	283.14				
Internal Loads					Internal Loads									
Lights	833	208	1,041	20	833	25	Lights	0	0	0.00				
People	960	0	960	18	533	16	People	0	0	0.00				
Misc	2,082	0	2,082	40	2,082	62	Misc	0	0	0.00				
Sub Total ==>	3,874	208	4,083	78	3,448	103	Sub Total ==>	0	0	0.00				
Ceiling Load	76	-76	0	0	76	2	Ceiling Load	0	0	0.00				
Ventilation Load	0	0	1,314	25	0	0	Ventilation Load	0	0	0.00				
Adj Air Trans Heat	0	0	0	0	0	0	Adj Air Trans Heat	0	0	0				
Dehumid. Ov Sizing			0	0			Ov/Undr Sizing	2,970	2,970	-183.14				
Ov/Undr Sizing	0	0	0	0	0	0	Exhaust Heat	0	0	0.00				
Exhaust Heat		-20	-20	0			OA Preheat Diff.	0	0	0.00				
Sup. Fan Heat		0	0	0			RA Preheat Diff.	0	0	0.00				
Ret. Fan Heat		0	0	0			Additional Reheat	0	0	0.00				
Duct Heat Pkup		0	0	0			System Plenum Heat	0	0	0.00				
Underflr Sup Ht Pkup		0	0	0			Underflr Sup Ht Pkup	0	0	0.00				
Supply Air Leakage		0	0	0			Supply Air Leakage	0	0	0.00				
Grand Total ==>	3,776	112	5,202	100.00	3,349	100.00	Grand Total ==>	-1,622	-1,622	100.00				

AIRFLOWS		
	Cooling	Heating
Diffuser	162	49
Terminal	162	49
Main Fan	162	49
Sec Fan	0	0
Nom Vent	23	0
AHU Vent	23	0
Infil	0	0
MinStop/Rh	49	49
Return	162	49
Exhaust	23	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	14.3	0.0
cfm/ft²	0.53	0.16
cfm/ton	372.94	
ft²/ton	703.63	
Btu/hr-ft²	17.05	-5.37
No. People	2	

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION			
Total Capacity ton	Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB/WB/HR °F °F		Leave DB/WB/HR °F °F gr/lb			Gross Total	Glass ft² (%)	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F		
Main Clg	0.4	5.2	3.9	162	77.9	65.2	72.9	56.4	54.7	61.3	Floor	305	-1.6	49	70.0	100.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	1,200	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	0.0	0	0.0	0.0
											ExFlr	0	0.0	0	0.0	0.0
											Roof	0	0	29	2.6	3.4
											Wall	0	0	0	0.0	0.0
											Ext Door	0	0	0	0.0	0.0
Total	0.4	5.2									Total	-1.6				

Room Checksums

By ACADEMIC

217 1 gift office

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design						Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17						SADB	56.5	100.0
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total	Space Sens	Tot Sens	Percent Of Total	Return	75.8	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	77.9	70.0
Envelope Loads				Envelope Loads								Fn MtrTD	0.0	0.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0	0	0.00	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0	0	0.00	AIRFLOWS		
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0	0	0.00	Diffuser	Cooling	Heating
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0	0	0.00	Terminal	44	13
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0	0	0.00	Main Fan	44	13
Partition/Door	-35	-35	-2	-35	-4	Partition/Door	-918	-918	207.26	0	0.00	Sec Fan	0	0
Floor	0	0	0	0	0	Floor	0	0	0	0	0.00	Nom Vent	6	0
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0	0	0.00	AHU Vent	6	0
Infiltration	0	0	0	0	0	Infiltration	0	0	0	0	0.00	Infil	0	0
Sub Total ==>	-35	0	-35	-2	-4	Sub Total ==>	-918	-918	207.26	0	0.00	MinStop/Rh	13	13
Internal Loads				Internal Loads								Return	44	13
Lights	224	56	280	20	25	Lights	0	0	0.00	0	0.00	Exhaust	6	0
People	258	0	258	18	16	People	0	0	0.00	0	0.00	Rm Exh	0	0
Misc	560	0	560	40	61	Misc	0	0	0.00	0	0.00	Auxiliary	0	0
Sub Total ==>	1,042	56	1,098	78	102	Sub Total ==>	0	0	0.00	0	0.00	Leakage Dwn	0	0
Ceiling Load				Ceiling Load								Leakage Ups	0	0
Ventilation Load	0	-20	0	0	2	Ventilation Load	0	0	0.00	0	0.00	ENGINEERING CKS		
Adj Air Trans Heat	0	0	353	25	0	Adj Air Trans Heat	0	0	0.00	0	0.00	% OA	Cooling	Heating
Dehumid. Ov Sizing	0	0	0	0	0	Dehumid. Ov Sizing	475	475	-107.26	0	0.00	cfm/ft²	14.1	0.0
Ov/Undr Sizing	0	0	0	0	0	Ov/Undr Sizing	0	0	0.00	0	0.00	cfm/ton	0.54	0.16
Exhaust Heat	0	-5	0	0	0	Exhaust Heat	0	0	0.00	0	0.00	ft²/ton	375.75	
Sup. Fan Heat	0	0	0	0	0	Sup. Fan Heat	0	0	0.00	0	0.00	Btu/hr-ft²	697.63	
Ret. Fan Heat	0	0	0	0	0	Ret. Fan Heat	0	0	0.00	0	0.00	No. People	17.20	-5.46
Duct Heat Pkup	0	0	0	0	0	Duct Heat Pkup	0	0	0.00	0	0.00			
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00	0	0.00			
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0	0.00	0	0.00			
Grand Total ==>	1,027	30	1,410	100.00	913	Grand Total ==>	-443	-443	100.00					

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity	Sens Cap.		Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Capacity		Coil Airflow	Ent	Lvg	
ton	MBh	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F		
Main Clg	0.1	1.4	1.1	44	77.9	65.2	72.8	56.5	54.8	61.4	Floor	82	-0.4	13	70.0	100.0	
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	240	0.0	0	0.0	0.0	
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	0.0	0	0.0	0.0	
											ExFlr	0	0.0	0	0.0	0.0	
Total	0.1	1.4									Roof	0	0.0	8	2.6	3.4	
											Wall	0	0.0	0	0.0	0.0	
											Ext Door	0	0.0	0	0.0	0.0	
												Total	-0.5				

Room Checksums

By ACADEMIC

217 gift shop

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES				
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 14		Mo/Hr: Heating Design			Cooling			Heating			
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17			SADB	50.0	100.0	Ra Plenum	75.9	70.0	
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total	Return	75.9	70.0	Ret/OA	89.7	17.0	
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens		Fn MtrTD	0.0	0.0	Fn BldTD	0.0	0.0	
						Btu/h	Btu/h		Fn Frict	0.0	0.0				
Envelope Loads				Envelope Loads							AIRFLOWS				
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Diffuser	422	127	Terminal	422	127	
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Main Fan	422	127	Sec Fan	0	0	
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Nom Vent	399	127	AHU Vent	399	127	
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Infil	0	0	MinStop/Rh	127	127	
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Return	422	127	Exhaust	399	127	
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Rm Exh	0	0	Auxiliary	0	0	
Partition/Door	-436	-436	-1	-436	-4	Partition/Door	-11,481	98.06	Leakage Dwn	0	0	Leakage Ups	0	0	
Floor	0	0	0	0	0	Floor	0	0.00							
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00	ENGINEERING CKS						
Infiltration	0	0	0	0	0	Infiltration	0	0.00	% OA	94.7	100.0	cfm/ft²	0.36	0.11	
Sub Total ==>	-436	0	-436	-1	-436	Sub Total ==>	-11,481	98.06	cfm/ton	132.26		ft²/ton	362.79		
Internal Loads				Internal Loads							Btu/hr-ft²	33.08	-10.36	No. People	35
Lights	3,159	790	3,949	10	3,159	Lights	0	0.00							
People	15,635	0	15,635	41	8,686	People	0	0.00							
Misc	0	0	0	0	0	Misc	0	0.00							
Sub Total ==>	18,794	790	19,584	51	11,845	Sub Total ==>	0	0.00							
Ceiling Load	346	-346	0	0	346	Ceiling Load	0	0.00							
Ventilation Load	0	0	19,542	51	0	Ventilation Load	0	-7,476	63.86						
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0	0						
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	7,249	-61.91							
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00							
Exhaust Heat	0	-420	-420	-1	0	OA Preheat Diff.	0	0.00							
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0.00							
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0.00							
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0.00							
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00							
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00							
Grand Total ==>	18,704	24	38,270	100.00	11,755	Grand Total ==>	-4,232	-11,708	100.00						

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity	Sens Cap.		Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Capacity	Coil Airflow	Ent	Lvg		
ton	MBh	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F		
Main Clg	3.2	38.3	18.7	422	89.7	76.8	118.7	50.0	49.9	53.4	Floor	1,157	Main Htg	-11.7	127	17.0	100.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	3,000	Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	0.0	0	0.0	0.0
											ExFlr	0	Humidif	-0.3	399	2.6	3.6
Total	3.2	38.3									Roof	0	0	0	0	0.0	0.0
											Wall	0	0	0	0	0.0	0.0
											Ext Door	0	0	0	0	0.0	0.0
											Total	-12.0					

Room Checksums

By ACADEMIC

218 restroom

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 2 / 15		Mo/Hr: Heating Design		Mo/Hr: Heating Design		Mo/Hr: Heating Design		Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 48		OADB: 48		OADB: 17		OADB: 17		SADB	54.5	85.0
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent	Space Sens	Tot Sens	Of Total (%)	Ra Plenum	75.3	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Return	75.3	70.0
Envelope Loads				Envelope Loads				Envelope Loads				Ret/OA	81.2	70.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Skylite Solar	0	0.00	Fn MtrTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Skylite Cond	0	0.00	Fn BldTD	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Roof Cond	0	0.00	Fn Frict	0.0	0.0
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Glass Solar	0	0.00			
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Glass/Door Cond	0	0.00			
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Wall Cond	0	0.00			
Partition/Door	0	0	0	0	0	Partition/Door	0	0.00	Partition/Door	0	0.00			
Floor	0	0	0	0	0	Floor	0	0.00	Floor	0	0.00			
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00	Adjacent Floor	0	0.00			
Infiltration	0	0	0	0	0	Infiltration	0	0.00	Infiltration	0	0.00			
Sub Total ==>	0	0	0	0	0	Sub Total ==>	0	0.00	Sub Total ==>	0	0.00			
Internal Loads				Internal Loads				Internal Loads						
Lights	655	164	819	56	655	Lights	0	0.00	Lights	0	0.00	Diffuser	30	18
People	0	0	0	0	0	People	0	0.00	People	0	0.00	Terminal	30	18
Misc	0	0	0	0	0	Misc	0	0.00	Misc	0	0.00	Main Fan	30	9
Sub Total ==>	655	164	819	56	655	Sub Total ==>	0	0.00	Sub Total ==>	0	0.00	Sec Fan	0	9
Ceiling Load				Ceiling Load				Ceiling Load				Nom Vent	12	0
Ventilation Load	24	-24	0	0	36	Ventilation Load	0	0.00	Ventilation Load	0	0.00	AHU Vent	12	0
Adj Air Trans Heat	0	0	652	44	0	Adj Air Trans Heat	0	0.00	Adj Air Trans Heat	0	0.00	Infil	0	0
Dehumid. Ov Sizing	0	0	0	0	0	Dehumid. Ov Sizing	0	0.00	Dehumid. Ov Sizing	0	0.00	MinStop/Rh	9	9
Ov/Undr Sizing	0	0	0	0	0	Ov/Undr Sizing	-303	38.64	Ov/Undr Sizing	-303	38.64	Return	19	9
Exhaust Heat	0	0	0	0	0	Exhaust Heat	0	0.00	Exhaust Heat	0	0.00	Exhaust	0	0
Sup. Fan Heat	0	0	0	0	0	Sup. Fan Heat	0	0.00	Sup. Fan Heat	0	0.00	Rm Exh	12	0
Ret. Fan Heat	0	0	0	0	0	Ret. Fan Heat	0	0.00	Ret. Fan Heat	0	0.00	Auxiliary	0	0
Duct Heat Pkup	0	0	0	0	0	Duct Heat Pkup	0	0.00	Duct Heat Pkup	0	0.00	Leakage Dwn	0	0
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00	Underflr Sup Ht Pkup	0	0.00	Leakage Ups	0	0
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00	Supply Air Leakage	0	0.00			
Grand Total ==>	680	139	1,471	100.00	691	Grand Total ==>	-303	100.00	Grand Total ==>	-784	100.00			

AIRFLOWS		
	Cooling	Heating
Diffuser	30	18
Terminal	30	18
Main Fan	30	9
Sec Fan	0	9
Nom Vent	12	0
AHU Vent	12	0
Infil	0	0
MinStop/Rh	9	9
Return	19	9
Exhaust	0	0
Rm Exh	12	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	38.1	0.0
cfm/ft²	0.13	0.04
cfm/ton	246.38	
ft²/ton	1,957.58	
Btu/hr-ft²	6.13	-3.92
No. People	0	

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION								
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Lvg	Capacity	Coil Airflow	Ent	Lvg				
	ton	MBh			MBh	cfm	°F	°F	gr/lb	°F								°F	gr/lb	ft²	(%)
Main Clg	0.1	1.5	1.0	30	81.2	68.9	86.8	54.5	53.4	59.0	Floor	240					Main Htg	-0.5	18	62.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0					Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0					Preheat	-0.5	12	17.0	54.5
											ExFlr	0					Reheat	-0.2	9	54.5	70.0
Total	0.1	1.5									Roof	0	0	0			Humidif	0.0	14	2.6	2.7
											Wall	0	0	0			Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	0	0			Total	-0.9			

