

Commercial Building Data Collection Checklist

2011 Commercial Baseline Study

Building ID: _____ Climate Zone: ____

Date: _____ Name of Evaluator(s): _____

Building Contact: Name: _____ Phone: _____ Email: _____

Building Name & Address: _____ Conditioned Floor Area: _____ ft²

State: _____ County: _____

Building Use: Office Building Retail Store Warehouse K-12 School Hotel
 Restaurant Grocery Store Banking/Financial Institute Residential Hall/Dormitory

Building Ownership: State-owned Local government-owned National account Speculative Private Other

2009 IECC Section #	Plan Review				Comments/Assumptions
		Y	N	N/A	
103.2 [PR1] ¹	Plans available: Envelope HVAC Electrical	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
103.2 [PR2] ¹	Plans, & specifications enough detail for determining Energy Performance: Envelope HVAC Electrical	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

Additional Comments/Assumptions:

Commercial Building Data Collection Checklist

2011 Commercial Baseline Study

Envelope

2009 IECC Section #	Footing / Foundation Inspection	Verified Value				Comments/Assumptions
			Y	N	N/A	
502.2.4 [FO1] ²	Below-grade wall insulation R-value.	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
502.2.6 [FO3] ²	Slab edge insulation R-value.	R-_____ <input type="checkbox"/> Radiant Floor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
502.2.6 [FO5] ²	Slab edge insulation depth below grade	_____ ft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
303.2.1 [FO6] ¹	Exterior insulation protected against damage (trowel/spay-on or rigid covering)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.2.7 [FO8] ¹	Piping, ducts and plenum are insulated and sealed when installed in or under a slab.	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2009 IECC Section #	Wall & Floor Systems	Verified Value				Comments/Assumptions
			Y	N	N/A	
502.3.2	Fenestration Labels Present? Or; Performance Levels on Plans?	_____ cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
502.4.1, 502.4.2 [FR2] ³	Doors labeled for air leakage	_____ cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
502.4.1, 502.4.2 [FR3] ³	Windows labeled for air leakage.	_____ cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
502.3.2 [FR9] ¹	Windows	U factor _____ SHGC _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Describe:
502.3.2 [FR10] ¹	Doors	U factor _____ SHGC _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Describe:
502.4.7 [FR4] ³	Vestibule at main entrance? Revolving Door? Self-Closing Door?		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
502.2.3 [IN6] ¹	Above-grade wall insulation R-value.	R-_____ <u>Structure type</u> <input type="checkbox"/> Mass <input type="checkbox"/> Metal <input type="checkbox"/> Steel <input type="checkbox"/> Wood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
303.2 [IN7] ¹	Above-grade wall insulation properly installed.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Commercial Building Data Collection Checklist

2011 Commercial Baseline Study

Envelope Cont.

2009 IECC Section #	Wall & Floor Systems	Verified Value				Comments/Assumptions
			Y	N	N/A	
	Metal framing – continuous rigid insulation for thermal break	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
502.2.5 [[IN8] ²	Floor insulation R-value.	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Structure type <input type="checkbox"/> Mass <input type="checkbox"/> Steel <input type="checkbox"/> Wood					
303.2 [[IN9] ²	Floor insulation properly installed		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
303.1.1, 303.1.1.1 [[IN10] ²	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"/>	

Additional Comments/Assumptions:

2009 IECC Section #	Roof Systems	Verified Value				Comments/Assumptions
			Y	N	N/A	
502.4.1, 502.4.2 [[FR1] ³	Roof penetrations sealed?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
502.2.1 [[IN17] ³	Insulation intended to meet the roof insulation requirements not installed on top of a suspended ceiling.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
502.2.1 [[FR5] ¹	Roof insulation R-value.	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/> Above deck <input type="checkbox"/> Metal <input type="checkbox"/> Attic					
	Metal frame - Continuous rigid insulation for thermal break		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
502.3.2 [[FR11] ¹	Skylights	U factor _____ SHGC _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Describe:

Additional Comments/Assumptions:

Commercial Building Data Collection Checklist

2011 Commercial Baseline Study

Mechanical Systems

2009 IECC Section #	Mechanical - HVAC	Verified Value				Comments/Assumptions
			Y	N	N/A	
503.2.3 [ME1] ²	1) HVAC equipment. Type: <input type="checkbox"/> Small to Medium Unitary <input type="checkbox"/> Packaged Terminal AC & Heat Pumps <input type="checkbox"/> Warm Air Furnace <input type="checkbox"/> Boilers (Circle 1 Oil or Gas) <input type="checkbox"/> Condensing Units <input type="checkbox"/> Chillers Manufacturer: _____ Model Number: _____ Capacity Output BTUH: _____ kW: _____ Tons: _____ HP: _____ Efficiency: _____ 2) HVAC equipment. Type: <input type="checkbox"/> Small to Medium Unitary <input type="checkbox"/> Packaged Terminal AC & Heat Pumps <input type="checkbox"/> Warm Air Furnace <input type="checkbox"/> Boilers (Circle 1 Oil or Gas) <input type="checkbox"/> Condensing Units <input type="checkbox"/> Chillers Manufacturer: _____ Model Number: _____ Capacity Output BTUH: _____ kW: _____ Tons: _____ HP: _____ Efficiency: _____					
503.2.4.1 [F12] ²	Heating and cooling to each zone is controlled by an electronic thermostat with setback/ set forward control. (EMS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.2.4.1.1 [F15] ³	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed. (Model #)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.2.7 [ME8] ²	HVAC ducts and plenums insulated.	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.2.8 [ME9] ²	HVAC piping insulation thickness.	_____ in.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.2.7.1 [ME10] ²	Ducts and plenums sealed – mastic or approved tape		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.3.1, 503.4.1 [ME12] ¹	Air economizers installed		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.4.5 [ME17] ¹	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"/>	

Commercial Building Data Collection Checklist


2011 Commercial Baseline Study

Mechanical Systems Cont.

