



**Growth and Resource Management
Building
Commercial Plan Review Checklist
2004 Florida Building Code**

Revised
11/09/05

ALL PLANS AND PLAN DOCUMENTATION ARE REQUIRED TO BE LEGIBLE AND SUBMITTED IN DUPLICATE. MINIMUM SCALE (1/4" = 1'), LETTERING, CLARITY, AND CONTRAST ARE TO BE SUITABLE TO BE RETAINED AS PART OF THE REQUIRED PERMANENT PERMIT RECORD. NOTE: SINGLE LINE DRAWINGS, GRAPH PAPER, FREE HAND SKETCHES, PENCIL DRAWINGS, ETC... CANNOT BE ACCEPTED FOR PERMITTING.

BUILDING PLANNING

LOCAL DESIGN CRITERIA

WIND SPEED	EXPOSURE CATEGORY	SUBJECT TO DAMAGE FROM				WINTER DESIGN TEMP	FLOOD HAZARDS
120 MPH	B – mainland	Weathering	Frost line	Termite	Decay	35 degrees	Per Volusia County Firm, Index Date Feb. 19, 2003 and/or Raised seal survey w/flood zone determination.
	C – barrier islands	Negligible	N/A	Very Heavy	Moderate to Severe		

SITE REQUIREMENTS

- Land Development and/or Zoning approved site plans to include parking, fire access, vehicle loading, driving/turning radius, fire hydrant/water supply/Post Indicator Valve (PIV), set back/separation, location of specific tanks, water lines and sewer lines (104 VCLDC, 104.3 FBC)
- Sealed survey w/ original signature; flood zone determination, pre-construction elevation certificate if applicable; (900.03 VCZO, 703 VCLDC)
- Soil conditions (soil bearing report from a Florida registered Engineer); (106.3.5)

THRESHOLD BUILDING CLASSIFICATION (106)

- Threshold inspection plan, Special Inspector, documentation that shows Special Inspector is employed by owner/developer; (106.3.5, 109.3.6, 202)

OCCUPANCY CLASSIFICATION (302.0-312.0)

- 302.1 - Single Occupancy Classification
- 302.3 - Mixed Occupancy Classifications
- T302.1.1 - Identify incidental use areas
- Incidental use areas separated; (T302.1)
- 302.2 - Identify accessory use areas
- Accessory use areas separated; (302.2)

GENERAL BUILDING LIMITATIONS (Chapters 5 & 6)

- Single occupancy/non-separated use building falls within limitations of TYPE V B construction; (T503). If NO, the minimum construction type after applying 504 (Height Modifications), 506 (Area Modifications), 507 (Unlimited Area Buildings)
- Mixed occupancy/separated use building: Construction types provided, for each story of the building; tabular areas (as modified by Section 506) which result in a sum of ratios of 1.00 or less and allowable heights (as modified by Section 504) equal to or greater than the actual height of the use are permitted and each individually classified portion of the building separated from adjacent areas by fire barrier walls and horizontal assemblies rated in accordance w/T302.3.2.

MEZZANINES (505)

- Mezzanines: Area limitation, egress, openness, equipment platforms; (505.2, 505.3, 505.4, 505.5)

SPECIAL PROVISIONS (508)

- Special condition applicable: S-2 parking garage, parking beneath R, R-2 of TYPE IIIA, R-2 of TYPE IIA, open parking beneath A, I, B, M & R; (508.1 – 508.7)

BUILDING ELEMENTS (Chapter 6)

- Structural frame, Interior bearing walls, interior nonbearing walls, floor construction, roof construction (T601, 711, 714)

COMBUSTIBILITY (602.2, 602.3,602.4, 602.5, 603)

- Exterior walls, interior elements, Roof; (602.2, 602.3, 602.4, 602.5, 603)

SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY (Chapter 4):

Covered Mall Buildings (402), High-rise Buildings (403), ATRIUMS (404), Underground structures (405), Motor vehicle related occupancies (406, 508), Group I-2 (407), Group I-3 (408), Motion picture projection rooms (409), Stages and platforms (410), Special amusement buildings (411), Aircraft-related occupancies (412), Combustible storage (413), Hazardous materials (307.9, 414), Groups H-1, H-2, H-3, H-4, and H-5 (415), Drying rooms (417), Organic coatings manufacturing (418)

