



**Miami-Dade County**  
**Department of Regulatory and Economic Resources**  
**Permitting and Inspection Center**  
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## **Commercial Plan Review Guidelines**

### ***(Mechanical Review)***

Project Address: \_\_\_\_\_

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#### **Instructions for using this form:**

1. This form provides a list of code requirements that must be verified by the Building Official before the issuance of a building permit.
2. Code references are to the 2023 Florida Building Code (unless otherwise noted). Suffixes identify the code volume as follows:

Accessibility (Ac) - Building (Bl) – Energy Conservation (Ec) - Existing (Ex) – Fuel/Gas (Gs) –  
Mechanical (Me) – National Electric Code (NEC) - Plumbing (Pl) – Residential (Re)

General Requirement	Specific Code Requirement	Code Section(s)	Dwg. No.	N.A.	Other Information
General Regulations	Construction documents	107 (BI)			
	Efficient utilization of energy	301.2 (Me), FBC 2023 Energy Conservation			
	Equipment approval	301.6-301.9 (Me)			
	Prohibited location of fuel fired appliances	303.3 (Me)			
	Equipment installation	303.4-303.8 304, 306 (Me) 301.8-301.15, 305 (Gs)			
Energy Efficiency					
• Applicability	Commercial buildings	C 101.2 (Ec)			
	Changes in occupancy	C 505.5 (Ec)			
	Existing buildings	Chapter 5 (Ec)			
	Exempt buildings	C 101.4.2 (Ec)			
	Additions, Alterations or Repairs	C 502,503,504 (Ec)			
	Historic Buildings	C 101.4.2.2, C 501.6 (Ec)			
Compliance methods					
	Fenestrations	C303.1.3, C402.4 (Ec)			
	Walls	C402.1.4.1,402.2.1,402.2.3 (Ec)			
	Doors	C402.2.4 (Ec)			
	Roof/ceilings	C402.2.1, 402.2.2,402.3,402.5.9 (Ec)			
	Floors	C402.2.5,C402.2.4 (Ec)			
	Air leakage	C402.5 (Ec)			
	Space cooling & heating	C403.1,403.2(Ec)			
	Air system design & Control	402.6,402.7,402.8 (Ec)			
	Air distribution system	C403.2.9 (Ec)			
	Piping and Hydronic Systems	C403.2.10 (Ec)			
	Commercial and multiple-family residential	C103.1.1.1.2 (Ec)			
	Code compliance certification	C103.1.1.2 (Ec)			
	Information on construction documents	C103.2 (Ec)			
	Building thermal envelope depiction	C103.2.1 (Ec)			

Ventilation	Ventilation required	401.1-401.2, 401.3, 403.2.6 (Me)			
	Intake opening and exhaust outlet location	401.4, 501.3.1, 918.6 (Me), 618.5 (Gs)			
	Intake opening protection	401.5 (Me)			
Natural	Means of natural ventilation	402.1 (Me)			
	Minimum openable area	402.2 (Me)			
	Adjoining spaces	402.3 (Me)			
Mechanical	Ventilation system	403.1 (Me)			
	Ventilation rate/outdoor air requirements	403.3, Table 403.3 (Me)			
	Transfer air	403.2.2 (Me)			
	System control	405.1 (Me)			
	Public garages	404,502.13 (Me)			

Exhaust Systems					
• Required systems	General	502.1, 502.2, 502.5, 502.10, 502.11, 502.14-502.17 (Me)			
	Battery-charging areas	502.3, 502.4 (Me)			
	Application of flammable finishes	502.7 (Me)			
	Hazardous materials	502.8-502.10 (Me)			
	Motor vehicle operation	502.14 (Me)			
	Motors and fans	503 (Me)			
	Clothes dryer exhaust	504 (Me), 614 (Gs)			
	Domestic kitchen exhaust equipment	505 (Me)			
	Hazardous exhaust systems	510 (Me)			
	Dust, stock and refuse conveyor systems	511 (Me)			
	Sub slab soil exhaust systems	512 (Me)			
	Smoke control systems	909 (BI), 513 (Me)			
	• Atrium Bldgs	404.5 (BI)			
	• Covered and open space Bldgs	402.7.2 (BI)			
	• Group I-3	408.6, 408.8.4 (BI)			
	• High Rise Bldgs	403.4.7, 403.5.4 (BI)			
	• Stages	410.3.7.2 (BI)			
	• Standby Power Systems	909.11, 909.20.6.2, 2702.2.2 (BI)			
	• Underground Bldgs	405.5 (BI)			
	• Smoke Vents	410.3.7.1, 910 (BI)			
	• Smoke Partitions	710, 717 (BI)			
	• Smoke Dampers	717.2-717 (BI)			
	• Smoke Barriers	709, 714, 716, 717 (BI)			
• Commercial Kitchen Grease Ducts and Exhaust Equipment	Exhaust fans	506.5.1 (Me)			
	Duct materials	506.3.1 (Me)			
	Duct velocity	506.3.4, 507.13 (Me)			
	Duct construction	506.2, 506.3.3 (Me)			
	Cleanouts	506.3.8 & 506.3.9 (Me)			