Room Checksums

By ACADEMIC

219 public coat room

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES					
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design			Cooling			Heating				
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17			SADB	54.5	100.0	Ra Plenum	75.3	70.0		
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent	Return <td>75.3</td> <td>70.0</td> <th>Ret/OA</th> <td>90.1</td> <td>70.0</td>	75.3	70.0	Ret/OA	90.1	70.0		
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens	Of Total (%)	Fn MtrTD	0.0	0.0	Fn BldTD	0.0	0.0		
						Btu/h	Btu/h		Fn Frict	0.0	0.0					
Envelope Loads				Envelope Loads							AIRFLOWS					
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Diffuser	15	50	Terminal	15	50		
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Main Fan	15	5	Sec Fan	0	45		
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Nom Vent	15	0	AHU Vent	15	0		
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Infil	0	0	MinStop/Rh	5	5		
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Return	0	5	Exhaust	0	0		
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Rm Exh	15	0	Auxiliary	0	0		
Partition/Door	-91	-91	-7	-91	-26	Partition/Door	-2,388	103.66	Leakage Dwn	0	0	Leakage Ups	0	0		
Floor	0	0	0	0	0	Floor	0	0.00								
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00	ENGINEERING CKS							
Infiltration	0	0	0	0	0	Infiltration	0	0.00	% OA	97.5	0.0	cfm/ft²	0.10	0.29		
Sub Total ==>	-91	0	-91	-7	-26	Sub Total ==>	-2,388	103.66	cfm/ton	142.94		ft²/ton	1,451.18			
Internal Loads				Internal Loads							Btu/hr-ft²	8.27	-15.19			
Lights	429	107	536	41	121	Lights	0	0.00	No. People	0						
People	0	0	0	0	0	People	0	0.00								
Misc	0	0	0	0	0	Misc	0	0.00								
Sub Total ==>	429	107	536	41	121	Sub Total ==>	0	0.00								
Ceiling Load				Ceiling Load												
Ventilation Load	0	0	853	66	0	Ventilation Load	0	0.00								
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0								
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	714	-30.99								
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00								
Exhaust Heat	0	0	0	0	0	OA Preheat Diff.	-630	27.33								
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0.00								
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0.00								
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0.00								
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00								
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00								
Grand Total ==>	354	91	1,298	100.00	354	100.00	Grand Total ==>	-1,674	-2,304	100.00						

COOLING COIL SELECTION										AREAS				HEATING COIL SELECTION			
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR		Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg			
ton	MBh	cfm	°F	°F	°F	°F	gr/lb	ft²	(%)	MBh	cfm	°F	°F				
Main Clg	0.1	1.3	0.7	15	90.1	77.0	119.7	54.5	53.1	57.9	Floor	157					
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	624					
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0					
											ExFlr	0					
Total	0.1	1.3									Roof	0	0	0			
											Wall	0	0	0			
											Ext Door	0	0	0			
											Total	-2.4					

Room Checksums

By ACADEMIC

220 restroom

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 2 / 15		Mo/Hr: Heating Design		Mo/Hr: Heating Design		Mo/Hr: Heating Design		Cooling	Heating		
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 48		OADB: 17		OADB: 17		OADB: 17		SADB	54.5	85.0	
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent	Space Sens	Tot Sens	Of Total (%)	Return	75.3	70.0	
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	81.2	70.0	
Envelope Loads				Envelope Loads				Envelope Loads				Fn MtrTD	0.0	0.0	
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Skylite Solar	0	0.00	Fn BldTD	0.0	0.0	
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Skylite Cond	0	0.00	Fn Frict	0.0	0.0	
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Roof Cond	0	0.00	AIRFLOWS			
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Glass Solar	0	0.00	Diffuser	Cooling	Heating	
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Glass/Door Cond	0	0.00	Terminal	22	13	
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Wall Cond	0	0.00	Main Fan	22	7	
Partition/Door	0	0	0	0	0	Partition/Door	0	0.00	Partition/Door	0	0.00	Sec Fan	0	7	
Floor	0	0	0	0	0	Floor	0	0.00	Floor	0	0.00	Nom Vent	9	0	
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00	Adjacent Floor	0	0.00	AHU Vent	9	0	
Infiltration	0	0	0	0	0	Infiltration	0	0.00	Infiltration	0	0.00	Infil	0	0	
Sub Total ==>	0	0	0	0	0	Sub Total ==>	0	0.00	Sub Total ==>	0	0.00	MinStop/Rh	7	7	
Internal Loads				Internal Loads				Internal Loads				Return	14	7	
Lights	486	122	608	56	486	95	Lights	0	0.00	Lights	0	0.00	Exhaust	0	0
People	0	0	0	0	0	0	People	0	0.00	People	0	0.00	Rm Exh	9	0
Misc	0	0	0	0	0	0	Misc	0	0.00	Misc	0	0.00	Auxiliary	0	0
Sub Total ==>	486	122	608	56	486	95	Sub Total ==>	0	0.00	Sub Total ==>	0	0.00	Leakage Dwn	0	0
Ceiling Load				Ceiling Load				Ceiling Load				Leakage Ups	0	0	
Ventilation Load	0	0	484	44	0	0	Ventilation Load	0	0.00	Ventilation Load	0	0.00	ENGINEERING CKS		
Adj Air Trans Heat	0	0	0	0	0	0	Adj Air Trans Heat	0	0	Adj Air Trans Heat	0	0	% OA	38.1	0.0
Dehumid. Ov Sizing	0	0	0	0	0	0	Ov/Undr Sizing	-225	38.64	Ov/Undr Sizing	-225	38.64	cfm/ft²	0.13	0.04
Ov/Undr Sizing	0	0	0	0	0	0	Exhaust Heat	0	0.00	Exhaust Heat	0	0.00	cfm/ton	246.38	
Exhaust Heat	0	0	0	0	0	0	OA Preheat Diff.	-357	61.36	OA Preheat Diff.	-357	61.36	ft²/ton	1,957.57	
Sup. Fan Heat	0	0	0	0	0	0	RA Preheat Diff.	0	0.00	RA Preheat Diff.	0	0.00	Btu/hr-ft²	6.13	-3.92
Ret. Fan Heat	0	0	0	0	0	0	Additional Reheat	0	0.00	Additional Reheat	0	0.00	No. People	0	
Duct Heat Pkup	0	0	0	0	0	0	System Plenum Heat	0	0.00	System Plenum Heat	0	0.00			
Underflr Sup Ht Pkup	0	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00	Underflr Sup Ht Pkup	0	0.00			
Supply Air Leakage	0	0	0	0	0	0	Supply Air Leakage	0	0.00	Supply Air Leakage	0	0.00			
Grand Total ==>	504	103	1,091	100.00	513	100.00	Grand Total ==>	-225	-582	100.00					

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION									
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Lvg	Capacity	Coil Airflow	Ent	Lvg					
	ton	MBh			MBh	cfm	°F	°F	gr/lb	°F								°F	gr/lb	ft²	(%)	MBh
Main Clg	0.1	1.1	0.8	22	81.2	68.9	86.8	54.5	53.4	59.0	Floor	178					Main Htg	-0.3	13	62.2	85.0	
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0					Aux Htg	0.0	0	0.0	0.0	
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0					Preheat	-0.4	9	17.0	54.5	
											ExFlr	0					Reheat	-0.1	7	54.5	70.0	
Total	0.1	1.1									Roof	0	0	0			Humidif	0.0	11	2.6	2.7	
											Wall	0	0	0			Opt Vent	0.0	0	0.0	0.0	
											Ext Door	0	0	0			Total	-0.7				

Room Checksums

By ACADEMIC

221 cafe

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design			Cooling			Heating		
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17			SADB			Ra Plenum		
									Return			Ret/OA		
									Fn MtrTD			Fn BldTD		
									Fn Frict					
Envelope Loads	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)	Space Sensible Btu/h	Percent Of Total (%)	Envelope Loads	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)				
Skylite Solar	0	0	0	0	0	0	Skylite Solar	0	0	0.00				
Skylite Cond	0	0	0	0	0	0	Skylite Cond	0	0	0.00				
Roof Cond	0	0	0	0	0	0	Roof Cond	0	0	0.00				
Glass Solar	0	0	0	0	0	0	Glass Solar	0	0	0.00				
Glass/Door Cond	0	0	0	0	0	0	Glass/Door Cond	0	0	0.00				
Wall Cond	0	0	0	0	0	0	Wall Cond	0	0	0.00				
Partition/Door	-262	0	-262	-1	-262	-4	Partition/Door	-6,888	-6,888	250.55				
Floor	0	0	0	0	0	0	Floor	0	0	0.00				
Adjacent Floor	0	0	0	0	0	0	Adjacent Floor	0	0	0.00				
Infiltration	0	0	0	0	0	0	Infiltration	0	0	0.00				
Sub Total ==>	-262	0	-262	-1	-262	-4	Sub Total ==>	-6,888	-6,888	250.55				
Internal Loads				Internal Loads										
Lights	819	205	1,024	6	819	13	Lights	0	0	0.00				
People	11,000	0	11,000	62	5,500	90	People	0	0	0.00				
Misc	0	0	0	0	0	0	Misc	0	0	0.00				
Sub Total ==>	11,819	205	12,024	67	6,319	103	Sub Total ==>	0	0	0.00				
Ceiling Load	52	-52	0	0	52	1	Ceiling Load	0	0	0.00				
Ventilation Load	0	0	6,148	34	0	0	Ventilation Load	0	0	0.00				
Adj Air Trans Heat	0	0	0	0	0	0	Adj Air Trans Heat	0	0	0				
Dehumid. Ov Sizing	0	0	0	0	0	0	Ov/Undr Sizing	4,139	4,139	-150.55				
Ov/Undr Sizing	0	0	0	0	0	0	Exhaust Heat	0	0	0.00				
Exhaust Heat	0	-86	-86	0	0	0	OA Preheat Diff.	0	0	0.00				
Sup. Fan Heat	0	0	0	0	0	0	RA Preheat Diff.	0	0	0.00				
Ret. Fan Heat	0	0	0	0	0	0	Additional Reheat	0	0	0.00				
Duct Heat Pkup	0	0	0	0	0	0	System Plenum Heat	0	0	0.00				
Underflr Sup Ht Pkup	0	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00				
Supply Air Leakage	0	0	0	0	0	0	Supply Air Leakage	0	0	0.00				
Grand Total ==>	11,609	67	17,824	100.00	6,109	100.00	Grand Total ==>	-2,749	-2,749	100.00				

AIRFLOWS		
	Cooling	Heating
Diffuser	274	82
Terminal	274	82
Main Fan	274	82
Sec Fan	0	0
Nom Vent	163	0
AHU Vent	163	0
Infil	0	0
MinStop/Rh	82	82
Return	253	82
Exhaust	142	0
Rm Exh	21	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	59.6	0.0
cfm/ft²	0.91	0.27
cfm/ton	184.49	
ft²/ton	201.98	
Btu/hr-ft²	59.41	-9.55
No. People	20	

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION			
Total Capacity ton	Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB/WB/HR °F °F	gr/lb	Leave DB/WB/HR °F °F	gr/lb	Gross Total	Glass ft² (%)	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F			
Main Clg	1.5	17.8	9.0	274	84.5	73.9	109.3	55.0	54.9	64.3	Floor	300				
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	1,800				
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0				
											ExFlr	0				
											Roof	0	0	0		
											Wall	0	0	0		
											Ext Door	0	0	0		
Total	1.5	17.8									Main Htg	-2.8	82	70.0		
											Aux Htg	0.0	0	0.0		
											Preheat	0.0	0	0.0		
											Humidif	-0.1	204	2.6		
											Opt Vent	0.0	0	0.0		
											Total	-2.9				

Room Checksums

By ACADEMIC

222 admin offices

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES					
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 14		Mo/Hr: Heating Design			Cooling			Heating				
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17			SADB	54.5	100.0	Ra Plenum	75.3	70.0		
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent	Return <td>75.3</td> <td>70.0</td> <th>Ret/OA</th> <td>77.7</td> <td>70.0</td>	75.3	70.0	Ret/OA	77.7	70.0		
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens	Of Total (%)	Fn MtrTD	0.0	0.0	Fn BldTD	0.0	0.0		
Envelope Loads				Envelope Loads							AIRFLOWS					
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Diffuser	351	211	Terminal	351	211		
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Main Fan	351	105	Sec Fan	0	105		
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Nom Vent	56	0	AHU Vent	56	0		
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Infil	0	0	MinStop/Rh	105	105		
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Return	351	105	Exhaust	56	0		
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Rm Exh	0	0	Auxiliary	0	0		
Partition/Door	-349	-349	-3	-349	-4	Partition/Door	-9,184	97.96	Leakage Dwn	0	0	Leakage Ups	0	0		
Floor	0	0	0	0	0	Floor	0	0.00	ENGINEERING CKS							
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00	% OA	15.9	0.0	cfm/ft²	0.48	0.14		
Infiltration	0	0	0	0	0	Infiltration	0	0.00	cfm/ton	333.52		ft²/ton	698.32			
Sub Total ==>	-349	0	-349	-3	-4	Sub Total ==>	-9,184	97.96	Btu/hr-ft²	17.18	-15.24	No. People	5			
Internal Loads				Internal Loads												
Lights	2,007	502	2,509	20	25	Lights	0	0.00								
People	2,313	0	2,313	18	16	People	0	0.00								
Misc	5,017	0	5,017	40	62	Misc	0	0.00								
Sub Total ==>	9,337	502	9,839	78	103	Sub Total ==>	0	0.00								
Ceiling Load	75	-75	0	0	1	Ceiling Load	0	0.00								
Ventilation Load	0	0	3,161	25	0	Ventilation Load	0	0.00								
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0								
Dehumid. Ov Sizing			0	0		Ov/Undr Sizing	2,141	-22.83								
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00								
Exhaust Heat		-20	-20	0		OA Preheat Diff.	-2,332	24.87								
Sup. Fan Heat		0	0	0		RA Preheat Diff.	0	0.00								
Ret. Fan Heat		0	0	0		Additional Reheat	0	0.00								
Duct Heat Pkup		0	0	0		System Plenum Heat	0	0.00								
Underflr Sup Ht Pkup		0	0	0		Underflr Sup Ht Pkup	0	0.00								
Supply Air Leakage		0	0	0		Supply Air Leakage	0	0.00								
Grand Total ==>	9,063	407	12,630	100.00	8,035	100.00	Grand Total ==>	-7,044	-9,376	100.00						