- Exterior walls, interior elements, Roof; (602.2, 602.3, 602.4, 602.5, 603)

FIRE PROTECTION (Chapters 6,7,8,9)

Chapters 6,7,8,9: FIRE-RESISTANCE-RATED CONSTRUCTION; (507, Tables 601 & 602 and Chapter 7)

FIRE-RESISTANCE RATINGS AND FIRE TESTS (703)

- Ratings/Combustibility, Alternative methods (703.2, 703.4, 718, 720, 721)

EXTERIOR WALLS (507, Table 602, 704, 706.6)

- Ratings/Combustibility, Alternative methods (507, T602, 703.2, 703.4, 704, 706.6, 718, 720, 721)

FIRE BARRIERS (706)

- Shaft enclosures, Exit enclosures, Horizontal exits, Incidental use areas, Mixed occupancy and fire area separations, (706.3.1- 706.3.7)

SHAFTS (707)

- Exceptions, Construction (707.2, 707.3-707.4)

OTHER FIRE RESISTANT CONSTRUCTION

- Fire Walls, Fire Partitions, Smoke Barriers, Smoke partitions, Penetrations, Fire resistant joint systems, Opening protectives, Dampers, Concealed spaces, Thermal and sound-insulating materials (705, 708, 709, 710, 713, 715, 716, 717, 719)

INTERIOR FINISHES (Chapter 8)

- Smoke development, Flame spread, Non-textile finish, Floor finish, Decorations and trim (803.1, 803.2, 804, 805)

FIRE PROTECTION (Chapter 9)

AUTOMATIC SPRINKLER SYSTEMS (903) (Where required)

- Assembly, Educational, Factory/Industrial, High-hazard, Institutional, Mercantile, Residential, Storage/Repair garage, Parking garages, Windowless story, Rubbish and linen chutes, Buildings over 55 ft. high, Incidental use areas, Additional required systems (903.2.1 – 903.2.10.3, 302.1.1, 903.2.13)

AUTOMATIC SPRINKLER SYSTEMS (903) * Plan review by Fire Services

- NFPA 13, NFPA 13R, NFPA 13D (903.3.1.1- 903.3.1.3)

ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING SYSTEMS (904) * Plan review by Fire Services

- Installation, Wet-chemical systems, Dry-chemical systems, Foam systems, Carbon dioxide systems, Halon systems, Clean-agent systems, Commercial cooking systems (904.3 – 904.11, 904.2.1)

STANDPIPE SYSTEMS (905) * Plan review by Fire Services

- Installation standards, Building height, Group A, Covered malls, Underground buildings, Helistops/heliports, Hose connections and locations, Cabinets, Dry standpipes, Valve supervision (905.2, 905.3.1 – 905.3.6, 905.1, 905.4 – 905.9)

PORTABLE FIRE EXTINGUISHERS (906) * Plan review by Fire Services

- Required locations-IFC (906.1)

FIRE ALARM AND DETECTION SYSTEMS (907) * Plan review by Fire Services

- Construction documents, Assembly, Business, Educational, Factory, High-hazard, Institutional, Mercantile, Residential, Single/multiple station smoke alarms, High rise buildings, Atriums, Other buildings/areas; (907.1.1, 907.2.1 - 907.2.23)

FIRE ALARMS AND DETECTION SYSTEMS (907)

- Residential smoke alarm power source, Residential smoke alarms interconnection, Location/Power supply/wiring, Activation/Pre-signal/Zones, Alarm notification appliances, Detectors, Monitoring (907.2.10.2, 907.10.3, 907.3 – 907.9, 907.10 – 907.12, 907.14)

EMERGENCY ALARM SYSTEMS (908)

- Detection system applicable (908.1-908.6)

SMOKE CONTROL SYSTEMS (909)

- Where required (402.9, 404.4, 405.5, 408.8, 410.3.7.2, 1019.1.8, 1024.6.2.1)
- Design requirements, Smoke barriers, Pressurization method, Airflow method, Exhaust method, Equipment/Power, Detection and control, Smokeproof enclosures, Underground buildings (909.1 – 909.21)

SMOKE AND HEAT VENTS (910)

- Requirements, Mechanical alternative (910.1-910.4)

FIRE COMMAND CENTER (911)

- Features (911.1)

GENERAL MEANS OF EGRESS

- Design requirements (1003.2-1003.7)
- Means of egress illumination, Exit signs; (1006, 1011)
- Accessible means of egress (1007)
- Means of egress doors, Special doors/Gates/Turnstiles; (1008.1.3-1008.1.2, 1008.2, 1008.3)
- Door landings/Thresholds/Arrangement (1008.1.4-1008.1.7)
- Door hardware (1008.1.8, 1008.1.9)
- Stairways (1009)
- Handrails (1009.11)
- Roof access (1009.12)
- Ramps (1010)
- Guards (1012)

EXIT ACCESS

- Door number and arrangement (1013.2, 1014.1, 1014.2)
- Exit access travel distance (1013.3, 1014.2)
- Aisles (1013.4)
- Egress balconies (1013.5, 1015.3)
- Corridors, Air movement in corridors (1016, 1016.4)

EXITS/EXIT DISCHARGE

- Exits/Exit doors, Interior exit stairways, Exit passageways, Horizontal exits, Exterior exit ramps/stairways, Exit discharge (1017, 1018, 1019, 1020, 1021, 1022, 1023)

OTHER MEANS OF EGRESS

- Miscellaneous egress requirements, Bleachers, Assembly exits & egress, Assembly aisles & features, Emergency escape and rescue; (1014.3-1014.6, 1024.1.1, 1024.2 – 1024.5, 1024.6 – 1024.15, 1025)

ACCESSIBILITY* (Chapter 11)

- Site requirements: H.C. access parking or public transportation accessible route to building; (11-4.1.2)
- Accessible route; at least one route throughout building, ground & floor surfaces, doors, entrances, vertical accessibility, accessible means of egress same number as required exits, drinking fountains, toilet facilities, signage, phones, assembly areas, teller machines, dressing & fitting rooms; (11-4.1.3(1) - 11-4.1.3(21))

FAIR HOUSING: Consistency of covered projects w/guidelines; (§FHAG-5 Guidelines)

- Accessible building entrance on an accessible route.
- Accessible and usable public and common use areas.
- Usable doors.
- Accessible route into and through the covered dwelling unit.
- Light switches, electrical outlets, thermostats and other environmental controls in accessible locations.

- Reinforced walls for grab bars.
- Usable kitchens and bathrooms.

INTERIOR ENVIRONMENT (Chapter 12)

- Ventilation openings, Temperature control, Lighting, Yards or courts, Sound transmission, Interior space dimensions, Access to unoccupied spaces, Surrounding materials (1203 – 1210, 2509)

BUILDING ENVELOPE (Chapters 13*, 14, 15) *See Energy Conservation Code Plan Review Record

- Performance requirements (1403)

EXTERIOR WALLS (Chapter 14)

- Performance requirements, Materials, Exterior wall coverings/MCM's, Combustible material restrictions; (1403 - 1407)

ROOF ASSEMBLIES AND ROOFTOP STRUCTURES (Chapter 15)

- Weather protection, Performance requirements, Fire classification, Materials, Roof coverings, Roof insulation, Re-roofing; (1503 – 1508, 1510)
- Flashing (1503.2, 1507.2.9, 1507.3.9, 1507.5.6, 1507.7.6, 1507.8.7, 1507.9.8)
- Rooftop structures (1509)

STRUCTURAL SYSTEMS (Chapters 16, 17, 18)

