

Florida Building Code, Sixth Edition (2017) - Energy Conservation

EnergyGauge Summit® Fla/Com-2017, Effective Date: Dec 31, 2017

IECC 2015 - Total Building Performance Compliance 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.

PROJECT SUMMARY

Short Desc: UMCAnnex

Description: Palmetto UMC Annex Building

Owner: Palmetto United Methodist Church

Address1: 5601 16th Avenue East

City: Palmetto

Address2:

State: FL

Zip: 34221

Type: Religious Building

Class: New Finished building

Jurisdiction: PALMETTO, MANATEE COUNTY, FL (511600)

Conditioned Area: 7500 SF

Conditioned & UnConditioned Area: 7500 SF

No of Stories: 1

Area entered from Plans 7500 SF

Permit No: 0

Max Tonnage 7.5

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	7,301.0	10,371.0	PASSED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			PASSES
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: William H. Roberts, P.E.

Building Official: _____

Date: _____

Date: _____

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

Owner Agent: Family of God United Methodist Church

Date: _____

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

Architect: William H. Roberts, P.E.

Reg No: 42712

Electrical Designer: William H. Roberts, P.E.

Reg No: 42712

Lighting Designer: William H. Roberts, P.E.

Reg No: 42712

Mechanical Designer: William H. Roberts, P.E.

Reg No: 42712

Plumbing Designer: William H. Roberts, P.E.

Reg No: 42712

(*) 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: UMCAnnex
 Title: Palmetto UMC Annex Building
 Type: Religious Building
 (WEA File: FL_SARASOTA_BRADENTON.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	<i>448.00</i>	<i>755.80</i>
	<i>\$7,301</i>	<i>\$12,201</i>
ELECTRICITY(MBtu/kWh/\$)	<i>448.00</i>	<i>755.80</i>
	<i>131319</i>	<i>221441</i>
	<i>\$7,301</i>	<i>\$12,201</i>
AREA LIGHTS	<i>30.40</i>	<i>56.80</i>
	<i>8918</i>	<i>16640</i>
	<i>\$496</i>	<i>\$917</i>
MISC EQUIPMT	<i>42.80</i>	<i>42.80</i>
	<i>12536</i>	<i>12536</i>
	<i>\$697</i>	<i>\$691</i>
PUMPS & MISC	<i>0.10</i>	<i>0.20</i>
	<i>43</i>	<i>50</i>
	<i>\$2</i>	<i>\$3</i>
SPACE COOL	<i>330.80</i>	<i>409.50</i>
	<i>96938</i>	<i>119989</i>
	<i>\$5,390</i>	<i>\$6,611</i>
SPACE HEAT	<i>18.70</i>	<i>20.00</i>
	<i>5492</i>	<i>5863</i>
	<i>\$305</i>	<i>\$323</i>
VENT FANS	<i>25.20</i>	<i>226.50</i>
	<i>7392</i>	<i>66363</i>
	<i>\$411</i>	<i>\$3,657</i>

Credits Applied: None
 Passing Criteria = 10371
 Design (including any credits) = 7301
 Passing requires Proposed Building cost to be at most 85% of Baseline cost. This Proposed Building is at 59.8%

PASSES

Project: UMCAnnex
 Title: Palmetto UMC Annex Building
 Type: Religious Building
 (WEA File: FL_SARASOTA_BRADENTON.tm3)

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 2	Main entries	Yes	30.00	6.0	180	480

Tradable Surfaces: 480 (W) Allowance for Tradable: 930 (W)

PASSES

All External Lighting: 480 (W)

Compliance check includes a excess/Base allowance of 750.00(W)

Project: UMCAnnex
 Title: Palmetto UMC Annex Building
 Type: Religious Building
 (WEA File: FL_SARASOTA_BRADENTON.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
Pr0Zo1Sp1	24,002	Fellowship Hall	1,034	3	1	PASSES
Pr0Zo2Sp1	24,002	Fellowship Hall	5,409	3	3	PASSES
Pr0Zo3Sp1	14	Classroom/Lecture Hall	1,056	1	1	PASSES