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION			
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR		Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg		
ton	MBh	cfm	°F	°F	°F	°F	gr/lb	ft²	(%)	MBh	cfm	°F	°F			
Main Clg	1.1	12.6	9.4	351	77.7	65.4	73.9	54.5	53.5	59.8	Floor	735				
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	2,400				
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0				
											ExFlr	0				
Total	1.1	12.6									Roof	0	0	0		
											Wall	0	0	0		
											Ext Door	0	0	0		
											Total	-11.2				

Room Checksums

By ACADEMIC

301 multipurpose

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design		Mo/Hr: Heating Design				Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17		OADB: 17				SADB	50.4	100.0
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total	Space Sens	Tot Sens	Percent Of Total	Return	75.5	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	82.6	70.0
Envelope Loads				Envelope Loads				Envelope Loads				Fn MtrTD	0.0	0.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0	0	0.00	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0	0	0.00	AIRFLOWS		
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0	0	0.00	Diffuser	121	73
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0	0	0.00	Terminal	121	73
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0	0	0.00	Main Fan	121	36
Partition/Door	-195	-195	-2	-195	-6	Partition/Door	-5,143	-5,143	113.28	0	0.00	Sec Fan	0	36
Floor	0	0	0	0	0	Floor	0	0	0	0	0.00	Nom Vent	57	0
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0	0	0.00	AHU Vent	57	0
Infiltration	0	0	0	0	0	Infiltration	0	0	0	0	0.00	Infil	0	0
Sub Total ==>	-195	0	-195	-2	-195	Sub Total ==>	-5,143	-5,143	113.28	0	0.00	MinStop/Rh	36	36
Internal Loads				Internal Loads				Internal Loads				Return	121	36
Lights	923	231	1,154	13	923	28	Lights	0	0	0	0.00	Exhaust	57	0
People	4,568	0	4,568	52	2,538	76	People	0	0	0	0.00	Rm Exh	0	0
Misc	0	0	0	0	0	0	Misc	0	0	0	0.00	Auxiliary	0	0
Sub Total ==>	5,490	231	5,721	66	3,460	104	Sub Total ==>	0	0	0	0.00	Leakage Dwn	0	0
Ceiling Load				Ceiling Load				Ceiling Load				Leakage Ups	0	0
Ventilation Load	0	-54	0	0	54	2	Ventilation Load	0	0	0	0.00	ENGINEERING CKS		
Adj Air Trans Heat	0	0	3,216	37	0	0	Adj Air Trans Heat	0	0	0	0.00	% OA	47.0	0.0
Dehumid. Ov Sizing	0	0	0	0	0	0	Dehumid. Ov Sizing	2,717	2,717	-59.84	0.00	cfm/ft²	0.36	0.11
Ov/Undr Sizing	0	0	0	0	0	0	Ov/Undr Sizing	0	0	0	0.00	cfm/ton	166.60	
Exhaust Heat	-32	-32	0	0	0	0	Exhaust Heat	0	0	0	0.00	ft²/ton	465.69	
Sup. Fan Heat	0	0	0	0	0	0	OA Preheat Diff.	-2,114	46.56	0	0.00	Btu/hr-ft²	25.77	-15.79
Ret. Fan Heat	0	0	0	0	0	0	RA Preheat Diff.	0	0	0	0.00	No. People	10	
Duct Heat Pkup	0	0	0	0	0	0	Additional Reheat	0	0	0	0.00			
Underflr Sup Ht Pkup	0	0	0	0	0	0	System Plenum Heat	0	0	0	0.00			
Supply Air Leakage	0	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0	0.00			
							Supply Air Leakage	0	0	0	0.00			
Grand Total ==>	5,349	145	8,710	100.00	3,319	100.00	Grand Total ==>	-2,426	-4,540	100.00				

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR		Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg			
ton	MBh	cfm	°F	°F	°F	°F	gr/lb	ft²	(%)	MBh	cfm	°F	°F				
Main Clg	0.7	8.7	4.5	121	82.6	70.2	91.4	50.4	46.4	40.4	Floor	338	-3.2	73	60.2	100.0	
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	1,344	0.0	0	0.0	0.0	
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	-2.1	57	17.0	50.4	
											ExFlr	0	-0.8	36	50.4	70.0	
Total	0.7	8.7									Roof	0	0.0	71	2.6	2.7	
											Wall	0	0.0	0	0.0	0.0	
											Ext Door	0	0	0	0.0	0.0	
											Total	-5.3					

Room Checksums

By ACADEMIC

303 restroom

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 2 / 15		Mo/Hr: Heating Design		Mo/Hr: Heating Design		Mo/Hr: Heating Design		Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 48		OADB: 48		OADB: 17		OADB: 17		SADB	50.4	85.0
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent	Space Sens	Tot Sens	Of Total (%)	Return	75.5	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	82.3	70.0
Envelope Loads				Envelope Loads				Envelope Loads				Fn MtrTD	0.0	0.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Skylite Solar	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Skylite Cond	0	0.00	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Roof Cond	0	0.00	AIRFLOWS		
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Glass Solar	0	0.00	Diffuser	Cooling	Heating
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Glass/Door Cond	0	0.00	Terminal	9	5
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Wall Cond	0	0.00	Main Fan	9	3
Partition/Door	0	0	0	0	0	Partition/Door	0	0.00	Partition/Door	0	0.00	Sec Fan	0	3
Floor	0	0	0	0	0	Floor	0	0.00	Floor	0	0.00	Nom Vent	4	0
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00	Adjacent Floor	0	0.00	AHU Vent	4	0
Infiltration	0	0	0	0	0	Infiltration	0	0.00	Infiltration	0	0.00	Infil	0	0
Sub Total ==>	0	0	0	0	0	Sub Total ==>	0	0.00	Sub Total ==>	0	0.00	MinStop/Rh	3	3
Internal Loads				Internal Loads				Internal Loads				Return	5	3
Lights	229	57	287	56	229	Lights	0	0.00	Lights	0	0.00	Exhaust	0	0
People	0	0	0	0	0	People	0	0.00	People	0	0.00	Rm Exh	4	0
Misc	0	0	0	0	0	Misc	0	0.00	Misc	0	0.00	Auxiliary	0	0
Sub Total ==>	229	57	287	56	229	Sub Total ==>	0	0.00	Sub Total ==>	0	0.00	Leakage Dwn	0	0
Ceiling Load				Ceiling Load				Ceiling Load				Leakage Ups	0	0
Ventilation Load	0	-13	0	0	17	Ventilation Load	0	0.00	Ventilation Load	0	0.00	ENGINEERING CKS		
Adj Air Trans Heat	0	0	228	44	0	Adj Air Trans Heat	0	0.00	Adj Air Trans Heat	0	0.00	% OA	Cooling	Heating
Dehumid. Ov Sizing	0	0	0	0	0	Dehumid. Ov Sizing	-90	37.50	Dehumid. Ov Sizing	-90	37.50	cfm/ft²	44.9	0.0
Ov/Undr Sizing	0	0	0	0	0	Ov/Undr Sizing	0	0.00	Ov/Undr Sizing	0	0.00	cfm/ton	209.22	0.03
Exhaust Heat	0	0	0	0	0	Exhaust Heat	0	0.00	Exhaust Heat	0	0.00	ft²/ton	1,957.71	
Sup. Fan Heat	0	0	0	0	0	Sup. Fan Heat	-150	62.50	Sup. Fan Heat	-150	62.50	Btu/hr-ft²	6.13	-3.56
Ret. Fan Heat	0	0	0	0	0	Ret. Fan Heat	0	0.00	Ret. Fan Heat	0	0.00	No. People	0	
Duct Heat Pkup	0	0	0	0	0	Duct Heat Pkup	0	0.00	Duct Heat Pkup	0	0.00			
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00	Underflr Sup Ht Pkup	0	0.00			
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00	Supply Air Leakage	0	0.00			
Grand Total ==>	243	44	515	100.00	246	Grand Total ==>	-90	100.00	Grand Total ==>	-240	100.00			

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION								
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Lvg	Capacity	Coil Airflow	Ent	Lvg				
	ton	MBh			MBh	cfm	°F	°F	gr/lb	°F								°F	gr/lb	ft²	(%)
Main Clg	0.0	0.5	0.4	9	82.3	70.0	90.6	50.4	50.3	54.2	Floor	84					Main Htg	-0.2	5	60.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0					Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0					Preheat	-0.2	4	17.0	50.4
											ExFlr	0					Reheat	-0.1	3	50.4	70.0
Total	0.0	0.5									Roof	0	0	0			Humidif	0.0	5	2.6	2.7
											Wall	0	0	0			Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	0	0			Total	-0.3			

Room Checksums

By ACADEMIC

304 green room flex space

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES					
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 2 / 15		Mo/Hr: Heating Design			Cooling			Heating				
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 48		OADB: 17			SADB	50.4	85.0	Ra Plenum	75.5	70.0		
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent	Return <td>75.5</td> <td>70.0</td> <th>Ret/OA</th> <td>78.2</td> <td>70.0</td>	75.5	70.0	Ret/OA	78.2	70.0		
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens	Of Total (%)	Fn MtrTD	0.0	0.0	Fn BldTD	0.0	0.0		
						Btu/h	Btu/h		Fn Frict	0.0	0.0					
Envelope Loads				Envelope Loads							AIRFLOWS					
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Cooling		Heating					
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Diffuser	61	37	Terminal	61	37		
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Main Fan	61	18	Sec Fan	0	18		
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Nom Vent	11	0	AHU Vent	11	0		
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Infil	0	0	MinStop/Rh	18	18		
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Return	61	18	Exhaust	11	0		
Partition/Door	0	0	0	0	0	Partition/Door	0	0.00	Rm Exh	0	0	Auxiliary	0	0		
Floor	0	0	0	0	0	Floor	0	0.00	Leakage Dwn	0	0	Leakage Ups	0	0		
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00								
Infiltration	0	0	0	0	0	Infiltration	0	0.00	ENGINEERING CKS							
Sub Total ==>	0	0	0	0	0	Sub Total ==>	0	0.00	% OA	18.1	0.0	cfm/ft²	0.42	0.13		
Internal Loads				Internal Loads							cfm/ton	285.15				
Lights	399	100	498	19	399	Lights	0	0.00	ft²/ton	680.17						
People	459	0	459	18	255	People	0	0.00	Btu/hr-ft²	17.64	-9.79					
Misc	997	0	997	39	997	Misc	0	0.00	No. People	1						
Sub Total ==>	1,855	100	1,954	76	1,650	Sub Total ==>	0	0.00								
Ceiling Load				Ceiling Load												
Ventilation Load	0	-23	0	0	30	Ventilation Load	0	0.00								
Adj Air Trans Heat	0	0	628	24	0	Adj Air Trans Heat	0	0.00								
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	-614	59.80								
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00								
Exhaust Heat	0	-6	-6	0	0	OA Preheat Diff.	-413	40.20								
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0.00								
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0.00								
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0.00								
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00								
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00								
Grand Total ==>	1,878	70	2,576	100.00	1,680	Grand Total ==>	-614	100.00								

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Lvg	Capacity	Coil Airflow	Ent	Lvg
	ton	MBh			MBh	cfm	°F	°F	gr/lb	°F							
Main Clg	0.2	2.6	1.9	61	78.2	65.8	75.2	50.4	50.3	54.2	Floor	146	Main Htg	-1.0	37	60.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0	Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	-0.4	11	17.0	50.4
Total	0.2	2.6									ExFlr	0	Reheat	-0.4	18	50.4	70.0
											Roof	0	Humidif	0.0	14	2.6	2.7
											Wall	0	Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	Total	-1.4			

Room Checksums

By ACADEMIC

305 1 IT closet

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 2 / 15		Mo/Hr: Heating Design			Cooling			Heating		
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 48		OADB: 17			SADB	50.4	85.0	Ra Plenum	75.5	70.0
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak Space Sens	Coil Peak Tot Sens	Percent Of Total (%)	Ret/OA	75.5	70.0	Fn MtrTD	0.0	0.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Fn BldTD	89.2	70.0	Fn Frict	0.0	0.0
Envelope Loads				Envelope Loads							AIRFLOWS			
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Diffuser	19	11	Terminal	19	11
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Main Fan	19	6	Sec Fan	0	6
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Nom Vent	17	0	AHU Vent	17	0
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Infil	0	0	MinStop/Rh	6	6
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Return	2	6	Exhaust	0	0
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Rm Exh	17	0	Auxiliary	0	0
Partition/Door	0	0	0	0	0	Partition/Door	0	0.00	Leakage Dwn	0	0	Leakage Ups	0	0
Floor	0	0	0	0	0	Floor	0	0.00						
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00	ENGINEERING CKS					
Infiltration	0	0	0	0	0	Infiltration	0	0.00	% OA	89.8	0.0	cfm/ft²	0.11	0.03
Sub Total ==>	0	0	0	0	0	Sub Total ==>	0	0.00	cfm/ton	144.95		ft²/ton	1,356.56	
Internal Loads				Internal Loads							Btu/hr-ft²	8.85	-5.35	
Lights	483	121	604	39	483	93	Lights	0	0.00	No. People	0			
People	0	0	0	0	0	0	People	0	0.00					
Misc	0	0	0	0	0	0	Misc	0	0.00					
Sub Total ==>	483	121	604	39	483	93	Sub Total ==>	0	0.00					
Ceiling Load				Ceiling Load										
Ventilation Load	28	-28	0	0	36	7	Ventilation Load	0	0.00					
Adj Air Trans Heat	0	0	962	61	0	0	Adj Air Trans Heat	0	0.00					
Dehumid. Ov Sizing	0	0	0	0	0	0	Ov/Undr Sizing	-190	23.08					
Ov/Undr Sizing	0	0	0	0	0	0	Exhaust Heat	0	0.00					
Exhaust Heat	0	0	0	0	0	0	OA Preheat Diff.	-632	76.92					
Sup. Fan Heat	0	0	0	0	0	0	RA Preheat Diff.	0	0.00					
Ret. Fan Heat	0	0	0	0	0	0	Additional Reheat	0	0.00					
Duct Heat Pkup	0	0	0	0	0	0	System Plenum Heat	0	0.00					
Underflr Sup Ht Pkup	0	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00					
Supply Air Leakage	0	0	0	0	0	0	Supply Air Leakage	0	0.00					
Grand Total ==>	512	93	1,566	100.00	519	100.00	Grand Total ==>	-190	-822	100.00				

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity	Sens Cap.		Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg	
ton	MBh	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F		
Main Clg	0.1	1.6	0.9	19	89.2	76.2	116.1	50.4	50.3	54.2	Floor	177	Main Htg	-0.3	11	60.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0	Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	-0.6	17	17.0	50.4
Total	0.1	1.6									ExFlr	0	Reheat	-0.1	6	50.4	70.0
											Roof	0	Humidif	0.0	19	2.6	2.7
											Wall	0	Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	Total	-1.0			

Room Checksums

By ACADEMIC

305 office

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design		Mo/Hr: Heating Design						
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17					Cooling	Heating		
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total	Space Sens	Tot Sens	Percent Of Total	SADB	50.4	100.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ra Plenum	75.5	70.0
Envelope Loads				Envelope Loads								Return	75.5	70.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00				Ret/OA	78.8	70.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00				Fn MtrTD	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00				Fn BldTD	0.0	0.0
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00				Fn Frict	0.0	0.0
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00				AIRFLOWS		
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00				Cooling	Heating	
Partition/Door	-384	-384	-13	-384	-22	Partition/Door	-10,103	129.87				Diffuser	62	217
Floor	0	0	0	0	0	Floor	0	0.00				Terminal	62	217
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00				Main Fan	62	19
Infiltration	0	0	0	0	0	Infiltration	0	0.00				Sec Fan	0	198
Sub Total ==>	-384	0	-13	-384	-22	Sub Total ==>	-10,103	-10,103				Nom Vent	14	0
Internal Loads				Internal Loads								AHU Vent	14	0
Lights	500	125	625	22	29	Lights	0	0.00				Infil	0	0
People	576	0	576	20	19	People	0	0.00				MinStop/Rh	19	19
Misc	1,249	0	1,249	44	73	Misc	0	0.00				Return	62	19
Sub Total ==>	2,325	125	2,450	86	121	Sub Total ==>	0	0.00				Exhaust	14	0
Ceiling Load				Ceiling Load								Rm Exh	0	0
Ventilation Load	0	0	787	28	0	Ventilation Load	0	0.00				Auxiliary	0	0
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0				Leakage Dwn	0	0
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	2,841	-36.52				Leakage Ups	0	0
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00				ENGINEERING CKS		
Exhaust Heat	-8	-8	0	0	0	OA Preheat Diff.	-517	6.65				Cooling	Heating	
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0.00				% OA	22.3	0.0
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0.00				cfm/ft²	0.34	1.08
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0.00				cfm/ton	263.44	
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00				ft²/ton	771.93	
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00				Btu/hr-ft²	15.55	-44.75
Grand Total ==>	1,970	88	2,845	100.00	1,714	Grand Total ==>	-7,262	-7,779				No. People	1	

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION			
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg	
ton	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F		
Main Clg	0.2	2.8	2.0	62	78.8	66.4	77.5	50.4	50.3	54.2	Floor	183	-7.7	217	68.3	100.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	2,640	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	-0.5	14	17.0	50.4
											ExFlr	0	-0.4	19	50.4	70.0
Total	0.2	2.8									Roof	0	0.0	17	2.6	2.7
											Wall	0	0.0	0	0.0	0.0
											Ext Door	0	0.0	0	0.0	0.0
											Total	-8.2				

Room Checksums

By ACADEMIC

307 corridor

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design		Mo/Hr: Heating Design						
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17					Cooling	Heating		
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent	Space Sens	Tot Sens	Of Total (%)			
Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)	Btu/h	Btu/h	(%)	Btu/h	Btu/h	(%)			
Envelope Loads				Envelope Loads										
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00				SADB	50.4	100.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00				Ra Plenum	75.5	70.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00				Return	75.5	70.0
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00				Ret/OA	78.3	70.0
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00				Fn MtrTD	0.0	0.0
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00				Fn BldTD	0.0	0.0
Partition/Door	-105	-105	-2	-105	-3	Partition/Door	-2,755	88.70				Fn Frict	0.0	0.0
Floor	0	0	0	0	0	Floor	0	0.00						
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00						
Infiltration	0	0	0	0	0	Infiltration	0	0.00						
Sub Total ==>	-105	0	-2	-105	-3	Sub Total ==>	-2,755	88.70						
Internal Loads				Internal Loads								AIRFLOWS		
Lights	775	194	20	775	25	Lights	0	0.00				Diffuser	115	69
People	894	0	18	497	16	People	0	0.00				Terminal	115	69
Misc	1,939	0	40	1,939	62	Misc	0	0.00				Main Fan	115	34
Sub Total ==>	3,608	194	77	3,211	102	Sub Total ==>	0	0.00				Sec Fan	0	34
												Nom Vent		
Ceiling Load	45	-45	0	45	1	Ceiling Load	0	0.00				AHU Vent	22	0
Ventilation Load	0	0	25	0	0	Ventilation Load	0	0.00				Infil	0	0
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0				MinStop/Rh	34	34
Dehumid. Ov Sizing			0			Ov/Undr Sizing	452	-14.54				Return	115	34
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00				Exhaust	22	0
Exhaust Heat		-12	-12			OA Preheat Diff.	-803	25.84				Rm Exh	0	0
Sup. Fan Heat		0	0			RA Preheat Diff.	0	0.00				Auxiliary	0	0
Ret. Fan Heat		0	0			Additional Reheat	0	0.00				Leakage Dwn	0	0
Duct Heat Pkup		0	0			System Plenum Heat	0	0.00				Leakage Ups	0	0
Underflr Sup Ht Pkup		0	0			Underflr Sup Ht Pkup	0	0.00						
Supply Air Leakage		0	0			Supply Air Leakage	0	0.00						
Grand Total ==>	3,549	136	100.00	3,151	100.00	Grand Total ==>	-2,304	100.00				ENGINEERING CKS		
												% OA		
												Cooling		
												Heating		
												18.8		
												0.0		
												cfm/ft²		
												0.40		
												0.12		
												cfm/ton		
												280.82		
												ft²/ton		
												694.69		
												Btu/hr-ft²		
												17.27		
												-13.60		
												No. People		
												2		

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION			
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR		Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg		
ton	MBh	cfm	°F	°F	°F	°F	gr/lb	ft²	(%)	MBh	cfm	°F	°F			
Main Clg	0.4	4.9	3.7	115	78.3	65.9	75.6	50.4	50.3	54.2	Floor	284				
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	720				
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0				
											ExFlr	0				
Total	0.4	4.9									Roof	0	0	0		
											Wall	0	0	0		
											Ext Door	0	0	0		
											Total	-3.9				
											Main Htg	-3.1	69	60.2		
											Aux Htg	0.0	0	0.0		
											Preheat	-0.8	22	17.0		
											Reheat	-0.8	34	50.4		
											Humidif	0.0	27	2.6		
											Opt Vent	0.0	0	0.0		
											Total	-3.9				

Room Checksums

By ACADEMIC

309 storage

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES					
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 2 / 15		Mo/Hr: Heating Design			Cooling			Heating				
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 48		OADB: 17			SADB	50.4	85.0	Ra Plenum	75.5	70.0		
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total	Return	75.5	70.0	Ret/OA	89.2	70.0		
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens		Fn MtrTD	0.0	0.0	Fn BldTD	0.0	0.0		
						Btu/h	Btu/h		Fn Frict	0.0	0.0					
Envelope Loads				Envelope Loads							AIRFLOWS					
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Diffuser	7	4	Terminal	7	4		
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Main Fan	7	2	Sec Fan	0	2		
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Nom Vent	6	0	AHU Vent	6	0		
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Infil	0	0	MinStop/Rh	2	2		
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Return	1	2	Exhaust	0	0		
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Rm Exh	6	0	Auxiliary	0	0		
Partition/Door	0	0	0	0	0	Partition/Door	0	0.00	Leakage Dwn	0	0	Leakage Ups	0	0		
Floor	0	0	0	0	0	Floor	0	0.00								
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00	ENGINEERING CKS							
Infiltration	0	0	0	0	0	Infiltration	0	0.00	% OA	89.8	0.0	cfm/ft²	0.11	0.03		
Sub Total ==>	0	0	0	0	0	Sub Total ==>	0	0.00	cfm/ton	144.98		ft²/ton	1,356.53			
Internal Loads				Internal Loads							Btu/hr-ft²	8.85	-5.35			
Lights	172	43	215	39	172	Lights	0	0.00	No. People	0						
People	0	0	0	0	0	People	0	0.00								
Misc	0	0	0	0	0	Misc	0	0.00								
Sub Total ==>	172	43	215	39	172	Sub Total ==>	0	0.00								
Ceiling Load				Ceiling Load												
Ventilation Load	0	-10	0	0	13	Ventilation Load	0	0.00								
Adj Air Trans Heat	0	0	342	61	0	Adj Air Trans Heat	0	0.00								
Dehumid. Ov Sizing	0	0	0	0	0	Dehumid. Ov Sizing	-67	23.07								
Ov/Undr Sizing	0	0	0	0	0	Ov/Undr Sizing	0	0.00								
Exhaust Heat	0	0	0	0	0	Exhaust Heat	-225	76.93								
Sup. Fan Heat	0	0	0	0	0	Sup. Fan Heat	0	0.00								
Ret. Fan Heat	0	0	0	0	0	Ret. Fan Heat	0	0.00								
Duct Heat Pkup	0	0	0	0	0	Duct Heat Pkup	0	0.00								
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00								
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00								
Grand Total ==>	182	33	557	100.00	185	Grand Total ==>	-67	100.00								

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg	
ton	MBh	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F		
Main Clg	0.1	0.6	0.3	7	89.2	76.2	116.1	50.4	50.3	54.2	Floor	63	Main Htg	-0.1	4	60.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0	Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	-0.2	6	17.0	50.4
											ExFlr	0	Reheat	0.0	2	50.4	70.0
Total	0.1	0.6									Roof	0	Humidif	0.0	7	2.6	2.7
											Wall	0	Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	Total	-0.3			

Room Checksums

By ACADEMIC

310 hall of remembrance

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design			Cooling			Heating		
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17			SADB	50.4	85.0	Ra Plenum	75.5	70.0
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total	Return	75.5	70.0	Ret/OA	80.1	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens		Fn MtrTD	0.0	0.0	Fn BldTD	0.0	0.0
						Btu/h	Btu/h		Fn Frict	0.0	0.0			
Envelope Loads				Envelope Loads							AIRFLOWS			
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Diffuser	2,329	1,397	Terminal	2,329	1,397
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Main Fan	2,329	699	Sec Fan	0	699
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Nom Vent	708	0	AHU Vent	708	0
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Infil	0	0	MinStop/Rh	699	699
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Return	2,329	699	Exhaust	708	0
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Rm Exh	0	0	Auxiliary	0	0
Partition/Door	-523	-523	0	-523	-1	Partition/Door	-13,777	27.72	Leakage Dwn	0	0	Leakage Ups	0	0
Floor	0	0	0	0	0	Floor	0	0.00						
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00						
Infiltration	0	0	0	0	0	Infiltration	0	0.00						
Sub Total ==>	-523	0	-523	0	-1	Sub Total ==>	-13,777	27.72						
Internal Loads				Internal Loads							ENGINEERING CKS			
Lights	2,725	681	3,406	3	4	Lights	0	0.00	% OA	30.4	0.0	cfm/ft²	2.33	0.70
People	49,500	0	49,500	39	43	People	0	0.00	cfm/ton	221.60		ft²/ton	94.97	
Misc	34,062	0	34,062	27	53	Misc	0	0.00	Btu/hr-ft²	126.36	-65.16	No. People	110	
Sub Total ==>	86,287	681	86,968	69	101	Sub Total ==>	0	0.00						
Ceiling Load	160	-160	0	0	0	Ceiling Load	0	0.00						
Ventilation Load	0	0	40,061	32	0	Ventilation Load	0	0.00						
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0						
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	-9,587	19.29						
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00						
Exhaust Heat	0	-399	-399	0	0	OA Preheat Diff.	-26,338	52.99						
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0.00						
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0.00						
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0.00						
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00						
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00						
Grand Total ==>	85,923	123	126,108	100.00	63,923	Grand Total ==>	-23,364	100.00						

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg	
ton	MBh	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F		
Main Clg	10.5	126.1	76.3	2,329	80.1	67.7	82.1	50.4	49.8	52.4	Floor	998	Main Htg	-38.7	1,397	60.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	3,600	Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	-26.3	708	17.0	50.4
											ExFlr	0	Reheat	-15.3	699	50.4	70.0
											Roof	0	Humidif	-0.1	885	2.6	2.7
											Wall	0	Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	Total	-65.0			
Total	10.5	126.1															