• Commercial Kitchen Grease Ducts and Exhaust Equipment (cont'd)					
	Duct enclosure	506.3.11 (Me)			
	Clearance to combustibles	506.3.6 (Me)			
	Exhaust outlets	506.3.13, 506.4.2 (Me)			
• Commercial Kitchen Type I Hoods	Where required	507.1, 507.2 (Me)			
	Capacity	507.5 (Me)			
	Factory-built commercial kitchen hoods	507.1, 304.1 (Me)			
	Clearance to combustibles	507.2.6 (Me)			
	Grease filters	507.2.8 (Me)			
	Canopy-type hoods	507.4 (Me)			
	Noncanopy-type hoods	507.4.2 (Me)			
	Make-up Air	508 (Me)			
• Commercial Kitchen Type II Hoods and Ducts	Where required	507.1 507.3 (Me)			
	Duct construction	506.4 (Me)			
	Hood construction	507.3 (Me)			
	Capacity	507.5.5 (Me)			
• Fire Systems Suppression	Where required	509.1 (Me)			
	Type of system	904.12 (BI)			
	Actuation and interconnection	904.12.2 (BI)			
Duct Systems	Plenums, general	602.1, 602.2, 602.3 (Me)			
	Air movement in corridors	1020.5 (BI)			
	Duct construction and insulation	603, 604 (Me)			
	Flexible air ducts and air connections	603.6 (Me)			
	Duct installation	603.7-603.17 (Me)			
	Air filters	605 (Me)			
	Duct smoke detectors	606 (Me)			
	Fire and smoke dampers	302.2, 607, 717 (Me)			
	Duct and transfer openings	607 (Me)			
	Balancing	608 (Me)			

Opening Protection	Penetration by air ducts and air transfer openings fire rated exterior walls	705.10 (Bl)			
Combustion Air	General	701 (Me), 304.1 (Gs)			
	Appliance Locations	304.2 (Gs)			
	Draft Hood/Regulator Location	304.3 (Gs)			
	Make up air provision	304.4 (Gs)			
	Indoor Combustion Air	304.5 (Gs)			
	Outdoor Combustion Air	304.6 (Gs)			
	Combination indoor/outdoor Combustion Air	304.7 (Gs)			
	Mechanical Combustion Air	304.9 (Gs)			
	Louvers and grilles	304.10 (Gs)			
	Combustion Air ducts	304.11 (Gs)			
	Protection from fumes and gases	304.12 (Gs)			
Chimneys and Vents					
• Factory-built chimneys; chimney liners, vents & connectors	General	801 (Me)			
	Vents	802 (Me)			
	Connectors	803 (Me)			
	Direct-vent, Integral Vent and Mechanical Draft System	804 (Me)			
	Factory Built Chimneys	805 (Me)			
	Metal Chimneys	806 (Me)			
• Gas-fired appliances	Where required	503.2, 503.3 (Gs)			
	Approval	502.1 (Gs)			
	Vent application	502.3, 503.4 (Gs)			
	Insulation	502.4-502.6 (Gs)			
	Gas vent termination	503.6.4 503.8 (Gs)			
	Minimum vent height	503.6.5 (Gs)			
	Single wall vent	503.7 (Gs)			
	Sizing of venting system for single gas appliance	503.6.9, 504.2 (Gs)			
	Sizing of venting system for two or more gas appliances	504.3 (Gs)			
	Multistory gas vents	503.6.10 (Gs)			

<i>Chimneys and Vents (cont'd)</i>					
• Connectors (gas-fired appliances)	Materials, size, location	504 (Gs)			
	Connectors	503.10, 503.11 (Gs)			
	Installation	503.6, 503.7, 503.8 (Gs)			
• Vents (appliances other than gas-fired)	Vent application	802.2 (Me)			
	Sizing and installation	802 (Me)			
	Minimum vent heights	802.6 (Me)			
	Multistory vents	801.19 (Me)			
• Connectors (All appliances except gas-fired appliances)	Size/location	803.2, 803.3 (Me)			
	Connectors serving two or more appliances	803.7 (Me)			
	Construction	803.8, 803.9 (Me)			
	Installation	803.5, 803.6, 803.10 (Me)			
	Direct vent	804 (Me), 503.2.3, 503.8 (Gs)			
• Direct vent, integral vent, mechanical vent and ventilation/exhaust hood venting	Appliances with integral vents	804.2 (Me), 503.2.4 (Gs)			
	Mechanical draft systems	804.3 (Me)			
	Ventilation/exhaust hood venting	505.1 (Gs)			
• Factory-built chimneys	Approval and installation	805 (Me), 503.5, 506 (Gs)			
	Solid fuel appliances	805.2 (Me)			
	Factory-built fireplaces	2111.14.1 (BI) 903 (Me)			

