

Florida Building Code, Fifth Edition (2014) - Energy Conservation

EnergyGauge Summit® Fla/Com-2015, Effective Date: June 30, 2015

ASHRAE 90.1-2010 - Energy Cost Budget Option

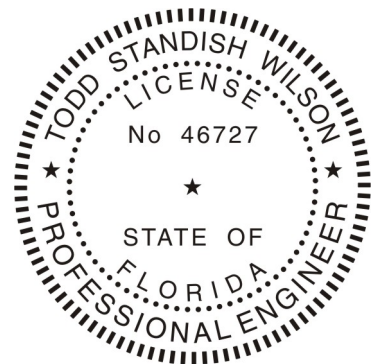
Check List

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

- This Checklist
- 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 contiguous part of the compliance report.
- Boxes appropriately checked in the Mandatory Section of the compliance report.

WARNING: INPUT REPORT NOT GENERATED.

To include input report in final submission, go to the Project Form, Settings Tab and check the box - Append Input Report to Compliance Output Report
Then rerun your calculation



PROJECT SUMMARY

Short Desc: Dr. Kampsen

Description: Edward B. Kampsen, MD

Owner:

Address1: 310 S. MacDill Avenue

City: Tampa

Address2: Suite 200

State: Florida

Zip: 33609

Type: Office

Class: Renovation to existing building

Jurisdiction: HILLSBOROUGH COUNTY, HILLSBOROUGH COUNTY, FL (391000)

Conditioned Area: 1698 SF

Conditioned & UnConditioned Area: 1698 SF

No of Stories: 1

Area entered from Plans 1345 SF

Permit No: 0

Max Tonnage 4

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	1,575.0	1,593.0	PASSED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			No Entry
HVAC SYSTEM			PASSES
PLANT			No Entry
WATER HEATING SYSTEMS			No Entry
PIPING SYSTEMS			No Entry
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: Todd Wilson

Building Official: _____

Date: 3/1/2017

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: Mobius Architecture

Reg No: 26002712

Electrical Designer: Joseph Girgenti

Reg No: 68392

Lighting Designer: Joe Girgenti

Reg No: 68392

Mechanical Designer: Todd Wilson

Reg No: 46727

Plumbing Designer: Todd Wilson

Reg No: 46727

(*) Signature is required where Florida Law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

Project: Dr. Kampsen
 Title: Edward B. Kampsen, MD
 Type: Office
 (WEA File: FL_TAMPA_INTERNATIONAL_AP.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	100.70	102.10
	\$1,575	\$1,593
ELECTRICITY(MBtu/kWh/\$)	100.70	102.10
	29491	29936
	\$1,575	\$1,593
AREA LIGHTS	17.70	22.70
	5191	6658
	\$277	\$354
MISC EQUIPMT	25.50	25.50
	7466	7466
	\$399	\$397
PUMPS & MISC	0.00	0.00
	12	3
	\$1	\$0
SPACE COOL	19.10	22.70
	5584	6655
	\$298	\$354
SPACE HEAT	0.40	0.00
	114	11
	\$6	\$1
VENT FANS	38.00	31.20
	11124	9143
	\$594	\$486

Credits Applied: None

Passing Criteria = 1593

Design (including any credits) = 1575

Passing requires Proposed Building cost to be at most 100% of Baseline cost. This Proposed Building is at 98.9%

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

Project: Dr. Kampsen
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Lighting Controls Compliance						
Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
Pr0Zo1Sp1	16	Office - Open Plan	1,698	1	1	PASSES
						PASSES

Project: Dr. Kampsen
 Title: Edward B. Kampsen, MD
 Type: Office
 (WEA File: FL_TAMPA_INTERNATIONAL_AP.tm3)

System Report Compliance								
Pr0Sy1	System 1	Constant Volume Air Cooled Split System < 65000 Btu/hr				No. of Units		
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance	
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	48000	18.00	13.00	14.70		PASSES	
Heating System	Electric Furnace	24573	1.00	1.00			PASSES	
Air Handling System - Supply	Air Handler (Supply) - Constant Volume	1600	0.80	0.82			PASSES	
Air Handling System - Return	Air Handler (Return) - Constant Volume	1600	0.80	0.82			PASSES	
Air Distribution System (Sup)	ADS System		6.00	6.00			PASSES	
Air Distribution System (Ret)	ADS System (Ret)		6.00	4.20			PASSES	
						PASSES		

Plant Compliance								
Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Compliance
								None

Water Heater Compliance								
Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance	
								None