Room Checksums

By ACADEMIC

311 changing exhibits

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES				
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 14		Mo/Hr: Heating Design			Cooling			Heating			
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17			SADB	54.5	85.0	Ra Plenum	75.3	70.0	
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total	Return <td>75.3</td> <td>70.0</td> <th>Ret/OA</th> <td>77.1</td> <td>70.0</td>	75.3	70.0	Ret/OA	77.1	70.0	
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens		Fn MtrTD	0.0	0.0	Fn BldTD	0.0	0.0	
						Btu/h	Btu/h		Fn Frict	0.0	0.0				
Envelope Loads				Envelope Loads							AIRFLOWS				
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Diffuser	4,073	2,444				
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Terminal	4,073	2,444				
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Main Fan	4,073	1,222				
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Sec Fan	0	1,222				
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Nom Vent	485	0				
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	AHU Vent	485	0				
Partition/Door	-1,235	-1,235	-1	-1,235	-1	Partition/Door	-32,513	53.21	Infil	0	0				
Floor	0	0	0	0	0	Floor	0	0.00	MinStop/Rh	1,222	1,222				
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00	Return	4,073	1,222				
Infiltration	0	0	0	0	0	Infiltration	0	0.00	Exhaust	485	0				
Sub Total ==>	-1,235	0	-1,235	-1	-1,235	Sub Total ==>	-32,513	53.21	Rm Exh	0	0				
Internal Loads				Internal Loads							ENGINEERING CKS				
Lights	5,799	1,450	7,249	5	5,799	Lights	0	0.00	% OA	11.9	0.0				
People	28,703	0	28,703	21	15,946	People	0	0.00	cfm/ft²	1.92	0.58				
Misc	72,492	0	72,492	54	72,492	Misc	0	0.00	cfm/ton	363.45					
Sub Total ==>	106,994	1,450	108,444	81	94,237	Sub Total ==>	0	0.00	ft²/ton	189.55					
Ceiling Load				Ceiling Load							Btu/hr-ft²	63.31	-38.74		
Ventilation Load	0	0	27,433	20	0	Ventilation Load	0	0.00	No. People	64					
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0							
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	-8,347	13.66							
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00							
Exhaust Heat	-174	-174	0	0	0	OA Preheat Diff.	-20,242	33.13							
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0.00							
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0.00							
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0.00							
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00							
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00							
Grand Total ==>	105,976	1,060	134,468	100.00	93,219	Grand Total ==>	-40,860	100.00							

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION			
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR		Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg		
ton	MBh	MBh	°F	°F	°F	°F	gr/lb	ft²	(%)	MBh	cfm	°F	°F			
Main Clg	11.2	134.5	102.7	4,073	77.1	64.7	71.7	54.5	53.8	60.7	Floor	2,124	62.2	85.0		
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	8,496	0.0	0.0		
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	17.0	54.5		
											ExFlr	0	21.2	70.0		
Total	11.2	134.5									Roof	0	2.6	2.7		
											Wall	0	0.0	0.0		
											Ext Door	0	0.0	0.0		
											Total	-82.3				

Room Checksums

By ACADEMIC

313 restroom

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES					
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 2 / 15		Mo/Hr: Heating Design			Cooling			Heating				
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 48		OADB: 17			SADB	54.5	85.0	Ra Plenum	75.3	70.0		
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent	Return <td>75.3</td> <td>70.0</td> <th>Ret/OA</th> <td>81.2</td> <td>70.0</td>	75.3	70.0	Ret/OA	81.2	70.0		
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens	Of Total (%)	Fn MtrTD	0.0	0.0	Fn BldTD	0.0	0.0		
						Btu/h	Btu/h		Fn Frict	0.0	0.0					
Envelope Loads				Envelope Loads							AIRFLOWS					
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Diffuser	22	13	Terminal	22	13		
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Main Fan	22	7	Sec Fan	0	7		
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Nom Vent	8	0	AHU Vent	8	0		
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Infil	0	0	MinStop/Rh	7	7		
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Return	13	7	Exhaust	0	0		
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Rm Exh	8	0	Auxiliary	0	0		
Partition/Door	0	0	0	0	0	Partition/Door	0	0.00	Leakage Dwn	0	0	Leakage Ups	0	0		
Floor	0	0	0	0	0	Floor	0	0.00								
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00	ENGINEERING CKS							
Infiltration	0	0	0	0	0	Infiltration	0	0.00	% OA	38.1	0.0	cfm/ft²	0.13	0.04		
Sub Total ==>	0	0	0	0	0	Sub Total ==>	0	0.00	cfm/ton	246.38		ft²/ton	1,957.57			
Internal Loads				Internal Loads							Btu/hr-ft²	6.13	-3.92			
Lights	472	118	590	56	472	Lights	0	0.00	No. People	0						
People	0	0	0	0	0	People	0	0.00								
Misc	0	0	0	0	0	Misc	0	0.00								
Sub Total ==>	472	118	590	56	472	Sub Total ==>	0	0.00								
Ceiling Load				Ceiling Load												
Ventilation Load	0	-18	0	0	26	Ventilation Load	0	0.00								
Adj Air Trans Heat	0	0	470	44	0	Adj Air Trans Heat	0	0.00								
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	-218	38.64								
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00								
Exhaust Heat	0	0	0	0	0	OA Preheat Diff.	-347	61.36								
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0.00								
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0.00								
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0.00								
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00								
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00								
Grand Total ==>	490	100	1,060	100.00	498	Grand Total ==>	-218	100.00								

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg		
ton	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F			
Main Clg	0.1	1.1	0.7	21	81.2	68.9	86.8	54.5	53.4	59.0	Floor	173	Main Htg	-0.3	13	62.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0	Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	-0.4	8	17.0	54.5
											ExFlr	0	Reheat	-0.1	7	54.5	70.0
Total	0.1	1.1									Roof	0	Humidif	0.0	10	2.6	2.7
											Wall	0	Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	Total	-0.7			

Room Checksums

By ACADEMIC

314 restroom

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 2 / 15		Mo/Hr: Heating Design						Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 48		OADB: 17						SADB	54.5	85.0
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total (%)	Space Sens	Tot Sens	Percent Of Total (%)	Return	75.3	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	81.2	70.0
Envelope Loads				Envelope Loads								Fn MtrTD	0.0	0.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0	0	0.00	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0	0	0.00	AIRFLOWS		
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0	0	0.00	Diffuser	34	21
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0	0	0.00	Terminal	34	21
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0	0	0.00	Main Fan	34	10
Partition/Door	0	0	0	0	0	Partition/Door	0	0	0	0	0.00	Sec Fan	0	10
Floor	0	0	0	0	0	Floor	0	0	0	0	0.00	Nom Vent	13	0
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0	0	0.00	AHU Vent	13	0
Infiltration	0	0	0	0	0	Infiltration	0	0	0	0	0.00	Infil	0	0
Sub Total ==>	0	0	0	0	0	Sub Total ==>	0	0	0	0	0.00	MinStop/Rh	10	10
Internal Loads				Internal Loads								Return	21	10
Lights	748	187	935	56	748	95	Lights	0	0	0	0.00	Exhaust	0	0
People	0	0	0	0	0	0	People	0	0	0	0.00	Rm Exh	13	0
Misc	0	0	0	0	0	0	Misc	0	0	0	0.00	Auxiliary	0	0
Sub Total ==>	748	187	935	56	748	95	Sub Total ==>	0	0	0	0.00	Leakage Dwn	0	0
Ceiling Load				Ceiling Load								Leakage Ups	0	0
Ventilation Load	0	0	744	44	0	0	Ventilation Load	0	0	0	0.00	ENGINEERING CKS		
Adj Air Trans Heat	0	0	0	0	0	0	Adj Air Trans Heat	0	0	0	0	% OA	38.1	0.0
Dehumid. Ov Sizing	0	0	0	0	0	0	Ov/Undr Sizing	-346	-346	38.64	0.00	cfm/ft²	0.13	0.04
Ov/Undr Sizing	0	0	0	0	0	0	Exhaust Heat	0	0	0	0.00	cfm/ton	246.37	
Exhaust Heat	0	0	0	0	0	0	OA Preheat Diff.	-549	-549	61.36	0.00	ft²/ton	1,957.58	
Sup. Fan Heat	0	0	0	0	0	0	RA Preheat Diff.	0	0	0	0.00	Btu/hr-ft²	6.13	-3.92
Ret. Fan Heat	0	0	0	0	0	0	Additional Reheat	0	0	0	0.00	No. People	0	
Duct Heat Pkup	0	0	0	0	0	0	System Plenum Heat	0	0	0	0.00			
Underflr Sup Ht Pkup	0	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0	0.00			
Supply Air Leakage	0	0	0	0	0	0	Supply Air Leakage	0	0	0	0.00			
Grand Total ==>	776	159	1,680	100.00	789	100.00	Grand Total ==>	-346	-895	100.00				

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION					
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Lvg	Capacity	Coil Airflow	Ent	Lvg	
	ton	MBh			MBh	cfm	°F	°F	gr/lb	°F								°F
Main Clg	0.1	1.7	1.2	34	81.2	68.9	86.8	54.5	53.4	59.0	Floor	274		Main Htg	-0.5	21	62.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0		Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0		Preheat	-0.6	13	17.0	54.5
											ExFlr	0		Reheat	-0.2	10	54.5	70.0
Total	0.1	1.7									Roof	0	0	Humidif	0.0	16	2.6	2.7
											Wall	0	0	Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	0	Total	-1.1			

Room Checksums

By ACADEMIC

315 office

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design						Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17						SADB	54.5	93.9
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total	Space Sens	Tot Sens	Percent Of Total	Return	75.3	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	77.7	70.0
Envelope Loads				Envelope Loads								Fn MtrTD	0.0	0.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00				Fn BldTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00				Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00				AIRFLOWS		
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00				Cooling	Heating	
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00				Diffuser	72	43
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00				Terminal	72	43
Partition/Door	-44	-44	-2	-44	-3	Partition/Door	-1,148	70.97				Main Fan	72	22
Floor	0	0	0	0	0	Floor	0	0.00				Sec Fan	0	22
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00				Nom Vent	11	0
Infiltration	0	0	0	0	0	Infiltration	0	0.00				AHU Vent	11	0
Sub Total ==>	-44	0	-44	-2	-44	Sub Total ==>	-1,148	70.97				Infil	0	0
Internal Loads				Internal Loads								MinStop/Rh	22	22
Lights	404	101	505	20	404	Lights	0	0.00				Return	72	22
People	466	0	466	18	259	People	0	0.00				Exhaust	11	0
Misc	1,010	0	1,010	39	1,010	Misc	0	0.00				Rm Exh	0	0
Sub Total ==>	1,880	101	1,981	77	1,673	Sub Total ==>	0	0.00				Auxiliary	0	0
Ceiling Load				Ceiling Load								Leakage Dwn	0	0
Ventilation Load	0	-15	0	0	15	Ventilation Load	0	0.00				Leakage Ups	0	0
Adj Air Trans Heat	0	0	636	25	0	Adj Air Trans Heat	0	0.00				ENGINEERING CKS		
Dehumid. Ov Sizing	0	0	0	0	0	Dehumid. Ov Sizing	0	0.00				Cooling	Heating	
Ov/Undr Sizing	0	0	0	0	0	Ov/Undr Sizing	0	0.00				% OA	15.6	0.0
Exhaust Heat	0	-4	-4	0	0	Exhaust Heat	0	0.00				cfm/ft²	0.49	0.15
Sup. Fan Heat	0	0	0	0	0	Sup. Fan Heat	0	0.00				cfm/ton	335.50	
Ret. Fan Heat	0	0	0	0	0	Ret. Fan Heat	0	0.00				ft²/ton	691.08	
Duct Heat Pkup	0	0	0	0	0	Duct Heat Pkup	0	0.00				Btu/hr-ft²	17.36	-13.46
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00				No. People	1	
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00						
Grand Total ==>	1,852	82	2,570	100.00	1,645	Grand Total ==>	-1,148	100.00						

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity	Sens Cap.		Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Capacity		Coil Airflow	Ent	Lvg	
ton	MBh		cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F		
Main Clg	0.2	2.6	72	77.7	65.3	73.8	54.5	53.6	59.9	Floor	148	Main Htg	-1.5	43	62.2	93.9	
Aux Clg	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	300	Aux Htg	0.0	0	0.0	0.0	
Opt Vent	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	-0.5	11	17.0	54.5	
										ExFlr	0	Reheat	-0.4	22	54.5	70.0	
Total	0.2	2.6								Roof	0	Humidif	0.0	14	2.6	2.7	
										Wall	0	Opt Vent	0.0	0	0.0	0.0	
										Ext Door	0	Total	-2.0				

Room Checksums

By ACADEMIC

317 exhibit AV

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design			Cooling			Heating		
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17			SADB	56.0	100.0	Ra Plenum	75.8	70.0
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total	Return <td>75.8</td> <td>70.0</td> <th>Ret/OA</th> <td>78.4</td> <td>70.0</td>	75.8	70.0	Ret/OA	78.4	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens		Fn MtrTD	0.0	0.0	Fn BldTD	0.0	0.0
						Btu/h	Btu/h		Fn Frict	0.0	0.0			
Envelope Loads				Envelope Loads							AIRFLOWS			
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Diffuser	97	29	Terminal	97	29
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Main Fan	97	29	Sec Fan	0	0
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Nom Vent	17	0	AHU Vent	17	0
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Infil	0	0	MinStop/Rh	29	29
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Return	97	29	Exhaust	17	0
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Rm Exh	0	0	Auxiliary	0	0
Partition/Door	-167	-167	-5	-167	-8	Partition/Door	-4,409	453.09	Leakage Dwn	0	0	Leakage Ups	0	0
Floor	0	0	0	0	0	Floor	0	0.00						
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00						
Infiltration	0	0	0	0	0	Infiltration	0	0.00						
Sub Total ==>	-167	0	-167	-5	-167	Sub Total ==>	-4,409	-4,409	453.09					
Internal Loads				Internal Loads							ENGINEERING CKS			
Lights	524	131	655	19	524	Lights	0	0.00	% OA	17.8	0.0	cfm/ft²	0.51	0.15
People	604	0	604	18	336	People	0	0.00	cfm/ton	345.68		ft²/ton	684.39	
Misc	1,311	0	1,311	39	1,311	Misc	0	0.00	Btu/hr-ft²	17.53	-5.13	No. People	1	
Sub Total ==>	2,439	131	2,570	76	2,170	Sub Total ==>	0	0.00						
Ceiling Load	47	-47	0	0	47	Ceiling Load	0	0.00						
Ventilation Load	0	0	979	29	0	Ventilation Load	0	0.00						
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0						
Dehumid. Ov Sizing			0	0		Ov/Undr Sizing	3,436	-353.09						
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00						
Exhaust Heat		-15	-15	0		OA Preheat Diff.	0	0.00						
Sup. Fan Heat		0	0	0		RA Preheat Diff.	0	0.00						
Ret. Fan Heat		0	0	0		Additional Reheat	0	0.00						
Duct Heat Pkup		0	0	0		System Plenum Heat	0	0.00						
Underflr Sup Ht Pkup		0	0	0		Underflr Sup Ht Pkup	0	0.00						
Supply Air Leakage		0	0	0		Supply Air Leakage	0	0.00						
Grand Total ==>	2,319	69	3,366	100.00	2,050	Grand Total ==>	-973	-973	100.00					