2009 IECC Section #	Mechanical - HVAC	Verified Value				Comments/Assumptions
			Y	N	N/A	
503.2.9.1 [ME41iecc] ³	Air outlets and zone terminal devices have means for air balancing.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.2.9.2 [ME42iecc] ³	HVAC hydronic heating and cooling coils have means to balance and have pressure test connections.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.2.11 [ME34] ³	Efficiency level of Service water heating equipment	_____ %	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
504.5 [PL1] ²	Piping for recirculating and non-recirculating service hot-water systems insulated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Additional Comments/Assumptions:

Complex HVAC Systems

503.4.2 [ME22] ^{2C}	VAV fan motors ≥10 hp controlled VFD or Vane Axial Fan 	<input type="checkbox"/> VSD <input type="checkbox"/> Vane axial fan <input type="checkbox"/> Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.4.3.4 [ME27] ^{3C}	Pumping systems >10 hp for chiller and boiler systems > 300,000 Btu/h; temperature reset based on load		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.4.3.3.3 [ME28] ^{3C}	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"/>	
503.4.4 [ME29] ^{3C}	Heat rejection Fan systems with motors ≥7.5 hp controlled by VFD.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.2.6 [ME30] ¹	Energy recovery (ERV or HRV) on systems ≥ 5,000 cfm and 70% outside supply air.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.4.6 [ME31] ^{3C}	Condenser heat recovery system for preheating of service hot water in 24/7 facilities with loads >6 MMBtu (Hospital, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Additional Comments/Assumptions:

Commercial Building Data Collection Checklist

2011 Commercial Baseline Study

Lighting/Electrical

2009 IECC Section #	Lighting Controls				Comments/Assumptions
		Y	N	N/A	
505.2.2.2 [EL1] ²	Buildings >5,000 ft ² . Automatic lighting control to shut off all non-emergency building lighting after hours (timer or occupancy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
505.2.1 [EL2] ²	Each enclosed space includes at least a manual light switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
505.2.2.1 [EL10iecc] ¹	Bi-Level switching in offices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are any daylit zones controlled separately? (manual or auto)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
505.2.3 [EL4] ¹	Verify separate lighting control devices for specific uses installed Occupancy/Vacancy Sensors Timers Daylight dimming	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
505.4 [EL6] ¹	LED or self-illuminating exit signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
505.2.4 [EL3] ²	Automatic lighting controls for exterior lighting installed. Photocell Astronomical timer	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
505.6.1 [EL7] ¹	Exterior lighting over 100 W is fluorescent, HID or LED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Additional Comments/Assumptions:

Commercial Building Data Collection Checklist

2011 Commercial Baseline Study

Lighting Cont.

2009 IECC Section #	Lighting Power Density Allowance				Comments/Assumptions
		Y	N	N/A	
	Collect LPD data for the entire building or 2 representative spaces				Describe Fixtures
	Space Type _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Length _____				
	Width _____				
	Fixture:				
	2L4'T8 _____ Watts				
	3L4'T8 _____ Watts				
	4L4'T8 _____ Watts				
	2 U T8 _____ Watts				
	8' T8 _____ Watts				
	CFL _____ Watts				
	Inc. _____ Socket rated Watts				
	HIF _____ Watts				
	HID _____ Watts				
	Other _____ Watts				
	Area 2				
	Space Type _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Length _____				
	Width _____				
	Fixture:				
	2L4'T8 _____ Watts				
	3L4'T8 _____ Watts				
	4L4'T8 _____ Watts				
	2 U T8 _____ Watts				
	8' T8 _____ Watts				
	CFL _____ Watts				
	Inc. _____ Socket rated Watts				
	HIF _____ Watts				
	HID _____ Watts				
	Other _____ Watts				

Make additional Copies of this page as needed.

Additional Comments/Assumptions:

Commercial Building Data Collection Checklist

2011 Commercial Baseline Study

Other

2009 IECC Section #	Other	Complies			Comments/Assumptions
		Y	N	N/A	
502.4.6 [F11] ¹	Weather seals installed on all loading dock cargo doors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
504.7.1 [F13] ^{3C}	Pool heaters are equipped with on/off switch and no continuous burning pilot light.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
504.7.3 [F4] ^{2C}	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"/>	
504.7.2 [F15] ^{3C}	Time switches are installed on all pool heaters and pumps.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
503.2.9.3 [F17] ³	Contractors furnished O&M instructions for systems and equipment to the building owner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Additional Comments/Assumptions: