Florida Building Code, 8th Edition (2023) - Energy Conservation

EnergyGauge Summit® Fla/Com-2023, Effective Date: Dec 31, 2023

C407: FBC Total Building Performance Compliance Option

Compliance applying the requirements of Sections C402.5, C403.2, C404,C405.2, C405.4, C405.5, C407 and C408. The building energy cost shall be equal to or less than 85 percent of the standard reference design building.

Check List

Applications for compliance with the Florida Building Code, Energy Conservation shall include:

- ☑ The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports.
- ☑ The compliance report must include the full input report generated by the software as contigous part of the compliance report.
- ☑ Boxes appropriately checked in the Mandatory Section of the complaince report.

PROJECT SUMMARY

Short Desc:	Rainbolt Tech	**Description:**	Renovation for Rainbolt Tech
Owner:	Rainbow Tech		
Address1:	162 SW Spencer Ct	**City:**	Lake City
Address2:		**State:**	FL
		Zip:	32024
Type:	Office	**Class:**	Renovation to existing building
Jurisdiction:	LAKE CITY, COLUMBIA COUNTY, FL (221200)		
Conditioned Area:	7603 SF	**Conditioned & UnConditioned Area:**	7603 SF
No of Stories:	1	**Area entered from Plans**	7603 SF
Permit No:		**Max Tonnage**	5
		If different, write in:	_____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in $)	3192.00	3493.00	**PASSED**
LIGHTING CONTROLS			**PASSES**
EXTERNAL LIGHTING			**No Entry**
HVAC SYSTEM			**PASSES**
PLANT			**No Entry**
WATER HEATING SYSTEMS			**PASSES**
PIPING SYSTEMS			**PASSES**
Met all required compliance from Check List?			**Yes** No/NA

IMPORTANT MESSAGE
Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: Rachel Miller — Building Official: _____

Date: 5/16/2024 — Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____ — Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect:	Nicholas Geisler	Reg No: AR0007005	Signature_____
Electrical Designer:	Nicholas Geisler	Reg No: AR0007005	Signature_____
Lighting Designer:	Nicholas Geisler	Reg No: AR0007005	Signature_____
Mechanical Designer:	Nicholas Geisler	Reg No: AR0007005	Signature_____
Plumbing Designer:	Nicholas Geisler	Reg No: AR0007005	Signature_____

(*) Signature is required where Florida Law requires design to be performed by registered design professionals per C103.1.1.1.2

Rachel Miller

Digitally signed by Rachel Miller
Date: 2024.05.16 11:00:58 -04'00'

Rachel Miller
Certified Energy Rater #1494

Project: Rainbolt Tech
Title: Renovation for Rainbolt Tech
Type: Office
(WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	*204.10*	*262.80*
	$3,192	*$4,110*
ELECTRICITY(MBtu/kWh/$)	204.10	262.80
	59783	76957
	$3,192	*$4,110*
AREA LIGHTS	29.10	49.70
	8535	14559
	$456	*$777*
MISC EQUIPMT	73.20	73.20
	21438	21438
	$1,145	*$1,145*
PUMPS & MISC	0.30	0.30
	76	82
	$4	*$4*
SPACE COOL	48.00	66.50
	14058	19482
	$751	*$1,040*
SPACE HEAT	8.10	12.00
	2378	3508
	$127	*$187*
VENT FANS	45.40	61.10
	13298	17888
	$710	*$955*

Credits Applied: None
Passing Criteria = 3493
Design (including any credits) = 3192
Passing requires Proposed Building cost to be at most 85% of Baseline cost. This Proposed Building is at 77.7%

PASSES

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
					None	

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Lighting Controls Compliance

Acronym	ID	Description	Area (sq.ft)	Compliance
Corridor	**5**	**Corridor (Corridor)**	**720**	COMPLIANCE: PASSES REQUIRED: All of |7|; one of |9| CONTROLS IN SPACE: 7-Occupant Sensor Auto OFF (Full or Partial) 9-Time-Switch: Auto Full Off or Scheduled Off
Foyer	**5**	**Foyer (Corridor)**	**379**	COMPLIANCE: PASSES REQUIRED: All of |7|; one of |9| CONTROLS IN SPACE: 7-Occupant Sensor Auto OFF (Full or Partial) 9-Time-Switch: Auto Full Off or Scheduled Off
Gym	**16**	**Gym (Office - Open Plan)**	**636**	COMPLIANCE: PASSES REQUIRED: All of |1|; one of |3|; one of |8|9| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Men	**6**	**Men (Toilet and Washroom)**	**105**	COMPLIANCE: PASSES REQUIRED: All of |3|; one of |8| CONTROLS IN SPACE: 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Women	**6**	**Women (Toilet and Washroom)**	**150**	COMPLIANCE: PASSES REQUIRED: All of |3|; one of |8| CONTROLS IN SPACE: 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF

Stairway	**4**	**Stairway (Stair - Active Traffic)**	**197** COMPLIANCE: PASSES REQUIRED: All of |8|; one of |3| CONTROLS IN SPACE: 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 1	**17**	**Office 1 (Office - Enclosed)**	**253** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 2	**17**	**Office 2 (Office - Enclosed)**	**256** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 3	**17**	**Office 3 (Office - Enclosed)**	**205** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 4	**17**	**Office 4 (Office - Enclosed)**	**150** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 5	**17**	**Office 5 (Office - Enclosed)**	**137** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 6	**17**	**Office 6 (Office - Enclosed)**	**107** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF

Office 7	**17**	**Office 7 (Office - Enclosed)**	**125** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 8	**17**	**Office 8 (Office - Enclosed)**	**200** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 9	**17**	**Office 9 (Office - Enclosed)**	**136** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 10	**17**	**Office 10 (Office - Enclosed)**	**170** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Bath	**6**	**Bath (Toilet and Washroom)**	**61** COMPLIANCE: PASSES REQUIRED: All of |3|; one of |8| CONTROLS IN SPACE: 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Breakroom	**17**	**Breakroom (Office - Enclosed)**	**238** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF

Conference	**15**	**Conference (Conference/meeting (Multiple Functions))**	**339**	COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Corridor	**5**	**Corridor (Corridor)**	**1,198**	COMPLIANCE: PASSES REQUIRED: All of |7|; one of |9| CONTROLS IN SPACE: 7-Occupant Sensor Auto OFF (Full or Partial) 9-Time-Switch: Auto Full Off or Scheduled Off
Cubicle 1	**16**	**Cubicle 1 (Office - Open Plan)**	**196**	COMPLIANCE: PASSES REQUIRED: All of |1|; one of |3|; one of |8|9| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 9-Time-Switch: Auto Full Off or Scheduled Off
Cubicle 2	**16**	**Cubicle 2 (Office - Open Plan)**	**183**	COMPLIANCE: PASSES REQUIRED: All of |1|; one of |3|; one of |8|9| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Lounge	**12**	**Lounge (Lobby (General) - Reception and Waiting)**	**329**	COMPLIANCE: PASSES REQUIRED: All of |3|; one of |9| CONTROLS IN SPACE: 3-Occupant Sensor (50%) 9-Time-Switch: Auto Full Off or Scheduled Off
Men	**6**	**Men (Toilet and Washroom)**	**41**	COMPLIANCE: PASSES REQUIRED: All of |3|; one of |8| CONTROLS IN SPACE: 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF

Office 11	**17**	**Office 11 (Office - Enclosed)**	**150** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 12	**17**	**Office 12 (Office - Enclosed)**	**84** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 13	**17**	**Office 13 (Office - Enclosed)**	**87** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 14	**17**	**Office 14 (Office - Enclosed)**	**84** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 15	**17**	**Office 15 (Office - Enclosed)**	**137** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 16	**17**	**Office 16 (Office - Enclosed)**	**80** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF

Office 17	**17**	**Office 17 (Office - Enclosed)**	**80** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 18	**17**	**Office 18 (Office - Enclosed)**	**80** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Office 19	**17**	**Office 19 (Office - Enclosed)**	**269** COMPLIANCE: PASSES REQUIRED: All of |1|; one of |2|3|; one of |8| CONTROLS IN SPACE: 1-Manual (Local Control) 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF
Women	**6**	**Women (Toilet and Washroom)**	**41** COMPLIANCE: PASSES REQUIRED: All of |3|; one of |8| CONTROLS IN SPACE: 3-Occupant Sensor (50%) 8-Occupant Sensor Auto Full OFF

PASSES

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System Report Compliance

AH-1/AH-2 **System 1** **Constant Volume Air Cooled Split System < 65000 Btu/hr** **No. of Units 1**

Component	Category	Capacity	Eff Design	Eff Criteria	Integrated Eff-Design	Integrated Eff-Criteria	Compliance
Cooling System	Air Conditioners Air Cooled Split System 45000 - 65000 Btu/h Cooling Capacity	60000	14.30	13.80	7.50		**PASSES**
Heating System	Electric Furnace	51195	1.00	1.00			**PASSES**
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	1500	0.80	0.82			**PASSES**

DS-1/DS-2 **5 Ton Multi-head Ductless Minisplit** **Constant Volume Air Cooled Split System < 65000 Btu/hr** **No. of Units 1**

Component	Category	Capacity	Eff Design	Eff Criteria	Integrated Eff-Design	Integrated Eff-Criteria	Compliance
Cooling System	Air Conditioners Air Cooled Split System 45000 - 65000 Btu/h Cooling Capacity	60000	19.00	13.80	7.50		**PASSES**
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity	60000	8.50	7.50			**PASSES**
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	1500	0.80	0.82			**PASSES**

PASSES

Plant Compliance

Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Compliance

None

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Type: Office
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Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance
Water Heater 1	Electric Storage water heater	<= 12 [kW]	0.92	0.92			**PASSES**

PASSES

Project: Rainbolt Tech
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Type: Office
(WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr.SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance
Domestic and Service Hot Water Systems	0.75	False	105.00	0.28	1.00	0.50	**PASSES**

PASSES

Mandatory Requirements (as applicable)

Requirements compiled by US Department of Energy and Pacific Northwest National Laboratory. Adopted for FBC with permission. Not all may be applicable

Topic	Section	Component	Description	Yes	N/A	Exempt
1. To be checked by Designer or Engineer						
6037 Post Construction	C401.3	Envelope	A thermal envelope certificate will be supplied and completed by an approved third party.	☐	☑	☐
6031 Fenestration	C402.4.1	Envelope	The vertical fenestration area <= 30 percent of the gross above-grade wall area.	☐	☑	☐
6033 Fenestration	C402.4.1	Envelope	The skylight area <= 3 percent of the gross roof area.	☐	☑	☐
6036 Fenestration	C402.4.1.1	Envelope	Vertical Fenestration Area Allowance: A maximum of 40 percent of gross above-grade wall area is permitted to be vertical fenestration area provided in buildings not greater than two stories above grade, >= 50 percent of the conditioned floor area is within a daylight zone, in buildings three or more stories above grade, not less than 25 percent of the net floor area is within a daylight zone, daylight responsive controls are installed, and glazing assemblies within the scope of NFRC 200 have visible transmittance >= 1.1 times SHGC.	☐	☑	☐
6038 Fenestration	C402.4.1.2	Envelope	A maximum of 6 percent of roof area is permitted to be skylight area provided daylight responsive controls are installed in daylight zones under skylights.	☐	☑	☐

6039 Fenestration	C402.4.2	Envelope	In enclosed spaces > 2,500 ft2 directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage, gymnasium/exercise center, convention center, automotive service, manufacturing, non-refrigerated warehouse, retail store, distribution/sorting area, transportation, or workshop, the following requirements apply: (a) the daylight zone under skylights is <= half the floor area; (b) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40; or a minimum skylight effective aperture >= 1 percent. []- Exception 1:C402.4.2: Buildings in climate zones 6 through 8. []- Exception 2:C402.4.2: Spaces where the proposed general lighting power densities < 0.5 W/ft2. []- Exception 3:C402.4.2: Areas with obstructions that block direct beam sunlight on >= 1/2 of the roof over the enclosed area for more than 1,500 daytime hours per year between 8 am and 4 pm. []- Exception 4:C402.4.2: Spaces where the daylight zone under rooftop monitors is > 50 percent of the enclosed space floor area. []- Exception 5:C402.4.2: Spaces where the total area net of daylight zones adjacent to vertical fenestration < 2,500 s.f. and where the lighting is controlled. []- Exception 6:C402.4.2: Requirement does not apply.	☐	☑	☐
6032 Fenestration	C402.4.3	Envelope	Vertical fenestration Maximum U-factor and SHGC value.	☐	☑	☐
6034 Fenestration	C402.4.3	Envelope	Skylight SHGC value.	☐	☑	☐
6040 Fenestration	C402.4.5	Envelope	U-factor of opaque swinging and nonswinging doors associated with the building thermal envelope meets requirements.	☑	☐	☐
6046 Post Construction	C402.5.11	Envelope	Operable openings > 40 ft2 will be interlocked with heating and cooling systems to setback setpoint temperatures within 10 minutes of opening. []- Exception 1:C402.5.11: Separately zoned areas. []- Exception 2:C402.5.11: Warehouses with overhead doors for occupancy. []- Exception 3:C402.5.11: Entrance doors located in exterior wall as part of a vestibule.	☐	☑	☐
6056 HVAC	C403.2.1	Mechanical	HVAC systems and equipment design loads calculated in accordance with ANSI/ASHRAE/ACCA Standard 183 or by an approved equivalent computational procedure []- Exception 1:C403.2.1: Mechanical systems are designed by a registered engineer	☑	☐	☐

6096 HVAC	C403.2.12.1	Mechanical	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp. []- Exception 1:C403.2.12.1: Hospital and laboratory systems that utilize flow control devices on exhaust and/or return. []- Exception 2:C403.2.12.1: Individual exhaust fans with motor nameplate horsepower less than or equal 1 hp. []- Exception 3:C403.2.12.1: Requirement does not apply.	☑	☐	☐
6055 HVAC	C403.2.12.2	Mechanical	HVAC fan motors not oversized beyond allowable limits. []- Exception 1:C403.2.12.2: Fans equipped with electronic speed control devices []- Exception 2:C403.2.12.2: Fans with fan nameplate electrical input power < 0.89 kW []- Exception 3:C403.2.12.2: Fan system complying with Section C403.2.12.1 motor nameplate hp (Option 1). []- Exception 4:C403.2.12.2: Fans with motor nameplate horsepower < 1 hp (746 W). []- Exception 5:C403.2.12.2: Requirement does not apply.	☑	☐	☐
6141 SYSTEM_SPECIF	C403.2.12.3	Mechanical	Fans have a fan energy index (FEI) >= 1.00. Variable volume fans will have an FEI >= 0.95 at the design point of operation. []- Exception 1:C403.2.12.3: Single not embedded fans with motor nameplate horsepower of less than 1 hp (0.89 kW). []- Exception 2:C403.2.12.3: Embedded fans with motor nameplate horsepower exceeding 5 hp (4.1 kW). []- Exception 3:C403.2.12.3: Multiple fans in series or parallel have a combined motor nameplate horsepower of less or equal 5 hp and are operated functionally as a single fan. []- Exception 4:C403.2.12.3: Fans integral to equipment listed under Section C403.2.3. []- Exception 5:C403.2.12.3: Fans included in equipment having certified seal for air or energy performance of the equipment package. []- Exception 6:C403.2.12.3: Ceiling fans. []- Exception 7:C403.2.12.3: Fans for gases at temperatures above 425F. []- Exception 8:C403.2.12.3: Fans for operation in explosive atmospheres. []- Exception 9:C403.2.12.3: Reversible fans for tunnel ventilation. []- Exception 10:C403.2.12.3: Fans not covered by AMCA 208. []- Exception 11:C403.2.12.3: Fans intended to operate only during emergency conditions.	☑	☐	☐