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION			
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Capacity	Coil Airflow	Ent	Lvg		
ton	MBh	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		MBh	cfm	°F	°F		
Main Clg	0.3	3.4	2.4	97	78.4	65.8	74.9	56.0	54.5	61.1	Floor	192	-1.0	29	70.0	100.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	1,152	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	0.0	0	0.0	0.0
											ExFlr	0	0.0	0	0.0	0.0
Total	0.3	3.4									Roof	0	0	0	0	0
											Wall	0	0	0	0	0
											Ext Door	0	0	0	0	0
											Total	-1.0				

Room Checksums

By ACADEMIC

318 corridor

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design						Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17						SADB	54.5	100.0
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total	Space Sens	Tot Sens	Percent Of Total	Return	75.3	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	77.8	70.0
Envelope Loads				Envelope Loads				Envelope Loads				Fn MtrTD	0.0	0.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0	0	0.00	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0	0	0.00	AIRFLOWS		
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0	0	0.00	Diffuser	102	61
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0	0	0.00	Terminal	102	61
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0	0	0.00	Main Fan	102	30
Partition/Door	-174	-174	-5	-174	-8	Partition/Door	-4,592	-4,592	168.10	0	0.00	Sec Fan	0	30
Floor	0	0	0	0	0	Floor	0	0	0	0	0.00	Nom Vent	17	0
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0	0	0.00	AHU Vent	17	0
Infiltration	0	0	0	0	0	Infiltration	0	0	0	0	0.00	Infil	0	0
Sub Total ==>	-174	0	-174	-5	-174	Sub Total ==>	-4,592	-4,592	168.10	0	0.00	MinStop/Rh	30	30
Internal Loads				Internal Loads				Internal Loads				Return	102	30
Lights	598	149	747	20	598	Lights	0	0	0.00	0	0.00	Exhaust	17	0
People	689	0	689	19	383	People	0	0	0.00	0	0.00	Rm Exh	0	0
Misc	1,495	0	1,495	40	1,495	Misc	0	0	0.00	0	0.00	Auxiliary	0	0
Sub Total ==>	2,782	149	2,932	79	2,476	Sub Total ==>	0	0	0.00	0	0.00	Leakage Dwn	0	0
Ceiling Load				Ceiling Load				Ceiling Load				Leakage Ups	0	0
Ventilation Load	0	0	942	26	0	Ventilation Load	0	0	0.00	0	0.00	ENGINEERING CKS		
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0	0	0	0	% OA	16.4	0.0
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	2,555	2,555	-93.53	0	0.00	cfm/ft²	0.46	0.14
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0	0.00	0	0.00	cfm/ton	329.88	
Exhaust Heat	-6	-6	0	0	0	OA Preheat Diff.	-695	-695	25.44	0	0.00	ft²/ton	711.64	
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0	0.00	0	0.00	Btu/hr-ft²	16.86	-14.89
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0	0.00	0	0.00	No. People	2	
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0	0.00	0	0.00			
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00	0	0.00			
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0	0.00	0	0.00			
Grand Total ==>	2,630	121	3,693	100.00	2,324	Grand Total ==>	-2,037	-2,732	100.00					

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg		
ton	MBh	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F		
Main Clg	0.3	3.7	2.7	102	77.8	65.4	74.2	54.5	53.5	59.6	Floor	219	-2.6	61	62.2	100.0	
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	1,200	0.0	0	0.0	0.0	
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	-0.7	17	17.0	54.5	
											ExFlr	0	-0.5	30	54.5	70.0	
Total	0.3	3.7									Roof	0	0.0	21	2.6	2.7	
											Wall	0	0.0	0	0.0	0.0	
											Ext Door	0	0.0	0	0.0	0.0	
											Total	-3.3					

Room Checksums

By ACADEMIC

319 1 projection room

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design						Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17						SADB	56.1	100.0
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total (%)	Space Sens	Tot Sens	Percent Of Total (%)	Return	75.3	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	78.0	70.0
Envelope Loads				Envelope Loads								Fn MtrTD	0.0	0.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0	0	0.00	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0	0	0.00	AIRFLOWS		
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0	0	0.00	Cooling	Heating	
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0	0	0.00	Diffuser	78	23
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0	0	0.00	Terminal	78	23
Partition/Door	-87	-87	-3	-87	-5	Partition/Door	-2,296	-2,296	293.17	0	0.00	Main Fan	78	23
Floor	0	0	0	0	0	Floor	0	0	0	0	0.00	Sec Fan	0	0
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0	0	0.00	Nom Vent	14	0
Infiltration	0	0	0	0	0	Infiltration	0	0	0	0	0.00	AHU Vent	14	0
Sub Total ==>	-87	0	-87	-3	-87	Sub Total ==>	-2,296	-2,296	293.17	0	0.00	Infil	0	0
Internal Loads				Internal Loads								MinStop/Rh	23	23
Lights	415	104	519	19	415	Lights	0	0	0.00	0	0.00	Return	78	23
People	478	0	478	18	266	People	0	0	0.00	0	0.00	Exhaust	14	0
Misc	1,038	0	1,038	38	1,038	Misc	0	0	0.00	0	0.00	Rm Exh	0	0
Sub Total ==>	1,931	104	2,035	75	1,718	Sub Total ==>	0	0	0.00	0	0.00	Auxiliary	0	0
Ceiling Load				Ceiling Load								Leakage Dwn	0	0
Ventilation Load	0	-14	0	0	14	Ventilation Load	0	0	0.00	0	0.00	Leakage Ups	0	0
Adj Air Trans Heat	0	0	775	29	0	Adj Air Trans Heat	0	0	0.00	0	0.00	ENGINEERING CKS		
Dehumid. Ov Sizing	0	0	0	0	0	Dehumid. Ov Sizing	0	0	0.00	0	0.00	Cooling	Heating	
Ov/Undr Sizing	0	0	0	0	0	Ov/Undr Sizing	1,513	1,513	-193.17	0	0.00	% OA	17.5	0.0
Exhaust Heat	0	-4	0	0	0	Exhaust Heat	0	0	0.00	0	0.00	cfm/ft²	0.51	0.15
Sup. Fan Heat	0	0	0	0	0	OA Preheat Diff.	0	0	0.00	0	0.00	cfm/ton	344.66	
Ret. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0	0.00	0	0.00	ft²/ton	671.11	
Duct Heat Pkup	0	0	0	0	0	Additional Reheat	0	0	0.00	0	0.00	Btu/hr-ft²	17.88	-5.16
Underflr Sup Ht Pkup	0	0	0	0	0	System Plenum Heat	0	0	0.00	0	0.00	No. People	1	
Supply Air Leakage	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00	0	0.00			
						Supply Air Leakage	0	0	0.00	0	0.00			
Grand Total ==>	1,858	85	2,718	100.00	1,645	Grand Total ==>	-783	-783	100.00					

COOLING COIL SELECTION										AREAS				HEATING COIL SELECTION				
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	ft² (%)	Capacity	Coil Airflow	Ent °F	Lvg °F	
	ton	MBh			MBh	cfm	°F	°F	gr/lb	°F								°F
Main Clg	0.2	2.7	2.0	78	78.0	65.6	74.8	56.1	54.3	60.0	Floor	152	Main Htg	-0.8	23	70.0	100.0	
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	600	Aux Htg	0.0	0	0.0	0.0	
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	0.0	0	0.0	0.0	
											ExFlr	0	Humidif	0.0	17	2.6	2.7	
Total	0.2	2.7									Roof	0	0	0	0	0.0	0.0	
											Wall	0	0	0	0	0.0	0.0	
											Ext Door	0	0	0	0	0.0	0.0	
													Total	-0.8				

Room Checksums

By ACADEMIC

319 theater

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES					
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 12		Mo/Hr: Heating Design			Cooling			Heating				
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 87		OADB: 17			SADB			Ra Plenum				
Return		75.3		70.0		Ret/OA			77.3			70.0				
Fn MtrTD		0.0		0.0		Fn BldTD			0.0			0.0				
Fn Frict		0.0		0.0					0.0			0.0				
Envelope Loads	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat. Btu/h	Net Total Btu/h	Percent Of Total (%)	Space Sensible Btu/h	Percent Of Total (%)	Envelope Loads	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)	AIRFLOWS					
Skylite Solar	0	0	0	0	0	0	Skylite Solar	0	0	0.00	Cooling			Heating		
Skylite Cond	0	0	0	0	0	0	Skylite Cond	0	0	0.00	Diffuser			1,292		
Roof Cond	0	0	0	0	0	0	Roof Cond	0	0	0.00	Terminal			1,292		
Glass Solar	0	0	0	0	0	0	Glass Solar	0	0	0.00	Main Fan			1,292		
Glass/Door Cond	0	0	0	0	0	0	Glass/Door Cond	0	0	0.00	Sec Fan			0		
Wall Cond	0	0	0	0	0	0	Wall Cond	0	0	0.00	Nom Vent			562		
Partition/Door	-959	-959	-959	-1	-959	-1	Partition/Door	-25,257	-25,257	100.00	AHU Vent			562		
Floor	0	0	0	0	0	0	Floor	0	0	0.00	Infil			0		
Adjacent Floor	0	0	0	0	0	0	Adjacent Floor	0	0	0.00	MinStop/Rh			1,292		
Infiltration	0	0	0	0	0	0	Infiltration	0	0	0.00	Return			4,307		
Sub Total ==>	-959	0	-959	-1	-959	-1	Sub Total ==>	-25,257	-25,257	100.00	Exhaust			562		
Internal Loads				Internal Loads				Internal Loads			ENGINEERING CKS					
Lights	6,027	1,507	7,534	6	6,027	7	Lights	0	0	0.00	% OA			13.0		
People	39,600	0	39,600	29	27,000	30	People	0	0	0.00	cfm/ft²			2.54		
Misc	57,953	0	57,953	43	57,953	64	Misc	0	0	0.00	cfm/ton			380.64		
Sub Total ==>	103,580	1,507	105,087	77	90,980	101	Sub Total ==>	0	0	0.00	ft²/ton			150.08		
Ceiling Load	158	-158	0	0	158	0	Ceiling Load	0	0	0.00	Btu/hr-ft²			79.96		
Ventilation Load	0	0	31,828	23	0	0	Ventilation Load	0	0	0.00	No. People			120		
Adj Air Trans Heat	0	0	0	0	0	0	Adj Air Trans Heat	0	0	0						
Dehumid. Ov Sizing	0	0	0	0	0	0	Ov/Undr Sizing	0	0	0.00						
Ov/Undr Sizing	0	0	0	0	0	0	Exhaust Heat	0	0	0.00						
Exhaust Heat	0	-184	-184	0	0	0	OA Preheat Diff.	0	0	0.00						
Sup. Fan Heat	0	0	0	0	0	0	RA Preheat Diff.	0	0	0.00						
Ret. Fan Heat	0	0	0	0	0	0	Additional Reheat	0	0	0.00						
Duct Heat Pkup	0	0	0	0	0	0	System Plenum Heat	0	0	0.00						
Underflr Sup Ht Pkup	0	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00						
Supply Air Leakage	0	0	0	0	0	0	Supply Air Leakage	0	0	0.00						
Grand Total ==>	102,779	1,164	135,771	100.00	90,179	100.00	Grand Total ==>	-25,257	-25,257	100.00						

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Capacity		Coil Airflow	Ent	Lvg	
ton	MBh	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft²	(%)	MBh	cfm	°F	°F	
Main Clg	11.3	135.8	101.0	4,307	77.3	64.9	72.2	56.2	54.5	60.9	Floor	1,698	Main Htg	-25.3	1,292	70.0	87.5
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	6,600	Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	0.0	0	0.0	0.0
											ExFlr	0	Humidif	0.0	702	2.6	2.7
Total	11.3	135.8									Roof	0	0	0	0	0.0	0.0
											Wall	0	0	0	0	0.0	0.0
											Ext Door	0	0	0	0	0.0	0.0
											Total	-25.3	Total	-25.3			

Room Checksums

By ACADEMIC

320 2 AV room

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design			Cooling			Heating		
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17			SADB	56.0	100.0	Ra Plenum	75.8	70.0
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent	Return <td>75.8</td> <td>70.0</td> <th>Ret/OA</th> <td>78.4</td> <td>70.0</td>	75.8	70.0	Ret/OA	78.4	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens	Of Total (%)	Fn MtrTD	0.0	0.0	Fn BldTD	0.0	0.0
						Btu/h	Btu/h		Fn Frict	0.0	0.0			
Envelope Loads				Envelope Loads							AIRFLOWS			
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00	Diffuser	52	15	Terminal	52	15
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00	Main Fan	52	15	Sec Fan	0	0
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00	Nom Vent	9	0	AHU Vent	9	0
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00	Infil	0	0	MinStop/Rh	15	15
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00	Return	52	15	Exhaust	9	0
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00	Rm Exh	0	0	Auxiliary	0	0
Partition/Door	-87	-87	-5	-87	-8	Partition/Door	-2,296	443.34	Leakage Dwn	0	0	Leakage Ups	0	0
Floor	0	0	0	0	0	Floor	0	0.00						
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00						
Infiltration	0	0	0	0	0	Infiltration	0	0.00						
Sub Total ==>	-87	0	-87	-5	-87	Sub Total ==>	-2,296	443.34						
Internal Loads				Internal Loads							ENGINEERING CKS			
Lights	279	70	348	19	279	Lights	0	0.00	% OA	17.8	0.0	cfm/ft²	0.51	0.15
People	321	0	321	18	178	People	0	0.00	cfm/ton	346.00		ft²/ton	683.72	
Misc	696	0	696	39	696	Misc	0	0.00	Btu/hr-ft²	17.55	-5.14	No. People	1	
Sub Total ==>	1,296	70	1,365	76	1,153	Sub Total ==>	0	0.00						
Ceiling Load	25	-25	0	0	25	Ceiling Load	0	0.00						
Ventilation Load	0	0	520	29	0	Ventilation Load	0	0.00						
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0						
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	1,778	-343.34						
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00						
Exhaust Heat	0	-8	-8	0	0	OA Preheat Diff.	0	0.00						
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0.00						
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0.00						
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0.00						
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00						
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00						
Grand Total ==>	1,234	37	1,790	100.00	1,091	Grand Total ==>	-518	100.00						

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION			
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Capacity	Coil Airflow	Ent	Lvg		
ton	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F		
Main Clg	0.2	1.8	1.3	52	78.4	65.8	74.9	56.0	54.5	61.1	Floor	102	-0.5	15	70.0	100.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	600	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	0.0	0	0.0	0.0
											ExFlr	0	0.0	0	0.0	0.0
											Roof	0	0	0	0	0
											Wall	0	0	0	0	0
											Ext Door	0	0	0	0	0
Total	0.2	1.8											Total	-0.5		

Room Checksums

By ACADEMIC

320 3 judgement simulator

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 14		Mo/Hr: Heating Design			Cooling		Heating		
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17			SADB	54.5	85.0		
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total (%)	Return				
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens		75.3	70.0			
											Ret/OA	77.1 70.0	
Envelope Loads				Envelope Loads							Fn MtrTD	0.0 0.0	
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0.00	Fn BldTD	0.0 0.0		
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0.00	Fn Frict	0.0 0.0		
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0.00				
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0.00				
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0.00				
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0.00				
Partition/Door	-189	-189	-1	-189	-1	Partition/Door	-4,968	-4,968	40.07				
Floor	0	0	0	0	0	Floor	0	0	0.00				
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0.00				
Infiltration	0	0	0	0	0	Infiltration	0	0	0.00				
Sub Total ==>	-189	0	-189	-1	-189	Sub Total ==>	-4,968	-4,968	40.07				
Internal Loads				Internal Loads							AIRFLOWS		
Lights	1,174	294	1,468	5	1,174	Lights	0	0	0.00	Cooling	Heating		
People	5,811	0	5,811	21	3,228	People	0	0	0.00	Diffuser	827 496		
Misc	14,676	0	14,676	54	14,676	Misc	0	0	0.00	Terminal	827 496		
Sub Total ==>	21,661	294	21,954	80	19,078	Sub Total ==>	0	0	0.00	Main Fan	827 248		
											Sec Fan	0 248	
Ceiling Load	44	-44	0	0	44	Ceiling Load	0	0	0.00	Nom Vent	98 0		
Ventilation Load	0	0	5,554	20	0	Ventilation Load	0	0	0.00	AHU Vent	98 0		
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0	0	Infil	0 0		
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	-3,331	-3,331	26.87	MinStop/Rh	248 248		
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0	0.00	Return	827 248		
Exhaust Heat	0	-35	-35	0	0	OA Preheat Diff.	-4,098	-4,098	33.06	Exhaust	98 0		
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0	0.00	Rm Exh	0 0		
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0	0.00	Auxiliary	0 0		
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0	0.00	Leakage Dwn	0 0		
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00	Leakage Ups	0 0		
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0	0.00				
Grand Total ==>	21,516	215	27,284	100.00	18,933	Grand Total ==>	-8,299	-12,397	100.00	ENGINEERING CKS			
											% OA	11.9 0.0	
											cfm/ft²	1.92 0.58	
											cfm/ton	363.81	
											ft²/ton	189.12	
											Btu/hr-ft²	63.45 -38.84	
											No. People	13	

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass	Capacity		Coil Airflow	Ent	Lvg	
ton	MBh	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F		
Main Clg	2.3	27.3	20.8	827	77.1	64.7	71.7	54.5	53.8	60.7	Floor	430	Main Htg	-12.6	496	62.2	85.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	600	Aux Htg	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	Preheat	-4.1	98	17.0	54.5
											ExFlr	0	Reheat	-4.3	248	54.5	70.0
											Roof	0	Humidif	0.0	123	2.6	2.7
											Wall	0	Opt Vent	0.0	0	0.0	0.0
											Ext Door	0	Total	-16.7			
Total	2.3	27.3															

Room Checksums

By ACADEMIC

320 exhibit hall east

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES								
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 11		Mo/Hr: Heating Design			Cooling			Heating							
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 85		OADB: 17			SADB			Ra Plenum							
Return		75.3		70.0		Ret/OA			75.3			70.0							
Fn MtrTD		0.0		0.0		Fn BldTD			0.0			0.0							
Fn Frict		0.0		0.0					0.0			0.0							
Envelope Loads	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat. Btu/h	Net Total Btu/h	Percent Of Total (%)	Space Sensible Btu/h	Percent Of Total (%)	Envelope Loads	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)	AIRFLOWS								
Skylite Solar	0	0	0	0	0	0	Skylite Solar	0	0	0.00	Cooling			Heating					
Skylite Cond	0	0	0	0	0	0	Skylite Cond	0	0	0.00	Diffuser			7,251			4,351		
Roof Cond	0	0	0	0	0	0	Roof Cond	0	0	0.00	Terminal			7,251			4,351		
Glass Solar	0	0	0	0	0	0	Glass Solar	0	0	0.00	Main Fan			7,251			2,175		
Glass/Door Cond	0	0	0	0	0	0	Glass/Door Cond	0	0	0.00	Sec Fan			0			2,175		
Wall Cond	0	0	0	0	0	0	Wall Cond	0	0	0.00	Nom Vent			733			0		
Partition/Door	-1,771	0	-1,771	-1	-1,771	-1	Partition/Door	-46,611	-46,611	45.09	AHU Vent			733			0		
Floor	0	0	0	0	0	0	Floor	0	0	0.00	Infil			0			0		
Adjacent Floor	0	0	0	0	0	0	Adjacent Floor	0	0	0.00	MinStop/Rh			2,175			2,175		
Infiltration	0	0	0	0	0	0	Infiltration	0	0	0.00	Return			7,251			2,175		
Sub Total ==>	-1,771	0	-1,771	-1	-1,771	-1	Sub Total ==>	-46,611	-46,611	45.09	Exhaust			733			0		
Internal Loads				Internal Loads				Internal Loads			ENGINEERING CKS								
Lights	8,328	2,082	10,410	4	8,328	5	Lights	0	0	0.00	% OA			20.2			0.0		
People	99,000	0	99,000	34	55,000	33	People	0	0	0.00	cfm/ft²			2.38			0.71		
Misc	104,097	0	104,097	35	104,097	63	Misc	0	0	0.00	cfm/ton			295.74					
Sub Total ==>	211,424	2,082	213,506	73	167,424	101	Sub Total ==>	0	0	0.00	ft²/ton			124.40					
Ceiling Load	311	-311	0	0	311	0	Ceiling Load	0	0	0.00	Btu/hr-ft²			96.46			-46.26		
Ventilation Load	0	0	83,003	28	0	0	Ventilation Load	0	0	0.00	No. People			220					
Adj Air Trans Heat	0	0	0	0	0	0	Adj Air Trans Heat	0	0	0									
Dehumid. Ov Sizing	0	0	0	0	0	0	Ov/Undr Sizing	-26,135	-26,135	25.28									
Ov/Undr Sizing	0	0	0	0	0	0	Exhaust Heat	0	0	0.00									
Exhaust Heat	0	-526	-526	0	0	0	OA Preheat Diff.	-30,623	-30,623	29.62									
Sup. Fan Heat	0	0	0	0	0	0	RA Preheat Diff.	0	0	0.00									
Ret. Fan Heat	0	0	0	0	0	0	Additional Reheat	0	0	0.00									
Duct Heat Pkup	0	0	0	0	0	0	System Plenum Heat	0	0	0.00									
Underflr Sup Ht Pkup	0	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00									
Supply Air Leakage	0	0	0	0	0	0	Supply Air Leakage	0	0	0.00									
Grand Total ==>	209,964	1,246	294,213	100.00	165,964	100.00	Grand Total ==>	-72,746	-103,369	100.00									

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION					
Total Capacity ton	Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB/WB/HR °F °F	Leave DB/WB/HR °F °F	Gross Total	Glass ft² (%)	Lvg °F		Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F					
Main Clg	24.5	294.2	192.6	78.4	66.1	76.4	54.5	52.8	56.7	Floor	3,050		Main Htg	-110.4	4,351	62.2	85.0	
Aux Clg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Part	12,180		Aux Htg	0.0	0	0.0	0.0	
Opt Vent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0		Preheat	-30.6	733	17.0	54.5	
										ExFlr	0		Reheat	-37.7	2,175	54.5	70.0	
Total	24.5	294.2								Roof	0	0	0	Humidif	-0.1	1,833	2.6	2.6
										Wall	0	0	0	Opt Vent	0.0	0	0.0	0.0
										Ext Door	0	0	0	Total	-141.1			

Room Checksums

By ACADEMIC

320 exhibit hall west

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK			TEMPERATURES					
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 11		Mo/Hr: Heating Design			Cooling			Heating				
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 85		OADB: 17			SADB			Ra Plenum				
Return		75.5		75.5		79.1			Fn MtrTD			0.0				
Fn BldTD		0.0		0.0		0.0			Fn Frict			0.0				
Fn Frict		0.0		0.0		0.0										
Space Sens. + Lat.	Plenum Sens. + Lat.	Net Total	Percent Of Total	Space Sensible	Percent Of Total	Space Peak	Coil Peak	Percent								
Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)	Space Sens	Tot Sens	Of Total								
Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)	Btu/h	Btu/h	(%)								
Envelope Loads				Envelope Loads												
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00								
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00								
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00								
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00								
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00								
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00								
Partition/Door	-698	-698	0	-698	0	Partition/Door	-18,369	20.78								
Floor	0	0	0	0	0	Floor	0	0.00								
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00								
Infiltration	0	0	0	0	0	Infiltration	0	0.00								
Sub Total ==>	-698	0	-698	0	-698	Sub Total ==>	-18,369	-18,369	20.78							
Internal Loads				Internal Loads												
Lights	8,328	2,082	10,410	4	8,328	5	Lights	0	0.00							
People	99,000	0	99,000	34	55,000	33	People	0	0.00							
Misc	104,097	0	104,097	35	104,097	62	Misc	0	0.00							
Sub Total ==>	211,424	2,082	213,506	72	167,424	100	Sub Total ==>	0	0.00							
Ceiling Load				Ceiling Load												
Ventilation Load	488	-488	0	0	488	0	Ventilation Load	0	0.00							
Adj Air Trans Heat	0	0	82,986	28	0	0	Adj Air Trans Heat	0	0.00							
Dehumid. Ov Sizing	0	0	0	0	0	0	Ov/Undr Sizing	-42,748	48.36							
Ov/Undr Sizing	0	0	0	0	0	0	Exhaust Heat	0	0.00							
Exhaust Heat	0	-826	-826	0	0	0	OA Preheat Diff.	-27,279	30.86							
Sup. Fan Heat	0	0	0	0	0	0	RA Preheat Diff.	0	0.00							
Ret. Fan Heat	0	0	0	0	0	0	Additional Reheat	0	0.00							
Duct Heat Pkup	0	0	0	0	0	0	System Plenum Heat	0	0.00							
Underflr Sup Ht Pkup	0	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00							
Supply Air Leakage	0	0	0	0	0	0	Supply Air Leakage	0	0.00							
Grand Total ==>	211,215	768	294,969	100.00	167,215	100.00	Grand Total ==>	-61,117	-88,396	100.00						

AIRFLOWS		
	Cooling	Heating
Diffuser	6,092	3,655
Terminal	6,092	3,655
Main Fan	6,092	1,828
Sec Fan	0	1,828
Nom Vent	733	0
AHU Vent	733	0
Infil	0	0
MinStop/Rh	1,828	1,828
Return	6,092	1,828
Exhaust	733	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	24.1	0.0
cfm/ft²	2.00	0.60
cfm/ton	247.83	
ft²/ton	124.08	
Btu/hr-ft²	96.71	-42.11
No. People	220	

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR		Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg			
ton	MBh	cfm	°F	°F	°F	°F	gr/lb	ft²	(%)	MBh	cfm	°F	°F				
Main Clg	24.6	295.0	193.3	6,092	79.1	66.7	78.5	50.4	50.3	54.2	Floor	3,050					
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	4,800					
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0					
											ExFlr	0					
											Roof	0	0	0			
											Wall	0	0	0			
											Ext Door	0	0	0			
Total	24.6	295.0									Total	-128.4					
											Main Htg	-101.1	3,655	60.2	85.0		
											Aux Htg	0.0	0	0.0	0.0		
											Preheat	-27.3	733	17.0	50.4		
											Reheat	-40.0	1,828	50.4	70.0		
											Humidif	-0.1	1,833	2.6	2.6		
											Opt Vent	0.0	0	0.0	0.0		