- Design by Florida registered architect or engineer (ASCE 7) or 1609.1.1 Exceptions, 2004 FBC-B.
- Design by Florida registered architect or engineer (ASCE 7) for internal pressure; (1609.1.4 FBC-B)
- Basic wind speed (*120 mph*); (Figure 1609) and Volusia County Ordinance 2004- which establishes exact wind speed lines)
- Wind exposure category (*B for mainland, C for barrier islands*); (1609.4)
- Structures impacted by CCCL (*see attachment for checklist*);
- (3109 2004 FBC-B)
- Components and cladding; design wind pressures in terms of PSF, to be used for the design of exterior component and cladding materials (doors, windows, garage doors, skylights etc...) not specifically designed by the registered design professional (1609.1)
- Wind-borne debris protection; specifications for impact resistant glazing and/or design specifications for shutters, structural panel exception (1609.1.4, Figure 1609)
- Buildings with openings (design for internal pressure), appropriate MWFRS and components & cladding pressures (1609.1, 1609.1.4.1)
- Floor plan; (106.1, 106.3.5)
- Elevation views; all four; (106.1, 106.3.5)
- Lumber grade and species (106.1, 106.3.5, 1603, 1604, 1605, 1606, 1607, 1609)
- Roof framing plan (conventional) or truss package engineering (120 mph wind speed, building height, proper exposure category, loads @ open porches); (106.1, 106.3.5, 1603, 1604, 1605, 1606, 1607, 1609) *NOTE: CHECK FOUNDATION PLAN FOR INTERIOR BEARING REQUIREMENTS.*
- Permanent truss bracing details; (106.1, 106.3.5, 2308.10.7) *NOTE: CAN REDLINE FOR COMPLIANCE*
- Gable bracing detail; (106.1, 106.3.5, 2304.3.4) *NOTE: CATHEDRAL ENDWALLS NEED FULL HEIGHT FRAMING OR EQUIVALENT METHOD SHOWN*
- Valley framing plan/detail including connection details; (106.1, 106.3.5, 1609)
- Floor framing plan (conventional) or truss package engineering; (106.1, 106.3.5, 1603, 1604, 1605, 1606, 1607, 1609)
- Connector schedule/table (106.1, 106.3.5, 1603, 1604, 1605, 1606, 1607, 1609) *NOTE: SPECIAL LOADS ADDRESSED; NEED TO DEMONSTRATE LOADPATH FROM FOUNDATION THRU ROOF SYSTEM @ POINT UPLIFT LOADS*
- Foundation plan including interior bearing footings, footing dowels/vertical reinforced downpour locations (106.1, 106.3.5, 1603, 1604, 1605, 1606, 1607, 1609)
- Decay and termite protection; (2303.1.8, 2304.11)
- Lintel information; masonry, concrete, steel, wood; (106.1, 106.3.5, 1603, 1604, 1605, 1606, 1607, 1609) *NOTE: REVIEW LINTELS& BEAMS FOR GRAVITY & UPLIFT CAPACITY IN QUESTIONABLE AREAS (I.E. FRONT TO BACK BEARING SITUATIONS, POINT LOADING OF GIRDERS, EXCESSIVE SPANS, 2 STORY BEARINGW/EXCESSIVE SPANS). REQUEST CUT SHEETS FOR ENGINEERED LUMBER (LVL, GLUELAM ETC...) IF NOT DIMENSIONED ON PLANS.*

- Structural wall section(s) from foundation through roof system for each different type of construction; (106.1, 106.3.5, 1603, 1604, 1605, 1606, 1607, 1609) *I.E.: EXTERIOR BEARING WALLS, INTERIOR BEARING WALLS, EXTERIOR NON-BEARING WALLS, COLUMNS AT PORCHES & ENTRY, AND 2ND STORY FRAME WALL BEARING ON BEAM/GIRDER*
- Columns (*Load capacities for excessive loads*); (R 407.3)
- Tile & metal roofing (106.1, 106.3.5, 1603, 1604, 1605, 1606, 1607, 1609, Rule 9B-72) NOTE: *VERIFY PRODUCT APPROVAL & INSTALLATION INFORMATION, ATTACH SAME TO PLANS*
- Roof assembly information including substrate, type of roofing system, materials, fastening requirements, flashing requirements, product approval (106.1, 106.3.5, 1603, 1604, 1605, 1606, 1607, 1609)
- Product approval information for each type of windows, doors, garage doors (106.1, 106.3.5, 1603, 1604, 1605, 1606, 1607, 1609, Rule 9B-72); *see sheet 6, Fenestration Product Approval Verification*
- Arch window framing details, buck attachment details for fenestration products requiring 2x bucks; (106.1, 106.3.5, 1603, 1604, 1605, 1606, 1607, 1609) NOTE: *ONLY REQUIRED FOR MASONRY CONSTRUCTION*
- Nailing pattern(s) for wall & roof sheathing; (106.1, 106.3.5, 1603, 1604, 1605, 1606, 1607, 1609)
- Frame to block connection detail; (106.1, 106.3.5, 1603, 1604, 1605, 1606, 1607, 1609)