6057 HVAC	C403.2.2	Mechanical	HVAC systems and equipment capacity does not exceed calculated loads. []- Exception 1:C403.2.2: Required standby equipment with proper controls per code. []- Exception 2:C403.2.2: Multiple units of the same type of equipment with sequencing controls. []- Exception 3:C403.2.2: Living spaces in commercial buildings shall be sized in accordance with Section R403.7.1.1 and its exceptions	☑	☐	☐
6087 HVAC	C403.2.7	Mechanical	Exhaust air energy recovery on systems meeting Table C403.7.4(1) and C403.7.4(2). []- Exception 1:C403.2.7: Where energy recovery systems are prohibited by the Florida Building Code, Mechanical []- Exception 2:C403.2.7: Laboratory fume hood systems []- Exception 3:C403.2.7: Systems serving spaces that are heated to less than 60°F (15.5°C) and are not cooled []- Exception 4:C403.2.7: Where more than 60 percent of the outdoor heating energy is provided from site-recovered or site solar energy []- Exception 5:C403.2.7: Heating energy recovery in Climate Zones 1 and 2 []- Exception 6:C403.2.7: Cooling energy recovery in Climate Zones 3C, 4C, 5B, 5C, 6B, 7 and 8 []- Exception 7:C403.2.7: Systems requiring dehumidification that employ energy recovery in series with the cooling coil []- Exception 8:C403.2.7: Where the largest source of air exhausted at a single location at the building exterior is less than 75 percent of the design outdoor air flow rate. []- Exception 9:C403.2.7: Systems expected to operate less than 20 hours per week at the outdoor air percentage covered by Table C403.2.7(1). []- Exception 10:C403.2.7: Systems exhausting toxic, flammable, paint or corrosive fumes or dust. []- Exception 11:C403.2.7: Commercial kitchen hoods used for collecting and removing grease vapors and smoke	☐	☑	☐
6047 HVAC	C403.3.2	Mechanical	Economizer operation will not increase heating energy use during normal operation. []- Exception 1:C403.3.2: Economizers on VAV systems.	☐	☑	☐

6093 HVAC	C403.3.3, C403.3.3.1, C403.3.3.2, C403.3.3.3, C403.3.3.4, C403.3.3.5	Mechanical	Air economizers provided where required, meet the requirements for design capacity, control signal, ventilation controls, high-limit shut-off, integrated economizer control, and provide a means to relieve excess outside air during operation. []- Exception 1:C403.3_C403.3.2: Buildings located in Climate Zones 1A and 1B. []- Exception 2:C403.3_C403.3.2: Individual DX fan cooling units have a capacity is < 54 KBtu/h (15.8 kW) or total chilled water system capacity < minimum specified in Table C403.3(1). []- Exception 3:C403.3_C403.3.2: Where more than 25 % of the air supplied to spaces that are designed to be humidified above 35°F (1.7°C) dewpoint temperature to satisfy process needs []- Exception 4:C403.3_C403.3.2: Systems that serve residential spaces where the system capacity is < 270 kBtu/h []- Exception 5:C403.3_C403.3.2: Systems expected to operate less than 20 hours per week []- Exception 6:C403.3_C403.3.2: System serves supermarket areas with open refrigerated casework. []- Exception 7:C403.3_C403.3.2: Where the minimum code required cooling efficiency of the HVAC unit rated with an IPLV, IEER or SEER is increased by at least 17 %. []- Exception 8:C403.3_C403.3.2: Chilled-water cooling systems that are passive (without a fan) capacity is < the minimum specified in Table C403.3(1). []- Exception 9:C403.3_C403.3.2: Systems that include a heat recovery system in accordance with Section C403.4.5 []- Exception 10:C403.3_C403.3.2: Economizers on VAV systems cause zone-level heating to increase due to a reduction in supply air temperature.	☐	☑	☐
6042 HVAC	C403.3.4, C403.3.4.1, C403.3.4.2, C403.3.1	Mechanical	Water economizers provided where required, meet the requirements for design capacity, maximum pressure drop and integrated economizer control. []- Exception 1:C403.2.12.5_C403.2.12.5.1_C403.2.12.5.2: Modulating fan control not required for chilled water and evaporative cooling units with fan motors of < 1 hp where the units are not used to provide ventilation air and the indoor fan cycles with the load. []- Exception 2:C403.2.12.5_C403.2.12.5.1_C403.2.12.5.2: Requirement does not apply.	☐	☑	☐
6053 HVAC	C403.4.2.3.1	Mechanical	Hydronic heat pump systems connected to a common water loop meet heat rejection and heat addition requirements. []- Exception 1:C403.4.2.3.1: A deadband of less than 20°F is allowed where a temperature optimization controller is used.	☐	☑	☐

6144 Mandatory Additior	C406.6	Project	Dedicate outdoor air system efficiency energy credit - Building equipped with independent ventilation system designed to provide 100-percent outdoor air to each individual occupied space, as specified by the IMC. The ventilation system is capable of total energy recovery and includes HVAC system controls that manage temperature resets at least 25 percent of delta design supply-air / room-air temp.	☐	☑	☐
2. To be checked by Plan Reviewer						
6004 Plan Review	C103.2	Mechanical	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical and service water heating systems and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks. Hot water system sized per manufacturer's sizing guide.	☐	☐	☐
6011 Plan Review	C103.2	Interior Lighting	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. The information provided should include lighting controls per sections C405.2 and C405.3.	☐	☐	☐
6023 Plan Review	C103.2	Exterior Lighting	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. The information provided should include Exterior lighting power requirements (Mandatory) per section C405.4.	☐	☐	☐
6001 Plan Review	C103.2, C103.2.1	Envelope	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	☐	☐	☐
6081 HVAC	C402.2.6	Mechanical	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5. []- Exception 1:C402.2.6: Heated slabs on grade insulated in accordance with Section C402.2.5 []- Exception 2:C402.2.6: Requirement does not apply.	☐	☐	☐
6100 HVAC	C403.2.13	Mechanical	Systems that heat outside the building envelope are radiant heat systems controlled by an occupancy sensing device or timer switch. []- Exception 1:C403.12.1: Requirement does not apply.	☐	☐	☐
6068 HVAC	C403.2.4.1.3	Mechanical	Reset static pressure setpoint for DDC controlled VAV boxes reporting to central controller based on the zones requiring the most pressure. []- Exception 1:C403.4.1.3: Requirement does not apply.	☐	☐	☐

6107 HVAC	C403.2.4.2	Mechanical	Each zone equipped with setback controls using automatic time clock or programmable control system. []- Exception 1:C403.2.4.2: Zones operated continuously. []- Exception 2:C403.2.4.2: Zones have a full HVAC load demand not exceeding 6,800 Btu/h (2 kW) and having a readily accessible manual shutoff switch. []- Exception 3:C403.2.4.2: Requirement does not apply.	☐ ☐ ☐
6123 HVAC	C403.2.4.4	Mechanical	Zone isolation devices and controls installed where applicable. []- Exception 1:C403.2.4.4: Exhaust and outdoor air connections having fan systems 5000 cfm or smaller. []- Exception 2:C403.2.4.4: Exhaust airflow less than 10% of design. []- Exception 3:C403.2.4.4: Zones and systems intended to operate continuously or are inoperative when all other zones are inoperative. []- Exception 4:C403.2.4.4: Requirement does not apply.	☐ ☐ ☐
6124 HVAC	C403.2.4.7	Mechanical	Fault detection and diagnostics installed with air-cooled unitary DX units or VRF units having economizers. []- Exception 1:C403.2.4.7: Requirement does not apply.	☐ ☐ ☐
6125 HVAC	C403.2.5	Mechanical	Hot water boilers supplying heat via one- or two-pipe systems include outdoor setback control. []- Exception 1:C403.2.5: Requirement does not apply.	☐ ☐ ☐
6089 HVAC	C403.2.6	Mechanical	Natural or mechanical ventilation is provided in accordance with International Mechanical Code Chapter 4. Mechanical ventilation has capability to reduce outdoor air supply to minimum per IMC Chapter 4. []- Exception 1:C403.2.2: Requirement does not apply.	☐ ☐ ☐
6090 HVAC	C403.2.6.1	Mechanical	Demand control ventilation provided for spaces >500 ft2 and >=25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm. []- Exception 1:C403.2.6.1: Systems with energy recovery complying with Section C403.2.7. []- Exception 2:C403.2.6.1: Multiple-zone systems without DDC. []- Exception 3:C403.2.6.1: Multiple-zone systems with design outdoor air of less than 1200 cfm. []- Exception 4:C403.2.6.1: Spaces where the supply airflow rate minus any makeup or outgoing transfer air requirement is < 1,200 cfm []- Exception 5:C403.2.6.1: Ventilation provided for process loads only []- Exception 6:C403.2.6.1: Requirement does not apply.	☐ ☐ ☐

6098 HVAC	C403.4.2	Mechanical	The heating of fluids in hydronic systems that have been previously mechanically cooled, and the cooling of fluids that have been previously mechanically heated are limited in accordance with Sections C403.4.2.1-C403.4.2.3. Single boiler systems >500 kBtu/h have multistaged or modulating burner. []- Exception 1:C403.4.2: Requirement does not apply.	☐ ☐ ☐
6142 HVAC	C403.4.2.3.2	Mechanical	Closed-circuit cooling tower within heat pump loop have either automatic bypass valve or lower leakage positive closure dampers. Open-circuit tower within heat pump loop have automatic valve to bypass all heat pump water flow around the tower. Open- or closed-circuit cooling towers used in conjunction with a separate heat exchanger have heat loss by shutting down the circulation pump on the cooling tower loop. Open- or closed circuit cooling towers have a separate heat exchanger to isolate the cooling tower from the heat pump loop, and heat loss is controlled by shutting down the circulation pump on the cooling tower loop. []- Exception 1:C403.4.2.3.2: Heat pump system must reject heat throughout the year. []- Exception 2:C403.4.2.3.2: Requirement does not apply.	☐ ☐ ☐
6116 HVAC	C403.4.2.5	Mechanical	System turndown requirement met through multiple single-input boilers, one or more modulating boilers, or a combination of single-input and modulating boilers. Boiler shall comply with the turndown ratio specified in Table C403.4.2.5.	☐ ☐ ☐
6071 HVAC	C403.4.2.6	Mechanical	Chilled water plants with multiple chillers have capability to reduce flow automatically through the chiller plant when a chiller is shut down. Boiler plants with multiple boilers have the capability to reduce flow automatically through the boiler plant when a boiler is shut down.	☐ ☐ ☐
6099 HVAC	C403.4.3.1	Mechanical	Fan systems with total system motor capacity >=5 hp associated with heat rejection equipment configured to automatically modulate the fan speed to control the leaving fluid temperature or condensing temp/pressure of heat rejection device. []- Exception 1:C403.4.3.1: Fans serve multiple refrigerant or fluid cooling circuits. []- Exception 2:C403.4.3.1: Condenser fans serve flooded condensers. []- Exception 3:C403.4.3.1: Requirement does not apply.	☐ ☐ ☐
6120 HVAC	C403.4.3.4	Mechanical	Open-circuit cooling towers having water cooled chiller systems and multiple or variable speed condenser pumps, are designed so that tower cells can run in parallel with larger of flow criteria. []- Exception 1:C403.4.3.4: Requirement does not apply.	☐ ☐ ☐

6103 HVAC	C403.6.1	Mechanical	Hydronic and multizone HVAC system controls are VAV fans driven by mechanical or electrical variable speed drive per Table C403.4.1.1. []- Exception 1:C403.4.4: Zones or supply air systems where >= 75 % of the energy for reheating or for providing warm air in mixing systems is provided from a site-recovered or site-solar energy source []- Exception 2:C403.4.4: Zones where special humidity levels are required to satisfy process needs []- Exception 3:C403.4.4: Zones with a peak supply air of <= 300 cfm (142 L/s) and where the flow rate is < 10 % of the total fan system supply airflow rate. []- Exception 4:C403.4.4: Zones where the volume of air to be reheated, recooled or mixed is <= the minimum ventilation requirements of Chapter 4 of the Florida Building Code, Mechanical []- Exception 5:C403.4.4: Zones or supply air systems with thermostatic and humidistatic controls capable of preventing reheating, recooling, mixing or simultaneous supply of air that has been previously cooled []- Exception 6:C403.4.4: Requirement does not apply.	☐ ☐ ☐
6122 HVAC	C404.2.1	Mechanical	Gas-fired water-heating equipment installed in new buildings: where a singular piece of water-heating equipment >= 1,000 kBtu/h serves the entire building, thermal efficiency <= 92 Et. Where multiple pieces of water-heating equipment serve the building with combined rating <= 1,000 kBtu/h, the combined input-capacity-weighted-average thermal efficiency <= 90 Et. Exclude input rating of equipment in individual dwelling units and equipment <= 100 kBtu/h []- Exception 1:C404.2.1: 25 percent or more of the annual service water heating requirement is provided by on-site renewable energy or site-recovered energy. []- Exception 2:C404.2.1: Water heaters installed in individual dwelling units shall not be required to be included in the total input rating of service waterheating equipment []- Exception 3:C404.2.1: Water heaters with an input rating of <= 100,000 Btu/h (29.3 kW) not required to be included in the total input rating of service water-heating equipment []- Exception 4:C404.2.1: Requirement does not apply.	☐ ☐ ☐
6114 HVAC	C404.4	Mechanical	All piping insulated in accordance with section details and Table C403.12.3. []- Exception 1:C404.4: Requirement does not apply.	☐ ☐ ☐
6019 HVAC	C404.5, C404.5.1, C404.5.2	Mechanical	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details. []- Exception 1:C404.5_C404.5.1_C404.5.2: Requirement does not apply.	☐ ☐ ☐

6022 HVAC	C404.6.3	Mechanical	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle. []- Exception 1:C404.6.3: Requirement does not apply.	☐ ☐ ☐
6026 HVAC	C404.7	Mechanical	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F. []- Exception 1:C404.7: Requirement does not apply.	☐ ☐ ☐
6048 Plan Review	C405.5.2	Project	Group R-2 dwelling units have separate electrical meters. []- Exception 1:C405.5.2: Requirement does not apply.	☐ ☐ ☐
6030 Plan Review	C406	Project	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐ ☐ ☐
6084 HVAC	C408.2.2.2	Mechanical	HVAC hydronic heating and cooling coils have means to balance and have pressure test connections. []- Exception 1:C408.2.2.2: Pumps with pump motors of 5 hp (3.7 kW) or less. []- Exception 2:C408.2.2.2: Where throttling results in no greater than 5 percent of the nameplate horsepower draw above that required if the impeller were trimmed.	☐ ☐ ☐