Specific Appliances, Fireplaces and Solid Fuel-Burning Equipment	Factory-built fireplaces	903 (Me)			
	Pellet fuel-burning appliances	904 (Me)			
	Fireplace stoves and room heaters	905 (Me)			
	Factory-built barbecue appliances	906 (Me)			
	Decorative appliances, in vented fireplaces	602, 604 (Gs)			
	Log lighters	603 (Gs)			
	Incinerators and crematories	907 (Me), 606, 607 (Gs)			
	Cooling towers, evaporative condensers and fluid coolers	908 (Me)			
	Vented wall furnaces	909 (Me)			
	Floor furnaces	910 (Me)			
	Duct furnaces	911 (Me), 610 (Gs)			
	Direct fired gas air heaters	611, 612 (Gs)			
	Infrared radiant heaters	912 (Me)			
	Clothes dryers	913 (Me), 613, 614 (Gs)			
	Illuminating appliances	628 (Gs)			
	Sauna heaters	914 (Me)			
	Engine and gas turbine-powered equipment and appliances	915 (Me), 616 (Gs)			
	Pool and spa heaters	916 (Me), 617 (Gs)			
	Cooking appliances	917 (Me), 623 (Gs)			
	Forced-air warm-air furnaces	918 (Me), 618 (Gs)			
	Conversion burners	919 (Me), 619 (Gs)			
	Unit heaters	920 (Me), 620 (Gs)			
	Room heaters	921 (Me), 621, 622 (Gs)			
	Kerosene and oil-fired stoves	922 (Me)			
	Small ceramic kilns	923 (Me), 629 (Gs)			
	Stationary fuel cell power plants	924 (Me), 633 (Gs)			
	Refrigerators	625 (Gs)			
	Gas fired toilets	626 (Gs)			
	AC equipment	627 (Gs)			
	Mansory heaters	925 (Me)			
	Gaseous Hydrogen Systems	926 (Me)			
	Radiant heating Systems	927 (Me)			
	Evaporative cooling systems	928 (Me)			
	Unvented alcohol fuel-burning decorative appliances	929 (Me)			
	Large-diameter ceiling fans	930 (Me)			



Boilers, Water Heaters and Pressure Vessels	Water heaters	1002 (Me), 624 (Gs)			
	Pressure vessels	1003 (Me)			
• Boilers	Approval/ Installation	1004 (Me), 631 (Gs)			
	Boiler connections	1005 (Me)			
	Safety and pressure relief valves and controls	1006 (Me)			
	Low-water cutoff	1007 (Me)			
	Steam blow off valve	1008 (Me)			
	Hot water expansion tank	1009 (Me)			
	Gauges	1010 (Me)			
	Test	1011 (Me)			
Refrigeration	Factory-built equipment	1101.2 (Me)			
	Refrigeration system classification	1103 (Me)			
	Refrigerant classification	1103.1 (Me)			
	Occupancy classification	1103.2 (Me)			
	System Application Req's.	1104 (Me)			
	Machinery room, general requirements	1105 (Me)			
	Machinery room, special requirements	1106 (Me)			
	Refrigerant piping	1107 (Me)			
Hydronic Piping	Materials	1202 (Me)			
	Joints and connections	1203 (Me)			
	Pipe insulation	1204 (Me)			
	Valves	1205 (Me)			
	Piping installation	1206 (Me)			
	Transfer fluid	1207 (Me)			
	Embedded piping	1209 (Me)			
	Plastic pipe ground-source heat pump loop systems	1210 (Me)			
Fuel Oil Piping and Storage	Storage system	1301.2 (Me)			
	Materials	1302 (Me)			
	Joints and connections	1303 (Me)			
	Fuel oil system installation	1305 (Me)			
	Oil gauging	1306 (Me)			
	Fuel oil valves	1307 (Me)			

## CODE OF MIAMI-DADE COUNTY, FLORIDA CHAPTER 8 SEC. 8-10. PERMITS

### HVAC DESIGN REQUIREMENTS

HVAC DESIGN REQUIRES	YES	NO
DUCT SMOKE DETECTOR		
FIRE DAMPER (S)		
SMOKE DAMPER (S)		
FIRE RATED ENCLOSURE		
FIRE RATED ROOF/ FLOOR CEILING ASSEMBLY		
FIRE STOPPING		
SMOKE CONTROL		