PASSES

Project: UMCAnnex
 Title: Palmetto UMC Annex Building
 Type: Religious Building
 (WEA File: FL_SARASOTA_BRADENTON.tm3)

System Report Compliance

Pr0Sy01 3 Ton Split Heat Pump System Constant Volume Air Cooled Split System < 65000 Btu/hr No. of Units 1

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	36000	14.00	13.00	11.40		PASSES
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity	36000	8.20	8.20			PASSES
Air Handling System - Supply	Air Handler (Supply) - Constant Volume	1200	0.10	0.82			PASSES
Air Handling System - Return	Air Handler (Return) - Constant Volume	1200	0.10	0.82			PASSES
Air Distribution System (Sup)	Not in Check list - Compliance Ignored		6.00	6.00			N/A
Air Distribution System (Ret)	Not in Check list - Compliance Ignored		6.00	6.00			N/A

Pr0Sy03 3 Ton Split Heat Pump System Constant Volume Air Cooled Split System < 65000 Btu/hr No. of Units 1

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	36000	14.00	13.00	11.40		PASSES
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity	36000	8.20	8.20			PASSES
Air Handling System - Supply	Air Handler (Supply) - Constant Volume	1200	0.10	0.82			PASSES
Air Handling System - Return	Air Handler (Return) - Constant Volume	1200	0.10	0.82			PASSES
Air Distribution System (Sup)	Not in Check list - Compliance Ignored		6.00	6.00			N/A
Air Distribution System (Ret)	Not in Check list - Compliance Ignored		6.00	6.00			N/A

Pr0Sy02	Two (2) 7.5 Ton Split Heat Pump Systems		Variable refrigerant Flow System				No. of Units
							1
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	VRF Air Conditioners Air Cooled 65000 to 135000 Btu/h Cooling Capacity	90000	11.30	11.00	12.40	12.30	PASSES
Heating System	Heat Pumps Air Cooled (Heating Mode) 65000 to 135000 Btu/h Clg Cap	90000	3.30	3.30			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	3000	0.10	0.82			PASSES
Air Handling System - Return	Air Handler (Return) - Constant Volume	3000	0.10	0.82			PASSES
Air Distribution System (Sup)	Not in Check list - Compliance Ignored		6.00	6.00			N/A
Air Distribution System (Ret)	Not in Check list - Compliance Ignored		6.00	6.00			N/A
PASSES							

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

Project: UMCAnnex Title: Palmetto UMC Annex Building Type: Religious Building (WEA File: FL_SARASOTA_BRADENTON.tm3)								
Water Heater Compliance								
Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance	
Water Heater 1	Electric water heater	<= 12 [kW]	0.96	0.92			PASSES	
							PASSES	

Project: UMCAnnex Title: Palmetto UMC Annex Building Type: Religious Building (WEA File: FL_SARASOTA_BRADENTON.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	
Heating System (Steam, Steam Condensate, & Hot Water)	0.25	True	105.00	0.28	0.00	0.00	PASSES	
							PASSES	