3. To be checked by Inspector

6016 Insulation	C104	Envelope	Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans.	☐ ☐ ☐
6006 Insulation	C104, C303.1.1	Envelope	Installed roof insulation type and R-value consistent with insulation specifications reported in plans. For some ceiling systems, verification may need to occur during Framing Inspection.	☐ ☐ ☐
6008 Insulation	C104.2.1	Envelope	Installed slab-on-grade insulation type and R-value consistent with insulation specifications reported in plans.	☐ ☐ ☐
6007 Insulation	C303.1, C303.1.1	Envelope	Roof insulation installed per manufacturer's instructions and is labeled with R-value or insulation certificate providing R-value and other relevant data. Blown or poured loose-fill insulation is installed only where the roof slope is > 3 in 12.	☐ ☐ ☐
6035 Fenestration	C303.1.3	Envelope	Fenestration products rated in accordance with NFRC certified and as to performance labels or certificates provided. []- Exception 1:C303.1.3: Default values are used.	☐ ☐ ☐
6020 Insulation	C303.2	Envelope	Above-grade wall insulation installed per manufacturer's instructions.	☐ ☐ ☐
6005 Insulation	C303.2, C303.2.1	Envelope	Below-grade wall insulation installed per manufacturer's instructions.	☐ ☐ ☐

6013 Insulation	C303.2, C303.2.1	Envelope	Slab edge insulation installed per manufacturer's instructions and the Florida Building Code, Building.	☐	☐	☐
6027 Insulation	C303.2, C402.2.4	Envelope	Floor insulation installed per manufacturer's instructions. Cavity or structural slab insulation installed in permanent contact with underside of decking or structural slabs. []- Exception 1:C303.2_C402.2.4: All perimeter framing fully insulated at metal or wood framed prescriptive levels. []- Exception 2:C303.2_C402.2.4: Concrete floor slab insulation turns up and contacts underside of floor under wall assembly. []- Exception 3:C303.2_C402.2.4: Requirement does not apply.	☐	☐	☐
6015 Insulation	C303.2.1	Envelope	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	☐	☐	☐
6002 Insulation	C402.1.3	Envelope	Installed below-grade wall insulation type and R-value consistent with insulation specifications reported in plans.	☐	☐	☐
6061 Insulation	C402.1.3	Envelope	Non-swinging opaque doors have R-4.75 insulation. []- Exception 1:C402.1.3: Requirement does not apply.	☐	☐	☐
6012 Insulation	C402.2.2	Envelope	Skylight curbs are insulated to the level of roofs with insulation above deck or R-5, whichever is less. []- Exception 1:C402.2.1.5: Unit skylight curbs included as a component of a skylight listed and labeled per NFRC 100. []- Exception 2:C402.2.1.5: Requirement does not apply.	☐	☐	☐
6064 Insulation	C402.2.2	Envelope	Roof assembly meets minimal thermal resistance installed between roof framing or in a continuous fashion on the roof assembly as stipulated in Table C402.1.3. Requirements for above deck insulation, minimum thickness, suspended ceilings, staggered joints and skylight curbs will be met. []- Exception 1:C402.2.1: Requirement does not apply.	☐	☐	☐
6024 Insulation	C402.2.3	Envelope	Installed floor insulation type and R-value consistent with insulation specifications reported in plans.	☐	☐	☐
6021 Insulation	C402.2.5, C402.2.5.1	Envelope	Slab edge insulation depth/length. Slab insulation extending away from building is covered by pavement or >= 10 inches of soil. []- Exception 1:C402.2.5_C402.2.5.1: Requirement does not apply.	☐	☐	☐
6051 Insulation	C402.2.6	Envelope	Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5. []- Exception 1:C402.2.6: Heated slab-on-grade. []- Exception 2:C402.2.6: Requirement does not apply.	☐	☐	☐

6014 Insulation	C402.3	Envelope	High-albedo roofs satisfy one of the following: 3-year-aged solar reflectance >= 0.55 (0.63 for Climate Zone 1A) and thermal emittance >= 0.75 or 3-year-aged solar reflectance index >= 64.0 (75 for Climate Zone 1A). []- Exception 1:C402.3: Roof Over Conditioned Space With No Cooling. []- Exception 2:C402.3: Ballasted Roof. []- Exception 3:C402.3: Vegetated Roof (75% coverage). []- Exception 4:C402.3: Shaded or Covered Roof (75% coverage). []- Exception 5:C402.3: Asphaltic Membrane Roof. []- Exception 6:C402.3: Steep Sloped Roof.	☐ ☐ ☐
6028 Fenestration	C402.4.3	Envelope	Installed skylight U-factor and SHGC consistent with label specifications and as reported in plans.	☐ ☐ ☐
6025 Fenestration	C402.4.3, C402.4.3.4	Envelope	Installed vertical fenestration U-factor and SHGC consistent with label specifications and as reported in plans.	☐ ☐ ☐
6043 Air Leakage	C402.5	Envelope	Building envelope contains a continuous air barrier that has been tested and deemed to limit air leakage <= 0.40 cfm/ft2 of the building thermal envelope area at a pressure differential of 0.3 inch water gauge (75 Pa).	☐ ☐ ☐
6044 Air Leakage	C402.5.1	Envelope	The building envelope contains a continuous air barrier that is sealed in an approved manner and either constructed or tested in an approved manner. Air barrier penetrations are sealed in an approved manner. []- Exception 1:C402.5.1: Requirement does not apply.	☐ ☐ ☐
6003 Air Leakage	C402.5.1.1	Envelope	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage.	☐ ☐ ☐
6062 Air Leakage	C402.5.1.2.1	Envelope	The building envelope contains a continuous air barrier that is sealed in an approved manner and material permeability <= 0.004 dfm/ft2. Air barrier penetrations are sealed in an approved manner. []- Exception 1:C402.5.1.2.1: Requirement does not apply.	☐ ☐ ☐
6065 Air Leakage	C402.5.1.2.2	Envelope	The building envelope contains a continuous air barrier that is sealed in an approved manner and average assembly air leakage <= 0.04 cfm/ft2. Air barrier penetrations are sealed in an approved manner. []- Exception 1:C402.5.1.2.2: Requirement does not apply.	☐ ☐ ☐

6052 Air Leakage	C402.5.4	Envelope	Factory-built fenestration and doors are labeled as meeting air leakage requirements. []- Exception 1:C402.5.4: Field fabricated fenestration assemblies. []- Exception 2:C402.5.4: Fenestration in buildings that comply with air leakage requirements with a whole building air leakage test. []- Exception 3:C402.5.4: Doors that comply with special International Building Code requirements.	☐ ☐ ☐
6009 Air Leakage	C402.5.5, C402.5.11, 403.6	Envelope	Stair and elevator shaft vents have motorized dampers that automatically close. Reference section C403.6 for operational details.	☐ ☐ ☐
6049 Air Leakage	C402.5.6	Envelope	Weatherseals installed on all loading dock cargo door openings and provide direct contact along the top and sides of vehicles parked in the doorway. []- Exception 1:C402.5.6: Requirement does not apply.	☐ ☐ ☐
6050 Air Leakage	C402.5.7	Envelope	Vestibules are installed on all building entrances. Doors have self-closing devices. []- Exception 1:C402.5.7: Building entrances with revolving doors. []- Exception 2:C402.5.7: Doors not intended to be used as a building entrance. []- Exception 3:C402.5.7: Doors opening directly from a sleeping unit or dwelling unit. []- Exception 4:C402.5.7: Doors that open directly from a space <=3000 ft2. []- Exception 5:C402.5.7: Doors with air curtain. []- Exception 6:C402.5.7: Existing door is being replaced and existing vestibules not removed. []- Exception 7:C402.5.7: Requirement does not apply.	☐ ☐ ☐
6045 Air Leakage	C402.5.8	Envelope	Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing. []- Exception 1:C402.5.10: Requirement does not apply.	☐ ☐ ☐
6086 HVAC	C403.2	Mechanical	HVAC equipment efficiency verified.	☐ ☐ ☐

6092 HVAC	C403.2.10	Mechanical	HVAC piping insulation insulated in accordance with Table C403.2.10. Insulation exposed to weather is protected from damage and is provided with shielding from solar radiation. []- Exception 1:C403.2.10: Factory-installed piping within HVAC equipment []- Exception 2:C403.2.10: Factory-installed piping within room fan-coils and unit ventilators tested under AHRI 440. []- Exception 3:C403.2.10: Piping that conveys fluids that have a design operating temperature range between 60 and 105°F. []- Exception 4:C403.2.10: Fluid not heated or cooled. []- Exception 5:C403.2.10: Strainers and valves associated with 1 inch or smaller piping. []- Exception 6:C403.2.10: Underground piping with fluids no hotter than 60ºF. []- Exception 7:C403.2.10: Piping design for radiant heating systems []- Exception 8:C403.2.10: Requirement does not apply.	☐	☐	☐
6171 HVAC	C403.2.12.4	Mechanical	Motors for fans that are not less than 1/12 hp and less than 1 hp are electronically commutated motors or have a minimum motor efficiency of 70 percent. These motors have the means to adjust motor speed for either balancing or remote control. []- Exception 1:C403.2.12.4: Motors in the airstream within fan coils and terminal units only provide heating to the space served. []- Exception 2:C403.2.12.4: Motors in space-conditioning equipment that comply with Section C403.2.3 or C403.2.12. []- Exception 3:C403.2.12.4: Motors that comply with Section C405.7. []- Exception 4:C403.2.12.4: Requirement does not apply.	☐	☐	☐
6173 HVAC	C403.2.12.5.1	Mechanical	Each DX cooling system >= 65 kBtu and chiller water/evaporative cooling system with fans >= 1/4 hp are designed to vary the indoor fan airflow as a function of load and comply with detailed requirements of this section. []- Exception 1:C403.2.12.5.1: Modulating fan control is not required for chilled water and evaporative cooling units with fan motors of less than 1 hp where the units are not used to provide ventilation air and the indoor fan cycles with the load. []- Exception 2:C403.2.12.5.1: Where the volume of outdoor air required to comply with the ventilation requirements of the IMC at low speed exceeds the air that would be delivered per Section C403.2.12.5 []- Exception 3:C403.2.12.5.1: Requirement does not apply.	☐	☐	☐

6097 HVAC	C403.2.12.5.2	Mechanical	VAV fans have static pressure sensors located so controller setpoint <=1.2 w.c.. []- Exception 1:C403.2.12.5.2: Requirement does not apply.	☐ ☐ ☐
6168 HVAC	C403.2.12.5.2	Mechanical	Static pressure sensors used to control VAV fans located such that the controller setpoint is <= 1.2 inches w.c.. Where this results in one or more sensors being located downstream of major duct splits, not less than one sensor located on each major branch. []- Exception 1:C403.2.12.5.2: Requirement does not apply.	☐ ☐ ☐
6167 HVAC	C403.2.12.5.3	Mechanical	Systems with DDC of individual zones reporting to the central control panel configured to reset the static pressure setpoint based on zone requiring the most pressure. The DDC is capable of monitoring zone damper positions or have an alternative method of indicating the need for static pressure. See section for details. []- Exception 1:C403.2.12.5.3: Requirement does not apply.	☐ ☐ ☐
6178 HVAC	C403.2.12.6	Mechanical	Large diameter fans where installed shall be tested and labeled in accordance with AMCA 230. []- Exception 1:C403.2.12.6: Requirement does not apply.	☐ ☐ ☐
6155 HVAC	C403.2.14, C403.2.14.1, C403.2.14.2	Mechanical	Refrigeration equipment performance shall be determined in accordance with sections C403.2.14.1 and C403.2.14.2 for commercial refrigerators, freezers, refrigerator-freezers, walk-in coolers, walk-in freezers and refrigeration equipment. []- Exception 1:C403.5: Systems have working fluid in the refrigeration cycle that goes through both subcritical and supercritical states (transcritical). []- Exception 2:C403.5: Systems use ammonia refrigerant. []- Exception 3:C403.5: Requirement does not apply.	☐ ☐ ☐
6102 HVAC	C403.2.3	Mechanical	PTAC and PTHP with sleeves 16 in. by 42 in. labeled for replacement only as per Footnote b to Tables C403.2.3(1) and C403.2.3(2). []- Exception 1:C403.3: Requirement does not apply.	☐ ☐ ☐
6058 HVAC	C403.2.4.1	Mechanical	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system. []- Exception 1:C403.2.4.1: TRUE	☐ ☐ ☐
6059 HVAC	C403.2.4.1.1	Mechanical	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed. []- Exception 1:C403.2.4.1.1: Requirement does not apply.	☐ ☐ ☐
6060 HVAC	C403.2.4.1.2	Mechanical	Thermostatic controls have a 5 °F deadband. []- Exception 1:C403.2.4.1.2: Manual changeover thermostats. []- Exception 2:C403.2.4.1.2: Precision indoor temperature control required.	☐ ☐ ☐

6085 HVAC	C403.2.4.1.3	Mechanical	Temperature controls have setpoint overlap restrictions. []- Exception 1:C403.2.4.1.3: Requirement does not apply.	☐ ☐ ☐
6108 HVAC	C403.2.4.2.1, C403.2.4.2.2	Mechanical	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup []- Exception 1:C403.2.4.2.1_C403.2.4.2.2: Requirement does not apply.	☐ ☐ ☐
6110 HVAC	C403.2.4.2.3	Mechanical	Systems include optimum start controls. []- Exception 1:C403.2.4.2.3: Requirement does not apply.	☐ ☐ ☐
6088 Air Leakage	C403.2.4.3	Mechanical	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed. Reference section language for operational details. []- Exception 1:C403.2.4.3: Gravity dampers acceptable in buildings less than 3 stories. []- Exception 2:C403.2.4.3: Gravity dampers acceptable for exhaust and relief dampers in climate zones 0, 1, 2, or 3. []- Exception 3:C403.2.4.3: Gravity dampers acceptable in systems with outside or exhaust air flow rates less than or equal to 300 cfm. []- Exception 4:C403.2.4.3: Dampers no larger than 24 inches in any dimension are to have a leakage rate of 40 cfm/ft2 at 1.0 inch water gauge when tested with AMCA 500D. []- Exception 5:C403.2.4.3: Requirement does not apply.	☐ ☐ ☐
6029 HVAC	C403.2.4.5	Mechanical	Snow/ice melting system and freeze protection systems have sensors and controls configured to limit service for pavement temperature above 50°F and outdoor temperature above 40°F. []- Exception 1:C403.12.2_C403.12.3: Requirement does not apply.	☐ ☐ ☐
6170 HVAC	C403.2.4.8	Mechanical	HVAC systems serving guestrooms in Group R-1 buildings with < 50 guestrooms: Each guestroom is provided with controls that automatically manage temperature setpoint and ventilation (see sections C403.2.4.8.1 and C403.2.4.8.2). []- Exception 1:C403.2.4.8: Requirement does not apply.	☐ ☐ ☐
6128 HVAC	C403.2.6.2	Mechanical	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity. []- Exception 1:C403.2.6.2: Garages with no mechanical cooling or heating that have exhaust capacity < 8,000 cfm. []- Exception 2:C403.2.6.2: Garages with no mechanical cooling or heating that have a ratio of garage area ventilation to ventilation system motor nameplate hp exceed 1125 cfm/hp. []- Exception 3:C403.2.6.2: Requirement does not apply.	☐ ☐ ☐

