

Florida Energy Efficiency Code For Building Construction
Florida Department of Community Affairs
FLA/COM 2004 v2.5, Effective Dec 8, 2006 -- Form 400A-2004R
Method A: Whole Building Performance Method for Commercial Buildings

PROJECT SUMMARY

Short Desc: ORTHODONTISTS OFFICE

Description: ORTHODONTISTS OFFICE

Owner:

Address1: EDGARCE ST

City: PORT ST LUCIE

Address2:

State: FLOIRDA

Zip: 0

Type: Healthcare-Clinic

Class: New Finished building

Jurisdiction: FORT PIERCE, ST LUCIE COUNTY, FL (661100)

Conditioned Area: 3510 SF

Conditioned & UnConditioned Area: 3510 SF

No of Stories: 1

Area entered from Plans 0 SF

Permit No: 0

Max Tonnage 5

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost	1,918.4	2,794.9	PASSES
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

CERTIFICATIONS

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

Prepared By: JAMES T WAMSLEY

Building Official: _____

Date: _____

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: _____

Reg No: _____

Electrical Designer: STEPHEN B COTTON

Reg No: 60046

Lighting Designer: STEPHEN B COTTON

Reg No: 60046

Mechanical Designer: JAMES T WAMSLEY

Reg No: 50343

Plumbing Designer: JAMES T WAMSLEY

Reg No: 50343

(*) 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.

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Building End Uses

	Design	Reference
Total	<i>122.50</i>	<i>177.20</i>
	<i>\$1,918</i>	<i>\$2,795</i>
ELECTRICITY(MBtu/kWh/\$)	122.50 35858 <i>\$1,918</i>	177.20 51854 <i>\$2,795</i>
AREA LIGHTS	42.50 12452 <i>\$666</i>	48.10 14106 <i>\$760</i>
MISC EQUIPMT	21.50 6298 <i>\$337</i>	21.50 6298 <i>\$339</i>
PUMPS & MISC	0.20 61 <i>\$3</i>	0.20 60 <i>\$3</i>
SPACE COOL	37.80 11060 <i>\$592</i>	54.30 15900 <i>\$857</i>
SPACE HEAT	4.40 1258 <i>\$67</i>	9.60 2783 <i>\$150</i>
VENT FANS	16.10 4729 <i>\$253</i>	43.50 12707 <i>\$685</i>

Credits & Penalties (if any): Modified Points: = 122.3

PASSES

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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 1	Other (doors) than main entries	Yes	20.00	21.0	420	36
Ext Light 2	Other (doors) than main entries	Yes	20.00	42.0	840	108
Ext Light 4	Other (doors) than main entries	Yes	20.00	21.0	420	36

Tradable Surfaces: 180 (W) Allowance for Tradable: 1764 (W)

PASSES

All External Lighting: 180 (W)

Compliance check includes a excess/Base allowance of 84.00(W)

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Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
EXAM ROOMS	10,004	Exam/Treatment (Hospital)	116	2	2	PASSES
WAITING RECEP	12	Lobby (General) - Reception and Waiting	989	4	1	PASSES
STORAGE	30,001	Fine Material Storage	92	1	1	PASSES
STERILIZATION	10,004	Exam/Treatment (Hospital)	122	1	1	PASSES
BREAK	9	Food Service - Bar/Lounge	165	1	1	PASSES
RESTROOMS	6	Toilet and Washroom	100	2	1	PASSES
OFFICE	17	Office - Enclosed	95	1	1	PASSES
HC TOILET	6	Toilet and Washroom	40	1	1	PASSES
TC ROOM	10,004	Exam/Treatment (Hospital)	97	1	1	PASSES
EXAM	10,004	Exam/Treatment (Hospital)	114	1	1	PASSES
EXAM AREA	10,004	Exam/Treatment (Hospital)	1,028	4	1	PASSES
IMAGING	10,011	Radiology (Hospital)	76	1	1	PASSES
EXAM	10,004	Exam/Treatment (Hospital)	94	1	1	PASSES
MECH	1	Electrical Mechanical Equipment Room - General	69	1	1	PASSES
HALL	5	Corridor	197	2	1	PASSES