Room Checksums

By ACADEMIC

400 PEPCO substation

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design						Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17						SADB	50.0	100.0
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total (%)	Space Sens	Tot Sens	Percent Of Total (%)	Return	77.0	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	90.5	70.0
Envelope Loads				Envelope Loads				Envelope Loads				Fn MtrTD	0.0	0.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0	0	0.00	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0	0	0.00	AIRFLOWS		
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0	0	0.00	Diffuser	111	33
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0	0	0.00	Terminal	111	33
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0	0	0.00	Main Fan	111	33
Partition/Door	-786	-786	-8	-786	-25	Partition/Door	-20,680	-20,680	1,850.97	0	0.00	Sec Fan	0	0
Floor	0	0	0	0	0	Floor	0	0	0	0	0.00	Nom Vent	111	0
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0	0	0.00	AHU Vent	111	0
Infiltration	0	0	0	0	0	Infiltration	0	0	0	0	0.00	Infil	0	0
Sub Total ==>	-786	0	-786	-8	-25	Sub Total ==>	-20,680	-20,680	1,850.97	0	0.00	MinStop/Rh	33	33
Internal Loads				Internal Loads				Internal Loads				Return	0	33
Lights	3,167	792	3,959	38	102	Lights	0	0	0.00	0	0.00	Exhaust	0	0
People	0	0	0	0	0	People	0	0	0.00	0	0.00	Rm Exh	111	0
Misc	0	0	0	0	0	Misc	0	0	0.00	0	0.00	Auxiliary	0	0
Sub Total ==>	3,167	792	3,959	38	102	Sub Total ==>	0	0	0.00	0	0.00	Leakage Dwn	0	0
Ceiling Load	716	-716	0	0	23	Ceiling Load	0	0	0.00	0	0.00	Leakage Ups	0	0
Ventilation Load	0	0	7,245	70	0	Ventilation Load	0	0	0.00	0	0.00	ENGINEERING CKS		
Adj Air Trans Heat	0	0	0	0	0	Adj Air Trans Heat	0	0	0	0	0	% OA	100.0	0.0
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	19,563	19,563	1,750.97	0	0.00	cfm/ft²	0.10	0.03
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0	0.00	0	0.00	cfm/ton	128.26	
Exhaust Heat	0	0	0	0	0	OA Preheat Diff.	0	0	0.00	0	0.00	ft²/ton	1,336.06	
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0	0.00	0	0.00	Btu/hr-ft²	8.98	-0.96
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0	0.00	0	0.00	No. People	0	
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0	0.00	0	0.00			
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00	0	0.00			
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0	0.00	0	0.00			
Grand Total ==>	3,098	76	10,419	100.00	3,098	Grand Total ==>	-1,117	-1,117	100.00					

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg		
ton	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F			
Main Clg	0.9	10.4	5.1	111	90.5	77.4	121.1	50.0	49.9	53.3	Floor	1,160	-1.1	33	70.0	100.0	
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	5,404	0.0	0	0.0	0.0	
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	0.0	0	0.0	0.0	
											ExFlr	0	0.0	0	0.0	0.0	
											Roof	0	0	0	0	0	
											Wall	0	0	0	0	0	
											Ext Door	0	0	0	0	0	
Total	0.9	10.4									Total	-1.1					

Room Checksums

By ACADEMIC

402 low volt switchgear room

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design		Mo/Hr: Heating Design		Cooling			Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17		OADB: 17		SADB	55.0	100.0		
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent Of Total (%)	Space Sens	Tot Sens	Percent Of Total (%)	Return	77.0	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Ret/OA	86.1	70.0
Envelope Loads				Envelope Loads				Envelope Loads				Fn MtrTD	0.0	0.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0	0	0.00	Fn BldTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0	0	0.00	Fn Frict	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0	0	0.00			
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0	0	0.00			
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0	0	0.00			
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0	0	0.00			
Partition/Door	-81	-81	-2	-81	-6	Partition/Door	-2,143	-2,143	326.48					
Floor	0	0	0	0	0	Floor	0	0	0	0	0.00			
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0	0	0.00			
Infiltration	0	0	0	0	0	Infiltration	0	0	0	0	0.00			
Sub Total ==>	-81	0	-81	-2	-6	Sub Total ==>	-2,143	-2,143	326.48					
Internal Loads				Internal Loads				Internal Loads				AIRFLOWS		
Lights	1,256	314	1,570	39	86	Lights	0	0	0.00			Cooling	Heating	
People	0	0	0	0	0	People	0	0	0.00			Diffuser	65	20
Misc	0	0	0	0	0	Misc	0	0	0.00			Terminal	65	20
Sub Total ==>	1,256	314	1,570	39	86	Sub Total ==>	0	0	0.00			Main Fan	65	20
Ceiling Load				Ceiling Load				Ceiling Load				Sec Fan	0	0
Ventilation Load	284	-284	0	0	19	Ventilation Load	0	0	0.00			Nom Vent	44	0
Adj Air Trans Heat	0	0	2,535	63	0	Adj Air Trans Heat	0	0	0.00			AHU Vent	44	0
Dehumid. Ov Sizing	0	0	0	0	0	Dehumid. Ov Sizing	1,487	1,487	-226.48			Infil	0	0
Ov/Undr Sizing	0	0	0	0	0	Ov/Undr Sizing	0	0	0.00			MinStop/Rh	20	20
Exhaust Heat	0	0	0	0	0	Exhaust Heat	0	0	0.00			Return	21	20
Sup. Fan Heat	0	0	0	0	0	Sup. Fan Heat	0	0	0.00			Exhaust	0	0
Ret. Fan Heat	0	0	0	0	0	Ret. Fan Heat	0	0	0.00			Rm Exh	44	0
Duct Heat Pkup	0	0	0	0	0	Duct Heat Pkup	0	0	0.00			Auxiliary	0	0
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00			Leakage Dwn	0	0
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0	0.00			Leakage Ups	0	0
Grand Total ==>	1,459	30	4,024	100.00	1,459	Grand Total ==>	-656	-656	100.00			ENGINEERING CKS		

COOLING COIL SELECTION										AREAS				HEATING COIL SELECTION				
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR		Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg				
ton	MBh	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		MBh	cfm	°F	°F				
Main Clg	0.3	4.0	2.3	65	86.1	73.2	102.5	55.0	55.0	64.5	Floor	460	-0.7	20	70.0	100.0		
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	560	0.0	0	0.0	0.0		
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	0.0	0	0.0	0.0		
											ExFlr	0	0.0	0	0.0	0.0		
Total	0.3	4.0									Roof	0	0	55	2.6	2.6		
											Wall	0	0	0	0.0	0.0		
											Ext Door	0	0	0	0.0	0.0		
											Total	-0.7						

Room Checksums

By ACADEMIC

404 building management controls

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design		Mo/Hr: Heating Design							
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17		OADB: 17							
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent							
Btu/h	Btu/h	Btu/h		Btu/h		Space Sens	Tot Sens	Of Total (%)							
Envelope Loads				Envelope Loads								AIRFLOWS			
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0	0.00	Cooling			Heating		
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0	0.00	Diffuser	40	12	Terminal	40	12
Roof Cond	0	0	0	0	0	Roof Cond	0	0	0.00	Main Fan	40	12	Sec Fan	0	0
Glass Solar	0	0	0	0	0	Glass Solar	0	0	0.00	Nom Vent	40	0	AHU Vent	40	0
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0	0.00	Infil	0	0	MinStop/Rh	12	12
Wall Cond	0	0	0	0	0	Wall Cond	0	0	0.00	Return	0	12	Exhaust	0	0
Partition/Door	-285	-285	-8	-285	-26	Partition/Door	-7,501	-7,501	1,885.53	Rm Exh	40	0	Auxiliary	0	0
Floor	0	0	0	0	0	Floor	0	0	0.00	Leakage Dwn	0	0	Leakage Ups	0	0
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0	0.00						
Infiltration	0	0	0	0	0	Infiltration	0	0	0.00						
Sub Total ==>	-285	0	-285	-8	-285	Sub Total ==>	-7,501	-7,501	1,885.53						
Internal Loads				Internal Loads								ENGINEERING CKS			
Lights	1,128	282	1,410	38	1,128	102	Lights	0	0	0.00	% OA	100.0	0.0		
People	0	0	0	0	0	0	People	0	0	0.00	cfm/ft²	0.10	0.03		
Misc	0	0	0	0	0	0	Misc	0	0	0.00	cfm/ton	128.45			
Sub Total ==>	1,128	282	1,410	38	1,128	102	Sub Total ==>	0	0	0.00	ft²/ton	1,338.01			
Ceiling Load				Ceiling Load								Btu/hr-ft²			
Ventilation Load	260	-260	0	0	260	24	Ventilation Load	0	0	0.00	No. People	0			
Adj Air Trans Heat	0	0	0	0	0	0	Adj Air Trans Heat	0	0	0.00					
Dehumid. Ov Sizing	0	0	0	0	0	0	Ov/Undr Sizing	7,103	7,103	1,785.53					
Ov/Undr Sizing	0	0	0	0	0	0	Exhaust Heat	0	0	0.00					
Exhaust Heat	0	0	0	0	0	0	OA Preheat Diff.	0	0	0.00					
Sup. Fan Heat	0	0	0	0	0	0	RA Preheat Diff.	0	0	0.00					
Ret. Fan Heat	0	0	0	0	0	0	Additional Reheat	0	0	0.00					
Duct Heat Pkup	0	0	0	0	0	0	System Plenum Heat	0	0	0.00					
Underflr Sup Ht Pkup	0	0	0	0	0	0	Underflr Sup Ht Pkup	0	0	0.00					
Supply Air Leakage	0	0	0	0	0	0	Supply Air Leakage	0	0	0.00					
Grand Total ==>	1,103	22	3,704	100.00	1,103	100.00	Grand Total ==>	-398	-398	100.00					

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION			
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass						
ton	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	Capacity	Coil Airflow	Ent	Lvg		
											MBh	cfm	°F	°F		
Main Clg	0.3	3.7	1.8	40	90.5	77.4	121.1	50.1	50.0	53.5	Floor	413				
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	1,960				
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0				
											ExFlr	0				
Total	0.3	3.7									Roof	0	0	0		
											Wall	0	0	0		
											Ext Door	0	0	0		
											Total	-0.4				

Room Checksums

By ACADEMIC

406 elevator #3 control

COOLING COIL PEAK				CLG SPACE PEAK				HEATING COIL PEAK				TEMPERATURES		
Peaked at Time:		Mo/Hr: 7 / 14		Mo/Hr: 7 / 15		Mo/Hr: Heating Design						Cooling	Heating	
Outside Air:		OADB/WB/HR: 91 / 77 / 121		OADB: 91		OADB: 17						SADB	55.0	100.0
Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total (%)	Space Sensible	Percent Of Total (%)	Space Peak	Coil Peak	Percent	Space Sens	Tot Sens	Of Total (%)	Ra Plenum	77.0	70.0
Btu/h	Btu/h	Btu/h		Btu/h		Btu/h	Btu/h		Btu/h	Btu/h		Return	77.0	70.0
Envelope Loads				Envelope Loads								Ret/OA	87.6	70.0
Skylite Solar	0	0	0	0	0	Skylite Solar	0	0.00				Fn MtrTD	0.0	0.0
Skylite Cond	0	0	0	0	0	Skylite Cond	0	0.00				Fn BldTD	0.0	0.0
Roof Cond	0	0	0	0	0	Roof Cond	0	0.00				Fn Frict	0.0	0.0
Glass Solar	0	0	0	0	0	Glass Solar	0	0.00						
Glass/Door Cond	0	0	0	0	0	Glass/Door Cond	0	0.00						
Wall Cond	0	0	0	0	0	Wall Cond	0	0.00						
Partition/Door	-81	-81	-8	-81	-23	Partition/Door	-2,143	-2,143	1,367.60					
Floor	0	0	0	0	0	Floor	0	0.00						
Adjacent Floor	0	0	0	0	0	Adjacent Floor	0	0.00						
Infiltration	0	0	0	0	0	Infiltration	0	0.00						
Sub Total ==>	-81	0	-81	-8	-23	Sub Total ==>	-2,143	-2,143	1,367.60					
Internal Loads				Internal Loads										
Lights	349	87	437	41	100	Lights	0	0.00				Diffuser	16	5
People	0	0	0	0	0	People	0	0.00				Terminal	16	5
Misc	0	0	0	0	0	Misc	0	0.00				Main Fan	16	5
Sub Total ==>	349	87	437	41	100	Sub Total ==>	0	0.00				Sec Fan	0	0
Ceiling Load				Ceiling Load								Nom Vent	12	0
Ventilation Load	80	-80	0	0	23	Ventilation Load	0	0.00				AHU Vent	12	0
Adj Air Trans Heat	0	0	705	66	0	Adj Air Trans Heat	0	0.00				Infil	0	0
Dehumid. Ov Sizing	0	0	0	0	0	Ov/Undr Sizing	1,986	1,986	1,267.60			MinStop/Rh	5	5
Ov/Undr Sizing	0	0	0	0	0	Exhaust Heat	0	0.00				Return	3	5
Exhaust Heat	0	0	0	0	0	OA Preheat Diff.	0	0.00				Exhaust	0	0
Sup. Fan Heat	0	0	0	0	0	RA Preheat Diff.	0	0.00				Rm Exh	12	0
Ret. Fan Heat	0	0	0	0	0	Additional Reheat	0	0.00				Auxiliary	0	0
Duct Heat Pkup	0	0	0	0	0	System Plenum Heat	0	0.00				Leakage Dwn	0	0
Underflr Sup Ht Pkup	0	0	0	0	0	Underflr Sup Ht Pkup	0	0.00				Leakage Ups	0	0
Supply Air Leakage	0	0	0	0	0	Supply Air Leakage	0	0.00						
Grand Total ==>	348	7	1,061	100.00	100.00	Grand Total ==>	-157	-157	100.00					

AIRFLOWS		
	Cooling	Heating
Diffuser	16	5
Terminal	16	5
Main Fan	16	5
Sec Fan	0	0
Nom Vent	12	0
AHU Vent	12	0
Infil	0	0
MinStop/Rh	5	5
Return	3	5
Exhaust	0	0
Rm Exh	12	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	78.7	0.0
cfm/ft²	0.12	0.04
cfm/ton	176.64	
ft²/ton	1,447.91	
Btu/hr-ft²	8.29	-1.29
No. People	0	

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION			
Total Capacity	Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR			Gross Total	Glass		Capacity	Coil Airflow	Ent	Lvg	
ton	MBh	cfm	°F	°F	gr/lb	°F	°F	gr/lb		ft² (%)	MBh	cfm	°F	°F		
Main Clg	0.1	1.1	0.6	16	87.6	74.7	108.9	55.0	55.0	64.5	Floor	128	-0.2	5	70.0	100.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	560	0.0	0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	0.0	0	0.0	0.0
											ExFlr	0				
											Roof	0	0	0	0	0
											Wall	0	0	0	0	0
											Ext Door	0	0	0	0	0
Total	0.1	1.1											Total	-0.2		