6169 HVAC	C403.2.7	Mechanical	Units that provide ventilation air to multiple zones and operate in combination with zone heating and cooling systems do not use heating or heat recovery to warm supply air to a temperature greater than 60°F when representative building loads or outdoor air temperatures indicate that the majority of zones require cooling. []- Exception 1:C403.7.3: Requirement does not apply.	☐ ☐ ☐
6129 HVAC	C403.2.8	Mechanical	Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria. []- Exception 1:C403.2.8: Requirement does not apply.	☐ ☐ ☐
6091 HVAC	C403.2.9	Mechanical	HVAC ducts and plenums insulated in accordance with C403.2.9.1 and constructed in accordance with C403.2.9.2, Sealed in accordance with C403.2.9.3. verification may need to occur during Foundation Inspection. []- Exception 1:C403.2.9_C403.2.9.1: Factory-installed as part of HVAC equipment. []- Exception 2:C403.2.9_C403.2.9.1: Where the design temperature difference between the inside and outside of the duct or plenum is less than 15ºF. []- Exception 3:C403.2.9_C403.2.9.1: Runouts less than 10 feet (3048 mm) in length to air terminals or air outlets, the rated R-value of insulation need not exceed R-5. []- Exception 4:C403.2.9_C403.2.9.1: Backs of air outlets and outlet plenums exposed to unconditioned spaces need not exceed R-2. []- Exception 5:C403.2.9_C403.2.9.1: Return air ducts meeting all the requirements for building cavities that will be used as return air plenums []- Exception 6:C403.2.9_C403.2.9.1: Requirement does not apply.	☐ ☐ ☐
6174 SYSTEM_SPECIF	C403.3.2	Mechanical	Equipment minimum efficiency:	☐ ☐ ☐
6175 SYSTEM_SPECIF	C403.3.2	Mechanical	Equipment minimum efficiency:	☐ ☐ ☐
6157 HVAC	C403.3.3.3	Mechanical	Air economizers automatically reduce outdoor air intake to the design minimum outdoor air quantity when outdoor air intake will not reduce cooling energy usage. See Table C403.3.3.3 for applicable device types and climate zones. []- Exception 1:C403.3.3.3: Requirement does not apply.	☐ ☐ ☐
6158 HVAC	C403.3.3.4	Mechanical	System capable of relieving excess outdoor air during air economizer operation to prevent over pressurizing the building. The relief air outlet located to avoid recirculation into the building. []- Exception 1:C403.3.3.4: Requirement does not apply.	☐ ☐ ☐

6159 HVAC	C403.3.3.5	Mechanical	Return, exhaust/relief and outdoor air dampers used in economizers have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Reference section C403.2.4.3 for details. []- Exception 1:C403.3.3.5: Requirement does not apply.	☐	☐	☐
6094 HVAC	C403.4.1.4	Mechanical	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures < 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint <= 80F. []- Exception 1:C402.5.7: Buildings in Climate Zones 1 and 2. []- Exception 2:C402.5.7: Requirement does not apply.	☐	☐	☐
6082 HVAC	C403.4.2.1	Mechanical	Three-pipe hydronic systems using a common return for hot and chilled water are not used.	☐	☐	☐
6095 HVAC	C403.4.2.2	Mechanical	Two-pipe hydronic systems using a common distribution system have controls to allow a deadband >=15 °F, allow operation in one mode for at least 4 hrs before changeover, and have rest controls to limit heating and cooling supply temperature to <=30 °F.	☐	☐	☐
6072 HVAC	C403.4.2.3.3	Mechanical	Two-position automatic valve interlocked to shut off water flow when hydronic heat pump with pumping system > 10 hp is off.	☐	☐	☐
6172 HVAC	C403.4.3.2	Mechanical	Multiple-cell heat rejection equipment with variable speed fan drives are controlled to operate the maximum number of fans allowed and so that all fans operate at the same fan speed required for the instantaneous cooling duty. The minimum fan speed will be the minimum allowable speed of the fan drive system in accordance with the manufacturer's recommendations. []- Exception 1:C403.4.3.2: Requirement does not apply.	☐	☐	☐
6118 SYSTEM_SPECIFI	C403.4.3.3	Mechanical	Centrifugal fan open-circuit cooling towers having combined rated capacity >= 1100 gpm meets minimum efficiency requirement: >=40.2 gpm/hp. []- Exception 1:C403.4.3.3: Centrifugal open-circuit cooling towers with external sound attenuation or that have ducted inlet or discharge. []- Exception 2:C403.4.3.3: Requirement does not apply.	☐	☐	☐
6160 HVAC	C403.4.4	Mechanical	Supply air systems serving multiple zones have VAV systems with controls configured to reduce the volume of air that is reheated, recooled or mixed in each zone. See section for details. []- Exception 1:C403.6.1: Zones or systems with at least 75% of energy used for heating or warming air Systems that prevent reconditioning, mixing or simultaneous supply of air that has previously been mechanically cooled (including via economizers) or heated. []- Exception 2:C403.6.1: Requirement does not apply.	☐	☐	☐

6161 HVAC	C403.4.4.1	Mechanical	Single-duct VAV systems use terminal devices configured to reduce the supply of primary supply air before reheating or recooling takes place. []- Exception 1:C403.4.4.1: Requirement does not apply.	☐	☐	☐
6162 HVAC	C403.4.4.2	Mechanical	Systems that have 1 warm air duct and 1 cool air duct use terminal devices configured to reduce the flow from one duct to a minimum before mixing of air from the other duct takes place. []- Exception 1:C403.4.4.1: Requirement does not apply.	☐	☐	☐
6163 HVAC	C403.4.4.3	Mechanical	Individual dual-duct or mixing heating and cooling systems with a single fan and with total capacities > 90,000 Btu/h not equipped with air economizers. []- Exception 1:C403.4.4.1: Requirement does not apply.	☐	☐	☐
6164 HVAC	C403.4.4.5	Mechanical	Multiple zone HVAC systems have supply air temperature reset controls based on building loads or outside temperatures. []- Exception 1:C403.4.4.5: Systems that prevent re-heating, re-cooling, or mixing of heated and cooled supply air. []- Exception 2:C403.4.4.5: Systems in which at least 75% of the energy for reheating is from site recovered or site solar energy resources. []- Exception 3:C403.4.4.5: Zones in climate zones 1A and 3A with less than 300 cfm design outside air. []- Exception 4:C403.4.4.5: Zones in climate zone 2A with with less than 10,000 cfm of design outside air. []- Exception 5:C403.4.4.5: Zones in climate zones 1A, 2A, and 3A with >= 80% outside air and employing exhaust air energy recovery. []- Exception 6:C403.4.4.5: Requirement does not apply.	☐	☐	☐
6165 HVAC	C403.4.4.6	Mechanical	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls. []- Exception 1:C403.4.4.6: VAV systems that recirculate air from other zones without directly mixing it with outdoor air or dual-duct dual-fan VAV systems, or VAV systems with fan-powered terminal units. []- Exception 2:C403.4.4.6: Systems where the design exhaust airflow is more than 70% of design outdoor air intake flow. []- Exception 3:C403.4.4.6: Requirement does not apply.	☐	☐	☐

6166 HVAC	C403.4.4.7	Mechanical	Parallel-flow fan-powered VAV air terminals have automatic controls configured to 1) turn off the terminal fan except when space heating is required or where required for ventilation, 2) turn on the terminal fan as the first stage of heating before the heating coil is activated, and 3) during heating for warmup or setback temperature control, either operate the terminal fan and heating coil without primary air or, reverse the terminal damper logic and provide heating from the central air handler by primary air. []- Exception 1:C403.4.4.7: Requirement does not apply.	☐	☐	☐
6076 HVAC	C403.4.5	Mechanical	Condenser heat recovery system that can heat water to 85 ºF or provide 60% of peak heat rejection is installed for preheating of service hot water. []- Exception 1:C403.4.5: Facility operates < 24/7. []- Exception 2:C403.4.5: Total installed heat capacity of water cooled systems <= 6 MMBtu/h of heat rejection. []- Exception 3:C403.4.5: Design SWH load <= 1 MMBtu/h. []- Exception 4:C403.4.5: Facilities using condenser heat recovery for space heating with heat recovery exceeding 30% of the peak water-cooled condenser load. []- Exception 5:C403.4.5: Facilities providing 60% of their service water heating from site-solar, site-recovered, or other energy sources.	☐	☐	☐
6080 HVAC	C403.4.6	Mechanical	Hot gas bypass limited to: <=240 kBtu/h – 50%; <240 kBtu/h – 25%	☐	☐	☐
6101 HVAC	C404.2	Mechanical	Service water heating equipment meets efficiency requirements.	☐	☐	☐
6113 HVAC	C404.3	Mechanical	Heat traps installed on supply and discharge piping of non-circulating systems. []- Exception 1:C404.3: Tank inlets/outlets associated with solar water heating systems. []- Exception 2:C404.3: Requirement does not apply.	☐	☐	☐
6115 HVAC	C404.6.1	Mechanical	Controls are installed that limit the operation of a recirculation pump installed to maintain temperature of a storage tank. System return pipe is a dedicated return pipe or a cold water supply pipe. []- Exception 1:C404.6.1: Requirement does not apply.	☐	☐	☐
6010 HVAC	C404.6.1, C404.6.2	Mechanical	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	☐	☐	☐
6126 HVAC	C404.9.1	Mechanical	Pool heaters are equipped with on/off switch and no continuously burning pilot light.	☐	☐	☐

6127 HVAC	C404.9.2	Mechanical	Time switches are installed on all pool heaters and pumps. []- Exception 1:C404.9.2: Where 24-hr pump operation required for public health. []- Exception 2:C404.9.2: Solar and waste heat recovery pool heating pumps. []- Exception 3:C404.9.2: Requirement does not apply.	☐ ☐ ☐
6130 HVAC	C404.9.3	Mechanical	Vapor retardant pool covers are provided for heated pools and permanently installed spas. []- Exception 1:C404.9.3: Pools deriving > 75% of the energy for heating (of not fewer than 3 months) from heat pump or site-recovered energy. []- Exception 2:C404.9.3: Requirement does not apply.	☐ ☐ ☐
6054 Controls	C405.2.1, C405.2.1.1	Interior Lighting	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, corridors, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces. []- Exception 1:C405.2.1_C405.2.1.1: Automatic-on controls are allowed in corridors, stairways, restrooms, primary building entrance areas and lobbies, and areas where manual-on controls could impact safety or security. []- Exception 2:C405.2.1_C405.2.1.1: Areas such as security or emergency areas that need continuous lighting. []- Exception 3:C405.2.1_C405.2.1.1: Emergency egress lighting. []- Exception 4:C405.2.1_C405.2.1.1: Lighting that is related to means of egress in stairways, ramps, corridors. []- Exception 5:C405.2.1_C405.2.1.1: Requirement does not apply.	☐ ☐ ☐
6063 Controls	C405.2.1.2	Interior Lighting	Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more within 20 minutes of when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor. Lights not turned off by occupant sensors is done so by time-switch. []- Exception 1:C402.5.1.2: Requirement does not apply.	☐ ☐ ☐

6066 Controls	C405.2.1.3	Interior Lighting	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) general lighting in each zone permitted to turn on upon occupancy in control zone, 3) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 4) are configured so that general lighting power in each control zone is reduced by <= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone. []- Exception 1:C405.2.1.3: Requirement does not apply.	☐ ☐ ☐
6067 Controls	C405.2.2, C405.2.2.1	Interior Lighting	Each area not served by occupancy sensors (per C405.2.1.1) have time-switch controls and functions detailed in sections C405.2.2.1. []- Exception 1:C405.2.2_C405.2.2.1: Luminaires requiring specific controls in accordance with C405.2.4. []- Exception 2:C405.2.2_C405.2.2.1: Spaces with patient care. []- Exception 3:C405.2.2_C405.2.2.1: Areas such as security or emergency areas that need continuous lighting. []- Exception 4:C405.2.2_C405.2.2.1: Lighting that is related to means of egress in stairways, ramps, corridors, or emergency routes. []- Exception 5:C405.2.2_C405.2.2.1: Shop and laboratory classrooms.	☐ ☐ ☐
6069 Controls	C405.2.3.1	Interior Lighting	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern using one of the following or another approved method: (1) Continuous dimming of all luminaires from full output to less than 20 percent of full power, (2) Switching all luminaires to a reduced output of not less than 30 percent and not more than 70 percent of full power, or (3) Switching alternate luminaires or alternate rows of luminaires to achieve a reduced output of not less than 30 percent and not more than 70 percent of full power. []- Exception 1:C405.2: Areas designated as security or emergency areas that are required to be continuously lighted. []- Exception 2:C405.2: Interior exit stairways, interior exit ramps, and exit passageways. []- Exception 3:C405.2: Emergency egress lighting that is normally off.	☐ ☐ ☐

6070 Controls	C405.2.4, C405.2.4.1, C405.2.4.2	Interior Lighting	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone. []- Exception 1:C405.2.4: Spaces where health patient care is directly provided. []- Exception 2:C405.2.4: Lighting required to have specific application controls. []- Exception 3:C405.2.4: Sidelit zones on first floor in Group A-2 and M occupancies. []- Exception 4:C405.2.4: New buildings having total connected lighting power <= the adjusted interior lighting powered allowance (LPA adj, refer to section details and formula). []- Exception 5:C405.2.4: Requirement does not apply.	☐	☐	☐
6074 Wattage	C405.2.5	Interior Lighting	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting. []- Exception 1:C405.7: Air-over electric motors. []- Exception 2:C405.7: Component sets of an electric motor. []- Exception 3:C405.7: Liquid-cooled electric motors. []- Exception 4:C405.7: Submersible electric motors. []- Exception 5:C405.7: Inverter-only electric motors. []- Exception 6:C405.7: Requirement does not apply.	☐	☐	☐
6077 Controls	C405.2.7	Exterior Lighting	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 50%. []- Exception 1:C405.2.7: Lighting for covered vehicle entrances and exits from buildings and parking structures where required for eye adaptation []- Exception 2:C405.2.7: Lighting controlled from within dwelling units []- Exception 3:C405.2.7: Requirement does not apply.	☐	☐	☐
6131 Wattage	C405.4.1	Exterior Lighting	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐	☐	☐
6132 Mandatory Additior	C406.10	Project	Energy Monitoring - the building is equipped with an energy management system to monitor, record, and report energy consumption for electrical energy, by end-use category, contain meters, a data acquisition system and employ graphical reports.	☐	☐	☐