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						
Insulation	C303.2	Envelope	Below-grade wall insulation installed per manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C303.2	Envelope	Slab edge insulation installed per manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C303.2	Envelope	Above-grade wall insulation installed per manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C402.3	Envelope	High-albedo roofs satisfy one of the following: 3-year-aged solar reflectance ≥ 0.55 and thermal emittance ≥ 0.75 or 3-year-aged solar reflectance index ≥ 64.0 .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fenestration	C402.4.4	Envelope	U-factor of opaque doors associated with the building thermal envelope meets requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.12.1	Mechanical	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.12.2	Mechanical	HVAC fan motors not oversized beyond allowable limits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.3(8) Table	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement meet those listed in Table C403.2.3(8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.7	Mechanical	Exhaust air energy recovery on systems meeting Table C403.2.7(1) and C403.2.7(2).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.3	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	C403.3.2	Mechanical	Economizer operation will not increase heating energy use during normal operation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.2.1	Mechanical	Three-pipe hydronic systems using a common return for hot and chilled water are not used.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.2.3.1	Mechanical	Hydronic heat pump systems connected to a common water loop meet heat rejection and heat addition requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.2	Mechanical	Service water heating equipment meets efficiency requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wattage	C405.3	Interior Lighting	Exit signs do not exceed 5 watts per face.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. To be checked by Plan Reviewer						
Plan Review	C103.2	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	C103.2	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 st	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	C103.2	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 manufact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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. Information provided shoul	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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. Information provided shoul	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C402.2.5	Envelope	Slab edge insulation depth/length. Slab insulation extending away from building is covered by pavement or ≥ 10 inches of soil.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C402.2.6	Project	Radiant heating systems panels insulated to $\geq R-3.5$ on face opposite space being heated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C402.2.6	Mechanical	Thermally ineffective panel surfaces of sensible heating panels have insulation $\geq R-3.5$.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Leakage	C402.5.7	Envelope	Vestibules are installed on all building entrances. Doors have self-closing devices.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.12.3	Mechanical	Fans have efficiency grade (FEG) ≥ 67 . The total efficiency of the fan at the design point of operation $\leq 15\%$ of maximum total efficiency of the fan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.13	Mechanical	Unenclosed spaces that are heated use only radiant heat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.4.2	Mechanical	Each zone equipped with setback controls using automatic time clock or programmable control system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.4.4	Mechanical	Zone isolation devices and controls installed where applicable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.4.7	Mechanical	Fault detection and diagnostics installed with air-cooled unitary DX units having economizers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.5	Mechanical	Hot water boilers supplying heat via one- or two-pipe systems include outdoor setback control.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.6.1	Mechanical	Demand control ventilation provided for spaces >500 ft ² and >25 people/1000 ft ² 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"/>
SYSTEM_SPECIFIC	C403.4.1.1	Mechanical	Hydronic and multizone HVAC system controls are VAV fans driven by mechanical or electrical variable speed drive per Table C403.4.1.1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.1.3	Mechanical	Reset static pressure setpoint for DDC controlled VAV boxes reporting to central controller based on the zones requiring the most pressure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.2	Mechanical	Temperature reset by representative building loads in pumping systems for chiller and boiler systems $>500,000$ Btu/h.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SYSTEM_SPECIFIC	C403.4.2.3.2.1	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 cl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.2.4	Mechanical	Hydronic systems greater than 500,000 Btu/h designed for variable fluid flow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.2.6	Mechanical	Boiler input between 1.0 MBtu/h and 5 MBtu/h has 3:1 turndown ratio, boiler input between 5.0 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.3, C403.4.3.2	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	C403.4.4.5	Mechanical	Multiple zone HVAC systems have supply air temperature reset controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.4.6	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	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 >= 90 Et. Where multiple pieces of water-heating equipment serve the building wi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.4	Mechanical	All piping insulated in accordance with section details and Table C403.2.10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.5, C404.5.1, C404.5.2	Mechanical	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.7	Mechanical	Water distribution system that pumps water from a heated-water supply pipe back to the heated-water source through a cold-water supply pipe is a demand recirculation water system. Pumps within this system have controls that start the pump upon receiving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wattage	C405.5.1	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	C405.6	Project	Group R-2 dwelling units have separate electrical meters.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C408.2.2.2	Mechanical	HVAC hydronic heating and cooling coils have means to balance and have pressure test connections.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C408.2.2.2	Mechanical	HVAC hydronic heating and cooling coils have means to balance and have pressure test connections.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. To be checked by Inspector