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	
								None

Mandatory Requirements (as applicable)

Mandatory requirements compiled by US Department of Energy and Pacific Northwest National Laboratory. Adopted with permission

Topic	Section	Component	Description	Yes	N/A	Exempt
1. To be checked by Designer or Engineer						
Fenestration	5.8.2.3,5.5.3.6	Envelope	U-factor of opaque doors associated with the building thermal envelope meets requirements.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Insulation	6.4.4.1.5	Envelope	Bottom surface of floor structures incorporating radiant heating insulated to $\geq R-3.5$.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Insulation	5.5.3.1.1	Envelope	High-albedo roofs satisfy one of the following: Solar reflectance ≥ 0.55 and thermal emittance ≥ 0.75 , Solar reflectance index ≥ 64.0 , or increased insulation (assembly $\leq U-0.03$ or $\geq R-33.0$ insulation).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wattage	9.4.3	Exterior Lighting	Exterior grounds lighting over 100 W provides >60 lm/W unless on motion sensor or fixture is exempt from scope of code or from external LPD.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wattage	9.4.2	Interior Lighting	Exit signs do not exceed 5 watts per face.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	10.4.3	Mechanical	Elevators are designed with the proper lighting, ventilation power, and standby mode.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.5.6.1	Mechanical	Exhaust air energy recovery on systems meeting Table 6.5.6.1.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.1.4	Mechanical	Economizer operation will not increase heating energy use during normal operation.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.2.2.1	Mechanical	Three-pipe hydronic systems using a common return for hot and chilled water are not used.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.2.2.3	Mechanical	Hydronic heat pump systems connected to a common water loop meet heat rejection and heat addition requirements.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.2.4	Mechanical	Water economizer specified on hydronic cooling and humidification systems designed to maintain inside humidity at >35 °F dewpoint if an economizer is required.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.3.1.1	Mechanical	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.3.1.2	Mechanical	HVAC fan motors not larger than allowable limits.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	7.4.2	Mechanical	Service water heating equipment meets efficiency requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	7.5.2	Mechanical	Service water heating equipment used for space heating complies with the service water heating equipment requirements.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. To be checked by Plan Reviewer						
Air Leakage	5.4.3.4	Envelope	Vestibules are installed where building entrances separate conditioned space from the exterior, and meet exterior envelope requirements. Doors have self-closing devices, and are ≥ 7 ft apart.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.8.1.7.3	Envelope	Insulation in contact with the ground has $\leq 0.3\%$ water absorption rate per ASTM C272.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	4.2.2,5.4.3.1.1,5.7	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Plan Review	9.7	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. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wattage	9.4.3	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	4.2.2,9.4.4,9.7	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. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.3.4.4	Mechanical	Ventilation fans >0.75 hp have automatic controls to shut off fan when not required.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.3.9	Mechanical	Demand control ventilation provided for spaces >500 ft2 and >40 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.4.1.4	Mechanical	Thermally ineffective panel surfaces of sensible heating panels have insulation \geq R-3.5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.5.2.3	Mechanical	Dehumidification controls provided to prevent reheating, recooling, mixing of hot and cold airstreams or concurrent heating and cooling of the same airstream.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.5.4.1	Mechanical	HVAC pumping systems >10 hp designed for variable fluid flow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.5.7.1.1	Mechanical	Kitchen hoods >5,000 cfm have make up air \geq 50% of exhaust air volume.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.5.7.2	Mechanical	Fume hoods exhaust systems \geq 15,000 cfm have VAV hood exhaust and supply systems, direct make-up air or heat recovery.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.5.8.1	Mechanical	Unenclosed spaces that are heated use only radiant heat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.3.3.2	Mechanical	Setback controls allow automatic restart and temporary operation as required for maintenance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Equipment	10.4.1	Mechanical	Electric motors meet requirements where applicable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	4.2.2,6.4.4.2.1,6.7.2	Mechanical	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	4.2.2,7.7.1,10.4.2	Mechanical	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	6.7.2.4	Mechanical	Detailed instructions for HVAC systems commissioning included on the plans or specifications for projects \geq 50,000 ft2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.4.3.10	Mechanical	Single zone HVAC systems with fan motors \geq 5 hp have variable airflow controls. Air conditioning equipment with a cooling capacity \geq 110,000 Btu/h has variable airflow controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SYSTEM_SPECIFIC	6.5.1,6.5.1.1,6.5.1.3	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.1,6.5.1.2,6.5.1.3	Mechanical	Water economizers provided where required, meet the requirements for design capacity, maximum pressure drop and integrated economizer control.