FUEL GAS

- Gas piping diagram (i.e. type of gas, pressures, pipe sizes, type of tubing, piping lengths, BTU ratings of utilization equipment) Application, General regulations, Appliance location, Air requirements, Pipe sizing, Piping materials, Valves, controls, connections, Venting, Misc. appliances; (FG301 – 306, FG401 – 411, FG501-506)
- Calculations demonstrating size, number and location of required air openings; (FG304)

GLASS AND GLAZING (Chapter 24)

- Sloped glazing and skylights, Safety glazing (2405, 2406, 2407, 2408, 2409)

GYPSUM BOARD AND PLASTER (Chapter 25)

- Gypsum board materials, Plaster (2506, Table 2506.2, 2507, 2508, 2510-2513)

FOAM PLASTIC INSULATION (2603)

- Labeling, Surface-burning characteristics, Thermal barrier, Exterior walls/Roofs, Special approval; (2603.2, 2603.3, 2603.4, 2603.5, 2603.5.4, 2603.5.6, 2603.6, 2603.8)

MISCELLANEOUS PLASTICS

- Interior finish and trim, Plastic veneer, Light-transmitting plastics (2604, 2605, 2606 - 2611)

BUILDING SERVICES (Chapters 27, 28, 29, 30); (Also see Electrical (Ch. 27), Mechanical (Ch. 28), and Plumbing (Ch.29) Plan Review Records)

ELEVATORS AND CONVEYING SYSTEMS (Chapter 30)

- Construction standard specified, Hoistway enclosures, Opening protectives, Emergency operations, Hoistway venting, Conveying systems, Machine rooms; (3001.2, 3002, 3002.1.1, 3003, 3004, 3005, 3006)

SPECIAL CONSTRUCTION (Chapter 31)

- Membrane structures, Awnings and canopies/Marquees, Signs, Radio and television towers, Swimming pool enclosures; (3102, 3105, 3106, 3107, 3108, 3109)

PEDESTRIAN WALKWAYS AND TUNNELS (3104)

- Construction and use, Separation, Public way, Egress/Ventilation; (3104.3, 3104.4, 3104.5, 3104.6, 3104.7 – 3104.9, 3104.11)

MECHANICAL

- ENERGY CALCULATIONS: Energy calculations, computer program or hard copy (energy forms, EPL Display Card; (106.3.5, 13-400 FBC)
- EXHAUST SYSTEMS: Clothes dryer, kitchen exhaust, specialty exhaust; (106.3.5 FBC, 504.7, 506, 507 FBC-MECHANICAL)
- EQUIPMENT: Location(s) of dishwashers, refrigeration units, exhaust fans, dryer & vent, range & hood, factory fireplaces (106.3.5 FBC, M303, M501.3, M903, M504.7, M506)
- MAKE-UP AIR: Kitchen hood exhaust make-up, other exhaust systems; (M504.5, M508.1)
- ROOF MOUNTED EQUIPMENT: Mounting height, structural fastenings (106.3.5, 1511.7, M303.1, M303.6)