Insulation	C303.1	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	C303.1	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"/>
Fenestration	C303.1.3	Envelope	Fenestration products rated in accordance with NFRC.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fenestration	C303.1.3	Envelope	Fenestration products are certified as to performance labels or certificates provided.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C303.2.1	Envelope	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C303.2.1	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	C402.1.3	Envelope	Non-swinging opaque doors have R-4.75 insulation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C402.2.2	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	C402.2.2	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"/>
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/ft ² .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 cfm/ft ² . Air barrier penetrations are sealed in an approved manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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/ft ² . Air barrier penetrations are sealed in an approved manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Leakage	C402.5.2, C402.5.4	Envelope	Factory-built fenestration and doors are labeled as meeting air leakage requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Leakage	C402.5.3	Envelope	Where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air opening are located outside the building thermal envelope or enclosed in a room, isolated from inside the thermal envelope	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Leakage	C402.5.5, C403.2.4.3	Envelope	Stair and elevator shaft vents have motorized dampers that automatically close.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Leakage	C402.5.5, C403.2.4.3	Envelope	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"/>
Air Leakage	C402.5.6	Envelope	Weatherseals installed on all loading dock cargo doors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.1	Mechanical	HVAC systems and equipment design loads calculated in accordance with	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.10	Mechanical	ANSI/ASHRAE/ACCA Standard 183 or by an approved equivalent computational procedure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.3	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"/>
SYSTEM_SPECIFIC	C403.2.3	Mechanical	HVAC equipment efficiency verified.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.4	Mechanical	PTAC and PTHP with sleeves 16 in. by 42 in. labeled for replacement only as per Footnote b to Table C403.2.3(3).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.4.1	Mechanical	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.4.1.1	Mechanical	humidification/dehumidification system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.4.1.2	Mechanical	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.4.1.2	Mechanical	Thermostatic controls have a 5 Â°F deadband.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.4.1.2	Mechanical	Thermostatic controls have a 5 Â°F deadband.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.4.1.3	Mechanical	Thermostatic controls have a 5 Â°F deadband.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.4.1.3	Mechanical	Temperature controls have setpoint overlap restrictions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.4.2.3	Mechanical	Systems include optimum start controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.4.5, C403.2.4.6	Mechanical	Snow/ice melting system sensors for future connection to controls. Freeze protection systems have automatic controls installed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.9	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"/>
SYSTEM_SPECIFIC	C403.2.9.1.3	Mechanical	Ductwork operating >3 in. water column requires air leakage testing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.1.2	Mechanical	VAV fans have static pressure sensors located so controller setpoint <=1.2 w.c..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.4.5, C403.4.4.5.1-4	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	C403.4.5	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.6	Mechanical	Hot gas bypass limited to:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.3	Mechanical	<=240 kBtu/h - 50% capacity, >240 kBtu/h - 25% capacity Heat traps installed on non-circulating storage water tanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SYSTEM_SPECIFIC	C404.3	Mechanical	Heat traps installed on supply and discharge piping of non-circulating systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.3	Mechanical	Heat traps installed on supply and discharge piping of non-circulating systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.6.1, C404.6.2	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	C404.9.1	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	C404.9.2	Mechanical	Time switches are installed on all pool heaters and pumps.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.9.2	Mechanical	Time switches are installed on all pool heaters and pumps.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.9.3	Mechanical	Vapor retardant pool covers are provided for heated pools and permanently installed spas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.1	Interior Lighting	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.1	Interior Lighting	Occupancy sensors installed in required spaces.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.1, C405.2.2.3	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	C405.2.2.1	Interior Lighting	Automatic controls to shut off all building lighting installed in all buildings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.3	Interior Lighting	Daylight zones provided with individual controls that control the lights independent of general area lighting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.3, C405.2.3.1, C405.2.3.2	Interior Lighting	Primary sidelighted areas are equipped with required lighting controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.3, C405.2.3.1, C405.2.3.3	Interior Lighting	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.4	Interior Lighting	Separate lighting control devices for specific uses installed per approved lighting plans.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wattage	C405.2.4	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"/>
Controls	C405.2.5	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 > 30%.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wattage	C405.4.1	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"/>
Mandatory Additional Eff	C406.4	Project	Enhanced digital lighting controls efficiency package: Interior lighting has following enhanced lighting controls in accordance with Section C405.2.2: Luminaires capable of continuous dimming and being addressed individually, <= 8 luminaires controlled in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mandatory Additional Eff	C406.6	Project	Dedicate outdoor air system efficiency package : Buildings with hydronic and/or multiple-zone HVAC systems are equipped with an independent ventilation system designed to provide >= 100-percent outdoor air to each individual occupied space, as specified by	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mandatory Additional Eff	C406.7, C406.7.1	Project	Enhanced Service Water Heat System efficiency package. One of the following SWH system enhancements must satisfy 60 percent of hot water requirements, or 100 percent if the building otherwise complies with heat recovery per Section C403.4.5: Waste heat re	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C408.2.2.1	Mechanical	Air outlets and zone terminal devices have means for air balancing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C408.2.2.1	Mechanical	Air outlets and zone terminal devices have means for air balancing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Testing	C408.2.3.2	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"/>
4. To be checked by Inspector at Project Completion and Prior to Issuance of Certificate of Occupancy						
Post Construction	C303.3, C408.2.5.2	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"/>
Post Construction	C303.3, C408.2.5.3	Mechanical	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 unless designed to exclude direct sunlight.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.1	Mechanical	Commissioning plan developed by registered design professional or approved agency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.3.1	Mechanical	HVAC equipment has been tested to ensure proper operation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.3.3	Mechanical	Economizers have been tested to ensure proper operation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.4	Mechanical	Preliminary commissioning report completed and certified by registered design professional or approved agency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.5.1	Mechanical	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.5.1	Interior Lighting	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.5.3	Mechanical	An air and/or hydronic system balancing report is provided for HVAC systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.5.4	Mechanical	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.3	Interior Lighting	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Lighting