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.3.2.1	Mechanical	VAV fan motors >=10 hp to be driven by variable speed drive, have a vane-axial fan with variable pitch blades, or have controls to limit fan motor demand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.3.2.3	Mechanical	Reset static pressure setpoint for DDC controlled VAV boxes reporting to central controller based on the zones requiring the most pressure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.3.3	Mechanical	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.3.4	Mechanical	Multiple zone HVAC systems have supply air temperature reset controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.4.2	Mechanical	Reduce flow in pumping systems >10 hp. to multiple chillers or boilers when others are shut down.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.4.3	Mechanical	Temperature reset by representative building loads in pumping systems >10 hp for chiller and boiler systems >300,000 Btu/h.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.4.4.1	Mechanical	Two-position automatic valve interlocked to shut off water flow when hydronic heat pump with pumping system >10 hp is off.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.4.4.2	Mechanical	Hydronic heat pumps and water-cooled unitary air conditioners with pump systems >5 hp have controls or devices to reduce pump motor demand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.5.2	Mechanical	Fan systems with motors >=7.5 hp associated with heat rejection equipment to have capability to operate at 2/3 of full-speed and auto speed controls to control the leaving fluid temperature or condensing temp/pressure of heat rejection device.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.6.2	Mechanical	Condenser heat recovery system that can heat water to 85 °F or provide 60% of peak heat rejection is installed for preheating of service hot water in 24/7 facility, water cooled systems reject >6 MMBtu, SHW load >=1 MMBtu.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.7.1.2	Mechanical	Conditioned supply air to space with a kitchen hood shall not exceed the greater of a) supply flow required to meet space heating or cooling, or b) hood exhaust flow minus the available air transfer from available spaces.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.7.1.3	Mechanical	Kitchen hoods with a total exhaust airflow rate >5000 cfm meet replacement air, ventilation system, or energy recovery requirements shown in Table 6.5.7.1.3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.7.1.4	Mechanical	Kitchen hoods with a total exhaust airflow rate >5000 cfm meet replacement air, ventilation system, or energy recovery requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.9	Mechanical	Hot gas bypass limited to: <=240 kBtu/h – 50% >240 kBtu/h – 25%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	7.5.1	Mechanical	Combined space and water heating system not allowed unless standby loss less than calculated maximum. AHJ has approved or combined connected load <150 kBtu/h.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.4.3.1.1	Mechanical	Heating and cooling to each zone is controlled by a thermostat control.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.4.3.3.3	Mechanical	Systems with air capacity >10,000 cfm include optimum start controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.4.3.5	Mechanical	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SYSTEM_SPECIFIC	7.4.4.3	Mechanical	Public lavatory faucet water temperature <=110°F.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	8.4.2	Project	At least 50% of all 125 volt 15- and 20-Amp receptacles are controlled by an automatic control device.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	4.2.2,8.4.1.1,8.4.1.2,8.	Project	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Feeder connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. To be checked by Inspector						
Air Leakage	5.4.3.1	Envelope	Continuous air barrier is wrapped, sealed, caulked, gasketed, and/or taped in an approved manner, except in semiheated spaces and in climate zones 1-6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Leakage	5.4.3.2	Envelope	Factory-built fenestration and doors are labeled as meeting air leakage requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Leakage	5.4.3.1	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fenestration	5.8.2.1	Envelope	Fenestration products rated in accordance with NFRC.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fenestration	5.8.2.2	Envelope	Fenestration products are certified as to performance labels or certificates provided.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.8.1.2	Envelope	Below-grade wall insulation installed per manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.8.1.2	Envelope	Slab edge insulation installed per manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.5.3.1	Envelope	Roof R-value. For some ceiling systems, verification may need to occur during Framing Inspection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.8.1.2,5.8.1.3	Envelope	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is <=3 in 12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.5.3.1	Envelope	Skylight curbs are insulated to the level of roofs with insulation above deck or R-5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.8.1.2	Envelope	Above-grade wall insulation installed per manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.8.1.2	Envelope	Floor insulation installed per manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.8.1.1	Envelope	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.8.1.4	Envelope	Eaves are baffled to deflect air to above the insulation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.8.1.5	Envelope	Insulation is installed in substantial contact with the inside surface separating conditioned space from unconditional space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.8.1.6	Envelope	Recessed equipment installed in building envelope assemblies does not compress the adjacent insulation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.8.1.7	Envelope	Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.8.1.7.1	Envelope	Attics and mechanical rooms have insulation protected where adjacent to attic or equipment access.