6133 Mandatory Additior	C406.11	Project	Fault Detection and Diagnostics - a fault detection and diagnostics system installed to monitor the HVAC operation and performance. Includes monitoring sensors and devices, sampling every 15 minutes, automatically report faults and provide recommendations for repair, and transmit recommendations to local authorized personnel.	☐	☐	☐
6134 Mandatory Additior	C406.12	Project	Efficient Kitchen Equipment - the commercial kitchen has at least one fryer with all fryers, dishwashers, steam cookers and ovens complying with performance requirements of Tables C406.12(1) through C406.12(4).	☐	☐	☐
6185 Mandatory Additior	C406.2	Project	Equipment shall exceed the minimum efficiency requirements listed in Tables C403.2.3(1) through C403.2.3(7) by 10 %, in addition to the requirements of Section C403	☐	☐	☐
6135 Mandatory Additior	C406.2.1	Project	5% heating efficiency improvement - all HVAC and Plant heating equipment is 5% more efficient than required by 2021 IECC.	☐	☐	☐
6136 Mandatory Additior	C406.2.2	Project	5% cooling efficiency improvement - all HVAC and Plant cooling equipment is 5% more efficient than required by 2021 IECC.	☐	☐	☐
6137 Mandatory Additior	C406.2.3	Project	10% heating efficiency improvement - all HVAC and Plant heating equipment is 10% more efficient than required by 2021 IECC.	☐	☐	☐
6138 Mandatory Additior	C406.2.4	Project	10% cooling efficiency improvement - all HVAC and Plant cooling equipment is 10% more efficient than required by 2021 IECC.	☐	☐	☐
6139 Mandatory Additior	C406.3	Project	Reduced lighting power - this credit specifies that the connected lighting power is <= 10% more efficient than 2021 IECC requirements.	☐	☐	☐
6140 Mandatory Additior	C406.4	Project	Enhanced Digital Lighting Controls - Interior lighting has the following enhanced lighting controls in accordance with Sections C405.2.1 through C405.2.3, Luminaires capable of continuous dimming and being addressed individually, at least 8 luminaires controlled in combination in a daylight zone, digital control system for fixtures with load shedding or occupancy sensors, Sequence of Operations documentation, and functional testing per Section C408.	☐	☐	☐
6143 Mandatory Additior	C406.5	Project	On-site renewable energy credits - on-site renewable energy system supplies at least 1.71 Btuh or 0.5 watts per square foot of conditioned floor area OR provides at least 2 percent of the energy used within the building for mechanical and service water heating equipment and lighting regulated in Chapter 4.	☐	☐	☐
6145 Mandatory Additior	C406.7.1	Project	Reduced energy use in service water heating - the hot water system contains waste heat recovery from service hot water, heat-recovery chillers, building equipment or process equipment or on-site renewable energy for water heating.	☐	☐	☐
6146 Mandatory Additior	C406.7.3	Project	Reduced energy use in service water heating - the hot water heating system shall have a capacity weighted average fossil fuel water heating efficiency at least 95 thermal efficiency or 0.95 EF.	☐	☐	☐

6147 Mandatory Additior	C406.7.4	Project	Reduced energy use in service water heating - the hot water system is served by heat pump water heaters with a minimum Energy Factor of 3.0. The heat pump does not draw conditioned air from within the building.	☐	☐	☐
6148 Mandatory Additior	C406.8	Project	Enhanced envelope performance - the building thermal envelope UA value is >= 15% better than the total UA of the envelope specified by Section C402.1.5.	☐	☐	☐
6149 Mandatory Additior	C406.9	Project	Reduced air infiltration energy - the measured air-leakage rate of the building envelope is lower than 0.25 cfm/ft2. Comprehensive report documentation will be submitted to the code official and the building owner. []- Exception 1:C406.9: Building is greater than 250,000 square feet.	☐	☐	☐
6083 HVAC	C408.2.2.1	Mechanical	Air outlets and zone terminal devices have means for air balancing. []- Exception 1:C408.2.2.1: Fans with fan motors of 1 hp (0.74 kW) or less. []- Exception 2:C408.2.2.1: Where throttling results in no greater than 1/3 hp fan horsepower draw above that required if the fan speed were adjusted []- Exception 3:C408.2.2.1: Requirement does not apply.	☐	☐	☐
6153 Testing	C408.2.3.2	Mechanical	HVAC and service water heating control systems have been tested to ensure proper operation, calibration and adjustment of controls.	☐	☐	☐
6104 SYSTEM_SPECIF	Table_C403.2.3b	Mechanical	Heat Rejection Equipment - Propeller or Axial Fan Open-Circuit Cooling Tower: Minimum Efficiency Requirement >=40.2 gpm/hp .	☐	☐	☐
6105 SYSTEM_SPECIF	Table_C403.2.3b	Mechanical	Heat Rejection Equipment - Centrifugal Fan Open-Circuit Cooling Tower: Minimum Efficiency Requirement >=20.0 gpm/hp.	☐	☐	☐
6106 SYSTEM_SPECIF	Table_C403.2.3c	Mechanical	Heat Rejection Equipment - Propeller or Axial Fan Closed-Circuit Cooling Tower: Minimum Efficiency Requirement >=16.1 gpm/hp.	☐	☐	☐
6109 SYSTEM_SPECIF	Table_C403.2.3c	Mechanical	Heat Rejection Equipment - Centrifugal Fan Closed-Circuit Cooling Tower: Minimum Efficiency Requirement >=7.0 gpm/hp	☐	☐	☐
6186 SYSTEM_SPECIF	Table_C403.2.3d	Mechanical	Heat Rejection Equipment - Propeller or Axial Fan Dry Coolers (air-cooled fluid coolers): Minimum Efficiency Requirement >= 4.5 gpm/hp	☐	☐	☐
6111 SYSTEM_SPECIFI	Table_C403.2.3h	Mechanical	Heat Rejection Equipment - Propeller or Axial Evaporative Condenser: Minimum Efficiency Requirement >=134 kBtu/h-hp w/ Ammonia test fluid.	☐	☐	☐
6112 SYSTEM_SPECIFI	Table_C403.2.3h	Mechanical	Heat Rejection Equipment - Centrifugal Evaporative Condenser: Minimum Efficiency Requirement >=110 kBtu/h-hp w/ Ammonia test fluid.	☐	☐	☐
6117 SYSTEM_SPECIFI	Table_C403.2.3h	Mechanical	Heat Rejection Equipment - Propeller or Axial Evaporative Condenser: Minimum Efficiency Requirement >=160 kBtu/h-hp w/ R-448A test fluid.	☐	☐	☐

6119 SYSTEM_SPECIFI	Table_C403.2.3h	Mechanical	Heat Rejection Equipment - Centrifugal Evaporative Condenser: Minimum Efficiency Requirement >=137 kBtu/h-hp w/ R-448A test fluid.	☐ ☐ ☐
6121 SYSTEM_SPECIF	Table_C403.2.3h	Mechanical	Heat Rejection Equipment - Air-Cooled Condensers: Minimum Efficiency Requirement >=176 kBtu/h-hp	☐ ☐ ☐

4. To be checked by Inspector at Project Completion and Prior to Issuance of Certificate of Occupancy

6041 Fenestration	C402.4.2.2	Envelope	Skylights in office, storage, automotive service, manufacturing, non-refrigerated warehouse, retail store, and distribution/sorting area have a measured haze value < 90 percent tested per ASTM D1003 unless designed to exclude direct sunlight. []- Exception 1:C402.4.2.2: Skylights designed to exclude direct sunlight entering the occupied space by the use of fixed or automated baffles, geometry of skylight and well, or optical diffusers. []- Exception 2:C402.4.2.2: Requirement does not apply.	☐ ☐ ☐
6179 Post Construction	C405.1	Project	At least 90% of dwelling unit permanently installed lighting shall have lamp efficacy <= 65 lm/W or luminaires with efficacy <= 45 lm/W or comply with C405.2.4 or C405.3. []- Exception 1:C405.1: Requirement does not apply.	☐ ☐ ☐
6180 Post Construction	C405.11, C405.11.1	Project	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, break rooms, classrooms and workstations and < 25% of branch circuit feeders for modular furniture will have automatic receptacle control in accordance with C405.11.1. []- Exception 1:C405.11_C405.11.1: Requirement does not apply.	☐ ☐ ☐
6181 Post Construction	C405.12	Project	Buildings with gross conditioned floor area >= 25,000 ft2 will be equipped with a energy monitoring system in compliance with C405.12.1 through C405.12.5. []- Exception 1:C405.12: Requirement does not apply.	☐ ☐ ☐
6079 Post Construction	C405.5.3	Project	Total voltage drop across the combination of feeders and branch circuits <= 5%. []- Exception 1:C405.5.3: Requirement does not apply.	☐ ☐ ☐

6073 Post Construction	C405.6	Project	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6. []- Exception 1:C405.6: Transformers meet the Energy Policy Act of 2005 special purposes exclusions. []- Exception 2:C405.6: Transformers meet the Energy Policy Act of 2005 non-general purpose exclusions. []- Exception 3:C405.6: Transformers meet the Energy Policy Act of 2005 exclusions with multiple voltage taps where the highest tap is >= 20% more than the lowest tap. []- Exception 4:C405.6: Drive transformers. []- Exception 5:C405.6: Rectifier transformers. []- Exception 6:C405.6: Auto-transformers. []- Exception 7:C405.6: Uninterruptible power system transformers. []- Exception 8:C405.6: Impedance transformers. []- Exception 9:C405.6: Regulating transformers. []- Exception 10:C405.6: Sealed and nonventilating transformers. []- Exception 11:C405.6: Machine tool transformers. []- Exception 12:C405.6: Welding transformers. []- Exception 13:C405.6: Grounding transformers. []- Exception 14:C405.6: Testing transformers. []- Exception 15:C405.6: Requirement does not apply.	☐	☐	☐
6075 Post Construction	C405.7	Project	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐	☐	☐
6078 Post Construction	C405.8.1, C405.8.2	Project	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers. []- Exception 1:C405.8.1_C405.8.2: A variable voltage drive system that reduces operating voltage in response to light loading is installed. []- Exception 2:C405.9.1_C405.9.2: Requirement does not apply.	☐	☐	☐
6150 Post Construction	C408.1.1	Project	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐	☐	☐

6151 Post Construction	C408.2.1	Mechanical	Commissioning plan developed by registered design professional or approved agency.	☐	☐	☐
6152 Post Construction	C408.2.3.1	Mechanical	HVAC equipment, systems and system-to-system relationships have been tested to ensure proper operation. []- Exception 1:C408.2.3.1: Unitary or packaged HVAC equipment without supply air economizers.	☐	☐	☐
6154 Post Construction	C408.2.3.3	Mechanical	Economizers have been tested to ensure proper operation.	☐	☐	☐
6156 Post Construction	C408.2.4	Mechanical	Preliminary commissioning report completed and certified by registered design professional or approved agency.	☐	☐	☐
6176 Post Construction	C408.2.5	Mechanical	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐	☐	☐
6018 Post Construction	C408.2.5.2	Mechanical	Furnished Operation and Maintenance manuals for HVAC systems within 90 days of system acceptance.	☐	☐	☐
6182 Post Construction	C408.2.5.3	Mechanical	An air and/or hydronic system balancing report is provided for HVAC systems.	☐	☐	☐
6183 Post Construction	C408.2.5.4	Mechanical	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	☐	☐	☐
6184 Post Construction	C408.3	Interior Lighting	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐	☐	☐
6177 Post Construction	C408.3.2	Interior Lighting	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐	☐	☐
6017 Post Construction	C408.3.2.2	Interior Lighting	Furnished operation and maintenance manual for lighting equipment and lighting controls provided to the building owner or designated representative.	☐	☐	☐

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INPUT DATA REPORT

Project Information

Project Name: Rainbolt Tech

Project Title: Renovation for Rainbolt Tech

Address: 162 SW Spencer Ct

State: FL

Zip: 32024

Owner: Rainbow Tech

Orientation: 0 Deg Clockwise. Walls & Windows will be rotated accordingly

Building Type: Office

Building Classification: Renovation to existing building

No.of Stories: 1

GrossArea: 7603 SF

Zones

No	Acronym	Description	Type	Area [sf]	Multiplier	Total Area [sf]	
1	1st FL	1st Floor	CONDITIONED	3926.0	1	3926.0	☐
2	2nd FL	Zone 2	CONDITIONED	3677.0	1	3677.0	☐

Spaces

No	Acronym	Description	Type	Depth [ft]	Width [ft]	Height [ft]	Multiplier	Total Area [sf]	Total Volume [cf]	
In Zone:	**1st FL**									
1	Corridor	Corridor	Corridor	1.00	720.00	10.00	1	720.0	7200.0	☐
2	Foyer	Foyer	Corridor	1.00	379.00	10.00	1	379.0	3790.0	☐
3	Gym	Gym	Office - Open Plan	1.00	636.00	10.00	1	636.0	6360.0	☐
4	Men	Men	Toilet and Washroom	1.00	105.00	10.00	1	105.0	1050.0	☐
5	Women	Women	Toilet and Washroom	1.00	150.00	10.00	1	150.0	1500.0	☐
6	Stairway	Stairway	Stair - Active Traffic	1.00	197.00	10.00	1	197.0	1970.0	☐
7	Office 1	Office 1	Office - Enclosed	1.00	253.00	10.00	1	253.0	2530.0	☐
8	Office 2	Office 2	Office - Enclosed	1.00	256.00	10.00	1	256.0	2560.0	☐
9	Office 3	Office 3	Office - Enclosed	1.00	205.00	10.00	1	205.0	2050.0	☐
10	Office 4	Office 4	Office - Enclosed	1.00	150.00	10.00	1	150.0	1500.0	☐
11	Office 5	Office 5	Office - Enclosed	1.00	137.00	10.00	1	137.0	1370.0	☐
12	Office 6	Office 6	Office - Enclosed	1.00	107.00	10.00	1	107.0	1070.0	☐
13	Office 7	Office 7	Office - Enclosed	1.00	125.00	10.00	1	125.0	1250.0	☐
14	Office 8	Office 8	Office - Enclosed	1.00	200.00	10.00	1	200.0	2000.0	☐
15	Office 9	Office 9	Office - Enclosed	1.00	136.00	10.00	1	136.0	1360.0	☐
16	Office 10	Office 10	Office - Enclosed	1.00	170.00	10.00	1	170.0	1700.0	☐
In Zone:	**2nd FL**									
1	Bath	Bath	Toilet and Washroom	1.00	61.00	10.00	1	61.0	610.0	☐
2	Breakroom	Breakroom	Office - Enclosed	1.00	238.00	10.00	1	238.0	2380.0	☐
3	Conference	Conference	Conference/meeting (Multiple Functions)	1.00	339.00	10.00	1	339.0	3390.0	☐
4	Corridor	Corridor	Corridor	1.00	1198.00	10.00	1	1198.0	11980.0	☐
5	Cubicle 1	Cubicle 1	Office - Open Plan	1.00	196.00	10.00	1	196.0	1960.0	☐