No	Type	Category	No. of Luminaires	Watts per Luminaire	Power [W]	Control Type	No. of Ctrl pts	
In Zone: Pr0Zo1								
In Space: Pr0Zo1Sp1								
1	Metal Halide	General Lighting	1	32	32	Manual On/Off	1	<input type="checkbox"/>
2	Compact Fluorescent	General Lighting	11	64	704	Manual On/Off	2	<input type="checkbox"/>
In Zone: Pr0Zo2								
In Space: Pr0Zo2Sp1								
1	Compact Fluorescent	General Lighting	8	128	1024	Manual On/Off	3	<input type="checkbox"/>
In Zone: Pr0Zo3								
In Space: Pr0Zo3Sp1								
1	Compact Fluorescent	General Lighting	18	64	1152	Manual On/Off	1	<input type="checkbox"/>

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

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Orient ation	Cond- uctance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone: Pr0Zo1												
1	Pr0Zo1Wa1	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	20.69	12.00	1	248.3	South East	0.0798	0.539	7.98	12.5	<input type="checkbox"/>
2	Pr0Zo1Wa2	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	50.00	12.00	1	600.0	South West	0.0798	0.539	7.98	12.5	<input type="checkbox"/>
3	Pr0Zo1Wa3	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	20.69	12.00	1	248.3	North West	0.0798	0.539	7.98	12.5	<input type="checkbox"/>
4	Pr0Zo1Wa4	Partition wall, 0.75 in. gyp, airspace, 0.75 in. gyp	50.00	12.00	1	600.0	North East	0.8350	2.500	100.00	1.2	<input type="checkbox"/>
In Zone: Pr0Zo2												
1	Pr0Zo2Wa1	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	108.19	12.00	1	1298.3	South East	0.0798	0.539	7.98	12.5	<input type="checkbox"/>
2	Pr0Zo2Wa2	Partition wall, 0.75 in. gyp, airspace, 0.75 in. gyp	50.00	12.00	1	600.0	South West	0.8350	2.500	100.00	1.2	<input type="checkbox"/>
3	Pr0Zo2Wa3	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	108.19	12.00	1	1298.3	North West	0.0798	0.539	7.98	12.5	<input type="checkbox"/>
4	Pr0Zo2Wa4	Partition wall, 0.75 in. gyp, airspace, 0.75 in. gyp	50.00	12.00	1	600.0	North East	0.8350	2.500	100.00	1.2	<input type="checkbox"/>
In Zone: Pr0Zo3												
1	Pr0Zo3Wa1	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	21.13	12.00	1	253.5	South East	0.0798	0.539	7.98	12.5	<input type="checkbox"/>
2	Pr0Zo3Wa2	Partition wall, 0.75 in. gyp, airspace, 0.75 in. gyp	50.00	12.00	1	600.0	South West	0.8350	2.500	100.00	1.2	<input type="checkbox"/>
3	Pr0Zo3Wa3	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	21.13	12.00	1	253.5	North West	0.0798	0.539	7.98	12.5	<input type="checkbox"/>
4	Pr0Zo3Wa4	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	50.00	12.00	1	600.0	North East	0.0798	0.539	7.98	12.5	<input type="checkbox"/>

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: Pr0Zo2											
In Wall: Pr0Zo2Wa1											
1	Pr0Zo2Wa1Wi1	SouthEast	No	1.2500	0.82	0.76	2.00	6.00	2	24.0	<input type="checkbox"/>

Doors

No	Description	Type	Shade?	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/h.sf.F]	Dens. [lb/cf]	Ht Cap. [Btu/sf. F]	R [h.sf.F/ Btu]	
In Zone: Pr0Zo1												
In Wall: Pr0Zo1Wa2												
1	Pr0Zo1Wa2Dr1	Aluminum door, 1.25 in. polystyrene	No	8.00	8.00	1	64.0	0.1919	43.67	0.53	5.21	<input type="checkbox"/>
2	Pr0Zo1Wa2Dr2	Aluminum door, 1.25 in. polystyrene	No	3.00	7.00	1	21.0	0.1919	43.67	0.53	5.21	<input type="checkbox"/>
In Wall: Pr0Zo1Wa4												
1	Pr0Zo1Wa4Dr1	Solid core flush (2.25)	No	3.00	7.00	2	21.0	0.3504	0.00	0.00	2.85	<input type="checkbox"/>
In Zone: Pr0Zo2												
In Wall: Pr0Zo2Wa3												
1	Pr0Zo2Wa3Dr1	Solid core flush (2.25)	No	3.00	7.00	2	21.0	0.3504	0.00	0.00	2.85	<input type="checkbox"/>
In Wall: Pr0Zo2Wa4												
1	Pr0Zo2Wa4Dr1	Solid core flush (2.25)	No	3.00	7.00	2	21.0	0.3504	0.00	0.00	2.85	<input type="checkbox"/>
In Zone: Pr0Zo3												
In Wall: Pr0Zo3Wa3												
1	Pr0Zo3Wa3Dr1	Solid core flush (2.25)	No	3.00	7.00	2	21.0	0.3504	0.00	0.00	2.85	<input type="checkbox"/>

Roofs

No	Description	Type	Width [ft]	H (Effec) [ft]	Multiplier	Area [sf]	Tilt [deg]	Cond. [Btu/h.Sf. F]	Heat Cap [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone: Pr0Zo1												
1	Pr0Zo1Rf1	Mtl Bldg Roof/R-19 Batt	20.69	50.00	1	1034.4	0.00	0.0492	1.34	9.49	20.3	<input type="checkbox"/>
In Zone: Pr0Zo2												
1	Pr0Zo2Rf1	Mtl Bldg Roof/R-19 Batt	108.19	50.00	1	5409.4	0.00	0.0492	1.34	9.49	20.3	<input type="checkbox"/>
In Zone: Pr0Zo3												
1	Pr0Zo3Rf1	Mtl Bldg Roof/R-19 Batt	21.13	50.00	1	1056.3	0.00	0.0492	1.34	9.49	20.3	<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]	Multiplier	Area [sf]	Cond. [Btu/h.sf.F]	Heat Cap. [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone: Pr0Zo1											
1	Pr0Zo1F11	1 ft. soil, concrete floor, carpet and rubber pad	20.69	50.00	1	1034.4	0.2681	34.00	113.33	3.73	<input type="checkbox"/>
In Zone: Pr0Zo2											
1	Pr0Zo2F11	1 ft. soil, concrete floor, carpet and rubber pad	108.19	50.00	1	5409.4	0.2681	34.00	113.33	3.73	<input type="checkbox"/>
In Zone: Pr0Zo3											
1	Pr0Zo3F11	1 ft. soil, concrete floor, carpet and rubber pad	21.13	50.00	1	1056.3	0.2681	34.00	113.33	3.73	<input type="checkbox"/>