PASSES

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System Report Compliance

AHU-1 System 1 Constant Volume Packaged No. of Units
 System 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled < 65000 Btu/h Cooling Capacity	48000	18.00	12.23	8.00		PASSES
Heating System	Electric Furnace	23883	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	1440	0.38	0.90			PASSES
Air Distribution System (Sup)	ADS System		6.00				PASSES

AHU-2 System 2 Constant Volume Packaged No. of Units
 System 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled < 65000 Btu/h Cooling Capacity	60000	16.70	12.23	8.00		PASSES
Heating System	Electric Furnace	23883	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	1855	0.30	0.90			PASSES
Air Distribution System (Sup)	ADS System		6.00				PASSES

PASSES

Plant Compliance

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

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Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance
Water Heater 1	Electric water heater	<= 12 [kW]	0.98	0.86			PASSES

PASSES

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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	1.50	False	120.00	0.28	1.50	1.00	PASSES

PASSES

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Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
Report	13-101	Input Report Print-Out from EnergyGauge FlaCom attached	<input type="checkbox"/>
Operations Manual	13-102.1, 13-410, 13-413	Operations manual provided to owner	<input type="checkbox"/>
Windows & Doors	13-406.AB.1.1	Glazed swinging entrance & revolving doors: max. 1.0 cfm/ft ² ; all other products: 0.4 cfm/ft ²	<input type="checkbox"/>
Joints/Cracks	13-406.AB.1.2	To be caulked, gasketed, weather-stripped or otherwise sealed	<input type="checkbox"/>
Dropped Ceiling Cavity	13-406.AB.3	Vented: seal & insulated ceiling. Unvented seal & insulate roof & side walls	<input type="checkbox"/>
System	13-407	HVAC Load sizing has been performed	<input type="checkbox"/>
Reheat	13-407.B	Electric resistance reheat prohibited	<input type="checkbox"/>
HVAC Efficiency	13-407, 13-408	Minimum efficiencies: Cooling Tables 13-407.AB.3.2.1A-D; Heating Tables 13-407.AB.3.2.1B, 13-407.AB.3.2.1D, 13-408.AB.3.2.1E, 13-408.AB.3.2F	<input type="checkbox"/>
HVAC Controls	13-407.AB.2	Zone controls prevent reheat (exceptions); simultaneous heating and cooling in each zone; combined HAC deadband of at least 5°F (exceptions)	<input type="checkbox"/>
Ventilation Controls	13-409.AB.3	Motorized dampers reqd, except gravity dampers OK in: 1) exhaust systems and 2) systems with design outside air intake or exhaust capacity ≤300 cfm	<input type="checkbox"/>
ADS	13-410	Duct sizing and Design have been performed	<input type="checkbox"/>
HVAC Ducts	13-410.AB	Air ducts, fittings, mechanical equipment & plenum chambers shall be mechanically attached, sealed, insulated & installed per Sec. 13-410 Air Distribution Systems	<input type="checkbox"/>
Balancing	13-410.AB.4	HVAC distribution system(s) tested & balanced. Report in construction documents	<input type="checkbox"/>
Piping Insulation	13-411.AB	In accordance with Table 13-411.AB.2	<input type="checkbox"/>
Water Heaters	13-412.AB	Performance requirements in accordance with Table 13-412.AB.3. Heat trap required	<input type="checkbox"/>
Swimming Pools	13-412.AB.2.6	Cover on heated swimming pools: Time switch (exceptions); Readily accessible on/off switch	<input type="checkbox"/>
Hot Water Pipe Insulation	13-411.AB.3	Table 13-411.AB.2 for circulating systems, first 8 feet of outlet pipe from storage tank and between inlet pipe and heat trap	<input type="checkbox"/>
Water Fixtures	13-412.AB.2.5	Shower hot water flow restricted to 2.5 gpm at 80 psi. Public lavatory fixture hot water flow 0.5 gpm max; if self-closing valve 0.25 gallon recirculating, 0.5 gallon non recirculating	<input type="checkbox"/>
Motors	13-414	Motor efficiency criteria have been met	<input type="checkbox"/>
Lighting Controls	13-415.AB	Automatic control required for interior lighting in buildings >5,000 s.f.; Space control; Exterior photo sensor; Tandom wiring with 1 or 3 linear fluorescent lamps>30W	<input type="checkbox"/>