6	Cubicle 2	Cubicle 2	Office - Open Plan	1.00	183.00	10.00	1	183.0	1830.0	☐
7	Lounge	Lounge	Lobby (General) - Reception and Waiting	1.00	329.00	10.00	1	329.0	3290.0	☐
8	Men	Men	Toilet and Washroom	1.00	41.00	10.00	1	41.0	410.0	☐
9	Office 11	Office 11	Office - Enclosed	1.00	150.00	10.00	1	150.0	1500.0	☐
10	Office 12	Office 12	Office - Enclosed	1.00	84.00	10.00	1	84.0	840.0	☐
11	Office 13	Office 13	Office - Enclosed	1.00	87.00	10.00	1	87.0	870.0	☐
12	Office 14	Office 14	Office - Enclosed	1.00	84.00	10.00	1	84.0	840.0	☐
13	Office 15	Office 15	Office - Enclosed	1.00	137.00	10.00	1	137.0	1370.0	☐
14	Office 16	Office 16	Office - Enclosed	1.00	80.00	10.00	1	80.0	800.0	☐
15	Office 17	Office 17	Office - Enclosed	1.00	80.00	10.00	1	80.0	800.0	☐
16	Office 18	Office 18	Office - Enclosed	1.00	80.00	10.00	1	80.0	800.0	☐
17	Office 19	Office 19	Office - Enclosed	1.00	269.00	10.00	1	269.0	2690.0	☐
18	Women	Women	Toilet and Washroom	1.00	41.00	10.00	1	41.0	410.0	☐

Lighting

	No	Type	Category	No. of Luminaires	Watts per Luminaire	Power [W]	Control Type	
In Zone: 1st FL								
In Space: Corridor								
	1	LED	General Lighting	16	18	288	Occupant Sensor Auto OFF (Full or Partial)-Occupant Sensor Auto OFF (Full or Partial) Time-Switch: Auto Full Off or Scheduled Off-Time-Switch: Auto Full Off or Scheduled Off	☐
In Space: Foyer								

	1	LED	General Lighting	8	18	144	Occupant Sensor Auto OFF (Full or Partial)-Occupant Sensor Auto OFF (Full or Partial) Time-Switch: Auto Full Off or Scheduled Off-Time-Switch: Auto Full Off or Scheduled Off	☐
In Space:	**Gym**							
	1	LED	General Lighting	11	18	198	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Men**							
	1	LED	General Lighting	3	18	54	Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Women**							
	1	LED	General Lighting	3	18	54	Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Stairway**							
	1	LED	General Lighting	5	18	90	Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 1**							

	1	LED	General Lighting	4	18	72	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 2**							
	1	LED	General Lighting	4	18	72	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 3**							
	1	LED	General Lighting	4	18	72	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 4**							
	1	LED	General Lighting	4	18	72	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 5**							

	1	LED	General Lighting	4	18	72	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 6**							
	1	LED	General Lighting	4	18	72	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 7**							
	1	LED	General Lighting	4	18	72	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 8**							
	1	LED	General Lighting	4	18	72	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 9**							

	1	LED	General Lighting	4	18	72	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 10**							
	1	LED	General Lighting	4	18	72	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Zone:	**2nd FL**							
In Space:	**Bath**							
	1	LED	General Lighting	1	15	15	Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Breakroom**							
	1	LED	General Lighting	1	18	18	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Conference**							

	1	LED	General Lighting	10	18	180	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Corridor**							
	1	LED	General Lighting	16	18	288	Occupant Sensor Auto OFF (Full or Partial)-Occupant Sensor Auto OFF (Full or Partial) Time-Switch: Auto Full Off or Scheduled Off-Time-Switch: Auto Full Off or Scheduled Off	☐
In Space:	**Cubicle 1**							
	1	LED	General Lighting	6	18	108	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Time-Switch: Auto Full Off or Scheduled Off-Time-Switch: Auto Full Off or Scheduled Off	☐
In Space:	**Cubicle 2**							
	1	LED	General Lighting	6	18	108	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Lounge**							

	1	LED	General Lighting	6	18	108	Occupant Sensor (50%)-Occupant Sensor (50%) Time-Switch: Auto Full Off or Scheduled Off-Time-Switch: Auto Full Off or Scheduled Off	☐
In Space:	**Men**							
	1	LED	General Lighting	1	18	18	Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 11**							
	1	LED	General Lighting	4	18	72	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 12**							
	1	LED	General Lighting	2	18	36	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 13**							

	1	LED	General Lighting	2	18	36	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 14**							
	1	LED	General Lighting	2	18	36	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 15**							
	1	LED	General Lighting	2	18	36	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 16**							
	1	LED	General Lighting	2	18	36	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 17**							

	1	LED	General Lighting	2	18	36	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 18**							
	1	LED	General Lighting	2	18	36	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Office 19**							
	1	LED	General Lighting	2	18	36	Manual (Local Control)-Manual (Local Control) Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐
In Space:	**Women**							
	1	LED	General Lighting	2	18	36	Occupant Sensor (50%)-Occupant Sensor (50%) Occupant Sensor Auto Full OFF-Occupant Sensor Auto Full OFF	☐

Walls (Walls will be rotated clockwise by building rotation value)

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Orientation	Conductance [Btu/hr. sf. F]	Heat Capacity [Btu/sf.F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone:	**1st FL**											
1	East	Metal siding/2x4@24"+R11Batt/5/8"Gyp	88.33	10.00	1	883.3	East	0.0920	1.072	19.38	10.9	☐
2	West	Metal siding/2x4@24"+R11Batt/5/8"Gyp	62.67	10.00	1	626.7	West	0.0920	1.072	19.38	10.9	☐
3	North	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	58.53	10.00	1	585.3	North	0.0798	0.539	7.98	12.5	☐
4	South	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	82.50	10.00	1	825.0	South	0.0798	0.539	7.98	12.5	☐
In Zone:	**2nd FL**											
1	East	Metal siding/2x4@24"+R11Batt/5/8"Gyp	88.50	10.00	1	885.0	East	0.0920	1.072	19.38	10.9	☐
2	North	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	88.50	10.00	1	885.0	North	0.0798	0.539	7.98	12.5	☐
3	South	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	82.50	10.00	1	825.0	North	0.0798	0.539	7.98	12.5	☐
4	West	Metal siding/2x4@24"+R11Batt/5/8"Gyp	88.50	10.00	1	885.0	West	0.0920	1.072	19.38	10.9	☐

Windows (Windows will be rotated clockwise by building rotation value)

No	Description	Orientation	Shaded	U [Btu/hr sf F]	SHGC	Vis.Tra	W [ft]	H (Effec) [ft]	Multi plier	Total Area [sf]

In Zone: **1st FL**												
In Wall: **East**												
1	Pr0Zo1Wa1Wi1	East	No	1.2500	0.82	0.76	3.00	5.00	2	30.0		
2	Pr0Zo1Wa1Wi2	East	No	1.2500	0.82	0.76	3.00	6.67	2	40.0		

Doors

	No	Description	Type	Shaded?	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/hr. sf. F]	Dens. [lb/cf]	Heat Cap. [Btu/sf. F]	R-Value [h.sf.F/Btu]	
In Zone: **1st FL**													
In Wall: **North**													
	1	Pr0Zo1Wa3Dr1	Solid core flush (2.25)	No	3.00	6.67	1	20.0	0.3504	0.00	0.00	2.85	

Roofs

	No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Tilt [deg]	Cond. [Btu/hr. Sf. F]	Heat Cap [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone: **2nd FL**													
	1	Pr0Zo2Rf1	Mtl Bldg Roof/R-19 Batt	37.09	100.00	1	3709.0	0.00	0.0492	1.34	9.49	20.3	

Skylights

	No	Description	Type	U [Btu/hr sf F]	SHGC	Vis.Trans	W [ft]	H (Effec) [ft]	Multiplier	Area [Sf]	Total Area [Sf]	
In Zone:												
In Roof:												

Floors

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/hr. sf. F]	Heat Cap. [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone:	**1st FL**										
1	Pr0Zo1Fl1	1 ft. soil, concrete floor, carpet and rubber pad	39.23	100.00	1	3923.0	0.2681	34.00	113.33	3.73	☐

Systems

AH-1/AH-2 **System 1** **Constant Volume Air Cooled Split System < 65000 Btu/hr** **No. Of Units 1**

Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	60000.00	14.30	7.50	☐
2	Heating System	51195.00	1.00		☐
3	Air Handling System -Supply	1500.00	0.80		☐

DS-1/DS-2 **5 Ton Multi-head Ductless Minisplit** **Constant Volume Air Cooled Split System < 65000 Btu/hr** **No. Of Units 1**

Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	60000.00	19.00	7.50	☐
2	Heating System	60000.00	8.50		☐
3	Air Handling System -Supply	1500.00	0.80		☐

Plant

Equipment	Category	Size	Inst.No	Eff.	IPLV	
						☐

Water Heaters

	W-Heater Description	Capacity Cap.Unit	I/P Rt.	Efficiency	Loss
1	Electric Storage water heater (1 units)	30 [Gal]	5 [kW]	0.9200 [Ef]	Btu/h

Ext-Lighting

Description	Category	No. of Luminaires	Watts per Luminaire	Area/Len/No. of units [sf/ft/No]	Control Type	Wattage [W]

Piping

No	Type	Operating Temperature [F]	Insulation Conductivity [Btu-in/h.sf.F]	Nomonal pipe Diameter [in]	Insulation Thickness [in]	Is Runout?
1	Domestic and Service Hot Water Systems	105.00	0.28	0.75	1.00	No

Fenestration Used

Name	Glass Type	No. of Panes	Glass Conductance [Btu/h.sf.F]	SHGC	VLT
ASHULSglClrAll Frm	User Defined	1	1.2500	0.8200	0.7600

Materials Used

Mat No	Acronym	Description	Only R-Value Used	RValue [h.sf.F/Btu]	Thickness [ft]	Conductivity [Btu/h.ft.F]	Density [lb/cf]	SpecificHeat [Btu/lb.F]	
187	Matl187	GYP OR PLAS BOARD,1/2IN	No	0.4533	0.0417	0.0920	50.00	0.2000	☐
178	Matl178	CARPET W/RUBBER PAD	Yes	1.2300					☐
265	Matl265	Soil, 1 ft	No	2.0000	1.0000	0.5000	100.00	0.2000	☐
48	Matl48	6 in. Heavyweight concrete	No	0.5000	0.5000	1.0000	140.00	0.2000	☐
211	Matl211	POLYSTYRENE,EXP.,1/2IN ,	No	2.0850	0.0417	0.0200	1.80	0.2900	☐
12	Matl12	3 in. Insulation	No	10.0000	0.2500	0.0250	2.00	0.2000	☐
23	Matl23	6 in. Insulation	No	20.0000	0.5000	0.0250	5.70	0.2000	☐
4	Matl4	Steel siding	No	0.0002	0.0050	26.0000	480.00	0.1000	☐
271	Matl271	2x4@24" oc + R11 Batt	No	10.4179	0.2917	0.0280	7.11	0.2000	☐
279	Matl279	Solid core flush (2.25")	Yes	2.8537					☐
94	Matl94	BUILT-UP ROOFING, 3/8IN	No	0.3366	0.0313	0.0930	70.00	0.3500	☐

Constructs Used

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1015	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	No	No	0.08	0.54	7.98	12.5	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	211	POLYSTYRENE,EXP.,1/2IN,	0.0417	0.000	☐
2	12	3 in. Insulation	0.2500	0.000	☐
3	187	GYP OR PLAS BOARD,1/2IN	0.0417	0.000	☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1055	Metal siding/2x4@24"+R11Batt/5/8"Gyp	No	No	0.09	1.07	19.38	10.9	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	4	Steel siding	0.0050	0.000	☐
2	271	2x4@24" oc + R11 Batt	0.2917	0.000	☐
3	187	GYP OR PLAS BOARD,1/2IN	0.0417	0.000	☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1056	Mtl Bldg Roof/R-19 Batt	No	No	0.05	1.34	9.49	20.3	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	94	BUILT-UP ROOFING, 3/8IN	0.0313	0.000	☐
2	23	6 in. Insulation	0.5000	0.000	☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1057	1 ft. soil, concrete floor, carpet and rubber pad	No	No	0.27	34.00	113.33	3.7	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	265	Soil, 1 ft	1.0000	0.000	☐
2	48	6 in. Heavyweight concrete	0.5000	0.000	☐
3	178	CARPET W/RUBBER PAD		0.000	☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1058	Solid core flush (2.25)	No	Yes	0.35			2.9	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	279	Solid core flush (2.25")		0.000	☐

Rainbolt Tech 1st Floor

Location	**20219 93rd Place Obrein FL 32071**
Building owner	**Rainbolt Tech**
Program user	**Rachel Miller**
Company	**Go Green Engineering**
Comments	

By	**Go Green Engineering LLC**
Dataset name	**C:\PROJECTS\GREEN ENGINEERING SOLUTIONS\2024\RAINBOLT TECH\RAINBOLT TECH.TRC**

Calculation time	**10:36 AM on 05/16/2024**
TRACE® 700 version	**6.3.5**

Location	**Jacksonville, Florida**	
Latitude	**30.0**	**deg**
Longitude	**81.0**	**deg**
Time Zone	**5**	
Elevation	**24**	**ft**
Barometric pressure	**29.9**	**in. Hg**
Air density	**0.0760**	**lb/cu ft**
Air specific heat	**0.2444**	**Btu/lb·°F**
Density-specific heat product	**1.1144**	**Btu/h·cfm·°F**
Latent heat factor	**4,905.3**	**Btu·min/h·cu ft**
Enthalpy factor	**4.5588**	**lb·min/hr·cu ft**
Summer design dry bulb	**97.3**	**°F**
Summer design wet bulb	**76.5**	**°F**
Winter design dry bulb	**32.0**	**°F**
Summer clearness number	**0.95**	
Winter clearness number	**0.95**	
Summer ground reflectance	**0.20**	
Winter ground reflectance	**0.20**	
Carbon Dioxide Level	**400**	**ppm**

Design simulation period	**January - December**
Cooling load methodology	**TETD-TA1**
Heating load methodology	**UATD**

System Checksums

By Go Green Engineering LLC

DS-1/2 **Constant Volume**

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 16
Outside Air: OADB/WB/HR: 94 / 77 / 117

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	9,255	9,255	8
Glass Solar	2,093	0	2,093	2
Glass/Door Cond	260	0	260	0
Wall Cond	9,466	2,314	11,780	10
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	11,820	11,569	23,389	20
Internal Loads				
Lights	26,778	0	26,778	23
People	12,700	0	12,700	11
Misc	33,473	0	33,473	29
Sub Total ==>	72,951	0	72,951	64
Ceiling Load	2,543	-2,543	0	0
Ventilation Load	0	0	18,519	16
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	87,314	9,026	114,859	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 13
OADB: 95