Systems

Pr0Sy01	3 Ton Split Heat Pump System	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units
			1

Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	36000.00	14.00	11.40	<input type="checkbox"/>
2	Heating System	36000.00	8.20		<input type="checkbox"/>
3	Air Handling System -Supply	1200.00	0.10		<input type="checkbox"/>
4	Air Handling System - Return	1200.00	0.10		<input type="checkbox"/>
5	Air Distribution System (Sup)		6.00		<input type="checkbox"/>
6	Air Distribution System (Ret)		6.00		<input type="checkbox"/>

Pr0Sy03	3 Ton Split Heat Pump System	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units
			1

Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	36000.00	14.00	11.40	<input type="checkbox"/>
2	Heating System	36000.00	8.20		<input type="checkbox"/>
3	Air Handling System -Supply	1200.00	0.10		<input type="checkbox"/>
4	Air Handling System - Return	1200.00	0.10		<input type="checkbox"/>
5	Air Distribution System (Sup)		6.00		<input type="checkbox"/>
6	Air Distribution System (Ret)		6.00		<input type="checkbox"/>

Pr0Sy02	Two (2) 7.5 Ton Split Heat Pump Systems	Variable refrigerant Flow System	No. Of Units
			1

Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	90000.00	11.30	12.40	<input type="checkbox"/>
2	Heating System	90000.00	3.30		<input type="checkbox"/>
3	Air Handling System -Supply	3000.00	0.10		<input type="checkbox"/>
4	Air Handling System - Return	3000.00	0.10		<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.NoEff.	IPLV

Water Heaters

W-Heater Description	Capacity	Cap.Unit	I/P Rt.	Efficiency	Loss
1 Electric water heater	40 [Gal]		5 [kW]	0.9600 [Ef]	[Btu/h] <input type="checkbox"/>

Ext-Lighting

Description	Category	No. of Luminaires	Watts per Luminaires	Area/Len/No [sf/ft/No]	Control Type	Wattage [W]
1 Ext Light 2	Main entries	8	60	6.00	Photo Sensor control	480.00 <input type="checkbox"/>

Piping

No	Type	Operating Temp [F]	Insulation Conductivity [Btu-in/h.sf.F]	Nomonal pipe Diameter [in]	Insulation Thickness [in]	Is Runout?
1	Heating System (Steam, Steam Condensate, & Hot Water)	105.00	0.28	0.25	0.00	Yes <input type="checkbox"/>

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]	Thick [ft]	Cond-uctivity [Btu/h.ft.F]	Density [lb/cf]	Sp. Heat [Btu/lb.F]	<input type="checkbox"/>
264	Matl264	ALUMINUM, 1/16 IN	No	0.0002	0.0050	26.0000	480.00	0.1000	<input type="checkbox"/>
214	Matl214	POLYSTYRENE, EXP., 1-1/4IN,	No	5.2100	0.1042	0.0200	1.80	0.2900	<input type="checkbox"/>
187	Matl187	GYP OR PLAS BOARD,1/2IN	No	0.4533	0.0417	0.0920	50.00	0.2000	<input type="checkbox"/>
178	Matl178	CARPET W/RUBBER PAD	Yes	1.2300					<input type="checkbox"/>
265	Matl265	Soil, 1 ft	No	2.0000	1.0000	0.5000	100.00	0.2000	<input type="checkbox"/>
48	Matl48	6 in. Heavyweight concrete	No	0.5000	0.5000	1.0000	140.00	0.2000	<input type="checkbox"/>
57	Matl57	3/4 in. Plaster or gypsum	No	0.1488	0.0625	0.4200	100.00	0.2000	<input type="checkbox"/>
72	Matl72	AIR LAYER, 3/4IN OR LESS, VERT. WALLS	Yes	0.9000					<input type="checkbox"/>
211	Matl211	POLYSTYRENE,EXP.,1/2IN	No	2.0850	0.0417	0.0200	1.80	0.2900	<input type="checkbox"/>
12	Matl12	3 in. Insulation	No	10.0000	0.2500	0.0250	2.00	0.2000	<input type="checkbox"/>
23	Matl23	6 in. Insulation	No	20.0000	0.5000	0.0250	5.70	0.2000	<input type="checkbox"/>
279	Matl279	Solid core flush (2.25")	Yes	2.8537					<input type="checkbox"/>
94	Matl94	BUILT-UP ROOFING, 3/8IN	No	0.3366	0.0313	0.0930	70.00	0.3500	<input type="checkbox"/>