- DUCT SYSTEMS: Duct construction and installation, plenums, air filters, smoke protection, fire protection; (106.3.5, Chapter 6 FBC-M)
- VENTILATION: Natural & mechanical ventilation, ventilation of uninhabited spaces; (106.3.5, M401 - M404, M411.5 and Table 403.3 FBC-M) (ASHRAE-62 Alternate)
- COMBUSTION AIR: Confined and unconfined spaces, inside and outside combustion air pre-engineered, louvers and grilles, ducts (106.3.5, M701 – M708)
- CHIMNEYS FIREPLACES AND VENTS: Vents, connectors, direct, integral, mech. vent, exhaust hood venting; (106.3.5, M801 - M805)
- APPLIANCES: Specific appliances; (106.3.5, Chapter 9 FBC-M)
- BOILERS: Boilers, water vessels, and pressure vessels; (106.3.5, Chapter 10 FBC-M)
- REFRIGERATION: Requirements, class systems, application requirements, machinery rooms (general and special), piping, tests; (106.3.5, Chapter 11 FBC-M)
- BATHROOM VENTILATION: CFM requirements, mechanical or natural (103.6.5, M402, M403 FBC)

PLUMBING

- Minimum plumbing facilities, potty parity; (P403, T403.1, 403.1.1)
- Fixtures: location of water closet(s), sink(s), tubs, showers, water heater, hose bib(s); (106.3.5 FBC, Table 403.1 FBC-P, 304.4 FBC-M)
- Water supply piping: pipe sizing of supply and distribution (106.3.5 FBC, P601 through P612)
- Drain, waste and vent pipe sizing and riser diagram (106.3.5 FBC, Chapter 7 FBC-P)
- Vents: vent stacks, stack vents, vent terminals, connections and grades, fixture vents, common vents, wet venting, circuit venting combination vents, island fixture venting, relief vents, sizing vents, air admittance valves, engineered systems (P901 through P918)
- Roof drainage: strainers, flat decks, roof drain flashing; (106.3.5 FBC, P1105)
- Protection of potable water supply; (P608)
- Indirect/Special waste; (P802)
- Backflow prevention: fixtures, water service, cross-connection, pumps (608.1 through (106.3.5 FBC, P608.16.9)
- Grease traps: sizing, trap capacity, water and gas tight, minimum volume (106.3.5 FBC, P1003.1 – P1003.13 FBC-P)

ELECTRICAL (2005 NEC)

- Wiring; (106.3.5 FBC, Article 300 '05 NEC)
- Services; (106.3.5 FBC, Article 230, 250 part C '05 NEC)
- Feeders and branch circuits; (106.3.5 FBC, Article 210, 220 '05 NEC)
- Over-current protection; (106.3.5 FBC, Article 240 '05 NEC)
- Grounding; (106.3.5 FBC, Article 250 '05 NEC)
- Wiring materials and methods; (106.3.5 FBC, Article 300 '05 NEC)
- Ground fault protection (GFCI); (106.3.5 FBC, Article 210-8 '05 NEC)
- Arc-fault protection; (106.3.5 FBC, Article 210-12 '05 NEC)
- EQUIPMENT: Mechanical equipment, transformers, appliances; (106.3.5 FBC, Articles 430, 440 '05 NEC)
- SPECIAL OCCUPANCIES: Hazardous occupancies and locations, health care, places of assembly; (106.3.5 FBC, Articles 500, 517, 518, '05 NEC)
- EMERGENCY SYSTEMS: Emergency egress lighting, exit lights, un-interruptible power supplies, generator sets, storage batteries, etc.; (106.3.5 FBC, Article 700 of the '02NEC)
- COMMUNICATION SYSTEMS: Telephone, telegraph, outside wiring for fire and burglar alarms, etc.; (106.3.5 FBC, Article 800 '05 NEC)
- LOW VOLTAGE: Signal circuits, fire and burglar alarms (inside), CATV systems; (106.3.5 FBC, Articles 725, 760, 820 '05 NEC)
- LOAD CALCULATIONS: calculated services, sub-feeds and branch circuits; (106.3.5 FBC, Article 220 '05 NEC)

EXISTING BUILDINGS

- Existing buildings undergoing repair, alteration or additions, and change of occupancy shall comply with the *Florida Existing Building Code (See attachment for checklists)*; (R101.2)