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	2,010	2
Glass/Door Cond	276	0
Wall Cond	10,212	12
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	12,499	15
Internal Loads		
Lights	26,778	32
People	7,700	9
Misc	33,473	40
Sub Total ==>	67,951	82
Ceiling Load	2,525	3
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing		
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	82,975	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-3,704	13.63
Glass Solar	0	0	0.00
Glass/Door Cond	-683	-683	2.51
Wall Cond	-7,722	-9,628	35.42
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-8,405	-14,016	51.56
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-1,382	0	0.00
Ventilation Load	0	-13,169	48.44
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-9,787	-27,185	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	72.4
Ra Plenum	77.1	68.9
Return	77.0	68.9
Ret/OA	78.4	65.8
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	3,723	3,723
Terminal	3,723	3,723
Main Fan	3,723	3,723
Sec Fan	0	0
Nom Vent	311	311
AHU Vent	311	311
Infil	0	0
MinStop/Rh	0	0
Return	3,412	3,412
Exhaust	0	0
Rm Exh	311	311
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	8.4	8.4
cfm/ft²	0.95	0.95
cfm/ton	388.97	
ft²/ton	409.86	
Btu/hr·ft²	29.28	-6.93
No. People	20	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	9.6	114.9	97.5	3,723	78.4	63.0	61.4	55.0	52.4	54.5
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	9.6	114.9								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	3,923		
Part	0		
Int Door	1		
ExFlr	0		
Roof	2,144	0	0
Wall	4,016	35	1
Ext Door	20	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-27.2	3,723	65.8	72.4
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-27.2			

Project Name: Rainbolt Tech 1st Floor
Dataset Name: RAINBOLT TECH.TRC

Room Checksums

By Go Green Engineering LLC

Corridor

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 16
Outside Air: OADB/WB/HR: 94 / 77 / 117

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	3,140	3,140	18
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	95	23	117	1
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	95	3,163	3,258	19
Internal Loads				
Lights	4,894	0	4,894	29
People	0	0	0	0
Misc	6,118	0	6,118	36
Sub Total ==>	11,012	0	11,012	65
Ceiling Load	506	-506	0	0
Ventilation Load	0	0	2,748	16
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
***Grand Total* ==>**	11,613	2,657	17,018	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 17
OADB: 96

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	131	1
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	131	1
Internal Loads		
Lights	4,894	42
People	0	0
Misc	6,118	53
Sub Total ==>	11,012	95
Ceiling Load	505	4
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
***Grand Total* ==>**	11,647	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-1,239	45.12
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-78	-97	3.52
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-78	-1,336	48.64
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-253	0	0.00
Ventilation Load	0	-1,821	66.32
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		411	-14.96
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
***Grand Total* ==>**	-331	-2,746	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	70.6
Ra Plenum	77.2	68.9
Return	77.2	68.9
Ret/OA	78.6	65.9
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	523	523
Terminal	523	523
Main Fan	523	523
Sec Fan	0	0
Nom Vent	43	43
AHU Vent	43	43
Infil	0	0
MinStop/Rh	0	0
Return	480	480
Exhaust	0	0
Rm Exh	43	43
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	8.2	8.2
cfm/ft²	0.73	0.73
cfm/ton	368.51	
ft²/ton	505.59	
Btu/hr·ft²	23.73	-3.83
No. People	0.0	0.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	1.4	17.0	15.2	523	78.6	62.8	60.2	55.0	51.5	51.2
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	1.4	17.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	717		
Part	0		
Int Door	1		
ExFlr	0		
Roof	717	0	0
Wall	40	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-2.8	523	65.9	70.6
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-2.8			

Room Checksums

By Go Green Engineering LLC

Foyer

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 8 / 11
Outside Air: OADB/WB/HR: 88 / 75 / 110

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	2,093	0	2,093	15
Glass/Door Cond	171	0	171	1
Wall Cond	1,633	434	2,067	14
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	3,898	434	4,332	30
Internal Loads				
Lights	2,587	0	2,587	18
People	2,000	0	2,000	14
Misc	3,234	0	3,234	23
Sub Total ==>	7,821	0	7,821	55
Ceiling Load	138	-138	0	0
Ventilation Load	0	0	2,162	15
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
***Grand Total* ==>**	11,856	296	14,315	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 11
OADB: 90

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	2,010	18
Glass/Door Cond	190	2
Wall Cond	1,721	16
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	3,922	36
Internal Loads		
Lights	2,587	24
People	1,000	9
Misc	3,234	30
Sub Total ==>	6,821	63
Ceiling Load	159	1
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
***Grand Total* ==>**	10,902	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	-531	-531	13.07
Wall Cond	-1,024	-1,294	31.84
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-1,555	-1,825	44.91
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-134	0	0.00
Ventilation Load	0	-1,821	44.82
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		-417	10.27
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
***Grand Total* ==>**	-1,689	-4,063	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	73.1
Ra Plenum	76.2	68.9
Return	76.2	68.9
Ret/OA	77.2	65.7
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	489	489
Terminal	489	489
Main Fan	489	489
Sec Fan	0	0
Nom Vent	43	43
AHU Vent	43	43
Infil	0	0
MinStop/Rh	0	0
Return	446	446
Exhaust	0	0
Rm Exh	43	43
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	8.8	8.8
cfm/ft²	1.29	1.29
cfm/ton	410.06	
ft²/ton	317.71	
Btu/hr·ft²	37.77	-10.72
No. People	4.0	10.6/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	1.2	14.3	11.8	489	77.2	63.1	63.7	55.0	53.1	57.3
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	1.2	14.3								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	379		
Part	0		
Int Door	1		
ExFlr	0		
Roof	0	0	0
Wall	570	35	6
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-4.1	489	65.7	73.1
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-4.1			

Room Checksums

By Go Green Engineering LLC

Gym

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 8 / 14
Outside Air: OADB/WB/HR: 94 / 77 / 117

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	1,655	392	2,047	9
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	1,655	392	2,047	9
Internal Loads				
Lights	4,341	0	4,341	20
People	5,700	0	5,700	26
Misc	5,427	0	5,427	25
Sub Total ==>	15,468	0	15,468	71
Ceiling Load	419	-419	0	0
Ventilation Load	0	0	4,274	20
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
***Grand Total* ==>**	17,542	-26	21,789	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 13
OADB: 95

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	1,889	12
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	1,889	12
Internal Loads		
Lights	4,341	27
People	4,200	26
Misc	5,427	33
Sub Total ==>	13,968	86
Ceiling Load	408	3
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
***Grand Total* ==>**	16,265	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-1,554	-1,931	34.73
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-1,554	-1,931	34.73
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-224	0	0.00
Ventilation Load	0	-2,964	53.31
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		-665	11.95
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
***Grand Total* ==>**	-1,778	-5,560	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	72.2
Ra Plenum	77.1	68.9
Return	77.1	68.9
Ret/OA	78.7	65.4
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	730	730
Terminal	730	730
Main Fan	730	730
Sec Fan	0	0
Nom Vent	70	70
AHU Vent	70	70
Infil	0	0
MinStop/Rh	0	0
Return	660	660
Exhaust	0	0
Rm Exh	70	70
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	9.6	9.6
cfm/ft²	1.15	1.15
cfm/ton	401.92	
ft²/ton	350.27	
Btu/hr·ft²	34.26	-8.74
No. People	6.0	9.4/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	1.8	21.8	17.5	730	78.7	63.8	64.9	55.0	53.8	59.9
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	1.8	21.8								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	636		
Part	0		
Int Door	1		
ExFlr	0		
Roof	0	0	0
Wall	798	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-5.6	730	65.4	72.2
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-5.6			

Room Checksums

By Go Green Engineering LLC

Men

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 6 / 14
Outside Air: OADB/WB/HR: 97 / 76 / 99

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	1,717	407	2,124	57
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	1,717	407	2,124	57
Internal Loads				
Lights	717	0	717	19
People	0	0	0	0
Misc	896	0	896	24
Sub Total ==>	1,613	0	1,613	43
Ceiling Load	74	-74	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
***Grand Total* ==>**	3,404	332	3,737	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 14
OADB: 97

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	1,717	50
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	1,717	50
Internal Loads		
Lights	717	21
People	0	0
Misc	896	26
Sub Total ==>	1,613	47
Ceiling Load	74	2
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
***Grand Total* ==>**	3,404	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-1,554	-1,931	108.47
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-1,554	-1,931	108.47
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-37	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		151	-8.47
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
***Grand Total* ==>**	-1,591	-1,780	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	79.4
Ra Plenum	77.2	68.9
Return	77.2	68.9
Ret/OA	77.2	68.9
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	153	153
Terminal	153	153
Main Fan	153	153
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	0
MinStop/Rh	0	0
Return	153	153
Exhaust	0	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	1.45	1.45
cfm/ton	490.53	
ft²/ton	337.21	
Btu/hr·ft²	35.59	-16.95
No. People	0.0	0.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.3	3.7	3.7	153	77.2	57.8	40.5	55.0	48.6	40.5
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	0.3	3.7								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	105		
Part	0		
Int Door	1		
ExFlr	0		
Roof	0	0	0
Wall	798	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-1.8	153	68.9	79.4
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-1.8			

Room Checksums

By Go Green Engineering LLC

Offfice 107

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 16
Outside Air: OADB/WB/HR: 94 / 77 / 117

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	547	547	14
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	205	48	253	6
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	205	595	800	20
Internal Loads				
Lights	853	0	853	21
People	500	0	500	12
Misc	1,067	0	1,067	27
Sub Total ==>	2,420	0	2,420	60
Ceiling Load	88	-88	0	0
Ventilation Load	0	0	784	20
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	2,713	507	4,004	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 17
OADB: 96

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	234	9
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	234	9
Internal Loads		
Lights	853	34
People	250	10
Misc	1,067	43
Sub Total ==>	2,170	87
Ceiling Load	88	4
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	2,492	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-216	22.38
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-248	-308	31.95
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-248	-524	54.33
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-44	0	0.00
Ventilation Load	0	-550	57.04
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		110	-11.37
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-292	-965	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	72.4
Ra Plenum	77.2	68.9
Return	77.2	68.9
Ret/OA	79.1	64.6
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	112	112
Terminal	112	112
Main Fan	112	112
Sec Fan	0	0
Nom Vent	13	13
AHU Vent	13	13
Infil	0	0
MinStop/Rh	0	0
Return	99	99
Exhaust	0	0
Rm Exh	13	13
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	11.6	11.6
cfm/ft²	0.89	0.89
cfm/ton	335.08	
ft²/ton	374.66	
Btu/hr·ft²	32.03	-7.72
No. People	1.0	8.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.3	4.0	3.2	112	79.1	64.4	66.9	55.0	52.3	54.2
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	0.3	4.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	125		
Part	0		
Int Door	1		
ExFlr	0		
Roof	125	0	0
Wall	128	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-1.0	112	64.6	72.4
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-1.0			

Room Checksums

By Go Green Engineering LLC

Office 101

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 8 / 17
Outside Air: OADB/WB/HR: 93 / 78 / 119

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	1,727	0	1,727	32
People	500	0	500	9
Misc	2,159	0	2,159	41
Sub Total ==>	4,386	0	4,386	82
Ceiling Load	164	-164	0	0
Ventilation Load	0	0	938	18
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
***Grand Total* ==>**	4,550	-164	5,323	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 15
OADB: 97

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	1,727	40
People	250	6
Misc	2,159	50
Sub Total ==>	4,136	96
Ceiling Load	187	4
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
***Grand Total* ==>**	4,323	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	0	0	0.00
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	0	0	0.00
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-89	0	0.00
Ventilation Load	0	-635	67.14
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		-311	32.86
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
***Grand Total* ==>**	-89	-946	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	70.4
Ra Plenum	77.0	68.9
Return	77.0	68.9
Ret/OA	78.2	66.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	194	194
Terminal	194	194
Main Fan	194	194
Sec Fan	0	0
Nom Vent	15	15
AHU Vent	15	15
Infil	0	0
MinStop/Rh	0	0
Return	179	179
Exhaust	0	0
Rm Exh	15	15
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	7.7	7.7
cfm/ft²	0.77	0.77
cfm/ton	437.22	
ft²/ton	570.33	
Btu/hr·ft²	21.04	-3.74
No. People	1.0	4.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.4	5.3	4.4	194	78.2	63.1	62.4	55.0	53.9	60.1
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	0.4	5.3								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	253		
Part	0		
Int Door	1		
ExFlr	0		
Roof	0	0	0
Wall	0	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-1.0	194	66.0	70.4
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-1.0			

Room Checksums

By Go Green Engineering LLC

Office 102

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 18
Outside Air: OADB/WB/HR: 91 / 77 / 119

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	519	126	645	11
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	519	126	645	11
Internal Loads				
Lights	1,747	0	1,747	29
People	500	0	500	8
Misc	2,184	0	2,184	36
Sub Total ==>	4,432	0	4,432	74
Ceiling Load	155	-155	0	0
Ventilation Load	0	0	914	15
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	5,105	-28	5,991	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 19
OADB: 91

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	586	12
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	586	12
Internal Loads		
Lights	1,747	36
People	250	5
Misc	2,184	45
Sub Total ==>	4,182	85
Ceiling Load	138	3
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	4,905	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-274	-341	27.20
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-274	-341	27.20
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-90	0	0.00
Ventilation Load	0	-635	50.65
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		-278	22.15
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-365	-1,254	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	71.5
Ra Plenum	76.9	68.9
Return	76.9	68.9
Ret/OA	77.9	66.4
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	220	220
Terminal	220	220
Main Fan	220	220
Sec Fan	0	0
Nom Vent	15	15
AHU Vent	15	15
Infil	0	0
MinStop/Rh	0	0
Return	205	205
Exhaust	0	0
Rm Exh	15	15
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	6.8	6.8
cfm/ft²	0.86	0.86
cfm/ton	440.84	
ft²/ton	512.74	
Btu/hr·ft²	23.40	-4.90
No. People	1.0	3.9/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.5	6.0	5.1	220	77.9	62.8	61.3	55.0	53.5	58.8
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	0.5	6.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	256		
Part	0		
Int Door	1		
ExFlr	0		
Roof	0	0	0
Wall	141	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-1.3	220	66.4	71.5
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-1.3			

Room Checksums

By Go Green Engineering LLC

Office 103

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 18
Outside Air: OADB/WB/HR: 91 / 77 / 119

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	740	740	12
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	785	191	976	15
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	785	931	1,716	27
Internal Loads				
Lights	1,399	0	1,399	22
People	500	0	500	8
Misc	1,749	0	1,749	27
Sub Total ==>	3,648	0	3,648	57
Ceiling Load	124	-124	0	0
Ventilation Load	0	0	1,028	16
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	4,557	807	6,392	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 19
OADB: 91

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	886	20
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	886	20
Internal Loads		
Lights	1,399	32
People	250	6
Misc	1,749	40
Sub Total ==>	3,398	77
Ceiling Load	111	3
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	4,395	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-354	24.76
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-415	-516	36.06
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-415	-870	60.82
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-72	0	0.00
Ventilation Load	0	-720	50.32
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		159	-11.14
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-487	-1,431	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	72.2
Ra Plenum	76.9	68.9
Return	76.9	68.9
Ret/OA	78.1	65.7
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	197	197
Terminal	197	197
Main Fan	197	197
Sec Fan	0	0
Nom Vent	17	17
AHU Vent	17	17
Infil	0	0
MinStop/Rh	0	0
Return	180	180
Exhaust	0	0
Rm Exh	17	17
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	8.6	8.6
cfm/ft²	0.96	0.96
cfm/ton	370.18	
ft²/ton	384.83	
Btu/hr·ft²	31.18	-6.98
No. People	1.0	4.9/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.5	6.4	5.4	197	78.1	63.2	63.1	55.0	52.2	53.6
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	0.5	6.4								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	205		
Part	0		
Int Door	1		
ExFlr	0		
Roof	205	0	0
Wall	213	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-1.4	197	65.7	72.2
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-1.4			

Room Checksums

By Go Green Engineering LLC

Office 104

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 16
Outside Air: OADB/WB/HR: 94 / 77 / 117

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	657	657	15
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	657	657	15
Internal Loads				
Lights	1,024	0	1,024	24
People	500	0	500	12
Misc	1,280	0	1,280	30
Sub Total ==>	2,804	0	2,804	65
Ceiling Load	106	-106	0	0
Ventilation Load	0	0	847	20
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
***Grand Total* ==>**	2,910	551	4,307	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 15
OADB: 97

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	1,024	38
People	250	9
Misc	1,280	48
Sub Total ==>	2,554	96
Ceiling Load	111	4
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
***Grand Total* ==>**	2,665	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-259	33.38
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	0	0	0.00
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	0	-259	33.38
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-53	0	0.00
Ventilation Load	0	-593	76.35
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		76	-9.72
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
***Grand Total* ==>**	-53	-777	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	70.4
Ra Plenum	77.2	68.9
Return	77.2	68.9
Ret/OA	79.1	64.6
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	120	120
Terminal	120	120
Main Fan	120	120
Sec Fan	0	0
Nom Vent	14	14
AHU Vent	14	14
Infil	0	0
MinStop/Rh	0	0
Return	106	106
Exhaust	0	0
Rm Exh	14	14
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	11.7	11.7
cfm/ft²	0.80	0.80
cfm/ton	333.08	
ft²/ton	417.89	
Btu/hr·ft²	28.72	-5.18
No. People	1.0	6.7/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.4	4.3	3.5	120	79.1	64.3	66.7	55.0	52.2	53.7
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	0.4	4.3								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	150		
Part	0		
Int Door	1		
ExFlr	0		
Roof	150	0	0
Wall	0	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-0.8	120	64.6	70.4
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-0.8			

Room Checksums

By Go Green Engineering LLC

Office 105

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 6 / 17
Outside Air: OADB/WB/HR: 96 / 76 / 104

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	587	587	13
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	583	139	722	16
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	583	726	1,309	28
Internal Loads				
Lights	935	0	935	20
People	500	0	500	11
Misc	1,169	0	1,169	25
Sub Total ==>	2,604	0	2,604	56
Ceiling Load	96	-96	0	0
Ventilation Load	0	0	709	15
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	3,284	630	4,622	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 19
OADB: 91

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	689	22
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	689	22
Internal Loads		
Lights	935	30
People	250	8
Misc	1,169	38
Sub Total ==>	2,354	76
Ceiling Load	74	2
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	3,117	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-237	19.35
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-467	-581	47.46
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-467	-817	66.81
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-48	0	0.00
Ventilation Load	0	-550	45.01
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		145	-11.82
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-515	-1,223	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	73.3
Ra Plenum	77.2	68.9
Return	77.2	68.9
Ret/OA	78.9	65.5
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	140	140
Terminal	140	140
Main Fan	140	140
Sec Fan	0	0
Nom Vent	13	13
AHU Vent	13	13
Infil	0	0
MinStop/Rh	0	0
Return	127	127
Exhaust	0	0
Rm Exh	13	13
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	9.3	9.3
cfm/ft²	1.02	1.02
cfm/ton	363.05	
ft²/ton	355.65	
Btu/hr·ft²	33.74	-8.93
No. People	1.0	7.3/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.4	4.6	4.0	140	78.9	63.5	63.3	55.0	52.3	54.1
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	0.4	4.6								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	137		
Part	0		
Int Door	1		
ExFlr	0		
Roof	137	0	0
Wall	240	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-1.2	140	65.5	73.3
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-1.2			

Room Checksums

By Go Green Engineering LLC

Office 106

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 16
Outside Air: OADB/WB/HR: 94 / 77 / 117

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	469	469	13
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	181	42	223	6
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	181	511	692	20
Internal Loads				
Lights	730	0	730	21
People	500	0	500	14
Misc	913	0	913	26
Sub Total ==>	2,143	0	2,143	61
Ceiling Load	75	-75	0	0
Ventilation Load	0	0	659	19
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	2,400	435	3,494	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 18
OADB: 93

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	213	10
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	213	10
Internal Loads		
Lights	730	34
People	250	11
Misc	913	42
Sub Total ==>	1,893	87
Ceiling Load	68	3
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	2,175	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-185	22.28
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-219	-272	32.79
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-219	-457	55.07
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-38	0	0.00
Ventilation Load	0	-466	56.14
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		93	-11.21
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-257	-830	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	72.4
Ra Plenum	77.2	68.9
Return	77.2	68.9
Ret/OA	79.1	64.7
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	98	98
Terminal	98	98
Main Fan	98	98
Sec Fan	0	0
Nom Vent	11	11
AHU Vent	11	11
Infil	0	0
MinStop/Rh	0	0
Return	87	87
Exhaust	0	0
Rm Exh	11	11
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	11.3	11.3
cfm/ft²	0.91	0.91
cfm/ton	335.15	
ft²/ton	367.47	
Btu/hr·ft²	32.66	-7.75
No. People	1.0	9.3/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.3	3.5	2.8	98	79.1	64.4	67.1	55.0	52.4	54.4
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	0.3	3.5								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	107		
Part	0		
Int Door	1		
ExFlr	0		
Roof	107	0	0
Wall	113	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-0.8	98	64.7	72.4
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-0.8			

Room Checksums

By Go Green Engineering LLC

Office 108

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 16
Outside Air: OADB/WB/HR: 94 / 77 / 117

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	876	876	16
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	876	876	16
Internal Loads				
Lights	1,365	0	1,365	25
People	500	0	500	9
Misc	1,707	0	1,707	31
Sub Total ==>	3,572	0	3,572	65
Ceiling Load	141	-141	0	0
Ventilation Load	0	0	1,040	19
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	3,713	735	5,488	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 15
OADB: 97

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	1,365	39
People	250	7
Misc	1,707	49
Sub Total ==>	3,322	96
Ceiling Load	148	4
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	3,469	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-346	35.91
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	0	0	0.00
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	0	-346	35.91
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-70	0	0.00
Ventilation Load	0	-720	74.82
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		103	-10.73
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-70	-962	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	70.4
Ra Plenum	77.2	68.9
Return	77.2	68.9
Ret/OA	79.0	64.9
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	156	156
Terminal	156	156
Main Fan	156	156
Sec Fan	0	0
Nom Vent	17	17
AHU Vent	17	17
Infil	0	0
MinStop/Rh	0	0
Return	139	139
Exhaust	0	0
Rm Exh	17	17
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	10.9	10.9
cfm/ft²	0.78	0.78
cfm/ton	340.41	
ft²/ton	437.34	
Btu/hr·ft²	27.44	-4.81
No. People	1.0	5.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.5	5.5	4.6	156	79.0	64.0	65.3	55.0	52.1	53.3
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	0.5	5.5								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	200		
Part	0		
Int Door	1		
ExFlr	0		
Roof	200	0	0
Wall	0	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-1.0	156	64.9	70.4
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-1.0			

Room Checksums

By Go Green Engineering LLC

Office 109

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 16
Outside Air: OADB/WB/HR: 94 / 77 / 117

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	596	596	15
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	596	596	15
Internal Loads				
Lights	928	0	928	23
People	500	0	500	13
Misc	1,160	0	1,160	29
Sub Total ==>	2,589	0	2,589	65
Ceiling Load	96	-96	0	0
Ventilation Load	0	0	783	20
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	2,685	500	3,967	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 15
OADB: 97

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	928	38
People	250	10
Misc	1,160	48
Sub Total ==>	2,339	96
Ceiling Load	100	4
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	2,439	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-235	32.73
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	0	0	0.00
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	0	-235	32.73
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-48	0	0.00
Ventilation Load	0	-550	76.68
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		68	-9.41
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-48	-718	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	70.4
Ra Plenum	77.2	68.9
Return	77.2	68.9
Ret/OA	79.2	64.5
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	109	109
Terminal	109	109
Main Fan	109	109
Sec Fan	0	0
Nom Vent	13	13
AHU Vent	13	13
Infil	0	0
MinStop/Rh	0	0
Return	96	96
Exhaust	0	0
Rm Exh	13	13
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	11.9	11.9
cfm/ft²	0.80	0.80
cfm/ton	331.05	
ft²/ton	411.37	
Btu/hr·ft²	29.17	-5.28
No. People	1.0	7.4/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.3	4.0	3.2	109	79.2	64.4	67.1	55.0	52.2	53.9
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	0.3	4.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	136		
Part	0		
Int Door	1		
ExFlr	0		
Roof	136	0	0
Wall	0	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-0.7	109	64.5	70.4
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-0.7			

Room Checksums

By Go Green Engineering LLC

Office 110

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 16
Outside Air: OADB/WB/HR: 94 / 77 / 117

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	745	745	15
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	225	52	278	5
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	225	797	1,022	20
Internal Loads				
Lights	1,160	0	1,160	23
People	500	0	500	10
Misc	1,451	0	1,451	29
Sub Total ==>	3,111	0	3,111	62
Ceiling Load	120	-120	0	0
Ventilation Load	0	0	916	18
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	3,456	677	5,049	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 17
OADB: 96

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	257	8
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	257	8
Internal Loads		
Lights	1,160	36
People	250	8
Misc	1,451	45
Sub Total ==>	2,861	88
Ceiling Load	120	4
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	3,237	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-294	26.02
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-273	-339	29.99
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-273	-632	56.01
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-60	0	0.00
Ventilation Load	0	-635	56.26
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		139	-12.27
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-332	-1,129	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	72.1
Ra Plenum	77.2	68.9
Return	77.2	68.9
Ret/OA	78.9	65.1
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	145	145
Terminal	145	145
Main Fan	145	145
Sec Fan	0	0
Nom Vent	15	15
AHU Vent	15	15
Infil	0	0
MinStop/Rh	0	0
Return	130	130
Exhaust	0	0
Rm Exh	15	15
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	10.3	10.3
cfm/ft²	0.85	0.85
cfm/ton	345.21	
ft²/ton	404.02	
Btu/hr·ft²	29.70	-6.64
No. People	1.0	5.9/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.4	5.1	4.2	145	78.9	63.9	65.1	55.0	52.1	53.6
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	0.4	5.1								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	170		
Part	0		
Int Door	1		
ExFlr	0		
Roof	170	0	0
Wall	140	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-1.1	145	65.1	72.1
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-1.1			

Room Checksums

By Go Green Engineering LLC

Stairwell

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 6 / 16
Outside Air: OADB/WB/HR: 97 / 77 / 106

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	897	897	19
Glass Solar	0	0	0	0
Glass/Door Cond	89	0	89	2
Wall Cond	81	35	116	2
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	170	932	1,102	23
Internal Loads				
Lights	1,345	0	1,345	28
People	0	0	0	0
Misc	1,681	0	1,681	35
Sub Total ==>	3,026	0	3,026	62
Ceiling Load	145	-145	0	0
Ventilation Load	0	0	717	15
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
***Grand Total* ==>**	3,341	787	4,845	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 17
OADB: 96

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	86	3
Wall Cond	103	3
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	189	6
Internal Loads		
Lights	1,345	40
People	0	0
Misc	1,681	50
Sub Total ==>	3,026	90
Ceiling Load	139	4
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
***Grand Total* ==>**	3,354	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-340	35.35
Glass Solar	0	0	0.00
Glass/Door Cond	-152	-152	15.78
Wall Cond	-62	-88	9.19
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-214	-581	60.32
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-69	0	0.00
Ventilation Load	0	-508	52.78
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		126	-13.10
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
***Grand Total* ==>**	-283	-963	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	71.7
Ra Plenum	77.3	68.9
Return	77.3	68.9
Ret/OA	78.9	66.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	150	150
Terminal	150	150
Main Fan	150	150
Sec Fan	0	0
Nom Vent	12	12
AHU Vent	12	12
Infil	0	0
MinStop/Rh	0	0
Return	138	138
Exhaust	0	0
Rm Exh	12	12
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	8.0	8.0
cfm/ft²	0.76	0.76
cfm/ton	372.65	
ft²/ton	487.88	
Btu/hr·ft²	24.60	-4.89
No. People	0.0	0.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.4	4.9	4.4	150	78.9	62.6	59.1	55.0	51.5	51.1
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	0.4	4.9								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	197		
Part	0		
Int Door	1		
ExFlr	0		
Roof	197	0	0
Wall	37	0	0
Ext Door	20	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-1.0	150	66.0	71.7
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-1.0			

Room Checksums

By Go Green Engineering LLC

Women

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 6 / 13
Outside Air: OADB/WB/HR: 95 / 75 / 97

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	1,787	426	2,213	49
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	1,787	426	2,213	49
Internal Loads				
Lights	1,024	0	1,024	23
People	0	0	0	0
Misc	1,280	0	1,280	28
Sub Total ==>	2,304	0	2,304	51
Ceiling Load	96	-96	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
***Grand Total* ==>**	4,187	330	4,517	100.00

CLG SPACE PEAK

Mo/Hr: 6 / 13
OADB: 95

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	1,787	43
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	1,787	43
Internal Loads		
Lights	1,024	24
People	0	0
Misc	1,280	31
Sub Total ==>	2,304	55
Ceiling Load	96	2
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
***Grand Total* ==>**	4,187	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 32

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-1,554	-1,931	104.97
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-1,554	-1,931	104.97
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-53	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		91	-4.97
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
***Grand Total* ==>**	-1,607	-1,839	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	77.7
Ra Plenum	77.0	68.9
Return	77.0	68.9
Ret/OA	77.0	68.9
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	188	188
Terminal	188	188
Main Fan	188	188
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	0
MinStop/Rh	0	0
Return	188	188
Exhaust	0	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	1.25	1.25
cfm/ton	499.11	
ft²/ton	398.52	
Btu/hr·ft²	30.11	-12.26
No. People	0.0	0.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.4	4.5	4.5	188	77.0	57.7	40.5	55.0	48.6	40.5
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	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
Total	0.4	4.5								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	150		
Part	0		
Int Door	1		
ExFlr	0		
Roof	0	0	0
Wall	798	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-1.8	188	68.9	77.7
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-1.8			