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	5.8.1.7.2	Envelope	Foundation vents do not interfere with insulation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Insulation	5.8.1.8	Envelope	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	9.4.1.7	Exterior Lighting	Automatic lighting controls for exterior lighting installed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	9.4.1.1	Interior Lighting	Automatic controls to shut off all building lighting installed in buildings >5,000 ft2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	9.4.1.2	Interior Lighting	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	9.4.1.3	Interior Lighting	Parking garage lighting is equipped with required lighting controls and daylight transition zone lighting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	9.4.1.4	Interior Lighting	Primary sidelighted areas >=250 ft2 are equipped with required lighting controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	9.4.1.5	Interior Lighting	Enclosed spaces with daylight area under skylights and rooftop monitors >900 ft2 are equipped with required lighting controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	9.4.1.6	Interior Lighting	Separate lighting control devices for specific uses installed per approved lighting plans.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wattage	9.6.2	Interior Lighting	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wattage	9.6.3	Interior Lighting	Where space LPD requirements are adjusted based on room cavity ratios, dimensions are consistent with approved plans.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wattage	9.2.2.3	Interior Lighting	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.3.8	Mechanical	Freeze protection and snow/ice melting system sensors for future connection to controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.1.4,6.4.1.5	Mechanical	HVAC equipment efficiency verified. Non-NAECA HVAC equipment labeled as meeting 90.1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.3.4.1	Mechanical	Stair and elevator shaft vents have motorized dampers that automatically close.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.3.4.2,6.4.3.4.3	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.3.4.5	Mechanical	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.4.1.1	Mechanical	Insulation exposed to weather protected from damage. Insulation outside of the conditioned space and associated with cooling systems is vapor retardant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.4.1.2	Mechanical	HVAC ducts and plenums insulated. Where ducts or plenums are installed in or under a slab, verification may need to occur during Foundation Inspection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.4.1.3	Mechanical	HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.4.2.1	Mechanical	Ducts and plenums sealed based on static pressure and location.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.5.7.1.5	Mechanical	Approved field test used to evaluate design air flow rates and demonstrate proper capture and containment of kitchen exhaust systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.3.1.2	Mechanical	Thermostatic controls have a 5 °F deadband.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.3.2	Mechanical	Temperature controls have setpoint overlap restrictions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.4.3.3.1	Mechanical	HVAC systems equipped with at least one automatic shutdown control.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HVAC	6.4.3.7	Mechanical	When humidification and dehumidification are provided to a zone, simultaneous operation is prohibited.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	7.4.4.1	Mechanical	Temperature controls installed on service water heating systems (<=120°F to maximum temperature for intended use).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	7.4.4.2	Mechanical	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	7.4.6	Mechanical	Heat traps installed on non-circulating storage water tanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.4.1.5.2	Mechanical	PTAC and PTHP with sleeves 16 in. by 42 in. labeled for replacement only.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.4.4.2.2	Mechanical	Ductwork operating >3 in. water column requires air leakage testing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.2.1	Mechanical	Zone controls can limit simultaneous heating and cooling and sequence heating and cooling to each zone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.2.2.2	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	6.5.3.2.2	Mechanical	VAV fans have static pressure sensors positioned so setpoint <=1/3 total design pressure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	7.4.4.4	Mechanical	Controls are installed that limit the operation of a recirculation pump installed to maintain temperature of a storage tank.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	7.4.5.1	Mechanical	Pool heaters are equipped with on/off switch and no continuously burning pilot light.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	7.4.5.2	Mechanical	Pool covers are provided for heated pools and pools heated to >90°F have a cover >=R-12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	7.4.5.3	Mechanical	Time switches are installed on all pool heaters and pumps.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	7.4.3	Mechanical	All piping in circulating system insulated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	7.4.3	Mechanical	First 8 ft of outlet piping is insulated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	7.4.3	Mechanical	All heat traced or externally heated piping insulated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. To be checked by Inspector at Project Completion and Prior to Issuance of Certificate of Occupancy						
Post Construction	8.7.1	Interior Lighting	Furnished as-built drawings for electric power systems within 30 days of system acceptance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	8.7.2	Interior Lighting	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	6.7.2.4	Mechanical	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	6.7.2.1	Mechanical	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	6.7.2.2	Mechanical	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	6.7.2.3	Mechanical	An air and/or hydronic system balancing report is provided for HVAC systems serving zones >5,000 ft2 of conditioned area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EnergyGauge Summit® v5.20
INPUT DATA REPORT

Project Information

Project Name: Dr. Kampsen

Project Title: Edward B. Kampsen, MD

Address: 310 S. MacDill Avenue
 Suite 200

State: Florida

Zip: 33609

Owner:

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

Building Type: Office

Building Classification: Renovation to existing building

No. of Stories: 1

GrossArea: 1698 SF

Zones

No	Acronym	Description	Type	Area [sf]	Multiplier	Total Area [sf]	
1	Pr0Zo1	Zone 1	CONDITIONED	1698.5	1	1698.5	<input type="checkbox"/>

Spaces

No	Acronym	Description	Type	Depth [ft]	Width [ft]	Height [ft]	Multi plier	Total Area [sf]	Total Volume [cf]
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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:											
In Wall: <input type="checkbox"/>											

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: Pr0Zo1												
1	Pr0Zo1Rf1	Built-up Gravel/2" ISO/Mtl Deck	33.50	50.70	1	1698.5	0.00	0.1486	0.98	12.59	6.7	<input type="checkbox"/>

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: <input type="checkbox"/>										

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: <input type="checkbox"/>										

Systems

Pr0Sy1	System 1	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units 1		
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	48000.00	18.00	14.70	<input type="checkbox"/>
2	Heating System	24573.00	1.00		<input type="checkbox"/>
3	Air Handling System -Supply	1600.00	0.80		<input type="checkbox"/>
4	Air Handling System - Return	1600.00	0.80		<input type="checkbox"/>
5	Air Distribution System (Sup)		6.00		<input type="checkbox"/>
6	Air Distribution System (Ret)		6.00		<input type="checkbox"/>

Plant

Equipment	Category	Size	Inst.No	Eff.	IPLV
					<input type="checkbox"/>

Water Heaters

W-Heater Description	Capacity Cap.Unit	I/P Rt.	Efficiency	Loss
				<input type="checkbox"/>

Ext-Lighting

Description	Category	No. of Luminaires	Watts per Luminaire	Area/Len/No. of units [sf/ft/No]	Control Type	Wattage [W]
						<input type="checkbox"/>

Piping

No	Type	Operating Temperature [F]	Insulation Conductivity [Btu-in/h.sf.F]	Nomonal pipe Diameter [in]	Insulation Thickness [in]	Is Runout?
<input type="checkbox"/>						

Fenestration Used

Name	Glass Type	No. of Panes	Glass Conductance [Btu/h.sf.F]	SHGC	VLT	Is Runout?
ASHULtp TntW d-Vy-Fg frm	User Defined	3	0.4500	0.3400	0.2100	<input type="checkbox"/>

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]	Is Runout?
187	Matl187	GYP OR PLAS BOARD,1/2IN	No	0.4533	0.0417	0.0920	50.00	0.2000	<input type="checkbox"/>
105	Matl105	CONC BLK HW, 8IN, HOLLOW	No	1.1002	0.6667	0.6060	69.00	0.2000	<input type="checkbox"/>
269	Matl269	.75" ISO BTWN24" oc	No	2.2321	0.0625	0.0280	4.19	0.3000	<input type="checkbox"/>
11	Matl11	2 in. Insulation	No	6.6800	0.1670	0.0250	2.00	0.2000	<input type="checkbox"/>
248	Matl248	ROOF GRAVEL OR SLAG1/2IN	No	0.0500	0.0417	0.8340	55.00	0.4000	<input type="checkbox"/>

Constructs Used

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No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1014	8"CMU/3/4"ISO BTWN24"oc/5/8 Gyp	No	No	0.26	9.70	62.72	3.8	<input type="checkbox"/>
	Layer	Material No.	Material	Thickness [ft]	Framing Factor			
	1	105	CONC BLK HW, 8IN, HOLLOW	0.6667	0.000			<input type="checkbox"/>
	2	269	.75" ISO BTWN24" oc	0.0625	0.000			<input type="checkbox"/>
	3	187	GYP OR PLAS BOARD,1/2IN	0.0417	0.000			<input type="checkbox"/>
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1045	Built-up Gravel/2" ISO/Mtl Deck	No	No	0.15	0.98	12.59	6.7	<input type="checkbox"/>
	Layer	Material No.	Material	Thickness [ft]	Framing Factor			
	1	248	ROOF GRAVEL OR SLAG1/2IN	0.0417	0.000			<input type="checkbox"/>
	2	11	2 in. Insulation	0.1670	0.000			<input type="checkbox"/>