Constructs Used

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	<input type="checkbox"/>
1002	Aluminum door, 1.25 in. polystyrene	No	No	0.19	0.53	43.67	5.2	<input type="checkbox"/>
Layer	Material No.	Material		Thickness [ft]		Framing Factor		<input type="checkbox"/>
1	264	ALUMINUM, 1/16 IN		0.0050		0.000		<input type="checkbox"/>
2	214	POLYSTYRENE, EXP., 1-1/4IN,		0.1042		0.000		<input type="checkbox"/>
3	264	ALUMINUM, 1/16 IN		0.0050		0.000		<input type="checkbox"/>
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	<input type="checkbox"/>
1008	Partition wall, 0.75 in. gyp, airspace, 0.75 in. gyp	No	No	0.83	2.50	100.00	1.2	<input type="checkbox"/>
Layer	Material No.	Material		Thickness [ft]		Framing Factor		<input type="checkbox"/>
1	57	3/4 in. Plaster or gypsum		0.0625		0.000		<input type="checkbox"/>
2	72	AIR LAYER, 3/4IN OR LESS, VERT. WALLS				0.000		<input type="checkbox"/>
3	57	3/4 in. Plaster or gypsum		0.0625		0.000		<input type="checkbox"/>
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	<input type="checkbox"/>
1015	0.5 Ply/35/8" Mtl std@24"oc/R11/0.5" Gyp	No	No	0.08	0.54	7.98	12.5	<input type="checkbox"/>
Layer	Material No.	Material		Thickness [ft]		Framing Factor		<input type="checkbox"/>
1	211	POLYSTYRENE,EXP.,1/2IN,		0.0417		0.000		<input type="checkbox"/>
2	12	3 in. Insulation		0.2500		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 Cap [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	<input type="checkbox"/>
1047	Mtl Bldg Roof/R-19 Batt	No	No	0.05	1.34	9.49	20.3	<input type="checkbox"/>
Layer	Material No.	Material		Thickness [ft]		Framing Factor		<input type="checkbox"/>
1	94	BUILT-UP ROOFING, 3/8IN		0.0313		0.000		<input type="checkbox"/>
2	23	6 in. Insulation		0.5000		0.000		<input type="checkbox"/>

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [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	<input type="checkbox"/>
	Layer	Material No.	Material	Thickness [ft]		Framing Factor		
	1	94	BUILT-UP ROOFING, 3/8IN	0.0313		0.000		<input type="checkbox"/>
	2	23	6 in. Insulation	0.5000		0.000		<input type="checkbox"/>
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [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	<input type="checkbox"/>
	Layer	Material No.	Material	Thickness [ft]		Framing Factor		
	1	265	Soil, 1 ft	1.0000		0.000		<input type="checkbox"/>
	2	48	6 in. Heavyweight concrete	0.5000		0.000		<input type="checkbox"/>
	3	178	CARPET W/RUBBER PAD			0.000		<input type="checkbox"/>
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1058	Solid core flush (2.25)	No	Yes	0.35			2.9	<input type="checkbox"/>
	Layer	Material No.	Material	Thickness [ft]		Framing Factor		
	1	279	Solid core flush (2.25")			0.000		<input type="checkbox"/>